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STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Air Pollution Control Division
9th Floor, L & C Annex, 401 Church Street, Nashville, TN 37243

March 30, 2004

J.I. Palmer, Jr.
Regional Administrator
US EPA, Region IV
Sam Nunn Atlanta Federal Center
61 Forsythe Street, SW
Atlanta, GA 30303

RE: Tennessee Early Action Compact Submittal for March 31, 2004 Milestone

Dear Mr. Palmer:

In accordance with the Early Action Compact (EAC) agreements, you will find enclosed air quality improvement plans for each of the seven (7) EAC Areas in Tennessee. The enclosed documentation is being submitted on behalf of each EAC area. This submittal is for the purpose of complying with the March 31, 2004 deadline to submit local air quality plans defining the measures to be taken to achieve compliance with the 8-hour ozone National Ambient Air Quality Standard no later than December 31, 2007.

Each local plan includes local measures that are specific and can be federally enforceable as either a part of the State Implementation Plan or Transportation Improvement Program no later than December 31, 2004. The documentation supporting each local plan and the modeling analysis are based on local controls demonstrating attainment of the 8-hour standard. The following information is enclosed:

- Chattanooga EAC Air Quality Improvement Plan
  for Hamilton, Marion, and Meigs Counties
  (Catoosa and Walker County, GA will make separate submittals)

- Knoxville EAC Air Quality Improvement Plan
  for Anderson, Blount, Jefferson, Loudon, Knox, Sevier, and Union Counties

- Nashville EAC Air Quality Improvement Plan
  for Cheatham, Davidson, Dickson, Robertson, Rutherford, Sumner, Williamson, and Wilson Counties

- Memphis EAC Air Quality Improvement Plan
  for Fayette, Tipton, and Shelby Counties
  (Desoto County, MS and Crittenden County, AR are to be submitted separately)

- Tri-Cities EAC Air Quality Improvement Plan
  for Carter, Hawkins, Sullivan, Unicoi, and Washington Counties

- Haywood County Air Quality Improvement Plan (Attainment)

- Putnam County Air Quality Improvement Plan (Attainment)

- Status of Statewide Measures

- Modeling Analysis Technical Support Documentation (TSD)
  (ATMOS TSD Final and Appendices A & B)

- Additional Technical Support Documentation (see CD)
  -Nashville EAC Report from UT 032204
  -TDOT VMT Emissions Growth 1999-2030
  -ATMOS Presentation 040212

The 2001-2003 ozone monitoring data shows that both Haywood and Putman Counties have demonstrated attainment for the 8-hour ozone National Ambient Air Quality Standard. Haywood and Putnam Counties recognize the importance of air quality as it relates to the health and welfare of its citizens, and for this reason are volunteering to take additional measures. Their efforts at the local level are an attempt to target citizen behavior through education and outreach.

All of the Early Action Compact areas in Tennessee will be substantially impacted by forthcoming federal measures. The Regional impacts of low sulfur diesel fuel and Heavy-Duty Diesel Engine standards will have significant impacts on regional NOx and VOC emissions as well as an expected benefit from lowering the gasoline sulfur content beginning in 2004. The change in gasoline sulfur content is expected to make considerable emissions reductions from light and some heavy-duty gasoline powered vehicles. Following the implementation of these federal measures, some of the EAC areas in Tennessee with a minimal amount of local voluntary control measures should be able to achieve attainment of the 8-hour ozone standard by 2007.

Due to time constraints, some documents may not have all of the local signatures. The documents have been signed, we have just not received the originals. They will be forwarded to EPA upon our receipt. I believe this submittal satisfies all requirements of the March 31, 2004 EAC milestone, but if more information is needed do not hesitate to contact me.

Sincerely,

Barry R. Stephens, P.E.
Director
Division of Air Pollution Control

cc: Kay Prince, Karen Borel, Dick Schutt, Clifford Beller, and Kenny Richardson
at EPA Region IV
Local Air Programs
Tennessee Air Pollution Control Board
EAC Signatories

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Memphis TN-AR-MS MSA

Local Air Quality Improvement Plan



The Memphis TN-AR-MS Metropolitan Statistical Area encompasses three states and five counties. It includes Fayette, Shelby, and Tipton counties in Tennessee as well as Crittenden county in Arkansas and De Soto county in Mississippi. In 2000, this MSA was listed as the 43rd largest MSA within the United States.

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Fayette County, Tennessee

Geography/Topography

Fayette County has a land area of 705 square miles and is located in the rolling terrain of the West Tennessee Plain. It is located in the east portion of the MSA just east of Shelby County.

Meteorological Information

Wind data from Memphis, TN for the period of record from 1988 through 1992 was determined to be representative for Fayette County. The predominate wind direction and speed is from the southwest at 7 to 10 knots (see Figure 1 A). The mean high temperature for July is 92.1 F, while the mean low is 72.9 F. The mean July precipitation is 4.2 inches. The period of record for this data is from 1971 through 2000.

Planning Authority

The authority for air quality planning for Fayette County resides with the Tennessee Department of Environment and Conservation. Transportation planning for the western portion of Fayette County is performed by the Memphis Area Metropolitan Planning Organization, while the remainder of the county is administered by the Tennessee Department of Transportation.

Air Monitoring

There is no ozone monitor located in Fayette County.

Population

Based on projections to 2002 from the 2000 census data, there are 31,202 persons living in Fayette County (see Table 1 C). This indicates a population density of 44 persons per square mile. The population of Fayette County is essentially 100% rural. The largest city in Fayette County is Somerville (see Table 1 C).

Fayette County's population from 1990 through 2000 increased by approximately 12% (25,628 to 28,806). The population is expected to increase by 12% between 2000 and 2010 (see Table 1 B).

Based on the 2002 population data for the entire Memphis MSA, Fayette County represents approximately 3% of the total MSA population (see Table 1 C).

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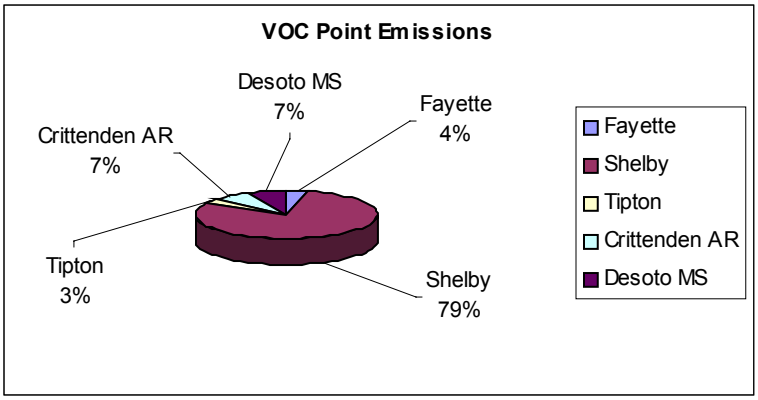
Air Emissions

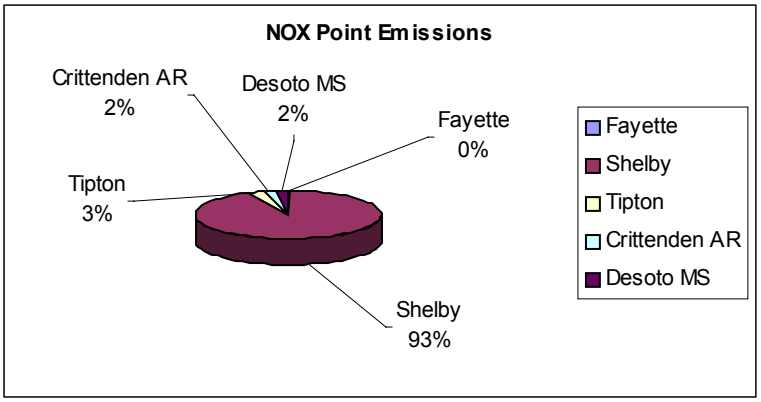
All air emission estimates were derived from EPA's 1999 National Emission Inventory (NEI) database.

Point source NOX emissions from Fayette County were estimated at 0.36 ton/day in 1999 which represents less than 1% of the 158.35 ton/day of overall NOX point source emissions from the Memphis MSA (see Table 1 D).

Point source VOC emissions from Fayette County were estimated at 6.12 ton/day in 1999 which represents approximately 4% of the 160.87 ton/day of overall VOC point source emissions from the Memphis MSA (see Table 1 D).

1999 NEI Point Source Emissions
(ton/day)





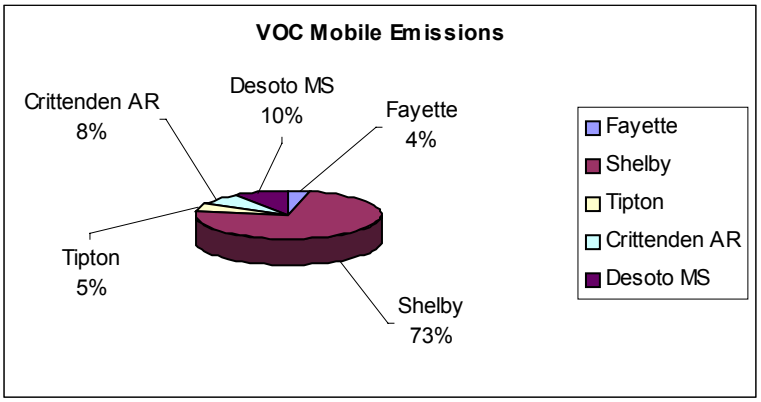
For NOX and VOC control, point sources located within Fayette County are subject to Prevention of Significant Deterioration (PSD) requirements, Control Technology Guideline Reasonable Available Control Technology (CTG RACT) requirements, Maximum Achievable Control Technology (MACT) requirements for Hazardous Air Pollutants (HAP), and New Source Performance Standards (NSPS).

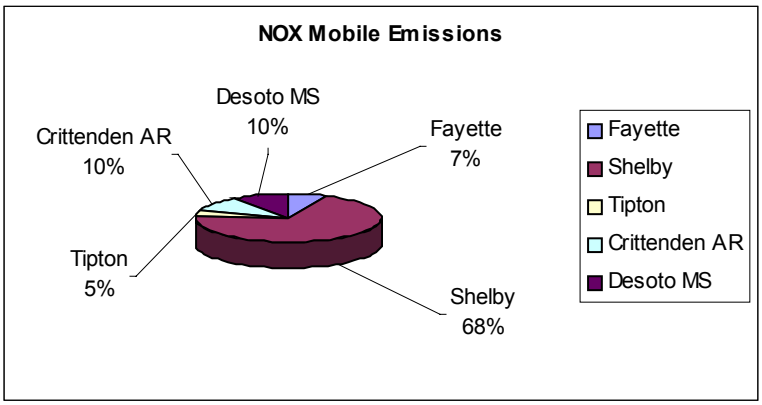
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Mobile source NOX emissions from Fayette County were estimated at 12.30 ton/day in 1999 which represents approximately 7% of the 187.74 ton/day of overall NOX mobile source emissions from the Memphis MSA (see Table 1 D).

Mobile source VOC emissions from Fayette County were estimated at 3.31 ton/day in 1999 which represents approximately 4% of the 87.72 ton/day of overall VOC mobile source emissions from the Memphis MSA (see Table 1 D).

1999 NEI Mobile Source Emissions
(ton/day)



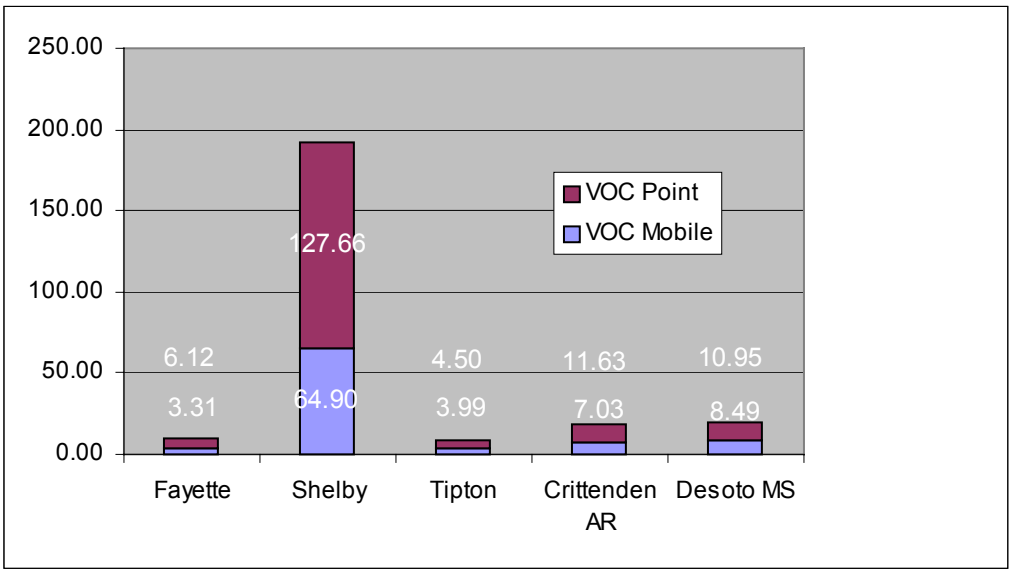


Commuting traffic from surrounding counties into Fayette County is high. Commuting traffic from Fayette County into surrounding counties is significant.

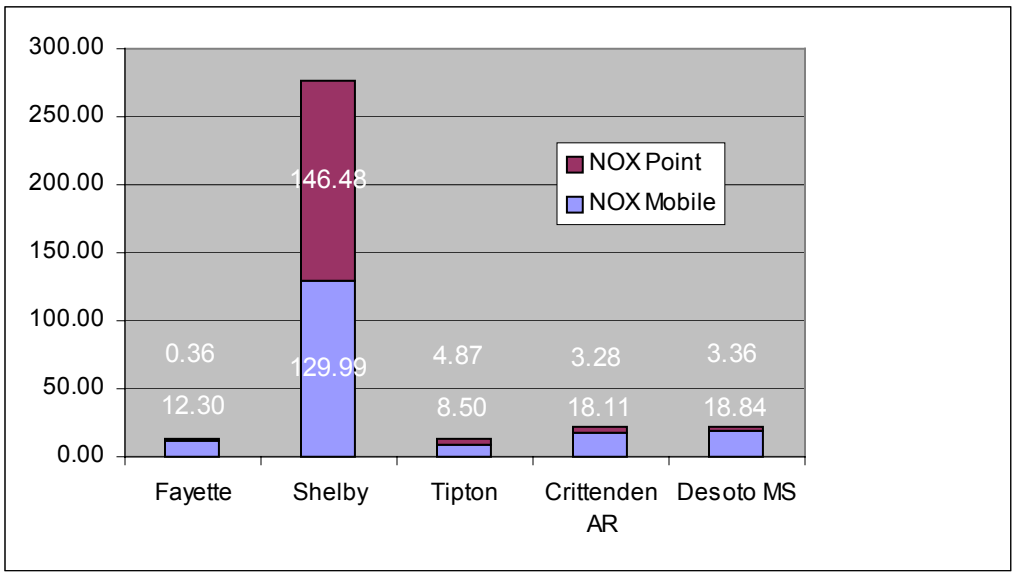
Commuting Classifications	
Not Significant	0-10%
Minimal	11-30%
High	31-50%
Significant	51% or more

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1999 NEI VOC Contribution
(ton/day)



1999 NEI NOX Contribution
(ton/day)



Summary

Local air pollution emission reductions for Fayette County are listed in the Quantification of Control Measures Table. The local measures listed are to be implemented by the local government of Fayette County. All local measures are to be implemented by ozone season of 2007, at the latest. The most desirable implementation is the soonest time possible (ideally ozone season of 2005). Local jurisdictions understand that measures are to be implemented on a schedule that concurs with the schedule in the attainment demonstration modeling.

For a Weight of Evidence Analysis, review the summary Attainment Demonstration for the Memphis Area and see the complete Weight of Evidence discussion presented in Chapter 8 of the Modeling Analysis Technical Support Documentation (TSD) for details.

Some voluntary measures were not included in the modeling demonstration. These measures will, it is expected, create even further reductions in the ozone level of the EAC. Effectiveness of these measures may not necessarily be quantifiable, however, given the concern for air quality in the region, any reduction is viewed as positive.

Please review the detailed attainment demonstration contained in the Modeling Analysis Technical Support Documentation, which includes specific information on the EAC's control measures and subsequent ozone design value. County level endorsement of their local control measures can be found in Attachment 1 at the end of this section.

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Shelby County, Tennessee

Geography/Topography

Shelby County has a land area of 755 square miles and is located at the extreme southwest corner of West Tennessee in the rolling terrain where the Mississippi River Valley meets the West Tennessee Plain. It is at the center of the MSA that includes portions of Arkansas and Mississippi at the juncture of I-40 and I-55.

Meteorological Information

Wind data from Memphis, TN for the period of record from 1988 through 1992 was determined to be representative for Shelby County. The predominate wind direction and speed is from the southwest at 7 to 10 knots (see Figure 1 A). The mean high temperature for July is 92.1 F, while the mean low is 72.9 F. The mean July precipitation is 4.2 inches. The period of record for this data is from 1971 through 2000.

Planning Authority

The authority for air quality planning for Shelby County resides with Memphis & Shelby County Health Department, Pollution Control Section. Transportation planning for Shelby County is performed by the Memphis Area Metropolitan Planning Organization.

Air Monitoring

For the 2001-2003 monitoring period, the ozone monitor 471571004-1 (Edmund Orgill Park) located in Shelby County shows an 8-hour design value of 0.089 parts per million (ppm) which would be classified as non-attainment (see Table 1 A).

Population

Based on projections to 2002 from the 2000 census data, there are 905,678 persons living in Shelby County (see Table 1 C). This indicates a population density of 1200 persons per square mile. The population of Shelby County is approximately 3% rural with the remaining 97% living in incorporated areas. The largest cities in Shelby County are Memphis, Bartlett, and Germantown (see Table 1 C).

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Shelby County's population from 1990 through 2000 increased by approximately 8% (827,868 to 897,472). The population is expected to increase by 5% between 2000 and 2010 (see Table 1 B).

Based on the 2002 population data for the entire Memphis TN-AR-MS MSA, Shelby County represents approximately 79% of the total MSA population (see Table 1 C).

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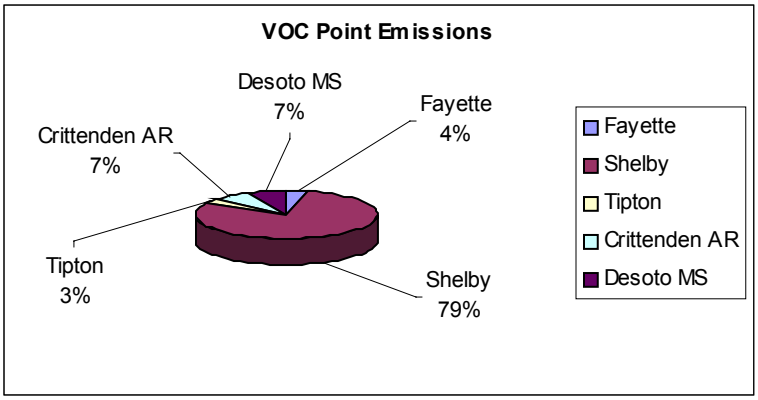
Air Emissions

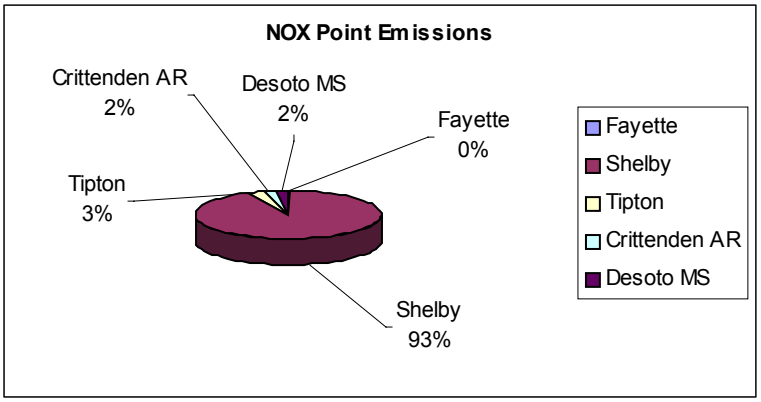
All air emission estimates were derived from EPA's 1999 National Emission Inventory (NEI) database.

Point source NOX emissions from Shelby County were estimated at 146.48 ton/day in 1999 which represents approximately 93% of the 158.35 ton/day of overall NOX point source emissions from the Memphis MSA (see Table 1 D).

Point source VOC emissions from Shelby County were estimated at 127.66 ton/day in 1999 which represents approximately 79% of the 160.87 ton/day of overall VOC point source emissions from the Memphis MSA (see Table 1 D).

1999 NEI Point Source Emissions
(ton/day)





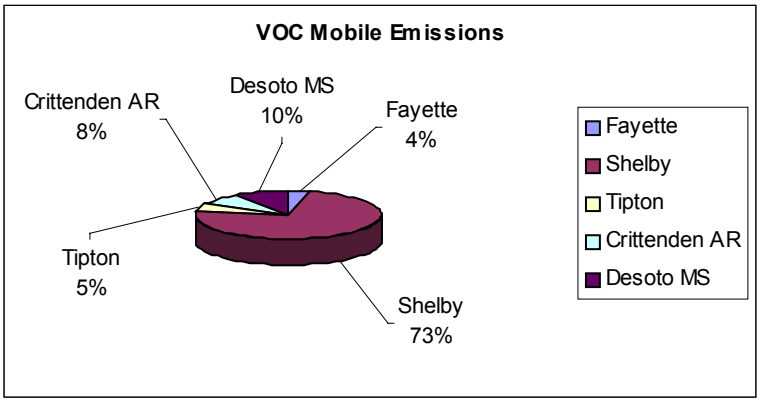
For NOX and VOC control, point sources located within Shelby County are subject to Prevention of Significant Deterioration (PSD) requirements, Control Technology Guideline Reasonable Available Control Technology (CTG RACT) requirements, Maximum Achievable Control Technology (MACT) requirements for Hazardous Air Pollutants (HAP), and New Source Performance Standards (NSPS).

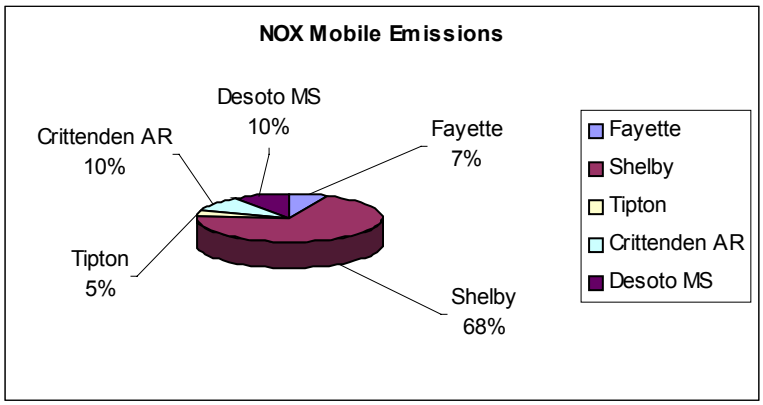
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Mobile source NOX emissions from Shelby County were estimated at 129.99 ton/day in 1999 which represents approximately 68% of the 187.74 ton/day of overall NOX mobile source emissions from the Memphis MSA (see Table 1 D).

Mobile source VOC emissions from Shelby County were estimated at 64.90 ton/day in 1999 which represents approximately 73% of the 87.72 ton/day of overall VOC mobile source emissions from the Memphis MSA (see Table 1 D).

1999 NEI Mobile Source Emissions
(ton/day)



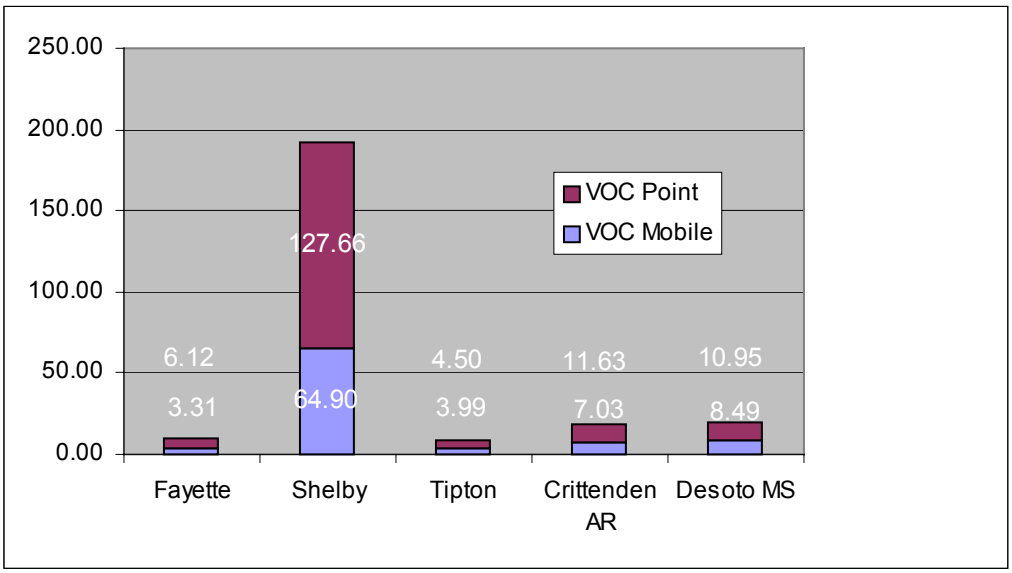


Commuting traffic from surrounding counties into Shelby County is minimal. Commuting traffic from Shelby County into surrounding counties is not significant.

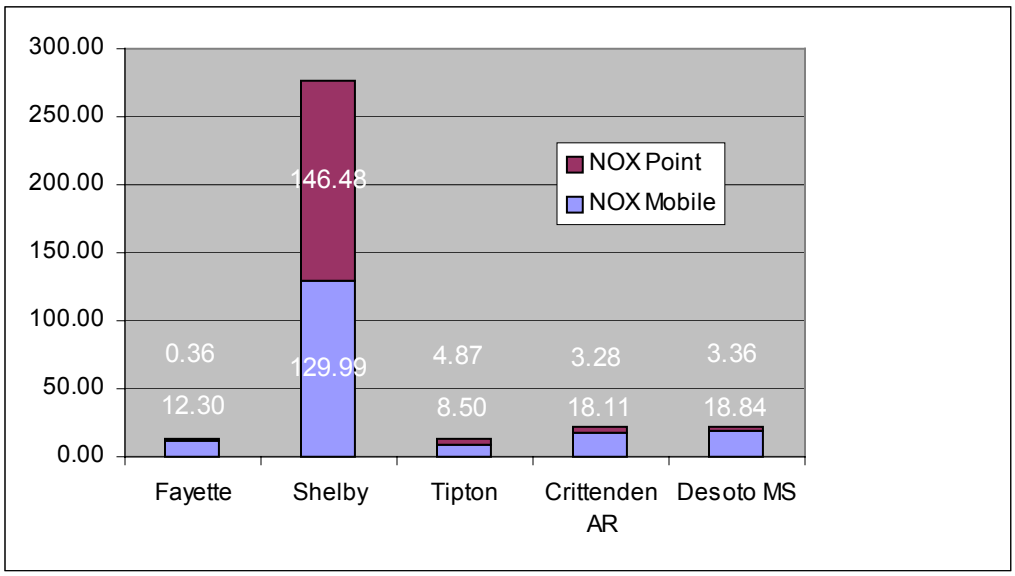
Commuting Classifications	
Not Significant	0-10%
Minimal	11-30%
High	31-50%
Significant	51% or more

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1999 NEI VOC Contribution
(ton/day)



1999 NEI NOX Contribution
(ton/day)



Summary

Local air pollution emission reductions for Shelby County are listed in the Quantification of Control Measures Table. The local measures listed are to be implemented by the local government of Shelby County. All local measures are to be implemented by ozone season of 2007, at the latest. The most desirable implementation is the soonest time possible (ideally ozone season of 2005). Local jurisdictions understand that measures are to be implemented on a schedule that concurs with the schedule in the attainment demonstration modeling.

For a Weight of Evidence Analysis, review the summary Attainment Demonstration for the Memphis Area and see the complete Weight of Evidence discussion presented in Chapter 8 of the Modeling Analysis Technical Support Documentation (TSD) for details.

Some voluntary measures were not included in the modeling demonstration. These measures will, it is expected, create even further reductions in the ozone level of the EAC. Effectiveness of these measures may not necessarily be quantifiable, however, given the concern for air quality in the region, any reduction is viewed as positive.

Please review the detailed attainment demonstration contained in the Modeling Analysis Technical Support Documentation, which includes specific information on the EAC's control measures and subsequent ozone design value. County level endorsement of their local control measures can be found in Attachment 1 at the end of this section.

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Tipton County, Tennessee

Geography/Topography

Tipton County has a land area of 459 square miles and is located in the rolling terrain of the West Tennessee Plain. It is located in the north portion of the Memphis MSA just north of Shelby County along the US Highway 51 corridor.

Meteorological Information

Wind data from Memphis, TN for the period of record from 1988 through 1992 was determined to be representative for Tipton County. The predominate wind direction and speed is from the southwest at 7 to 10 knots (see Figure 1 A). The mean high temperature for July is 92.1 F, while the mean low is 72.9 F. The mean July precipitation is 4.2 inches. The period of record for this data is from 1971 through 2000.

Planning Authority

The authority for air quality planning for Tipton County resides with the Tennessee Department of Environment and Conservation. Transportation planning for Tipton County is performed by the Tennessee Department of Transportation.

Air Monitoring

There is no ozone monitor located in Tipton County.

Population

Based on projections to 2002 from the 2000 census data, there are 53,436 persons living in Tipton County (see Table 1 C). This indicates a population density of 116 persons per square mile. The population of Tipton County is approximately 66% rural with the remaining 34% living in incorporated areas. The largest city in Tipton County is Covington (see Table 1 C).

Tipton County's population from 1990 through 2000 increased by approximately 35% (37,861 to 51,271). The population is expected to increase by 8% between 2000 and 2010 (see Table 1 B).

Based on the 2002 population data for the entire Memphis MSA, Tipton County represents approximately 5% of the total MSA population (see Table 1 C).

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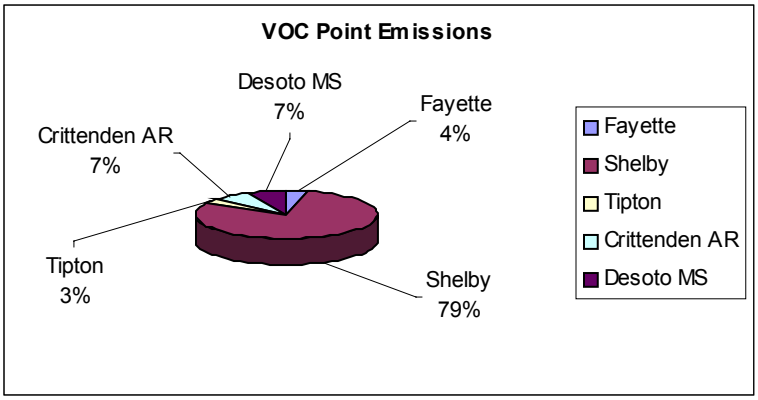
Air Emissions

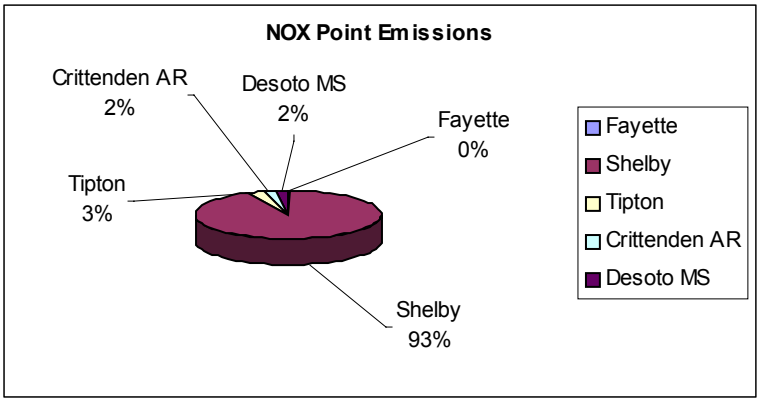
All air emission estimates were derived from EPA's 1999 National Emission Inventory (NEI) database.

Point source NOX emissions from Tipton County were estimated at 4.87 ton/day in 1999 which represents approximately 3% of the 158.35 ton/day of overall NOX point source emissions from the Memphis MSA (see Table 1 D).

Point source VOC emissions from Tipton County were estimated at 4.50 ton/day in 1999 which represents approximately 3% of the 160.87 ton/day of overall VOC point source emissions from the Memphis MSA (see Table 1 D).

1999 NEI Point Source Emissions
(ton/day)





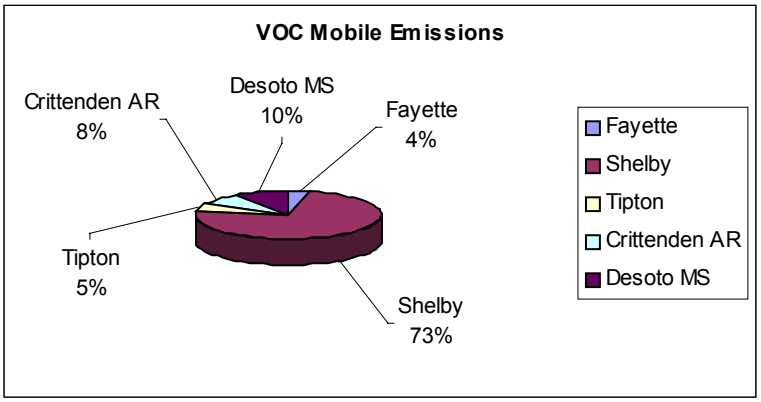
For NOX and VOC control, point sources located within Tipton County are subject to Prevention of Significant Deterioration (PSD) requirements, Control Technology Guideline Reasonable Available Control Technology (CTG RACT) requirements, Maximum Achievable Control Technology (MACT) requirements for Hazardous Air Pollutants (HAP), and New Source Performance Standards (NSPS).

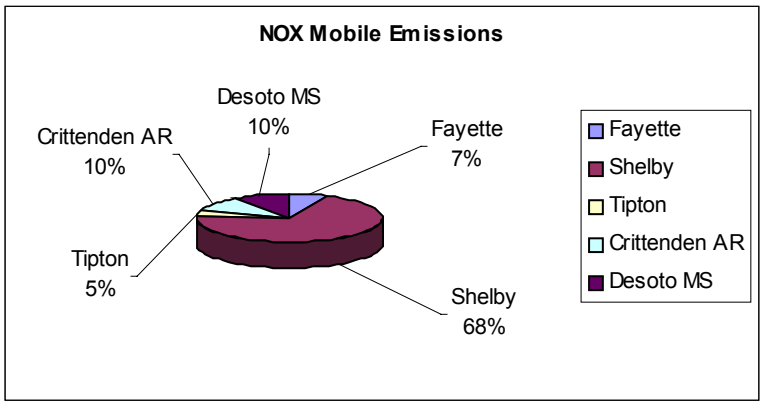
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Mobile source NOX emissions from Tipton County were estimated at 8.50 ton/day in 1999 which represents approximately 5% of the 187.74 ton/day of overall NOX mobile source emissions from the Memphis MSA (see Table 1 D).

Mobile source VOC emissions from Tipton County were estimated at 3.99 ton/day in 1999 which represents approximately 5% of the 87.72 ton/day of overall VOC mobile source emissions from the Memphis MSA (see Table 1 D).

1999 NEI Mobile Source Emissions
(ton/day)



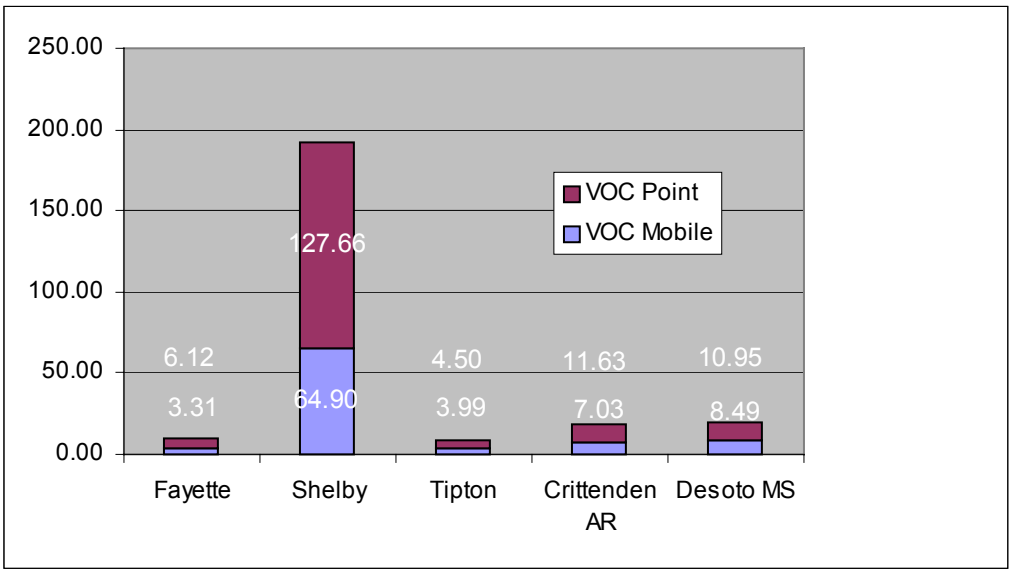


Commuting traffic from surrounding counties into Tipton County is minimal. Commuting traffic from Tipton County into surrounding counties is high.

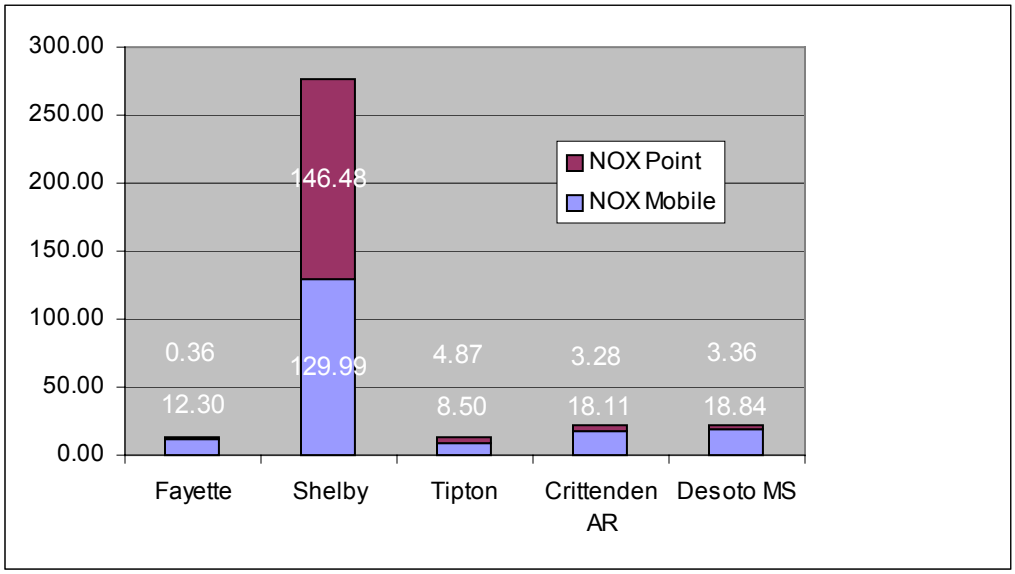
Commuting Classifications	
Not Significant	0-10%
Minimal	11-30%
High	31-50%
Significant	51% or more

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1999 NEI VOC Contribution
(ton/day)



1999 NEI NOX Contribution
(ton/day)



Summary

Local air pollution emission reductions for Tipton County are listed in the Quantification of Control Measures Table. The local measures listed are to be implemented by the local government of Tipton County. All local measures are to be implemented by ozone season of 2007, at the latest. The most desirable implementation is the soonest time possible (ideally ozone season of 2005). Local jurisdictions understand that measures are to be implemented on a schedule that concurs with the schedule in the attainment demonstration modeling.

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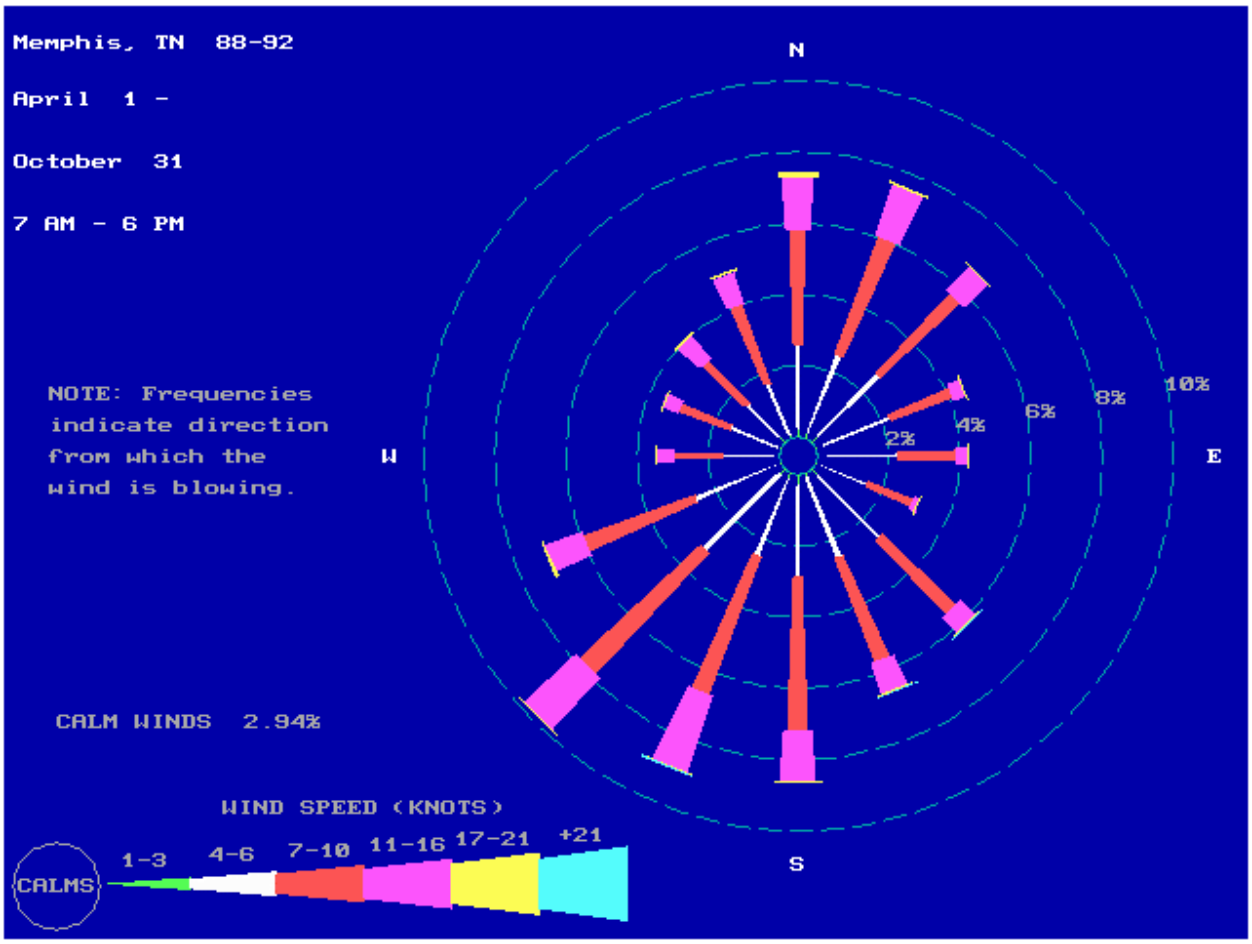
Some voluntary measures were not included in the modeling demonstration. These measures will, it is expected, create even further reductions in the ozone level of the EAC. Effectiveness of these measures may not necessarily be quantifiable, however, given the concern for air quality in the region, any reduction is viewed as positive.

Please review the detailed attainment demonstration contained in the Modeling Analysis Technical Support Documentation, which includes specific information on the EAC's control measures and subsequent ozone design value. County level endorsement of their local control measures can be found in Attachment 1 at the end of this section.

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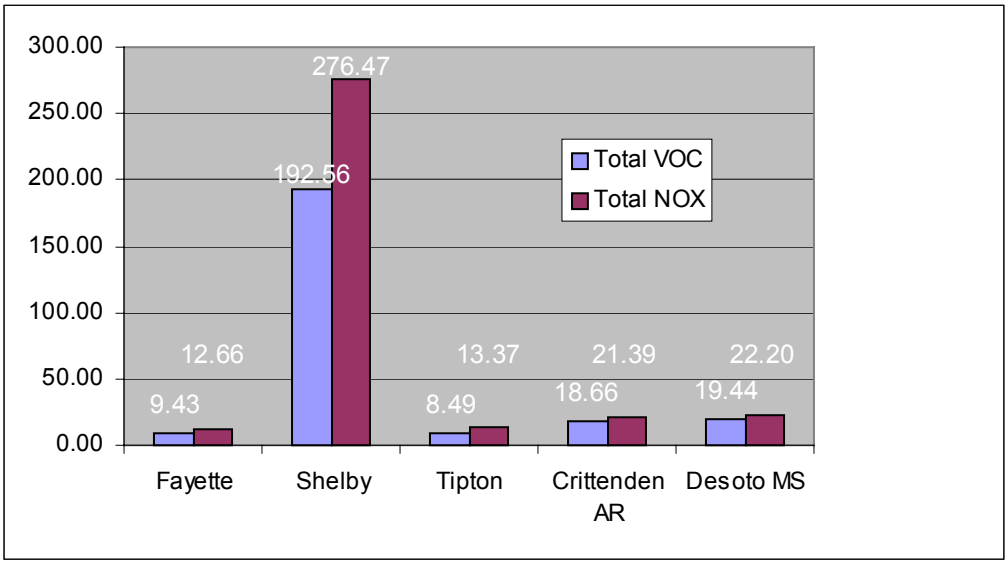
Memphis TN-AR-MS MSA

Figure 1 A
Memphis MSA
Wind Rose



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Figure 1 B
Memphis MSA
1999 NEI VOC and NOX Emissions
(ton/day)



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Table 1 A
Memphis MSA
Ozone Design Values
(ppm)

County	Site Name	MONITOR ID	1999 2001 Design Value PPM	2000 2002 Design Value PPM	2001 2003 Design Value PPM
Shelby Co	1330 Frayser Blvd	471570021 - 1	0.093	0.087	0.084
Shelby Co	6855 Mudville Rd. Edmond Orgill Park	471571004 - 1	0.093	0.090	0.089

Table 1 B
Memphis MSA
Population Growth Data

County	Population 1990	Population 2000	PERCENT CHANGE 1990 - 2000	Population 2002	Area in Square Miles	2002 Pop. Density (Sq. Mile)	Projection 2010	% Growth 2000 - 2010
Tennessee								
Fayette	25,628	28,806	12.4	31,202	704.5	44.3	32,236	11.9
Shelby	827,868	897,472	8.4	905,678	754.53	1200.3	943,806	5.2
Tipton	37,861	51,271	35.4	53,436	459.37	116.3	55,559	8.4
Arkansas								
Crittenden	49,959	50,983	2.0				51,291	0.6
Mississippi								
DeSoto	67,910	107199	57.9				144,068	34.4
TOTALS	1,009,226	1,135,731		990,316			1,226,960	

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Table 1 C
Memphis MSA
2002 Population Estimates

Tennessee Counties		Population
Shelby		**905,678**
*Memphis	(650,100)	
*Bartlett	(40,543)	
*Collliervillle	(31,872)	
*Germantown	(37,348)	
Tipton		**53,436**
*Covington	(8,463)	
Fayette		**31,202**
*Somerville	(2,915)	
TN TOTALS		**990,316**

Mississippi	
*DeSoto	**107,199**

Arkansas	
*Crittenden	**50,866**

TN, MS & AR TOTALS	**1,148,381**

* Based on 2000 Census Data

Table 1 D
Memphis MSA
1999 NEI VOC and NOX Emissions
(ton/day)

		VOC			NOX	
County	**Mobile**	**Point**	**Total**	**Mobile**	**Point**	**Total**
Fayette	3.31	6.12	9.43	12.30	0.36	12.66
Shelby	64.90	127.66	192.56	129.99	146.48	276.47
Tipton	3.99	4.50	8.49	8.50	4.87	13.37
Crittenden AR	7.03	11.63	18.66	18.11	3.28	21.39
Desoto MS	8.49	10.95	19.44	18.84	3.36	22.20
TOTAL	**87.72**	**160.87**	**248.59**	**187.74**	**158.35**	**346.09**

Summary Attainment Demonstration For The Memphis Area

The attainment and screening tests and additional corroborative analyses indicate that the Memphis EAC area will be in attainment of the 8-hour ozone standard by 2007. Good modeling results and good representation of typical 8-hour ozone conducive meteorological conditions by the simulation periods provide a sound basis for the application of the model-based tests. Variations in the selection of days or the radius of influence assumptions employed in the application of the attainment test do not alter the results of the modeled attainment test significantly. There are no locations within a subdomain encompassing the Memphis EAC area for which high ozone concentrations (greater than any near a monitor) are consistently simulated. The values of the simulated ozone exposure metrics indicate a significant reduction in 8-hour ozone for the 2007 AS-4 control measures simulation - approximately 50 percent for each of the exposure-type metrics. Estimates of modeling system noise also suggest that, relative to the 2007 baseline simulation, the simulated ozone reductions associated with the AS-4 control measures are meaningful within the context of the simulation – that is, the measures are expected to result in meaningful further ozone reductions by 2007, compared to the baseline values.

Three of the four monitoring sites in the Memphis area have future-year estimated design values for 8-hour ozone that are less than 84 ppb. One site, the Marion site in Crittenden County, AR, has an EDV that is greater than the 84 ppb standard. The 2007 EDV for this site is 88 ppb if the 2000-2002 design value is used, 86 ppb if the 2001-2003 design value is used, and 84 ppb if a meteorologically adjusted design value is used. The 2000-2002 design value is the highest recorded in recent years. Based on the values for the other years as well as the indications from the meteorological adjustment, use of the 2000-2002 design value likely represents a worst case for Memphis for 2007.

To further support future attainment of the 8-hour ozone standard for the Memphis area, ADEQ is currently designing a scoping study and field program to examine the spatial representativeness and causes of high observed ozone concentrations at the Marion site. An improved understanding of the 8-hour ozone issues in Crittenden County will enable the more effective implementation of the planned attainment/maintenance strategies for the area.

Please see the complete Weight Of Evidence discussion presented in Chapter 8 of the Modeling Analysis Technical Support Document (TSD) for details.

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March 24, 2004

Barry R. Stephens, P.E.
Technical Secretary
Tennessee Air Pollution Control Board
9th Floor, L & C Annex
401 Church Street
Nashville, TN 37243-1531

SUBJECT: Memphis Metropolitan Statistical Area
Early Action Compact March 31st Milestone
Air Quality Improvement Plan

Dear Mr. Stephens:

In accordance with the Early Action Compact entered into by Memphis and Shelby County in December, 2002, the Shelby County Air Quality Improvement Plan component is hereby submitted. It is our understanding that you will submit it to U.S. EPA Region IV with the component for Fayette and Tipton Counties by the March 31st deadline so as to obtain deferral of the effective date of the expected nonattainment designation. The Crittenden County, Arkansas and DeSoto County, Mississippi components of the Air Quality Improvement Plan will be submitted separately to U.S. EPA Region IV by thet deadline.

The Shelby County Commission adopted a Resolution on March 22nd in support of listed strategies to attain the 8-hour ozone standard not later than 2007. A copy of the unsigned Resolution is attached, and after signature a signed copy will be forwarded. The Mid-South Mayors Forum also supports the Plan and its included strategies. We will continue to work to attain the 8-hour National Ambient Air Quality Standard for ozone in Shelby County. I certify that I have the necessary authority to submit this Plan.

Sincerely,

AC Wharton
Mayor

Dr. Willie W. Herenton
Mayor

cc: Yvonne Madlock, Director, Memphis & Shelby County Health Department
John Fowlkes, CAO, Shelby County
Keith L. McGee, CAO, City of Memphis
Diane Arnst, Pollution Control, Memphis & Shelby Count Health Department
Rick Copeland, Division of Planning and Development
Kay Prince, U.S. EPA Region IV

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EARLY ACTION COMPACT
Shelby County, Tennessee portion of
Memphis Metropolitan Statistical Area

AIR QUALITY IMPROVEMENT PLAN

Prepared by the
Memphis & Shelby County Health Department
Pollution Control Section

March 31, 2004 Milestone

For submittal to the
United States Environmental Protection Agency Region IV

through the Tennessee Department of Environmental and Conservation

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INTRODUCTION

Shelby County, Tennessee entered into a voluntary Early Action Compact (EAC) with the State of Tennessee; Crittenden County, Arkansas and the State of Arkansas; DeSoto County, Mississippi and the State of Mississippi; and the U.S. Environmental Protection Agency in December, 2002 to achieve attainment of the 8-hour ozone standard (promulgated July 17, 1997 and subsequently upheld by the U.S. Supreme Court), as soon as practicable but not later than December 31, 2007. Beginning in 1998, the same parties had entered into a Memorandum of Understanding to conduct the Arkansas-Tennessee-Mississippi Ozone Study (ATMOS) to improve understanding of conditions underlying ozone formation throughout the State of Tennessee and in the Memphis Metropolitan Statistical Area (including DeSoto County, Mississippi and Crittenden County, Arkansas), and to clarify the most effective control measures to further reduce ozone formation. ATMOS builds on the Southern Oxidant Study.

This Air Quality Improvement Plan (AQIP) demonstrates attainment of the 8-hour ozone standard by December 31, 2007 and maintenance of that standard through at least 2012 with emission inventories; a modeling analysis; emission reduction strategies; a component addressing emissions growth from January 1, 2008 through 2012; weight of evidence information; State and Local commitments to specific, quantified, and permanent control measures that, if approved by U.S. EPA will be Federally enforceable as part of the Tennessee State Implementation Plan (SIP), the Transportation Improvement Plan (TIP) or the Long Range Transportation Plan (LRTP); and specific implementation dates for adopted local control measures (other than voluntary measures).

1-Hour Ozone Standard and the Memphis & Shelby County Planning Area

Effective February 16, 1995, the Memphis & Shelby County air quality planning area was redesignated to Attainment status for the 1-Hour Ozone National Ambient Air Quality Standard that measures acute exposure. This National Ambient Air Quality Standard is set at 0.120 parts per million (or 120 parts per billion). A violation of the standard occurs when the fourth highest value at a monitor over a 3-year period exceeds the standard *or* when the second highest ozone value in a single year equals or exceeds 125 parts per billion. The fourth highest high value at any ozone monitor in the planning area is called the "1-hour ozone design value." Taking rounding into account, a violation occurs when the 3-year "design value" is equal to or greater than 125 parts per billion. Only Shelby County, Tennessee is in this planning area.

8-Hour Ozone Standard

On July 17, 1997 U.S. EPA promulgated an 8-hour average National Ambient Air Quality Standard to measure chronic exposure to ozone. This standard is set at 0.08 parts per million (or 80 parts per billion) averaged over each rolling 8-hour period throughout the ozone season. Ozone season is March 1st through October 31st for Shelby County. A violation of the standard occurs when the three-year average of the fourth highest value at a monitor exceeds the standard. The fourth highest value is called the "8-hour average

ozone design value." Taking rounding into account, a violation occurs when the 3-year average is equal to or greater than 85 ppb.

For the 3-year period 2000-2002, the 8-hour ozone design value for Memphis & Shelby County is 90 ppb. For the period 2001-2003, the design value is 89 ppb. Based on this data, a Nonattainment designation is expected on April 15, 2004.

8-Hour Ozone Air Quality Expanded Planning Area Boundaries

On March 28, 2000 the U.S. EPA issued a Memorandum entitled "Boundary Guidance on Air Quality Designations for the 8-Hour Ozone National Ambient Air Quality Standards (NAAQS or Standard)." EPA stated therein that the presumptive boundary is the Metropolitan Statistical Area (MSA). When the EAC was executed, the Memphis MSA consisted of the following counties: Fayette, Shelby and Tipton in Tennessee; Crittenden in Arkansas; and DeSoto in Mississippi. Based on the 2000 Census, the Office of Management and Budget expanded the Memphis MSA in 2003 to add the counties of Marshall, Tate and Tunica in Mississippi. Ozone levels continue to drop at all monitors in the Memphis MSA except at the Marion, Arkansas monitor in Crittenden County. The Tennessee Valley Authority and Arkansas Department of Environmental Quality have begun a study to confirm the accuracy of the Marion, Arkansas monitor.

Governors were provided an opportunity to make recommendations on planning area boundaries based on eleven criteria. Governor Ronnie Musgrove of Mississippi submitted a letter on July 14, 2003 recommending that DeSoto County be designated a separate nonattainment area from the rest of the Memphis MSA. EPA Region IV Administrator Jimmy Palmer notified Mississippi in a letter dated December 3, 2003, of its preliminary conclusion that DeSoto County should be included in the Memphis MSA Nonattainment planning area. Mississippi was given until February 6, 2004 to provide additional information to substantiate its recommendation. Desoto County contains three Title V Major Sources of NOx: Texas Gas Transmission, L.L.C.; Cogentrix (formerly Southaven Power), a baseload power plant that came on-line in 2003 [permitted at 341 TPY NOx and 38 TPY VOCs]; and Southaven Energy (owned by Duke Power), a peaking power plant that came on-line in 2003 [permitted at 897 TPY NOx and 49 TPY VOCs]. Both of these power plants have Best Available Control Technology limits: (1) Dry Low NOx combustion with Selective Catalytic Reduction (2) Dry Low NOx . Both of these power plants are located on State Line Road one-half mile south of the Shelby County line that is also the Tennessee State Line.

Governor Mike Huckabee of Arkansas "reluctantly" recommended that Crittenden County be included in the Memphis MSA Nonattainment planning area. EPA Region VI Administrator Richard Greene notified Arkansas in a letter dated December 3, 2003, of its preliminary conclusion that Crittenden County would be included in the Memphis MSA. In recent years the Crittenden County ozone monitor in Marion has recorded the highest ozone levels in the Memphis MSA, although 2003 data evidenced downward levels. Neither Arkansas nor Mississippi were subject to the NOx (Nitrogen Oxides) SIP

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(State Implementation Plan) call. They may be subject to the proposed Interstate Transport Rule.

Tennessee Department of Environment and Conservation Commissioner Betsy Child submitted a letter on July 14, 2003 recommending that Fayette and Tipton Counties not be included in the Memphis MSA Nonattainment planning area but that Shelby County be included. Shelby County has approximately forty (40) Title V Major Sources and a coal-fired Tennessee Valley Authority power plant that is subject to the NOx SIP Call and has installed all required controls. EPA Region IV Administrator Jimmy Palmer notified Tennessee in a letter dated December 3, 2003, of its preliminary conclusion that Fayette, Shelby and Tipton Counties should all be included in the Memphis MSA Nonattainment planning area. Tennessee was given until February 6, 2004 to provide additional information to substantiate its recommendation.

EPA will promulgate the Nonattainment planning area boundaries on April 15, 2004 when it promulgates the Nonattainment designations.

EMISSION INVENTORIES

These inventories are included in the SAI, Inc. component of this AQIP.

MODELING ANALYSIS

Predicted 2007 and 2012 8-hour average ozone concentrations, a screening analysis, and the modeling weight of evidence for the Memphis MSA will be separately submitted by Systems Applications International, Inc. (SAI, Inc.) That submittal demonstrates that by 2007 overall ambient concentrations of ozone in terms of hours of exposure to exceedances would drop by more than 50% throughout the Memphis MSA as a result of the EAC.

EMISSION REDUCTION STRATEGIES

The Federal, State and local emission reduction strategies that have been or will be implemented as soon as practicable but not later than December 31, 2005 have been included in the EAC/Arkansas-Tennessee-Mississippi Ozone Study (ATMOS) Modeling Analysis. Mandatory emission reduction strategies are specific, quantified, permanent and enforceable. Voluntary strategies will be documented and quantified to the extent practicable.

A. TRANSPORTATION MEASURES

Transportation strategies in the TIP and in the LRTP through 2012 have been included in the Modeling Analysis through MOBILE 6, to the extent that they are quantifiable. Annual reports on implementation of Congestion Mitigation and Air Quality Improvement (CMAQ) projects including quantification of resulting emission reductions

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will be prepared by the Metropolitan Planning Organization (MPO). Some information is included below regarding expected emission reductions.

- CMAQ Improvement Projects in 2004-2006 TIP Adopted 8/21/03: $3.4 Million Annual Average Allocation

The following strategies are included in the TIP:

1. Congestion Management in Unincorporated Shelby County, Bartlett, Collierville, Germantown, And Millington — $1.0 Million each year

2. Deploy Traffic Signals Year 3 Throughout City of Memphis — $2.5 Million for 2004 only

3. City of Bartlett
   Signal Improvements at Sycamore View/Yale Road and at Memphis-Arlington/Bartlett Blvd. — $1.0 Million for 2004 only

VOC Emission Reductions	0.03 Tons Per Day
NOx Emission Reductions	0.01 Tons Per Day
CO Emission Reductions	0.22 Tons Per Day

4. Kimbrough/Dogwood Intersection Improvements in Germantown — $275,000 for 2004 only

VOC Emission Reductions	0.01 Tons Per Day
NOx Emission Reductions	0.01 Tons Per Day
CO Emission Reductions	0.02 Tons Per Day

5. Deploy Traffic Signals Year 4 — $1.0 Million for 2005; $1.0 Million for 2006
   City of Memphis

6. Communication Trunk Line For Signalized Intersections And CCTV control — $1.0 Million for 2004; $1.0 Million for 2005; $2.5 Million for 2006

   The Engineering Study Phase will produce no emission reductions but after construction has been completed:

VOC Emission Reductions	0.06 Tons Per Day
NOx Emission Reductions	0.12 Tons Per Day
CO Emission Reductions	0.36 Tons Per Day

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7.	Medical Center Rail Extension [Madison Avenue Trolley Line opened March 15, 2004]	$1.00 Million for 2004 $1.05 Million for 2005 $1.10 Million for 2006
8.	Memphis Area Rideshare 136 vans at 92 organizations More 12-passenger vans to be added	$ 900,000 for 2004 $ 900,000 for 2005 $ 900,000 for 2006

<u>*Vanpool Emission Reductions*</u> <u>(155 Vans in service)</u>

VOC Emission Reductions	23.24 Tons Per Year
NOx Emission Reductions	115.35 Tons Per Year
CO Emission Reductions	214.73 Tons Per Year

<u>*Fulltime Employee Carpool Emission Reductions*</u> <u>(600 carpools)</u>

VOC Emission Reductions	8.44 Tons Per Year
NOx Emission Reductions	5.62 Tons Per Year
CO Emission Reductions	78.37 Tons Per Year

<u>*Part-time Employee Carpool Emission Reductions*</u> <u>(240 carpools)</u>

VOC Emission Reductions	4.05 Tons Per Year
NOx Emission Reductions	2.70 Tons Per Year
CO Emission Reductions	37.62 Tons Per Year

Combined Tons Per Day Reductions:

VOC Emission Reductions	0.10 Tons Per *Day*
NOx Emission Reductions	0.06 Tons Per *Day*
CO Emission Reductions	0.10 Tons Per *Day*]

9.	MATA Transit Centers Suburban areas	$ 875,000 for 2004 only (Section 5307 and Section 5309 funds also to be used)
10.	I-40/Covington Pike Interchange Improvement	$ 400,000 for 2004 $2.66 Million for 2005
11.	4th I/M Inspection Station to serve 55,000 annexed residents in City of Memphis	$3.550 Million for 2004 $1.0 Million for 2005
	VOC Emission Reductions NOx Emission Reductions CO Emission Reductions	0.09 Tons Per Day 0 3.43 Tons Per Day
12.	Farmington/Germantown Road Intersection Improvements	$ 60,000 for 2004

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VOC Emission Reductions	0.02 Tons Per Year
NOx Emission Reductions	0.01 Tons Per Year
CO Emission Reductions	0.03 Tons Per Year

In addition, CMAQ holdover funds will continue to be expended to complete CMAQ projects that have not yet been completed including Deployment of Traffic Signal Systems Year 2 ($3.4 Million); Restoration of Signal Loop System ($846,000); Upgrade of Traffic Signals ($462,805); Design and Build Traffic Signal Systems ($396,647); and Signal Improvements at specified locations ($2.1 Million). Traffic Signal projects were delayed during a dispute with Memphis Light Gas & Water over a "per pole fee" that has since been resolved. About 200 signals will be synchronized.

A recently completed CMAQ Project:

13. Purchase of six 40-foot buses that meet new urban bus emission standards to replace buses at end of useful lives

VOC Emission Reductions	0.03 Tons Per Day
NOx Emission Reductions	0.11 Tons Per Day

SAI, Inc. has modeled 0.16 Tons Per Day NOx; 0.06 Tons Per Day VOCs; and 0.66 Tons Per Day CO reductions for all CMAQ projects for the EAC.

- Long Range Transportation Plan (LRTP) 2026

Freeway Incident Management: The State of Tennessee has implemented the Tennessee Help Truck Program along I-240, I-40, I-55, and State Route 385. It clears stalled vehicles and vehicles involved in accidents from travel lanes. Congestion is reduced significantly. The Freeway Management System will enhance this strategy.

Freeway Management System: The Memphis Intelligent Transportation System Regional Architecture adopted by the Memphis MPO allowed the Tennessee Department of Transportation to program $445.5 Million into the TIP for Early Phase and First Phase implementation. These phases include communication lines, cameras, speed detection, dynamic message signs, highway advisory radio, 511 messaging, and a traffic control center. The State of Mississippi has begun operating video surveillance on I-55 in northern DeSoto County.

High Occupancy Vehicle Lanes have been built on I-40 and I-55 and will be extended, as described in Appendix K of the LRTP. (Selected pages from Appendix K are attached as an **Exhibit)**. Two HOV projects have been completed: (1) I-40 between I-240 and Germantown Road and (2) I-55 from I-240 to the Mississippi State Line.

Four new HOV Corridor projects are in the 2004-2006 TIP as under study:

a. I-240 South, Lamar Avenue to Nonconnah Parkway

b. I-240 Midtown from I-40 to I-55

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c. I-55 from Mississippi State Line to Goodman Road
d. I-240 from Walnut Grove to Nonconnah Parkway

Inter-Modal Facilities: An Arena Inter-Modal Transfer Facility is planned near the new FedEx Forum National Basketball Association Grizzlies Stadium. A South Inter-Modal Terminal has been planned for the Whitehaven are in southern Memphis.

Park and Ride Lots: Six (6) such lots have been planned at key interchanges on I-40 and I-55 that have HOV lanes. The two Inter-Modal Facilities will also have Park and Ride Lots.

City of Memphis Bicycling Network: Phase I is scheduled for 2004 to include a 40-mile, five loop, shared roadway that extends west from Downtown Memphis to Kirby Parkway to the east. Every half-mile signs will alert motorists that it is part of the Bicycling Network.

City of Bartlett Bicycle Routes are planned parallel to Fletcher Creek greenbelt and near the Bartlett Wastewater Treatment Plant.

Lakeland Bicycle Routes are planned to connect Canada Road to Seed Tick Road; to extend northward along Scott's Creek to the Loosahatchie River, and to inter-connect along Cobb Road, Monroe Road, and Canada Road. Developers would construct paths as development occurs.

Germantown Bicycle Routes would connect to City of Memphis routes at Wolf River Boulevard, Neshoba Road, and Messick Road.

Wolf River and Nonconnah Creek Greenbelts phased over the next 15 years and involving work by the U.S. Army Corps of Engineers would also add bicycle paths and links.

Tennessee Designated Bicycle Route Highway 64 is an east-west route. The State plans to add more State routes.

B. STATIONARY SOURCE MEASURES

- Nitrogen Oxides (NOx) SIP Call Reductions

The Tennessee Valley Authority (TVA) Allen Steam Plant (coal-fired power plant) is subject to the NOx SIP call. By May 5, 2002 Selective Catalytic Reduction (SCR) had been installed on two of the three Electric Generating Units (EGU) and a reduction of approximately 6,600 Tons of NOx from Acid Rain Allowable permit limits was achieved during the NOx SIP call control season (May 1-September 30). By May 5, 2003 SCR had been installed on the third EGU, achieving additional reductions of about 2,200 Tons of NOx. These controls result in NOx reductions of 57.5 Tons Per Day. Installation and operation was completed one year before the applicable Federal deadline. Note that

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neither Arkansas nor Mississippi were subject to the NOx SIP Call. SAI, Inc. computer modeling shows that both Louisiana and Texas contribute to ozone formation in the Memphis MSA, and neither of these states were subject to the NOx SIP Call. The proposed Interstate Transport Rule would not include Texas for ozone purposes.

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- New Stationary Source Ozone Action Day NOx Reduction Measure

The TVA Allen Steam Plant has agreed to an additional enforceable permit condition in its Title V Major Source Operating Permit requiring emissions reductions if an ozone exceedance is forecasted for the next day (predicted concentrations of 75 ppb or more) during the months of April and October beginning in 2005. Historically, Shelby County has experienced ozone exceedances in April in only in one year--during the 2003 ozone season. Occasional October ozone exceedances have occurred. The Memphis & Shelby County Pollution Control Section's Meteorologist will advise the assigned permit engineer and the facility during April and October if the next day is a predicted ozone exceedance day. In that event, the TVA Allen Steam Plant will operate its Selective Catalytic Reduction controls on all three EGUs throughout the next day. The 30-day public comment period for the TVA Title V permit will be opened in April.

- New Stationary Source VOC Reduction Measure

Solae, LLC is switching to an alternative fuel by the end of 2004. This is authorized by its Title V Major Source Operating Permit. VOC reductions of 39 TPY or 0.10 Tons Per Day are expected. The Title V permit will be modified to add hourly emission limits.

- Inspection of Stage I Vapor Recovery Equipment

About 550 gasoline stations in Shelby County installed Stage I Vapor Recovery in the mid-1990s. The Pollution Control Section conducted annual inspections 1995-1997 to confirm installation. This equipment has not been inspected since 1997, and it is possible that some gaskets have deteriorated. Each station will be inspected between April, 2004 and April, 2005 to ensure maximum reductions from this strategy. The Section will keep records on any compliance problems identified. It is expected that compliance is high, and inspections will confirm that level of confidence.

- Pending Tennessee Department of Environment and Conservation Nitrogen Oxides Reductions Rule for Uncontrolled Stationary Sources [NOx RACT Rule]

A. Tennessee proposed a rule to require sources with uncontrolled emissions of 50 Tons Per Year or more from the entire facility to install Reasonably Available Control Technology (RACT). The Memphis & Shelby County Health Department (the Department) has identified seven (7) facilities that have uncontrolled 50 TPY NOx emission units.

Facility Name	Tons

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1.	Cargill	Unit #1	119
		Unit #2	360
		Unit #3	601
2	Buckeye		66.1
3	Dupont	Unit #1	170
		Unit #2	151
		Unit #3	62.7
		Unit #4	284
4	Premcor		660
5	PCS Nitrogen	Unit #1	627
		Unit #2	183
6	Crompton	Unit #1	109
		Unit #2	105
7	Atofina		114
	TOTAL TONS		3611.8
	50% NOx Reductions		1805.9 Tons Per Year or 4.9 Tons Per Day

A 50% emission reduction from application of NOx RACT on these units is estimated by the Department to result in NOx reductions of 4.9 Tons Per Day. In order to maintain a Certificate of Exemption from State supervision, each local air pollution control program in Tennessee would adopt a standard at least as stringent as this standard. Pending local adoption of the new standard, the Tennessee Air Pollution Control Program would have enforcement authority for this rule.

The Department would present a local NOx RACT Rule for adoption in the City of Memphis in June, 2004 if the State rule has not been adopted by then. Six of the seven facilities are within the City of Memphis. One (PCS Nitrogen) is in the unincorporated portion of Shelby County. [See "Additional Weight of Evidence" below concerning emissions from that facility.]

B. During the August 19, 2003 public hearing and preceding public comment period, industry requested that the rule apply to individual emission units that emit 25 TPY or more. The Tennessee Air Pollution Control Board has not yet finalized this rule. Twelve (12) *additional* emission units would be subject to NOx RACT at the 25 TPY threshold:

	Facility Name	Tons
1.	Con Agra Grocery Products	28.23
2.	Southern Cotton Oil Company Division of Archer-Daniels-Midland	33.3
3.	Buckeye Technologies, Inc.	42.2
4.	The Premcor Refining Group, LLC	42.8 Unit #1 29.4 Unit #2

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		29.2 Unit #3
5.	Protein Technologies International	29.0 Unit #1
		27.1 Unit #2
6.	BFI South Shelby Landfill	28.0
7.	Lucite International	26.7
8.	Federal Express Memphis Air Operations	43.4
9.	BFI Waste Systems of North America	28.0
	TOTAL TONS	387.4 TONS
	50% NOx reductions	193.7 TPY
		0.5 Tons Per Day

If the State Rule or a local rule applicability is finalized at the 25 TPY per emission unit threshold, 5.4 Tons Per Day NOx Reductions would result.

- Ozone Action Day Forecasting and Burning Ban

A new permit condition has been added to each permit issued for an air curtain destructor to be used for land clearing within Shelby County beginning in Ozone Season 2003.The requirement is that the permittee contact the Department's Computerized Local Air Index Reporting (CLAIR) system recorded line at (901) 544-7489 or 544-7490 before igniting a fire to determine if it is a Burning Day or a No Burning Day. Department staff visit each permittee site on No Burning Days to verify that burning is not occurring or to instruct the permittee to extinguish any such burning. The Department's Meteorologist performs the forecasting and adds the Burning Day/No Burning Day information to the forecasts that are distributed to the media and the AirNow map on the Worldwide Web. Estimated emission reductions of 0.3 Tons Per Day NOx; 7.17 Tons Per Day VOCs; and 13.14 Tons Per Day CO would result from this measure.

Permittee compliance has been good throughout the ozone season. This requirement was tested in particular during the burning of debris generated by a July 22, 2003 "land hurricane" of fifteen minutes' duration. Twelve special storm debris burning locations were sited and operated during the months of August, September and October 2003. None of these sites were allowed to burn on those days for which ozone problems were forecasted.

- Pending Tennessee Anti-Idling and Smoking Vehicle Regulatory Proposal

The Tennessee Air Pollution Control Board has opened a public comment period on proposed new Chapter 1200-3-37 Mobile Source Prohibitions. This rule would prohibit operation for more than a period of 5 consecutive seconds of a gasoline-powered mobile source that emits visible smoke from its exhaust pipe. It would prohibit operation for more than a period of 10 consecutive seconds of a diesel-powered mobile source that emits visible smoke from its exhaust pipe. Some exemptions are listed. In order to maintain a Certificate of Exemption from State supervision, each local air pollution control program in Tennessee would adopt a standard at least as stringent as this

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standard. Pending local adoption of the new standard, the Tennessee Air Pollution Control Program would have enforcement authority for this rule. The following emissions reductions resulting from diesel engines are estimated: 0.07 Tons Per Day NOx; 0.01 Tons Per Day VOCs; and 0.07 Tons Per Day CO.

- Pending Tennessee Anti-Tampering Regulatory Proposal

The Tennessee Air Pollution Control Board has opened a public comment period on proposed new Chapter 1200-3-36 Motor Vehicle Tampering. Tampering with the emissions control system on a motor vehicle would be prohibited even for vehicles not subject to an Inspection and Maintenance program. In order to maintain a Certificate of Exemption from State supervision, each local air pollution control program in Tennessee would adopt a standard at least as stringent as this standard. Pending local adoption of the new standard, the State Air Pollution Control Program would have enforcement authority for this rule.

- Truck Speed Limit of 55 MPH During Ozone Season

According to the Insurance Institute for Highway Safety website, ten (10) states have differential speed limits for cars and trucks. Of these ten states, five (5) limit truck speed limits to 55 MPH on Rural Interstates [California, Illinois, and Michigan since 1996; Ohio and Oregon since 1987]. Three (3) of the ten states have limited truck speed limits to 55 MPH on Urban Interstates since 1996 [California, Michigan, and Ohio].

The Shelby County Commission adopted a Resolution on March 22, 2004 in support of a posted and enforced 55 MPH speed limit for trucks during ozone season in all Early Action Compact areas in Tennessee. This was the speed limit for all vehicles on the Interstates in Shelby County until about one year ago, when the Tennessee Department of Transportation raised the speed limit for all vehicles to 65 MPH on some segments of the Interstate, without consulting the Memphis Metropolitan Planning Organization.

Restoring the 55 MPH speed limit would add 4 minutes and 9 seconds travel time on the I-40/240 North Loop from the eastern Shelby County boundary to the Mississippi River, and it would add 6 minutes 6 seconds travel time on the I-40/240 South Loop/I-55 to the Mississippi State Line. A copy of the unsigned Resolution is attached as an **Exhibit**. A copy of the signed resolution will be forwarded when it is available. The signed Resolution will also be forwarded to the Commissioner of the Tennessee Department of Environment and Conservation and to the Commissioner of the Tennessee Department of Transportation. Expected NOx emission reductions in Shelby County are 5.9 Tons Per Day.

The Tennessee Air Pollution Control Board at its March 10th meeting expressed its intent to request that the Commissioner of the Tennessee Department of Environment and Conservation convene a special meeting of the Interagency Task Force—the Tennessee Department of Transportation is also a member—to focus on the truck speed limit issue and achieve a change in the Early Action Compact areas because this is the single most

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effective strategy to reduce NOx emissions. It addresses emissions from trucks that are not garaged/registered in Shelby County that would not be subject to an Inspection and Maintenance program but that emit significant amount of air pollutants into the ambient air that is measured at Shelby County air monitors.

Tennessee Code Annotated §55-8-152(c) defines "truck" as used in the speed limit provisions as "any motor vehicle of one and one half (1 ½) ton rated capacity or more." Section 55-8-152(b) makes it illegal for a truck to drive in excess of 50 MPH "upon the highways of this state" except as provided in § 55-8-152(d). The exception in (d) authorizes trucks to travel up to 65 MPH on an Interstate and on 4-lane controlled access federal or state routes. Tennessee Code Annotated § 55-8-152(g)(1)(a) authorizes TDOT to lower speed limits "as it deems appropriate to concerns regarding the roadway, traffic, or other conditions." This authority is in addition to Tennessee Code Annotated § 55-8-153, which authorizes the Tennessee Department of Transportation to lower the speed limits in business, urban or residential districts, congested areas, dangerous intersections "or whenever and wherever the department shall determine, upon the basis of an engineering and traffic investigation that the public safety requires a lower speed limit." No rulemaking procedures are required under Tennessee laws to change speed limits.

- Pending Revisions to Tennessee Light-Duty Motor Vehicle Inspection and Maintenance Rule

Chapter 1200-3-29 would be amended to define Category I and Category II Counties. The Tennessee Air Pollution Control Board would classify counties and two sets of I/M requirements would apply. The Board is considering I/M with Onboard Diagnostics and gas cap tests.

- Pending Tennessee General Assembly House Bill 3498/Senate Bill 3410

This legislation would amend Inspection and Maintenance provisions found in Tennessee Code Annotated § 55-4-100 *et seq*. It would authorize the Tennessee Air Pollution Control Board to designate areas that need I/M to attain or maintain the National Ambient Air Quality Standards, or a County Commission could pass a resolution establishing I/M for the County. It would also add a statutory Anti-Tampering provision.

Each of the emission reduction measures embodied in an ordinance/rulemaking would become SIP Revisions for the Shelby County component of the Tennessee SIP.

C. VOLUNTARY MEASURES

- Shelby County Smart Growth Initiative

Phase I includes 12 steps that range from updating land development regulations unchanged since 1986 to allow for more innovative building and development techniques to collection of an adequate facilities tax.. Shelby County adopted a residential corridor ordinance and is in the process of designating residential corridors. Memphis and Shelby

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County have provided and will continue to provide incentives for re-use and restoration of commercial structures downtown and throughout the County in an effort to concentrate employment centers and facilitate transit. A copy of this Initiative is attached as an **Exhibit**.

- Low Emission Vehicle and Related Clean Fuels Measures

The Department is working with Shelby County Government and City of Memphis Government to create a preference for vehicle purchases of LEVs and SULEVs such as the Toyota Prius as Shelby County Fleet vehicles reach the end of their useful lives.

D. Implementation Timeframe

All strategies will be implemented by May 1, 2005 if feasible and not later than December 31, 2005 at the very latest.

EMISSIONS REDUCTIONS FROM JANUARY 1, 2008 THROUGH 2012

- Airport Light Rail Line

The 9-mile Airport Line of the Memphis Area Transportation Authority's light rail system is scheduled to open in 2010. It will connect the Memphis International Airport to the major employment centers in the Medical District and Downtown. It will also facilitate tourist access to lodging and attractions Downtown including the FedEx Forum stadium for the Grizzlies National Basketball Association games, the Pyramid, the Autozone Baseball Park, Beale Street, and Tom Lee Park along the Mississippi River that is the site of the 4-weekend Memphis in May Festival and other events. MATA proposes using 50% federal funds, 25% City of Memphis funds, and 25% State of Tennessee funds. The Draft Environmental Impact Statement is currently under review by the Federal Transit Administration. Main Street Rail Trolley has operated since 1993, and Riverfront Loop Rail Extension has operated since 1997. This is included in the Long Range Transportation Plan.

- Enforceable Local Permit Condition and Pending Cargill, Inc. Global VOC/NOx Enforcement Settlement

An enforceable permit condition to achieve reductions in Volatile Organic Compound (VOC) emissions is being added in 2004 as a "significant modification" to the Title V Major Source Operating Permit issued to Cargill, Inc. by the Memphis & Shelby County Pollution Control Section. This permit condition will require by May 1, 2007 and continuing thereafter specific, quantified and permanent VOC reductions in the amount of approximately 89 Tons Per Year or 0.24 Tons Per Day. This agreement has been reached in advance of Federal global settlement negotiations concerning all nine Cargill plants that are the subject of enforcement action by U.S. EPA in order to facilitate the

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Early Action Compact process. It is anticipated that as a result of Federal negotiations, one or more new VOC test methods will be promulgated to address the corn milling processes at issue. Cargill and EPA's Office of Air Quality Procedures and Testing are currently working to determine the accuracy and reliability of various approaches. Testing pursuant to new methods may demonstrate that greater emissions reductions have, in fact, been achieved at the Memphis Cargill, Inc. plant. Reductions of Nitrogen Oxides (NOx) are also expected to result from the global settlement reductions.

ADDITIONAL WEIGHT OF EVIDENCE

Source Shutdown and Resulting Inflated Emissions Inventory: Effective June 4, 2003, PCS Nitrogen, Inc. shut down its operations, pending a reduction in natural gas prices. PCS Nitrogen, Inc. hopes to restart by June of 2005 to retain "existing source" status, but natural gas prices have not dropped to levels at which the plant could profitably operate and are not expected to drop to such levels for the foreseeable future. This plant makes fertilizers and competes with South American suppliers. Included in the 2002 Emissions Inventory used by SAI, Inc. for prediction of 8-Hour Average Ozone concentrations in 2007 and 2012 are 813.76 Tons Per Year [2.23 Tons Per Day] of NOx; 374.82 Tons Per Year [1.03 Tons Per Day] of Carbon Monoxide; and 61.79 Tons Per Year [0.017 Tons Per Day] of VOCs for PCS Nitrogen, Inc. that very likely will not be emitted in the 2004-2007 timeframe.

Memphis International Airport Emission Reductions

a. Electrification at Gates: Since the mid-1980s, a 400 hertz electrical system at the gates has provided power for heating, cooling and other electrical needs of planes while they are parked at the gate. Related emissions reductions are not quantified in the computer modeling for the Memphis MSA.
b. FedEx Conveyor System at Gates: Tugs are no longer used by FedEx.since installation of a conveyor system. Related emissions reductions are not quantified in the computer modeling for the Memphis MSA.
c. Hybrid Fueling: Instead of using fuel tenders (large trucks), lower emitting hybrids are used to fuel planes at this airport. Related emissions reductions are not quantified in the computer modeling for the Memphis MSA.
d. New Underground Fuel Pipeline for FedEx: FedEx has paid for construction of this pipeline from Arkansas under the Mississippi River to the Memphis International Airport. It is eliminating truck deliveries of aviation fuel to FedEx and associated evaporative emissions. It will also double the capacity and throughput of aviation fuel to FedEx.

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e. Automated Vehicle Identification System (AVI): The Airport Authority spent $1 million to construct this system in 2003. It is designed to measure "dwell time" (idling time) at the curb by shuttles and taxis. After the shakedown period, a baseline will be developed. Thereafter, financial incentives will be offered for *reduced* idling time. A recordkeeping system will enable quantification of emission reductions at that point, but related emissions reductions are not quantified in the computer modeling for the Memphis MSA yet.

f. Planned Consolidated Ground Transport Facility: A parcel of land already owned by the Airport Authority has been dedicated for this use. The project is on hold due to depressed passenger use of the airport after the September 11, 2001 terrorism incidents involving airplanes. Construction of the facility is estimated at $50 million. All rental car agencies would be relocated to this parcel. Rental car agencies would contract with the Airport Authority and pay a fee. The project is designed to eliminate 80% of the shuttles from rental car agencies. Quantification should be available if this facility is constructed between 2005-2007.

Memphis Light Gas & Water Energy Efficiency Initiatives:
EcoBuild: This is a voluntary 5-year program for energy efficient construction techniques similar to the International Building Code for new residential buildings to be constructed 2003-2007. Builders have signed up with MLG&W to participate and projected emission reductions by 2007 are:

10.2 TPY NOx
4,117.0 TPY CO_2
23.0 TPY SOx

COMBINED EXPECTED VOC AND NOX EMISSION REDUCTIONS PER DAY

SAI, Inc. has modeled 0.16 Tons Per Day NOx; 0.06 Tons Per Day VOCs; and 0.66 tons Per Day CO reductions. Upon completion of all of the listed CMAQ projects, 0.32 Tons Per Day NOx ; 0.34 Tons Per Day VOCs; and 4.16 tons Per Day CO reductions are expected—at a minimum. Only partial quantification is currently available for some of the projects. An additional 5.9 Tons Per Day would result from the 55 MPH truck speed limit.

In addition, using the 2002 Emission Inventory as the starting point, the following reductions are expected from stationary sources: 65.9 Tons Per Day NOx (including NOx SIP Call reductions); 8.07 Tons Per Day VOCs; and 14.24 Tons Per Day CO.

The grand total emissions reductions since 2002, then would be:

71.22 Tons Per Day NOx
8.41 Tons Per Day VOCs
18.40 Tons Per Day CO.

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These totals do not include the TVA Ozone Action Day emission reductions.

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Letters of Support and Resolutions

FAYETTE Co.

CLEAN AIR EARLY ACTION RESOLUTION

WHERAS, the federal Clean Air Act ("CAA") requires that air quality in every state meet healthy based National Ambient Air Quality Standards, which includes a standard for ground level ozone:

WHERAS, in 1997, the Environmental Protection Agency promulgated an 8-hour ground level ozone standard;

WHERAS, ground level ozone is a prime ingredient in smog during the warmer weather seasons and can act as an irritant that may aggravate respiratory diseases and other\wise affect human health;

WHERAS, monitoring by the Tennessee Department of Environment and Conservation and the four local air programs operating under a Certificate of Exemption from the Tennessee Air Pollution Control Board indicates that certain counties in Tennessee, may be approaching or exceeding the 8-hour ground level ozone standard;

WHERAS, exceedance of the 8-hour ground level ozone standard by a county will cause that county or portions of that county to be classified as "non-attainment for ground level ozone under CAA;

WHEREAS, a non-attainment classification may result in restrictive permitting requirements including a defined growth policy for industry and restrictions on the distribution and use of federal highway funds within a non-attainment county, thereby resulting in negative economic impacts and diminished job growth;

WHEREAS, Section 68-201-103 of the Tennessee Air Quality Act instructs the Tennessee Air Pollution Control Board and Department of Environment and Conservation to protect air quality in such a fashion as to maximize industrial development and full employment levels in the state;

WHEREAS, the local officials of counties of the state that may be exceeding the 8-hour ground level ozone standard place great value and importance on the health of their citizens and the related need for clean air;

WHEREAS, the Tennessee Air Pollution Control Board views participation in the Early Action Program as a proactive means of achieving compliance with the 8-hour ground level ozone standard ahead of the federally-mandated compliance date while avoiding unnecessary and burdensome federal restrictions that normally apply to non-attainment areas.

NOW, THEREFORE in recognition of the above provisions, the Fayette County Commission adopts this resolution to express its support for the process of developing an Early Action compact for potential non-attainment in Fayette County in conformity with EPA's guidance on this subject. Further the Fayette County Commission adopts these

measures and encouragements to be a part of the Memphis Metropolitan Area's Early Action Compact:

1. Low RVP (7.8 psi) gasoline (at refinery)
2. Stage I vapor recovery (at fueling stations)
3. Electric or propane-fueled forklifts
4. Ozone Alert program: Drive 55
5. Gas cap for vehicles giveaway
6. Lower speed limit from 70 to 55 mph for heavy duty (18 wheels) trucks during ozone season and increased enforcement
7. Intelligent Transportation System (electronic signs on roadway provide real time info to drivers)
8. Use TDOT "enhancements" grants to link greenways/bikeways/bike racks/pedestrian walkways
9. Adopt open burning restrictions during peak ozone periods
10. Provide the public with information through education programs and community events
11. Develop an air quality web page to provide the public with information
12. Encourage the use of catalyst and low sulfur diesel
13. Encourage car pooling and the use of area wide ride share incentives

EARLY ACTION COMPACT
RECOMMEND 8-HOUR CONTROL STRATEGY OPTIONS FOR FAYETTE COUNTY, TENNESSEE MEMPHIS METROPOLITAN STATISTICAL AREA (MSA)

1. **Low RVP (7.8 psi) gasoline (at refinery)**
   Implementation: This will be made at the refinery and will be used throughout the MSA.

2. **Stage I vapor recovery (at fueling stations)**
   Implementation: This will need to be mandated by the state, but we can encourage it with a resolution.

3. **Electric or propane-fueled forklifts**
   Implementation: Require that forklifts that the county buys in the future are either electric or propane-fueled.

4. **Ozone Alert program: Drive 55**
   Implementation: Encourage practices that will lower the emittance of noxious gases (such as mowing later in the day, car-pooling, etc.) and have an education day for the community on the benefits of cleaner air.

5. **Gas cap for vehicles giveaway**
   Implementation: Encourage a program of giving away gas caps that help trap noxious gases in the fuel tanks of automobiles.

6. **Lower speed limit from 70 to 55 mph for heavy duty (18 wheels) trucks during ozone season and increased enforcement**
   Implementation: This will require state mandates on speed limits.

7. **Intelligent Transportation System (electronic signs on roadway provide real time info to drivers)**
   Implementation: These will be signs on the Interstates that give information to make travel more efficient and cut down on emissions.

8. **Use TDOT "enhancements" grants to link greenways/bikeways/bike racks/pedestrian walkways**
   Implementation: These grants will be used in urban areas to enhance the use of bicycles and walking trails, and thus lower emission totals of automobiles.

9. **Adopt open burning restrictions during peak ozone periods**
   Implementation: This will require state mandates and cooperation with the Forestry Service on how to manage burning on high ozone days.

10. **Provide the public with information through education programs and community events**
    Implementation: Provide local events, news articles, and school information on the benefits of reducing emissions.

11. Develop an air quality web page to provide the public with information
Implementation: Add a page to the county website to provide information on air quality

12. Encourage the use of catalyst and low sulfur diesel
Implementation: Pass a resolution on the use of catalysts and low sulfur diesel in over-the-road vehicles.

13. Encourage car pooling and the use of area wide ride share incentives
Implementation: Encourage the use of the Commuter Choice Benefit, that pays part of car pooling with tax credits for the business owner; also encourage planned ride share programs with the Memphis-area.

March 24, 2004

Barry R. Stephens, P.E.
Technical Secretary
Tennessee Air Pollution Control Board
9th Floor, L & C Annex
401 Church Street
Nashville, TN 37243-1531

SUBJECT: Memphis Metropolitan Statistical Area
Early Action Compact March 31st Milestone
Air Quality Improvement Plan

Dear Mr. Stephens:

In accordance with the Early Action Compact entered into by Memphis and Shelby County in December, 2002, the Shelby County Air Quality Improvement Plan component is hereby submitted. It is our understanding that you will submit it to U.S. EPA Region IV with the component for Fayette and Tipton Counties by the March 31st deadline so as to obtain deferral of the effective date of the expected nonattainment designation. The Crittenden County, Arkansas and DeSoto County, Mississippi components of the Air Quality Improvement Plan will be submitted separately to U.S. EPA Region IV by thet deadline.

The Shelby County Commission adopted a Resolution on March 22nd in support of listed strategies to attain the 8-hour ozone standard not later than 2007. A copy of the unsigned Resolution is attached, and after signature a signed copy will be forwarded. The Mid-South Mayors Forum also supports the Plan and its included strategies. We will continue to work to attain the 8-hour National Ambient Air Quality Standard for ozone in Shelby County. I certify that I have the necessary authority to submit this Plan.

Sincerely,

AC Wharton
Mayor

Dr. Willie W. Herenton
Mayor

cc: Yvonne Madlock, Director, Memphis & Shelby County Health Department
John Fowlkes, CAO, Shelby County
Keith L. McGee, CAO, City of Memphis
Diane Arnst, Pollution Control, Memphis & Shelby Count Health Department
Rick Copeland, Division of Planning and Development
Kay Prince, U.S. EPA Region IV

EARLY ACTION COMPACT

Shelby County, Tennessee portion of
Memphis Metropolitan Statistical Area

AIR QUALITY IMPROVEMENT PLAN

Prepared by the
Memphis & Shelby County Health Department
Pollution Control Section

March 31, 2004 Milestone

For submittal to the
United States Environmental Protection Agency Region IV

through the Tennessee Department of Environmental and Conservation

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INTRODUCTION

Shelby County, Tennessee entered into a voluntary Early Action Compact (EAC) with the State of Tennessee; Crittenden County, Arkansas and the State of Arkansas; DeSoto County, Mississippi and the State of Mississippi; and the U.S. Environmental Protection Agency in December, 2002 to achieve attainment of the 8-hour ozone standard (promulgated July 17, 1997 and subsequently upheld by the U.S. Supreme Court), as soon as practicable but not later than December 31, 2007. Beginning in 1998, the same parties had entered into a Memorandum of Understanding to conduct the Arkansas-Tennessee-Mississippi Ozone Study (ATMOS) to improve understanding of conditions underlying ozone formation throughout the State of Tennessee and in the Memphis Metropolitan Statistical Area (including DeSoto County, Mississippi and Crittenden County, Arkansas), and to clarify the most effective control measures to further reduce ozone formation. ATMOS builds on the Southern Oxidant Study.

This Air Quality Improvement Plan (AQIP) demonstrates attainment of the 8-hour ozone standard by December 31, 2007 and maintenance of that standard through at least 2012 with emission inventories; a modeling analysis; emission reduction strategies; a component addressing emissions growth from January 1, 2008 through 2012; weight of evidence information; State and Local commitments to specific, quantified, and permanent control measures that, if approved by U.S. EPA will be Federally enforceable as part of the Tennessee State Implementation Plan (SIP), the Transportation Improvement Plan (TIP) or the Long Range Transportation Plan (LRTP); and specific implementation dates for adopted local control measures (other than voluntary measures).

1-Hour Ozone Standard and the Memphis & Shelby County Planning Area

Effective February 16, 1995, the Memphis & Shelby County air quality planning area was redesignated to Attainment status for the 1-Hour Ozone National Ambient Air Quality Standard that measures acute exposure. This National Ambient Air Quality Standard is set at 0.120 parts per million (or 120 parts per billion). A violation of the standard occurs when the fourth highest value at a monitor over a 3-year period exceeds the standard *or* when the second highest ozone value in a single year equals or exceeds 125 parts per billion. The fourth highest high value at any ozone monitor in the planning area is called the "1-hour ozone design value." Taking rounding into account, a violation occurs when the 3-year "design value" is equal to or greater than 125 parts per billion. Only Shelby County, Tennessee is in this planning area.

8-Hour Ozone Standard

On July 17, 1997 U.S. EPA promulgated an 8-hour average National Ambient Air Quality Standard to measure chronic exposure to ozone. This standard is set at 0.08 parts per million (or 80 parts per billion) averaged over each rolling 8-hour period throughout the ozone season. Ozone season is March 1st through October 31st for Shelby County. A violation of the standard occurs when the three-year average of the fourth highest value at a monitor exceeds the standard. The fourth highest value is called the "8-hour average

ozone design value." Taking rounding into account, a violation occurs when the 3-year average is equal to or greater than 85 ppb.

For the 3-year period 2000-2002, the 8-hour ozone design value for Memphis & Shelby County is 90 ppb. For the period 2001-2003, the design value is 89 ppb. Based on this data, a Nonattainment designation is expected on April 15, 2004.

8-Hour Ozone Air Quality Expanded Planning Area Boundaries

On March 28, 2000 the U.S. EPA issued a Memorandum entitled "Boundary Guidance on Air Quality Designations for the 8-Hour Ozone National Ambient Air Quality Standards (NAAQS or Standard)." EPA stated therein that the presumptive boundary is the Metropolitan Statistical Area (MSA). When the EAC was executed, the Memphis MSA consisted of the following counties: Fayette, Shelby and Tipton in Tennessee; Crittenden in Arkansas; and DeSoto in Mississippi. Based on the 2000 Census, the Office of Management and Budget expanded the Memphis MSA in 2003 to add the counties of Marshall, Tate and Tunica in Mississippi. Ozone levels continue to drop at all monitors in the Memphis MSA except at the Marion, Arkansas monitor in Crittenden County. The Tennessee Valley Authority and Arkansas Department of Environmental Quality have begun a study to confirm the accuracy of the Marion, Arkansas monitor.

Governors were provided an opportunity to make recommendations on planning area boundaries based on eleven criteria. Governor Ronnie Musgrove of Mississippi submitted a letter on July 14, 2003 recommending that DeSoto County be designated a separate nonattainment area from the rest of the Memphis MSA. EPA Region IV Administrator Jimmy Palmer notified Mississippi in a letter dated December 3, 2003, of its preliminary conclusion that DeSoto County should be included in the Memphis MSA Nonattainment planning area. Mississippi was given until February 6, 2004 to provide additional information to substantiate its recommendation. Desoto County contains three Title V Major Sources of NOx: Texas Gas Transmission, L.L.C.; Cogentrix (formerly Southaven Power), a baseload power plant that came on-line in 2003 [permitted at 341 TPY NOx and 38 TPY VOCs]; and Southaven Energy (owned by Duke Power), a peaking power plant that came on-line in 2003 [permitted at 897 TPY NOx and 49 TPY VOCs]. Both of these power plants have Best Available Control Technology limits: (1) Dry Low NOx combustion with Selective Catalytic Reduction (2) Dry Low NOx . Both of these power plants are located on State Line Road one-half mile south of the Shelby County line that is also the Tennessee State Line.

Governor Mike Huckabee of Arkansas "reluctantly" recommended that Crittenden County be included in the Memphis MSA Nonattainment planning area. EPA Region VI Administrator Richard Greene notified Arkansas in a letter dated December 3, 2003, of its preliminary conclusion that Crittenden County would be included in the Memphis MSA. In recent years the Crittenden County ozone monitor in Marion has recorded the highest ozone levels in the Memphis MSA, although 2003 data evidenced downward levels. Neither Arkansas nor Mississippi were subject to the NOx (Nitrogen Oxides) SIP

will be prepared by the Metropolitan Planning Organization (MPO). Some information is included below regarding expected emission reductions.

- CMAQ Improvement Projects in 2004-2006 TIP Adopted 8/21/03: $3.4 Million Annual Average Allocation

The following strategies are included in the TIP:

1. Congestion Management in Unincorporated Shelby County, Bartlett, Collierville, Germantown, And Millington — $1.0 Million each year

2. Deploy Traffic Signals Year 3 Throughout City of Memphis — $2.5 Million for 2004 only

3. City of Bartlett
   Signal Improvements at Sycamore View/Yale Road and at Memphis-Arlington/Bartlett Blvd. — $1.0 Million for 2004 only

VOC Emission Reductions	0.03 Tons Per Day
NOx Emission Reductions	0.01 Tons Per Day
CO Emission Reductions	0.22 Tons Per Day

4. Kimbrough/Dogwood Intersection Improvements in Germantown — $275,000 for 2004 only

VOC Emission Reductions	0.01 Tons Per Day
NOx Emission Reductions	0.01 Tons Per Day
CO Emission Reductions	0.02 Tons Per Day

5. Deploy Traffic Signals Year 4 City of Memphis — $1.0 Million for 2005, $1.0 Million for 2006

6. Communication Trunk Line For Signalized Intersections And CCTV control — $1.0 Million for 2004, $1.0 Million for 2005, $2.5 Million for 2006

   The Engineering Study Phase will produce no emission reductions but after construction has been completed:

VOC Emission Reductions	0.06 Tons Per Day
NOx Emission Reductions	0.12 Tons Per Day
CO Emission Reductions	0.36 Tons Per Day

7.	Medical Center Rail Extension [Madison Avenue Trolley Line opened March 15, 2004]	$1.00 Million for 2004 $1.05 Million for 2005 $1.10 Million for 2006
8.	Memphis Area Rideshare 136 vans at 92 organizations More 12-passenger vans to be added	$ 900,000 for 2004 $ 900,000 for 2005 $ 900,000 for 2006

Vanpool Emission Reductions (155 Vans in service)

VOC Emission Reductions	23.24 Tons Per Year
NOx Emission Reductions	115.35 Tons Per Year
CO Emission Reductions	214.73 Tons Per Year

Fulltime Employee Carpool Emission Reductions (600 carpools)

VOC Emission Reductions	8.44 Tons Per Year
NOx Emission Reductions	5.62 Tons Per Year
CO Emission Reductions	78.37 Tons Per Year

Part-time Employee Carpool Emission Reductions (240 carpools)

VOC Emission Reductions	4.05 Tons Per Year
NOx Emission Reductions	2.70 Tons Per Year
CO Emission Reductions	37.62 Tons Per Year

Combined Tons Per Day Reductions:

VOC Emission Reductions	0.10 Tons Per *Day*
NOx Emission Reductions	0.06 Tons Per *Day*
CO Emission Reductions	0.10 Tons Per *Day*]

9.	MATA Transit Centers Suburban areas	$ 875,000 for 2004 only (Section 5307 and Section 5309 funds also to be used)
10.	I-40/Covington Pike Interchange Improvement	$ 400,000 for 2004 $2.66 Million for 2005
11.	4th I/M Inspection Station to serve 55,000 annexed residents in City of Memphis	$3.550 Million for 2004 $1.0 Million for 2005
	VOC Emission Reductions NOx Emission Reductions CO Emission Reductions	0.09 Tons Per Day 0 3.43 Tons Per Day
12.	Farmington/Germantown Road Intersection Improvements	$ 60,000 for 2004

VOC Emission Reductions	0.02 Tons Per Year
NOx Emission Reductions	0.01 Tons Per Year
CO Emission Reductions	0.03 Tons Per Year

In addition, CMAQ holdover funds will continue to be expended to complete CMAQ projects that have not yet been completed including Deployment of Traffic Signal Systems Year 2 ($3.4 Million); Restoration of Signal Loop System ($846,000); Upgrade of Traffic Signals ($462,805); Design and Build Traffic Signal Systems ($396,647); and Signal Improvements at specified locations ($2.1 Million). Traffic Signal projects were delayed during a dispute with Memphis Light Gas & Water over a "per pole fee" that has since been resolved. About 200 signals will be synchronized.

A recently completed CMAQ Project:

3. Purchase of six 40-foot buses that meet new urban bus emission standards to replace buses at end of useful lives

VOC Emission Reductions	0.03 Tons Per Day
NOx Emission Reductions	0.11 Tons Per Day

SAI, Inc. has modeled 0.16 Tons Per Day NOx; 0.06 Tons Per Day VOCs; and 0.66 Tons Per Day CO reductions for all CMAQ projects for the EAC.

- Long Range Transportation Plan (LRTP) 2026

Freeway Incident Management: The State of Tennessee has implemented the Tennessee Help Truck Program along I-240, I-40, I-55, and State Route 385. It clears stalled vehicles and vehicles involved in accidents from travel lanes. Congestion is reduced significantly. The Freeway Management System will enhance this strategy.

Freeway Management System: The Memphis Intelligent Transportation System Regional Architecture adopted by the Memphis MPO allowed the Tennessee Department of Transportation to program $445.5 Million into the TIP for Early Phase and First Phase implementation. These phases include communication lines, cameras, speed detection, dynamic message signs, highway advisory radio, 511 messaging, and a traffic control center. The State of Mississippi has begun operating video surveillance on I-55 in northern DeSoto County.

High Occupancy Vehicle Lanes have been built on I-40 and I-55 and will be extended, as described in Appendix K of the LRTP. (Selected pages from Appendix K are attached as an **Exhibit**). Two HOV projects have been completed: (1) I-40 between I-240 and Germantown Road and (2) I-55 from I-240 to the Mississippi State Line.

Four new HOV Corridor projects are in the 2004-2006 TIP as under study:

a. I-240 South, Lamar Avenue to Nonconnah Parkway
b. I-240 Midtown from I-40 to I-55

c. I-55 from Mississippi State Line to Goodman Road
d. I-240 from Walnut Grove to Nonconnah Parkway

Inter-Modal Facilities: An Arena Inter-Modal Transfer Facility is planned near the new FedEx Forum National Basketball Association Grizzlies Stadium. A South Inter-Modal Terminal has been planned for the Whitehaven are in southern Memphis.

Park and Ride Lots: Six (6) such lots have been planned at key interchanges on I-40 and I-55 that have HOV lanes. The two Inter-Modal Facilities will also have Park and Ride Lots.

City of Memphis Bicycling Network: Phase I is scheduled for 2004 to include a 40-mile, five loop, shared roadway that extends west from Downtown Memphis to Kirby Parkway to the east. Every half-mile signs will alert motorists that it is part of the Bicycling Network.

City of Bartlett Bicycle Routes are planned parallel to Fletcher Creek greenbelt and near the Bartlett Wastewater Treatment Plant.

Lakeland Bicycle Routes are planned to connect Canada Road to Seed Tick Road; to extend northward along Scott's Creek to the Loosahatchie River, and to inter-connect along Cobb Road, Monroe Road, and Canada Road. Developers would construct paths as development occurs.

Germantown Bicycle Routes would connect to City of Memphis routes at Wolf River Boulevard, Neshoba Road, and Messick Road.

Wolf River and Nonconnah Creek Greenbelts phased over the next 15 years and involving work by the U.S. Army Corps of Engineers would also add bicycle paths and links.

Tennessee Designated Bicycle Route Highway 64 is an east-west route. The State plans to add more State routes.

B. STATIONARY SOURCE MEASURES

- Nitrogen Oxides (NOx) SIP Call Reductions

The Tennessee Valley Authority (TVA) Allen Steam Plant (coal-fired power plant) is subject to the NOx SIP call. By May 5, 2002 Selective Catalytic Reduction (SCR) had been installed on two of the three Electric Generating Units (EGU) and a reduction of approximately 6,600 Tons of NOx from Acid Rain Allowable permit limits was achieved during the NOx SIP call control season (May 1-September 30). By May 5, 2003 SCR had been installed on the third EGU, achieving additional reductions of about 2,200 Tons of NOx. These controls result in NOx reductions of 57.5 Tons Per Day. Installation and operation was completed one year before the applicable Federal deadline. Note that

neither Arkansas nor Mississippi were subject to the NOx SIP Call. SAI, Inc. computer modeling shows that both Louisiana and Texas contribute to ozone formation in the Memphis MSA, and neither of these states were subject to the NOx SIP Call. The proposed Interstate Transport Rule would not include Texas for ozone purposes.

- New Stationary Source Ozone Action Day NOx Reduction Measure

The TVA Allen Steam Plant has agreed to an additional enforceable permit condition in its Title V Major Source Operating Permit requiring emissions reductions if an ozone exceedance is forecasted for the next day (predicted concentrations of 75 ppb or more) during the months of April and October beginning in 2005. Historically, Shelby County has experienced ozone exceedances in April in only in one year--during the 2003 ozone season. Occasional October ozone exceedances have occurred. The Memphis & Shelby County Pollution Control Section's Meteorologist will advise the assigned permit engineer and the facility during April and October if the next day is a predicted ozone exceedance day. In that event, the TVA Allen Steam Plant will operate its Selective Catalytic Reduction controls on all three EGUs throughout the next day. The 30-day public comment period for the TVA Title V permit will be opened in April.

- New Stationary Source VOC Reduction Measure

Solae, LLC is switching to an alternative fuel by the end of 2004. This is authorized by its Title V Major Source Operating Permit. VOC reductions of 39 TPY or 0.10 Tons Per Day are expected. The Title V permit will be modified to add hourly emission limits.

- Inspection of Stage I Vapor Recovery Equipment

About 550 gasoline stations in Shelby County installed Stage I Vapor Recovery in the mid-1990s. The Pollution Control Section conducted annual inspections 1995-1997 to confirm installation. This equipment has not been inspected since 1997, and it is possible that some gaskets have deteriorated. Each station will be inspected between April, 2004 and April, 2005 to ensure maximum reductions from this strategy. The Section will keep records on any compliance problems identified. It is expected that compliance is high, and inspections will confirm that level of confidence.

- Pending Tennessee Department of Environment and Conservation Nitrogen Oxides Reductions Rule for Uncontrolled Stationary Sources [NOx RACT Rule]

A. Tennessee proposed a rule to require sources with uncontrolled emissions of 50 Tons Per Year or more from the entire facility to install Reasonably Available Control Technology (RACT). The Memphis & Shelby County Health Department (the Department) has identified seven (7) facilities that have uncontrolled 50 TPY NOx emission units.

Facility Name	Tons

1.	Cargill	Unit #1	119
		Unit #2	360
		Unit #3	601
2	Buckeye		66.1
3	Dupont	Unit #1	170
		Unit #2	151
		Unit #3	62.7
		Unit #4	284
4	Premcor		660
5	PCS Nitrogen	Unit #1	627
		Unit #2	183
6	Crompton	Unit #1	109
		Unit #2	105
7	Atofina		114
	TOTAL TONS		3611.8
	50% NOx Reductions		1805.9 Tons Per Year or 4.9 Tons Per Day

A 50% emission reduction from application of NOx RACT on these units is estimated by the Department to result in NOx reductions of 4.9 Tons Per Day. In order to maintain a Certificate of Exemption from State supervision, each local air pollution control program in Tennessee would adopt a standard at least as stringent as this standard. Pending local adoption of the new standard, the Tennessee Air Pollution Control Program would have enforcement authority for this rule.

The Department would present a local NOx RACT Rule for adoption in the City of Memphis in June, 2004 if the State rule has not been adopted by then. Six of the seven facilities are within the City of Memphis. One (PCS Nitrogen) is in the unincorporated portion of Shelby County. [See "Additional Weight of Evidence" below concerning emissions from that facility.]

B. During the August 19, 2003 public hearing and preceding public comment period, industry requested that the rule apply to individual emission units that emit 25 TPY or more. The Tennessee Air Pollution Control Board has not yet finalized this rule. Twelve (12) *additional* emission units would be subject to NOx RACT at the 25 TPY threshold:

	Facility Name	Tons
1.	Con Agra Grocery Products	28.23
2.	Southern Cotton Oil Company Division of Archer-Daniels-Midland	33.3
3.	Buckeye Technologies, Inc.	42.2
4.	The Premcor Refining Group, LLC	42.8 Unit #1 29.4 Unit #2

		29.2 Unit #3
5.	Protein Technologies International	29.0 Unit #1
		27.1 Unit #2
6.	BFI South Shelby Landfill	28.0
7.	Lucite International	26.7
8.	Federal Express Memphis Air Operations	43.4
9.	BFI Waste Systems of North America	28.0
	TOTAL TONS	387.4 TONS
	50% NOx reductions	193.7 TPY
		0.5 Tons Per Day

If the State Rule or a local rule applicability is finalized at the 25 TPY per emission unit threshold, 5.4 Tons Per Day NOx Reductions would result.

- Ozone Action Day Forecasting and Burning Ban

A new permit condition has been added to each permit issued for an air curtain destructor to be used for land clearing within Shelby County beginning in Ozone Season 2003.The requirement is that the permittee contact the Department's Computerized Local Air Index Reporting (CLAIR) system recorded line at (901) 544-7489 or 544-7490 before igniting a fire to determine if it is a Burning Day or a No Burning Day. Department staff visit each permittee site on No Burning Days to verify that burning is not occurring or to instruct the permittee to extinguish any such burning. The Department's Meteorologist performs the forecasting and adds the Burning Day/No Burning Day information to the forecasts that are distributed to the media and the AirNow map on the Worldwide Web. Estimated emission reductions of 0.3 Tons Per Day NOx; 7.17 Tons Per Day VOCs; and 13.14 Tons Per Day CO would result from this measure.

Permittee compliance has been good throughout the ozone season. This requirement was tested in particular during the burning of debris generated by a July 22, 2003 "land hurricane" of fifteen minutes' duration. Twelve special storm debris burning locations were sited and operated during the months of August, September and October 2003. None of these sites were allowed to burn on those days for which ozone problems were forecasted.

- Pending Tennessee Anti-Idling and Smoking Vehicle Regulatory Proposal

The Tennessee Air Pollution Control Board has opened a public comment period on proposed new Chapter 1200-3-37 Mobile Source Prohibitions. This rule would prohibit operation for more than a period of 5 consecutive seconds of a gasoline-powered mobile source that emits visible smoke from its exhaust pipe. It would prohibit operation for more than a period of 10 consecutive seconds of a diesel-powered mobile source that emits visible smoke from its exhaust pipe. Some exemptions are listed. In order to maintain a Certificate of Exemption from State supervision, each local air pollution control program in Tennessee would adopt a standard at least as stringent as this

standard. Pending local adoption of the new standard, the Tennessee Air Pollution Control Program would have enforcement authority for this rule. The following emissions reductions resulting from diesel engines are estimated: 0.07 Tons Per Day NOx; 0.01 Tons Per Day VOCs; and 0.07 Tons Per Day CO.

- Pending Tennessee Anti-Tampering Regulatory Proposal

The Tennessee Air Pollution Control Board has opened a public comment period on proposed new Chapter 1200-3-36 Motor Vehicle Tampering. Tampering with the emissions control system on a motor vehicle would be prohibited even for vehicles not subject to an Inspection and Maintenance program. In order to maintain a Certificate of Exemption from State supervision, each local air pollution control program in Tennessee would adopt a standard at least as stringent as this standard. Pending local adoption of the new standard, the State Air Pollution Control Program would have enforcement authority for this rule.

- Truck Speed Limit of 55 MPH During Ozone Season

According to the Insurance Institute for Highway Safety website, ten (10) states have differential speed limits for cars and trucks. Of these ten states, five (5) limit truck speed limits to 55 MPH on Rural Interstates [California, Illinois, and Michigan since 1996; Ohio and Oregon since 1987]. Three (3) of the ten states have limited truck speed limits to 55 MPH on Urban Interstates since 1996 [California, Michigan, and Ohio].

The Shelby County Commission adopted a Resolution on March 22, 2004 in support of a posted and enforced 55 MPH speed limit for trucks during ozone season in all Early Action Compact areas in Tennessee. This was the speed limit for all vehicles on the Interstates in Shelby County until about one year ago, when the Tennessee Department of Transportation raised the speed limit for all vehicles to 65 MPH on some segments of the Interstate, without consulting the Memphis Metropolitan Planning Organization.

Restoring the 55 MPH speed limit would add 4 minutes and 9 seconds travel time on the I-40/240 North Loop from the eastern Shelby County boundary to the Mississippi River, and it would add 6 minutes 6 seconds travel time on the I-40/240 South Loop/I-55 to the Mississippi State Line. A copy of the unsigned Resolution is attached as an **Exhibit**. A copy of the signed resolution will be forwarded when it is available. The signed Resolution will also be forwarded to the Commissioner of the Tennessee Department of Environment and Conservation and to the Commissioner of the Tennessee Department of Transportation. Expected NOx emission reductions in Shelby County are 5.9 Tons Per Day.

The Tennessee Air Pollution Control Board at its March 10th meeting expressed its intent to request that the Commissioner of the Tennessee Department of Environment and Conservation convene a special meeting of the Interagency Task Force—the Tennessee Department of Transportation is also a member—to focus on the truck speed limit issue and achieve a change in the Early Action Compact areas because this is the single most

effective strategy to reduce NOx emissions. It addresses emissions from trucks that are not garaged/registered in Shelby County that would not be subject to an Inspection and Maintenance program but that emit significant amount of air pollutants into the ambient air that is measured at Shelby County air monitors.

Tennessee Code Annotated §55-8-152(c) defines "truck" as used in the speed limit provisions as "any motor vehicle of one and one half (1 ½) ton rated capacity or more." Section 55-8-152(b) makes it illegal for a truck to drive in excess of 50 MPH "upon the highways of this state" except as provided in § 55-8-152(d). The exception in (d) authorizes trucks to travel up to 65 MPH on an Interstate and on 4-lane controlled access federal or state routes. Tennessee Code Annotated § 55-8-152(g)(1)(a) authorizes TDOT to lower speed limits "as it deems appropriate to concerns regarding the roadway, traffic, or other conditions." This authority is in addition to Tennessee Code Annotated § 55-8-153, which authorizes the Tennessee Department of Transportation to lower the speed limits in business, urban or residential districts, congested areas, dangerous intersections "or whenever and wherever the department shall determine, upon the basis of an engineering and traffic investigation that the public safety requires a lower speed limit." No rulemaking procedures are required under Tennessee laws to change speed limits.

- Pending Revisions to Tennessee Light-Duty Motor Vehicle Inspection and Maintenance Rule

Chapter 1200-3-29 would be amended to define Category I and Category II Counties. The Tennessee Air Pollution Control Board would classify counties and two sets of I/M requirements would apply. The Board is considering I/M with Onboard Diagnostics and gas cap tests.

- Pending Tennessee General Assembly House Bill 3498/Senate Bill 3410

This legislation would amend Inspection and Maintenance provisions found in Tennessee Code Annotated § 55-4-100 *et seq.* It would authorize the Tennessee Air Pollution Control Board to designate areas that need I/M to attain or maintain the National Ambient Air Quality Standards, or a County Commission could pass a resolution establishing I/M for the County. It would also add a statutory Anti-Tampering provision.

Each of the emission reduction measures embodied in an ordinance/rulemaking would become SIP Revisions for the Shelby County component of the Tennessee SIP.

C. VOLUNTARY MEASURES

- Shelby County Smart Growth Initiative

Phase I includes 12 steps that range from updating land development regulations unchanged since 1986 to allow for more innovative building and development techniques to collection of an adequate facilities tax.. Shelby County adopted a residential corridor ordinance and is in the process of designating residential corridors. Memphis and Shelby

Early Action Compact process. It is anticipated that as a result of Federal negotiations, one or more new VOC test methods will be promulgated to address the corn milling processes at issue. Cargill and EPA's Office of Air Quality Procedures and Testing are currently working to determine the accuracy and reliability of various approaches. Testing pursuant to new methods may demonstrate that greater emissions reductions have, in fact, been achieved at the Memphis Cargill, Inc. plant. Reductions of Nitrogen Oxides (NOx) are also expected to result from the global settlement reductions.

ADDITIONAL WEIGHT OF EVIDENCE

Source Shutdown and Resulting Inflated Emissions Inventory: Effective June 4, 2003, PCS Nitrogen, Inc. shut down its operations, pending a reduction in natural gas prices. PCS Nitrogen, Inc. hopes to restart by June of 2005 to retain "existing source" status, but natural gas prices have not dropped to levels at which the plant could profitably operate and are not expected to drop to such levels for the foreseeable future. This plant makes fertilizers and competes with South American suppliers. Included in the 2002 Emissions Inventory used by SAI, Inc. for prediction of 8-Hour Average Ozone concentrations in 2007 and 2012 are 813.76 Tons Per Year [2.23 Tons Per Day] of NOx; 374.82 Tons Per Year [1.03 Tons Per Day] of Carbon Monoxide; and 61.79 Tons Per Year [0.017 Tons Per Day] of VOCs for PCS Nitrogen, Inc. that very likely will not be emitted in the 2004-2007 timeframe.

Memphis International Airport Emission Reductions

a. Electrification at Gates: Since the mid-1980s, a 400 hertz electrical system at the gates has provided power for heating, cooling and other electrical needs of planes while they are parked at the gate. Related emissions reductions are not quantified in the computer modeling for the Memphis MSA.
b. FedEx Conveyor System at Gates: Tugs are no longer used by FedEx.since installation of a conveyor system. Related emissions reductions are not quantified in the computer modeling for the Memphis MSA.
c. Hybrid Fueling: Instead of using fuel tenders (large trucks), lower emitting hybrids are used to fuel planes at this airport. Related emissions reductions are not quantified in the computer modeling for the Memphis MSA.
d. New Underground Fuel Pipeline for FedEx: FedEx has paid for construction of this pipeline from Arkansas under the Mississippi River to the Memphis International Airport. It is eliminating truck deliveries of aviation fuel to FedEx and associated evaporative emissions. It will also double the capacity and throughput of aviation fuel to FedEx.

e. Automated Vehicle Identification System (AVI): The Airport Authority spent $1 million to construct this system in 2003. It is designed to measure "dwell time" (idling time) at the curb by shuttles and taxis. After the shakedown period, a baseline will be developed. Thereafter, financial incentives will be offered for *reduced* idling time. A recordkeeping system will enable quantification of emission reductions at that point, but related emissions reductions are not quantified in the computer modeling for the Memphis MSA yet.

f. Planned Consolidated Ground Transport Facility: A parcel of land already owned by the Airport Authority has been dedicated for this use. The project is on hold due to depressed passenger use of the airport after the September 11, 2001 terrorism incidents involving airplanes. Construction of the facility is estimated at $50 million. All rental car agencies would be relocated to this parcel. Rental car agencies would contract with the Airport Authority and pay a fee. The project is designed to eliminate 80% of the shuttles from rental car agencies. Quantification should be available if this facility is constructed between 2005-2007.

Memphis Light Gas & Water Energy Efficiency Initiatives:
EcoBuild: This is a voluntary 5-year program for energy efficient construction techniques similar to the International Building Code for new residential buildings to be constructed 2003-2007. Builders have signed up with MLG&W to participate and projected emission reductions by 2007 are:

10.2 TPY NOx
4,117.0 TPY CO_2
23.0 TPY SOx

COMBINED EXPECTED VOC AND NOX EMISSION REDUCTIONS PER DAY

SAI, Inc. has modeled 0.16 Tons Per Day NOx; 0.06 Tons Per Day VOCs; and 0.66 tons Per Day CO reductions. Upon completion of all of the listed CMAQ projects, 0.32 Tons Per Day NOx ; 0.34 Tons Per Day VOCs; and 4.16 tons Per Day CO reductions are expected—at a minimum. Only partial quantification is currently available for some of the projects. An additional 5.9 Tons Per Day would result from the 55 MPH truck speed limit.

In addition, using the 2002 Emission Inventory as the starting point, the following reductions are expected from stationary sources: 65.9 Tons Per Day NOx (including NOx SIP Call reductions); 8.07 Tons Per Day VOCs; and 14.24 Tons Per Day CO.

The grand total emissions reductions since 2002, then would be:

71.22 Tons Per Day NOx
8.41 Tons Per Day VOCs
18.40 Tons Per Day CO.

These totals do not include the TVA Ozone Action Day emission reductions.

SUMMARY SHEET

I. Description of Item

Resolution in support of a 55 MPH speed limit for trucks during Ozone Season in early action compact areas.

II. Source and Amount of Funding

N/A

III. Resolution Items

1. This resolution supports the early action compact to attain the 8-hour ozone standard not later than 2007 in Shelby County.

2. Shelby County expresses its support for the following air pollution measures.

① A POSTED AND ENFORCED 55 MPH SPEED LIMIT FOR TRUCKS DURING OZONE SEASON IN EARLY ACTION COMPACT AREAS.

② ANTI-IDLING PROVISIONS FOR DIESEL ENGINES IN EARLY ACTION COMPACT AREAS.

③ STATEWIDE ANTI-TAMPERING PROVISIONS.

④ STATEWIDE REQUIREMENTS FOR REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT) FOR SOURCES OF NITROGEN OXIDES.

⑤ OPEN BURNING RESTRICTIONS DURING OZONE ACTION DAYS.

⑥ CONGESTION MITIGATION AND AIR QUALITY PROJECTS INCLUDING INTERSECTION IMPROVEMENTS SIGNAL SYNCHRONIZATION, FREEWAY SERVICE PATROL IMPROVEMENTS, AND THE INTELLIGENT TRANSPORTATION SYSTEM.

⑦ STAGE 1 VAPOR RECOVERY IN EARLY ACTION COMPACT AREAS.

⑧ VOLUNTARY MEASURES INCLUDING, BUT NOT LIMITED TO, THE SHELBY COUNTY SMART GROWTH INITIATIVE (April 21, 2003) AND OZONE ACTION DAY ACTIVITIES.

IV. Additional Information Relevant to Approval of this item

Administration recommends approval of this Resolution.

WHEREAS, the United States Environmental Protection Agency announced in the Federal Register published December 16, 2003 its intent to defer the effective date of a nonattainment designation for Early Action Compact Areas that take voluntary early actions to reduce ozone in order to attain the 8-hour ozone standard no later than 2007 and that meet all milestones for such Early Action Compacts; and

WHEREAS, Shelby County and the City of Memphis entered into an Early Action Compact with Fayette and Tipton Counties in Tennessee and the Tennessee Department of Environment and Conservation; DeSoto County, Mississippi and the Mississippi Department of Environmental Quality; Crittenden County, Arkansas and the Arkansas Department of Environmental Quality; and the United States Environmental Protection Agency in December, 2002 in order to protect the health of the citizens of the Memphis Metropolitan Statistical Area and to attain the 8-hour ground level ozone standard as expeditiously as possible;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF SHELBY COUNTY, TENNESSEE, to support the early action compact to attain the 8-hour ozone standard not later than 2007 in Shelby County.

BE IT FURTHER RESOLVED, that Shelby County expresses its support for the following air pollution control measures:

1. A POSTED AND ENFORCED 55 MPH SPEED LIMIT FOR TRUCKS DURING OZONE SEASON IN EARLY ACTION COMPACT AREAS.

2. ANTI-IDLING PROVISIONS FOR DIESEL ENGINES IN EARLY ACTION COMPACT AREAS.

3. STATEWIDE ANTI-TAMPERING PROVISIONS.

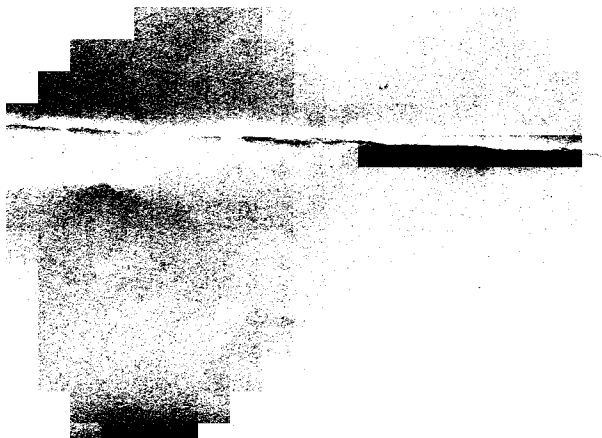
4. STATEWIDE REQUIREMENTS FOR REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT) FOR SOURCES OF NITROGEN OXIDES.

5. OPEN BURNING RESTRICTIONS DURING OZONE ACTION DAYS.

6. CONGESTION MITIGATION AND AIR QUALITY PROJECTS INCLUDING INTERSECTION IMPROVEMENT, SIGNAL SYNCHRONIZATION, FREEWAY SERVICE PATROL IMPROVEMENTS, AND THE INTELLIGENT TRANSPORTATION SYSTEM.

7. STAGE 1 VAPOR RECOVERY IN EARLY ACTION COMPACT AREAS.

8. VOLUNTARY MEASURES INCLUDING, BUT NOT LIMITED TO, THE SHELBY COUNTY SMART GROWTH INITIATIVE (April 21, 2003) AND OZONE ACTION DAY ACTIVITIES.



A C Wharton, Jr.
County Mayor

Date _____

ATTEST:

_____
Clerk of County Commission

US EPA ARCHIVE DOCUMENT

Shelby County Smart Growth Initiative

Mayor A C Wharton, Jr.
April 21, 2003

US EPA ARCHIVE DOCUMENT

Shelby County Smart Growth Initiative

Phase I Projects and Programs

I. Review and Update the Land Development Regulations

II. Implement Shelby County Residential Corridor Ordinance

III. Review Capital Improvement Program

IV. Develop Memoranda of Understanding with Suburban Municipalities

V. Amend the Major Road Plan

VI. Create a Shelby County Landmarks Commission

VII. Adopt an Adaptive Reuse Policy for Public Buildings and Functionally Obsolete Commercial Structures

VIII. Revise Sign Regulations to Eliminate Pole Signs

IX. Adopt an Ordinance Prohibiting Posting of Notices in Public Rights-of-Way and on Public Property

X. Develop a Local Street Network Plan

XI. Develop Minimum Standards for Construction on Homestead Lots and other Residential Real Estate Sold by Shelby County

XII. Enact an Adequate Facilities Tax

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Shelby County Smart Growth Initiative

Phase I

Introduction

In the Fall of 2002 Mayor A C Wharton convened a series of meetings of the Alliance for Equitable Growth. The Alliance for Equitable Growth brought together a broad cross section of Shelby County citizens who are interested in formulating policies that will allow the County to grow in a way which will protect the environment, reinvest in urban areas, brings economic opportunity to all residents, provide for intelligent infrastructure investment and stimulate housing choices. The Alliance for Equitable Growth culminated in a Smart Growth Summit held in March that was attended by over 300 citizens, community leaders, homebuilders and developers, environmentalists, neighborhood activists, educators, city planners, prominent business persons and government officials.

As a result of the Alliance for Equitable Growth process and the Smart Growth Summit, a Smart Growth Initiative has been formulated which will help Shelby County policy leaders, citizen groups and government entities guide growth and development not only in suburban and rural areas, but in older urban areas as well.

Smart Growth is as much about revitalizing and redeveloping older areas as it is about guiding the type, amount and timing of new communities on the urban fringe. Practicing Smart Growth is not just about how many homes and businesses that are built each year, it is about providing a quality of life to all Shelby County residents that allows everyone to live where they want to live, go to the schools they wish to attend, have access to shopping and employment centers and while protecting the environment. Smart Growth is fiscally responsible.

The Phase I Initiative

The purpose of Phase I of the Smart Growth Initiative is to present to the County Commission a series of policies and programs that can be started within a reasonable timeframe to begin improving the physical, social and economic conditions in all of Shelby County. It provides for some new tools to help in decision-making and calls for reworking and updating some tools that are already in hand.

There are 12 steps in the Phase I. They encompass many subject areas from sign control to transportation policy; from protecting historic resources to revitalizing obsolete commercial and industrial properties; from updating basic land development regulations to allow for more innovative building and development techniques to recovering some of the monumental costs the County has incurred as a result of past land development policies.

Phase I is the first step in a continuous process. Additional policies and programs that address the objectives identified through the Alliance for Equitable Growth will be outlined in the next few months. Phase II of the Smart Growth Initiative will identify additional environmental policies, urban infrastructure programs, housing choice and economic development programs.

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I.

Land Development Regulations

(Zoning and Subdivision Regulations*)*

The Memphis and Shelby County zoning Ordinance was originally adopted in 1980 and the Subdivision Regulations were adopted in 1986. There is a need to review and update both of these important planning tools to reflect the principles and techniques of smart growth.

A Request for Proposals will be issued within the next several weeks to retain the services of a nationally recognized consulting firm to develop a new Land Development Code for Memphis and Shelby County. The new Code will build on what we have now, but will reflect the challenges of developing our County in the 21st Century. We hope to address the unique challenge of offering regulations which enable both the redevelopment of inner-City Memphis and encourage healthy, new development on our urban fringe.

The updated land development regulations will consider such factors as:

- Creation of walkable communities
- Breaking down barriers for redevelopment and revitalization of inner City Memphis
- Creating and encouraging compact development on the urban fringe
- New, workable mixed use zoning districts that blend commercial and residential uses (such as those created in the South Central Business District – residences on 2nd floor, offices/shops on street level)
- Approving the appearance and accessibility of neighborhood commercial districts
- Provide for new roadway design standards that offer smaller street widths in neighborhoods and improved connectivity
- Eliminated cove street developments
- Eliminate 2 acre subdivisions on septic systems which disguise the need for urban services
- Requiring a master plan for all commercial planned developments and subdivisions
- Development of subdivision standards that are reflective of the entire community, not just the suburban areas; differentiate standards within the I-240 loop and the edge community
- Meaningful preservation of open space and natural areas
- Meaningful contributions and dedications by the development community
- Preserve the urban fabric
- Allow for new and unique employment arrangements
- Consider innovative design

II.

Implement Residential Corridor Ordinance in the County

The purpose of this designation in comprehensive planning is to help maintain the residential land use along selected road segments. Shelby County has recently adopted a residential corridor ordinance and the next step is to designate specific roads, which will be set aside for residential development. The Grays Creek Plan recommended that seven road segments be designated as residential corridors.

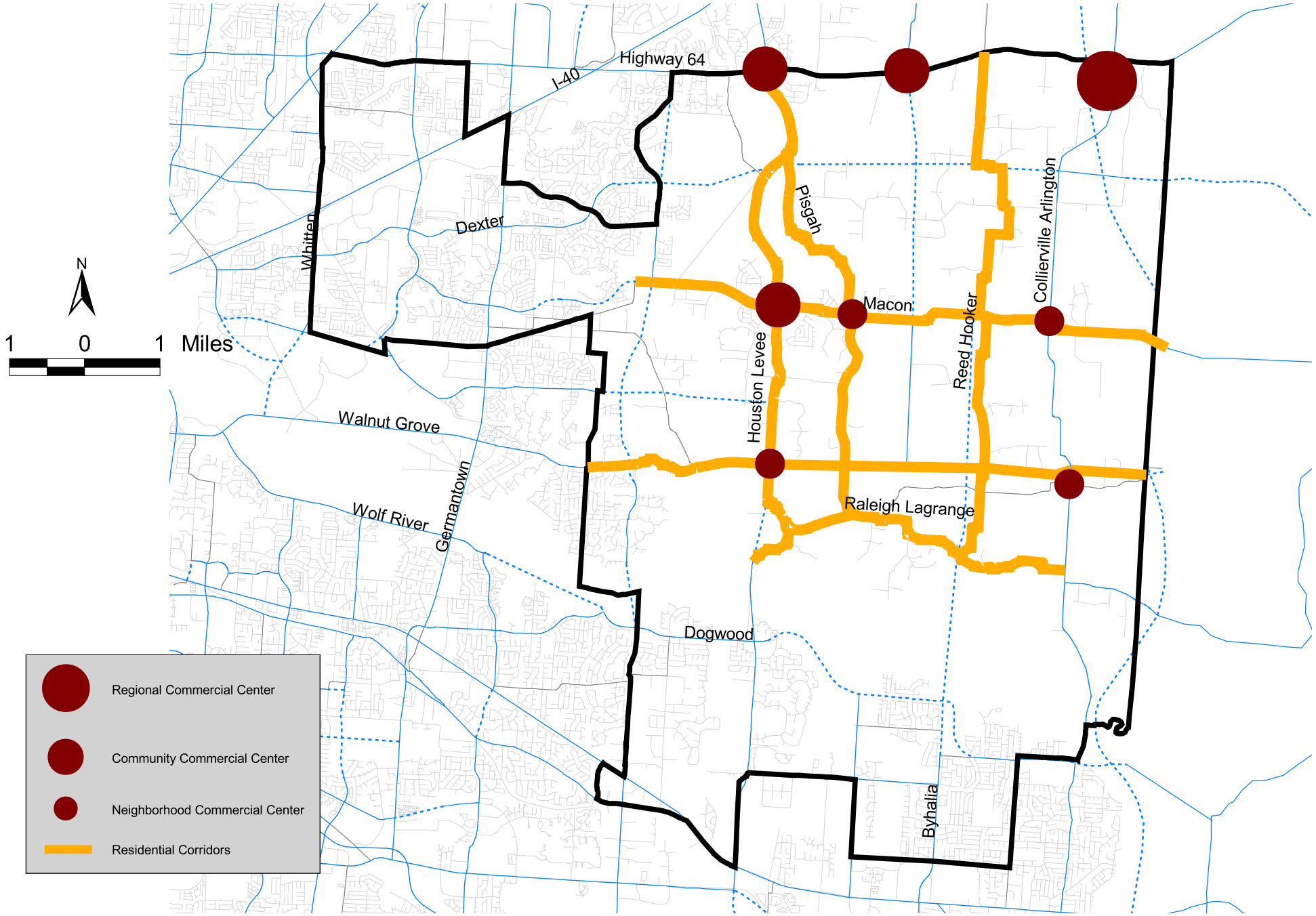
Within the next 60 days, the Division of Planning and Development will present legislation to the County Commission to designate portions of the following roadways as residential corridors:

Pisgah
Houston Levee
Reed Hooker
Walnut Grove
Raleigh LaGrange
Macon

Following is a map, which illustrates the location of the proposed residential corridors.

US EPA ARCHIVE DOCUMENT

Gray's Creek Residential Corridors



Memphis & Shelby County Division of Planning and Development, DRS, April 16, 2003

US EPA ARCHIVE DOCUMENT

III.

Review Capital Improvement Projects for Compliance with County Plans and Policies

Designate the Division of Planning and Development as the central review agency for all projects prior to appropriation of funds

At present capital improvement projects funded totally or partially by County are not reviewed to determine if they comply with the adopted plans and policies of Shelby County Government. The Joint Resolution/Ordinance 2524 that created OPD requires that the County submit all CIP projects to Planning and Development to assure that they comply with adopted plans and policies

Planning and development should consider location factors that embrace the tenets of smart growth while measuring the fiscal impact of the projects. The community need, national/regional capacity and design standards as well as the appearance of the projects should be considered.

The projects should also be reviewed taking into consideration the provision for and/or participation of the service/project by other local governments.
This type of comprehensive review will enable the County to plan for orderly growth and will ensure that the placement and timing of construction of facilities is appropriate based on demonstrated need and future demographic/economic projections.

US EPA ARCHIVE DOCUMENT

IV.

Develop Memoranda of Understanding with Suburban Municipalities for Joint Development Review

There is a need to negotiate formal agreements with the suburban cities for review of land development applications within their respective annexation reserve areas

The Chapter 1101 process created the Shelby County Growth Plan. This plan is a consensus of all cities and Shelby County on how the County will grow in the next 20 years. The Shelby County Growth Plan designated urban growth areas where urbanization is expected to occur in the next 20 years and rural areas which will remain at low density, protected from urban encroachment.

As a result of that planning process, municipal annexation reserve areas for every municipality in Shelby County were delineated. In order to correctly implement that plan, it is essential that planning and land development approvals be coordinated among all government entities. One step towards achieving that coordination would be to develop agreements between Shelby County and each of the suburban municipalities which recognize their future land use and service plans for their respective urban growth areas.

When the County Commission considers a case that is within a municipal annexation reserve area they should be provided with the position of the municipality in regard to its future land use and service plan. The Land Use Controls staff can not always provide the information because there is no formal requirement for any city to provide its position.

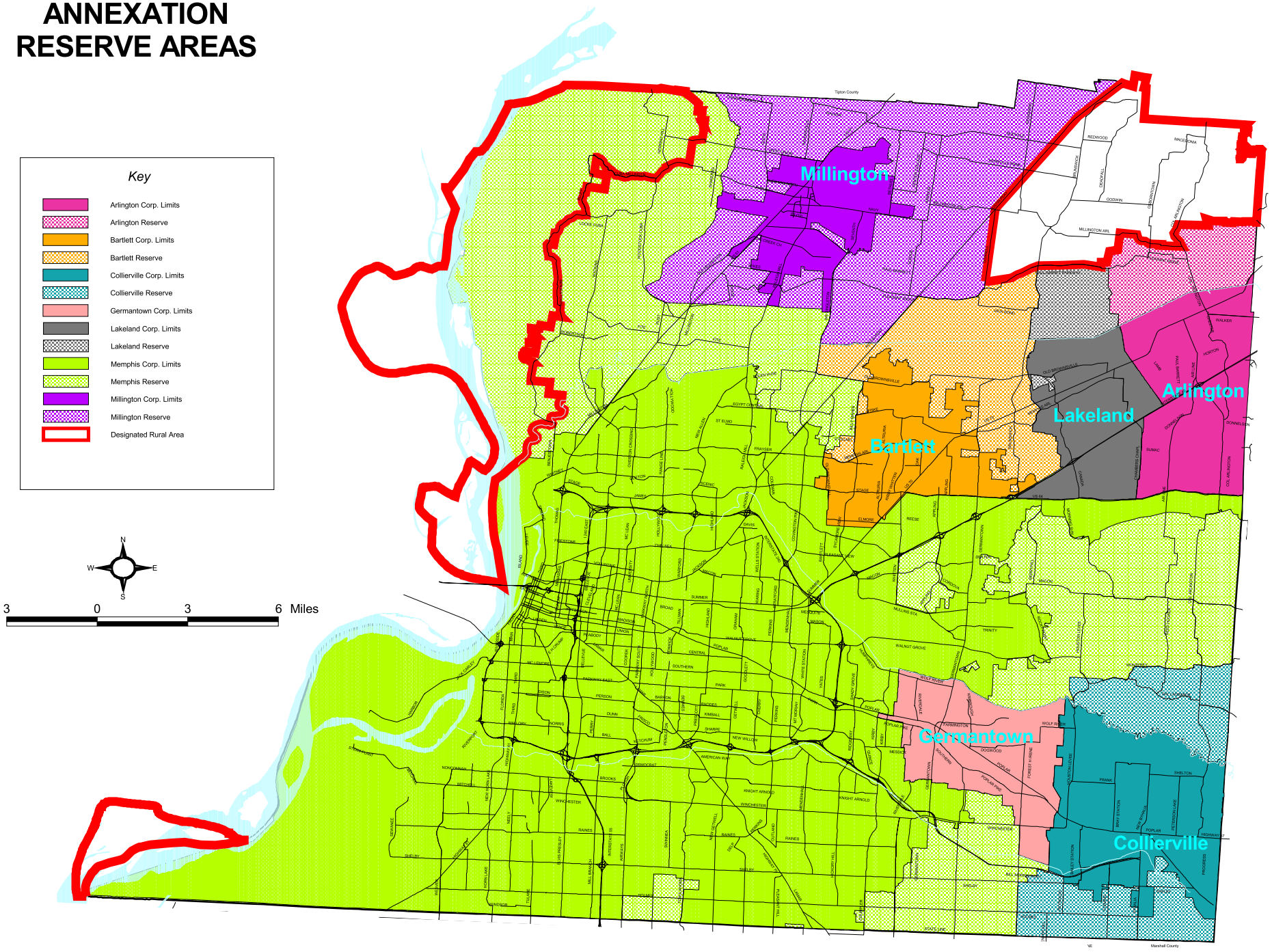
Land Use Controls staff currently asks for each city's comments on land development applications and if such comments are received they are incorporated in the staff report for consideration by the County Commission. This is a currently an informal process. It should be formalized and each city should be afforded the opportunity to go on the record about the type of development it wants to promote in the area that will eventually become part of its jurisdiction.

This process will not impede on the extra-territorial jurisdiction powers of the City of Memphis or the powers of the County Commission; it will only allow the cities to go on record with their concerns.

Following is a map of the municipal annexation areas as designated in the Shelby County Growth Plan.

US EPA ARCHIVE DOCUMENT

ANNEXATION RESERVE AREAS



Cartographic Services Provided By:
Memphis and Shelby County Division of Planning and Development
Sources:
Memphis and Shelby County Division of Planning and Development
Shelby County Municipal Governments

December 22, 1999, Updated with new Memphis Annexation of Countrywood/Eads, Hillshire, and Southeast Area, January 2003

US EPA ARCHIVE DOCUMENT

V.

Amend the Major Road Plan of the Metropolitan Planning Organization

There is a need to accommodate revitalization and redevelopment within older areas of Memphis and Shelby County by adopting a policy which will enable developers to invest more easily in urban properties.

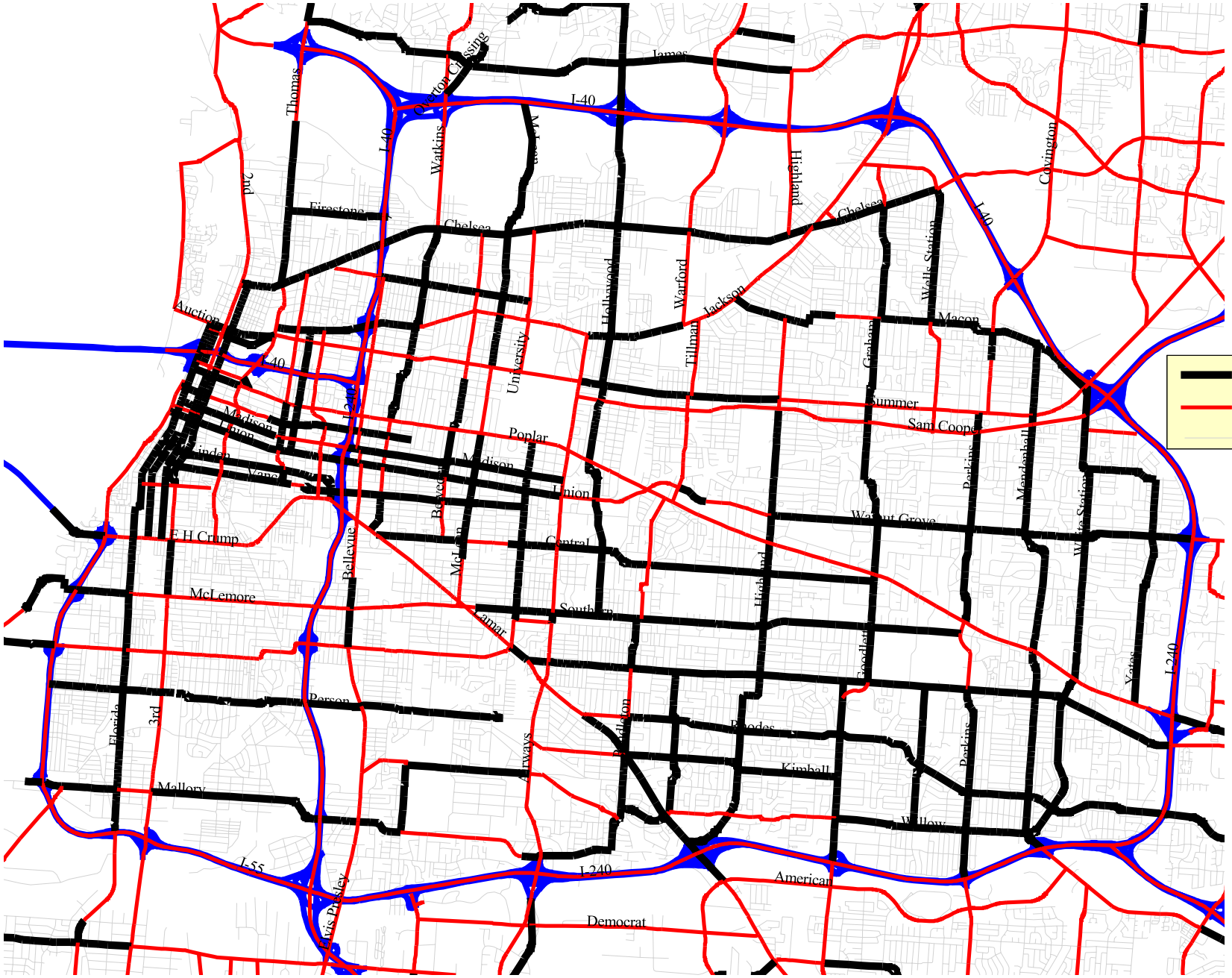
The Major Road Plan administered by the Metropolitan Planning Organization (MPO) is formulated using suburban transportation engineering standards. As such it recognizes a minimum 84-foot right-of-way for designated major roads. This presents a problem when infill development is being attempted in the City of Memphis. Often major roads (Jackson Avenue for example) were laid out using an 80-foot or less right-of-way. When property is proposed for redevelopment, the developer or land owner is required to dedicate and improve a wider right-of-way, usually losing 10 feet or more of developable land and disrupting the urban fabric.

This is a major barrier for infill development and particularly for revitalization of commercial corridors.

The staff of the MPO will identify those corridors within the City (and other areas as appropriate) that should be exempted from the requirement for a minimum 84-foot right-of-way. The staff will then make a recommendation to the MPO Executive Board to amend the Major Road plan to accommodate the unique requirements of urban redevelopment.

Two maps follow which identify roadways within the I-240 loop that will be considered for study and the Major Road Plan assigned priority for construction.

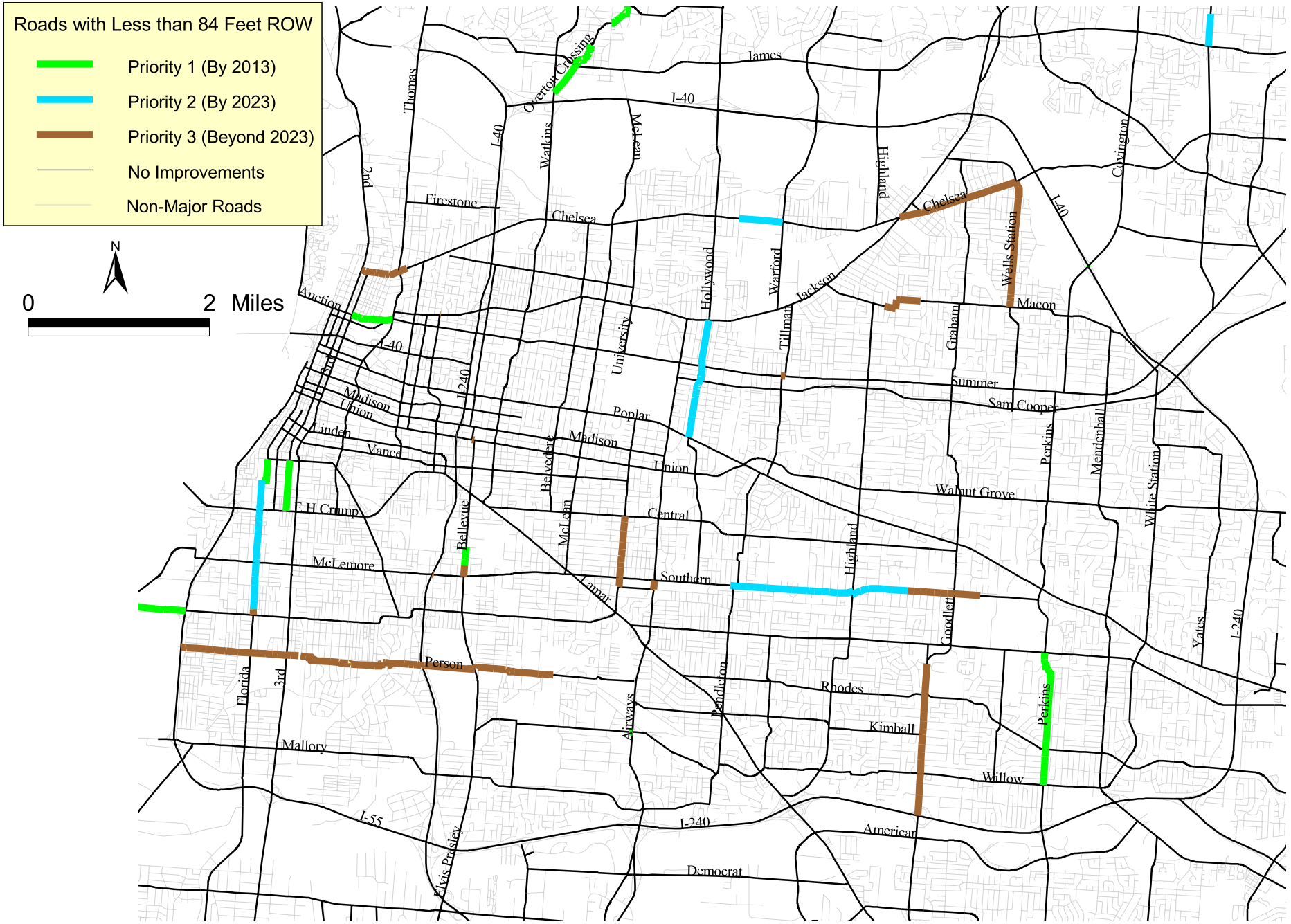
Right-of-Way for Major Roads Inside the Loop



Memphis & Shelby County Division of Planning and Development, DRS, April 16, 2003

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Network Priority for Major Roads Inside the Loop



Memphis & Shelby County Division of Planning and Development, DRS, April 16, 2003

VI.

Create a County Landmarks Commission

A County Landmarks Ordinance would provide protection for historical properties in Shelby County's rural areas. It will enable these areas to be recognized for their historical value to the community while allowing compatible new development.

The residents of the Rosemark, Eads, Twin Oaks, Shelby Forrest and Bolton areas of Shelby County have become increasing aware of their important historical position in the County. The early 1788 settlement patterns of Shelby County are still evident in many of these areas. The citizens of these areas have shown interest in having their unique communities recognized for their historic value.

The adoption of a County Landmarks Ordinance could be completed by the middle of the Fall of 2003. The Ordinance would set-up the duties and powers of the Shelby County Landmarks Commission (SCLC). The Commission would be comprised of five people from the county – one architect, one historian, and one member from the Land Use Control Board and two citizen positions. The SCLC would then assist those areas in the County that are interested in protecting their historical environment by designating County Landmark Districts. The SCLC would be jointly administered with the Memphis Landmarks Commission through the Division of Planning and Development.

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VII.

Develop a policy which Encourages Adaptive Reuse of Public Buildings and Functionally Obsolete Commercial Structures

Memphis and Shelby County have many vacant public buildings and obsolete commercial and industrial structures which can be adapted for new uses. Vacant shopping centers and obsolete industrial buildings line our major road corridors in areas such as Whitehaven, Frayser and Hickory Hill. A policy, along with new flexible codes that will encourage the reuse of these properties should be developed.

Adaptive Reuse Codes would provide developers and interested property owners some incentive to reuse obsolete commercial structures. The current set of building codes is targeted towards new construction and makes the change in use of an existing structure difficult to achieve. It requires the developer to design and implement elements that are prohibitive in cost and time for the reuse of an existing structure.

By creating new Adaptive Reuse Codes for older structures the issues of life safety would be covered while allowing the restrictive elements of the new construction codes to be eased. This would bring down the cost of adapting the structure for a new use.

With a reduction in cost created by the adaptive reuse codes then the existing programs offered by Center City Commission, the IDB, MHA, MLGW and others could be utilized to reduce the number of obsolete commercial structures. Incentive programs could be developed by these agencies to encourage existing property owners to think progressively about their vacant or obsolete properties in the older areas of Memphis and Shelby County.

Additionally, there are many public buildings and churches throughout the County that are vacant or about to be vacated. Many of these buildings are schools and post offices in inner-City neighborhoods. These buildings can be given new life with a change in use. For instance a school may be able to be adapted to a senior citizen residential complex or a community center with a mix of government and commercial uses.

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VIII.

Sign Regulations

Revise the current sign regulations to eliminate pole signs and to promote ground level monument signs in commercial areas

There is a need to reduce the size and appearance of signs in our neighborhood commercial corridors. The Division of Planning and Development has put together a committee of sign industry professionals, neighborhood groups, businessmen and planning staff to review the current ordinance and recommend changes to the County Commission and City Council.

The objective is to eliminate unsightly pole signs and replace them with ground mounted signs. The ordinance will promote signs by offering bonuses to those businesses that construct ground signs with materials that match the buildings of the commercial area and those that provide landscaping surrounding the base of the sign.

While not nearly as restrictive as the regulations in Bartlett, Germantown or Collierville, these changes will bring our regulations more closely in line with those municipalities.

The Division of Planning and Development plans to present draft regulations to the Land Use Control Board in May.

Following are pictures that illustrate landscape with large pole signs and more aesthetically pleasing landscape with ground mounted monument signs.

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IX.

Adopt an Ordinance Prohibiting Posting of Notices in Public Rights-of-Way and on Public Property

Illegal posting of signs and notices on utility poles, traffic control devices and other public property is unsightly and a blight on the landscape

There currently is a proliferation of signs and notices being posted in public rights-of-way and on other public property. The current Shelby County Code needs to be amended to allow proper enforcement and prosecution of violators. The City Council of Memphis has recently passed the first of three readings on a similar ordinance to amend the City Code.

This change in the ordinance will allow Memphis and Shelby County Code Enforcement inspectors to issue citations to violators and pursue their prosecution. Each posting of an illegal sign or notice will be subject to a $50 fine and the County will be enabled to recover the cost of locating and removing the postings.

The amended ordinance will hold the advertiser accountable for the posting of the sign if his/her business name, phone number or any other identifiable information appears on the placard.

The amendment does not apply to political signs otherwise regulated by the Memphis and Shelby County Zoning Ordinance.

Following are pictures which illustrate this problem and the proposed amendment to the Shelby County Code.

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Item_____ Prepared by

Commissioner_____ Approved by

ORDINANCE NO. _____

ORDINANCE AMENDING CHAPTER 22, ARTICLE I OF THE CODE OF ORDINANCES OF SHELBY COUNTY REGARDING THE POSTING OF NOTICES OR OTHER SIGNS IN COUNTY RIGHT-OF-WAY, PARKS OR OTHER PUBLIC PROPERTY

WHEREAS, The existing Shelby County Code of Ordinances, Chapter 22, Article I, Section 22-1 prohibits the posting of notices on structures in parks and right-of-ways; and

WHEREAS, There currently is a proliferation of pole signs and other signs being posted in the public rights-of-way and on other public property; and

WHEREAS, it is appropriate and in the best interest of the citizens to prohibit anyone from recklessly or intentionally defacing or damaging any public building, work or other property; and

WHEREAS, In order to assure full and effective prosecution of violations of Section 22-1, it is appropriate and in the best interest of the citizens to amend the Shelby County Code of Ordinances, Chapter 22, Article I, Section 22-1 to enhance and strengthen the enforcement thereof.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF SHELBY COUNTY, TENNESSEE, That Chapter 22, Article I, Section 22-1 of the Code of Ordinances of Shelby County, is hereby amended by deleting that Section in its entirety and by substituting in lieu thereof the following:

Section 22-1. Public property, works, etc., damaging or defacing, and regulating advertising and/or campaign notices on public property.

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(a) No person shall damage or deface any public building, public work or public property.

(b) No person shall post, stick, stamp, paint or otherwise fix, or cause the same to be done by any person, any notice, placard, bill, car, poster, advertisement or other paper or device calculated to attract the attention of the public, to or upon any public property, including but not limited to, any street, sidewalk, crosswalk, curb, or any other portion or part of any public way or public place or building, or any telephone pole, light standard, stop sign, railway structure, tree, bush or shrub, or upon any railings, gates, or other parts of any public bridge, viaduct, subway or overpass, or upon any other public property, right-of-way or easement granted to the County, except in accordance with the exception for the Memphis Area Transit Authority as set forth in Section 20-161(a) herein or when otherwise expressly authorized by law. No person shall remove, deface or otherwise tamper with any lawfully posted signs.

(c) Any notice, placard, bill, card, poster, advertisement or other paper or device as referred to in subsection (b) hereof, which contains a message attributable to a person or entity named thereon or an advertisement or telephone number notification for the benefit of a person or entity, or any properly authenticated photograph or videotape of same, shall be prima facie evidence that the notice, placard, bill, card, poster, advertisement or other paper or device was placed on public property in violation of this ordinance by the person or entity whose name appears thereon or whose telephone number appears thereon, or by their employee or agent while acting in the scope of their employment or agency and on behalf of the person or entity whose name or telephone number appears thereon.

(d) Each notice, placard, bill, card, poster, advertisement or other paper or device as referred to in subsection (b) hereof, found posted on public property in violation of this ordinance shall be deemed to be a separate violation of this ordinance. Each separate violation shall be punishable by a fine of $50. In addition, in order to remediate the harm caused the County by any violation of this ordinance, the county shall be entitled to recover a penalty in an amount equal to the cost incurred in locating, removing and disposing of such material, provided however that such penalty shall not exceed two hundred dollars ($200.00).

(e) The Division of Planning and Development through the Office of Construction Code Enforcement is hereby authorized to issue citizens for violations of this ordinance and to act as the County's official representative in all prosecutions of such violations.

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BE IT FURTHER ORDAINED, That this ordinance shall take effect fifteen days after the date of its final passage, the public welfare requiring the same.

Chairman, County Commission

A C Wharton, Jr., Mayor

Date

ATTEST:

Clerk of County Commission

First Reading:

Second Reading:

Adopted
Third Reading:

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X.

Develop a Local Street Network Plan

"Walkable communities" is a broader concept than the ability of people to walk within their neighborhood. It also includes having all roads developed with a human scale. Achieving that scale requires an overall coordination of our major, collector and local streets in a street network, not a street system.

Develop a major road street network in the growth areas at a one-half mile grid, which will allow for the reduction in required lanes from six (6) to four (4). The physical design of the roadway could include either a continuous center turn lane in appropriate areas or in predominately residential areas a landscaped median. Six-lane roadways would be provided at a spacing of approximately three to five miles apart.

The plan would provide for the following:

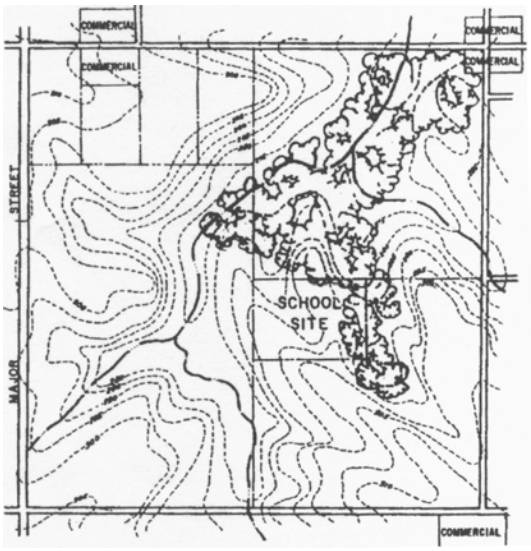
- A required minimum of one north-south and one east-west collector street between major roads.
- An increased number of local, neighborhood streets in the suburban fringe and a provision for better/increased intersections with major roads.
- Implementation of the local street model outlined in the Long Range Transportation Plan that should serve as a prototype throughout the developing unincorporated area
- The factors outlined above will help produce walkable, livable neighborhoods, reduce the proliferation of reverse frontage lots and foster safe neighborhoods for children.

This concept will be included in the update of the Long Range Transportation Plan, which will be completed by the end of 2003. These policies would also be incorporated into the revised Land Development regulations.

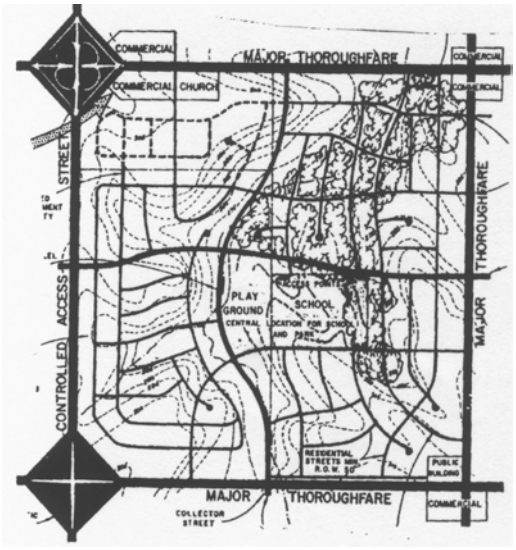
Following are examples of the local street network model.

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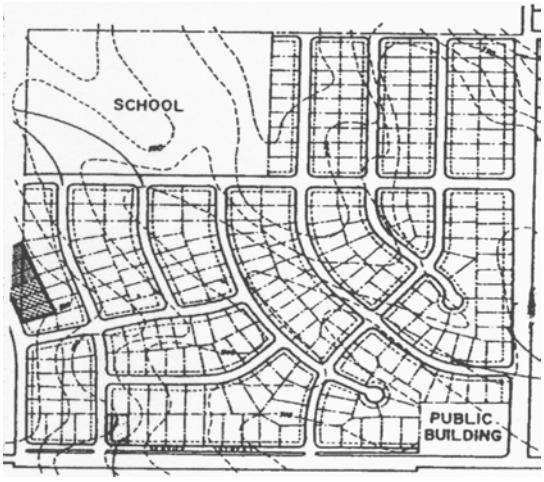
Model Community Development



The land development unit is bounded on four sides by the major road network.



Within the basic development unit, a pattern of streets, including collector streets and local streets, provide the interconnection of the individual activities within the unit to the major road network.



Local streets provide access within a neighborhood unit to other activities within the neighborhood. This may include local schools and parks, institutions and commercial areas. Streets should always provide for a mixture of movements both vehicular and pedestrian, and be designed to provide a buffer between these types of movement.

XI.

Minimum Standards for Construction on Homestead lots and other Shelby County Real Estate

Housing is being constructed on Shelby County Homestead lots and other transferred property which is below the standard of surrounding properties. Often the homes offer less square footage and are poorly designed in relation to the character of the neighborhood. This results in lowering surrounding property values.

Housing rehabilitation, new construction, infill development and replacement housing are critical needs of inner-city neighborhoods in Memphis. The Shelby County Homestead Program utilizes tax-foreclosed properties to stimulate neighborhood revitalization and increase the affordable housing stock in Memphis and Shelby County. The County's Real Estate Office sells property outright to developers, adjacent property owners and others to encourage redevelopment while putting tax-foreclosed properties back on the City and County tax rolls.

Design review standards are being developed for these two County programs utilizing partnerships already created through the design guidelines established by the Memphis Design Review Committee of HCD/MHA and those developed for the Bicentennial Neighborhood Initiative and the Uptown redevelopment. These standards will mainly address visual concerns such as how a new building will be placed in line with others on the block, use of materials that are appropriate to the neighborhood, building size compatibility with the neighborhood and building orientation on a lot. DPD staff members are coordinating guidelines for Homestead and Real Estate with staff of the Memphis Design Review Committee at HCD. Input from community development corporations and neighborhood residents, especially those in North and South Memphis, where the bulk of the Homestead and Real Estate lots are located, will be incorporated in the guidelines to assure compatibility with the character of the various neighborhoods.

Following are pictures of a home located at 241 Quinn Rd next to Suggs Park in Collierville. It is one of three houses built by the Collierville CHDO and United Housing Inc. using HOME funds administered by the Shelby County Department of Housing. A ribbon cutting will be held for the homes in May.

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XII.

Enact an Adequate Facilities Tax

Shelby County has traditionally had an over-reliance on property tax revenues for its operations and capital expenditures. The property tax burden has risen considerably over the past 15 years, yet the revenue generated by the property tax has not kept up with the demands of basic provision of government services. Shelby County must find alternative sources of revenue to offset the demands of shifting development in the suburban areas of Shelby County.

Analysis has shown that each new single family house valued at $175,000 built outside the City of Memphis costs the County approximately $4,030 annually for 20 years. Each new single family attached unit valued at $160,000 costs $2,227 each year for 20 years and each new apartment costs $972 for the same period of time. These costs are the net cost to the County – after all related property taxes and development or user fees are collected.

These costs are directly related to the construction of facilities and the expansion of services to serve new development. A major portion of County expenditures are in the construction and operation of our schools.

Rather than continuing to increase the property tax to pay for those services that support new growth, we are proposing to levy an adequate facilities tax on all new construction. ***The adequate facilities tax is designed to be paid one time only.*** It is not a recurring tax that will be borne by the taxpayer each year and compounded over time.

This tax is designed to be paid at the time of construction. A portion of the fee would be paid when the building is permitted. The final payment would be made when the building receives a final inspection and is ready to be sold and occupied. The tax would be levied on all new building construction, both residential and non-residential.

The adequate facilities tax is not designed to hinder development. Rather, it is designed to help finance new schools, roads, parks, public health, public safety and other essential services demanded by the public.

This revenue source will be applicable Countywide. But, the adequate facilities tax will not be imposed in those areas that are part of the revitalization efforts of Memphis and Shelby County. We will not unduly burden low and moderate income homebuyers in Memphis and Shelby County. The tax will not apply in those target economic development areas where the median income is below 80% of the County or where the poverty rate is 20% or greater.

The adequate facilities tax will generate a minimum of $4,000,000 per year and could raise up to $8,000,000 per year depending on the final rate imposed on the new construction. A 2050 square foot home would generate $2,050 at $1.00 per square foot or $1,538 at 0.75 cents per square foot.

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Following is the proposed legislation to enact a Shelby County Adequate Facilities Tax, a map of the Economic Development Target Areas and a summary of development fees currently being charged in the metropolitan area.

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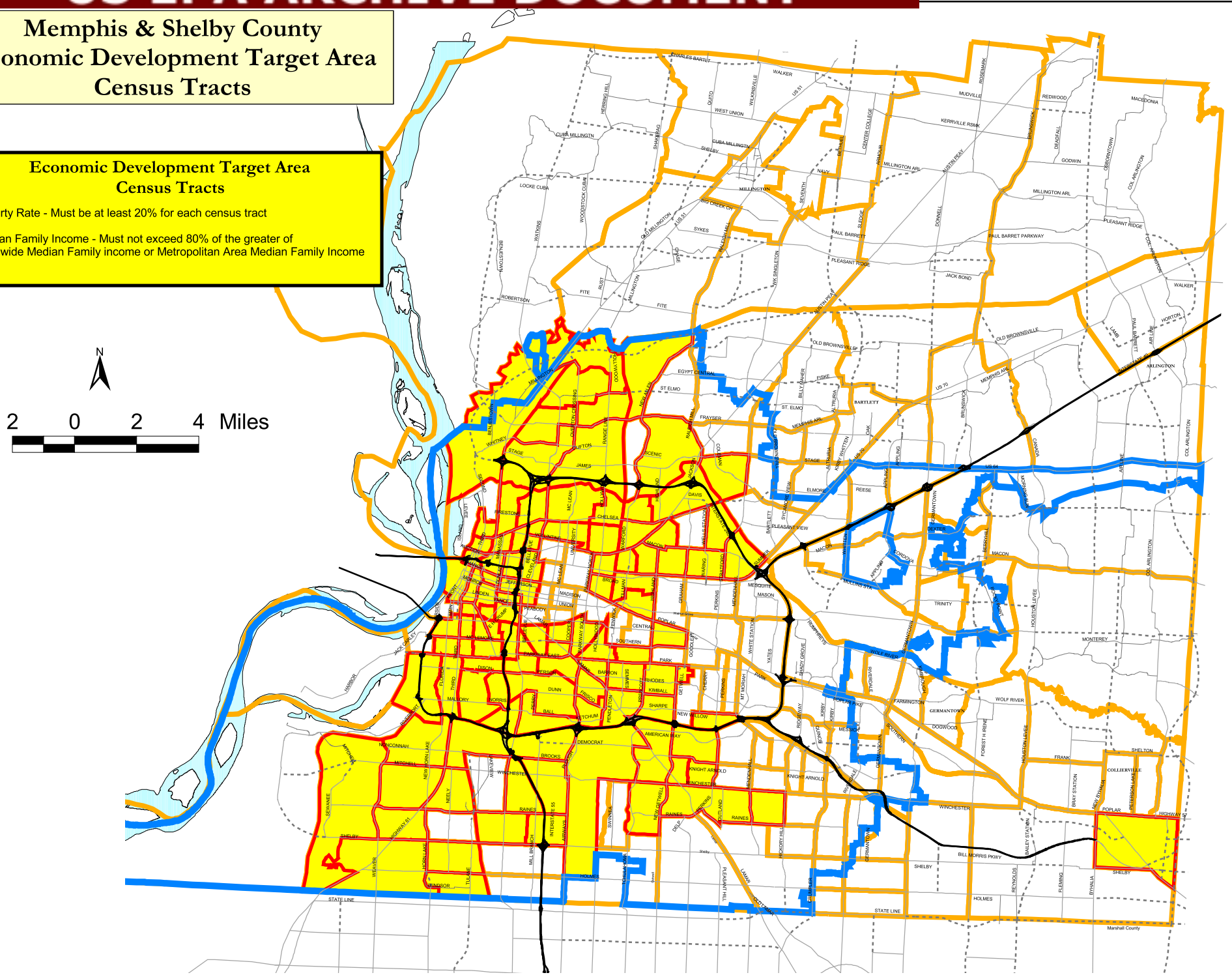
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Memphis & Shelby County Economic Development Target Area Census Tracts

Economic Development Target Area Census Tracts

- Poverty Rate - Must be at least 20% for each census tract

- Median Family Income - Must not exceed 80% of the greater of Statewide Median Family income or Metropolitan Area Median Family Income



DRAFT

AN ACT to authorize Shelby County to levy and collect a privilege tax on development in order to provide that development contribute its fair share of the cost of providing and maintaining public facilities and services made necessary by such development.

WHEREAS, Shelby County is experiencing considerable growth in population and in construction of residential, commercial, and industrial buildings; and

WHEREAS, Shelby County is in need of additional revenues with which to fund capital improvements in order to meet the needs of all of the citizens within the county; and

WHEREAS, the present employment base and tax base can not alone support the additional revenues needed to supply the public facilities and services in order to serve growth without a substantial increase in the property tax rate on existing development; and

WHEREAS, in order to provide and maintain the public facilities and services necessitated by development, it is necessary and appropriate that Shelby County be given authorization to extend its taxing power to enable it to impose a fair and reasonable share of the costs of public facilities necessitated by development on that development, so as not to create an unfair and inequitable burden on all county residents.

NOW, THEREFORE, BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF TENNESSEE:

SECTION 1. This Act shall be known and cited as the "Shelby County Adequate Facilities Tax Act."

SECTION 2. As used in this Act, unless a different meaning appears from the context:

(a) "Building" means any structure built for the support, shelter, or enclosure of persons, chattels, or movable property of any kind; the term includes a mobile home.

(b) "Building Permit" means a permit for development issued by Shelby County.

(c) "Capital Improvement Program" means a proposed schedule of future projects, listed in order of construction priority, together with cost estimates and the anticipated means of financing each project. All major projects requiring the expenditure of public funds, over and above the annual local government operating expenses, for the purchases, construction, or replacement of the physical assets of the community are included.

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(d) "Certificate of Use and Occupancy" or "Certificate of Occupancy" means a permit for occupancy of a building or structure issued by Shelby County.

(e) "Development" means the construction, building, erection, betterment, or improvement of land providing a building or structure.

(f) "Dwelling Unit" means a room, or rooms connected together constituting a separate, independent housekeeping establishment for owner occupancy, rental or lease on a daily, weekly, monthly, or longer basis, physically separated from any other room(s) or dwelling units which may be in the same structure, and containing independent cooking and sleeping facilities.

(g) "Floor Area" means the total of the gross horizontal area of all floors, including usable basements and cellars, below the roof and within the outer surface of the main walls of principal or accessory buildings or the center lines of party walls separating such buildings or portions thereof, or within lines drawn parallel to and two (2) feet within the roof line of any building or portions thereof without walls, but excluding in the case of nonresidential facilities: arcades, porticoes, and similar open areas which are accessible to the general public, and which are not designed or used as sales, display, storage, service, or production areas.

(h) "Governing Body" means the Board of County Commissioners of Shelby County, Tennessee.

(i) "Non-Residential" means the development of any property for any use other than residential use, except as may be exempted by this Act.

(j) "Person" means any individual, firm, co-partnership, joint venture, association, corporation, estate, trust, business trust, receiver, syndicate, or other group or combination acting as a unit, and the plural as well as the singular number.

(k) "Place of Worship" means that portion of a building, owned by a religious institution which has tax-exempt status, which is used for worship but does not include buildings or portions of buildings which are used for purposes other than for worship and related functions or which are or are intended to be leased, rented or used by persons who do not have tax-exempt status.

(l) "Public Buildings" means a building owned by the state of Tennessee or any agency thereof, a political subdivision of the state of Tennessee including but not necessarily limited to counties, cities, school districts, or the federal government or any agency thereof.

(m) "Public Facility or Facilities" means a physical improvement undertaken by the county or cities therein, including, but not limited to the following: roads and bridges, parks and recreational facilities, jails and law enforcement facilities, schools, libraries, government buildings, fire stations sanitary landfills, water, wastewater and drainage projects, airport facilities and other governmental capital improvements benefiting the citizens of the county and/or cities.

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(n) "Residential" means the development of any property for a dwelling unit or units.

SECTION 3. It is the intent and purpose of this Act to authorize Shelby County to impose a tax on development anywhere within the county payable at the time of issuance of a building permit and/or certificate of use and occupancy as set forth in Section 9 of this Act so as to ensure and require that the persons responsible for development share in the burdens of growth by paying their fair share for the cost of new and/or expanded public facilities made necessary by such development.

SECTION 4. Engaging in the act of development within Shelby County, except as provided in Section 6 herein, is declared to be a privilege upon which Shelby County may, by resolution of the governing body, levy a tax in an amount not to exceed the rate set forth in Section 7.

SECTION 5. The governing body shall impose the tax authorized herein by resolution after adopting a capital improvements program indicating the need for the cost of constructing public facilities or sustaining and/or revitalizing existing public facilities anticipated to be funded, in part, by this tax and after finding that the need for such public facilities is reasonably related to development. The resolution of the governing body imposing this tax shall state the rate of tax on residential and non-residential development. The governing body shall, by resolution, adopt administrative guidelines, procedures, regulations and forms necessary to properly implement, administer and enforce the provisions of this Act.

SECTION 6. This Act shall not apply to development of:

(a) Public buildings.

(b) Places of worship.

SECTION 7. For the exercise of the privilege described herein, Shelby County may impose a tax on development not to exceed

(a) one dollar ($1.00) per gross square foot of residential development.

(b) seventy-five cents ($.75) per gross square foot of non-residential development.

The governing body may develop tax rate schedules by which residential and non-residential uses are classified by type for the purpose of imposition of the tax authorized herein.

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SECTION 8. The governing body may, by resolution, promulgate policies and guidelines which exempt from this tax any development, residential or non-residential, located in any area of Shelby County that has been designated by the federal government as being eligible for federal incentives and which has a poverty rate of at least twenty percent (20%) and the median family income does not exceed eighty percent (80%) of the greater of the state-wide median family income or the metropolitan area median family income, upon a proper finding that said exemption is necessary to stimulate growth in these economically challenged areas.

SECTION 9. Half of the tax established in this Act shall be collected at the time of application for a building permit for development as herein defined, and the remaining half of the tax shall be collected upon application for a certificate of use and occupancy. If a building permit is not required, the entire tax shall be collected at the time of application for a certificate of use and occupancy. This tax shall be collected by the county official duly authorized to issue building permits or certificates of use and occupancy. The county building official or other responsible official shall receive payment in full in cash or other negotiable instrument as specified by resolution of the county and as approved by the county attorney. No building permit for development as herein defined, or certificate of use and occupancy if no building permit is required, shall be issued in Shelby County unless the tax has been paid in full to the county or else a negotiable instrument approved by the county attorney and payable to the county has been received.

SECTION 10. If a building permit or certificate of use and occupancy is issued by a municipality within Shelby County, the municipality shall, before issuance of the building permit or certificate of use and occupancy, required evidence by a valid certificate executed by the county building official that the full amount of the tax due to the county has been paid in the manner set forth in Section Of this Act. The issuance of a building permit or certificate of use and occupancy by any municipal official, without the appropriate certificate from the county indicating the tax has been paid, shall render the city liable to the county for the sum or sums that would have been collected by the county had the certificate of tax paid been required by the municipality.

SECTION 11. All tax funds collected shall be used for the purpose of providing public facilities and to reduce debt incurred or issued by Shelby County for public facilities, the need for which is reasonably related to development.

SECTION 12. The authority to impose this privilege tax on development in Shelby County is in addition to all other authority to impose taxes, fees, assessments, or other revenue raising or land development regulatory measures granted either by the private or public acts of the state of Tennessee and the imposition of such tax, in addition to any other authorized tax, fee, assessment or charge, shall not be deemed to constitute double taxation.

SECTION 13. The provisions of this Act shall in no manner repeal, modify, or interfere with the authority granted by any other public or private law applicable to

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Shelby County. This Act shall be deemed to create an additional and alternative method for Shelby County to impose and collect taxes for the purpose of providing public facilities made necessary by development.

SECTION 14. If any provision of this Act or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the Act which can be given effect without the invalid provision or application, and to that end the provisions of this Act are declared to be severable.

SECTION 15. This Act shall have no effect within Shelby County unless it is approved by a two-thirds (2/3) vote of the governing body of Shelby County within ninety (90) days of the date of final passage of this Act. Its approval or non-approval shall be proclaimed by the presiding officer of the governing body and certified by him or her to the Secretary of State.

SECTION 16. For the purpose of approving or rejecting the provisions of this Act, it shall be effective upon becoming a law, the public welfare requiring it. For all other purposes it shall become effective upon being approved as provided in Section 13.

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DEVELOPMENT FEES (2003)

XIII.	PRELIM. REVIEW	FINAL REVIEW	ENGR. REVIEW	SEWER CONNECTION	WATER CONNECTION	PARKLAND DEDICATION	SUBDIVISON INSPECTION	OTHER
BARTLETT	**$150+ $3/Lot**	**$100+ $10/lot**	**$100+ $1/lot**	**$1,500/lot to $2,000**	**$1,500/lot**	**$350**	**$48/lot**	Water plant expansion – fee varies; **water engineering fee – varies, street lights - $300; drainage control - $150-$400**
COLLIERVILLE	**$500**	**$500**	**$100+ $30/lot**	**$850/lot**	**$250/lot $400/lot**	**0.0315 ac/lot**	**$500+ $200/lot**	**Streetlights – actual cost; sewage plant construction fee - $250-$750/lot $300 per lot – police fee**
GERMAN TOWN	**$150 $10/lot**	**$150+ $10/lot**	**$500**	**$340/lot**	**$450/lot**	**Formula**	**$500+ $80/lot**	Water plant expansion fee - $150/lot; soils test - $500
LAKELAND	**$500-$1,000 SUB**	**$500-1,000 SUB**	**$200**	**$1000/lot**	**$230/lot**	**$300/per lot**	**$500+ $100/lot**	**All new fee will be approved on 4-21-03 Services –plant expansion - $300 per lot; treatment fee - $300 per lot; transport fee - $500 per lot; streetlight - $300 per lot; soil test - $500 subdivision**
MILLINGTON	**$200 $1/lot**	**$0**	**$0**	**$500**	**$450**	**$0**	**$50/lot**	**Water development fee – varies Street lights - $300**
HERNANDO, MS.	**$100+ $3/lot**	**$100+ $3/lot**	**$0**	**$1,400/lot**	**$600-$800/lot**	**$0**	**$0**	
OLIVE BRANCH, MS.	**$100+ $3/lot**	**$100+ #3/lot**	**$0**	**$550/lot $750/lot**	**$550/lot**	**$0**	**$0**	
SOUTHAVEN, MS.	**$200+ $5/lot**	**$299+ $5/lot**	**$0**	**$700/lot**	**$50/lot**	**$350/lot**	**$0**	
HORN LAKE, MS.	**$150+ $3/lot**	**$150+ $3/lot**	**Cost + 20%**	**$600/lot**	**$250/lot**	**$0**	**Actual cost + 20%**	
UNINCORPORATED SHELBY CO.	**Inside 3 miles $860+ $50/lot Outside 3 miles $2000+$300/lot**	**$600.0**	**$0**	**$240/lot – $1,240/lot**	**$230/lot[2]**	**$0**	**$0**	
MEMPHIS[1]	**$300+ $20/lot**	**$200+ $10/lot**	**$1,225+ $10/lot**	**$240/lot – $1,240/lot**	**$230/lot**	**$0**	**$0**	

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	Pre. Review	Final Review	Engr. Review	Sewer	Water	Parkland	Inspection	Other	25 Lot Total	Per Lot
Bartlett	$225	$350	$125	$2,000	$1,500	$350	$1,200		$5,750	$230
Collierville	$500	$500	$850	$850	$250	.0315 ac/lot	$5,500	$7,500	$15,950	$638
Germantown	$400	$400	$500	$8,500	$11,250	formula	$2,500		$23,550	$942
Lakeland	$500	$500	$200	$25,000	$5,750	$7,500	$3,000	$8,000	$50,450	$2,018
Millington	$225	$0	$0	$500	$450	$0	$1,250		$2,425	$97
Hernando, MS	$175	$175	$0	$35,000	$15,000	$0	$0		$50,350	$2,014
Olive Branch, MS	$175	$175	$0	$13,750	$13,750	$0	$0		$27,850	$1,114
Southaven, MS	$325	$424	$0	$17,500	$1,250	$8,750	$0		$28,249	$1,130
Horn Lake, MS	$225	$225	$1,000	$15,000	$6,250	$0	$1,000		$23,700	$948
Memphis	$800	$450	$1,975	$6,000	$5,750	$0	$0		$14,975	$599
Unincorporated Shelby*	$9,500	$600	$0	$31,000	$5,750	$0	$0		$46,850	$1,874
Unincorporated Shelby**	$2,110	$600	$0	$6,000	$5,750	$0	$0		$14,460	$578

(Estimated Costs Only)

* Outside 3 Miles of Memphis
** Inside 3 Miles of Memphis

Note: Unincorporated Shelby Sewer fees paid to City of Memphis

TIPTON COUNTY

JEFF HUFFMAN
COUNTY EXECUTIVE
PHONE (901) 476-0200
FAX: (901) 476-0227

2004 MAR 29 PM 1:40

Thursday, March 25, 2004

Mr. Barry Stephens
Tennessee Department of Environment & Conservation
Division of Pollution Control
9th Floor, L&C Annex
401 Church Street
Nashville, Tn. 37243-1531

Dear Mr. Stephens:

The purpose of this correspondence is to specify the local control measures that Tipton County Government is taking to improve air quality.

- We are organizing an Ozone Alert Program that would encourage motorists to drive 55 mph during peak ozone seasons
- Tipton County has applied and been approved for a Transportation Enhancement Grant to encourage bike riding, walking, the construction of bike racks, greenways etc.
- Tipton County is adopting open burning restrictions during peak ozone periods. These regulations would become part of the county's planning and zoning regulations with the full force of law behind it
- Tipton County has completely reworked its website and is working to include information regarding air quality issues and air quality education. This website would include links to various agencies that deal with air quality
- Tipton County will work with other county officials and state officials to determine the best method of encouraging car pooling and ride sharing incentives

These are the specific actions that this county is taking to improve air quality. Some of these steps require local law changes that will take about three months to complete. Other actions have already begun such as: construction of our new website and the transportation grant. I am open to any additional suggestions that your department might have regarding our air quality issues. If there is any further information that you require, don't hesitate to contact me at 901-476-0200.

Respectfully submitted, I am

Jeff Huffman
Tipton County Executive

P.O. Box 686 • Court Square • Covington, Tennessee 38019
TCOUNTY@netten.net

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Attachments

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MEMPHIS AREA METROPOLITAN PLANNING ORGANIZATION

LONG RANGE TRANSPORTATION PLAN 2026 AND CONFORMITY DETERMINATION FOR LONG RANGE TRANSPORTATION PLAN 2026 AND TRANSPORTATION IMPROVEMENT PLAN 2004-2006

PUBLIC REVIEW AND COMMENT PERIOD FEBRUARY 16 – MARCH 16, 2004

Prepared by MPO Staff
Draft Published
February 13, 2004
Memphis and Shelby County
Division of Planning and Development

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ACRONYM GUIDE

The following guide provides meanings for all acronyms contained in the LRTP.

Acronym	Meaning
ADA	Americans with Disabilities Act of 1991
ASHTD	Arkansas State Highway and Transportation Department
ATIS	Advanced Traveler Information Systems
ATMS	Advanced Traffic Management Systems
BBR-S	Bridge Replacement and Rehabilitation Program
CAAA	Clean Air Act Amendments
CAC	Citizen Advisory Committee
CBID	Central Business Improvement District
CCC	Center City Commission
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
CMAQ	Congestion Mitigation and Air Quality
CMS	Congestion Management System
CN	Canadian National Railroad
CO	Carbon Monoxide
DOT	Department of Transportation
DPD	Division of Planning and Development
EAC	Early Action Compact
EPA	Environmental Protection Agency
ESP	Entrepreneurial Services Program
ETC	Engineering and Technical Committee
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GIS	Geographic Information Systems
HOV	High Occupancy Vehicle
I & M	Inspection and Maintenance
IM	Interstate Maintenance
ISTEA	Intermodal Surface Transportation Efficiency Act
ITF	Intermodal Transfer Facility
ITS	Intelligent Transportation System
JARC	Job Access and Reverse Commute Program
LOS	Level of Service
LRT	Light Rail Transit
LRTP	Long Range Transportation Plan
LSTP	Local Surface Transportation Program
MATA	Memphis Area Transit Authority
MATATRAC	Memphis Area Transit Authority's Regional Rail Program
MDOT	Mississippi Department of Transportation

Acronym	Meaning
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MSSTP	Mississippi Surface Transportation Program
NAAQS	National Ambient Air Quality Standards
NAFTA	North American Free Trade Agreement
NCPD	National Corridor Planning and Development
NHS	National Highway System
NO_x	Oxides of Nitrogen
NTW	Network
O_3	Ozone
$PM_{2.5}$	Fine Particulate Matter
PMS	Pavement Management System
RAB	Regional Advisory Board
RDC	Riverfront Development Corporation
SIP	State of Tennessee Implementation Plan
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
TAZ	Traffic Analysis Zone
TCA	Tennessee Code Annotated
TCM	Traffic Control Measure
TDEC	Tennessee Department of Environment and Conservation
TDM	Transportation Demand Management
TDOT	Tennessee Department of Transportation
TE	Transportation Enhancements
TEA-21	Transportation Equity Act for the 21st Century
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TND	Traditional Neighborhood Development
TOC	Traffic Operations Center
TPC	Transportation Planning Coordinator
TSM	Transportation System Management
UPWP	Unified Planning Work Program
USDOT	United States Department of Transportation
V/C	Volume to Capacity
VMT	Vehicle Miles of Travel
VOC	Volatile Organic Compounds
VPS	Visual Preference Survey

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CHAPTER I

INTRODUCTION

The Memphis/Shelby County Division of Planning and Development (DPD) is the technical planning staff for the Memphis Area Metropolitan Planning Organization (MPO). DPD is responsible for executing transportation planning activities in compliance with Federal regulations. The 2003 -2026 *Long-Range Transportation Plan* (LRTP) is based on the 2000-2023 LRTP, which was adopted in December 2000 by the MPO and prepared under the guidelines of the *Transportation Equity Act for the 21st Century* (TEA-21). The 2023 LRTP was further amended and re-adopted in December 2002. The 2003-2026 LRTP reaffirms the basic issues and goals of the previous plans while considering additional matters of concern.

The Memphis MPO includes Shelby County, Tennessee, and her seven municipalities as follows: Memphis, Arlington, Bartlett, Collierville, Germantown, Lakeland, and Millington. The MPO also comprises northern DeSoto County, Mississippi, including the municipalities of Hernando, Horn Lake, Olive Branch, and Southaven. Western Fayette County, Tennessee, is also in the MPO, including the municipalities of Gallaway and Piperton. See **Figure 1**, **Memphis MPO Region Map.**

This plan incorporates a multi-modal approach to transportation planning in the Memphis area for a 22-year horizon and presents recommendations for improvements for the Memphis International Airport, the Port of Memphis, regional interstates and other highways, the local mass transit system, and local bikeways and pedestrian ways.

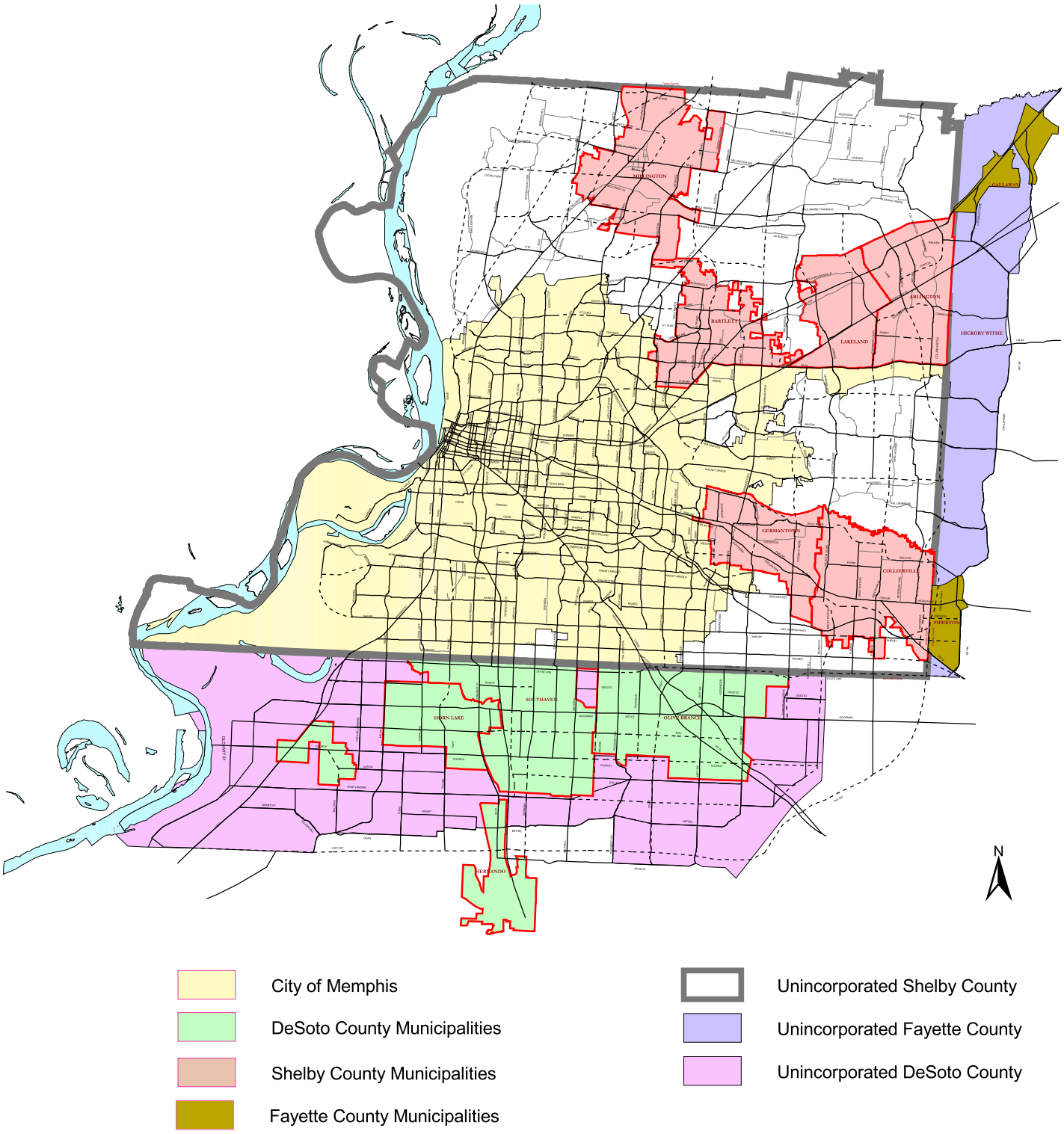
This plan follows the guidelines of the TEA-21, the successor of the *Intermodal Surface Transportation Efficiency Act of 1991* (ISTEA), the *Clean Air Act Amendments of 1990* (CAAA), *Title VI of the Civil Rights Act of 1964* (Title VI), and the *President's Executive Order on Environmental Justice* (EJ).

Included in this LRTP is a financial plan for implementing recommended projects. The financial plan was developed by the Memphis MPO in collaboration with local jurisdictions, the Memphis Area Transit Authority (MATA), the Tennessee Department of Transportation (TDOT) and the Mississippi Department of Transportation (MDOT). This financial plan verifies that the costs of the proposed transportation improvements and dollars required to maintain current and future systems are consistent with programmed and projected sources of revenue. The plan is fiscally constrained.

To implement the LRTP, the MPO's *Transportation Improvement Program (TIP)* contains three years of programmed transit and non-transit projects (projects for which specific funding and dates for implementation have been set). The TIP is the primary programming mechanism for implementing the LRTP and therefore must be consistent with it. The Memphis MPO updates the LRTP every three years and TIP every two years.

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Figure 1
Memphis MPO Region Map



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A. History of Metropolitan Planning Organizations (MPO)

The *1962 Federal Aid Highway Act* first recognized the need for a specialized transportation planning process in the nation's urban centers. The Act sets conditions for spending Federal highway and transit funds in urbanized areas (defined as areas with a population exceeding 50,000 persons, as determined by the U.S. Census Bureau). MPOs have the responsibility for planning and coordinating the spending of Federal surface transportation dollars. From this Act and the subsequent amendments, the "3C" process was developed.

The "3C" process:

- ***Comprehensively*** consider social, economic, land use and environmental effects on all modes of transportation;
- Assure ***coordination*** among the States and all affected local governments, and provide for participation in the planning process by citizens and all other entities affecting and affected by transportation improvements, and;
- ***Continually*** update the resulting regional transportation plans considering growth of the metropolitan area and corridors, changes in land use, impacts of transportation projects on air quality, and other factors that affect transportation needs and performance of transportation facilities. The continuing program also includes working with transportation implementation agencies to facilitate project development.

Transportation planning in metropolitan areas is intended to be a collaborative process led by the MPO, but inclusive of other key stakeholders in the regional transportation system. A key component in the transportation planning process is involvement from the public, the business community, community groups, and environmental organizations.

B. Key Legislation that Shapes Transportation Planning

Below is a brief description of Federal legislation that influences and guides transportation planning.

1. Clean Air Amendment Acts of 1990 (CAAA)

The CAAA of 1990 requires that all areas of the country meet Federal standards for air quality. In 1997, the U.S. Environmental Protection Agency (EPA) proposed new National Air Quality Standards for the regulation of what was considered a dangerous amount of ground level ozone and fine particulate matter. The proposal changed the ozone standard from 120-parts-per-billion measured over one hour to 80-parts-per-billion measured over an eight-hour period. The change was proposed to better reflect the health risks of air pollution. The implementation of the proposed eight-hour standard is scheduled to begin in 2007 or 2008. Until then, the one-hour standard remains in effect. The standard for carbon monoxide, the other principal transportation-related pollutant, has remained the same.

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Once a region is designated as a non-attainment area, it is expected to make reasonable progress in controlling air pollution emissions within its boundaries until air quality standards are met. Because motor vehicles are the largest contributors to carbon monoxide and ground level ozone pollution in the United States, MPOs have been directed by the CAAA to focus on air quality as well as transportation mobility. The CAAA specifies that transportation plans, programs, and projects must not (1) worsen existing air quality, (2) create any additional violations, or (3) delay the attainment of standards. It is the responsibility of each MPO to verify that all transportation plans and programs are in conformity with State-approved emission budgets. Air quality conformity analysis for the LRTP is discussed in **Chapter 8**, "Air Quality Conformity Determination".

2. Transportation Equity Act of the 21st Century (TEA-21)

The authorization of TEA-21 in 1998 strengthened the Federal government's commitment to transportation by significantly increasing funding from former ISTEA levels. The objective of TEA-21, as it relates to MPOs, is to:

"*Encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and through urbanized areas, while minimizing transportation-related fuel consumption and air pollution*."

Over the six years of its authorization, TEA-21 has provided more than $165 billion nationwide for core highway programs and more than $36 billion for public transit systems. Because TEA-21 is due to expire at the end of fiscal year 2003, the House Transportation and Infrastructure Committee is currently in the process of drafting its successor.

The seven TEA-21 planning factors that guide transportation planning are listed in Chapter III.

3. Title VI of the Civil Rights Act of 1964 (TITLE VI)

Title VI states that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal assistance" (42 U.S.C. 2000d-1). As the recipient of Federal transportation funds, the MPO is required under law to ensure non-discrimination in all phases of any planning process for inter-modal surface facilities the organization participates in.

On an annual basis each MPO in Tennessee prepares its *Title VI Report* highlighting its efforts to ensure Title VI compliance **(see Appendix A, The FY2003 Title VI 2003 Report).** Also, in Chapter IV, goals and objectives related to Title VI are discussed.

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4. President's Executive Order on Environmental Justice (EJ)

The *President's Executive Order on Environmental Justice* enhances Title VI regulations by mandating that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations." The MPO, through this plan, recognizes the importance of environmental justice to transportation planning. As such, environmental justice issues are incorporated into the plan's goals, objectives and strategies.

C. Three Key Documents of the MPO

All MPOs are required by legislation to develop and maintain three key products: a long range transportation plan, a transportation improvement program and a unified planning work program as identified below:

1. Long Range Transportation Plan (LRTP)

The LRTP presents the vision of the regional transportation system for twenty years and is updated every three years. Its purpose is to guide the decision making process for the selection and implementation of transportation projects. Long Range Transportation Plans vary widely in style and content from one region to another, but the TEA-21 Federal regulation found in *23 CFR 450.322,* Subpart C, states that "*the Metropolitan Planning Process shall include the development of a transportation plan addressing at least a twenty year horizon."*

The LRTP includes long-range and short-range actions that lead to the development of an integrated, intermodal transportation system that facilitates the effective and efficient movement of people and goods. The transportation plan shall be reviewed and updated at least triennially in non-attainment and maintenance areas and at least every five years in attainment areas to confirm its validity and its consistency with current and forecasted transportation and land use conditions as well as trends extending into the forecast period.

The transportation plan must be approved by the MPO. In addition, the plan must:

- Identify the projected transportation demand of persons and goods in the metropolitan planning area over the period of the plan;
- Identify adopted congestion management strategies;
- Identify pedestrian walkway and bicycle transportation facilities;
- Reflect the consideration given to the results of the management systems;
- Assess capital investment and other measures necessary to preserve the existing transportation system and make most efficient use of existing transportation facilities to relieve vehicular congestion and enhance mobility of people and goods;

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- Reflect a multi-modal evaluation of the transportation, socioeconomic, environmental, and financial impact of the overall plan, including all major transportation investments;
- Indicate that the design concept and scope have not been fully determined and will require further analysis for major transportation investments for which analyses are not completed;
- Reflect consideration of the area's comprehensive long-range land use plan and metropolitan development objectives including local housing goals and strategies; community development and employment plans and strategies; environmental resource plans; local, State, and national goals and objectives such as linking low-income housing with employment opportunities and the area's overall social, economic, environmental and energy conservation goals and objectives;
- Indicate, as appropriate, proposed transportation enhancement activities; and
- Include a financial plan that demonstrates the consistency of the proposed transportation plan with available projected sources of revenue. (The financial plan shall compare the estimated revenue from existing and proposed funding sources that can reasonably be expected to be available for transportation uses and the estimated cost of constructing, maintaining and operating the total transportation system over the period of the plan).

2. The Transportation Improvement Program (TIP)

The TIP is a financially constrained, three-year program addressing the most immediate implementation priorities for transportation projects and strategies of the LRTP. It allocates limited transportation resources based on a clear set of short-term transportation priorities. Under Federal law, the TIP:

- Covers a minimum three-year period of investment
- Is updated at least every two years
- Is realistic in terms of available funding (known as a fiscally constrained TIP) and is not just a "wish list" of projects
- Conforms to the *State Implementation Plan for Air Quality* if the region is designated a nonattainment or maintenance area
- Is approved by the MPO and the Governor for air quality
- Is incorporated into the statewide transportation improvement program.

3. Unified Planning Work Program (UPWP)

The UPWP identifies the specific planning priorities and work tasks that an MPO will address during the annual program period. The development of the UPWP is required as part of the "3Cs" metropolitan planning process and specifically the *Metropolitan Planning Rules (23CFR 450.314).*

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D. Tennessee & Mississippi MPOs

There are nearly 400 MPOs active in the United States, including eleven (11) in Tennessee (Bristol, Chattanooga, Clarksville, Cleveland, Jackson, Johnson City, Kingsport, Knoxville, Lakeway, Memphis and Nashville) and three (3) in Mississippi (Biloxi-Gulfport/Pascagoula, Hattiesburg and Jackson). Though the structure of each MPO varies slightly, Tennessee MPOs are most commonly made up of a policy committee, technical advisory committees, citizen advisory committee and the staff of the local area planning organization. These MPOs also continuously cooperate with various other non-profit, community, business and environmental organizations.

E. Memphis MPO

The Memphis MPO serves as the primary forum for collective and cooperative decision-making regarding transportation policies by elected officials of local governments. Tennessee Governor Ray Blanton in 1977 and Mississippi Governor Cliff Finch in 1978 designated the Memphis MPO as the lead agency for transportation planning in the Memphis urbanized area. Subsequent agreements between TDOT, MDOT, and the Memphis MPO developed the organizational structure and membership. The urbanized area had become eligible for MPO designation after it was determined from the 1980 census that the area met the required minimum population of 50,000 people in a central city.

The Memphis MPO is composed of two boards, the Executive Board and the Regional Advisory Board (RAB), and five committees: Air Quality, Citizens Advisory, Engineering and Technical, Freight, and Transportation Safety committees.

1. Executive Board

The Executive Board is responsible for policy direction and has the final responsibility for transportation planning and programming. The board is comprised of six members: the Governors of Tennessee and Mississippi; the Chairman of the DeSoto County Board of Supervisors; the Mayors of Memphis and Shelby County; and a designated elected official who represents affected municipalities and smaller communities in the Memphis MPO area.

2. Regional Advisory Board (RAB)

The RAB is responsible for reviewing all transportation planning, programming and implementation activities among the various jurisdictions and agencies comprising the MPO region. The RAB makes recommendations to the Executive Board based on a majority vote.

The RAB has 20 voting members consisting of the elected executive official of each county and municipality in the planning area as well as the chairs of the Memphis Area

Transit Authority (MATA), the Memphis and Shelby County Port Commission and the Memphis and Shelby County Airport Authority. The RAB also includes ex-officio or non-voting member representatives from the Memphis City Council and the Shelby County Board of Commissioners, representatives from each modal administration of the U.S. Department of Transportation, and a representative from the U.S. Environmental Protection Agency.

3. Air Quality Committee

The Air Quality Committee advises and assists the Executive Board, the RAB, and other committees on changes in local, State or Federal air quality standards and their impact on transportation matters. It makes recommendations to the MPO on undertaking measures designed for the reduction of mobile source emissions. Additionally, it reviews all proposals for expenditures of Congestion Mitigation/Air Quality (CMAQ) funds or funds with the primary purpose of reducing mobile source emissions.

The committee makes a positive or negative recommendation to the RAB concerning the planned use of funds on air quality projects. Membership includes representatives from the local air pollution control program, MATA and members of the Engineering and Technical Committee whose responsibilities include air quality and are in a jurisdiction within a designated particulate, carbon monoxide, ozone or nitrogen dioxide maintenance or nonattainment air quality area as determined by the Environmental Protection Agency.

4. Citizen Advisory Committee

The Citizen Advisory Committee reports to the Executive Board on matters of planning or administration within the metropolitan planning area. Each governmental entity represented on the Executive Board and the RAB appoints a member to this committee and each jurisdiction has at least one representative. Municipalities or counties with populations greater than 50,000 may appoint one additional member when the population exceeds the next 50,000 population-threshold as determined by the U. S. Census Bureau.

5. Engineering and Technical Committee

This committee advises and assists the Executive Board and RAB on matters of planning and engineering. Membership of the committee consists of representatives from the City of Memphis Engineer's Office; the Shelby County Engineer's Office; and an engineer, planner, or other designated person from each governmental entity in the Memphis MPO who is responsible for planning or implementing transportation projects within each jurisdiction.

In addition, representatives of other agencies including Federal, State and local agencies that may impact the planning or implementation process of the MPO may also be a member of this committee. The chairman of the Engineering and Technical Committee is the Memphis MPO Planning Coordinator.

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6. Freight Committee

The Freight Committee advises and assists the Executive Board and the RAB and makes recommendations to all other committees of the MPO on strategies that aid the movement of freight into, around, and out of the urbanized area. Membership is composed of representatives of the various providers and users of modes of transportation specifically used in transporting goods.

7. Transportation Safety Committee

The Transportation Safety Committee advises and assists the Executive Board and the RAB and all committees of the MPO on strategies in planning and implementation of transportation projects as they relate to transportation safety. The committee promotes coordination of traffic safety programs and initiatives among member jurisdictions. Membership of this committee includes members of law enforcement, public safety, engineering departments from the local participating jurisdictions and public or private interest groups that focus on transportation related safety issues.

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CHAPTER II

TRANSPORTATION PLANNING PROCESS & CITIZEN PARTICIPATION

The Memphis MPO emphasizes a strong commitment to public participation in all of its on-going program activities. The objective of the approved *Memphis MPO Citizen Participation Plan* (see **Appendix B, Citizen Participation Plan**) is to re-affirm the organization's commitment through a specific plan of action to provide timely and meaningful opportunity for public involvement in developing the LRTP for the planning region. The MPO has sought to raise the level of public involvement in the development and preparation of all transportation plans and studies. MPO staff provided opportunities for public input into the project selection and plan preparation process.

These opportunities were formally provided during 2003 as part of the process of informing the various MPO committees and boards on the progress of developing growth assumptions and goals proposed for inclusion in the draft LRTP. **Appendix C, ETC and RAB Developmental Meeting Summary for LRTP,** outlines the Engineering & Technical Committee (ETC) and the Regional Advisory Board (RAB) meetings that are open to all interested parties (meeting agendas and minutes are included).

A. Memphis MPO Prospectus

In addition to developing and maintaining a LRTP, TIP and the UPWP, the Memphis MPO has adopted a document entitled the *Memphis MPO Prospectus*, which serves three important functions in the transportation planning process. First, it provides an overview of the federally mandated "3C" (comprehensive, continuing, cooperative) transportation planning process as defined by TEA-21. Second, it defines the roles and responsibilities of the various federal, state and local agencies and entities involved in the Memphis MPO transportation planning process. Third, it documents the interagency agreements that have been or will be entered into between Memphis MPO, TDOT and MDOT. These agreements further define the specific responsibilities and obligations of each agency. The *Memphis MPO Prospectus* will be updated to reflect any new or amended agreements with appropriate local jurisdiction and agencies as the Executive Board adopts them.

The *Memphis MPO Prospectus* is designed to serve as a common reference for all parties interested and involved in the regional transportation planning process in the Memphis urbanized area of Tennessee, and it details how that process will be implemented by the Memphis MPO. Information contained in the *Memphis MPO Prospectus* augments much of the text contained in this plan. It is recommended that the reader refer to that document for additional background on the Memphis MPO transportation planning process and the roles of the various agencies and entities. A copy is available for review in the MPO Office or the DPD website at www.DPDGOV.com and libraries in Fayette, DeSoto and Shelby counties.

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B. 2026 Plan Development Process

1. Updating the Plan

In early 2003, through the committee and board structure of the MPO, meetings, workshops and public hearings were held to determine consensus on the basic transportation policies of this plan. These workshops and meetings resulted in the decision to make this update of the plan a continuation of the current long-range transportation plan. New growth projections were estimated, and transportation issues facing the Memphis MPO were examined to effectively focus this new plan on relevant issues over the next three years that would meet the overall goals of the 2023 LRTP as well as develop additional goals based on newly identified issues. The planning analyses are a composite of the following plans and policies of the various member agencies of the Memphis MPO, as well as other supporting documents:

- *Growth Plan of Shelby County, Tennessee adopted in 2000*
- *Growth Plan of Fayette County, Tennessee adopted in August 2003*
- *Desoto County Land Use Plan* (currently under review for adoption by the DeSoto County Board of Supervisors)
- *Gray's Creek Plan*
- *MATA Regional Rail Program*
- *Shelby County Government Smart Growth Initiative*
- *Memphis Regional Source Book*
- *Memphis 2005 Plan*
- *Riverfront Master Plan*

2. Public Outreach

As required by TEA-21, the Memphis MPO has adopted and incorporated a process for soliciting public involvement for all MPO transportation-planning efforts as reflected in *the Memphis MPO Citizen Participation Plan.* The update of the regional long-range transportation plan involved more extensive public outreach efforts than exhibited in the previous plan preparation process.

In an effort to increase citizen involvement in future planning efforts- especially among minorities and low-income residents, the MPO will continue to develop studies that identify such groups, the specific issues they face in regard to access and mobility and potential solutions.

3. Planning

In order to fully implement TEA-21, CAAA, TITLE VI and EJ the Memphis MPO utilizes a set of project selection procedures in the development of the TIP. These procedures were developed in 1994 by the Memphis MPO Engineering and Technical

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Committee with input from the general public and elected officials and amended during each subsequent round to improve the TIP development process. The Memphis MPO required that each municipality and relevant agency be given the opportunity to propose projects through the LRTP and TIP project selection process. Staff evaluated projects from these and other organizations based on regional significance, need or urgency and consistency as they relate to the goals of the plan.

Meetings were conducted with community interest groups and the general public in order to discuss planning requirements and to solicit policy and technical comments. Information was disseminated and comments were received. Comments and recommendations were presented to the members of the various committees and boards of the MPO and the LRTP was then finalized.

In accordance with the MPO policy for public participation, a formal comment period on the draft plan was provided. Public announcements were made through various media outlets, including a local Spanish newspaper. These announcements included specific information on the review period, public availability of the draft plan, and the public meeting schedule. Copies of the draft plan were available for review in the MPO Office or the DPD website at www.DPDGOV.com and libraries in Fayette, DeSoto and Shelby counties. Numerous public meetings were held throughout the region where a presentation of the plan was made, copies of the plan were made available for inspection, and public comment was received. A summary of public comments is provided in **Appendix D, Public Participation Summary.**

4. Plan Adoption and Amendment Procedure

Adoption of the transportation plan, or adoption of amendments to the plan, follows the same basic approval procedures. There are three scenarios of amendments (Policy Amendment, Fiscal Amendment and Regionally Significant Amendment), not mutually exclusive, that may require specific documentation. Amendments may be presented for consideration by member agencies or the staff of the MPO. Such amendments may be products of other planning processes of those agencies that require inclusion the transportation plan.

The plan or amendment is presented to the public through public notification as required in the *Memphis MPO Citizen Participation Plan*. Public notification in approved newspapers of general circulation includes how and where the public can review the plan or amendment and affords the public a comment period lasting a minimum of 30 days prior to adoption. Public meetings may have been held prior to this notification if the plan or amendment is the product of other accepted planning processes. During the 30-day comment period, the MPO, at its published meetings of the Executive Board and RAB, also accepts public comments.

The Executive Board and RAB are advised of any public comments received. The Boards take into consideration comments presented at each meeting when deciding what

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action should be taken or amendments made. The boards then act to recommend approval or rejection or may defer approval for additional study and comments.

A plan or amendment that requires demonstration of fiscal constraint or air quality conformity, while adopted, is not effective until the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), with consultation from the Environmental Protection Agency (EPA), gives approval. These approvals may require up to 45 days from the date of submission to these federal agencies.

A detailed outline of the approval process for the transportation plan is provided in the *Memphis MPO Citizen Participation Plan* along with the procedure for submitting amendments to the plan.

SUPPORT OF LRTP 2026 GOALS

While supporting all of the goals of the LRTP 2026, Chapter 2, Transportation Planning Process & Citizen Participation, specifically addresses the following goals and objectives:

- **Continue to ensure the MPO enforces and promotes adherence to Title VI and the *President's Executive Order on Environmental Justice*.**
  - **-Present opportunities for public participation in the planning process without regard to race, color or national origin.**
  - **-Continue to collect and analyze socio-economic data for the Memphis MPO region in an effort to make more informed decisions regarding transportation and its potential effects on all area citizens.**
  - **-Consider the impacts of transportation projects on all communities potentially affected by such projects.**
  - **-Continue to take the necessary corrective action to prevent discrimination in the planning process based on race, color or national origin.**

- **Develop a cost effective planning process that maximizes community consensus in all aspects of transportation planning**
  - **-Continue to explore different techniques to increase citizen participation in the planning process**

- **Enhance the MPO's relationship with other regional planning entities**
  - **-Design a process to share data and other forms of information with the West Memphis MPO and other pertinent groups**
  - **-Work with West Memphis MPO and other transportation entities to ensure regional coordination on transportation and air quality planning activities**

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CHAPTER III

GOALS AND OBJECTIVES

The purpose of this chapter is to outline the goals and objectives adopted by the Memphis MPO to guide long-range transportation planning in the area. Also, this chapter demonstrates the incorporation of the TEA-21 planning factors in the development of the plan's goals and objectives. Following each goal and objective is an assessment of how the Memphis MPO has taken measures to meet the goals and objectives as well as strategies for addressing the goals and objectives in the future.

A. TEA-21 Planning Factors

TEA-21 consolidated the previous sixteen planning factors of ISTEA into seven broad areas that must be considered in the transportation planning process. They are:

1. **Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency**.

2. **Increase the safety and security of the transportation system for motorized and non-motorized users**.

3. **Increase the accessibility and mobility options for people and freight**.

4. **Protect and enhance the environment, promote energy conservation, and improve quality of life**.

5. **Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.**

6. **Promote efficient system management and operation**.

7. **Emphasize the preservation of the existing transportation system**.

B. Goals and Objectives

These planning factors guide transportation planning in the Memphis MPO area and as such are reflected in the following goals and objectives. To ensure the MPO addressed each planning factor, the goals and objectives matrix which follows includes a column that shows the connection between a specific planning factor and a MPO goal or objective.

LRTP GOAL	OBJECTIVE	TEA-21 PLANNING FACTOR	ACCOMPLISHMENT SINCE 2023 LRTP ADOPTION
1. Increase accessibility and mobility for people using the MPO's regional transportation network.	Market and promote the Memphis Area Rideshare and Van Lease Program in employment centers, to traffic management associations and in identified congestion corridors.	1,3,4,5,6,7	Membership and van leasing in the Memphis Area Rideshare and the Van Lease Program have increased annually since the last LRTP adoption.
	Continue to explore the use of existing rail lines for transit service.	1,7	MATA continually monitors availability of railroad rights-of way.
	Improve transit services to meet additional needs and demands.	1,3,5	MATA had increased hours of service by 10% since the last LRTP adoption.
	Promote the use of employer subsidized transit passes.	1,3,5	MATA continues to market transit passes to local employers.
	Continue to support efforts to secure a permanent and sustainable source of local funding for mass transit.	1,3,5	MATA has had formal/informal discussions at state and local levels to secure permanent funding.
	Increase the inventory of demand responsive types of transit to better serve the elderly and disabled.	1,3,4	MATA has increased its demand response fleet by 48% (From 46 to 68 buses) since the last LRTP adoption.
2. Continue to ensure that the MPO enforces and promotes adherence to Title VI and the President's Executive Order on Environmental Justice.	Present opportunities for public participation in the planning process without regard to race, color or national origin.	3	The MPO publishes public notices for meetings in the *Commercial Appeal*, *DeSoto Times* and the *Tri-State Defender*. In Fall, 2003 the MPO began to publish notices in the *LaPrensa Latina* to reach the growing Latino and Hispanic communities as well.
	Continue to collect and analyze socio-economic data for the Memphis MPO region in an effort to make more informed decisions regarding transportation and its potential effects on all area citizens.	3	This MPO provides several avenues for minority participation in the planning process including the solicitation of comments at public meetings, the DPD/MPO website and involvement in the Citizen's Advisory Committee.
	Consider the impacts of transportation projects on all communities potentially affected by such projects.	3	The MPO worked with the City of Memphis in developing nine computer kiosks that provide citizens access to city government services (the information is also available in Spanish).
	Continue to take the necessary corrective action to prevent discrimination in the planning process based on race, color or national origin.	3	The MPO contacts the Center for Neighborhoods during the LRTP, TIP, UPWP, and CMS processes to identify minority neighborhoods that may be affected by transportation related decisions. The Center for Neighborhoods is also a member of the MPO's Citizen's Advisory Committee.

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LRTP GOAL	OBJECTIVE	TEA-21 PLANNING FACTOR	ACCOMPLISHMENT SINCE 2023 LRTP ADOPTION
			The MPO hosted the second annual Title VI Conference in July 2003 to educate the public and local agencies that receive federal funding on regulation and compliance issues.
3. Promote efficient land use and development patterns to ensure safety, economic vitality, and to meet existing and future transportation needs.	Promote the concentration of future employment and other activity centers along existing and planned major travel corridors.	1,7	The MPO worked with DPD's Economic Development Office to evaluate road construction schedules for potential development projects, particularly in Millington with the reuse of the naval base and in North Memphis.
	Continue to improve coordination and cooperation between engineering, planning and enforcement agencies involved in transportation activities.	2,7	
	Promote infill development that reuses existing resources such as buildings, utilities and roads.	1,7	The Light Rail has been extended from Downtown Memphis to the Medical Center.
	Continue to modernize rail signals to lessen rail-auto conflicts.	2	The City of Memphis is currently working with TDOT, several rail line companies and local jurisdictions to add gates at particular rail crossings including: the spur line north of Mullins Station, Moss Rd. south of Poplar, Beale St. and Broad Ave. west of Scott St.
	Continue to support the use of Geographic Information Systems (GIS) for transportation planning.	1-7	A variety of maps and data are available to the general public on http://www.dpdgov.com/.
	Continue to erect (where feasible) signs that limit truck traffic on small residential streets.	2	
	Support efforts to enhance safety on mass transit systems.	2	MATA has installed security cameras on 53% of its demand response fleet (36 buses), 19% of its fixed route fleet (37 buses) and has security monitoring at all passenger terminals.
4. Encourage conservation of energy resources in addition to minimizing the adverse impacts transportation has on social, economical and environmental attributes of the community.	Protect and enhance environmentally sensitive areas.	4	The MPO has adopted project selection criteria to evaluate projects based on sensitivity to environmental issues, aesthetics, and the reduction of negative community impacts.
			The MPO is currently working with TDOT and several local groups on two projects with significant environmental impacts- Shelby Farms road alternatives and Wolf River Blvd.

LRTP GOAL	OBJECTIVE	TEA-21 PLANNING FACTOR	ACCOMPLISHMENT SINCE 2023 LRTP ADOPTION
	Minimize transportation noise impacts.	4	The MPO participated in the public hearing process that led to the implementation of noise barrier walls on south I-240.
	Promote the selection and use of energy efficient transportation devices.	4	The City of Memphis has begun using LED traffic lights- a technology that consumes less energy and is more durable.
5. Develop a cost effective planning process that maximizes community consensus in all aspects of transportation planning.	Support achievement of community consensus on transportation goals.	3	In 2001, the MPO adopted its *Citizen Participation Plan*, which guides how the organization informs and involves the public in planning and implementation processes.
	Continue to explore different techniques to increase citizen participation in the planning process.	3	In July 2003 DPD launched its new website wherein the public can access transportation data, plans, maps and submit comments.
6. Enhance the MPO's relationship with other regional planning entities.	Design a process to share data and other forms of information with the West Memphis MPO and other pertinent groups.	1-7	The MPO worked with the West Memphis MPO and other planning agencies on the Hwy 79 and Mississippi River Bridge Crossing Study as well as the Early Action Compact.
	Work with the West Memphis MPO and other transportation entities to ensure regional coordination on transportation and air quality planning activities.	1-7	
7. Encourage and provide adequate facilities for non-motorized transportation modes.	Work with jurisdictions and bike and pedestrian clubs in the Memphis MPO region to develop a regional bicycle and pedestrian plan.	2-7	The MPO is currently in the process of reworking its bicycle and pedestrian plan; a new plan is scheduled for adoption in Fall 2004.
	Work with MATA to increase options for bicyclists who access mass transit (bike racks, lockers, etc).	2-7	MATA has installed bike racks on 10% of its fixed route fleet (20 buses).
	Develop project selection criteria that encourage development and enhancement of bicycle and pedestrian facilities.	2-7	MATA's North End Terminal has been designated as a "Cycling Support Center" on the City of Memphis' bike routes.
8. Increase the safety and security of the transportation system for motorized and non-motorized users.	Develop right-of-way cross-sections that permit the separation of sidewalks and utilities safely from driving lanes.	2	The MPO, in conjunction with local jurisdictions, universities, and phone and utility companies, has coordinated a Utility Pole Safety Committee to develop strategies for reducing the number of injuries and fatalities associated with utility pole crashes.

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LRTP GOAL	OBJECTIVE	TEA-21 PLANNING FACTOR	ACCOMPLISHMENT SINCE 2023 LRTP ADOPTION
	Provide (where feasible), adequately sized bike lanes and signage to promote and protect bicyclists.	2,4	
	Encourage policies, plans, and transportation projects that eliminate unsafe designs and conditions or provide increased safety for users.	2	The MPO's Safety Committee has developed an annual Safety Program Calendar that serves as a coordinated approach in identifying and educating the public on specific safety issues such as child safety seats, school zone awareness and traffic signal compliance.
			In collaboration with TDOT, the MPO is participating in the development of ITS architecture, particularly video surveillance that will monitor traffic on bridges as well as serve as a security monitor for bridge supports.
9. Continue to develop a multi-modal transportation network that utilizes strategies for addressing congestion management and air quality issues in the Memphis MPO region.	Promote street networks that ensure minimal congestion by reducing travel delays in accordance with the guidelines in the MPO's adopted CMS Plan.	1,6	The City of Memphis and Shelby County are in the process of designing and implementing traffic control coordination systems on several roadways identified on the CMS network.
	Encourage strategies that reduce mobile source emissions in an effort to improve air quality.	4,6	The MPO has enacted access control policies for Germantown Parkway, Hwy 64, and portions of Winchester Rd.
	Continue to implement and promote strategies and policies such as access control, HOV facilities, travel demand management, mass transit and alternative transportation to improve congestion conditions.	1,4,6	TDOT has begun design for an ITS network along local interstates with an early deployment segment designated for the local Mississippi River crossings.
	Develop an up-to-date CMS Plan that is concurrent with horizon years adopted in the LRTP.	1,4,6	
10. Encourage improvements to and the expansion of freight facilities to ensure that Memphis maintains its leading role in global logistics.	Work with regional Class I railroads to ensure that the Memphis Intermodal Terminal is developed and operating by 2006.	1	In June 2003 the City of Memphis and Shelby County signed an agreement with Canadian National and CSX to develop the Memphis Super Terminal.
	Work with the Memphis and Shelby County Airport Authority and the International Port of Memphis to obtain funding for projects designated in their master plans.	1	The MPO has worked with the Memphis and Shelby County Airport Authority to secure additional funding for the Winchester Plough project.

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LRTP GOAL	OBJECTIVE	TEA-21 PLANNING FACTOR	ACCOMPLISHMENT SINCE 2023 LRTP ADOPTION
	Work with federal and state departments of transportation to obtain funding for the construction of I-69, I-22, I-269 and the new I-55 highway-railway bridge.	1	MPO staff participated in the third Mississippi Bridge Steering Committee and worked with TDOT and consultants on I-69. I-69 north of Memphis is now a proposed amendment to the MPO TIP.

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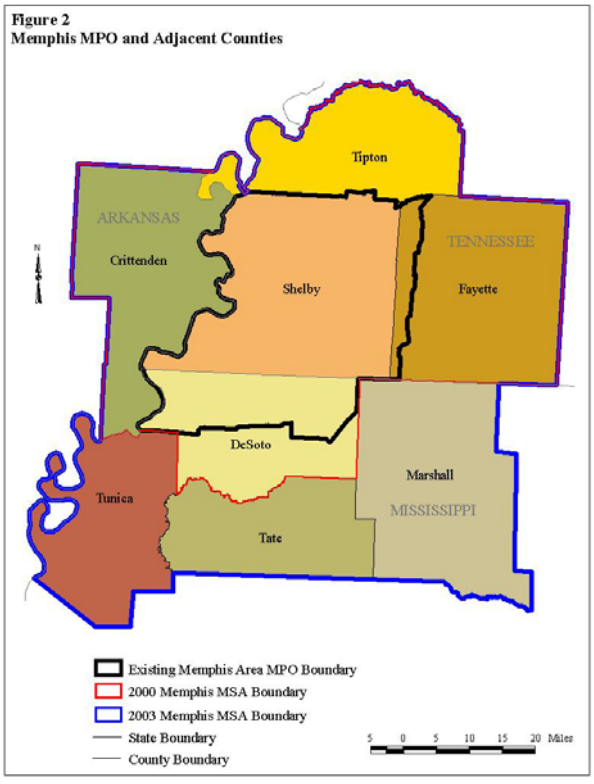
CHAPTER IV
DEMOGRAPHIC ANALYSIS AND GROWTH ALTERNATIVES

Over the last decade, the Memphis MPO region has had consistent population and employment growth. As in many other growing metropolitan areas across the United States, officials in the counties and municipalities of the region are working to respond to the stresses and strains caused by shifting growth patterns.

In an effort to determine future travel demands to produce a comprehensive transportation plan for the Memphis Metropolitan area, the MPO examined existing census data and trends of where people live and work. Population, household and employment patterns are the basis for all analyses, projections, determination of growth alternatives and the selection of the alternative. Regional and community plans that have been adopted over the years were utilized to further support the data and conclusions of this plan. They were incorporated in the population and employment projections for the year 2026 presented in this section, along with input from planners, engineers and citizens of the local jurisdictions of the MPO.

A. Regional Framework

The MPO is responsible for transportation planning in Shelby County, Tennessee and portions of DeSoto County, Mississippi and Fayette County, Tennessee. **Figure 2, Memphis MPO and Adjacent Counties,** shows a map of the MPO region and adjacent counties in the Memphis Metropolitan Statistical Area (MSA).



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Growth trends show a sizable population increase in DeSoto County and Tipton County and a moderate increase in Shelby County for the Memphis MSA between 1990 and 2000 (**Table 1, Memphis MSA Population: 19980, 1990 & 2000)**. Tipton County, Tennessee and DeSoto County, Mississippi (including the part not in the MPO area) are the fastest growing counties in the region. According to the Census, between 1990 and 2000, Tipton County in Tennessee grew 36.5% while Desoto County in Mississippi grew 57.9%. With the continued loss of population in the central city of Memphis, growth in Shelby County has been concentrated in the outlying (suburban) areas as evident by positive changes for the 1990 and 2000 Censuses.

Population data pertaining to the counties outside the MSA over the past two decades illustrate those counties' essential roles in the region **(Table 2, Adjacent Counties).** Fayette County in Tennessee and Marshall, Tate and Tunica counties in Mississippi also had large growth percentages between 1990 and 2000. During the same time period, Shelby County grew 8.6%. Additionally, the City of Memphis population grew by 6.5% in 2000, principally through an aggressive annexation policy.

Table 1
Memphis MSA Population: 1980, 1990 & 2000

COUNTY	1980	1990	2000	% CHG 1990-2000
Shelby, TN	777,113	826,330	897,472	8.6%
Fayette, TN*			28,806	
Tipton, TN	32,930	37,568	51,271	36.5%
Crittenden, AR	49,499	49,939	50,866	1.9%
DeSoto, MS	53,930	67,910	107,199	57.9%
TOTAL MSA	913,472	981,747	1,135,614	15.7%

Source: U. S. Census of Population, 1980, 1990 & 2000
* Fayette County was included in the MSA for the 2000 Census

Table 2
Adjacent Counties

COUNTY	1980	1990	2000	% CHG
Fayette, TN*	25,305	25,559	28,806	12.7%
Marshall, MS	29,296	30,361	34,993	15.3%
Tate, MS	20,119	21,432	25,370	18.4%
Tunica, MS	9,652	8,164	9,227	13.0%

Source: U. S. Census of Population, 1980, 1990 & 2000

In June of 2003, the U. S. Office of Management and Budget (OMB), added Marshall, Tate and Tunica counties in Mississippi to the MSA for the next decennial census. The OMB

reviews MSAs after each census and adds or deletes counties from those areas based on their social and economic integration with the central city. Shelby County, specifically Memphis, remains the employment anchor of the region. **Table 3, Work Mobility,** shows County-to-County commuting data for 2000. This table details the number of people who work in Shelby County and the county where they reside.

Table 3
Work Mobility

County of Residence	Workers	Work in Shelby County	% Work in Shelby County
Fayette County, TN	12,783	7,825	61%
Shelby County, TN	408,221	383,198	94%
Tipton County, TN	23,280	12,220	52%
DeSoto County, MS	53,773	27,938	52%
Marshall County, MS	13,815	4,631	34%
Tate County, MS	10,654	2,226	21%
Tunica County, MS	23,280	201	6%
Crittenden County, AR	20,561	6,757	33%

Source: 2000 U.S. Census Bureau County -to- County Worker Flow Files

In 2000, 94% of employed residents of Shelby County worked in the county. Also working in Shelby County were 61% of Fayette County, TN workers; 52% of workers in both Tipton County, TN and DeSoto County, MS and 34% of Marshall County, MS workers. This data shows that workers from the counties that border Shelby County are contributing greatly to daily vehicle traffic in Shelby County.

2000 Census data also shows that 87% of employed residents of Tunica County work in Tunica County (only 6% worked in Shelby County). A 1999 report by the Bureau of Business and Economic Research at the University of Memphis, entitled "The Future of Casino Gaming in Tunica," showed that already 15,000 people were employed in Tunica County. It also showed that between 1989 and 1998 total employment was continually climbing as the unemployment rate plummeted. Tunica County's continued growth in population and employment must be considered as the Memphis MPO plans for its future.

In addition to the population and employment trends, the land development patterns of the region were analyzed. Development in the outlying areas of Shelby County has been along major transportation corridors and where sewer lines are accessible. As shown in **Figure 3, the Memphis MPO Major Highway Network,** the city of Lakeland and town of Arlington are bisected by Interstate 40 while Highways 70 and 64 run through them to the north and

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south respectively. Poplar Avenue (Highway 72) is the major corridor through Germantown and Collierville, and Millington is developed around Highway 51.

Tennessee Highway 385, when complete, will serve as an outer loop through Shelby County, providing access to the outlying municipalities. Currently the northern section of Highway 385 (Paul Barrett Parkway) and the southern portion of Highway 385 (Bill Morris Parkway) are complete. Paul Barrett Parkway begins in Millington and ties into I-40 in Arlington. Bill Morris Parkway extends from the southeastern section of the I-240 loop through southeastern Shelby County and terminates in Collierville at US Highway 72. The final portion of Highway 385 will connect these two completed sections by running in a north-south direction from Collierville to Arlington.

The outlying municipalities (Arlington, Bartlett, Collierville, Germantown, Lakeland and Millington) were once situated in rural Shelby County and were separated from the city of Memphis by stretches of undeveloped land. As the corridors connecting them to Memphis expanded and sewer service was extended, development along those corridors began to occur at a very fast pace. This fast-paced development has created a very large low-density metro area with a declining population inside the I-240 loop.

Figure 4, Memphis MSA Urban Area Expansion, delineates the urbanized areas of the Memphis region showing the expansion from the 1990 Memphis Urban Area to the 2000 urbanized area. The most notable expansion is along U.S. Highway 51 both to the north and south of Memphis.

Population, employment and land development trends show the need for further review of the MPO planning area. The 2026 population and employment projections reflect the present growth plans of the region. Growth will be the greatest in the outlying areas of the MPO and probably outside of the MPO boundaries. Based on comprehensive reviews of more detailed commuting patterns and demographic and economic data available in 2004, the Memphis Area MPO may be forced to consider recommending the expansion of the MPO planning area to account for growth and development on the outer fringe of the current MPO area. Areas that may be considered based on these trends include: DeSoto, Marshall, Tunica, and Tate Counties in Mississippi and Tipton and Fayette Counties in Tennessee.

B. Regional and Community Plans

In the past decade, several regional and community plans have been adopted that assisted the MPO in its long-range transportation planning process. In 1998, the Tennessee General Assembly adopted legislation requiring all counties in the State to prepare growth plans. This act, *TCA 1101*, resulted in growth plans being prepared and adopted in both Shelby County and Fayette County. Both of these growth plans have clear definitions of where growth will occur. DeSoto County is currently in the process of adopting its comprehensive plan. In addition to descriptions of these county plans, brief synopses are provided below of other plans that shaped the 2026 LRTP planning process.

Figure 3
Memphis MPO Major Highway Network

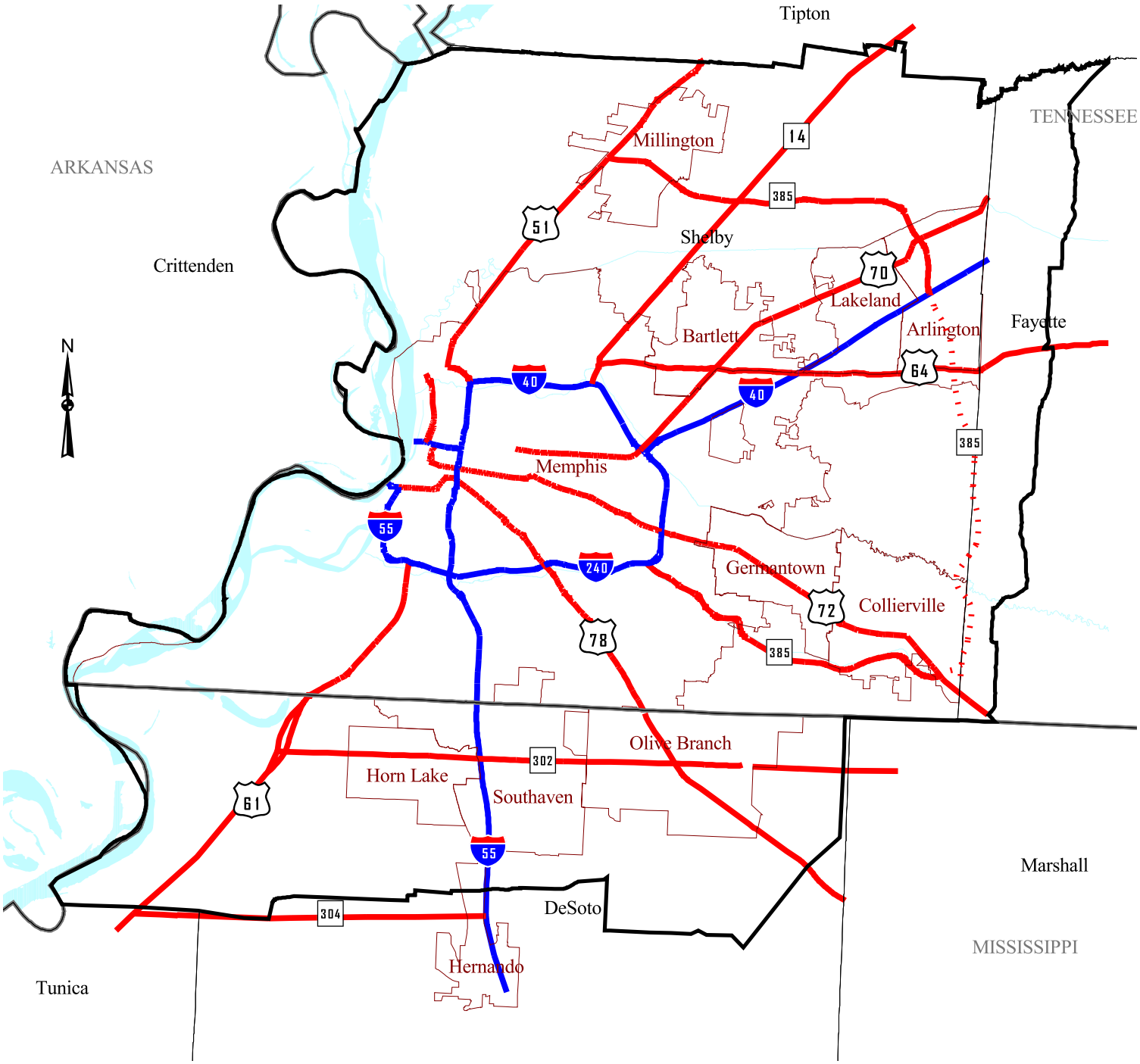
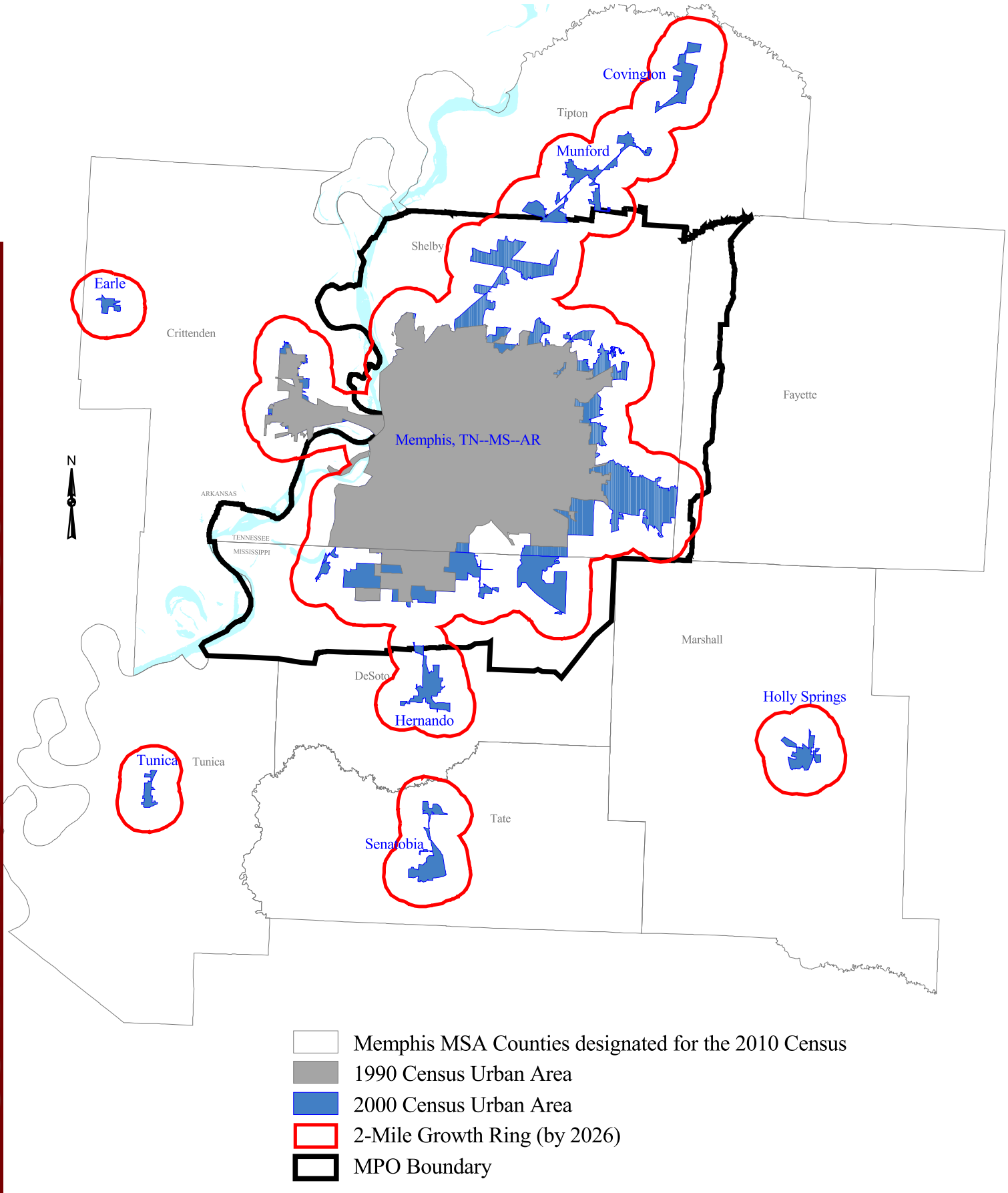


Figure 4
Memphis MSA Urban Area Expansions



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1. *Shelby County Growth Plan*

The *Shelby County Growth Plan*, available for review at www.dpdgov.com, identifies urban growth areas and municipal responsibilities for these areas, as required by TCA 1101. The growth plan based its future population projections on the MPO LRTP for 2020 as well as on additional input from various municipalities. Each of the seven municipalities was allocated an area termed "annexation reserve area". These territories were mutually agreed upon by all entities and documented in a memorandum of understanding. With the exception of a portion of the City of Memphis reserve area located in the northwest quadrant of the county, all annexation reserve areas were determined to be "urban growth areas" and are expected to urbanize in the next 20 years.

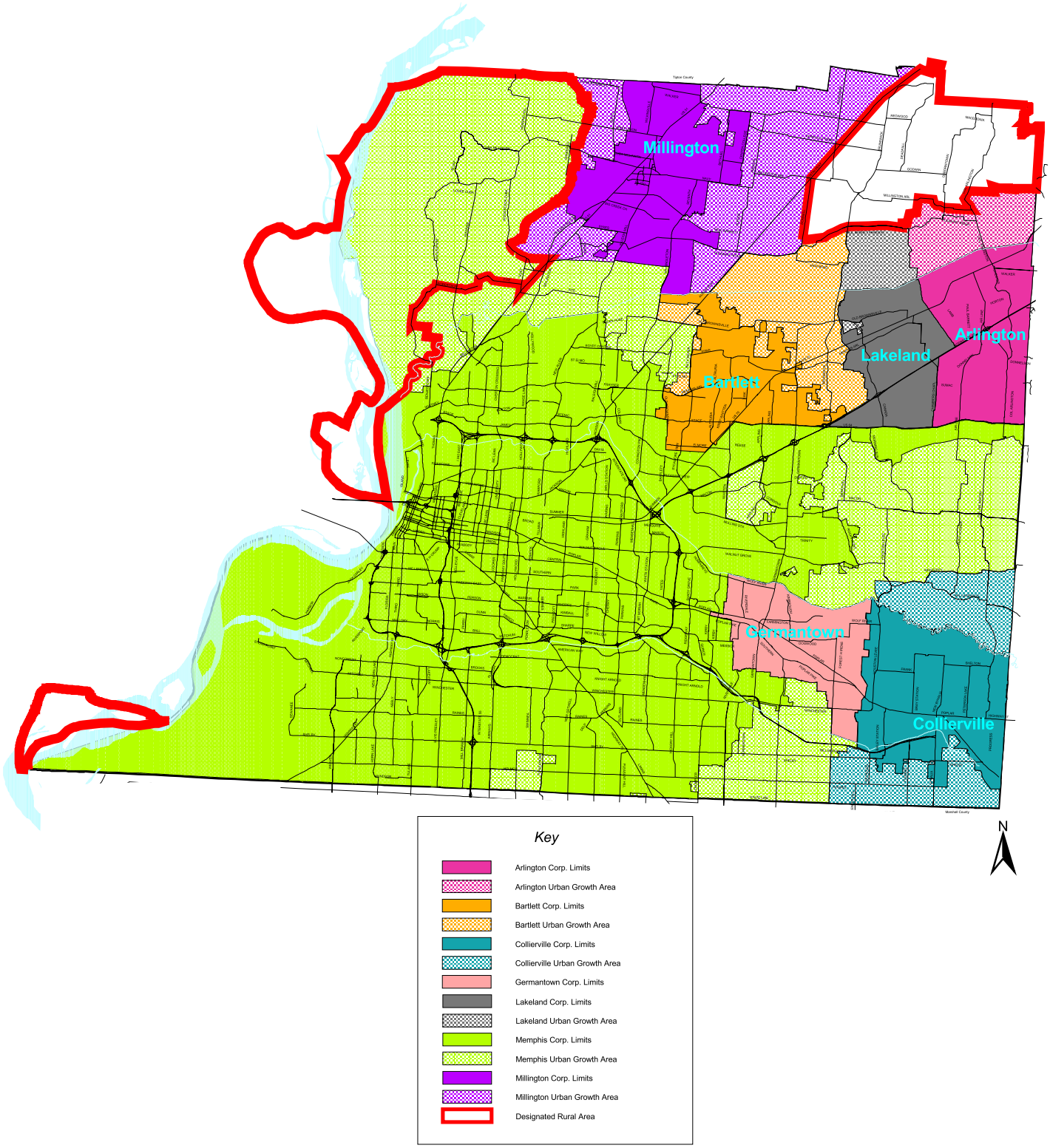
Two significant areas of the county were designated as rural – a large area north of the Arlington and Lakeland reserve areas in the northeast quadrant of the county (not included in a reserve area) and the aforementioned northwest quadrant which surrounds Shelby Forest and is adjacent to Millington's reserve area. These areas are not expected to encounter urban activity during the term of the 2026 LRTP.

The Shelby County Growth Plan utilized the adopted policies of the LRTP for major roads and transit as a basis for much of its assumptions for future growth. The plan states that by 2020 the majority of Shelby County will be urbanized because of adopted policies relating to extensions of sewer lines and major roads. The plan also notes that the highest residential densities (based on building permits and Shelby County Assessor's data) will occur in the east central, southern and southeastern portions of the Memphis annexation reserve area.

Outside of the Memphis annexation area, the areas south of Germantown and Collierville and north of Bartlett, Arlington and Lakeland, were identified as high growth areas. However, the growth plan also emphasizes aggressive programs aimed at the revitalization of housing, commercial and industrial properties within the City of Memphis. **Figure 5, the Shelby County Growth Plan Map,** illustrates the urban growth and rural areas as designated in the Shelby County Growth Plan.

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Figure 5
Shelby County Growth Plan



December 22, 1999, Updated with new Memphis Annexation of Countrywood/Eads, Hillshire, and Southeast Area, January 2003
Rural Area amended in 2003 by consent Decree

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2. *Fayette County Growth Plan*

The *Fayette County Growth Plan* was adopted in August 2003. The towns of Piperton and Gallaway and a portion of a Fayette County Planned Growth Area (old Hickory Withe) are within the planning area of the MPO. The *Growth Plan* seeks to direct future development to the existing towns first and secondarily to the growth area. Gallaway currently provides sewer service and Piperton will provide sewer service in the near future. The plan seeks to minimize low-density, costly development. **Figure 6, Fayette County Growth Plan,** details the Fayette County urban growth boundaries of the plan. In the MPO portion of Fayette County, future development north of Macon Road is projected to take place at suburban levels. South of Macon Road, in the vicinity of the town of Piperton, more compact urban level development similar to that of adjacent Collierville in Shelby County is anticipated. This growth in Fayette County is projected to begin principally in the latter part of the current decade.

3. *DeSoto County Comprehensive Plan*

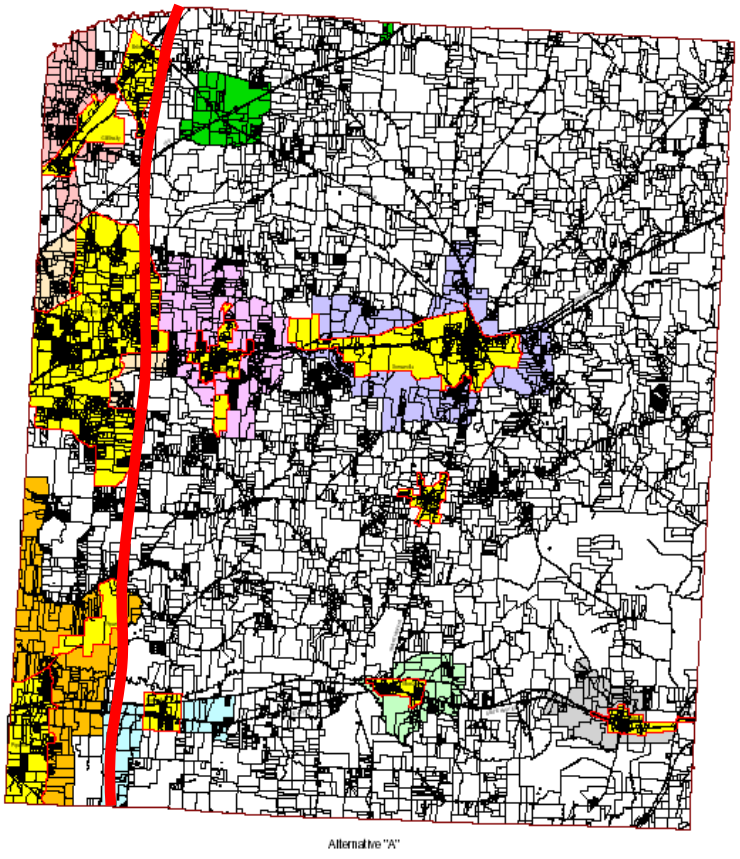
DeSoto County is in the final stages of developing and adopting a new comprehensive plan. The plan is a collection of goals, objectives and policies that relate to residential, commercial and industrial development as well as parks, open space and recreation. It focuses on the concept that an attractive community is one in which living areas, work areas, shopping and entertainment areas, community facilities and open spaces are all in close proximity to each other and are easily accessible. It calls for controlled development practices and dictates a number of regulations to ensure this occurs.

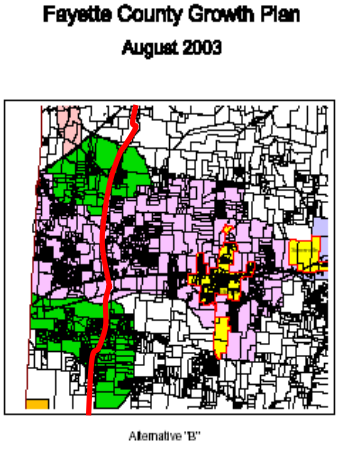
The DeSoto County plan contains demographic and socioeconomic data for the county obtained from the 2000 Census. This plan was the source of land use and demographic projections for the Mississippi portion of the MPO area for the 2026 LRTP.

The DeSoto County plan outlines a number of specific transportation goals and objectives. The plan calls for:

- Providing a network of roadways that allows for safe and efficient movement.
- Designing a comprehensive circulation system to integrate public facilities and land use.
- Providing better traffic flow by constructing new north-south and east-west routes.
- Reducing traffic congestion on major and minor streets and between homes and shopping and employment centers.
- Providing a roadway network capable of accommodating future needs as development occurs.
- Guiding the provision of access to particular types of development.

Figure 6
Fayette County Growth Plan





*Alternative B is the adopted plan.

Approximate MPO Boundary

Fayette County
Parcels
Municipalities
Gallaway Urban Growth Boundary

La Grange Urban Growth Boundary
Moscow Urban Growth Boundary
Oakland Urban Growth Boundary
Piperton Urban Growth Boundary
Rossville Urban Growth Boundary
Somerville Urban Growth Boundary
Planned Growth Area
Rural

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4. *Gray's Creek Plan*

The Gray's Creek area is located in east-central Shelby County. It is a projected high growth area in the *Shelby County Growth Plan*. The *Gray's Creek Plan* includes a comprehensive policy for growth with strategies related to housing and commercial development, transportation, and other key issues. Currently the area is largely rural with two-lane roads. Sewer service is not available in the majority of the area.

This plan seeks to guide development in the area so as to preserve natural resources, extend services in an orderly manner, develop neighborhoods with fully connected street systems that encourage walking and communal spaces, and enhance the visual quality of the area's key corridors. It recommends mixed-density development, with higher densities where services currently exist, and stresses a balanced street network, which is adverse to the current trend of low-density developments seen in the county's fringe areas. The plan's more compact development can accommodate approximately the same number of residential units and the same amount of non-residential square footage as the current development pattern exhibited in adjacent areas of the County that are dominated by sprawling suburbanization.

5. *Memphis 2005 Plan*

Launched in the fall of 1996, the goal of the Memphis 2005 planning process was to enable the Memphis MSA to become "a world class community that outperforms peer MSAs in educational achievement, job growth, capital investment, per capita income, and quality of life." Transportation goals in this plan include:

- Achieve aggressive progress on the airport master plan.
- Expand freight terminal facilities at the Port of Memphis.
- Build river port facilities on the northern side of Downtown Memphis.
- Increase highway capacities to increase productivity for businesses and citizens.
- Develop a regional bus system to provide opportunities for people to move between home and work.
- Coordinate light-rail plans with the regional bus system.
- Support continued planning for highways and high-speed railways connecting Memphis-Birmingham- Atlanta and Memphis-Chicago-St. Louis-New Orleans.
- Promote greater use of the Main Street trolley.
- Build I-69.
- Upgrade I-55 on- and off-ramps and raise low overpasses for truck traffic.
- Rebuild the I-40 and I-240 East and Midtown interchanges.
- Connect Sam Cooper Boulevard with Downtown Memphis.

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6. *Memphis Region Source Book*

In 1998, members of the Memphis 2005 Plan Advisory Committee recognized a need for a clear enunciation of a growth strategy to include outlying areas of Arkansas, Mississippi, and Tennessee within the Memphis region. In 2001, the Memphis 2005 committee adopted the *Memphis Region Source Book*. This document examines the region as a whole with Memphis as the anchor. It states that the "health of the entire region is dependent on the vitality of its metro core," and it notes that the success of the central city is essential for the region's success. Development patterns are discussed along with the unsustainable, costly nature of the area's essentially unlimited low-density growth in the suburban areas of Shelby County.

The *Source Book* offers many recommendations relating to transportation including:

- Develop an integrated multi-modal "super hub" to strengthen Memphis's function as a global logistics center.
- Develop a Regional Logistics Authority.
- Coordinate land use policies with transportation strategies to manage growth patterns.
- Create an integrated metropolitan transportation strategy, linking east and west sides of the Mississippi River.
- Strengthen and improve the Memphis MSA's ties to the surrounding region.
- Build a third roadway/railway, seismically engineered, bridge across the Mississippi River.
- Develop regional consensus on a metropolitan surface transportation plan.

7. *Smart Growth Initiative*

In 2003, Shelby County Mayor A C Wharton, Jr. convened community leaders to help recommend policies and strategies for managing urban and suburban growth. This initiative suggests walkable communities with improved interconnectivity, mixed-use zoning districts, and encouraging compact development on the urban fringe. The first phase of this initiative was launched in April, 2003. Phase I transportation-related recommendations include:

- Amending the Major Road Plan of the Memphis MPO by identifying major roads within the inner core of Memphis that were laid out using an 80-foot-or-less right-of-way. This will enable more developer investment in urban properties by exempting some corridors from the current requirement for a minimum 84-foot right-of-way.
- Developing a local and coordinated street network plan that would reduce required lanes from six to four.
- Requiring a minimum of one north-south and one east-west collector street between major roads.
- Increasing the number of local neighborhood streets in the suburban fringe.
- Providing better/increased intersections at local streets and major roads.

- Implementing the local street model outlined in the Long Range Transportation Plan to serve as a prototype in developing unincorporated areas of the county.

8. Conclusion

When examined together, the plans reviewed for the 2026 LRTP offer a complete picture of the MPO area and its future direction. The City of Memphis is the anchor of the region. In order for the region to prosper, its core must grow in a healthy direction. The overriding theme that is evident after reviewing these plans together is that an alternative to the current uncontrolled, low-density, costly development pattern is needed. More compact development than what is currently in use in the majority of the county would consume less land and be more cost effective and energy conservative in terms of road and sewer infrastructure.

C. Proposed Growth Alternatives

The 2026 LRTP process considers two growth alternatives as viable scenarios for future development. They are:

- Suburban Expansion
- Light Rail Corridor Development

1. Suburban Expansion Alternative

The Suburban Expansion alternative reflects a continuation of current development trends, featuring a low-density urban setting through dispersed development without a light rail system in the region. Under this scenario, local governments would support new development with additional facilities and services using urban standards. Extensive and costly infrastructure improvements would accommodate suburban growth.

As is characteristic of recent development patterns, this alternative would continue the separation of land uses by type of use and housing values. Neighborhoods and subdivisions would be allowed to develop in response to market trends, expected to be predominantly single-family, suburban homes in subdivisions. Subdivisions would be developed with similar housing types and without road inter-connections, except as required for continuous arterial roads and safety concerns.

An extensive network of roads with adequate capacity would serve as the transportation system. Major arterials would provide the main travel routes throughout the metropolitan area and form the corridors of growth. The bus system would supplement this transportation system, including some improvements such as suburban transfer stations. However, new development could not be served efficiently with transit.

This alternative would establish greenbelts with minimal links to neighborhoods and major street crossings. The existing inner city neighborhoods would need support for sustainability

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and/or rehabilitation. A plan for provision of innovative services, institutional and cultural developments in the inner city would also be a part of this alternative. The cities and counties would develop community and regional parks throughout the metropolitan area.

2. Light Rail Corridor Development Alternative

The Light Rail Corridor Development alternative assumes that all corridors in the MATA Regional Rail Program are completed by 2033. Intensive development would be supported in the urban core and along the corridor of a light rail transit (LRT) line. Higher densities would be promoted at designated locations that are adequately supported by transportation options and services. Increased development in the rail corridor would reduce the amount of land being consumed along the urban fringe. Better community design strategies would be applied to those areas that would not be impacted by the light rail lines.

The focus on redevelopment would be increased in the inner city under this alternative. Neighborhood redevelopment would be encouraged with infill development that is integrated into the neighborhood layout. The rail system would provide convenient access to services and employment centers. Neighborhoods within 1,500 feet of a station would be developed with a mix of residential, service and commercial activities. Residents and employees in these areas could walk easily between activities in the center.

The attractiveness of downtown Memphis as an employment center would be enhanced through improved access from the outer areas of development with an LRT system. The highest usage of available land in the Central Business Improvement District (CBID) would be pursued, and a variety of public and private uses would be accommodated.

The light rail system built in this alternative would be supported by a feeder bus system, park-and-ride locations and other transportation options as well as transit-oriented land uses. Reuse and development at higher densities in existing developed areas would help protect the environment, and increased use of transit to sustain good air quality would be promoted.

D. 2026 Projections for Growth Alternatives

1. Methodology

The first step in obtaining population and employment projections for the Memphis MPO involved developing a population estimate for 2026. The regional development model estimate of Woods and Poole served as a base figure that was further refined using data from the *Shelby County Growth Plan*, the *Fayette County Growth Plan* and the *DeSoto County Comprehensive Plan*. Employment projections were then calculated, consistent with this population estimate, using trend analysis of the growth/comprehensive plan data, the 2020 LRTP projections, Woods and Poole and employment estimates from the Memphis 2005 Plan, and the Bureau of Business and Economic Research at the University of Memphis. In order to obtain the growth projections allocated to each traffic analysis zone (TAZ) in the MPO, multiple meetings were held with each municipality in the MPO area. At these

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meetings, available data was analyzed using maps that were prepared by the MPO staff from data provided by the Memphis and Shelby County Office of Planning and Development, the Shelby County Assessor of Property, *the DeSoto County Comprehensive Plan* and the Fayette County Growth Plan. The current land use, future land use plans, employment centers, building permit and census data were analyzed and allocated to each TAZ. The result was a population and employment projection for each TAZ in the MPO area for each development alternative. County totals were then derived by totaling TAZs for those areas.

Trend analysis of census data by census tract was the primary method for assigning population and employment data to the Suburban Expansion growth alternative TAZs. TAZ population and employment projections allocations for the Light Rail Corridor alternative were derived in a manner similar to the method of calculating the overall growth projections, through analysis of: census data; current land use; future land use plans; growth and comprehensive plans; location of employment centers; and other pertinent resources. For the time period before significant light rail related land use changes are expected, before the year 2016, projections were the same under both alternatives. In support of the methodology described here, a step by step summary of the resources utilized to obtain the population and employment projections for the two growth alternatives follows in **Appendix E-Growth Alternatives Projections Methodology.**

The 2026 LRTP projections for the recommended Light Rail Corridor Development alternative were presented to the Engineering and Technical Committee, the Regional Advisory Board and the Executive Board of the Memphis MPO. Following approval of the Light Rail Corridor Development as the selected alternative by these committees, the travel demand forecasting model was run to calculate travel demand.

2. Employment Projection

Employment is projected to increase from 560,087 in 2000 to 815,390 in the Memphis MPO region by 2026 under both growth alternatives. This represents an increase of 9,800 persons. It must be emphasized that this number does not represent the total number of employed persons residing within the region. Rather, it is employment within the region, regardless of place of residence. **Table 4, MPO Employment Data and 2026 Projections by County,** illustrates the breakdown of employment by county in the MPO area.

Table 4
2000 MPO Employment Data and 2026 Projections by County

	2000	2026	% CHANGE
Shelby	511,528	725,142	41.8%
Fayette	2,179	5,700	161.6%
DeSoto	46,380	84,548	82.3%
TOTAL	560,087	815,390	45.6%

Source: Memphis MPO Projections

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Employment growth shows the greatest percentage increase in Fayette County followed by DeSoto County. Following the population trends, Shelby County's share of the overall MPO employment base is estimated to decrease from 91% to 89%. DeSoto County will increase from over 8% to over 10% in its share of the MPO employment and Fayette County is estimated to experience an increase from .4% to .7% of the total MPO. These estimates served as the basis for analyzing the two growth alternatives, Light Rail Corridor Development and Suburban Expansion.

3. Growth Projection*: Light Rail Corridor Development Alternative 2026*

As described in the *Methodology* section of this chapter, traffic analysis zones (TAZs) were used in the analysis for the projections of the 2026 LRTP growth alternatives. **Appendix F, Demographic Projections of Light Rail Corridor Development Alternative by TAZ,** shows the 2000 values and 2026 projections of the Light Rail Corridor Development alternative for Population, Households, Workers, Vehicles, and Employment, for every Traffic Analysis Zone (TAZ) in the Memphis MPO, including the linear equations used to calculate the population and employment for intermediate years.

The base and forecast population, number of households, workers, and vehicles for the Light Rail Corridor Development Alternative for the Memphis MPO area are summarized in **Table 5, MPO 2000 Data with 2026 Light Rail Corridor Alternatives Projections**. The population projection for Year 2026 under this scenario is expected to be 1,323,397 for the MPO area comprising Shelby County and parts of Fayette and DeSoto Counties. This is an increase of 333,869 persons from the 2000 population of 989,528. It is projected that 61.6% of this increase, or 205,804 persons, will occur within Shelby County; 33%, or 109,013 persons, of the increase in DeSoto County; and 6%, or 19,052 persons, of the increase in Fayette County. Regular monitoring of local growth will allow the MPO to adjust these figures over time, and formal adjustment will occur as the transportation plan is updated every three years.

Table 5
MPO 2000 Data with 2026 Light Rail Corridor Alternative Projections

	2000	Light Rail 2026	% CHANGE
Population	989,528	1,323,397	33.7%
Households	381,761	508,399	33.2%
Vehicles	593,795	850,660	43.3%
Workers	658,257	855,774	30.0%

Source: Memphis MPO Projections

4. Growth Projection*: Suburban Expansion Alternative 2026*

Projections using TAZs for the Suburban Expansion alternative are listed in **Appendix G, Projections of Suburban Expansion Alternative by TAZ. Table 6, 2000 Data and 2026**

Suburban Expansion Alternative Projections, illustrates that for the Suburban Expansion alternative, a projection of 1,302,869 people in the year 2026 for the MPO area. This is an increase of 313,341 persons from the 2000 Census population of 989,528. It is projected that 58% of this increase, or 181,162 persons, will occur within Shelby County by 2026; 36%, or 181,162 persons, of the increase in DeSoto County; and 6%, or 20,168 persons, of the increase in Fayette County. The projected population of the Suburban Expansion alternative increases by 32% from 2000 to 2026.

Table 6
MPO 2000 Data and 2026 Suburban Expansion Alternative Projections

	2000	Suburban Expansion 2026	% CHANGE
Population	989,528	1,302,869	31.7%
Households	381,761	499,712	30.9%
Vehicles	593,795	844,828	42.3%
Workers	658,257	845,609	28.5%

Source: Memphis MPO Projections

5. Comparison of Growth Alternatives

Total population within the MPO boundaries is expected to be less under the Suburban Expansion alternative than the Light Rail Corridor Development alternative due to people moving out, creating more dispersed development. The Light Rail Corridor Development alternative, with its compact design, is anticipated to capture more of the future population growth.

The difference in population and therefore households, vehicles and workers, is shown in **Table 7, MPO 2000 Data with 2026 Projections Comparison**.

Table 7
MPO 2000 Data with 2026 Projections Comparison

	2000	Light Rail 2026	Suburban Expansion 2026	Difference
Population	989,528	1,323,397	1,302,869	20,528
Households	381,761	508,399	499,712	8,687
Vehicles	593,795	850,660	844,828	5,832
Workers	658,257	855,774	845,609	10,165

Source: Memphis MPO Projections

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The 20,528 people distributed outside of the MPO boundary for the Suburban Expansion alternative increased the number of external trips forecasted in the Travel Demand Forecasting (TDF) model. The spatial distribution of the changes in the two alternatives shown in **Figure 7, Variation in 2026 LRTP Growth Alternative,** illustrates the dispersion of population beyond Shelby County and into DeSoto County and Fayette County.

In summary, Shelby County is expected to lose population under the Suburban Expansion alternative while DeSoto and Fayette counties will increase in population. **Figure 7** above shows the following differences comparing the Light Rail Corridor Development Alternative to the Suburban Expansion alternative:

- Shelby County total 2026 population is projected to be 24,642 less than LR.
- DeSoto County total 2026 population is projected to be 2,998 more than LR.
- Fayette County total 2026 population is projected to be 1,116 more than LR.
- 2026 population outside of the current MPO boundary is projected to increase by 20,528.

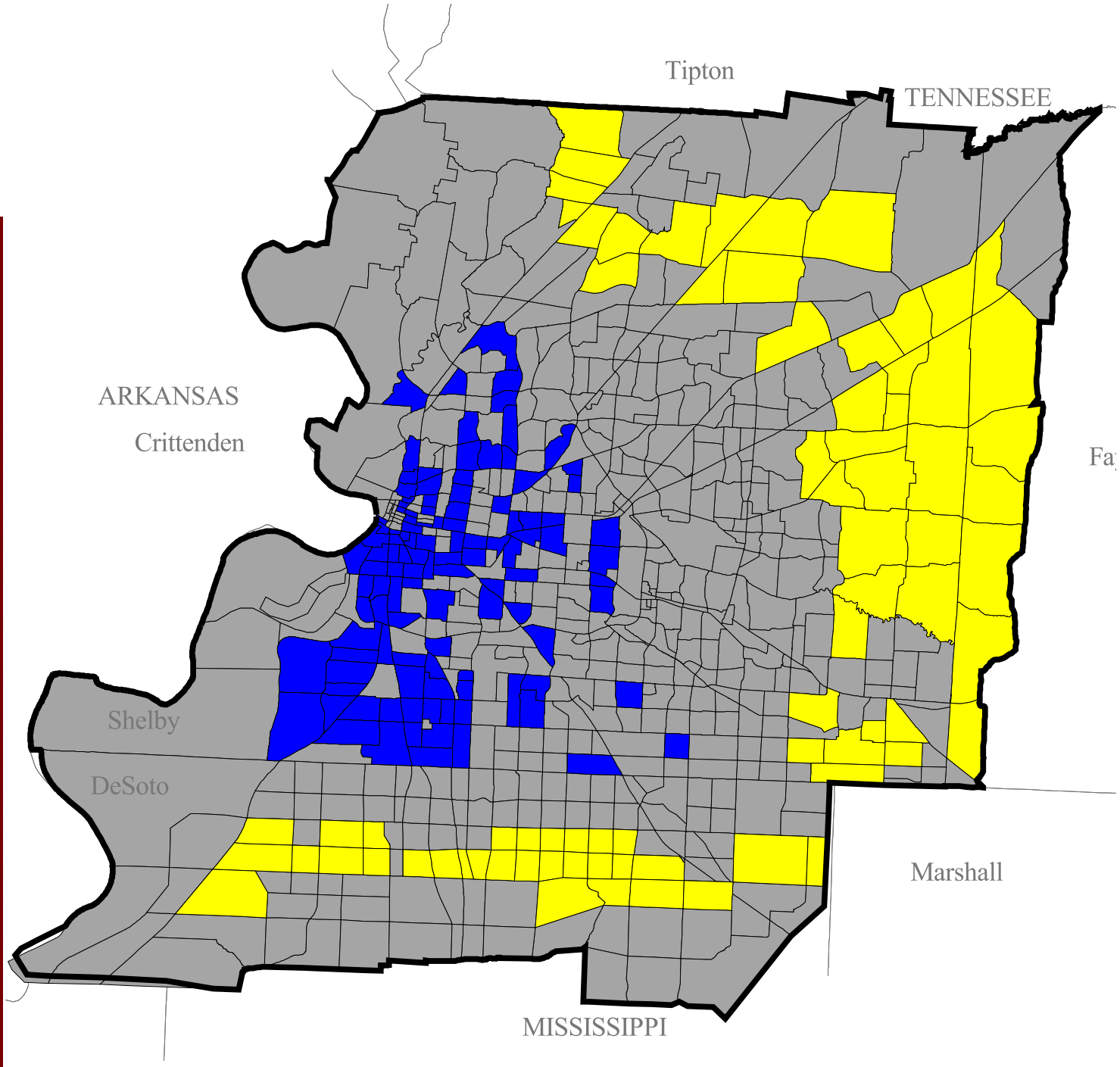
The location of major employment/activity centers contributes to where people choose to live. The MPO region has experienced tremendous economic growth over the past 10 years. Continued aggressive policies to attract and retain business and industry by the local jurisdictions will help ensure that the economy continues to thrive.

With the implementation of the Light Rail Corridor Development alternative, employment centers will continue to grow, moving outward along the light rail lines. Additional employment will be concentrated in the east central sector of Shelby County and the western reaches of Fayette County. **Figures 29 and 30** in the Major Roads section show the 2026 major road network overlaid on the projected population and employment for the horizon year. Current planned employment areas that support the Light Rail Corridor Development alternative include: the Southeast Industrial Corridor, planned to attract major new industry just south of the current City limits; the Technology Corridor which extends eastward from the Memphis in the area generally served by Bill Morris Parkway through Germantown to Collierville; the redevelopment and reuse of the Millington Naval Air Station; the Memphis Intermodal Terminal at Pidgeon Industrial Park and the job attraction strategies of the DeSoto Economic Development Council concentrated in Olive Branch and Southaven, MS.

The differences in the two land development alternatives are not extreme differences in terms of population, households, vehicles and workers. Part of the reason for this is that until 2016, the trends in both alternatives are identical. The changes occur between 2016 and 2026 when the light rail system would be constructed. As described in the *Shelby County Growth Plan*, the urbanization of Shelby County will continue in the future due to adopted policies that call for the extension of sewer lines and major roads. Given the small difference in demographic projections between the two alternatives, these urbanized growth patterns can be supported under both the Light Rail Corridor Development alternative and the Suburban Expansion alternative.

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Figure 7
Variation in 2026 LRTP Growth Alternatives



Traffic Analysis Zone (TAZ) Boundaries
Reduction in SE* as compared to 2026 LR**
Increase in SE as Compared to 2026 LR

* 2026 Suburban Expansion Alternative Population Projections

** 2026 Light Rail Corridor Development Alternative Population Projections

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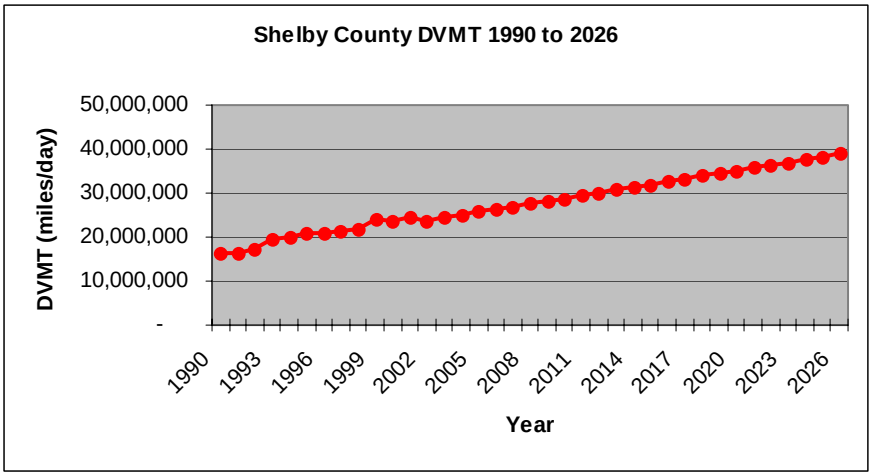
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6. Travel Demand

Employment growth is a major factor in the increase of annual vehicle miles traveled (VMT) in the Memphis MPO region. Additionally, much of the recent residential development has occurred in the outlying areas. As a result, trip lengths for all trip purposes have increased. The Tennessee Department of Transportation (TDOT) provides Daily VMT (DVMT) estimates using actual vehicle counts on roadway locations throughout Shelby County.

Estimates of DVMT on roadways in Shelby County were estimated for 2026 using 1990 to 2002 trends. The average annual increase from 1990 to 2002 was 630,232 miles per day. **Figure 8, Shelby County DVMT 1990-2026,** shows the annual growth from 16 million miles (MM) in 1990, to 24 MM in 2002, and to an estimated 39 MM in 2026.

Figure 8: Shelby County DVMT 1990-2026



Source: Memphis MPO

The 2026 Shelby County DVMT value follows the same upward trend as the Travel Demand Forecasting Model for the two growth alternatives. The travel demand model was run with the population and employment growth projections for both the Light Rail Corridor Development and Suburban Expansion alternatives. The model projects DVMT for the MPO region to continue increasing to over 34 MM under both alternatives (trend 34,742,262, rail 34,861,941). The lower number for Suburban Expansion further illustrates how the population is moving beyond the Memphis MPO boundaries creating travel demand in adjacent counties. The higher number for the Light Rail Corridor alternative demonstrates a higher travel demand for a larger population than in the Suburban Expansion alternative. As in the case of the demographic projections, travel demand differences are not great between the two alternatives. Both alternatives show an increase in travel demand in 2026 and both alternatives would require the resolution of congestion management issues, as described in **Chapter 6.**

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E. Selected Growth Alternative: Light Rail Corridor Development

In 1989, MATA produced its first *Long Range Transit Plan* which included a light rail/busway recommendation for the Poplar Avenue Corridor. In 1990, the *Memphis Commuter Rail Study* was completed and involved a comprehensive analysis of commuter rail scenarios in the Poplar and Cordova Corridors. The study reaffirmed the basic suitability of the Poplar Corridor for a major fixed-guideway transit investment in the future. In 1993, the Mayor of Memphis appointed a task force to study the feasibility of light rail for the Memphis area. The Task Force concluded that a light rail system is a viable concept to help meet the needs of the Memphis metropolitan area. The *Report of the Light Rail Task Force* cited the fact that light rail would serve as a catalyst for economic development through the creation of jobs, as well as serving as a land use planning and management tool. It would link neighborhoods, parks, employment centers, schools and churches.

In 1997, the Memphis Area Transit Authority developed the *Regional Transit Plan* (RTP) in cooperation with the MPO and the Division of Planning and Development. The development of the plan included regular review meetings with the MPO Engineering/Technical Committee so that plan elements were coordinated and so that there was adequate public review. The planning area boundaries for the Transit Plan are the same as the boundaries of the MPO.

The RTP initially considered 7 fixed guideway transit corridors for the metropolitan area. The corridors were evaluated and ranked based on transit ridership, market, cost and other policy issues. The corridors were further evaluated and based on factors such as cost, land use/demographic patterns, potential for economic development and particularly ridership, three corridors were selected: East Memphis/Germantown/Collierville (East/Southeast in 2026 LRTP), Whitehaven/Mississippi (Southern in 2026 LRTP) and Frayser/Millington (Northern in 2026 LRTP). The East/Southeast and Southern routes were the most feasible based on Federal Transit Administration's key measurement of ridership potential and were recommended to be developed first. The Northern route exhibited lower ridership potential, but ranked high in land use development potential and therefore it was recommended that this route be developed after the initial two.

The recommendations of the 1997 RTP were reviewed extensively by the ETC and compared to two other land use alternatives – Expanding Suburbs and Neighborhood Renewal. The ETC recommended that the Light Rail Alternative be adopted by the MPO as the preferred land use alternative in the 2020 LRTP. **The 1997 RTP was adopted by the MPO Executive Board in 1998 and incorporated into the 2020 LRTP and all subsequent LRTPs and their associated updates.** With each update of the LRTP, the light rail alternative has been re-examined and compared to alternative development patterns. The Light Rail Corridor Development alternative has remained the most viable alternative for the Memphis MPO region based on the mobility options that it offers area residents, its potential to spur jobs and economic development and its inherent land development principles which help to guide investment into developed areas of the region. **The Light Rail Corridor**

Development Alternative remains as the preferred land use alternative in the 2026 LRTP.

The Light Rail Corridor Development alternative provides infrastructure that promotes an urban development pattern which is supported by the *Shelby County Growth Plan, DeSoto Comprehensive Plan, Fayette County Growth Plan, Gray's Creek Plan, Memphis Region Source Book,* and *Smart Growth Initiative.* Strategies in these plans complement this alternative and help make it the most viable alternative. These goals are supported by all of the plans that contributed to the 2026 LRTP. However, it should be noted that the 2026 LRTP and the adopted policies of the MPO serve only as a guide for development by the local jurisdictions of the MPO region. Legislated policies and programs to enact the LRTP's strategies for development are enacted at the discretion of the local jurisdictions.

Transportation provides opportunities for social, economic, and community activities and policy makers have turned to the transportation sector as a means of achieving a variety of societal goals. Growth plans, comprehensive plans and regional policies concur that the development and improvement of the metro core is essential to the welfare of the Memphis MPO region.

Past and current trends in the MPO region have been those of rapidly expanding low-density suburbanization. The growth plans of Shelby and Fayette Counties, the *Gray's Creek Plan,* the *Memphis Region Sourcebook,* and the *Smart Growth Initiative* all seek to reverse the trend of low-density, sprawling developments. Multiple subdivision development without acceptable roadway interconnections is forcing more traffic onto major arterials, another trend that is unacceptable to the plans of the region. Finally, this type of growth scenario may continue to degrade the air quality and congestion mitigation of the area, which is of major concern.

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Conclusion

The first extension of this light rail system is in the final stages of construction. Other line extensions are still in the planning stages with final corridor selection for the southeast extension expected in 2004. MATA through its RTP and Regional Rail Program has committed to designing and constructing the light rail system. Local sources of funding have been identified and MATA, along with the City of Memphis, will continue to seek legislation that specifically sets aside funding for mass transit in the MPO area from State government. The MPO has identified funding sources and has included projects in this plan that support the development of the light rail system. Among other supportive projects, transit centers, transit enhancements, the light rail medical center extension and the regional rail program are all included in this plan as well as in the current TIP.

In the MPO region traditional suburban development building patterns have dictated the transportation network. With the creation and promotion of a light rail transportation system, land use and development patterns will begin to change as they centralize around this new mode of transportation. The MPO will monitor adopted plans of member jurisdictions so that the transportation network can respond any newly designated major employment/activity centers. Additionally, the MPO will encourage local jurisdictions to adopt policies and programs which support the goals of the Light Rail Corridor Development Alternative.

LRTP 2026 Projects/Strategies

All of the projects in the LRTP 2026 support the Light Rail Corridor Development Alternative.

SUPPORT OF LRTP 2026 GOALS

While supporting all of the goals of the LRTP 2026, selection of the Light Rail Corridor Development land use alternative specifically addresses the following goals and objectives:

- **Increase accessibility and mobility for people using the MPO's regional transportation network**
  - **Continue to explore the use of existing rail lines for transit service**
  - **Improve transit services to meet additional needs and demands**
  - **Continue to support efforts to secure a permanent and sustainable source of local funding for mass transit**

- **Promote efficient land use and development patterns to ensure safety, economic vitality and to meet existing and future transportation needs**
  - **Promote the concentration of future employment and other activity centers along existing and planned major travel corridors**
  - **Promote infill development that reuses existing resources such as buildings, utilities and roads**

- **Encourage conservation of energy resources in addition to minimizing adverse impacts transportation has on social, economic and environmental attributes of the community**
  - **Promote the selection and use of efficient transportation devices**

- **Develop a cost effective planning process that maximizes community consensus in all aspects of transportation planning**
  - **Support achievement of community consensus on transportation goals**

- **Increase the safety and security of the transportation system for motorized and non-motorized users**
  - **Encourage policies, plans and transportation projects that eliminate unsafe designs and conditions or provide projects that increase safety for users**

- **Continue to develop a multi-modal transportation network that utilizes strategies for addressing congestion management and air quality issues in the MPO region**
  - **Continue to implement and promote strategies and policies such as access control, HOV facilities, travel demand management, mass transit & alternative transportation to improve congestion conditions**

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CHAPTER V

TRANSPORTATION ELEMENTS

This chapter of the Long Range Transportation Plan contains three important elements of the transportation system. They are alternative transportation, the transit system, and freight transportation. Each element is examined in detail, setting forth issues to address and appropriate strategies for resolving those issues.

A. Alternative Transportation

Alternative transportation modes included in this plan are bicycling, walking and rideshare programs. This section is divided into two segments- the first discusses improvements in Federal funding and planning for bicycle and pedestrian projects and the second describes the MPO's rideshare program and its increasing importance to the region's transportation system. The rideshare program is a transportation control measure (TCM) stated in the State Implementation Plan (SIP). Additionally, a brief summary of the existing and planned bicycle and pedestrian projects for the MPO region by jurisdiction is also provided.

1. Federal Support for Bicycle and Pedestrian Projects

Bicycling and walking have often been referred to as the "forgotten modes" of transportation; this was especially true in the early 1990's when minimal support for bicycle and pedestrian projects was available from the Federal government. According to the US Census Bureau, trips made by bicycling and walking dropped from a combined 6.7 to 4.4 percent between 1980 and 1990. In an effort to reverse this trend, Congress directed the Secretary of Transportation to produce a study that identified ways to safely increase the use of bicycling and walking as modes of transportation. In 1994, The National Bicycling and Walking Study Final Report, *Transportation Choices for a Changing America* was released. The report developed strategies to increase transportation choices thereby creating a more balanced, multi-modal transportation system. The report also established two major national goals:

- Double the percentage of all transportation trips made by bicycling and walking from 7.9 to 15.8 percent.
- Reduce by 10 percent the number of injuries and fatalities sustained by bicyclists and pedestrians in accidents with motor vehicles.

Federal government support for increasing bicycling and walking trips has been apparent in both ISTEA and TEA-21 legislation. According to FHWA, the Federal Aid Highway Program increased funding levels for bicycle and projects from $22.9 M in 1992 to $422.7 M in 2003 (http://www.fhwa.dot.gov/environment/bikeped/bipedfund.htm). Also, TEA-21 amended eligibility requirements for certain Federal transportation funds to

allow bicycle and pedestrian projects to compete and potentially acquire dollars from sources once restricted in their use. Those funding sources include:

- National Highway System
- Congestion Mitigation Air Quality
- Surface Transportation Projects
- Federal Lands
- Scenic Byways
- Recreational Trail

Additionally, program features of TEA-21 included providing additional information and guidance on a wide range of planning, policy, and safety issues affecting bicycling and walking, such as:

- Allocating due consideration to bicyclists and pedestrians in State and MPO long-range transportation plans.
- Where appropriate, giving consideration to bicycle and pedestrian projects in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use is not permitted.
- Providing due consideration for safety and contiguous routes for bicyclists and pedestrians in transportation plans.
- Addressing bicycle safety issues in railway-highway crossing hazard elimination projects.
- Requiring that the Secretary of Transportation not approve any project or take any regulatory action that will sever an existing major non-motorized route or adversely affect the safety of non-motorized traffic and light motorcycles unless a reasonable alternate route exists or is established.
- Authorizing FHWA to develop a national bicycle safety education curriculum.

2. Bicycle and Pedestrian Planning and Funding

According to the FHWA, despite increases in Federal funding and guidance for bicycle and pedestrian projects, national spending on these transportation modes remains about one percent of total transportation spending for the country. In the Memphis MPO area, transportation planning and funding has focused more on transit, roadways, and the accommodation of the motor vehicle. Accommodating the pedestrian or bicyclist may have been recognized, but was not specifically addressed in major planning documents.

In an effort to promote more pedestrian and bicycle facilities, this plan recognizes the importance of these modes as viable, alternative forms of transportation. As such, the MPO, through this plan and its TIP, encourages the development of facilities that support bicycle and pedestrian transportation modes. The MPO's *Transportation Improvement Plan Fiscal Years 2004-2006*, includes several bicycle and pedestrian projects awarded funding by the State of Tennessee. These projects are listed below:

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3. Bike Routes

Residents and government officials throughout the metropolitan area increasingly recognize the need for adequate bicycle facilities in the planning area. While several ideal places for bicycle routes exist, adequate facilities for such activities are limited or are located in areas that do not provide a realistic alternative to vehicle trips. The sections below highlight the planning activities several municipalities in the MPO study area have begun to undertake in developing and enhancing bicycle and pedestrian facilities. **Figure 9, Existing and Proposed Bicycle and Pedestrian Facilities,** highlights existing and proposed bicycle and pedestrian facilities in the MPO study area.

City of Memphis Bike Network

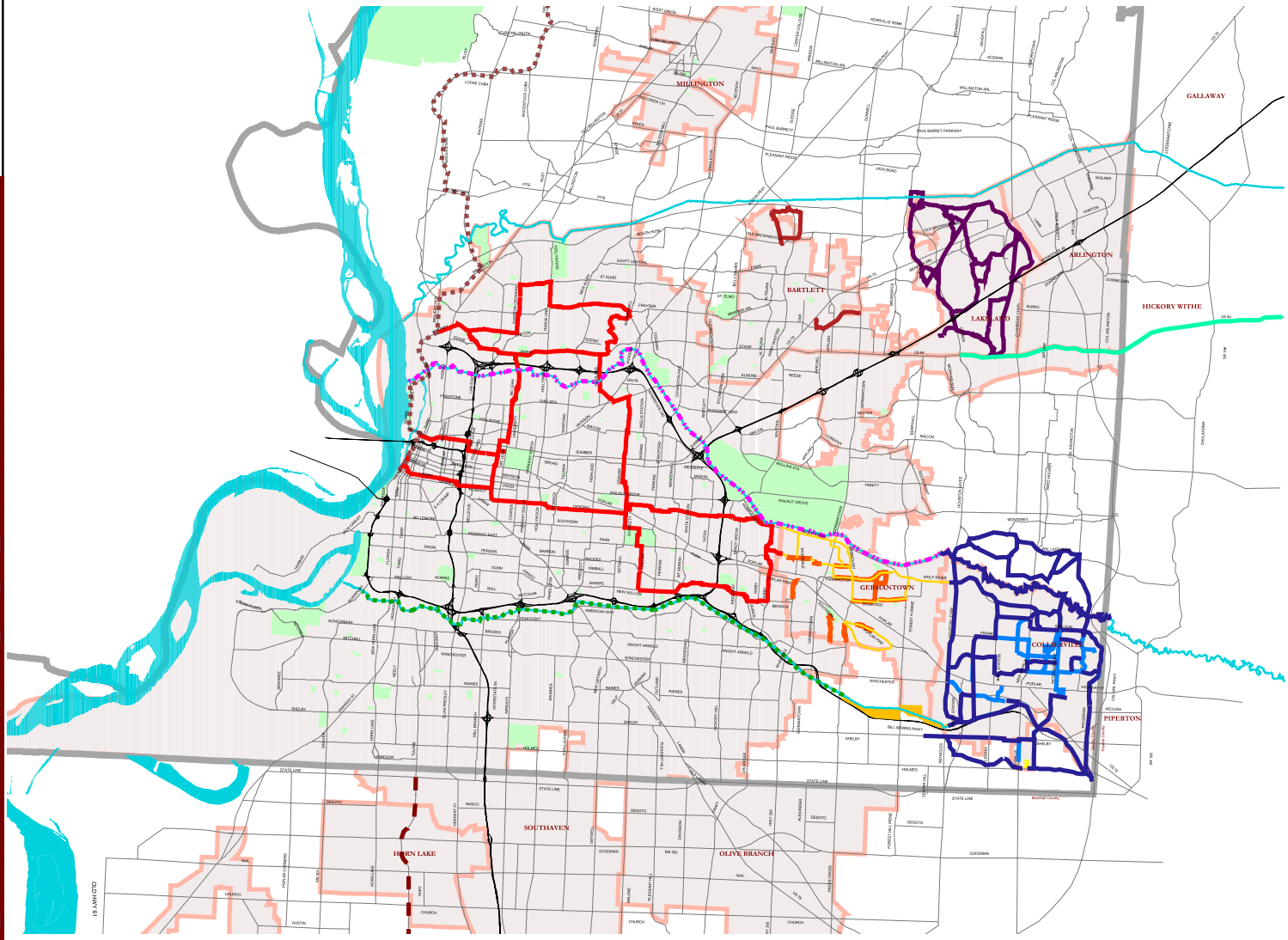
The City of Memphis Bicycling Network Phase I is scheduled for the Spring, 2004. The first elements of the project will include the following:

- A 40-mile, five loop, shared roadway that extends west from Downtown Memphis to Kirby Parkway into the east.
- The shared roadway bike route will contain bike signs every half-mile to alert motorists of the route.
- Multiple cycling support centers for cyclists to rest, use the restroom, park, and secure their bikes and obtain bike route information.
- Several emergency facilities, located at fire stations, where cyclists can receive first aid.

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Figure 9
Existing and Proposed Bicycle & Pedestrian Facilities



- Continual inspection and repair, if necessary, of pavement along designated routes.
- A web page for advertising the new bike routes and facilities (This web page is currently hosted on the City of Memphis' website www.cityofmemphis.org.
- An educational campaign for motorists, bicyclists, and pedestrians.

Several City of Memphis divisions are involved in the implementation process including Public Works, Engineering, and the Memphis Police Department. A transportation enhancement grant and local match, with a total of $171,541, fund the project. Expenditures associated with the project were developed from the costs of bicycle signs, bicycle racks, website design, and educational materials.

Bartlett Bike Routes

The City of Bartlett is currently seeking funding to install two bikeways-one parallel to the Fletcher Creek greenbelt area, the other near the city's wastewater treatment plant. When designated, these routes will connect local parks to residential areas thereby allowing Bartlett residents an alternative mode of transportation from home to the park.

Germantown Bike Routes

In August 2003, the City of Germantown began the task of re-evaluating their bicycle facilities. Specifically, Germantown's Bicycle Task Force is in the process of:

- Reviewing current and future bike lanes, bike routes, bicycle racks, safety programs and signage throughout the city.
- Determining recommendations for connecting to the City of Memphis' bike routes- particularly at Wolf River Blvd., Neshoba Road, and Messick Road.
- Studying future connections to the Town of Collierville's greenbelt system.

Lakeland Bike, Pedestrian, and Equestrian Routes

Presently, Lakeland has plans to provide a greenbelt along all of the streams that flow through its boundaries. This will accommodate the connection of bike paths from Canada Road to Seed Tick Road and farther east to Chambers Chapel. Bike paths are also being planned to extend northward along Scott's Creek to the Loosahatchie River, south of Interstate 40. Lakeland is working to provide inter-connected bike paths along Cobb Road, Monroe Road, and Canada Road tying back to the original Canada Road bike route. Concurrently, Lakeland is working with developers to have paths constructed as development occurs.

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Town of Collierville

Currently, about six miles of greenbelt trails and more than 13 miles of sidewalks exist in the Collierville community. Although these trails and sidewalk networks are well established, Collierville has plans to address gaps in their greenbelt and sidewalk system. Furthermore, with its *Town of Collierville Greenbelt Master Plan Update*, the community is also planning to establish connections to Germantown's greenbelt system and the Nonconnah Creek Greenbelt.

Shelby County

Shelby County currently has two major greenbelt projects in the planning phase-Wolf River Greenbelt and Nonconnah Creek Greenbelt. Both of these greenbelts will provide east-west access for pedestrians and bicyclists. They are described as follows:

- **Wolf River Greenbelt:** The Wolf River Greenbelt is planned to extend from the north end of Mississippi Greenbelt Park on Mud Island on the west to Houston Levee Road on the east. The greenbelt will be about 22 miles in length and will provide a network of multi-use paved trails, including bicycle and pedestrian links through neighborhoods, parks, commercial, and entertainment centers. These links will be located at various bridge crossings, neighborhood streets, and parks. The implementation phase of this project is projected to be in eight phases over the next 15 years, with a substantial portion of the work being done by the U.S. Army Corps of Engineers.

- **Nonconnah Creek Greenbelt:** This greenbelt will be 18 miles in length and extend from Riverport Road on the west to Germantown Road on the east. Like the Wolf River Greenbelt, this greenbelt will provide links to various activity centers and residential areas. This project is also projected in phases over the next 15 years and is part of the Corps of Engineers Nonconnah Flood Control Project.

DeSoto County

The City of Horn Lake, Mississippi has plans in place to develop the Tulane Truce Greenway- a project that will connect several existing parks and nearby residential and commercial areas. The proposed greenway will provide both educational and recreational opportunities for area residents and students. Additionally, DeSoto County is proposing that Tulane Road, from Stateline Road to Arkabutla Lake, be designated a bike route.

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State Bike Routes

At this time, the only designated State of Tennessee bike route in the Memphis MPO area is an east-west route on Highway 64. However, according to the state's bicycle and pedestrian coordinator, TDOT is planning many other state routes for the Memphis MPO area. Moreover, TDOT's policy is to accept cyclists as legitimate users of the road, thus making all roads bikeways, and not denying access to a transportation facility unless prohibited by law (e.g. interstates).

4. Future MPO Bicycle and Pedestrian Projects

As demonstrated in the project descriptions above, efforts to increase bicycle and pedestrian facilities in the MPO area are underway. However, most of these facilities are more for recreational purposes and as such, do not offer citizens interested in alternative transportation sufficient facilities for commuting. In an effort to address this gap, the MPO has begun the process of developing a comprehensive bicycle and pedestrian plan. This plan is scheduled for review and adoption no later than December 31, 2004. The primary goal of the plan will be to establish policies and design standards that incorporate bicycle and pedestrian facilities as functional and sustainable elements of the MPO region's transportation system. The comprehensive bicycle and pedestrian plan will be incorporated and amended into the 2026 LRTP.

5. Memphis Area Rideshare and Tennessee Vans

In 1979, the Memphis area initiated a carpool-matching program and has subsequently expanded the program-Memphis Area Rideshare, into a comprehensive urban area ridesharing program that provides a full range of carpool/vanpool/transit/paratransit brokerage, and Transportation Demand Management (TDM) services to area residents, businesses, and institutions. Rideshare programs have become increasingly important as local authorities recognize that mass transit alone is unable to serve many parts of the urban area, particularly the low-density suburban areas. There are also an increasing number of inter-suburban and reverse commuting work trips that cannot be efficiently served by transit. As a result, the approximately 15 to 17 percent of Memphis households which do not have access to a vehicle lack mobility for basic needs such as work, education and job training.

In addition to matching potential rideshare patrons, the program includes developing and promoting worksite ridesharing opportunities, increasing carpool/vanpool transit utilization, providing parking demand management consulting, and developing programs to provide employees with transportation assistance during company expansions or relocations. Recently, the program has begun to offer public and private non-profit agencies and institutions as well as for-profit groups the opportunity to purchase new or used 8, 12, or 15 passenger vans under a pay-as-you-go financing. Currently, there are 136 vans assigned to 92 organizations for various para-transit and vanpooling programs. Based on a study conducted by Tennessee Vans and Memphis Area Rideshare in 2003,

these vans are being used to provide transportation services to about 12,000 residents in the MPO region.

In 2003, Memphis Area Rideshare and Tennessee Vans conducted a needs assessment for future vehicles. It was determined that clients have an interest in an alternative vehicle. Beginning in 2004, Memphis Area Rideshare will have 12-passenger vans available in 2004 in response to safety issues and to promote increased usage.

Table 8 provides the historical membership enrollment for Rideshare and also the totals for the Tennessee Vans Lease Program. The data indicates consistent growth in these programs. Efforts to increase membership in both of these programs are a goal of this plan in an effort to provide alternative transportation and as well as provide a mechanism to reduce congestion in the corridors identified in the Congestion Management section of this plan.

Table 8
Rideshare and Van Lease Historical Data

Year	Rideshare Membership	Van Purchases/Leases
1998	11,536	52
1999	13,020	67
2000	11,991	82
2001	14,537	98
2002	16,187	115
2003	17,852	136

Currently, the program has 17,852 members on file, of which over 2,000 are involved in ridesharing programs for work trip commutes. The Memphis Area Rideshare Program is funded at approximately $1.25 million per year and provides the following:

- On-line rideshare information system using advanced computer, Internet and telecommunications technologies.
- Vanpools for reverse commute and non-traditional route configurations.
- Emergency ride services for workers using rideshare and transit.
- The Entrepreneurial Services Program (ESP) for existing and potential transportation providers to meet the underserved travel demand market.

7. Conclusion

In summary, the MPO recognizes the important benefits associated with alternative forms of transportation. As such, the MPO is committed to developing and promoting a regional bicycle and pedestrian plan for the region. In addition, through this plan the MPO will continue to support the Memphis Area Rideshare Program and the Tennessee Van Lease Program in an effort to reduce single occupancy vehicle trips and as a supplement to mass transit.

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LRTP 2026 Projects/Strategies

The most significant projects in the LRTP 2026 that support alternative transportation include:

1. **Bicycle and Pedestrian Projects**

- Memphis Bicycle Network Phase I
- Downtown Bike Racks
- Shelby County- Shelby Farms Trail System
- Nonconnah Creek Greenbelt
- Nonconnah Creek Greenbelt Phase I
- Shelby Farms Trails and Lucius C. Birch Jr. Greenway
- Arlington Depot Square
- Riverfront Bike/Pedestrian Phase IIA
- Riverfront Bike/Pedestrian Phase II-C&D
- University of Memphis- Central Ave.
- Project #977 Cobblestone Walkway and Restoration
- Project #1743 Cobblestone Ramp and Restoration
- Old Germantown Streetscape

2. **Memphis Area Rideshare**

- Commuter Club
- Ride Matching
- Employer Services
- Tennessee Van Program

SUPPORT OF LRTP 2026 GOALS

While supporting all of the goals of the LRTP 2026, the alternative transportation element of the transportation system specifically addresses the following goals and objectives:

• Increase accessibility and mobility for people using the MPO's regional transportation network

- Market and promote the Memphis Area Rideshare and Van Lease Program in employment centers and in identified congestion corridors

• Encourage conservation of energy resources in addition to minimizing adverse impacts transportation has on social, economic and environmental attributes of the community

- Protect and enhance environmentally sensitive areas

- Promote the selection and use of energy efficient transportation devices

- **Encourage and provide adequate facilities for non-motorized transportation modes**
  - **Work with jurisdictions and bike and pedestrian clubs in the Memphis MPO region to develop a regional bicycle and pedestrian plan**
  - **Work with the MSCAA and IPM to obtain funding for projects designated in their master plans**
  - **Work with MATA to increase options for bicyclists who access mass transit**
  - **Develop project criteria that encourages development and enhancement of bicycle and pedestrian facilities**

- **Increase the safety and security of the transportation system for motorized and non-motorized users**
  - **Develop right-of-way cross sections that permit the separation of sidewalks and utilities safely from driving lanes**
  - **Provide (where feasible) adequately sized bike lanes and signage to promote and protect bicyclists**
  - **Encourage policies, plans and transportation projects that eliminate unsafe designs and conditions and provide increased safety for users**

- **Continue to develop a multi-modal transportation network that utilizes strategies for addressing congestion management and air quality issues in the MPO region**
  - **Continue to implement and promote strategies and policies such as access control, HOV facilities, travel demand management, mass transit and alternative transportation to improve congestion corridors**

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B. Transit

The components of long-range transit are designed to provide an integrated network serving diverse transit markets in segments of the MPO area. Specifically, provisions have been provided for rail in major travel corridors, fixed route bus service in areas of moderate density, a system of terminals to provide efficient transfers among modes and routes, and complementary para-transit service for individuals with disabilities who cannot utilize the fixed route system. The transit element for this plan is illustrated in **Figure 10, Regional Transit Plan.** Also, the funding mechanisms related to transit are fully discussed in **Chapter 7- Financial Analysis**.

1. Service

MATA offers fixed route bus service and demand response para-transit service in the city of Memphis, selected suburban municipalities, and portions of unincorporated Shelby County. Cumulatively, transit ridership has varied only slightly over the last several years in these areas. According to data collected from MATA, bus and fixed rail systems have maintained an annual base ridership of approximately 12 million trips including demand response trips.

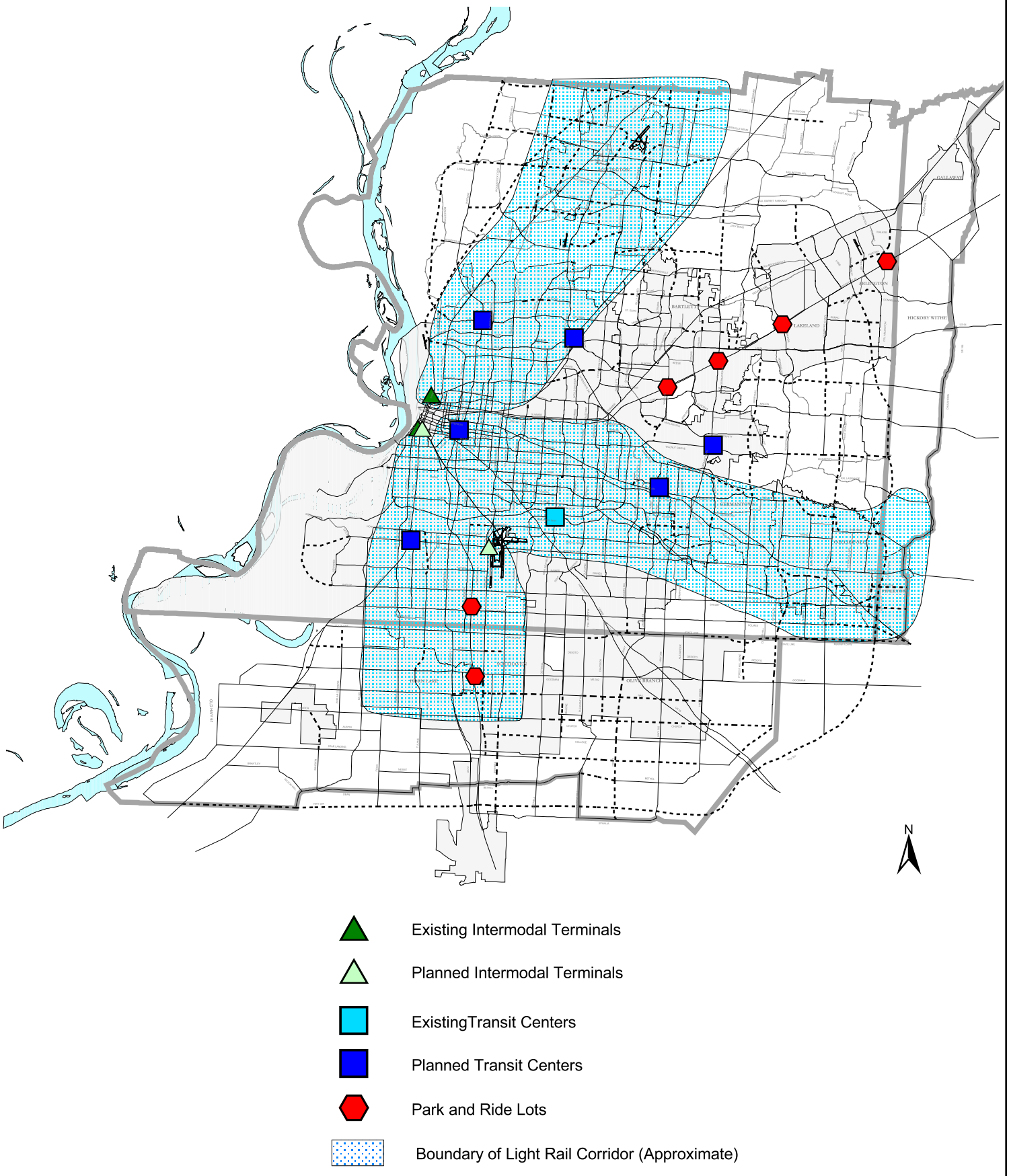
MATA also operates the rail trolley system, a form of light rail transit (LRT), within the Memphis downtown area. In total, MATA provides over 600,000 hours of transit service and carries about 12 million passengers per year (MATA, 2003).

2. Long Range Transit Plan

The *Regional Transit Plan*, adopted in 1997, set forth a major revamping of the transit system. The plan outlines a reconfigured transit system based on orienting the bus service to a series of transfer stations in suburban locations, expanding the downtown trolley, developing suburban park and ride facilities and building a new light rail transit system. The *Regional Transit Plan* is one of the basic building blocks of the MPO's LRTP, in particular the light rail system and its potential impact on future development patterns. In fact, improved transit service and increased transit use is referenced in several of the MPO goals and objectives **(refer to Chapter 3)**. MATA supports the MPO's goals and objectives with a commitment to continuous improvement in transit services to meet the needs of existing riders and attract new riders. MATA has a three-pronged approach to fulfilling its commitment: (1) major capital projects, such as rail and inter-modal passenger terminals, (2) other capital projects such as vehicle purchases, upgrading of existing facilities and equipment, and small-scale new infrastructure, and (3) service improvements to meet the needs of the community. Each of these approaches is discussed in turn in the sections that follow.

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Figure 10
Regional Transit Plan



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3. Major Capital Projects

Major capital projects are funded primarily or exclusively with FTA Section 5309 discretionary federal funds with local matching funds. Section 5309 Bus and Bus Facilities projects are funded at an 80% federal level. Section 5309 New Starts (rail) are typically funded at a lower federal share, around 50%. Some smaller projects may be funded with FTA Section 5307 formula funds, at an 80% federal share.

Several major transit capital improvements have been completed in the past several years to provide the base from which a regional transit concept of terminals and rail fixed guideways can be created. These include:

- Main Street Rail Trolley (1993)
- Riverfront Loop Rail Extension (1997)
- North End Terminal (1998)
- Central Station (1999)
- American Way Transit Center (2001)
- Medical Center Rail Extension (2004)

Fixed Guideways

The fixed guideway component of this plan includes expansion of the downtown rail system (Main Street, Riverfront, and Medical Center lines) to provide high capacity transit service in three regional corridors:

- Southeast Corridor-- serving Midtown, Southeast Memphis, East Memphis, Germantown and Collierville, including the initial segment of the corridor -- the Downtown Airport Line
- South Corridor-- serving South Memphis, Whitehaven, Southaven, and Horn Lake
- North Corridor -- serving North Memphis, Frayser, and Millington

Fixed guideway is a generic term that describes all infrastructure that is used to "guide" transit vehicles, such as rails and exclusive busways. Light rail has been selected as the preferred type of fixed guideway for the Downtown-Airport segment of the Southeast Corridor. Although the technology and alignment have not been selected for other corridors, MATA continually monitors the availability of freight railroad right-of-ways for opportunities to secure properties for future use for a fixed guideway investment or for other public purposes.

The fixed guideway component has been advancing since 2000. The first step was a Corridor Selection Study to determine the initial corridor, of the three in the plan, to be studied in detail. During the Corridor Selection Study, the community involvement process identified the key needs of work force transportation and redevelopment of underutilized areas (transit oriented development). The three candidate corridors were evaluated using criteria such as access and mobility, costs, opportunities for transit-oriented development, use of shared rights-of-way, traffic congestion, and impacts on sensitive areas.

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In deliberating the results of that evaluation, it was recognized that the first phase of regional high capacity transit must be effective in attracting riders and contributing to the economic vitality of the region. The deliberations also recognized that the Memphis International Airport and its surrounding area is the largest generator of jobs in the region and thus should be the primary destination served by the first leg of the regional system. At the conclusion of the Corridor Selection Study, the Southeast Corridor was selected as the top priority corridor for detailed study and, further, the Downtown - Airport segment of the Southeast Corridor was chosen as the initial segment to study. At that time, the Downtown-Airport corridor became a "subcorridor" of the main Southeast Corridor. Light Rail was then selected, after the opportunity for public comment, as the technology of choice for the line. A decision on the Locally Preferred Alternative for the Downtown-Airport segment of the Southeast corridor is expected in 2004. The remainder of the Southeast Corridor as well as the South and North Corridors will be studied in detail at a later date.

The Downtown - Airport Corridor is located entirely within the City of Memphis. The corridor is bounded on the west by the Mississippi River, Crump Boulevard, I-240 and I-55; on the north by North Parkway; on the east by East Parkway, Hollywood Street, Semmes Avenue, Lamar Avenue and Getwell Road; and on the south by Raines Road.

The corridor contains a diverse mix of major land uses including the Medical Center, the City of Memphis Fairgrounds Complex, the Memphis Depot, the Memphis Airport, and the FedEx package handling facility. The Airport and the Federal Express hub are among the largest individual employers in the region. The Memphis Depot property represents a substantial potential for new employment in the corridor over the next 20 years. Overall, by the final forecast year, the corridor is expected to provide more than 202,000 jobs, about a quarter of the total jobs in the region **(**MATA, 2001, based on MPO data).

The corridor also has an abundance of low and medium density residential development. Nearly 58,000 households are expected to make their home in the corridor by the year 2023. The corridor's population represents a broad range of income levels. According to the 1990 census, one-third of the residents in the corridor are below the federal poverty level. Low-income census tracts are found in the vicinity of South Parkway and Lamar Avenue, as well as in the areas east of I-240 and I-55 **(**This analysis was done in 2000-2001 before income data was available from the 2000 US Census). Low-income residents in the corridor would benefit from improved transit that would increase their accessibility to jobs, training and educational opportunities, and other services.

Passenger Terminals

In order to supplement the three existing transfer facilities (North End Terminal, Central Station, and American Way Transit Center), this plan includes two major inter-modal terminals, five smaller transit centers and six park and ride lots located throughout the Memphis area. These include:

- Arena Inter-modal Transfer Facility -- The development of the southern section of downtown is focused on sports facilities and entertainment establishments, which have created a demand for a new transportation hub in that area. As a major attraction area, serviced directly by bus and in proximity to the downtown rail system, a multi-modal parking and transfer facility has been included as part of the development of the FedEx Forum. This Inter-modal Transfer Facility (ITF) will consist of a bus transfer center with a park-and-ride component and a customer service area. The ITF will improve the efficiency of the transit system and allow people who drive into the area to use public transit to access the rest of downtown without generating additional automobile trips.

- South Inter-modal Terminal -- This facility will be a major focal point for local transit services in Whitehaven and South Memphis and improve MATA's ability to make efficient connections to downtown and the Airport. It will serve as a major connection for bus passengers traveling east and west in the southern part of Memphis. A major intercity bus carrier and taxis will also occupy the facility. Future uses include new bus routes serving growth areas to the south, and a light rail station.

- Suburban Transit Centers -- A system of small transit centers is being developed as hubs for transfers among bus routes in various suburban areas. These centers would be smaller than inter-modal terminals and typically include canopy-covered bus bays, indoor passenger waiting area, customer service area and parking for park-and-ride users. The American Way Transit Center opened in 2001 to serve southeast Memphis. Other areas where suburban transit centers are planned include: Frayser, Raleigh, Cordova, East Memphis, and southwest Memphis.

- Park-and-Ride Lots -- Lots designed primarily for park-and-ride used in conjunction with express bus service have been identified at key interchanges on the portions of I-40 and I-55 that have High Occupancy Vehicle (HOV) lanes. The plan includes six lots. In addition, the Inter-modal Terminals, most Suburban Transit Centers and some rail stations will also provide parking for park-and-ride use.

4. Other Capital Projects

Capital projects are also necessary to replace and expand the vehicle fleet; maintain facilities and equipment; and make minor adjustments to infrastructure. The projects included in this category include the following:

- Fixed Route Buses -- replacement of buses that have reached the end of their useful life, and expansion of the fleet
- Para-transit Buses -- replacement of buses that have reached the end of their useful life, and expansion of the fleet
- Trolley Vehicles -- expansion of the fleet

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- Facility Improvements -- upgrading, replacement, and major maintenance of existing infrastructure, such as passenger facilities, bike racks, rail-related equipment, and operating/maintenance facilities
- Advanced Public Transportation Systems -- improvements to communications systems, data collection equipment and software, security cameras and other applications of ITS technologies to improve efficiency and effectiveness of transit service delivery
- Service Vehicles - replacement of pool vehicles used in day-to-day monitoring and maintenance of the system

5. Service Improvements

Transit operations are supported with a combination of passenger fares, other system-generated revenues (e.g. advertising), and funds provided by the City of Memphis, TDOT, and FTA. MATA is constantly monitoring the system to be able to match the supply of transit service to demand, based on available financial resources. With regard to existing fixed route bus routes and rail lines, adjustments in routing, headways, span of service, and days of service can be expected from time to time to optimize service levels based on usage and requests from the public. MATA continually markets the transit system through promotion multi-ride passes and other methods to make the public more aware of available services.

With regard to new routes, growth patterns are monitored and routes are added, generally in outlying areas, when development levels reach a minimum level to support fixed route transit service, subject to approval by affected units of local government. Historically, demand for service in these outlying growth areas has been generated by Memphis residents reverse commuting to jobs in the suburbs. This market is expected to grow in the future and be supplemented by more suburban residents traveling to jobs and other activities by transit. Growth areas that have been targeted for new fixed route bus service over the plan period include:

- Cordova
- Eastern Shelby County (east of the City of Memphis)
- North Shelby County (north of the City of Memphis)
- Northern Mississippi

In conjunction with implementation of the system of passenger terminals, the fixed route bus system will evolve into a hub-and-spoke system.

New express bus routes are also planned for implementation in conjunction with park-and-ride lots and HOV lanes on I-40 and I-55.

Para-transit service is made available to match the route coverage and span of service of the fixed route bus and rail service.

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6. Transit Summary

It should be noted that since the adoption of the MPO's *2000 Long Range Transportation Plan*, the MPO and the Memphis Area Transit Authority (MPO) have focused on detailed planning for the implementation of the fixed guideway element. Specifically, since 2000 MATA has completed a comprehensive review of the three alternatives fixed guideway corridors and, based on those analyses, determined that the Downtown-Airport Corridor is the best appropriate. Following this alternative section, further analyses have also been conducted including another alternative study and an environmental impact statement. In addition, the Medical Center Rail Extension has progressed through the project development process and the American Way Transit Center is now in operation.

In short, MATA has remained focused since the 2000 Long-Range Transportation on moving projects forward that were identified in the plan. Essentially, MATA has been working under the assumption that once the top priority corridor progresses to the engineering phase, revisiting the regional transit plan in conjunction with the 2006 Long Range Transportation plan update would be appropriate. At that time, both MATA and the MPO could take advantage of the new travel demand-forecasting model.

LRTP 2026 Projects/Strategies

All the projects in the LRTP support the Light Rail Corridor Development Alternative and thus are supportive of the transit system. However, the most significant transit projects with the highest impact include:

1. **Fixed Guideway Projects**

- Medical Center Extension
- Downtown Airport Corridor
- Southeast Corridor
- South Corridor
- North Corridor Feasibility Study

2. **Passenger Terminals**

- North End Terminal
- Central Station
- American Way Transit Center
- Arena Intermodal Transfer Facility
- South Intermodal Transfer Facility
- Suburban Transit Centers
- Park and Ride Lots

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3. Other Capital Projects

- Fixed Route Buses
- Para-transit Buses
- Trolley Vehicles
- Facility Improvements
- Advance Public Transportation Systems
- Service Vehicles

SUPPORT OF LRTP 2026 GOALS

While supporting all of the goals of the LRTP 2026, the transit element specifically addresses the following goals and objectives:

• Increase accessibility and mobility for people using the MPO's regional transportation network

- Continue to explore the use of existing rail lines for transit service
- Improve transit services to meet additional needs and demands
- Promote the use of employer subsidized transit passes
- Continue to support efforts to secure a permanent and sustainable source of local funding for mass transit

• Promote efficient land use and development patterns to ensure safety, economic vitality and to meet existing and future transportation needs

- Promote the concentration of future employment and other activity centers along existing and planned major travel corridors
- Promote infill development that reuses existing resources such as buildings, utilities and roads

• Encourage conservation of energy resources in addition to minimizing adverse impacts transportation has on social, economic and environmental attributes of the community

- Promote the selection and use of efficient transportation devices

• Develop a cost effective planning process that maximizes community consensus in all aspects of transportation planning

- Support achievement of community consensus on transportation goals

• Encourage & provide adequate facilities for non-motorized transportation modes

- Work with MATA to increase options for bicyclists who access mass transit

• Increase the safety and security of the transportation system for motorized and non-motorized users

- Encourage policies, plans and transportation projects that eliminate unsafe designs and conditions or provide projects that increase safety for users

- **Continue to develop a multi-modal transportation network that utilizes strategies for addressing congestion management and air quality issues in the MPO region**
  - **Continue to implement and promote strategies and policies such as access control, HOV facilities, travel demand management, mass transit & alternative transportation to improve congestion conditions**

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C. Freight

The movement of freight is a multi-billion-dollar industry in the Memphis MPO area. With its natural and manmade resources, strong and stable economic base factors throughout the region, Memphis has positioned itself as a major center for global logistics and is considered as a national hub for the efficient and reliable movement of goods. The Memphis MPO area has major port, rail and air facilities located here; as well as, two (2) major interstate highways (I-40 and I-55) which intersects and provide efficient movement of goods through Memphis to all sections of the United States. In addition to, the planned construction of Interstate 69, which will have a major impact on the future movement of goods from Canada to Mexico and is, expected to pass directly through the Memphis region.

The movement of time-sensitive products is handled by Memphis International Airport. The International Port of Memphis handles the railways and highways. How effectively these requirements are served directly determines the competitive edge for attracting and retaining industries and distribution companies within the Memphis MPO area.

The Freight Committee of the Memphis MPO represents the region's freight community. This committee meets regularly to discuss various plan development processes and to recommend long and short-term strategies to address freight issues. The committee's principal concern consists of the movement of goods along interstate highways and major arterials, although the committee deliberates all forms of freight transportation.

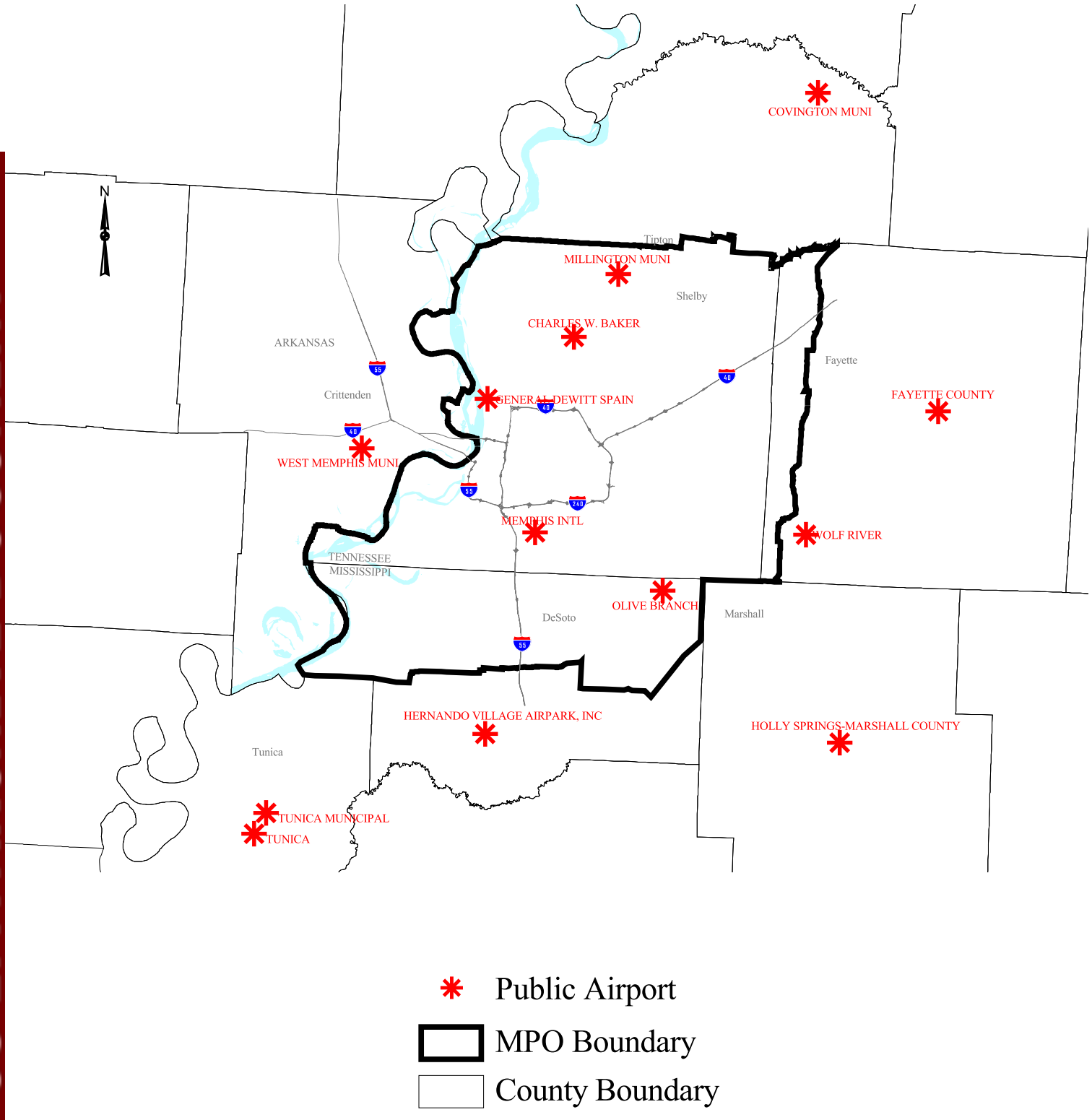
The section below examines various freight movement requirements, the freight transportation system, the freight transportation system's inter-relationships, and the strategies used to identify and select projects that will encourage future growth. Five types of freight transportation/facilities are discussed: air, rail, port, truck and intermodal facilities.

1. Aviation

Background

There are four significant airports in the MPO area: Olive Branch Airport, Millington Municipal Airport, West Memphis Municipal Airport and the Memphis International Airport **(see Figure 11, Existing Regional Airports)** in addition to numerous small airfields and heliports/helipads. The Memphis International Airport is the largest of the four and is the home of FedEx Corporation and a regional hub for Northwest Airlines. As such, it has been the world's busiest cargo airport for the past 12 years handling in excess of three million metric tons each year. Among U.S. airports, Memphis International ranks 25th in the total number of air operations. The Memphis International Airport has three north-south runways and one east-west runway allowing for multiple landings and takeoffs to accommodate peak operation requirements and the world's largest cargo jets. Memphis International Airport is the only air facility in the MPO area that handles a significant amount of air cargo.

Figure 11
Existing Regional Airports



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, National Transportation Atlas Database 2001.

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The majority of the information in the air transportation section is derived from Memphis International Airport's *Master Plan Update* (2000), the annual reports (1989 through 2003) of the Memphis and Shelby County Airport Authority (MSCAA) and State of TN Aviation Plan.

Airport Growth and Congestion

Table 9 shows the growth of airport operations (landings and takeoffs), cargo handled, and enplaned (leaving by plane) passengers at Memphis International Airport from 1992 through 2003. Between 1992 and 2003, operations increased by 29%, total cargo increased by 139% and enplaned passengers increased by 39%. Based on linear projections utilizing this data, between 2003 and 2026 operations for the airport are projected to increase by 52%, total cargo will increase by 118% and enplaned passengers by 79%.

Table 9
Memphis International Airport Growth History and Projections

Year			Total Cargo	Enplaned
		Operations*	In Metric Tons*	Passengers*
1992		268,680	1,413,043	3,959,026
1993		254,377	1,449,828	3,793,210
1994		263,324	1,653,269	3,978,147
1995		273,961	1,712,251	4,389,721
1996		274,920	1,933,831	4,694,662
1997		290,358	2,233,262	4,958,520
1998		280,244	2,368,975	4,816,337
1999		290,346	2,412,907	5,106,025
2000		320,258	2,489,078	5,801,068
2001		327,456	2,631,631	5,601,272
2002		339,102	3,390,799	5,306,473
2003		346,636	3,377,262	5,422,276
2004	**	342,994	3,652,280	5,723,095
2006	**	357,639	4,105,854	5,982,674
2016	**	430,864	6,373,726	7,280,569
2026	**	504,089	8,641,598	8,578,465

* Memphis and Shelby County Airport Authority Data. Data for 2003 include estimates for December 2003. Data Exclude Military and General Aviation Operations.
** MPO Horizon-Year Projections by Linear Regression.

This tremendous growth has contributed to the congestion of both the on-site and nearby off-site transportation systems. Much of the runway, airport terminal, and parking area congestion experienced in the 1980s and 1990s was addressed by the recommendations and the implementation of the airport's *1986 Master Plan*. More than $600 million of

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improvements were made in the Memphis International Airport area over the last nine years.

Figure 12, Memphis International Airport Improvement Project 1989-2003, illustrates on-site airport improvement projects since 1989. They include:

- Constructing a new north-south runway
- Reconstructing the two older north-south runways and their taxiways
- Expanding and improving terminal concourses
- Expanding FedEx's sorting facility
- Constructing the UPS sorting facility
- Adding parking garage space.

Included in the airport's current master plan are a number of on-site projects that are planned but have not yet been constructed. **(See Figure 13, Memphis International Airport Planned Improvement Projects.)** They include:

- Expanding and improving additional terminal concourses
- Constructing new cargo facilities on the south and east sides of the airport
- Expanding the parking garage to 3,200 total spaces.

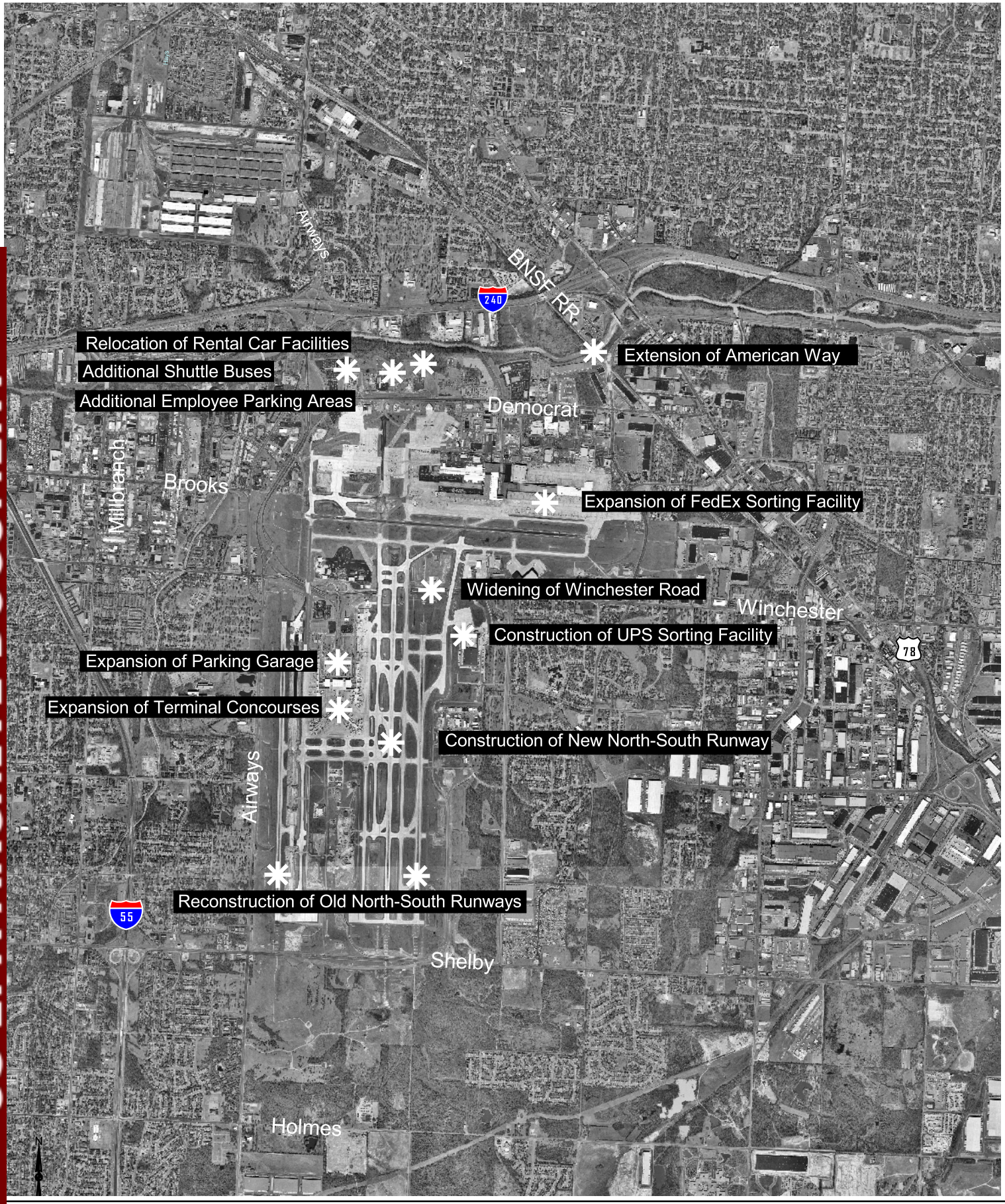
Off-site transportation improvements in the airport area since 1989 are also illustrated on **Figure 12.** They include:

- Adding parking areas for employees
- Moving rental car operations north of Democrat Road
- Utilizing additional shuttle buses for employees and passengers
- Widening Winchester Road westward to the airport's entrance
- Extending American Way over the Burlington Northern Santa Fe Railroad and connecting to Tchulahoma Road at Democrat Road.

In addition, more than 1,300 airport-area homes have been purchased over the last 15 years to reduce noise impacts of airport operations on residential areas. The purchasing of these homes has assisted in the reduction of the number of private vehicle trips on airport-area roadways.

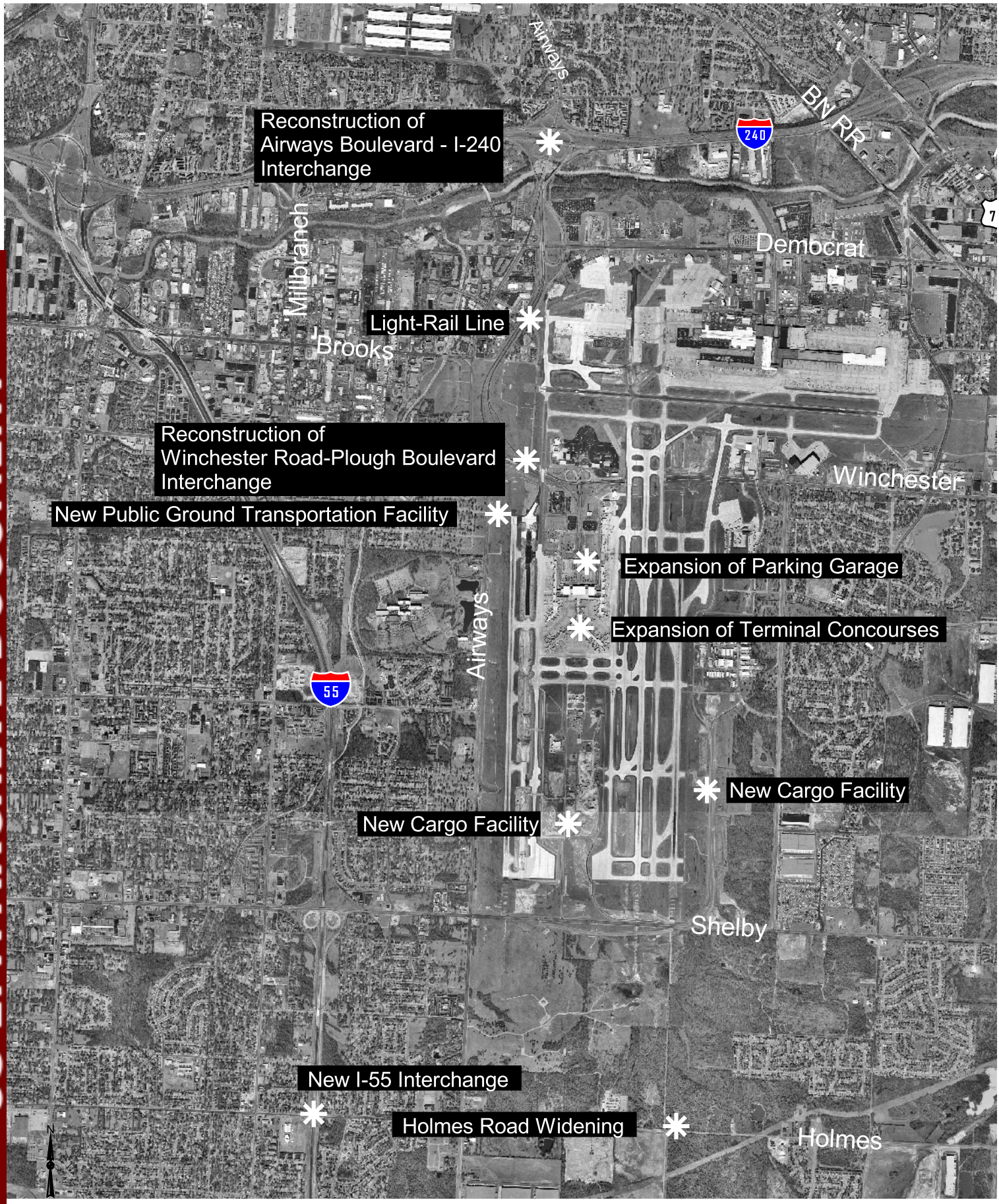
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Figure 12
Memphis International Airport Improvement Projects, 1989-2003



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Figure 13
Memphis International Airport Planned Improvement Projects



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Future Growth Implications

The major freight operation at the airport is FedEx Corporation's sorting activity, which handles more than 95 percent of the airport's total cargo tonnage. Most of these time-sensitive packages and mail items arrive by plane, are sorted on-site, and then depart by plane. At the present time, much of this activity occurs late at night. Therefore, traffic generated by FedEx Corporation employees does not mix with local morning and/or afternoon rush-hour traffic. However, according to the Airports Council International-North America, Memphis International Airport ranks first in the total enplaned and deplaned cargo handled by North American Airports. Moreover, MSCAA notes in their 2000 master plan, current levels of cargo activity are anticipated to continue to increase. In 2001, a service agreement was reached between FedEx Corporation and US Postal Service that has subsequently increased daytime sorting activities at FedEx. As a result, daytime peak-hour congestion around the airport has also increased. As a resolution to this peak-hour congestion issue, FedEx Corporation is anticipated to expand their sorting facility complex.

An additional contributor to traffic congestion around the Memphis International Airport is the Northwest Airlines' hub, which serves mostly passenger traffic at present, but also handles some cargo. According to the MSCAA's *Master Plan* (2000), Northwest's cargo and passenger operations are projected to increase in the future and, as a result, may affect daytime traffic.

Finally, higher levels of employment in the airport area are predicted in the future land use analyses in this plan. The main airport-area traffic zone was identified as a "*special generator*" in the travel demand-forecasting model to help predict future transportation access requirements.

Conclusion

In view of the fact that the Memphis MPO area is the home base for FedEx Corporation and one of Northwest Airline's major hubs, future growth in airport operations, cargo and enplaned passengers has been projected to increase. As a result of this growth, congestion and accessibility in and around the airport has also been projected to increase as well. As a resolution to address the mounting congestion and accessibility issues surrounding the Memphis International Airport, the LRTP 2026 contains several projects, which directly impact air transportation issues.

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LRTP 2026 Projects/Strategies

The most significant projects in the LRTP 2026 that support the aviation element include:

- Widening and reconstruction of Winchester Road and the Winchester Road-Plough Boulevard interchange
- Reconstruction of the Airways Boulevard at I-240 South interchange
- Widening Holmes Road and the addition of a Holmes Road interchange at I-55 to provide an alternate access route to the airport
- Construction of the Downtown-Airport light-rail line
- I-69

SUPPORT OF LRTP 2026 GOALS

While supporting all of the goals of the LRTP 2026, the aviation element of the transportation system specifically addresses the following goals:

- **Encourage conservation of energy resources in addition to minimizing adverse impacts transportation has on social, economic and environmental attributes of the community**

  - Minimize transportation noise impacts

- **Encourage improvements to and the expansion of freight facilities to ensure that Memphis maintains its leading role in global logistics**

  -Work with the MSCAA and IPM to obtain funding for projects designated in their master plans

2. Rail Transportation

Inventory

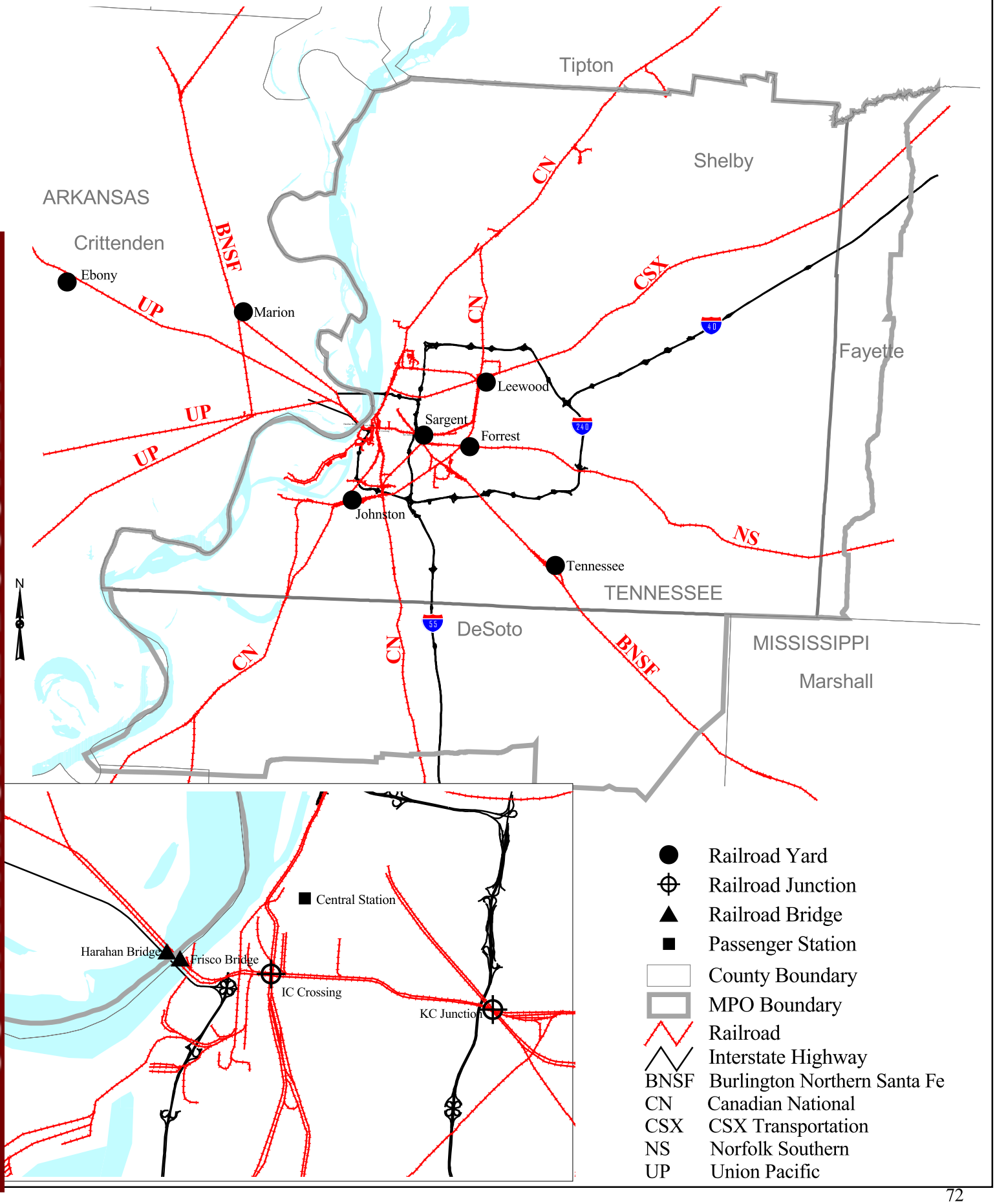
The Memphis MPO area is served by five Class I freight railroads each of which operates a intermodal freight terminal in the Memphis area. **Figure 14, Existing Railroad Facilities,** shows the main routes of each railroad through the Memphis region and **Table 10, Freight Railroad Operations and Facilities in the Memphis Region,** provides information on the railroad, area of operation and intermodal facilities they operate. In addition to the freight service, Amtrak operates passenger service from Chicago to New Orleans along the CN tracks. The City of New Orleans passenger service occurs daily in each direction from Central Station in the South Main area of Downtown Memphis.

Information in this section is derived from several sources with the understanding that most cargo information for railroads is considered proprietary by the shippers and carriers. The sources include: the *Presidents Island Industry Intermodal Survey Summary Report* (1995), *The Frank C. Pidgeon Intermodal Facility and Rail Access Feasibility/Cost Study* (1997) by Carter & Burgess, Inc., the *MJIT (Memphis Joint Intermodal Terminal) Project Final Report* (1997) by Don Breazeale & Associates, the *Rail System Inventory, Tennessee Rail System Plan* (2003) by ARCADIS G&M, Inc., and the State of Tennessee Department of Transportation's *Latin-American Trade and Transportation Study* (1997). The Presidents Island survey dealt with commodity movements originating and passing through the Presidents Island river port. The Carter & Burgess and Breazeale studies focused on railroad movements in the Memphis MPO area and the feasibility of the proposed Super Terminal transfer yard (Memphis Intermodal Terminal). The ARCADIS and Latin-American studies were statewide analyses of railroad freight and passenger operations with no data provided for counties or sub-regions.

Railroad yard lift capacities are noted in **Table 10, Freight Railroad Operations and Facilities In The Memphis Region.** This table shows data for lifts on trailers-on-flat-car (TOFC) and containers-on-flat-car (COFC). The greatest congestion is at BNSF's Tennessee Yard. The Carter & Burgess report *The Frank C. Pidgeon Intermodal Facility and Rail Access Feasibility/Cost Study* (1997) projected a doubling of lift-demand between 1987 and 2016. With potential lifts in excess of 1.2 million in the future, the current capacity of these facilities is not adequate to meet the need. The Carter & Burgess report recommends the construction of the Memphis Intermodal Facility to increase the regions capacity. The CN and CSX have reached agreement with the City of Memphis, Shelby County, and the MSCPC to begin developing the Memphis Intermodal Terminal, a state-of-the-art intermodal facility to be built in the Frank C. Pidgeon Industrial Park in southwestern Memphis. Located on public land, the private rail investment in the facility is expected to total $25 million creating a 155-acre terminal with an annual capacity of 200,000 lifts. The site offers more than 3,000 acres for industrial development with land available for expansion of the terminal.

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Figure 14
Existing Rail Facilities



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Table 10
Freight Railroad Operations and Facilities In The Memphis Region

Railroad	Area of Operation	Intermodal Facility	Facility Capacity	Number of Lifts (2000)
Burlington Northern-Santa Fe (BNSF)	All areas west of the Mississippi River and connecting in Memphis to Mobile, Alabama east of the Mississippi River	Tennessee Yard located at Shelby Drive and U.S 78	100,000	148,521
		Marion, AR	100,000	72,556
Canadian National (CN)	Generally along the East side of the Mississippi River from Mobile, AL and New Orleans, LA through Memphis to Chicago and into Canada	Johnson Yard located at U.S 61 and I-55	125,000	N/A
CSX	East of the Mississippi River serving all major East Coast cities from Boston to Miami with a western terminus of Memphis.	Johnson Yard located at U.S 61 and I-55	70,000	60,692
		Leewood Yard located at Chelsea and Hollywood	20,000	15,525
Norfolk Southern (NS)	East of the Mississippi River from Buffalo and New York City, NY through the Appalachanian area and Great Lake industrial areas with a western terminus in Memphis.	Forrest Yard located at Southern Avenue and Airways	100,000	75,000
Union Pacific (UP)	West of the Mississippi River from Duluth, MN to Brownsville, TX and from Seattle, WA to Los Angeles, CA with connections via Denver, CO and Salt Lake, UT to the Northwest and El Paso, TX and Phoenix, AZ to the southwest	Marion Yard located in Ebony, AR	450,000	251,000

Source: Railroad System and Division Maps (each railroad), ARCADIS and Carter and Burgess, Inc.

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The intermodal facility will feature five tracks with a total pad length of 20,000 feet for the movement of trailers and containers on and off railcars. The terminal will have parking spots for 1,800 trailers or container chassis. CN and CSX are committed to this project and the other railroads have been invited to participate. The concept of the facility concentrates all COFC/TOFC transfers in one location to facilitate the transfer of cargo between rail lines. Rail-to-rail transfers eliminate existing trucking drayage between railroad yards and significantly lessen the number of trucks traveling through residential areas. The MPO Transportation Plan foresees an additional 10,000 trucks per day by 2016 based on lift predictions in the Breazeale study and includes the intermodal facility in its future traffic zone employment projections.

The BNSF is planning an expansion of its capacity in the region. Options include expansion of the Tennessee Yard at Shelby Drive and U.S. 78 or relocation of the yard to the southeast. If the yard was moved southeast it would remain both within the Memphis economic region and along the BNSF-U.S. 78 corridor in Marshall County, MS. This expansion is planned to bring BNSF's lift capacity in the area to 1 million over the next 20 years.

The State of Tennessee Department of Transportation's *Latin-American Trade and Transportation Study* (1997) predicted that commodities shipped to the Gulf States would increase from 1,712,235 tons in 1996 to 7,107,540 tons in 2020. With the existing and planned expansion of the capacity of the area's intermodal transfer facilities, Memphis is in a position to compete for this increased activity as east-west shipments require transfer to north-south lines to make required connection to the Gulf in New Orleans and Mobile.

The location of these new and expanding facilities also increases trucking drayage between railroad facilities with impacts on some residential areas surrounding the facilities as well as the regional road network that provides connection to the intermodal facilities. A finding in the Carter Burgess study was a decrease in trucking drayage between intermodal facilities when all operations were consolidated at the proposed facility in Pidgeon Industrial Park. With only the CN and CSX currently planned to locate there, this impact will benefit those neighborhoods near the Leewood and Johnson Yards. The increased volume of containerized freight, along with an increasing number and capacity of lifts east of the Mississippi River, impacts both rail and roadway facilities on both sides of the river. Safe, reliable and efficient movements need to be assured to protect the area's competitive status.

Two railroad bridges span the Mississippi River at Memphis: UP's double-track and BNSF's single-track. **(See Figure 14, Existing Railroad Facilities - Inset.)** Both bridges are located alongside the I-55 Bridge south of Downtown Memphis. The railroad bridges are the only railway crossings of the river from Cairo, Illinois to Vicksburg, Mississippi, a distance of approximately 400 miles.

The Frisco Bridge was completed in 1892, the Harahan Bridge was completed in 1916 and the I-55 Bridge opened in 1949. Memphis lies just to the southeast of the New Madrid Fault Line. The Hernando-DeSoto Bridge (I-40) opened in 1973 and is being

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seismically retrofitted to partially address the earthquake risk. Because of the age of the two railroad structures and the I-55 Bridge, seismic retrofitting is not cost-effective. The effects of a devastating earthquake in the Memphis region would likely render these three older facilities useless and would have major impacts on the surface movement of freight throughout the southern portion of the country. A combined highway-railway bridge with multi-tracks is recommended in the Memphis Region Source Book which would replace the Frisco and Harahan railroad bridges while providing additional interstate capacity. The new facility would give the Memphis region two seismic standard highway bridges and secure rail bridges to connect freight facilities on either side of the river. The new bridge should be located with convenient interstate and railway access to the proposed Memphis Intermodal Terminal in Pidgeon Industrial Park. To date Congress has authorized feasibility and location studies for this facility and the MPO is working with Arkansas, Mississippi and Tennessee in developing these studies.

The studies listed above all suggest an increased market share for the MPO and surrounding area in the movement of national and international freight. Meanwhile, changing land uses along some local rail branch service lines has made their future operation questionable. In the past, the former Louisville & Nashville line through midtown Memphis extending northeast toward the Raleigh area was abandoned and acquired for a trail along segments of the former rights-of-way. Currently, the CSX has been allowed to suspend service of a line from Midtown Memphis to the Cordova area. This is often a pre-cursor to abandonment of the line. As the nature of manufacturing changes in the area, other local freight service lines could face similar status.

Conclusion

Points of rail line congestion in the Memphis area were identified in the Carter & Burgess report. The major congestion points noted were the north-south CN crossings of the three east-west lines south of Downtown Memphis (known as the "IC Crossing") and in an area southeast of Downtown where three railroads cross (known as the "KC Junction.") **(See Figure 14, Existing Railroad Facilities - Inset.)** In these locations, operators must come to a halt to determine if the way is clear before moving over the crossing tracks. Other points of congestion are found in areas of reduced speed due to restrictive track geometry and/or hand-thrown switches.

Railroad capacity is related both to the ability of the five railroads to accommodate growth in containerized freight and to effectively transfer those containers within the region. The BNSF clearly has a capacity issue at the Tennessee Yard and the capacity of the other yards combined is not sufficient to address projected volumes of over 1 million lifts a year.

The construction of new intermodal facilities is the responsibility of the railroad companies. BNSF will modernize and expand its operations at the Tennessee Yard or construct a new facility southeast of its current operation in Tennessee. No investment amount has been given to date for this 1 million lift capacity facility. The CN and CSX

will jointly fund the $25 million Memphis Intermodal Terminal in Pidgeon Industrial Park.

Several highway projects are needed to support growth in containerized freight movements in the Memphis region. **Figure 15, Planned Railroad Access Improvements and Overpasses,** illustrates these projects which will improve access for truck-to-rail movements and will further improve access for rail employees and service vehicles.

Railroad versus vehicular congestion and safety is the responsibility of TDOT and the department maintains a prioritized list of rail crossing projects. Through its Freight and Transportation and Safety committees, the MPO recommends projects which relieve congestion and address safety issues. Project selection criteria allows for higher rankings for proposed construction projects that include rail crossing improvements.

Figure 15, Planned Railroad Access Improvements and Overpasses, shows the locations of railway overpasses along local arterials under the jurisdiction of the MPO that will be programmed in this plan for grade separation.

CSX has been granted approval to suspend service on its line from Midtown Memphis to Cordova shown in **Figure 16, CSX Rail Line Suspended for Service,** and could receive approval for abandonment in the future.

A study of the CSX corridor should be undertaken by local government to determine the future use of this corridor and the feasibility of Memphis and Shelby County governments acquiring it. Potential future uses of the CSX rights-of-way include the widening of Mullins Station Road, a rails-to-trails project in the Shelby Farms recreational area, and for possible passenger rail service in the future.

The future of Amtrak and high-speed rail service is being studied across the country. Review of the Amtrak routes for high speed rail shows a significant absence of service in the Mid-South area. While the City of New Orleans service provides people in the Memphis area with access to Chicago and New Orleans, and transfer capability to both the high speed and regular Amtrak service to most major cities in the east and west, such routing does not provide a reasonable alternative to driving or air service.

The Tennessee the Tennessee Rail System Plan, a policy document for TDOT, identifies potential corridors for additional study linking Memphis to the three other major cities in Tennessee. These links would then provide a broader regional connection to such cities as Atlanta, Louisville and Washington.

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Figure 15
Planned Railroad Access Improvements and Overpasses

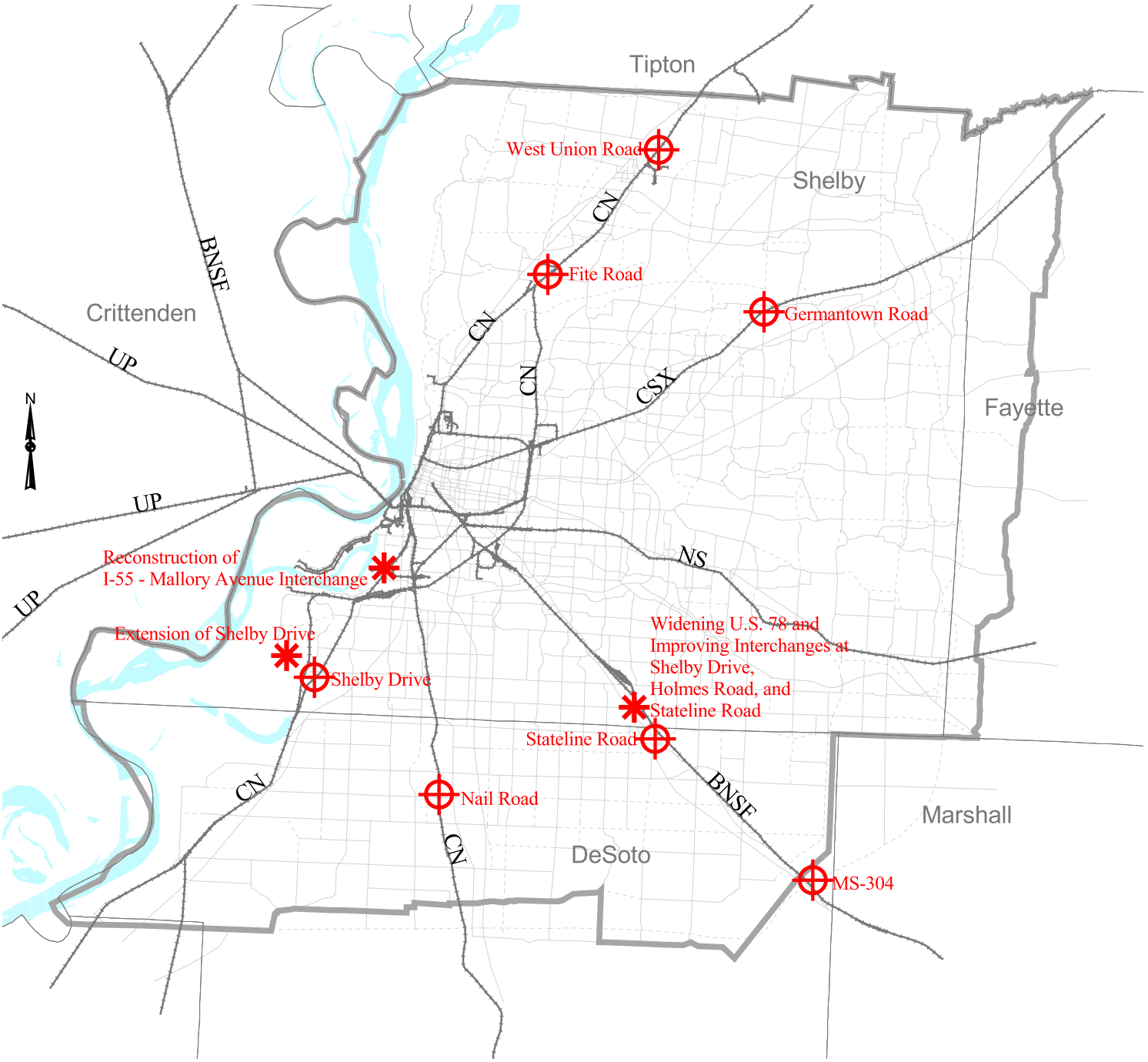


Figure 16
CSX Rail Line Suspended for Service



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LRTP 2026 Projects/Strategies

All of the projects in the plan that involve freight movement impact rail transportation and facilities. However, the most significant projects in the LRTP 2026 that support the rail element include:

1. Roadway Projects

- Reconstruct the I-55 and Mallory Avenue interchange
- Widen and extend Shelby Drive to improve access to the Memphis Intermodal Terminal site and Pidgeon Industrial Park. Shelby Drive should be considered for designation as a NHS Connector facility.
- Widen U.S. 78 with interchange improvements at Shelby Dr., Holmes Rd., and future Stateline Rd.
- Complete the location study of a multi-modal bridge as a third crossing of the Mississippi River in the Memphis region (Illustrative Project)
- I-69

2. Overpasses

- MS 304 over BNSF in Olive Branch
- Nail Road over CN in Horn Lake
- Stateline Road over BN at the Tennessee-Mississippi state line
- Shelby Drive over two CN lines near Pidgeon Industrial Park
- Fite Road over CN south of Millington
- West Union Road over CN in Millington
- Germantown Road over CSX in Bartlett.

SUPPORT OF LRTP 2026 GOALS

While supporting all of the goals of the LRTP 2026, the rail transportation element of the transportation system specifically addresses the following goals and objectives:

• Promote efficient land use and development patterns to ensure safety, economic vitality and to meet existing and future transportation needs

- Continue to modernize rail signals to lessen rail-auto conflicts

• Encourage conservation of energy resources in addition to minimizing adverse impacts transportation has on social, economic and environmental attributes of the community

- **Encourage improvements to and the expansion of freight facilities to ensure that Memphis maintains its leading role in global logistics**
  - **Work with regional Class I railroads to ensure that the Memphis Intermodal Terminal is developed and operating by 2006**
  - **Work with the MSCAA and IPM to obtain funding for projects designated in their master plans**
  - **Work with Federal and State departments of transportation to obtain funding for the construction of I-69, I-22, I-269 and the new I-55 highway-railway bridge**

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3. Port Facilities

Background

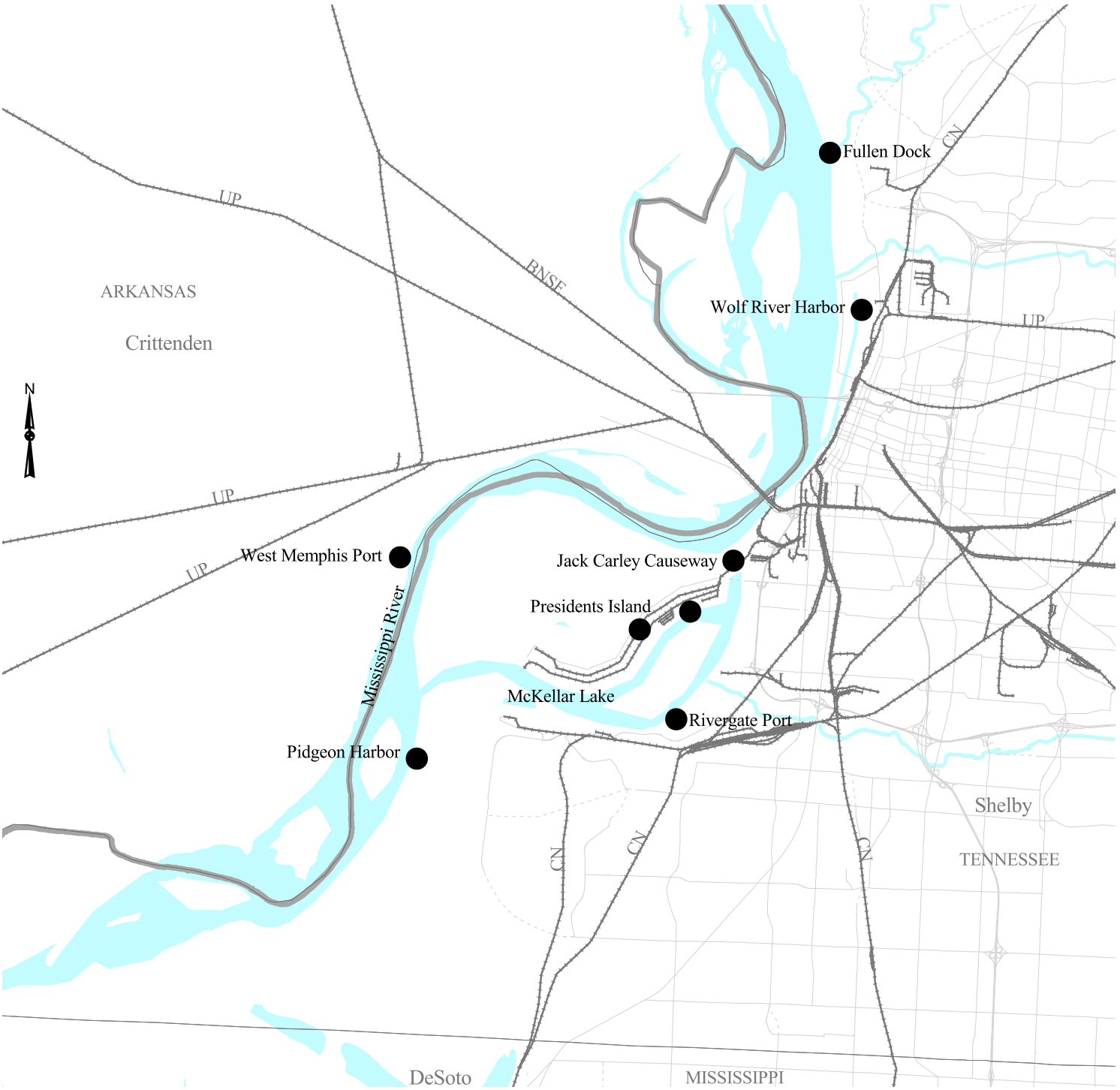
The International Port of Memphis (IPM) is the fourth largest inland port in the U.S. The port includes the Tennessee and Arkansas sides of the Mississippi River from River Mile 725 to River Mile 740. The IPM is 400 river miles from St. Louis and 600 river miles from New Orleans. Within the 15-mile jurisdiction of the IPM are 68 water-fronted facilities— 37 of which are terminal facilities. According to statistics provided by the IPM, the port offers six grain elevators with 2,238 feet of berthing space supplemented by 50 concrete silos and 25 steel tanks with a storage capacity of 12.3 million bushels; 18 facilities with 6,313 feet of berthing space and 130 storage tanks with a capacity of 88,956,750 gallons handle liquid bulk commodities. Furthermore, liquid bulk commodities are handled by eight facilities with 4,404 feet of berthing space and a storage capacity of 581,000 tons.

The IPM's jurisdiction includes the Presidents Island-McKellar Lake-Rivergate Port-Pidgeon Harbor complex south of downtown; the Wolf River Harbor and Fullen Dock, located north of Downtown Memphis; and the West Memphis Harbor in West Memphis, Arkansas **(See Figure 17, International Port of Memphis - Existing Facilities).** At present, 95% of the industries and the majority of activities in the IPM are in the Presidents Island complex. The President's Island complex is home to the Premcor petroleum refinery- the only refinery in the State of Tennessee. The refinery has a direct pipeline that carries jet fuel from the refinery located at the port to the Memphis International Airport.

The United States Army, Corps of Engineers Ensley Engineering Yard is located at the IPM. The Yard is part of the Memphis district that covers 355 miles of waterways. The Ensley Yard covers 157 acres and provides repair shops, warehousing, and administrative offices which support the fleet of over 33 vessels.

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Figure 17
International Port of Memphis - Existing Facilities



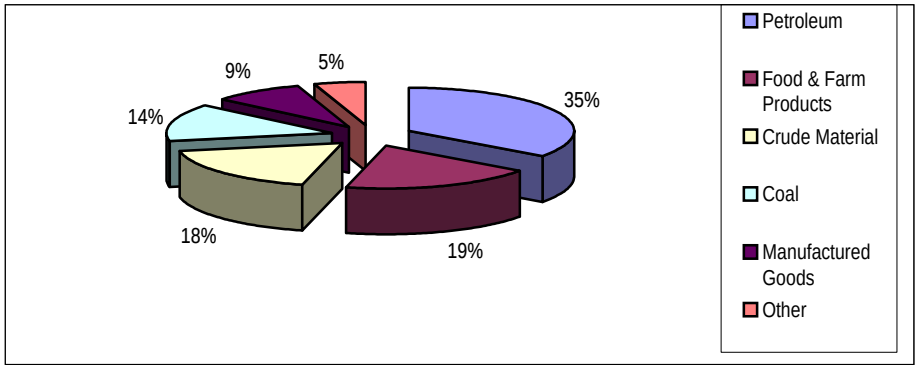
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Freight Handled and Capacity of Facilities

According to the latest data available from IPM, the port handled a total of 16.9 million tons of goods in 2001. **Figure 18, 2001 Top Commodities for IPM,** illustrates the top five commodities that moved through Memphis that year- petroleum, food and farm products, crude material, coal, and manufactured goods respectively.

Figure 18
2001 Top Commodities for the International Port of Memphis



Source: IPM & U.S. Waterborne Commerce Statistics, 2003

Table 11, International Port of Memphis River Tonnage, shows the total tonnage of shipments received by the IPM from 1992 to 2001. Using this data, a trend analysis was completed to produce forecasts on future river tonnage. These forecasts suggest that IPM will continue to handle larger amounts of cargo through 2026.

Table 11
INTERNATIONAL PORT OF MEMPHIS
RIVER TONNAGE

Year	Total Tonnage
1992	13,281,000
1993	13,333,000
1994	15,680,000
1995	15,945,000
1996	17,300,000
1997	18,012,000
1998	17,211,000
1999	16,811,000
2000	18,269,000
2001	16,907,000
2002	NA
2003	NA
2006	20,728,000*
2016	25,416,000*
2026	30,104,000*

NA: Figure Not Available.
* MPO Forecasts Based On Existing Data from the International Port of Memphis.
Source: International Port of Memphis and U.S. Waterborne Commerce Statistics, 2003.

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President's Island and the Wolf River Harbor

At present, the IPM faces several issues that have an impact on its facilities- particularly President's Island and the Wolf River Harbor. Specifically, industries on Presidents Island are accessed by one road only— Jack Carley Causeway, a narrow two-lane road extending westward from the McLemore Avenue interchange at I-55. The causeway, as it crosses the land bridge dividing McKellar Lake and the main channel of the Mississippi River, forms a bottleneck for vehicles traveling between I-55 and the island. This situation is further complicated by the causeway's at-grade intersections over the BNSF rail line also crossing the land bridge.

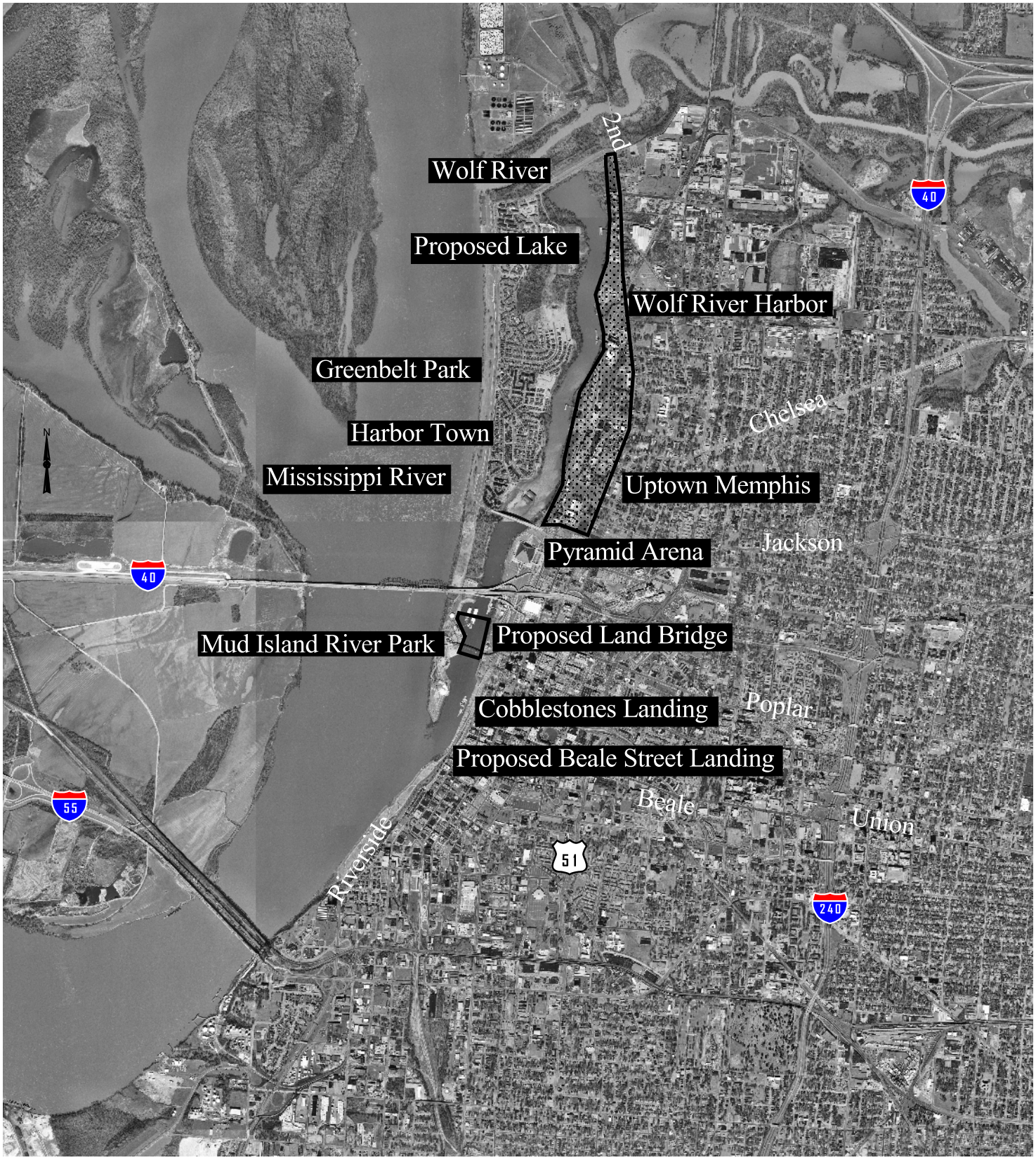
To address the issue of accessibility to President's Island, several potential projects, including improvements to the I-55/Crump interchange and the extension of South Parkway West, would ease congestion and improve access. A westward extension of South Parkway West at its current terminus would take South Parkway West down the river bluff, across a man-made fill area at the northern end of McKellar Lake, then connecting with Jack Carley Causeway. This new point of access not only would provide relief from congestion on the causeway but also would allow an alternative means of ingress/egress if the causeway were blocked by a roadway/railroad accident or if an industrial accident on the island necessitated emergency evacuation.

Like many urban areas seeking to redevelop their downtown area, the city of Memphis has engaged in an aggressive program to include parks, commercial districts and upscale housing along its riverfront. As such the IPM is facing increasing competition for space along those waterways as it seeks to maintain its waterfront access. However, The port is fortunate in that its greatest hub of activity is located in the Presidents Island area several miles removed from redevelopment activities in Downtown Memphis. Several industrial facilities dependent on water access remain along the Wolf River Harbor just north of Downtown. They include Bunge Corporation, Cargill, Inc., Conwood Company, Lafarge Corporation, Lone Star Industries, and Westway Terminal Company, Inc., among others. The U.S. Coast Guard Station also is located here.

The Riverfront Development Corporation (RDC), the agency in charge of redeveloping Memphis's waterfront, has proposed constructing a land bridge across the southern portion of the Wolf River Harbor forming a still-water lake in the lagoon. **(See Figure 19, Downtown Redevelopment & Wolf River Harbor.)** While this project would offer the advantages of reducing pollution and stabilizing fluctuating water levels in the lagoon— thus encouraging the development of housing on the east bank of the harbor— it also would eliminate water access for the industries located on the harbor. Industries there would either lose their river access or be forced to relocate.

The RDC plans a docking facility at the foot of Beale Street south of the lake— but this facility would be limited to passenger vessels only. Even if commercial vessels were allowed to dock there, the Beale Street Landing is located too far south of the Wolf River Harbor to provide any real access to the industrial properties. Therefore, the MPO recommends a study that identifies alternative access points for the industries listed above.

Figure 19
Downtown Redevelopment and Wolf River Harbor



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Conclusion

As an intermodal facility, the IPM offers a unique setting for the transportation services in the Memphis area with its convergence of barge, railcars and truck trailers. Moreover, with easy access to the Memphis International Airport and its close proximity to one of the nation's largest waterways (the Mississippi River), the IPM is strategically positioned to provide a competitive advantage for intermodal logistical operations. As the city of Memphis continues to promote itself as a national distribution center, the intermodal facilities offered by IPM make it an important economic contributor to the Memphis region. To continue to position itself as an important regional intermodal facility, the following projects are recommended to support operations of the port:

LRTP 2026 Projects/Strategies

All of the projects in the plan that involve freight movement and traffic congestion impact port facilities to some extent. However, the most significant projects in the LRTP 2026 that support the port facilities element include:

- Extension of South Parkway West
- Improvements to I-55/Crump Interchange
- Beale Street Landing
- Study to Identify Alternative Access Points for Industries Affected by Beale Street Landing

SUPPORT OF LRTP 2026 GOALS

While supporting all of the goals of the LRTP 2026, the port facilities element of the transportation system specifically addresses the following goals:

- **Encourage improvements to and the expansion of freight facilities to ensure that Memphis maintains its leading role in global logistics**

  - Work with the MSCAA and the IPM to obtain funding for projects designated in their master plans

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4. Truck Transportation

The Memphis MPO area is a major hub for truck transportation and is home to large trucking companies that include FedEx and MS Carriers. The Memphis Regional Chamber touts the area as a major trucking distribution hub to the nation with over 300 motor freight companies and a wide variety of businesses with state-of-the-art warehousing capabilities. Because of its centralized location, the Memphis region is within a day's drive of two thirds of the U. S. population. In addition to its numerous truck terminals, Memphis has more than 89,000 people (21% of the workforce) employed in distribution and related industries and more than 130 million square feet of distribution space. Memphis area companies like Williams-Sonoma, Nike, Ingram Micro and Brother International each maintain high-tech warehouses with over a million square feet of distribution space.

In the last five years, 78 distribution companies with 15,431 new employees committed to locate or expand in Shelby County. The DeSoto Economic Development Council, during the same period, reported that 33 companies and 2,850 new employees located in DeSoto County, Mississippi. The five largest employers in Crittenden County, Arkansas are all freight-related firms with approximately 2,000 employees.

A. Needs Assessment for Improvements to Truck Transportation System

Because of the commitment to the promotion and expansion of the region as a distribution center, it is critical that the road network be capable of handling the volume created by this expanding industry. Three existing interstates serve the Memphis area. I-40 is an east-west highway from California on the west coast, connecting the three major cities of Tennessee, Knoxville, Nashville and Memphis, to North Carolina on the east coast. I-240 circles the majority of the City of Memphis and provides movement around and within the Memphis urban area. I-55, a north-south highway connects New Orleans, Louisiana, crossing the Mississippi River in Memphis, to St. Louis, Missouri and Chicago, Illinois. The convergence of these three interstates in Memphis helps make the area a prime hub for truck freight movement. While this is a benefit to the economic expansion of the region, it also comes with a cost. The capacity and level of service of the existing transportation system in the Memphis region is affected by this expanding truck activity causing the need for congestion management.

In addition to congestion concerns from truck traffic, other truck and rail issues have been identified in plans completed by the Memphis and Shelby County Office of Planning and Development over the years. These plans cover redevelopment areas, neighborhoods, planning districts and improvement districts and utilized various public planning forums with input from Memphis and Shelby County legislative bodies, planners, engineers and citizens. As early as 1982, the University Planning District Study, proposed improvements to the Southern Railroad and Highland Street intersection, along with improvements to the railroad tracks. Rerouting of truck traffic away from Kansas Elementary School was listed as a recommendation in the South Memphis District Plan of March 1999. A closer examination of the impact of the South Parkway

extension to President's Island was also called for in this plan due to the likely increase in truck traffic throughout neighborhoods along South Parkway. The transportation issues of the 2001 Midtown Corridor East Redevelopment Project included concern over the railroad that traverses the community and how it acts as an intimidating physical barrier to persons without vehicular transportation. The January 2003, revision of the Whitehaven-Levi Planning District Study mentions concerns over illegally parked eighteen-wheelers in neighborhoods. In each of these plans, safety, congestion, and traffic volume were identified as major concerns of the community.

The above plans highlighted specific neighborhood concerns. Other conflicts caused by the location of truck and rail facilities in urban areas can also arise from the following activities:

- Late night deliveries and loading operations that cause concern about light, noise and vibration issues
- Peak-hour deliveries and loading operations creating congestion and traffic interference
- Possible movement of hazardous substances causing safety concerns
- Through-trucks on neighborhood streets and streets with retail commercial creating noise, vibration, safety and inappropriate use of street capacity
- Possible on-street loading with traffic and access interference concerns.

The Memphis MPO Freight Committee is charged with finding solutions to the problems of truck congestion on major corridors, truck interface with traffic on local roads, and the efficient movement of goods and services. These issues are further complicated because of the need to look at the freight industry as a whole. Intermodal freight movement issues transcend the specific concerns caused by only trucks or rail and will be addressed in a comprehensive manner in the "Intermodal Infrastructure" section at the end of this chapter.

Data analysis, identification of major truck freight activity hubs and identification of the corresponding principal freight corridors, all lay the groundwork for how the Memphis MPO will respond to truck freight movement issues in neighborhoods and throughout the region. The following summarizes that groundwork. It also provides a list of projects being proposed to alleviate many of the problems described in this section. These projects are part of the Congestion Management System (CMS) analysis, **Chapter 6,** and included in the Major Road section, **Chapter 5**.

B. Truck Freight Activity in the Memphis Region

In 2002, the Memphis Regional Chamber and the Memphis MPO compiled a database listing freight-related firms in the Memphis area. The firms were identified using the Standard Industrial Classification (SIC) codes for trucking, farm products, warehousing and truck terminal facilities. As a result, there were 275 firms identified.

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As shown in **Figure 20, Existing Major Freight Activity Hubs,** the location of the larger firms (those with over 20 employees) indicates that the following areas could be considered major truck freight activity hubs:

- Lamar-Hickory Hill-Olive Branch
- Airport Area
- Depot Area
- South Memphis
- Presidents Island
- West Memphis

These truck freight activity hubs were further analyzed by comparing them to employment centers identified in the Shelby County Growth Plan and 2000 and 2026 Traffic Activity Zone (TAZ) employment data. **Table 12 Freight Activity Hubs, Existing and Future Employment,** shows a major increase in employment estimates in the Airport, Lamar/Hickory Hill and President's Island areas **(supporting data is in Appendix I, Freight Activity Hubs Existing and Future Employment.)**

Table 12
Freight Activity Hubs
Existing and Future Employment

Activity Hub	Employment Year 2000	Employment Year 2026	Difference	Percent Change
Airport	61,847	86,297	24,450	39.53
Depot	8,685	9,086	401	4.62
Lamar/Hickory Hill	30,979	49,941	18,962	61.21
Olive Branch	10,384	10,384	0	0.00
President's Island	6,162	8,637	2,475	40,17
South Memphis	11,650	11,642	-8	-0,07
TOTAL	129,707	175,987	46,280	35.68

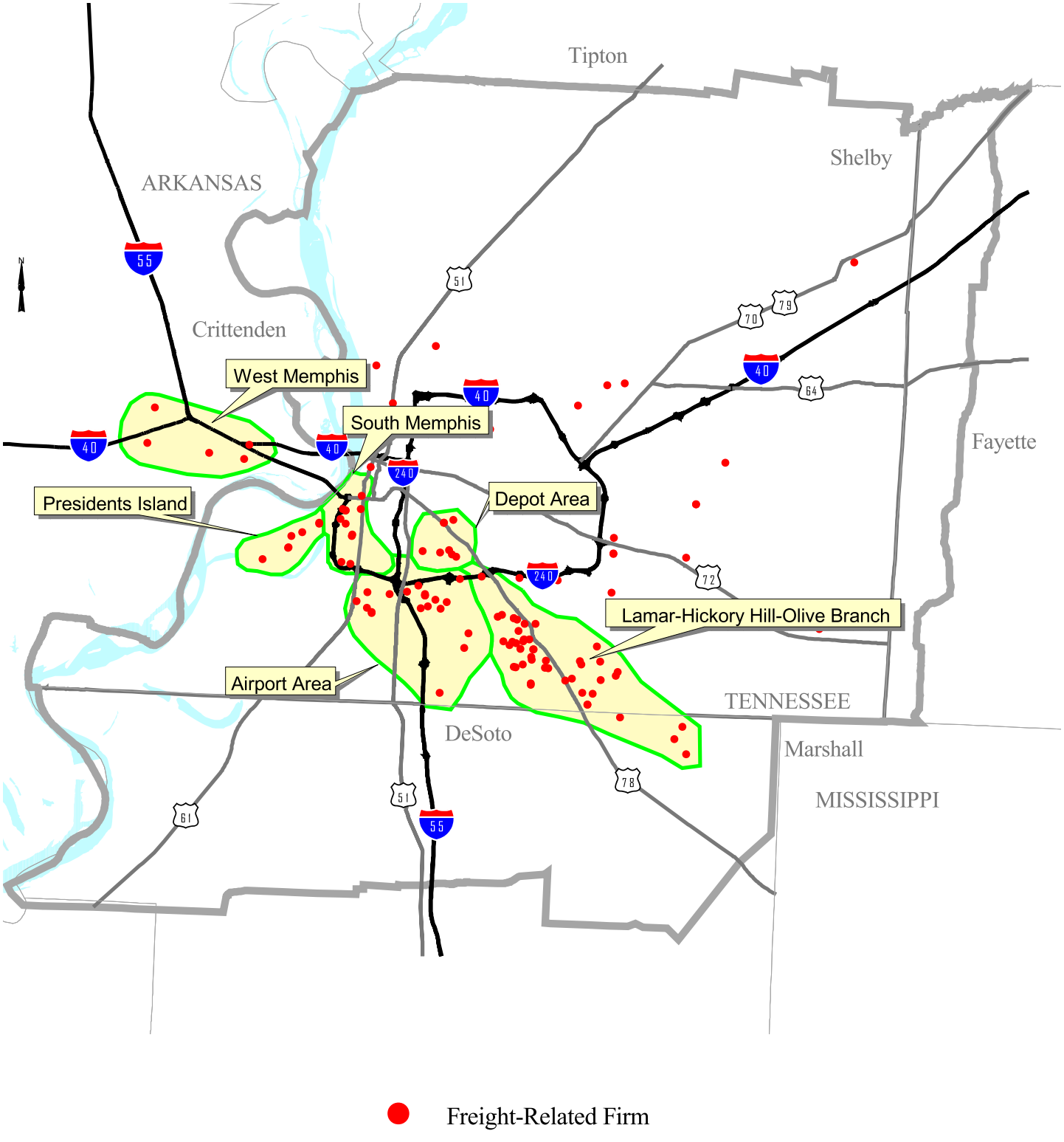
Source: MPO Light Rail Alternative Land Use Projections

A minimal decrease is estimated to occur in South Memphis and a small increase in employment is estimated for the Depot area, adjacent to the Airport area, for the period of 2000 to 2026. This data illustrates how the southern portion of Shelby County has historically been a prime trucking and distribution area and that employment is anticipated to grow in this area.

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Figure 20
Existing Major Truck Freight Activity Hubs



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In an effort to quantify truck movements in the above hubs, data was used from President's Island, the only hub where the data was available. The 1995 President's Island Industrial Intermodal Survey identified truck activity at the one ingress/egress point on and off the island. The survey indicated that an average of 12,357 trucks per week arrived at or departed the island that year and the destinations of 48% of these trucks were inside Shelby County. Routes of trucks heading outside Shelby County were:

- 24 percent traveling I-40 to the east
- 15 percent traveling I-40 to the west
- 14 percent traveling I-55 to the south
- 11 percent traveling I-55 to the north
- 10 percent traveling U.S. 78 to the south
- 26 percent traveling other routes

Though the exit points above do not match identically with the Memphis MPO's boundaries, it gives some indication of the truck movements departing the Memphis area.

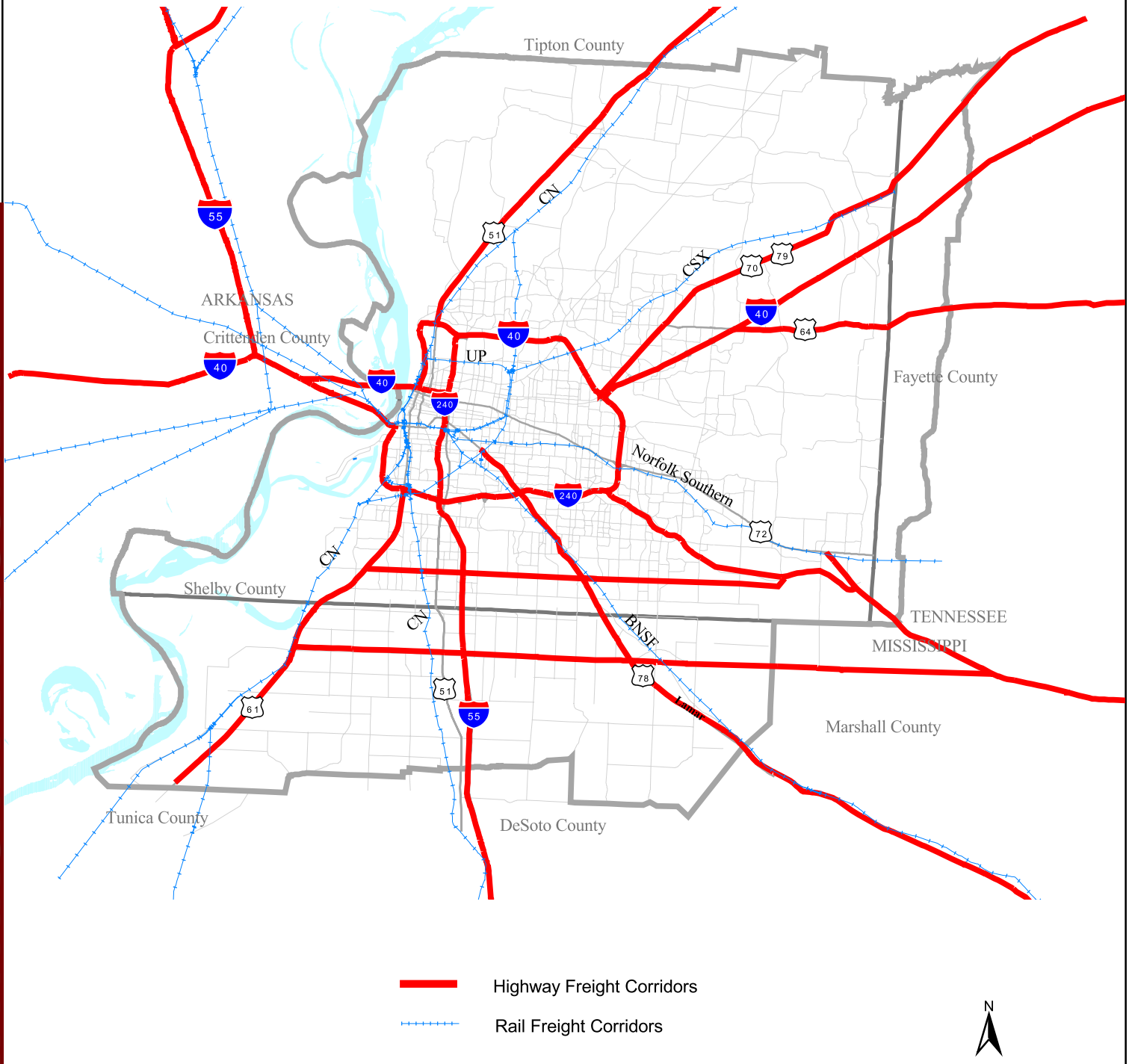
C. Existing Principal Freight Corridors

Principal freight corridors serve international and domestic interstate and intrastate trade within the freight transportation system. **Figure 21, Principal Freight Corridors,** maps the existing highway and rail freight corridors identified from the "Freight Analysis Framework" (FAF) by the Office of Freight Management, FHWA. Based on the FAF data, the principal truck freight corridors in the Memphis MPO shown in **Figure 21** include the following facilities:

- Interstate system with NHS Intermodal Connectors
- U. S. Highway 78
- U. S. Highway 51
- U. S. Highways 61, 70, and 72
- Tennessee Highway 385
- Tennessee Highway 14
- Mississippi Highways 302 (Goodman Rd.), 301, and 305
- Singleton Parkway
- Part of Paul Barrett from Singleton Parkway to U. S. Hwy 51

The freight corridor not listed above but connecting to major truck activity hubs and the interstate highway system is Shelby Drive from I-55 east to US 78 (also mapped on Figure 23). Justification for this addition is based on the Tennessee Roadway Information Management System (TRIMS) data from TDOT. This data **(See Appendix J, TRIMS Data)** illustrates roadways in the MPO area with truck traffic accounting for 10 percent or more of the average daily traffic (ADT).

Figure 21
Existing Principal Freight Corridors



Source: Freight Analysis Framework, Office of Operations, Office of Freight Management, FHWA and TDOT TRIMS Data 2003

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This analysis reaffirms the FHWA designated principal freight corridors and justifies Shelby Drive for inclusion in the system. Other small segments shown in **Appendix J** are not being recommended because these segments are not located in proximity to freight hubs and/or were isolated segments.

Shelby Drive is the main east-west truck route connecting the Airport and Lamar/Hickory Hill freight activity hubs to I-55 and US 78. As indicated in the *1999-2003 Annual Reports of the Memphis and Shelby County Industrial Development Board*, based on the number of new distribution companies locating along Shelby Drive and the possibility of railroad expansions in the area, Shelby Drive could experience additional truck congestion in the future.

D. Future Principal Freight Corridors

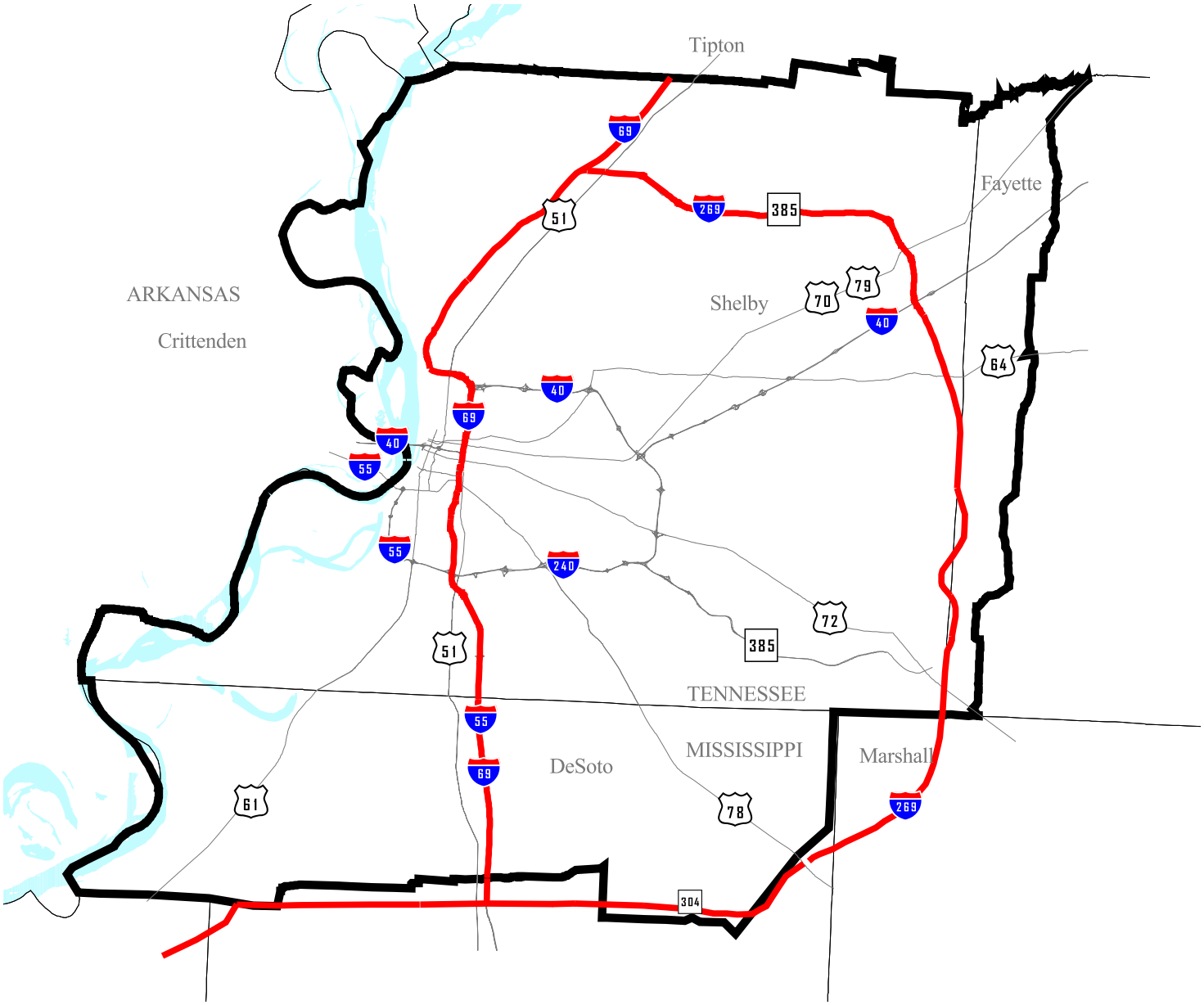
Truck traffic projections from the Office of Freight Management did not include the effects that proposed Interstate 69 (I-69) and Interstate 269 (I-269) will have on freight traffic in the Memphis area (**see Figure 22, Proposed Interstate 69 and Interstate 269)** as future principal freight corridors. As described in the Interstate 69, Section of Independent Utility #9, Draft Environmental Impact Statement (DEIS), the purpose of proposed I-69 is to provide an adequate corridor for the movement of freight between Canada and Mexico, improve international and interstate trade, increase accessibility to the region and improve transportation systems linkages to stimulate economic development. Its purpose is also to respond to local traffic growth and travel demands by providing a high-speed, access-controlled facility that is responsive to traffic usage and enhances access between communities and routes within the I-69 corridor.

I-69, also known as Corridors 18 and 20, includes eight states from the Gulf of Mexico and Texas, through the Mississippi Delta, the Midwest, to the industrial north to Canada. The national I-69 Corridor was designated by Congress in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) to address the transportation needs associated with growing trade opportunities beyond the U. S. borders. In support of the enactment of the North American Free Trade Agreement of 1992 (NAFTA), the Transportation Equity Act for the 21st Century (TEA 21), signed into law June 9, 1998, designated the I-69 Corridor.

The DEIS points out that studies of the movement of commodities, both finished goods and raw materials, show there is significant demand for this movement to occur along a route within the designated I-69 Corridor. With an increasingly global economy and evolving international trade opportunities, direct and continuous connections from Canada and Mexico play a key role in the health of the United States economy. I-69 will give the nation new capacity to efficiently ship commodities from border to border, significantly reducing travel times and cost. Memphis is one of the "named cities" in the federal legislation to be connected to the new I-69 facility due to its importance as one of the top ten distributions centers in the United States. I-69 will offer much needed economic opportunities for West Tennessee, Eastern Arkansas and Northern Mississippi.

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Figure 22
Proposed Interstate 69 and Interstate 269



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A systems approach alternative was evaluated in the I-69 DEIS. This approach connects existing and proposed interstates and other existing and proposed major highways identified in the Memphis LRTP and Mississippi's Vision 21 Plan (MS State Transportation Plan) to a roadway system that carries out the stated I-69 goals. The impact of I-69 on the Memphis MPO 2026 Roadway Network is further described in **Chapter 5.**

The systems approach alternative involves construction of a route through Memphis (I-69), as well as the construction of an eastern bypass route (I-269). The Memphis LRTP 2026 supports the eastern loop because it will respond to congestion issues on I-69 (See CMS section) and it will provide additional regional transportation access to the smaller cities and municipalities around Memphis. It also connects to key U. S. highways that carry large truck volumes (i.e., US 78, US 72, US 64 and US 51). US 78, which approaches Memphis from the southeast, is proposed to be upgraded to interstate standards and designated as part of the Interstate System. This will provide a new interstate connection for freight movement from Memphis to Birmingham, Alabama, further supporting the freight activity hubs and principal freight corridors previously described in this section.

The movement of people and freight will be greatly enhanced by the freight distribution network created from the construction of both I-69 and I-269. The construction of these new facilities could result in the expansion or creation of freight activity hubs and principal freight corridors that will further support the growing trucking and distribution industries in the Memphis MPO region.

E. Truck Freight Congestion

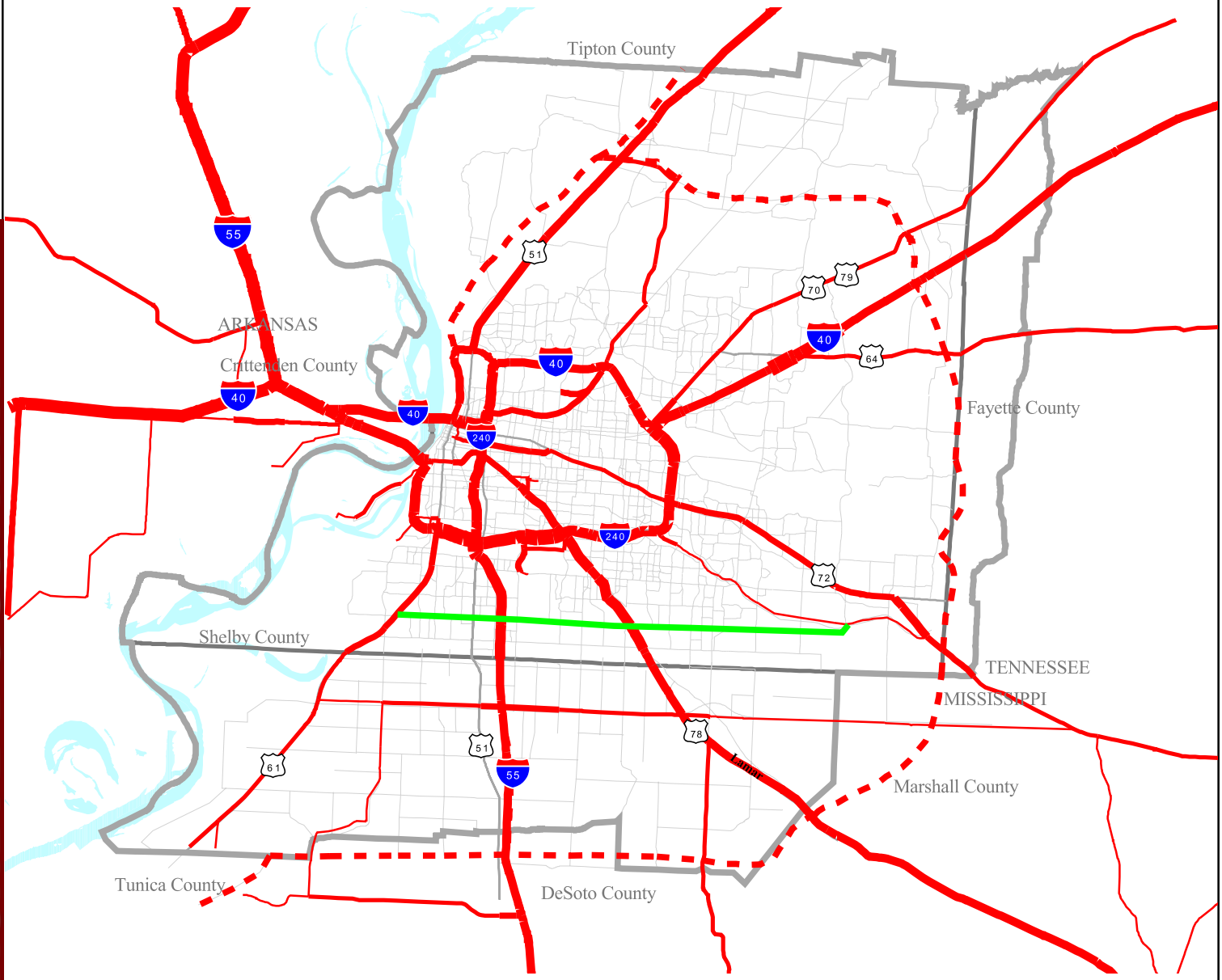
Memphis MPO staff utilized Office of Freight Management base data for 1998 truck traffic and projections for 2020 for NHS corridors in the Memphis MPO area. As described earlier, **Figure 21,** maps the existing highway and rail freight corridors identified from the *Freight Analysis Framework* (FAF). **Figure 23, Future Principal Freight Corridors, Truck Volumes Traffic 2020,** shows growth in truck traffic in these principal freight corridors as projected in the FAF for 2020.

Traffic volume increases in principal freight corridors were projected for the LRTP horizon years 2006, 2016, and 2026. (The methodology and table appear in **Appendix K, Truck Volume Methodology.** Additionally, TRIMS data helped MPO staff identify roadways in the MPO area with truck traffic accounting for 10 percent or more of the ADT. **Figure 24, Projected Truck Traffic,** indicates that truck trips of the total ADT on I-55, I-240 South, and U. S. 78 will nearly double from 1998 to 2026. While it is projected that all forms of traffic will increase in that time period, truck traffic will increase at a much faster rate than automobiles.

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Figure 23
Future Principal Freight Corridors, Truck Volumes 2020



2020 Daily Trucks

- 0 - 2000
- 2001 - 4000
- 4001 - 8000
- 8001 - 12000
- 12001 - 17000
- 17001 - 22000
- 22001 - 28000

N

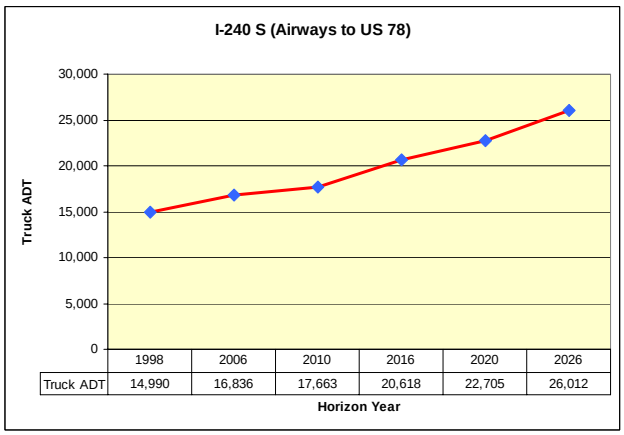
Shelby Drive (Source: Memphis MPO, TDOT TRIMS Data used to Identify as Freight Corridor)

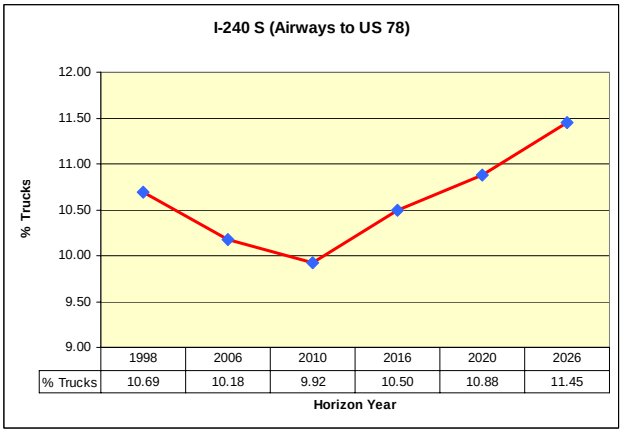
Potential I-69 Corridor (Source: Memphis MPO)

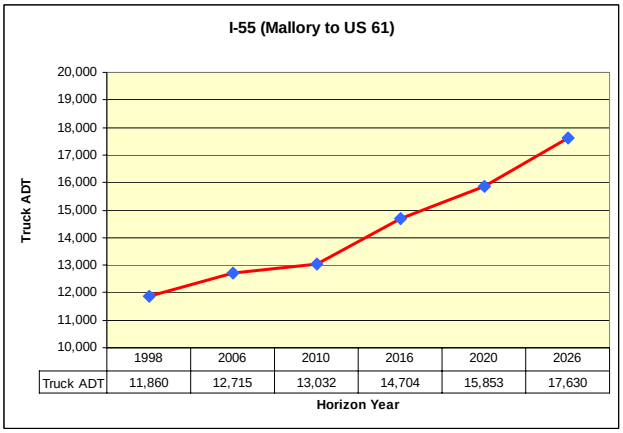
Source: Freight Analysis Framework, Office of Operations, Office of Freight Management, FHWA

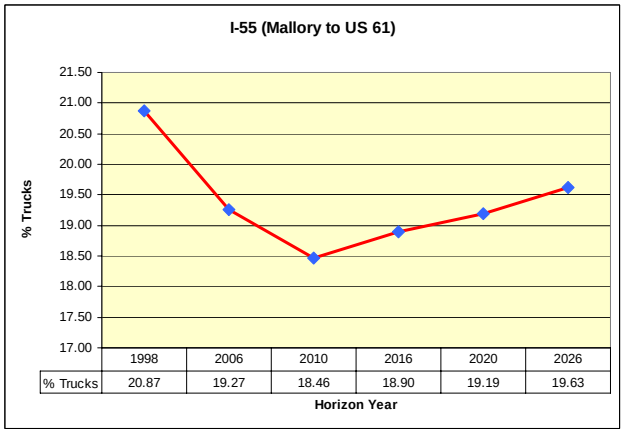
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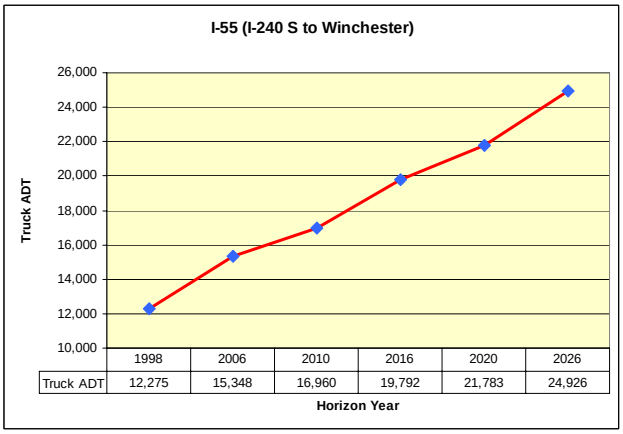
Figure 24 **Projected Truck Traffic**

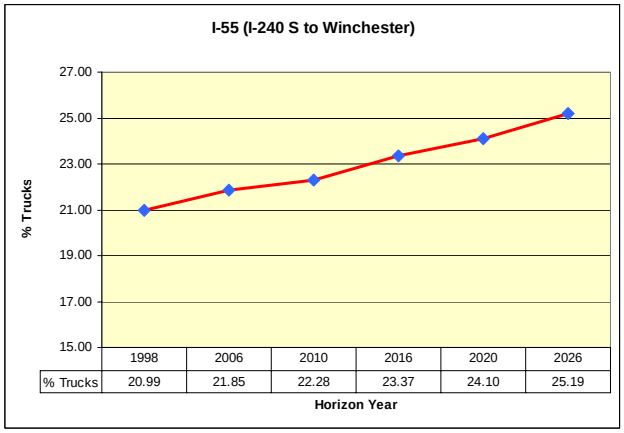


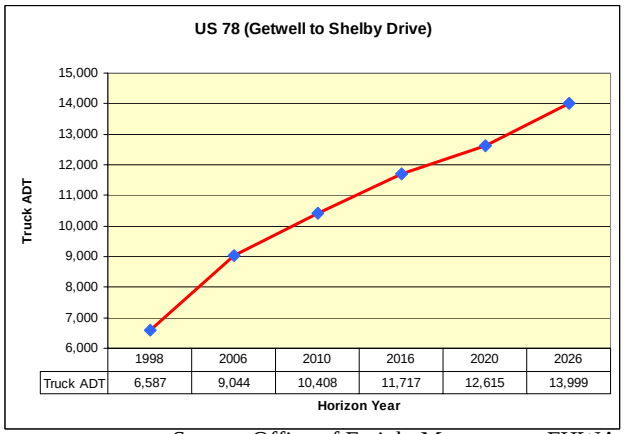


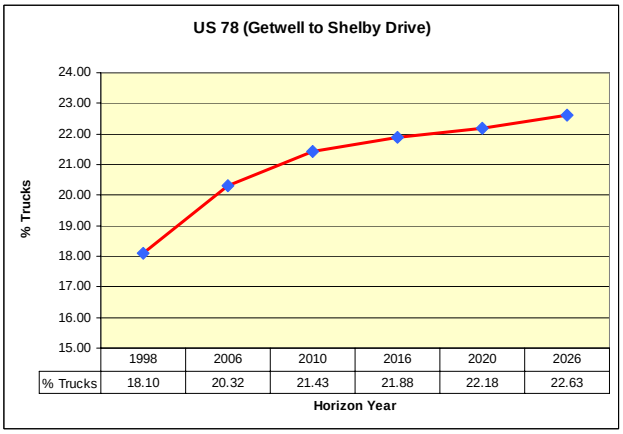












Source: Office of Freight Mangement, FHWA, FAF Data & Department of Regional Services

F. Roadway Projects to Address Freight Congestion Issues

Principal freight corridors with truck volumes of 10% or more of the ADT are shown in **Figure 25, Congestion Caused by Freight Movement,** and are considered to be major contributors to congestion in the Memphis MPO. Based on analysis of these corridors and recommendations of projects in the CMS section, congestion relief will be provided to these corridors.

The following projects that are included in the CMS section and/or the 2026 Roadway Network (**Figure 26, Planned Road Projects That Help to Relieve Truck Congestion**) show that major improvements are being recommended to address congestion on the principal freight corridors. These projects are listed in two parts: 1) CMS/2026 Roadway Network projects with direct impact on congestion relief; and 2) Other 2026 Roadway Network projects with indirect impact on congestion relief. Information regarding these projects can also be found in the Financial section (Chapter/Appendix 8/N).

CMS/2026 Roadway Network projects with direct impact on congestion relief:

- Widen I-240 South from I-55 to U.S. 78 and reconstruct the Airways Boulevard interchange
- Widen U.S. 78 from Getwell Road to the Tennessee-Mississippi state line with the construction of new interchanges and Shelby Drive, Holmes Road, and Stateline Road
- Reconstruct the I-55 Crump Boulevard interchange
- Extend South Parkway West to Jack Carley Causeway on Presidents Island
- Reconstruct the I-55 and Mallory Avenue interchange
- Extend Shelby Drive and widen Shelby Drive near Pidgeon Industrial Park
- Widen I-55 in DeSoto County
- Widen Goodman Road in DeSoto County (MS-302)

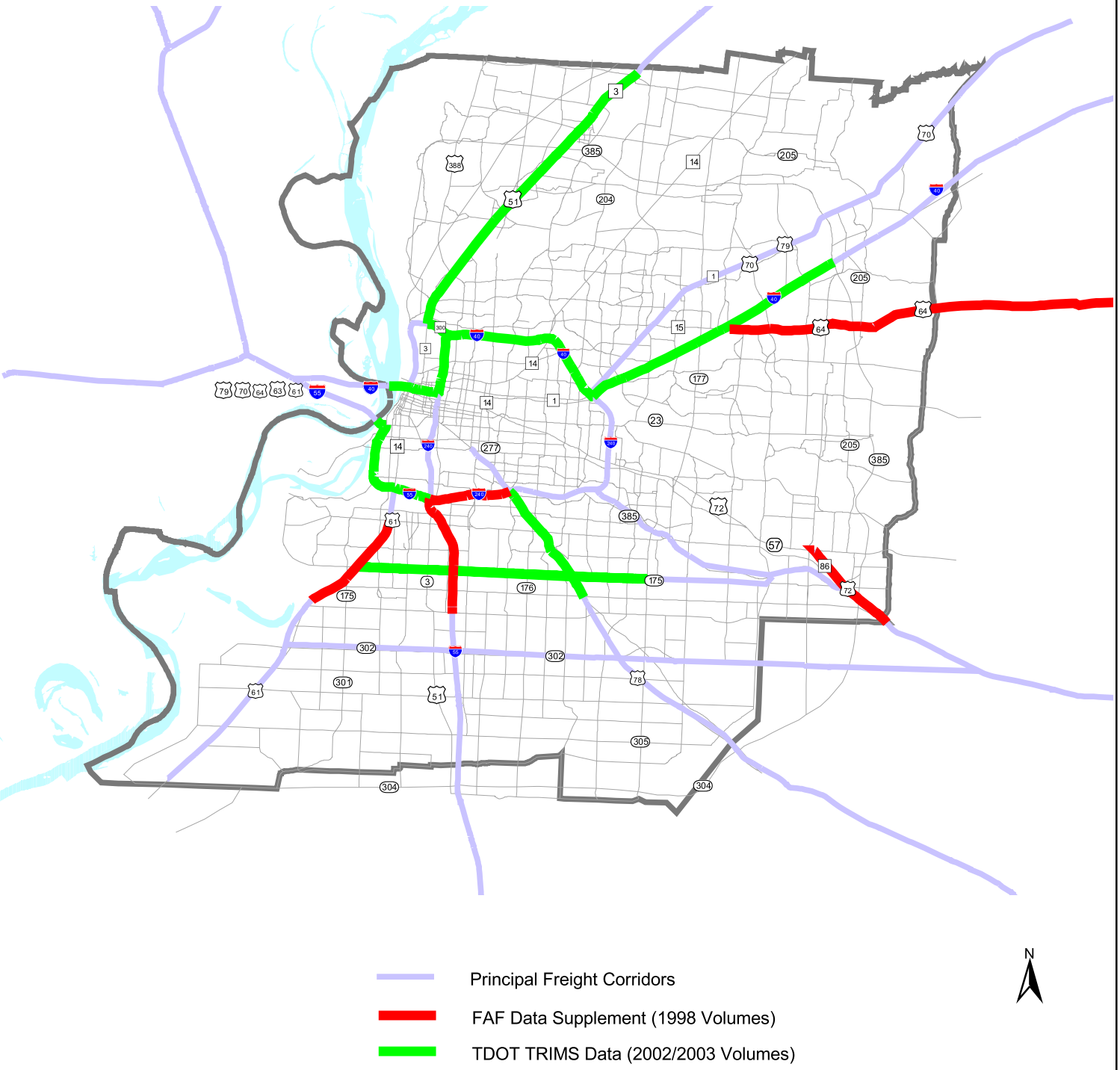
Other 2026 Roadway Network projects with indirect impact on congestion relief:

- Widen Holmes Road from U.S. 78 to I-55 with a new interchange constructed at I-55
- Construct I-69 and I-269 through the MPO area
- Widen Hacks Cross Road from the Tennessee Mississippi state line to Shelby Drive
- Construct West Union Road Extended in Millington
- Extend Paul W. Barrett Parkway to future I-69
- Extend and widen Fite Road to future I-69.

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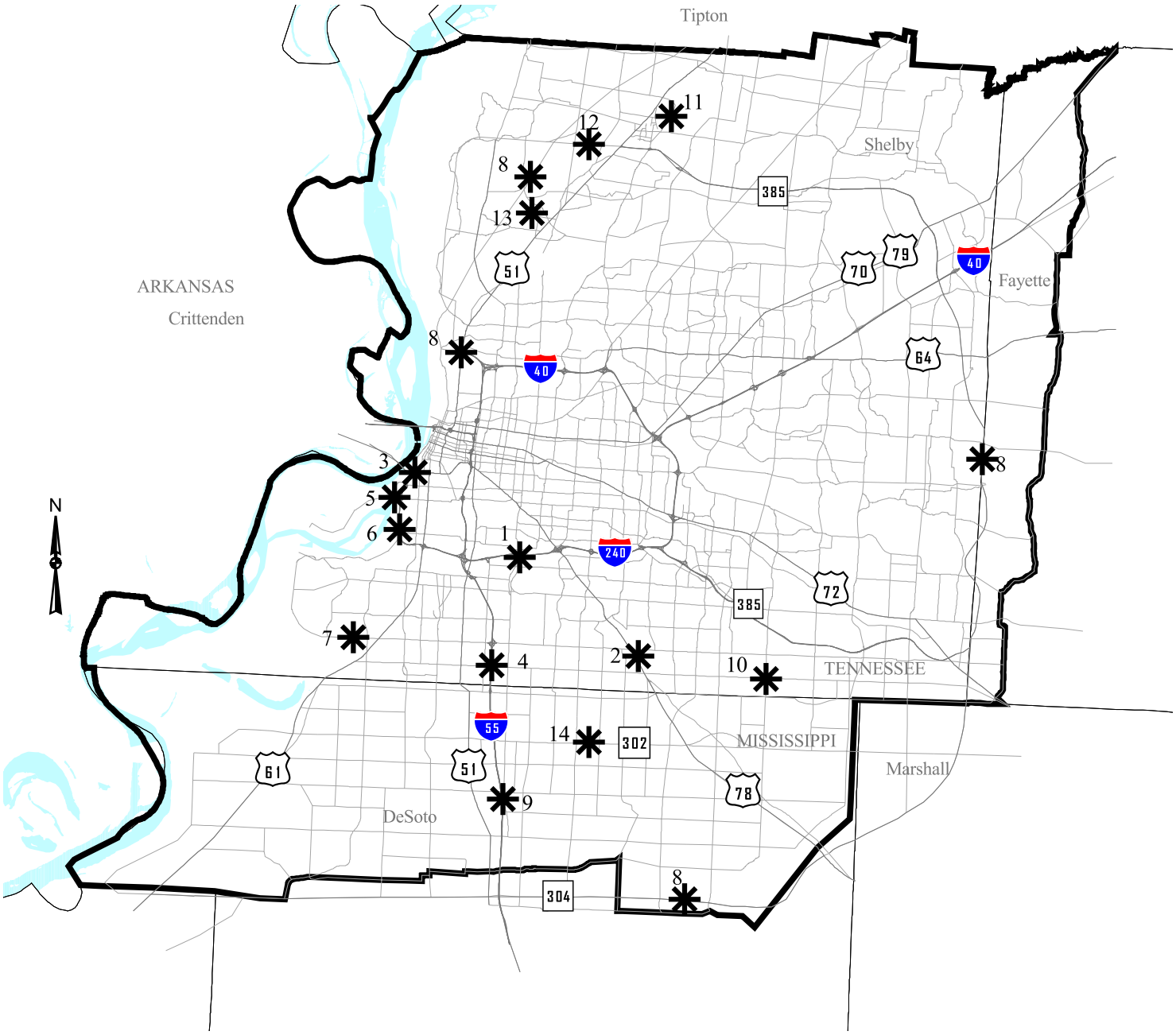
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Figure 25
Congestion Caused by Freight Movement
(Truck Volumes with more than 10% of ADT)



Source: FAF Network, Office of Freight Management, FHWA, TDOT TRIMS Data (2002/2003)

Figure 26
Planned Road Projects That Help Relieve Truck Congestion



1. Widening I-240 South from I-55 to U.S. 78 and reconstructing the Airways Blvd interchange
2. Widening U.S. 78 from Getwell Rd to the TN-MS state line with the construction of new interchanges at Shelby Drive, Holmes Rd, and Stateline Rd
3. Reconstructing the I-55 - Crump Blvd interchange
4. Widening Holmes Road from U.S. 78 to I-55 with a new interchange constructed at I-55
5. Extending South Parkway West to Jack Carley Causeway on Presidents Island
6. Reconstructing the I-55 and Mallory Avenue interchange
7. Extending Shelby Drive and widening Shelby Drive near Pidgeon Industrial Park
8. Constructing I-69 and I-269 through the MPO area
9. Widening I-55 in DeSoto County
10. Widening Hacks Cross Road from the Tennessee-Mississippi state line to Shelby Drive
11. Constructing West Union Road Extended in Millington
12. Extending Paul W. Barret Parkway to future I-69
13. Extending and widening Fite Road to future I-69
14. Widening Goodman Road in DeSoto County

County Boundary
MPO Boundary

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G. Future direction

This section provided a detailed discussion on the truck freight industry and its importance to the Memphis MPO region. The projects being recommended to support truck freight movement are important but they are one part of the overall freight plan. A freight module in the proposed new Travel Demand Forecasting Model will provide better system-wide traffic flow data and more accurate traffic projections for freight movement in future years. The ever-expanding distribution industry in the Memphis area will benefit from these activities thereby helping to stimulate economic growth for the entire region.

LRTP 2026 PROJECTS/STRATEGIES

All of the projects in the plan that involve freight movement and traffic congestion impact efficient truck movement. The most significant projects in the LRTP 2026 that support the truck transportation element were previously outlined on page 98 and in Figure 26.

SUPPORT OF LRTP 2026 GOALS

While supporting all of the goals of the LRTP 2026, the truck transportation element of the transportation system specifically addresses the following goals and objectives:

- **Promote efficient land use and development patterns to ensure safety, economic vitality, and to meet existing and future transportation needs.**
  - **Promote the concentration of future employment and other activity centers along existing and planned major travel corridors.**

- **Encourage conservation of energy resources in addition to minimizing the adverse impacts transportation has on social, economical and environmental attributes of the community.**
  - **Minimize transportation noise impacts.**

- **Increase the safety and security of the transportation system for motorized and non-motorized users.**
  - **Encourage policies, plans and transportation projects that eliminate unsafe designs and conditions or provide increased safety for users.**

- **Continue to develop a multi-modal transportation network that utilizes strategies for addressing congestion management and air quality issues in the Memphis MPO region.**
  - **Promote street networks that ensure minimal congestion by reducing travel delays in accordance with the guidelines in the adopted CMS Plan.**

- **Encourage improvements to and the expansion of freight facilities to ensure that Memphis maintains its leading role in global logistics.**
  - **Work with regional Class I railroads to ensure that the Memphis Intermodal Terminal is developed and operating by 2006.**
  - **Work with federal and state departments of transportation to obtain funding for the construction of I-69, I-22, and the new I-55 highway-railway bridge.**

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5. Intermodal Facilities

The location of the Memphis region has historically made it an important center of transportation and logistics resources. Growth trends in aviation, rail, port facilities, and truck modes have been documented previously in this Freight section. Project recommendations for the various freight modes, included in the 2026 LRTP, will also benefit intermodal facilities. The Memphis MPO is working to more effectively integrate all of these transportation modes into an intermodal system for the efficient movement of goods and services.

A. Existing Intermodal Transfer Facilities

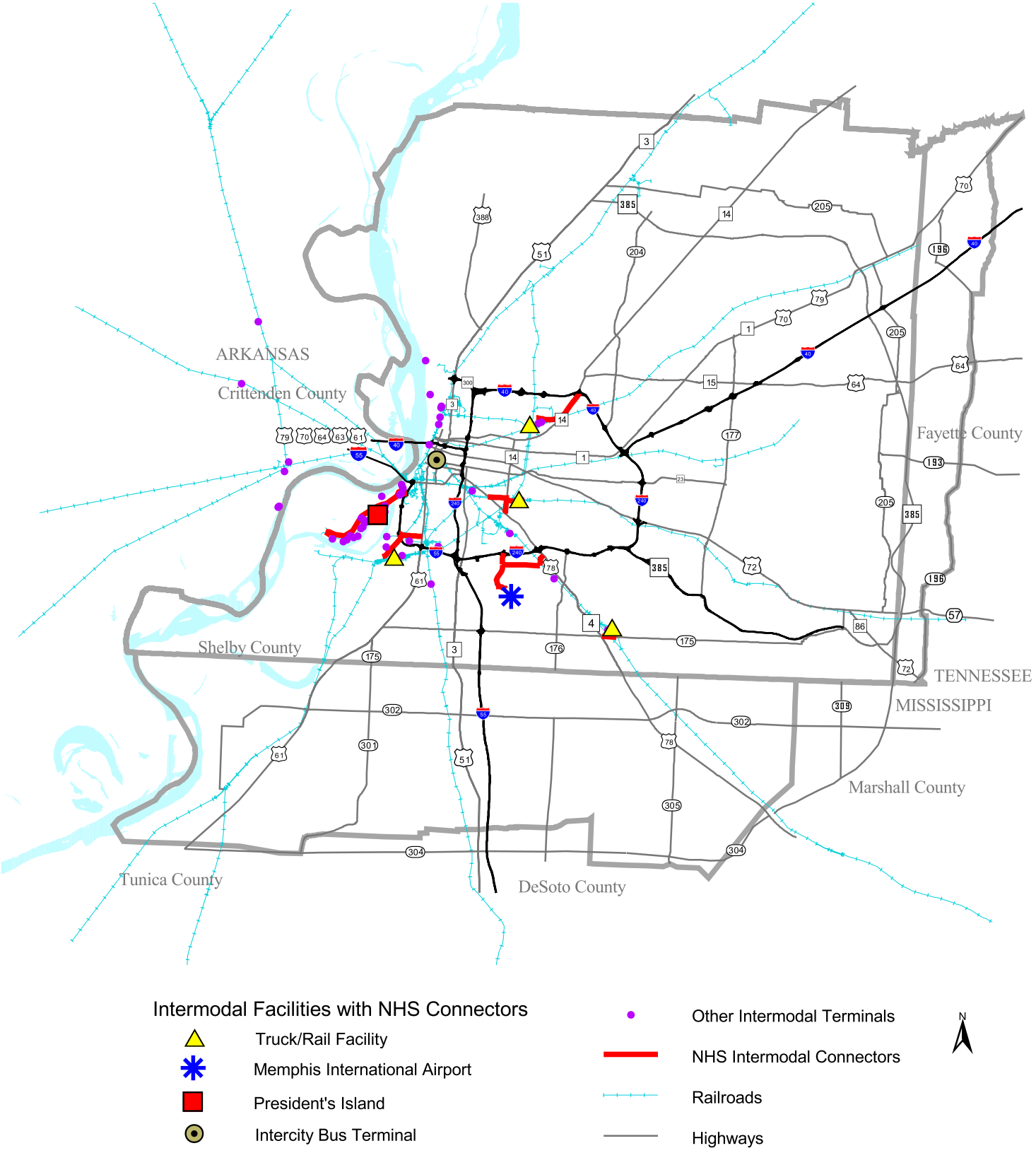
The Memphis MPO identified existing public and private intermodal terminals in the planning area. **Figure 27, Existing Intermodal Facilities and NHS Connectors,** maps these intermodal facilities that also include truck and rail terminals, Memphis International Airport, the International Port of Memphis and the highway network. National Highway System (NHS) Intermodal connectors are also mapped in **Figure 27** and were utilized to further document the NHS intermodal facilities in the Memphis MPO area. These intermodal facilities with their accompanying NHS Connectors are shown in **Table 13** below.

TABLE 13
MEMPHIS MPO INTERMODAL FACILITIES AND NHS INTERMODAL CONNECTORS

NAME	TYPE	NHS Connector*
Greyhound	Intercity Bus Terminal	Union Ave (SR-3) between Danny Thomas (SR-1) and 4th Street
Tennessee Yards	Truck/Rail Facility	Shelby Drive between Lamar Ave (SR-4) and the Tennessee Yard
Johnston Yards	Truck/Rail Facility	Mallory Ave and Riverport Road between I-55 and Rail Yard
Forrest Yards	Truck/Rail Facility	Southern Ave between Lamar Ave (SR-4) and East Parkway (SR-277); East Parkway between Lamar Ave (SR-4) and Southern Ave; Spottswood Ave between Airways and Forrest Yard
Leewood Yards	Truck/Rail Facility	Jackson Ave (SR-14) and Chelsea Avenue between I-40 and Warford Street
President's Island	Port Terminal	McLemore Ave, Riverside Blvd, Jack Carley Causeway, Harbor Ave, and Jetty Street between I-55 and Port
Memphis International Airport	Airport	Tchulahoma and Democrat Road between Lamar Ave (SR-4) and Airways Blvd; Plough Blvd between I-240 and Airport Entrance
* Source: Official NHS Intermodal Connector Listing, FHWA		
** Source: FAF Network, Office of Freight Management, FHWA		

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Figure 27
Existing Intermodal Facilities and NHS Connectors



Source: International Port of Memphis and Memphis MPO

B. Intermodal Issues

Increased demand for more capacity in all of the transportation modes described earlier in this section (aviation, rail, port facilities, truck) point to the growing need for new and expanded facilities. A closer look at **Figure 27** illustrates how most of the existing facilities are located in a very small geographic area in the inner city of Memphis. Freight bottlenecks near the port and rail yards can affect traffic and freight movement. Air quality can become a problem when idling vehicles are stopped at railroad grade crossings for long periods of time. Truck and rail traffic in neighborhoods are another area of concern (see Truck Freight Section). The CMS Section of the 2026 LRTP also describes congestion associated with the road network that serves many of the existing intermodal facilities. Such congestion can impede national and international freight movement.

The Light Rail Development alternative is being proposed by the Memphis MPO to reduce congestion problems caused by automobile traffic and to encourage people to take light rail rather than increase vehicular traffic on the road network. While the impact of the Light Rail alternative is not projected to have a dramatic impact on freight movement, any congestion relief it provides will benefit the trucking and distribution industry using the road network. The Light Rail Development alternative will also not have a great impact on railroad facilities because the potential corridors of the light rail system will not be on freight lines.

C. Future Intermodal Facilities

Efforts to address congestion issues in and around airport, port, rail and truck terminal facilities have been made by the Memphis MPO and a variety of public and private groups in the area. The following facilities are planned improvements to the intermodal network to respond to congestion issues as well as to improve the distribution capabilities of the Memphis MPO region.

Interstate 69/269 (I-69)

I-69 will be a new principal freight corridor which will provide both the Memphis region and the nation with new capacity to efficiently ship commodities from Canada to Mexico while reducing travel times and cost. It will also offer much needed economic opportunities for West Tennessee and Northern Mississippi. The construction of an eastern bypass route (I-269) will provide additional regional transportation access to the smaller cities and municipalities around Memphis. It also connects to key U. S. highways that carry large truck volumes (i.e., US 78, US 72, US 64 and US 51). US 78, which approaches Memphis from the southeast, is proposed to be upgraded to interstate standards and designated as part of the Interstate System. This will provide a new interstate connection for freight movement from Memphis to Birmingham, Alabama.

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Memphis Intermodal Terminal (Figure 28, Future Intermodal Facilities and NHS Connectors)

Feasibility studies on the Memphis Intermodal Terminal show there is a great need to increase capacity in the region's ability to handle freight. Agreements between the rail companies and local government are in place to develop the Memphis Intermodal Terminal at Frank C. Pidgeon Industrial Park in southwestern Memphis. The new terminal will be a state-of-the-art intermodal facility on 3,000 acres that will facilitate the transfer of cargo between rail lines in one location. These rail-to-rail transfers will eliminate existing trucking drayage between railroad yards and significantly lessen the number of trucks traveling through residential areas. This is not a project of the LRTP 2026, but the connector system to the terminal is a major part of this plan. The intermodal terminal is a project of the private sector.

Shelby Drive from I-55 to Pidgeon Industrial Park--NHS Intermodal Connector (Figure 28)

The Memphis MPO has identified Shelby Drive from I-55 to Pidgeon Industrial Park as a road segment that will require designation as an NHS Intermodal Connector to provide access to the new Memphis Intermodal Terminal. This recommended designation is based on the guidelines from FHWA and U. S. DOT. The new NHS Intermodal Connector will link to the principal freight corridor (identified in the Truck Freight section of this chapter) that extends from I-55 east to US 78.

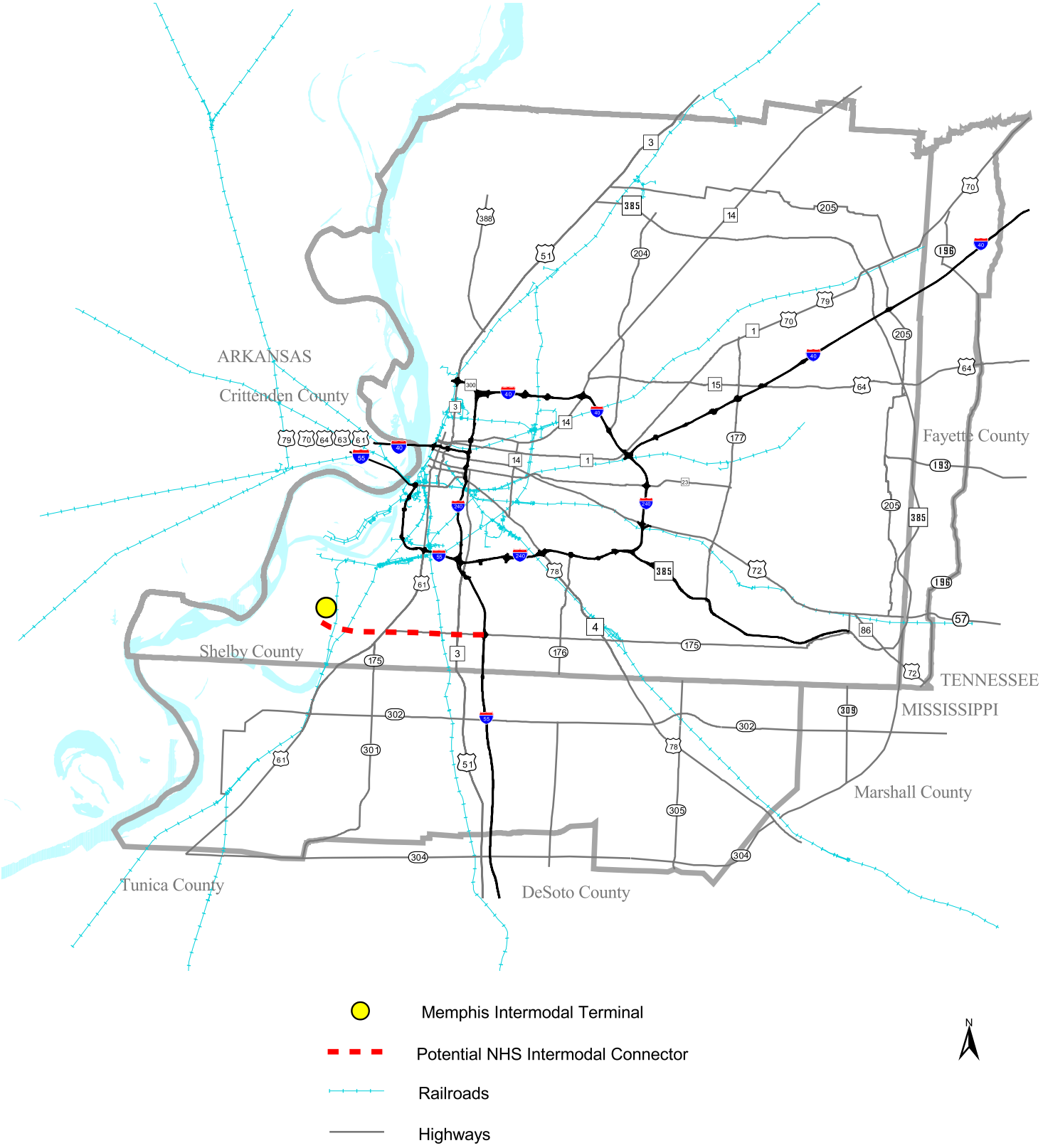
Third Bridge

A combined highway-railway bridge with multiple tracks has been recommended to replace two railroad bridges spanning the Mississippi River on I-55. The bridge is shown as an "illustrative project" in the LRTP 2026. The new facility would increase interstate capacity with convenient interstate and railway access to the proposed Memphis Intermodal Terminal in Pidgeon Industrial Park. Congress has authorized feasibility and location studies for this facility and the MPO is working with Arkansas, Mississippi and Tennessee in developing these studies.

Efforts to provide new and expanded intermodal facilities by the Memphis MPO are being recommended to improve freight transportation capabilities. Expected outcomes from these improvements will be to lower transportation costs for the movement of goods, enhancement to productivity and competitiveness for Memphis area businesses, improved air quality and environmental conditions through reductions in energy consumption and traffic congestion, and new employment opportunities.

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Figure 28
Future Intermodal Facilities and Potential NHS Connectors



Source: International Port of Memphis and Memphis MPO

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LRTP 2026 Projects/Strategies

All of the projects in the plan that involve freight movement and traffic congestion impact intermodal facilities. However, the most significant projects in the LRTP 2026 that support the intermodal element include:

- Interstate 69/Interstate 269
- Shelby Drive from I-55 to Pidgeon Industrial Park--NHS Intermodal Connector
- Third Bridge over the Mississippi

SUPPORT OF LRTP 2026 GOALS

While supporting all of the goals of the LRTP 2026, the intermodal facilities element of the transportation system specifically addresses the following goals and objectives:

• Promote efficient land use and development patterns to ensure safety, economic vitality, and to meet existing and future transportation needs.

- Promote the concentration of future employment and other activity centers along existing and planned major travel corridors.
- Continue to modernize rail signals to lessen rail-auto conflicts
- Continue to erect (where feasible) signs that limit truck traffic on small residential streets

• Encourage conservation of energy resources in addition to minimizing the adverse impacts transportation has on social, economical and environmental attributes of the community.

- Minimize transportation noise impacts.

• Increase the safety and security of the transportation system for motorized and non-motorized users.

- Encourage policies, plans and transportation projects that eliminate unsafe designs and conditions or provide increased safety for users.

• Continue to develop a multi-modal transportation network that utilizes strategies for addressing congestion management and air quality issues in the Memphis MPO region.

- Promote street networks that ensure minimal congestion by reducing travel delays in accordance with the guidelines in the MPO's adopted CMS Plan.

• Encourage improvements to and the expansion of freight facilities to ensure that Memphis maintains its leading role in global logistics.

- Work with regional Class I railroads to ensure that the Memphis Intermodal Terminal is developed and operating by 2006.

- **Work with the MSCAA and IPM to obtain funding for projects designated in their master plans**
- **Work with federal and state departments of transportation to obtain funding for the construction of I-69, I-22, and the new I-55 highway-railway bridge.**

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D. MAJOR ROADS

The major road element of the Memphis MPO LRTP defines the needs of the Memphis region for federal/state highways and regional/local arterials that provide key interconnection to the broader regional network.

The major roads in the recommended 2026 network for the MPO region include roads that will be improved and construction of new roads. These roads accommodate travel demand created by the chosen alternative - Light Rail Corridor Development. Those agencies include the states of Mississippi and Tennessee for National Highway System Roads, other U.S Highways, and state highways. The MPO coordinates projects that are recommended for federal funding through the MPO allocation of Surface Transportation Project (STP) and Congestion Mitigation and Air Quality (CMAQ) funds. The major road network projects are listed in **Appendix M** by county, and are programmed for funding through local tax revenues, bonds and development policies of the various jurisdictions and counties.

Financing for the recommended road projects is provided in **Chapter 7** of this plan. The financial analysis shows the MPO, through its member organizations, has sufficient financial resources to provide the recommended road network of this plan. The plan is financially constrained.

1. Road Network Development

The recommended road network of the Memphis region consists of interstate highways, federal and state highways, and local arterials. The efficient operation of the network requires the connectivity of these road types, effective congestion management and.

The base network was evaluated in the Memphis MPO Travel Demand Model with the assumptions of the two growth alternatives outlined in Chapter 4. Analysis of the Travel Demand Model indicates no significant differences on the regional network need between the two development alternatives because the land use and demographics are the same in the two scenarios until the light rail becomes fully operational.

Table 14, Travel Demand Model Comparison Of Growth Alternatives: 2026 shows the total vehicle miles traveled (VMT) and total vehicle hours traveled (VHT) in each alternative. The Suburban Expansion Alternative actually resulted in lower VMT and VHT than the Light Rail Development alternative. Analysis shows that the lower VMT/VHT occurs due to the spread of population to areas which are currently rural and are beyond the MPO planning area.

The difference of 0.53% in VMT and 0.34% in VHT between the two alternatives is not significant and did not impact the regional network needs or air quality conformity issues.

TABLE 14
TRAVEL DEMAND MODEL COMPARISON OF GROWTH ALTERNATIVES
2026

Growth Alternative	Total Travel Time (Hours)	Total Vehicular Miles
Light Rail	51,566,405	34,861,941
Suburban Expansion	51,294,908	34,742,262
Percent Difference	0.5293	0.3445

Criteria for Evaluation of Major Road Network

The network was evaluated based on four major criteria to meet the needs of the MPO area:

1. The need for congestion management strategies to resolve existing and future congestion.
2. Road projects needed to support of the freight and logistics industry
3. Road projects needed to support the projected growth of population and employment.
4. Road projects needed to provide connections to the regional system of interstates and U.S Highways.

1. The need for congestion management strategies to resolve existing and future congestion

The road network incorporates all of the recommendations from the CMS evaluation. The application of local CMS strategies provided relief to most of the existing identified congested corridors. However, some corridors require either addition of new general purpose lanes or reconstruction and design of existing interchanges by the horizon year 2026 to relieve congestion. The CMS strategies will continue to be applied throughout the planning period in a continued effort to address congestion issues before recommended construction of general purpose lanes occurs.

Below is a list of the 2004 congested network general purpose lane improvement projects that have been incorporated into the recommended 2026 Road Network. Detailed analysis of CMS strategies and recommendations can be found in Chapter 6.

- Bill Morris Pkwy (SR 385): I-240 to Riverdale
- Byhalia: Winchester to Poplar
- Covington Pike: Macon to Stage
- Germantown (HWY 305): Stateline to US 78
- Hollywood: Sam Cooper to Jackson

- HWY 61: Church to Nail
- I-240: Bill Morris Pkwy (SR 385) to I-40 E
- I-240: I-55 to Airways
- I-240: Airways to Lamar
- I-55: HWY 304 to Goodman
- I-55: Goodman to Stateline
- Interchange: Perkins & Winchester
- Interchange: US 64 & I-40
- McLean: Poplar to North Parkway
- Plough Blvd: I-240 to Airways
- Summer: I-40 to Elmore
- US 51: Paul Barret Pkwy (SR 385) to West Union

2. Road projects needed to support of the freight and logistics industry

The Freight section of this Chapter evaluates the needs and recommends road projects to support the needs of aviation, intermodal, rail, truck and port facilities. Major freight corridors were identified in the freight analysis. Truck freight movement that contributes congestion to the network was analyzed. The corridors which exhibited an LOS of E or F which require improvement were identified in the CMS section.

Below is a list of road improvement projects that were incorporated into the recommended 2026 Road Network to support freight movement.

- Widen I-240 S from I-55 to U.S. 78 & reconstruct Airways Blvd interchange
- Widen U.S. 78 from Getwell Rd to the TN-MS state line & new interchanges at Shelby Dr, Holmes Rd, & Stateline Rd
- Reconstruct I-55/Crump Boulevard interchange
- Extend S Parkway West to Jack Carley Causeway on Presidents Island
- Reconstruct the I-55 and Mallory Avenue interchange
- Extend Shelby Drive and widen Shelby Drive near Pidgeon Industrial Park
- Widen I-55 in DeSoto County
- Widen Goodman Road in DeSoto County (MS-302)
- Widen Holmes Road from U.S. 78 to I-55; a new interchange constructed at I-55
- Construct I-69 and I-269 through the MPO area
- Widen Hacks Cross Road from the Tennessee Mississippi state line to Shelby Dr
- Construct West Union Road Extended in Millington
- Extend Paul W. Barret Parkway to future I-69
- Extend and widen Fite Road to future I-69.

3. Road projects needed to support the projected growth of population and employment

The network improvements support the areas of the region where population and employment have been forecasted to increase substantially from the 2000 Census data to

the 2026 horizon year **(See Figures 29 and 30). Figure 29** shows planned network improvements through the year 2026 overlaid on projected employment growth. The data shows that the largest increases in employment are expected to occur in the eastern, southeastern and northern sectors of Shelby County; the TAZs in Fayette County; and, almost all of the planning area in DeSoto County. The planned road improvements provide access and mobility to these employment areas.

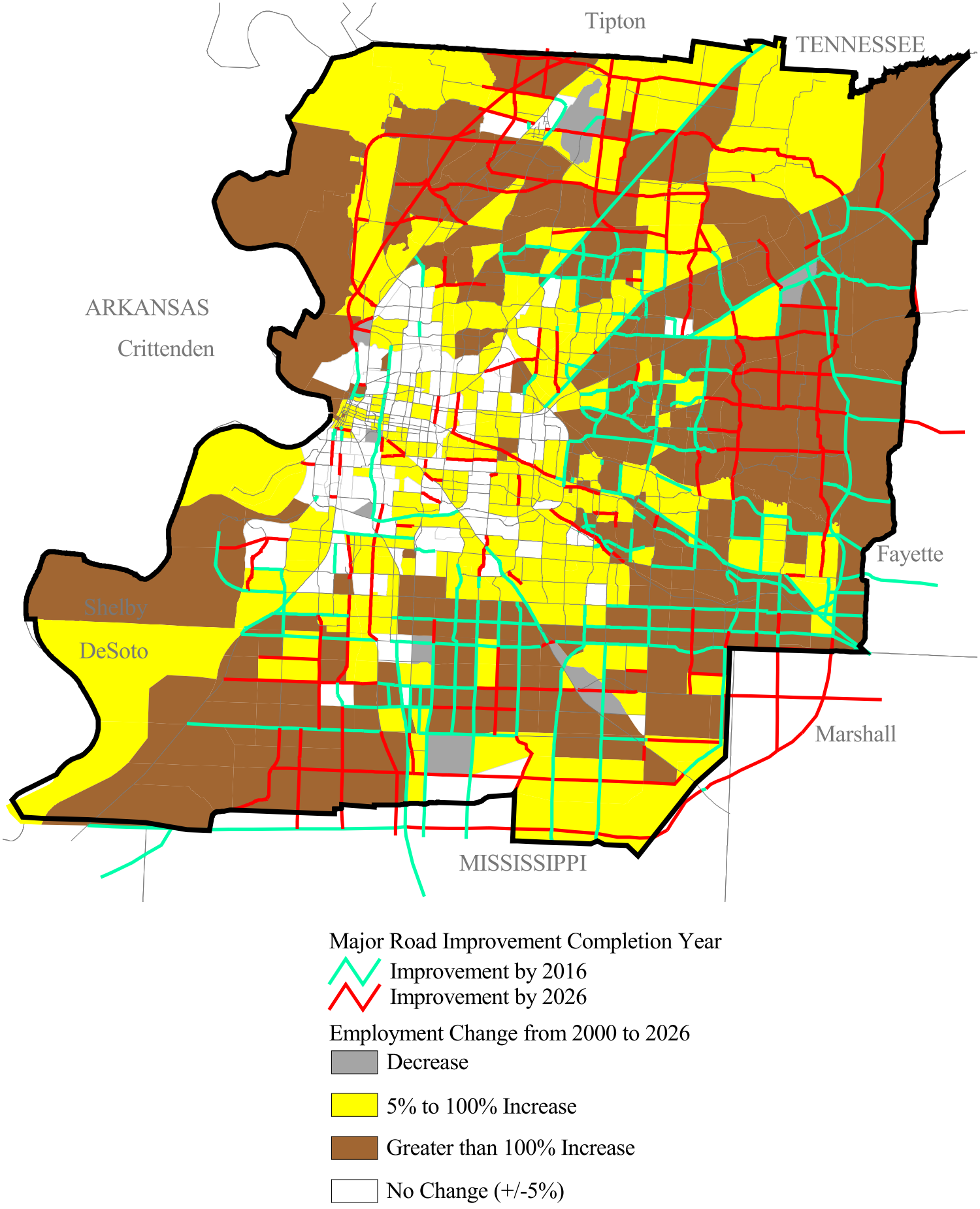
Population is expected to increase appreciably the eastern and southeastern areas of Shelby County and all of DeSoto County and Fayette County within the MPO region. Planned road network improvements will provide needed access to support the growing population**. Figure 30** shows planned network improvements in 2026 and the expected growth in population. (For more detail on demographics and employment, see Chapter 4.)

4. Road projects needed to provide connections to the regional system of interstates and U.S Highways

Figure 31 illustrates highways and arterials designated as State and Federal highways. Construction and maintenance of these roads are generally considered the responsibility of the States of Mississippi and Tennessee. These roads provide the basic infrastructure of the regional network. They include National Highway System roads (NHS) such as the interstates, NHS Intermodal Connectors, other U.S. highways, and primary and secondary State highways. Improvement projects to these roads are programmed and funded with various Federal sources including National Highway System Funds, National Corridor Planning and Development funds, and Interstate Maintenance funds and the respective state Discretionary Surface Transportation Program funds.

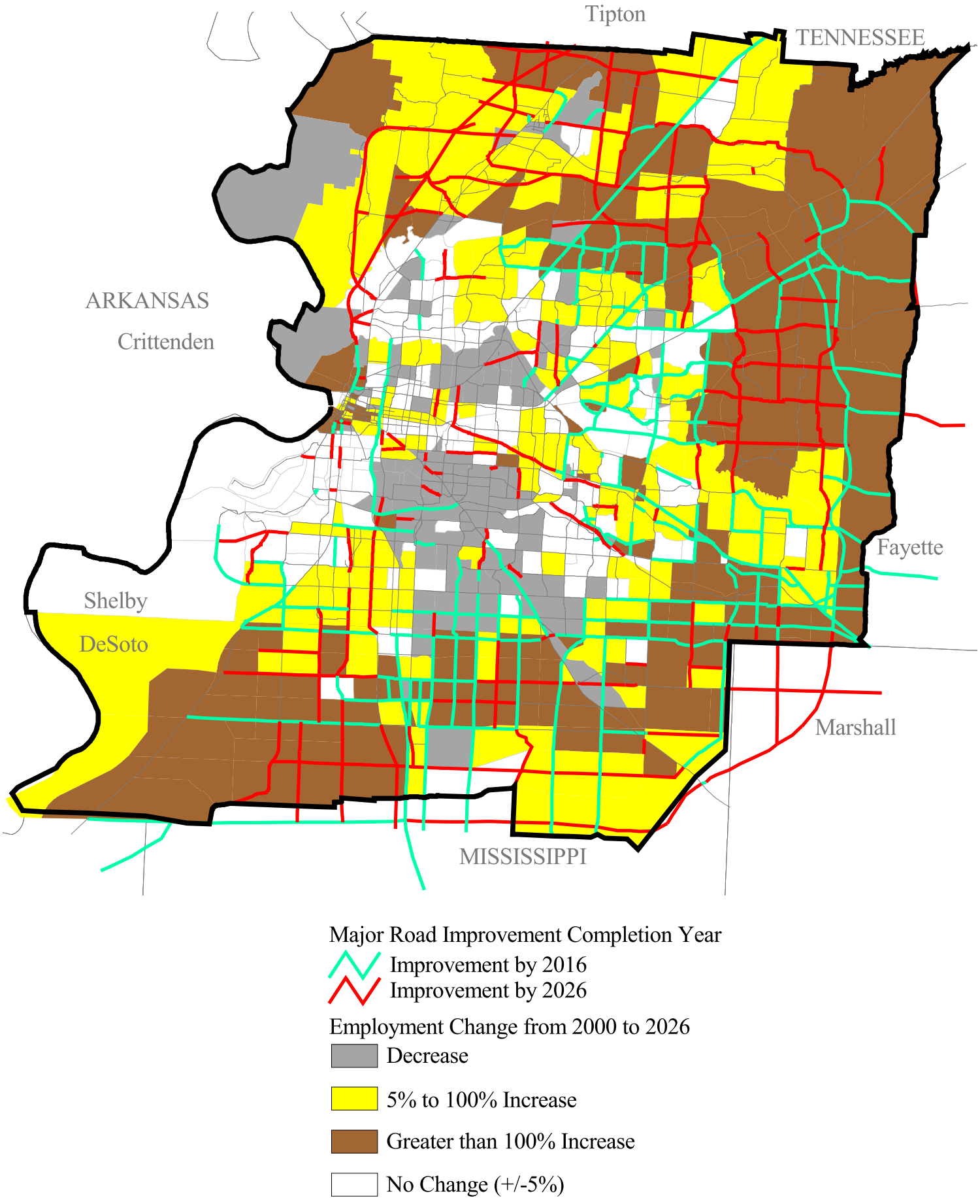
Regional Arterials provide key interconnections between the local arterial network and the regional framework of State and Federal highways. A number of these roads traverse significant portions of the MPO area and cross county and state boundaries. Because of the significance of these roads in this regional framework, many segments that require improvement over the life of this plan have been programmed for at least partial funding by local Surface Transportation Program (STP) funds.

Figure 29
Road Improvements Overlaid on Employment Growth



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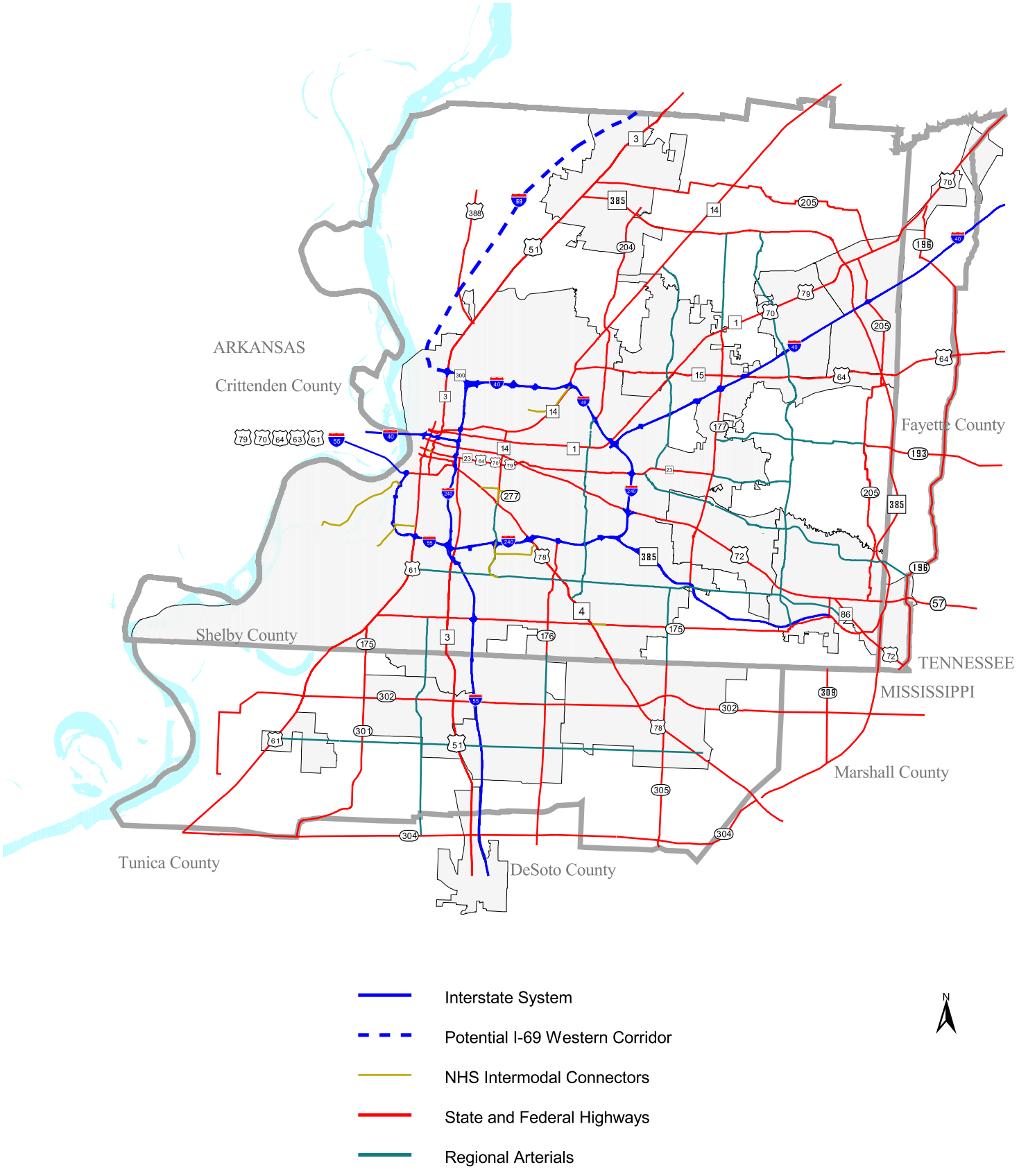
Figure 30
Road Improvements Overlaid on Population Growth



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Figure 31
Regional Highways and Arterials in the Memphis MPO Region



Local arterials complete the grid system of the entire major road network. The connectivity they provide includes linking commercial, employment and residential areas to the regional network, serve alternatives to the regional roads for non-regional travel and provide a level of local access to appropriate higher density development. Overall, these roads serve a local transportation function and are therefore identified for funding from local sources. A major contributor to this funding source is private development as land along these corridors are developed or redeveloped with more intensive uses. The design and capacities of these roads are based on the planned land uses and projected growth in these corridors.

2. Recommended Road Projects

This LRTP is a 23-year planning document containing two broad horizon years of 10 years each. Prioritizing projects in the initial years of the plan is a concern for local jurisdictions and interest groups within the region. To that end, Tennessee and Mississippi jurisdictions have priority selection criteria for major road projects. The Tennessee and Mississippi criteria matrices **(See Appendix I)** have been approved by the MPO in its TIP adoption process. The selection criteria considers nine major factors - safety, congestion, air quality, land use impact, socio-economic conditions, network continuity, previous funding commitment, environmental factors and ability to implement the project.

The recommended road network needed in 2026 to meet the goals and objectives of this plan and the travel demand projected by the Memphis MPO Travel Demand Model resolve issues of freight and congestion management. **Figure 32, Network Priority** shows roads and interchanges by priority that will be needed by the 2026 horizon year. The Priority One Road Projects are contained in the list of transportation projects found in **Appendix N**. This figure also shows roads and corridors that may be needed in the regional network beyond the year 2026 and identifies them as Priority Two Roads. The purpose of showing Priority Two roads is consistent with *23 CFR 450.316-10* and state enabling legislation in Mississippi and Tennessee. These priority two roads are future transportation corridors that need to be preserved and protected for future need.

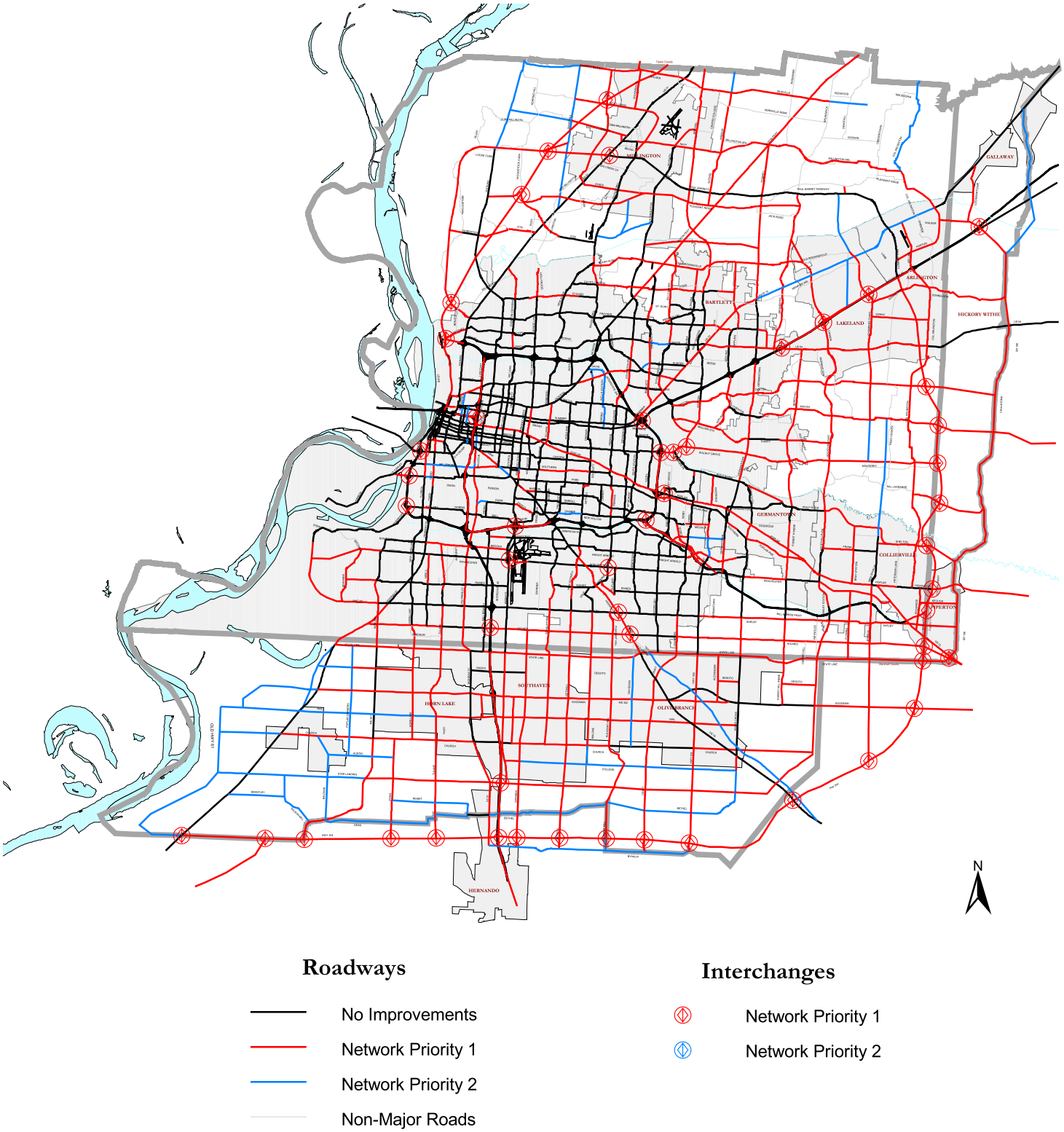
This recommended road network also serves as a local thoroughfare plan again consistent with state enabling legislation in Mississippi and Tennessee related to road and land use planning. The priority system of this plan is used by the MPO local jurisdictions to guide their local zoning and subdivision regulations. At minimum the jurisdictions require that:

- Priority One Roads: The landowner or developer is required to dedicate and construct the road that abuts or traverses a property.
- Priority Two Roads: The landowner or developer is required to dedicate the full rights-of-way of the proposed road with adequate improvements to provide two travel lanes.

Many jurisdictions of the MPO require any major road in the MPO system be dedicated and improved regardless of priority status. This local policy for obtaining dedication and improvement of rights-of-way in the land development process is reflected in the

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Figure 32
Network Priority

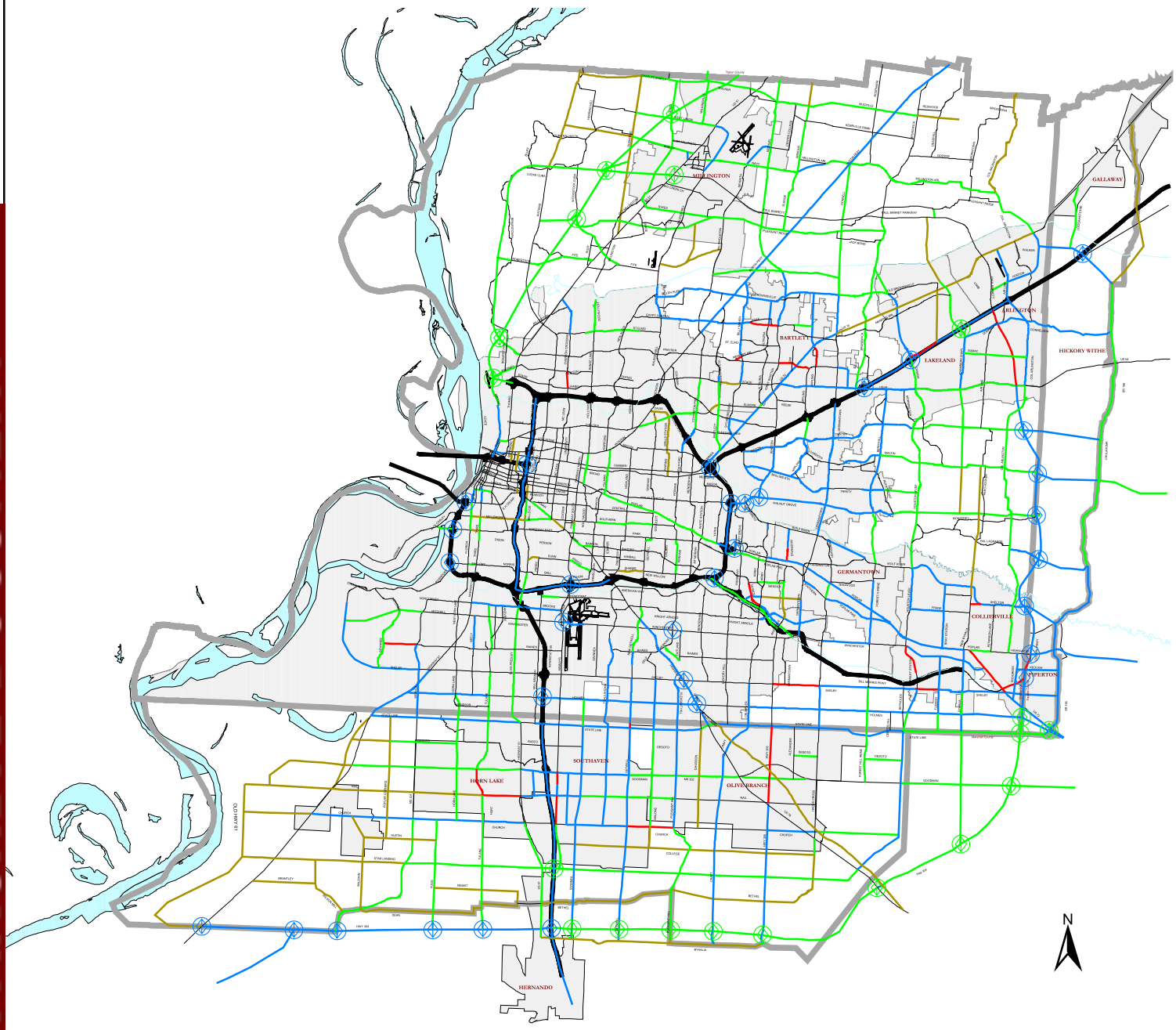


financial chapter of this plan. Identified as private funding, it reflects the amounts obtained by a county or local jurisdiction through this process to meet its obligation in providing these local road projects.

The LRTP provides guidance to the states and local jurisdictions in the planning and programming of road improvements. **Figure 33, Network by Horizon Year** identifies roads that are planned to be fully developed by horizon years 2006, 2016, and 2026. The roads planned for the horizon year 2016 may become operational anytime between 2007 and 2016. While this is a broad timeframe, it reflects the time when sufficient funding is available for the project.

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Figure 33
Network Horizon Year



Roadways

- No Improvements
- Completion by 2006
- Completion by 2016
- Completion by 2026
- Beyond 2026

Interchanges

- Interchange Completion by 2016
- Interchange Completion by 2026

LRTP 2026 Projects/Strategies

All the road projects in the LRTP support the Light Rail Corridor Development Alternative and the goals of aviation, rail, port facilities, truck freight and intermodal facilities. In addition, all road projects advance the goals and strategies of the CMS.

SUPPORT OF LRTP 2026 GOALS

While supporting all of the goals of the LRTP 2026, the major road element specifically addresses the following goals and objectives:

- **Promote efficient land use and development patterns to ensure safety, economic vitality and to meet existing and future transportation needs**
  - **Promote the concentration of future employment and other activity centers along existing and planned major travel corridors**
  - **Promote infill development that reuses existing resources such as buildings, utilities and roads**

- **Encourage conservation of energy resources in addition to minimizing adverse impacts transportation has on social, economic and environmental attributes of the community**
  - **Protect and enhance environmentally sensitive areas**
  - **Minimize transportation noise impacts**

- **Develop a cost effective planning process that maximizes community consensus in all aspects of transportation planning**
  - **Support achievement of community consensus on transportation goals**

- **Increase the safety and security of the transportation system for motorized and non-motorized users**
  - **Develop right-of-way cross sections that permit the separation of sidewalks and utilities from driving lanes**
  - **Encourage policies, plans and transportation projects that eliminate unsafe designs and conditions or provide projects that increase safety for users**

- **Continue to develop a multi-modal transportation network that utilizes strategies for addressing congestion management and air quality issues in the MPO region**
  - **Promote street networks that ensure minimal congestion by reducing travel delays in accordance with the guidelines in the MPO's adopted CMS Plan**
  - **Continue to implement and promote strategies and policies such as access control, HOV facilities, travel demand management, mass transit & alternative transportation to improve congestion conditions**

- **Encourage improvements to and the expansion of freight facilities to ensure that Memphis maintains its leading role in global logistics**
    - **Work with the MSCAA and IPM to obtain funding for projects designated in their master plans**
    - **Work with Federal and State departments of transportation to obtain funding for the construction of I-69, I-22, I-269 and the new I-55 Highway/railway bridge**

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Chapter VI
Congestion Management System

The congestion management system (CMS) for the Memphis MPO area is an evaluation process and decision-influencing mechanism of the Memphis Urban Area Metropolitan Planning Organization. The CMS plan was first adopted by the MPO in 1996 and updated in 2002 with an implementation review. The CMS plan provides a consistent basis to make transportation investment decisions relating to traffic congestion. Some elements of the CMS plan have been ongoing in the Memphis area for a number of years, while others are new initiatives and responsibilities.

1. Related LRTP Goals and Objectives

The LRTP goals and objectives established by the Memphis MPO and outlined in Chapter 3 provide the framework to identify the appropriate strategies to resolve congestion issues. Specifically, Goals 1, 7 and 9 provide the direction to improve transit ridership, increase the use of van pool and car pool programs, further develop non-motorized transportation modes, and implement strategies and polices to reduce congestion. These goals and objectives are listed below.

LRTP Goal		Objective
1.	Increase accessibility and mobility for people utilizing the MPO region's transportation network.	Increase membership by 1,000 members per year (net) in the Memphis Area Rideshare Program.
		Continue to explore the use of existing rail lines for transit service.
		Improve transit services to meet additional needs and demands.
		Promote the use of employer subsidized transit passes.
		Continue to support efforts to secure a permanent and sustainable source of local funding for mass transit.
		Increase the inventory of handlift and other demand responsive types of transit to better serve the elderly and disabled.
7	Encourage and provide adequate facilities for non-motorized transportation modes.	Work with jurisdictions and bike and pedestrian clubs in the Memphis MPO region to develop a regional bicycle and pedestrian plan.

	LRTP Goal	Objective
7	(Cont)	Work with MATA to increase options for bicyclists who access mass transit (bike racks, lockers, etc).
		Develop project selection criteria that encourage development and enhancement of bicycle and pedestrian facilities.
		Continue to collect and analyze socio-economic data for the Memphis MPO region in an effort to make more informed decisions regarding transportation and its potential affects on all area citizens.
9	Continue to develop a multi-modal transportation network that utilizes strategies for addressing congestion management and air quality issues in the Memphis MPO region.	Promote street networks that ensure minimal congestion by reducing travel delays in accordance with the guidelines in the MPO's adopted CMS Plan.
		Encourage strategies that reduce traffic emissions in an effort to improve air quality.
		Continue to implement and promote strategies and policies such as access control, HOV facilities, travel demand management, mass transit and alternative transportation to improve congestion conditions.
		Develop an up-to-date CMS Plan that is concurrent with horizon years adopted in the LRTP.

2. Definition of Congestion

Congestion is the delay time experienced in travel as a result of traffic volumes that are higher than the levels that permit "free flow" traffic speeds. The primary issue in defining "congestion" is to find the level at which the transportation system performance is no longer acceptable due to traffic interference. Acceptable levels of congestion vary

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from region to region. For the Memphis region, the MPO Engineering and Technical Committee (ETC) has determined that congestion is defined as those roadway segments with a volume to capacity (V/C) ratio greater than 0.90 as determined from the Regional Travel Demand Forecasting Model and as those roadway segments with a Level of Service (LOS) of E or F when evaluated utilizing other methods. The ETC has further recommended that in future updates of the CMS consideration be given to including an evaluation of the duration of congestion and incorporation of the Highway Capacity Manual (HCM) methodology for capacity evaluations into the new Regional Travel Demand Forecasting Model.

The V/C ratio is the projected or observed volume of traffic on a corridor divided by the capacity of the roadway link. The LOS is a qualitative measure of roadway performance as outlined in the Transportation Research Board publication *Highway Capacity Manual* (HCM). LOS is reported in a scale of A through F, with A representing the best operating conditions and F the worst. LOS E or F indicates the roadway is congested and is operating at levels exceeding design capacity. A variety of factors are used to determine LOS, including volume, number of lanes, lane width, percent truck traffic, and average travel speed. In addition, the methodology for defining LOS varies by facility type. A complete summary of the HCM methodology for determining LOS is contained in **Appendix K**.

3. Existing Congested Network

In accordance with the CMS Plan, the existing draft Congested Network was determined utilizing the 2004 Regional Travel Demand Model to screen roadway segments based on the V/C ratio. Through workshops with the MPO ETC, it was decided that supplemental methodology should be employed to assist with the definition of the existing congested network. The ETC recommended the supplemental process of screening roadway segments utilizing the HCM methodology for determining LOS and to further supplement that evaluation with actual travel time data previously collected by the local agencies. The HCM evaluations were conducted utilizing data obtained from the local agencies, TDOT and MDOT, including the TDOT Tennessee Roadway Management Information System (TRIMS) database, traffic count data, percentage of truck traffic, and roadway inventories. Travel time data collected as part of other local projects was used to determine the LOS for the arterial roadways where this data was available. Travel time data for approximately 100 roadway corridors were used in this evaluation.

Utilizing both the model and supplemental data, the ETC evaluated each corridor and determined those corridors that should be included in the Existing Congested Network. Some roadway segments that were identified as congested by the methods outlined above were deleted from the Congested Network. Those segments deleted were typically short, one block sections where the congestion was more related to a single intersection capacity issue and not corridor capacity. In other cases, longer segments that included all of the congested segments replaced short segments of a road that were closely spaced. The Principal Freight Corridors identified in the freight analysis were used to assist with the determination of the boundaries of the congested corridors. The Existing Congested

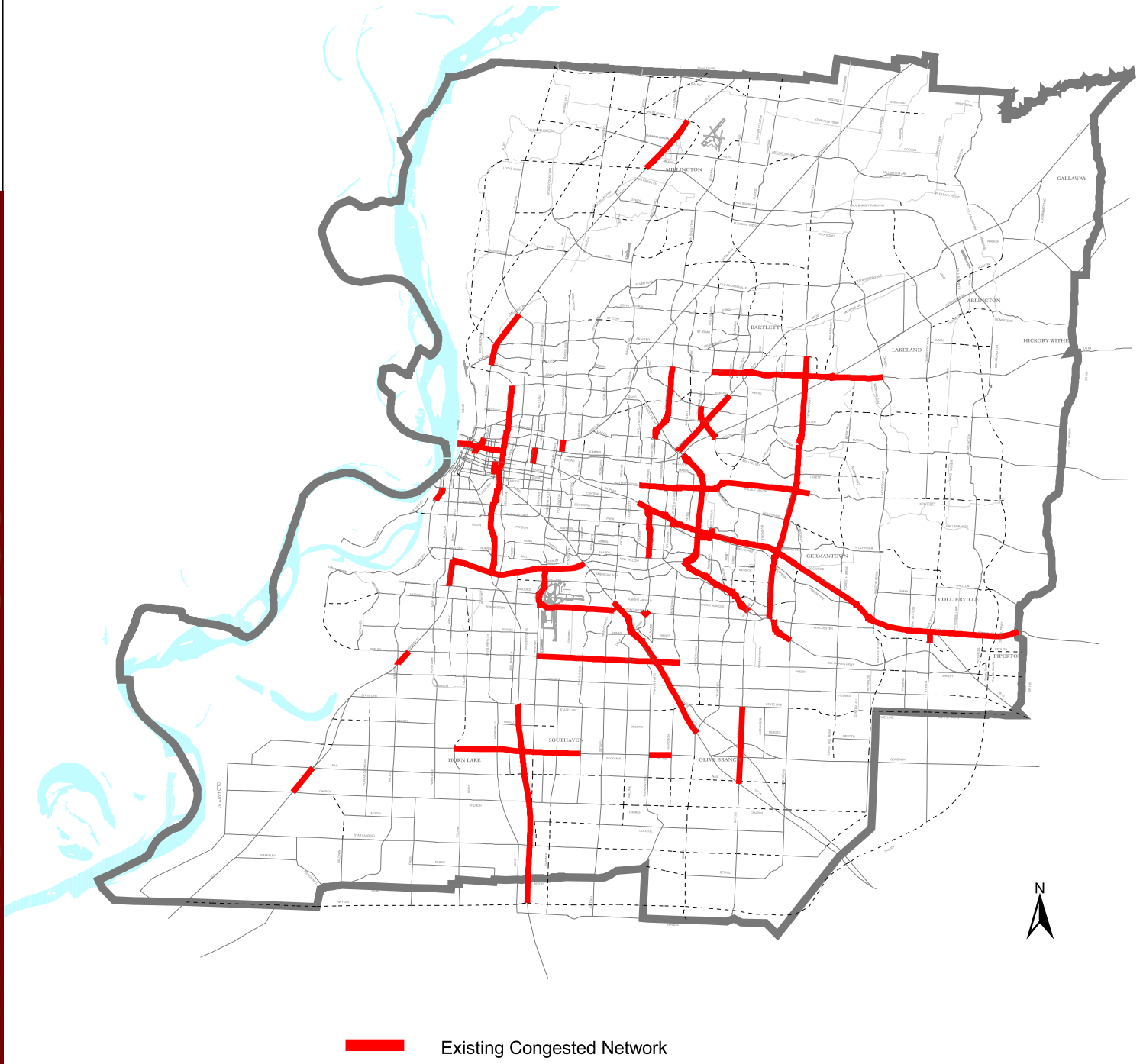
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Network, as determined by this process and in accordance with the CMS Plan, is identified in **Figure 34** and in **Table 15**. The column titled ***Source*** in the table identifies the source of data used to determine the congestion. ***M*** indicates the roadway segment was identified based on a V/C ratio from the Regional Travel Demand Forecasting Model. ***S*** indicates the roadway segment was identified using other supplemental data, as previously noted. This information was then compared to the principal freight corridors to identify the Congested Freight Corridors, as shown in Chapter V and are identified in Table 15 with a symbol  .

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Figure 34
Existing Congested Network



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Table 15 - Existing Congested Network Roads

Road	Location	V/C Ratio	LOS	Source
Bill Morris Parkway (SR 385)	I-240 to Riverdale		F	S
Bill Morris Parkway (SR 385)	Winchester to Hacks Cross		E	S
Byhalia	Shelby to Frank	1.12	F	M+S
Covington Pike	Macon to Stage		F	S
Germantown	Winchester to Brother		F	S
Germantown (Hwy 305)	Stateline to US 78		F	S
Goodman	Pleasant Hill to Davidson		F	S
Goodman	Tulane to Tchuilahoma		F	S
Hollywood	Sam Cooper to Jackson	1.25		M
HWY 61	Brooks to I-240 S		F	S
HWY 61	Church to Nail		F	S
HWY 61	Weaver to Shelby		E	S
I-240	Bill Morris Pkwy (SR 385) to I-40 E		F	S
I-240	I-55 to Lamar (US 78)		F	S
I-240 MT	I-55 to I-40	1.05	F	M
I-40	Mississippi River to FA 101 Connector	1.25	E	M + S
I-55	HWY 304 to Stateline		E	S
I-55	McLemore to I-55 Bridge		E	S
I-55	US 61 to I-240 S		E	S
Interchange	Perkins at Winchester	1.09	F	M
Interchange	US 64 at I-40	1.19	F	M
McLean	Poplar to North Parkway	0.95	F	M + S
Park	I-240 E to Ridgeway		E	S
Pauline	Linden to Jefferson	0.93	F	M + S
Perkins	Poplar to Willow		F	S
Plough Boulevard	Airways to I-240	1.17	E	M + S
Poplar Avenue	Perkins to Chulahoma		E	S
Ridgeway/ Shady Grove	Park to Briarcrest		F	S

Table 15 (Cont.)				
Road	**Location**	**V/C Ratio**	**LOS**	**Source**
Shelby	I-55 to Mendenhall		F	S
Stage	Bartlett Blvd to Houston Levee		E	S
Summer	I-40 to Elmore		F	S
Sycamore View	Macon to Raleigh Lagrange		F	S
Thomas	Washington to Jackson	1.00	F	M + S
Thomas	Stage to Watkins		F	S
US 51	Paul Barrett Pkwy (SR 385) to West Union		F	S
US 78	Getwell to Craft		F	S
Walnut Grove	Waring to Walnut Bend	1.05	F	M + S
White Station	Poplar to Park		F	S
Winchester	Airways to Air Park		F	S

Also identified as congested freight corridors with 10% or more truck volumes of the total ADT

4. Identification of CMS Strategies

The Memphis MPO goals and objectives and the congestion management system plan provide the impetus and outline of strategies to help resolve these congestion issues. The following paragraphs will outline the methodology and process to evaluate projects, the process used to identify the appropriate strategies, and provide a menu of strategies that are relevant to resolving the congestion.

Project Evaluation Methodology and Process

In response to the LRTP goals and objectives and to provide an orderly methodology to evaluate projects for funding, the ETC developed criteria for the evaluation of projects that are proposed for inclusion in the transportation improvement program (TIP). The two major funding categories in the TIP, which the MPO controls, are the Surface Transportation Program (STP) and the Congestion Mitigation and Air Quality (CMAQ) program. The criteria for evaluating projects for both of these programs are included in **Appendix M**. As can be seen from the information in **Appendix M**, congestion management is a major consideration for projects in both of these funding categories, accounting for 20% of the total score for STP projects and 30% for CMAQ projects.

The STP evaluation criteria require quantification of the proposed improvements to determine the changes in level of service that will occur as a result of implementation of the project. The project is to be evaluated comparing the existing conditions on that roadway versus the LRTP forecasted traffic on the proposed improvements. The projects that provide the most improvement in congestion will be given higher scores for that

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item. Projects that include roadways that are a part of the Congested Network are also given higher scores.

Congestion management significantly influences the evaluation of potential CMAQ projects. Projects that will impact a roadway on the congested network, that have significant congestion relief outcomes, and that fulfill the intent of the CMS plan are given higher rankings.

For both STP and CMAQ projects, the sponsoring agency, with assistance from the MPO staff, is responsible for demonstrating that the project employs strategies that are consistent with the CMS Plan and for presenting documentation regarding the degree of congestion relief that will be attained. Documentation can be presented in many forms, but should include data to demonstrate how the project will result in better V/C ratios or LOS. Air quality analyses, travel time runs and capacity analyses are the typical methodologies for demonstrating improvements.

Strategies to Resolve Congestion Issues

Strategies must be identified to address the congested corridors. The CMS plan outlines several strategies. However, the strategies that can best impact these remaining corridors must be identified. There are both short term and long term strategies identified in the CMS plan that may be applicable. The strategies from the CMS plan are listed below:

Short Term Strategies

1. Carpooling, Vanpooling and Alternative Work Hours
2. Intersection and roadway widening, channelization, traffic surveillance and control systems, traffic control centers, computerized signal systems
3. HOV lanes, Guaranteed ride home programs
4. Park and ride and mode change factilities
5. Transit service enhancement or expansion
6. Incident management
7. General purpose lanes

Long Term Strategies

1. Telecommuting
2. Motorist information systems
3. HOV and bus bypass lanes, exclusive transit ROW, bus bypass ramps, paratransit services
4. Transit traffic signal preemption, transit information services
5. Bicycle facilities, pedestrian facilities
6. Growth management and activity center strategies
7. Access management techniques
8. Intelligent transportation systems and advanced public transportation system technology

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In the 1996 CMS Plan, the short term strategies were identified for implementation during the first six years of the plan. The Long Term strategies were identified for implementation during year six through 20 of the plan. The November 2001 *Congestion Management System Plan Implementation* Appendix further discussed the strategies, concluding that the previously identified short term and long term strategies are both in the process of being implemented.

Many of the short term and long term strategies identified in the 1996 CMS Plan overlap. Therefore, to better evaluate the effectiveness of implementing these strategies a consolidated list of strategies was developed and is listed below.

Consolidated CMS Strategies

1. Carpooling, vanpooling, alternative work hours, guaranteed ride home, telecommuting, paratransit services, park and ride facilities
2. Intersection and roadway widening, channelization, traffic surveillance and control systems, traffic control centers, computerized signal systems
3. HOV Lanes, HOV and bus bypass lanes, bus bypass ramps
4. Bicycle facilities, pedestrian facilities
5. Transit service enhancement or expansion, transit traffic signal preemption, transit information services, exclusive transit ROW, and mode change factilities
6. Intelligent transportation systems and advanced public transportation system technology, incident management, and motorist information systems
7. Growth management and activity center strategies, access management techniques
8. General purpose lanes

In addition to providing congestion relief, strategies 2, 6, 7, and 8 provide positive benefits to the movement of goods and freight.

As the next step in this process each of the corridors on the congested network were reviewed in more detail by the ETC, local municipalities, and state DOT's to determine the strategies most appropriate to resolve the issues in each corridor. Some of the strategies are more global while others are corridor specific. The selection of these strategies must also consider the future congestion network to insure that the strategies selected will address both the existing and future congestion networks.

Table 16 provides a summary of the identified strategies that can be employed separately and collectively to help resolve congestion on the congested corridors.

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Table 16 - Menu of Strategies to Address 2004 Congestion Network

Roadway Corridor	Location	CMS Strategy
Bill Morris Parkway (SR 385)	I-240 to Riverdale	1,3,5,6,7,8
Bill Morris Parkway (SR 385)	Winchester to Hacks Cross	1,3,5,6,7,8
Byhalia	Shelby to Frank	1,2,4,5,7,8
Covington Pike	Macon to Stage	1,2,4,5,7,8
Germantown	Winchester to Brother	1,2,4,5,7,8
Germantown (Hwy 305)	Stateline to US 78	1,2,4,5,7,8
Goodman	Pleasant Hill to Davidson	1,2,4,5,7,8
Goodman	Tulane to Tchulahoma	1,2,4,5,7,8
Hollywood	Sam Cooper to Jackson	1,2,4,5,7,8
HWY 61	Brooks to I-240 S	1,2,4,5,7,8
HWY 61	Church to Nail	1,2,4,5,7,8
HWY 61	Weaver to Shelby	1,2,4,5,7,8
I-240	SR 385 to I-40 E	1,3,6,7,8
I-240	I-55 to Lamar (US 78)	1,3,6,7,8
I-240 MT	I-55 to I-40	1,3,5,6,7,8
I-40	Miss. River to FA 101	1,3,5,6,7,8
I-55	HWY 304 to Stateline	1,3,6,7,8
I-55	McLemore to I-55 Bridge	1,6,7,8
I-55	US 61 to I-240 S	1,3,6,7,8
Interchange	Perkins at Winchester	1,2,5,7,8
Interchange	US 64 at I-40	1,2,4,5,6,7,8
McLean	Poplar to North Parkway	1,2,4,5,7,8
Park	I-240 E to Ridgeway	1,2,4,5,7,8
Pauline	Linden to Jefferson	1,2,4,5,7,8
Perkins	Poplar to Willow	1,2,4,5,7,8
Plough Boulevard	Airways to I-240	1,5,6,7,8
Poplar Avenue	Perkins to Chulahoma	1,2,4,5,7,8
Ridgeway/ Shady Grove	Park to Briarcrest	1,2,7,8
Shelby	I-55 to Mendenhall	1,2,4,5,7,8
Stage	Bartlett Blvd to Houston Levee	1,2,4,5,7,8
Summer	I-40 to Elmore	1,2,4,5,7,8
Sycamore View	Macon to Raleigh Lagrange	1,2,4,5,7,8
Thomas	Washington to Jackson	1,2,5,7,8
Thomas	Stage to Watkins	1,2,5,7,8
US 51	Paul Barrett Pkwy (SR 385) to West Union	1,2,7,8
US 78	Getwell to Craft	1,2,5,7,8
Walnut Grove	Waring to Walnut Bend	1,2,4,5,7,8
White Station	Poplar to Park	1,2,4,5,7,8
Winchester	Airways to Air Park	1,2,4,5,7,8

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6. Effectiveness of CMS Strategies

The following paragraphs contain information on the effectiveness of the various CMS strategies for relieving congestion in the Memphis area. Documentation is provided for determining the maximum effectiveness of each strategy. In determining this level of effectiveness, data from both local programs and from national research has been consulted in order to identify the past effectiveness of these strategies in the Memphis area and the potential maximum effectiveness of these strategies, as reflected in other areas of the country. Finally, the expected impact of the strategies on congestion is shown for each corridor in the Congestion Network.

CMS Strategies

1. Carpooling, Vanpooling, Guaranteed Ride Home, Alternative Work Hours, Telecommuting, Paratransit Services, and Park and Ride Facilities

Carpooling and vanpooling are both forms of ridesharing. These strategies for reducing congestion may be agreements between private individuals, employer based, or government sponsored. There is an existing government sponsored rideshare program in the metropolitan area. As summarized in the Transportation Master Plan for the City of Boulder, Colorado, the estimated percent reduction in single occupant vehicle use per worksite for carpooling and vanpooling was 1%-5% and 1%-2%, respectively. Similar values were found in the Puget Sound Regional Vanpool Market Study. The existing Memphis area rideshare program has a ridership of approximately 2,000 persons in the peak hours. This represents less than 0.5% of the existing trips within the region. If local employers participated in, or created their own programs to promote carpooling and vanpooling, it is anticipated that the reduction in single occupant vehicle use would be no more than 2%.

Guaranteed Ride Home Programs provide guaranteed rides for people that use the car pool, van pool or rideshare programs that, due to extenuating circumstances, require a ride separate from their standard mode of transportation. For instance, if someone participating in a van pool program has a family emergency and must leave work early, the guaranteed ride home program would provide a means for that person to leave early to attend to that emergency. The benefits of this strategy are typically applied with and considered a part of the car pool, van pool, rideshare program.

Alternative work hours require cooperation from local employers and are currently conducted locally on a relatively small scale. There are several large employers in the urban, such as FedEx, area that maintain operations in the off peak periods. If an aggressive campaign to promote alternative work hours was executed, it is anticipated that the overall reduction of vehicular traffic during the peak periods would be less than 1%.

Advances in technology have enabled many to work from home. Telecommuting includes working from home or from a remote office to eliminate or reduce the work commute. As technology continues to evolve, more will be able to take advantage of the

benefits offered by telecommuting. The potential impact of telecommuting on our transportation system is difficult to ascertain. Where some occupations or fields of employment have and will be able to continue to utilize technology to avoid the work commute, there are other occupations where telecommuting is not possible. Also, since the cost associated with implementation of this technology is primarily borne by the employer, it is unknown how many companies in the Memphis region will use this technology to enable their employees to telecommute. The reduction or elimination of vehicular traffic associated with telecommuting could have a dramatic effect on our transportation system. Since a large proportion of the jobs in the Memphis area are related to distribution (warehousing, trucking, assembly) this strategy will have little impact in the Memphis area in the short term. However, this strategy should be investigated as part of the update of the CMS plan to determine if the nature of jobs in the Memphis area may change in future years, allowing more telecommuting to occur.

Paratransit is presently handled as a demand-responsive service in the Memphis area. This service is provided utilizing almost all non-fixed route transit, such as shuttle services, vanpools, contracted transit, and other community-based services. "A Toolbox for Alleviating Traffic Congestion and Enhancing Mobility" identifies five broad categories of paratransit services:

- Vanpool promotion and leasing,
- Route substitution,
- Late night, weekend and low density services,
- Feeder or shuttle services to fixed route transit,
- Community-based services.

The benefits of such service above ordinary transit service are that it is flexible both in terms of route and schedule. From a study conducted by the City of Boulder, Colorado, paratransit services can be effective in neighborhoods where parking is restricted and in large commercial shopping areas where it may be too far for pedestrians to walk. Such a service is also of benefit to those unable to drive. The Memphis Area Transit Authority has already implemented this strategy.

Park and ride lots are parking lots constructed for the purpose of providing motorist a place to park and transfer to public transit, carpool, vanpool, or other means of transportation with a higher occupancy rate. They are generally located in the suburban or rural areas along major arterial or interstate routes. In the metropolitan area there are six planned park and ride facilities identified in this LRTP. The locations of the facilities are:

- I-40 at Collierville-Arlington Road
- I-40 at Canada Road
- I-40 at Germantown Parkway
- I-40 at Whitten Road
- I-55 at Holmes Road
- I-55 at Goodman Road

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If each of these lots contained 200 spaces and they operated at capacity, the total vehicular traffic on I-40 and I-55 could be reduced by 1,600 and 800 vehicles per day, respectively. This represents a reduction in the traffic volume on segments of these roadways of up to 1.2%. The percent reduction on roadways within the urban area would be less as these numbers become diluted further away from the park and ride facilities.

2. Intersection and Roadway Widening, Channelization, Traffic Surveillance and Control Systems, Traffic Control Centers, Computerized Signal Systems.

There are a number of computer signal system projects identified for implementation throughout the Memphis MPO area. These projects are located on major and minor arterial roadways. For arterial roadways, travel speed is the primary factor in determination of the operational level of service. From *CMAQ Air Quality Analysis* (City of Memphis, May 2001), the average link speeds for arterial roadways are projected to increase by 18 percent (up to the posted speed limit) when a signal system is installed. From the *Highway Capacity Manual*, the threshold average travel speed that defines congestion for a class II arterial roadway is 17 mph. The expected 18% increase in travel speed associated with the installation of traffic signal systems means that roadways with existing travel speeds greater than 14.5 mph will have increases in travel speeds that will raise them above the 17 mph threshold that defines congestion.

3. HOV Lane, HOV and Bus Bypass Lanes, Bus Bypass Ramps.

As cited in "A Toolbox for Alleviating Traffic Congestion and Enhancing Mobility", Michael D. Meyer, Ph.D., P.E., 1997, a number of studies have been completed regarding the impact of High Occupancy Vehicle (HOV) lanes on vehicle occupancy. For studies that have before and after data, there was an average 13% increase in vehicle occupancy. If the number of person trips remains the same, this increase in vehicle occupancy has the effect of reducing the number of vehicles on the roadway.

Assuming the existing average vehicle occupancy on the interstate system in the Memphis region is 1.08 persons per vehicle, the following calculation shows the anticipated decrease in traffic volume with the addition of an HOV lane. The existing volume on I-40 from Canada Road to Airline Road is 38,370 vehicles per day, with 41,440 person trips per day. If the averaged vehicle occupancy is increased by 13% to 1.22 persons per vehicle, the number of vehicles on the roadway is reduced to 33,970 vehicles per day.

HOV and bus bypass lanes and ramps are facilities used to improve the travel time associated with high occupancy vehicles. In the Memphis area, HOV lanes have been considered a method to increase people throughput on an interstate type facility. Used alone, these lanes are effective for commuters arriving from suburban areas. As HOV's attempt to enter or exit the HOV lanes, friction between HOV's and other vehicles in the general-purpose lanes occur as these vehicles move toward the access points to the

freeway system. This problem is made worse as the interchange density increases. Several methods have been developed to address this issue. These include HOV and bus bypass lanes and ramps. These exclusive facilities enable HOV's to access the freeway system without encountering delay either by providing direct exclusive access to the freeway system or by providing separate non-metered ramps. These strategies are effective in increasing HOV use when coupled with other HOV strategies.

4. Bicycle facilities, pedestrian facilities

Non-motorized transportation generally consists of walking and cycling. To promote the use of these forms of transportation adequate facilities must be provided. The City of Memphis currently has a program to upgrade sidewalks and handicap ramps at existing intersections. There are also designated bike routes within the metropolitan area. A bicycle and pedestrian plan is under development, and is scheduled for completion on or before December 31, 2004.

Non-recreational bicycle and pedestrian trips reduce the number of vehicles on the roadway. From a study conducted by the Comsis Corporation, it is estimated that increasing walk trips by 1% would reduce vehicle trips by 0.5%, and increasing the bike share mode by 1% would reduce trips on the roadway by 0.9%. The Puget Sound Regional Council estimated that an increase in bicycling would result in a less than 0.2% decrease in regional vehicle miles traveled (VMT). As the bicycle and pedestrian plan for the Memphis metropolitan area is completed, more information regarding their impact on the transportation system will be known.

5. Transit Service Enhancement Or Expansion, Transit Information Service, Transit Traffic Signal Preemption, Exclusive Transit Right-of-Way, Mode Change Facilities.

On arterial and major collector facilities, all vehicles, including transit, by traffic signalization, encounter delays. Many of these impacts may be resolved with traffic signal coordination along a corridor as noted in the short-term strategies. However, to encourage use of transit there are ways to decrease the travel time associated with transit vehicles. Transit traffic signal preemption can take many forms. For on street transit vehicles it provides an extended amount of green time for an approaching bus or trolley, in order to reduce delays for buses at traffic signals. On street transit vehicle preemption is generally limited to the extension of green time for the approach on which the transit vehicle is traveling. It will not truncate the green phase for an opposing direction. For transit vehicles in separate rights-of-way, preemption of traffic signals occurs in a manner similar to railroad preemption.

Previous attempts to use on street transit vehicle traffic signal preemption in the Memphis area were unsuccessful, due in large part to the limited technology at the time. With recent advances in technology, the potential positive impact of transit signal preemption should be explored. However, the impact of this strategy on the Congested Network is expected to be negligible.

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Providing real time transit information to those accessing the transit system is an enhancement that may increase ridership over time. Information regarding the status of the service may include bus arrival times, headways, and route identification of the next bus. This real time information could be provided to those at the local bus stop, via internet or through in-vehicle systems. Further study should be conducted to determine the potential impact of this strategy in increasing transit ridership. This strategy becomes more important with the extension of the fixed rail transit systems being pursued at this time.

According to a study completed by the Puget Sound Regional Council, depending upon the type, amount, and cost of increased service, up to a 5% reduction in area-wide VMT can be expected with enhanced transit service. These enhancements include increased frequency of service, decreasing wait times, and decreased travel time. Improvement in transit service in the Memphis metropolitan area is likely to have less impact on the overall congestion on the roadways. It is anticipated that improved transit service or expansion would reduce area-wide traffic volumes on the roadway by less than 2%.

6. Intelligent Transportation Systems and Advanced Public Transportation System Technology, Incident Management, Motorist Information Service

The U.S. Department of Transportation defines Intelligent Transportation Systems (ITS) as "the integration of current and emerging technologies in fields such as information processing, communications, and electronics applied to solving surface transportation problems." ITS encompasses a large range of technologies and techniques including:

- Traffic signal control systems,
- Freeway management systems,
- Transit management systems,
- Incident management systems,
- Electronic toll collection
- Electronic fare payment,
- Railroad grade crossing warning systems,
- Emergency management systems, and
- Regional multimodal traveler information systems.

Incident management is an effective tool for reduction of delays and congestion subsequent to an incident. Incident management techniques have already been implemented on all of the interstate and freeway roadways throughout Shelby County. Since the remaining freeway and interstate roadways within the MPO area are relatively short sections, it is assumed that the majority of the measurable benefits have already been realized for this strategy and no additional credits will be included for this strategy. This strategy will impact freight movements throughout the area. Since the majority of freight movements occur on the freeway and interstate system, the benefits of this strategy on freight movement are already being realized.

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From “A Toolbox for Alleviating Traffic Congestion and Enhancing Mobility”, highway information systems can consist of:

- Changeable message signs,
- Highway advisory radio, and/or
- In-vehicle navigation and information systems.

These systems are provided to convey information to the traveler once on the roadway or prior to departure regarding delays from non-recurring congestion, construction delays, speed limits, weather conditions, and other items.

There are several motorist information systems projects in various stages of development at this time. TDOT is now conducting a study to implement a 511 system statewide. With this system, motorist can call 511 on their phone, and receive information about traffic congestion, construction delays, tourism, or other travel related data. Although this study is applicable statewide, it is anticipated that this system will be implemented in the Memphis area in conjunction with the Freeway Management System presently under design. Among other things, the freeway management system project will provide dynamic message signs (DMS) along the freeway system. These message signs will be used to alert motorists of delays and provide general information to the motorists.

With a reduction in cost, ease of use, and as an option in new vehicles, in-vehicle global positioning systems (GPS) are now more commonplace. These navigation systems, which are normally used to indicate position, can also direct the motorist to nearby facilities, such as gas stations, restaurants, and stores. Currently these systems lack the sophistication or infrastructure necessary to provide information related to non-recurring congestion, construction delays, and weather alerts. In-vehicle information systems are generally developed by non-governmental agencies to provide data available from government agencies to the motorist. As with the 511 system, more data is expected to become available in the future for these types of systems and it is expected that market demand will result in their implementation of more real time data.

While several of the ITS strategies listed above may increase travel speed, they may not be applicable or legal in the Memphis area. Other strategies may improve safety, such as railroad grade crossing warning systems, but may not reduce congestion on the roadway system. Many of the other strategies provide positive value, but quantitative estimates of the benefits are not yet available since many of these strategies are relatively new (“A Toolbox for Alleviating Traffic Congestion and Enhancing Mobility”).

7. Growth Management, Activity Center Strategies, and Access Management Techniques

The impact of land use on the transportation system cannot be understated. Of all of the long-term strategies listed, growth management has the largest potential impact on the transportation system. From “A Toolbox for Alleviating Traffic Congestion and Enhancing Mobility”, growth management is defined as “the use of public policy to

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regulate the location, geographic pattern, density, quality and rate of growth of development". Government plays a crucial role in the development of the community through land use planning, zoning, and development ordinances. These "tools" can be used to guide development to cause less impact on the transportation infrastructure through:

- Compact residential development,
- Compact employment and activity centers,
- Mixed land uses,
- Connectivity,
- Transit and pedestrian oriented development,
- Jobs/Housing balance,
- Affordable housing, and
- Development impact mitigation.

Activity center strategies involve developing areas of employment, shopping, and recreation with high concentration of both workers and users. Dense mixed-use development generally corresponds well with high transit ridership. From a 1994 study conducted for the Puget Sound Regional Council, "change from SOV to other modes becomes significant at higher densities of greater than 50 employees per gross acre. At densities greater than 125 employees per gross acre a majority of trips are made using modes other than Single Occupant Vehicles".

Currently in the Memphis metropolitan area, when new development occurs developers are required to provide roadway improvements along their frontage. These improvements may include road widening, addition of turn lanes, and the installation of traffic signals. These improvements often increase the capacity of the roadway at that location, but lead to roadways with an inconsistent cross section as development takes place. This requirement may also be disproportionate in cost to developers as a large development with a small amount of frontage would incur less cost than a small development with greater road frontage. To address these and other growth issues, the MPO may want to initiate the exploration of development of an impact fee policy. In addition to a land use plan, this policy could be used to help shape the growth patterns for the region. If implemented this policy should address the cumulative impact of development.

A study conducted by Portland State University shows a 0-5% decrease in single occupant vehicle use over the short term and a 0-10% decrease in SOV's use over the long term where growth management strategies are used. A corresponding increase in transit use of 0-5% may be realized utilizing growth management strategies. Chapter 3 further defines the regional and community plans that are in place and the comprehensive growth strategies for the MPO area.

From "A Toolbox for Alleviating Traffic Congestion and Enhancing Mobility", "access management is the control of the spacing, location, and design of driveways, medians/median openings, intersections, traffic signals, and freeway interchanges".

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Access management improves the efficiency of the arterial and major collector roadways. Generally, as the number of drives increases on a roadway, the capacity of the roadway decreases. With fewer drives, or access points, to the roadway, the capacity of the roadway increases. A related benefit associated with a reduction in the number of driveways along a roadway is a dramatic decrease in the number of crashes. Planning is critical to implementation of access management techniques, as unplanned restriction of existing access to residents and businesses along the roadway system causes damage to the value of the property or business. There are several roadways in the metropolitan area that utilize access management techniques.

The primary benefit of access management is a reduction in the number of crashes. The reduction in number of crashes will result in reduced congestion on the arterial roadways. Because the frequency of crashes related to access points on a particular segment of arterial roadway is very small, the overall impact on congestion is small.

8. General Purpose Lanes

This strategy has the potential to have the most impact on congestion relief. It also will likely have the highest cost and will tend to negatively impact VMT and, in some cases, emissions. Therefore, the addition of general purpose lanes should be considered only after all of the other strategies have been evaluated and found to be ineffective. In some cases, where the other strategies will not provide the needed level of congestion relief, the addition of general purpose lanes will be required.

Status of Strategies Previously Initiated

The following is a brief description of the strategies that have been previously identified and are being employed.

1. Memphis Area Rideshare – This is a good example of a global strategy. For more information on this program, refer to the Alternative Transportation chapter.
2. Freeway Incident Management – This global strategy is difficult to quantify in terms of daily improvements to congestion. However, the degree of congestion reduction that occurs when incidents happen is well documented. The State of Tennessee has implemented Freeway Incident Management along the interstate system and SR 385 in Shelby County through the Tennessee Help Truck program. The focus of this program is to clear incidents and manage traffic at incidents to reduce the congestion that occurs due to stalled vehicles and non-injury crashes. Not only does this strategy reduce congestion, it enhances the movement of freight through the area by keeping the roads that carry the most freight clear of stalled vehicles and crashes. This already effective strategy will be enhanced with the implementation of the Freeway Management System that is presently under design.
3. Freeway Management System –With the MPO adoption of the Memphis ITS Regional Architecture, Tennessee DOT has programmed $45.5 million in the Memphis TIP for Early Phase and First Phase implementation. These phases will

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include communication lines, cameras, speed detection, dynamic message signs, highway advisory radio, 511 messaging, and a traffic control center. The State of Mississippi has begun operation of video surveillance along Interstate 55 in northern DeSoto County. 511 messaging is included in the implementation plan for the Mississippi statewide ITS architecture. As these elements are implemented, they will help manage congestion by providing citizens and the local agencies information on congestion, allowing the citizens to choose other less congested routes and providing the local jurisdictions data to help better manage congestion. The enhanced information will also aid freight movements by providing carriers advance information on congested corridors, allowing them to plan alternative routes.

4. HOV Corridors – As part of the 1996 *Congestion Management System Plan*, a number of freeway corridors were identified as potentially feasible HOV corridors. HOV facilities reduce congestion by encouraging car pooling and reducing total VMT throughout the system. A detailed description of HOV lanes and a map indicating the locations that HOV lanes have been built and are operational as well as the HOV corridors that are planned can be found in **Appendix K.**

5. Traffic Signal Coordination – Memphis, Bartlett, Germantown, Collierville, Shelby County, DeSoto County and the State of Mississippi have identified numerous corridors to implement traffic signal coordination. Signal coordination will help reduce congestion by decreasing travel times along those corridors by an average of 18 percent. That decrease in travel time will improve the LOS for most corridors from E or F to D or better. Several of the existing corridors on the Congestion network have been designated for signal coordination. Documentation of the expected improvements to congestion has been provided in Air Quality studies developed for these and other corridors.

Congestion on some of the Congested Network corridors will be improved by projects that are near or adjacent to the congested corridor. In the Town of Collierville, the sections of Byhalia Road from Poplar Avenue to Frank Road and the section of SR 57 from Byhalia Road to Chulahoma Road will both be helped when the construction of SR 385 is completed from US 72 to north of SR 57. Much of the traffic on these congested corridors will choose to use SR 385, reducing the traffic volumes on Byhalia Road and on SR 57.

Similarly, the construction of Wolf River Boulevard from east of Germantown Parkway to west of Forrest Hill-Irene Road will divert 10 to 15% of the traffic from Germantown Parkway between Poplar and the Wolf River to Wolf River Boulevard. This section of Wolf River Boulevard will also attract traffic from Poplar Avenue and relieve some of the congestion on Poplar Avenue between Kimbrough and Forrest Hill-Irene.

The construction of I-69/ 269 in northern Shelby County will help to relieve congestion on US 51 from SR 385 to West Union.

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The impact of the strategies presently being employed is reflected in the present traffic volumes. Even with the implementation of these strategies, there remain numerous congested networks. Other strategies must be considered to relieve the congestion.

Estimated Impact of CMS Strategies

The addition of general-purpose lanes should be the last of the short term strategies considered for relief of congestion. **Tables 17 and 18** provide a summary of the maximum potential impact of the CMS strategies identified for each corridor in **Table 16**. **Table 17** provides the impacts of all strategies except the addition of general-purpose lanes. **Table 18** provides the results of utilizing general-purpose lanes for those corridors where the other strategies were not able to resolve the congestion issues. In both Tables 12 and 13, a level of service indicated as "D+" means that the level of service will be D or better.

It should be noted that the specific benefits of strategies are not necessarily cumulative, as some of the strategies are redundant. For example, providing park and ride facilities will encourage a reduction in single occupant vehicles and these HOVs will result in a higher use of HOV lanes. However, the increases in both areas are not cumulative. This has been accounted for in the tabulation of the impacts of these strategies.

As can be seen in **Table 18** there are some corridors that are still identified as congested after all of the strategies have been applied. These corridors were evaluated utilizing the maximum practical limits of the CMS strategies. Therefore, the solutions to resolve congestion in these corridors may involve more complex solutions. For instance, to relieve the congestion on Germantown Parkway between Walnut Grove and Trinity Road may require the construction of other new roadways and the widening of I-240. However, due to the uncertainty of projects such as Kirby Parkway between Walnut Grove and Macon Road, these potential solutions cannot be effectively modeled at this time. Further evaluation and monitoring is required to determine effective congestion relief solutions for these corridors.

Impact of CMS Strategies on 2004 Congested Network

The results of all of the CMS strategies were overlaid on the 2004 Congested Network to identify those corridors where congestion issues remain. As can be seen from **Figure 35**, the congestion on the majority of the roadways on the 2004 Congested Network would be resolved by the application of these strategies.

To help identify the general purpose lane improvements that would be required to help resolve the congestion identified on the 2004 Congested Network, a list of the general purpose lane improvements was developed. **Table 19** provides a summary of the general-purpose lane improvements that would be needed to address existing congestion.

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Table 17 - Benefits of CMS Strategies 1 Through 7

Roadway	Location	Existing / Projected LOS	Improvement in Measures of Effectiveness							Anticipated LOS with Strategy In Place
			Carpool , Park & Ride (veh/hr)*	Signal Systems (mph)**	HOV Lanes (veh/hr)*	Bicycle & Peds* (veh/hr)	Enhanced Transit (veh/hr)*	Incident Manage-ment, ITS (mph)***	Growth Management (veh/hr)*	
Bill Morris Pkwy (SR 385)	I-240 to Riverdale	F	+156		+860		+156	0	+78	F
Bill Morris Pkwy (SR 385)	Winchester to Hacks Cross	E	+75		+412		+75	0	+37	D+
Byhalia	Winchester to Poplar	F	+50	+1.7		+12	+50		+25	F
Covington Pike	Macon to Stage	F	+72	+1.9		+18	+72		+36	F
Germantown	Winchester to Brother	F	+103	+6.4		+26	+103		+51	D+[1]
Germantown (Hwy 305)	Stateline to US 78	F	+33	+0.8		+8	+33		+17	F
Goodman	Pleasant Hill to Davidson	F	+42	+8.4		+11	+42		+21	D+
Goodman	Tulane to Tchulahoma	F	+63	+4.6		+16	+63		+32	D+
Hollywood	Sam Cooper to Jackson	F	+18	+0.6		+5	+18		+9	F
Hwy 61	Brooks to I-240 S	F	+40	+6.0		+10	+40		+20	D+
Hwy 61	Church to Nail	F	+33	+2.1		+8	+33		+17	E
Hwy 61	Weaver to Shelby	E	+38	+6.8		+9	+38		+19	D+
I-240	Bill Morris Pkwy (SR 385) to I-40 E	F	+174		+955			0	+87	F
I-240	I-55 to Lamar (US 78)	F	+138		+757			0	+69	E
I-240 MT	I-40 to I-55	F	+85		+467		+85	0	+42	D+
I-40	Mississippi River to FA 101 Connector	E	+55		+303		+55	0	+28	D+
I-55	HWY 304 to Stateline	F	+155		+531			0	+48	F
I-55	McLemore to Crump	E	+53					0	+26	D+
I-55	Crump to I-55 Bridge	E	+53					0	+26	D+
I-55	US 61 to I-240 S	E	+174		+598			0	+54	D+
Interchange	Perkins & Winchester	F	+20				+20		+10	F
Interchange	US 64 & I-40	F	+62			+16	+62	0	+31	F
McLean	Poplar to North Parkway	F	+26	+2.0		+7	+26	0	+13	E
Park	I-240 E to Ridgeway	E	+57	+3.2		+14	+57		+28	D+

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Table 17 (cont.) - Benefits of CMS Strategies 1 Through 7

Roadway	Location	Existing / Projected LOS	Improvement in Measures of Effectiveness							Anticipated LOS with Strategy In Place
			Carpool, Park & Ride (veh/hr)*	Signal Systems (mph)**	HOV Lanes (veh/hr)*	Bicycle & Peds* (veh/hr)	Enhanced Transit (veh/hr)*	Incident Manage-ment (mph)***	Growth Management, ITS (veh/hr)*	
Pauline	Linden to Jefferson	F	+13	+1.8		+3	+13		+7	D+
Perkins	Poplar to Willow	F	+31	+3.1		+8	+31		+15	D+
Plough Blvd	I-240 to Airways	E	+104				+104	0	+52	E
Poplar Avenue	Perkins to Poplar Estates Parkway	E	+90	+4.5		+23	+90		+45	D+[2]
Poplar Avenue	Poplar Estates Parkway to Maynard Way	E	+55	+4.5		+14	+55		+28	D+
Poplar Avenue	Maynard Way to Chulahoma Road	E	+35	+4.5		+9	+35		+17	D+
Ridgeway/Shady Grove	Park to Poplar	F	+40	+3.1					+20	D+
Ridgeway/Shady Grove	Poplar to Briarcrest	F	+40	+3.1					+20	D+
Shelby	I-55 to Mendenhall	F	+62	+5.1		+16	+62		+31	D+
Stage	Bartlett Blvd to Houston Levee	E	+61	+6.0		+15	+61		+31	D+
Summer	I-40 to Elmore	F	+33	+2.0		+8	+33		+17	E
Sycamore View	Macon to Pleasant View	F	+57	+3.5		+14	+57		+28	D+
Sycamore View	Pleasant View to Raleigh-LaGrange	F	+57	+3.5		+14	+57		+28	D+
Thomas	Washington to Jackson	F	+38	+2.0			+38		+19	E
Thomas	Stage to Watkins	F	+51	+5.6			+51		+26	D+
US 51	Paul Barret Pkwy (SR 385) to West Union	F	+65	+2.1					+33	E
US 78	Getwell to Craft	F	+59	+4.6			+59		+30	D+
Walnut Grove	Waring to Walnut Bend	F	+89	+5.3		+22	+89		+45	D+[3]
White Station	Poplar to Park	F	+32	+2.2		+8	+32		+16	D+
Winchester	Airways to Air Park	F	+51	+5.5		+13	+51		+25	D+

* Measure of effectiveness is a reduction in vehicular volume, generally reduction in SOV, through carpooling park, park and ride lots, HOV lanes, etc. (veh/hr)
** Measure of effectiveness is an increase in travel speed through traffic signal systems, intersection widening, etc. . See Methodology for more information.
*** Measure of effectiveness is an increase in travel speed by reduced wait times associated with incidents/accidents on the roadway system (mph)
'D+" indicates LOS D or better
[1] LOS F from Walnut Grove to Trinity
[2] LOS F from White Station to Yates
[3] LOS F from I-240 to Briarview Road

Table 18 - Benefits of Adding General Purpose Lanes

Roadway	Location	Existing / Projected LOS	Improvement in Measure of Effectiveness	Anticipated LOS with Strategy In Place
			Gen. Purpose Lanes (veh/hr)*	
Bill Morris Pkwy (SR 385)	I-240 to Riverdale	F	3,857	D+
Byhalia	Winchester to Poplar	F	1,151	D+
Covington Pike	Macon to Stage	F	384-1,151	D+[1]
Germantown (HWY 305)	Stateline to US 78	F	1,151	D+
Hollywood	Sam Cooper to Jackson	F	1,151	D+
HWY 61	Church to Nail	E	694	D+
I-240	Bill Morris Pkwy (SR 385) to I-40 E	F	1,929	D+
I-240	I-55 to Lamar (US 78)	E	2,014	D+
I-55	HWY 304 to Stateline	F	2,228-3,943	D+
Interchange	Perkins & Winchester	F	Interchange Improvements	D+
Interchange	US 64 & I-40	F	Interchange Improvements	D+
McLean	Poplar to North Parkway	E	768	D+
Plough Blvd	I-240 to Airways	E	Interchange Improvements	D+
Summer	I-40 to Elmore	E	1,151	D+
Thomas	Washington to Jackson	E	-**	E
US 51	Paul Barret Pkwy (SR 385) to West Union	E	768	D+

* Measure of effectivess is an increase in capacity by increasing the number of general purpose lanes on the subject roadway (veh/hr)

** Physical limitations do not allow addition of general purpose lanes. Section remains unresolved.

"D+" indicates LOS D or better

[1] LOS F from Pleasant View to I-40

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Figure 35
Existing Congested Network and Impact of Strategy Implementation

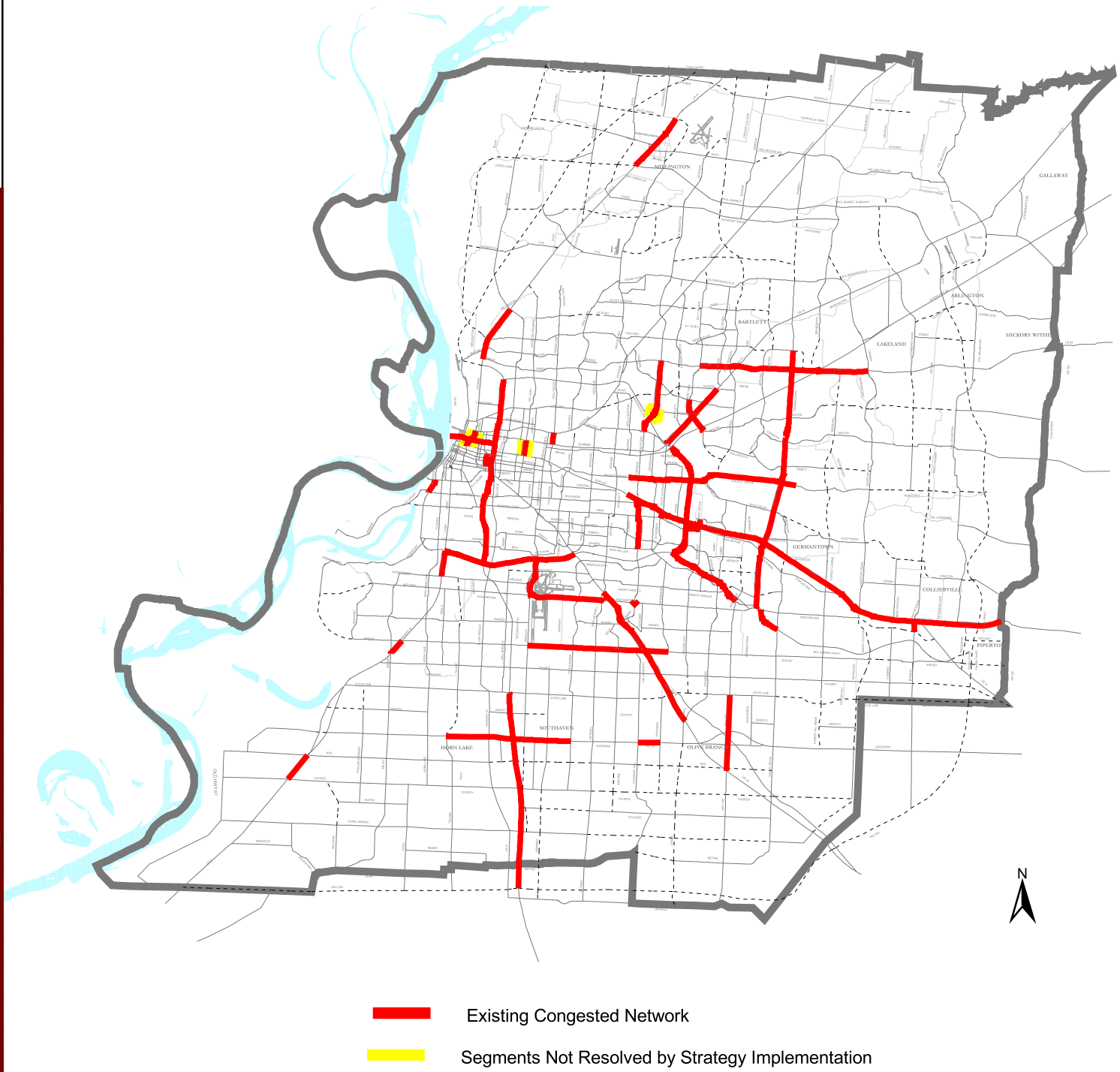


TABLE 19 – Required General Purpose Lane Improvements

Roadway	Location	Existing Lanes	Required Lanes
Bill Morris Pkwy (SR 385)	I-240 to Riverdale	6	10
Byhalia	Winchester to Poplar	5	7
Covington Pike	Macon to Stage	4	7
Germantown (HWY 305)	Stateline to US 78	2	5
Hollywood	Sam Cooper to Jackson	2	5
HWY 61	Church to Nail	2	4
I-240	Bill Morris Pkwy (SR 385) to I-40 E	6	8
I-240	I-55 to Airways	6	8
I-240	Airways to Lamar	8	10
I-55	HWY 304 to Goodman	4	6
I-55	Goodman to Stateline	6	8
Interchange	Perkins & Winchester	Interchange Improvements	
Interchange	US 64 & I-40	Interchange Improvements	
McLean	Poplar to North Parkway	2	4
Plough Blvd	I-240 to Airways	Interchange Improvements	
Summer	I-40 to Elmore	4	7
US 51	Paul Barret Pkwy (SR 385) to West Union	4	6

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7. Future Congested Network

To assist with the identification of long range projects, the ETC recommended utilizing the 2026 Regional Travel Forecasting Demand Model to identify those roadway segments with V/C ratios greater than 0.90. **Figure 36** illustrates the roadways that would be experiencing congestion if the 2026 Land Use were applied to the 2004 roadway network. This map will provide an indication of congestion in the Year 2026 if no roadway improvements are made. **Table 20** lists and **Figure 37** illustrates the roadways that would be congested if the 2026 Land Use were applied to the planned 2026 transportation network. This is the condition that is projected to occur in 2026 and is identified as the Future Congested Network. This future congestion network will be used to identify projects for the LRTP.

It should be noted that the 2026 Land Use and transportation network contained in the Regional Travel Demand Model are based on the Light Rail growth alternative. Therefore, some of the trips on the future network will be accommodated by the future light rail system and will reduce trips on the future roadway system. This alternative transportation system will help to reduce congestion in some corridors.

Similar to the analysis that was performed on the 2004 Congested Network, the 2026 Congested Network was evaluated using the CMS Strategies previously outlined. **Table 21** provides a summary of the CMS strategies that can be employed both individually and collectively to help resolve congestion on the 2026 Congested Network.

Estimated Impact of CMS Strategies

The impact of the CMS strategies identified for each corridor is summarized in **Tables 22 and 23**. **Table 22** provides the impacts of all of the strategies except the addition of general purpose lanes. For those corridors where the other strategies were unable to resolve the congestion issues, **Table 23** summarizes the impact of the addition of general purpose lanes. For those corridors where general purpose lanes will be required to address the congestion, **Table 24** provides a summary of the number of lanes required to relieve the congestion.

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TABLE 20 - 2026 Congestion Network

Road	Location	V/C Ratio	Level of Service
Austin Peay	I-40 to Coleman	1.20	F
Bill Morris Parkway (SR 385)	I-240 to Riverdale	1.13	F
Bill Morris Parkway (SR 385)	Hacks Cross to Houston Levee	1.18	F
Belvedere	Madison to Poplar	1.03	F
Goodlett	Poplar to Walnut Grove	0.98	E
Hacks Cross	Shelby to Bill Morris Pkwy	0.91	E
Highland	Central to Poplar	1.09	F
I-240 E	Bill Morris Pkwy (SR 385) to I-40	1.31	F
I-240 MT	I-240 S to I-40	1.20	F
I-240 S	I-240 MT to Bill Morris Pkwy (SR 385)	1.16	F
I-40	I-240 to SR 196	1.25	F
I-40	Second to FA 101 Connector	1.49	F
I-40	FA 101 Connector to I-40 E	1.29	F
I-55	I-240 S to Nail	1.04	F
Jackson	Wales to I-40	0.97	E
Lamar (US 78)	American Way to Prescott	1.10	F
Lamar (US 78)	Shelby to Winchester	0.94	E
Lamar (US 78)	Stateline Road to Craft	1.06	F
Madison	Danny Thomas to Third	1.66	F
McLean	N. Parkway to Poplar	1.21	F
Mississippi Blvd.	Crump to S. Parkway	1.05	F
N. Watkins	James to I-40	0.93	E
Perkins	Poplar to Walnut Grove	1.10	F
Plough Blvd.	Democrat to Winchester	0.95	E
Poplar	I-240 to Ridgeway	1.20	F
Riverside Drive	Union to Crump	1.06	F
Sam Cooper	I-240 to Tillman	1.16	F
Southern	Goodlett to Highland	1.05	F
Summer (US70)	I-40 to Bartlett Road	0.94	E
Third	N. Parkway to I-40	0.91	E
Thomas	Firestone to Chelsea	0.93	E
Tillman	Summer to Walnut Grove	1.00	E
Walnut Grove	Yates to Germantown Pkwy	1.12	F
Walnut Grove	Mendenhall to Perkins	1.24	F
Walnut Grove	Tillman to Poplar	1.01	F

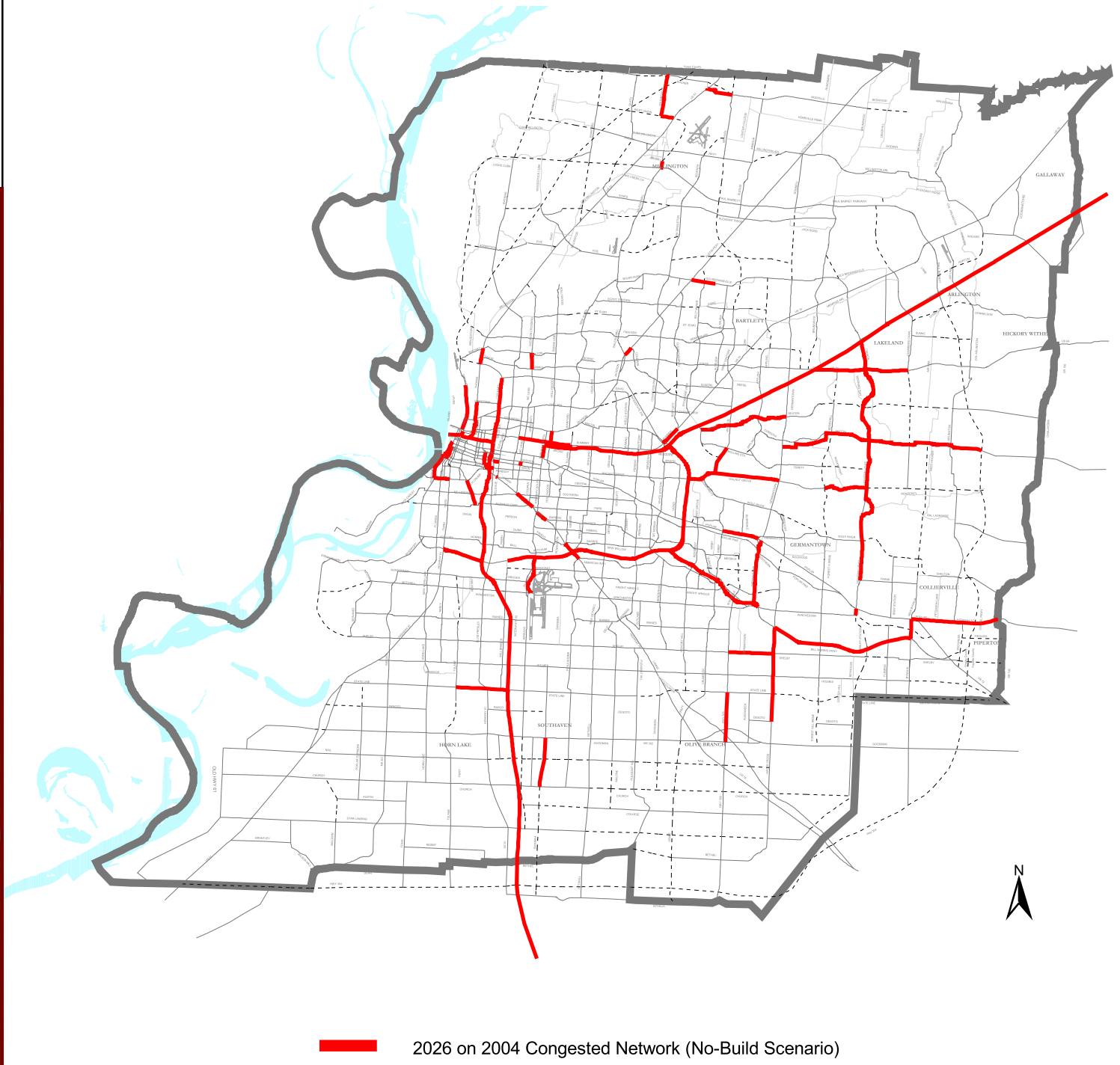
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TABLE 20 (Cont.) - 2026 Congestion Network			
Road	**Location**	**V/C Ratio**	**Level of Service**
Interchange	I-69 at Paul Barrett Parkway	1.06	F
Interchange	I-69 at Fite Extension	1.04	F
Interchange	Byhalia at Bill Morris Parkway	0.96	E

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Figure 36
No-Build Scenario
(2026 Pop/Emp on 2004)



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Figure 37
Future Congested Network (2026 Model)

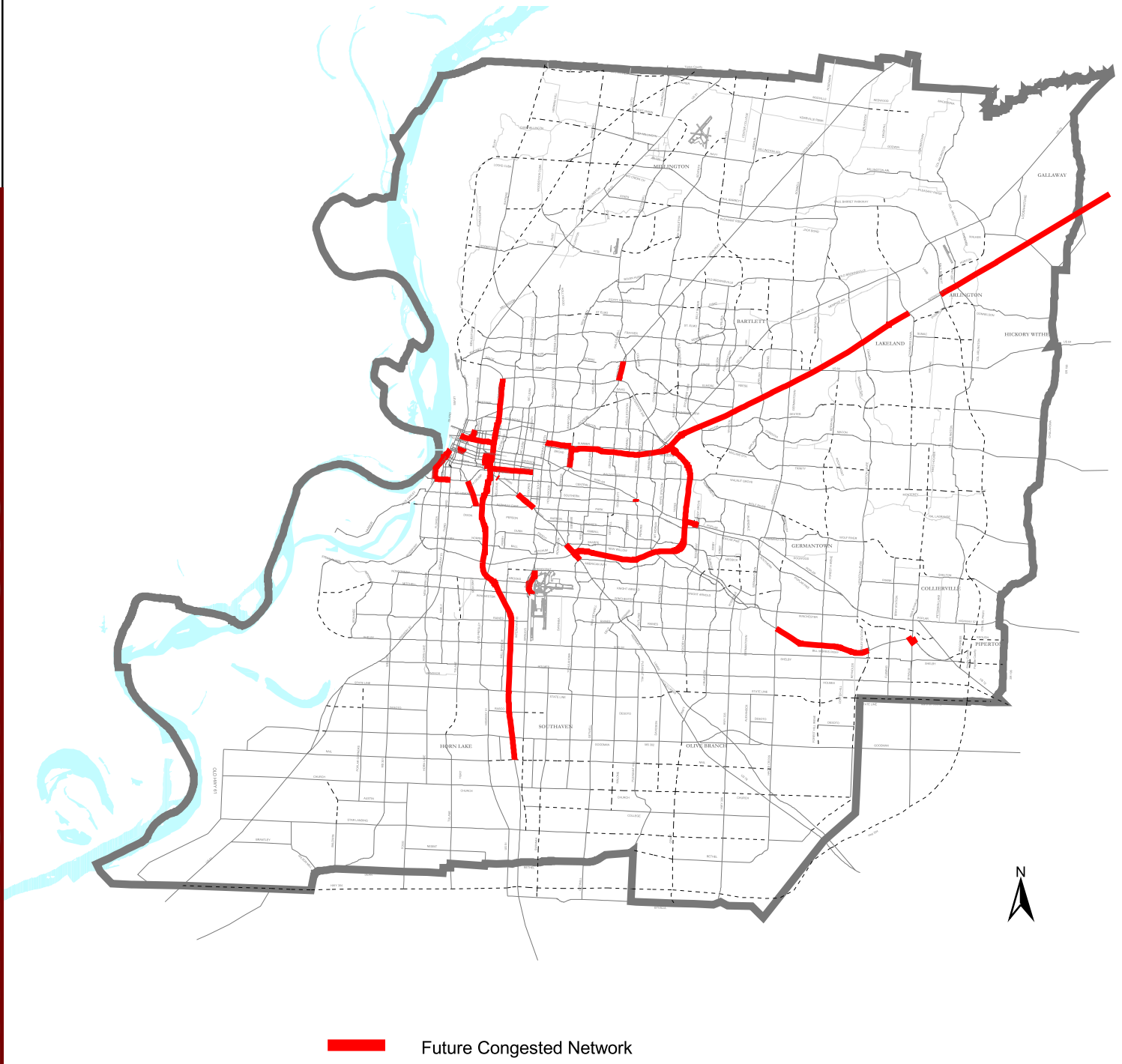


TABLE 21 - Menu of CMS Strategies for 2026 Congestion Network

Road	Location	CMS Strategy
Austin Peay	I-40 to Coleman	1,5,6,7,8
Bill Morris Parkway (SR 385)	I-240 to Riverdale	1,3,5,6,7,8
Bill Morris Parkway (SR 385)	Hacks Cross to Houston Levee	1,3,5,6,7,8
Belvedere	Madison to Poplar	1,2,4,5,7,8
Goodlett	Poplar to Walnut Grove	1,2,4,5,7,8
Hacks Cross	Shelby to Bill Morris Pkwy	1,2,4,5,7,8
Highland	Central to Poplar	1,2,4,5,7,8
I-240 E	Bill Morris Pkwy (SR 385) to I-40	1,3,6,7,8
I-240 MT	I-240 S to I-40	1,3,5,6,7,8
I-240 S	I-240 MT to Bill Morris Pkwy (SR 385)	1,3,6,7,8
I-40	I-240 to SR 196	1,3,6,7,8
I-40	Second to FA 101 Connector	1,3,5,6,7,8
I-40	FA 101 Connector to I-40 E	1,3,5,6,7,8
I-55	I-240 S to Nail	1,3,6,7,8
Jackson	Wales to I-40	1,2,4,5,7,8
Lamar (US 78)	American Way to Prescott	1,2,4,5,7,8
Lamar (US 78)	Shelby to Winchester	1,2,4,5,7,8
Lamar (US 78)	Stateline Road to Craft	1,2,4,5,7,8
Madison	Danny Thomas to Third	1,2,4,5,7,8
McLean	N. Parkway to Poplar	1,2,4,7,8
Mississippi Blvd.	Crump to S. Parkway	1,2,4,5,7,8
N. Watkins	James to I-40	1,2,5,7,8
Perkins	Poplar to Walnut Grove	1,2,4,5,7,8
Plough Blvd.	Democrat to Winchester	1,5,6,7,8
Poplar	I-240 to Ridgeway	1,2,5,7,8
Riverside Drive	Union to Crump	1,2,4,7,8
Sam Cooper	I-240 to Tillman	1,4,5,6,7,8
Southern	Goodlett to Highland	1,2,4,5,7,8
Summer (US70)	I-40 to Bartlett Road	1,2,5,7,8
Third	N. Parkway to I-40	1,2,4,5,7,8
Thomas	Firestone to Chelsea	1,2,4,5,7,8
Tillman	Summer to Walnut Grove	1,2,4,5,7,8
Walnut Grove	Yates to Germantown Pkwy	1,2,4,5,7,8
Walnut Grove	Mendenhall to Perkins	1,2,4,5,7,8
Walnut Grove	Tillman to Poplar	1,2,4,5,7,8
Interchange	I-69 at Paul Barrett Pkwy	1,2,3,6,7,8
Interchange	I-69 at Fite Extension	1,2,3,6,7,8
Interchange	Byhalia at Bill Morris Parkway	1,2,6,7,8

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Table 22 - Benefits of CMS Strategies 1 Through 7 for Year 2026 Congested Network

Roadway	Location	Existing / Projected LOS	Improvement in Measures of Effectiveness							Anticipated LOS with Strategy In Place
			Carpool , Park & Ride (veh/hr)*	Signal Systems (mph)**	HOV Lanes (veh/hr)*	Bicycle & Peds* (veh/hr)	Enhanced Transit (veh/hr)*	Incident Manage-ment, ITS (mph)***	Growth Management (veh/hr)*	
Austin Peay	I-40 to Coleman	F	+47				+47	0	+24	D+
Bill Morris Pkwy (SR 385)	Hacks Cross to Houston Levee	F	+74		+406		+74	0	+37	D+
Bill Morris Parkway (SR 385)	I-240 S to Riverdale	F	+115		+631		+115	0	+57	D+
Belvedere	Madison to Poplar	F	+13	+6.1		+3	+13		+6	D+
Goodlett	Poplar to Walnut Grove	E	+26	+5.6		+7	+26		+13	D+
Hacks Cross	Shelby to Bill Morris Pkwy	F	+68	+2.0		+17	+68		+34	E
Highland	Central to Poplar	F	+37	+6.5		+9	+37		+19	D+
I-240 E	Bill Morris Pkwy (SR 385) to I-40	F	+172		+944			0	+86	E
I-240 MT	I-240 S to I-40	F	+155		+851		+155	0	+77	D+
I-240 S	I-240 MT to Bill Morris Pkwy (SR 385)	F	+167		+918			0	+83	E
I-40	I-240 to SR 196	F	+148		+815			0	+74	D+
I-40	Second to I-240 MT	F	+83		+458		+83	0	+42	D+
I-40	I-240 MT to FA 101 Connector	F	+83		+458		+83	0	+42	D+
I-40	FA 101 Connector to I-40 E	F	+137		+755		+137	0	+69	E
I-55	I-240 S to Nail	F	+139		+766			0	+70	D+
Jackson	Wales to I-40	E	+57	+3.0		+14	+57		+29	D+
Lamar (US 78)	American Way to Prescott	F	+83	+.7		+21	+83		+42	F
Lamar (US 78)	Shelby to Winchester	E	+62	+6.8		+16	+62		+31	D+
Lamar (US 78)	Stateline Road to Craft	F	+83	+1.8		+21	+83		+41	F

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Table 22 (cont.) - Benefits of CMS Strategies 1 Through 7 for Year 2026 Congested Network

Roadway	Location	Existing / Projected LOS	Improvement in Measures of Effectiveness							Anticipated LOS with Strategy In Place
			Carpool, Park & Ride (veh/hr)*	Signal Systems (mph)**	HOV Lanes (veh/hr)*	Bicycle & Peds* (veh/hr)	Enhanced Transit (veh/hr)*	Incident Manage-ment (mph)***	Growth Management, ITS (veh/hr)*	
Madison	Danny Thomas to Third	F	+15	+4.3		+4	+15		+7	D+
McLean	N. Parkway to Poplar	F	+15	+6.3		+4			+7	D+
Mississippi Blvd.	Crump to S. Parkway	F	+30	+1.2		+8	+30		+15	F
N. Watkins	James to I-40	E	+46	+3.2			+46		+23	D+
Perkins	Poplar to Walnut Grove	F	+27	+6.5		+7	+27		+14	D+
Plough Blvd.	Democrat to Winchester	E	+48				+48	0	+24	D+
Poplar	I-240 to Ridgeway	F	+85	+.6			+85		+43	F
Riverside Drive	Union to Crump	F	+23	+5.8		+6			+11	D+
Sam Cooper	I-240 to Tillman	F	+114			+28	+114	0	+57	F
Southern	Goodlett to Highland	F	+35	+.7		+9	+35		+17	D+
Summer (US 70)	I-40 to Bartlett Road	E	+52	+7.0			+52		+26	D+
Third	N. Parkway to I-40	E	+16	+6.5		+4	+16		+8	D+
Thomas	Firestone to Chelsea	E	+22	+6.3		+5	+22		+11	D+
Tillman	Summer to Walnut Grove	F	+42	+3.4		+11	+42		+21	D+
Walnut Grove	Yates to Germantown Pkwy	F	+174	+1.8		+44	+174		+87	F
Walnut Grove	Mendenhall to Perkins	F	+42	+3.0		+11	+42		+21	D+
Walnut Grove	Tillman to Poplar	F	+43	+2.8		+11	+43		+22	D+
Interchange	I-69 at Paul Barrett Pkwy	F	+50		+273			0	+25	E
Interchange	I-69 at Fite Extension	F	+29		+161			0	+15	D+
Interchange	Byhalia at Bill Morris Pkwy	E	+32					0	+16	E

* Measure of effectiveness is a reduction in vehicular volume, generally reduction in SOV, through carpooling park, park and ride lots, HOV lanes, etc. (veh/hr)

** Measure of effectiveness is an increase in travel speed through traffic signal systems, intersection widening, etc. . See Methodology for more information.

Table 23 - Benefits of Adding General Purpose Lanes for Year 2026 Congested Network

Roadway	Location	Projected LOS	Improvement in Measure of Effectiveness	Anticipated LOS with Strategy In Place
			Gen. Purpose Lanes (veh/hr)*	
Hacks Cross	Shelby to Bill Morris	E	1,536	D+
I-240 E	Bill Morris Pkwy to I-40	E	3,857	D+
I-240 S	I-240 MT to Bill Morris	E	1,929	D+
I-40	FA 101 Connector to I-40 E	E	2,014	D+
Lamar (US 78)	American Way to Prescott	F	-**	F
Lamar (US 78)	Stateline Road to Craft	F	1,971	D+
Mississippi Blvd	Crump to S. Parkway	F	1,032	D+
Poplar	I-240 to Ridgeway	F	-**	F
Sam Cooper	I-240 to Tillman	F	1,928	D+
Walnut Grove	Yates to Germantown Pkwy	F	-**	F
Interchange	I-69 at Paul Barrett	E	Interchange Improvements	D+
Interchange	Byhalia at Bill Morris	E	Interchange Improvements	D+

* Measure of effectivess is an increase in capacity by increasing the number of general purpose lanes on the subject roadway (veh/hr)
* Physical limitations do not allow addition of general purpose lanes. Section remains unresolved.
"D+" indicates LOS D or better

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TABLE 24 – Required General Purpose Lane Improvements for Year 2026 Congested Network

Roadway	Location	Existing Lanes	Required Lanes
Hacks Cross	Shelby to Bill Morris	6	10
I-240 E	Bill Morris Pkwy to I-40	8	12
I-240 S	I-240 MT to Bill Morris	8	10
I-40	FA 101 Connector to I-40 E	6	8
Lamar (US 78)	Stateline Road to Craft	4	6
Mississippi Blvd	Crump to S. Parkway	2	4
Sam Cooper	I-240 to Tillman	6	8
Interchange	I-69 at Paul Barrett	Interchange Improvements	
Interchange	Byhalia at Bill Morris	Interchange Improvements	

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Funding for CMS Projects

The strategies listed and the benefits shown, portrays the maximum benefits that can be achieved if those strategies are implemented. As part of the CMS process, to encourage the implementation of the strategies a block of funding is being recommended to support the cost of implementation. Initially there will be $ 52,000,000 available over the period of this planning horizon (2007-2026). This funding comes from various sources listed in **Table 25** below.

Table 25 – Funding for CMS Projects

Funding Source	2007 - 2016	2017 - 2026	Total by Funding Source
Interstate Maintenance (IM)	$2,426,000	$3,969,624	$6,395,624
NHS/NCPD	$6,802,810	NA	$6,802,810
Tennessee State STP (SSTP)	$16,771190	$3,969,624	$20,740,814
Local STP (LSTP)	NA	$18,060,725	$18,060,725
Mississippi	NA	NA	NA
Total	**$44,060,752**	**$7,939,248**	**$52,000,000**

Also this funding designation is identified in the financial part of the LRTP report. Initial recommendation is that these funds would be strictly available for the implementation of the CMS strategies excluding the addition of general purpose lanes for the defined congested corridors. Also it is being recommended that the CMS projects have to be prioritized using the *Transportation Improvement Program* (TIP) project selection criteria that is being used currently, and as amended in the future by the MPO, to qualify for funding. Once the project is complete the corridor should be monitored and evaluated for the benefits achieved from the project.

6. Congestion Management System Conclusion

As can be seen for both the 2004 Congested Network and the 2026 Congested Network, while the identified CMS strategies significantly reduce the amount of congestion, there are still a number of congested corridors that require further study to identify projects to address these issues. Some of the strategies that are identified in the CMS plan require long term commitments to be effectively implemented. Strategies such as car pooling, park and ride lots and transit service enhancements require promotion and demonstration of benefits in order to generate enough users to effectively impact the congested network. Strategies such as the implementation of HOV lanes require commitments of both time and money for construction and public education before the full benefits can be realized. Growth management strategies require commitment by the local government agencies to modify zoning codes to make them attractive for new development.

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As stated previously, the success of the Congestion Management System plan is dependant upon the collective implementation of the identified congestion relief strategies. The projects that have been identified to relieve congestion have been included in the LRTP to be enacted over the next 20 years to address both the existing and expected congestion. As growth continues in the area, the Congested Network will be reviewed regularly to make sure that the projects identified for inclusion in the TIP and LRTP will effectively address congestion on a long-term basis. These projects will also be evaluated for their potential impact on the freight system and other transportation elements. The commitment of time and resources that are critical to successfully implement programs, such as the car pooling, park and ride lots, HOV lanes, and growth management strategies are included in the LRTP.

In order for the MPO to effectively identify and implement the appropriate congestion relief strategies, the congestion management system plan must be a dynamic document. The present CMS plan was developed in 1996, and was based on the best knowledge available at the time. However, other congestion relief strategies have been identified since then. Further, the congestion network needs to be continually reviewed and modified to help guide project selection. Therefore, the existing CMS plan will be updated in the near future.

One of the tools that can be most effective in the management of the CMS plan is the regional travel demand-forecasting model. The present model has served the community well for the last 30 years. However, the weaknesses of the existing model hamper the ability of staff to efficiently monitor the congestion network. The proposed new model, as described in the Regional Travel Demand Model Study Design, will provide a menu of tools to help with this process including newer and more accepted means to determine road capacities and LOS. The project to develop the new travel demand forecasting model will begin in early 2004, providing the staff an integral tool to help better monitor the congested network and effectively implement the CMS plan.

Interagency cooperation is a key element to the successful implementation of the CMS Plan. The MPO staff will work closely with the local agencies, the public, TDOT, MDOT and the FHWA to implement the strategies identified to address the congestion management issues. All of these groups will have a role in the development of the new CMS plan, the development of the new Regional Travel Demand Forecasting Model, and the implementation of the strategies required to address the congestion issues. The MPO staff will assist these groups by providing the timely information and data required for making sound decisions and implementing projects to help relieve congestion in the Memphis MPO area.

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Chapter VII

Financial Analysis

The Federal Highway Administration, in Federal regulation 23 CFR 450.322, defines what must be included in the financial analysis section of the LRTP. The regulation states that the LRTP must:

> *"Include a financial plan that demonstrates the consistency of proposed transportation investments with already available and projected sources of revenue. The financial plan shall compare the estimated revenue from existing and proposed funding sources that can reasonably be expected to be available for transportation uses, and the estimated costs of constructing, maintaining and operating the total (existing plus planned) transportation system over the period of the plan. The estimated revenue by existing revenue source (local, State, Federal and private) available for transportation projects shall be determined and any shortfalls identified. Proposed new revenues and/or revenue sources to cover shortfalls shall be identified, including strategies for ensuring their availability for proposed investments. Existing and proposed revenues shall cover all forecasted capital, operating and maintenance costs. All cost and revenue projections shall be based on the data reflecting the existing situation and historical trends."*

This chapter reports costs for all projects contained in the LRTP and compares them to projected revenues anticipated to be available through the year 2026. Costs and revenues for bicycle and pedestrian projects and programs are not included as the bicycle and pedestrian element is under development.

This financial analysis is done in two sections: Non-Transit and Transit. Within each of these two sections capital and operations and maintenance costs and revenues are identified by funding source and by the entity that programs the funds. Lastly, a summary section is provided which demonstrates fiscal constraint of the long range plan projects.

The information on revenues and expenditures contained in this chapter were provided by TDOT, MDOT, the MPO, local jurisdictions and MATA. The projections presented here are estimates and are subject to change over time, which is an inherent limitation of a plan that forecasts costs and revenues over a twenty-three year period.

All costs and revenues in this document are in constant dollars. There is no adjustment for inflation.

This chapter is intended to demonstrate the fiscal viability of this plan. There are a series of budget tables within this chapter which are important to this analysis. These budget tables include:

Non-Transit

- **Table 26** – Total Estimated Non-Transit Capital Costs
- **Table 30** – Existing System & Projected Operation & Maintenance (O & M) (Non-Transit) Costs
- **Table 40** – Tennessee and Mississippi Capital Revenue
- **Table 41** – Existing System & Projected O & M Revenue

Tables 42 & 43 provide a comparison of these costs versus revenue for the Non-Transit portion of this plan for both capital and operation and maintenance. As can be seen in these two tables, there is a sizable un-programmed balance of non-transit funds available.

Transit

- **Table 44** – Existing System & Projected Transit Capital Costs
- **Table 45** – Existing System & Projected Transit O & M Costs
- **Table 46** – Total MPO Programmed & Projected Capital Revenue
- **Table 47** - Total MPO Programmed & Projected O & M Revenue

Table 48 provides a comparison of cost versus revenues for the Transit portion of this plan for both capital and operation and maintenance.

Finally, **Table 49** which is located in the final section of this chapter, demonstrates fiscal constraint of the long range plan proposed projects (**Appendix N**, 2004-2026 Fiscally Constrained Plan-All Projects (by funding type) with the exception of the North Rail Corridor.

A. NON-TRANSIT

The non-transit cost and revenue analysis is divided into three sections:

- Non-Transit Costs
- Non-Transit Revenue
- Costs Versus Revenue Analysis

Costs and revenues are divided into capital and operations and maintenance sections.

1. Non-Transit Costs

Non-Transit Capital Costs

Cost estimates for the capital projects in the LRTP were determined and reported by officials of the local jurisdictions. **Table 26** below groups the LRTP capital costs by state, funding source, and entity responsible for programming funds for that project. Detailed capital project costs are found in **Appendix N**, 2004-2026 Fiscally Constrained Plan-All Projects (by funding type).

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Table 26
Total Estimated Non-Transit Capital Costs 2004 - 2026
Long Range Transportation Plan

TENNESSEE COSTS
2004-2026 by Horizon Year

	TOTAL 2004-2006	TOTAL 2007-2016	TOTAL 2017-2026	TOTAL 2004-2026
Programmed by State of TN				
IM	$ 104,500,000	$ 272,500,000	$ 3,969,624	$ 380,969,624
NHS	$ 42,700,000	$ 48,225,040	$ 886,830	$ 91,811,870
NCPD	$ 60,000,000	$ 90,000,000	$ 90,000,000	$ 240,000,000
SSTP	$ 117,800,000	$ 320,799,000	$ 188,584,625	$ 627,183,625
CMAQ (State)	$ 1,100,000	$ 30,000,000	$ 30,000,000	$ 61,100,000
BRR-S	$ 60,000,000	$ 32,000,000	$ -	$ 92,000,000
CESA*	$ 3,000,000	$ 19,500,000	$ -	$ 22,500,000
Subtotal	**$ 389,100,000**	**$ 813,024,040**	**$ 313,441,079**	**$ 1,515,565,119**
Programmed by MPO				
CMAQ (Local)	$ 30,670,000	$ 36,000,000	$ 35,371,600	$ 102,041,600
LSTP	$ 98,043,500	$ 133,317,676	$ 133,750,000	$ 365,111,176
ENHANCEMENT	$ 9,773,925	$ 3,480,431	$ -	$ 13,254,356
Subtotal	**$ 138,487,425**	**$ 172,798,107**	**$ 169,121,600**	**$ 480,407,132**
Programmed by Local Jurisdiction				
LOCAL (Shelby)	$ 20,638,801	$ 388,012,090	$ 424,268,463	$ 832,919,354
LOCAL (Fayette)	$ -	$ 11,879,387	$ 3,324,000	$ 15,203,387
TOTAL	**$ 548,226,226**	**$ 1,385,713,624**	**$ 910,155,142**	**$ 2,844,094,992**

*CESA (Congressional Earmark Special Appropriation)

MISSISSIPPI COSTS
2004-2026 by Horizon Year

	TOTAL 2004-2006	TOTAL 2007-2016	TOTAL 2017-2026	TOTAL 2004-2026
Programmed by State of MS				
NHS*	$ 1,686,600	$ 173,014,262	$ 166,449,080	$ 341,149,942
MSSTP	$ 5,152,333	$ 24,014,873	$ 45,375,898	$ 74,543,104
STATE CONSTRUCTION FUNDS	$ 26,608,333	$ -	$ -	$ 26,608,333
Subtotal	**$ 33,447,266**	**$ 197,029,135**	**$ 211,824,978**	**$ 442,301,379**
Programmed by MPO				
LSTP	$ 2,588,000	$ 13,557,901	$ 11,926,785	$ 28,072,686
ENHANCEMENT	$ -	$ -	$ -	$ -
Subtotal	**$ 2,588,000**	**$ 13,557,901**	**$ 11,926,785**	**$ 28,072,686**
Programmed by Local Jurisdiction				
LOCAL	$ 10,227,863	$ 126,704,181	$ 92,883,502	$ 229,815,546
TOTAL	**$ 46,263,129**	**$ 337,291,217**	**$ 316,635,265**	**$ 700,189,611**

*The majority of the NHS costs in 2007-2016 and 2017-2026 are associated with I-69.

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Non-Transit Operations and Maintenance Costs

Cost estimates for operating and maintaining the existing transportation system were obtained from each jurisdiction and carried out to 2026. Cost estimates for the future transportation system were obtained by analyzing the following factors:

- Total number of lane miles currently maintained by each jurisdiction
- Each jurisdiction's costs for maintaining their existing transportation system
- Total number of lane miles to be maintained by each jurisdiction in 2026
- The same level of service would be maintained in the future relative to maintenance and operation of the transportation network.

Operating and maintenance (O & M) costs were evaluated looking at the total number of lane miles currently maintained by each jurisdiction. Given that additional lane miles and roadway improvements are to be added throughout the plan horizon, the proposed transportation improvement projects from the fiscally constrained plan were used as the 2026 transportation system.

Table 27 reflects the existing number of lane miles maintained in the MPO area by jurisdiction. A current dollar-per-lane-mile amount for O & M (See **Table 28)** was obtained by dividing a jurisdiction's yearly costs of maintenance by the current number of lane miles maintained. That dollar figure was then multiplied by the lane miles to be maintained in 2026 (**Table 29**).

Example:
Arlington maintains 101 lane miles currently.
They will maintain 194 lane miles in 2026.

Arlington currently spends $350,000 annually on O & M.

Current dollar-per-mile: $350,000 per year / 101 miles = **$3,465/mile**

2026 total cost: 194 miles X $3,465= **$672,210/year**

The horizon year totals in **Table 30** were arrived at by applying a straight line projection to each jurisdiction's total O & M costs for the existing system (shown in **Table 28**) out to 2026. The State of Tennessee and the State of Mississippi provided their O & M costs by horizon year.

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Table 27

Collectors and Arterials Maintained by Local Jurisdictions

Jurisdiction	Existing Lane Miles Maintained	2026 Lane Miles
Shelby County	783	2,004
Arlington	101	194
Bartlett	184	267
Collierville	111	260
Germantown	127	185
Lakeland	77	143
Memphis	3,043	3,527
Millington	88	154
Total	**4,514**	**6,734**
Fayette County	101	161
Gallaway	27	45
Piperton	22	35
Total	**150**	**241**
DeSoto County	663	1,265
Hernando	9	18
Horn Lake	28	53
Olive Branch	120	229
Southaven	101	193
Total	**921**	**1,758**
Total MPO Area	**5,585**	**8,733**

Source: Road Index Network, January 16, 2004

Table 28

EXISTING SYSTEM OPERATIONS AND MAINTENANCE COSTS (Non-Transit)

		Other Operations and Maintenance Costs						
Jurisdiction	**Paving**	**Signs & Painting**	**ROW Maintenance**	**Traffic Signal Maintenance**	**Surveillance and Inspection**	**Street Lighting**	**Other***	**Total**
Shelby County	$ 1,500,000	$ 700,000	$ 410,000	$ 10,000	$ 400,000			$ 3,020,000
Arlington	$ 150,000						$ 200,000	$ 350,000
Bartlett	$ 875,000	$ 85,205	$ 454,824	$ 44,000	$ 618,764	$ 670,000	$ 175,000	$ 2,922,793
Collierville	$ 632,777	$ 14,000	$ 15,200	$ 10,000	$ 185,500	$ 745,000		$ 1,602,477
Germantown	$ 600,000	$ 75,000	$ 200,000	$ 14,000	$ 90,000	$ 534,000		$ 1,513,000
Lakeland	$ 155,000						$ 95,000	$ 250,000
Memphis	$ 9,000,000	$ 2,400,000	$ 3,000,000	$ 3,900,000	$ 1,275,000			$ 19,575,000
Millington	$ 43,000					$ 150,000	$ 58,300	$ 251,300
TOTAL	**$ 12,955,777**	**$ 3,274,205**	**$ 4,080,024**	**$ 3,978,000**	**$ 2,569,264**	**$ 2,099,000**	**$ 528,300**	**$ 29,484,570**
Fayette County	$ 86,000						$ 35,000	$ 121,000
Gallaway	$ 16,816						$ 8,408	$ 25,224
Piperton	$ 10,000						$ 5,000	$ 15,000
TOTAL	**$ 112,816**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 48,408**	**$ 161,224**
DeSoto County	$ 300,000	$ 25,000	$ 100,000	$ 50,000	$ 275,000			$ 750,000
Hernando	$ 550,000					$ 225,000	$ 28,050	$ 803,050
Horn Lake	$ 400,000	$ 2,500	$ 6,500			$ 32,000		$ 441,000
Olive Branch	$ 103,000						$ 105,000	$ 208,000
Southaven	$ 479,524			$ 36,129			$ 447,074	$ 962,727
TOTAL	**$ 1,832,524**	**$ 27,500**	**$ 106,500**	**$ 86,129**	**$ 275,000**	**$ 257,000**	**$ 580,124**	**$ 3,164,777**
TOTAL MPO AREA	**$ 14,901,117**	**$ 3,301,705**	**$ 4,186,524**	**$ 4,064,129**	**$ 2,844,264**	**$ 2,356,000**	**$ 1,156,832**	**$ 32,810,571**

*Source: Local Jurisdictions

*Other includes transportation expenditures such as minor sidewalk and intersection improvements.

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Table 29

EXISTING SYSTEM AND PROJECTED O & M ANNUAL COSTS (Non-Transit)

Jurisdiction	Current Lane Miles Maintained	Current O & M Expenses	Current Cost Per Mile	2026 Lane Miles Maintained	2026 O & M Expenses
Shelby County	783	$ 3,020,000	$ 3,857	2,004	$ 7,729,349
Arlington	101	$ 350,000	$ 3,465	194	$ 672,277
Bartlett	184	$ 2,922,793	$ 15,885	267	$ 4,241,227
Collierville	111	$ 1,602,477	$ 14,437	260	$ 3,753,550
Germantown	127	$ 1,513,000	$ 11,913	185	$ 2,203,976
Lakeland	77	$ 250,000	$ 3,247	143	$ 464,286
Memphis	3,043	$ 19,575,000	$ 6,433	3,527	$ 22,688,474
Millington	88	$ 251,300	$ 2,856	154	$ 439,775
TOTAL	**4,514**	**29,484,570**	**$ 62,092**	**6,734**	**$ 42,192,913**
Fayette County	101	$ 121,000	$ 1,198	161	$ 192,881
Gallaway	27	$ 25,224	$ 934	45	$ 42,040
Piperton	22	$ 15,000	$ 682	35	$ 23,864
TOTAL	**150**	**161,224**	**$ 2,814**	**241**	**$ 258,785**
DeSoto County	663	$ 750,000	$ 1,131	1,265	$ 1,430,995
Hernando	9	$ 803,050	$ 89,228	18	$ 1,606,100
Horn Lake	28	$ 441,000	$ 15,750	53	$ 834,750
Olive Branch	120	$ 208,000	$ 1,733	229	$ 396,933
Southaven	101	$ 962,727	$ 9,532	193	$ 1,839,666
TOTAL	**921**	**3,164,777**	**$ 117,374**	**1,758**	**$ 6,108,445**
Total MPO Area Lane Miles	**5,585**			**8,733**	
Total MPO Area Costs		**$ 32,810,571**	**$ 182,281**		**$ 48,560,143**

*Calculated by carrying current per-mile expenses forward to 2026 miles maintained.

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Table 30

EXISTING SYSTEM AND PROJECTED O & M COSTS: HORIZON YEAR TOTALS (Non-Transit)

	2004-2006	2007-2016	20017-2026	2004-2026 TOTAL
Jurisdiction				
State of Tennessee	**$ 54,000,000**	**$ 200,000,000**	**$ 245,000,000**	**$ 499,000,000**
Shelby County	$ 9,702,184	$ 46,254,598	$ 67,660,728	$ 123,617,510
Arlington	$ 1,093,947	$ 4,598,672	$ 6,063,569	$ 11,756,188
Bartlett	$ 8,948,165	$ 33,722,591	$ 39,715,472	$ 82,386,228
Collierville	$ 5,100,759	$ 23,357,972	$ 33,135,576	$ 61,594,307
Germantown	$ 4,633,224	$ 17,485,601	$ 20,626,403	$ 42,745,228
Lakeland	$ 779,221	$ 3,230,519	$ 4,204,545	$ 8,214,286
Memphis	$ 59,149,565	$ 206,364,114	$ 220,516,267	$ 486,029,946
Millington	$ 779,601	$ 3,155,528	$ 4,012,233	$ 7,947,363
TOTAL	**$ 90,186,666**	**$ 338,169,597**	**$ 395,934,792**	**$ 824,291,055**
Fayette County	$ 372,802	$ 1,455,050	$ 1,781,782	$ 3,609,634
Gallaway	$ 77,965	$ 309,567	$ 386,004	$ 773,536
Piperton	$ 46,209	$ 180,217	$ 220,506	$ 446,932
TOTAL	**$ 496,976**	**$ 1,944,834**	**$ 2,388,292**	**$ 4,830,101**
State of Mississippi	**$ 1,087,208**	**$ 4,406,270**	**$ 5,921,659**	**$ 11,415,137**
DeSoto County	$ 2,342,863	$ 9,821,575	$ 12,917,009	$ 25,081,448
Hernando	$ 2,518,657	$ 10,768,170	$ 14,418,398	$ 27,705,225
Horn Lake*	$ 1,776,693	$ 5,752,330	$ 7,542,102	$ 15,071,125
Olive Branch	$ 649,764	$ 2,724,091	$ 3,582,879	$ 6,956,733
Southaven	$ 3,007,764	$ 12,616,836	$ 16,602,925	$ 32,227,525
TOTAL	**$ 10,295,740**	**$ 41,683,003**	**$ 55,063,313**	**$ 107,042,056**
TOTAL MPO AREA COSTS	**$ 156,066,590**	**$ 586,203,703**	**$ 704,308,056**	**$ 1,446,578,350**

*States of Tennessee and Mississippi provided their O & M costs to 2026.
*Local O & M costs were projected on a straight line from current annual costs to 2026 annual costs.
2026 annual costs based on application of current cost per lane mile to future lane miles maintained.
*Horn Lake's 2004-2006 total contains $400,000 bond financing.

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2. Non-Transit Revenues

There are multiple revenue sources used to fund MPO area projects. Brief descriptions of these sources follow.

Non-Transit Revenue Sources

Federal funds are programmed to non-transit projects/programs in the Memphis MPO area with their required 20% match by the states of Mississippi and Tennessee. In addition to these federal funds, Mississippi also allocates revenue from State Construction Funds to road projects. **Table 31** offers brief descriptions of federal funding sources programmed by Tennessee and Mississippi.

Table 31 Federal Revenue Sources (Non-Transit)

Funding Category	Description
Congestion Management Air Quality Improvement Program (CMAQ)	Primarily provides funds to projects and programs in air quality non-attainment and maintenance areas for ozone, carbon monoxide (CO) and small particulate (PM-10), which reduce transportation emissions.
Bridge Replacement & Rehabilitation Program (BBR-S)	Supplies funds to aid states in their programs to replace and rehabilitate highway bridges and to make seismic retrofits to bridges located on any public road.
Interstate Maintenance Program (IM)	Grants funds for resurfacing, restoring, rehabilitating and reconstructing most interstate system routes.
National Corridor Planning and Development Program (NCPD)	Allocates funds to states and MPOs for coordinated planning, design, and construction of corridors of national significance, economic growth, and international or interregional trade.
National Highway System (NHS)	Allocates funds for improvements to rural and urban roads located on the NHS, including the interstate system and designated connections to major inter-modal terminals. Under unique circumstances, NHS funds may be used to fund transit improvements in NHS corridors.
Surface Transportation Program (STP)	Provides flexible funding that may be used by states and local agencies for projects located on federal-aid highways- including NHS, bridge projects- on any public road, transit capital projects and inter/intra city bus terminals and facilities. A share of the funds reserved for rural areas may be used on rural minor collectors.
Transportation Enhancements (TE)	Grants funds for transportation related activities that enhance the cultural, aesthetic or environmental aspects of the inter-modal transportation system. Projects funded under this category include bicycle and pedestrian facilities, beautifications, and historical renovations to transportation facilities.

Source: Federal Highway Administration Website: www.fhwa.dot.gov/tea21/factsheets/im.htm

Other federal revenue sources are also available. In particular, congressional earmarks are becoming an increasingly common method to finance projects. The nature of these earmarked funds may or may not require state or local leveraging. Because federal earmark funds cannot be clearly anticipated, they are not subject to detailed analysis in this plan.

A large percentage of the projects and programs in this plan will be funded through federal and state revenues. Local revenues are also required to implement the plan, both in leveraging state and federal program funds and as single-source funding for capital projects. Additionally, these funds are used by local jurisdictions to finance operations and maintenance expenditures. Local funds are derived from three principal sources in Tennessee and Mississippi.

1. State-Shared Taxes
2. Property Taxes
3. Capital Improvement Programming

(Tennessee State Shared Taxes) All local jurisdictions in the State of Tennessee receive funding from the state shared taxes listed above for transportation. At present, the largest source of transportation funding for local jurisdictions derived from state shared taxes comes from the petroleum taxes (gasoline, motor fuel, and special petroleum)**(Table 32)**. Funds derived from the other state imposed taxes are usually placed in a jurisdiction's general fund. Within a jurisdiction's general revenue fund, it is nearly impossible to identify which revenue sources are used for specific expenditures; however, these dollars are used for transportation purposes. These funding sources make up the majority of local funds, which are used by cities and counties to finance transportation expenditures and are the funding sources for the basis of local funds for this plan.

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Table 32 Tennessee Shared Revenue Sources (Non-Transit)

Funding Category	Description	Primary Recipients	Restrictions on Use	Distribution Basis
Sales and Use Tax	The retail sales and use tax is the state's largest single revenue source. These taxes are derived from the sale, use, consumption, distribution, lease, or rental of tangible personal property and of selected services. The current state sales tax in Tennessee is 7% and Shelby County's local sales tax is 2.25%.	State of TN, Counties, Municipalities	None	Population
Gasoline Tax	This tax is the largest shared revenue source for combined county and municipal governments. Shared gasoline revenues are restricted to funding street and road construction and mass transit projects. Tennessee's current tax rate is $.20 per gallon.	TDOT, Counties, Municipalities	Limited to Roads and Mass Transit	Population, Land Area, Equal Shares
Motor Fuel Tax	This tax is imposed on the sale of diesel fuel and alternate vehicle fuels and is currently $.017 per gallon.	TDOT, Counties, Municipalities	Limited to Roads and Mass Transit	Population, Land Area, Equal Shares
Gasoline Inspections Tax (Special Petroleum)	This tax is imposed on gasoline and oil sold in the state to ensure quality standards are met. The state's current tax for special petroleum is $.01 per gallon.	TDOT, Counties, Municipalities, Center for Govt. Training	Limited to Roads	Population, Land Area, Equal Shares
Environmental Assessment Fee	This tax, currently $.04 per gallon, is levied on gasoline and diesel.	Petroleum Underground Storage Tank Board	Limited to Roads and Mass Transit	Situs of Bank Deposits and Level of Property Taxes

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Corporate Excise Tax	All corporations, for-profit cooperatives, joint stock associations, business trust, state and national banks, and savings and loans this tax annually on the net earnings from business done in the state. The present rate in Tennessee is 6.5%.	Counties, Municipalities	None	Situs of Bank Deposits and Level of Property Taxes
Hall Income Tax	This tax is levied only on certain types of dividend and interest income from stocks and bonds. Current rate is 6%.	Counties, Municipalities	None	Situs
Beer Excise Tax	This tax is placed on beer barrels sold at $4.29 per barrel.	State of TN, Counties, Municipalities	None	Population and Equal Shares
Beer Wholesale Tax	This 17% excise tax is levied on the wholesale price collected by the wholesalers to the retailers.	Counties, Municipalities and TN Dept. of Revenue	None	Situs
Alcoholic Beverage Tax	This tax is levied on alcoholic beverages at $4.40 per gallon for distilled spirits and $1.21 for wine.	State of TN, Counties, Selected Municipalities	None	Population and Land Area
Mixed Drink Tax	Currently 15%, this tax levied on all alcoholic mixed drinks sold in the state.	State of TN, Counties, Municipalities	50% Earmarked to Education	Situs
Crude Oil and Natural Gas Severance Tax	Levied on severed oil and natural gas sold in the state.	State of TN, County	None	Situs
Coal Severance Tax	The current rate for this tax is $.20 per ton of severed coal.	State of TN, County	County Schools, Highway & Stream Cleaning	Situs
Other Taxes	Includes locally levied taxes on tobacco, businesses, privileges, and severance as well as TVA payments.	15% of all local revenue is given to the State of TN.	None	Situs, Pop., Land Area, Equal Shares

Sources: Tennessee Department of Revenue, *Biennial Report, FY 96-97 & FY 97-98*, June 1999. ICF Consulting for the Nashville Area Metropolitan Planning Organization, *Regional Transportation Funding- A Strategic Review*, July 2002.
Note: Situs based distributions are distributions to the jurisdiction where a tax was collected.

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(Mississippi State Shared Taxes) Similar to the State of Tennessee, Mississippi also levies taxes on numerous products and services, which in turn may be used on transportation projects. However, the State of Mississippi also imposes several taxes that are absent from the State of Tennessee's tax structure, mainly taxes imposed on income and gambling. The following levies (**Table 33**) make up the primary tax structure for the State of Mississippi (because of data limitations, a detailed description including the primary recipients, uses and distribution could not completed):

Table 33: Mississippi Shared Revenue Sources (Non-Transit)

Funding Category	Total Collections FY 2003
Petroleum Tax	$413,398,100
Sales Tax	$2,261,303,328
Use Tax	$200,142,955
Income Tax	$1,309,873,343
Gaming Fees and Taxes	$327,813,463
Alcoholic Beverages	$52,575,098
Beer and Light Wine	$30,229,127
Tobacco Tax	$55,575,718
Corporate Tax	$333,729,193
Estate Taxes	$22,412,809
Other Taxes (privilege, severance, etc)	N/A

Source: Mississippi State Tax Commission, *Mississippi Tax Structure*, May 2000.

Like Tennessee, the largest source of transportation funding for local jurisdictions in Mississippi comes from petroleum taxes levied by the state (jurisdictions in Mississippi also use general funds to supplement funding for transportation projects when possible). In FY 2003, the State of Mississippi diverted 68% of funds collected from its petroleum tax to MDOT, 12.5% to the State Aid Road Fund, 9.8% to counties, and .037% to municipalities (Mississippi State Tax Commission, 2000).

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Non-Transit Capital Projected Revenues

The assumption made by both the states of Tennessee and Mississippi is that the Memphis MPO area will continue to receive funding at an annual level equal to the average funding level authorized and programmed by the states under the funding limits of TEA-21. Both states found this to be a valid methodology for projecting revenues.

(State of Tennessee Programmed Revenue) The State of Tennessee reviewed past allocations for fiscal years 2000 to 2006 by funding source and obtained a seven-year average for NHS, IM, NCDP and SSTP which became the estimated annual revenue (**Table 34**).

Table 34

STATE OF TENNESSEE PROGRAMMED NON-TRANSIT REVENUES
Federal and State Sources FY-00 through FY-06
constant dollars in thousands

Fundung Source		FY-00	FY-01	FY-02	FY-03	FY-04	FY-05	FY-06	Seven-Year Total	Seven-Year Average
FEDERAL										
	IM	$ 8,200	$ 12,000	$ 1,440	$ 52,960	$ 5,490	$ 39,105	$ 49,455	$ 168,650	$ 24,093
	NHS	$ 9,600	$ 24,000	$ 19,200	$-	$ 1,200	$ 800	$ 32,160	$ 86,960	$ 12,423
	CMAQ							$ 880	$ 880	
	BRR-S					$ 16,000	$ 16,000	$ 16,000	$ 48,000	
	NCPD	$-	$-	$ 2,400	$-	$-	$-	$ 48,000	$ 50,400	$ 7,200
	SSTP	$ 5,648	$ 3,600	$ 58,320	$ 17,839	$ 11,560	$ 17,040	$ 66,240	$ 180,247	$ 25,750
	Federal Subtotal	**$ 23,448**	**$ 39,600**	**$ 81,360**	**$ 70,799**	**$ 34,250**	**$ 72,945**	**$ 212,735**	**$ 535,137**	**$ 69,465**
STATE										
	IM	$ 2,050	$ 3,000	$ 360	$ 13,240	$ 610	$ 4,345	$ 5,495	$ 29,100	$ 4,157
	NHS	$ 2,400	$ 6,000	$ 4,800	$-	$ 300	$ 200	$ 8,040	$ 21,740	$ 3,106
	CMAQ							$ 220	$ 220	
	BRR-S					$ 4,000	$ 4,000	$ 4,000	$ 12,000	
	NCPD	$-	$-	$ 600	$-	$-	$-	$ 12,000	$ 12,600	$ 1,800
	SSTP	$ 1,412	$ 900	$ 14,580	$ 4,460	$ 2,140	$ 4,260	$ 16,560	$ 44,312	$ 6,330
	State Subtotal	**$ 5,862**	**$ 9,900**	**$ 20,340**	**$ 17,700**	**$ 7,050**	**$ 12,805**	**$ 46,315**	**$ 119,972**	**$ 15,393**
TOTAL POTENTIAL FUNDING		**$ 29,310**	**$ 49,500**	**$ 101,700**	**$ 88,499**	**$ 41,300**	**$ 85,750**	**$ 259,050**	**$ 655,109**	**$ 84,858**

Source: TDOT

Table 35 details 2004-2026 State of Tennessee programmed and projected revenues. The 2006 allocations reflect the MPO's 2004-2006 TIP. The 2016 and 2026 NHS, IM, NCDP and SSTP revenues were arrived at by multiplying the estimated annual revenue obtained from **Table 34** by ten (the number of years included in each horizon year's forecast). The 2016 and 2026 CMAQ and BRR-S funds were estimated separately by the State of Tennessee. State revenue assumptions provide the matching funds for the federal programs at required matching levels.

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Table 35
STATE OF TENNESSEE PROGRAMMED & PROJECTED REVENUES
Revenue Assumptions for Federal and State Sources by Horizon Year
constant dollars in thousands

Funding Source		Total 2004-2006	Total 2007-2016*	Total 2017-2026*	Total FY2004-2026
FEDERAL					
	IM	$ 94,050	$ 240,929	$ 240,929	$ 575,908
	NHS	$ 34,160	$ 124,229	$ 124,229	$ 282,618
	CMAQ	$ 880	$ 30,000	$ 30,000	$ 60,880
	BRR-S	$ 48,000	$ 32,000	$-	$ 80,000
	NCPD	$ 48,000	$ 72,000	$ 72,000	$ 192,000
	SSTP	$ 94,240	$ 257,496	$ 257,496	$ 609,232
	CESA*	$ 2,400	$ 15,600	$ -	$ 18,000
	Federal Subtotal	**$ 321,730**	**$ 772,253**	**$ 724,654**	**$ 1,818,637**
STATE					
	IM	$ 10,450	$ 41,571	$ 41,571	$ 93,593
	NHS	$ 8,540	$ 31,057	$ 31,057	$ 70,654
	BRR-S	$ 12,000	$ -	$ -	$ 12,000
	CMAQ	$ 220	$ -	$ -	$ 220
	NCPD	$ 12,000	$ 18,000	$ 18,000	$ 48,000
	SSTP	$ 23,560	$ 63,303	$ 63,303	$ 150,166
	CESA*	$ 600	$ 3,900	$ -	$ 4,500
	State Subtotal	**$ 67,370**	**$ 157,831**	**$ 153,932**	**$ 379,133**
Total		**$ 389,100**	**$ 930,084**	**$ 878,586**	**$ 2,197,770**

*2016 &2026 forecasts based on seven-year average (FY00-FY06)
*CESA (Congressional Earmark Special Appropriation)

(State of Mississippi Programmed Revenue) The State of Mississippi reviewed committed funding from fiscal years 2004 through 2010 and obtained a seven-year average (**Table 36**). This seven-year average became the basis for projecting future state and federal revenues for the horizon years of this plan (**Table 37**).

Table 36

STATE OF MISSISSIPPI NON-TRANSIT ACTUAL & COMMITTED REVENUES

Federal and State Sources FY-04 through FY-10

Funding Source	FY-04	FY-05	FY-06	FY-07	FY-08	FY-09	FY-10	Seven-Year Total	Seven-Year Average
FEDERAL									
NHS	$ 1,000,000	$ 500,000	$ 16,560,000	$ 3,200,000	$ -	$ -	$ 3,037,143	$ 24,297,143	$ 3,471,020
CMAQ					$ 30,000		$ 4,286	$ 34,286	$ 4,898
STP	$12,350,400	$ 3,600,000	$ -	$ 6,000,000	$ 266,664	$ 1,333,332	$ 3,364,342	$ 26,914,738	$ 3,844,963
Federal Subtotal	**$ 13,350,400**	**$ 4,100,000**	**$ 16,560,000**	**$ 9,200,000**	**$ 296,664**	**$ 1,333,332**	**$ 6,405,771**	**$ 51,246,167**	**$ 7,320,881**
STATE									
State Match	$ 3,337,600	$ 1,025,000	$ 4,140,000	$ 2,300,000	$ 74,166	$ 333,333	$ 1,601,443	$ 12,811,542	$ 1,830,220
CFIP			$ 26,608,333						
State Subtotal	**$ 3,337,600**	**$ 1,025,000**	**$ 30,748,333**	**$ 2,300,000**	**$ 74,166**	**$ 333,333**	**$ 1,601,443**	**$ 39,419,875**	**$ 5,631,411**
TOTAL POTENTIAL	**$ 16,688,000**	**$ 5,125,000**	**$ 47,308,333**	**$ 11,500,000**	**$ 370,830**	**$ 1,666,665**	**$ 8,007,214**	**$ 90,666,042**	**$ 12,952,292**

Source: MDOT

In **Table 37** the Mississippi 2006 revenue is the total committed by the State of Mississippi for fiscal years 2004 through 2006. The 2016 revenue forecast was obtained by adding committed funds from FY-07 to FY-10 to six years at the seven-year average from **Table 36**. 2026 totals are the seven-year averages multiplied by ten (FY-17 to FY-26). State revenue assumptions provide the matching funds for the federal programs at required matching levels.

Table 37

STATE OF MISSISSIPPI PROGRAMMED & PROJECTED NON-TRANSIT REVENUES

Revenue Assumptions for Federal and State Sources by Horizon Year

Fundung Source		Total 2004-2006	Total 2007-2016*	Total 2017-2026*	TOTAL FY2004-2026
FEDERAL					
	NHS	$ 18,060,000	$ 155,422,530	$ 163,069,468	$ 336,551,998
	CMAQ		$ 63,674	$ 48,980	$ 112,654
	STP	$ 15,950,400	$ 34,034,113	$ 38,449,626	$ 88,434,139
	Federal Subtotal	**$ 34,010,400**	**$ 189,520,317**	**$ 201,568,074**	**$ 425,098,791**
STATE					
	NHS Match	$ 4,515,000	$ 38,855,632	$ 40,767,367	$ 84,137,999
	CMAQ Match		$ 15,919	$ 12,245	$ 28,164
	STP Match	$ 3,987,600	$ 8,508,528	$ 9,612,406	$ 22,108,534
	STATE CONST	$ 26,608,333	$ -	$ -	$ 26,608,333
	State Subtotal	**$ 35,110,933**	**$ 47,380,079**	**$ 50,392,018**	**$ 132,883,030**
TOTAL POTENTIAL FUNDING		**$ 69,121,333**	**$ 236,900,396**	**$ 251,960,092**	**$ 557,981,821**

*2006 revenue from adding fy-04, fy-05 and fy-06

*$160,449,080 of the revenue in both 2007-2016 and 2017-2026 are associated with I-69 which is a congressionally promoted corridor. It is assumed this funding will be provided by congress once I-69 is officially designated.

*2016 revenue from adding committed funds from fy-07 through fy-10 to six years (fy-11 through fy-16) at seven-year average. The additional money represents the I-69 total.

*2026 revenue from seven year average (FY-04 through Fy-10). The additional money represents the I-69 total.

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(MPO Programmed Revenue) Table 38 details programmed and projected non-transit revenues by horizon years. The 2004-2006 allocations are from the 2004-2006 TIP. The estimated annual revenue for STP and CMAQ funds is the seven-year average of funds allocated over fiscal years 2000 through 2006.

Federal regulations on state STP Enhancement funding mandate that a state gets an amount equal to 10% of its total allocated STP money. There are no similar state guidelines so this methodology was used to forecast local STP Enhancement funding. The STP Enhancement seven-year average for each state is 10% of the amount of STP funds the MPO is allocated for that state.

Table 38

MPO PROGRAMMED & PROJECTED NON-TRANSIT REVENUE
Estimated Non-Transit Revenue 2004 - 2026
Long Range Transportation Plan

	2004-2006 TIP Allocations*	Estimated Annual Revenue*	Total 2007-2016	Total 2017-2026	Total 2004-2026
Tennessee (Shelby County & Fayette County)					
Local STP	$ 78,932,163	$ 10,700,000	$ 107,000,000	$ 107,000,000	$ 292,932,163
CMAQ	$ 28,519,100	$ 3,600,000	$ 36,000,000	$ 36,000,000	$ 100,519,100
STP Enhancement	$ 7,819,141	$ 1,000,000	$ 10,000,000	$ 10,000,000	$ 27,819,141
Total	**$ 115,270,404**	**$ 15,300,000**	**$ 153,000,000**	**$ 153,000,000**	**$ 421,270,404**
Local Match STP	$ 19,545,541	$ 2,675,000	$ 26,750,000	$ 26,750,000	$ 73,045,541
Local Match CMAQ	$ 2,339,000				$ 2,339,000
Local Match Enhancement	$ 1,954,784	$ 250,000	$ 2,500,000	$ 2,500,000	$ 6,954,784
Total Local Match	**$ 23,839,325**	**$ 2,925,000**	**$ 29,250,000**	**$ 29,250,000**	**$ 82,339,325**
Total Funds Tennessee	**$ 139,109,729**	**$ 18,225,000**	**$ 182,250,000**	**$ 182,250,000**	**$ 503,609,729**
Mississippi (DeSoto County)					
Local STP*	$ 4,255,395	$ 1,034,709	$ 12,524,485	$ 10,347,090	$ 27,126,970
STP Enhancement	$ -	$ 100,000	$ 1,000,000	$ 1,000,000	$ 2,000,000
Total	**$ 4,255,395**	**$ 1,134,709**	**$ 13,524,485**	**$ 11,347,090**	**$ 29,126,970**
Local Match STP*	$ 1,054,349	$ 258,677	$ 3,131,118	$ 2,586,770	$ 6,772,237
Local Match Enhancement	$ -	$ 25,000	$ 250,000	$ 250,000	$ 500,000
Total Local Match	**$ 1,054,349**	**$ 283,677**	**$ 3,381,118**	**$ 2,836,770**	**$ 7,272,237**
Total Funds Mississippi	**$ 5,309,744**	**$ 1,418,386**	**$ 16,905,603**	**$ 14,183,860**	**$ 36,399,207**

*Source of 2004-2006 TIP Allocations is the 2004-2006 TIP

*Estimated Annual Revenue based on a seven-year average of allocations from 2000 to 2006

*The 2016 DeSoto revenues include reserve funds of $2,177,395 Local STP funds and $544,348 Local Match STP funds.

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(Locally Programmed Revenues) ***(Table 39)***

- Local CIP funds
  Local jurisdictions reviewed past CIP budgets or funds committed to road construction if they do not have CIPs. The estimated annual average for the counties is the cumulative estimate of all jurisdictions in each county

  In Shelby County, the City of Memphis contributes the bulk of these CIP funds at $25 million followed by Shelby County at $8 million. The remaining jurisdictions in Shelby County contribute a cumulative $2.5 million annually. In DeSoto County $15 million annually is programmed for road construction. Fayette County has no CIP projects currently identified within the MPO area between 2007 and 2026. Future projects identified by Fayette County will be included in future plans.

- Private Funds
  Jurisdictions within the MPO have analyzed approved development applications over the past five to nine years and provided an average annual contribution of private development to the construction and acquisition of roadways in the area. The City of Memphis estimates that on average it receives $1.7 million annually in either construction or payments-in-lieu-of-construction from private development. The figure for the balance of Shelby County is $6.5 million dollars. DeSoto County estimates that $2 million annually is received. Fayette County, within the MPO area, has had few approved developments in recent years. The locally programmed projects identified in Fayette County will be dependent on private funds for development, according to Piperton officials (projects are in Piperton area).

Table 39

LOCAL JURISDICTION PROGRAMMED & PROJECTED NON-TRANSIT REVENUE
Estimated Non-Transit Revenue 2004 - 2026
Long Range Transportation Plan

	Total 2004-2006	Estimated Annual Revenue*	Total 2007-2016	Total 2017-2026	Total 2004-2026
Shelby County					
Local CIP	$ 106,437,766	$ 35,500,000	$ 355,000,000	$ 355,000,000	$ 816,437,766
Private Funds	$ 22,500,000	$ 8,200,000	$ 82,000,000	$ 82,000,000	$ 186,500,000
Total Funds Shelby County	**$ 128,937,766**	**$ 43,700,000**	**$ 437,000,000**	**$ 437,000,000**	**$ 1,002,937,766**
DeSoto County					
Local CIP	$ 6,000,000	$ 15,000,000	$ 150,000,000	$ 150,000,000	$ 306,000,000
Private Funds	$ 4,227,863	$ 2,000,000	$ 20,000,000	$ 20,000,000	$ 44,227,863
Total Funds DeSoto County	**$ 10,227,863**	**$ 17,000,000**	**$ 170,000,000**	**$ 170,000,000**	**$ 350,227,863**
Fayette County					
Local CIP	$ -	$ -	$ -	$ -	$ -
Private Funds	$ -	$ -	$ 11,879,387	$ 3,324,000	$ 15,203,387
Total Funds Fayette County	**$ -**	**$ -**	**$ 11,879,387**	**$ 3,324,000**	**$ 15,203,387**

*Estimated Annual Revenue based on a seven-year average of allocations from 2000 to 2006
*****CIP funds from Shelby County CIP, City of Memphis CIP, DeSoto County CIP, estimated revenue of all other local jurisdictions, and taxes dollars described in **Tables 32** and **Table 33.**
*Private funds is average past allocations based on a review done by local jurisdictions.

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Table 40 presents all of the revenues detailed above in one table by horizon years.

Table 40
TENNESSEE REVENUE
2004-2026 by Horizon Year

	TOTAL 2004-2006	TOTAL 2007-2016	TOTAL 2017-2026	TOTAL 2004-2026
Programmed by State of TN				
IM	$ 104,500,000	$ 282,500,000	$ 282,500,000	$ 669,500,000
NHS	$ 42,700,000	$ 155,286,000	$ 155,286,000	$ 353,272,000
NCPD	$ 60,000,000	$ 90,000,000	$ 90,000,000	$ 240,000,000
SSTP	$ 117,800,000	$ 320,799,000	$ 320,799,000	$ 759,398,000
CMAQ (State)	$ 1,100,000	$ 30,000,000	$ 30,000,000	$ 61,100,000
BRR-S	$ 60,000,000	$ 32,000,000	$ -	$ 92,000,000
CESA*	$ 3,000,000	$ 19,500,000	$ -	$ 22,500,000
Subtotal	**$ 389,100,000**	**$ 930,085,000**	**$ 878,585,000**	**$ 2,197,770,000**
Programmed by MPO				
CMAQ (Local)	$ 30,858,100	$ 36,000,000	$ 36,000,000	$ 102,858,100
LSTP	$ 98,477,704	$ 133,750,000	$ 133,750,000	$ 365,977,704
ENHANCEMENT	$ 9,773,925	$ 12,500,000	$ 12,500,000	$ 34,773,925
Subtotal	**$ 139,109,729**	**$ 182,250,000**	**$ 182,250,000**	**$ 503,609,729**
Programmed by Local Jurisdiction				
LOCAL (Shelby)	$ 128,937,766	$ 437,000,000	$ 437,000,000	$ 1,002,937,766
LOCAL (Fayette)	$ -	$ 11,879,387	$ 3,324,000	$ 15,203,387
TOTAL	**$ 657,147,495**	**$ 1,561,214,387**	**$ 1,501,159,000**	**$ 3,719,520,882**

*CESA (Congressional Earmark Special Appropriation)

MISSISSIPPI REVENUE
2004-2026 by Horizon Year

	TOTAL 2004-2006	TOTAL 2007-2016	TOTAL 2017-2026	TOTAL 2004-2026
Programmed by State of MS				
NHS*	$ 22,575,000	$ 194,278,162	$ 203,836,835	$ 420,689,997
MSSTP	$ 19,938,000	$ 42,542,641	$ 48,062,032	$ 110,542,673
CMAQ	$ -	$ 79,593	$ 61,225	$ 140,818
STATE CONSTRUCTION FUNDS	$ 26,608,333	$ -	$ -	$ 26,608,333
Subtotal	**$ 69,121,333**	**$ 236,900,396**	**$ 251,960,092**	**$ 557,981,821**
Programmed by MPO				
LSTP	$ 5,309,744	$ 15,655,603	$ 12,933,860	$ 33,899,207
ENHANCEMENT	$ -	$ 1,250,000	$ 1,250,000	$ 2,500,000
Subtotal	**$ 5,309,744**	**$ 16,905,603**	**$ 14,183,860**	**$ 36,399,207**
Programmed by Local Jurisdiction				
LOCAL	$ 10,227,863	$ 170,000,000	$ 170,000,000	$ 350,227,863
TOTAL	**$ 84,658,940**	**$ 423,805,999**	**$ 436,143,952**	**$ 944,608,891**

*NHS 2007-2026 assumes congressional funding for I-69 as NHS funding or equivalent.

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Non-Transit Operation and Maintenance Revenues

A combination of property tax, sales tax and state-shared taxes are used to fund operations and maintenance (see descriptions of sources in **Tables 32 & 33**). In the smaller municipalities and Fayette County, these revenues are administered through general budgets while the City of Memphis, Shelby County and DeSoto County use CIP programming in addition to general funds for O & M expenses. Additionally all local jurisdictions receive contributions from developers either in the form of dedication of rights-of-way and improvement of the roadway or a payment-in-lieu-of improvement requirement.

The assumption regarding O & M revenues is that sufficient funds will continue to be available for the 23 years of this plan because the sources of revenue will remain proportionate to jurisdiction size and will therefore continue to be sufficient to cover all expenses (**Table 41)**. This is assumed for both Tennessee and Mississippi.

Table 41

EXISTING SYSTEM AND PROJECTED O & M REVENUES: HORIZON YEAR TOTALS (Non-Transit)

	2004-2006	2007-2016	20017-2026	2004-2026 TOTAL
Jurisdiction				
State of Tennessee	**$ 54,000,000**	**$ 200,000,000**	**$ 245,000,000**	**$ 499,000,000**
Shelby County	$ 9,702,184	$ 46,254,598	$ 67,660,728	$ 123,617,510
Arlington	$ 1,093,947	$ 4,598,672	$ 6,063,569	$ 11,756,188
Bartlett	$ 8,948,165	$ 33,722,591	$ 39,715,472	$ 82,386,228
Collierville	$ 5,100,759	$ 23,357,972	$ 33,135,576	$ 61,594,307
Germantown	$ 4,633,224	$ 17,485,601	$ 20,626,403	$ 42,745,228
Lakeland	$ 779,221	$ 3,230,519	$ 4,204,545	$ 8,214,286
Memphis	$ 59,149,565	$ 206,364,114	$ 220,516,267	$ 486,029,946
Millington	$ 779,601	$ 3,155,528	$ 4,012,233	$ 7,947,363
TOTAL	**$ 90,186,666**	**$ 338,169,597**	**$ 395,934,792**	**$ 824,291,055**
Fayette County	$ 372,802	$ 1,455,050	$ 1,781,782	$ 3,609,634
Gallaway	$ 77,965	$ 309,567	$ 386,004	$ 773,536
Piperton	$ 46,209	$ 180,217	$ 220,506	$ 446,932
TOTAL	**$ 496,976**	**$ 1,944,834**	**$ 2,388,292**	**$ 4,830,101**
State of Mississippi	**$ 1,087,208**	**$ 4,406,270**	**$ 5,921,659**	**$ 11,415,137**
DeSoto County	$ 2,342,863	$ 9,821,575	$ 12,917,009	$ 25,081,448
Hernando	$ 2,518,657	$ 10,768,170	$ 14,418,398	$ 27,705,225
Horn Lake*	$ 1,776,693	$ 5,752,330	$ 7,542,102	$ 15,071,125
Olive Branch	$ 649,764	$ 2,724,091	$ 3,582,879	$ 6,956,733
Southaven	$ 3,007,764	$ 12,616,836	$ 16,602,925	$ 32,227,525
TOTAL	**$ 10,295,740**	**$ 41,683,003**	**$ 55,063,313**	**$ 107,042,056**
TOTAL MPO AREA REVENUES	**$ 156,066,590**	**$ 586,203,703**	**$ 704,308,056**	**$ 1,446,578,350**

3. Costs Versus Revenue Analysis

This section compares the identified costs with estimated available revenue (both presented above). **Table 42** analyzes capital costs versus revenue and **Table 43** analyzes operation and maintenance costs versus revenue. Each table is organized by the entity responsible for programming funds. Revenues and costs are presented by funding source and horizon year with a 2004-2026 plan total. These tables detail the fiscal constraint of this plan.

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Table 42

NON-TRANSIT CAPITAL COSTS VS. REVENUES BY HORIZON YEAR
Long Range Transportation Plan

Project Funding Sourc	2006 Cost	2006 Revenue	2006 Balance	2016 Cost	2016 Revenue	2016 Balance	2026 Cost	2026 Revenue	2026 Balance	2004-2026 Non-Transit Plan Summary Cost	2004-2026 Non-Transit Plan Summary Revenue	2004-2026 Non-Transit Plan Summary Balance
State of Tennessee												
IM	$ 104,500,000	$ 104,500,000	$ -	$ 272,500,000	$ 282,500,000	$ 10,000,000	$ 3,969,624	$ 282,500,000	$ 278,530,376	$ 380,969,624	$ 669,500,000	$ 288,530,376
NHS	$ 42,700,000	$ 42,700,000	$ -	$ 48,225,040	$ 155,286,000	$ 107,060,960	$ 886,830	$ 155,286,000	$ 154,399,170	$ 91,811,870	$ 353,272,000	$ 261,460,130
NCPD	$ 60,000,000	$ 60,000,000		$ 90,000,000	$ 90,000,000	$ -	$ 90,000,000	$ 90,000,000	$ -	$ 240,000,000	$ 240,000,000	$ -
SSTP	$ 117,800,000	$ 117,800,000	$ -	$ 320,799,000	$ 320,799,000	$ -	$ 188,584,625	$ 320,799,000	$ 132,214,375	$ 627,183,625	$ 759,398,000	$ 132,214,375
CMAQ	$ 1,100,000	$ 1,100,000	$ -	$ 30,000,000	$ 30,000,000	$ -	$ 30,000,000	$ 30,000,000	$ -	$ 61,100,000	$ 61,100,000	$ -
BRR-S	$ 60,000,000	$ 60,000,000	$ -	$ 32,000,000	$ 32,000,000	$ -	$ -	$ -	$ -	$ 92,000,000	$ 92,000,000	$ -
CESA	$ 3,000,000	$ 3,000,000	$ -	$ 19,500,000	$ 19,500,000	$ -	$ -	$ -	$ -	$ 22,500,000	$ 22,500,000	$ -
TOTAL	**$ 389,100,000**	**$ 389,100,000**	**$ -**	**$ 813,024,040**	**$ 930,085,000**	**$ 117,060,960**	**$ 313,441,079**	**$ 878,585,000**	**$ 565,143,921**	**$1,515,565,119**	**$2,197,770,000**	**$ 682,204,881**
State of Mississippi												
NHS	$ 1,686,600	$ 22,575,000	$ 20,888,400	$ 173,014,262	$ 194,278,162	$ 21,263,900	$ 166,449,080	$ 203,836,835	$ 37,387,755	$ 341,149,942	$ 420,689,997	$ 79,540,055
MSSTP	$ 5,152,333	$ 19,938,000	$ 14,785,667	$ 24,014,873	$ 42,542,641	$ 18,527,768	$ 45,375,898	$ 48,062,032	$ 2,686,134	$ 74,543,104	$ 110,542,673	$ 35,999,569
CMAQ	$ -	$ -	$ -	$ -	$ 79,593	$ 79,593	$ -	$ 61,225	$ 61,225	$ -	$ 140,818	$ 140,818
CASINO	$ 26,608,333	$ 26,608,333	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,608,333	$ 26,608,333	$ -
TOTAL	**$ 33,447,266**	**$ 69,121,333**	**$ 35,674,067**	**$ 197,029,135**	**$ 236,900,396**	**$ 39,871,261**	**$ 211,824,978**	**$ 251,960,092**	**$ 40,135,114**	**$ 442,301,379**	**$ 557,981,821**	**$ 115,680,442**
MPO												
TN CMAQ	$ 30,670,000	$ 30,858,100	$ 188,100	$ 36,000,000	$ 36,000,000	$ -	$ 35,371,600	$ 36,000,000	$ 628,400	$ 102,041,600	$ 102,858,100	$ 816,500
TN LSTP	$ 98,043,500	$ 98,477,704	$ 434,204	$ 133,317,676	$ 133,750,000	$ 432,324	$ 133,750,000	$ 133,750,000	$ -	$ 365,111,176	$ 365,977,704	$ 866,528
TN Enhancement	$ 9,773,925	$ 9,773,925	$ -	$ 3,480,431	$ 12,500,000	$ 9,019,569	$ -	$ 12,500,000	$ 12,500,000	$ 13,254,356	$ 34,773,925	$ 21,519,569
MS LSTP	$ 2,588,000	$ 5,309,744	$ 2,721,744	$ 13,557,901	$ 15,655,603	$ 2,097,702	$ 11,926,785	$ 12,933,860	$ 1,007,075	$ 28,072,686	$ 33,899,207	$ 5,826,521
MS Enhancement	$ -	$ -	$ -	$ -	$ 1,250,000	$ 1,250,000	$ -	$ 1,250,000	$ 1,250,000	$ -	$ 2,500,000	$ 2,500,000
TOTAL	**$ 141,075,425**	**$ 144,419,473**	**$ 3,344,048**	**$ 186,356,008**	**$ 199,155,603**	**$ 12,799,595**	**$ 181,048,385**	**$ 196,433,860**	**$ 15,385,475**	**$ 508,479,818**	**$ 540,008,936**	**$ 31,529,118**
Local												
Shelby	$ 20,638,801	$ 128,937,766	$ 108,298,965	$ 388,012,090	$ 437,000,000	$ 48,987,910	$ 424,268,463	$ 437,000,000	$ 12,731,537	$ 832,919,354	$1,002,937,766	$ 170,018,412
DeSoto	$ 10,227,863	$ 10,227,863	$ -	$ 126,704,181	$ 170,000,000	$ 43,295,819	$ 92,883,502	$ 170,000,000	$ 77,116,498	$ 229,815,546	$ 350,227,863	$ 120,412,317
Fayette	$ -	$ -	$ -	$ 11,879,387	$ 11,879,387	$ -	$ 3,324,000	$ 3,324,000	$ -	$ 15,203,387	$ 15,203,387	$ -
TOTAL	**$ 30,866,664**	**$ 139,165,629**	**$ 108,298,965**	**$ 526,595,658**	**$ 618,879,387**	**$ 92,283,729**	**$ 520,475,965**	**$ 610,324,000**	**$ 89,848,035**	**$1,077,938,287**	**$1,368,369,016**	**$ 290,430,729**
TOTAL NON-TRANSIT	**$ 594,489,355**	**$ 741,806,435**	**$ 147,317,080**	**$1,723,004,841**	**$1,985,020,386**	**$ 262,015,545**	**$1,226,790,407**	**$1,937,302,952**	**$ 710,512,545**	**$3,544,284,603**	**$4,664,129,773**	**$ 1,119,845,170**

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Table 43

NON-TRANSIT O & M COSTS VS. REVENUES BY HORIZON YEAR
Long Range Transportation Plan

Jurisdiction	2006 Cost	2006 Revenue	2006 Balance	2016 Cost	2016 Revenue	2016 Balance	2026 Cost	2026 Revenue	2026 Balance	2004-2026 Non-Transit Plan Summary Cost	2004-2026 Non-Transit Plan Summary Revenue	2004-2026 Non-Transit Plan Summary Balance
State of Tennessee	**$ 54,000,000**	**$ 54,000,000**	$ -	**$ 200,000,000**	**$ 200,000,000**	$ -	**$ 245,000,000**	**$ 245,000,000**	$ -	**$ 499,000,000**	**$ 499,000,000**	**$ -**
Shelby County	$ 9,702,184	$ 9,702,184	$ -	$ 46,254,598	$ 46,254,598	$ -	$ 67,660,728	$ 67,660,728	$ -	$ 123,617,510	$ 123,617,510	$ -
Arlington	$ 1,093,947	$ 1,093,947	$ -	$ 4,598,672	$ 4,598,672	$ -	$ 6,063,569	$ 6,063,569	$ -	$ 11,756,188	$ 11,756,188	$ -
Bartlett	$ 8,948,165	$ 8,948,165	$ -	$ 33,722,591	$ 33,722,591	$ -	$ 39,715,472	$ 39,715,472	$ -	$ 82,386,228	$ 82,386,228	$ -
Collierville	$ 5,100,759	$ 5,100,759	$ -	$ 23,357,972	$ 23,357,972	$ -	$ 33,135,576	$ 33,135,576	$ -	$ 61,594,307	$ 61,594,307	$ -
Germantown	$ 4,633,224	$ 4,633,224	$ -	$ 17,485,601	$ 17,485,601	$ -	$ 20,626,403	$ 20,626,403	$ -	$ 42,745,228	$ 42,745,228	$ -
Lakeland	$ 779,221	$ 779,221	$ -	$ 3,230,519	$ 3,230,519	$ -	$ 4,204,545	$ 4,204,545	$ -	$ 8,214,286	$ 8,214,286	$ -
Memphis	$ 59,149,565	$ 59,149,565	$ -	$ 206,364,114	$ 206,364,114	$ -	$ 220,516,267	$ 220,516,267	$ -	$ 486,029,946	$ 486,029,946	$ -
Millington	$ 779,601	$ 779,601	$ -	$ 3,155,528	$ 3,155,528	$ -	$ 4,012,233	$ 4,012,233	$ -	$ 7,947,363	$ 7,947,363	$ -
TOTAL	**$ 90,186,666**	**$ 90,186,666**	$ -	**$ 338,169,597**	**$ 338,169,597**	$ -	**$ 395,934,792**	**$ 395,934,792**	$ -	**$ 824,291,055**	**$ 824,291,055**	**$ -**
Fayette County	$ 372,802	$ 372,802	$ -	$ 1,455,050	$ 1,455,050	$ -	$ 1,781,782	$ 1,781,782	$ -	$ 3,609,634	$ 3,609,634	$ -
Gallaway	$ 77,965	$ 77,965	$ -	$ 309,567	$ 309,567	$ -	$ 386,004	$ 386,004	$ -	$ 773,536	$ 773,536	$ -
Piperton	$ 46,209	$ 46,209	$ -	$ 180,217	$ 180,217	$ -	$ 220,506	$ 220,506	$ -	$ 446,932	$ 446,932	$ -
TOTAL	**$ 496,976**	**$ 496,976**	$ -	**$ 1,944,834**	**$ 1,944,834**	$ -	**$ 2,388,292**	**$ 2,388,292**	$ -	**$ 4,830,101**	**$ 4,830,101**	**$ -**
State of Mississippi	**$ 1,087,208**	**$ 1,087,208**	$ -	**$ 4,406,270**	**$ 4,406,270**	$ -	**$ 5,921,659**	**$ 5,921,659**	$ -	**$ 11,415,137**	**$ 11,415,137**	**$ -**
DeSoto County	$ 2,342,863	$ 2,342,863	$ -	$ 9,821,575	$ 9,821,575	$ -	$ 12,917,009	$ 12,917,009	$ -	$ 25,081,448	$ 25,081,448	$ -
Hernando	$ 2,518,657	$ 2,518,657	$ -	$ 10,768,170	$ 10,768,170	$ -	$ 14,418,398	$ 14,418,398	$ -	$ 27,705,225	$ 27,705,225	$ -
Horn Lake*	$ 1,776,693	$ 1,776,693	$ -	$ 5,752,330	$ 5,752,330	$ -	$ 7,542,102	$ 7,542,102	$ -	$ 15,071,125	$ 15,071,125	$ -
Olive Branch	$ 649,764	$ 649,764	$ -	$ 2,724,091	$ 2,724,091	$ -	$ 3,582,879	$ 3,582,879	$ -	$ 6,956,733	$ 6,956,733	$ -
Southaven	$ 3,007,764	$ 3,007,764	$ -	$ 12,616,836	$ 12,616,836	$ -	$ 16,602,925	$ 16,602,925	$ -	$ 32,227,525	$ 32,227,525	$ -
TOTAL	**$ 10,295,740**	**$ 10,295,740**	$ -	**$ 41,683,003**	**$ 41,683,003**	$ -	**$ 55,063,313**	**$ 55,063,313**	$ -	**$ 107,042,056**	**$ 107,042,056**	**$ -**
TOTAL NON-TRANSIT	**$ 156,066,590**	**$ 156,066,590**	$ -	**$ 586,203,703**	**$ 586,203,703**	$ -	**$ 704,308,056**	**$ 704,308,056**	$ -	**$ 1,446,578,350**	**$ 1,446,578,350**	**$ -**

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B. Transit

This section details transit costs and revenues. It first presents the costs by horizon year in two categories, capital project costs and operations and maintenance costs. Estimated future revenues by source are then analyzed using those same two categories and horizon years. Finally, there is an overlay of costs and revenues portion, which demonstrates fiscal constraint of the transit investments in this plan.

1. Transit Costs

Transit costs are either considered "capital" (e.g., planning, engineering and construction and acquisition of facilities and equipment), or "operations and maintenance" (e.g., labor, fuel and materials). MATA has provided a detailed analysis of costs over the twenty-three years of this plan for both of these categories. The fixed guideway system that is being developed and the existing and planned bus system are examined.

Transit Capital Project Costs

Cost estimates for the various projects in the capital plan were taken from the following sources:

- **Fixed Guideways** - studies conducted by MATA on the Regional Rail Program which included corridor specific cost estimates for all projects.
- **Passenger Terminals** - historical information on the cost of previous similar projects supplemented by site-specific information generated by in-house analyses by MATA staff.
- **Other Capital Projects** - historical information on the cost of previous similar projects.

The total costs of each fixed guideway project along with passenger terminals and other capital projects are shown in **Table 44** below. Descriptions of these projects follow.

Table 44
Existing System and Projected Capital Costs: Horizon Year Totals (Transit)

	2006	2016	2026	Total
Fixed Guidway Projects				
Downtown-Airport Corridor	$104,648,317	$271,310,452	$0	$375,958,769
Southeast Corridor	$18,966,925	$0	$455,206,214	$474,173,139
South Corridor	$0	$0	$308,830,396	$308,830,396
North Corridor	$0	$0	$3,878,521	$3,878,521
Subtotal- Fixed Guideway	$123,615,242	$271,310,452	$767,915,131	$1,162,840,825
Passenger Terminals & Other Capital Projects	$24,993,046	$83,310,150	$83,310,150	$191,613,346
Total Capital	**$148,608,288**	**$354,620,602**	**$851,225,281**	**$1,354,454,171**

(Fixed Guideways) For the Fixed Guideway projects, an implementation schedule of eight years is assumed from the beginning of detailed planning studies to completion of construction. Planning activities include System Planning, Alternatives Analysis, and preparation of the Draft Environmental Impact Statement (EIS). Subsequent major phases include Preliminary Engineering, Final Design, and Construction. Based on the eight-year schedule, the major elements of work are expected to have durations as shown below.

Phases	**Approx. Duration**
Alternatives Analysis/Draft EIS	12 months/1 year
Preliminary Engineering/Final EIS and related activities	12 months/1 year
Final Design and related activities	24 months/2 years
Construction	48 months/4 years
Right-of-Way	
Utility Relocation	
Guideway/Systems/Station Construction	
Yard and Shop Construction	
Vehicles	

Project Management activities would take place throughout the project duration.

Costs are spread over the project period based on the following assumptions about the percentage of costs incurred in each phase in each year, as follows:

	Year	**% of Cost**
Alternatives Analysis/Draft EIS	1	1%
Preliminary Engineering/Final EIS and related activities	2	3%
Final Design and related activities	3	3%
	4	3%
Construction	5	20%
	6	35%
	7	20%
	8	15%

For the purpose of this analysis, it has been assumed that the fixed guideway corridors will be built out one at a time and proceeding through the same process and on the same schedule as described previously. It is further assumed that when one corridor nears the end of Final Design, System Planning will begin on the next priority corridor. Although no formal priorities have been established after the Downtown-Airport line, the build-out scenario presented below is based on the assumption that the corridor with the highest projected ridership per mile would be built first (remainder of the Southeast Corridor), followed by the second highest (South Corridor), and lastly, the lowest (North Corridor). The timetable for initiation of service on each of the lines is shown below.

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Corridor	Segment	Project Development Period Planning/ Engineering/Construction)
Southeast	Downtown-Airport	2002-2009
Southeast	Remainder of corridor to Collierville	2016-2022*
South	Downtown-Southaven	2018-2025
North	Downtown-Millington	2026-2033

*Alternatives Analysis/Draft EIS funded in 2006.

(Passenger Terminals and Other Capital Projects) The transit plan includes a system of five transit centers at various locations in suburban areas, a system of six park-and-ride lots focused on I-40 and I-55, and two major intermodal terminals. Also included are routine capital projects such as replacement of rolling stock and maintenance of infrastructure.

Transit Operations and Maintenance Costs

Cost estimates for the various elements of the transit operations and maintenance plan were taken from the following sources:

- **Existing System and Service Improvements** - MATA's existing annual operating budget. Historically, MATA manages its operating budget by continually evaluating effectiveness and efficiency of service delivery. Route changes are made semi-annually to align service with changing demand. It is assumed that the same approach will continue into the future and that proposed service improvements, except for fixed guideways, can be implemented within the existing budget.

- **Fixed Guideways** - studies conducted by MATA on the Regional Rail Program which included corridor specific operations and maintenance cost for all projects.

The total costs of operations and maintenance for each fixed guideway project along with passenger terminals and other capital projects are shown in **Table 45** below.

Table 45

Existing System and Projected Operations and Maintenance Costs: Horizon Year Totals (Transit)

	2006	2016	2026	Total
Existing system	$125,785,383	$419,284,610	$419,284,610	$964,354,603
Fixed Guidway Projects				
Medical Center Extension	$3,853,269	$12,844,230	$12,844,230	$29,541,729
Downtown-Airport Line	$0	$87,007,676	$124,296,680	$211,304,356
Southeast Corridor	$0	$0	$43,510,292	$43,510,292
South Corridor	$0	$0	$6,085,957	$6,085,957
North Corridor	$0	$0	$0	$0
Subtotal- Fixed Guideway	$3,853,269	$99,851,906	$186,737,159	$290,442,334
Total Operating	**$129,638,652**	**$519,136,516**	**$606,021,769**	**$1,254,796,937**

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2. Transit Revenues

The Memphis Area Transit Authority (MATA) currently derives its funding from three public sources. These sources are: (1) Federal Transit Administration (FTA), (2) City of Memphis, and (3) Tennessee Department of Transportation (TDOT). Brief descriptions of these sources follow.

Transit Revenue Sources

Funding shares by source differ greatly depending on whether the costs are considered capital or operations and maintenance. FTA is the predominant funding source for capital needs, with matching funds contributed by the City of Memphis and TDOT. The City of Memphis is the largest contributor of operations funding followed by TDOT. FTA provides no operating funds, although certain costs associated with preventive maintenance of capital assets and provision of paratransit service are eligible expenses under the capital program. MATA generates a portion of its operations and maintenance funding through passenger fares and other system-generated revenues, such as advertising.

(Federal Transit Administration Funding) The federal funding partner for capital costs of rail projects and other smaller capital improvements is FTA, an agency of the U.S. Department of Transportation. FTA programs are expected to provide capital funding for planning, engineering and construction of Major Capital Projects (Fixed Guideways and Passenger Terminals) and Other Capital Projects.

MATA is eligible for capital funding from several FTA programs: (1) Section 5307-Formula, (2) Section 5309-Fixed Guideway Modernization, (3) Section 5309-New Starts, and (4) Section 5309-Bus. Formula funds are distributed nationwide based on a formula that includes factors such as population, population density, miles of service, and ridership. Section 5309-Fixed Guideway Modernization funds are distributed by a formula to agencies that have rail systems that are more than seven years old for capital expenses on those rail lines. Section 5309-New Starts and Section 5309-Bus funds are discretionary in nature and are allocated for specific projects by FTA and Congress.

The Formula program generally funds on-going, routine capital needs, such as bus facilities, and equipment – both new assets and rehabilitation or replacement of existing assets. FTA provides 80% of the cost of items funded by the Formula program. Matching funds are provided by the City of Memphis and TDOT, generally at 10% each. A portion of these funds are transferred to MATA's operating budget and used to cover certain Preventive Maintenance and ADA Paratransit expenses. The Section 5309-Fixed Guideway Modernization program uses the same funding ratios of 80% federal/10% City/10% TDOT.

MATA's current major fixed guideway capital projects are funded by Section 5309-New Starts. These funds are allocated at the federal level on a competitive basis. Due to the

project-specific nature of this program, funding varies by year. The Medical Center Rail Extension project receives its federal funding from the New Starts program. The annual allocation of federal New Starts funds for this project is as follows:

Year	Federal Share
2000 and Prior	$ 9,885,848
2001	$ 5,943,856
2002	$18,978,554
2003	$15,353,721
2004 (proposed)	$ 9,200,000
Subtotal - Federal	$59,361,979
City of Memphis	$ 7,420,248
TDOT	$ 7,420,247
TOTAL	$74,202,474

The Medical Center Rail Extension is funded at 80% federal, 10% City of Memphis, and 10% TDOT.

MATA periodically receives funds from Section 5309-Bus, either through TDOT or as a direct appropriation. This program is also funded at 80%/10%/10%. In previous years, MATA has secured these funds directly for projects such as Central Station and the North End Terminal. In recent years, TDOT has lobbied for a statewide allocation through this source and divided the funds up among transit agencies in the state, generally to pay for bus purchases.

MATA's previous rail projects, The Main Street Trolley and Riverfront Loop Trolley, were funded with federal Interstate Transfer funds, a funding source that is no longer available.

With regard to operations and maintenance revenues from the federal level, MATA is currently receiving funding under the Job Access and Reverse Commute (JARC) program. These funds are primarily used to cover costs of supplemental bus service to connect people with jobs. MATA has typically used these funds to add late night and weekend service to job sites that were not well served during these time periods. Funds are distributed on a competitive basis and require a 50% non-federal match. MATA received $1,500,000 in federal funds in the most recent funding cycle. Matching funds are provided by TDOT and the City of Memphis.

(City of Memphis Funding) The local funding partner for all types of capital and operations and maintenance costs is the City of Memphis. MATA hopes to partner with other cities and counties in the Memphis region during the plan period in order to continue implementing other rail projects that extend outside the limits of the City of Memphis. The City of Memphis is expected to continue to provide matching funds for capital costs, and a portion of the funds for operation and maintenance of the entire transit system.

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The City's CIP is a multi-year plan for capital expenditures to replace and expand the City's infrastructure, vehicles and equipment. The current CIP covers the five-year period of Fiscal Year 2004 through Fiscal Year 2008. The City's overall capital budget for Fiscal Year 2004 is approximately $160 million, of which about $115 million is City funds and about $45 million is from other sources, primarily federal funds.

MATA's allocation of $8.6 million represents about 5% of the City Funds in the CIP budget for Fiscal Year 2004.

The City's overall operations and maintenance budget for Fiscal Year 2004 is approximately $483 million. MATA received $14 million in 2004 for operating costs, or about 3% of the City Operating budget.

(Tennessee Department of Transportation Funding) The state funding partner for all types of capital and operations and maintenance costs is TDOT. TDOT is expected to provide matching funds for capital costs and a portion of the funds for operation and maintenance of the entire transit system.

The Office of Public Transportation manages TDOT's Mass Transit budget. The state-only funds in TDOT's Fiscal Year 2003-2004 budget are $28,188,000. TDOT's Mass Transit budget includes both operating funds and capital funds. TDOT also administers federal funds for the smaller systems in the state. The total Mass Transit budget, including these federal funds, is about $50 million in the current fiscal year. The Mass Transit budget does not include federal funds that are granted directly to the larger local transit agencies in the state, such as MATA. TDOT provides operating assistance and a portion of the matching funds on capital grants to MATA.

Transit Capital Projected Revenues

The assumptions for funding of transit capital projects are as follows:

- **Fixed Guideways** - federal Section 5309-New Starts funding can be secured to cover 50% of the cost of most fixed guideway projects in this plan. This has been determined to be a reasonable assumption based on MATA's past success in obtaining federal funds for major fixed guideway projects. It is further assumed that local and state sources will be available to cover the non-federal share. This assumption has been determined to be reasonable based on current commitments by the City of Memphis and TDOT for studies for the Regional Rail Program and on-going efforts to solidify these same commitments for future phases of the program. Further, it has been assumed that increases in local and state funds from existing sources, can meet the capital requirements as called for in this plan.

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- **Passenger Terminals** - federal Section 5307-Formula funding provided to MATA on an annual basis will provide adequate funds to implement the transit centers, park-and-ride lots and intermodal terminals included in the plan. Existing local and state sources, at 10% each, will continue to be provided to match the 80% federal share for this program.

  The Arena Intermodal Transfer Facility, currently under construction, is funded with Discretionary Surface Transportation Program funds and is being developed by others at no cost to MATA. The South Intermodal Terminal is funded by a combination of Section 5307-Formula, 5309-Bus (through an allocation from TDOT), and funding from an intercity bus operator. Federal funds (80%) will be matched by the City of Memphis and TDOT. Federal discretionary Section 5309-Bus funds or other non-recurring sources may become available to help support this element of the program, but are not required to insure its implementation.

- **Other Capital Projects** - federal Section 5307-Formula funding provided to MATA on an annual basis will provide adequate funds to maintain MATA's existing and expanded vehicle fleet and infrastructure. Existing local and state sources, at 10% each, will continue to be provided to match the 80% federal share for this program.

In addition to supporting Passenger Terminal projects and Other Capital Projects, a portion of the annual Section 5307-Formula funding has also historically been used to offset costs associated with preventive maintenance of the existing fleet and provision of ADA paratransit service. The financial plan assumes that the share of Section 5307-Formula funds used to support preventive maintenance and ADA paratransit service are frozen at existing levels, i.e., funding for capital projects will remain at current levels and will not decrease in the future.

- **Federal Highway Transportation Funds (Non-Transit)** - As discussed in the revenue portion of the Non-Transit section of this chapter, there are several key federal funding sources that can be used to transit investments. In the Non-Transit revenue section, IM, NHS, and STP funds are projected to result in a positive balance of $682,204,881 after accounting for all Non-Transit investments over the life of the plan. These funds are eligible for transit funding and are a major source of funding for the transit capital portion of this long range transportation plan.

- **Local Funds** - As discussed in the revenue portion of the Non-Transit section of this chapter, there are numerous existing local funding sources in place. Traditionally, these funds have predominately been used for Non-Transit investments. However, these funds could (and have) been used for transit investments in the past by MPO area jurisdictions. In the Non-Transit revenue section, existing local funds are projected to result in a positive balance of $170,018,412 accounting for all Non-Transit investments over the life of the plan.

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These funds are eligible for transit funding and are a major source of local funding for the transit capital and operating portion of this long range transportation plan.

Additionally, new local funding sources will have to be secured to implement the transit portion of this plan. Based on available options for securing adequate local revenues, four local funding options have been identified generating an additional $204,100,000 in new local funds. Further details on these new local funds are discussed in detail later in this chapter.

Estimated transit revenues by horizon year are detailed for capital projects in **Table 46**.

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TABLE 46
Total Memphis MPO Programmed and Projected Transit Capital Revenue 2004-2026
Long Range Transportation Plan

Capital Funding - 2006 10

Project	FTA 5307 - Formula 80% (Federal)	FTA 5307 - Match 10% (State)	FTA 5307 - Match 10% (Local)	FTA 5307 (Total)	FTA 5309 New Start 50% (Federal)	FTA 5309 New Start 50% (Local)	FTA 5309 New Start (Total)	Non-Transit Sources 80% (Federal) - IM, NHS, STP	Non-Transit Sources 10% (State)	Non-Transit Sources 10% (Local)	Non-Transit Sources IM, NHS, STP (Total)	Total
Passenger Terminals and Other Capital Expen	$ 19,994,437	$ 2,499,305	$ 2,499,305	$ 24,993,046	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 24,993,046
Fixed Guideway - Southeast Corridor (Downt	$ -	$ -	$ -	$ -	$ 52,324,159	$ 52,324,159	$104,648,317	$ -	$ -	$ -	$ -	$ 104,648,317
Fixed Guideway - Southeast Corridor (remain	$ -	$ -	$ -	$ -	$ 9,483,463	$ 9,483,463	$ 18,966,925	$ -	$ -	$ -	$ -	$ 18,966,925
Fixed Guideway - South Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fixed Guideway - North Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capital Costs	**$ 19,994,437**	**$ 2,499,305**	**$ 2,499,305**	**$ 24,993,046**	**$ 61,807,621**	**$ 61,807,621**	**$123,615,242**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 148,608,288**

Capital Funding - 2016

Project	FTA 5307 - Formula 80% (Federal)	FTA 5307 - Match 10% (State)	FTA 5307 - Match 10% (Local)	FTA 5307 (Total)	FTA 5309 New Start 50% (Federal)	FTA 5309 New Start 50% (Local)	FTA 5309 New Start (Total)	Non-Transit Sources 80% (Federal) - IM, NHS, STP	Non-Transit Sources 10% (State)	Non-Transit Sources 10% (Local)	Non-Transit Sources IM, NHS, STP (Total)	Total
Passenger Terminals and Other Capital Expen	$ 66,648,120	$ 8,331,015	$ 8,331,015	$ 83,310,150	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 83,310,150
Fixed Guideway - Southeast Corridor (Downt	$ -	$ -	$ -	$ -	$ 77,124,746	$ 77,124,746	$154,249,492	$ 93,648,768	$ 11,706,096	$ 11,706,096	$117,060,960	$ 271,310,452
Fixed Guideway - Southeast Corridor (remain	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fixed Guideway - South Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fixed Guideway - North Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capital Costs	**$ 66,648,120**	**$ 8,331,015**	**$ 8,331,015**	**$ 83,310,150**	**$ 77,124,746**	**$ 77,124,746**	**$154,249,492**	**$ 93,648,768**	**$ 11,706,096**	**$ 11,706,096**	**$117,060,960**	**$ 354,620,602**

Capital Funding - 2026

Project	FTA 5307 - Formula 80% (Federal)	FTA 5307 - Match 10% (State)	FTA 5307 - Match 10% (Local)	FTA 5307 (Total)	FTA 5309 New Start 50% (Federal)	FTA 5309 New Start 50% (Local)	FTA 5309 New Start (Total)	Non-Transit Sources 80% (Federal) - IM, NHS, STP	Non-Transit Sources 10% (State)	Non-Transit Sources 10% (Local)	Non-Transit Sources IM, NHS, STP (Total)	Total
Passenger Terminals and Other Capital Expen	$ 66,648,120	$ 8,331,015	$ 8,331,015	$ 83,310,150	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 83,310,150
Fixed Guideway - Southeast Corridor (Downt	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fixed Guideway - Southeast Corridor (remain	$ -	$ -	$ -	$ -	$100,000,000	$100,000,000	$200,000,000	$204,164,971	$ 25,520,621	$ 25,520,621	$255,206,214	$ 455,206,214
Fixed Guideway - South Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$247,064,317	$ 30,883,040	$ 30,883,040	$308,830,396	$ 308,830,396
Fixed Guideway - North Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,102,817	$ 387,852	$ 387,852	$ 3,878,521	$ 3,878,521
Total Capital Costs	**$ 66,648,120**	**$ 8,331,015**	**$ 8,331,015**	**$ 83,310,150**	**$100,000,000**	**$100,000,000**	**$200,000,000**	**$454,332,105**	**$ 56,791,513**	**$ 56,791,513**	**$567,915,131**	**$ 851,225,281**

Capital Funding - Total (All Horizon Years)

Project	FTA 5307 - Formula 80% (Federal)	FTA 5307 - Match 10% (State)	FTA 5307 - Match 10% (Local)	FTA 5307 (Total)	FTA 5309 New Start 50% (Federal)	FTA 5309 New Start 50% (Local)	FTA 5309 New Start (Total)	Non-Transit Sources 80% (Federal) - IM, NHS, STP	Non-Transit Sources 10% (State)	Non-Transit Sources 10% (Local)	Non-Transit Sources IM, NHS, STP (Total)	Total
Passenger Terminals and Other Capital Expen	$153,290,677	$ 19,161,335	$ 19,161,335	$ 191,613,346	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 191,613,346
Fixed Guideway - Southeast Corridor (Downt	$ -	$ -	$ -	$ -	$129,448,905	$129,448,905	$258,897,809	$ 93,648,768	$ 11,706,096	$ 11,706,096	$117,060,960	$ 375,958,769
Fixed Guideway - Southeast Corridor (remain	$ -	$ -	$ -	$ -	$109,483,463	$109,483,463	$218,966,925	$204,164,971	$ 25,520,621	$ 25,520,621	$255,206,214	$ 474,173,139
Fixed Guideway - South Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$247,064,317	$ 30,883,040	$ 30,883,040	$308,830,396	$ 308,830,396
Fixed Guideway - North Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,102,817	$ 387,852	$ 387,852	$ 3,878,521	$ 3,878,521
Total Capital Costs	**$153,290,677**	**$ 19,161,335**	**$ 19,161,335**	**$ 191,613,346**	**$238,932,367**	**$238,932,367**	**$477,864,734**	**$547,980,873**	**$ 68,497,609**	**$ 68,497,609**	**$684,976,091**	**$ 1,354,454,171**

Source	2006	2016	2026	Total
Local - Existing - Transit	$ 27,499,305	$ 33,331,015	$ 35,122,528	$ 95,952,848
Local - Existing Non-Transit	$ 36,807,621	$ 36,706,096	$ 55,958,202	$ 129,471,919
Local - New	$ -	$ 27,124,746	$ 74,041,798	$ 101,166,544
State - Existing	$ 2,499,305	$ 20,037,111	$ 65,122,528	$ 87,658,944
Federal - FTA	$ 81,802,058	$ 143,772,866	$ 166,648,120	$ 392,223,044
Federal - Non-Transit (IM, NHS, STP)	$ -	$ 93,648,768	$ 454,332,105	$ 547,980,873
Total	**$148,608,288**	**$ 354,620,602**	**$ 851,225,281**	**$ 1,354,454,171**

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Operations and Maintenance Revenue

The assumptions for funding of operating activities are as follows:

- **Existing System and Service Improvements**
  The costs associated with operation and maintenance of the various services that MATA provides is estimated based on hours of service, calculated from operating parameters including frequency of service by time period during the day, and span of service by day of the week. The average cost per hour (including operations and maintenance) is then multiplied by hours to derive total operating costs on a yearly basis. Existing sources of funding at existing levels of funding will be adequate to finance this element of the plan. Federal preventive maintenance and ADA paratransit funds from the Section 5307-Formula program will continue at the current levels. Other service that is funded fully or partially by special grants (such as Job Access Reverse Commute) or private contributions will continue as along as the earmarked funding sources remain in place. It is assumed that passenger fares and other system generated revenues will continue to cover 28% of operating costs.

- **Fixed Guideways** - revenues to cover the cost of new fixed guideway lines will be provided by a combination of passenger fares and other system generated revenues, existing and new local funding sources, and existing and new state funding sources. It is assumed that passenger fares and other system-generated revenues will cover 28% of operating costs. Local and state sources will cover the remainder, at shares of 75% and 25%, respectively, which is about the same split as it is currently. Like the fixed guideway element of the capital program, it is assumed that higher levels of existing local and state sources will be adequate to support the system until the three regional lines -- Southeast (except for Downtown-Airport line), South and North -- begin implementation. At that time one or more new funding sources will be needed.

Table 47 details operation and maintenance funding by horizon year. A description of this funding follows the table.

TABLE 47
Total Memphis MPO Programmed and Projected Transit O & M Revenue
2004-2026
Long Range Transportation Plan

Operating Funding - 2006

Project	FTA Federal 5307 (Formula)	State (TDOT) Sources	Local Existing Sources	Fares and Other Sources	Total
Existing System and Service Improvements	$ 19,440,192	$ 16,196,934	$ 52,950,000	$ 37,198,257	$ 125,785,383
Fixed Guideway - Medical Center Rail Extension	$ -	$ 693,588	$ 2,080,765	$ 1,078,915	$ 3,853,269
Fixed Guideway - Southeast Corridor (Downtown-Airport)	$ -	$ -	$ -	$ -	$ -
Fixed Guideway - Southeast Corridor (remainder)	$ -	$ -	$ -	$ -	$ -
Fixed Guideway - South Corridor	$ -	$ -	$ -	$ -	$ -
Fixed Guideway - North Corridor	$ -	$ -	$ -	$ -	$ -
Total Operating Costs	$ 19,440,192	$ 16,890,522	$ 55,030,765	$ 38,277,172	$ 129,638,652

Operating Funding - 2016

Project	FTA Federal 5307 (Formula)	State (TDOT) Existing Sources	Local Existing Sources	Fares and Other Sources	Total
Existing System and Service Improvements	$ 64,800,640	$ 53,989,780	$ 176,500,000	$ 123,994,190	$ 419,284,610
Fixed Guideway - Medical Center Rail Extension	$ -	$ 2,311,961	$ 6,935,884	$ 3,596,384	$ 12,844,230
Fixed Guideway - Southeast Corridor (Downtown-Airport)	$ -	$ 15,661,382	$ 46,984,145	$ 24,362,149	$ 87,007,676
Fixed Guideway - Southeast Corridor (remainder)	$ -	$ -	$ -	$ -	$ -
Fixed Guideway - South Corridor	$ -	$ -	$ -	$ -	$ -
Fixed Guideway - North Corridor	$ -	$ -	$ -	$ -	$ -
Total Operating Costs	$ 64,800,640	$ 71,963,123	$ 230,420,029	$ 151,952,724	$ 519,136,516

Operating Funding - 2026

Project	FTA Federal 5307 (Formula)	State (TDOT) Existing Sources	Local Existing Sources	Fares and Other Sources	Total
Existing System and Service Improvements	$ 64,800,640	$ 53,989,780	$ 176,500,000	$ 123,994,190	$ 419,284,610
Fixed Guideway - Medical Center Rail Extension	$ -	$ 2,311,961	$ 6,935,884	$ 3,596,384	$ 12,844,230
Fixed Guideway - Southeast Corridor (Downtown-Airport)	$ -	$ 22,373,402	$ 67,120,207	$ 34,803,070	$ 124,296,680
Fixed Guideway - Southeast Corridor (remainder)	$ -	$ -	$ 31,327,410	$ 12,182,882	$ 43,510,292
Fixed Guideway - South Corridor	$ -	$ -	$ 4,381,889	$ 1,704,068	$ 6,085,957
Fixed Guideway - North Corridor	$ -	$ -	$ -	$ -	$ -
Total Operating Costs	$ 64,800,640	$ 78,675,144	$ 286,265,390	$ 176,280,595	$ 606,021,769

Operating Funding - Total (All Horizon Years)

Project	FTA Federal 5307 (Formula)	State (TDOT) Existing Sources	Local Existing Sources	Fares and Other Sources	Total
Existing System and Service Improvements	$ 149,041,472	$ 124,176,494	$ 405,950,000	$ 285,186,637	$ 964,354,603
Fixed Guideway - Medical Center Rail Extension	$ -	$ 5,317,511	$ 15,952,534	$ 8,271,684	$ 29,541,729
Fixed Guideway - Southeast Corridor (Downtown-Airport)	$ -	$ 38,034,784	$ 114,104,352	$ 59,165,220	$ 211,304,356
Fixed Guideway - Southeast Corridor (remainder)	$ -	$ -	$ 31,327,410	$ 12,182,882	$ 43,510,292
Fixed Guideway - South Corridor	$ -	$ -	$ 4,381,889	$ 1,704,068	$ 6,085,957
Fixed Guideway - North Corridor	$ -	$ -	$ -	$ -	$ -
Total Operating Costs	$ 149,041,472	$ 167,528,789	$ 571,716,185	$ 366,510,491	$ 1,254,796,937

Source	2006	2016	2026	Total
Local - Existing - Transit	$ 55,030,765	$ 230,420,029	$ 250,556,091	$ 536,006,886
Local - Existing Non-Transit	$ -	$ -	$ 35,709,299	$ 35,709,299
Fares and Other Sources	$ 38,277,172	$ 151,952,724	$ 176,280,595	$ 366,510,491
State - Existing	$ 16,890,522	$ 71,963,123	$ 78,675,144	$ 167,528,789
Federal - FTA	$ 19,440,192	$ 64,800,640	$ 64,800,640	$ 149,041,472
Total	**$ 129,638,652**	**$ 519,136,516**	**$ 606,021,768**	**$ 1,254,796,937**

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The operations and maintenance plan is based on a strategy of modest increases in the existing transit system and introduction of light rail service in each of the fixed guideway corridors of the plan. Increases in bus service will be made to provide service to new suburban growth areas, and to realign service within the existing service area to address changing demand. Fixed guideway service will be introduced as construction is completed in each corridor. Although no formal priorities have been established after the Downtown-Airport line, the build-out scenario presented below is based on the assumption that the corridor with the highest projected ridership per mile based on MATA's Long Range Transit Plan would be built first (remainder of the Southeast Corridor), followed by the second highest (South Corridor), and lastly, the lowest (North Corridor).

Corridor	Segment	Beginning of Service
Southeast	Downtown-Airport	2010
Southeast	Remainder of corridor to Collierville	2023
South	Downtown-Southaven	2026
North	Downtown-Millington	2034

Funding for operation and maintenance costs consists of the following sources:

1. Passenger fares,
2. Other system-generated revenues,
3. Federal grants,
4. State sources of operating assistance, and
5. Local sources of operating assistance.

MATA depends upon other government entities for three of the five major sources of funding – federal, state and local. MATA has indirect control over passenger revenues and other system-generated revenues through its fare policies and other efforts to sell advertising space, and lease its facilities. The additional funding potential from fares, sales, and leases will not be adequate to cover the additional operating costs associated with service improvements recommended in the plan. Therefore, increases in funding from government entities will be required.

Fare revenues and system-generated revenues are assumed to cover 28% of operating costs – about the same percentage as it is currently.

Operating subsidies will need to be covered by state and/or local sources. State sources would likely be limited to TDOT. Higher levels of funding could be provided from an overall increase in the share of the TDOT budget that is allocated to transit statewide, or dedication of a specific revenue source (existing or new) collected at the state level for transit. At the local level, the City of Memphis would have the same basic options -- allocate a larger share of its annual operating budget to MATA, or provide a dedicated revenue source that is earmarked for MATA. Another option would be to collect

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revenues from other local governments in the region, either at the county level or from individual municipalities.

For the purpose of this plan, it is assumed that the cost of service increases in bus, paratransit and downtown trolley modes can be absorbed with existing funding sources and fare revenues with no major policy changes. The additional funding needed to operate the fixed guideway projects would be shared between local sources (the City of Memphis and other jurisdictions that choose to participate) at 75% and TDOT at 25%. This is about the same funding split as existing operating subsidies from the City of Memphis and TDOT. It is further assumed that funding for Preventive Maintenance and ADA Paratransit (from Section 5307-Formula) are frozen at existing levels, i.e., no additional Section 5307-Formula funds will be used to cover costs associated with expanded services.

3. Costs Versus Revenue Analysis

Funding support for the transit plan will take the form of increased financial commitments from the City of Memphis, other local governments in the Memphis region, and/or the State of Tennessee. These financial commitments should generate enough revenue to support on-going operations as well as allow future expansion of the fixed guideway system with federal funding at about 50% of capital costs. Ideally, the added funding would be in the form of one or more dedicated funding sources that are earmarked for transit use. The local dedicated funding source could be provided directly to MATA or reserved by a government agency and made available to MATA.

The *Tennessee Twenty-Five Year Transit Plan*, conducted by the TDOT in 2003 identified the following possible sources for additional funding for transit, either at the state level or the local level:

Potential State Sources
Gasoline Tax
Non-Gas Motor Fuel Tax
Motor Fuel Sales
Vehicle License Fee/Emissions Fee
Vehicle Excise Tax/Personal Property Tax
Single Article Sales Tax

Potential Local Sources
General Sales Tax
Wheel Tax/Vehicle License Tax
Vehicle Excise Tax/Personal Property Tax
Motor Fuel Tax
Motor Fuel Sales Tax

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Of these potential sources, four funding sources have been identified as offering the greatest likelihood of funds for transit investments in the MPO area and for that reason are part of the transit funding plan.

The following is discussion and analysis of these preferred revenue sources. For purposes of this plan, revenue forecasts in this section were only derived for Shelby County to demonstrate that reasonable funding is available for transit investments as contained in the fiscally constrained portion of this plan.

General Sales Tax -
Local option sales taxes can be levied at the local level with voter approval, capped at a maximum rate of 2.75%. Currently Shelby County levies 2.25%, which could be increased by an additional 0.50%

Based on the recently completed *Tennessee Twenty-Five Year Transit Plan*, if Shelby County levied an additional 0.1% as part of its local option sales tax $75.9 million in additional revenue could be generated over twenty five years in Shelby County.

Wheel Tax/Vehicle License Fee –
State law allows counties to levy an annual vehicle fee, referred to as the wheel tax, with voter approval, or a 2/3 vote of the county governing board. The wheel tax is a flat fee paid as part of the annual vehicle licensing and registration process. Counties may designate the proceeds from the wheel tax to transportation purposes.

Based on the recently completed *Tennessee Twenty-Five Year Transit Plan*, if Shelby County levied an additional $10 per vehicle $41.5 million in additional revenue could be generated over twenty-five years in Shelby County.

Vehicle Excise/Personal Property Tax –
Cities, counties, and special school districts in Tennessee can levy Local property taxes. Across Tennessee, property tax rates for 2002 ranged from a low of $.081 per $100 of assessed value to $3.94 per $100 of assessed value.

Based on the recently completed *Tennessee Twenty-Five Year Transit Plan*, if Shelby County levied an additional 0.1% increase $57.9 million in additional revenue could be generated over twenty five years in Shelby County.

Motor Fuel Tax (All Types) –
There are several motor fuels that the state levies in Tennessee. These fuels include gasoline, diesel motor fuel, petroleum, and natural gas. A local option gas tax is currently authorized at $0.01 per gallon with local voter approval.

Based on the recently completed *Tennessee Twenty-Five Year Transit Plan*, if

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Shelby County levied an additional $0.01 per gallon $28.8 million in additional revenue could be generated over twenty-five years in Shelby County.

If all four local funding options were pursued, $204,100,000 in additional local revenues could be generated for the proposed transit investments in this plan. Additionally, the financial element for Non-Transit financial plan provides $682,204,881 in un-budgeted Interstate Maintenance (IM) funds, National Highway System (NHS) funds, and Surface Transportation Program (STP) funds (non-transit funds). The combination of these new/flexed transit resources demonstrates fiscal constraint of the transit investments in the Rail Alternative with the exception of the North rail corridor.

A summary of costs and funding sources for all elements of the plan are presented in **Table 48**. MATA has received strong support from the City of Memphis and State of Tennessee in recent years, both in terms of the capital funding and operating funding. In terms of capital, both entities have provided funds every year for decades to match MATA's formula grants and, in addition, have provided matching funds for major capital projects such as the Main Street Trolley, Riverfront Loop Trolley, Medical Center Rail Extension, Central Station, and North End Terminal. Further, study funds for the Downtown-Airport Corridor have been provided at a level of 25% each.

As transit investments move forward the MPO and MATA will work to secure the additional increases in funding. By the time major investments for fixed guideways reach the construction stage, institutional arrangements will have to be in place to allow MATA to continue expanding its fixed guideway system as well as operate its bus, paratransit, and rail system at levels adequate to meet transit demand in the region.

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Table 48
TRANSIT CAPITAL AND O & M COSTS VERSUS REVENUES BY HORIZON YEAR
LONG RANGE TRANSPORTATION PLAN

TRANSIT Project	2006 Cost	2006 Revenue	2006 Balance	2016 Cost	2016 Revenue	2016 Balance	2026 Cost	2026 Revenue	2026 Balance	2004-2026 Non-Transit Plan Summary Cost	2004-2026 Non-Transit Plan Summary Revenue	2004-2026 Non-Transit Plan Summary Balance
Capital												
Passenger Terminals and Other Capital Expenses	$ 24,993,046	$ 24,993,046	$ -	$ 83,310,150	$ 83,310,150	$ -	$ 83,310,150	$ 83,310,150	$ -	$ 191,613,346	$ 191,613,346	$ -
Fixed Guideway-Southeast Corridor (Downtown-Airport)	$ 104,648,317	$ 104,648,317	$ -	$ 271,310,452	$ 271,310,452	$ -	$ -	$ -	$ -	$ 375,958,769	$ 375,958,769	$ -
Fixed Guideway-Southeast Corridor (remainder)	$ 18,966,925	$ 18,966,925	$ -	$ -	$ -	$ -	$ 455,206,214	$ 455,206,214	$ -	$ 474,173,139	$ 474,173,139	$ -
Fixed Guideway-South Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ 308,830,396	$ 308,830,396	$ -	$ 308,830,396	$ 308,830,396	$ -
Fixed Guideway-North Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,878,521	$ 3,878,521	$ -	$ 3,878,521	$ 3,878,521	$ -
TOTAL	**$ 148,608,288**	**$ 148,608,288**	**$ -**	**$ 354,620,602**	**$ 354,620,602**	**$ -**	**$ 851,225,281**	**$ 851,225,281**	**$ -**	$1,354,454,171	$1,354,454,171	$ -
O & M												
Existing System and Service Improvements	$ 125,785,383	$ 125,785,383	$ -	$ 419,284,610	$ 419,284,610	$ -	$ 419,284,610	$ 419,284,610	$ -	$ 964,354,603	$ 964,354,603	$ -
Medical Center Extension	$ 3,853,269	$ 3,853,269	$ -	$ 12,844,230	$ 12,844,230	$ -	$ 12,844,230	$ 12,844,230	$ -	$ 29,541,729	$ 29,541,729	$ -
Fixed Guideway-Southeast Corridor (Downtown-Airport)	$ -	$ -	$ -	$ 87,007,676	$ 87,007,676	$ -	$ 124,296,680	$ 124,296,680	$ -	$ 211,304,356	$ 211,304,356	$ -
Fixed Guideway-Southeast Corridor (remainder)	$ -	$ -	$ -	$ -	$ -	$ -	$ 43,510,292	$ 43,510,292	$ -	$ 43,510,292	$ 43,510,292	$ -
Fixed Guideway-South Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,085,957	$ 6,085,957	$ -	$ 6,085,957	$ 6,085,957	$ -
Fixed Guideway-North Corridor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL	**$ 129,638,652**	**$ 129,638,652**	**$ -**	**$ 519,136,516**	**$ 519,136,516**	**$ -**	**$ 606,021,769**	**$ 606,021,769**	**$ -**	$1,254,796,937	$1,254,796,937	$ -
TOTAL TRANSIT SYSTEM	**$ 556,493,880**	**$ 556,493,880**	**$ -**	**$1,747,514,236**	**$1,747,514,236**	**$ -**	**$2,914,494,100**	**$2,914,494,100**	**$ -**	**$5,218,502,216**	**$5,218,502,216**	**$ -**

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C. Demonstration of Fiscal Constraint

As federal regulations dictate, this chapter has provided "a financial plan that demonstrates the consistency of proposed transportation investments with already available and projected sources of revenue." Costs and revenues were projected by source for both the non-transit and transit aspects of this LRTP. The non-transit cost versus revenue analysis showed that existing and projected revenues will cover the vast majority of forecasted capital and operations and maintenance costs, however, increased existing or dedicated funding will be necessary in the later portion of the planning horizon.

Table 49 illustrates that the North Rail Corridor can not be fully funded during the long range plan horizon. For that reason, the North Corridor has been placed on the illustrative list "wish list" for consideration when funding becomes available.

Table 49

Fiscally Constrained 2026 Transportation Plan

		Fiscally Unconstrained		Fiscally Constrained
Transportation Revenue				
Non-Transit				
State of Tennessee Prog	$	2,696,770,000	$	2,696,770,000
State of Mississippi Prog	$	569,396,958	$	569,396,958
MPO Prog	$	540,008,936	$	540,008,936
Locally Prog	$	2,304,532,229	$	2,304,532,229
Transit				
Federal	$	541,274,516	$	541,264,516
State	$	255,187,733	$	255,187,733
Local	$	998,470,225	$	998,470,225
New				
Local	$	204,100,000	$	204,100,000
Subtotal	**$**	**8,109,740,597**	**$**	**8,109,730,597**
Transportation Expenditures				
Non-Transit Capital	$	3,544,284,603	$	3,544,284,603
Non-Transit O & M	$	1,446,578,350	$	1,446,578,350
Transit Capital	$	1,738,427,785	$	1,354,454,171
Transit O & M	$	1,483,506,749	$	1,254,796,937
Subtotal	**$**	**8,212,797,487**	**$**	**7,600,114,061**
BALANCE	**$**	**(103,056,890)**	**$**	**509,616,536**

As illustrated in **Table 49**, with the exception of the North Corridor, the plan projects contained in **Appendix N**, 2004-2026 Fiscally Constrained Plan-All Projects (by funding type), are fiscally constrained with a reserve balance of $509,6161,536 in available funds.

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CHAPTER VIII

FEDERAL COMPLIANCE

This chapter of the plan addresses compliance with federal regulations that govern air quality requirements. For a more in-depth discussion on the Long Range Transportation Plan Conformity Determination, refer to *Conformity Demonstration with 1990 Clean Air Action Amendments for 2026 Long Range Transportation Plan and 2004-2006 Transportation Improvement Program* (The Conformity Report).

A. Conformity Determination

As the number of vehicles on the nation's roadways increased, air pollution from mobile sources was identified as an important national health concern. Recognizing this connection, the 1990 Clean Air Act Amendments (CAAAs) and the Tennessee Transportation Conformity Rules require transportation plans, programs (TIP), and projects to conform to the purpose of the Tennessee State Implementation Plan (SIP). Conformity to a SIP means that planned transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the national ambient air quality standards (NAAQS). The Transportation Equity Act for the 21st Century (TEA-21) reinforced the need for coordinated transportation and air quality planning through the metropolitan planning provisions. Successor legislation to TEA-21 is expected to continue this effort in requiring that transportation planning play a key role in achieving healthy air for citizens to breathe.

Under the 1990 CAAAs, The Environmental Planning Agency (EPA), in 1991, designated Shelby County, Tennessee, in regard to the NAAQS, a moderate nonattainment area for carbon monoxide (CO) and a marginal nonattainment area for ozone (O_3). Due to improvements in the ambient air quality, EPA redesignated Shelby County to attainment for CO on August 31, 1994 and for O_3 on February 16, 1995. Redesignation for CO was published in the Federal Register, Vol. 59, No. 142, p. 37597 and pp. 37939-37944, dated July 26, 1994. A maintenance plan was produced at that time with local Transportation Control Measures (TCMs) specified as a part of the SIP revision. EPA's reclassification of the Memphis & Shelby County nonattainment area to attainment status for O_3 was published in the Federal Register, Vol. 60 No. 10, pp. 3352-3356, January 17, 1995.

The purpose of this conformity analysis is to demonstrate that the implementation of the newly adopted FY 2004-2006 Transportation Improvement Program (TIP) and the financially constrained 23-year Long Range Transportation Plan (2026 LRTP) will contribute to improved air quality, in compliance with the 1990 CAAAs. The conformity determination is performed according to procedures prescribed by the following Federal, state and local regulations: 40 CFR Parts 51 and 93, United States EPA 1997 Transportation Conformity Rule; the Tennessee Transportation Conformity Rules, Chapter 1200-3-3; the Memphis and Shelby County ordinances that adopt by reference the Tennessee Conformity Rules; and, Metropolitan Planning Organization (MPO)

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Planning Regulations (23 CFR 450.322) implementing TEA-21 Requirements. This conformity determination is only for the Shelby County portion of the MPO planning area, since the rest of Memphis MPO planning area has never been classified as nonattainment for a transportation related pollutant.

The on-road mobile sources daily emissions budgets, specified in the 1997 SIP revision for the last year of the maintenance period, 2004, are VOC = 144.5 tons, NOx = 94.3 tons, CO = 414.6 tons. As no new SIP budget has been adopted, regulations require that the emissions from the last year of the maintenance plan be the "emissions budget" for future horizon years in 2026 Long Range Transportation Plan. The Memphis and Shelby County Health Department is preparing eight-year updates of these Maintenance Plans as required by EPA regulation.

In order for each transportation plan, program, and FHWA/FTA project to be found to conform, the MPO and DOT must demonstrate that the applicable criteria and procedures have been satisfied (section §93.109-a). The following criteria are found to be applicable and are described as:

1) The conformity determinations must be based upon the most recent planning assumptions in force at the time of the conformity determination;
2) The conformity determinations must be based upon the latest emission estimation model available;
3) MPOs and State departments of transportation must provide reasonable opportunity for consultation with State air agencies, local air quality and transportation agencies, DOT, and the EPA;
4) Timely implementation of Transportation Control Measures (TCMs) in the applicable State Implementation Plan (SIP) must be provided for; and
5) The conformity determination must comply with TEA-21, or its successor when adopted, and the MPO Planning Regulation.

The Conformity Report documents the process used by Memphis MPO for the Conformity Determination of the 2026 LRTP and reaffirmation of conformity of the 2004 – 2006 TIP. The following table summarizes the conformity analysis findings.

Table 50: "Maintenance Period" Conformity Requirements
Summary of Emissions and Emissions Budgets
(Tons per day)

POLLUTANTS	EMISSION BUDGET*	2026	2016	2006	2004
VOC (Ozone Season)	**144.500**	11.385	13.871	27.203	29.610
NOx (Ozone Season)	**94.300**	13.022	23.147	57.682	63.469
CO (Carbon Monoxide Season)	**414.600**	291.834	287.738	361.482	399.255

* Source: 1997 Non-Regulatory SIP Submittal by Memphis and Shelby County Health Department, Pollution Control Section.

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MEMPHIS AREA METROPOLITAN PLANNING ORGANIZATION

LONG RANGE TRANSPORTATION PLAN 2026

DRAFT APPENDICES

Prepared by MPO Staff
Draft Published
February 5, 2004
Memphis and Shelby County
Division of Planning and Development

Appendix A

FY 2003 Title VI Annual Report

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FY 2003 TITLE VI ANNUAL REPORT

MEMPHIS URBANIZED AREA

MEMPHIS METROPOLITAN PLANNING ORGANIZATION

MAY 2003

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MEMPHIS AREA METROPOLITAN PLANNING ORGANIZATION
Executive Board

A C Wharton, Jr., Chairman
Mayor, Shelby County

Dr. W. W. Herenton, Vice Chairman
Mayor, City of Memphis

Don Sundquist
Governor of Tennessee

Gerald Clifton
President, DeSoto County
Board of Supervisors

Ronnie Musgrove
Governor of Mississippi

Sharon Goldsworthy
Mayor, City of Germantown
Representing the Regional Advisory Board

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This report was prepared in cooperation with the U. S. Department of Transportation, Federal Highway Administration, and the Tennessee Department of Transportation.

FOREWORD

This document contains a description of the Title VI activities that the Memphis MPO pursued during FY 2003. The goal of the Memphis Area Metropolitan Planning Organization is to comply with all nondiscriminatory requirements established through federal and state regulations. The U. S. Department of Transportation issues these regulations as written through Title VI of the Civil Rights Act of 1964, and the Tennessee General Assembly passed similar legislation in 1996. The contents of this document will demonstrate that the transportation planning policies of the Memphis Area MPO are nondiscriminatory. Specifically this document will reflect nondiscriminatory policies in preparing and implementing transportation planning policies & activities, and in developing transportation planning documents.

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INTRODUCTION

Title VI of the 1964 Civil Rights Act and the Tennessee Department of Transportation's Title VI Program is designed to ensure that no person will, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or otherwise be subject to discrimination under any program or activity operated by the Tennessee Department of Transportation as a recipient of either federal or state financial assistance.

Title VI incorporates provisions of the 1964 Civil Rights Act that are applicable to any entity or government agency that receives federal funds from the U. S. Department of Transportation. For example in a highway construction project or the construction of a transit facility, requirements for nondiscrimination apply to each phase of the process. This would include: planning, engineering and design, project development, location and route selection, rights-of-way / land acquisition and relocation assistance, property management, and contract award and administration activities including subcontracts.

The objectives of the Title VI program are:

- To ensure that the Memphis Area MPO provides opportunities for public participation in the transportation planning process to persons without the regard to race, color, or national origin;

- To ensure that the Memphis Area MPO decides the planning of surface transportation facilities without regard to race, color, or national origin; and

- To ensure that the Memphis Area MPO takes corrective action to prevent discriminatory treatment of any beneficiary based on race, color, or national origin.

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BASIC GOALS AND OBJECTIVES

The Memphis Area MPO is responsible for ensuring compliance with Title VI regulations regarding the planning of intermodal surface transportation facilities, in the Memphis metropolitan area. In this regard, the goals and objective of the MPO are fourfold:

- To consider the impacts of transportation alternatives on all communities affected, including minority communities, in the planning and program development of the long-range transportation plan, and related documents.

- To obtain, through good faith efforts, citizen participation and ideas in the transportation planning process. In considering the views and opinions of citizens in the MPO study area, the MPO will consider their comments in the planning of transportation facilities including the impact of proposed routes in both nonminority and minority areas.

- To find socioeconomic data regarding income levels, racial and ethnic make up, community boundaries, and travel habits of both minority and non-minority residents of the MPO study area

- To maintain an effective public involvement process that will also evaluate whether opinions from minority communities/groups/persons are appropriately considered.

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GENERAL REPORTING REQUIREMENTS

CURRENT FEDERAL ASSISTANCE

Three funding sources primarily support the functions and activities of the Memphis Area MPO. The MPO staff receives approximately $1.4 million from the Federal Highway Administration through the Tennessee Department of Transportation. The Federal Highway Administration through the Mississippi Department of Transportation provides approximately $92,000 in federal funds to the MPO study area. The Memphis MPO staff recieves 27% of the funds and the DeSoto County Planning Commission 73%. The Federal Transit Administration through the Tennessee Department of Transportation, provides $258,000 in federal funds to the Memphis MPO study area. Approximately $226,000 in funds are given to the Memphis Area Transit Authority, and the Memphis MPO staff receives $32,000.

CURRENT LITIGATION AND INVESTIGATIONS

At the present time, the Memphis Area MPO is not involved in any active lawsuits regarding noncompliance of Title VI guidelines. Neither the Tennessee Department of Transportation nor the Federal Highway Administration has reviewed any allegations or complaints of inappropriate civil rights activities by the Memphis Area MPO.

ANALYSIS ASSESSING THE EFFECT OF CONSTRUCTION PROJECTS ON MINORITY COMMUNITIES

In reviewing the March 2002 Status Report of High Priority Projects prepared by the Tennessee Department of Transportation, the Sam Cooper Boulevard project and the I-40/240 Midtown Interchange project were the only proposed construction projects that would affect minority communities.

The Environmental Planning Office of TDOT prepared the Environmental Assessment (EA) and the Draft Environmental Impact Statements (EIS) for the previously mentioned projects. If additional information is needed, please contact Charles Bush at 615-741-3651.

TDOT is also presently performing preliminary engineering and design work on the I-55/Crump Blvd interchange. This improvement will impact a minority community and TDOT and the City of Memphis are reviewing engineering designs to minimize the impact on this community.

PROGRAM SPECIFIC REQUIREMENTS

IMPLEMENTATION OF PLANNING ACTIVITIES FOLLOWING TITLE VI REQUIREMENTS

The Unified Planning Work Program and the Transportation Improvement Program are two major documents that outline the planning efforts of the Memphis Area MPO. The UPWP identifies all urban transportation and transportation related planning activities that the Memphis Area MPO will conduct within the study area. The TIP contains federal-funded highway, mass transit, signalization, and rideshare projects that state and local transportation agencies will pursue in the MPO study area.

The UPWP contains four major task areas: Administration and Annual Review, Surveillance, Long Range Planning, and Functional & System Management Planning.

Administration & Annual Review is a continuing activity that involves the daily management of planning goals and objectives pursued by the participating agencies. Surveillance is also a continuing activity that involves the collection of socioeconomic information. Specifically, the MPO collects and compiles information on land use, population, socioeconomic, transportation facilities, and transportation system performance. The Memphis Area MPO will continue to collect and update both socioeconomic and transportation system performance databases. The Memphis Area MPO will continue to collect information on traffic volumes, street facility inventories, and other planning data without regard to the race or color of the communities surveyed.

The MPO is currently updating its existing database of land use, population, and socioeconomic information in response to preparing a new long range plan. We will continue to update the databases and will incorporate this information into our Geographic Information System. Our GIS system and future development of our TRANSCAD computer modeling will help us in identify both non-minority and minority population areas, and potentially adverse impact of proposed transportation improvements.

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Long Range Planning and Plan Refinement involves updating surface transportation plans for the Memphis MPO study area. Functional and System Management Planning involves the development and preparation of short-range system plans and functional studies. The Memphis Area MPO will continue to invite and encourage minority groups and persons to give their opinion of long-range transportation improvements and impacts

COMMUNICATION METHODS WITH MINORITY COMMUNITIES

The Memphis Area MPO uses two primary methods to communicate with minority groups and communities. In the print media, we publish all public notices for meetings in the Memphis Commercial Appeal and the Memphis Tri-State Defender. Also, the Memphis Area MPO contacts the Center for Neighborhoods to identify and talk with minority neighborhood associations that may be affected by changes in the Long Range Transportation Plan. The MPO has found these methods sufficient in getting minority communities involved in the planning process.

MINORITY PARTICIPATION IN THE LOCAL DECISION MAKING PROCESS

Minorities participate in the transportation planning process through one of three methods. The first method involves providing comments at public meetings when we update the Long-Range Plan. Also, minority communities provide comments at design and corridor public hearings for specific major road projects. Finally, minorities are involved through their participation on the MPO's Citizens Advisory Committee. This committee contains representatives from throughout the Memphis MPO study area, and these representatives review both the long-range transportation plan and transportation projects that will be constructed over the next five years.

MINORITY CONSULTANT SELECTION

Federal guidelines require that the Memphis Area MPO develop plans, programs, and databases that will identify the need for new transportation facilities or changes in existing facilities. Occasionally, we are required to retain consultant services to develop those plans and databases. In developing contractual agreements with minority consultants in preparing studies for the Memphis MPO, the goals and objectives of the Memphis Area MPO are:

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- Identify qualified minority and female transportation planning consultants

- Review prequalification requirements and selection procedures to ensure uniform application of policies to both minority and nonminority consultants.

- Review the selection activities of the Memphis MPO Standing and Ad-Hoc Committees to ensure nondiscrimination. Also, review provisions of applicable contracts and agreements to ensure the inclusion of Title VI requirements.

RACIAL COMPOSITION OF THE MPO EXECUTIVE BOARD, REGIONAL ADVISORY BOARD, AND STANDING COMMITTEES

Executive Board

The MPO's Executive Board is composed of the principally elected officials of the major governmental jurisdictions that participate in the MPO's planning process. Specifically, the membership of the Executive Board is as follows:

- Governor State of Tennessee
- Governor State of Mississippi
- Mayor City of Memphis
- Mayor Shelby County
- Chairman Desoto County, MS Board of Supervisors
- Representative Regional Advisory Board Member

Of these six positions, African-Americans represents the City of Memphis and Shelby County positions and the Regional Advisory Board representative is a female. The MPO staff believes that encouraging minority participation is improper since principally elected officials hold these positions. Simultaneously, the MPO staff believes that these representatives should be aware of Title VI guidelines and the need to comply with these guidelines.

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Regional Advisory Board

The Regional Advisory Board (RAB) is composed of both principal elected officials and representatives of local agencies. The RAB voting members are the principally elected officials of local state governments, and the chairpersons of the port commission, the airport authority, and the transit authority board of commissioners. African Americans hold three voting positions. These positions are the Mayor of Memphis, the Mayor of Shelby County and the Chairperson of the Memphis Area Transit Authority Board of Commissioners. The female members consist of the Mayors of Germantown and Collierville. As stated previously, the MPO staff believes that these representatives should be aware of Title VI guidelines, the need for compliance, and the consequences of noncompliance with these regulations.

Engineering and Technical Committee

This Committee consists of the city engineers, city planners, and other technical staff members that represent members of the Regional Advisory Board. There are three minority members that participate on this committee, and they represent the Federal Aviation Administration, Federal Highway Administration and the Memphis and Shelby County Health Department. Concurrently, since most of these positions are civil service in nature, carrying out a policy to enhance minority participation on this committee would be difficult.

Citizens Advisory Committee

The MPO bylaws were recently revised and the Citizens Advisory Committee membership was expanded from 13 to 45 members. Currently 24 members have been appointed to this committee. Of the 24 members that have been appointed, seven are women, one is Asian, and seven are African-American. The MPO staff plans both to continue the expansion of this committee, and to continue to strive for a broad and diverse membership.

LONG TERM TITLE VI GOALS

The MPO staff will work with the Tennessee Department of Transportation in developing reports and policies that will address state and federal guidelines. Also, the MPO staff will make sure that the Executive Board and Regional Advisory Board will address citizen participation concerns on Title VI in updating our Long-Range

Transportation Plan.

Finally the MPO staff will continue its work on developing a demographic profile of the Memphis area. The County Assessor's Office will provide land use information, and the Census Bureau will provide data regarding population, race, and sex. With these two databases, the MPO can assess such issues as service equity, public involvement, and overall transportation strategies.

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Appendix B

Citizen Participation Plan

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MEMPHIS AREA METROPOLITAN PLANNING ORGANIZATION CITIZEN PARTICIPATION PLAN SUMMARY

The following summarizes the various sections of the MPO's Citizen Participation Plan. This summary is provided as a reference for specific public involvement procedures, which are further described in the Plan.

INTRODUCTION
The introduction establishes what the goals of the MPO are in citizen participation.

SECTION 1
This section provides that all meetings of the Executive Board, Regional Advisory Board (RAB) and the Engineering Committee (ETC), and other MPO related committees and subcommittees are subject to the Tennessee Open Public Meetings Act. This meets federal transportation planning requirements that all meetings be open to the public.

SECTION 2
This section sets the standards for Executive Board, RAB and ETC meeting notices. Notices are posted in accordance with Shelby County Policy relative to the Tennessee Open Public Meeting Act. When official public notice is needed, newspapers that serves the major population centers of the MPO. These newspapers have a circulation of greater than 9,000. Notices will also be published in newspapers serving minority interests. Press releases or agendas will be sent to all other media and organizations expressing interest. Minimum notice time for emergency meetings is three (3) days. The section also provides that all MPO studies, including subregional studies such as local thoroughfare plan updates, must provide the opportunity for meaningful public input.

SECTION 3
This section specifies what documents are to be afforded the opportunity for public comments and allows locally conducted public hearings to substitute for an MPO public hearing. Final payment cannot be made to any MPO jurisdiction for a study funded by the MPO unless there has been the opportunity for public input.

SECTION 4
Federal transportation legislation requires the MPO to have an annual public meeting to review the Long-Range Transportation Plan and obtain input for Transportation Improvement Projects. This section sets up this annual meeting.

SECTION 5
The procedures of public input on the Transportation Improvement Program (TIP) are specified in this section. The TIP is the document, which provides specific details on the spending of state and federal transportation program dollars within the MPO area.

SECTION 6
This section provides for the public input procedures required in adopting the Long-Range Transportation Plan. They are similar to the procedures for the TIP, except public meetings are to be held in each county by the Transportation Planning Coordinator (TPC). The citizen participation plan has been structured to allow the Transportation Plan the most extensive opportunities for public input.

SECTION 7
This section pertains to situations that necessitate the need for the MPO to evaluate or re-determine air quality conformity. In most cases, conformity determination occurs concurrently with the development of a Long Range Transportation Plan or Plan update. In these cases, the public involvement procedures are as stated in Section 6. If air quality conformity determination occurs outside of this schedule, procedures are those set forth in Section 5.

SECTION 8
This section describes the process and procedures for a periodic assessment of the public participation techniques employed by the MPO.

SECTION 9
This section requires that all MPO plans and studies are available for public review at a single location in each county. The first choice is a library since they are open evenings and on weekends. This affords the public the maximum opportunity for access to these documents. The second choice is the county planning department. Finally this section promotes the posting of all documents of the MPO as well as agenda and schedule of meetings on a website that is provided to all citizens in each public notice and new release.

SECTION 10
This section provides standards for the MPO to ensure compliance with the American with Disabilities Act.

SECTION 11

This section provides for the interaction of the Citizen Advisory Committee of the MPO in the overall framework of the Citizen Participation Plan.

Appendix A
This will be a listing of news media, including print and broadcast that will receive press releases and those print media designated for public notices.

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Appendix B
This section shall designate the primary library of each county for the distribution of adopted plans and programs of the MPO. It will also contain a listing of libraries where the public will be able to review, and procedures for submitting comments, on draft plans and programs, prior to final action by the Executive Board.

Appendix C
This section provides administrative procedures to set consistent internal steps the MPO staff will utilize to provide the information required under both federal regulations and the adopted Citizen's Participation Plan to all MPO participants and to establish a timeframe for adding items for MPO consideration.

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MEMPHIS URBAN AREA
METROPOLITAN PLANNING ORGANIZATION
CITIZEN PARTICIPATION PLAN

The Memphis Urban Area Metropolitan Planning Organization (MPO) encourages the distribution of information relating to transportation decisions and plans throughout the region. It is the policy of the MPO to take all public comments into account in the development and adoption of plans and programs including the Long Range Transportation Plan (LRTP) and the Transportation Improvement Program (TIP). The processes outlined in this document shall form the basis for informing the public of transportation decisions and the adoption of components of the transportation planning program.

SECTION 1 - OPEN PUBLIC MEETING ACT

All sessions of every meeting of the Executive Board, Regional Advisory Board (RAB), Executive Board and the Engineering and Technical Committee (ETC) shall be open to the public pursuant to the Tennessee Open Public Meetings Act, T.C.A. Section 8-44-101,et seq.

The public shall be afforded the opportunity to comment on current agenda items every meeting of the Executive Board. The chair of the Executive Board shall determine the time to be allotted to each speaker.

SECTION 2 - OFFICIAL NOTICES

A. All notices of meetings, shall be posted in accord with Shelby County policy relative to the Tennessee Open Public Meeting Act. When official public hearings, and public comment periods for regional plans and programs are provided said meeting notices shall be published in the Commercial Appeal, Tri-State Defender (Memphis) and the DeSoto County Times (DeSoto County MS). All notices for subregional plans and programs funded by the MPO shall be made in the newspaper of greatest circulation in the study area.

B. The Transportation Planning Coordinator (TPC) shall mail all notices of meetings, public hearings, and public comment periods for regional plans and programs to all other registered news media **(See Appendix A**). In addition, organizations expressing interest (major neighborhood organizations, minority organizations, etc.) shall be notified by mail.

C. The TPC shall publicize meetings of the MPO Executive Board, RAB and ETC throughout the region.

D. Unless otherwise provided in this plan, all notices shall be published a minimum of seven (7) days prior to the meeting. The mailing of notices and press releases should be timed to be received locally within seven (7) days of the meeting.

E. Special meeting are considered committee or Board meetings called to consider a special non-routine item that needs action before the next scheduled meeting of a committee or Board. If a special meeting is called, the notice shall be published a minimum of three (3) days prior to the meeting.

F. The official notice and press releases shall note the day, time, and location of the meeting, and as required by other sections of this plan, the topic(s) of the meeting.

SECTION 3 - PUBLIC HEARINGS

A. All MPO transportation plans, studies or programming documents funded in whole or in part with federal transportation funds, shall provide the opportunity for public review and comment during the term of the study and prior to adoption by the local jurisdiction or the MPO. Regional studies or documents shall have a public hearings before the MPO Executive Board prior to adoption (see Sections 6, and 7). Notice of all public hearings shall be published at least seven (7) days prior to the public hearing date unless otherwise noted (see Section 4C).

B. Studies and plans having less than regional significance shall have opportunities for public input before adoption. The level of public input shall be determined by the MPO jurisdiction for which the study/plan is being undertaken. Notice of all public hearings shall be published at least seven (7) days prior to the public hearing unless mandated otherwise by local or state legislation.

C. Final payment shall not be made to any consulting firm or jurisdiction until such time as the public is afforded the opportunity for input into the study and is made of its conclusions.

D. The local government may conduct a public hearing on a transportation issue. If the government conducts a public hearing on a matter that is generally local in nature, a public hearing is not required by the MPO. The local jurisdiction must provide the MPO with the written record of the hearing and evidence of advertisement.

SECTION 4 - ANNUAL PUBLIC MEETING

A. The Executive Board shall hold an annual public meeting for the purposes of receiving public comments pertaining to its plans, programs, and projects to be placed in the Transportation Improvement Program.

B. The date for this meeting shall be established in a meeting schedule adopted by the Executive Board at its first meeting of each year.

C. The annual public meeting shall be advertised a minimum of thirty (30) days prior to the meeting date in newspapers listed in section 2 and on the MPO website (http://www.co.shelby.tn.us)

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SECTION 5 – TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

A. At the Annual Public Meeting the Executive Board shall afford the public the opportunity to suggest transportation projects eligible for inclusion in the Transportation Improvement Program (TIP).

B. The TPC and the ETC shall review the input from the Executive Board public meeting, input from the state, and input from the local MPO jurisdictions in the creation of the TIP and if required the accompanying Air Quality Conformity Determination.

C. The ETC shall review and endorse the Draft TIP for consideration by the RAB and Executive Board.

D. A notice stating the availability of a Draft TIP for public review and comment shall be placed in the newspapers listed in Section 2. The notice shall specify the dates, times and location of forthcoming public hearings as well as locations including the world-wide-web where said draft may be reviewed, and the procedures for submitting comments. Similar press releases shall be furnished to all news organizations registered with the TPC. Special efforts shall be made to provide information on the TIP to media and organizations serving the low-income and minority populations in the region. This notice and press release shall be published/mailed a minimum of thirty (30) days prior to the meeting at which the TIP will be considered by the Executive Board.

E. The Transportation Planning Coordinator (TPC) shall place copies of the Draft TIP in public libraries as defined in Section 9. These copies must be distributed to the libraries a minimum of thirty (30) days prior to final consideration and adoption by the Executive Board.

F. A public hearing shall be held by the RAB on the Draft TIP. Comments received at this public hearing will be summarized and be provided to the Executive Board prior to the final public hearing.

G. A final public hearing shall be held by the Executive Board prior to voting on the TIP.

H. At the public meetings the TPC shall report to the Board all comments received in writing prior to the meetings, and how those comments were addressed.

I. The public shall be afforded the opportunity for comment at the public meetings. The Executive Board may establish reasonable time limits for each presentation, considering the time constraints of the meeting and complexity of the issue.

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J. In the event the Board determines there are significant unresolved comments on the TIP it may defer the program until a subsequent meeting. The MPO staff will then prepare a written response to the comments to be incorporated into the document, or suggest amendments to the draft document. Should these amendments be significant, another (30) thirty- day review period shall be afforded to the public.

K. The Executive Board must close the final public hearing prior to a Board vote on the TIP.

L. Major amendments to the TIP (those that involve the addition or deletion of projects) must follow the same process and procedure as provided in Section 5 Paragraphs A through K above.

M. Minor amendments, those that involve a change in funding source, amount or timing, do not require a public input process and shall be administered through the MPO's approved TIP adjustment process and procedures as outlined in the approved TIP. Said minor amendments shall follow procedures of Section 5 Paragraphs I-K above.

SECTION 6 – LONG-RANGE TRANSPORTATION PLAN (LRTP)

A. At the Annual Public Meeting the Executive Board shall review the planning assumptions and development process for the Long-Range Transportation Plan (LRTP) and obtain comments from the public on the validity of the LRTP.

B. Public review and comment opportunities shall be provided when the plan is originally adopted, for amendments to the plan, and during the triennial review process.

C. The ETC shall guide the preparation of the LRTP for the Memphis Urban Area MPO.

D. The TPC will provide a Draft LRTP and place copies in public libraries in the region. These copies must be distributed to the libraries a minimum of thirty (30) days prior to final consideration by the Executive Board.

E. A notice stating that the Draft LRTP is available for public review and comment shall be placed in the notice newspapers listed in Section 2. This notice shall invite the public to review and comment on the LRTP. The notice shall specify the date, time, and location of the public hearings and public input meetings. The public hearings shall be held in front of the RAB and Executive Board, and one public meeting will be held in each of the MPO counties. Similar press releases shall be furnished to all news organizations registered with the TPC. Special efforts shall be made to provide information on the LRTP to media and organizations which serve the low-income and minority populations in the region. This notice and press release shall be published/mailed a minimum of thirty (30) days prior to the meeting date where the LRTP will be considered by the Executive Board.

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F. The ETC shall review and endorse the Draft LRTP for consideration by the RAB and Executive Board.

G. Public meetings to explain the plan and obtain comments and public input will be held during the 30 days review period. These meetings will be conducted by the TPC. At least one meeting will be held in each county of the Memphis Urban Area MPO. These meetings will be advertised as provided in paragraph E above.

H. The RAB and Executive Board shall each hold one public hearing during or at the conclusion of the public review period. The first hearing should occur during the mid portion of the review process. Comments received at the first public hearing will be summarized and provided to the Executive Board prior to the second public hearing. The second and final public hearing should occur at the end of the 30 days review period. At the public hearings in front of the Executive Board and the RAB, the TPC shall report all comments received at the meetings held in each county and from all other sources prior to the meeting.

I. The public shall be afforded the opportunity for comment at the public hearings and public meetings. The Executive Board and RAB may establish reasonable time limits for each presentation, considering the time constraints of the meeting and complexity of the issue.

J. In the event the Executive Board determines there are significant unresolved comments on the LRTP it may defer the adoption of the plan until a subsequent meeting. The MPO staff will then prepare a written response to the comments to be incorporated into the document, or suggest amendments to the draft document. Should these amendments be significant, an additional thirty (30) days review period shall be afforded to the public.

K. The Executive Board must close the final public hearing prior to a Board vote on the LRTP.

L. Amendments to the LRTP must follow the same process and procedure with the exception that the public meetings are not required in each county (Paragraph G. above).

M. Opportunities for public input are not limited to those contained in this section. Given the significance of the LRTP, other public participation techniques may be employed to increase awareness and to provide ample opportunities for public participation.

SECTION 7 - AIR QUALITY CONFORMITY DETERMINATION

A. If conformity determination is concurrent with the development of the LRTP, the public participation process shall follow that of the LRTP (as stated in Section 6 above).

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B. If conformity determination is warranted at any other time, the public participation process shall follow that of the TIP, Section 5, and Paragraphs D-K.

SECTION 8 - CITIZEN PARTICIPATION PLAN

A. The Citizen Participation Plan shall be assessed periodically based on changes in local, state, or federal legislation, in response to periodic evaluations of the effectiveness of public participation techniques that are used by the MPO, and/or within one (1) year of every LRTP update.

B. Upon adoption of an update to the LRTP, an assessment shall be made of the types of pubic participation techniques that were used, especially pubic input meetings and public hearings. The assessment shall occur within one (1) year of the plan's adoption.

C. When an update to the Citizen Participation Plan is made, the public participation process shall follow that of the TIP (see section 6, paragraphs D-K) with the exception that the public review period shall be forty-five (45) days (see section 6, paragraphs D, E). Relevant state and federal agencies shall be informed and provided with an opportunity to comment (see Section 6, paragraph E).

SECTION 9 - AVAILABILITY OF PLANS AND DOCUMENTS

A. Copies of all MPO plans and program documents shall be available at a single location in each MPO County. The library so designated shall be the primary library defined in Appendix B for the distribution of documents for public review. The documents of the MPO to be provided to these libraries includes the UPWP, TIP, LRTP and all studies funded wholly or in part by funds under MPO control (studies funded either under the UPWP or TIP). The MPO staff shall obtain copies of the State Transportation Plan and distribute them to these central locations **(see Appendix B)**

B. A main library (either city or county) in each county shall be the designated location for access to all MPO transportation planning and programming documents. If arrangements cannot be made with a centrally located library, the county planning commission office shall maintain copies of these documents for public access.

C. All studies funded by the MPO, either by MPO technical staff or by third party consultants shall assure the TPC is provided sufficient copies of the study or final report to provide a copy to each designated library in the MPO region.

D. In addition all studies funded in whole or in part by the MPO through either the UPWP or the TIP or that have a direct impact on the TIP or LRTP shall be provided to the TPC in an appropriate electronic format to be placed on the MPO website for public review.

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E. Agenda content, draft and final minutes, related documents and information to members of the Executive Board, Regional Advisory Board or Engineering Technical Committee for consideration will be provided according to the procedures for information distribution in **Appendix C.** Appendix C shall serve as an administrative document of the MPO and may be amended/updated by resolution of the Executive Board as times requires in order to maintain timely and appropriate information distribution procedures.

SECTION 10 - AMERICANS WITH DISABILITIES ACT

A. All meetings of the MPO Boards and Committees shall be held in locations that are fully compliant with the Americans with Disabilities Act of 1991 (ADA).

B. All notices of Public Hearings and Meetings will provide notification to ADA protected citizens that they may make arrangements with the Transportation Planning Coordinator for special services at said meetings. These services may include but not be limited to special seating, signers for the hearing impaired or special visual displays.

C. Program of community outreach to special groups will be conducted and evaluated as part of the Citizen Participation Plan to explore new ways of reaching these special groups.

SECTION 11 - CITIZEN ADVISORY COMMITTEE

A. The Citizen Advisory Committee is a Standing Committee of the MPO. Its function is to supplement citizen input to the planning and programming functions of the MPO.

B. Members of the Citizen Advisory Committee will represent the committee at other committees and Boards of the MPO.

C. Members of the Citizen Advisory Committee are to assist the MPO in reaching a broad spectrum of the community.

D. The Citizen Advisory Committee will periodically review the Citizen Participation Plan for its effectiveness in meeting community outreach goals.

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Citizen Participation Plan
Appendix A

Media Contacts

RADIO CONTACTS	TV CONTACTS
News Director WDIA/WHRK/KJAM 112 Union Ave. Memphis, TN 38103	Assignment Editor WREG-TV - Channel 3 803 Channel 3 Drive Memphis, TN 38103 PH: 543-2111
News Director Metro News Network 2600 Nonconnah Blvd. #218 Memphis, TN 38132	Assignment Editor WMC- TV Channel 5 1960 Union Ave. Memphis, TN 38104 PH: 726-0416
WLOK 1340 AM 363 S. Second St. Memphis, TN 38101	Medical Reporter WHBQ-TV Channel 13 485 S. Highland Memphis, TN 38111
WQOX – FM 88 3333 Covington Pike Memphis, TN 38128	Station Manger WBUY-TV 40 3447 Cazassa Memphis, TN 38116
News Director WRVR/WOGY/WJCE 5904 Ridgeway Parkway Memphis, TN 38119	Assignment Manager WPTY/WLMT Clear Channel TV 2701 Union Ext. Memphis, TN 38112
News Director WREC/WEGR/WOTO 203 Beale St. Memphis, TN 38103	Producer WKNO, Channel 10 900 Getwell Memphis, TN 38111
	News Director WHBQ Channel 13 485 S. Highland Memphis, TN 38111

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	News Director WMC- TV Channel 5 1960 Union Ave. Memphis, TN 38104
	News Director WREG-TV - Channel 3 803 Channel 3 Drive Memphis, TN 38103
	News Director WHBQ Channel 13 485 S. Highland Memphis, TN 38111

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Citizen Participation Plan
Appendix B

Libraries

Library	Address
Arlington	11968 Walker Road, Arlington, TN
Bartlett	6382 Stage Road, Bartlett, TN
Cherokee	3300 Sharpe Avenue, Memphis, TN
Collierville	99 Walnut Road, Collierville, TN
Cornelia Crenshaw	531 Vance Avenue, Memphis, TN
East Shelby Drive	7200 East Shelby Drive, Memphis, TN
Germantown	1925 Exeter, Germantown, TN
Main	3030 Poplar, Memphis, TN
Frayser	3712 Argonne, Memphis, TN
Millington	4458 Navy Road, Millington, TN
Parkway Village	4655 Knight Arnold, Memphis, TN
Poplar-White Station	5094 Poplar, Memphis, TN
Whitehaven	4122 Barton Drive, Memphis, TN
Southaven	8889 Northwest Drive, Southaven, MS
Horn Lake	2885 Goodman Road, Horn Lake, MS
Hernando	370 West Commerce, Hernando, MS
Olive Branch	6619 South Cockrum, Olive Branch, MS
Somerville-Fayette County	216 W. Market, Sommerville, TN 38068

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Citizen Participation Plan
Appendix C

MPO Administrative Procedures for Information Distribution
Adopted:
Revised:

Purpose

Timely delivery of information to the Boards and Committees of the MPO and to the public is a critical aspect of the proper operation of the Memphis Urban Area Metropolitan Planning Organization. Without the required information and the time to properly evaluate it, member jurisdictions and others interested in participating in the regional transportation planning process are unable to do so effectively. These procedures are intended to set consistent internal steps the MPO staff will utilize to provide the information required under both federal regulations and the adopted Citizen's Participation Plan to all MPO participants and to establish a timeframe for adding items for MPO consideration.

Goals

The goals of these procedures are to:

2. Consistently provide the interested public and all Board and Committee members the agendas and supporting information on upcoming issues and proposed actions, in a timely fashion.

3. Document the method and information needed for submission of items for consideration by the MPO, other than amendment to the TIP or Long Range Transportation Plan

Procedures

1. Annual Calendar - The Executive Board of the MPO will establish the dates for its meetings for the upcoming calendar year at the last regularly scheduled meeting for each calendar year. The MPO will, at that time, schedule a minimum of four meetings per year, which should occur quarterly. It will also confirm the meeting dates established by the Regional Advisory Board and Engineering and Technical Committee for the upcoming year.

2. Public Notice of Schedule - Notice of the schedule adopted by the Board shall be published in newspaper in each county in the MPO planning area identified for use in the Citizen's Participation Plan to provide the public with notice of these dates. The MPO staff also will maintain this schedule on the MPO website.

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3. Interested Individuals – Individuals attending any board or committee meeting will be asked to sign-in. The sign in sheet will contain appropriate blocks for mailing address, phone number and email address. If an individual would like to be notified of future meetings, public hearings, and public comment periods the interested individual will complete the information on the sign in sheet. The sign-in sheets from each board or committee meeting will be used to update the mail/email list of all interested individuals.

4. Information Distribution - From the adopted schedule, the MPO staff will establish deadline dates for the following activities associated with each scheduled meeting.

I. Executive Board

a. Draft Minutes from the previous meeting are to be and mailed/e-mailed to all Board members attending that meeting for review within ten business days. Attending Board members will be asked to submit any corrections or comments on the draft minutes within five business days of receipt. Action Items requested of the staff by the Board will be specifically identified.

b. Thirty days prior to a scheduled meeting, Board Members will be advised by e-mail or mail, as requested by the member, of the date, time and location of the scheduled meeting.

c. The Meeting information package will be sent to the member by the preferred and/or appropriate delivery method ten business days prior to the scheduled meeting. The information packet should include minutes of the previous meeting, a draft meeting agenda and draft resolutions together with relevant information on that item whether in summary or draft form.

d. The final Board agenda and information packet will be provided at the meeting of the Executive Board. Any item included on the final agenda that was not on the draft agenda will require a majority vote of the Board to approve its consideration at that meeting.

II. Regional Advisory Board

a. Draft Minutes from the previous meeting are to be completed and mailed/e-mailed to all committee members attending that meeting for review within ten business days. Attending members will be asked to submit any corrections or comments on the draft minutes within five business days of receipt. Action items requested of the Staff by the Board will be specifically identified.

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b. Thirty days prior to a scheduled meeting, Board Members will be advised by e-mail or mail, as requested by the member, of the date, time and location of the scheduled meeting.

c. The Meeting information package will be sent to the member by the preferred and/or appropriate delivery method ten business days prior to the scheduled meeting. The information packet should include minutes of the previous meeting, a draft meeting agenda and draft resolutions together with relevant information on that item whether in summary or draft form.

d. The final Board agenda and information packet will be provided at the meeting of the Regional Advisory Board. Any item included on the final agenda that is not on the draft agenda, will require a majority vote of the Board members present to approve its consideration at that meeting.

III. Engineering and Technical Committee (ETC)

a. The Engineering and Technical Committee shall meet in the offices of the Memphis and Shelby County Department of Regional Services at 1:30 PM on the dates identified in the annually adopted schedule unless notice is provided to members seven days prior to the meeting date identifying a different location and/or time.

b. A committee meeting information package will be provided to the member by the preferred delivery method ten business days prior to the scheduled meeting. The information packet should include a draft meeting agenda indicating committee action items together with relevant information on that item whether in summary or draft form.

c. The final Committee agenda and information packet will be provided at the meeting of the ETC. Any item included on the final agenda that is not on the draft agenda will require a majority vote of the Committee members present to approve its consideration at that meeting.

5. **Special Meetings** - For all special meetings of the Executive Board, Regional Advisory Board or Engineering and Technical Committee, meeting information distribution requirements will be as follows:

a. Each member of the Board or Committee will be sent by the preferred and/or appropriate delivery method, a draft agenda, minutes of the previous meeting (if applicable) and information on the special item to be considered for action at the meeting at least five calendar days before the special meeting.

b. This information shall include draft versions of any resolutions to be considered and the available information on the special non-routine item

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that needs action before the next scheduled meeting whether in draft or summary form, to support the requested action.

6. Scheduling Items for Consideration by the MPO - Any member or interested citizen may request an item be considered for action or adoption by the MPO. All items received for such review or action must first, at a minimum, be considered by the Engineering and Technical Committee before it is forwarded to the Regional Advisory Board and ultimately to the Executive Board. In order to have an item considered, other than a Transportation Improvement Program or Long Range Plan amendment that have specific amendment procedures established in their appendices, it must be submitted to the MPO staff at least thirty days prior to a scheduled ETC meeting. The information provided must include:

   a. The identity of the requesting party,

   b. Contact information (Address, phone number, e-mail address) sufficient to allow follow-up contact by MPO staff or committee member to obtain any supplemental information needs and to notify the requesting party of the actions to be taken,

   c. A summary of the item requested for consideration or action being requested, and

   d. Support information and analysis in written or electronic form as appropriate.

The MPO staff shall add a requested item to the draft agenda for the next scheduled ETC meeting. It shall also include in the draft information packet the information provided by the requesting party along with any additional information it may have or develop that is believed to be relevant for Committee review.

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Appendix C

ETC and RAB Developmental Meeting Summary for LRTP & Legal Notice of Public Participation Opportunities

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MEMPHIS METROPOLITAN PLANNING ORGANIZATION
LONG RANGE TRANSPORTATION
MEETING SUMMARY

Engineering & Technical Committee (ETC)

ETC	Agenda Items	Action Taken
February 20, 2003	Development LRTP PowerPoint Presentation – MPO Purpose • Plan Components • Team • Planning Process • Anticipated Product • Resource Requirements • Risks & Rewards Key Issues	Discussion
May 21, 2003	Population Projections for LRTP • Endorsement of Year 2003 and Year 2026 Socioeconomic Data for the MPO LRTP	Reviewed & Endorsed
July 31, 2003	Amendment LRTP – Beale Street Ferry Boat Landing	Reviewed & Endorsed
September 11, 2003	Plan Update and Milestone Issues Major Plan Components • Goals and Objectives • Growth Forecasts • Plan Elements & Issues Handout FHWA – 23 CFR 450 Metropolitan Transportation Planning and Programming	Reviewed & Endorsed
November 20, 2003	Update/Adoption of LRTP	Reviewed & Endorsed

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MEMPHIS METROPOLITAN PLANNING ORGANIZATION
LONG RANGE TRANSPORTATION
MEETING SUMMARY

REGIONAL ADVISORY BOARD (RAB)

RAB	Agenda Items	Action Taken
February 27, 2003	Development LRTP PowerPoint Presentation LRTP Process – Key Issues • Population Projections • Deadline Dates • Network Priority versus road construction policy (must be separated)	Recommended to Executive Board
May 29, 2003	Population Projections for LRTP • Projections based on current planning assumptions. • Shelby County based on Woods & Pool • DeSoto County based on their Comprehensive Plan • Fayette County based on Growth Plan as required by T.C.A. 1101.	Approved by RAB
August 7, 2003	Amendment LRTP – Beale Street Ferry Boat Landing	Approved by RAB
September 16, 2003	Plan Update and Milestones Issues Major Plan Components • Goals and Objectives • Growth Forecasts • Plan Elements & Issues Handout FHWA – 23 CFR 450.300 Metropolitan Transportation Planning and Programming	Approved by RAB
December 4, 2003	Update/Adoption of LRTP PowerPoint Presentation	LRTP Forwarded to Executive Board Without Recommendation

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Legal Notice
Public Participation Opportunities
Draft 2026 Long Range Transportation Plan and Air Quality Conformity Determination

The Memphis Urban Area Metropolitan Planning Organization (MPO) will hold a series of public meetings to present and receive public comments on the draft 2026 Long Range Transportation Plan (LRTP). The LRTP is a 23-year plan that contains policies, goals, and objectives for the coordinated development of a comprehensive intermodal transportation system in the Memphis MPO study area. The study area consist of Shelby County, and roughly the western three miles of Fayette County, Tennessee, and the northern eight miles of DeSoto County, Mississippi. The LRTP examines predicted population growth and land use patterns and prioritized projects including new or improved roads, transit system development and pedestrian walkway and bicycle facilities. It will also discuss freight movement, transportation enhancement projects, congestion management and financing both the capital and operating and maintenance cost of the proposed network. The LRTP must also meet air quality requirements established in the State Implementation Plan (SIP) for Ozone and Carbon Monoxide. The Conformity Report provides the evidence of this compliance with mobile source emission budget and re-affirms that the 2004-2006 Transportation Improvement Program (TIP) is a subset of the LRTP and therefore supports the SIP as well.

Public Meeting Schedule Long Range Transportation Plan 2026

Date	Time	Location
Monday November 10, 2003	3:00 PM	Collierville City Hall 500 Poplar View Parkway Collierville, TN
Monday November 10, 2003	6:00 PM	Germantown City Hall 1930 S. Germantown Rd. Germantown, TN
Saturday November 15, 2003	12:30 PM	Memphis Main Library 3030 Poplar Memphis, TN
Monday November 17, 2003	6:30 PM	Lakeland City Hall 10001 Highway 70 Lakeland, TN
Tuesday November 18, 2003	6:00 PM	Horn Lake City Hall U.S. 51 @ Goodman Road Horn Lake, MS
Monday September 24, 2003	3:30 PM	MATA Board of Commissioners Conference 1370 Levee Road Memphis, TN

Monday September 24, 2003	6:30 PM	Olive Branch City Hall 9189 Pidgeon Roost Rd Olive Branch MS
Monday September 24, 2003	7:00 PM	Southaven City Hall 8710 Northwest Dr Southaven, MS
Tuesday September 25, 2003	7:00 PM	Bartlett City Hall 6400 Stage Road Bartlett, TN
Monday December 1, 2003	7:00 PM	Millington City Hall 7930 Nelson St. Millington, TN
Monday December 1, 2003	7:30 PM	Arlington Town Hall 5854 Airline Rd Arlington, TN
Wednesday December 3, 2003	9:00 AM	DeSoto County Administration Bldg. 365 Losher St. Hernando, MS
Saturday December 6, 2003	12:00 PM	Bert Ferguson Community Center 8505 Trinity Rd Cordova, TN
Monday December 8, 2003	6:00 PM	Piperton City Hall 3575 Highway 196 Piperton, TN

Public hearings on the LRTP will also be provided at meetings of the Regional Advisory Board (RAB) and the MPO Executive Board. The RAB will be held on December 4, 2003 and the Executive Board meeting will be held on December 10, 2003. Both meetings will start at 1:30 PM at the Shelby County Administration Building, 160 North Main Street, 8th Floor Conference Room. The Executive Board will decide to accept the plan, accept it with amendments or refer it for further study at its meeting on December 10, 2003.

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Appendix D

Public Participation Summary

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Public Participation Summary

I. Summary of Public Outreach and Comments Received During Plan Preparation

The Memphis Urban Area Metropolitan Planning Organization (MPO) emphasizes a strong commitment to public participation in all of its on-going program activities. It is the objective of the approved Memphis MPO Citizen Participation Plan to re-affirm the organization's commitment through a specific plan of action to provide timely and meaningful opportunity for public involvement in developing the Long Range Transportation Plan for the planning region. Public participation and community outreach have been an ongoing part of the plan development. The MPO has sought to raise the level of public involvement in the development and preparation of the 2003 Long Range Transportation Plan update. To this end it provided numerous opportunities for public input into the project selection and plan preparation process.

These opportunities formally were provided during 2003 as part of the process of informing the various MPO Committees and Boards of the progress in developing growth assumptions and goals proposed for inclusion in the draft plan. The initial discussion of the Plan updates were given in the meeting held before the Regional Advisory Board and Executive Board at their March 2003 meetings. Key plan elements and informational needs were requested at this public forum. Plan growth projections and assumptions in preparation of the Plan were further presented at the Regional Advisory Board and Executive Board meetings in May and June. Citizen Advisory Board meetings in conjunction with these meetings were also held.

In June the MPO Web page (http://www.dpdgov.com/) was updated to include an invitation to the public to provide comment and requests for projects related to the Long Range Plan development.

In October, a neighborhood group contacted the MPO seeking the status of a section of Overton Crossing Road in the development of the Plan update. This road segment, the subject of significant public concern after a series of fatal and serious crashes, had been discussed at public meetings in February and had been identified as a candidate for removal from the next plan. After discussion with the City of Memphis, and at their request, the draft Plan major road network replaced that link with a corresponding link being place north of McLean Blvd., between Stage Road and Frayser Blvd. This allowed the Overton Crossing road segment of concern to be constructed with a cross section more in keeping with the neighborhoods request.

Other meetings held prior to the draft plan public notice period included presentations on the planning process and adopted goals and forecasts to the Fayette County Planning Commission, the Memphis Area Chamber of Commerce Major Road Committee and the DeSoto County Economic Development Council Infrastructure Subcommittee.

Summary of Public Comments Received for Draft 2026 Long Range Transportation Plan

Comment period from November 10, 2003 to December 10, 2003

Draft Long Range Plan – Meeting #1
Location: Collierville Meeting
November 10, 2003 – 3:00 PM
500 Poplar View Parkway
Collierville, TN, 38017
Attendance – 20 (Est.)

Nature of Comment: Oral

I**ssue:** Alderman Rowe wanted to understand what was the proper course of action for a jurisdiction that noted a road segment listed in the plan as a major road, but the jurisdiction had no intention of making the improvements called for in the plan? Should it propose an amendment to delete the road or just leave it in the plan as it has been for several decades?

Response: The MPO believes the designation of roads as a priority network begins with member jurisdictions and in most instances their inclusion or exclusion is a decision that they should make as part of plan development. This method was followed in the preparation of this plan. The exception is for regionally significant roads that form the basic grid the LRTP discusses in the Community Design section. Such roads go beyond the limited concerns of a single member and needed more consideration and evaluation. In either instance if there is no intent for the road to be constructed by the municipality, and it is not a regionally significant road, the MPO believes the road should be removed from the plan to provide the public with the most accurate data on the future road network available. Supporting information for the change can then be developed, such as its impact on the congestion network and air quality if applicable. In many instance use of the priority classification has had the affect of shifting the construction funding needs to private development. This is anticipated in the plan, but if the municipality has determined it will never spend public funds on the project, the potential safety hazards likely to be realized by private piecemeal development must also be considered. In many cases it is this intent that results in the improvement being listed as a priority in the first instance.

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Germantown Meeting
November 10, 2003 – 6:00 PM
1936 Germantown Road
Germantown, TN
Attendance – 15 (Est.)

Oral Comment - Mayor Goldsworthy again expressed her concerns over the population growth estimates used for the plan. She believes that estimates are far too optimistic. As a result she is concerned that use of these figures will lead to the construction of unnecessary roads and facilities.

Response: The establishment and distribution of the population and employment estimates is critical to plan development. For this reason, the MPO staff sought and obtained approval of the figures used in this LRTP from the Executive Board at an early point in the development of the Draft Plan. While recognizing these figures represent a robust growth in the Region, the MPO staff believes part of its goals is to promote such a plan that will be sufficient to maintain the facilities if this growth is to occur. While the growth figures are important, the percentage of growth in the MSA between 1990 and 2000 was 12.7 % and Shelby County was 8.6%. These figures are in line with the estimated used going forward in the LRTP. Accordingly, the Staff will continue to monitor population increases in the future but feels the figures used in the plan are appropriate.

Memphis Main Public Library
3030 Poplar
Saturday, November 15, 2003 - Noon
Attendance -5

Issue: Widening of Southern Ave. between Goodlett and Highland
Mr. Charles Durham Representing the Normal Station Neighborhood Organization

Comment: Has the same concerns as Ms Ogle and notes that the increased use by the University of Memphis at its South Campus may also increase this problem by putting the community between the two campuses.

Response: See response to comment from Ms. Mary Ogle below.

Lakeland Meeting
Lakeland City Hall
Monday November 17, 2003 – 6:30 PM
10001 Highway 70, Lakeland TN
Attendance – 20 (est.)
No Comments on draft Plan. Written Comment sheets left at location.

Horn Lake Meeting
Horn Lake City Hall
Monday, November 17, 2003 – 7:00 PM
Estimated Attendance - 35
No comments on the draft Plan. Written Comment Sheets left at location.

MATA Headquarters
1375 Levee Road
Monday, November 24, 2003 – 3:00 PM
Attendance – 2
No Comment received – Written Comment form left at location

Olive Branch City Hall
Monday November 24, 2003 – 6:30 PM
9189 Pidgeon Roost Road
Olive Branch, MS.
Attendance – 0

Southhaven City Hall
Monday November 24, 2003 – 7:00PM
8710 Northwest Dr. Southaven, MS
Attendance – 0

City of Bartlett Meeting
Bartlett City Hall
Tuesday, November 25, 2003
Estimated Attendance – 20

No formal Comments received, but several questions addressed about specific projects status in the plan. Written Comment Sheets left at this location.

Millington Meeting
Millington City Hall
Monday, December 1, 2003 - 7:00 PM
7930 Nelson St, Millington, TN
Estimated Attendance – 20

No formal Comments received, but several questions addressed about specific projects status in the plan. Written Comment Sheets left at this location..

Arlington Meeting
Arlington City Hall
5854 Airline Road, Arlington, TN
Monday, December 1, 2003 – 7:30 PM
Estimated Attendance -25
No Comment received on the plan. - Written Comment Sheets left at location

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DeSoto County Administration Bldg
Wednesday, December 3, 2003 -9:00 A.M.
365 Losher St, Hernando, MS
Estimated Attendance – 20

No formal Comments received, but several questions addressed about specific projects status in the plan. Written Comment Sheets left at this location.

Shelby County Meeting
Saturday, December 7, 2003
Bert Fergusen Community Center
8520 Trinity Road
Cordova, TN
Attendance – 7

All those citizens attending were members of the Friends of Shelby Farms. Copies of the comments received at the Regional Advisory Board Public Hearing will be considered their comments on the plan. One additional written comment received from Mr.Art Wolf requesting a Citizen's Advisory Committee meeting is held quickly to make them aware of the MPO's LRTP and be allowed to comment. The Citizen's Advisory Committee met at 5:00 PM on December 9, 2003. Mr. Wolf was notified of this meeting and attended.

Piperton City Hall
December 8, 2003
3575 Highway 196
Piperton, TN
Attendance – 0
No Comments Received

Conclusion on Public Meeting Comments

This series of 14 formal meeting resulted presentation of the Draft Long Range Plan to an estimated audience of 189 citizens. Other meetings during the comment period including presentations to the Piperton Board of Alderman, the Olive Branch Board of Alderman and the Memphis Area Homebuilders Association. An additional estimated 50 citizens attended these meetings and were informed of the methods available for comment or provided formal comment forms.

Summary of Other Public Comment Received

1. Issue: Objection to improvement of Southern between Goodlett and Highland from 2 lanes to 4 lanes. Shown for completion between 2017 and 2026.

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Mary Ogle - Telephone comment received November 14, 2003
3776 Carnes
Memphis, TN 38111
Concerns include:

- Widening could threaten a Historic Structure - Carriage House just west of Goodlett
- New road would attract more university traffic to the free parking on Southern
- Line of Sight with the of hill is now dangerous and more traffic will increase that danger
- More traffic would be disruptive to the neighborhood
- Four lanes is too much for residential character of this section of road that has neighborhoods fronting on Southern
- Improvements will increase use as a cut thought
- There is now a back-up of traffic coming north on Goodlett from Getwell/I-240 to park free on Southern in University parking lots and this road project will make more traffic come this way instead of going along Park to Highland and then to Southern Seeks ideas on how to route the traffic from Getwell/ I-240 area onto Park Avenue and Highland away from Southern

Response This link is the logical extension of the four lane road that now terminates at Goodlett and its improvement to Highland will minimize the need for an expensive structure over the train tracks.

The approval of the residential redevelopment of the property at Goodlett and Southern included the dedication of property for his improvement and should not threaten the loss of the historic carriage house mentioned. As this plan does not select alignments, it may be possible for some of the widening ROW to come from the rail easement depending upon its need and availability when the project is initiated. The City has indicated that this project may be able to be further postponed, but that discussion with the University of Memphis would appear to be warranted.

2. Issue: Language in Draft Plan about Location of Sidewalks "so as to discourage their safe use." (Page 6-42)

Telephone Comment received November 14, 2003

Wain Gaskin, Memphis City Engineer
125 N. Main
Memphis, TN 38103
Comment: The discussion of Sidewalks in the Draft Plan is of concern. He feels that the City of Memphis designs and constructs no unsafe sidewalks and the statement in the alternative mode section gives the impression they do. The City of Memphis has budgeted $ 2 million annually for sidewalk construction for ADA compliance and believe this professional design standards used for this program was not taken into account.

Response – The MPO agrees that the sidewalk program the City is undertaking represent a significant part of the plans goals of providing appropriate alternative transportation options to the citizens of the region. All citizens who may use them will modify the

unsafe sidewalk language in the plan to better reflect the intent of the comment, which was to promote the design and construction of sidewalks, and pedestrian facilities that are appropriate for their environment and accepted.

3. Issue(s): Long Range Transportation Plan – Availability
MPO Procedural Question

Telephone Comment received November 20, 2003
Laura Adams
9345 Dogwood Road
Germantown TN 39139
Comment: Ms. Adams requested a copy of LRTP and information on the time and location of public meetings and hearings. She also asked what was the difference between a Public Hearing and Public Meeting?

Response – A copy provided to her Father, Art Wolf, that day for delivery to Ms. Adams. She was also advised of the library locations containing public copies. Ms Adams was further advised of various meetings and public hearing dates and times and that the schedule was on the website. Ms. Adams was told that public hearings were before the MPO's RAB and Executive Boards while public meetings were put on my staff for public education and receipt of comment. There is no difference in the response to the comments provided in either venue.

4. Issue-Consistency of Road network in Appendix A with TIP and other proposed projects and related technical items.

Conference Call with the State of Tennessee Department of Transportation
December 1, 2003 1:30 PM
Comment - On November 26, TDOT e-mailed a list of projects to the MPO of road projects on which they had questions.

Response - On December 1, 2003 the MPO reviewed that list of projects to assist TDOT in locating the projects in the plan or to address omitted projects or those on which had other technical issues related to horizon year for the project or laneage was in issue. After a two-hour conference call, a number of horizon year changes were requested and several non-road projects were agreed to be added. An amendment to Appendix A List is to be completed.

5. Issue: Congestion on Goodman Road in DeSoto County

Received November 21, 2003 by mail
David A. Foster
2170 Malori Cove
Southaven, MS 38671

Comment: Mr. Foster states a concerned about the level of congestion on Goodman Road. He expresses the need to construct more "north/south roads "and claims the only one would be "along side the train tracks from Horn Lake to Southaven. Please help us try a figure this congestion of all the cars in the Southaven area."

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Response –Goodman Road is a recognized congestion corridor in the Long Range Plan's Congestion Mitigation System network and the first non-interstate road to be considered in the Congestion Plan outside of Shelby County. The plan does make efforts to relieve congestion with the construction of parallel road such as Nail Road and Stateline Road, and other north south roads so that Goodman is not the only improved major arterial available to the public. Goodman becomes part of a network and the completion of that network will provide better overall traffic circulation. The MPO will also seek to implement congestion management process such as the ITS project now being constructed and the enhancement of traffic surveillance camera by MDOT.

6. Issue: Planned improvements to Pleasant Ridge Road.

2 Letter from TDOT Commissioner Nicely, an e-mail from Jacques Morrise and Form Letters Received 53 Area residents:
Comment: Local residents request removal of project to construct improvements to Pleasant Ridge Road from the Plan. They ask that the Road be left as a two lane facility. Draft Plan calls for widening of six lanes by 2026 for the section of Pleasant Ridge between Cuba-Woodstock and Austin Peay Highway.

Response – The widening of Pleasant Ridge has been on the long range plan for several updates. Pleasant Ridge is intended to serve as a major east-west local arterial for the northern portion of Shelby County. It is the only continuous local arterial between the Loosahatchie River and Navy Road, a distance of approximately 4 miles. It is therefore consider important to the grid network design current utilized by the MPO that this corridor be preserved for this purpose and remain available for future widening. As the Plan currently calls for this improvement in the period between 2016 and 2026, it will be possible to monitor the area for sometime to assure development patterns continue to warrant the improvements. Other roads identified in the form letter or other comments are intended for regional travel and do not best serve the travel needs of all local residents.

7. Issue: Status of Riverwalk Section
Sue A. Williams by E-Mail
1694 N Parkway
Memphis, TN

Comment: Is the continuation of the Bluff Walk between Ashburn Copock Park and Martyr's Park behind the Rivermont in the plan? If not I would request its addition. What is its completion date? Can it be constructed of some softer material than concrete as concrete is hard walking surface on some pedestrians?

Response: The Riverwalk is an important part of both the Riverfront development and the Downtown pedestrian network. Parts of the project under construction are listed on page 6-18, but section you are interested in has not yet reached the contract stage. In the plan the construction of these section of Riverwalk is planned to be open during the period between 2006 and 2016.

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8. Issue: Opposition to current Wolf River Parkway alignment

Sue A. Williams by E-Mail
1694 N Parkway
Memphis, TN
Comment: Asks about the current status of Wolf River Parkway (the graphic in the plan was too small and not labeled). Commenter is particularly concerned about any route through Riverwoods State Natural Area and through floodplain generally.

Response: The plan has this segment of the Wolf River Parkway as a priority one road with a horizon year of 2016. This Plan is only intended to address general corridor alignment and the routes and design specifics are determined in the environmental review process. We agree that environmental sensitive areas need special attend and our local project selection criteria for funding of local STP projects reflects that bias.

9. Issue: Supports greenways, but does not support funding for the Nonconnah Greenway unless it is NOT connected to the dredging project by the Corps of Engineers.

Sue A. Williams by E-Mail
1694 N Parkway
Memphis, TN

Response: Our greenway projects relate specifically to the transportation network within the larger Greenway areas. These include the bike and walking trails and their support facilities. Any dredging project for the overall greenway creation is beyond the scope of this plan.

10. Issue: Use of Existing Infrastructure and Creation of Light Rail Corridors

Sue A. Williams by E-Mail
1694 N Parkway
Memphis, TN

Comment: The draft report shows a projected decline of residents within the area of the City encircled by the Interstate system and in other parts of the City. Since this decline wastes dollars already spend on infrastructure, I have to wonder why we need so many roads out into the county. Those roads seem to be an unfair burden on those of us who stay; I don't care to finance developers; I realize that is an issue that the politicians must address. But roads and sewers allow sprawl. I support light rail; we need to look ahead and plan for better transportation choices for citizens as the baby bloomers age and stop driving. I'd suggest that new easements need to be in the plan for light rail. These may have been included: but it they were, I could not discern routes from the graphics. I realize that routes within the city are still being analyzed.

Response: The Plan does not predict a decline in population in the identified areas, but rather a decline in the percentage that population represents of the entire region. As one of our primary goals is to utilize existing infrastructure we agree that unnecessary roads are not good planning policy. The basic premise of our plan is increased investment in

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transit to fund a new light rail network to increase urban density along these corridors and in so doing prevent sprawl. As indicated the commenter favors this option. Again the plan is only intended to identify broad corridors for these major capital investments and in so doing allow the public significant voice in deciding their final alignment.

11. Issue: Inadequate Bike Plan in Plan

Sue A. Williams by E-Mail
1694 N Parkway
Memphis, TN

Comment: Commenter found the plan inadequate compared to what I have seen in other cities, specifically in Albuquerque, N M. I support dedicated bike lanes; like I see there.

Response: This Document was not intended to be the formal Bike Plan for the Region, but rather only to provide an analysis of current projects and how future needs are to be addressed. This comment and others from the Federal Transportation agencies will result in significantly more analysis and discussion of this aspect of the Long Range Plan.

12. Issue: Plan's Roads in the Shelby Farms Area
Summary of comments: The MPO has received numerous comments on the aspect of the Draft Long Range Plan

These include 8 faxed form letters requesting rejection of that part of the plan that calls for a six lane Kirby Whitten with an interchange at Walnut Grove based in part on the findings of the TDOT study recently concluded by the University of Tennessee. These letters support context sensitive design that would include public representation in the planning stages. In addition 1 letter and two e-mails were received of interested commercial property owners in the area supporting the current Plan road pattern as needed to support the existing and future traffic. Examples of specific comments on the issue are provided below

December 7, 2003
Ms. Bert Wolf - Fax Comment

Summary of Comment: The comment states concern about the future north-south road in the Shelby Farms area. Pass resistance to roads has been caused by "Overbuilt, inappropriate expressway type designs" considered harmful to the recreation areas of and the environment the Farms. It encourages the hiring of experts with experience in moving traffic efficiently, thoughtfully and farsightedly through environmentally sensitive areas and prevents the mistakes of the past.

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Rusty Bloodworth by e-mail
Executive Vice President
Boyle Investment Company
5900 Poplar Avenue
Memphis, TN 38119
12/05/03 05:45PM

I write representing over 1000 acres of commercial, industrial and household users in several Boyle Investment Company developments in the vicinity of Shelby Farms. These developments are to the north (Century Center), the west (Humphreys Center), the south (Humphreys Center, Chartwell, Ridgeway Center, Regalia), and the east (Spring Creek, Riveredge). I want to encourage the adoption of those Long Range Plan Major Roadways that are identified on your draft available at the DPDGOV.com website for Memphis and Shelby County as of December 4, 2003 because it is critical to all of our tenants and residents in our above referenced developments, as well as for the economic health of Shelby County, to have as many linkages into and through Shelby Farms with at least the number of lanes indicated in the current draft. Because the surrounding perimeter roadway system is already at overload, any deletion of the current proposed roadway linkages should be vigorously opposed and every step possible should be taken by the MPO to assure better flow through the Farms area.

December 9, 2003
Mr. Art Wolf – Fax Comment

Comment – Concern is raised about the Segment of Walnut Grove between I-240 and the Wolf River as going at an angle and distance into Shelby Farms so as to eliminate other alternatives to the future road network in Shelby Farms. State opposition to "Plan B" and asks for more information on exact design and location, future speed limit and signage as well as the truck restrictions to be imposed. Claims approved Environmental Impact Statement is flawed and that inaccurate information has been provided in its development concerning park area classification.

Response – No change in the plan is being proposed at this time, as the current plan is representative of the only plan contained in an approved Environmental Impact Statement. There is a clearly demonstrated and significant divergence of public opinion for the needs of the future surface transportation system in and around Shelby Farms. The MPO supports the actions now being taken by Memphis and Shelby County to assist in the resolution of these issues with the development of additional information on the future needs of the area network to meet projected traffic volumes while conducting meaningful public participation in this task. The MPO encourages that the design aspects of the proposed roads in the area be in context with the unique environment that Shelby Farms provides. This process is endorsed in the current plan.

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PUBLIC COMMENTS AT THE PUBLIC HEARING BEFORE THE REGIONAL ADVISORY BOARD DECEMBER 4, 2003

1. Issue: Improvements to Kirby Parkway, Walnut Grove Roads and other roads in area near Shelby Farms
Laura Adams
Bert Wolf
Art Wolf
Steve Sonhiem
President and other Board members of the Friends of Shelby Farms

Comment: (Copy of Comments submitted in writing)

1. Issue: The improvements to Kirby Parkway and Walnut Grove are not in keeping with the Tennessee Department of Transportation's Report on the need for context sensitive design in the completion of these roadways.

Response: See above comment on Shelby Farms for roads within Shelby Farms discussion.

2. Issue: Feeder Road into Shelby Farms

Comment: The additional lanes called for in the plan that connect to roads on the perimeter of Shelby Farms are not consistent with Goal 3 in the Long Range Plan

Response: A central aspect of the Long Range Plan is the assurance the surface network envisioned in the Plan can address both current and future transportation needs. This is accomplished in most cases by the development of a local grid of street to need the local and regional needs of the community. The MPO believes that until further clarification on the final land use patterns is provided, the projects land use and traffic demand generated by it warrants to inclusion of these roads in the plan.

3. Issue: Other Roads in the region
Comment: The comment strongly supports certain projects in the region that are seen as roads that will relieve road pressure on Shelby Farms.

Response: These roads are maintained in the plan.

4. Issue: Lucus Birch Greenway along Wolf River

Comment: Comment states concern that it is too simple to change boundaries of the natural area. It asks how will the greenway be designed to accommodate both hikers and bikers? How will motorized vehicle be banned? Comment suggests the Greenway Trail be folded into the Master Plan that would include significant public input.

Response: Many of these questions are beyond the scope of the LRTP. Most will be addressed in the detailed Bike and Pedestrian Plan the LRTP calls to be adopted in calendar year 2004. The question of natural area boundaries is a matter of state law and beyond the preview of the MPO. As the overall Greenway Plan includes much more than just Shelby Farms the MPO believes that its inclusion in the Farms Master Plan is a matter to be decided by the Shelby County Commission Committee created to study these issues together with the jurisdictions supporting the Greenway's development.

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APPENDIX E

Growth Alternatives Projections Methodology

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APPENDIX E

GROWTH ALTERNATIVES PROJECTIONS METHODOLOGY

LIGHT RAIL—Population Projections

- Total 2026 population of Shelby County, TN was taken from Woods & Poole Economics, Inc. County Forecast, 2002 edition.
- Total 2026 population of Fayette County, TN was taken from the adopted Fayette County Growth Plan.
- Total 2026 population of DeSoto County, MS was derived from the DeSoto County 2025 Comprehensive Plan.
- Distribution of total 2026 population to each TAZ was accomplished through analysis of Census Data, Building Permit and Demolition data (Memphis & Shelby County Code Enforcement), buildable acreage (Shelby County Assessor of Property), and extensive discussions with suburban and City of Memphis Planners and Engineers, with the idea that after 2016, higher density development will occur along the Light Rail corridor.
- Number of 2026 Households, Vehicles, and Workers was calculated using Census Population factors specific to each Census Tract.
- Population for each TAZ for intermediate years were calculated with a simple straight-line trend to 2000 Census population.
- Number of Households, Vehicles, and Workers for each TAZ for intermediate years was calculated using the same Census factors specific to each Census Tract.

SUBURBAN EXPANSION—Population Projections

- Suburban Expansion alternative assumed no light rail line would be constructed.
- Number of People, Households, Workers, Vehicles, and Employment for each TAZ was projected to be the same as the Light Rail Alternative until 2016, because Light Rail is not planned to exist in the MPO area until 2016.
- Suburban Expansion alternative was to be based on trend analysis of 1980, 1990 and 2000 census data. However, 1980 TAZ boundaries were radically altered in future years and comparisons could not be made.
- Trends analysis utilized 1995 base year population and 2000 census data by TAZ.
- Some of the calculated trends in growth and declining TAZs were not realistic due to extreme increases or decreases, therefore, plus or minus 5% was allocated.
- Suburban TAZs not identified as high-growth areas are consistent with 2026 Light Rail alternative population.
- Factors for HH, Vehicles, and Workers were consistent with LR Alternative.

Employment Projections

- 2000 Employment calculated from1995 MPO data, Bureau of Business & Economic Research at University of Memphis & Memphis 2005
- Number of 2026 Employment by place of work was determined from the Memphis 2005 Economic/Growth Plan and Memphis Area Chamber data.

- Employment for each TAZ for intermediate years was calculated with a simple straight-line trend to 2000 employment data for both alternatives.

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Appendix F

Demographic Projections of Light Rail Corridor Development Alternative by TAZ

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Shelby County Projections
Light Rail Alternative

TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
1	0	-	-	-	95	0	0	-	-	433	Y	=	-	+	0.0000	X	Y	=	95	+	13.0000	X
2	0	-	-	-	286	0	0	-	-	502	Y	=	-	+	0.0000	X	Y	=	286	+	8.2903	X
3	0	-	-	-	246	0	0	-	-	405	Y	=	-	+	0.0000	X	Y	=	246	+	6.0968	X
4	0	-	-	-	263	0	0	-	-	479	Y	=	-	+	0.0000	X	Y	=	263	+	8.2903	X
5	124	173	100	114	467	216	300	174	198	900	Y	=	173	+	4.8846	X	Y	=	467	+	16.6452	X
6	24	34	20	22	374	72	100	58	66	800	Y	=	34	+	2.5385	X	Y	=	374	+	16.3871	X
7	28	39	23	26	2,854	72	100	58	66	3000	Y	=	39	+	2.3462	X	Y	=	2,854	+	5.6129	X
8	190	264	153	174	1,552	216	300	174	198	5000	Y	=	264	+	1.3846	X	Y	=	1,552	+	132.6129	X
9	460	639	371	422	3,059	540	750	435	495	3936	Y	=	639	+	4.2692	X	Y	=	3,059	+	33.7419	X
10	505	702	407	463	10,068	719	1000	580	660	11710	Y	=	702	+	11.4615	X	Y	=	10,068	+	63.1638	X
11	0	-	-	-	721	0	0	-	-	727	Y	=	-	+	0.0000	X	Y	=	721	+	0.2258	X
12	293	396	230	150	378	967	1305	757	496	378	Y	=	396	+	34.9615	X	Y	=	378	+	0.0000	X
13	1134	1,758	1,020	141	3,307	1714	2656	1,540	212	4007	Y	=	1,758	+	34.5385	X	Y	=	3,307	+	26.9380	X
14	0	-	-	-	4,164	239	370	215	30	4639	Y	=	-	+	14.2308	X	Y	=	4,164	+	18.2581	X
15	1	1	1	0	2,221	0	0	-	-	3997	Y	=	1	+	-0.0385	X	Y	=	2,221	+	68.2928	X
16	6	10	6	1	1,435	257	398	231	32	2750	Y	=	10	+	14.9231	X	Y	=	1,435	+	50.5831	X
17	224	347	201	28	1,085	323	500	290	40	1750	Y	=	347	+	5.8846	X	Y	=	1,085	+	25.5831	X
18	79	123	71	10	195	698	1082	628	87	321	Y	=	123	+	36.8846	X	Y	=	195	+	4.8387	X
19	250	347	201	229	1,462	1439	2000	1,160	1,320	1774	Y	=	347	+	63.5769	X	Y	=	1,462	+	12.0000	X
20	544	827	728	579	4,129	3012	4578	4,029	3,205	4206	Y	=	827	+	144.2692	X	Y	=	4,129	+	2.9677	X
21	129	317	48	124	1,522	61	150	23	59	2494	Y	=	317	+	-6.4231	X	Y	=	1,522	+	37.3871	X
22	484	1,587	286	794	225	723	2372	427	1,186	225	Y	=	1,587	+	30.1923	X	Y	=	225	+	0.0000	X
23	303	995	179	498	565	330	1082	195	541	565	Y	=	995	+	3.3462	X	Y	=	565	+	0.0000	X
24	747	1,845	424	1,033	2,329	810	2000	460	1,120	2189	Y	=	1,845	+	5.9615	X	Y	=	2,329	+	-5.3871	X
25	818	1,219	378	427	1,248	1179	1757	545	615	1452	Y	=	1,219	+	20.6923	X	Y	=	1,248	+	7.8387	X
26	97	250	33	105	3,119	282	728	95	306	3070	Y	=	250	+	18.3846	X	Y	=	3,119	+	-1.9032	X
27	562	882	326	485	2,020	1266	1988	736	1,093	2205	Y	=	882	+	42.5385	X	Y	=	2,020	+	7.0968	X
28	122	150	50	51	7,229	276	340	112	116	7229	Y	=	150	+	7.3077	X	Y	=	7,229	+	0.0000	X
29	663	815	269	277	6,498	1105	1359	448	462	6896	Y	=	815	+	20.9231	X	Y	=	6,498	+	15.3226	X
30	923	1,135	375	386	5,623	474	583	192	198	5623	Y	=	1,135	+	-21.2308	X	Y	=	5,623	+	0.0000	X
31	99	156	58	86	1,186	99	156	58	86	1807	Y	=	156	+	0.0000	X	Y	=	1,186	+	23.8710	X
32	320	770	262	385	422	320	770	262	385	422	Y	=	770	+	0.0000	X	Y	=	422	+	0.0000	X
33	780	1,989	656	835	240	1226	3126	1,032	1,313	263	Y	=	1,989	+	43.7308	X	Y	=	240	+	0.8710	X
34	536	1,368	451	575	283	536	1368	451	575	458	Y	=	1,368	+	0.0000	X	Y	=	283	+	6.7419	X
35	157	378	129	189	390	68	163	55	82	390	Y	=	378	+	-8.2692	X	Y	=	390	+	0.0000	X
36	20	27	3	10	3,033	0	0	-	-	5000	Y	=	27	+	-1.0385	X	Y	=	3,033	+	75.6452	X
37	17	23	3	9	410	74	100	11	38	1250	Y	=	23	+	2.9615	X	Y	=	410	+	32.2903	X
38	560	1,556	482	529	1,242	1439	4,000	1,240	1,360	3000	Y	=	1,556	+	94.0000	X	Y	=	1,242	+	67.6129	X
39	1278	3,999	1,160	1,800	558	1278	4,000	1,160	1,800	558	Y	=	3,999	+	0.0385	X	Y	=	558	+	0.0000	X
40	905	2,834	709	1,162	948	869	2,719	680	1,115	936	Y	=	2,834	+	-4.4231	X	Y	=	948	+	-0.4516	X
41	551	1,538	385	584	921	1147	3,200	800	1,216	921	Y	=	1,538	+	63.9231	X	Y	=	921	+	0.0000	X
42	0	-	-	-	63	137	403	278	258	358	Y	=	-	+	15.5000	X	Y	=	63	+	11.3548	X
43	1434	2,480	2,083	1,761	105	3038	5,255	4,414	3,731	105	Y	=	2,480	+	106.7308	X	Y	=	105	+	0.0000	X
44	221	382	321	271	4,178	183	316	265	224	4178	Y	=	382	+	-2.5385	X	Y	=	4,178	+	0.0000	X
45	31	96	24	39	1,347	51	159	40	65	1347	Y	=	96	+	2.4231	X	Y	=	1,347	+	0.0000	X
46	271	766	245	337	117	321	908	291	400	236	Y	=	766	+	5.4615	X	Y	=	117	+	4.5806	X
47	281	794	254	349	553	161	455	146	200	553	Y	=	794	+	-13.0385	X	Y	=	553	+	0.0000	X

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Shelby County Projections
Light Rail Alternative

TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
48	1131	2,963	1,126	1,807	286	889	2,328	885	1,420	286	Y	=	2,963	+	-24.4231	X	Y	=	286	+	0.0000	X
49	991	2,398	1,199	1,295	231	872	2,111	1,056	1,140	231	Y	=	2,398	+	-11.0385	X	Y	=	231	+	0.0000	X
50	84	213	87	92	416	109	277	114	119	416	Y	=	213	+	2.4615	X	Y	=	416	+	0.0000	X
51	1373	3,500	1,435	1,505	508	1480	3,773	1,547	1,622	508	Y	=	3,500	+	10.5000	X	Y	=	508	+	0.0000	X
52	1429	3,458	1,729	1,867	574	1429	3,458	1,729	1,867	691	Y	=	3,458	+	0.0000	X	Y	=	574	+	4.5161	X
53	1353	3,545	1,347	1,773	454	1182	3,096	1,176	1,548	454	Y	=	3,545	+	-17.2692	X	Y	=	454	+	0.0000	X
54	474	1,376	454	592	710	403	1,170	386	503	710	Y	=	1,376	+	-7.9231	X	Y	=	710	+	0.0000	X
55	466	1,221	464	611	933	275	721	274	361	933	Y	=	1,221	+	-19.2308	X	Y	=	933	+	0.0000	X
56	893	2,171	1,086	1,281	2,319	1009	2,451	1,225	1,446	2319	Y	=	2,171	+	10.7610	X	Y	=	2,319	+	0.0000	X
57	1302	2,617	1,335	1,649	1,470	1253	2,518	1,284	1,586	1470	Y	=	2,617	+	-3.8023	X	Y	=	1,470	+	0.0000	X
58	1805	4,333	2,686	2,643	245	1862	4,470	2,771	2,726	321	Y	=	4,333	+	5.2512	X	Y	=	245	+	2.9355	X
59	1049	2,444	1,222	1,491	1,282	1241	2,892	1,446	1,764	1282	Y	=	2,444	+	17.2479	X	Y	=	1,282	+	0.0000	X
60	1565	3,176	2,509	2,509	898	1505	3,056	2,414	2,414	898	Y	=	3,176	+	-4.6145	X	Y	=	898	+	0.0000	X
61	238	478	244	301	367	221	445	227	280	404	Y	=	478	+	-1.2866	X	Y	=	367	+	1.4194	X
62	1053	2,833	1,190	1,898	6,353	1241	3,337	1,402	2,236	6353	Y	=	2,833	+	19.3844	X	Y	=	6,353	+	0.0000	X
63	1895	2,881	2,017	1,959	2,358	2488	3,782	2,647	2,571	2358	Y	=	2,881	+	34.6362	X	Y	=	2,358	+	0.0000	X
64	2652	4,615	3,461	3,554	5,750	3708	6,452	4,839	4,968	5750	Y	=	4,615	+	70.6428	X	Y	=	5,750	+	0.0000	X
65	353	745	380	522	1,716	607	1,282	654	897	2123	Y	=	745	+	20.6416	X	Y	=	1,716	+	15.6452	X
66	301	636	324	445	5,449	290	612	312	428	5720	Y	=	636	+	-0.9241	X	Y	=	5,449	+	10.4194	X
67	1214	2,331	1,841	1,772	699	1254	2,408	1,903	1,830	828	Y	=	2,331	+	2.9787	X	Y	=	699	+	4.9677	X
68	1068	2,104	1,578	1,662	1,399	1028	2,025	1,518	1,599	1506	Y	=	2,104	+	-3.0569	X	Y	=	1,399	+	4.1290	X
69	1410	2,778	2,084	2,195	3,133	1357	2,673	2,005	2,112	3133	Y	=	2,778	+	-4.0362	X	Y	=	3,133	+	0.0000	X
70	552	955	783	707	2,871	556	962	789	712	2871	Y	=	955	+	0.2779	X	Y	=	2,871	+	0.0000	X
71	1116	2,623	1,784	1,652	307	1116	2,623	1,784	1,652	461	Y	=	2,623	+	0.0000	X	Y	=	307	+	5.9355	X
72	1413	2,529	2,023	1,897	1,496	1413	2,529	2,023	1,897	1773	Y	=	2,529	+	0.0000	X	Y	=	1,496	+	10.6452	X
73	2558	3,709	1,372	2,300	5,564	2903	4209	1,557	2,610	6241	Y	=	3,709	+	19.2308	X	Y	=	5,564	+	26.0323	X
74	1383	2,738	2,245	1,807	334	1383	2,738	2,245	1,807	363	Y	=	2,738	+	0.0000	X	Y	=	334	+	1.1290	X
75	5	11	6	5	476	5	11	6	5	481	Y	=	11	+	0.0000	X	Y	=	476	+	0.1935	X
76	972	2,158	1,079	1,057	3,153	972	2158	1,079	1,057	3164	Y	=	2,158	+	0.0000	X	Y	=	3,153	+	0.4194	X
77	1198	3,018	1,026	1,509	1,120	1198	3018	1,026	1,509	1298	Y	=	3,018	+	0.0000	X	Y	=	1,120	+	6.8387	X
78	871	2,194	746	1,097	1,425	1069	2694	916	1,347	1495	Y	=	2,194	+	19.2308	X	Y	=	1,425	+	2.6774	X
79	975	1,931	1,583	1,274	409	975	1931	1,583	1,274	505	Y	=	1,931	+	0.0000	X	Y	=	409	+	3.6774	X
80	1572	3,773	2,415	2,528	1,076	1490	3,576	2,289	2,396	1124	Y	=	3,773	+	-7.5690	X	Y	=	1,076	+	1.8387	X
81	877	2,246	1,190	1,325	306	832	2,129	1,128	1,256	350	Y	=	2,246	+	-4.5057	X	Y	=	306	+	1.6774	X
82	1451	4,180	1,756	2,383	656	1376	3,962	1,664	2,258	747	Y	=	4,180	+	-8.3854	X	Y	=	656	+	3.4839	X
83	743	1,812	834	1,051	1,252	704	1,717	790	996	1301	Y	=	1,812	+	-3.6350	X	Y	=	1,252	+	1.9032	X
84	221	540	227	275	5,553	210	512	215	261	5862	Y	=	540	+	-1.0833	X	Y	=	5,553	+	11.8710	X
85	741	2,001	700	940	989	702	1,897	664	891	1038	Y	=	2,001	+	-4.0142	X	Y	=	989	+	1.8710	X
86	439	1,217	645	755	316	416	1,154	611	715	491	Y	=	1,217	+	-2.4414	X	Y	=	316	+	6.7419	X
87	996	2,760	1,463	1,711	531	944	2,616	1,387	1,622	534	Y	=	2,760	+	-5.5368	X	Y	=	531	+	0.0968	X
88	927	2,307	1,361	1,430	58	878	2,187	1,290	1,356	118	Y	=	2,307	+	-4.6280	X	Y	=	58	+	2.2903	X
89	913	2,283	1,484	1,484	260	866	2,164	1,407	1,407	268	Y	=	2,283	+	-4.5799	X	Y	=	260	+	0.2903	X
90	1422	3,640	1,929	2,148	433	1348	3,450	1,829	2,036	433	Y	=	3,640	+	-7.3022	X	Y	=	433	+	0.0000	X
91	634	1,584	1,030	1,030	301	601	1,501	976	976	304	Y	=	1,584	+	-3.1776	X	Y	=	301	+	0.1290	X
92	1029	2,243	1,705	1,436	298	1029	2,243	1,705	1,436	380	Y	=	2,243	+	0.0000	X	Y	=	298	+	3.1613	X
93	1039	2,264	1,721	1,449	1,186	984	2,146	1,631	1,373	1186	Y	=	2,264	+	-4.5418	X	Y	=	1,186	+	0.0000	X
94	1097	2,446	1,663	1,443	173	1040	2,318	1,577	1,368	186	Y	=	2,446	+	-4.9069	X	Y	=	173	+	0.4839	X

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Shelby County Projections
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TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
95	198	442	301	261	1,465	188	419	285	247	1561	Y	=	442	+	-0.8867	X	Y	=	1,465	+	3.6774	X
96	0	-	-	-	405	0	-	-	-	468	Y	=	-	+	0.0000	X	Y	=	405	+	2.4194	X
97	0	-	-	-	153	0	-	-	-	296	Y	=	-	+	0.0000	X	Y	=	153	+	5.5161	X
98	221	505	647	343	1,063	219	500	641	340	1063	Y	=	505	+	-0.1923	X	Y	=	1,063	+	0.0000	X
99	1594	3,635	4,660	2,472	334	1525	3,476	4,456	2,364	335	Y	=	3,635	+	-6.1154	X	Y	=	334	+	0.0323	X
100	1871	4,265	5,468	2,900	578	2034	4,637	5,945	3,153	583	Y	=	4,265	+	14.3077	X	Y	=	578	+	0.1935	X
101	1733	4,090	2,822	2,618	1,257	1737	4,100	2,829	2,624	1695	Y	=	4,090	+	0.3846	X	Y	=	1,257	+	16.8387	X
102	872	1,902	1,522	989	293	872	1,902	1,522	989	674	Y	=	1,902	+	0.0000	X	Y	=	293	+	14.6452	X
103	29	64	51	33	2,629	46	100	80	52	3174	Y	=	64	+	1.3846	X	Y	=	2,629	+	20.9677	X
104	1455	3,171	2,537	1,649	5,046	1606	3,500	2,800	1,820	5177	Y	=	3,171	+	12.6538	X	Y	=	5,046	+	5.0323	X
105	31	75	59	46	5,112	41	100	78	61	5590	Y	=	75	+	0.9615	X	Y	=	5,112	+	18.3871	X
106	1605	3,933	3,068	2,399	3,897	1837	4,500	3,510	2,745	4217	Y	=	3,933	+	21.8077	X	Y	=	3,897	+	12.2903	X
107	1459	3,063	2,450	1,899	896	1478	3,104	2,483	1,924	1388	Y	=	3,063	+	1.5769	X	Y	=	896	+	18.9355	X
108	728	1,529	1,223	948	467	823	1,729	1,383	1,072	467	Y	=	1,529	+	7.6923	X	Y	=	467	+	0.0000	X
109	683	1,761	1,092	1,092	254	632	1,630	1,011	1,011	464	Y	=	1,761	+	-5.0385	X	Y	=	254	+	8.0645	X
110	2099	4,114	3,209	2,468	651	2311	4,529	3,533	2,717	716	Y	=	4,114	+	15.9615	X	Y	=	651	+	2.4839	X
111	556	1,090	850	654	2,130	746	1,462	1,140	877	3427	Y	=	1,090	+	14.3077	X	Y	=	2,130	+	49.8710	X
112	28	60	48	31	72	102	222	178	115	87	Y	=	60	+	6.2308	X	Y	=	72	+	0.5806	X
113	1734	3,347	2,276	2,376	1,259	1734	3347	2,276	2,376	1271	Y	=	3,347	+	0.0000	X	Y	=	1,259	+	0.4516	X
114	2134	5,080	3,048	3,251	1,235	1861	4,428	2,657	2,834	1235	Y	=	5,080	+	-25.0769	X	Y	=	1,235	+	0.0000	X
115	931	2,281	1,505	1,414	759	832	2,038	1,345	1,264	892	Y	=	2,281	+	-9.3462	X	Y	=	759	+	5.1290	X
116	1913	4,687	3,093	2,906	540	1725	4,227	2,790	2,621	696	Y	=	4,687	+	-17.6923	X	Y	=	540	+	6.0000	X
117	1248	3,221	1,997	1,997	438	1069	2,758	1,710	1,710	654	Y	=	3,221	+	-17.8077	X	Y	=	438	+	8.3226	X
118	2049	6,229	2,554	4,173	814	1344	4,086	1,675	2,738	814	Y	=	6,229	+	-82.4231	X	Y	=	814	+	0.0000	X
119	1349	3,358	1,713	2,082	557	1237	3,080	1,571	1,910	622	Y	=	3,358	+	-10.6903	X	Y	=	557	+	2.4839	X
120	1273	3,501	1,540	2,241	281	1171	3,221	1,417	2,062	311	Y	=	3,501	+	-10.7602	X	Y	=	281	+	1.1613	X
121	1162	3,195	1,406	2,045	314	1061	2,919	1,284	1,868	369	Y	=	3,195	+	-10.6107	X	Y	=	314	+	2.1290	X
122	1171	3,010	1,234	1,595	843	1065	2,736	1,122	1,450	910	Y	=	3,010	+	-10.5203	X	Y	=	843	+	2.5806	X
123	1863	4,397	2,638	2,990	765	1740	4,106	2,464	2,792	765	Y	=	4,397	+	-11.1979	X	Y	=	765	+	0.0000	X
124	2160	5,464	1,912	2,732	1,611	2039	5,159	1,806	2,580	1611	Y	=	5,464	+	-11.7192	X	Y	=	1,611	+	0.0000	X
125	0	-	-	-	386	0	-	-	-	409	Y	=	-	+	0.0000	X	Y	=	386	+	0.8710	X
126	1618	3,689	2,213	2,545	1,316	1851	4,221	2,533	2,913	1408	Y	=	3,689	+	20.4722	X	Y	=	1,316	+	3.5484	X
127	700	2,148	752	1,095	1,121	830	2,548	892	1,299	1215	Y	=	2,148	+	15.3835	X	Y	=	1,121	+	3.6129	X
128	1354	4,158	1,455	2,121	901	1567	4,811	1,684	2,454	974	Y	=	4,158	+	25.1200	X	Y	=	901	+	2.8065	X
129	991	2,399	960	1,008	576	882	2,133	853	896	576	Y	=	2,399	+	-10.2218	X	Y	=	576	+	0.0000	X
130	1080	2,657	1,143	1,435	1,631	971	2,388	1,027	1,289	1741	Y	=	2,657	+	-10.3478	X	Y	=	1,631	+	4.2258	X
131	873	2,103	904	1,030	2,215	764	1,841	792	902	2215	Y	=	2,103	+	-10.0772	X	Y	=	2,215	+	0.0000	X
132	1737	4,707	2,354	2,871	2,078	1628	4,412	2,206	2,691	2078	Y	=	4,707	+	-11.3494	X	Y	=	2,078	+	0.0000	X
133	1005	2,502	1,276	1,551	715	898	2,235	1,140	1,386	715	Y	=	2,502	+	-10.2721	X	Y	=	715	+	0.0000	X
134	805	2,327	884	1,419	519	714	2,062	784	1,258	621	Y	=	2,327	+	-10.1866	X	Y	=	519	+	3.9355	X
135	1237	3,339	1,469	1,836	193	1134	3,061	1,347	1,684	263	Y	=	3,339	+	-10.6810	X	Y	=	193	+	2.7097	X
136	248	598	257	293	2,761	147	355	153	174	3052	Y	=	598	+	-9.3419	X	Y	=	2,761	+	11.1935	X
137	1045	2,822	1,242	1,552	1,434	945	2,551	1,122	1,403	1506	Y	=	2,822	+	-10.4284	X	Y	=	1,434	+	2.7742	X
138	1089	2,940	1,294	1,617	586	988	2,667	1,174	1,467	586	Y	=	2,940	+	-10.4861	X	Y	=	586	+	0.0000	X
139	190	515	252	273	63	101	273	134	145	57	Y	=	515	+	-9.3014	X	Y	=	63	+	-0.2258	X
140	184	489	230	279	988	183	486	229	277	988	Y	=	489	+	-0.0972	X	Y	=	988	+	0.0000	X
141	1330	3,697	1,885	1,849	517	1323	3,678	1,876	1,839	517	Y	=	3,697	+	-0.7345	X	Y	=	517	+	0.0000	X

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Shelby County Projections
Light Rail Alternative

TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
142	732	1,962	765	961	140	728	1,952	761	956	215	Y	=	1,962	+	-0.3898	X	Y	=	140	+	2.9032	X
143	1244	3,358	1,108	1,813	365	1237	3,341	1,102	1,804	373	Y	=	3,358	+	-0.6672	X	Y	=	365	+	0.3226	X
144	749	2,067	641	847	404	745	2,056	637	843	404	Y	=	2,067	+	-0.4107	X	Y	=	404	+	0.0000	X
145	386	1,170	211	445	718	384	1,164	210	442	718	Y	=	1,170	+	-0.2325	X	Y	=	718	+	0.0000	X
146	727	1,898	475	892	439	723	1,888	472	887	439	Y	=	1,898	+	-0.3771	X	Y	=	439	+	0.0000	X
147	723	2,168	282	932	645	719	2,157	280	927	645	Y	=	2,168	+	-0.4308	X	Y	=	645	+	0.0000	X
148	953	2,679	1,045	1,340	322	948	2,665	1,039	1,333	322	Y	=	2,679	+	-0.5323	X	Y	=	322	+	0.0000	X
149	1282	3,411	1,603	1,944	1,168	1276	3,393	1,595	1,934	1168	Y	=	3,411	+	-0.6777	X	Y	=	1,168	+	0.0000	X
150	897	2,512	829	1,281	1,508	893	2,499	825	1,275	1508	Y	=	2,512	+	-0.4991	X	Y	=	1,508	+	0.0000	X
151	673	1,756	667	860	544	669	1,747	664	856	544	Y	=	1,756	+	-0.3489	X	Y	=	544	+	0.0000	X
152	0	-	-	-	303	0	-	-	-	295	Y	=	-	+	0.0000	X	Y	=	303	+	-0.3226	X
153	1268	3,309	1,257	1,621	635	1261	3,292	1,251	1,613	635	Y	=	3,309	+	-0.6575	X	Y	=	635	+	0.0000	X
154	524	1,468	484	749	1,785	522	1,460	482	745	1785	Y	=	1,468	+	-0.2917	X	Y	=	1,785	+	0.0000	X
155	516	1,558	343	592	1,735	513	1,550	341	589	1735	Y	=	1,558	+	-0.3096	X	Y	=	1,735	+	0.0000	X
156	75	159	56	57	3,005	75	158	55	57	3005	Y	=	159	+	-0.0316	X	Y	=	3,005	+	0.0000	X
157	160	409	217	245	933	160	407	216	244	933	Y	=	409	+	-0.0813	X	Y	=	933	+	0.0000	X
158	-	-	-	-	1,790	-	-	-	-	2,636	Y	=	-	+	0.0000	X	Y	=	1,790	+	32.5484	X
159	-	-	-	-	1,784	-	-	-	-	2,607	Y	=	-	+	0.0000	X	Y	=	1,784	+	31.6452	X
160	-	-	-	-	1,655	-	-	-	-	2,461	Y	=	-	+	0.0000	X	Y	=	1,655	+	31.0000	X
161	-	-	-	-	298	-	-	-	-	1,070	Y	=	-	+	0.0000	X	Y	=	298	+	29.6774	X
162	-	-	-	-	175	-	-	-	-	642	Y	=	-	+	0.0000	X	Y	=	175	+	17.9677	X
163	-	-	-	-	43	-	-	-	-	268	Y	=	-	+	0.0000	X	Y	=	43	+	8.6452	X
164	1393	4,068	2,319	2,522	291	1638	4,782	2,726	2,965	308	Y	=	4,068	+	27.4615	X	Y	=	291	+	0.6452	X
165	788	2,418	1,185	1,402	312	823	2,526	1,238	1,465	327	Y	=	2,418	+	4.1538	X	Y	=	312	+	0.5806	X
166	545	1,536	737	768	479	559	1,575	756	788	788	Y	=	1,536	+	1.5000	X	Y	=	479	+	11.8710	X
167	65	106	80	65	2,464	121	197	148	120	2464	Y	=	106	+	3.5000	X	Y	=	2,464	+	0.0000	X
168	1118	3,152	1,513	1,576	460	1314	3,705	1,778	1,853	577	Y	=	3,152	+	21.2729	X	Y	=	460	+	4.5161	X
169	1422	4,421	1,857	2,255	310	1487	4,626	1,943	2,359	346	Y	=	4,421	+	7.8846	X	Y	=	310	+	1.3871	X
170	1295	3,846	2,192	2,461	507	1295	3,846	2,192	2,461	500	Y	=	3,846	+	0.0000	X	Y	=	507	+	-0.2581	X
171	625	1,944	816	991	281	651	2,026	851	1,033	298	Y	=	1,944	+	3.1538	X	Y	=	281	+	0.6452	X
172	1510	4,892	2,397	2,886	491	1535	4,975	2,438	2,935	577	Y	=	4,892	+	3.1923	X	Y	=	491	+	3.2903	X
173	552	1,787	876	1,054	290	648	2,101	1,029	1,239	289	Y	=	1,787	+	12.0605	X	Y	=	290	+	-0.0323	X
174	1290	3,792	2,237	2,616	260	1516	4,457	2,630	3,076	725	Y	=	3,792	+	25.5923	X	Y	=	260	+	17.9032	X
175	2121	6,192	3,529	3,839	364	2493	7,279	4,149	4,513	481	Y	=	6,192	+	41.7900	X	Y	=	364	+	4.5161	X
176	172	502	286	311	34	202	590	336	366	116	Y	=	502	+	3.3880	X	Y	=	34	+	3.1613	X
177	1780	5,500	2,475	3,080	940	2092	6,465	2,909	3,620	1057	Y	=	5,500	+	37.1196	X	Y	=	940	+	4.4839	X
178	1634	4,887	2,786	3,372	712	1796	5,370	3,061	3,705	1063	Y	=	4,887	+	18.5769	X	Y	=	712	+	13.4839	X
179	455	1,274	752	917	178	535	1,498	884	1,078	226	Y	=	1,274	+	8.5983	X	Y	=	178	+	1.8387	X
180	9	24	14	17	1,381	10	28	17	20	1521	Y	=	24	+	0.1620	X	Y	=	1,381	+	5.3871	X
181	1436	4,022	2,373	2,896	351	1688	4,728	2,789	3,404	572	Y	=	4,022	+	27.1446	X	Y	=	351	+	8.5161	X
182	1188	3,266	1,731	2,319	381	1188	3,266	1,731	2,319	471	Y	=	3,266	+	0.0000	X	Y	=	381	+	3.4516	X
183	1392	3,771	1,622	2,376	2,539	1636	4,433	1,906	2,793	2539	Y	=	3,771	+	25.4506	X	Y	=	2,539	+	0.0000	X
184	1034	2,803	1,205	1,766	1,054	1114	3,019	1,298	1,902	1054	Y	=	2,803	+	8.3077	X	Y	=	1,054	+	0.0000	X
185	1433	4,085	2,247	2,819	1,416	1615	4,604	2,532	3,177	1635	Y	=	4,085	+	19.9615	X	Y	=	1,416	+	8.4194	X
186	1467	3,991	2,195	2,714	797	1725	4,691	2,580	3,190	870	Y	=	3,991	+	26.9354	X	Y	=	797	+	2.8065	X
187	1650	4,488	2,468	3,052	896	1940	5,276	2,902	3,587	1086	Y	=	4,488	+	30.2896	X	Y	=	896	+	7.2903	X
188	406	1,156	636	798	846	477	1,359	747	938	962	Y	=	1,156	+	7.8019	X	Y	=	846	+	4.4516	X

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TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
189	0	-	-	-	2,634	0	-	-	-	2714	Y	=	-	+	0.0000	X	Y	=	2,634	+	3.0645	X
190	297	484	363	295	2,715	625	1,019	764	622	2737	Y	=	484	+	20.5769	X	Y	=	2,715	+	0.8387	X
191	2	3	2	2	5,666	0	-	-	-	6694	Y	=	3	+	-0.1154	X	Y	=	5,666	+	39.5484	X
192	438	1,318	435	830	5,203	349	1,050	347	662	6626	Y	=	1,318	+	-10.3077	X	Y	=	5,203	+	54.7419	X
193	2	7	2	4	3,382	0	-	-	-	3635	Y	=	7	+	-0.2692	X	Y	=	3,382	+	9.7419	X
194	1672	5,033	1,661	3,171	545	1378	4,147	1,369	2,613	545	Y	=	5,033	+	-34.0769	X	Y	=	545	+	0.0000	X
195	142	427	141	269	930	142	427	141	269	3437	Y	=	427	+	0.0000	X	Y	=	930	+	96.4194	X
196	345	1,037	342	653	3,114	410	1,235	408	778	3524	Y	=	1,037	+	7.6154	X	Y	=	3,114	+	15.7742	X
197	1251	3,439	1,823	2,442	334	1372	3,773	2,000	2,679	1268	Y	=	3,439	+	12.8462	X	Y	=	334	+	35.9355	X
198	1967	5,507	3,249	3,965	292	2312	6,473	3,819	4,661	1153	Y	=	5,507	+	37.1669	X	Y	=	292	+	33.1290	X
199	9	29	16	20	181	0	-	-	-	503	Y	=	29	+	-1.1154	X	Y	=	181	+	12.3871	X
200	193	601	325	415	126	68	211	114	146	749	Y	=	601	+	-15.0000	X	Y	=	126	+	23.9677	X
201	413	1,284	693	886	161	349	1,086	586	749	943	Y	=	1,284	+	-7.6154	X	Y	=	161	+	30.0645	X
202	1708	4,594	2,573	2,940	901	1622	4,362	2,443	2,792	1798	Y	=	4,594	+	-8.9231	X	Y	=	901	+	34.4839	X
203	0	-	-	-	201	0	-	-	-	1118	Y	=	-	+	0.0000	X	Y	=	201	+	35.2581	X
204	5	14	1	6	1,207	0	-	-	-	2058	Y	=	14	+	-0.5385	X	Y	=	1,207	+	32.7419	X
205	26	78	5	34	10,085	0	-	-	-	10085	Y	=	78	+	-3.0000	X	Y	=	10,085	+	0.0000	X
206	4	13	1	6	1,033	0	-	-	-	1870	Y	=	13	+	-0.5000	X	Y	=	1,033	+	32.1935	X
207	0	-	-	-	8,330	0	-	-	-	8411	Y	=	-	+	0.0000	X	Y	=	8,330	+	3.1290	X
208	286	844	287	456	4,264	0	-	-	-	5833	Y	=	844	+	-32.4615	X	Y	=	4,264	+	60.3548	X
209	680	1,823	893	1,203	2,696	726	1,945	953	1,284	3029	Y	=	1,823	+	4.6923	X	Y	=	2,696	+	12.8065	X
210	4	11	6	9	6,076	0	-	-	-	6223	Y	=	11	+	-0.4231	X	Y	=	6,076	+	5.6452	X
211	1	2	1	2	3,463	0	-	-	-	3644	Y	=	2	+	-0.0769	X	Y	=	3,463	+	6.9677	X
212	0	1	1	1	1,894	0	-	-	-	3280	Y	=	1	+	-0.0385	X	Y	=	1,894	+	53.2903	X
213	725	1,944	953	1,283	2,175	599	1,604	786	1,059	3535	Y	=	1,944	+	-13.0769	X	Y	=	2,175	+	52.3052	X
214	788	2,452	1,324	1,692	285	664	2,066	1,116	1,426	2500	Y	=	2,452	+	-14.8462	X	Y	=	285	+	85.2035	X
215	1	4	2	3	1,181	0	-	-	-	7020	Y	=	4	+	-0.1538	X	Y	=	1,181	+	224.5906	X
216	3	8	5	8	587	0	-	-	-	3500	Y	=	8	+	-0.3077	X	Y	=	587	+	112.0422	X
217	9	23	15	23	312	0	-	-	-	2500	Y	=	23	+	-0.8846	X	Y	=	312	+	84.1712	X
218	0	-	-	-	465	0	-	-	-	3248	Y	=	-	+	0.0000	X	Y	=	465	+	107.0372	X
219	5	12	8	12	338	4	11	7	11	924	Y	=	12	+	-0.0385	X	Y	=	338	+	22.5484	X
220	21	56	36	56	528	29	75	49	75	3000	Y	=	56	+	0.7308	X	Y	=	528	+	95.0645	X
221	190	545	441	469	811	0	-	-	-	2808	Y	=	545	+	-20.9615	X	Y	=	811	+	76.8114	X
222	9	26	21	22	4,421	0	-	-	-	5158	Y	=	26	+	-1.0000	X	Y	=	4,421	+	28.3275	X
223	764	2,194	1,777	1,887	1,765	678	1,945	1,575	1,673	1930	Y	=	2,194	+	-9.5769	X	Y	=	1,765	+	6.3548	X
224	4	12	10	10	1,921	0	-	-	-	2605	Y	=	12	+	-0.4615	X	Y	=	1,921	+	26.2953	X
225	770	2,140	1,156	1,669	2,718	760	2,114	1,142	1,649	3334	Y	=	2,140	+	-1.0000	X	Y	=	2,718	+	23.6774	X
226	679	1,888	1,020	1,473	4,033	546	1,517	819	1,183	5758	Y	=	1,888	+	-14.2692	X	Y	=	4,033	+	66.3548	X
227	3590	10,195	4,282	7,442	2,394	3529	10,022	4,209	7,316	2516	Y	=	10,195	+	-6.6538	X	Y	=	2,394	+	4.7097	X
228	1098	3,240	1,102	1,750	4,259	986	2,909	989	1,571	4421	Y	=	3,240	+	-12.7308	X	Y	=	4,259	+	6.2258	X
229	2151	6,562	3,084	4,528	3,604	1990	6,071	2,853	4,189	3604	Y	=	6,562	+	-18.8846	X	Y	=	3,604	+	0.0000	X
230	0	-	-	-	3,595	0	-	-	-	3600	Y	=	-	+	0.0000	X	Y	=	3,595	+	0.1935	X
231	0	-	-	-	3,106	0	-	-	-	4642	Y	=	-	+	0.0000	X	Y	=	3,106	+	59.0645	X
232	1565	4,444	2,844	3,022	2,760	1480	4,204	2,691	2,859	3095	Y	=	4,444	+	-9.2308	X	Y	=	2,760	+	12.9032	X
233	2183	6,483	3,566	4,862	953	2001	5,943	3,269	4,457	977	Y	=	6,483	+	-20.7692	X	Y	=	953	+	0.9355	X
234	1479	3,905	2,538	2,694	1,159	1420	3,749	2,437	2,587	1338	Y	=	3,905	+	-6.0000	X	Y	=	1,159	+	6.9032	X
235	1145	3,367	1,717	2,323	1,647	1283	3,772	1,924	2,603	2029	Y	=	3,367	+	15.5769	X	Y	=	1,647	+	14.6774	X

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	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
236	0	-	-	-	2,189	0	-	-	-	2751	Y	=	-	+	0.0000	X	Y	=	2,189	+	21.6179	X
237	2624	6,430	3,858	5,208	675	2724	6,675	4,005	5,407	1255	Y	=	6,430	+	9.4231	X	Y	=	675	+	22.2953	X
238	1899	5,546	3,549	4,381	506	1899	5,546	3,549	4,381	533	Y	=	5,546	+	0.0000	X	Y	=	506	+	1.0323	X
239	1096	2,960	2,013	2,309	924	1096	2,960	2,013	2,309	1199	Y	=	2,960	+	0.0000	X	Y	=	924	+	10.5633	X
240	2075	5,603	3,810	4,370	550	1436	3,878	2,637	3,025	565	Y	=	5,603	+	-66.3462	X	Y	=	550	+	0.5806	X
241	1570	4,460	3,122	3,568	181	1762	5,005	3,504	4,004	241	Y	=	4,460	+	20.9615	X	Y	=	181	+	2.2903	X
242	1164	3,178	2,256	2,606	32	1465	4,000	2,840	3,280	118	Y	=	3,178	+	31.6154	X	Y	=	32	+	3.3226	X
243	674	1,902	1,255	1,712	28	1773	5,000	3,300	4,500	117	Y	=	1,902	+	119.1538	X	Y	=	28	+	3.4194	X
244	1318	3,900	2,886	3,159	212	2343	6,936	5,133	5,618	600	Y	=	3,900	+	116.7692	X	Y	=	212	+	14.9355	X
245	1617	4,640	3,294	3,712	330	1617	4,640	3,294	3,712	500	Y	=	4,640	+	0.0000	X	Y	=	330	+	6.5484	X
246	1041	2,988	2,121	2,390	46	1394	4,000	2,840	3,200	196	Y	=	2,988	+	38.9231	X	Y	=	46	+	5.7742	X
247	456	1,309	929	1,047	21	871	2,500	1,775	2,000	131	Y	=	1,309	+	45.8077	X	Y	=	21	+	4.2258	X
248	1266	3,735	2,540	2,876	393	1356	4,000	2,720	3,080	600	Y	=	3,735	+	10.1923	X	Y	=	393	+	7.9677	X
249	0	-	-	-	485	0	-	-	-	1511	Y	=	-	+	0.0000	X	Y	=	485	+	39.4739	X
250	906	2,210	1,326	1,547	902	906	2,210	1,326	1,547	1614	Y	=	2,210	+	0.0000	X	Y	=	902	+	27.4020	X
251	3672	6,829	4,302	4,439	1,880	3672	6,829	4,302	4,439	1981	Y	=	6,829	+	0.0000	X	Y	=	1,880	+	3.8710	X
252	3587	6,672	4,203	4,337	1,155	3587	6,672	4,203	4,337	1204	Y	=	6,672	+	0.0000	X	Y	=	1,155	+	1.8710	X
253	2884	6,518	4,041	4,954	1,568	2884	6,518	4,041	4,954	1654	Y	=	6,518	+	0.0000	X	Y	=	1,568	+	3.3226	X
254	0	-	-	-	1,356	0	-	-	-	1447	Y	=	-	+	0.0000	X	Y	=	1,356	+	3.5161	X
255	793	1,912	1,530	1,262	2,576	793	1,912	1,530	1,262	3322	Y	=	1,912	+	0.0000	X	Y	=	2,576	+	28.6774	X
256	250	602	482	397	212	250	602	482	397	548	Y	=	602	+	0.0000	X	Y	=	212	+	12.9355	X
257	320	770	616	508	246	354	853	682	563	693	Y	=	770	+	3.1923	X	Y	=	246	+	17.1935	X
258	2057	4,464	3,348	3,214	227	2057	4,464	3,348	3,214	903	Y	=	4,464	+	0.0000	X	Y	=	227	+	26.0000	X
259	481	1,043	782	751	110	106	231	173	166	232	Y	=	1,043	+	-31.2308	X	Y	=	110	+	4.7097	X
260	0	-	-	-	151	92	200	150	144	937	Y	=	-	+	7.6923	X	Y	=	151	+	30.2258	X
261	574	1,246	935	897	395	805	1,746	1,310	1,257	1773	Y	=	1,246	+	19.2308	X	Y	=	395	+	53.0000	X
262	1261	3,064	2,482	2,298	91	1604	3,897	3,157	2,923	399	Y	=	3,064	+	32.0385	X	Y	=	91	+	11.8387	X
263	242	589	477	442	1,886	494	1,200	972	900	2273	Y	=	589	+	23.5000	X	Y	=	1,886	+	14.8710	X
264	0	-	-	-	364	0	-	-	-	2000	Y	=	-	+	0.0000	X	Y	=	364	+	62.9355	X
265	597	1,545	1,221	1,190	166	772	2,000	1,580	1,540	772	Y	=	1,545	+	17.5000	X	Y	=	166	+	23.3226	X
266	63	163	129	126	165	772	2,000	1,580	1,540	1271	Y	=	163	+	70.6538	X	Y	=	165	+	42.5509	X
267	410	996	807	747	119	420	1,020	826	765	709	Y	=	996	+	0.9231	X	Y	=	119	+	22.6774	X
268	721	1,751	1,418	1,313	102	720	1,749	1,417	1,312	597	Y	=	1,751	+	-0.0769	X	Y	=	102	+	19.0323	X
269	1074	3,339	2,604	2,204	2,901	1158	3,600	2,808	2,376	8000	Y	=	3,339	+	10.0385	X	Y	=	2,901	+	196.1290	X
270	17	52	41	34	352	36	113	88	75	516	Y	=	52	+	2.3462	X	Y	=	352	+	6.3226	X
271	0	1	1	1	202	0	-	-	-	1026	Y	=	1	+	-0.0385	X	Y	=	202	+	31.7097	X
272	107	261	211	196	679	719	1,746	1,414	1,310	1450	Y	=	261	+	57.1154	X	Y	=	679	+	29.6452	X
273	0	-	-	-	98	0	-	-	-	597	Y	=	-	+	0.0000	X	Y	=	98	+	19.1935	X
274	220	572	446	400	125	1288	3,350	2,613	2,345	1275	Y	=	572	+	106.8462	X	Y	=	125	+	44.2308	X
275	9	23	18	16	42	195	508	396	356	558	Y	=	23	+	18.6538	X	Y	=	42	+	19.8610	X
276	0	-	-	-	323	386	1,000	790	770	4000	Y	=	-	+	38.4615	X	Y	=	323	+	141.4392	X
277	542	1,403	1,108	1,080	121	772	2,000	1,580	1,540	750	Y	=	1,403	+	22.9615	X	Y	=	121	+	24.1935	X
278	16	42	33	32	42	688	1,782	1,408	1,372	179	Y	=	42	+	66.9231	X	Y	=	42	+	5.2581	X
279	13	34	27	26	12	344	891	704	686	51	Y	=	34	+	32.9615	X	Y	=	12	+	1.4839	X
280	20	52	41	40	9	344	891	704	686	30	Y	=	52	+	32.2692	X	Y	=	9	+	0.8065	X
281	71	185	146	142	40	688	1,782	1,408	1,372	170	Y	=	185	+	61.4231	X	Y	=	40	+	5.0000	X
282	163	424	331	297	17	241	626	488	438	572	Y	=	424	+	7.7692	X	Y	=	17	+	21.3275	X

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	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
283	18	48	37	34	4	69	180	140	126	24	Y	=	48	+	5.0769	X	Y	=	4	+	0.7742	X
284	19	49	38	34	9	192	500	390	350	30	Y	=	49	+	17.3462	X	Y	=	9	+	0.8065	X
285	156	405	316	284	1,256	1070	2,782	2,170	1,947	7750	Y	=	405	+	91.4231	X	Y	=	1,256	+	249.7767	X
286	178	464	362	325	893	1461	3,799	2,963	2,659	5750	Y	=	464	+	128.2692	X	Y	=	893	+	186.8089	X
287	5	13	10	9	1,721	397	1,032	805	722	3598	Y	=	13	+	39.1923	X	Y	=	1,721	+	72.1737	X
288	15	40	31	28	274	647	1,681	1,311	1,177	1500	Y	=	40	+	63.1154	X	Y	=	274	+	47.1613	X
289	175	483	275	304	1,118	326	900	513	567	2532	Y	=	483	+	16.0385	X	Y	=	1,118	+	54.3871	X
290	98	255	199	179	79	802	2,086	1,627	1,460	300	Y	=	255	+	70.4231	X	Y	=	79	+	8.4839	X
291	34	89	69	62	17	154	400	312	280	52	Y	=	89	+	11.9615	X	Y	=	17	+	1.3548	X
292	47	123	96	86	8	115	300	234	210	52	Y	=	123	+	6.8077	X	Y	=	8	+	1.6774	X
293	10	25	20	18	42	192	500	390	350	76	Y	=	25	+	18.2692	X	Y	=	42	+	1.3226	X
294	696	1,920	1,094	1,210	1,137	913	2,520	1,436	1,588	1760	Y	=	1,920	+	23.0769	X	Y	=	1,137	+	23.9677	X
295	126	348	198	219	1,457	181	500	285	315	2530	Y	=	348	+	5.8462	X	Y	=	1,457	+	41.2581	X
296	3009	9,387	6,571	7,134	303	3249	10,137	7,096	7,704	552	Y	=	9,387	+	28.8462	X	Y	=	303	+	9.5806	X
297	614	1,928	1,272	1,485	48	1115	3,500	2,310	2,695	113	Y	=	1,928	+	60.4615	X	Y	=	48	+	2.5161	X
298	1915	5,974	4,182	4,242	172	1915	5,974	4,182	4,242	359	Y	=	5,974	+	0.0000	X	Y	=	172	+	7.1935	X
299	268	836	585	594	2,196	385	1,200	840	852	2648	Y	=	836	+	14.0000	X	Y	=	2,196	+	17.3871	X
300	233	700	525	483	1,104	300	900	675	621	1700	Y	=	700	+	7.6923	X	Y	=	1,104	+	22.9355	X
301	712	2,135	1,601	1,473	134	753	2,260	1,695	1,559	235	Y	=	2,135	+	4.8077	X	Y	=	134	+	3.8710	X
302	873	2,740	1,808	2,110	399	1115	3,500	2,310	2,695	655	Y	=	2,740	+	29.2308	X	Y	=	399	+	9.8387	X
303	825	2,590	1,709	1,994	62	952	2,990	1,973	2,302	152	Y	=	2,590	+	15.3846	X	Y	=	62	+	3.4516	X
304	577	1,732	1,299	1,195	391	1043	3,129	2,347	2,159	711	Y	=	1,732	+	53.7308	X	Y	=	391	+	12.2903	X
305	91	268	198	180	182	303	895	662	600	1127	Y	=	268	+	24.1154	X	Y	=	182	+	36.3548	X
306	119	352	260	236	141	287	847	627	567	403	Y	=	352	+	19.0385	X	Y	=	141	+	10.0645	X
307	874	2,578	1,908	1,727	15	949	2,800	2,072	1,876	93	Y	=	2,578	+	8.5385	X	Y	=	15	+	3.0000	X
308	516	1,523	1,127	1,020	139	587	1,733	1,282	1,161	209	Y	=	1,523	+	8.0769	X	Y	=	139	+	2.6774	X
309	2582	7,617	5,637	5,103	103	2694	7,947	5,881	5,324	206	Y	=	7,617	+	12.6923	X	Y	=	103	+	3.9677	X
310	992	2,926	2,165	1,960	593	1580	4,661	3,449	3,123	761	Y	=	2,926	+	66.7308	X	Y	=	593	+	6.4516	X
311	683	2,125	1,658	1,403	334	1016	3,161	2,466	2,086	713	Y	=	2,125	+	39.8462	X	Y	=	334	+	14.5806	X
312	17	42	32	29	254	102	250	188	175	613	Y	=	42	+	8.0000	X	Y	=	254	+	13.8065	X
313	1589	3,893	2,920	2,725	2,711	1949	4,775	3,581	3,343	3239	Y	=	3,893	+	33.9231	X	Y	=	2,711	+	20.2903	X
314	0	-	-	-	1,311	538	1,350	1,053	918	2126	Y	=	-	+	51.9231	X	Y	=	1,311	+	31.3548	X
315	3251	8,354	6,266	5,848	790	3310	8,506	6,380	5,954	1869	Y	=	8,354	+	5.8462	X	Y	=	790	+	41.4839	X
316	180	452	344	321	1,621	350	879	668	624	2438	Y	=	452	+	16.4231	X	Y	=	1,621	+	31.4194	X
317	87	218	166	155	209	122	306	233	217	706	Y	=	218	+	3.3846	X	Y	=	209	+	19.1290	X
318	875	2,196	1,669	1,559	1,139	1006	2,526	1,920	1,793	1748	Y	=	2,196	+	12.6923	X	Y	=	1,139	+	23.4194	X
319	913	2,072	1,575	1,326	420	1215	2,757	2,095	1,764	532	Y	=	2,072	+	26.3462	X	Y	=	420	+	4.3226	X
320	1177	2,671	2,030	1,709	455	1177	2,671	2,030	1,709	606	Y	=	2,671	+	0.0000	X	Y	=	455	+	5.8065	X
321	41	94	71	60	419	39	88	67	56	572	Y	=	94	+	-0.2308	X	Y	=	419	+	5.8710	X
322	19	44	33	28	456	0	-	-	-	709	Y	=	44	+	-1.6923	X	Y	=	456	+	9.7419	X
323	0	-	-	-	529	0	-	-	-	1270	Y	=	-	+	0.0000	X	Y	=	529	+	28.4839	X
324	869	1,972	1,499	1,262	5,482	869	1,972	1,499	1,262	6833	Y	=	1,972	+	0.0000	X	Y	=	5,482	+	51.9677	X
325	389	882	670	564	1,222	0	-	-	-	1519	Y	=	882	+	-33.9231	X	Y	=	1,222	+	11.4194	X
326	1	2	2	1	1,467	0	-	-	-	3857	Y	=	2	+	-0.0769	X	Y	=	1,467	+	91.9231	X
327	0	-	-	-	4,898	0	-	-	-	6153	Y	=	-	+	0.0000	X	Y	=	4,898	+	48.2581	X
328	61	129	108	81	915	139	291	244	183	2046	Y	=	129	+	6.2308	X	Y	=	915	+	43.5186	X
329	256	582	442	372	926	256	582	442	372	2612	Y	=	582	+	0.0000	X	Y	=	926	+	64.8387	X

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	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
330	335	703	591	443	1,728	500	1,051	883	662	2631	Y	=	703	+	13.3846	X	Y	=	1,728	+	34.7419	X
331	918	1,928	1,620	1,215	3,230	1190	2,500	2,100	1,575	5055	Y	=	1,928	+	22.0000	X	Y	=	3,230	+	70.1960	X
332	410	860	722	542	315	410	860	722	542	661	Y	=	860	+	0.0000	X	Y	=	315	+	13.2903	X
333	426	894	751	563	70	476	1,000	840	630	218	Y	=	894	+	4.0769	X	Y	=	70	+	5.6774	X
334	5	11	9	7	300	238	500	420	315	993	Y	=	11	+	18.8077	X	Y	=	300	+	26.6452	X
335	0	1,438	-	-	2,010	0	1,438	-	-	2450	Y	=	1,438	+	0.0000	X	Y	=	2,010	+	16.9355	X
336	4294	10,006	7,004	7,905	2,177	6177	14,393	10,075	11,370	2901	Y	=	10,006	+	168.7308	X	Y	=	2,177	+	27.8387	X
337	139	277	211	213	672	1216	2,420	1,839	1,863	1418	Y	=	277	+	82.4231	X	Y	=	672	+	28.6774	X
338	407	810	616	624	687	491	977	743	752	1367	Y	=	810	+	6.4231	X	Y	=	687	+	26.1613	X
339	1	2	2	2	183	0	-	-	-	1137	Y	=	2	+	-0.0769	X	Y	=	183	+	36.6774	X
340	928	1,846	1,403	1,421	257	928	1,846	1,403	1,421	934	Y	=	1,846	+	0.0000	X	Y	=	257	+	26.0323	X
341	261	587	423	452	343	236	530	382	408	2128	Y	=	587	+	-2.1923	X	Y	=	343	+	68.6452	X
342	349	786	566	605	320	348	784	564	604	484	Y	=	786	+	-0.0769	X	Y	=	320	+	6.3226	X
343	0	-	-	-	938	0	-	-	-	2176	Y	=	-	+	0.0000	X	Y	=	938	+	47.6129	X
344	197	444	320	342	464	196	442	318	340	935	Y	=	444	+	-0.0769	X	Y	=	464	+	18.1290	X
345	106	238	171	183	158	133	300	216	231	883	Y	=	238	+	2.3846	X	Y	=	158	+	27.8710	X
346	2553	5,744	4,136	4,423	196	2667	6,000	4,320	4,620	484	Y	=	5,744	+	9.8462	X	Y	=	196	+	11.0645	X
347	1470	3,308	2,382	2,547	38	2304	5,184	3,732	3,992	158	Y	=	3,308	+	72.1538	X	Y	=	38	+	4.6129	X
348	0	-	-	-	371	0	2,669	-	-	1290	Y	=	-	+	102.6538	X	Y	=	371	+	35.3548	X
349	0	-	-	-	12	0	-	-	-	73	Y	=	-	+	0.0000	X	Y	=	12	+	2.3548	X
350	0		-	-	289	0	-	-	-	822	Y	=	-	+	0.0000	X	Y	=	289	+	20.4839	X
351	229	611	452	458	1,008	229	611	452	458	1322	Y	=	611	+	0.0000	X	Y	=	1,008	+	12.0645	X
352	1261	3,368	2,492	2,526	357	1911	5,103	3,776	3,827	1951	Y	=	3,368	+	66.7308	X	Y	=	357	+	61.2903	X
353	1269	3,388	2,507	2,541	59	2169	5,791	4,285	4,343	226	Y	=	3,388	+	92.4231	X	Y	=	59	+	6.4194	X
354	9	26	21	18	56	284	838	679	595	350	Y	=	26	+	31.2308	X	Y	=	56	+	11.2903	X
355	134	394	319	280	134	508	1,500	1,215	1,065	344	Y	=	394	+	42.5385	X	Y	=	134	+	8.0645	X
356	155	456	369	324	28	237	700	567	497	150	Y	=	456	+	9.3846	X	Y	=	28	+	4.6774	X
357	131	385	312	273	102	847	2,500	2,025	1,775	750	Y	=	385	+	81.3462	X	Y	=	102	+	24.9057	X
358	263	777	629	552	247	2759	8,140	6,593	5,779	1140	Y	=	777	+	283.1923	X	Y	=	247	+	34.3275	X
359	15	43	35	31	46	238	702	569	498	150	Y	=	43	+	25.3462	X	Y	=	46	+	4.0000	X
360	93	275	223	195	76	576	1,700	1,377	1,207	369	Y	=	275	+	54.8077	X	Y	=	76	+	11.2581	X
361	250	764	588	542	37	642	1,964	1,512	1,394	81	Y	=	764	+	46.1538	X	Y	=	37	+	1.7097	X
362	154	471	363	334	122	1144	3,500	2,695	2,485	355	Y	=	471	+	116.5000	X	Y	=	122	+	8.9677	X
363	871	2,108	1,518	1,729	35	1119	2,708	1,950	2,221	168	Y	=	2,108	+	23.0769	X	Y	=	35	+	5.0968	X
364	559	1,352	973	1,109	32	807	1,952	1,405	1,601	197	Y	=	1,352	+	23.0769	X	Y	=	32	+	6.3548	X
365	1261	3,051	2,197	2,502	152	1261	3,051	2,197	2,502	419	Y	=	3,051	+	0.0000	X	Y	=	152	+	10.2581	X
366	624	1,510	1,087	1,238	685	624	1,510	1,087	1,238	1107	Y	=	1,510	+	0.0000	X	Y	=	685	+	16.2258	X
367	1	3	2	2	196	0	-	-	-	483	Y	=	3	+	-0.1154	X	Y	=	196	+	11.0323	X
368	1378	3,141	2,387	2,576	246	1597	3,641	2,767	2,986	934	Y	=	3,141	+	19.2308	X	Y	=	246	+	26.4516	X
369	1264	3,804	2,625	2,853	184	1362	4,100	2,829	3,075	322	Y	=	3,804	+	11.3846	X	Y	=	184	+	5.3226	X
370	753	1,717	1,305	1,408	910	944	2,153	1,636	1,765	1579	Y	=	1,717	+	16.7692	X	Y	=	910	+	25.7419	X
371	3946	10,339	7,651	7,858	454	4023	10,539	7,799	8,010	919	Y	=	10,339	+	7.6923	X	Y	=	454	+	17.8710	X
372	768	2,259	1,762	1,626	220	2181	6,412	5,001	4,617	974	Y	=	2,259	+	159.7308	X	Y	=	220	+	29.0050	X
373	47	137	107	99	117	1495	4,395	3,428	3,164	657	Y	=	137	+	163.7692	X	Y	=	117	+	20.7816	X
374	230	675	527	486	201	1786	5,250	4,095	3,780	771	Y	=	675	+	175.9615	X	Y	=	201	+	21.9057	X
375	91	268	209	193	253	2232	6,563	5,119	4,725	1021	Y	=	268	+	242.1154	X	Y	=	253	+	29.5409	X
376	357	1,049	818	755	187	1122	3,300	2,574	2,376	1250	Y	=	1,049	+	86.5769	X	Y	=	187	+	40.8734	X

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	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
377	97	247	210	163	98	766	1,946	1,654	1,284	211	Y	=	247	+	65.3462	X	Y	=	98	+	4.3548	X
378	472	1,364	791	996	795	2861	8,269	4,796	6,036	1728	Y	=	1,364	+	265.5769	X	Y	=	795	+	35.9032	X
379	300	866	502	632	2,347	1814	5,242	3,040	3,827	4831	Y	=	866	+	168.3077	X	Y	=	2,347	+	95.5484	X
380	1	2	2	1	3,536	683	1,735	1,475	1,145	1818	Y	=	2	+	66.6538	X	Y	=	3,536	+	-66.0695	X
381	41	103	88	68	44	109	278	236	183	144	Y	=	103	+	6.7308	X	Y	=	44	+	3.8387	X
382	506	1,286	1,093	849	549	1890	4,800	4,080	3,168	1089	Y	=	1,286	+	135.1538	X	Y	=	549	+	20.7742	X
383	328	833	708	550	107	1246	3,164	2,689	2,088	319	Y	=	833	+	89.6538	X	Y	=	107	+	8.1613	X
384	119	301	256	199	15	1102	2,800	2,380	1,848	62	Y	=	301	+	96.1154	X	Y	=	15	+	1.8065	X
385	7	19	16	13	3	650	1,650	1,403	1,089	21	Y	=	19	+	62.7308	X	Y	=	3	+	0.6774	X
386	167	479	340	292	55	490	1,400	994	854	120	Y	=	479	+	35.4231	X	Y	=	55	+	2.4839	X
387	380	1,031	814	763	112	1255	3,402	2,688	2,517	221	Y	=	1,031	+	91.1923	X	Y	=	112	+	4.1935	X
388	620	1,680	1,327	1,243	128	1218	3,300	2,607	2,442	363	Y	=	1,680	+	62.3077	X	Y	=	128	+	9.0323	X
389	540	1,464	1,157	1,083	21	554	1,500	1,185	1,110	53	Y	=	1,464	+	1.3846	X	Y	=	21	+	1.2258	X
390	1477	4,004	3,163	2,963	491	1476	4,000	3,160	2,960	806	Y	=	4,004	+	-0.1538	X	Y	=	491	+	12.0968	X
391	46	125	99	93	1,270	74	200	158	148	1206	Y	=	125	+	2.8846	X	Y	=	1,270	+	-2.4566	X
392	0	-	-	-	1,266	0	-	-	-	6287	Y	=	-	+	0.0000	X	Y	=	1,266	+	193.1290	X
393	291	840	563	664	793	291	840	563	664	3574	Y	=	840	+	0.0000	X	Y	=	793	+	106.9677	X
394	917	2,651	1,776	2,094	565	948	2,740	1,836	2,165	1903	Y	=	2,651	+	3.4231	X	Y	=	565	+	51.4516	X
395	938	2,562	1,665	1,896	823	1721	4,698	3,054	3,477	3045	Y	=	2,562	+	82.1538	X	Y	=	823	+	85.4516	X
396	1530	4,176	2,714	3,090	595	1530	4,176	2,714	3,090	1515	Y	=	4,176	+	0.0000	X	Y	=	595	+	35.3871	X
397	970	2,881	2,017	2,161	178	1414	4,200	2,940	3,150	374	Y	=	2,881	+	50.7308	X	Y	=	178	+	7.5484	X
398	0	-	-	-	870	0	-	-	-	3495	Y	=	-	+	0.0000	X	Y	=	870	+	100.9504	X
399	24	71	50	53	487	0	-	-	-	2636	Y	=	71	+	-2.7308	X	Y	=	487	+	82.6501	X
400	788	2,340	1,638	1,755	171	1347	4,000	2,800	3,000	817	Y	=	2,340	+	63.8462	X	Y	=	171	+	24.8387	X
401	181	491	388	363	157	406	1,100	869	814	3250	Y	=	491	+	23.4231	X	Y	=	157	+	118.9529	X
402	590	1,798	1,259	1,313	298	2033	6,200	4,340	4,526	381	Y	=	1,798	+	169.3077	X	Y	=	298	+	3.1935	X
403	76	232	162	169	16	656	2,000	1,400	1,460	22	Y	=	232	+	68.0000	X	Y	=	16	+	0.2258	X
404	161	442	389	296	18	216	592	521	397	33	Y	=	442	+	5.7692	X	Y	=	18	+	0.5806	X
405	70	193	170	129	10	146	400	352	268	33	Y	=	193	+	7.9615	X	Y	=	10	+	0.9032	X
406	513	1,566	1,096	1,143	45	1475	4,500	3,150	3,285	198	Y	=	1,566	+	112.8462	X	Y	=	45	+	5.9032	X
407	244	686	494	501	26	534	1,500	1,080	1,095	112	Y	=	686	+	31.3077	X	Y	=	26	+	3.2903	X
408	126	353	254	258	37	896	2,518	1,813	1,838	151	Y	=	353	+	83.2692	X	Y	=	37	+	4.3871	X
409	250	764	535	558	25	1490	4,545	3,182	3,318	78	Y	=	764	+	145.4231	X	Y	=	25	+	2.0323	X
410	1459	4,305	3,014	3,057	271	1746	5,151	3,606	3,657	421	Y	=	4,305	+	32.5385	X	Y	=	271	+	5.7742	X
411	2400	6,744	4,856	4,923	54	3203	9,000	6,480	6,570	265	Y	=	6,744	+	86.7692	X	Y	=	54	+	8.0968	X
412	1976	5,711	4,055	4,226	1,416	2097	6,060	4,303	4,484	1611	Y	=	5,711	+	13.4231	X	Y	=	1,416	+	7.4839	X
413	1701	5,017	3,512	3,562	431	2203	6,500	4,550	4,615	721	Y	=	5,017	+	57.0385	X	Y	=	431	+	11.1613	X
414	1677	4,227	3,339	2,790	1,672	1677	4,227	3,339	2,790	2091	Y	=	4,227	+	0.0000	X	Y	=	1,672	+	16.1290	X
415	1042	2,678	1,741	1,982	606	1245	3,200	2,080	2,368	2176	Y	=	2,678	+	20.0769	X	Y	=	606	+	60.3871	X
416	385	990	644	733	1,080	385	990	644	733	2418	Y	=	990	+	0.0000	X	Y	=	1,080	+	51.4516	X
417	3	8	5	6	1,974	0	-	-	-	3159	Y	=	8	+	-0.3077	X	Y	=	1,974	+	45.5806	X
418	59	129	94	102	1,104	91	200	146	158	1913	Y	=	129	+	2.7308	X	Y	=	1,104	+	31.0968	X
419	573	1,254	915	991	258	624	1,367	998	1,080	313	Y	=	1,254	+	4.3462	X	Y	=	258	+	2.1290	X
420	953	2,087	1,524	1,649	440	1042	2,282	1,666	1,803	850	Y	=	2,087	+	7.5000	X	Y	=	440	+	15.7742	X
421	4	8	6	6	1,437	0	-	-	-	1575	Y	=	8	+	-0.3077	X	Y	=	1,437	+	5.2903	X
422	0	-	-	-	767	0	-	-	-	896	Y	=	-	+	0.0000	X	Y	=	767	+	4.9677	X
423	943	2,281	1,277	1,620	407	1173	2,838	1,589	2,015	565	Y	=	2,281	+	21.4231	X	Y	=	407	+	6.0645	X

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Shelby County Projections
Light Rail Alternative

TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
424	427	1,034	579	734	1,115	427	1,034	579	734	1278	Y	=	1,034	+	0.0000	X	Y	=	1,115	+	6.2581	X
425	990	2,397	1,342	1,702	963	990	2,397	1,342	1,702	971	Y	=	2,397	+	0.0000	X	Y	=	963	+	0.2903	X
426	1124	2,787	1,951	2,202	874	157	390	273	308	1009	Y	=	2,787	+	-92.1923	X	Y	=	874	+	5.1935	X
427	1756	4,354	3,048	3,440	596	927	2,300	1,610	1,817	830	Y	=	4,354	+	-79.0000	X	Y	=	596	+	9.0000	X
428	145	402	297	289	815	280	775	574	558	901	Y	=	402	+	14.3462	X	Y	=	815	+	3.3226	X
429	2330	6,453	4,775	4,646	612	2571	7,121	5,270	5,127	685	Y	=	6,453	+	25.6923	X	Y	=	612	+	2.8065	X
430	1055	2,805	1,992	1,879	737	1055	2,805	1,992	1,879	1124	Y	=	2,805	+	0.0000	X	Y	=	737	+	14.8710	X
431	66	175	124	117	2,982	66	175	124	117	3060	Y	=	175	+	0.0000	X	Y	=	2,982	+	3.0000	X
432	294	800	520	560	357	551	1,500	975	1,050	421	Y	=	800	+	26.9231	X	Y	=	357	+	2.4516	X
433	893	2,509	1,806	1,832	994	893	2,509	1,806	1,832	994	Y	=	2,509	+	0.0000	X	Y	=	994	+	0.0000	X
434	1119	3,143	2,263	2,294	69	560	1,575	1,134	1,150	137	Y	=	3,143	+	-60.3077	X	Y	=	69	+	2.6129	X
435	6	15	10	11	35	88	239	155	167	78	Y	=	15	+	8.6154	X	Y	=	35	+	1.6452	X
436	17	46	30	32	28	246	670	436	469	43	Y	=	46	+	24.0000	X	Y	=	28	+	0.5806	X
437	7	19	12	13	17	0	-	-	-	24	Y	=	19	+	-0.7308	X	Y	=	17	+	0.2581	X
438	61	186	123	140	24	164	500	330	375	120	Y	=	186	+	12.0769	X	Y	=	24	+	3.7097	X
439	18	55	36	41	33	222	674	445	506	120	Y	=	55	+	23.8077	X	Y	=	33	+	3.3548	X
440	820	2,493	1,645	1,870	34	987	3,000	1,980	2,250	142	Y	=	2,493	+	19.5000	X	Y	=	34	+	4.1613	X
441	2	6	4	5	54	33	100	66	75	181	Y	=	6	+	3.6154	X	Y	=	54	+	4.9032	X
442	0	-	-	-	11	320	870	566	609	17	Y	=	-	+	33.4615	X	Y	=	11	+	0.2258	X
443	372	1,013	658	709	49	400	1,088	707	762	112	Y	=	1,013	+	2.8846	X	Y	=	49	+	2.4194	X
444	1041	2,831	1,840	1,982	21	1287	3,500	2,275	2,450	89	Y	=	2,831	+	25.7308	X	Y	=	21	+	2.6129	X
445	1	3	2	2	44	299	814	529	570	93	Y	=	3	+	31.1923	X	Y	=	44	+	1.8710	X
446	700	1,904	1,238	1,333	609	735	2,000	1,300	1,400	950	Y	=	1,904	+	3.6923	X	Y	=	609	+	13.1290	X
447	1062	2,888	1,877	2,022	121	1213	3,300	2,145	2,310	238	Y	=	2,888	+	15.8462	X	Y	=	121	+	4.4839	X
448	728	1,937	1,375	1,298	1,631	728	1,937	1,375	1,298	1759	Y	=	1,937	+	0.0000	X	Y	=	1,631	+	4.9355	X
449	1390	3,294	1,845	2,075	320	1603	3,800	2,128	2,394	481	Y	=	3,294	+	19.4615	X	Y	=	320	+	6.1935	X
450	1039	2,462	1,379	1,551	124	1077	2,553	1,430	1,608	377	Y	=	2,462	+	3.5000	X	Y	=	124	+	9.7419	X
451	429	1,016	569	640	88	429	1,016	569	640	262	Y	=	1,016	+	0.0000	X	Y	=	88	+	6.6774	X
452	491	1,386	832	859	171	491	1,386	832	859	287	Y	=	1,386	+	0.0000	X	Y	=	171	+	4.4516	X
453	775	2,101	1,429	1,366	69	863	2,340	1,591	1,521	120	Y	=	2,101	+	9.1923	X	Y	=	69	+	1.9677	X
454	462	1,491	656	1,029	77	672	2,170	955	1,497	298	Y	=	1,491	+	26.1154	X	Y	=	77	+	8.4839	X
455	2767	8,717	4,620	6,276	246	2914	9,179	4,865	6,609	553	Y	=	8,717	+	17.7692	X	Y	=	246	+	11.8065	X
456	843	2,657	1,408	1,913	98	952	3,000	1,590	2,160	163	Y	=	2,657	+	13.1923	X	Y	=	98	+	2.4839	X
457	0	-	-	-	167	0	-	-	-	892	Y	=	-	+	0.0000	X	Y	=	167	+	27.8710	X
458	31	83	64	47	510	473	1,250	963	713	951	Y	=	83	+	44.8846	X	Y	=	510	+	16.9677	X
459	313	825	635	470	550	556	1,469	1,131	837	1177	Y	=	825	+	24.7692	X	Y	=	550	+	24.0968	X
460	12	31	24	18	1,274	0	-	-	-	1803	Y	=	31	+	-1.1923	X	Y	=	1,274	+	20.3548	X
461	586	2,034	773	1,220	34	586	2,034	773	1,220	94	Y	=	2,034	+	0.0000	X	Y	=	34	+	2.3226	X
462	681	2,092	1,067	1,339	393	616	1,892	965	1,211	393	Y	=	2,092	+	-7.6923	X	Y	=	393	+	0.0000	X
463	583	1,575	772	1,008	543	583	1,575	772	1,008	543	Y	=	1,575	+	0.0000	X	Y	=	543	+	0.0000	X
464	266	717	351	459	299	266	717	351	459	296	Y	=	717	+	0.0000	X	Y	=	299	+	-0.0968	X
465	1379	3,943	1,656	2,405	620	1379	3,943	1,656	2,405	620	Y	=	3,943	+	0.0000	X	Y	=	620	+	0.0000	X
466	1160	3,318	1,394	2,024	263	1020	2,918	1,226	1,780	276	Y	=	3,318	+	-15.3846	X	Y	=	263	+	0.4839	X
467	1020	2,877	1,726	1,784	711	949	2,677	1,606	1,660	711	Y	=	2,877	+	-7.6923	X	Y	=	711	+	0.0000	X
468	1427	4,439	2,131	2,930	739	1363	4,239	2,035	2,798	739	Y	=	4,439	+	-7.6923	X	Y	=	739	+	0.0000	X
469	1273	3,908	1,993	2,501	86	1294	3,972	2,026	2,542	117	Y	=	3,908	+	2.4615	X	Y	=	86	+	1.1935	X
470	1395	4,337	2,082	2,862	228	1395	4,337	2,082	2,862	375	Y	=	4,337	+	0.0000	X	Y	=	228	+	5.6452	X

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Shelby County Projections
Light Rail Alternative

TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
471	786	2,217	1,330	1,375	168	786	2,217	1,330	1,375	238	Y	=	2,217	+	0.0000	X	Y	=	168	+	2.6774	X
472	775	2,186	1,312	1,355	308	775	2,186	1,312	1,355	308	Y	=	2,186	+	0.0000	X	Y	=	308	+	0.0000	X
473	750	2,115	1,269	1,311	364	750	2,115	1,269	1,311	378	Y	=	2,115	+	0.0000	X	Y	=	364	+	0.5484	X
474	1057	3,034	1,396	1,669	255	1057	3,034	1,396	1,669	296	Y	=	3,034	+	0.0000	X	Y	=	255	+	1.5806	X
475	73	197	97	126	47	73	197	97	126	44	Y	=	197	+	0.0000	X	Y	=	47	+	-0.0968	X
476	0	1	1	1	228	0	-	-	-	751	Y	=	1	+	-0.0385	X	Y	=	228	+	20.0968	X
477	1291	3,486	1,708	2,231	932	1291	3,486	1,708	2,231	1410	Y	=	3,486	+	0.0000	X	Y	=	932	+	18.3871	X
478	773	2,088	1,023	1,336	223	773	2,088	1,023	1,336	354	Y	=	2,088	+	0.0000	X	Y	=	223	+	5.0323	X
479	0	-	-	-	50	0	-	-	-	86	Y	=	-	+	0.0000	X	Y	=	50	+	1.3871	X
480	13	35	27	20	55	50	132	102	75	82	Y	=	35	+	3.7308	X	Y	=	55	+	1.0323	X
481	214	566	436	323	164	411	1,084	835	618	394	Y	=	566	+	19.9231	X	Y	=	164	+	8.8387	X
482	92	270	186	173	119	327	962	664	616	347	Y	=	270	+	26.6154	X	Y	=	119	+	8.7742	X
483	1399	4,113	2,838	2,632	100	1499	4,406	3,040	2,820	129	Y	=	4,113	+	11.2692	X	Y	=	100	+	1.1290	X
484	69	204	141	131	27	108	317	219	203	65	Y	=	204	+	4.3462	X	Y	=	27	+	1.4516	X
485	1	4	3	3	9	0	-	-	-	28	Y	=	4	+	-0.1538	X	Y	=	9	+	0.7419	X
486	272	799	551	511	53	402	1,181	815	756	87	Y	=	799	+	14.6923	X	Y	=	53	+	1.2903	X
487	20	59	41	38	38	41	120	83	77	68	Y	=	59	+	2.3462	X	Y	=	38	+	1.1613	X
488	383	1,127	778	721	80	543	1,597	1,102	1,022	114	Y	=	1,127	+	18.0769	X	Y	=	80	+	1.3226	X
489	278	818	564	524	12	390	1,148	792	735	34	Y	=	818	+	12.6923	X	Y	=	12	+	0.8387	X
490	279	819	565	524	38	409	1,203	830	770	87	Y	=	819	+	14.7692	X	Y	=	38	+	1.8710	X
491	123	325	250	185	185	228	602	464	343	500	Y	=	325	+	10.6538	X	Y	=	185	+	12.0968	X
492	3	7	5	4	241	0	-	-	-	712	Y	=	7	+	-0.2692	X	Y	=	241	+	18.1290	X
493	480	1,344	900	900	353	659	1,844	1,235	1,235	369	Y	=	1,344	+	19.2308	X	Y	=	353	+	0.6129	X
494	393	1,100	737	737	1,505	750	2,100	1,407	1,407	1756	Y	=	1,100	+	38.4615	X	Y	=	1,505	+	9.6452	X
495	168	469	314	314	85	357	1,000	670	670	276	Y	=	469	+	20.4231	X	Y	=	85	+	7.3548	X
496	17	48	32	32	48	196	550	369	369	247	Y	=	48	+	19.3077	X	Y	=	48	+	7.6452	X
497	509	1,247	811	811	2,194	747	1,830	1,190	1,190	2194	Y	=	1,247	+	22.4231	X	Y	=	2,194	+	0.0000	X
498	1078	2,641	1,717	1,717	1,024	1020	2,500	1,625	1,625	1147	Y	=	2,641	+	-5.4231	X	Y	=	1,024	+	4.7419	X
499	120	316	243	180	182	233	616	474	351	427	Y	=	316	+	11.5385	X	Y	=	182	+	9.4194	X
500	700	1,716	1,115	1,115	86	960	2,352	1,529	1,529	352	Y	=	1,716	+	24.4615	X	Y	=	86	+	10.2258	X
501	701	2,132	1,407	1,599	317	784	2,382	1,572	1,787	485	Y	=	2,132	+	9.6154	X	Y	=	317	+	6.4516	X
502	500	1,809	724	1,266	5,827	500	1,809	724	1,266	3628	Y	=	1,809	+	0.0000	X	Y	=	5,827	+	-84.5806	X
503	256	926	370	648	5,532	28	100	40	70	3410	Y	=	926	+	-31.7692	X	Y	=	5,532	+	-81.6129	X
504	231	646	433	433	283	286	800	536	536	594	Y	=	646	+	5.9231	X	Y	=	283	+	11.9677	X
505	254	711	476	476	117	893	2,500	1,675	1,675	188	Y	=	711	+	68.8077	X	Y	=	117	+	2.7419	X
506	309	847	745	567	71	365	1,000	880	670	126	Y	=	847	+	5.8846	X	Y	=	71	+	2.0968	X
507	39	107	94	72	18	96	263	231	176	49	Y	=	107	+	6.0000	X	Y	=	18	+	1.1935	X
508	25	68	60	46	33	108	295	260	198	124	Y	=	68	+	8.7308	X	Y	=	33	+	3.5161	X
509	186	509	448	341	41	182	500	440	335	104	Y	=	509	+	-0.3462	X	Y	=	41	+	2.4194	X
510	384	1,097	779	669	194	488	1,397	992	852	358	Y	=	1,097	+	11.5385	X	Y	=	194	+	6.2903	X
511	233	665	472	406	82	350	1,000	710	610	158	Y	=	665	+	12.8846	X	Y	=	82	+	2.9355	X
512	144	411	292	251	37	350	1,000	710	610	74	Y	=	411	+	22.6538	X	Y	=	37	+	1.4194	X
Shelby Subtotal	**347,007**	**897,472**	**540,995**	**592,336**	**511,528**	**425,970**	**1,103,276**	**689,528**	**733,536**	**725,142**	**Y**	**=**	**897,472**	**+**	**7915.5**	**X**	**Y**	**=**	**511,528**	**+**	**8215.9**	**X**

* From 2026 MPO Projections to Census 2000

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DeSoto County Projections
Light Rail Alternative

TAZ Number	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
701	97	253	144	243	497	200	524	502	299	1,029	Y	=	253	+	10.4174	X	Y	=	497	+	20.4571	X
702	153	400	228	384	246	200	524	502	299	322	Y	=	400	+	4.7528	X	Y	=	246	+	2.9206	X
703	31	82	47	79	2114	100	260	251	148	6,728	Y	=	82	+	6.8578	X	Y	=	2,114	+	177.4589	X
704	0	0	0	0	1593	0	0	0	0	3,011	Y	=	-	+	0.0000	X	Y	=	1,593	+	54.5385	X
705	377	980	558	738	270	900	2,340	1,764	1,334	645	Y	=	980	+	52.3255	X	Y	=	270	+	14.4231	X
706	216	567	323	424	176	574	1,504	1,125	857	467	Y	=	567	+	36.0399	X	Y	=	176	+	11.1906	X
707	664	1726	984	1301	428	900	2,340	1,764	1,334	580	Y	=	1,726	+	23.5995	X	Y	=	428	+	5.8495	X
708	552	1434	817	1081	312	700	1,820	1,372	1,037	396	Y	=	1,434	+	14.8272	X	Y	=	312	+	3.2261	X
709	368	956	545	721	1233	289	751	566	428	969	Y	=	956	+	-7.8823	X	Y	=	1,233	+	-10.1704	X
710	68	177	101	133	122	180	468	353	267	322	Y	=	177	+	11.1985	X	Y	=	122	+	7.7049	X
711	41	106	60	80	1063	32	83	63	47	834	Y	=	106	+	-0.8776	X	Y	=	1,063	+	-8.8178	X
712	221	574	327	435	188	370	962	729	548	315	Y	=	574	+	14.9225	X	Y	=	188	+	4.8863	X
713	134	350	199	265	29	1,100	2,860	2,167	1,630	235	Y	=	350	+	96.5574	X	Y	=	29	+	7.9339	X
714	113	295	168	223	30	900	2,340	1,773	1,334	242	Y	=	295	+	78.6634	X	Y	=	30	+	8.1353	X
715	126	326	186	247	21	800	2,080	1,576	1,186	132	Y	=	326	+	67.4484	X	Y	=	21	+	4.2804	X
716	99	257	146	195	32	800	2,080	1,576	1,186	263	Y	=	257	+	70.1208	X	Y	=	32	+	8.8662	X
717	222	622	354	493	65	900	2,520	1,998	1,436	263	Y	=	622	+	73.0004	X	Y	=	65	+	7.6187	X
718	183	512	292	406	45	900	2,520	1,998	1,436	221	Y	=	512	+	77.2272	X	Y	=	45	+	6.7727	X
719	168	470	268	372	288	220	616	488	351	378	Y	=	470	+	5.6339	X	Y	=	288	+	3.4571	X
720	159	446	254	354	232	220	616	488	351	321	Y	=	446	+	6.5396	X	Y	=	232	+	3.4078	X
721	153	429	244	340	145	400	1,120	888	638	379	Y	=	429	+	26.5741	X	Y	=	145	+	8.9925	X
722	116	325	185	258	70	700	1,960	1,554	1,117	421	Y	=	325	+	62.8835	X	Y	=	70	+	13.5071	X
723	151	424	242	336	117	700	1,960	1,554	1,117	543	Y	=	424	+	59.0794	X	Y	=	117	+	16.3674	X
724	307	860	490	682	196	800	2,240	1,776	1,277	509	Y	=	860	+	53.0620	X	Y	=	196	+	12.0574	X
725	1172	3047	1737	2145	1973	1,300	3,380	2,379	1,927	2,189	Y	=	3,047	+	12.8059	X	Y	=	1,973	+	8.2935	X
726	857	2228	1269	1568	1981	791	2,057	1,448	1,172	1,829	Y	=	2,228	+	-6.5759	X	Y	=	1,981	+	-5.8470	X
727	578	1502	856	1057	4326	597	1,552	1,093	885	4,471	Y	=	1,502	+	1.9294	X	Y	=	4,326	+	5.5583	X
728	484	1258	717	886	3496	564	1,466	1,032	836	4,073	Y	=	1,258	+	7.9944	X	Y	=	3,496	+	22.2110	X
729	433	1082	617	714	491	1,022	2,555	1,686	1,456	1,160	Y	=	1,082	+	56.6596	X	Y	=	491	+	25.7241	X
730	1812	4529	2582	2989	2533	1,818	4,545	3,000	2,591	2,542	Y	=	4,529	+	0.6096	X	Y	=	2,533	+	0.3410	X
731	931	2328	1328	1853	2219	1,086	2,715	2,161	1,548	2,587	Y	=	2,328	+	14.8731	X	Y	=	2,219	+	14.1719	X
732	947	2368	1350	1885	772	1,022	2,555	2,034	1,456	833	Y	=	2,368	+	7.1735	X	Y	=	772	+	2.3388	X
733	436	1090	621	767	109	815	2,038	1,434	1,161	204	Y	=	1,090	+	36.4678	X	Y	=	109	+	3.6504	X
734	9	23	13	18	4855	10	25	20	14	5,329	Y	=	23	+	0.0855	X	Y	=	4,855	+	18.2252	X
735	216	605	345	430	75	800	2,240	1,592	1,277	279	Y	=	605	+	62.8679	X	Y	=	75	+	7.8304	X
736	448	1255	715	789	109	1,200	3,360	2,112	1,915	291	Y	=	1,255	+	80.9475	X	Y	=	109	+	7.0106	X
737	440	1231	702	910	182	700	1,960	1,449	1,117	289	Y	=	1,231	+	28.0212	X	Y	=	182	+	4.1317	X
738	290	813	463	601	77	500	1,400	1,035	798	132	Y	=	813	+	22.5891	X	Y	=	77	+	2.1298	X
739	67	176	100	120	13	150	393	267	224	29	Y	=	176	+	8.3418	X	Y	=	13	+	0.6155	X
740	221	580	330	394	28	400	1,048	712	597	51	Y	=	580	+	17.9981	X	Y	=	28	+	0.8759	X
741	56	115	65	100	43	300	611	534	348	231	Y	=	115	+	19.0826	X	Y	=	43	+	7.2145	X
742	94	245	140	167	24	200	524	356	299	51	Y	=	245	+	10.7161	X	Y	=	24	+	1.0430	X
743	156	410	233	278	82	250	655	445	373	131	Y	=	410	+	9.4348	X	Y	=	82	+	1.8870	X
744	66	185	106	118	31	400	1,120	712	638	188	Y	=	185	+	35.9486	X	Y	=	31	+	6.0342	X
745	183	513	292	326	230	500	1,400	890	798	628	Y	=	513	+	34.1207	X	Y	=	230	+	15.3056	X
746	84	234	133	149	49	500	1,400	890	798	291	Y	=	234	+	44.8388	X	Y	=	49	+	9.3201	X

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DeSoto County Projections
Light Rail Alternative

TAZ Number	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
747	47	124	71	84	7	200	524	356	299	29	Y	=	124	+	15.3967	X	Y	=	7	+	0.8521	X
748	89	233	133	158	22	300	786	534	448	73	Y	=	233	+	21.2809	X	Y	=	22	+	1.9765	X
749	277	777	443	574	64	700	1,960	1,449	1,117	161	Y	=	777	+	45.5050	X	Y	=	64	+	3.7379	X
750	537	1503	857	1084	180	1,100	3,080	2,222	1,756	368	Y	=	1,503	+	60.6672	X	Y	=	180	+	7.2485	X
751	235	657	374	436	23	900	2,520	1,674	1,436	88	Y	=	657	+	71.6598	X	Y	=	23	+	2.5024	X
752	1915	5364	3057	3371	757	1,846	5,169	3,249	2,946	730	Y	=	5,364	+	-7.4843	X	Y	=	757	+	-1.0570	X
753	1323	3704	2112	2328	450	1,375	3,850	2,420	2,195	468	Y	=	3,704	+	5.6074	X	Y	=	450	+	0.6816	X
754	132	370	211	246	14	700	1,960	1,302	1,117	74	Y	=	370	+	61.1429	X	Y	=	14	+	2.3085	X
755	417	1168	665	776	252	900	2,520	1,674	1,436	543	Y	=	1,168	+	52.0058	X	Y	=	252	+	11.2060	X
756	282	791	451	525	468	1,462	4,094	2,719	2,333	2,422	Y	=	791	+	127.0376	X	Y	=	468	+	75.1551	X
757	64	161	92	106	1080	195	488	322	278	3,280	Y	=	161	+	12.5907	X	Y	=	1,080	+	84.6263	X
758	999	2576	1469	1648	1446	1,700	4,386	2,805	2,500	2,461	Y	=	2,576	+	69.6016	X	Y	=	1,446	+	39.0537	X
759	122	330	188	203	156	900	2,430	1,494	1,385	1,154	Y	=	330	+	80.7869	X	Y	=	156	+	38.3655	X
760	7	20	11	12	0	0	0	0	0	2,345	Y	=	20	+	-0.7549	X	Y	=	-	+	90.1923	X
761	239	646	368	576	1072	707	1,909	1,704	1,088	3,169	Y	=	646	+	48.5939	X	Y	=	1,072	+	80.6675	X
762	458	1236	704	760	238	620	1,674	1,029	954	322	Y	=	1,236	+	16.8526	X	Y	=	238	+	3.2417	X
763	126	352	201	303	32	800	2,240	1,928	1,277	204	Y	=	352	+	72.6037	X	Y	=	32	+	6.6121	X
764	190	512	292	457	105	661	1,785	1,593	1,017	364	Y	=	512	+	48.9427	X	Y	=	105	+	9.9805	X
765	107	299	171	258	133	700	1,960	1,687	1,117	871	Y	=	299	+	63.8761	X	Y	=	133	+	28.3858	X
766	101	283	162	244	27	500	1,400	1,205	798	131	Y	=	283	+	42.9425	X	Y	=	27	+	4.0182	X
767	40	111	63	95	10	110	308	265	176	29	Y	=	111	+	7.5829	X	Y	=	10	+	0.7140	X
768	87	244	139	210	408	180	504	434	287	843	Y	=	244	+	10.0051	X	Y	=	408	+	16.7348	X
769	151	423	241	364	58	950	2,660	2,290	1,516	364	Y	=	423	+	86.0430	X	Y	=	58	+	11.7743	X
770	48	135	77	116	8	180	504	434	287	29	Y	=	135	+	14.1792	X	Y	=	8	+	0.8159	X
771	114	295	168	224	8	1,200	3,120	2,364	1,778	88	Y	=	295	+	108.6451	X	Y	=	8	+	3.0643	X
772	111	289	164	219	47	1,100	2,860	2,167	1,630	467	Y	=	289	+	98.9030	X	Y	=	47	+	16.1495	X
773	174	451	257	342	41	1,500	3,900	2,955	2,223	351	Y	=	451	+	132.6457	X	Y	=	41	+	11.9381	X
774	243	632	360	518	48	1,500	3,900	3,195	2,223	294	Y	=	632	+	125.7038	X	Y	=	48	+	9.4761	X
775	138	360	205	295	20	700	1,820	1,491	1,037	103	Y	=	360	+	56.1728	X	Y	=	20	+	3.1790	X
776	372	967	551	732	198	3,000	7,800	5,910	4,446	1,601	Y	=	967	+	262.8245	X	Y	=	198	+	53.9464	X
777	385	1002	570	724	1399	310	806	583	459	1,126	Y	=	1,002	+	-7.5234	X	Y	=	1,399	+	-10.5104	X
778	524	1363	777	986	555	450	1,170	846	667	476	Y	=	1,363	+	-7.4225	X	Y	=	555	+	-3.0198	X
779	28	73	41	60	50	150	390	320	222	270	Y	=	73	+	12.2061	X	Y	=	50	+	8.4504	X
780	577	1501	856	1086	87	1,700	4,420	3,196	2,519	256	Y	=	1,501	+	112.2532	X	Y	=	87	+	6.5015	X
781	50	129	73	93	0	160	416	301	237	0	Y	=	129	+	11.0472	X	Y	=	-	+	0.0000	X
782	1492	3878	2211	2804	452	2,611	6,789	4,909	3,870	791	Y	=	3,878	+	111.9532	X	Y	=	452	+	13.0439	X
783	216	561	320	542	266	500	1,300	1,255	741	1,000	Y	=	561	+	28.4107	X	Y	=	266	+	28.2315	X
784	170	445	254	426	31	400	1,048	1,004	597	73	Y	=	445	+	23.1862	X	Y	=	31	+	1.6151	X
785	106	279	159	267	26	150	393	377	224	37	Y	=	279	+	4.3929	X	Y	=	26	+	0.4136	X
786	130	338	193	327	47	200	520	502	296	72	Y	=	338	+	6.9822	X	Y	=	47	+	0.9668	X
787	95	247	140	202	28	200	520	426	296	58	Y	=	247	+	10.5077	X	Y	=	28	+	1.1720	X
788	156	410	233	333	28	250	655	533	373	44	Y	=	410	+	9.4269	X	Y	=	28	+	0.6333	X
789	237	622	355	506	40	300	786	639	448	51	Y	=	622	+	6.3039	X	Y	=	40	+	0.4090	X
790	81	211	120	173	24	200	520	426	296	58	Y	=	211	+	11.8736	X	Y	=	24	+	1.3244	X
791	74	192	109	158	11	200	520	426	296	29	Y	=	192	+	12.6021	X	Y	=	11	+	0.7028	X
792	280	734	418	597	41	400	1,048	852	597	59	Y	=	734	+	12.0780	X	Y	=	41	+	0.6800	X

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DeSoto County Projections
Light Rail Alternative

TAZ Number	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
793	180	471	268	383	37	250	655	533	373	51	Y	=	471	+	7.0593	X	Y	=	37	+	0.5497	X
794	147	384	219	312	22	250	655	533	373	37	Y	=	384	+	10.4285	X	Y	=	22	+	0.5891	X
795	142	372	212	303	22	280	734	596	418	44	Y	=	372	+	13.9039	X	Y	=	22	+	0.8335	X
796	135	350	200	287	24	250	650	533	371	44	Y	=	350	+	11.5411	X	Y	=	24	+	0.7812	X
797	175	459	262	389	58	220	576	488	329	73	Y	=	459	+	4.5126	X	Y	=	58	+	0.5719	X
798	309	810	462	687	91	300	786	666	448	88	Y	=	810	+	-0.9351	X	Y	=	91	+	-0.1047	X
799	243	637	363	540	79	250	655	555	373	81	Y	=	637	+	0.6931	X	Y	=	79	+	0.0857	X
800	314	880	502	698	99	280	784	622	447	88	Y	=	880	+	-3.7115	X	Y	=	99	+	-0.4166	X
801	181	507	289	402	685	250	700	555	399	947	Y	=	507	+	7.4378	X	Y	=	685	+	10.0622	X
802	356	932	531	790	127	700	1,834	1,554	1,045	249	Y	=	932	+	34.6955	X	Y	=	127	+	4.7106	X
803	44	114	65	88	47	150	393	303	224	161	Y	=	114	+	10.7272	X	Y	=	47	+	4.3946	X
804	83	232	132	168	108	500	1,400	1,010	798	653	Y	=	232	+	44.9092	X	Y	=	108	+	20.9470	X
805	276	723	412	557	46	1,500	3,930	3,030	2,240	249	Y	=	723	+	123.3512	X	Y	=	46	+	7.8154	X
806	232	609	347	469	119	600	1,572	1,212	896	307	Y	=	609	+	37.0448	X	Y	=	119	+	7.2346	X
807	220	576	328	444	86	600	1,572	1,212	896	235	Y	=	576	+	38.3059	X	Y	=	86	+	5.7264	X
808	99	261	148	201	22	400	1,048	808	597	88	Y	=	261	+	30.2874	X	Y	=	22	+	2.5432	X
809	113	295	168	227	25	400	1,048	808	597	88	Y	=	295	+	28.9633	X	Y	=	25	+	2.4320	X
810	63	166	95	128	22	250	655	505	373	88	Y	=	166	+	18.8035	X	Y	=	22	+	2.5263	X
811	90	235	134	181	20	300	786	606	448	66	Y	=	235	+	21.2022	X	Y	=	20	+	1.7803	X
812	174	457	260	352	56	500	1,310	1,010	747	161	Y	=	457	+	32.8149	X	Y	=	56	+	4.0330	X
813	145	379	216	258	25	300	786	534	448	51	Y	=	379	+	15.6483	X	Y	=	25	+	1.0153	X
814	56	146	83	99	21	200	524	356	299	74	Y	=	146	+	14.5490	X	Y	=	21	+	2.0546	X
815	78	204	116	139	15	300	786	534	448	59	Y	=	204	+	22.3707	X	Y	=	15	+	1.6792	X
816	49	127	72	86	11	250	655	445	373	59	Y	=	127	+	20.2968	X	Y	=	11	+	1.8283	X
817	105	275	157	187	36	500	1,310	890	747	2,500	Y	=	275	+	39.8118	X	Y	=	36	+	94.7576	X
818	115	302	172	205	27	250	655	445	373	58	Y	=	302	+	13.5744	X	Y	=	27	+	1.2020	X
819	82	215	122	146	31	300	786	534	448	1,000	Y	=	215	+	21.9798	X	Y	=	31	+	37.2543	X
820	114	300	171	204	263	350	917	623	523	806	Y	=	300	+	23.7411	X	Y	=	263	+	20.8673	X
821	75	196	112	133	59	300	786	534	448	235	Y	=	196	+	22.6833	X	Y	=	59	+	6.7819	X
822	87	227	129	154	433	150	393	267	224	749	Y	=	227	+	6.3781	X	Y	=	433	+	12.1556	X
DeSoto Subtotal	**32,928**	**87,227**	**49,715**	**63,819**	**46,380**	**73,807**	**196,240**	**145,871**	**111,846**	**84,548**	**Y**	**=**	**87,227**	**+**	**4,192.8**	**X**	**Y**	**=**	**46,380**	**+**	**1468.0**	**X**

* From 2026 MPO Projections to Census 2000

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Fayette County Projections
Light Rail Alternative

TAZ Number	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
601	63	166	106	73	159	296	820	524	361	415	Y	=	166	+	25.1610	X	Y	=	159	+	9.8605	X
602	86	228	146	75	272	408	1,129	722	371	712	Y	=	228	+	34.6425	X	Y	=	272	+	16.9172	X
603	42	110	70	48	299	196	543	347	239	781	Y	=	110	+	16.6615	X	Y	=	299	+	18.5567	X
604	15	38	25	17	33	69	190	122	84	87	Y	=	38	+	5.8300	X	Y	=	33	+	2.0671	X
605	212	562	359	248	247	1,003	2,779	1,776	1,224	647	Y	=	562	+	85.2714	X	Y	=	247	+	15.3728	X
606	142	375	240	165	62	669	1,854	1,185	817	162	Y	=	375	+	56.8885	X	Y	=	62	+	3.8491	X
607	54	144	92	63	29	257	711	454	313	77	Y	=	144	+	21.8165	X	Y	=	29	+	1.8295	X
608	87	231	148	102	84	413	1,144	731	504	219	Y	=	231	+	35.1027	X	Y	=	84	+	5.2035	X
609	268	710	453	313	143	1,267	3,510	2,243	1,546	374	Y	=	710	+	107.7015	X	Y	=	143	+	8.8863	X
610	805	2129	1360	938	354	3,801	10,529	6,728	4,637	926	Y	=	2,129	+	323.0739	X	Y	=	354	+	22.0019	X
611	51	136	87	60	497	243	672	429	296	1,300	Y	=	136	+	20.6198	X	Y	=	497	+	30.8882	X
Fayette Subtotal	**1,826**	**4,829**	**3,084**	**2,101**	**2,179**	**8,622**	**23,881**	**15,261**	**10,392**	**5,700**	**Y**	**=**	**4,829**	**+**	**732.8**	**X**	**Y**	**=**	**2,179**	**+**	**135.4**	**X**

* From 2026 MPO Projections to Census 2000

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Memphis Area MPO Projections
Light Rail Alternative

	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation						Employment Trend Linear Equation					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
Shelby County	347,007	897,472	540,995	592,336	511,528	425,970	1,103,276	689,528	733,536	725,142	Y	=	897,472	+	7,916	X	Y	=	511,528	+	8,216	X
DeSoto County	32,928	87,227	49,715	63,819	46,380	73,807	196,240	145,871	111,846	84,548	Y	=	87,227	+	4,193	X	Y	=	46,380	+	1,468	X
Fayette County	1,826	4,829	3,084	2,101	2,179	8,622	23,881	15,261	10,392	5,700	Y	=	4,829	+	733	X	Y	=	2,179	+	135	X
GRAND TOTAL	381,761	989,528	593,795	658,257	560,087	508,399	1,323,397	850,660	855,774	815,390	Y	=	989,528	+	12,841	X	Y	=	560,087	+	9,819	X

Appendix G

Projection of Suburban Expansion
Alternative Demographic Projections by TAZ

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Shelby County Projections
Suburban Expansion Alternative

TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
1	0	-	-	-	95	0	0	-	-	290	Y	=	0.00	+	0.00	X	Y	=	303	+	-1.3014	X
2	0	-	-	-	286	0	0	-	-	449	Y	=	0.00	+	0.00	X	Y	=	419	+	2.9593	X
3	0	-	-	-	246	0	0	-	-	345	Y	=	0.00	+	0.00	X	Y	=	344	+	0.1073	X
4	0	-	-	-	263	0	0	-	-	408	Y	=	0.00	+	0.00	X	Y	=	396	+	1.1444	X
5	124	173	100	114	467	216	300	174	198	929	Y	=	251	+	4.8846	X	Y	=	734	+	19.5034	X
6	24	34	20	22	374	68	95	55	63	668	Y	=	75	+	2.0385	X	Y	=	636	+	3.1780	X
7	28	39	23	26	2,854	72	100	58	66	2777	Y	=	77	+	2.3462	X	Y	=	2944	+	-16.6874	X
8	190	264	153	174	1,552	216	300	174	198	4456	Y	=	286	+	1.3846	X	Y	=	3674	+	78.2054	X
9	460	639	371	422	3,059	540	750	435	495	3090	Y	=	707	+	4.2692	X	Y	=	3599	+	-50.8581	X
10	505	702	407	463	10,068	719	1000	580	660	9724	Y	=	885	+	11.4615	X	Y	=	11078	+	-135.4771	X
11	0	-	-	-	721	0	0	-	-	759	Y	=	0	+	0.0000	X	Y	=	725	+	3.4464	X
12	293	396	230	150	378	919	1240	719	471	391	Y	=	955	+	28.4615	X	Y	=	378	+	1.3426	X
13	1134	1,758	1,020	141	3,307	1134	1758	1,020	141	3336	Y	=	2311	+	-55.2615	X	Y	=	3738	+	-40.1476	X
14	0	-	-	-	4,164	0	0	-	-	4153	Y	=	228	+	-22.7692	X	Y	=	4456	+	-30.3419	X
15	1	1	1	0	2,221	0	0	-	-	3686	Y	=	0	+	-0.0385	X	Y	=	3314	+	37.1446	X
16	6	10	6	1	1,435	257	398	231	32	1933	Y	=	249	+	14.9231	X	Y	=	2244	+	-31.1663	X
17	224	347	201	28	1,085	323	500	290	40	1504	Y	=	441	+	5.8846	X	Y	=	1494	+	0.9688	X
18	79	123	71	10	195	663	1028	596	82	241	Y	=	713	+	31.4846	X	Y	=	273	+	-3.1613	X
19	250	347	201	229	1,462	1017	1414	820	933	1654	Y	=	1364	+	4.9769	X	Y	=	1654	+	0.0000	X
20	544	827	728	579	4,129	1984	3016	2,654	2,111	3801	Y	=	3135	+	-11.9308	X	Y	=	4176	+	-37.5323	X
21	129	317	48	124	1,522	58	143	21	56	2410	Y	=	214	+	-7.1231	X	Y	=	2120	+	28.9871	X
22	484	1,587	286	794	225	687	2253	406	1,127	210	Y	=	2070	+	18.2923	X	Y	=	225	+	-1.4840	X
23	303	995	179	498	565	264	865	156	433	552	Y	=	1049	+	-18.3538	X	Y	=	565	+	-1.2939	X
24	747	1,845	424	1,033	2,329	769	1900	437	1,064	1895	Y	=	1940	+	-4.0385	X	Y	=	2243	+	-34.7871	X
25	818	1,219	378	427	1,248	1179	1757	545	615	1104	Y	=	1550	+	20.6923	X	Y	=	1374	+	-26.9613	X
26	97	250	33	105	3,119	268	692	90	291	3055	Y	=	544	+	14.7846	X	Y	=	3089	+	-3.4032	X
27	562	882	326	485	2,020	945	1483	549	816	2045	Y	=	1563	+	-7.9615	X	Y	=	2134	+	-8.9032	X
28	122	150	50	51	7,229	263	323	107	110	6259	Y	=	267	+	5.6077	X	Y	=	7229	+	-97.0357	X
29	663	815	269	277	6,498	1105	1359	448	462	5950	Y	=	1150	+	20.9231	X	Y	=	6743	+	-79.2774	X
30	923	1,135	375	386	5,623	474	583	192	198	5265	Y	=	795	+	-21.2308	X	Y	=	5623	+	-35.8038	X
31	99	156	58	86	1,186	94	148	55	81	1303	Y	=	156	+	-0.8000	X	Y	=	1568	+	-26.5290	X
32	320	770	262	385	422	320	770	262	385	400	Y	=	770	+	0.0000	X	Y	=	422	+	-2.1959	X
33	780	1,989	656	835	240	457	1165	384	489	210	Y	=	2689	+	-152.3692	X	Y	=	254	+	-4.4790	X
34	536	1,368	451	575	283	510	1300	429	546	323	Y	=	1368	+	-6.8000	X	Y	=	391	+	-6.8081	X
35	157	378	129	189	390	68	163	55	82	375	Y	=	246	+	-8.2692	X	Y	=	390	+	-1.4956	X
36	20	27	3	10	3,033	124	167	18	63	4398	Y	=	10	+	15.6615	X	Y	=	4244	+	15.4948	X
37	17	23	3	9	410	74	100	11	38	405	Y	=	70	+	2.9615	X	Y	=	927	+	-52.2249	X
38	560	1,556	482	529	1,242	1367	3,800	1,178	1,292	2490	Y	=	3060	+	74.0000	X	Y	=	2324	+	16.5801	X
39	1278	3,999	1,160	1,800	558	1214	3,800	1,102	1,710	576	Y	=	4000	+	-19.9615	X	Y	=	558	+	1.7644	X
40	905	2,834	709	1,162	948	825	2,583	646	1,059	732	Y	=	2763	+	-18.0231	X	Y	=	941	+	-20.8516	X
41	551	1,538	385	584	921	1090	3,040	760	1,155	933	Y	=	2561	+	47.9231	X	Y	=	921	+	1.1691	X
42	0	-	-	-	63	0	-	-	-	266	Y	=	248	+	-24.8000	X	Y	=	244	+	2.1548	X
43	1434	2,480	2,083	1,761	105	3038	5,255	4,414	3,731	79	Y	=	4188	+	106.7308	X	Y	=	105	+	-2.6369	X
44	221	382	321	271	4,178	173	300	252	213	4063	Y	=	341	+	-4.1385	X	Y	=	4178	+	-11.5284	X
45	31	96	24	39	1,347	51	159	40	65	1191	Y	=	135	+	2.4231	X	Y	=	1347	+	-15.6257	X
46	271	766	245	337	117	321	908	291	400	142	Y	=	853	+	5.4615	X	Y	=	190	+	-4.7797	X
47	281	794	254	349	553	161	455	146	200	576	Y	=	585	+	-13.0385	X	Y	=	553	+	2.2693	X
48	1131	2,963	1,126	1,807	286	889	2,328	885	1,420	277	Y	=	2572	+	-24.4231	X	Y	=	286	+	-0.8606	X

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Shelby County Projections
Suburban Expansion Alternative

TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
49	991	2,398	1,199	1,295	231	829	2,005	1,003	1,083	222	Y	=	2221	+	-21.6385	X	Y	=	231	+	-0.8794	X
50	84	213	87	92	416	58	147	60	63	445	Y	=	252	+	-10.5385	X	Y	=	416	+	2.9391	X
51	1373	3,500	1,435	1,505	508	1405	3,584	1,469	1,541	509	Y	=	3668	+	-8.4000	X	Y	=	508	+	0.1230	X
52	1429	3,458	1,729	1,867	574	1429	3,458	1,729	1,867	575	Y	=	3458	+	0.0000	X	Y	=	646	+	-7.0839	X
53	1353	3,545	1,347	1,773	454	1182	3,096	1,176	1,548	431	Y	=	3269	+	-17.2692	X	Y	=	454	+	-2.2501	X
54	474	1,376	454	592	710	383	1,111	367	478	510	Y	=	1249	+	-13.8231	X	Y	=	710	+	-19.9688	X
55	466	1,221	464	611	933	275	721	274	361	970	Y	=	913	+	-19.2308	X	Y	=	933	+	3.7185	X
56	893	2,171	1,086	1,281	2,319	958	2,328	1,164	1,374	2255	Y	=	2343	+	-1.5175	X	Y	=	2319	+	-6.3803	X
57	1302	2,617	1,335	1,649	1,470	1253	2,518	1,284	1,586	1475	Y	=	2556	+	-3.8023	X	Y	=	1470	+	0.4663	X
58	1805	4,333	2,686	2,643	245	1699	4,078	2,528	2,488	262	Y	=	4417	+	-33.9019	X	Y	=	292	+	-2.9462	X
59	1049	2,444	1,222	1,491	1,282	1241	2,892	1,446	1,764	927	Y	=	2720	+	17.2479	X	Y	=	1282	+	-35.5090	X
60	1565	3,176	2,509	2,509	898	1430	2,903	2,293	2,293	780	Y	=	3102	+	-19.9169	X	Y	=	898	+	-11.7914	X
61	238	478	244	301	367	221	445	227	280	365	Y	=	457	+	-1.2866	X	Y	=	390	+	-2.5306	X
62	1053	2,833	1,190	1,898	6,353	1241	3,337	1,402	2,236	5779	Y	=	3143	+	19.3844	X	Y	=	6353	+	-57.4234	X
63	1895	2,881	2,017	1,959	2,358	2488	3,782	2,647	2,571	2261	Y	=	3435	+	34.6362	X	Y	=	2358	+	-9.7281	X
64	2652	4,615	3,461	3,554	5,750	2691	4,683	3,512	3,606	5422	Y	=	5745	+	-106.2285	X	Y	=	5750	+	-32.8118	X
65	353	745	380	522	1,716	343	724	369	507	1994	Y	=	1075	+	-35.1266	X	Y	=	1967	+	2.7452	X
66	301	636	324	445	5,449	290	612	312	428	4817	Y	=	621	+	-0.9241	X	Y	=	5616	+	-79.8806	X
67	1214	2,331	1,841	1,772	699	1254	2,408	1,903	1,830	638	Y	=	2379	+	2.9787	X	Y	=	778	+	-14.0823	X
68	1068	2,104	1,578	1,662	1,399	977	1,924	1,443	1,520	1290	Y	=	2055	+	-13.1089	X	Y	=	1465	+	-17.4710	X
69	1410	2,778	2,084	2,195	3,133	1212	2,388	1,791	1,887	3030	Y	=	2713	+	-32.5421	X	Y	=	3133	+	-10.3213	X
70	552	955	783	707	2,871	528	914	749	676	2714	Y	=	959	+	-4.5446	X	Y	=	2871	+	-15.7453	X
71	1116	2,623	1,784	1,652	307	839	1,971	1,340	1,242	287	Y	=	2623	+	-65.2000	X	Y	=	402	+	-11.5145	X
72	1413	2,529	2,023	1,897	1,496	1413	2,529	2,023	1,897	1643	Y	=	2529	+	0.0000	X	Y	=	1667	+	-2.3548	X
73	2558	3,709	1,372	2,300	5,564	2903	4209	1,557	2,610	5703	Y	=	4017	+	19.2308	X	Y	=	5981	+	-27.7677	X
74	1383	2,738	2,245	1,807	334	1284	2,542	2,084	1,678	373	Y	=	2738	+	-19.6000	X	Y	=	352	+	2.1263	X
75	5	11	6	5	476	5	11	6	5	420	Y	=	11	+	0.0000	X	Y	=	479	+	-5.9565	X
76	972	2,158	1,079	1,057	3,153	775	1721	861	843	3025	Y	=	2158	+	-43.7000	X	Y	=	3160	+	-13.4806	X
77	1198	3,018	1,026	1,509	1,120	1138	2867	975	1,434	1157	Y	=	3018	+	-15.1000	X	Y	=	1230	+	-7.2613	X
78	871	2,194	746	1,097	1,425	1016	2560	870	1,280	1317	Y	=	2502	+	5.8308	X	Y	=	1468	+	-15.1226	X
79	975	1,931	1,583	1,274	409	926	1834	1,504	1,210	458	Y	=	1931	+	-9.7000	X	Y	=	468	+	-1.0133	X
80	1572	3,773	2,415	2,528	1,076	1490	3,576	2,289	2,396	1124	Y	=	3652	+	-7.5690	X	Y	=	1106	+	1.8387	X
81	877	2,246	1,190	1,325	306	832	2,129	1,128	1,256	295	Y	=	2174	+	-4.5057	X	Y	=	333	+	-3.8069	X
82	1451	4,180	1,756	2,383	656	1376	3,962	1,664	2,258	602	Y	=	4046	+	-8.3854	X	Y	=	712	+	-11.0161	X
83	743	1,812	834	1,051	1,252	704	1,717	790	996	1220	Y	=	1754	+	-3.6350	X	Y	=	1282	+	-6.1968	X
84	221	540	227	275	5,553	199	486	204	248	5522	Y	=	523	+	-3.6667	X	Y	=	5743	+	-22.1290	X
85	741	2,001	700	940	989	702	1,897	664	891	1000	Y	=	1937	+	-4.0142	X	Y	=	1019	+	-1.9254	X
86	439	1,217	645	755	316	396	1,096	581	680	358	Y	=	1178	+	-8.1937	X	Y	=	424	+	-6.6081	X
87	996	2,760	1,463	1,711	531	944	2,616	1,387	1,622	495	Y	=	2671	+	-5.5368	X	Y	=	533	+	-3.8458	X
88	927	2,307	1,361	1,430	58	878	2,187	1,290	1,356	55	Y	=	2233	+	-4.6280	X	Y	=	95	+	-3.9897	X
89	913	2,283	1,484	1,484	260	510	1,274	828	828	246	Y	=	2210	+	-93.5722	X	Y	=	265	+	-1.9097	X
90	1422	3,640	1,929	2,148	433	1348	3,450	1,829	2,036	397	Y	=	3523	+	-7.3022	X	Y	=	433	+	-3.5824	X
91	634	1,584	1,030	1,030	301	570	1,425	926	926	266	Y	=	1533	+	-10.8158	X	Y	=	303	+	-3.6710	X
92	1029	2,243	1,705	1,436	298	1029	2,243	1,705	1,436	270	Y	=	2243	+	0.0000	X	Y	=	348	+	-7.8887	X
93	1039	2,264	1,721	1,449	1,186	984	2,146	1,631	1,373	1071	Y	=	2191	+	-4.5418	X	Y	=	1186	+	-11.4986	X
94	1097	2,446	1,663	1,443	173	1040	2,318	1,577	1,368	154	Y	=	2367	+	-4.9069	X	Y	=	181	+	-2.6861	X
95	198	442	301	261	1,465	188	419	285	247	1504	Y	=	428	+	-0.8867	X	Y	=	1524	+	-2.0226	X
96	0	-	-	-	405	0	-	-	-	376	Y	=	0	+	0.0000	X	Y	=	444	+	-6.7806	X

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Suburban Expansion Alternative

TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
97	0	-	-	-	153	0	-	-	-	162	Y	=	0	+	0.0000	X	Y	=	241	+	-7.9339	X
98	221	505	647	343	1,063	219	500	641	340	989	Y	=	502	+	-0.1923	X	Y	=	1063	+	-7.3522	X
99	1594	3,635	4,660	2,472	334	1525	3,476	4,456	2,364	383	Y	=	3537	+	-6.1154	X	Y	=	335	+	4.8266	X
100	1871	4,265	5,468	2,900	578	1932	4,405	5,647	2,995	619	Y	=	4494	+	-8.8923	X	Y	=	581	+	3.7496	X
101	1733	4,090	2,822	2,618	1,257	1737	4,100	2,829	2,624	1374	Y	=	4096	+	0.3846	X	Y	=	1527	+	-15.3113	X
102	872	1,902	1,522	989	293	872	1,902	1,522	989	573	Y	=	1902	+	0.0000	X	Y	=	528	+	4.4952	X
103	29	64	51	33	2,629	46	100	80	52	2704	Y	=	86	+	1.3846	X	Y	=	2964	+	-26.0823	X
104	1455	3,171	2,537	1,649	5,046	1525	3,325	2,660	1,729	5007	Y	=	3373	+	-4.8462	X	Y	=	5127	+	-11.9677	X
105	31	75	59	46	5,112	41	100	78	61	5002	Y	=	90	+	0.9615	X	Y	=	5406	+	-40.4524	X
106	1605	3,933	3,068	2,399	3,897	1837	4,500	3,510	2,745	3578	Y	=	4282	+	21.8077	X	Y	=	4094	+	-51.6097	X
107	1459	3,063	2,450	1,899	896	1478	3,104	2,483	1,924	1034	Y	=	3088	+	1.5769	X	Y	=	1199	+	-16.4645	X
108	728	1,529	1,223	948	467	823	1,729	1,383	1,072	543	Y	=	1652	+	7.6923	X	Y	=	467	+	7.5593	X
109	683	1,761	1,092	1,092	254	632	1,630	1,011	1,011	560	Y	=	1680	+	-5.0385	X	Y	=	383	+	17.6895	X
110	2099	4,114	3,209	2,468	651	2195	4,303	3,356	2,582	725	Y	=	4369	+	-6.6385	X	Y	=	691	+	3.3839	X
111	556	1,090	850	654	2,130	709	1,389	1,083	833	2308	Y	=	1319	+	7.0077	X	Y	=	2928	+	-62.0290	X
112	28	60	48	31	72	102	222	178	115	100	Y	=	160	+	6.2308	X	Y	=	81	+	1.9156	X
113	1734	3,347	2,276	2,376	1,259	1734	3347	2,276	2,376	1257	Y	=	3347	+	0.0000	X	Y	=	1266	+	-0.9484	X
114	2134	5,080	3,048	3,251	1,235	1861	4,428	2,657	2,834	1258	Y	=	4679	+	-25.0769	X	Y	=	1235	+	2.2671	X
115	931	2,281	1,505	1,414	759	832	2,038	1,345	1,264	901	Y	=	2131	+	-9.3462	X	Y	=	841	+	6.0290	X
116	1913	4,687	3,093	2,906	540	1725	4,227	2,790	2,621	662	Y	=	4404	+	-17.6923	X	Y	=	636	+	2.6000	X
117	1248	3,221	1,997	1,997	438	1069	2,758	1,710	1,710	539	Y	=	2936	+	-17.8077	X	Y	=	571	+	-3.1774	X
118	2049	6,229	2,554	4,173	814	1344	4,086	1,675	2,738	829	Y	=	4910	+	-82.4231	X	Y	=	814	+	1.4619	X
119	1349	3,358	1,713	2,082	557	822	2,048	1,044	1,270	581	Y	=	3187	+	-113.8955	X	Y	=	597	+	-1.6095	X
120	1273	3,501	1,540	2,241	281	1239	3,408	1,500	2,181	309	Y	=	3329	+	7.9163	X	Y	=	299	+	0.9413	X
121	1162	3,195	1,406	2,045	314	1061	2,919	1,284	1,868	307	Y	=	3025	+	-10.6107	X	Y	=	348	+	-4.0410	X
122	1171	3,010	1,234	1,595	843	889	2,284	936	1,211	814	Y	=	2842	+	-55.7675	X	Y	=	884	+	-7.0088	X
123	1863	4,397	2,638	2,990	765	1636	3,861	2,317	2,625	766	Y	=	4218	+	-35.6833	X	Y	=	765	+	0.1102	X
124	2160	5,464	1,912	2,732	1,611	2039	5,159	1,806	2,580	1469	Y	=	5276	+	-11.7192	X	Y	=	1611	+	-14.2439	X
125	0	-	-	-	386	0	-	-	-	385	Y	=	0	+	0.0000	X	Y	=	400	+	-1.5790	X
126	1618	3,689	2,213	2,545	1,316	1547	3,528	2,117	2,434	1244	Y	=	4017	+	-48.8556	X	Y	=	1373	+	-12.9016	X
127	700	2,148	752	1,095	1,121	339	1,040	364	530	1124	Y	=	2394	+	-135.4135	X	Y	=	1179	+	-5.5371	X
128	1354	4,158	1,455	2,121	901	548	1,683	589	858	768	Y	=	4560	+	-287.6921	X	Y	=	946	+	-17.7935	X
129	991	2,399	960	1,008	576	882	2,133	853	896	522	Y	=	2235	+	-10.2218	X	Y	=	576	+	-5.4394	X
130	1080	2,657	1,143	1,435	1,631	971	2,388	1,027	1,289	1556	Y	=	2491	+	-10.3478	X	Y	=	1699	+	-14.2742	X
131	873	2,103	904	1,030	2,215	764	1,841	792	902	2309	Y	=	1942	+	-10.0772	X	Y	=	2215	+	9.4177	X
132	1737	4,707	2,354	2,871	2,078	1366	3,703	1,852	2,259	1875	Y	=	4525	+	-82.2410	X	Y	=	2078	+	-20.3484	X
133	1005	2,502	1,276	1,551	715	898	2,235	1,140	1,386	603	Y	=	2338	+	-10.2721	X	Y	=	715	+	-11.2168	X
134	805	2,327	884	1,419	519	714	2,062	784	1,258	595	Y	=	2164	+	-10.1866	X	Y	=	582	+	1.3355	X
135	1237	3,339	1,469	1,836	193	1134	3,061	1,347	1,684	163	Y	=	3168	+	-10.6810	X	Y	=	236	+	-7.2903	X
136	248	598	257	293	2,761	147	355	153	174	2588	Y	=	449	+	-9.3419	X	Y	=	2940	+	-35.2065	X
137	1045	2,822	1,242	1,552	1,434	510	1,376	605	757	1270	Y	=	2655	+	-127.9145	X	Y	=	1478	+	-20.8258	X
138	1089	2,940	1,294	1,617	586	988	2,667	1,174	1,467	614	Y	=	2772	+	-10.4861	X	Y	=	586	+	2.7685	X
139	190	515	252	273	63	101	273	134	145	57	Y	=	366	+	-9.3014	X	Y	=	59	+	-0.2758	X
140	184	489	230	279	988	173	461	217	263	903	Y	=	487	+	-2.6445	X	Y	=	988	+	-8.4929	X
141	1330	3,697	1,885	1,849	517	1323	3,678	1,876	1,839	498	Y	=	3685	+	-0.7345	X	Y	=	517	+	-1.8781	X
142	732	1,962	765	961	140	692	1,854	723	908	144	Y	=	1956	+	-10.1763	X	Y	=	186	+	-4.1918	X
143	1244	3,358	1,108	1,813	365	1071	2,893	955	1,562	287	Y	=	3347	+	-45.4325	X	Y	=	370	+	-8.3024	X
144	749	2,067	641	847	404	583	1,610	499	660	345	Y	=	2060	+	-45.0429	X	Y	=	404	+	-5.9236	X

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Suburban Expansion Alternative

TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
145	386	1,170	211	445	718	365	1,106	199	420	697	Y	=	1166	+	-6.0281	X	Y	=	718	+	-2.1422	X
146	727	1,898	475	892	439	687	1,794	449	843	383	Y	=	1892	+	-9.7966	X	Y	=	439	+	-5.6003	X
147	723	2,168	282	932	645	683	2,049	266	881	626	Y	=	2161	+	-11.2108	X	Y	=	645	+	-1.9176	X
148	953	2,679	1,045	1,340	322	901	2,531	987	1,266	267	Y	=	2670	+	-13.9484	X	Y	=	322	+	-5.5235	X
149	1282	3,411	1,603	1,944	1,168	1212	3,223	1,515	1,837	1145	Y	=	3400	+	-17.7157	X	Y	=	1168	+	-2.2729	X
150	897	2,512	829	1,281	1,508	848	2,374	783	1,211	1376	Y	=	2504	+	-13.0014	X	Y	=	1508	+	-13.2156	X
151	673	1,756	667	860	544	636	1,660	631	813	548	Y	=	1750	+	-9.0418	X	Y	=	544	+	0.4463	X
152	0	-	-	-	303	0	-	-	-	268	Y	=	0	+	0.0000	X	Y	=	298	+	-3.0126	X
153	1268	3,309	1,257	1,621	635	1198	3,127	1,188	1,532	597	Y	=	3298	+	-17.1481	X	Y	=	635	+	-3.7943	X
154	524	1,468	484	749	1,785	286	800	264	408	1490	Y	=	1463	+	-66.3333	X	Y	=	1785	+	-29.4898	X
155	516	1,558	343	592	1,735	358	1,080	238	410	1872	Y	=	1553	+	-47.3047	X	Y	=	1735	+	13.6712	X
156	75	159	56	57	3,005	71	150	53	54	2728	Y	=	158	+	-0.8495	X	Y	=	3005	+	-27.6660	X
157	160	409	217	245	933	149	380	201	228	936	Y	=	408	+	-2.7700	X	Y	=	933	+	0.3456	X
158	-	-	-	-	1,790	-	-	-	-	2313	Y	=	0	+	0.0000	X	Y	=	2311	+	0.2484	X
159	-	-	-	-	1,784	-	-	-	-	2290	Y	=	0	+	0.0000	X	Y	=	2291	+	-0.0548	X
160	-	-	-	-	1,655	-	-	-	-	2260	Y	=	0	+	0.0000	X	Y	=	2151	+	10.9000	X
161	-	-	-	-	298	-	-	-	-	2260	Y	=	0	+	0.0000	X	Y	=	773	+	148.6774	X
162	-	-	-	-	175	-	-	-	-	424	Y	=	0	+	0.0000	X	Y	=	462	+	-3.8573	X
163	-	-	-	-	43	-	-	-	-	113	Y	=	0	+	0.0000	X	Y	=	182	+	-6.8548	X
164	1393	4,068	2,319	2,522	291	1556	4,543	2,590	2,817	287	Y	=	4507	+	3.5615	X	Y	=	302	+	-1.4248	X
165	788	2,418	1,185	1,402	312	782	2,400	1,176	1,392	296	Y	=	2484	+	-8.4462	X	Y	=	321	+	-2.4737	X
166	545	1,536	737	768	479	394	1,110	533	555	665	Y	=	1560	+	-45.0000	X	Y	=	669	+	-0.4290	X
167	65	106	80	65	2,464	61	100	75	61	2480	Y	=	162	+	-6.2000	X	Y	=	2464	+	1.6131	X
168	1118	3,152	1,513	1,576	460	1248	3,520	1,690	1,760	419	Y	=	3492	+	2.7633	X	Y	=	532	+	-11.2839	X
169	1422	4,421	1,857	2,255	310	1413	4,395	1,846	2,241	325	Y	=	4547	+	-15.2154	X	Y	=	332	+	-0.7429	X
170	1295	3,846	2,192	2,461	507	1295	3,846	2,192	2,461	477	Y	=	3846	+	0.0000	X	Y	=	503	+	-2.5331	X
171	625	1,944	816	991	281	619	1,925	809	982	266	Y	=	1994	+	-6.9462	X	Y	=	292	+	-2.5990	X
172	1510	4,892	2,397	2,886	491	1459	4,726	2,316	2,788	458	Y	=	4943	+	-21.7077	X	Y	=	544	+	-8.6197	X
173	552	1,787	876	1,054	290	616	1,996	978	1,178	266	Y	=	1980	+	1.6032	X	Y	=	289	+	-2.2873	X
174	1290	3,792	2,237	2,616	260	1440	4,234	2,498	2,921	177	Y	=	4201	+	3.2523	X	Y	=	546	+	-36.8862	X
175	2121	6,192	3,529	3,839	364	2368	6,915	3,942	4,287	334	Y	=	6861	+	5.4361	X	Y	=	436	+	-10.1589	X
176	172	502	286	311	34	202	590	336	366	73	Y	=	556	+	3.3880	X	Y	=	84	+	-1.1787	X
177	1780	5,500	2,475	3,080	940	1988	6,142	2,764	3,440	981	Y	=	6094	+	4.8086	X	Y	=	1012	+	-3.0761	X
178	1634	4,887	2,786	3,372	712	1706	5,101	2,908	3,520	602	Y	=	5184	+	-8.3231	X	Y	=	928	+	-32.6161	X
179	455	1,274	752	917	178	509	1,424	840	1,025	200	Y	=	1412	+	1.2428	X	Y	=	208	+	-0.8113	X
180	9	24	14	17	1,381	10	28	17	20	1364	Y	=	27	+	0.1620	X	Y	=	1467	+	-10.3026	X
181	1436	4,022	2,373	2,896	351	1604	4,491	2,650	3,234	403	Y	=	4456	+	3.4687	X	Y	=	487	+	-8.4339	X
182	1188	3,266	1,731	2,319	381	1128	3,103	1,645	2,203	383	Y	=	3266	+	-16.3000	X	Y	=	436	+	-5.3984	X
183	1392	3,771	1,622	2,376	2,539	1554	4,211	1,811	2,653	2308	Y	=	4178	+	3.2791	X	Y	=	2539	+	-23.1011	X
184	1034	2,803	1,205	1,766	1,054	1058	2,868	1,233	1,807	956	Y	=	2936	+	-6.7923	X	Y	=	1054	+	-9.7857	X
185	1433	4,085	2,247	2,819	1,416	1534	4,373	2,405	3,017	1530	Y	=	4404	+	-3.1385	X	Y	=	1551	+	-2.0806	X
186	1467	3,991	2,195	2,714	797	1638	4,456	2,451	3,030	752	Y	=	4422	+	3.4034	X	Y	=	842	+	-8.9935	X
187	1650	4,488	2,468	3,052	896	1843	5,012	2,757	3,408	1054	Y	=	4973	+	3.9366	X	Y	=	1013	+	4.0903	X
188	406	1,156	636	798	846	453	1,291	710	891	928	Y	=	1281	+	1.0170	X	Y	=	917	+	1.0516	X
189	0	-	-	-	2,634	0	-	-	-	2560	Y	=	0	+	0.0000	X	Y	=	2683	+	-12.3355	X
190	297	484	363	295	2,715	594	968	726	590	2460	Y	=	813	+	15.4769	X	Y	=	2729	+	-26.8613	X
191	2	3	2	2	5,666	0	-	-	-	7180	Y	=	1	+	-0.1154	X	Y	=	6299	+	88.1484	X
192	438	1,318	435	830	5,203	349	1,050	347	662	6960	Y	=	1153	+	-10.3077	X	Y	=	6079	+	88.1419	X

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TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
193	2	7	2	4	3,382	0	-	-	-	3590	Y	=	3	+	-0.2692	X	Y	=	3538	+	5.2419	X
194	1672	5,033	1,661	3,171	545	1378	4,147	1,369	2,613	452	Y	=	4488	+	-34.0769	X	Y	=	545	+	-9.2722	X
195	142	427	141	269	930	135	405	134	255	3430	Y	=	427	+	-2.2000	X	Y	=	2473	+	95.7194	X
196	345	1,037	342	653	3,114	390	1,173	387	739	3540	Y	=	1159	+	1.4154	X	Y	=	3366	+	17.3742	X
197	1251	3,439	1,823	2,442	334	1303	3,584	1,900	2,545	974	Y	=	3645	+	-6.0538	X	Y	=	909	+	6.5355	X
198	1967	5,507	3,249	3,965	292	1779	4,982	2,939	3,587	891	Y	=	6102	+	-111.9670	X	Y	=	822	+	6.9290	X
199	9	29	16	20	181	9	29	16	20	313	Y	=	11	+	1.7846	X	Y	=	379	+	-6.6629	X
200	193	601	325	415	126	68	211	114	146	565	Y	=	361	+	-15.0000	X	Y	=	509	+	5.5677	X
201	413	1,284	693	886	161	349	1,086	586	749	810	Y	=	1162	+	-7.6154	X	Y	=	642	+	16.7786	X
202	1708	4,594	2,573	2,940	901	1219	3,278	1,836	2,098	1330	Y	=	4451	+	-117.3231	X	Y	=	1453	+	-12.3161	X
203	0	-	-	-	201	0	-	-	-	878	Y	=	0	+	0.0000	X	Y	=	765	+	11.2081	X
204	5	14	1	6	1,207	0	-	-	-	2060	Y	=	5	+	-0.5385	X	Y	=	1731	+	32.9419	X
205	26	78	5	34	10,085	0	-	-	-	10621	Y	=	30	+	-3.0000	X	Y	=	10085	+	53.5970	X
206	4	13	1	6	1,033	0	-	-	-	1405	Y	=	5	+	-0.5000	X	Y	=	1548	+	-14.3065	X
207	0	-	-	-	8,330	0	-	-	-	8415	Y	=	0	+	0.0000	X	Y	=	8380	+	3.5290	X
208	286	844	287	456	4,264	0	-	-	-	6100	Y	=	325	+	-32.4615	X	Y	=	5229	+	87.0548	X
209	680	1,823	893	1,203	2,696	610	1,636	802	1,080	2829	Y	=	1898	+	-26.2077	X	Y	=	2901	+	-7.1935	X
210	4	11	6	9	6,076	0	-	-	-	5950	Y	=	4	+	-0.4231	X	Y	=	6167	+	-21.6548	X
211	1	2	1	2	3,463	0	-	-	-	3406	Y	=	1	+	-0.0769	X	Y	=	3574	+	-16.8523	X
212	0	1	1	1	1,894	0	-	-	-	3112	Y	=	0	+	-0.0385	X	Y	=	2747	+	36.4903	X
213	725	1,944	953	1,283	2,175	227	608	298	401	3375	Y	=	1735	+	-112.6769	X	Y	=	3012	+	36.2997	X
214	788	2,452	1,324	1,692	285	664	2,066	1,116	1,426	2060	Y	=	2214	+	-14.8462	X	Y	=	1648	+	41.1777	X
215	1	4	2	3	1,181	0	-	-	-	7434	Y	=	2	+	-0.1538	X	Y	=	4774	+	265.9876	X
216	3	8	5	8	587	0	-	-	-	3656	Y	=	3	+	-0.3077	X	Y	=	2380	+	127.6422	X
217	9	23	15	23	312	0	-	-	-	2636	Y	=	9	+	-0.8846	X	Y	=	1658	+	97.7465	X
218	0	-	-	-	465	0	-	-	-	3429	Y	=	0	+	0.0000	X	Y	=	2178	+	125.1802	X
219	5	12	8	12	338	4	11	7	11	976	Y	=	11	+	-0.0385	X	Y	=	699	+	27.6984	X
220	21	56	36	56	528	19	51	33	51	3166	Y	=	68	+	-1.6692	X	Y	=	2049	+	111.7129	X
221	190	545	441	469	811	0	-	-	-	2964	Y	=	210	+	-20.9615	X	Y	=	2040	+	92.4148	X
222	9	26	21	22	4,421	0	-	-	-	5444	Y	=	10	+	-1.0000	X	Y	=	4875	+	56.8970	X
223	764	2,194	1,777	1,887	1,765	678	1,945	1,575	1,673	2036	Y	=	2041	+	-9.5769	X	Y	=	1866	+	16.9548	X
224	4	12	10	10	1,921	0	-	-	-	2750	Y	=	5	+	-0.4615	X	Y	=	2342	+	40.7744	X
225	770	2,140	1,156	1,669	2,718	760	2,114	1,142	1,649	3510	Y	=	2124	+	-1.0000	X	Y	=	3097	+	41.2524	X
226	679	1,888	1,020	1,473	4,033	546	1,517	819	1,183	6066	Y	=	1660	+	-14.2692	X	Y	=	5094	+	97.1995	X
227	3590	10,195	4,282	7,442	2,394	3529	10,022	4,209	7,316	2371	Y	=	10089	+	-6.6538	X	Y	=	2469	+	-9.7903	X
228	1098	3,240	1,102	1,750	4,259	937	2,764	940	1,493	4129	Y	=	3036	+	-27.2308	X	Y	=	4359	+	-22.9742	X
229	2151	6,562	3,084	4,528	3,604	1990	6,071	2,853	4,189	3375	Y	=	6260	+	-18.8846	X	Y	=	3604	+	-22.8588	X
230	0	-	-	-	3,595	0	-	-	-	3330	Y	=	0	+	0.0000	X	Y	=	3598	+	-26.8065	X
231	0	-	-	-	3,106	0	-	-	-	4240	Y	=	0	+	0.0000	X	Y	=	4051	+	18.8645	X
232	1565	4,444	2,844	3,022	2,760	1480	4,204	2,691	2,859	3047	Y	=	4296	+	-9.2308	X	Y	=	2966	+	8.1032	X
233	2183	6,483	3,566	4,862	953	2001	5,943	3,269	4,457	953	Y	=	6151	+	-20.7692	X	Y	=	968	+	-1.4645	X
234	1479	3,905	2,538	2,694	1,159	1420	3,749	2,437	2,587	1279	Y	=	3809	+	-6.0000	X	Y	=	1269	+	0.9832	X
235	1145	3,367	1,717	2,323	1,647	928	2,728	1,391	1,882	1869	Y	=	3616	+	-88.8231	X	Y	=	1882	+	-1.3226	X
236	0	-	-	-	2,189	0	-	-	-	2720	Y	=	0	+	0.0000	X	Y	=	2535	+	18.5626	X
237	2624	6,430	3,858	5,208	675	2724	6,675	4,005	5,407	1191	Y	=	6581	+	9.4231	X	Y	=	1032	+	15.8709	X
238	1899	5,546	3,549	4,381	506	1899	5,546	3,549	4,381	558	Y	=	5546	+	0.0000	X	Y	=	523	+	3.4823	X
239	1096	2,960	2,013	2,309	924	1096	2,960	2,013	2,309	1258	Y	=	2960	+	0.0000	X	Y	=	1093	+	16.4983	X
240	2075	5,603	3,810	4,370	550	1436	3,878	2,637	3,025	626	Y	=	4541	+	-66.3462	X	Y	=	559	+	6.6306	X

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	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
241	1570	4,460	3,122	3,568	181	1674	4,754	3,328	3,803	345	Y	=	4795	+	-4.1385	X	Y	=	218	+	12.6403	X
242	1164	3,178	2,256	2,606	32	1465	4,000	2,840	3,280	148	Y	=	3684	+	31.6154	X	Y	=	85	+	6.2826	X
243	674	1,902	1,255	1,712	28	1773	5,000	3,300	4,500	211	Y	=	3808	+	119.1538	X	Y	=	83	+	12.8494	X
244	1318	3,900	2,886	3,159	212	2343	6,936	5,133	5,618	878	Y	=	5768	+	116.7692	X	Y	=	451	+	42.6925	X
245	1617	4,640	3,294	3,712	330	1617	4,640	3,294	3,712	522	Y	=	4640	+	0.0000	X	Y	=	435	+	8.7454	X
246	1041	2,988	2,121	2,390	46	1394	4,000	2,840	3,200	203	Y	=	3611	+	38.9231	X	Y	=	138	+	6.4992	X
247	456	1,309	929	1,047	21	871	2,500	1,775	2,000	137	Y	=	2042	+	45.8077	X	Y	=	89	+	4.7758	X
248	1266	3,735	2,540	2,876	393	1356	4,000	2,720	3,080	628	Y	=	3898	+	10.1923	X	Y	=	520	+	10.7704	X
249	0	-	-	-	485	0	-	-	-	1578	Y	=	0	+	0.0000	X	Y	=	1116	+	46.2117	X
250	906	2,210	1,326	1,547	902	906	2,210	1,326	1,547	1687	Y	=	2210	+	0.0000	X	Y	=	1340	+	34.7072	X
251	3672	6,829	4,302	4,439	1,880	3672	6,829	4,302	4,439	2074	Y	=	6829	+	0.0000	X	Y	=	1942	+	13.1863	X
252	3587	6,672	4,203	4,337	1,155	3587	6,672	4,203	4,337	1267	Y	=	6672	+	0.0000	X	Y	=	1185	+	8.1710	X
253	2884	6,518	4,041	4,954	1,568	2884	6,518	4,041	4,954	1735	Y	=	6518	+	0.0000	X	Y	=	1621	+	11.4677	X
254	0	-	-	-	1,356	0	-	-	-	1523	Y	=	0	+	0.0000	X	Y	=	1412	+	11.1161	X
255	793	1,912	1,530	1,262	2,576	793	1,912	1,530	1,262	2055	Y	=	1912	+	0.0000	X	Y	=	3035	+	-98.0193	X
256	250	602	482	397	212	250	602	482	397	397	Y	=	602	+	0.0000	X	Y	=	419	+	-2.1681	X
257	320	770	616	508	246	354	853	682	563	549	Y	=	821	+	3.1923	X	Y	=	521	+	2.7656	X
258	2057	4,464	3,348	3,214	227	2057	4,464	3,348	3,214	863	Y	=	4464	+	0.0000	X	Y	=	643	+	21.9910	X
259	481	1,043	782	751	110	356	772	579	556	205	Y	=	543	+	22.8692	X	Y	=	185	+	1.9613	X
260	0	-	-	-	151	92	200	150	144	822	Y	=	123	+	7.6923	X	Y	=	635	+	18.7577	X
261	574	1,246	935	897	395	805	1,746	1,310	1,257	1490	Y	=	1554	+	19.2308	X	Y	=	1243	+	24.6542	X
262	1261	3,064	2,482	2,298	91	1604	3,897	3,157	2,923	359	Y	=	3577	+	32.0385	X	Y	=	281	+	7.8364	X
263	242	589	477	442	1,886	494	1,200	972	900	2070	Y	=	965	+	23.5000	X	Y	=	2124	+	-5.4175	X
264	0	-	-	-	364	0	-	-	-	1839	Y	=	0	+	0.0000	X	Y	=	1371	+	46.8565	X
265	597	1,545	1,221	1,190	166	772	2,000	1,580	1,540	587	Y	=	1825	+	17.5000	X	Y	=	539	+	4.7766	X
266	63	163	129	126	165	772	2,000	1,580	1,540	1656	Y	=	1293	+	70.6538	X	Y	=	845	+	81.0170	X
267	410	996	807	747	119	420	1,020	826	765	1135	Y	=	1011	+	0.9231	X	Y	=	482	+	65.2650	X
268	721	1,751	1,418	1,313	102	720	1,749	1,417	1,312	738	Y	=	1750	+	-0.0769	X	Y	=	407	+	33.1439	X
269	1074	3,339	2,604	2,204	2,901	1158	3,600	2,808	2,376	7197	Y	=	3500	+	10.0385	X	Y	=	6039	+	115.8190	X
270	17	52	41	34	352	36	113	88	75	267	Y	=	90	+	2.3462	X	Y	=	453	+	-18.6099	X
271	0	1	1	1	202	0	-	-	-	983	Y	=	0	+	-0.0385	X	Y	=	709	+	27.4536	X
272	107	261	211	196	679	719	1,746	1,414	1,310	2321	Y	=	1175	+	57.1154	X	Y	=	1154	+	116.7425	X
273	0	-	-	-	98	0	-	-	-	723	Y	=	0	+	0.0000	X	Y	=	405	+	31.8010	X
274	220	572	446	400	125	1353	3,518	2,744	2,463	2188	Y	=	2282	+	123.6462	X	Y	=	833	+	135.5372	X
275	9	23	18	16	42	195	508	396	356	921	Y	=	321	+	18.6538	X	Y	=	359	+	56.1959	X
276	0	-	-	-	323	386	1,000	790	770	6569	Y	=	615	+	38.4615	X	Y	=	2586	+	398.3804	X
277	542	1,403	1,108	1,080	121	772	2,000	1,580	1,540	1206	Y	=	1770	+	22.9615	X	Y	=	508	+	69.8259	X
278	16	42	33	32	42	688	1,782	1,408	1,372	371	Y	=	1113	+	66.9231	X	Y	=	126	+	24.4508	X
279	13	34	27	26	12	344	891	704	686	117	Y	=	561	+	32.9615	X	Y	=	36	+	8.0339	X
280	20	52	41	40	9	344	891	704	686	124	Y	=	568	+	32.2692	X	Y	=	22	+	10.1742	X
281	71	185	146	142	40	688	1,782	1,408	1,372	381	Y	=	1168	+	61.4231	X	Y	=	120	+	26.0926	X
282	163	424	331	297	17	253	657	512	460	1839	Y	=	548	+	10.8692	X	Y	=	359	+	148.0414	X
283	18	48	37	34	4	69	180	140	126	25	Y	=	129	+	5.0769	X	Y	=	16	+	0.8742	X
284	19	49	38	34	9	202	525	410	368	75	Y	=	327	+	19.8462	X	Y	=	22	+	5.3168	X
285	156	405	316	284	1,256	1123	2,921	2,278	2,045	19630	Y	=	1868	+	105.3231	X	Y	=	5252	+	1437.7615	X
286	178	464	362	325	893	1461	3,799	2,963	2,659	10333	Y	=	2516	+	128.2692	X	Y	=	3882	+	645.1423	X
287	5	13	10	9	1,721	397	1,032	805	722	3881	Y	=	640	+	39.1923	X	Y	=	2876	+	100.4968	X
288	15	40	31	28	274	679	1,765	1,377	1,236	1901	Y	=	1050	+	71.5154	X	Y	=	1028	+	87.2628	X

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Shelby County Projections
Suburban Expansion Alternative

TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
289	175	483	275	304	1,118	342	945	539	595	2853	Y	=	740	+	20.5385	X	Y	=	1988	+	86.4871	X
290	98	255	199	179	79	842	2,190	1,708	1,533	396	Y	=	1382	+	80.8231	X	Y	=	215	+	18.1135	X
291	34	89	69	62	17	154	400	312	280	77	Y	=	280	+	11.9615	X	Y	=	38	+	3.8048	X
292	47	123	96	86	8	115	300	234	210	77	Y	=	232	+	6.8077	X	Y	=	35	+	4.1274	X
293	10	25	20	18	42	192	500	390	350	326	Y	=	317	+	18.2692	X	Y	=	63	+	26.3226	X
294	696	1,920	1,094	1,210	1,137	913	2,520	1,436	1,588	1669	Y	=	2289	+	23.0769	X	Y	=	1520	+	14.8677	X
295	126	348	198	219	1,457	181	500	285	315	2208	Y	=	442	+	5.8462	X	Y	=	2117	+	9.0581	X
296	3009	9,387	6,571	7,134	303	3249	10,137	7,096	7,704	483	Y	=	9849	+	28.8462	X	Y	=	456	+	2.6306	X
297	614	1,928	1,272	1,485	48	1115	3,500	2,310	2,695	162	Y	=	2895	+	60.4615	X	Y	=	88	+	7.3731	X
298	1915	5,974	4,182	4,242	172	1915	5,974	4,182	4,242	383	Y	=	5974	+	0.0000	X	Y	=	287	+	9.5435	X
299	268	836	585	594	2,196	385	1,200	840	852	3000	Y	=	1060	+	14.0000	X	Y	=	2474	+	52.5871	X
300	233	700	525	483	1,104	300	900	675	621	2095	Y	=	823	+	7.6923	X	Y	=	1471	+	62.4647	X
301	712	2,135	1,601	1,473	134	753	2,260	1,695	1,559	327	Y	=	2212	+	4.8077	X	Y	=	196	+	13.1103	X
302	873	2,740	1,808	2,110	399	1115	3,500	2,310	2,695	752	Y	=	3208	+	29.2308	X	Y	=	557	+	19.5387	X
303	825	2,590	1,709	1,994	62	1000	3,140	2,072	2,418	213	Y	=	2836	+	30.3846	X	Y	=	117	+	9.5516	X
304	577	1,732	1,299	1,195	391	1043	3,129	2,347	2,159	965	Y	=	2592	+	53.7308	X	Y	=	588	+	37.6903	X
305	91	268	198	180	182	303	895	662	600	1823	Y	=	654	+	24.1154	X	Y	=	763	+	105.9883	X
306	119	352	260	236	141	287	847	627	567	699	Y	=	657	+	19.0385	X	Y	=	302	+	39.6464	X
307	874	2,578	1,908	1,727	15	949	2,800	2,072	1,876	139	Y	=	2715	+	8.5385	X	Y	=	63	+	7.5614	X
308	516	1,523	1,127	1,020	139	587	1,733	1,282	1,161	264	Y	=	1652	+	8.0769	X	Y	=	182	+	8.1548	X
309	2582	7,617	5,637	5,103	103	2694	7,947	5,881	5,324	238	Y	=	7820	+	12.6923	X	Y	=	166	+	7.1349	X
310	992	2,926	2,165	1,960	593	1580	4,661	3,449	3,123	830	Y	=	3994	+	66.7308	X	Y	=	696	+	13.3892	X
311	683	2,125	1,658	1,403	334	1016	3,161	2,466	2,086	963	Y	=	2763	+	39.8462	X	Y	=	567	+	39.5880	X
312	17	42	32	29	254	102	250	188	175	615	Y	=	170	+	8.0000	X	Y	=	475	+	13.9579	X
313	1589	3,893	2,920	2,725	2,711	1949	4,775	3,581	3,343	3739	Y	=	4436	+	33.9231	X	Y	=	3036	+	70.3074	X
314	0	-	-	-	1,311	1116	2,800	2,184	1,904	1968	Y	=	831	+	196.9231	X	Y	=	1812	+	15.5435	X
315	3251	8,354	6,266	5,848	790	3310	8,506	6,380	5,954	1651	Y	=	8448	+	5.8462	X	Y	=	1454	+	19.7121	X
316	180	452	344	321	1,621	1335	3,350	2,546	2,379	2163	Y	=	715	+	263.5231	X	Y	=	2124	+	3.8969	X
317	87	218	166	155	209	122	306	233	217	478	Y	=	272	+	3.3846	X	Y	=	515	+	-3.6302	X
318	875	2,196	1,669	1,559	1,139	1006	2,526	1,920	1,793	1607	Y	=	2399	+	12.6923	X	Y	=	1514	+	9.2908	X
319	913	2,072	1,575	1,326	420	1215	2,757	2,095	1,764	482	Y	=	2494	+	26.3462	X	Y	=	489	+	-0.6463	X
320	1177	2,671	2,030	1,709	455	1177	2,671	2,030	1,709	550	Y	=	2671	+	0.0000	X	Y	=	548	+	0.2541	X
321	41	94	71	60	419	1322	3,000	2,280	1,920	526	Y	=	90	+	290.9692	X	Y	=	513	+	1.2724	X
322	19	44	33	28	456	132	300	228	192	504	Y	=	17	+	28.3077	X	Y	=	612	+	-10.8023	X
323	0	-	-	-	529	0	-	-	-	1116	Y	=	0	+	0.0000	X	Y	=	985	+	13.1130	X
324	869	1,972	1,499	1,262	5,482	869	1,972	1,499	1,262	6102	Y	=	1972	+	0.0000	X	Y	=	6313	+	-21.1305	X
325	389	882	670	564	1,222	259	588	447	376	976	Y	=	339	+	24.8769	X	Y	=	1405	+	-42.8565	X
326	1	2	2	1	1,467	0	-	-	-	3394	Y	=	1	+	-0.0769	X	Y	=	2938	+	45.6303	X
327	0	-	-	-	4,898	0	-	-	-	5591	Y	=	0	+	0.0000	X	Y	=	5670	+	-7.9275	X
328	61	129	108	81	915	139	291	244	183	2005	Y	=	229	+	6.2308	X	Y	=	1611	+	39.4454	X
329	256	582	442	372	926	256	582	442	372	2561	Y	=	582	+	0.0000	X	Y	=	1964	+	59.7755	X
330	335	703	591	443	1,728	500	1,051	883	662	2639	Y	=	917	+	13.3846	X	Y	=	2284	+	35.5633	X
331	918	1,928	1,620	1,215	3,230	1190	2,500	2,100	1,575	4604	Y	=	2280	+	22.0000	X	Y	=	4353	+	25.0758	X
332	410	860	722	542	315	410	860	722	542	590	Y	=	860	+	0.0000	X	Y	=	528	+	6.1649	X
333	426	894	751	563	70	476	1,000	840	630	192	Y	=	959	+	4.0769	X	Y	=	161	+	3.0722	X
334	5	11	9	7	300	238	500	420	315	882	Y	=	312	+	18.8077	X	Y	=	727	+	15.5752	X
335	0	1,438	-	-	2,010	0	1,438	-	-	2223	Y	=	1438	+	0.0000	X	Y	=	2281	+	-5.7395	X
336	4294	10,006	7,004	7,905	2,177	6177	14,393	10,075	11,370	3086	Y	=	12706	+	168.7308	X	Y	=	2623	+	46.3387	X

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Shelby County Projections
Suburban Expansion Alternative

TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
337	139	277	211	213	672	1216	2,420	1,839	1,863	1756	Y	=	1596	+	82.4231	X	Y	=	1131	+	62.4774	X
338	407	810	616	624	687	491	977	743	752	1293	Y	=	913	+	6.4231	X	Y	=	1105	+	18.7613	X
339	1	2	2	2	183	0	-	-	-	1090	Y	=	1	+	-0.0769	X	Y	=	770	+	32.0024	X
340	928	1,846	1,403	1,421	257	928	1,846	1,403	1,421	880	Y	=	1846	+	0.0000	X	Y	=	674	+	20.6573	X
341	261	587	423	452	343	236	530	382	408	2132	Y	=	552	+	-2.1923	X	Y	=	1442	+	69.0752	X
342	349	786	566	605	320	348	784	564	604	439	Y	=	785	+	-0.0769	X	Y	=	421	+	1.8226	X
343	0	-	-	-	938	0	-	-	-	2182	Y	=	0	+	0.0000	X	Y	=	1700	+	48.2429	X
344	197	444	320	342	464	196	442	318	340	865	Y	=	443	+	-0.0769	X	Y	=	754	+	11.1290	X
345	106	238	171	183	158	133	300	216	231	788	Y	=	276	+	2.3846	X	Y	=	604	+	18.4117	X
346	2553	5,744	4,136	4,423	196	2667	6,000	4,320	4,620	439	Y	=	5902	+	9.8462	X	Y	=	373	+	6.5645	X
347	1470	3,308	2,382	2,547	38	2304	5,184	3,732	3,992	146	Y	=	4462	+	72.1538	X	Y	=	112	+	3.4179	X
348	0	-	-	-	371	0	2,669	-	-	1384	Y	=	1642	+	102.6538	X	Y	=	936	+	44.7798	X
349	0	-	-	-	12	0	-	-	-	67	Y	=	0	+	0.0000	X	Y	=	49	+	1.7313	X
350	0		-	-	289	0	-	-	-	1011	Y	=	0	+	0.0000	X	Y	=	617	+	39.3339	X
351	229	611	452	458	1,008	229	611	452	458	1173	Y	=	611	+	0.0000	X	Y	=	1201	+	-2.8742	X
352	1261	3,368	2,492	2,526	357	1911	5,103	3,776	3,827	2269	Y	=	4436	+	66.7308	X	Y	=	1338	+	93.0653	X
353	1269	3,388	2,507	2,541	59	2169	5,791	4,285	4,343	308	Y	=	4867	+	92.4231	X	Y	=	162	+	14.6394	X
354	9	26	21	18	56	284	838	679	595	1071	Y	=	526	+	31.2308	X	Y	=	237	+	83.3644	X
355	134	394	319	280	134	534	1,575	1,276	1,118	470	Y	=	1075	+	50.0385	X	Y	=	263	+	20.6145	X
356	155	456	369	324	28	249	735	595	522	472	Y	=	606	+	12.8846	X	Y	=	103	+	36.8441	X
357	131	385	312	273	102	890	2,625	2,126	1,864	1023	Y	=	1687	+	93.8462	X	Y	=	501	+	52.2495	X
358	263	777	629	552	247	2897	8,547	6,923	6,068	2182	Y	=	5308	+	323.8923	X	Y	=	797	+	138.5307	X
359	15	43	35	31	46	238	702	569	498	172	Y	=	449	+	25.3462	X	Y	=	110	+	6.1916	X
360	93	275	223	195	76	576	1,700	1,377	1,207	593	Y	=	1152	+	54.8077	X	Y	=	256	+	33.6731	X
361	250	764	588	542	37	642	1,964	1,512	1,394	216	Y	=	1502	+	46.1538	X	Y	=	64	+	15.1759	X
362	154	471	363	334	122	1144	3,500	2,695	2,485	630	Y	=	2335	+	116.5000	X	Y	=	265	+	36.4927	X
363	871	2,108	1,518	1,729	35	1119	2,708	1,950	2,221	268	Y	=	2477	+	23.0769	X	Y	=	117	+	15.0718	X
364	559	1,352	973	1,109	32	807	1,952	1,405	1,601	298	Y	=	1721	+	23.0769	X	Y	=	133	+	16.4298	X
365	1261	3,051	2,197	2,502	152	1261	3,051	2,197	2,502	398	Y	=	3051	+	0.0000	X	Y	=	316	+	8.1331	X
366	624	1,510	1,087	1,238	685	624	1,510	1,087	1,238	1306	Y	=	1510	+	0.0000	X	Y	=	945	+	36.0758	X
367	1	3	2	2	196	0	-	-	-	469	Y	=	1	+	-0.1154	X	Y	=	373	+	9.5853	X
368	1378	3,141	2,387	2,576	246	1597	3,641	2,767	2,986	880	Y	=	3449	+	19.2308	X	Y	=	669	+	21.0766	X
369	1264	3,804	2,625	2,853	184	1362	4,100	2,829	3,075	420	Y	=	3986	+	11.3846	X	Y	=	269	+	15.0726	X
370	753	1,717	1,305	1,408	910	944	2,153	1,636	1,765	1617	Y	=	1985	+	16.7692	X	Y	=	1322	+	29.5419	X
371	3946	10,339	7,651	7,858	454	4023	10,539	7,799	8,010	1267	Y	=	10462	+	7.6923	X	Y	=	740	+	52.6710	X
372	768	2,259	1,762	1,626	220	2290	6,733	5,252	4,848	1346	Y	=	4815	+	191.8308	X	Y	=	684	+	66.1978	X
373	47	137	107	99	117	1570	4,615	3,600	3,323	1056	Y	=	2757	+	185.7692	X	Y	=	449	+	60.6325	X
374	230	675	527	486	201	1875	5,513	4,300	3,969	778	Y	=	3490	+	202.2615	X	Y	=	552	+	22.6456	X
375	91	268	209	193	253	2344	6,891	5,375	4,962	1845	Y	=	4142	+	274.9154	X	Y	=	726	+	111.9237	X
376	357	1,049	818	755	187	1179	3,465	2,703	2,495	1754	Y	=	2434	+	103.0769	X	Y	=	841	+	91.3219	X
377	97	247	210	163	98	804	2,043	1,737	1,348	220	Y	=	1293	+	75.0462	X	Y	=	167	+	5.2048	X
378	472	1,364	791	996	795	3004	8,682	5,036	6,338	2040	Y	=	5613	+	306.8769	X	Y	=	1369	+	67.1032	X
379	300	866	502	632	2,347	1904	5,504	3,192	4,018	5335	Y	=	3559	+	194.5077	X	Y	=	3876	+	145.9040	X
380	1	2	2	1	3,536	717	1,822	1,549	1,203	2020	Y	=	1068	+	75.3538	X	Y	=	2479	+	-45.8713	X
381	41	103	88	68	44	115	292	248	193	213	Y	=	211	+	8.1308	X	Y	=	106	+	10.7387	X
382	506	1,286	1,093	849	549	1984	5,040	4,284	3,326	1583	Y	=	3448	+	159.1538	X	Y	=	881	+	70.1742	X
383	328	833	708	550	107	1246	3,164	2,689	2,088	426	Y	=	2267	+	89.6538	X	Y	=	237	+	18.8613	X
384	119	301	256	199	15	1157	2,940	2,499	1,940	127	Y	=	1839	+	110.1154	X	Y	=	44	+	8.2565	X

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TAZ NUMBER	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
385	7	19	16	13	3	650	1,650	1,403	1,089	34	Y	=	1023	+	62.7308	X	Y	=	14	+	1.9674	X
386	167	479	340	292	55	490	1,400	994	854	119	Y	=	1046	+	35.4231	X	Y	=	95	+	2.3939	X
387	380	1,031	814	763	112	1318	3,572	2,822	2,643	191	Y	=	2490	+	108.1923	X	Y	=	179	+	1.2185	X
388	620	1,680	1,327	1,243	128	1218	3,300	2,607	2,442	320	Y	=	2677	+	62.3077	X	Y	=	273	+	4.6823	X
389	540	1,464	1,157	1,083	21	554	1,500	1,185	1,110	113	Y	=	1486	+	1.3846	X	Y	=	41	+	7.2258	X
390	1477	4,004	3,163	2,963	491	1476	4,000	3,160	2,960	1202	Y	=	4002	+	-0.1538	X	Y	=	685	+	51.6968	X
391	46	125	99	93	1,270	74	200	158	148	1368	Y	=	171	+	2.8846	X	Y	=	1231	+	13.7927	X
392	0	-	-	-	1,266	0	-	-	-	6691	Y	=	0	+	0.0000	X	Y	=	4356	+	233.5290	X
393	291	840	563	664	793	291	840	563	664	4031	Y	=	840	+	0.0000	X	Y	=	2504	+	152.6677	X
394	917	2,651	1,776	2,094	565	948	2,740	1,836	2,165	1934	Y	=	2706	+	3.4231	X	Y	=	1388	+	54.5516	X
395	938	2,562	1,665	1,896	823	1721	4,698	3,054	3,477	3250	Y	=	3876	+	82.1538	X	Y	=	2190	+	105.9516	X
396	1530	4,176	2,714	3,090	595	1530	4,176	2,714	3,090	1630	Y	=	4176	+	0.0000	X	Y	=	1161	+	46.8871	X
397	970	2,881	2,017	2,161	178	1414	4,200	2,940	3,150	368	Y	=	3693	+	50.7308	X	Y	=	299	+	6.9234	X
398	0	-	-	-	870	0	-	-	-	3732	Y	=	0	+	0.0000	X	Y	=	2485	+	124.6007	X
399	24	71	50	53	487	0	-	-	-	3653	Y	=	27	+	-2.7308	X	Y	=	1809	+	184.3385	X
400	788	2,340	1,638	1,755	171	1347	4,000	2,800	3,000	1324	Y	=	3362	+	63.8462	X	Y	=	569	+	75.4887	X
401	181	491	388	363	157	406	1,100	869	814	2819	Y	=	866	+	23.4231	X	Y	=	2060	+	75.8550	X
402	590	1,798	1,259	1,313	298	2033	6,200	4,340	4,526	439	Y	=	4507	+	169.3077	X	Y	=	349	+	8.9935	X
403	76	232	162	169	16	656	2,000	1,400	1,460	58	Y	=	1320	+	68.0000	X	Y	=	20	+	3.8508	X
404	161	442	389	296	18	227	621	546	416	33	Y	=	534	+	8.6692	X	Y	=	27	+	0.6006	X
405	70	193	170	129	10	153	420	370	281	33	Y	=	320	+	9.9615	X	Y	=	24	+	0.9232	X
406	513	1,566	1,096	1,143	45	1475	4,500	3,150	3,285	270	Y	=	3372	+	112.8462	X	Y	=	139	+	13.0532	X
407	244	686	494	501	26	534	1,500	1,080	1,095	213	Y	=	1187	+	31.3077	X	Y	=	79	+	13.3903	X
408	126	353	254	258	37	896	2,518	1,813	1,838	325	Y	=	1685	+	83.2692	X	Y	=	107	+	21.7371	X
409	250	764	535	558	25	1490	4,545	3,182	3,318	132	Y	=	3091	+	145.4231	X	Y	=	58	+	7.3823	X
410	1459	4,305	3,014	3,057	271	1746	5,151	3,606	3,657	539	Y	=	4826	+	32.5385	X	Y	=	363	+	17.5742	X
411	2400	6,744	4,856	4,923	54	3203	9,000	6,480	6,570	400	Y	=	8132	+	86.7692	X	Y	=	184	+	21.5468	X
412	1976	5,711	4,055	4,226	1,416	2097	6,060	4,303	4,484	1567	Y	=	5926	+	13.4231	X	Y	=	1536	+	3.0839	X
413	1701	5,017	3,512	3,562	431	2203	6,500	4,550	4,615	702	Y	=	5930	+	57.0385	X	Y	=	609	+	9.2613	X
414	1677	4,227	3,339	2,790	1,672	1677	4,227	3,339	2,790	2019	Y	=	4227	+	0.0000	X	Y	=	1930	+	8.9290	X
415	1042	2,678	1,741	1,982	606	1245	3,200	2,080	2,368	2182	Y	=	2999	+	20.0769	X	Y	=	1572	+	61.0171	X
416	385	990	644	733	1,080	385	990	644	733	2760	Y	=	990	+	0.0000	X	Y	=	1903	+	85.6516	X
417	3	8	5	6	1,974	0	-	-	-	3425	Y	=	3	+	-0.3077	X	Y	=	2703	+	72.1806	X
418	59	129	94	102	1,104	91	200	146	158	1846	Y	=	173	+	2.7308	X	Y	=	1602	+	24.3968	X
419	573	1,254	915	991	258	624	1,367	998	1,080	303	Y	=	1324	+	4.3462	X	Y	=	292	+	1.1690	X
420	953	2,087	1,524	1,649	440	1042	2,282	1,666	1,803	813	Y	=	2207	+	7.5000	X	Y	=	692	+	12.0742	X
421	4	8	6	6	1,437	0	-	-	-	1554	Y	=	3	+	-0.3077	X	Y	=	1522	+	3.1953	X
422	0	-	-	-	767	0	-	-	-	880	Y	=	0	+	0.0000	X	Y	=	846	+	3.3927	X
423	943	2,281	1,277	1,620	407	1173	2,838	1,589	2,015	546	Y	=	2624	+	21.4231	X	Y	=	504	+	4.1145	X
424	427	1,034	579	734	1,115	427	1,034	579	734	1220	Y	=	1034	+	0.0000	X	Y	=	1215	+	0.4181	X
425	990	2,397	1,342	1,702	963	990	2,397	1,342	1,702	954	Y	=	2397	+	0.0000	X	Y	=	968	+	-1.3947	X
426	1124	2,787	1,951	2,202	874	802	1,988	1,392	1,571	966	Y	=	1312	+	67.6077	X	Y	=	957	+	0.8935	X
427	1756	4,354	3,048	3,440	596	927	2,300	1,610	1,817	809	Y	=	3090	+	-79.0000	X	Y	=	740	+	6.8500	X
428	145	402	297	289	815	280	775	574	558	872	Y	=	632	+	14.3462	X	Y	=	868	+	0.3726	X
429	2330	6,453	4,775	4,646	612	2571	7,121	5,270	5,127	659	Y	=	6864	+	25.6923	X	Y	=	657	+	0.1565	X
430	1055	2,805	1,992	1,879	737	1055	2,805	1,992	1,879	1103	Y	=	2805	+	0.0000	X	Y	=	975	+	12.7210	X
431	66	175	124	117	2,982	66	175	124	117	3091	Y	=	175	+	0.0000	X	Y	=	3030	+	6.1000	X
432	294	800	520	560	357	551	1,500	975	1,050	420	Y	=	1231	+	26.9231	X	Y	=	396	+	2.3016	X

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	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
433	893	2,509	1,806	1,832	994	893	2,509	1,806	1,832	949	Y	=	2509	+	0.0000	X	Y	=	994	+	-4.4913	X
434	1119	3,143	2,263	2,294	69	1119	3,143	2,263	2,294	137	Y	=	2178	+	96.4923	X	Y	=	111	+	2.5629	X
435	6	15	10	11	35	88	239	155	167	78	Y	=	153	+	8.6154	X	Y	=	62	+	1.6702	X
436	17	46	30	32	28	246	670	436	469	107	Y	=	430	+	24.0000	X	Y	=	37	+	6.9306	X
437	7	19	12	13	17	74	200	130	140	23	Y	=	7	+	19.2692	X	Y	=	21	+	0.1181	X
438	61	186	123	140	24	164	500	330	375	120	Y	=	379	+	12.0769	X	Y	=	83	+	3.6617	X
439	18	55	36	41	33	222	674	445	506	120	Y	=	436	+	23.8077	X	Y	=	86	+	3.3068	X
440	820	2,493	1,645	1,870	34	1036	3,150	2,079	2,363	142	Y	=	2805	+	34.5000	X	Y	=	100	+	4.1414	X
441	2	6	4	5	54	33	100	66	75	283	Y	=	64	+	3.6154	X	Y	=	132	+	15.0832	X
442	0	-	-	-	11	320	870	566	609	16	Y	=	535	+	33.4615	X	Y	=	15	+	0.1558	X
443	372	1,013	658	709	49	400	1,088	707	762	111	Y	=	1059	+	2.8846	X	Y	=	88	+	2.3044	X
444	1041	2,831	1,840	1,982	21	1287	3,500	2,275	2,450	91	Y	=	3243	+	25.7308	X	Y	=	63	+	2.8429	X
445	1	3	2	2	44	299	814	529	570	91	Y	=	502	+	31.1923	X	Y	=	74	+	1.6560	X
446	700	1,904	1,238	1,333	609	735	2,000	1,300	1,400	931	Y	=	1963	+	3.6923	X	Y	=	819	+	11.2390	X
447	1062	2,888	1,877	2,022	121	1213	3,300	2,145	2,310	237	Y	=	3142	+	15.8462	X	Y	=	193	+	4.3982	X
448	728	1,937	1,375	1,298	1,631	728	1,937	1,375	1,298	1743	Y	=	1937	+	0.0000	X	Y	=	1710	+	3.3355	X
449	1390	3,294	1,845	2,075	320	1603	3,800	2,128	2,394	462	Y	=	3605	+	19.4615	X	Y	=	419	+	4.2535	X
450	1039	2,462	1,379	1,551	124	1077	2,553	1,430	1,608	363	Y	=	2518	+	3.5000	X	Y	=	280	+	8.2919	X
451	429	1,016	569	640	88	429	1,016	569	640	252	Y	=	1016	+	0.0000	X	Y	=	195	+	5.6874	X
452	491	1,386	832	859	171	286	806	484	500	398	Y	=	1386	+	-58.0000	X	Y	=	242	+	15.5131	X
453	775	2,101	1,429	1,366	69	863	2,340	1,591	1,521	118	Y	=	2248	+	9.1923	X	Y	=	100	+	1.7477	X
454	462	1,491	656	1,029	77	672	2,170	955	1,497	173	Y	=	1909	+	26.1154	X	Y	=	213	+	-4.0161	X
455	2767	8,717	4,620	6,276	246	2914	9,179	4,865	6,609	326	Y	=	9001	+	17.7692	X	Y	=	435	+	-10.8935	X
456	843	2,657	1,408	1,913	98	952	3,000	1,590	2,160	162	Y	=	2868	+	13.1923	X	Y	=	138	+	2.3989	X
457	0	-	-	-	167	0	-	-	-	797	Y	=	0	+	0.0000	X	Y	=	613	+	18.3510	X
458	31	83	64	47	510	473	1,250	963	713	953	Y	=	801	+	44.8846	X	Y	=	781	+	17.1717	X
459	313	825	635	470	550	556	1,469	1,131	837	1179	Y	=	1221	+	24.7692	X	Y	=	936	+	24.2768	X
460	12	31	24	18	1,274	0	-	-	-	1614	Y	=	12	+	-1.1923	X	Y	=	1599	+	1.4148	X
461	586	2,034	773	1,220	34	333	1,155	439	693	118	Y	=	2034	+	-87.9000	X	Y	=	71	+	4.7026	X
462	681	2,092	1,067	1,339	393	616	1,892	965	1,211	497	Y	=	1969	+	-7.6923	X	Y	=	393	+	10.4494	X
463	583	1,575	772	1,008	543	583	1,575	772	1,008	506	Y	=	1575	+	0.0000	X	Y	=	543	+	-3.6576	X
464	266	717	351	459	299	266	717	351	459	281	Y	=	717	+	0.0000	X	Y	=	297	+	-1.6168	X
465	1379	3,943	1,656	2,405	620	1379	3,943	1,656	2,405	733	Y	=	3943	+	0.0000	X	Y	=	620	+	11.2510	X
466	1160	3,318	1,394	2,024	263	1005	2,873	1,207	1,753	272	Y	=	3072	+	-19.8846	X	Y	=	271	+	0.1252	X
467	1020	2,877	1,726	1,784	711	949	2,677	1,606	1,660	786	Y	=	2754	+	-7.6923	X	Y	=	711	+	7.4715	X
468	1427	4,439	2,131	2,930	739	1363	4,239	2,035	2,798	796	Y	=	4316	+	-7.6923	X	Y	=	739	+	5.7410	X
469	1273	3,908	1,993	2,501	86	1294	3,972	2,026	2,542	99	Y	=	3947	+	2.4615	X	Y	=	105	+	-0.5965	X
470	1395	4,337	2,082	2,862	228	1109	3,450	1,656	2,277	263	Y	=	4337	+	-88.7000	X	Y	=	319	+	-5.5548	X
471	786	2,217	1,330	1,375	168	644	1,816	1,090	1,126	153	Y	=	2217	+	-40.1000	X	Y	=	211	+	-5.8226	X
472	775	2,186	1,312	1,355	308	775	2,186	1,312	1,355	317	Y	=	2186	+	0.0000	X	Y	=	308	+	0.9194	X
473	750	2,115	1,269	1,311	364	416	1,174	704	728	286	Y	=	2115	+	-94.1000	X	Y	=	373	+	-8.6516	X
474	1057	3,034	1,396	1,669	255	1057	3,034	1,396	1,669	250	Y	=	3034	+	0.0000	X	Y	=	280	+	-3.0694	X
475	73	197	97	126	47	73	197	97	126	61	Y	=	197	+	0.0000	X	Y	=	45	+	1.5882	X
476	0	1	1	1	228	0	-	-	-	239	Y	=	0	+	-0.0385	X	Y	=	550	+	-31.1032	X
477	1291	3,486	1,708	2,231	932	1104	2,982	1,461	1,908	1241	Y	=	3486	+	-50.4000	X	Y	=	1226	+	1.4871	X
478	773	2,088	1,023	1,336	223	773	2,088	1,023	1,336	246	Y	=	2088	+	0.0000	X	Y	=	304	+	-5.7677	X
479	0	-	-	-	50	0	-	-	-	55	Y	=	0	+	0.0000	X	Y	=	72	+	-1.7564	X
480	13	35	27	20	55	50	132	102	75	83	Y	=	95	+	3.7308	X	Y	=	72	+	1.1443	X

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	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
481	214	566	436	323	164	411	1,084	835	618	396	Y	=	885	+	19.9231	X	Y	=	306	+	9.0673	X
482	92	270	186	173	119	327	962	664	616	360	Y	=	696	+	26.6154	X	Y	=	259	+	10.0642	X
483	1399	4,113	2,838	2,632	100	1499	4,406	3,040	2,820	140	Y	=	4293	+	11.2692	X	Y	=	118	+	2.2690	X
484	69	204	141	131	27	108	317	219	203	66	Y	=	274	+	4.3462	X	Y	=	50	+	1.5735	X
485	1	4	3	3	9	0	-	-	-	28	Y	=	2	+	-0.1538	X	Y	=	21	+	0.7669	X
486	272	799	551	511	53	402	1,181	815	756	88	Y	=	1034	+	14.6923	X	Y	=	74	+	1.3588	X
487	20	59	41	38	38	41	120	83	77	68	Y	=	97	+	2.3462	X	Y	=	56	+	1.1413	X
488	383	1,127	778	721	80	543	1,597	1,102	1,022	125	Y	=	1416	+	18.0769	X	Y	=	101	+	2.3976	X
489	278	818	564	524	12	390	1,148	792	735	34	Y	=	1021	+	12.6923	X	Y	=	26	+	0.8287	X
490	279	819	565	524	38	409	1,203	830	770	108	Y	=	1055	+	14.7692	X	Y	=	68	+	3.9510	X
491	123	325	250	185	185	228	602	464	343	522	Y	=	495	+	10.6538	X	Y	=	379	+	14.2488	X
492	3	7	5	4	241	0	-	-	-	734	Y	=	3	+	-0.2692	X	Y	=	531	+	20.3290	X
493	480	1,344	900	900	353	691	1,936	1,297	1,297	379	Y	=	1652	+	28.4308	X	Y	=	363	+	1.5783	X
494	393	1,100	737	737	1,505	788	2,205	1,477	1,477	1779	Y	=	1715	+	48.9615	X	Y	=	1660	+	11.9252	X
495	168	469	314	314	85	375	1,050	704	704	296	Y	=	796	+	25.4231	X	Y	=	202	+	9.3748	X
496	17	48	32	32	48	206	578	387	387	349	Y	=	357	+	22.1077	X	Y	=	171	+	17.8652	X
497	509	1,247	811	811	2,194	747	1,830	1,190	1,190	2218	Y	=	1606	+	22.4231	X	Y	=	2194	+	2.4435	X
498	1078	2,641	1,717	1,717	1,024	1020	2,500	1,625	1,625	1164	Y	=	2554	+	-5.4231	X	Y	=	1100	+	6.4419	X
499	120	316	243	180	182	233	616	474	351	428	Y	=	501	+	11.5385	X	Y	=	333	+	9.5594	X
500	700	1,716	1,115	1,115	86	1008	2,470	1,606	1,606	355	Y	=	2107	+	36.2615	X	Y	=	250	+	10.4851	X
501	701	2,132	1,407	1,599	317	823	2,501	1,651	1,876	508	Y	=	2286	+	21.5154	X	Y	=	420	+	8.7916	X
502	500	1,809	724	1,266	5,827	500	1,809	724	1,266	3637	Y	=	1809	+	0.0000	X	Y	=	4474	+	-83.6404	X
503	256	926	370	648	5,532	28	100	40	70	3413	Y	=	418	+	-31.7692	X	Y	=	4226	+	-81.2849	X
504	231	646	433	433	283	286	800	536	536	631	Y	=	741	+	5.9231	X	Y	=	474	+	15.6877	X
505	254	711	476	476	117	893	2,500	1,675	1,675	199	Y	=	1812	+	68.8077	X	Y	=	161	+	3.8779	X
506	309	847	745	567	71	365	1,000	880	670	147	Y	=	941	+	5.8846	X	Y	=	105	+	4.2378	X
507	39	107	94	72	18	101	276	243	185	59	Y	=	203	+	7.3000	X	Y	=	37	+	2.1579	X
508	25	68	60	46	33	113	310	273	208	166	Y	=	208	+	10.2308	X	Y	=	89	+	7.7561	X
509	186	509	448	341	41	182	500	440	335	130	Y	=	503	+	-0.3462	X	Y	=	80	+	4.9874	X
510	384	1,097	779	669	194	513	1,467	1,042	895	251	Y	=	1282	+	18.5385	X	Y	=	295	+	-4.3699	X
511	233	665	472	406	82	367	1,050	746	641	154	Y	=	871	+	17.8846	X	Y	=	129	+	2.5329	X
512	144	411	292	251	37	350	1,000	710	610	75	Y	=	773	+	22.6538	X	Y	=	60	+	1.5394	X
Shelby Subtotal	**347,007**	**897,472**	**540,995**	**592,336**	**511,528**	**415,769**	**1,078,634**	**680,744**	**721,178**	**725,954**	**Y**	**=**	**1,024,121**	**+**	**5,451.4**	**X**	**Y**	**=**	**642,983**	**+**	**8,297.2**	**X**

* Equation for line from projected 2026 to projected 2016. From projected 2016 to Census 2000 is same equation as Light Rail Alternative linear equatior

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DeSoto County Projections
Suburban Expansion Alternative

TAZ Number	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
701	97	253	144	243	497	200	524	502	299	1,706	Y	=	420	+	10.4174	X	Y	=	824	+	88.1071	X
702	153	400	228	384	246	200	524	502	299	609	Y	=	476	+	4.7528	X	Y	=	293	+	31.6061	X
703	31	82	47	79	2114	100	260	251	148	5,947	Y	=	191	+	6.8578	X	Y	=	4953	+	99.3786	X
704	0	0	0	0	1593	0	0	0	0	2,702	Y	=	0	+	0.0000	X	Y	=	2466	+	23.5960	X
705	377	980	558	738	270	900	2,340	1,764	1,334	638	Y	=	1817	+	52.3255	X	Y	=	501	+	13.6911	X
706	216	567	323	424	176	574	1,504	1,125	857	439	Y	=	1144	+	36.0399	X	Y	=	355	+	8.4011	X
707	664	1726	984	1301	428	900	2,340	1,764	1,334	601	Y	=	2104	+	23.5995	X	Y	=	522	+	7.9020	X
708	552	1434	817	1081	312	700	1,820	1,372	1,037	376	Y	=	1672	+	14.8272	X	Y	=	364	+	1.1951	X
709	368	956	545	721	1233	289	751	566	428	817	Y	=	830	+	-7.8823	X	Y	=	1071	+	-25.3638	X
710	68	177	101	133	122	180	468	353	267	296	Y	=	356	+	11.1985	X	Y	=	245	+	5.1149	X
711	41	106	60	80	1063	32	83	63	47	735	Y	=	92	+	-0.8776	X	Y	=	922	+	-18.7533	X
712	221	574	327	435	188	370	962	729	548	270	Y	=	813	+	14.9225	X	Y	=	266	+	0.3618	X
713	134	350	199	265	29	1,100	2,860	2,167	1,630	262	Y	=	1894	+	96.5574	X	Y	=	156	+	10.6169	X
714	113	295	168	223	30	900	2,340	1,773	1,334	285	Y	=	1553	+	78.6634	X	Y	=	161	+	12.4003	X
715	126	326	186	247	21	800	2,080	1,576	1,186	131	Y	=	1406	+	67.4484	X	Y	=	89	+	4.1559	X
716	99	257	146	195	32	800	2,080	1,576	1,186	296	Y	=	1379	+	70.1208	X	Y	=	174	+	12.2082	X
717	222	622	354	493	65	900	2,520	1,998	1,436	285	Y	=	1790	+	73.0004	X	Y	=	187	+	9.8237	X
718	183	512	292	406	45	900	2,520	1,998	1,436	227	Y	=	1748	+	77.2272	X	Y	=	153	+	7.4127	X
719	168	470	268	372	288	220	616	488	351	468	Y	=	560	+	5.6339	X	Y	=	343	+	12.4821	X
720	159	446	254	354	232	220	616	488	351	352	Y	=	551	+	6.5396	X	Y	=	287	+	6.5410	X
721	153	429	244	340	145	400	1,120	888	638	424	Y	=	854	+	26.5741	X	Y	=	289	+	13.5201	X
722	116	325	185	258	70	700	1,960	1,554	1,117	503	Y	=	1331	+	62.8835	X	Y	=	286	+	21.6751	X
723	151	424	242	336	117	700	1,960	1,554	1,117	542	Y	=	1369	+	59.0794	X	Y	=	379	+	16.2206	X
724	307	860	490	682	196	800	2,240	1,776	1,277	467	Y	=	1709	+	53.0620	X	Y	=	388	+	7.8906	X
725	1172	3047	1737	2145	1973	1,300	3,380	2,379	1,927	2,109	Y	=	3252	+	12.8059	X	Y	=	2106	+	0.2985	X
726	857	2228	1269	1568	1981	791	2,057	1,448	1,172	1,715	Y	=	2123	+	-6.5759	X	Y	=	1887	+	-17.2925	X
727	578	1502	856	1057	4326	597	1,552	1,093	885	4,135	Y	=	1533	+	1.9294	X	Y	=	4415	+	-28.0910	X
728	484	1258	717	886	3496	564	1,466	1,032	836	4,089	Y	=	1386	+	7.9944	X	Y	=	3851	+	23.8003	X
729	433	1082	617	714	491	1,022	2,555	1,686	1,456	1,147	Y	=	1988	+	56.6596	X	Y	=	903	+	24.3940	X
730	1812	4529	2582	2989	2533	1,818	4,545	3,000	2,591	2,007	Y	=	4539	+	0.6096	X	Y	=	2539	+	-53.1875	X
731	931	2328	1328	1853	2219	1,086	2,715	2,161	1,548	1,561	Y	=	2566	+	14.8731	X	Y	=	2445	+	-88.4729	X
732	947	2368	1350	1885	772	1,022	2,555	2,034	1,456	742	Y	=	2483	+	7.1735	X	Y	=	810	+	-6.7453	X
733	436	1090	621	767	109	815	2,038	1,434	1,161	160	Y	=	1673	+	36.4678	X	Y	=	167	+	-0.7676	X
734	9	23	13	18	4855	10	25	20	14	4,593	Y	=	24	+	0.0855	X	Y	=	5147	+	-55.4245	X
735	216	605	345	430	75	800	2,240	1,592	1,277	283	Y	=	1611	+	62.8679	X	Y	=	201	+	8.2577	X
736	448	1255	715	789	109	1,200	3,360	2,112	1,915	284	Y	=	2551	+	80.9475	X	Y	=	221	+	6.3579	X
737	440	1231	702	910	182	700	1,960	1,449	1,117	309	Y	=	1680	+	28.0212	X	Y	=	248	+	6.1227	X
738	290	813	463	601	77	500	1,400	1,035	798	182	Y	=	1174	+	22.5891	X	Y	=	111	+	7.1538	X
739	67	176	100	120	13	150	393	267	224	28	Y	=	310	+	8.3418	X	Y	=	23	+	0.5580	X
740	221	580	330	394	28	400	1,048	712	597	63	Y	=	868	+	17.9981	X	Y	=	42	+	2.0614	X
741	56	115	65	100	43	300	611	534	348	229	Y	=	420	+	19.0826	X	Y	=	159	+	7.0145	X
742	94	245	140	167	24	200	524	356	299	63	Y	=	417	+	10.7161	X	Y	=	41	+	2.2285	X
743	156	410	233	278	82	250	655	445	373	138	Y	=	561	+	9.4348	X	Y	=	112	+	2.6004	X
744	66	185	106	118	31	400	1,120	712	638	193	Y	=	761	+	35.9486	X	Y	=	128	+	6.5485	X
745	183	513	292	326	230	525	1,470	935	838	570	Y	=	1059	+	41.1207	X	Y	=	475	+	9.5156	X
746	84	234	133	149	49	525	1,470	935	838	342	Y	=	952	+	51.8388	X	Y	=	198	+	14.3727	X

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DeSoto County Projections
Suburban Expansion Alternative

TAZ Number	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
747	47	124	71	84	7	210	550	374	314	28	Y	=	370	+	18.0167	X	Y	=	20	+	0.7946	X
748	89	233	133	158	22	300	786	534	448	86	Y	=	573	+	21.2809	X	Y	=	53	+	3.2360	X
749	277	777	443	574	64	735	2,058	1,521	1,173	205	Y	=	1505	+	55.3050	X	Y	=	124	+	8.1359	X
750	537	1503	857	1084	180	1,155	3,234	2,333	1,844	341	Y	=	2473	+	76.0672	X	Y	=	296	+	4.5585	X
751	235	657	374	436	23	945	2,646	1,758	1,508	97	Y	=	1803	+	84.2598	X	Y	=	63	+	3.3669	X
752	1915	5364	3057	3371	757	1,938	5,427	3,411	3,093	656	Y	=	5244	+	18.3607	X	Y	=	741	+	-8.4795	X
753	1323	3704	2112	2328	450	1,375	3,850	2,420	2,195	415	Y	=	3794	+	5.6074	X	Y	=	461	+	-4.6186	X
754	132	370	211	246	14	700	1,960	1,302	1,117	74	Y	=	1349	+	61.1429	X	Y	=	51	+	2.2990	X
755	417	1168	665	776	252	945	2,646	1,758	1,508	495	Y	=	2000	+	64.6058	X	Y	=	431	+	6.4215	X
756	282	791	451	525	468	1,462	4,094	2,719	2,333	1,303	Y	=	2824	+	127.0376	X	Y	=	1670	+	-36.7105	X
757	64	161	92	106	1080	195	488	322	278	3,148	Y	=	362	+	12.5907	X	Y	=	2434	+	71.4308	X
758	999	2576	1469	1648	1446	1,785	4,605	2,945	2,625	2,425	Y	=	3690	+	91.5316	X	Y	=	2070	+	35.4697	X
759	122	330	188	203	156	945	2,552	1,569	1,454	1,145	Y	=	1622	+	92.9369	X	Y	=	770	+	37.4655	X
760	7	20	11	12	0	0	0	0	0	2,533	Y	=	8	+	-0.7549	X	Y	=	1443	+	109.0323	X
761	239	646	368	576	1072	707	1,909	1,704	1,088	3,375	Y	=	1423	+	48.5939	X	Y	=	2362	+	101.2877	X
762	458	1236	704	760	238	651	1,758	1,081	1,002	507	Y	=	1505	+	25.2226	X	Y	=	290	+	21.7150	X
763	126	352	201	303	32	840	2,352	2,024	1,341	274	Y	=	1514	+	83.8037	X	Y	=	138	+	13.5961	X
764	190	512	292	457	105	694	1,874	1,673	1,068	449	Y	=	1296	+	57.8677	X	Y	=	264	+	18.4742	X
765	107	299	171	258	133	735	2,058	1,771	1,173	898	Y	=	1321	+	73.6761	X	Y	=	587	+	31.0732	X
766	101	283	162	244	27	525	1,470	1,265	838	160	Y	=	971	+	49.9425	X	Y	=	91	+	6.8842	X
767	40	111	63	95	10	116	323	278	185	40	Y	=	232	+	9.1229	X	Y	=	22	+	1.7935	X
768	87	244	139	210	408	189	529	455	301	898	Y	=	404	+	12.5251	X	Y	=	676	+	22.2222	X
769	151	423	241	364	58	998	2,793	2,404	1,592	449	Y	=	1800	+	99.3430	X	Y	=	246	+	20.2680	X
770	48	135	77	116	8	189	529	455	301	40	Y	=	362	+	16.6992	X	Y	=	21	+	1.8954	X
771	114	295	168	224	8	1,260	3,276	2,482	1,867	108	Y	=	2034	+	124.2451	X	Y	=	57	+	5.0658	X
772	111	289	164	219	47	1,155	3,003	2,275	1,712	468	Y	=	1871	+	113.2030	X	Y	=	306	+	16.2105	X
773	174	451	257	342	41	1,575	4,095	3,103	2,334	342	Y	=	2574	+	152.1457	X	Y	=	232	+	11.0281	X
774	243	632	360	518	48	1,575	4,095	3,355	2,334	284	Y	=	2643	+	145.2038	X	Y	=	199	+	8.5011	X
775	138	360	205	295	20	735	1,911	1,566	1,089	125	Y	=	1258	+	65.2728	X	Y	=	71	+	5.3860	X
776	372	967	551	732	198	3,000	7,800	5,910	4,446	1,541	Y	=	5172	+	262.8245	X	Y	=	1062	+	47.9814	X
777	385	1002	570	724	1399	310	806	583	459	1,005	Y	=	881	+	-7.5234	X	Y	=	1231	+	-22.6338	X
778	524	1363	777	986	555	450	1,170	846	667	381	Y	=	1244	+	-7.4225	X	Y	=	506	+	-12.4903	X
779	28	73	41	60	50	150	390	320	222	278	Y	=	268	+	12.2061	X	Y	=	185	+	9.2758	X
780	577	1501	856	1086	87	1,700	4,420	3,196	2,519	273	Y	=	3297	+	112.2532	X	Y	=	191	+	8.2375	X
781	50	129	73	93	0	160	416	301	237	0	Y	=	306	+	11.0472	X	Y	=	0	+	0.0000	X
782	1492	3878	2211	2804	452	2,611	6,789	4,909	3,870	684	Y	=	5669	+	111.9532	X	Y	=	661	+	2.2999	X
783	216	561	320	542	266	525	1,365	1,318	778	1,164	Y	=	1016	+	34.9107	X	Y	=	718	+	44.5935	X
784	170	445	254	426	31	420	1,100	1,054	627	97	Y	=	816	+	28.4262	X	Y	=	57	+	4.0116	X
785	106	279	159	267	26	150	393	377	224	40	Y	=	349	+	4.3929	X	Y	=	33	+	0.6931	X
786	130	338	193	327	47	200	520	502	296	86	Y	=	450	+	6.9822	X	Y	=	62	+	2.3423	X
787	95	247	140	202	28	200	520	426	296	80	Y	=	415	+	10.5077	X	Y	=	46	+	3.3630	X
788	156	410	233	333	28	250	655	533	373	45	Y	=	561	+	9.4269	X	Y	=	38	+	0.7813	X
789	237	622	355	506	40	300	786	639	448	51	Y	=	723	+	6.3039	X	Y	=	47	+	0.4255	X
790	81	211	120	173	24	210	546	447	311	68	Y	=	401	+	14.4736	X	Y	=	45	+	2.3704	X
791	74	192	109	158	11	210	546	447	311	28	Y	=	394	+	15.2021	X	Y	=	22	+	0.6453	X
792	280	734	418	597	41	400	1,048	852	597	63	Y	=	927	+	12.0780	X	Y	=	52	+	1.0335	X

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	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
793	180	471	268	383	37	250	655	533	373	51	Y	=	584	+	7.0593	X	Y	=	46	+	0.5662	X
794	147	384	219	312	22	250	655	533	373	34	Y	=	551	+	10.4285	X	Y	=	31	+	0.3001	X
795	142	372	212	303	22	280	734	596	418	57	Y	=	595	+	13.9039	X	Y	=	36	+	2.1345	X
796	135	350	200	287	24	263	683	559	390	45	Y	=	535	+	14.7911	X	Y	=	36	+	0.9292	X
797	175	459	262	389	58	231	605	513	345	97	Y	=	531	+	7.3926	X	Y	=	67	+	2.9524	X
798	309	810	462	687	91	300	786	666	448	102	Y	=	795	+	-0.9351	X	Y	=	89	+	1.3283	X
799	243	637	363	540	79	250	655	555	373	91	Y	=	648	+	0.6931	X	Y	=	80	+	1.0817	X
800	314	880	502	698	99	280	784	622	447	97	Y	=	821	+	-3.7115	X	Y	=	92	+	0.4479	X
801	181	507	289	402	685	250	700	555	399	1,157	Y	=	626	+	7.4378	X	Y	=	846	+	31.0877	X
802	356	932	531	790	127	700	1,834	1,554	1,045	279	Y	=	1487	+	34.6955	X	Y	=	202	+	7.7231	X
803	44	114	65	88	47	150	393	303	224	172	Y	=	286	+	10.7272	X	Y	=	117	+	5.5045	X
804	83	232	132	168	108	500	1,400	1,010	798	697	Y	=	951	+	44.9092	X	Y	=	444	+	25.3240	X
805	276	723	412	557	46	1,500	3,930	3,030	2,240	330	Y	=	2696	+	123.3512	X	Y	=	171	+	15.9524	X
806	232	609	347	469	119	600	1,572	1,212	896	278	Y	=	1202	+	37.0448	X	Y	=	235	+	4.3478	X
807	220	576	328	444	86	600	1,572	1,212	896	307	Y	=	1189	+	38.3059	X	Y	=	178	+	12.9574	X
808	99	261	148	201	22	400	1,048	808	597	125	Y	=	745	+	30.2874	X	Y	=	63	+	6.2502	X
809	113	295	168	227	25	400	1,048	808	597	125	Y	=	758	+	28.9633	X	Y	=	64	+	6.1390	X
810	63	166	95	128	22	250	655	505	373	114	Y	=	467	+	18.8035	X	Y	=	63	+	5.0963	X
811	90	235	134	181	20	300	786	606	448	102	Y	=	574	+	21.2022	X	Y	=	48	+	5.4213	X
812	174	457	260	352	56	500	1,310	1,010	747	182	Y	=	982	+	32.8149	X	Y	=	121	+	6.1410	X
813	145	379	216	258	25	300	786	534	448	57	Y	=	630	+	15.6483	X	Y	=	41	+	1.6003	X
814	56	146	83	99	21	200	524	356	299	91	Y	=	379	+	14.5490	X	Y	=	53	+	3.7506	X
815	78	204	116	139	15	300	786	534	448	68	Y	=	562	+	22.3707	X	Y	=	42	+	2.6012	X
816	49	127	72	86	11	250	655	445	373	68	Y	=	452	+	20.2968	X	Y	=	41	+	2.7503	X
817	105	275	157	187	36	525	1,376	935	784	2,981	Y	=	912	+	46.3618	X	Y	=	1552	+	142.8212	X
818	115	302	172	205	27	250	655	445	373	80	Y	=	519	+	13.5744	X	Y	=	46	+	3.3930	X
819	82	215	122	146	31	300	786	534	448	1,546	Y	=	566	+	21.9798	X	Y	=	627	+	91.8935	X
820	114	300	171	204	263	350	917	623	523	1,252	Y	=	680	+	23.7411	X	Y	=	597	+	65.4973	X
821	75	196	112	133	59	300	786	534	448	239	Y	=	559	+	22.6833	X	Y	=	167	+	7.1749	X
822	87	227	129	154	433	150	393	267	224	1,160	Y	=	329	+	6.3781	X	Y	=	627	+	53.2616	X
DeSoto Subtotal	**32,928**	**87,227**	**49,715**	**63,819**	**46,380**	**74,918**	**199,237**	**148,110**	**113,555**	**83,555**	**Y**	**=**	**154312**	**+**	**4492.5**	**X**	**Y**	**=**	**69868**	**+**	**1368.6**	**X**

* Equation for line from projected 2026 to projected 2016. From projected 2016 to Census 2000 is same equation as Light Rail Alternative linear equation

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Fayette County Projections
Suburban Expansion Alternative

TAZ Number	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation*						Employment Trend Linear Equation*					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
601	63	166	106	73	159	296	820	524	361	333	Y	=	568	+	25.1610	X	Y	=	316	+	1.6605	X
602	86	228	146	75	272	428	1,185	758	390	598	Y	=	783	+	40.2875	X	Y	=	543	+	5.5422	X
603	42	110	70	48	299	196	543	347	239	831	Y	=	376	+	16.6615	X	Y	=	595	+	23.5817	X
604	15	38	25	17	33	69	190	122	84	82	Y	=	132	+	5.8300	X	Y	=	66	+	1.5271	X
605	212	562	359	248	247	1,053	2,918	1,865	1,285	596	Y	=	1926	+	99.1664	X	Y	=	493	+	10.2728	X
606	142	375	240	165	62	702	1,947	1,244	858	211	Y	=	1285	+	66.1585	X	Y	=	124	+	8.7091	X
607	54	144	92	63	29	270	747	477	329	85	Y	=	493	+	25.3715	X	Y	=	59	+	2.5795	X
608	87	231	148	102	84	434	1,201	768	529	249	Y	=	793	+	40.8227	X	Y	=	167	+	8.2335	X
609	268	710	453	313	143	1,330	3,686	2,355	1,623	413	Y	=	2433	+	125.2515	X	Y	=	285	+	12.7363	X
610	805	2129	1360	938	354	3,991	11,055	7,064	4,869	914	Y	=	7298	+	375.7189	X	Y	=	706	+	20.7519	X
611	51	136	87	60	497	255	706	450	311	2,700	Y	=	466	+	23.9798	X	Y	=	991	+	170.8882	X
Fayette Subtotal	**1,826**	**4,829**	**3,084**	**2,101**	**2,179**	**9,025**	**24,997**	**15,974**	**10,877**	**7,011**	**Y**	**=**	**16553**	**+**	**844.4**	**X**	**Y**	**=**	**4346**	**+**	**266.5**	**X**

* Equation for line from projected 2026 to projected 2016. From projected 2016 to Census 2000 is same equation as Light Rail Alternative linear equation

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Memphis Area MPO Projections
Suburban Expansion Alternative

	2000 TOTALS					2026 TOTALS					Population Trend Linear Equation						Employment Trend Linear Equation					
	Households	Population	Vehicles	Workers	Employment	Households	Population	Vehicles	Workers	Employment	Y(Pop)	=	A(y-intercept)	+	B(slope)	X(Year)	Y(Emp)	=	A(y-intercept)	+	B(slope)	X(Year)
Shelby County	347,007	897,472	540,995	592,336	511,528	415,769	1,078,634	680,744	721,178	725,954	Y	=	1,024,121	+	5,451	X	Y	=	642,983	+	8,297	X
DeSoto County	32,928	87,227	49,715	63,819	46,380	74,918	199,237	148,110	113,555	83,555	Y	=	154,312	+	4,493	X	Y	=	69,868	+	1,369	X
Fayette County	1,826	4,829	3,084	2,101	2,179	9,025	24,997	15,974	10,877	7,011	Y	=	16,553	+	844	X	Y	=	4,346	+	266	X
GRAND TOTAL	381,761	989,528	593,795	658,257	560,087	499,712	1,302,869	844,828	845,609	816,520	Y	=	1,194,986	+	10,788	X	Y	=	717,196	+	9932	X

Appendix H

Freight Activity Hubs Existing Data

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Appendix H - Freight Activity Hubs, Existing and Future Employment

TAZ	Activity Hub	Employment Year 2000	Employment Year 2026	Absolute Difference	Percent Change
167	Airport	2,464	2,464	0	0
189	Airport	2,634	2,714	80	3.04
206	Airport	1,033	1,870	837	81.03
191	Airport	5,666	6,694	1,028	18.14
190	Airport	2,715	2,737	22	0.81
205	Airport	10,085	10,085	0	0
207	Airport	8,330	8,411	81	0.97
208	Airport	4,264	5,833	1,569	36.8
188	Airport	846	962	116	13.71
187	Airport	896	1,086	190	21.21
193	Airport	3,382	3,635	253	7.48
192	Airport	5,203	6,626	1,423	27.35
194	Airport	545	545	0	0
195	Airport	930	3,437	2,507	269.57
204	Airport	1,207	2,058	851	70.51
202	Airport	901	1,798	897	99.56
209	Airport	2,696	3,029	333	12.35
196	Airport	3,114	3,524	410	13.17
213	Airport	2,175	3,535	1,360	62.53
197	Airport	334	1,268	934	279.64
203	Airport	201	1,118	917	456.22
198	Airport	292	1,153	861	294.86
199	Airport	181	503	322	177.9
201	Airport	161	943	782	485.71
214	Airport	285	2,500	2,215	777.19
200	Airport	126	749	623	494.44
215	Airport	1,181	7,020	5,839	494.41
	Subtotal	**61,847**	**86,297**	**24,450**	**39.53**
130	Depot	1,631	1,741	110	6.74
132	Depot	2,078	2,078	0	0
131	Depot	2,215	2,215	0	0
136	Depot	2,761	3,052	291	10.54
	Subtotal	**8,685**	**9,086**	**401**	**4.62**
210	Lamar/Hickory Hill	6,076	6,223	147	2.42
226	Lamar/Hickory Hill	4,033	5,758	1,725	42.77
225	Lamar/Hickory Hill	2,718	3,334	616	22.66
235	Lamar/Hickory Hill	1,647	2,029	382	23.19

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224	Lamar/Hickory Hill	1,921	2,605	684	35.61
211	Lamar/Hickory Hill	3,463	3,644	181	5.23
212	Lamar/Hickory Hill	1,894	3,280	1,386	73.18
223	Lamar/Hickory Hill	1,765	1,930	165	9.35
217	Lamar/Hickory Hill	312	2,500	2,188	701.28
218	Lamar/Hickory Hill	465	3,248	2,783	598.49
219	Lamar/Hickory Hill	338	924	586	173.37
222	Lamar/Hickory Hill	4,421	5,158	737	16.67
216	Lamar/Hickory Hill	587	3,500	2,913	496.25
220	Lamar/Hickory Hill	528	3,000	2,472	468.18
221	Lamar/Hickory Hill	811	2,808	1,997	246.24
	Subtotal	**30,979**	**49,941**	**18,962**	**61.21**
704	Olive Branch	3,011	3,011	0	0
703	Olive Branch	6,728	6,728	0	0
705	Olive Branch	645	645	0	0
	Subtotal	**10,384**	**10,384**	**0**	**0**
160	President's Island	1,655	2,461	806	48.7
157	President's Island	933	933	0	0
158	President's Island	1,790	2,636	846	47.26
159	President's Island	1,784	2,607	823	46.13
	Subtotal	**6,162**	**8,637**	**2,475**	**40.17**
156	South Memphis	3,005	3,005	0	0
147	South Memphis	645	645	0	0
155	South Memphis	1,735	1,735	0	0
148	South Memphis	322	322	0	0
152	South Memphis	303	295	-8	-2.64
153	South Memphis	635	635	0	0
154	South Memphis	1,785	1,785	0	0
149	South Memphis	1,168	1,168	0	0
150	South Memphis	1,508	1,508	0	0
151	South Memphis	544	544	0	0
	Subtotal	**11,650**	**11,642**	**-8**	**-0.07**
	TOTAL	**129,707**	**175,987**	**46,280**	**35.68**

Source: MPO Light Rail Alternative Land Use Projections

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Appendix I

TRIMS Data

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Appendix I - Truck Volumes TRIMS

Station MPO	Road MPO	Location MPO	Traffic Count Year	Average Annual Daily Traffic (AADT)	Percent Design Hourly Volume	Percent Peak Hour Traffic	Directional Distribution	Design Hourly Volume (DHV)	Percent Passenger Cars	Percent Single Unit Trucks	Percent Multi-unit Trucks	Total Percent Trucks
319	FA-101	I-40 & Thomas	2003	25230	9	7	50	1135	87	8	5	13
199	I-40	Wolf River & Sycamore View	2002	130190	10	8	55	7160	88	3	9	12
200	I-40	Sycamore View & Whitten	2002	101050	10	8	55	5558	84	4	12	16
201	I-40	Whitten & Germantown	2002	77420	8	6	55	3406	80	5	15	20
202	I-40	U.S. 64 & Canada	2003	45800	8	6	55	2015	66	6	28	34
203	I-40	Canada & New Airline	2003	38730	8	6	50	1549	61	6	33	39
248	I-40	Jackson & I-240 Midtown	2002	113130	9	7	55	5600	87	3	10	13
249	I-40	Chelsea & Jackson	2002	107200	9	7	55	5306	85	4	11	15
250	I-40	Danny Thomas & I-240 Midtown	2002	64900	10	8	55	3570	81	5	14	19
279	I-40	Third & Danny Thomas	2002	59290	9	7	55	2935	81	5	14	19
281	I-40	Riverside & Second	2002	49380	9	7	55	2444	77	6	17	23
282	I-40	Hernando DeSoto Bridge	2002	44430	9	7	55	2199	73	7	20	27
295	I-40	U.S. 64 & Germantown	2002	60360	8	6	55	2656	74	5	21	26
308	I-40	Summer & Covington Pike	2002	99470	10	8	55	5471	84	4	12	16
310	I-40	Covington Pike & Jackson	2002	91090	11	9	55	5511	82	4	14	18
312	I-40	Jackson & Warford	2002	93130	13	11	55	6659	82	4	14	18
316	I-40	Hollywood & Watkins	2002	93880	11	9	55	5680	82	5	13	18
318	I-40	Wolf River & Chelsea	2002	104480	9	7	55	5172	84	4	12	16
321	I-40	Warford & Hollywood	2002	96020	11	9	55	5809	83	4	13	17
609	I-40	Whitten & Appling	2002	89530	8	6	55	3939	83	4	13	17
182	I-55	Raines & Shelby	2002	66160	10	8	55	3639	88	3	9	12
196	I-55	Shelby & Holmes	2003	61080	9	7	70	3848	85	4	11	15
207	I-55	I-240 & Third	2002	90170	8	6	55	3967	83	3	14	17
209	I-55	Florida & Mallory	2002	68510	8	6	55	3014	77	4	19	23
210	I-55	Mallory & South Parkway	2002	66260	8	6	55	2915	76	4	20	24
211	I-55	E.H. Crump & McLemore	2002	62330	8	6	55	2743	74	4	22	26
289	I-55	Horn Lake & U.S. 61	2002	63280	8	6	55	2784	74	4	22	26
412	I-55	At Memphis-Arkansas Bridge	2002	43550	8	6	60	2090	68	5	27	32
611	I-55	McLemore & South Parkway	2002	63870	8	6	55	2810	75	4	21	25
218	Lamar	American Way & Knight Arnold	2003	38890	9	7	55	1925	75	6	19	25

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Station MPO	Road MPO	Location MPO	Traffic Count Year	Average Annual Daily Traffic (AADT)	Percent Design Hourly Volume	Percent Peak Hour Traffic	Directional Distribution	Design Hourly Volume (DHV)	Percent Passenger Cars	Percent Single Unit Trucks	Percent Multi-unit Trucks	Total Percent Trucks
352	Lamar	Getwell & Winchester	2003	41540	9	7	55	2056	75	6	19	25
119	Shelby	Mendenhall & Hickory Hill	2003	30730	10	8	60	1844	90	4	6	10
128	Shelby	I-55 & Airways	2003	38210	9	7	60	2063	90	4	6	10
130	Shelby	U.S. 61 & Horn Lake	2003	11490	9	7	60	620	90	4	6	10
187	Shelby	U.S. 51 & Millbranch	2003	30920	10	8	55	1701	90	4	6	10
188	Shelby	Horn Lake & Tulane	2003	19010	9	7	55	941	90	4	6	10
237	Shelby	Getwell & U.S. 78	2003	32460	9	7	55	1607	90	4	6	10
331	Shelby	Crumpler & Ross	2003	24590	11	9	70	1893	90	4	6	10
524	Shelby	Swinnea & Tchulahoma	2003	41530	10	8	55	2284	90	4	6	10
910	SR-300	CBD	2003	1060	9	7	100	95	87	8	5	13
52	Stage	Memphis-Arlington & U.S. 70	2003	1930	10	8	65	125	87	3	10	13
107	Tenn. Hwy. 57	Coll.-Arl. & Fayette Co. Line	2003	3750	11	9	60	248	87	3	10	13
208	Third	I-55 & Mallory	2003	24730	10	8	60	1484	86	3	11	14
28	U.S. 51	Chase & Lucy	2003	22650	10	8	65	1472	90	3	7	10
62	U.S. 51	FA-101 & Wolf River	2003	12250	12	10	75	1103	90	5	5	10
165	U.S. 51	Overton Crossing & Watkins	2003	23750	10	8	65	1544	90	3	7	10
244	U.S. 51	Shelby Road and Navy	2003	30700	9	7	60	1658	90	3	7	10
320	U.S. 51	James & Whitney	2003	31740	9	7	65	1857	90	5	5	10
12	U.S. 51	West Union & Wilkinsville	2003	28690	11	9	55	1736	90	3	7	10
15	U.S. 51	Paul Barret & Navy	2003	28090	10	8	65	1826	90	3	7	10
511	U.S. 61	McLemore & Trigg	2003	15930	10	8	60	956	86	3	11	14
512	U.S. 61	Person & Mallory	2003	17790	10	8	60	1067	86	3	11	14
50	U.S. 64	U.S. 70 & Appling	2003	1930	10	8	60	116	87	3	10	13
110	U.S. 72	Bray Station & Byhalia	2003	2960	11	9	60	195	90	7	3	10
120	U.S. 78	Pleasant Hill & Holmes	2003	40360	9	7	55	1998	75	6	19	25
123	U.S. 78	Perkins & Shelby	2003	39600	9	7	60	2138	75	6	19	25
264	U.S. 78	Winchester & Perkins	2003	35700	8	6	55	1571	75	6	19	25
Source: TN Roadway Information Management System (TRIMS), TDOT 2002/2003												

Appendix J

Methodology for Calculating Truck Volume Percentage for the Horizon Years and Truck Volumes for Memphis Area-DeSoto County

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Methodology for Calculating Truck Volume Percentage for the Horizon Years

1. Truck volumes for 1998, 2010, 2020 from the "Freight Analysis Framework", Office of Freight Operations, FHWA were used to calculate the percent truck trips of the total ADT on the roadway segments.
2. These percentages were used to interpolate for the LRTP horizon years 2006, 2016, and 2026.
3. The difference between 2010 and 1998 percentage was multiplied by 8/12 (since 2006 is the 8th of 12 years in the forecast) and the result was added to the 1998 percent to get 2006 percent truck trips of the total ADT.
4. The difference between 2020 and 2010 percentage was multiplied by 6/10 (since 2016 is the 6th of 10 years in the forecast) and the result was added to the 2010 percent to get 2016 percent truck trips of the total ADT.
5. The difference between 2020 and 2010 percentage was multiplied by 6/10 (since 2026 is the 6th of 10 years into the forecast horizon) and the result was added to the 2020 percent to get 2026 percent truck trips of the total ADT.
6. The Total ADT for the horizon years were calculated using the same methodology as described above.
7. These percentages will be used in conjunction with the calculated Total ADT to estimate the truck forecasts for the horizon years.

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Appendix K

Criteria for the Evaluation of Projects for Tennessee Local Surface Transportation Program Funds
&
Criteria for the Evaluation of Projects for Mississippi Local Surface Transportation Program Funds
&
Criteria for the Evaluation of Projects for Congestion Management and Air Quality Funds

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Criteria for the Evaluation of Projects for Tennessee Local Surface Transportation Program Funds

Issue	Points	Evaluation Criteria
Safety	**20**	The Safety criterion is intended to measure the potential improvements to public safety that the proposed project will provide. Essential items to consider include *accident frequency and severity*, *safety design*, and *other general safety problems*. Questions to ask about *accident frequency and severity* include: "Will this project relieve congestion on a parallel facility that is considered to have a high accident potential?" An example of an item to consider in *safety design* is whether or not a road will have a median. Some examples of general *safety problems* take into account line of sight and width of the road. The greater the improvement in safety to that corridor, the higher the score for that project. This element is expected to be turned over to the safety committee for analysis and to set a standard method for assigning these points.
Congestion	**20**	The Congestion criterion quantifies the predicted improvements in the *level of service* and *access*. Other factors that contribute to improvements to congestion include quality of life and the economic costs of congestion. Also congestion relief and improved traffic operations on a major parallel facility is considered. Rating the *level of service* should include the existing conditions on that road and the LRTP forecasted traffic on the existing network. A high score should be given to projects that give the better congestion relief compared to current conditions. Projects in the Congestion Management System Plan will be given particular attention for scoring in this category.
Air Quality	**10**	Air Quality evaluates the need to improved *air quality* in the region. In most cases, as *congestion* is decreased the *air quality* score will increase. A score of 5 (five) is considered to be neutral to *Air Quality*. If the project will benefit the *Air Quality* a higher score should be assigned and if the project will increases the impact on *Air Quality*, a lower score should be assigned. The Clean Air Committee will be asked to evaluate the air quality aspect of all projects and produce a standardized scoring procedure.
Land Use Impact	**10**	The Land Use Impact evaluation takes into consideration issues such as the promotion of higher quality of life in *neighborhoods, commercial areas* and *employment centers.* It also seeks to determine whether or not other *infrastructure* elements exist where the project is planned within the allotted construction time frame. Projects that serve existing development should score higher than

		those that may be considered premature for the development pattern. Higher scores should be given to projects that will improve or enhance the current and planned land use in that corridor, as well as specific economic development projects.
Socio-Economic	**10**	In the Socioeconomic evaluation, the impact that a project will have on the *type of neighborhood* and the *encouragement of multi-modes of transportation* are considered. Higher scores should be given to projects that improve neighborhoods, by increasing mobility and promoting appropriate development. Higher scores are awarded if the projects encourage the use of multi-modal transportation.
Network Continuity	**10**	The Network Continuity criterion considers the *need for overall system efficiency* for each evaluated project. Higher scores should be given to projects that increase the efficiency for the overall transportation system. For example, a higher score should be awarded to a project that widens a segment of road that already connects two previously widened segments, or one that alleviates significant congestion on a parallel roadway.
Previous Commitment	**10**	The Previous Commitment criterion score should be computed by considering the *out year commitment* and the *use of existing funds* to the project. Projects that have current year funding should be assigned higher scores over projects that have funds committed years later. The highest scores are reserved for projects that have been approved by various governmental administrations to support specific projects. The ETC has agreed that projects in approved CIP budgets should receive points based on their position within the budget.
Environmental	**5**	Environmental evaluates the impact of a project and the mitigation of impacts on the physical environment such as wetlands and cultural resources. Questions to ask concerning *environmental impacts* include, "Will the building of this road destroy any wetlands?" or "Will it negatively impact important community cultural sites?" A score of 3 (three) is considered to be neutral to the environment. If the project will benefit the environment, a higher score should be assigned and if the project will damage the environment, a lower score should be assigned.
Project Implementation	**5**	Issues to consider relating to Project Implementation include the *degree of difficulty* in physically building the project*, possible delays* in getting approval to build*,* and *costs* of a project. For example, if a bridge must be constructed or buildings need to be acquired and demolished, then all three issues will probably increase. The higher score is given to projects that can be constructed with the least obstruction, cost and complication.

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Criteria for the Evaluation of Projects for Mississippi Local Surface Transportation Program Funds

Issue	Points	Evaluation Criteria
Safety	**20**	The Safety criterion is intended to measure the potential improvements to public safety that the proposed project will provide. Essential items to consider include *accident frequency and severity*, *safety design*, and *other general safety problems*. Questions to ask about *accident frequency and severity* include: "Will this project relieve congestion on a parallel facility that is considered to have a high accident potential?" An example of an item to consider in *safety design* is whether or not a road will have a median. Some examples of general *safety problems* take into account line of sight and width of the road. The greater the improvement in safety to that corridor, the higher the score for that project.
Congestion	**20**	The Congestion criterion quantifies the predicted improvements in the *level of service* and *access*. Other factors that contribute to improvements to congestion include quality of life and the economic costs of congestion. Also congestion relief and improved traffic operations on a major parallel facility is considered. Rating the *level of service* should include the existing conditions on that road and the LRTP forecasted traffic on the existing network. A high score should be given to projects that give the better congestion relief compared to current conditions. Projects in the Congestion Management System Plan will be given particular attention for scoring in this category.
Air Quality	**5**	Air Quality evaluates the need to improved *air quality* in the region. In most cases, as *congestion* is decreased the *air quality* score will increase. A score of 5 (five) is considered to be neutral to *Air Quality*. If the project will benefit the *Air Quality* a higher score should be assigned and if the project will increase the impact on *Air Quality*, a lower score should be assigned.
Socio-Economic	**10**	In the Socioeconomic evaluation, the impact that a project will have on the *type of neighborhood* and the *encouragement of multi-modes of transportation* are considered. Higher scores should be given to projects that improve neighborhoods, by increasing mobility and promoting appropriate development. Higher scores are awarded if the projects encourage the use of multi-modal transportation.
Network Continuity	**10**	The Network Continuity criterion considers the *need for overall system efficiency* for each evaluated project. Higher scores should be given to projects that increase the efficiency for the overall

		transportation system. For example, a higher score should be awarded to a project that widens a segment of road that already connects two previously widened segments, or one that alleviates significant congestion on a parallel roadway.
Previous Commitment	**10**	The Previous Commitment criterion score should be computed by considering the *out year commitment* and the *use of existing funds* to the project. Projects that have current year funding should be assigned higher scores over projects that have funds committed years later. The highest scores are reserved for projects that have been approved by various governmental administrations to support specific projects. The ETC has agreed that projects in approved CIP budgets should receive points based on their position within the budget.
Environmental	**10**	Environmental evaluates the impact of a project and the mitigation of impacts on the physical environment such as wetlands and cultural resources. Questions to ask concerning *environmental impacts* include, "Will the building of this road destroy any wetlands?" or "Will it negatively impact important community cultural sites?" A score of 8 (eight) is considered to be neutral to the environment. If the project will benefit the environment, a higher score should be assigned and if the project will damage the environment, a lower score should be assigned.

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Criteria for the Evaluation of Projects for Congestion Management and Air Quality Funds

Criteria	Points	Standards
Quantifiable Reduction Of Air Pollutants Per Dollar Requested	**0-30**	Knowledge of current emissions from activity or location to be impacted – The more current knowledge available, the higher the potential score. Knowledge of current conditions allows the Committee to better evaluate program or project effectiveness, increasing the likelihood a project can be used in the State Implementation Plan (SIP) to demonstrate emission reductions. It also allows better understanding of the need for a project that is proposed. Method of quantifying reductions - More points should be awarded projects with well-defined and defensible methods for quantifying reductions as this can increase their SIP impact. Are multiple or all pollutants reduced? - The combined impact of a program or project needs to be evaluated and those that have positive impacts on emission levels of multiply pollutants of concern should be given a higher score. Does measure provide efficient use of CMAQ funds on a dollar per ton reduced? – Due to limited funds and the need to maximize project return, some evaluation of the cost per ton of emissions reduced is a useful measure to prioritize projects. This idea is still not fully developed as the complexity of "valuing" a ton of carbon monoxide (CO) reduction versus a ton of nitrogen oxide reduction is not possible with our existing knowledge of the problems to be addressed in the local air pollution picture. Our duel status as maintenance area for CO and Ozone also complicates this aspect of the prioritization process. This element does, however, allow the Committee to look at the relative costs of program proposed in this selection process.

Scope	**0-15**	Does Project have area-wide or local (Hotspot) impact? – The Committee finds that projects with the potential to address air pollution on a regional level should receive preference over those that only addressed a smaller area. The exception would be a smaller area with a "Hotspot" for carbon monoxide, which indicated a potential air pollution value above the National Ambient Air Quality Standard (NAAQS) for CO. This element can also be used to give higher rankings for projects that address both pollution and congestion in one of the identified corridors of congestion in the Congestion Management Plan. Does it enhance or augment CMAQ projects in surrounding areas? - In its evaluation of a project, the MPO should prioritize projects that augment projects in surrounding jurisdictions. Such augmentation allows for effective public outreach and better coordination in the regional management of air pollution. It also can enhance the effectiveness of existing control programs or projects. This will become an increasingly important element if additional areas within the planning area are designated non-attainment.
Mandated Project	**0- 10**	Is the project contained in an approved State Implementation Plan or Early Action Compact? – Preference should be given for measures mandated by the SIP. A Transportation Control Measure contained in an approved SIP or Early Action Compact may be mandated to have priority over other CMAQ projects. No preference exists to multiple SIP included projects or for projects already meeting their SIP required reductions. Does the Project enhance or augment a federally mandated transportation emissions reduction effort? – Where a local project could tie into or enhance a federally mandated control measure, some preference should be given. This could be in the area of cleaner fuels, or transit fleet alternative fuel conversion to name a few

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		potentials. The MPO is determined to support such programs at the local level by allowing more points for a local program that would further the use or scope of such a federally mandated requirement. Is the project one of the transportation control measures (TCM) recommended for evaluation and which has been found to be appropriate for the local transportation system? – The Congestion Management Plan evaluated recommended TCM's contained in the Clean Air Act for potential benefit in our local planning area. The MPO finds that in order to implement the plan's programs and federal guidance, a TCM measure found appropriate in the plan should receive a higher point total in this category. Does project have outside financial support or partnership to increase reduction per public dollar expended? – In an effort to leverage public funding and encourage broad community involvement in these programs, projects that received funding or significant support from non-federal agencies should receive additional points for their potential promotion.
Duration/Timing Of Reductions	**0-15**	Are reductions permanent or seasonal and if seasonal, do they occur when needed? – The ability to credit reduction in the SIP depends, to some extent, on their timing and enforceability. This part of the element was intended to address both the timing of the reductions from a project as well as their permanence. A higher ranking is given to projects that produced appropriate pollutant reductions during the period most likely to need them and permanent reductions are favored over seasonal or temporary reduction efforts. When will the reductions be credited against transportation emissions budget in SIP? – Not all projects would produce emission reductions in time to be of benefit to attainment deadlines, Early Action Compact and SIP reasonable

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		further progress needs. The often lengthy approval and construction time for major projects could result in obtaining pollution reductions only after certain attainment dates are set. Under this element, priority was given to projects that produced reductions sooner in the planning cycle.
Congestion Reduction	**0-30**	Will project serve an area identified in Congestion Management plan as a high priority congestion corridor or location? One of the seven required planning components is congestion management. CMAQ is more than just air quality (AQ) improvements. Projects that have significant congestion relief outcomes and goals are therefore appropriately evaluated for funding prioritization. Projects that fulfill goals in the congestion management plan receive higher rankings in this element than those outside the scope of the plan or relate only to air quality issues. What is the level of congestion reduction achieved by the project? –Much in the same way the initial criteria looked at the tons of reduction, this element hopes to better quantify the congestion reduction achievable by a project or program. It reinforces some of the air quality goals as is appropriate, but allows projects which are more localized to also be recognized for their unique problems. Does the project provide trip reduction improvement or only improved function of the congested area? – This element looks at the potential for the project to solve the congestion throughout the network by reducing trips rather than by simply speeding the trips along a particular corridor or in a particular intersection.

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Appendix L

CMS Methodology & Highway Capacity

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Technical Appendix

Methodology

The CMS Plan states that the Congested Network is to be determined using information from the Travel Demand Model and other supplemental information as determined by the Engineering and Technical Committee (ETC) of the Memphis MPO. The methodology contained in this appendix describes the procedures used by the ETC to identify the congested roadways using supplemental information. The ETC decided to utilize supplemental information that is readily available from TDOT, MDOT and local agencies. This data includes travel time runs, traffic count data and roadway characteristics. The majority of travel time run data was obtained from the "Traffic Signal Improvements and Air Quality Analysis", and "CMAQ Air Quality Analysis" reports prepared for the City of Memphis. Additional travel time data was obtained from a variety of studies that were conducted for other local government agencies, including Shelby County and the MPO. The traffic count data and roadway characteristics were obtained from the Tennessee Department of Transportation TRIMS database.

Procedures from the 2000 Highway Capacity Manual (HCM) were used to determine the level of service for the subject roadways. The HCM criteria for determining level of service (LOS) varies by roadway facility type. As is shown in the detailed methodology that follows, LOS for some facility types is determined based on factors such as percent trucks, number of lanes, service flow rates, and AADT. Other facility types require a link travel time to be determined either by calculation or by conducting actual travel time runs.

Where travel time runs were appropriate and available, the link travel speeds were used to determine the level of service based on criteria from the Highway Capacity Manual. When this data was absent, the link travel times and LOS were calculated based on HCM methodologies. The following pages show the basic assumptions used and the detailed methodology for determination of level of service for the various roadway functional classifications based on the Highway Capacity Manual.

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Evaluation of Short Term Strategies

Methodology

Each roadway segment identified in the Congested Network was evaluated using the short term strategies listed in the CMS. A total of seven strategies were evaluated to determine their potential impact on the transportation system. Table __ shows the applicable strategies for each route identified on the Congested Network. The first six strategies include: 1) Carpooling, Vanpooling, and Alternative Work Hours, 2) Intersection and roadway widening, channelization, traffic surveillance and control systems, traffic control centers, computerized signal systems, 3) HOV lanes, guaranteed ride home programs 4) Park and ride and mode change facilities, 5) Transit service enhancement or expansion, and 6) Incident Management. If, after these first six strategies were applied to the roadway segments, the LOS did not improve to D or better, then, as a last resort, general purpose lanes were added.

For each roadway segment, carpooling and vanpooling were assumed to result in a 2% reduction of single occupancy vehicle use. This percentage was applied to the existing volume on the roadway segment and listed in Table __.

Signal systems were shown to result in an 18% increase in travel speeds (up to the posted speed limit). This increase in speed was applied to travel time data for the selected roadway segments and noted in the table. For roadways without travel time runs, the Highway Capacity Software was used to determine the increase in speed using the difference in speed between arrival type 3 (random arrival type) and type 4 (some platooned vehicles).

HOV lanes were shown to reduce single occupancy vehicle use by 11%. This reduction was applied to the existing volume on the roadway segments and listed in the table.

Park and Ride facilities were assumed to contribute a 1.2% reduction in existing traffic volume. This reduction was applied to the existing volume on the roadway segments and listed in the table.

Similar to carpooling and vanpooling measures, enhanced transit services were predicted to reduce existing traffic volume by 2%. This percentage was applied to the existing traffic volume on the roadway segments and listed in the table.

Incident management is an effective tool in congestion management. However, there is not enough data to document the daily benefits of this strategy.

After applying each of the first six strategies to the roadway segments listed in the Congested Network, the LOS was determined based on the decrease in traffic volume and/or the increase in travel speed. There were roadway segments remaining that did not have an acceptable LOS. These remaining roadway segments were then analyzed by adding general purpose lanes and the results are shown in Table __.

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Basic Freeway Segments

Functional Classifications - Rural Interstate (01)
Urban Interstate (11)
Urban Freeway or Expressway (12)

Capacity (C) = PCE_{CAP} * N * f_{HV} * f_P * PHF , Equation 30-1, HCM2000

where:

Maximum Service Flowrate (PCE) = see table below
Number of Lanes (N) = varies
Assumed Terrain - Level
Percent Trucks = 10% All heavy vehicles are assumed to be trucks
Heavy Vehicle Adj Factor (f_{HV}) = 0.952
Peak Hour Fackor (PHF) = 0.9
Driver Population Factor (f_P) = 1.0

Freeway Maximum Service Flowrates (PCE)

Speed (mph)	PCE_{CAP} (pc/hr/ln)	V/C Ratio	
		LOS D	LOS E
55	2,250	0.85	1.00
60	2,300	0.88	1.00
65	2,350	0.89	1.00
70	2,400	0.90	1.00
75	2,400	0.90	1.00

* Exhibit 30-2, Page 30-5, Highway Capacity Manual, Special Report 209, 2000

Volume (V) = AADT * K * D

K Factor

Urban Freeways 0.085
Suburban Freeways 0.125
Rural Freeways 0.175
* Page 3-24, Highway Capacity Manual, Special Report 209, 1985

Directional Distribution (D)

Urban Circumferential Freeways 0.50
Urban Radial Freeways 0.55
Rural Freeways 0.60
* Page 3-24, Highway Capacity Manual, Special Report 209, 1985

Functional Classification assumptions related to K factor and directional distribution.

Rural Interstates (1) are rural freeways for the above factors
Urban Interstates (11) are urban freeways for k factor and urban circumferential freeways for directional distribution factors
Urban Freeways or Expressways (12) are suburban freeways for k factor and urban radial freeways for direction distribution factors

V/C Ratio = V/C

Example Calculations:

Route Name	Location	Functional Class	Functional Classification	AADT	Lanes	Speed Limit (mph)	Capacity (veh/hr)	Volume	V/C	LOS*
INTERSTATE-40	Canada & New Airline	1	Rural Interstate	38,730	6	70	6,171	4,067	0.66	D+
INTERSTATE-240	Lamar & Airways	11	Urban Interstate	161,960	6	65	6,043	6,883	1.14	F
BILL MORRIS PKWY.	Hickory Hill & Kirby	12	Urban Freeway or Expressway	104,980	6	55	5,786	7,217	1.25	F

* D+ Indicates that the Level of Service is "D" or Better

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Arterial Roadways

Functional Classifications - Urban Other Principal Arterial (14)
Urban Minor Arterial (16)

The following calculations are for arterial roadways with traffic signals located less than two miles apart.

Capacity (S) = S_O * N * f_W* f_{HV} * f_g * f_P * f_{bb} * f_a * f_{LU} * f_{LT} * f_{RT} * f_{Lpb} * f_{Rpb} * PHF * g/C, (Equation 30-3, HCM2000)

where:		
Base saturation flow rate per lane (S_O) =	1,900	pc/hr/ln, Exhibit 10-12, page 10-17
Number of Lanes (N) =	varies	
Adjustment factor for lane width (f_W) =	1.0	Exhibit 10-12, 12 ft. lane widths
Adjustment factor for heavy vehicles (f_{HV}) =	0.990	Exhibit 10-12, 2% heavy vehicles
Adjustment factor for apporach grade (f_g) =	1.0	Exhibit 10-12, assume level terrain, 0% grade
Adjustment factor for parking (f_P) =	1.0	Exhibit 16-7, Assume no parking on arterial roadways
Adjustment factor for buses (f_{bb}) =	0.996	Exhibit 12-21, 30 min. avg. bus headway, 2 buses per hour
Adjustment factor for area type (f_a) =	1.0	Exhibit 16-7, assume other area type
Adjustment factor for lane utilization (f_{LU}) =	0.952	Exhibit 10-23, assume 2-lanes in through lane group
Adjustment factor for left turns (f_{LT}) =	0.95	Exhibit 16-7, assume protected phasing and exclusive lane
Adjustment factor for right turns (f_{RT}) =	0.985	Exhibit 16-7, assume shared lane and 10% right turns
Pedestrian adj. factor for left turns (f_{Lpb}) =	1.0	Assume ped opposing queue clear time is greater than ped green
Pedestrian adj. factor for right turns (f_{Rpb}) =	1.0	Assume ped opposing queue clear time is greater than ped green
Peak hour factor (PHF) =	0.92	Exhibit 10-12, page 10-17
Cycle length (C) =	100	seconds (assumed)
Effective green time (g) =	50	seconds (assumed)

Volume (V) = AADT * K * D

K Factor

Urban	0.095
Suburban	0.125

* Page 7-19, Highway Capacity Manual, Special Report 209, 1985

Directional Distribution

Suburban	0.60
Urban Radial	0.55

* Page 7-19, Highway Capacity Manual, Special Report 209, 1985

V/C Ratio (X) = V / S

where: V = Volume as calculated above
S = Capacity as calculated above

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Delay Calculations:

Intersection delay (d) = $d_1(PF) + d_2 + d_3$

$d_1 = 0.5(C)[1-(g/C)]^2/[1-(\min(1,X)*(g/C)]$, Equation 15-1, page 15-4, HCM2000

$d_2 = 900(T)[(X-1)+\text{sqrt}[(X-1)^2+ (8klX/cT)]$, Equation 15-3, page 15-4, HCM2000

where:

Duration of the analysis period (T) =	0.25
Incremental delay adjustment factors (kl) =	0.5

d3 = initial queue delay (assume 0 seconds)

$PF = (1-P)f_{PA} / (1-g/C)$, Equation 15-5, page 15-6, HCM2000

where:

Proportion of all vehicles arriving during green (P) =	0.5	(assumes random arrival type)
Adjustment factor for platoon arrival during the green (f_{PA}) =	1.0	Exhibit 15-5, page 15-7, HCM2000

Example Calculation:

Route Name	Location	Functional Class	Functional Classification	Urban (1) or Suburban (2)	AADT	Lanes	Speed Limit (mph)	Capacity (veh/hr)	Volume	V/C (X)	Intersection Delay (seconds)
N. HOLLYWOOD ST.	Wolf River & I-40	16	Urban Minor Arterial	1	19,550	4	40	1,536	1,021	0.67	21.02
JACKSON AV.	McLean & Trezevant	14	Urban Other Principal Arterial	1	20,780	4	40	1,536	1,086	0.71	22.11

* D+ Indicates that the Level of Service is "D" or Better

Jackson Avenue -

Link distance =	1.0	mile
Travel time (@ 40 mph) =	90.0	seconds - Represents the travel time without signal delay
Signals per mile =	2.0	
Total travel time =	134.2	Seconds - (Travel Time + Number of Signals * Average Signal Delay)
Travel Speed =	26.8	mph - (Link Distance / Total Travel Time)
Level of Service =	D+	see Exhibit 15-2

Exhibit 15-2 - Urban Street Level of Service by Class

Urban Street Class	I	II	III	IV
Range of FFS*	55 to 45 mph	45 to 35 mph	35 to 30 mph	30 o 25 mph
Typical FFS	50 mph	40 mph	35 mph	30 mph
LOS	Average Travel Speed (mph)			
D+ **	>21	>17	>14	>9
E	>16-21	>13-17	>10-14	>7-9
F	<16	<13	<10	<7

* FFS - Free-flow Speed

** D+ means level of service D or better

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Rural Roadway System

The following calculations are for two-lane roadways with signals (if any) more than 2 miles apart.

Functional Classifications - Rural Other Principal Arterial (02), for 2-lane roadways
Rural Minor Arterial (06), for 2-lane roadways
Rural Major Collector (07), for 2-lane roadways
Rural Minor Collector (08)
Rural Local (09)

Capacity (C) = Q * f_{HV} * PHF , Eqn. 30-2, HCM2000

where:		
Percent Trucks =	14%	Exhibit 12-14, page 12-19
Percent RV's =	4%	Exhibit 12-14, page 12-19
Heavy Vehicle Adj Factor (f_{HV}) =	0.928	Equation 20-4, page 20-8
Maximum Service Flowrate (Q) =	1,700	pc/hr/ln, Page 30-5
Peak Hour Factor =	0.88	Exhibit 12-9, Page 12-17
Percent No-Passing Zones =	20%	Exhibit 12-11, Page 12-18

Volume (V) = AADT * K * D

where:		
K Factor =	0.10	
Directional Distribution (D) =	0.60	Exhibit 12-13, Page 12-18

V/C Ratio = V/C

Two-lane Rural Highway LOS Threshold

V/C Ratio	
LOS D	LOS E
0.57	1.00

* From Page 12-16, Capacity at "E" is 1.0, MSF at "D" is 1,830 pc/hr

Example Calculation:

Route Name	Location	Functional Class	Functional Classificaton	AADT	Lanes	Speed Limit (mph)	Capacity (veh/hr)	Volume	V/C	LOS
AUSTIN PEAY HWY.	Pleasant Ridge & Loosahatchie	6	Rural Minor Arterial	12,700	2	55	1,388	762	0.55	D+
MILLINGTON-ARLINGTON RD.	Armour & Donnell	7	Rural Major Collector	17,720	2	45	1,388	1,063	0.77	E
U.S. 61	At the TN/MS State Line	2	Rural Principal Arterial	28,000	2	50	1,388	1,680	1.21	F

* D+ Indicates that the Level of Service is "D" or Better

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The following calculations are for rural multi-lane roadways with signals (if any) more than 2 miles apart.

Functional Classification - Rural Other Principal Arterial (02), for greater than 2-lane roadways
Rural Minor Arterial (06), for greater than 2-lane roadways
Rural Major Collector (07), for greater than 2-lane roadways

Capacity (C) = PCE_{CAP} * N * f_{HV} * f_P * PHF

where:

Maximum Service Flowrate (PCE_{CAP}) =	see table below	
Number of Lanes (N) =	varies	
Assumed Terrain =	Level	
Percent Trucks =	10%	All heavy vehicles are assumed to be trucks
Heavy Vehicle Adj Factor (f_{HV}) =	0.952	Equation 20-4, page 20-8
Peak Hour Fackor (PHF) =	0.9	
Driver Population Factor (f_P) =	1.0	

Rural Multilane Hwy Maximum Service Flowrates (PCE)

Speed (mph)	Max SFR (pc/hr/ln)	V/C Ratio LOS D	V/C Ratio LOS E
45	1,900	0.82	1.00
50	2,000	0.85	1.00
55	2,100	0.87	1.00
60	2,200	0.90	1.00

* Exhibit 30-3, Page 30-5, Highway Capacity Manual, Special Report 209, 2000

Volume (V) = AADT * K * D

K Factor

Urban	0.095
Suburban	0.125
Rural	0.175

* Page 7-19, Highway Capacity Manual, Special Report 209, 1985

Directional Distribution (D)

Rural	0.65
Suburban	0.60
Urban Radial	0.55
Urban Circumferential	0.50

* Page 7-19, Highway Capacity Manual, Special Report 209, 1985

V/C Ratio = V/C

Example Calculation:

Route Name	Location	Functional Class	Functional Classification	AADT	Lanes	Speed Limit (mph)	Capacity (veh/hr)	Volume	V/C	LOS
US 78	Craft and Goodman	2	Rural Principal Arterial	34,000	4	55	3,600	3,868	1.07	F
HWY 51	West Union and Wilkinsville	2	Rural Principal Arterial	28,690	4	55	3,600	3,263	0.91	E
SGT. WALTER K. SINGLETON	Loosahatchie and Old Brownsvi	6	Rural Minor Arterial	17,060	4	55	3,600	1,941	0.54	D+

* D+ Indicates that the Level of Service is "D" or Better

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Urban Collector and Local Roadways

The following calculations are for two-lane roadways with signals (if any) more than 2 miles apart

Functional Classifications - Urban Collector (17), for 2-lane roadways
Urban Local (19), for 2-lane roadways

Capacity (C) = Q * f_{HV} * PHF , Equation 30-2, HCM2000

where:		
Percent Trucks =	2%	Exhibit 12-14, page 12-19
Percent RV's =	0%	Exhibit 12-14, page 12-19
Heavy Vehicle Adj Factor (f_{HV}) =	0.990	Equation 20-4, page 20-8
Maximum Service Flowrate (Q) =	1,700	pc/hr/ln, Page 30-5
Peak Hour Factor (PHF) =	0.92	Exhibit 12-9, Page 12-17
Percent No-Passing Zones =	50%	Exhibit 12-11, Page 12-18

Volume (V) = AADT * K * D

where:		
K Factor	0.10	
Directional Distribution (D) =	0.60	Exhibit 12-13, Page 12-18

V/C Ratio = V/C

Two-lane Urban Roadway LOS Threshold

V/C Ratio	
LOS D	LOS E
0.57	1.00

* From Page 12-16, Capacity at "E" is 1.0, MSF at "D" is 1,830 pc/hr

Example Calculation:

Route Name	Location	Functional Class	Functional Classificaton	AADT	Lanes	Speed Limit (mph)	Capacity (veh/hr)	Volume	V/C	LOS
SWEETBRIAR RD	Briarcrest Ave and Shady Grove	17	Urban Collector	5,450	2	-	1,549	327	0.21	D+
SHADY GROVE RD	Oak Grove and Yates	17	Urban Collector	6,290	2	-	1,549	377	0.24	D+
TULANE RD	Holmes and Shelby	19	Urban Local	4,450	2	-	1,549	267	0.17	D+

* D+ Indicates that the Level of Service is "D" or Better

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The following calculations are for urban multi-lane roadways with signals (if any) more than 2 miles apart
Functional Classification - Urban Collector (17), for multi-lane roadways
Urban Local (19), for multi-lane roadways

Capacity (C) = PCE_{CAP} * N * f_{HV} * f_P * PHF

where:

Max. Service Flowrate (PCE_{CAP}) =	see table below	
Number of Lanes (N) =	varies	
Assumed Terrain =	Level	
Percent Trucks =	10%	All heavy vehicles are assumed to be trucks
Heavy Vehicle Adj Factor (f_{HV}) =	0.952	
Peak Hour Fackor (PHF) =	0.9	
Driver Population Factor (f_P) =	1.0	

Volume (V) = AADT * K * D

K Factor

Urban	0.095
Suburban	0.125
Rural	0.175

* Page 7-19, Highway Capacity Manual, Special Report 209, 1985

Directional Distribution

Rural	0.65
Suburban	0.60
Urban Radial	0.55
Urban Circumferential	0.50

* Page 7-19, Highway Capacity Manual, Special Report 209, 1985

V/C Ratio = V/C

Multilane Roadway Maximum Service Flowrates (PCE)

Speed (mph)	Max SFR (pc/hr/ln)	V/C Ratio LOS D	V/C Ratio LOS E
40	1,800	0.85	1.00
45	1,900	0.85	1.00
50	2,000	0.85	1.00
55	2,100	0.87	1.00
60	2,200	0.90	1.00

Example Calculation:

Route Name	Location	Functional Class	Functional Classification	AADT	Lanes	Speed Limit (mph)	Capacity (veh/hr)	Volume	V/C	LOS
DEXTER ROAD	Germantown Rd & Dexter Ln	17	Urban Collector	14,360	4	40	3,086	750	0.24	D+
OVERTON CROSSING	St. Elmo & Frayser	17	Urban Collector	8,910	4	40	3,086	466	0.15	D+

* D+ Indicates that the Level of Service is "D" or Better

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
		I-55	Pleasant Hill & Goodman	1	Rural Interstate	46,000	260	4	70	4,114	4,830	1.17	F
0	8.15	INTERSTATE-40		1	Rural Interstate	35,760	81	4	70	4,114	3,755	0.91	E
8.39	8.58	INTERSTATE-40		1	Rural Interstate	33,940	74	4	70	4,114	3,564	0.87	D+
15.15	15.43	INTERSTATE-40		1	Rural Interstate	31,500	63	4	70	4,114	3,308	0.80	D+
25.05	28.6	INTERSTATE-40	Canada & New Airline	1	Rural Interstate	38,730	203	6	70	6,171	4,067	0.66	D+
28.8	29.02	INTERSTATE-40	Macon & Monterey	1	Rural Interstate	35,760	81	6	70	6,171	3,755	0.61	D+
0	1.37	ALEXANDER DR.		9	Rural Local	60		2		1,388	4	0.00	D+
1.77	3.72	ARMOUR DR.		9	Rural Local	290		2		1,388	17	0.01	D+
0	2.64	ASBURY DR.		9	Rural Local	300		2		1,388	18	0.01	D+
1.33	1.34	BAILEY MORRISON DR.		9	Rural Local	40		2		1,388	2	0.00	D+
0	1.39	BATEMAN RD.		9	Rural Local	260		2		1,388	16	0.01	D+
0	2.1	BEASLEY DR.		9	Rural Local	20		2		1,388	1	0.00	D+
2.41	3.17	BEAVER CR. DR.		9	Rural Local	450		2		1,388	27	0.02	D+
2.82	4.25	BELL GROVE RD.		9	Rural Local	400		2		1,388	24	0.02	D+
0	1.12	BELLE MEADE RD.		9	Rural Local	90		2		1,388	5	0.00	D+
0	1.45	BERNARD RD.		9	Rural Local	180		2		1,388	11	0.01	D+
		Bethel	Miss. Hwy. 305 & Old U.S. 78	9	Rural Local	2,100	1320	2		1,388	126	0.09	D+
0	0.36	BETHLEHEM RD.		9	Rural Local	10		2		1,388	1	0.00	D+
0	0.74	BISHOP DR.		9	Rural Local	10		1		1,388	1	0.00	D+
0	1.45	BLALOCK DR.		9	Rural Local	50		2		1,388	3	0.00	D+
1.45	1.99	BLALOCK DR.		9	Rural Local	30		2		1,388	2	0.00	D+
0	2.77	BOOTHE RD.		9	Rural Local	40		2		1,388	2	0.00	D+
0	0.83	BRAPEN CENTER POINT RD.		9	Rural Local	170		2		1,388	10	0.01	D+
0	1.55	BUFORD ELLINGTON RD.		9	Rural Local	280		2		1,388	17	0.01	D+
0	1.04	BUFORD ELLINGTON RD.		9	Rural Local	240		2		1,388	14	0.01	D+
0	1.62	BURNETT RD.		9	Rural Local	10		2		1,388	1	0.00	D+
0	1.11	BURROWTOWN RD.		9	Rural Local	450		2		1,388	27	0.02	D+
0	0.08	CALDWELL DR.		9	Rural Local	40		1		1,388	2	0.00	D+
2.57	2.73	CENTER-POINT BLVD.		9	Rural Local	410		2		1,388	25	0.02	D+
0	0.6	CHAPEL RD.		9	Rural Local	170		2		1,388	10	0.01	D+
		Church	U.S. 61 & Miss. Hwy. 301	9	Rural Local	550	1170	2		1,388	33	0.02	D+
0	2.35	CLAY POND DR.		9	Rural Local	310		2		1,388	19	0.01	D+
0	0.08	CLAY ST.		9	Rural Local	240		2		1,388	14	0.01	D+
0	0.79	COUNTRY CLUB RD.		9	Rural Local	220		2		1,388	13	0.01	D+
0	5.5	COWAN DR.		9	Rural Local	20		2		1,388	1	0.00	D+
0	1.33	DINK DR.		9	Rural Local	40		1		1,388	2	0.00	D+
0	2.47	DOWDY RD.		9	Rural Local	30		2		1,388	2	0.00	D+
0	1.5	DUSCOE RD.		9	Rural Local	150		2		1,388	9	0.01	D+
0	1.47	EASTSIDE DR.		9	Rural Local	30		2		1,388	2	0.00	D+
0	1.03	FEATHERS CHAPEL RD.		9	Rural Local	400		2		1,388	24	0.02	D+
0	1.62	FERTILE VALLEY RD.		9	Rural Local	10		2		1,388	1	0.00	D+
1.62	1.81	FERTILE VALLEY RD.		9	Rural Local	10		1		1,388	1	0.00	D+
0	1.41	FIELDS DR.		9	Rural Local	90		1		1,388	5	0.00	D+
0	0.74	FINNIE DR.		9	Rural Local	200		2		1,388	12	0.01	D+
0	0.57	FISHERVILLE LAKE RD.		9	Rural Local	90		2		1,388	5	0.00	D+
0	1.31	FLETCHER DR.		9	Rural Local	80		1		1,388	5	0.00	D+
1.31	1.36	FLETCHER DR.		9	Rural Local	80		2		1,388	5	0.00	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
0	0.24	FOWLER DR.		9	Rural Local	30		1		1,388	2	0.00	D+
0	0.55	GALLAAY-CENTER POINT DR.		9	Rural Local	410		2		1,388	25	0.02	D+
0	3.01	GARNETT DR.		9	Rural Local	60		2		1,388	4	0.00	D+
3.41	5.51	GOOD SPRINGS LOOP		9	Rural Local	130		2		1,388	8	0.01	D+
		Goodman	Old U.S. 78 & Bethel	9	Rural Local	6,200	530	2		1,388	372	0.27	D+
0	2.85	HARRELL DR.		9	Rural Local	420		2	20	1,388	25	0.02	D+
0	0.15	HAYES RD.		9	Rural Local	230		1		1,388	14	0.01	D+
0.15	0.49	HAYES RD.		9	Rural Local	230		2		1,388	14	0.01	D+
0	1.49	HERRON DR.		9	Rural Local	40		1		1,388	2	0.00	D+
0	0.68	HEWLETT DR.		9	Rural Local	60		2		1,388	4	0.00	D+
0.68	1.65	HEWLETT DR.		9	Rural Local	60		1		1,388	4	0.00	D+
4.25	6.69	IVE DR.		9	Rural Local	400		2		1,388	24	0.02	D+
0	1.4	JENKINS DR.		9	Rural Local	240		2		1,388	14	0.01	D+
0	3.86	JOHNSON DR.		9	Rural Local	180		2		1,388	11	0.01	D+
4.3	5.8	JOHNSON DR.		9	Rural Local	180		1		1,388	11	0.01	D+
0	3.51	KNOX RD.		9	Rural Local	140		2		1,388	8	0.01	D+
0	0.2	LACONIA RD.		9	Rural Local	330		2		1,388	20	0.01	D+
0	1.05	LACONIA RD.		9	Rural Local	340		2		1,388	20	0.01	D+
3.72	4.8	LACONIA RD.		9	Rural Local	290		2		1,388	17	0.01	D+
0	2.55	LAMBERT DR.		9	Rural Local	120		1		1,388	7	0.01	D+
4.03	11.06	LAMBERT DR.		9	Rural Local	120		2		1,388	7	0.01	D+
0	0.68	LEATHERWOOD RD.		9	Rural Local	10		2		1,388	1	0.00	D+
0	2.87	LITTLEJOHN RD	#N/A	9	Rural Local	20		2		1,388	1	0.00	D+
0	2.1	LONGTOWN RD.		9	Rural Local	80		2		1,388	5	0.00	D+
0	0.46	MACON CEM. RD.		9	Rural Local	120		2		1,388	7	0.01	D+
1.11	1.44	MC FADDEN DR.		9	Rural Local	240		2		1,388	14	0.01	D+
0	4.67	MEBANE RD.		9	Rural Local	90		2		1,388	5	0.00	D+
0	2.08	MT MORIAH DR.		9	Rural Local	110		2		1,388	7	0.00	D+
0.74	0.91	MT. PLEASANT RD.	#N/A	9	Rural Local	2,700		2		1,388	162	0.12	D+
0	2.63	MURRELL RD.		9	Rural Local	80		2		1,388	5	0.00	D+
0.41	1.11	MURRELL ST.		9	Rural Local	240		2		1,388	14	0.01	D+
		Nesbit	Tulane & Swynn	9	Rural Local	730	848	2		1,388	44	0.03	D+
		Nesbit	Swynn & U.S. 51	9	Rural Local	3,000	850	2		1,388	180	0.13	D+
0	2.42	NEWCASTLE DR.		9	Rural Local	50		1		1,388	3	0.00	D+
0	2.14	OAK GROVE DR.		9	Rural Local	270		2		1,388	16	0.01	D+
0	0.64	OLD FIFTY NINE DR.		9	Rural Local	150		2		1,388	9	0.01	D+
0	0.75	OLD JACKSON RD.		9	Rural Local	170		2		1,388	10	0.01	D+
2.87	3.17	OLD MILLINGTON RD	#N/A	9	Rural Local	20		2		1,388	1	0.00	D+
0	1.67	OLD SALMON MILL RD.		9	Rural Local	40		2		1,388	2	0.00	D+
0	1.37	OLD STATE LINE DR.		9	Rural Local	60		2		1,388	4	0.00	D+
0	1.94	PERRY RD.		9	Rural Local	70		2		1,388	4	0.00	D+
0	0.53	PITTMAN RD.		9	Rural Local	110		2		1,388	7	0.00	D+
		Pleasant Hill	Nail & Latham	9	Rural Local	6,600	1020	2		1,388	396	0.29	D+
		Pleasant Hill	State Line Rd. & Goodman	9	Rural Local	3,900	1040	2		1,388	234	0.17	D+
0	0.86	POOLE DR.		9	Rural Local	50		1		1,388	3	0.00	D+
0.86	2.2	POOLE DR.		9	Rural Local	120		1		1,388	7	0.01	D+
2.2	3.36	POOLE DR.		9	Rural Local	120		2		1,388	7	0.01	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
0	2.68	PORTER RD.		9	Rural Local	80		2		1,388	5	0.00	D+
0	1.77	REHOBOTH RD.		9	Rural Local	290		2		1,388	17	0.01	D+
0	1.56	ROGERS DR.		9	Rural Local	90		2		1,388	5	0.00	D+
0	0.92	RUSSELL RD.		9	Rural Local	90		2		1,388	5	0.00	D+
0	1.56	SARDIS DR.		9	Rural Local	280		2		1,388	17	0.01	D+
0	1.14	SHINAULT RD.		9	Rural Local	20		1		1,388	1	0.00	D+
0	1.99	SINAI DR.		9	Rural Local	280		2		1,388	17	0.01	D+
0	0.65	SMITH RD.		9	Rural Local	90		1		1,388	5	0.00	D+
0.65	1.35	SMITH RD.		9	Rural Local	90		2		1,388	5	0.00	D+
0	1.01	SPARKMAN DR.		9	Rural Local	40		2		1,388	2	0.00	D+
0	0.38	STEVENS DR.		9	Rural Local	10		1		1,388	1	0.00	D+
0	2.94	STINSON RD.		9	Rural Local	150		2		1,388	9	0.01	D+
0	1.51	SUGAR HILL RD.		9	Rural Local	60		2		1,388	4	0.00	D+
0	3.58	TOMLIN RD.		9	Rural Local	60		1		1,388	4	0.00	D+
0	1.94	TRAINER DR.		9	Rural Local	70		2		1,388	4	0.00	D+
0	1.51	WADE DR.		9	Rural Local	130		2		1,388	8	0.01	D+
0	1.22	WALKER DR.		9	Rural Local	110		2		1,388	7	0.00	D+
1.22	1.29	WALKER DR.		9	Rural Local	110		1		1,388	7	0.00	D+
1.5	1.51	WALKINS DR.		9	Rural Local	150		2		1,388	9	0.01	D+
0	0.11	WELCH DR.		9	Rural Local	10		1		1,388	1	0.00	D+
0	2.29	WILBOURNE RD.		9	Rural Local	120		2		1,388	7	0.01	D+
0	1.6	WILLIAMS DR.		9	Rural Local	40		1		1,388	2	0.00	D+
1.6	2.04	WILLIAMS DR.		9	Rural Local	40		2		1,388	2	0.00	D+
0	2.72	WIRT RD.		9	Rural Local	620		2		1,388	37	0.03	D+
1.11	1.69	WITHERINGTON RD.		9	Rural Local	450		2		1,388	27	0.02	D+
1.69	2.41	WITHERINGTON RD.		9	Rural Local	450		1		1,388	27	0.02	D+
		Bethel	TN/MS State Line & Goodman	7	Rural Major Collector	3,200	1135	2		1,388	192	0.14	D+
		Bethel	Goodman & Old U.S. 78	7	Rural Major Collector	9,800	1330	2		1,388	588	0.42	D+
		Byhalia	Getwell & Miss. Hwy. 305	7	Rural Major Collector	2,700	410	2		1,388	162	0.12	D+
3.48	3.74	CHULAHOMA RD		7	Rural Major Collector	1,850	88	2		1,388	111	0.08	D+
3.74	4.73	CHULAHOMA RD		7	Rural Major Collector	4,220	71	2		1,388	253	0.18	D+
5.03	8.14	CHULAHOMA RD		7	Rural Major Collector	3,500	93	2	55	1,388	210	0.15	D+
11.94	15.48	CHULAHOMA RD		7	Rural Major Collector	2,830	37	2		1,388	170	0.12	D+
0	2.66	CHULAHOMA RD.		7	Rural Major Collector	1,020	72	2	50	1,388	61	0.04	D+
		Church	Miss. Hwy. 301 & Horn Lake	7	Rural Major Collector	3,400	1180	2		1,388	204	0.15	D+
		College	Pleasant Hill & Miss. Hwy. 305	7	Rural Major Collector	2,400	910	2		1,388	144	0.10	D+
		Fogg	Nesbit & Star Landing	7	Rural Major Collector	1,000	1410	2		1,388	60	0.04	D+
		Getwell	Pleasant Hill & Bent	7	Rural Major Collector	4,800	1140	2		1,388	288	0.21	D+
17.09	18.87	HICKORY WITHE RD.		7	Rural Major Collector	3,140	35	2		1,388	188	0.14	D+
18.87	22.42	HICKORY WITHE RD.		7	Rural Major Collector	1,620	94	2		1,388	97	0.07	D+
22.9	24.33	LOOSAHATCHIE RD.		7	Rural Major Collector	1,060	21	2		1,388	64	0.05	D+
0	0.39	MACON RD.	east of Col-Arlington Rd	7	Rural Major Collector	1,860	645	2		1,388	112	0.08	D+
0	4.74	MACON RD. DR.		7	Rural Major Collector	1,820	38	2	30	1,388	109	0.08	D+
4.74	8.51	MACON RD. DR.		7	Rural Major Collector	1,410	89	2	30	1,388	85	0.06	D+
8.51	8.87	MACON RD. DR.		7	Rural Major Collector	2,320	42	2		1,388	139	0.10	D+
11.15	14.2	MACON RD. DR.		7	Rural Major Collector	880	47	2		1,388	53	0.04	D+
0	0.17	MAIN ST.		7	Rural Major Collector	2,780	66	2	30	1,388	167	0.12	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
24.33	25.65	MAIN ST.		7	Rural Major Collector	1,060	21	2		1,388	64	0.05	D+
16.14	16.17	MILLINGTON-ARLINGTON	Armour & Donnell	7	Rural Major Collector	17,720	9	2	45	1,388	1,063	0.77	E
2.9	5.19	N. WATKINS ST.	Fite & Robertson	7	Rural Major Collector	2,910	408	4	45	3,257	331	0.10	D+
5.19	6.89	N. WATKINS ST.	Locke & Locke-Cuba	7	Rural Major Collector	1,770	407	4	45	3,257	201	0.06	D+
		Nesbit	U.S. 51 & I-55	7	Rural Major Collector	7,700	860	2		1,388	462	0.33	D+
9.03	10.61	OAKLAND RD.		7	Rural Major Collector	1,520	40	2		1,388	91	0.07	D+
10.61	14.09	OAKLAND RD.		7	Rural Major Collector	2,210	32	2		1,388	133	0.10	D+
14.79	14.85	OAKLAND RD. N.		7	Rural Major Collector	2,010	33	2		1,388	121	0.09	D+
14.09	14.2	OAKLAND RD. S.		7	Rural Major Collector	2,210	32	2		1,388	133	0.10	D+
3.25	3.26	OLD STATE LINE RD		7	Rural Major Collector	1,850	88	2		1,388	111	0.08	D+
		Old U.S. 78	At the TN/MS State Line	7	Rural Major Collector	5,200	1336	2		1,388	312	0.22	D+
		Old U.S. 78	Goodman & Bethel	7	Rural Major Collector	6,000	1338	2		1,388	360	0.26	D+
		Old U.S. 78	Bethel & Center Hill	7	Rural Major Collector	4,200	1339	2		1,388	252	0.18	D+
		Pleasant Hill	Getwell & Bridgeforth	7	Rural Major Collector	2,200	880	2		1,388	132	0.10	D+
		Pleasant Hill	Bridgeforth & Pleasant Hill	7	Rural Major Collector	2,500	900	2		1,388	150	0.11	D+
0	2.46	RHEA RD.		7	Rural Major Collector	1,100	83	2		1,388	66	0.05	D+
2.46	7.63	RHEA RD.		7	Rural Major Collector	1,900	45	2		1,388	114	0.08	D+
0.88	3.74	ROSSVILLE RD.		7	Rural Major Collector	2,780	66	2		1,388	167	0.12	D+
3.74	8.09	ROSSVILLE RD.		7	Rural Major Collector	2,000	41	2		1,388	120	0.09	D+
		Sidewinder	I-55 & Getwell	7	Rural Major Collector	3,200	870	2		1,388	192	0.14	D+
0	7.73	STANTON RD.		7	Rural Major Collector	690	18	2		1,388	41	0.03	D+
7.73	8.33	STANTON RD.		7	Rural Major Collector	600	88	2		1,388	36	0.03	D+
		Star Landing	Old U.S. 61 & U.S. 61	7	Rural Major Collector	1,100	580	2		1,388	66	0.05	D+
		Star Landing	U.S. 61 & Wilson Mill	7	Rural Major Collector	960	590	2		1,388	58	0.04	D+
		Star Landing	Wilson Mill & Miss. Hwy. 301	7	Rural Major Collector	1,100	610	2		1,388	66	0.05	D+
		Star Landing	Miss. Hwy. 301 & Fogg	7	Rural Major Collector	830	615	2		1,388	50	0.04	D+
		Star Landing	Fogg & Pratt	7	Rural Major Collector	1,700	620	2		1,388	102	0.07	D+
15.07	18.36	STATE HWY-194		7	Rural Major Collector	2,010	33	2		1,388	121	0.09	D+
18.36	18.41	STATE HWY-194		7	Rural Major Collector	990	20	2		1,388	59	0.04	D+
		State Line Rd.	Getwell & Pleasant Hill	7	Rural Major Collector	3,400	1245	2		1,388	204	0.15	D+
		U.S. 51	Nesbit & Church	7	Rural Major Collector	7,700	90	2		1,388	462	0.33	D+
16.06	16.14	AIRLINE RD.	New Airline & U.S. 64	6	Rural Minor Arterial	3,040	78	2	45	1,388	182	0.13	D+
25.59	27.54	AUSTIN PEAY HWY.	Pleasant Ridge & Loosahatchie	6	Rural Minor Arterial	12,700	32	2	55	1,388	762	0.55	D+
29.58	29.75	AUSTIN PEAY HWY.	Pleasant Ridge & Loosahatchie	6	Rural Minor Arterial	12,700	32	4	55	3,600	1,445	0.40	D+
29.81	30.07	AUSTIN PEAY HWY.	385 & Mil-Arlington Rd	6	Rural Minor Arterial	2,870	655	4	55	3,600	326	0.09	D+
30.07	30.22	AUSTIN PEAY HWY.	385 & Mil-Arlington Rd	6	Rural Minor Arterial	2,870	655	2	55	1,388	172	0.12	D+
32.88	38.86	AUSTIN PEAY HWY.	Mudville & Kerrville-Rosemark	6	Rural Minor Arterial	6,330	5	2	55	1,388	380	0.27	D+
2.56	3.84	COLLIERVILLE-ARLINGTOI	Shelton & Tenn. Hwy. 57	6	Rural Minor Arterial	6,130	106	2	45	1,388	368	0.27	D+
4.53	8.19	COLLIERVILLE-ARLINGTOI	Macon & Monterey	6	Rural Minor Arterial	3,320	81	2	45	1,388	199	0.14	D+
8.19	12.21	COLLIERVILLE-ARLINGTOI	U.S. 64 & Macon	6	Rural Minor Arterial	2,630	79	2	45	1,388	158	0.11	D+
12.22	12.32	COLLIERVILLE-ARLINGTOI	New Airline & U.S. 64	6	Rural Minor Arterial	3,040	78	2	45	1,388	182	0.13	D+
12.96	13.02	E. COURT SQUARE		6	Rural Minor Arterial	5,610	25	2		1,388	337	0.24	D+
		Mabry	Wilson Mill & Star Landing	6	Rural Minor Arterial	2,100	700	2		1,388	126	0.09	D+
		Miss. Hwy. 3	Tunica Co. Line & U.S. 61	6	Rural Minor Arterial	1,000	230	2		1,388	60	0.04	D+
		Miss. Hwy. 301	Goodman & Church	6	Rural Minor Arterial	3,800	710	2		1,388	228	0.16	D+
		Miss. Hwy. 305	Byhalia & College	6	Rural Minor Arterial	5,900	770	2		1,388	354	0.26	D+
		Miss. Hwy. 305	College & U.S. 78	6	Rural Minor Arterial	10,000	780	2		1,388	600	0.43	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
13.03	13.09	N. MAIN ST.		6	Rural Minor Arterial	5,610	25	2		1,388	337	0.24	D+
14.71	16.05	NEW AIRLINE RD.	New Airline & U.S. 64	6	Rural Minor Arterial	3,040	78	2	45	1,388	182	0.13	D+
11.45	11.95	S. MAIN ST.		6	Rural Minor Arterial	7,760	44	2		1,388	466	0.34	D+
6.73	7.53	SGT. WALTER K. SINGLET	Loosahatchie R. & Old Brownsvi	6	Rural Minor Arterial	17,060	387	4	55	3,600	1,941	0.54	D+
0	3.62	STATE HWY-18		6	Rural Minor Arterial	1,930	52	2		1,388	116	0.08	D+
3.97	4.13	STATE HWY-18		6	Rural Minor Arterial	3,750	107	2		1,388	225	0.16	D+
4.28	4.66	STATE HWY-18		6	Rural Minor Arterial	1,930	50	2		1,388	116	0.08	D+
0	1.06	STATE HWY-57		6	Rural Minor Arterial	11,030	107	2		1,388	662	0.48	D+
1.23	1.93	STATE HWY-57		6	Rural Minor Arterial	8,690	65	2		1,388	521	0.38	D+
5.72	6.38	STATE HWY-57		6	Rural Minor Arterial	6,890	64	2	45	1,388	413	0.30	D+
6.38	13.44	STATE HWY-57		6	Rural Minor Arterial	6,890	64	2	55	1,388	413	0.30	D+
13.65	13.66	STATE HWY-57		6	Rural Minor Arterial	6,890	64	2	40	1,388	413	0.30	D+
14.4	14.61	STATE HWY-57		6	Rural Minor Arterial	4,590	56	2	40	1,388	275	0.20	D+
15.52	20.11	STATE HWY-57		6	Rural Minor Arterial	4,590	56	2	55	1,388	275	0.20	D+
20.11	21.88	STATE HWY-57		6	Rural Minor Arterial	2,210	97	2	55	1,388	133	0.10	D+
25.17	25.19	STATE HWY-57		6	Rural Minor Arterial	2,650	51	2	40	1,388	159	0.11	D+
0	0.7	STATE HWY-59		6	Rural Minor Arterial	2,480	4	2	30	1,388	149	0.11	D+
3.77	4	STATE HWY-59		6	Rural Minor Arterial	2,960	110	2	55	1,388	178	0.13	D+
6.07	8.65	STATE HWY-59		6	Rural Minor Arterial	2,020	19	2	55	1,388	121	0.09	D+
13.01	13.35	STATE HWY-59		6	Rural Minor Arterial	3,550	105	2	55	1,388	213	0.15	D+
0.33	0.45	STATE HWY-76		6	Rural Minor Arterial	2,740	57	2	55	1,388	164	0.12	D+
6.09	6.9	STATE HWY-76		6	Rural Minor Arterial	2,740	57	2	30	1,388	164	0.12	D+
6.9	7.86	STATE HWY-76		6	Rural Minor Arterial	3,240	82	2	30	1,388	194	0.14	D+
7.86	7.94	STATE HWY-76		6	Rural Minor Arterial	3,240	82	2	55	1,388	194	0.14	D+
9.95	10.35	STATE HWY-76		6	Rural Minor Arterial	3,240	82	2	40	1,388	194	0.14	D+
11.38	11.45	STATE HWY-76		6	Rural Minor Arterial	7,760	44	2	40	1,388	466	0.34	D+
14.04	15.26	STATE HWY-76		6	Rural Minor Arterial	5,610	25	2		1,388	337	0.24	D+
15.26	21.48	STATE HWY-76		6	Rural Minor Arterial	1,660	16	2	55	1,388	100	0.07	D+
21.48	24.62	STATE HWY-76		6	Rural Minor Arterial	1,300	91	2	55	1,388	78	0.06	D+
23.83	24.69	US/HWY-70/79	Canada & Airline	6	Rural Minor Arterial	8,440	42	4	55	3,600	960	0.27	D+
28.74	30.34	US/HWY-70/79	Locke & Fite	6	Rural Minor Arterial	4,430	22	2		1,388	266	0.19	D+
0	1.67	US-70/79)		6	Rural Minor Arterial	4,430	22	2	55	1,388	266	0.19	D+
1.67	3.91	US-70/79)		6	Rural Minor Arterial	2,910	2	2	55	1,388	175	0.13	D+
5.53	5.74	US-70/79)		6	Rural Minor Arterial	2,910	2	3	55	2,700	331	0.12	D+
5.74	5.9	US-70/79)		6	Rural Minor Arterial	4,040	76	3	55	2,700	460	0.17	D+
5.9	6.09	US-70/79)		6	Rural Minor Arterial	4,040	76	2	55	1,388	242	0.17	D+
0	0.1	AIRLINE RD.	Hayes & I-40	8	Rural Minor Collector	8,550	212	2	45	1,388	513	0.37	D+
1.11	1.35	AIRLINE RD.	Hayes & I-40	8	Rural Minor Collector	8,550	212	2	30	1,388	513	0.37	D+
3.28	4.11	ARMOUR RD.	Kerrville-Rosemark & Mill.-Arl	8	Rural Minor Collector	890	10	2		1,388	53	0.04	D+
2.67	4.16	BELMONT RD.		8	Rural Minor Collector	410	6	2		1,388	25	0.02	D+
6.83	6.9	BENJESTOWN RD.	Locke & Fite	8	Rural Minor Collector	470	21	2	45	1,388	28	0.02	D+
0.05	0.15	BETHUEL RD.	Navy & Center College	8	Rural Minor Collector	2,740	401	2		1,388	164	0.12	D+
0.88	1.28	BETHUEL RD.	Ctr. College & Kerrville-Rosem	8	Rural Minor Collector	3,180	241	2		1,388	191	0.14	D+
0	0.24	BIG CREEK CHURCH RD.	Church & Juana	8	Rural Minor Collector	1,610	550	2		1,388	97	0.07	D+
4.81	5.33	BRUNSWICK RD.	Old Brownsville & U.S. 70	8	Rural Minor Collector	5,940	46	2	30	1,388	356	0.26	D+
5.33	5.85	BRUNSWICK RD.	Old Brownsville & U.S. 70	8	Rural Minor Collector	5,940	46	2	45	1,388	356	0.26	D+
7.37	7.95	BRUNSWICK RD.	Old Brownsville & U.S. 70	8	Rural Minor Collector	5,940	46	2	40	1,388	356	0.26	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
8.12	8.35	BRUNSWICK RD.	Millington-Arl. & Pleasant Rid	8	Rural Minor Collector	6,050	431	2	40	1,388	363	0.26	D+
9.9	11.11	BRUNSWICK RD.	Godwin & Millington-Arlington	8	Rural Minor Collector	3,290	37	2	40	1,388	197	0.14	D+
11.87	13.14	BRUNSWICK RD.	Mudville & Kerrville-Rosemark	8	Rural Minor Collector	2,050	4	2	40	1,388	123	0.09	D+
2.07	5.12	BUFORD ELLINGTON RD.		8	Rural Minor Collector	320	49	2		1,388	19	0.01	D+
0	0.76	BYHALIA RD.	Collierville & Holmes	8	Rural Minor Collector	8,210	260	2	45	1,388	493	0.35	D+
0	1.9	CENTER COLLEGE RD.	Kerrville-Rosemark & Bethuel	8	Rural Minor Collector	360	428	2		1,388	22	0.02	D+
		Center Hill	South of Goodman	8	Rural Minor Collector	1,100	1340	2		1,388	66	0.05	D+
		Center Hill	TN/MS State Line & Goodman	8	Rural Minor Collector	1,900	1350	2		1,388	114	0.08	D+
0	0.78	CENTER HILL RD.	Holmes & DeSoto Co. Line	8	Rural Minor Collector	2,390	360	2		1,388	143	0.10	D+
0	0.14	CHESTER ST.	I-40 & Hayes	8	Rural Minor Collector	640	43	2		1,388	38	0.03	D+
		College	Bethel & Miss. Hwy. 305	8	Rural Minor Collector	1,400	781	2		1,388	84	0.06	D+
0	0.12	COLLIERVILLE-ARLINGTOI	Loosahatchie River & U.S. 70	8	Rural Minor Collector	1,930	41	2	45	1,388	116	0.08	D+
0	0.88	COLLIERVILLE-ARLINGTOI	Macedonia & Turley	8	Rural Minor Collector	750	556	2		1,388	45	0.03	D+
2.87	5.43	CUBA MILLINGTON RD.	Herring Hill & Quito	8	Rural Minor Collector	720	18	2		1,388	43	0.03	D+
0	7.34	DAVIES PLANTATION RD.	McKinstry Road	8	Rural Minor Collector	640	58	2		1,388	38	0.03	D+
14.11	15.78	DEADFALL RD.	Mudville & Kerrville-Rosemark	8	Rural Minor Collector	2,050	4	2	45	1,388	123	0.09	D+
0	0.14	EVERGREEN DR.		8	Rural Minor Collector	400	108	2		1,388	24	0.02	D+
0	4.65	FAYETTE CORNERS DR.		8	Rural Minor Collector	430	9	2		1,388	26	0.02	D+
4.65	6.44	FAYETTE CORNERS DR.		8	Rural Minor Collector	590	129	2		1,388	35	0.03	D+
12.15	13.02	FAYETTE CORNERS RD.		8	Rural Minor Collector	880	17	2		1,388	53	0.04	D+
0	4.41	FEATHERS CHAPEL RD.		8	Rural Minor Collector	1,310	24	2		1,388	79	0.06	D+
4.41	8.23	FEATHERS CHAPEL RD.		8	Rural Minor Collector	570	23	2		1,388	34	0.02	D+
0	0.9	FOREST HILL-IRENE RD.	Shelby & Holmes	8	Rural Minor Collector	3,470	444	2	45	1,388	208	0.15	D+
0	1.43	FORREST ST.	Coll.-Arl. & Fayette Co. Line	8	Rural Minor Collector	1,440	433	2		1,388	86	0.06	D+
0	1.17	FRANKLIN RD.		8	Rural Minor Collector	330	106	2		1,388	20	0.01	D+
0	0.37	GALLAWAY DR.		8	Rural Minor Collector	210	557@	2		1,388	13	0.01	D+
0	0.48	GALLAWAY LEVEE RD.	Coll.-Arlington & Beaver Creek	8	Rural Minor Collector	210	557	2		1,388	13	0.01	D+
5.12	5.28	GATLIN DR.		8	Rural Minor Collector	320	49	2		1,388	19	0.01	D+
0	2.79	HALL DR.		8	Rural Minor Collector	130	77	2		1,388	8	0.01	D+
0	0.96	HICKORY WITHE RD.		8	Rural Minor Collector	1,440	433	2		1,388	86	0.06	D+
17.57	19.57	HOLMES RD.	Ross & Germantown Extended	8	Rural Minor Collector	8,440	235	2		1,388	506	0.36	D+
19.57	20.56	HOLMES RD.	Foresr Hill Irene & Center Hil	8	Rural Minor Collector	2,970	624	2		1,388	178	0.13	D+
0	2.47	INA RD.		8	Rural Minor Collector	670	12	2		1,388	40	0.03	D+
10.59	12.15	INA RD.		8	Rural Minor Collector	880	17	2		1,388	53	0.04	D+
6.9	9.2	JACK BOND RD.	Austin Peay & Donnell	8	Rural Minor Collector	1,270	33	2		1,388	76	0.05	D+
0	0.35	JERIGAN DR.		8	Rural Minor Collector	2,140	43	2		1,388	128	0.09	D+
2.76	2.87	JERIGAN DR.		8	Rural Minor Collector	1,200	99	2		1,388	72	0.05	D+
5.96	11.49	JERIGAN DR.		8	Rural Minor Collector	750	86	2		1,388	45	0.03	D+
0	2.28	JOYNERS CAMPGROUND RD.		8	Rural Minor Collector	70	92	2		1,388	4	0.00	D+
0	5.18	KERR-ROSEMARK RD.	Donnell & Rosemark	8	Rural Minor Collector	460	7	2		1,388	28	0.02	D+
0	0.46	KERR-ROSEMARK RD.	Kerrville-Rosemark & Bethuel	8	Rural Minor Collector	1,570	11	2		1,388	94	0.07	D+
3.24	3.28	KERR-ROSEMARK RD.	Kerrville-Rosemark & Mill.-Arl	8	Rural Minor Collector	890	10	2		1,388	53	0.04	D+
0.82	10.53	LA GRANGE RD.		8	Rural Minor Collector	580	54	2		1,388	35	0.03	D+
10.53	14.87	LA GRANGE RD.		8	Rural Minor Collector	1,420	46	2		1,388	85	0.06	D+
0.74	2.32	LAKE RD.		8	Rural Minor Collector	550	103	2		1,388	33	0.02	D+
4.67	6.01	LOCKE-CUBA RD.	Locke & Fite	8	Rural Minor Collector	470	21	2	45	1,388	28	0.02	D+
7.04	8.52	MACON RD.	Reed Hooker & Coll.-Arlington	8	Rural Minor Collector	3,890	418	2	45	1,388	233	0.17	D+

US EPA ARCHIVE DOCUMENT

blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
8.52	9.66	MACON RD.	Reed Hooker & Coll.-Arlington	8	Rural Minor Collector	3,890	418	2	35	1,388	233	0.17	D+
0	0.72	MAIN ST.		8	Rural Minor Collector	580	54	2		1,388	35	0.03	D+
7.34	8.45	MCKINSTRY RD.		8	Rural Minor Collector	640	58	2		1,388	38	0.03	D+
2.23	5.42	MILLINGTON-ARLINGTON	Osborntown & Collierville-Arl.	8	Rural Minor Collector	600	39	2	45	1,388	36	0.03	D+
5.66	6.96	MILLINGTON-ARLINGTON	Osborntown & Collierville-Arl.	8	Rural Minor Collector	600	39	2	50	1,388	36	0.03	D+
6.96	7.87	MILLINGTON-ARLINGTON	Rosemark & Brunswick	8	Rural Minor Collector	3,070	38	2	50	1,388	184	0.13	D+
5.35	5.87	MONTERERY RD.	Houston Levee & Monterey	8	Rural Minor Collector	3,780	104	2		1,388	227	0.16	D+
8.18	9.21	MONTERERY RD.	Wolf River & U.S. 72	8	Rural Minor Collector	550	103	2		1,388	33	0.02	D+
8.93	10.58	MT. MORIAH DR.		8	Rural Minor Collector	200	95	2		1,388	12	0.01	D+
0	3.14	MT. PLEASANT RD.		8	Rural Minor Collector	560	63	2		1,388	34	0.02	D+
0	3.73	MUDVILLE RD.	Armour & Rosemark	8	Rural Minor Collector	1,340	325	2	45	1,388	80	0.06	D+
0.46	1.22	MUDVILLE RD.	Kerrville-Rosemark & Bethuel	8	Rural Minor Collector	1,570	11	2		1,388	94	0.07	D+
2.6	3.24	MUDVILLE RD.	Kerrville-Rosemark & Mill.-Arl	8	Rural Minor Collector	890	10	2		1,388	53	0.04	D+
0	0.31	OLD AIRLINE RD.	Sumac & Donnelson	8	Rural Minor Collector	300	561	2		1,388	18	0.01	D+
3	7.09	OLD BROWNSVILLE RD.		8	Rural Minor Collector	70	92	2		1,388	4	0.00	D+
7.09	7.99	OLD BROWNSVILLE RD.		8	Rural Minor Collector	340	87	2		1,388	20	0.01	D+
0	0.22	OLD JACKSON RD.		8	Rural Minor Collector	1,660	26	2		1,388	100	0.07	D+
0	0.68	OLD JACKSON RD.		8	Rural Minor Collector	80	104	2		1,388	5	0.00	D+
1.24	6.75	OLD JACKSON RD.		8	Rural Minor Collector	580	101	2		1,388	35	0.03	D+
6.75	8.73	OLD JACKSON RD.		8	Rural Minor Collector	200	95	2		1,388	12	0.01	D+
		Old U.S. 61	Blythe & U.S. 61	8	Rural Minor Collector	370	550	2		1,388	22	0.02	D+
		Old U.S. 61	Thomas Road & Old U.S. 61	8	Rural Minor Collector	230	570	2		1,388	14	0.01	D+
		Old U.S. 61	Blythe & Tunica Co. Line	8	Rural Minor Collector	720	571	2		1,388	43	0.03	D+
0	2.45	PLEASANT RIDGE RD.	385 & Donnell Rd	8	Rural Minor Collector	250	654	2	45	1,388	15	0.01	D+
0.08	2.04	PLEASANT RIDGE RD.	Raleigh-Millington & Singleton	8	Rural Minor Collector	1,190	30	2		1,388	71	0.05	D+
2.04	4.96	PLEASANT RIDGE RD.	Singleton & Sledge	8	Rural Minor Collector	810	31	2		1,388	49	0.04	D+
4.96	6.9	PLEASANT RIDGE RD.	Austin Peay & Donnell	8	Rural Minor Collector	1,270	33	2		1,388	76	0.05	D+
1.3	2.22	QUITO RD.	Shelby Road & West Union	8	Rural Minor Collector	3,370	17	2		1,388	202	0.15	D+
2.22	4.45	QUITO RD.	Chas. Bartlett & Tipton Co. Li	8	Rural Minor Collector	2,140	426	2		1,388	128	0.09	D+
0	2.59	RALEIGH-LA GRANGE RD.		8	Rural Minor Collector	720	70	2		1,388	43	0.03	D+
2.59	6.99	RALEIGH-LA GRANGE RD.		8	Rural Minor Collector	410	68	2		1,388	25	0.02	D+
4.93	5.35	RALEIGH-LA GRANGE RD.	Houston Levee & Monterey	8	Rural Minor Collector	3,780	104	2		1,388	227	0.16	D+
0	1.03	RALEIGH-LARGRANGE RD	east of Col-Arlington Rd	8	Rural Minor Collector	1,120	638	2		1,388	67	0.05	D+
2.84	2.87	RANKIN BRANCH RD.	Herring Hill & Quito	8	Rural Minor Collector	720	18	2		1,388	43	0.03	D+
13.14	14.11	REDWOOD RD.	Mudville & Kerrville-Rosemark	8	Rural Minor Collector	2,050	4	2	45	1,388	123	0.09	D+
0	1.06	ROSEMARK RD.	Millington-Arl. & Austin Peay	8	Rural Minor Collector	3,520	8	2		1,388	211	0.15	D+
1.06	2.33	ROSEMARK RD.	Mudville & Tipton Co. Line	8	Rural Minor Collector	5,010	6	2		1,388	301	0.22	D+
3.29	4.23	ROSEMARK RD.	Chase & Lucy	8	Rural Minor Collector	4,200	28	2		1,388	252	0.18	D+
0	2.07	RUBE SCOTT DR.		8	Rural Minor Collector	320	49	2		1,388	19	0.01	D+
0.39	1.29	RUST RD.	Locke & Fite	8	Rural Minor Collector	470	21	2	45	1,388	28	0.02	D+
1.76	1.84	SHACK RAG RD.	Herring Hill & Quito	8	Rural Minor Collector	720	18	2		1,388	43	0.03	D+
1.55	1.76	SHELBY RD.	Herring Hill & Quito	8	Rural Minor Collector	720	18	2		1,388	43	0.03	D+
0	2.67	SINAI DR.		8	Rural Minor Collector	410	6	2		1,388	25	0.02	D+
0	2.28	SLAYDEN RD.		8	Rural Minor Collector	1,110	61	2		1,388	67	0.05	D+
2.28	4.09	SLAYDEN RD.		8	Rural Minor Collector	840	62	2		1,388	50	0.04	D+
0.7	1.93	SLEDGE RD.	Pleasant Ridge & Navy	8	Rural Minor Collector	2,460	34	2	45	1,388	148	0.11	D+
0	3.67	TEAUGE STORE RD.		8	Rural Minor Collector	790	79	2		1,388	47	0.03	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
0	5.15	THORPE DR.		8	Rural Minor Collector	440	7	2		1,388	26	0.02	D+
5.15	8.17	THORPE DR.		8	Rural Minor Collector	270	102	2		1,388	16	0.01	D+
0	1.86	WARREN RD.		8	Rural Minor Collector	900	29	2		1,388	54	0.04	D+
0	5.48	WARREN RD.		8	Rural Minor Collector	650	109	2		1,388	39	0.03	D+
8.45	8.99	WATERMILL ST.		8	Rural Minor Collector	640	58	2		1,388	38	0.03	D+
0	4.48	WEST UNION RD.	Herring Hill & Quito	8	Rural Minor Collector	2,100	324	2		1,388	126	0.09	D+
0.82	2.55	WILKINSVILLE RD.	West Union & Tipton Co. Line	8	Rural Minor Collector	5,760	293	2		1,388	346	0.25	D+
		Wilson Mill	Star Landing & Miss. Hwy. 301	8	Rural Minor Collector	130	1090	2		1,388	8	0.01	D+
1.29	4.67	WOODSTOCK-CUBA RD.	Locke & Fite	8	Rural Minor Collector	470	21	2	45	1,388	28	0.02	D+
0	5.57	YAGER DR.		8	Rural Minor Collector	570	59	2		1,388	34	0.02	D+
5.57	13.32	YAGER DR.		8	Rural Minor Collector	160	55	2		1,388	10	0.01	D+
0	4.69	YUM YUM RD.		8	Rural Minor Collector	540	17	2		1,388	32	0.02	D+
4.69	5.45	YUM YUM RD.		8	Rural Minor Collector	110	54	2		1,388	7	0.00	D+
11.58	14.74	FAYETTE ST.		2	Rural Other Principal Arterial	14,100	31	4	65	3,771	1,604	0.43	D+
14.74	14.76	FAYETTE ST.		2	Rural Other Principal Arterial	14,100	31	4	55	3,600	1,604	0.45	D+
14.84	15.12	FAYETTE ST.		2	Rural Other Principal Arterial	12,930	28	4	55	3,600	1,471	0.41	D+
15.51	15.56	FAYETTE ST.		2	Rural Other Principal Arterial	12,930	28	4	45	3,257	1,471	0.45	D+
16.64	16.66	FAYETTE ST.		2	Rural Other Principal Arterial	10,450	27	4	45	3,257	1,189	0.36	D+
17.95	18.06	FAYETTE ST.		2	Rural Other Principal Arterial	10,450	27	2	45	1,388	627	0.45	D+
30.28	30.57	HWY-51	West Union & Wilkinsville	2	Rural Other Principal Arterial	28,690	12	4	55	3,600	3,263	0.91	E
32.03	33.08	HWY-51	Weaver & Horn Lake	2	Rural Other Principal Arterial	29,120	91	4	55	3,600	3,312	0.92	E
6.98	7.1	PAUL W. BARRET MEM. PK	Hwy 70 & I-40	1	Rural Other Principal Arterial	8,450	882	4	65	4,029	887	0.22	D+
7.78	8.64	PAUL W. BARRET MEM. PK	Hwy 70 & I-40	1	Rural Other Principal Arterial	8,450	882	4	55	3,857	887	0.23	D+
9.48	9.84	PAUL W. BARRET MEM. PK	U.S. 70 & Long Road	1	Rural Other Principal Arterial	4,220	620	4	55	3,857	443	0.11	D+
10.46	12.7	PAUL W. BARRET MEM. PK	U.S. 70 & Long Road	1	Rural Other Principal Arterial	4,220	620	4	65	4,029	443	0.11	D+
12.7	14.57	PAUL W. BARRET MEM. PK	Long Road & Brunswick	1	Rural Other Principal Arterial	7,710	621	4	65	4,029	810	0.20	D+
14.57	17.98	PAUL W. BARRET MEM. PK	Austin Peay & Donnell	1	Rural Other Principal Arterial	8,960	622	4	65	4,029	941	0.23	D+
17.98	20.32	PAUL W. BARRET MEM. PK	Singleton Parkway & Sledge	1	Rural Other Principal Arterial	3,750	617	4	65	4,029	394	0.10	D+
11.62	12.23	STAGE RD	Airline & Collierville-Arlingt	2	Rural Other Principal Arterial	16,560	77	4	55	3,600	1,884	0.52	D+
15.58	16.19	STAGE RD	Germantown Pkwy. & Rocky Poin	2	Rural Other Principal Arterial	16,620	85	4	45	3,257	1,891	0.58	D+
16.19	16.3	STAGE RD	Germantown Pkwy. & Rocky Poin	2	Rural Other Principal Arterial	16,620	85	4	65	3,771	1,891	0.50	D+
0	3.32	US/HWY-64		2	Rural Other Principal Arterial	16,620	85	4	65	3,771	1,891	0.50	D+
3.32	5.72	US/HWY-64		2	Rural Other Principal Arterial	16,770	34	4	65	3,771	1,908	0.51	D+
5.72	5.73	US/HWY-64		2	Rural Other Principal Arterial	16,770	34	4	55	3,600	1,908	0.53	D+
6.27	6.53	US/HWY-64		2	Rural Other Principal Arterial	16,770	34	4	45	3,257	1,908	0.59	D+
7.2	7.22	US/HWY-64		2	Rural Other Principal Arterial	14,100	31	4	45	3,257	1,604	0.49	D+
8.11	11.58	US/HWY-64		2	Rural Other Principal Arterial	14,100	31	4	65	3,771	1,604	0.43	D+
18.06	18.17	US/HWY-64		2	Rural Other Principal Arterial	10,450	27	4	45	3,257	1,189	0.36	D+
18.84	21.86	US/HWY-64		2	Rural Other Principal Arterial	7,280	100	4	65	3,771	828	0.22	D+
21.86	21.99	US/HWY-64		2	Rural Other Principal Arterial	7,280	100	4	55	3,600	828	0.23	D+
23.21	23.55	US/HWY-64		2	Rural Other Principal Arterial	5,660	13	4	55	3,600	644	0.18	D+
23.55	24.92	US/HWY-64		2	Rural Other Principal Arterial	5,660	13	4	65	3,771	644	0.17	D+
25.67	27.32	US/HWY-64		2	Rural Other Principal Arterial	6,130	61	4	55	3,600	697	0.19	D+
0	0.95	US/HWY-72	U.S. 70 & I-40	2	Rural Other Principal Arterial	14,200	73	2		1,388	852	0.61	E
0.95	1.09	US/HWY-72	Tenn. Hwy. 57 & Fayette Co. Li	2	Rural Other Principal Arterial	9,470	108	2		1,388	568	0.41	D+
		Goodman	U.S. 61 & Miss. Hwy. 301	2	Rural Principal Arterial	12,000	450	2		1,388	720	0.52	D+
		Goodman	Pleasant Hill & Davidson	2	Rural Principal Arterial	28,000	510	2		1,388	1,680	1.21	F

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
		Goodman	Bethel & Center Hill	2	Rural Principal Arterial	6,400	540	2		1,388	384	0.28	D+
		U.S. 61	Tunica Co. Line & Miss. Hwy. 3	2	Rural Principal Arterial	28,000	190	4	55	1,388	3,185	2.30	F
		U.S. 61	Miss. Hwy. 3 & Star Landing	2	Rural Principal Arterial	27,000	200	4	55	1,388	3,071	2.21	F
		U.S. 61	Nail & Church	2	Rural Principal Arterial	34,000	210	2		1,388	2,040	1.47	F
		U.S. 61	At the TN/MS State Line	2	Rural Principal Arterial	28,000	220	2		1,388	1,680	1.21	F
		U.S. 78	At the TN/MS State Line	2	Rural Principal Arterial	25,000	130	4	55	3,600	2,844	0.79	D+
		U.S. 78	Craft & Goodman	2	Rural Principal Arterial	34,000	157	4	55	3,600	3,868	1.07	F
		U.S. 78	Bethel & Miller	2	Rural Principal Arterial	36,000	170	4	55	3,600	4,095	1.14	F
0.68	0.92	CASTLEMAN ST.	Shelby Dr and Raines Rd	17	Urban Collector	3,410	738	2		1,549	205	0.13	D+
0	0.05	MISTY MEADOWS LN.	Foresr Hill Irene & Center Hil	17	Urban Collector	1,340	631	2		1,549	80	0.05	D+
0.22	0.61	MOUNT OLIVE RD.	Vollintine Ave & Chelsea Ave	17	Urban Collector	1,960	713	2		1,549	118	0.08	D+
0.75	0.97	ADAMS AVE.	Front & Second	17	Urban Collector	4,740	480	2		1,549	284	0.18	D+
0.97	1.16	ALABAMA AVE.	N Third St and Fourth St	17	Urban Collector	4,970	856	2		1,549	298	0.19	D+
0	1.77	ALCY RD	Byhalia Rd & Hwy 72	17	Urban Collector	6,190	897	2		1,549	371	0.24	D+
1.3	1.34	ALCY RD	Kansas St and Arkansas St	17	Urban Collector	5,580	830	2		1,549	335	0.22	D+
0	0.26	ALICE AVE	Kansas St and Arkansas St	17	Urban Collector	5,580	830	2		1,549	335	0.22	D+
0	1.37	ALLEN RD	Ridgemont Rd & Hawkins Mill Rd	17	Urban Collector	4,710	723	2		1,549	283	0.18	D+
1.63	1.96	ALTA RD	I-55 and Airways	17	Urban Collector	320	824	2		1,549	19	0.01	D+
4.64	4.72	ALTRURIA RD.	Mem-Arlington & Baird Ln	17	Urban Collector	6,110	691	2		1,549	367	0.24	D+
5.43	5.65	ALTURIA RD	Mem-Arlington & Dawnhill	17	Urban Collector	4,980	696	2		1,549	299	0.19	D+
0	0.66	ARNOLD RD.	Pilot Dr and Crowfarm Dr	17	Urban Collector	1,500	744	2		1,549	90	0.06	D+
0	0.22	AUBURN RD	Briarcrest Ave and Shady Grove	17	Urban Collector	2,200	815	2		1,549	132	0.09	D+
1.78	1.95	AVERY AVE	N Watkins and Delano Rd	17	Urban Collector	840	664	2		1,549	50	0.03	D+
1.95	3.52	AYERS ST.	Washington & Jefferson	17	Urban Collector	8,830	474	2		1,549	530	0.34	D+
0	0.66	BAILEY STATION RD.	U.S. 72 & Collierville	17	Urban Collector	9,730	403	4	40	6,171	508	0.08	D+
0	0.26	BANBURY AVE	Mem-Arlington & Dawnhill	17	Urban Collector	4,140	697	2		1,549	248	0.16	D+
0.28	0.73	BARTLETT RD.	Stage & Yale	17	Urban Collector	6,080	584	2		1,549	365	0.24	D+
0	0.11	BASKIN ST	N Watkins and Delano Rd	17	Urban Collector	2,360	659	2		1,549	142	0.09	D+
0	0.21	BELLEVUE BLVD	Overton Ave and Autumn Ave	17	Urban Collector	6,180	857	2		1,549	371	0.24	D+
0.11	0.13	BELLEVUE BLVD	Overton Ave and Autumn Ave	17	Urban Collector	6,180	857	3	40	4,629	323	0.07	D+
0	0.78	BELVEDERE BLVD	Peabody & Union	17	Urban Collector	5,610	598	2		1,549	337	0.22	D+
0	0.37	BELVEDERE BLVD	Peabody & Union	17	Urban Collector	5,610	598	4	40	6,171	293	0.05	D+
0	0.48	BENJESTOWN RD.	Locke & Fite	17	Urban Collector	470	21	2	45	1,549	28	0.02	D+
0	1.06	BENNETT WOOD DR.	N Front & N Main	17	Urban Collector	3,080	864	2		1,549	185	0.12	D+
1.06	2.33	BETHUEL RD.	Navy & Center College	17	Urban Collector	2,740	401	2		1,549	164	0.11	D+
0	0.1	BIG CREEK CHURCH RD.	Church & Juana	17	Urban Collector	1,610	550	2	30	1,549	97	0.06	D+
0.1	0.2	BIG CREEK CHURCH RD.	Church & Juana	17	Urban Collector	1,610	550	2	45	1,549	97	0.06	D+
0.81	1.13	BILOXI RD.	N Front & N Main	17	Urban Collector	3,080	864	2		1,549	185	0.12	D+
1.13	1.3	BISHOPS BRIDGE RD.	Prescott Rd and Tchulahoma Rd	17	Urban Collector	4,430	745	2		1,549	266	0.17	D+
1.3	1.51	BLACKWELL RD	Mem-Arlington & Dawnhill	17	Urban Collector	1,620	698	2		1,549	97	0.06	D+
0.88	3.74	BOSTON ST.	Lowell and Malone Ave	17	Urban Collector	340	783	2		1,549	20	0.01	D+
3.74	8.09	BRACHTON AVE	Hacks Cross & Cedar Rige	17	Urban Collector	2,210	870	2		1,549	133	0.09	D+
0	2.07	BRAY STATION RD.	Frank & U.S. 72	17	Urban Collector	1,640	440	2		1,549	98	0.06	D+
0	0.92	BRICH RUN LN.	Holmes Rd and Shelby Dr	17	Urban Collector	1,420	729	2		1,549	85	0.06	D+
0	0.05	BRICHFIELD DR	Hollywood St & Birchfield Dr	17	Urban Collector	1,690	716	2		1,549	101	0.07	D+
0.26	0.39	BRIERBROOK RD.	Exeter Rd & Brierbrook Rd	17	Urban Collector	1,770	879	2		1,549	106	0.07	D+
0.39	1.29	BRIERBROOK RD.	Exeter Rd & Brierbrook Rd	17	Urban Collector	1,770	879	4	40	6,171	92	0.01	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
7.98	8.23	BRIERVIEW ST	Brantford Rd and Shady Grove R	17	Urban Collector	4,830	801	2		1,549	290	0.19	D+
8.23	8.37	BROADWAY RD	Whitten Rd & Appling Rd	17	Urban Collector	4,430	653	2		1,549	266	0.17	D+
8.38	8.62	BROOKS RD.	Graves & U.S. 51	17	Urban Collector	13,070	92	4	45	6,514	683	0.10	D+
8.62	8.69	BROOKS RD.	Graves & U.S. 51	17	Urban Collector	13,070	92	2	35	1,549	784	0.51	D+
8.69	8.97	BROOKS RD.	Graves & U.S. 51	17	Urban Collector	13,070	92	4	35	5,829	683	0.12	D+
9.03	9.29	BROWNBARK DR.	Holmes Rd and Shelby Dr	17	Urban Collector	2,380	730	2		1,549	143	0.09	D+
0	0.12	BRUNSWICK RD.	Davies Plantation & Ellis	17	Urban Collector	2,960	559	2	40	1,549	178	0.11	D+
7.19	7.33	BRUNSWICK RD.	Old Brownsville & U.S. 70	17	Urban Collector	5,940	46	2	45	1,549	356	0.23	D+
7.33	7.49	BRUNSWICK RD.	Old Brownsville & U.S. 70	17	Urban Collector	5,940	46	2	35	1,549	356	0.23	D+
7.49	7.62	BRUNSWICK RD.	Old Brownsville & U.S. 70	17	Urban Collector	5,940	46	2	30	1,549	356	0.23	D+
9.3	9.44	BRUNSWICK RD.	Davies Plantation & Ellis	17	Urban Collector	2,960	559	2	35	1,549	178	0.11	D+
13.16	13.44	BRUNSWICK RD.	Davies Plantation & Ellis	17	Urban Collector	2,960	559	2	45	1,549	178	0.11	D+
7.62	7.86	BUNTYN ST	Lowell and Malone Ave	17	Urban Collector	1,010	786	2		1,549	61	0.04	D+
5.21	5.29	BURNHAM AVE	N Watkins and Delano Rd	17	Urban Collector	3,070	663	2		1,549	184	0.12	D+
5.54	5.88	BYHALIA RD.	Collierville & Holmes	17	Urban Collector	8,210	260	2	45	1,549	493	0.32	D+
0	0.07	CALHOUN AVE.	Main St and Mulberry St	17	Urban Collector	3,160	838	2		1,549	190	0.12	D+
5.9	6.01	CALHOUN AVE.	Allen St and Hernando St	17	Urban Collector	3,580	839	2		1,549	215	0.14	D+
8.66	8.9	CARNES AV.	Lowell and Malone Ave	17	Urban Collector	340	783	2		1,549	20	0.01	D+
8.9	9.01	CASTALIA ST	Norris Rd and Dunn Rd	17	Urban Collector	3,960	834	2		1,549	238	0.15	D+
9.07	9.35	CASTALIA ST	Norris Rd and Dunn Rd	17	Urban Collector	3,300	835	2		1,549	198	0.13	D+
9.35	9.42	CASTALIA ST	Norris Rd and Dunn Rd	17	Urban Collector	3,300	835	1		1,549	198	0.13	D+
9.64	9.72	CENTRALIA RD.	Dutwiler & Oak	17	Urban Collector	2,850	435	2	30	1,549	171	0.11	D+
2.17	2.68	CENTURY CENTER PKWY	Macon Rd and Goodlett Farms	17	Urban Collector	7,260	678	4	40	6,171	379	0.06	D+
9.8	9.87	CENTURY CENTER PKWY	Macon Rd and Goodlett Farms	17	Urban Collector	7,260	678	2		1,549	436	0.28	D+
0	0.15	CHANNEL AVE.	Wharf & Dock	17	Urban Collector	4,210	509	4	40	6,171	220	0.04	D+
0.15	0.17	CHANNEL AVE.	Wharf & Dock	17	Urban Collector	4,210	509	3	40	4,629	220	0.05	D+
2.82	3.17	CHANNEL AVE.	Wharf & Dock	17	Urban Collector	4,210	509	2		1,549	253	0.16	D+
0.32	0.48	CHELSA AVE.	Duke St & N Graham St	17	Urban Collector	1,980	707	2		1,549	119	0.08	D+
11.95	12.14	CHEROKEE BLVD	Semmes St and Prescott Rd	17	Urban Collector	3,640	770	2		1,549	218	0.14	D+
12.14	12.52	CHERRY RD	Boyce Rd and Kimball Rd	17	Urban Collector	7,440	772	2		1,549	446	0.29	D+
12.52	12.76	CHERRY RD.	Perkins Rd and Outland Rd	17	Urban Collector	4,510	742	2		1,549	271	0.17	D+
12.76	12.84	CHERRY RD.	Knight-Arnold Rd and Cottonwoo	17	Urban Collector	5,190	763	4	40	6,171	271	0.04	D+
2.37	2.44	CHIMMEYROCK BLVD	Germatown Rd & Dexter Ln	17	Urban Collector	6,400	647	2		1,549	384	0.25	D+
0	0.38	CHUCH AVE.	Shelby Dr and Raines Rd	17	Urban Collector	1,300	740	2		1,549	78	0.05	D+
1.51	1.58	Church	U.S. 51 & Tchulahoma	17	Urban Collector	10,000	1190	2		1,549	600	0.39	D+
1.58	1.8	CHURCH ST.	Easley & Navy	17	Urban Collector	6,960	543	2	20	1,549	418	0.27	D+
2.13	2.68	CINCINNATI RD.	Perry & Airways	17	Urban Collector	6,250	346	2		1,549	375	0.24	D+
2.82	2.9	CLARKE RD.	Rosewind Cr and Raines Rd	17	Urban Collector	1,110	735	2		1,549	67	0.04	D+
5.14	5.16	CLARKE RD.	Eastern Ave and Poplar Pike	17	Urban Collector	5,930	759	2		1,549	356	0.23	D+
5.79	7.09	CLUBVIEW DR.	Foresr Hill Irene & Center Hil	17	Urban Collector	1,340	631	2		1,549	80	0.05	D+
7.09	7.27	COKER ST.	Poplar Ave and Beard	17	Urban Collector	1,800	860	2		1,549	108	0.07	D+
7.27	7.36	COKER ST.	Poplar Ave and Beard	17	Urban Collector	1,800	860	3	40	4,629	94	0.02	D+
7.36	7.44	COLE RD.	Perkins Rd and Grove Park Rd	17	Urban Collector	2,710	799	2		1,549	163	0.11	D+
7.5	7.58	COLLINS ST	Garden Ln & Poplar Ave	17	Urban Collector	3,910	666	2	35	1,549	235	0.15	D+
7.96	7.97	COLLINS ST	Garden Ln & Poplar Ave	17	Urban Collector	3,910	666	4	35	5,829	204	0.04	D+
9.02	9.42	COLONIAL RD	Perkins Rd and Grove Park Rd	17	Urban Collector	6,410	797	2		1,549	385	0.25	D+
9.89	10	COLONIAL RD.	Perkins Rd and Grove Park Rd	17	Urban Collector	2,290	796	2		1,549	137	0.09	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
10.59	10.6	COLONIES LN.	Riverdale Rd and Caledonian Rd	17	Urban Collector	3,510	753	2		1,549	211	0.14	D+
11.16	11.52	CORDES RD	Exeter Rd & Brierbrook Rd	17	Urban Collector	2,240	880	2		1,549	134	0.09	D+
0	0.25	CORNING AVE	N Watkins and Delano Rd	17	Urban Collector	2,470	662	2		1,549	148	0.10	D+
0.57	0.62	COTTINWOOD RD.	Curtis & Castleman	17	Urban Collector	8,370	574	2		1,549	502	0.32	D+
0.62	0.68	COTTON PLANT RD.	N Front & N Main	17	Urban Collector	710	865	2	45	1,549	43	0.03	D+
1.47	1.5	CRAFT RD	Briarcrest Ave and Shady Grove	17	Urban Collector	2,470	814	2		1,549	148	0.10	D+
3.09	4.24	CRESTRIDGE DR.	Riverdale Rd and Caledonian Rd	17	Urban Collector	2,340	752	2		1,549	140	0.09	D+
5.42	5.47	CROMWELL AVE.	Shelby Dr and Raines Rd	17	Urban Collector	4,970	741	2		1,549	298	0.19	D+
0	0.43	CROSS COUNTRY DR.	Riverdale Rd and Caledonian Rd	17	Urban Collector	4,180	754	2		1,549	251	0.16	D+
0	0.17	CROSS COUNTRY DR.	N Front & N Main	17	Urban Collector	1,380	866	4	40	6,171	72	0.01	D+
0.17	0.2	CROSS COUNTRY DR.	N Front & N Main	17	Urban Collector	2,840	867	2		1,549	170	0.11	D+
0.63	1.05	CROSS VILLAGE DR.	N Front & N Main	17	Urban Collector	1,380	866	4	40	6,171	72	0.01	D+
1.05	1.09	CROSS VILLAGE DR.	N Front & N Main	17	Urban Collector	1,380	866	2		1,549	83	0.05	D+
1.09	1.18	CUBA-MILLINGTON RD.	U.S. 51 & Wilkinsville	17	Urban Collector	2,450	540	2		1,549	147	0.09	D+
1.18	1.35	CULLY RD	Germantown Rd & Walnut Bend	17	Urban Collector	8,280	641	2		1,549	497	0.32	D+
0	1.56	DAVID ST.	Lowell and Malone Ave	17	Urban Collector	340	783	2		1,549	20	0.01	D+
0	0.07	DAVIES PLANTATION RD.	U.S. 64 & I-40	17	Urban Collector	3,120	560	2		1,549	187	0.12	D+
0.49	0.62	DEADRICK ST	Lowell and Malone Ave	17	Urban Collector	2,430	782	2		1,549	146	0.09	D+
0	0.36	DEE RD	Cherry Rd and Dearing Rd	17	Urban Collector	950	780	2		1,549	57	0.04	D+
0.36	0.49	DELANO AVE	N Watkins and Delano Rd	17	Urban Collector	2,360	659	2		1,549	142	0.09	D+
0.25	0.91	DELP ST.	Pilot Dr and Crowfarm Dr	17	Urban Collector	4,930	743	2		1,549	296	0.19	D+
0	0.17	DEXTER LN.	Germatown Rd & Dexter Ln	17	Urban Collector	14,360	646	2	35	1,549	862	0.56	D+
0	0.24	DEXTER RD.	Germatown Rd & Dexter Ln	17	Urban Collector	14,360	646	4	40	6,171	750	0.12	D+
0	0.38	DOGWOOD RD.	Poplar & Forest Hill-Irene	17	Urban Collector	6,110	228	2	30	1,549	367	0.24	D+
0	0.14	DOGWOOD RD.	Houston-Levee & Bray Station	17	Urban Collector	7,840	439	4	35	5,829	410	0.07	D+
0.14	0.5	DOGWOOD RD.	Houston-Levee & Bray Station	17	Urban Collector	7,840	439	2	35	1,549	470	0.30	D+
0.52	0.56	DOGWOOD RD.	Houston-Levee & Bray Station	17	Urban Collector	7,840	439	2	40	1,549	470	0.30	D+
0.81	0.83	DOGWOOD RD.	Poplar & Forest Hill-Irene	17	Urban Collector	6,110	228	2	35	1,549	367	0.24	D+
0.83	1.1	DOGWOOD RD.	Poplar & Forest Hill-Irene	17	Urban Collector	6,110	228	4	35	5,829	319	0.05	D+
0.56	0.87	DORMEDARY DR	Germantown Rd & Appling Rd	17	Urban Collector	1,450	651	2		1,549	87	0.06	D+
1.04	1.24	DUNN AVE	Labelle St and Pendleton St	17	Urban Collector	2,760	767	2		1,549	166	0.11	D+
1.24	1.43	DUNN RD.	Perry & Airways	17	Urban Collector	6,250	346	2		1,549	375	0.24	D+
1.58	2.01	DUNN RD.	Perry & Airways	17	Urban Collector	6,250	346	4	40	6,171	327	0.05	D+
2.18	3.28	DWIGHT RD	Lamar Ave and New Getwell	17	Urban Collector	1,910	765	2		1,549	115	0.07	D+
6.73	7.53	E SHADOWLAWN RD	Whitten Rd & Appling Rd	17	Urban Collector	4,430	653	2		1,549	266	0.17	D+
7.53	7.73	EAST ST	Mem-Arlington & Dawnhill	17	Urban Collector	520	704	2		1,549	31	0.02	D+
8.27	10.67	EAST ST.	Clack and Orleans St	17	Urban Collector	4,020	844	2		1,549	241	0.16	D+
10.94	11.08	EGYPT-CENTRAL/FISKE RI	Dutwiler & Oak	17	Urban Collector	2,850	435	4	35	5,829	149	0.03	D+
11.08	11.13	EGYPT-CENTRAL/FISKE RI	Dutwiler & Oak	17	Urban Collector	2,850	435	2	35	1,549	171	0.11	D+
1.76	1.84	ELMO AVE	New Allen & Raleigh-Millington	17	Urban Collector	4,420	447	4	40	6,171	231	0.04	D+
0.87	1.23	ELMO RD	Egypt-Central & Austin Peay	17	Urban Collector	1,660	694	2		1,549	100	0.06	D+
0	0.25	ELMORE BDKS DR	Sycamore View & U.S. 70	17	Urban Collector	5,590	454	2		1,549	335	0.22	D+
0.7	0.8	ELMORE PARK RD.	Pleasant View Rd & Elmore Rd	17	Urban Collector	4,010	689	2		1,549	241	0.16	D+
0.8	0.85	ELMORE PARK RD.	Pleasant View Rd & Elmore Rd	17	Urban Collector	4,010	689	4	40	6,171	210	0.03	D+
0.97	1.05	EMERALD ST.	Eastern Ave and Poplar Pike	17	Urban Collector	1,300	758	2		1,549	78	0.05	D+
1.29	1.39	FAIRWAY AVE	Briarcrest Ave and Shady Grove	17	Urban Collector	3,580	813	2		1,549	215	0.14	D+
1.48	1.63	FARDNIA RD.	Briarcrest Ave and Shady Grove	17	Urban Collector	6,670	816	2		1,549	400	0.26	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
0	0.31	FENWICK RD	Garden Ln & Poplar Ave	17	Urban Collector	2,960	665	2		1,549	178	0.11	D+
7.05	7.35	FIELDS RD.	Briarcrest Ave and Shady Grove	17	Urban Collector	1,680	811	2		1,549	101	0.07	D+
7.35	7.37	FINLEY RD.	Briarcrest Ave and Shady Grove	17	Urban Collector	7,280	817	2		1,549	437	0.28	D+
7.37	7.44	FITE RD.	Locke & Fite	17	Urban Collector	470	21	2		1,549	28	0.02	D+
7.44	7.56	FLICKER ST	N Watkins and Delano Rd	17	Urban Collector	840	664	2		1,549	50	0.03	D+
2.47	2.78	FLORIDA ST.	Court & Madison	17	Urban Collector	12,210	217	2		1,549	733	0.47	D+
2.92	2.98	FLOWERING PEACH DR.	Eastern Ave and Poplar Pike	17	Urban Collector	5,930	759	2		1,549	356	0.23	D+
2.98	3.05	FONTAINE RD.	I-55 and Airways	17	Urban Collector	3,060	823	2		1,549	184	0.12	D+
0	0.33	FORD RD	Mitchell Rd and Peebles Rd	17	Urban Collector	2,090	825	2		1,549	125	0.08	D+
0.33	0.48	FOREST HILL-IRENE RD.	Shelby & Winchester	17	Urban Collector	7,250	414	2	45	1,549	435	0.28	D+
3.38	4.68	FOREST HILL-IRENE RD.	Shelby & Winchester	17	Urban Collector	7,250	414	2	35	1,549	435	0.28	D+
4.68	4.76	FOREST HILL-IRENE RD.	Shelby & Winchester	17	Urban Collector	7,250	414	4	35	5,829	379	0.06	D+
5.17	5.2	FOX PLAZA DR.	Eastern Ave and Poplar Pike	17	Urban Collector	3,470	760	2		1,549	208	0.13	D+
5.2	5.33	FRANK RD.	Byhalia Rd & Hwy 72	17	Urban Collector	5,600	903	2		1,549	336	0.22	D+
5.76	5.85	FRANK RD.	Houston-Levee & Bray Station	17	Urban Collector	7,840	439	2	45	1,549	470	0.30	D+
5.9	6.03	FRISCO AVE.	Perry & Airways	17	Urban Collector	6,250	346	2		1,549	375	0.24	D+
6.29	6.38	GARDEN LN	N Watkins and Delano Rd	17	Urban Collector	840	664	2		1,549	50	0.03	D+
6.85	7.09	GEORGIA AVE.	Court & Madison	17	Urban Collector	12,210	217	2		1,549	733	0.47	D+
7.09	7.76	GERMANTOWN RD.	Shelby & Winchester	17	Urban Collector	8,200	580	2		1,549	492	0.32	D+
9.16	9.46	GIVEN AVE.	Jackson Ave & National St	17	Urban Collector	950	686	2		1,549	57	0.04	D+
9.46	9.77	GOODLET FARMS PKWY	Macon Rd and Goodlett Farms	17	Urban Collector	7,260	678	4	40	6,171	379	0.06	D+
10.12	10.79	GOODLETT RD.	Knight-Arnold Rd and Cottonwoo	17	Urban Collector	5,190	763	2		1,549	311	0.20	D+
11.97	12.6	GOODLETT RD.	Knight-Arnold Rd and Cottonwoo	17	Urban Collector	5,190	763	4	40	6,171	271	0.04	D+
12.6	12.83	GOODWYN ST	Lowell and Malone Ave	17	Urban Collector	2,540	788	2		1,549	152	0.10	D+
13.78	13.88	GRACELAND DR.	I-55 and Airways	17	Urban Collector	3,400	819	2		1,549	204	0.13	D+
15.94	16.28	GRAHAM ST.	Walnut Grove & Minden Rd	17	Urban Collector	2,550	672	2		1,549	153	0.10	D+
16.28	16.52	GRAVES RD	Briarcrest Ave and Shady Grove	17	Urban Collector	2,470	814	2		1,549	148	0.10	D+
18.09	18.18	GREER ST	Lowell and Malone Ave	17	Urban Collector	4,210	790	2		1,549	253	0.16	D+
18.32	19.82	GROVE PARK RD.	Lowell and Malone Ave	17	Urban Collector	4,020	794	2		1,549	241	0.16	D+
0	0.16	HARBOR AVE.	Wharf & Dock	17	Urban Collector	4,210	509	4	40	6,171	220	0.04	D+
0.16	0.29	HARBOR AVE.	Wharf & Dock	17	Urban Collector	4,210	509	2		1,549	253	0.16	D+
19.91	21.4	HARBOR AVE.	Port & Channel	17	Urban Collector	7,840	508	5	40	7,714	410	0.05	D+
21.4	21.73	HARBOR AVE.	Port & Channel	17	Urban Collector	7,840	508	4	40	6,171	410	0.07	D+
0.29	0.52	HARVESTER LN	N Watkins and Delano Rd	17	Urban Collector	2,750	660	2		1,549	165	0.11	D+
0	0.07	HAWKINS MILL RD.	University & Mountain Terrace	17	Urban Collector	2,600	582	2	40	1,549	156	0.10	D+
0.29	0.33	HAWKINS MILL RD.	St. Elmo & Frayser	17	Urban Collector	8,910	410	2	40	1,549	535	0.35	D+
0.33	0.36	HAWKINS MILL RD.	Hawkins Mill & St. Elmo	17	Urban Collector	3,870	583	2	40	1,549	232	0.15	D+
3.07	3.85	HAYNES ST	Lowell and Malone Ave	17	Urban Collector	770	787	2		1,549	46	0.03	D+
0	1.14	HERNANDO RD	Kansas St and Arkansas St	17	Urban Collector	5,580	830	2		1,549	335	0.22	D+
0	0.32	HICKORY MEADWO RD.	N Front & N Main	17	Urban Collector	3,080	864	2		1,549	185	0.12	D+
0.26	0.28	HIGH POINT TERRACE	Garden Ln & Poplar Ave	17	Urban Collector	3,070	671	2		1,549	184	0.12	D+
0.28	0.3	HIGHLAND RD.	Chelsea & I-240	17	Urban Collector	4,850	397	4	40	6,171	253	0.04	D+
0	0.65	HILLBROOK RD	Briarcrest Ave and Shady Grove	17	Urban Collector	1,590	809	2		1,549	95	0.06	D+
0	0.44	HILLSHIRE DR	Dexter Rd and Amberly Village	17	Urban Collector	5,220	680	2		1,549	313	0.20	D+
1.55	1.58	HOBSON RD	Hawkins Mill & Ramil	17	Urban Collector	1,990	721	2		1,549	119	0.08	D+
0	0.15	HODGE RD	Briarcrest Ave and Shady Grove	17	Urban Collector	3,750	812	2		1,549	225	0.15	D+
0.24	0.33	HOLMES RD.	Vollintine Ave & Chelsea Ave	17	Urban Collector	1,960	713	2		1,549	118	0.08	D+

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0	0.34	HOLMES ST	Sam Cooper & Waynoka	17	Urban Collector	8,430	588	2		1,549	506	0.33	D+
2.61	2.82	HOMER ST.	Chelsea & I-240	17	Urban Collector	4,850	397	2		1,549	291	0.19	D+
3.22	3.44	HOMEWOOD RD	Hollywood St & Birchfield Dr	17	Urban Collector	1,310	719	2		1,549	79	0.05	D+
0.75	0.77	HOMEWOOD RD.	Premier Ave and Watman Ave	17	Urban Collector	2,370	749	2		1,549	142	0.09	D+
0.96	1.04	Horn Lake	Goodman & DeSoto	17	Urban Collector	4,500	5310	2		1,549	270	0.17	D+
1.04	1.17	HORN LAKE RD.	Shelby & Holmes	17	Urban Collector	7,500	373	4	40	6,171	392	0.06	D+
2.64	2.71	HORNSBY DR.	Briarcrest Ave and Shady Grove	17	Urban Collector	2,030	807	2		1,549	122	0.08	D+
2.71	2.73	HUDGGINS RD.	Briarcrest Ave and Shady Grove	17	Urban Collector	4,200	806	2		1,549	252	0.16	D+
3.54	3.71	IVAN RD	Briarcrest Ave and Shady Grove	17	Urban Collector	3,750	812	2		1,549	225	0.15	D+
0	0.09	JACK CARLEY CAUSEWAY	Riverside & Trigg	17	Urban Collector	12,250	507	5	40	7,714	640	0.08	D+
4.44	4.91	JACK CARLEY CAUSEWAY	Riverside & Trigg	17	Urban Collector	12,250	507	2		1,549	735	0.47	D+
4.91	5.21	JACK CARLEY CAUSEWAY	Riverside & Trigg	17	Urban Collector	12,250	507	4	40	6,171	640	0.10	D+
0.08	0.1	JAMES RD	New Allen & Highland	17	Urban Collector	3,340	379	2		1,549	200	0.13	D+
0	0.32	JOHNSON AVE.	Garden Ln & Poplar Ave	17	Urban Collector	3,950	669	2		1,549	237	0.15	D+
1.37	1.79	JOHNSON RD	Kirby & Winchester	17	Urban Collector	5,460	635	2		1,549	328	0.21	D+
2.23	2.32	JOHNSON RD.	Houston-Levee & Bray Station	17	Urban Collector	7,840	439	2	35	1,549	470	0.30	D+
2.68	2.99	JONAH AVE	Byhalia Rd & Hwy 72	17	Urban Collector	1,650	907	2		1,549	99	0.06	D+
3.01	3.24	JONAH AVE	Byhalia Rd & Hwy 72	17	Urban Collector	1,650	907	4	40	6,171	86	0.01	D+
3.39	3.47	JONETTA ST	Briarcrest Ave and Shady Grove	17	Urban Collector	1,490	810	2		1,549	89	0.06	D+
3.84	4.04	JOSEPHINE ST.	Park & Barron	17	Urban Collector	11,490	517	4	40	6,171	600	0.10	D+
4.04	4.45	JOSEPHINE ST.	Park & Barron	17	Urban Collector	11,490	517	2		1,549	689	0.45	D+
4.7	5.61	KANSAS ST.	Person & Mallory	17	Urban Collector	5,360	592	4	40	6,171	280	0.05	D+
0	0.17	KATE BOND RD.	Whitten Rd & Appling Rd	17	Urban Collector	8,550	652	2	35	1,549	513	0.33	D+
0.53	0.75	KERR AVE	Elvis Presley & I-240	17	Urban Collector	6,520	604	2		1,549	391	0.25	D+
0	0.17	KIMBALL AVE	Byhalia Rd & Hwy 72	17	Urban Collector	1,650	907	2		1,549	99	0.06	D+
0.17	0.47	KINGHAM DR.	Riverdale Rd and Caledonian Rd	17	Urban Collector	3,510	753	2		1,549	211	0.14	D+
0.47	0.63	KIRBY RD.	Poplar Pike & Quince	17	Urban Collector	4,650	101	2	45	1,549	279	0.18	D+
0	0.28	KIRBY WHITTEN RD.	Ellendale & Memphis-Arlington	17	Urban Collector	8,050	436	6	40	9,257	421	0.05	D+
0.28	0.31	KNIGHT RD.	Eastern Ave and Poplar Pike	17	Urban Collector	5,950	762	4	40	6,171	311	0.05	D+
0.31	0.55	KNIGHT RD.	Eastern Ave and Poplar Pike	17	Urban Collector	5,950	762	2		1,549	357	0.23	D+
0	0.61	LABELLE ST.	Lamar Ave and New Getwell	17	Urban Collector	4,950	766	2		1,549	297	0.19	D+
0	0.65	LAFAYETTE ST.	Lowell and Malone Ave	17	Urban Collector	2,370	789	2		1,549	142	0.09	D+
0.4	0.64	LAKE VALLEY DR.	Holmes Rd and Shelby Dr	17	Urban Collector	1,970	726	2		1,549	118	0.08	D+
0.64	0.75	LAKEVIEW DR	Briarcrest Ave and Shady Grove	17	Urban Collector	3,750	812	2		1,549	225	0.15	D+
0	0.44	LANE AVE.	Weakley & Life	17	Urban Collector	900	564	2		1,549	54	0.03	D+
0.11	0.2	LATHAM ST	Allen St and Hernando St	17	Urban Collector	3,190	841	2		1,549	191	0.12	D+
0.62	1.29	LATHAM ST.	Kansas St and Arkansas St	17	Urban Collector	3,180	828	4	40	6,171	166	0.03	D+
1.64	1.79	LATHAM ST.	Kansas St and Arkansas St	17	Urban Collector	3,180	828	2		1,549	191	0.12	D+
1.79	2.04	LEHR DR.	I-55 and Airways	17	Urban Collector	3,400	819	2		1,549	204	0.13	D+
2.04	2.57	LEVI RD	Horn Lake & McCain	17	Urban Collector	7,040	595	2		1,549	422	0.27	D+
5.28	6.91	LINDEN ST.	Main & Front	17	Urban Collector	2,950	367	2		1,549	177	0.11	D+
7.5	7.56	LITTLEMORE DR	Germatown Rd & Dexter Ln	17	Urban Collector	6,400	647	4	40	6,171	334	0.05	D+
8.15	8.32	LONG CREEK RD.	Foresr Hill Irene & Center Hil	17	Urban Collector	2,400	628	2	30	1,549	144	0.09	D+
8.32	8.47	LOW RANGE RD.	Foresr Hill Irene & Center Hil	17	Urban Collector	8,310	630	2		1,549	499	0.32	D+
8.71	8.82	LYNCHBURG ST	Mem-Arlington & Dawnhill	17	Urban Collector	3,050	700	2		1,549	183	0.12	D+
9.36	9.63	LYNNFIELD RD.	Cherry Rd and Dearing Rd	17	Urban Collector	8,670	778	2		1,549	520	0.34	D+
0	7.73	MACON RD.	Germantown Pkwy. & Rocky Poin	17	Urban Collector	12,470	84	2	30	1,549	748	0.48	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
10.96	11.62	MACON RD.	Germantown Pkwy. & Rocky Poin	17	Urban Collector	12,470	84	2	45	1,549	748	0.48	D+
		MACON RD.	Reed Hooker & Coll.-Arlington	17	Urban Collector	3,890	418	2	45	1,549	233	0.15	D+
0	3.62	MADISON AVE.	Fourth & Danny Thomas	17	Urban Collector	6,020	484	2		1,549	361	0.23	D+
		MADISON AVE.	Fourth & Danny Thomas	17	Urban Collector	6,020	484	3	40	4,629	315	0.07	D+
0	0.2	MALLORY RD	Cherry Rd and Dearing Rd	17	Urban Collector	3,840	773	2		1,549	230	0.15	D+
0	1.06	MALONE RD.	Raines & Shelby	17	Urban Collector	4,080	578	4	40	6,171	213	0.03	D+
0.71	0.86	MALONE RD.	Raines & Shelby	17	Urban Collector	4,080	578	2		1,549	245	0.16	D+
1.06	1.23	MARIA ST.	Jackson Ave & National St	17	Urban Collector	1,840	684	2		1,549	110	0.07	D+
1.23	1.93	MARINNESS DR.	Cherry Rd and Dearing Rd	17	Urban Collector	8,670	778	2		1,549	520	0.34	D+
1.93	2.1	MARKET BLVD.	Kirby & Winchester	17	Urban Collector	5,250	636	2		1,549	315	0.20	D+
6.38	13.44	MARKET BLVD.	Kirby & Winchester	17	Urban Collector	5,250	636	4	40	6,171	274	0.04	D+
13.44	13.65	MARSH AVE	N Watkins and Delano Rd	17	Urban Collector	2,750	660	2		1,549	165	0.11	D+
13.65	13.66	MARSHALL AVE.	Danny Thomas and Lauderdale S	17	Urban Collector	3,800	854	4	40	6,171	199	0.03	D+
13.66	13.73	MASON RD.	Byhalia Rd & Hwy 72	17	Urban Collector	3,520	894	2		1,549	211	0.14	D+
14.4	14.61	MASSEY RD.	Eastern Ave and Poplar Pike	17	Urban Collector	4,330	756	2		1,549	260	0.17	D+
15.52	20.11	MCCALL AVE.	Oakview St and Kyle St	17	Urban Collector	5,910	850	2		1,549	355	0.23	D+
0	0.7	MCVAY RD.	Hacks Cross & Cedar Rige	17	Urban Collector	1,540	871	2		1,549	92	0.06	D+
6.07	8.65	MEMPHIS ARLINGTON RD	Byhalia Rd & Hwy 72	17	Urban Collector	280	909	2		1,549	17	0.01	D+
8.65	12.79	MEMPHIS ARLINGTON RD.	Dutwiler & Oak	17	Urban Collector	2,850	435	2	30	1,549	171	0.11	D+
0	0.33	MEMPHIS-ARLINGTON RD.	Billy Maher & Dutwiler	17	Urban Collector	10,820	53	2		1,549	649	0.42	D+
6.09	6.9	MEMPHIS-ARLINGTON RD.	Stage & Yale	17	Urban Collector	6,080	584	2		1,549	365	0.24	D+
6.9	7.86	MENDENHALL RD	McCrory & Summer	17	Urban Collector	4,410	590	4	40	6,171	230	0.04	D+
7.86	7.94	MENDENHALL RD	McCrory & Summer	17	Urban Collector	4,410	590	2		1,549	265	0.17	D+
7.94	9.95	MESSICK RD.	Kirby Pkwy & Kirby Rd.	17	Urban Collector	4,340	572	2		1,549	260	0.17	D+
10.59	11.38	MIDLAND AVE	Lowell and Malone Ave	17	Urban Collector	970	792	2		1,549	58	0.04	D+
15.26	21.48	MILLER FARMS RD	Poplar Ave & Neshoba Rd	17	Urban Collector	1,990	875	2		1,549	119	0.08	D+
		MILLINGTON ST	Floyd & Carrolton	17	Urban Collector	3,080	565	2		1,549	185	0.12	D+
		MILLINGTON ST	Floyd & Carrolton	17	Urban Collector	3,080	565	4	40	6,171	161	0.03	D+
0	0.41	MIMOSA AVE.	Garden Ln & Poplar Ave	17	Urban Collector	2,670	668	2		1,549	160	0.10	D+
0.73	0.81	MISSISSIPPI BLVD.	Allen St and Hernando St	17	Urban Collector	3,580	839	2		1,549	215	0.14	D+
0	0.38	MITCHELL RD.	Fuller State Park & Weaver	17	Urban Collector	1,040	510	2		1,549	62	0.04	D+
8.26	8.38	MONROE AVE.	Danny Thomas and Lauderdale S	17	Urban Collector	1,850	852	4	40	6,171	97	0.02	D+
8.38	8.93	MONROE AVE.	Danny Thomas and Lauderdale S	17	Urban Collector	1,850	852	3	40	4,629	97	0.02	D+
0	1.51	MOUNTAIN TERRACE	I-240 & Chelsea Ave	17	Urban Collector	3,990	715	2		1,549	239	0.15	D+
10.85	11.76	MULLINS STATION RD	State Rd and Patmore Rd	17	Urban Collector	3,210	675	2	30	1,549	193	0.12	D+
12.49	12.67	N AVALON ST	Byhalia Rd & Hwy 72	17	Urban Collector	5,600	900	4	40	6,171	293	0.05	D+
12.67	13.43	N AVALON ST	Byhalia Rd & Hwy 72	17	Urban Collector	5,600	900	2		1,549	336	0.22	D+
0	0.26	N EVERGREEN ST	Peabody & Union	17	Urban Collector	5,610	598	4	40	6,171	293	0.05	D+
0.13	0.35	N EVERGREEN ST	Peabody & Union	17	Urban Collector	5,610	598	2		1,549	337	0.22	D+
0.26	0.47	N EVERGREEN ST	Peabody & Union	17	Urban Collector	5,610	598	3	40	4,629	293	0.06	D+
0	0.38	N. BELLEVUE BLVD.	Manassas & Morehead	17	Urban Collector	4,600	563	2		1,549	276	0.18	D+
0.31	0.71	N. CIRCLE RD.	Locke & Fite	17	Urban Collector	470	21	2	45	1,549	28	0.02	D+
0.38	0.61	N. CIRCLE RD.	Locke & Fite	17	Urban Collector	470	21	2	35	1,549	28	0.02	D+
4.33	4.38	N. EVERGREEN ST	Poplar Ave and Beard	17	Urban Collector	1,810	859	2		1,549	109	0.07	D+
4.38	4.46	N. HIGHLAND ST.	Summer & Macon	17	Urban Collector	11,660	458	4	40	6,171	609	0.10	D+
0.89	1	N. LAUDERDALE ST.	Exchange Ave and I-40	17	Urban Collector	1,810	861	4	40	6,171	95	0.02	D+
1	1.1	N. LAUDERDALE ST.	Exchange Ave and I-40	17	Urban Collector	1,810	861	2		1,549	109	0.07	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
1.54	2.11	N. MANASSAS ST.	North Parkway & I-40	17	Urban Collector	2,380	469	2		1,549	143	0.09	D+
0	3.67	N. SEVENTH ST.	Weakley & Life	17	Urban Collector	900	564	2		1,549	54	0.03	D+
0.79	1.1	NEELY RD.	Raines & Fairway	17	Urban Collector	10,210	596	4	40	6,171	533	0.09	D+
1.28	1.33	NEW BRUNSWICK RD.	Davies Plantation & Ellis	17	Urban Collector	2,960	559	2	35	1,549	178	0.11	D+
1.33	1.4	NEWBERRY AVE.	Holmes Rd and Shelby Dr	17	Urban Collector	1,520	732	2		1,549	91	0.06	D+
13.53	13.98	NORTHAVEN DR.	Locke & Fite	17	Urban Collector	470	21	2	35	1,549	28	0.02	D+
13.98	14.3	OAK RD.	Memphis-Arlington & U.S. 70	17	Urban Collector	3,360	437	2		1,549	202	0.13	D+
15.75	15.99	OAK RD.	Dutwiler & Oak	17	Urban Collector	2,850	435	2	35	1,549	171	0.11	D+
15.99	16.2	OAKLEIGH LN.	Hacks Cross & Cedar Rige	17	Urban Collector	2,250	869	2	30	1,549	135	0.09	D+
16.2	16.44	OLD BROWNSVILLE RD	Egypt-Central & Austin Peay	17	Urban Collector	1,660	694	2		1,549	100	0.06	D+
16.44	16.79	OLD GETWELL RD.	Premier Ave and Watman Ave	17	Urban Collector	2,670	747	2		1,549	160	0.10	D+
18.59	18.8	OLD HWY. - 78	Republic Dr and Universal Dr	17	Urban Collector	7,830	724	2		1,549	470	0.30	D+
18.8	18.84	OLD LAMAR AV.	Perkins Rd and Outland Rd	17	Urban Collector	4,510	742	2		1,549	271	0.17	D+
0	5.15	ORCHI RD.	Duke St & N Graham St	17	Urban Collector	3,490	708	2		1,549	209	0.14	D+
5.15	8.17	OUTLAND RD.	Perkins Rd and Outland Rd	17	Urban Collector	4,510	742	2		1,549	271	0.17	D+
0	0.06	OVERTON CROSSING ST.	St. Elmo & Frayser	17	Urban Collector	8,910	410	4	40	6,171	466	0.08	D+
0.85	0.97	OVERTON CROSSING ST.	St. Elmo & Frayser	17	Urban Collector	8,910	410	2	40	1,549	535	0.35	D+
0.01	0.48	OVERTON PARK AVE	Overton Ave and Autumn Ave	17	Urban Collector	2,980	858	4	40	6,171	156	0.03	D+
0.18	1.01	OVERTON PARK AVE	Overton Ave and Autumn Ave	17	Urban Collector	2,980	858	2		1,549	179	0.12	D+
0	1.47	PATTERSON ST	Lowell and Malone Ave	17	Urban Collector	4,610	793	2		1,549	277	0.18	D+
0.84	0.89	PENDLETON ST.	Park & Barron	17	Urban Collector	11,490	517	4	40	6,171	600	0.10	D+
0.89	1.04	PERES AVE.	Vollintine Ave & Chelsea Ave	17	Urban Collector	4,490	712	2		1,549	269	0.17	D+
0	0.07	PERKINS RD	Cole & Poplar	17	Urban Collector	6,060	567	2		1,549	364	0.23	D+
0	0.35	PERKINS RD.	Summer Ave & McCrory Rd	17	Urban Collector	5,160	687	2		1,549	310	0.20	D+
0	0.37	PERRY RD	Norris Rd and Dunn Rd	17	Urban Collector	6,610	832	2		1,549	397	0.26	D+
3.96	4.09	PERRY RD	Norris Rd and Dunn Rd	17	Urban Collector	6,610	832	4	40	6,171	345	0.06	D+
4.09	4.61	PERRY RD.	Perry & Airways	17	Urban Collector	6,250	346	2		1,549	375	0.24	D+
4.61	5.46	PERSHING AVE.	Dexter Rd and Amberly Village	17	Urban Collector	2,060	681	2		1,549	124	0.08	D+
0	0.81	PERSON AVE.	Kansas St and Arkansas St	17	Urban Collector	1,760	827	2		1,549	106	0.07	D+
0	1.13	PETERSON LAKE RD.	Tenn. Hwy. 57 & Collierville-A	17	Urban Collector	5,590	441	2		1,549	335	0.22	D+
		PLAYERS CLUB PKWY.	Foresr Hill Irene & Center Hil	17	Urban Collector	3,290	632	2		1,549	197	0.13	D+
		PLEASANT HILL RD.	Holmes & DeSoto Co. Line	17	Urban Collector	4,190	121	2		1,549	251	0.16	D+
		POINT CHURCH RD.	Hawkins Mill & St. Elmo	17	Urban Collector	3,870	583	2		1,549	232	0.15	D+
		POPE ST.	Dexter Rd and Amberly Village	17	Urban Collector	3,880	682	2		1,549	233	0.15	D+
		POPLAR ESTATE PKWY	Cherry Rd and Dearing Rd	17	Urban Collector	2,400	776	2		1,549	144	0.09	D+
9.9	10.06	POWELL RD.	Foresr Hill Irene & Center Hil	17	Urban Collector	4,990	625	2		1,549	299	0.19	D+
10.2	10.31	PREMIER AVE.	Premier Ave and Watman Ave	17	Urban Collector	1,260	748	2		1,549	76	0.05	D+
0	1.18	PRESCOTT RD.	Raines Rd and Christine Rd	17	Urban Collector	1,710	746	2		1,549	103	0.07	D+
0.15	0.19	PRINCETON RD.	Walnut Grove & Minden Rd	17	Urban Collector	3,120	673	2		1,549	187	0.12	D+
0	0.16	PROSPECT ST.	Kansas St and Arkansas St	17	Urban Collector	3,150	829	2		1,549	189	0.12	D+
0.54	0.74	QUITO RD.	N Front & N Main	17	Urban Collector	3,080	864	2		1,549	185	0.12	D+
1.03	1.15	QUITO RD.	Shelby Road & West Union	17	Urban Collector	3,370	17	2		1,549	202	0.13	D+
0	3.32	RAGAN ST	Norris Rd and Dunn Rd	17	Urban Collector	1,910	833	2		1,549	115	0.07	D+
6.27	6.53	RAINES RD.	Prescott Rd and Tchulahoma Rd	17	Urban Collector	4,430	745	2		1,549	266	0.17	D+
6.53	7.02	RALEIGH-LA GRANGE RD.	Houston Levee & Monterey	17	Urban Collector	3,780	104	2		1,549	227	0.15	D+
7.02	7.2	RALEIGH-LAGRANGE RD	Austin & Coleman Rd	17	Urban Collector	7,700	705	2		1,549	462	0.30	D+
7.22	8.02	RALEIGH-LAGRANGE RD.	Germantown Rd & Walnut Bend	17	Urban Collector	1,160	640	2		1,549	70	0.04	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
8.11	11.58	RALEIGH-MILLINGTON RD	Hawkins Mill & Ramil	17	Urban Collector	5,410	720	2	35	1,549	325	0.21	D+
18.84	21.86	RANGE LINE RD.	University & Mountain Terrace	17	Urban Collector	2,600	582	2	40	1,549	156	0.10	D+
22.29	22.39	REESE RD.	Whitten Rd & Appling Rd	17	Urban Collector	8,550	652	2	30	1,549	513	0.33	D+
24.92	25.67	RICHMOND RD.	Foresr Hill Irene & Center Hil	17	Urban Collector	2,400	628	2	30	1,549	144	0.09	D+
15.63	16.78	RICHWOOD PL.	Foresr Hill Irene & Center Hil	17	Urban Collector	2,400	628	2	30	1,549	144	0.09	D+
19.59	20.04	RIDGEMONT RD.	Coleman & Covington Pike	17	Urban Collector	8,520	423	2		1,549	511	0.33	D+
20.04	20.05	RIDGEWAY BLVD.	Ridgeway Rd and Hickory Hill R	17	Urban Collector	6,560	733	4	40	6,171	343	0.06	D+
21.39	22.12	RIDGEWAY RD.	Winchester & Knight-Arnold	17	Urban Collector	17,570	575	4	40	6,171	918	0.15	D+
22.12	22.84	RIDGEWAY RD.	Winchester & Knight-Arnold	17	Urban Collector	17,570	575	2		1,549	1,054	0.68	E
24.69	25.62	RIVERDALE RD.	Poplar Ave & Neshoba Rd	17	Urban Collector	2,030	873	2		1,549	122	0.08	D+
27.19	27.53	RIVERDALE RD.	Byhalia Rd & Hwy 72	17	Urban Collector	7,160	912	4	45	6,514	374	0.06	D+
27.53	27.62	RIVERDALE ST	Eastern Ave and Poplar Pike	17	Urban Collector	1,070	755	2		1,549	64	0.04	D+
27.62	28.27	RIVERGATE RD.	Mallory Av and Rivergate Rd	17	Urban Collector	4,010	826	2	45	1,549	241	0.16	D+
28.27	28.74	RIVERPORT RD.	Mallory Av and Rivergate Rd	17	Urban Collector	4,010	826	2	35	1,549	241	0.16	D+
30.47	30.8	RIVERPORT RD.	Mallory Av and Rivergate Rd	17	Urban Collector	4,010	826	2	45	1,549	241	0.16	D+
0	0.95	RIVERSIDE BLVD.	Trigg Ave and McLemore Ave	17	Urban Collector	890	837	4	40	6,171	47	0.01	D+
0.95	1.09	RIVERSIDE BLVD.	Riverside & Trigg	17	Urban Collector	12,250	507	2		1,549	735	0.47	D+
1.61	1.73	RIVERSIDE BLVD.	Union & Beale	17	Urban Collector	13,890	173	4	40	6,171	726	0.12	D+
1.82	3.29	ROBERTSON RD.	North Watkins & Benjestown Rd	17	Urban Collector	2,210	656	6	40	9,257	115	0.01	D+
15.97	16.63	ROCKCREEK PKWY	Germatown Rd & Dexter Ln	17	Urban Collector	4,780	648	4	35	5,829	250	0.04	D+
16.85	16.95	ROCKINGHAM RD.	Holmes Rd and Shelby Dr	17	Urban Collector	1,470	728	2		1,549	88	0.06	D+
16.95	16.98	ROCKY POINT RD.	Germantown Rd & Walnut Bend	17	Urban Collector	720	644	2		1,549	43	0.03	D+
0	0.84	ROSS RD.	Raines & Shelby	17	Urban Collector	6,060	579	2		1,549	364	0.23	D+
4.26	5.15	RUST RD.	Locke & Fite	17	Urban Collector	470	21	2	45	1,549	28	0.02	D+
5.15	5.43	S. BELLEVUE BLVD.	Peabody & Lamar	17	Urban Collector	13,100	150	4	35	5,829	684	0.12	D+
5.53	5.74	S. CIRCLE RD.	Locke & Fite	17	Urban Collector	470	21	2	35	1,549	28	0.02	D+
0	0.34	S. FRONT ST.	Court & Madison	17	Urban Collector	12,210	217	2		1,549	733	0.47	D+
0	0.04	S. FRONT ST.	Court & Madison	17	Urban Collector	12,210	217	3	40	4,629	638	0.14	D+
0.04	0.09	S. MAIN ST.	Calhoun & Georgia	17	Urban Collector	2,720	500	2		1,549	163	0.11	D+
0	0.54	SCENIC HWY	New Allen & Highland	17	Urban Collector	3,340	379	2		1,549	200	0.13	D+
0.66	0.82	SCHEIBLER RD	Mem-Arlington & Dawnhill	17	Urban Collector	1,550	701	2		1,549	93	0.06	D+
0	0.09	SCHOOL AVE.	Easley & Navy	17	Urban Collector	6,960	543	2	20	1,549	418	0.27	D+
0	0.4	SCHOOLFIELD RD.	Hawkins Mill & Ramil	17	Urban Collector	4,610	722	2	35	1,549	277	0.18	D+
0.88	1.01	SCOTLAND RD.	Hollywood St & Birchfield Dr	17	Urban Collector	1,180	718	2		1,549	71	0.05	D+
0	0.13	SCOTTSDALE AVE.	Holmes Rd and Shelby Dr	17	Urban Collector	1,080	731	2		1,549	65	0.04	D+
2.16	2.45	SCOTTSDALE AVE.	Shelby Dr and Raines Rd	17	Urban Collector	1,250	739	2		1,549	75	0.05	D+
0	0.07	SEA ISLE RD	Cherry Rd and Dearing Rd	17	Urban Collector	830	775	2		1,549	50	0.03	D+
0	0.1	SEWANNE RD.	Briarcrest Ave and Shady Grove	17	Urban Collector	1,680	811	2		1,549	101	0.07	D+
1.19	1.47	SEWANNE RD.	Weaver & U.S. 61	17	Urban Collector	4,200	132	2		1,549	252	0.16	D+
9.13	9.32	SHADOWAND RD	Whitten Rd & Appling Rd	17	Urban Collector	4,430	653	2		1,549	266	0.17	D+
0	0.37	SHADY GROVE RD	Oak Grove & Yates	17	Urban Collector	6,290	569	2		1,549	377	0.24	D+
0	0.18	SHADY GROVE RD.	Perkins Rd and Grove Park Rd	17	Urban Collector	3,330	795	2		1,549	200	0.13	D+
0	0.31	SHARPE AVE	Semmes St and Prescott Rd	17	Urban Collector	7,390	769	2		1,549	443	0.29	D+
0	0.22	SHARPE AVE	Semmes St and Prescott Rd	17	Urban Collector	7,390	769	4	40	6,171	386	0.06	D+
0.37	0.41	SHELBY DR.	Weaver & U.S. 61	17	Urban Collector	4,200	132	2		1,549	252	0.16	D+
0.65	0.86	SHELBY RD.	Herring Hill & Quito	17	Urban Collector	720	18	2		1,549	43	0.03	D+
0.86	0.98	SIGNAL AVE	N Watkins and Delano Rd	17	Urban Collector	3,880	658	2		1,549	233	0.15	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
0	1.22	SLEDGE RD.	Pleasant Ridge & Navy	17	Urban Collector	2,460	34	2	45	1,549	148	0.10	D+
1.5	1.51	SMITH AVE.	Manassas & Morehead	17	Urban Collector	4,600	563	2		1,549	276	0.18	D+
1.51	3.86	SMITH AVE.	Manassas & Morehead	17	Urban Collector	4,600	563	4	40	6,171	240	0.04	D+
0	0.43	SNYDER RD.	Holmes Rd and Shelby Dr	17	Urban Collector	3,090	727	2		1,549	185	0.12	D+
0.43	0.73	SOMERVILLE AVE	Peabody & Pauline	17	Urban Collector	5,780	491	2		1,549	347	0.22	D+
0.73	1.71	SOUTH BELLEVUE BLVD	Union Ave and Madison Ave	17	Urban Collector	3,950	845	3	40	4,629	206	0.04	D+
1.71	1.96	SOUTH FOURTH ST.	Danny Thomas and Lauderdale S	17	Urban Collector	3,340	853	2		1,549	200	0.13	D+
2.51	2.7	SOUTH LAUDERDALE ST.	South Parkway W and Trigg Ave	17	Urban Collector	3,660	842	2		1,549	220	0.14	D+
0	0.01	SOUTHERN AV.	Highland & Goodlett	17	Urban Collector	7,880	518	4	35	5,829	412	0.07	D+
0.01	0.15	SOUTHERN AVE	Lowell and Malone Ave	17	Urban Collector	4,610	793	2		1,549	277	0.18	D+
0.13	0.4	SPOTTSWOOD AVE	Lowell and Malone Ave	17	Urban Collector	5,190	784	2		1,549	311	0.20	D+
2.36	3.83	SPRINGDALE ST	Vollintine Ave & Chelsea Ave	17	Urban Collector	7,480	711	2		1,549	449	0.29	D+
2.97	3.05	SQUOIA AVE.	Byhalia Rd & Hwy 72	17	Urban Collector	1,940	895	2		1,549	116	0.08	D+
3.68	3.97	ST. ELMO AV.	Frayser & St. Elmo	17	Urban Collector	11,520	411	2		1,549	691	0.45	D+
3.83	4.11	ST. ELMO AV.	Hawkins Mill & St. Elmo	17	Urban Collector	3,870	583	2		1,549	232	0.15	D+
5.06	5.53	STEELE ST	N Watkins and Delano Rd	17	Urban Collector	2,470	662	2		1,549	148	0.10	D+
0	0.76	SWEETBRIER RD	Briarcrest Ave and Shady Grove	17	Urban Collector	5,450	802	2		1,549	327	0.21	D+
2.12	2.16	SWIFT ST.	Kansas St and Arkansas St	17	Urban Collector	1,760	827	2		1,549	106	0.07	D+
2.36	2.85	Swinnea	State Line Rd. & Goodman	17	Urban Collector	4,100	5075	2		1,549	246	0.16	D+
0	0.57	SYCAMORE VIEW RD.	Stage & Yale	17	Urban Collector	6,080	584	2		1,549	365	0.24	D+
0	1.86	THOMAS RD	Pleasant View Rd & Elmore Rd	17	Urban Collector	3,310	688	2		1,549	199	0.13	D+
8.45	8.99	TIMBER CREEK RD	east of Col-Arlington Rd	17	Urban Collector	2,850	639	2		1,549	171	0.11	D+
0	0.39	TIMOTHY DR.	I-55 and Airways	17	Urban Collector	2,250	820	2		1,549	135	0.09	D+
0	0.79	TOURNAMENT DR.	Foresr Hill Irene & Center Hil	17	Urban Collector	3,290	632	2		1,549	197	0.13	D+
0.58	0.74	TOWNES AVE.	Duke St & N Graham St	17	Urban Collector	2,230	709	2		1,549	134	0.09	D+
0.74	0.88	TREZEVANT ST	Lowell and Malone Ave	17	Urban Collector	2,430	782	2		1,549	146	0.09	D+
2.17	2.58	TRIGG AVE	Mississippi Blvd.& Lauderdale	17	Urban Collector	3,970	603	2		1,549	238	0.15	D+
0	0.11	TRIGG AVE.	Norris Rd and Dunn Rd	17	Urban Collector	2,840	836	2		1,549	170	0.11	D+
0	0.08	TULANE RD.	Holmes & Shelby	17	Urban Collector	4,450	358	2		1,549	267	0.17	D+
0.46	0.59	TUTWILER AVE.	Jackson Ave & National St	17	Urban Collector	5,420	685	2		1,549	325	0.21	D+
2.74	2.9	UNION AVE.	Wagner Pl and Front St	17	Urban Collector	5,200	851	2		1,549	312	0.20	D+
2.38	2.56	UNIVERSITY ST	Vollintine Ave & Chelsea Ave	17	Urban Collector	2,610	710	2		1,549	157	0.10	D+
0	4.48	VALLEY PARK DR.	Holmes Rd and Shelby Dr	17	Urban Collector	2,380	730	2		1,549	143	0.09	D+
0	0.08	VANCE AVE.	Danny Thomas & Walnut	17	Urban Collector	5,490	494	2		1,549	329	0.21	D+
0.37	0.54	VANCE AVE.	Danny Thomas & Walnut	17	Urban Collector	5,490	494	4	40	6,171	287	0.05	D+
0	0.08	VOLLINTINE AVE	Evergreen & Watkins	17	Urban Collector	5,920	597	4	40	6,171	309	0.05	D+
0.44	0.66	VOLLINTINE AVE	Evergreen & Watkins	17	Urban Collector	5,920	597	2		1,549	355	0.23	D+
0.71	0.76	VOLLINTNE AVE.	Tulley Ave and Woodlawn St	17	Urban Collector	870	862	2		1,549	52	0.03	D+
3.39	3.4	W. ALCY RD.	Mallory Av and Rivergate Rd	17	Urban Collector	4,010	826	2	45	1,549	241	0.16	D+
3.4	3.46	W. MC LEMORE AVE.	Riverside & Trigg	17	Urban Collector	12,250	507	4	40	6,171	640	0.10	D+
3.46	4.98	W. MC LEMORE AVE.	Riverside & Trigg	17	Urban Collector	12,250	507	2		1,549	735	0.47	D+
4.98	5.21	W. UNION RD.	West Union & Tipton Co. Line	17	Urban Collector	5,760	293	2		1,549	346	0.22	D+
0	0.45	WALKER AVE	Clack and Orleans St	17	Urban Collector	2,340	843	2		1,549	140	0.09	D+
5.21	5.22	WALKER AVE	Oakview St and Kyle St	17	Urban Collector	370	848	2		1,549	22	0.01	D+
5.95	6.05	WALKER AVE	Lowell and Malone Ave	17	Urban Collector	4,610	793	2		1,549	277	0.18	D+
0.45	0.52	WALNUT BEND RD	Germantown Rd & Walnut Bend	17	Urban Collector	8,280	641	2		1,549	497	0.32	D+
2.51	2.67	WARING RD.	Tutwiler & Macon	17	Urban Collector	7,870	589	2		1,549	472	0.30	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
3.37	3.45	WAYNOKA AVE.	Garden Ln & Poplar Ave	17	Urban Collector	790	670	2		1,549	47	0.03	D+
3.45	4.01	WEAVER RD.	Raines & Shelby	17	Urban Collector	2,870	535	2		1,549	172	0.11	D+
4.01	4.52	WELLINGTON ST	Kansas St and Arkansas St	17	Urban Collector	5,580	830	2		1,549	335	0.22	D+
0	0.25	WELLINGTON ST.	Allen St and Hernando St	17	Urban Collector	5,110	840	2		1,549	307	0.20	D+
2.47	3.06	WELLS STATION RD.	Tutwiler & Macon	17	Urban Collector	7,870	589	2		1,549	472	0.30	D+
3.35	3.72	WHITE HAVEN LANE	Briarcrest Ave and Shady Grove	17	Urban Collector	2,200	815	2		1,549	132	0.09	D+
0	0.37	WHITE RD.	Kirby & Winchester	17	Urban Collector	5,250	636	2		1,549	315	0.20	D+
5.09	5.21	WHITE RD.	Kirby & Winchester	17	Urban Collector	1,980	637	2		1,549	119	0.08	D+
0.34	0.47	WHITNEY RD	Hollywood St & Birchfield Dr	17	Urban Collector	1,180	718	4	40	6,171	62	0.01	D+
0.37	0.82	WHITNEY RD	Hollywood St & Birchfield Dr	17	Urban Collector	1,690	716	2		1,549	101	0.07	D+
0	0.13	WILKINSVILLE RD.	West Union & Tipton Co. Line	17	Urban Collector	5,760	293	2		1,549	346	0.22	D+
0	0.12	WILKINSVILLE RD.	U.S. 51 & Navy	17	Urban Collector	8,530	323	2		1,549	512	0.33	D+
0	1.6	WILLETT ST	Union Ave and Madison Ave	17	Urban Collector	1,260	847	2		1,549	76	0.05	D+
1.6	2.04	WILLETT ST	#N/A	17	Urban Collector	1,600		2		1,549	96	0.06	D+
0	0.44	WILSON RD.	Briarcrest Ave and Shady Grove	17	Urban Collector	3,530	808	2		1,549	212	0.14	D+
0.04	0.09	WILSON ST	Union Ave and Madison Ave	17	Urban Collector	1,970	846	2		1,549	118	0.08	D+
0.18	0.28	WINBROOK DR.	I-55 and Airways	17	Urban Collector	2,730	821	2		1,549	164	0.11	D+
0.5	0.56	WINDERMERE RD	New Allen & Raleigh-Millington	17	Urban Collector	4,420	447	2		1,549	265	0.17	D+
0	0.03	WINFIELD AVE.	Briarcrest Ave and Shady Grove	17	Urban Collector	2,770	805	2		1,549	166	0.11	D+
0	2.12	WOODLAWN ST	Mem-Arlington & Dawnhill	17	Urban Collector	1,810	699	2		1,549	109	0.07	D+
0.66	1.37	YATES RD.	Byhalia Rd & Hwy 72	17	Urban Collector	3,520	894	4	40	6,171	184	0.03	D+
0.72	0.76	YATES RD.	Byhalia Rd & Hwy 72	17	Urban Collector	3,520	894	2		1,549	211	0.14	D+
0.76	1.1	YOUNG AVE	Lowell and Malone Ave	17	Urban Collector	3,840	785	2		1,549	230	0.15	D+
0	0.25	BILL MORRIS PKWY.	Ridgeway & I-240	12	Urban Freeway or Expressway	113,780	605	4	55	3,857	7,822	2.03	F
0.25	0.35	BILL MORRIS PKWY.	Ridgeway & I-240	12	Urban Freeway or Expressway	113,780	605	6	55	5,786	7,822	1.35	F
1.21	1.27	BILL MORRIS PKWY.	Hickory Hill & Kirby	12	Urban Freeway or Expressway	104,980	606	6	55	5,786	7,217	1.25	F
2.39	2.67	BILL MORRIS PKWY.	Kirby & Riverdale	12	Urban Freeway or Expressway	89,370	607	6	55	5,786	6,144	1.06	F
3.57	3.62	BILL MORRIS PKWY.	Kirby & Winchester	12	Urban Freeway or Expressway	67,750	634	6	55	5,786	4,658	0.81	D+
4.75	4.94	BILL MORRIS PKWY.	Hacks Cross & Winchester	12	Urban Freeway or Expressway	54,460	615	6	55	5,786	3,744	0.65	D+
4.94	5.1	BILL MORRIS PKWY.	Hacks Cross & Winchester	12	Urban Freeway or Expressway	54,460	615	4	55	3,857	3,744	0.97	E
6.02	6.12	BILL MORRIS PKWY.	Hacks Cross & Forest Hill-Iren	12	Urban Freeway or Expressway	41,650	614	4	55	3,857	2,863	0.74	D+
8.25	9.81	BILL MORRIS PKWY.	Forest Hill-Irene & Bailey Sta	12	Urban Freeway or Expressway	39,410	616	4	55	3,857	2,709	0.70	D+
10.4	10.92	BILL MORRIS PKWY.	Bailey Station & Byhalia Rd	12	Urban Freeway or Expressway	33,770	883	4	55	3,857	2,322	0.60	D+
12.42	12.5	BILL MORRIS PKWY.	Byhalia Rd & Hwy 72	12	Urban Freeway or Expressway	15,480	885	4	55	3,857	1,064	0.28	D+
12.5	14.48	BILL MORRIS PKWY.	Byhalia Rd & Hwy 72	12	Urban Freeway or Expressway	15,480	885	2	55	1,929	1,064	0.55	D+
0	0.2	PLOUGH BLVD.	Democrat & Brooks	12	Urban Freeway or Expressway	36,340	299	4	55	3,857	2,498	0.65	D+
0.2	0.37	PLOUGH BLVD.	Democrat & Brooks	12	Urban Freeway or Expressway	36,340	299	5	55	4,821	2,498	0.52	D+
0.37	0.85	PLOUGH BLVD.	Democrat & Brooks	12	Urban Freeway or Expressway	36,340	299	6	55	5,786	2,498	0.43	D+
1.16	1.44	PLOUGH BLVD.	I-240 & Democrat	12	Urban Freeway or Expressway	55,660	298	4	55	3,857	3,827	0.99	E
1.44	1.45	PLOUGH BLVD.	I-240 & Democrat	12	Urban Freeway or Expressway	55,660	298	5	55	4,821	3,827	0.79	D+
0	0.25	SAM COOPER BLVD	Byhalia Rd & Hwy 72	12	Urban Freeway or Expressway	25,160	914	6	55	5,786	1,730	0.30	D+
0.57	0.62	SAM COOPER BLVD	Byhalia Rd & Hwy 72	12	Urban Freeway or Expressway	32,320	915	6	55	5,786	2,222	0.38	D+
1.19	1.29	SAM COOPER BLVD	Holmes Street & Highland	12	Urban Freeway or Expressway	37,570	280	6	55	5,786	2,583	0.45	D+
1.78	2.14	SAM COOPER BLVD	Holmes Street & Highland	12	Urban Freeway or Expressway	37,570	280	5	55	4,821	2,583	0.54	D+
2.14	2.18	SAM COOPER BLVD	Highland & Graham	12	Urban Freeway or Expressway	49,280	273	5	55	4,821	3,388	0.70	D+
2.36	3.09	SAM COOPER BLVD	Highland & Graham	12	Urban Freeway or Expressway	49,280	273	6	55	5,786	3,388	0.59	D+
3.09	4.24	SAM COOPER BLVD	Graham & Perkins	12	Urban Freeway or Expressway	55,880	275	6	55	5,786	3,842	0.66	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
4.24	4.26	SAM COOPER BLVD	Perkins & Mendenhall	12	Urban Freeway or Expressway	56,130	277	6	55	5,786	3,859	0.67	D+
5.42	5.47	SAM COOPER BLVD	Perkins & Mendenhall	12	Urban Freeway or Expressway	56,130	277	5	55	4,821	3,859	0.80	D+
5.47	5.49	SAM COOPER BLVD	Perkins & Mendenhall	12	Urban Freeway or Expressway	56,130	277	4	55	3,857	3,859	1.00	F
0	0.2	STATE HWY-300	Byhalia Rd & Hwy 72	12	Urban Freeway or Expressway	1,060	910	1	55	964	73	0.08	D+
0.2	0.39	STATE HWY-300	I-40 & Thomas	12	Urban Freeway or Expressway	25,230	319	4	65	4,029	1,735	0.43	D+
0.71	0.86	STATE HWY-300	I-40 & Thomas	12	Urban Freeway or Expressway	25,230	319	5	65	5,036	1,735	0.34	D+
		I- 55	State Line Road & Goodman	11	Urban Interstate	54,000	270	4	55	3,857	2,295	0.60	D+
		I-55	At the TN/MS State Line	11	Urban Interstate	65,000	280	4	55	3,857	2,763	0.72	D+
0	0.11	INTERSTATE-240	Union & Lamar	11	Urban Interstate	73,050	247	4	65	4,029	3,105	0.77	D+
0.32	0.67	INTERSTATE-240	Union & Lamar	11	Urban Interstate	73,050	247	6	65	6,043	3,105	0.51	D+
1.3	1.53	INTERSTATE-240	South Parkway & Lamar	11	Urban Interstate	99,830	198	6	65	6,043	4,243	0.70	D+
2.79	2.93	INTERSTATE-240	Norris & South Parkway	11	Urban Interstate	99,780	197	6	65	6,043	4,241	0.70	D+
4.63	4.77	INTERSTATE-240	Norris & I-55	11	Urban Interstate	89,190	271	6	65	6,043	3,791	0.63	D+
5.39	5.46	INTERSTATE-240	U.S. 51 & Millbranch	11	Urban Interstate	137,100	552	6	65	6,043	5,827	0.96	E
6.51	7.25	INTERSTATE-240	Airways & Millbranch	11	Urban Interstate	141,850	195	6	65	6,043	6,029	1.00	E
7.76	8.04	INTERSTATE-240	Lamar & Airways	11	Urban Interstate	161,960	194	6	65	6,043	6,883	1.14	F
8.04	8.24	INTERSTATE-240	Lamar & Airways	11	Urban Interstate	161,960	194	8	65	8,057	6,883	0.85	D+
9.51	10.02	INTERSTATE-240	Getwell & Lamar	11	Urban Interstate	148,670	193	6	65	6,043	6,318	1.05	F
10.92	12.31	INTERSTATE-240	Perkins & Getwell	11	Urban Interstate	153,090	192	6	65	6,043	6,506	1.08	F
12.31	13.18	INTERSTATE-240	Mt. Moriah & Perkins	11	Urban Interstate	160,540	191	6	65	6,043	6,823	1.13	F
13.18	15.44	INTERSTATE-240	Poplar & Mt. Moriah	11	Urban Interstate	147,360	190	6	65	6,043	6,263	1.04	F
15.44	17.45	INTERSTATE-240	Byhalia Rd & Hwy 72	11	Urban Interstate	144,640	990	6	65	6,043	6,147	1.02	F
17.45	19.27	INTERSTATE-240	I-40 & Walnut Grove	11	Urban Interstate	142,600	189	6	65	6,043	6,061	1.00	F
0	0.55	INTERSTATE-40	Hernando DeSoto Bridge	11	Urban Interstate	44,430	282	6	65	6,043	1,888	0.31	D+
0.55	0.7	INTERSTATE-40	Riverside & Second	11	Urban Interstate	49,380	281	6	65	6,043	2,099	0.35	D+
0.7	1	INTERSTATE-40	Riverside & Second	11	Urban Interstate	49,380	281	6	55	5,786	2,099	0.36	D+
1	1.08	INTERSTATE-40	Riverside & Second	11	Urban Interstate	49,380	281	4	55	3,857	2,099	0.54	D+
1.08	1.1	INTERSTATE-40	Third & Danny Thomas	11	Urban Interstate	59,290	279	4	55	3,857	2,520	0.65	D+
1.45	2.28	INTERSTATE-40	Danny Thomas & I-240 Midtown	11	Urban Interstate	64,900	250	4	55	3,857	2,758	0.72	D+
2.52	2.54	INTERSTATE-40	Danny Thomas & I-240 Midtown	11	Urban Interstate	64,900	250	6	55	5,786	2,758	0.48	D+
2.54	2.55	INTERSTATE-40	Jackson & I-240 Midtown	11	Urban Interstate	113,130	248	6	55	5,786	4,808	0.83	D+
3.13	3.66	INTERSTATE-40	Chelsea & Jackson	11	Urban Interstate	107,200	249	6	55	5,786	4,556	0.79	D+
4	4.03	INTERSTATE-40	Wolf River & Chelsea	11	Urban Interstate	104,480	318	6	55	5,786	4,440	0.77	D+
5.76	6.28	INTERSTATE-40	Hollywood & Watkins	11	Urban Interstate	93,880	316	6	55	5,786	3,990	0.69	D+
7.59	8.68	INTERSTATE-40	Warford & Hollywood	11	Urban Interstate	96,020	321	6	55	5,786	4,081	0.71	D+
8.68	9.5	INTERSTATE-40	Jackson & Warford	11	Urban Interstate	93,130	312	6	55	5,786	3,958	0.68	D+
10.42	10.66	INTERSTATE-40	Covington Pike & Jackson	11	Urban Interstate	91,090	310	6	55	5,786	3,871	0.67	D+
12.62	13.68	INTERSTATE-40	Summer & Covington Pike	11	Urban Interstate	99,470	308	6	55	5,786	4,227	0.73	D+
14.22	14.44	INTERSTATE-40	Wolf River & Sycamore View	11	Urban Interstate	130,190	199	4	55	3,857	5,533	1.43	F
14.44	14.54	INTERSTATE-40	Wolf River & Sycamore View	11	Urban Interstate	130,190	199	6	55	5,786	5,533	0.96	E
14.54	14.6	INTERSTATE-40	Wolf River & Sycamore View	11	Urban Interstate	130,190	199	8	55	7,714	5,533	0.72	D+
14.96	15.65	INTERSTATE-40	Wolf River & Sycamore View	11	Urban Interstate	130,190	199	9	55	8,679	5,533	0.64	D+
16.97	17.19	INTERSTATE-40	Sycamore View & Whitten	11	Urban Interstate	101,050	200	9	55	8,679	4,295	0.49	D+
17.19	17.39	INTERSTATE-40	Sycamore View & Whitten	11	Urban Interstate	101,050	200	8	55	7,714	4,295	0.56	D+
17.39	17.42	INTERSTATE-40	Nonconnah Parkway & Wincheste	11	Urban Interstate	89,530	609	8	55	7,714	3,805	0.49	D+
18.89	20.23	INTERSTATE-40	Whitten & Germantown	11	Urban Interstate	77,420	201	8	55	7,714	3,290	0.43	D+
20.23	21.4	INTERSTATE-40	U.S. 64 & Germantown	11	Urban Interstate	60,360	295	8	55	7,714	2,565	0.33	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
21.4	21.53	INTERSTATE-40	U.S. 64 & Germantown	11	Urban Interstate	60,360	295	8	60	7,886	2,565	0.33	D+
21.53	21.56	INTERSTATE-40	U.S. 64 & Canada	11	Urban Interstate	45,800	202	8	60	7,886	1,947	0.25	D+
21.56	21.87	INTERSTATE-40	U.S. 64 & Canada	11	Urban Interstate	45,800	202	6	60	5,914	1,947	0.33	D+
22.15	22.39	INTERSTATE-40	U.S. 64 & Canada	11	Urban Interstate	45,800	202	6	70	6,171	1,947	0.32	D+
23.94	24.02	INTERSTATE-40	Canada & New Airline	11	Urban Interstate	38,730	203	6	70	6,171	1,646	0.27	D+
0	1.78	INTERSTATE-55	Shelby & Holmes	11	Urban Interstate	61,080	196	4	65	4,029	2,596	0.64	D+
1.78	4.81	INTERSTATE-55	Raines & Shelby	11	Urban Interstate	66,160	182	4	65	4,029	2,812	0.70	D+
4.81	5.09	INTERSTATE-55	Nonconnah Parkway & Wincheste	11	Urban Interstate	64,190	610	4	65	4,029	2,728	0.68	D+
5.09	5.14	INTERSTATE-55	McLean & East Parkway	11	Urban Interstate	85,150	270	4	65	4,029	3,619	0.90	E
5.74	6.12	INTERSTATE-55	I-240 & Third	11	Urban Interstate	90,170	207	4	65	4,029	3,832	0.95	E
6.24	6.67	INTERSTATE-55	I-240 & Third	11	Urban Interstate	90,170	207	6	65	6,043	3,832	0.63	D+
7.53	7.55	INTERSTATE-55	Horn Lake & U.S. 61	11	Urban Interstate	63,280	289	4	65	4,029	2,689	0.67	D+
7.55	7.75	INTERSTATE-55	Horn Lake & U.S. 61	11	Urban Interstate	63,280	289	6	65	6,043	2,689	0.45	D+
7.87	8.73	INTERSTATE-55	Florida & Mallory	11	Urban Interstate	68,510	209	6	65	6,043	2,912	0.48	D+
8.73	8.89	INTERSTATE-55	Florida & Mallory	11	Urban Interstate	68,510	209	4	65	4,029	2,912	0.72	D+
8.92	9.09	INTERSTATE-55	Mallory & South Parkway	11	Urban Interstate	66,260	210	4	65	4,029	2,816	0.70	D+
9.09	9.31	INTERSTATE-55	Mallory & South Parkway	11	Urban Interstate	66,260	210	6	65	6,043	2,816	0.47	D+
10.36	10.82	INTERSTATE-55	Nonconnah Parkway & Wincheste	11	Urban Interstate	63,870	611	6	65	6,043	2,714	0.45	D+
10.82	10.97	INTERSTATE-55	Nonconnah Parkway & Wincheste	11	Urban Interstate	63,870	611	4	65	4,029	2,714	0.67	D+
10.97	11.19	INTERSTATE-55	E.H. Crump & McLemore	11	Urban Interstate	62,330	211	4	65	4,029	2,649	0.66	D+
11.19	11.54	INTERSTATE-55	E.H. Crump & McLemore	11	Urban Interstate	62,330	211	6	65	6,043	2,649	0.44	D+
11.63	11.74	INTERSTATE-55	Holmes & Shelby	11	Urban Interstate	49,990	288	4	65	4,029	2,125	0.53	D+
11.93	12	INTERSTATE-55	At Memphis-Arkansas Bridge	11	Urban Interstate	43,550	412	4	65	4,029	1,851	0.46	D+
1.77	2.02	ABBINGTON ST.	Foresr Hill Irene & Center Hil	19	Urban Local	1,110	626	2		1,549	67	0.04	D+
2.02	2.21	AIR TRANS RD.	#N/A	19	Urban Local	3,450		2		1,549	207	0.13	D+
2.12	2.35	AUCTION AVE	#N/A	19	Urban Local	5,280		4	40	6,171	276	0.04	D+
2.35	2.52	BILOXI AVE.	#N/A	19	Urban Local	0		2		1,549	0	0.00	D+
2.35	3.28	BILOXI AVE.	#N/A	19	Urban Local	1,710		2		1,549	103	0.07	D+
2.52	2.8	BODLEY AVE	#N/A	19	Urban Local	640		2		1,549	38	0.02	D+
3.28	4.78	CALHOUN AVE	#N/A	19	Urban Local	50		2		1,549	3	0.00	D+
3.75	3.92	CENTER ST.	Foresr Hill Irene & Center Hil	19	Urban Local	4,200	627	2		1,549	252	0.16	D+
4.08	4.1	CHASE RD	#N/A	19	Urban Local	20		2		1,549	1	0.00	D+
4.1	4.18	CHASE RD	#N/A	19	Urban Local	20		1		1,549	1	0.00	D+
4.18	4.46	CHIMNEYROCK BLVD.	#N/A	19	Urban Local	1,000		4	30	5,486	52	0.01	D+
4.7	4.86	CHIMNEYROCK BLVD.	#N/A	19	Urban Local	1,000		2	30	1,549	60	0.04	D+
4.78	5.04	E. CHURCHILL DOWNS	#N/A	19	Urban Local	500		2	30	1,549	30	0.02	D+
4.86	4.9	GEORGIA AVE	#N/A	19	Urban Local	50		2		1,549	3	0.00	D+
5	5.25	GEORGIA AVE	#N/A	19	Urban Local	0		2		1,549	0	0.00	D+
5.04	5.39	GRANDBURY PL.	#N/A	19	Urban Local	200		2		1,549	12	0.01	D+
5.49	5.88	GREAT OAKS RD.	#N/A	19	Urban Local	500		2	30	1,549	30	0.02	D+
5.72	6.17	KENTUCKY ST.	#N/A	19	Urban Local	50		2		1,549	3	0.00	D+
5.88	7.09	KENTUCKY ST.	#N/A	19	Urban Local	150		2		1,549	9	0.01	D+
6.17	6.32	MENDENHALL RD	#N/A	19	Urban Local	40		4	40	6,171	2	0.00	D+
6.32	6.48	MONROE AVE.	#N/A	19	Urban Local	3,640		2		1,549	218	0.14	D+
7.09	7.19	MONROE AVE.	#N/A	19	Urban Local	3,640		3	40	4,629	190	0.04	D+
7.19	7.21	MONROE AVE.	#N/A	19	Urban Local	4,980		3	40	4,629	260	0.06	D+
7.65	7.69	MONROE AVE.	#N/A	19	Urban Local	4,980		4	40	6,171	260	0.04	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
7.69	8.25	MORNING SUN RD.	#N/A	19	Urban Local	960		2		1,549	58	0.04	D+
0	0.35	MT. PLEASANT RD.	#N/A	19	Urban Local	2,700		2		1,549	162	0.10	D+
0	0.06	NATIONAL ST.	Hollywood & Tillman	19	Urban Local	4,340	460	2		1,549	260	0.17	D+
0.18	0.6	NATIONAL ST.	Hollywood & Tillman	19	Urban Local	4,340	460	4	40	6,171	227	0.04	D+
0.6	0.7	NEWPORT ST.	#N/A	19	Urban Local	0		2		1,549	0	0.00	D+
0	2.72	NORTH HUMPHREYS BLVI	#N/A	19	Urban Local	200		2		1,549	12	0.01	D+
1.11	1.69	OAK MINOR RD	#N/A	19	Urban Local	303		2		1,549	18	0.01	D+
0	0.19	OLD AUSTIN PEAY HWY.	#N/A	19	Urban Local	8,330		2		1,549	500	0.32	D+
1.38	3.38	OLD AUSTIN PEAY HWY.	#N/A	19	Urban Local	12,880		4	40	6,171	673	0.11	D+
1.69	2.41	OLD AUSTIN PEAY HWY.	#N/A	19	Urban Local	12,880		2		1,549	773	0.50	D+
3.38	3.54	OLD AUSTIN PEAY HWY.	#N/A	19	Urban Local	8,330		4	40	6,171	435	0.07	D+
0.19	0.23	OLD DEXTER RD	#N/A	19	Urban Local	3,200		2	35	1,549	192	0.12	D+
0	5.57	OLD MILLINGTON RD	#N/A	19	Urban Local	20		2		1,549	1	0.00	D+
5.92	6.12	PARK CREEK DR.	#N/A	19	Urban Local	300		2	25	1,549	18	0.01	D+
6.49	6.57	PENNSYLVANIA ST.	#N/A	19	Urban Local	0		2		1,549	0	0.00	D+
6.74	6.86	PENNSYLVANIA ST.	#N/A	19	Urban Local	300		2		1,549	18	0.01	D+
7.02	7.08	PISGAH RD.	#N/A	19	Urban Local	960		2		1,549	58	0.04	D+
7.08	7.14	PROGRESS RD.	#N/A	19	Urban Local	0		2		1,549	0	0.00	D+
7.14	7.27	PROGRESS RD.	#N/A	19	Urban Local	70		2		1,549	4	0.00	D+
7.27	7.52	RIVERPORT RD.	#N/A	19	Urban Local	6,500	EST	4	50	6,857	340	0.05	D+
7.52	7.91	S LAUDERDALE ST.	#N/A	19	Urban Local	640		2		1,549	38	0.02	D+
7.91	8.08	S LAUDERDALE ST.	#N/A	19	Urban Local	640		4	40	6,171	33	0.01	D+
8.08	8.27	SOMERSET LN.	#N/A	19	Urban Local	300		2		1,549	18	0.01	D+
8.27	8.54	SOUTH ST.	#N/A	19	Urban Local	70		2		1,549	4	0.00	D+
8.54	8.55	Swinnea	TN/MS State Line & State Line Rc	19	Urban Local	810	5070	2		1,549	49	0.03	D+
8.55	9.23	Tulane	State Line Rd. & TN/MS State Lin	19	Urban Local	1,800	5400	2		1,549	108	0.07	D+
9.23	9.71	TULANE RD.	Holmes & Shelby	19	Urban Local	4,450	358	2		1,549	267	0.17	D+
0	0.15	VANCE AVE	#N/A	19	Urban Local	0		2		1,549	0	0.00	D+
9.71	10.06	VANCE AVE	#N/A	19	Urban Local	100		2		1,549	6	0.00	D+
0	0.11	VIRGINIA AVE.	#N/A	19	Urban Local	500		2		1,549	30	0.02	D+
0.11	0.16	VIRGINIA AVE.	#N/A	19	Urban Local	0		2		1,549	0	0.00	D+
0	4.69	WHITTEN RD.	#N/A	19	Urban Local	4,550		2		1,549	273	0.18	D+
0.16	0.26	WHITTEN RD.	#N/A	19	Urban Local	9,600		2		1,549	576	0.37	D+
4.69	5.45	WILLETT ST	#N/A	19	Urban Local	2,740		2		1,549	164	0.11	D+
5.45	7.96	WILLETT ST	#N/A	19	Urban Local	1,600		2		1,549	96	0.06	D+
0	0.13		#N/A	19	Urban Local	2,800		2		1,549	168	0.11	D+
0	0.12		#N/A	19	Urban Local	27,390		2		1,549	1,643	1.06	F
		Airways	Rasco & Goodman	16	Urban Minor Arterial	19,000	5050	2		768	1,425	1.86	F
		Airways	State Line Rd. & Rasco	16	Urban Minor Arterial	14,000	5055	2		768	1,050	1.37	F
		Airways	TN/MS State Line & State Line Rc	16	Urban Minor Arterial	17,000	5060	8		3,071	1,275	0.42	D+
0	0.79	AIRWAYS RD.	Holmes & DeSoto Co. Line	16	Urban Minor Arterial	15,300	374	6		2,303	1,148	0.50	D+
1.22	1.58	ALICIA DR.	Central & Southern	16	Urban Minor Arterial	6,920	340	2	35	768	519	0.68	D+
1.58	1.66	ALICIA DR.	Central & Southern	16	Urban Minor Arterial	6,920	340	3	35	1,152	519	0.45	D+
0	1.12	AMERICAN WAY	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	17,680	892	6		2,303	1,326	0.58	D+
1.12	1.44	AMERICAN WAY	Goodlett & Perkins	16	Urban Minor Arterial	17,620	424	5		1,919	1,322	0.69	D+
1.44	1.68	AMERICAN WAY	Goodlett & Perkins	16	Urban Minor Arterial	17,620	424	4		1,536	1,322	0.86	D+
1.68	1.87	AMERICAN WAY	Goodlett & Perkins	16	Urban Minor Arterial	17,620	424	6		2,303	1,322	0.57	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
2.72	3.12	AMERICAN WAY	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	17,450	891	6		2,303	1,309	0.57	D+
3.53	3.66	AMERICAN WAY	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	17,450	891	5		1,919	1,309	0.68	D+
3.66	3.88	AMERICAN WAY	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	17,450	891	4		1,536	1,309	0.85	D+
0	0.14	APPLING RD	I-40 & Reese Rd	16	Urban Minor Arterial	21,730	649	4		1,536	1,630	1.06	E
0	0.19	APPLING RD.	U.S. 70 & U.S. 64	16	Urban Minor Arterial	2,560	438	2	35	768	192	0.25	D+
0.58	0.84	APPLING RD.	U.S. 70 & U.S. 64	16	Urban Minor Arterial	2,560	438	4	35	1,536	192	0.13	D+
0.84	1.3	APPLING RD.	U.S. 70 & U.S. 64	16	Urban Minor Arterial	2,560	438	2	35	768	192	0.25	D+
4.11	4.93	ARMOUR RD.	Kerrville-Rosemark & Mill.-Arl	16	Urban Minor Arterial	890	10	2		768	67	0.09	D+
18.34	18.9	ARMOUR RD.	Navy & Millington-Arlington	16	Urban Minor Arterial	2,080	430	2	35	768	156	0.20	D+
11.89	12.18	AUCTION AV.	Third & Thomas	16	Urban Minor Arterial	5,080	140	4	35	1,536	381	0.25	D+
12.35	12.36	AUCTION AV.	Thomas & I-40	16	Urban Minor Arterial	7,230	175	4	35	1,536	542	0.35	D+
0	0.08	AUCTION AVE.	Union & Beale	16	Urban Minor Arterial	6,140	506	4		1,536	461	0.30	D+
0	0.07	AUCTION AVE.	N Front & N Main	16	Urban Minor Arterial	6,540	863	4		1,536	491	0.32	D+
0.43	0.76	BALL RD.	Perry & Airways	16	Urban Minor Arterial	5,910	347	4		1,536	443	0.29	D+
0	0.56	BARRON AV.	Pendleton & Prescott	16	Urban Minor Arterial	8,480	384	4	40	1,536	636	0.41	D+
7.22	8.38	BARTLETT BLVD.	Memphis-Arlington & Fiske	16	Urban Minor Arterial	6,530	450	6	40	2,303	490	0.21	D+
0	0.1	BARTLETT RD.	Ral.-LaGrange & Pleasant View	16	Urban Minor Arterial	6,450	364	4		1,536	484	0.32	D+
0.1	0.58	BARTLETT RD.	Ral.-LaGrange & Pleasant View	16	Urban Minor Arterial	6,450	364	2		768	484	0.63	D+
5.71	6.06	BAYLOR RD.	Billy Maher & Ellendale	16	Urban Minor Arterial	6,820	585	2		768	512	0.67	D+
0	0.12	BEALE ST.	Oakview St and Kyle St	16	Urban Minor Arterial	6,930	849	2		768	520	0.68	D+
0	0.09	BELZ BLVE.	Latham & Third	16	Urban Minor Arterial	4,380	593	4		1,536	329	0.21	D+
0.96	1.02	BELZ BLVE.	Latham & Third	16	Urban Minor Arterial	4,380	593	2		768	329	0.43	D+
0	1.16	BILLY MAHER RD.	Fiske Rd & Old Brownsville	16	Urban Minor Arterial	4,730	695	2		768	355	0.46	D+
8.38	8.39	BILLY MAHER RD.	Memphis-Arlington & Fiske	16	Urban Minor Arterial	6,530	450	2	35	768	490	0.64	D+
0	0.21	BRIARCREST AV.	Cherry Rd and Dearing Rd	16	Urban Minor Arterial	3,410	777	2		768	256	0.33	D+
0.52	0.81	BRIARCREST AV.	Briarcrest Ave and Shady Grove	16	Urban Minor Arterial	8,360	803	4	35	1,536	627	0.41	D+
0.81	1.17	BRIARCREST AV.	Briarcrest Ave and Shady Grove	16	Urban Minor Arterial	8,360	803	2	35	768	627	0.82	D+
0.39	0.67	BROAD AVE.	Hollywood & Tillman	16	Urban Minor Arterial	4,340	460	4		1,536	326	0.21	D+
1.13	1.41	BROAD AVE.	Hollywood & Tillman	16	Urban Minor Arterial	4,340	460	4	40	1,536	326	0.21	D+
1.7	1.74	BROAD AVE.	Hollywood & Tillman	16	Urban Minor Arterial	4,340	460	2	40	768	326	0.42	D+
1.03	1.47	BROADWAY RD.	Whitten Rd & Oak Rd	16	Urban Minor Arterial	8,900	692	2		768	668	0.87	D+
2.68	4.13	BROOKS RD.	Graves & U.S. 51	16	Urban Minor Arterial	13,070	92	4	45	1,536	980	0.64	D+
24.15	24.2	BYHALIA RD.	U.S. 72 & Collierville	16	Urban Minor Arterial	25,600	109	4	40	1,536	1,920	1.25	F
0.83	0.93	CALHOUN AVE.	Second & Third	16	Urban Minor Arterial	6,210	499	2		768	466	0.61	D+
13.3	13.62	CANADA RD.	I-40 & Memphis-Arlington	2	Urban Minor Arterial	8,065	213	2	45	1,629	917	0.56	D+
11.44	12.68	CANADA RD.	I-40 & U.S. 64	2	Urban Minor Arterial	10,990	214	2	45	1,629	1,250	0.77	D+
4.26	4.42	CASCADE ST.	St. Elmo & Frayser	16	Urban Minor Arterial	8,910	410	2	40	768	668	0.87	D+
0	0.08	CAZASSA RD.	I-55 and Airways	16	Urban Minor Arterial	3,160	822	2		768	237	0.31	D+
0.65	1.03	CEDAR RD.	Whitten Rd & Oak Rd	16	Urban Minor Arterial	8,900	692	2		768	668	0.87	D+
0	0.04	CENTRAL AVE	Belvedere & Willett	16	Urban Minor Arterial	8,770	600	2		768	658	0.86	D+
0.04	0.13	CENTRAL AVE	Belvedere & Willett	16	Urban Minor Arterial	8,770	600	4		1,536	658	0.43	D+
1.87	2.34	CENTRAL AVE	Zach Curlin & Deloach	16	Urban Minor Arterial	14,960	566	4		1,536	1,122	0.73	D+
13.18	13.39	CHELSEA AV.	Third & Thomas	16	Urban Minor Arterial	4,210	464	2	35	768	316	0.41	D+
13.39	13.49	CHELSEA AV.	Third & Thomas	16	Urban Minor Arterial	4,210	464	4	35	1,536	316	0.21	D+
0	0.29	CHELSEA AVE.	Thomas & I-40	16	Urban Minor Arterial	9,610	334	4		1,536	721	0.47	D+
1.12	1.17	CHELSEA AVE.	McLean & Hollywood	16	Urban Minor Arterial	12,560	239	4		1,536	942	0.61	D+
1.17	1.6	CHELSEA AVE.	McLean & Hollywood	16	Urban Minor Arterial	12,560	239	5		1,919	942	0.49	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
3.3	3.54	CHELSEA AVE.	Warford & Jackson	16	Urban Minor Arterial	6,390	335	4		1,536	479	0.31	D+
0.23	0.79	CHERRY RD	Boyce Rd and Kimball Rd	16	Urban Minor Arterial	7,440	772	2		768	558	0.73	D+
0.79	1.2	CHERRY RD	Boyce Rd and Kimball Rd	16	Urban Minor Arterial	7,440	772	4		1,536	558	0.36	D+
9.37	9.39	CHURCH ST.	Paul Barret & Navy	16	Urban Minor Arterial	19,630	14	4		1,536	1,472	0.96	D+
9.46	9.73	CHURCH ST.	Navy & Bill Knight	16	Urban Minor Arterial	14,690	545	4		1,536	1,102	0.72	D+
0	0.26	CLARKE RD.	Eastern Ave and Poplar Pike	16	Urban Minor Arterial	5,930	759	2		768	445	0.58	D+
0	1.75	CLEARBROOK ST.	Eastern Ave and Poplar Pike	16	Urban Minor Arterial	3,830	761	2		768	287	0.37	D+
0.52	0.65	CLIFTON AV.	Wingate & Mountain Terrace	16	Urban Minor Arterial	7,130	586	4	40	1,536	535	0.35	D+
4.23	4.26	CLIFTON AV.	St. Elmo & Frayser	16	Urban Minor Arterial	8,910	410	2	40	768	668	0.87	D+
4.95	5.3	COLEMAN RD.	Stage & Covington Pike	16	Urban Minor Arterial	20,940	71	6		2,303	1,571	0.68	D+
5.3	5.42	COLEMAN RD.	Austin Peay & Stage	16	Urban Minor Arterial	12,300	452	4		1,536	923	0.60	D+
22.12	22.52	COLLIERVILLE RD.	Bailey Station & Byhalia	16	Urban Minor Arterial	930	402	2	45	768	70	0.09	D+
0	0.04	COLLIERVILLE-ARLINGTOI	Shelton & Tenn. Hwy. 57	16	Urban Minor Arterial	6,130	106	2	30	768	460	0.60	D+
0.32	0.67	COLLIERVILLE-ARLINGTOI	Shelton & Tenn. Hwy. 57	16	Urban Minor Arterial	6,130	106	4	30	1,536	460	0.30	D+
0.7	0.77	COLLIERVILLE-ARLINGTOI	Shelton & Tenn. Hwy. 57	16	Urban Minor Arterial	6,130	106	4	40	1,536	460	0.30	D+
1.13	1.2	COLLIERVILLE-ARLINGTOI	Shelton & Tenn. Hwy. 57	16	Urban Minor Arterial	6,130	106	2	40	768	460	0.60	D+
2.07	2.12	COLLIERVILLE-ARLINGTOI	Shelton & Tenn. Hwy. 57	16	Urban Minor Arterial	6,130	106	2	45	768	460	0.60	D+
0	0.51	COLONIAL RD	Cherry Rd and Dearing Rd	16	Urban Minor Arterial	4,580	774	4		1,536	344	0.22	D+
0	0.16	COMMANCHE RD.	Curtis & Castleman	16	Urban Minor Arterial	8,370	574	2		768	628	0.82	D+
0	0.47	COTTINGHGAM PLACE	Poplar Ave & Neshoba Rd	16	Urban Minor Arterial	3,590	874	2		768	269	0.35	D+
0.22	2.57	COTTINWOOD RD.	Curtis & Castleman	16	Urban Minor Arterial	8,370	574	2		768	628	0.82	D+
0	0.24	CREIGHMONT DR	Mem-Arlington & Dawnhill	16	Urban Minor Arterial	3,480	702	2		768	261	0.34	D+
0	0.5	CRUMPLER RD.	Holmes Rd and Shelby Dr	16	Urban Minor Arterial	6,520	725	2	45	768	489	0.64	D+
1.68	1.79	CRUMPLER RD.	Holmes Rd and Shelby Dr	16	Urban Minor Arterial	6,520	725	4	45	1,536	489	0.32	D+
1.11	1.24	DELANO AVE.	Overton Crossing & Range Line	16	Urban Minor Arterial	10,450	333	4		1,536	784	0.51	D+
0	0.54	DEMOCRAT RD.	Airways & Tchulahoma	16	Urban Minor Arterial	19,370	351	4	40	1,536	1,453	0.95	D+
0.75	0.83	DEMOCRAT RD.	Airways & Tchulahoma	16	Urban Minor Arterial	19,370	351	4	45	1,536	1,453	0.95	D+
2.36	2.44	DEMOCRAT RD.	Airways & Tchulahoma	16	Urban Minor Arterial	19,370	351	6	45	2,303	1,453	0.63	D+
0	0.05	DEXTER RD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	7,080	887	4	35	1,536	531	0.35	D+
0.05	0.25	DEXTER RD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	7,080	887	2	35	768	531	0.69	D+
2.42	2.65	DEXTER RD.	Sycamore View & Mullins Statio	16	Urban Minor Arterial	18,060	206	2	35	768	1,355	1.76	F
3.01	3.21	DOGWOOD RD.	Houston-Levee & Bray Station	16	Urban Minor Arterial	7,840	439	6	35	2,303	588	0.26	D+
3.25	3.74	DOGWOOD RD.	Houston-Levee & Bray Station	16	Urban Minor Arterial	7,840	439	6	40	2,303	588	0.26	D+
0.81	0.95	DUNN RD.	Perry & Airways	16	Urban Minor Arterial	6,250	346	4		1,536	469	0.31	D+
6.24	7.38	E. MCLEMORE AV.	Wellington & Lauderdale	16	Urban Minor Arterial	7,410	602	4	35	1,536	556	0.36	D+
8.57	8.73	E. MCLEMORE AV.	Wellington & Lauderdale	16	Urban Minor Arterial	7,410	602	2	35	768	556	0.72	D+
0	0.13	EASLEY ST.	Wilkinsville & North Creek	16	Urban Minor Arterial	8,970	544	2		768	673	0.88	D+
0	0.38	ECHLES ST.	Lowell and Malone Ave	16	Urban Minor Arterial	3,510	791	2		768	263	0.34	D+
0.97	1	EGYPT-CENTRAL RD.	Coleman & Covington Pike	16	Urban Minor Arterial	8,520	423	2		768	639	0.83	D+
0	0.28	ELLISTON RD	Elvis Presley Blvd and Perry R	16	Urban Minor Arterial	1,910	831	2		768	143	0.19	D+
1.99	2.1	ELLISTON RD	Semmes St and Prescott Rd	16	Urban Minor Arterial	7,390	769	2		768	554	0.72	D+
1.1	1.44	ELMORE BDKS DR	Sycamore View & U.S. 70	16	Urban Minor Arterial	5,590	454	2		768	419	0.55	D+
0	0.58	ELMORE RD.	Covington Pike & Ral-Lagrange	16	Urban Minor Arterial	6,020	706	4		1,536	452	0.29	D+
4.74	4.82	ELVIS PRESLEY BLVD.	Norris & I-240	16	Urban Minor Arterial	23,950	168	5	40	1,919	1,796	0.94	D+
4.84	5.16	ELVIS PRESLEY BLVD.	Norris & I-240	16	Urban Minor Arterial	23,950	168	4	40	1,536	1,796	1.17	D+
6.14	6.86	ELVIS PRESLEY BLVD.	Person & Norris	16	Urban Minor Arterial	20,540	167	4	40	1,536	1,541	1.00	D+
7.79	7.97	ELVIS PRESLEY BLVD.	Person & Norris	16	Urban Minor Arterial	20,540	167	4	35	1,536	1,541	1.00	D+

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0	0.1	ESTATE	Cherry Rd and Dearing Rd	16	Urban Minor Arterial	6,750	779	4		1,536	506	0.33	D+
0	0.58	EXETER RD	Poplar Ave & Germantown Rd	16	Urban Minor Arterial	11,860	877	4		1,536	890	0.58	D+
0.31	0.57	FARMINGTON AV.	Exeter Rd & Brierbrook Rd	16	Urban Minor Arterial	14,400	878	4	35	1,536	1,080	0.70	D+
0.94	1.73	FARMINGTON AV.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	16,970	905	4	35	1,536	1,273	0.83	D+
0	0.31	FARMINGTON BLVD.	Exeter Rd & Brierbrook Rd	16	Urban Minor Arterial	14,400	878	6	35	2,303	1,080	0.47	D+
2.47	3.33	FARMINGTON BLVD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	16,970	905	6	40	2,303	1,273	0.55	D+
0.52	0.72	FIRESTONE AVE.	Manassas & Morehead	16	Urban Minor Arterial	4,600	563	4		1,536	345	0.22	D+
5.3	5.36	FLORIDA ST.	Belz & South Parkway	16	Urban Minor Arterial	5,300	349	4		1,536	398	0.26	D+
7.12	7.45	FLORIDA ST.	Belz & South Parkway	16	Urban Minor Arterial	5,300	349	2		768	398	0.52	D+
0.9	1.36	FOREST HILL-IRENE RD.	Shelby & Holmes	16	Urban Minor Arterial	3,470	444	2	45	768	260	0.34	D+
1.47	1.55	FOREST HILL-IRENE RD.	Shelby & Winchester	16	Urban Minor Arterial	7,250	414	2	45	768	544	0.71	D+
3.92	4.07	FOREST HILL-IRENE RD.	Shelby & Winchester	16	Urban Minor Arterial	7,250	414	4	45	1,536	544	0.35	D+
4.07	4.28	FOREST HILL-IRENE RD.	Shelby & Winchester	16	Urban Minor Arterial	7,250	414	3	45	1,152	544	0.47	D+
4.3	4.53	FRAYSER - RALEIGH RD.	New Allen & Raleigh-Millington	16	Urban Minor Arterial	16,680	65	4		1,536	1,251	0.81	D+
0	0.15	FRAYSER BLVD.	U.S. 51 & Watkins	16	Urban Minor Arterial	8,400	332	4		1,536	630	0.41	D+
1.54	1.79	FRAYSER BLVD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	21,490	908	4		1,536	1,612	1.05	D+
0	0.56	GERMANTOWN RD.	Craven Rd. & U.S. 70	16	Urban Minor Arterial	4,990	558	2		768	374	0.49	D+
1.2	1.31	GERMANTOWN RD.	Shelby & Winchester	16	Urban Minor Arterial	8,200	580	2		768	615	0.80	D+
10.41	10.55	GERMANTOWN RD.	Sunset & Satinwood	16	Urban Minor Arterial	15,410	570	2		768	1,156	1.51	F
10.66	11.01	GERMANTOWN RD.	Sunset & Satinwood	16	Urban Minor Arterial	15,410	570	4		1,536	1,156	0.75	D+
10.82	10.91	GERMANTOWN RD.	Memphis-Arlington & U.S. 64	16	Urban Minor Arterial	14,960	47	4	40	1,536	1,122	0.73	D+
10.91	12.55	GERMANTOWN RD.	Memphis-Arlington & U.S. 64	16	Urban Minor Arterial	14,960	47	2	40	768	1,122	1.46	F
0	0.79	GETWELL RD.	Holmes & DeSoto Co. Line	16	Urban Minor Arterial	10,300	294	2		768	773	1.01	E
0	0.56	GETWELL RD.	Rhodes & Sharpe	16	Urban Minor Arterial	29,060	345	4		1,536	2,180	1.42	D+
0.79	1.44	GETWELL RD.	Holmes & Shelby	16	Urban Minor Arterial	17,640	307	2		768	1,323	1.72	F
1.68	1.74	GETWELL RD.	Rhodes & Sharpe	16	Urban Minor Arterial	29,060	345	6		2,303	2,180	0.95	D+
1.79	2.4	GETWELL RD.	Raines & Winchester	16	Urban Minor Arterial	19,900	306	6		2,303	1,493	0.65	D+
2.4	2.54	GETWELL RD.	Raines & Winchester	16	Urban Minor Arterial	19,900	306	4		1,536	1,493	0.97	D+
0.18	0.51	GRAHAM ST.	Wales & Chelsea	16	Urban Minor Arterial	5,200	456	2		768	390	0.51	D+
1.28	1.59	GRAHAM ST.	Wales & Chelsea	16	Urban Minor Arterial	5,200	456	4		1,536	390	0.25	D+
1.83	2.74	GRAHAM ST.	Summer & Macon	16	Urban Minor Arterial	8,520	336	4		1,536	639	0.42	D+
2.9	3.03	GRAHAM ST.	Sam Cooper & Walnut Grove	16	Urban Minor Arterial	14,430	274	4		1,536	1,082	0.70	D+
2.99	3.01	GREER ST.	Highland & Goodlett	16	Urban Minor Arterial	7,880	518	2	35	768	591	0.77	D+
0	0.75	HACKS CROSS RD.	Holmes & DeSoto Co. Line	16	Urban Minor Arterial	15,460	117	2	45	768	1,160	1.51	F
0.75	1	HACKS CROSS RD.	Holmes & DeSoto Co. Line	16	Urban Minor Arterial	15,460	117	4	45	1,536	1,160	0.76	D+
1	1.37	HACKS CROSS RD.	Winchester & Shelby	16	Urban Minor Arterial	29,120	445	6	45	2,303	2,184	0.95	D+
2.1	2.21	HACKS CROSS RD.	Tournament & Players Club	16	Urban Minor Arterial	15,900	633	6	45	2,303	1,193	0.52	D+
2.92	3.21	HACKS CROSS RD.	Tournament & Players Club	16	Urban Minor Arterial	15,900	633	4	45	1,536	1,193	0.78	D+
5.52	5.62	HAWKINS MILL RD.	Raleigh-Millington & Coleman	16	Urban Minor Arterial	21,990	362	4		1,536	1,649	1.07	F
0	0.21	HICKORY HILL DR.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	13,530	911	5	45	1,919	1,015	0.53	D+
0.21	0.27	HICKORY HILL DR.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	13,530	911	6	45	2,303	1,015	0.44	D+
1.02	1.18	HICKORY HILL DR.	Rosewind Cr and Raines Rd	16	Urban Minor Arterial	27,640	734	6	45	2,303	2,073	0.90	D+
1.05	1.29	HIGHLAND RD.	Chelsea & I-240	16	Urban Minor Arterial	4,850	397	4		1,536	364	0.24	D+
1.96	1.97	HIGHLAND RD.	Rhodes & Sharpe	16	Urban Minor Arterial	14,570	396	4		1,536	1,093	0.71	D+
2.54	2.65	HIGHLAND RD.	Chelsea & I-240	16	Urban Minor Arterial	4,850	397	5		1,919	364	0.19	D+
0	0.69	HOLLYWOOD ST.	Central & Southern	16	Urban Minor Arterial	6,920	340	2	40	768	519	0.68	D+
0.69	1.22	HOLLYWOOD ST.	Central & Southern	16	Urban Minor Arterial	6,920	340	4	40	1,536	519	0.34	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
1.66	1.77	HOLLYWOOD ST.	Poplar & Broad	16	Urban Minor Arterial	10,300	461	2	35	768	773	1.01	E
2.47	2.52	HOLLYWOOD ST.	Summer & Jackson	16	Urban Minor Arterial	12,190	459	2	35	768	914	1.19	F
0	0.09	HOLMES RD.	Weaver & Horn Lake	16	Urban Minor Arterial	4,620	134	2		768	347	0.45	D+
2.08	2.12	HOLMES RD.	Horn Lake & Tulane	16	Urban Minor Arterial	9,680	532	2		768	726	0.95	D+
3.95	4.32	HOLMES RD.	Horn Lake & Tulane	16	Urban Minor Arterial	9,680	532	4		1,536	726	0.47	D+
4.51	5.43	HOLMES RD.	U.S. 51 & Millbranch	16	Urban Minor Arterial	13,820	528	4		1,536	1,037	0.67	D+
5.93	6.18	HOLMES RD.	U.S. 51 & Millbranch	16	Urban Minor Arterial	13,820	528	3		1,152	1,037	0.90	D+
6.18	6.38	HOLMES RD.	U.S. 51 & Millbranch	16	Urban Minor Arterial	13,820	528	2		768	1,037	1.35	F
7.52	9.54	HOLMES RD.	Getwell & Tchulahoma	16	Urban Minor Arterial	11,000	291	2		768	825	1.07	F
9.54	12.35	HOLMES RD.	Pleasant Hill & Malone	16	Urban Minor Arterial	8,600	302	2		768	645	0.84	D+
12.35	13.64	HOLMES RD.	Ross & Germantown Extended	16	Urban Minor Arterial	8,440	235	2		768	633	0.82	D+
0.45	0.99	HOLMES ST	Sam Cooper & Waynoka	16	Urban Minor Arterial	8,430	588	4		1,536	632	0.41	D+
0	0.11	HOMER ST.	Chelsea & I-240	16	Urban Minor Arterial	4,850	397	2		768	364	0.47	D+
1.62	2.01	HORN LAKE RD.	Raines & Shelby	16	Urban Minor Arterial	9,550	355	2		768	716	0.93	D+
2.01	2.17	HORN LAKE RD.	Raines & Shelby	16	Urban Minor Arterial	9,550	355	4		1,536	716	0.47	D+
2.28	3.07	HORN LAKE RD.	Nonconnah Creek & I-55	16	Urban Minor Arterial	14,090	322	4		1,536	1,057	0.69	D+
3.07	3.22	HORN LAKE RD.	Nonconnah Creek & I-55	16	Urban Minor Arterial	14,090	322	2		768	1,057	1.38	F
0.21	1.28	HOUSTON LEVEE RD.	Frank & U.S. 72	16	Urban Minor Arterial	14,650	111	4		1,536	1,099	0.72	D+
5.8	5.9	HOUSTON LEVEE RD.	Frank & U.S. 72	16	Urban Minor Arterial	14,650	111	2	45	768	1,099	1.43	F
9.77	11.44	HOUSTON LEVEE RD.	U.S. 64 & Morning Sun	16	Urban Minor Arterial	12,110	618	2	45	768	908	1.18	F
0	1.38	HUMPHREYS BLVD.	Walnut Grove & Shady Grove E.	16	Urban Minor Arterial	24,800	553	6		2,303	1,860	0.81	D+
1.66	1.83	JACKSON AV.	Garden Ln & Poplar Ave	16	Urban Minor Arterial	4,270	667	1		384	320	0.83	D+
0	0.11	JAMES RD.	Coleman & Covington Pike	16	Urban Minor Arterial	25,250	70	6	45	2,303	1,894	0.82	D+
1.8	2.19	JAMES RD.	Overton Crossing & Range Line	16	Urban Minor Arterial	10,450	333	4		1,536	784	0.51	D+
4.39	5.2	JAMES RD.	New Allen & Austin Peay	16	Urban Minor Arterial	14,770	361	4		1,536	1,108	0.72	D+
5.2	5.91	JAMES RD.	New Allen & Austin Peay	16	Urban Minor Arterial	14,770	361	6		2,303	1,108	0.48	D+
0	0.09	JEFFERSON AV.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	2,100	901	2	40	768	158	0.21	D+
0.23	0.4	JEFFERSON AV.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	2,100	901	3	40	1,152	158	0.14	D+
0.4	0.48	JEFFERSON AV.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	2,100	901	4	40	1,536	158	0.10	D+
0.48	0.53	JEFFERSON AV.	Pauline & I-240 Midtown	16	Urban Minor Arterial	7,270	337	4	40	1,536	545	0.36	D+
0	0.96	KANSAS ST.	Person & Mallory	16	Urban Minor Arterial	5,360	592	2		768	402	0.52	D+
0.96	1.09	KANSAS ST.	Person & Mallory	16	Urban Minor Arterial	5,360	592	4		1,536	402	0.26	D+
0	0.03	KETCHUM RD.	Perry & Airways	16	Urban Minor Arterial	5,910	347	2		768	443	0.58	D+
0	0.08	KETCHUM RD.	Airways & Pendleton	16	Urban Minor Arterial	10,470	521	4		1,536	785	0.51	D+
0.03	0.06	KETCHUM RD.	Perry & Airways	16	Urban Minor Arterial	5,910	347	4		1,536	443	0.29	D+
0	0.06	KIMBALL AVE	Semmes St and Greer St	16	Urban Minor Arterial	4,970	768	4		1,536	373	0.24	D+
0.12	0.19	KIMBALL AVE	Semmes St and Greer St	16	Urban Minor Arterial	4,970	768	2		768	373	0.49	D+
0	0.87	KIMBALL RD	Robin Hood Ln and Echles St	16	Urban Minor Arterial	6,870	771	4		1,536	515	0.34	D+
0	0.07	KIMBROUGH RD.	Poplar & Forest Hill-Irene	16	Urban Minor Arterial	6,110	228	4	30	1,536	458	0.30	D+
2.94	3.34	KIMGBROUGH RD.	Poplar Ave & Neshoba Rd	16	Urban Minor Arterial	3,590	874	2		768	269	0.35	D+
3.34	3.55	KIMGBROUGH RD.	Poplar Ave & Neshoba Rd	16	Urban Minor Arterial	3,590	874	4		1,536	269	0.18	D+
0	0.9	KIRBY PARKWAY	Messick & Poplar Pike	16	Urban Minor Arterial	10,850	376	4		1,536	814	0.53	D+
0.9	0.91	KIRBY PARKWAY	Messick & Poplar Pike	16	Urban Minor Arterial	10,850	376	6		2,303	814	0.35	D+
1.06	1.08	KIRBY PARKWAY	Poplar & Massey Lane	16	Urban Minor Arterial	18,570	377	4		1,536	1,393	0.91	D+
1.77	2.3	KIRBY PARKWAY	Poplar & Massey Lane	16	Urban Minor Arterial	18,570	377	2		768	1,393	1.81	F
1.79	1.98	KIRBY PKWY.	Winchester & Raines	16	Urban Minor Arterial	20,350	581	6	45	2,303	1,526	0.66	D+
5.04	5.18	KIRBY PKWY.	Poplar Pike & Quince	16	Urban Minor Arterial	4,650	101	6	45	2,303	349	0.15	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
5.18	5.29	KIRBY RD.	Poplar Pike & Quince	16	Urban Minor Arterial	4,650	101	4	45	1,536	349	0.23	D+
5.29	5.61	KIRBY RD.	Poplar Pike & Quince	16	Urban Minor Arterial	4,650	101	2	45	768	349	0.45	D+
5.21	5.41	KIRBY WHITTEN RD.	Stage & Memphis-Arlington	16	Urban Minor Arterial	13,740	555	6	40	2,303	1,031	0.45	D+
0	0.13	KNIGHT-ARNOLD RD.	Lamar Ave and New Getwell	16	Urban Minor Arterial	15,180	764	4		1,536	1,139	0.74	D+
1.18	1.35	KNIGHT-ARNOLD RD.	Clearbrook & Perkins	16	Urban Minor Arterial	23,330	573	4		1,536	1,750	1.14	D+
5.01	5.51	KNIGHT-ARNOLD RD.	Clearbrook & Perkins	16	Urban Minor Arterial	23,330	573	6		2,303	1,750	0.76	D+
6.28	6.38	KNIGHT-ARNOLD RD.	Clearbrook & Perkins	16	Urban Minor Arterial	23,330	573	2		768	1,750	2.28	D+
7.26	7.5	KNIGHT-ARNOLD RD.	Riverdale Rd and Caledonian Rd	16	Urban Minor Arterial	980	751	2		768	74	0.10	D+
0.64	0.93	LAKEVIEW RD.	Brooks & Mitchell	16	Urban Minor Arterial	4,570	514	2		768	343	0.45	D+
1.3	1.51	LAKEVIEW RD.	Brooks & Mitchell	16	Urban Minor Arterial	4,570	514	4		1,536	343	0.22	D+
0	0.34	LAUDERDALE ST.	Person & Mallory	16	Urban Minor Arterial	6,400	513	4		1,536	480	0.31	D+
1.03	1.35	LAUDERDALE ST.	Person & Mallory	16	Urban Minor Arterial	6,400	513	2		768	480	0.63	D+
0	0.9	LENOW RD.	Exeter Rd & Brierbrook Rd	16	Urban Minor Arterial	1,870	881	2	40	768	140	0.18	D+
0	0.09	LINDEN AVE.	Third & Danny Thomas	16	Urban Minor Arterial	6,880	504	2		768	516	0.67	D+
0.47	0.64	LINDEN AVE.	Peabody & Pauline	16	Urban Minor Arterial	5,780	491	2		768	434	0.56	D+
0	0.24	MACON RD	Jackson Ave & National St	16	Urban Minor Arterial	7,110	683	2		768	533	0.69	D+
0.24	0.47	MACON RD	Jackson Ave & National St	16	Urban Minor Arterial	7,110	683	4		1,536	533	0.35	D+
1.63	1.96	MACON RD.	Germantown Pkwy. & Rocky Poin	16	Urban Minor Arterial	12,470	84	2	45	768	935	1.22	F
1.79	1.83	MACON RD.	Graham & Stratford	16	Urban Minor Arterial	11,900	238	4		1,536	893	0.58	D+
1.96	2.11	MACON RD.	Germantown Pkwy. & Rocky Poin	16	Urban Minor Arterial	12,470	84	2	40	768	935	1.22	F
2.66	3.35	MACON RD.	Sycamore View & Mullins Statio	16	Urban Minor Arterial	18,060	206	6	45	2,303	1,355	0.59	D+
3.35	3.47	MACON RD.	Sycamore View & Mullins Statio	16	Urban Minor Arterial	18,060	206	5	45	1,919	1,355	0.71	D+
3.47	3.66	MACON RD.	Sycamore View & Mullins Statio	16	Urban Minor Arterial	18,060	206	2	45	768	1,355	1.76	F
5.38	5.45	MACON RD.	Germantown Pkwy. & Rocky Poin	16	Urban Minor Arterial	12,470	84	3	40	1,152	935	0.81	D+
5.93	5.95	MACON RD.	Reed Hooker & Coll.-Arlington	16	Urban Minor Arterial	3,890	418	2	45	768	292	0.38	D+
9.69	9.7	MACON RD.	Graham & Stratford	16	Urban Minor Arterial	11,900	238	4	40	1,536	893	0.58	D+
0	0.03	MADISON AVE.	Cleveland & McLean	16	Urban Minor Arterial	11,760	339	2		768	882	1.15	F
0.03	0.36	MADISON AVE.	Cleveland & McLean	16	Urban Minor Arterial	11,760	339	4		1,536	882	0.57	D+
2.27	2.33	MADISON AVE.	Dunlap & Pauline	16	Urban Minor Arterial	5,550	338	4		1,536	416	0.27	D+
2.41	2.45	MADISON AVE.	Dunlap & Pauline	16	Urban Minor Arterial	5,550	338	6		2,303	416	0.18	D+
2.99	3.04	MADISON AVE.	Danny Thomas & Manassas	16	Urban Minor Arterial	6,140	487	5		1,919	461	0.24	D+
3.08	3.35	MADISON AVE.	Danny Thomas & Manassas	16	Urban Minor Arterial	6,140	487	3		1,152	461	0.40	D+
2.74	2.78	MALLORY AVE.	Third & Lauderdale	16	Urban Minor Arterial	9,380	350	4		1,536	704	0.46	D+
4.36	4.73	MALLORY AVE.	Third & Lauderdale	16	Urban Minor Arterial	9,380	350	2		768	704	0.92	D+
1.07	1.19	MASSEY RD.	Eastern Ave and Poplar Pike	16	Urban Minor Arterial	4,330	756	2		768	325	0.42	D+
8.91	9.69	MCCRORY RD.	Graham & Stratford	16	Urban Minor Arterial	11,900	238	4	40	1,536	893	0.58	D+
1.3	1.59	MEMPHIS-ARLINGTON RD.	Billy Maher & Dutwiler	16	Urban Minor Arterial	10,820	53	2		768	812	1.06	F
1.63	1.71	MEMPHIS-ARLINGTON RD.	Billy Maher & Dutwiler	16	Urban Minor Arterial	10,820	53	4		1,536	812	0.53	D+
1.68	1.91	MENDENHALL RD	Willow & Quince	16	Urban Minor Arterial	21,140	98	4		1,536	1,586	1.03	E
1.91	2.11	MENDENHALL RD	Shady Grove & Cole	16	Urban Minor Arterial	17,580	568	4		1,536	1,319	0.86	D+
0.38	0.46	MESSICK RD.	Kirby Pkwy & Kirby Rd.	16	Urban Minor Arterial	4,340	572	2		768	326	0.42	D+
0	1.7	MILL BRANCH RD.	Holmes & DeSoto Co. Line	16	Urban Minor Arterial	9,520	527	4		1,536	714	0.46	D+
1.8	2.85	MILL BRANCH RD.	Raines & Shelby	16	Urban Minor Arterial	19,160	356	4		1,536	1,437	0.94	D+
4.06	4.52	MILL BRANCH RD.	I-240 & Brooks	16	Urban Minor Arterial	24,990	425	4		1,536	1,874	1.22	F
4.52	5.1	MILL BRANCH RD.	I-240 & Brooks	16	Urban Minor Arterial	24,990	425	6		2,303	1,874	0.81	D+
5.1	5.25	MILL BRANCH RD.	I-240 & Brooks	16	Urban Minor Arterial	24,990	425	8		3,071	1,874	0.61	D+
		Millbranch	State Line Rd. & TN/MS State Lin	16	Urban Minor Arterial	8,500	5300	2		768	638	0.83	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
18.28	18.34	MILLINGTON-ARLINGTON	Armour & Donnell	16	Urban Minor Arterial	17,720	9	2	45	768	1,329	1.73	F
3.52	3.75	MINDEN RD.	Sam Cooper & Walnut Grove	16	Urban Minor Arterial	14,430	274	4		1,536	1,082	0.70	D+
4.56	4.64	MINDEN RD.	Southern & Central	16	Urban Minor Arterial	19,650	370	4		1,536	1,474	0.96	D+
0.44	0.68	MISSISSIPPI BLVD.	Walker & Crump	16	Urban Minor Arterial	7,190	601	2		768	539	0.70	D+
0.68	0.86	MISSISSIPPI BLVD.	Walker & Crump	16	Urban Minor Arterial	7,190	601	4		1,536	539	0.35	D+
0	0.04	MITCHELL RD.	Weaver & Horn Lake	16	Urban Minor Arterial	3,440	91	6		2,303	258	0.11	D+
0.04	0.34	MITCHELL RD.	Weaver & Horn Lake	16	Urban Minor Arterial	3,440	91	2		768	258	0.34	D+
0	1.37	MT MORIAH RD	Willow & Quince	16	Urban Minor Arterial	21,140	98	4		1,536	1,586	1.03	D+
0	0.82	MT. MORIAH RD. EXTD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	17,230	893	4	45	1,536	1,292	0.84	D+
3.16	3.39	MT. MORIAN RD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	20,040	890	6	40	2,303	1,503	0.65	D+
0.41	0.45	MULLINS STATION RD.	Whitten & Sycamore View	16	Urban Minor Arterial	9,690	328	2	30	768	727	0.95	D+
0.45	0.71	MULLINS STATION RD.	Whitten & Sycamore View	16	Urban Minor Arterial	9,690	328	2	45	768	727	0.95	D+
1.18	2.42	MULLINS STATION RD.	Macon & Germantown	16	Urban Minor Arterial	12,210	329	2	45	768	916	1.19	F
0.41	0.58	N. BYHALIA RD.	U.S. 72 & Frank	16	Urban Minor Arterial	18,420	416	4		1,536	1,382	0.90	D+
1.78	2.05	N. BYHALIA RD.	U.S. 72 & Frank	16	Urban Minor Arterial	18,420	416	2		768	1,382	1.80	F
6.26	6.3	N. CLEVELAND ST.	Jackson & North Parkway	16	Urban Minor Arterial	12,230	472	4		1,536	917	0.60	D+
6.55	6.72	N. COOPER ST.	Madison & Court	16	Urban Minor Arterial	7,130	591	4		1,536	535	0.35	D+
6.72	6.75	N. COOPER ST.	Madison & Court	16	Urban Minor Arterial	7,130	591	2		768	535	0.70	D+
0.13	0.14	N. DUNLAP ST.	Adams & Jefferson	16	Urban Minor Arterial	6,720	475	4		1,536	504	0.33	D+
9.87	10.01	N. FRONT ST.	Court & Madison	16	Urban Minor Arterial	12,210	217	5		1,919	916	0.48	D+
10.49	10.62	N. FRONT ST.	Court & Madison	16	Urban Minor Arterial	12,210	217	4		1,536	916	0.60	D+
3.83	4.06	N. HIGHLAND ST.	Sam Cooper & Walnut Grove	16	Urban Minor Arterial	25,090	272	4		1,536	1,882	1.23	F
2.99	3.04	N. HOLLYWOOD ST.	Wolf River & I-40	16	Urban Minor Arterial	19,550	301	4	35	1,536	1,466	0.95	D+
3.31	3.46	N. HOLLYWOOD ST.	Wolf River & I-40	16	Urban Minor Arterial	19,550	301	4	25	1,536	1,466	0.95	D+
3.46	3.65	N. HOLLYWOOD ST.	Wolf River & I-40	16	Urban Minor Arterial	19,550	301	4	40	1,536	1,466	0.95	D+
5.18	5.3	N. HOLLYWOOD ST.	Wolf River & I-40	16	Urban Minor Arterial	19,550	301	6	40	2,303	1,466	0.64	D+
5.3	5.47	N. HOLLYWOOD ST.	I-40 & James	16	Urban Minor Arterial	25,570	315	6	40	2,303	1,918	0.83	D+
2.01	2.09	N. MANASSAS ST.	Adams & Jefferson	16	Urban Minor Arterial	6,160	476	4		1,536	462	0.30	D+
0	0.2	N. MCLEAN BLVD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	6,950	902	4		1,536	521	0.34	D+
0.85	1.17	N. MCLEAN BLVD.	Madison & Poplar	16	Urban Minor Arterial	11,700	369	4		1,536	878	0.57	D+
1.4	2.09	N. MCLEAN BLVD.	Madison & Poplar	16	Urban Minor Arterial	11,700	369	2		768	878	1.14	F
4.87	4.91	N. MCLEAN BLVD.	I-240 & Chelsea Ave	16	Urban Minor Arterial	8,450	714	4	50	1,536	634	0.41	D+
6.07	6.65	N. MCLEAN BLVD.	I-240 & Chelsea Ave	16	Urban Minor Arterial	8,450	714	4	45	1,536	634	0.41	D+
0.84	0.87	N. SECOND ST.	North Parkway & I-40	16	Urban Minor Arterial	4,030	467	2		768	302	0.39	D+
0.87	1.01	N. SECOND ST.	Washington & Adams	16	Urban Minor Arterial	8,520	142	4		1,536	639	0.42	D+
1.01	1.08	N. SECOND ST.	Washington & Adams	16	Urban Minor Arterial	8,520	142	3		1,152	639	0.55	D+
4.52	4.55	N. SECOND ST.	Wolf River & Whitney	16	Urban Minor Arterial	5,670	300	2	35	768	425	0.55	D+
4.55	4.8	N. SECOND ST.	Wolf River & Whitney	16	Urban Minor Arterial	5,670	300	2	45	768	425	0.55	D+
11.8	12.14	N. THIRD ST.	Washington & Adams	16	Urban Minor Arterial	8,130	141	3	35	1,152	610	0.53	D+
12.38	12.39	N. THIRD ST.	North Parkway & I-40	16	Urban Minor Arterial	7,830	538	3	35	1,152	587	0.51	D+
0	0.01	N. WATKINS ST.	Robertson & U.S. 51	16	Urban Minor Arterial	10,870	25	4	55	1,536	815	0.53	D+
0	0.25	N. WATKINS ST.	Frayser & U.S. 51	16	Urban Minor Arterial	12,150	59	4		1,536	911	0.59	D+
1.59	1.89	N. WATKINS ST.	I-40 & James	16	Urban Minor Arterial	21,880	317	4		1,536	1,641	1.07	D+
2.78	2.9	N. WATKINS ST.	Fite & Robertson	16	Urban Minor Arterial	2,910	408	4		1,536	218	0.14	D+
3.11	3.18	N. WATKINS ST.	I-40 & James	16	Urban Minor Arterial	21,880	317	6		2,303	1,641	0.71	D+
3.44	3.53	N. WATKINS ST.	Chelsea & Wolf River	16	Urban Minor Arterial	13,080	63	6		2,303	981	0.43	D+
3.63	3.84	N. WATKINS ST.	Chelsea & Wolf River	16	Urban Minor Arterial	13,080	63	4		1,536	981	0.64	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
4.57	4.75	N. WATKINS ST.	Chelsea & Wolf River	16	Urban Minor Arterial	13,080	63	5		1,919	981	0.51	D+
5.81	5.88	N. WATKINS ST.	Jackson & North Parkway	16	Urban Minor Arterial	12,230	472	4		1,536	917	0.60	D+
5.88	6.03	N. WATKINS ST.	Jackson & North Parkway	16	Urban Minor Arterial	12,230	472	5		1,919	917	0.48	D+
		Nail	Horn Lake & Hurt	16	Urban Minor Arterial	7,000	5090	2		768	525	0.68	D+
0	0.23	NATIONAL ST.	Summer & Macon	16	Urban Minor Arterial	9,550	587	4		1,536	716	0.47	D+
18.9	19.04	NAVY RD.	Navy & Millington-Arlington	16	Urban Minor Arterial	2,080	430	3	45	1,152	156	0.14	D+
19.04	19.12	NAVY RD.	Bethuel & Sledge	16	Urban Minor Arterial	4,570	254	3	45	1,152	343	0.30	D+
19.12	19.9	NAVY RD.	Bethuel & Sledge	16	Urban Minor Arterial	4,570	254	4	45	1,536	343	0.22	D+
20.17	20.26	NAVY RD.	Martin & Bethuel	16	Urban Minor Arterial	6,990	551	4	45	1,536	524	0.34	D+
20.26	20.31	NAVY RD.	Martin & Bethuel	16	Urban Minor Arterial	6,990	551	4	40	1,536	524	0.34	D+
21.05	21.26	NAVY RD.	Easley & North Creek	16	Urban Minor Arterial	14,010	13	4	40	1,536	1,051	0.68	D+
22.46	22.61	NAVY RD.	Church & Easley	16	Urban Minor Arterial	10,920	359	4	30	1,536	819	0.53	D+
22.85	23.01	NAVY RD.	U.S. 51 & Church	16	Urban Minor Arterial	13,790	242	4	30	1,536	1,034	0.67	D+
0	0.3	NEELY RD.	Raines & Fairway	16	Urban Minor Arterial	10,210	596	2		768	766	1.00	E
1.23	1.3	NEELY RD.	Raines & Fairway	16	Urban Minor Arterial	10,210	596	3		1,152	766	0.66	D+
1.41	1.58	NEELY RD.	Raines & Fairway	16	Urban Minor Arterial	10,210	596	4		1,536	766	0.50	D+
0.47	0.76	NESHOBA RD.	Poplar Ave & Neshoba Rd	16	Urban Minor Arterial	3,590	874	2		768	269	0.35	D+
2.01	2.23	NESHOBA RD.	Poplar Ave & Neshoba Rd	16	Urban Minor Arterial	3,590	874	4		1,536	269	0.18	D+
3.26	3.31	NEW ALLEN RD.	I-40 & James	16	Urban Minor Arterial	14,360	313	4		1,536	1,077	0.70	D+
4.62	5.71	NEW ALLEN RD.	Ridgemont & Raleigh-Millington	16	Urban Minor Arterial	7,550	56	4		1,536	566	0.37	D+
1.84	3.27	NEW BROWNSVILLE RD.	Stage & Yale	16	Urban Minor Arterial	4,360	451	6	45	2,303	327	0.14	D+
3.39	4.42	NEW HORN LAKE	Nonconnah Creek & I-55	16	Urban Minor Arterial	14,090	322	4		1,536	1,057	0.69	D+
5.2	5.24	NEW HORN LAKE	Belz & South Parkway	16	Urban Minor Arterial	5,300	349	4		1,536	398	0.26	D+
2.9	2.94	NEW TCHULAHOMA RD.	Shelby & Holmes	16	Urban Minor Arterial	5,680	126	4	45	1,536	426	0.28	D+
1.4	1.45	NEW WILLOW AVE	Colonial & Perkins	16	Urban Minor Arterial	11,160	571	2		768	837	1.09	F
1.8	1.83	NORRIS RD.	Perry & Airways	16	Urban Minor Arterial	5,910	347	4		1,536	443	0.29	D+
2.4	2.45	NORRIS RD.	Third & Lauderdale	16	Urban Minor Arterial	9,380	350	4		1,536	704	0.46	D+
0	0.08	NORTH PARKWAY	Front & Main	16	Urban Minor Arterial	3,130	366	2		768	235	0.31	D+
0.15	0.23	NORTH PARKWAY	Front & Main	16	Urban Minor Arterial	3,130	366	4		1,536	235	0.15	D+
3.47	3.78	NORTH PARKWAY	Danny Thomas & I-40	16	Urban Minor Arterial	13,690	468	6		2,303	1,027	0.45	D+
3.97	4.34	NORTH PARKWAY	I-40 & Watkins	16	Urban Minor Arterial	16,840	268	6		2,303	1,263	0.55	D+
4.7	4.77	NORTH PARKWAY	I-40 & Watkins	16	Urban Minor Arterial	16,840	268	4		1,536	1,263	0.82	D+
5.5	5.75	NORTH PARKWAY	McLean & East Parkway	16	Urban Minor Arterial	27,340	269	6		2,303	2,051	0.89	D+
0	0.89	OAK RD.	Memphis-Arlington & U.S. 70	16	Urban Minor Arterial	3,360	437	2		768	252	0.33	D+
0	4.69	OLD BROWNSVILLE HWY.	Billy Maher & Ellendale	16	Urban Minor Arterial	6,820	585	2		768	512	0.67	D+
0	0.01	OLD BROWNSVILLE RD.	Stage & Yale	16	Urban Minor Arterial	4,360	451	2	30	768	327	0.43	D+
0.36	0.44	OLD BROWNSVILLE RD.	Stage & Yale	16	Urban Minor Arterial	4,360	451	3	30	1,152	327	0.28	D+
0.45	0.56	OLD BROWNSVILLE RD.	Stage & Yale	16	Urban Minor Arterial	4,360	451	4	30	1,536	327	0.21	D+
0.56	1.14	OLD BROWNSVILLE RD.	Stage & Yale	16	Urban Minor Arterial	4,360	451	4	40	1,536	327	0.21	D+
1.14	1.25	OLD BROWNSVILLE RD.	Stage & Yale	16	Urban Minor Arterial	4,360	451	2	40	768	327	0.43	D+
1.54	1.56	OLD BROWNSVILLE RD.	Stage & Yale	16	Urban Minor Arterial	4,360	451	2	45	768	327	0.43	D+
1.56	1.84	OLD BROWNSVILLE RD.	Stage & Yale	16	Urban Minor Arterial	4,360	451	6	45	2,303	327	0.14	D+
0	0.35	ORLEANS RD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	4,270	913	2		768	320	0.42	D+
0	0.27	OUTLAND RD.	Winchester & Raines	16	Urban Minor Arterial	10,270	576	4		1,536	770	0.50	D+
0	0.11	OVERTON CROSSING	N Watkins and Delano Rd	16	Urban Minor Arterial	8,960	657	2		768	672	0.88	D+
0.98	1.08	OVERTON CROSSING	N Watkins and Delano Rd	16	Urban Minor Arterial	8,960	657	3		1,152	672	0.58	D+
1.08	1.25	OVERTON CROSSING	N Watkins and Delano Rd	16	Urban Minor Arterial	8,960	657	4		1,536	672	0.44	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
3.49	4.23	OVERTON CROSSING ST.	St. Elmo & Frayser	16	Urban Minor Arterial	8,910	410	2	40	768	668	0.87	D+
0	0.02	PARK AVE.	Pendleton & Prescott	16	Urban Minor Arterial	14,830	341	3		1,152	1,112	0.97	D+
0.02	0.22	PARK AVE.	Pendleton & Prescott	16	Urban Minor Arterial	14,830	341	4		1,536	1,112	0.72	D+
3.29	3.54	PARK AVE.	Goodlett & Perkins	16	Urban Minor Arterial	24,230	343	4		1,536	1,817	1.18	D+
0	0.21	PAULINE ST.	Peabody & E.H. Crump	16	Urban Minor Arterial	4,190	492	2		768	314	0.41	D+
0.43	0.5	PAULINE ST.	Washington & Jefferson	16	Urban Minor Arterial	8,830	474	4		1,536	662	0.43	D+
0	0.07	PEABODY AVE	Bellevue & Cleveland	16	Urban Minor Arterial	11,350	490	4		1,536	851	0.55	D+
0.74	0.98	PENDLETON ST.	Airways & Pendleton	16	Urban Minor Arterial	10,470	521	2		768	785	1.02	E
0.98	1.51	PENDLETON ST.	Airways & Pendleton	16	Urban Minor Arterial	10,470	521	4		1,536	785	0.51	D+
1.78	1.8	PENDLETON ST.	Park & Barron	16	Urban Minor Arterial	11,490	517	4		1,536	862	0.56	D+
3.07	3.16	PERKINS RD.	Park & Quince	16	Urban Minor Arterial	13,010	344	4	40	1,536	976	0.64	D+
3.59	4.7	PERKINS RD.	Park & Quince	16	Urban Minor Arterial	13,010	344	4	35	1,536	976	0.64	D+
4.7	5.07	PERKINS RD.	Park & Quince	16	Urban Minor Arterial	13,010	344	2	35	768	976	1.27	D+
6.8	8.02	PERKINS RD.	Sam Cooper & Walnut Grove	16	Urban Minor Arterial	21,530	276	4	40	1,536	1,615	1.05	E
5.45	5.71	PERKINS RD. EXTD.	Park & Quince	16	Urban Minor Arterial	13,010	344	4	40	1,536	976	0.64	D+
0.66	0.77	PERRY RD	Norris Rd and Dunn Rd	16	Urban Minor Arterial	6,610	832	4		1,536	496	0.32	D+
0	0.06	PERSON AVE	Elvis Presley & Castalia	16	Urban Minor Arterial	7,050	594	4		1,536	529	0.34	D+
0.87	0.93	PERSON AVE	Elvis Presley & Castalia	16	Urban Minor Arterial	7,050	594	2		768	529	0.69	D+
0	0.08	PLEASANT RIDGE RD.	Raleigh-Millington & Singleton	16	Urban Minor Arterial	1,190	30	2		768	89	0.12	D+
0	0.61	PLEASANT VIEW RD.	Covington Pike & Bartlett Road	16	Urban Minor Arterial	13,710	398	4		1,536	1,028	0.67	D+
0.61	1.56	PLEASANT VIEW RD.	Covington Pike & Bartlett Road	16	Urban Minor Arterial	13,710	398	6		2,303	1,028	0.45	D+
3.49	3.54	POPLAR AVE.	N Third St and Fourth St	16	Urban Minor Arterial	11,350	855	6		2,303	851	0.37	D+
3.54	3.61	POPLAR AVE.	N Third St and Fourth St	16	Urban Minor Arterial	11,350	855	4		1,536	851	0.55	D+
0	1.01	POPLAR PIKE	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	8,340	904	2		768	626	0.81	D+
1.98	2.19	POPLAR PIKE	Hacks Cross & Cedar Rige	16	Urban Minor Arterial	17,040	868	2		768	1,278	1.66	F
3	3.37	POPLAR PIKE	Hacks Cross & Cedar Rige	16	Urban Minor Arterial	17,040	868	4		1,536	1,278	0.83	D+
7.87	7.92	POPLAR PK.	Goodlett & Perkins	16	Urban Minor Arterial	24,230	343	4		1,536	1,817	1.18	F
8.4	8.58	POPLAR PK.	Goodlett & Perkins	16	Urban Minor Arterial	24,230	343	3		1,152	1,817	1.58	F
8.58	9.08	POPLAR PK.	Sunset & Satinwood	16	Urban Minor Arterial	15,410	570	2		768	1,156	1.51	F
9.16	9.26	POPLAR PK.	Sunset & Satinwood	16	Urban Minor Arterial	15,410	570	3		1,152	1,156	1.00	E
9.26	10.06	POPLAR PK.	Sunset & Satinwood	16	Urban Minor Arterial	15,410	570	4		1,536	1,156	0.75	D+
0	0.38	PRESCOTT RD.	Rhodes & Sharpe	16	Urban Minor Arterial	14,570	396	4		1,536	1,093	0.71	D+
1.17	1.86	QUAIL HOLLOW RD.	Briarcrest Ave and Shady Grove	16	Urban Minor Arterial	8,360	803	2	35	768	627	0.82	D+
4.39	4.67	QUINCE AV.	I-240 & Ridgeway	16	Urban Minor Arterial	17,730	382	4	40	1,536	1,330	0.87	D+
3.19	3.59	QUINCE RD.	Getwell & Perkins	16	Urban Minor Arterial	14,160	380	4	40	1,536	1,062	0.69	D+
3.77	3.83	QUINCE RD.	I-240 & Ridgeway	16	Urban Minor Arterial	17,730	382	4	40	1,536	1,330	0.87	D+
7.14	7.49	QUINCE RD.	Kirby Road & Winchester	16	Urban Minor Arterial	8,450	259	4	40	1,536	634	0.41	D+
7.66	8.02	QUINCE RD.	Kirby Road & Winchester	16	Urban Minor Arterial	8,450	259	2	45	768	634	0.83	D+
8.12	8.3	QUINCE RD.	Kirby Road & Winchester	16	Urban Minor Arterial	8,450	259	4	45	1,536	634	0.41	D+
1.81	1.82	RADFORD RD.	Rhodes & Sharpe	16	Urban Minor Arterial	14,570	396	4		1,536	1,093	0.71	D+
0	0.39	RAINES RD.	Weaver & U.S. 61	16	Urban Minor Arterial	8,500	354	4		1,536	638	0.42	D+
1.09	1.98	RAINES RD.	Hickory Hill & Mendenhall	16	Urban Minor Arterial	17,220	577	6		2,303	1,292	0.56	D+
1.42	2.09	RAINES RD.	Prescott Rd and Tchulahoma Rd	16	Urban Minor Arterial	4,430	745	2		768	332	0.43	D+
1.47	1.65	RAINES RD.	Orleans & U.S. 51	16	Urban Minor Arterial	17,790	185	4		1,536	1,334	0.87	D+
4.69	5.1	RAINES RD.	U.S. 51 & Millbranch	16	Urban Minor Arterial	18,910	186	4		1,536	1,418	0.92	D+
5.64	5.83	RAINES RD.	U.S. 51 & Millbranch	16	Urban Minor Arterial	18,910	186	2		768	1,418	1.85	D+
5.83	5.96	RAINES RD.	U.S. 51 & Millbranch	16	Urban Minor Arterial	18,910	186	3		1,152	1,418	1.23	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
0.81	0.97	RALEIGH-LA GRANGE RD.	Rocky Point & Houston Levee	16	Urban Minor Arterial	10,660	227	6		2,303	800	0.35	D+
0.97	1.12	RALEIGH-LA GRANGE RD.	Rocky Point & Houston Levee	16	Urban Minor Arterial	10,660	227	4		1,536	800	0.52	D+
1.53	1.69	RALEIGH-LA GRANGE RD.	Rocky Point & Houston Levee	16	Urban Minor Arterial	10,660	227	2		768	800	1.04	E
0	0.39	RALEIGH-LAGRANGE RD	Dexter Rd and Amberly Village	16	Urban Minor Arterial	9,120	679	2		768	684	0.89	D+
0	0.88	RALEIGH-LAGRANGE RD.	Summer Ave & Shelby Oaks Dr	16	Urban Minor Arterial	9,080	884	2		768	681	0.89	D+
1.53	1.71	RALEIGH-LAGRANGE RD.	Bartlett Road & Sycamore View	16	Urban Minor Arterial	23,770	455	2		768	1,783	2.32	F
3.54	3.84	RALEIGH-LAGRANGE RD.	Bartlett Road & Sycamore View	16	Urban Minor Arterial	23,770	455	4		1,536	1,783	1.16	F
3.84	3.96	RALEIGH-LAGRANGE RD.	Stage & Covington Pike	16	Urban Minor Arterial	20,940	71	6		2,303	1,571	0.68	D+
4.85	5.25	RALEIGH-LAGRANGE RD.	Frank & U.S. 72	16	Urban Minor Arterial	14,650	111	2	45	768	1,099	1.43	F
0	0.07	RALEIGH-MILLINGTON RD	Yale & Austin Peay	16	Urban Minor Arterial	23,940	67	4		1,536	1,796	1.17	D+
0.52	0.58	RALEIGH-MILLINGTON RD	Hawkins Mill & Ramil	16	Urban Minor Arterial	5,410	720	2	35	768	406	0.53	D+
1.37	1.57	RALEIGH-MILLINGTON RD	Bolen Huse & Egypt-Central	16	Urban Minor Arterial	12,000	393	4		1,536	900	0.59	D+
1.88	2.49	RALEIGH-MILLINGTON RD	Bolen Huse & Egypt-Central	16	Urban Minor Arterial	12,000	393	6		2,303	900	0.39	D+
2.49	3.55	RALEIGH-MILLINGTON RD	Bolen Huse & Egypt-Central	16	Urban Minor Arterial	12,000	393	2		768	900	1.17	F
3.55	3.91	RALEIGH-MILLINGTON RD	Fite & Loosahatchie River	16	Urban Minor Arterial	13,980	221	2		768	1,049	1.37	F
4.51	4.66	RALEIGH-MILLINGTON RD	Paul Barret & Big Creek Church	16	Urban Minor Arterial	10,940	420	2		768	821	1.07	F
8.3	8.95	RALEIGH-MILLINGTON RD	Paul Barret & Big Creek Church	16	Urban Minor Arterial	10,940	420	4		1,536	821	0.53	D+
8.95	9.19	RALEIGH-MILLINGTON RD	Paul Barret & Navy	16	Urban Minor Arterial	19,630	14	4		1,536	1,472	0.96	D+
0.68	0.92	RAMILL D.	Yale & Austin Peay	16	Urban Minor Arterial	23,940	67	4		1,536	1,796	1.17	F
0.92	1.37	RAMILL D.	Bolen Huse & Egypt-Central	16	Urban Minor Arterial	12,000	393	4		1,536	900	0.59	D+
5.84	5.94	RANGE LINE RD.	I-40 & James	16	Urban Minor Arterial	25,570	315	4	40	1,536	1,918	1.25	D+
6.45	7.26	RANGE LINE RD.	Frayser & St. Elmo	16	Urban Minor Arterial	11,520	411	4	40	1,536	864	0.56	D+
1.44	1.64	REESE RD.	Whitten Rd & Appling Rd	16	Urban Minor Arterial	8,550	652	4	40	1,536	641	0.42	D+
1.19	1.41	RHODES AV.	Getwell & Perkins	16	Urban Minor Arterial	14,160	380	4	40	1,536	1,062	0.69	D+
0.32	0.46	RIDGEMONT RD.	Coleman & Covington Pike	16	Urban Minor Arterial	8,520	423	4		1,536	639	0.42	D+
0.85	0.97	RIDGEMONT RD.	Coleman & Covington Pike	16	Urban Minor Arterial	8,520	423	2		768	639	0.83	D+
0.18	0.3	RIDGEWAY CENTER PKWY	Briarcrest Ave and Shady Grove	16	Urban Minor Arterial	8,360	803	4	35	1,536	627	0.41	D+
0.3	0.34	RIDGEWAY CENTER PKWY	Briarcrest Ave and Shady Grove	16	Urban Minor Arterial	8,360	803	2	35	768	627	0.82	D+
0.5	0.52	RIDGEWAY LOOP RD.	Briarcrest Ave and Shady Grove	16	Urban Minor Arterial	8,360	803	4	35	1,536	627	0.41	D+
0	1.37	RIDGEWAY RD.	Winchester & Knight-Arnold	16	Urban Minor Arterial	17,570	575	4		1,536	1,318	0.86	D+
0	0.66	RIVERDALE RD.	Holmes & Shelby	16	Urban Minor Arterial	27,140	287	6	45	2,303	2,036	0.88	D+
4.13	4.31	RIVERDALE RD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	7,160	912	6	45	2,303	537	0.23	D+
0	0.11	RIVERSIDE BLVD.	Union & Beale	16	Urban Minor Arterial	13,890	173	4		1,536	1,042	0.68	D+
0.19	0.32	RIVERSIDE BLVD.	Union & Beale	16	Urban Minor Arterial	13,890	173	5		1,919	1,042	0.54	D+
0	0.05	RUST RD	U.S. 51 & Raleigh-Millington	16	Urban Minor Arterial	3,750	57	3		1,152	281	0.24	D+
0.05	0.63	RUST RD	U.S. 51 & Raleigh-Millington	16	Urban Minor Arterial	3,750	57	2		768	281	0.37	D+
7.98	8.23	S. BELLEVUE BLVD.	Person & Norris	16	Urban Minor Arterial	20,540	167	4	35	1,536	1,541	1.00	D+
8.38	8.62	S. BELLEVUE BLVD.	Lamar & McLemore	16	Urban Minor Arterial	16,120	164	4	35	1,536	1,209	0.79	D+
0	0.12	S. BYHALIA RD.	U.S. 72 & Frank	16	Urban Minor Arterial	18,420	416	4		1,536	1,382	0.90	D+
7.19	7.33	S. CLEVELAND ST.	Jackson & North Parkway	16	Urban Minor Arterial	12,230	472	4		1,536	917	0.60	D+
7.33	7.49	S. CLEVELAND ST.	Union & Peabody	16	Urban Minor Arterial	9,020	489	4		1,536	677	0.44	D+
7.62	7.86	S. CLEVELAND ST.	Union & Peabody	16	Urban Minor Arterial	9,020	489	2		768	677	0.88	D+
5.21	5.29	S. COOPER ST.	Lamar & South Parkway E.	16	Urban Minor Arterial	6,490	184	2		768	487	0.63	D+
5.54	5.88	S. COOPER ST.	Lamar & South Parkway E.	16	Urban Minor Arterial	6,490	184	4		1,536	487	0.32	D+
0	0.07	S. DUNLAP ST.	Adams & Jefferson	16	Urban Minor Arterial	6,720	475	3		1,152	504	0.44	D+
0.07	0.13	S. DUNLAP ST.	Adams & Jefferson	16	Urban Minor Arterial	6,720	475	4		1,536	504	0.33	D+
9.51	9.56	S. FRONT ST.	Court & Madison	16	Urban Minor Arterial	12,210	217	3		1,152	916	0.80	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
9.56	9.64	S. FRONT ST.	Court & Madison	16	Urban Minor Arterial	12,210	217	4		1,536	916	0.60	D+
9.8	9.87	S. FRONT ST.	Court & Madison	16	Urban Minor Arterial	12,210	217	5		1,919	916	0.48	D+
2.17	2.68	S. HIGHLAND ST.	Park & Southern	16	Urban Minor Arterial	24,150	422	4		1,536	1,811	1.18	D+
3.17	3.61	S. HIGHLAND ST.	Park & Southern	16	Urban Minor Arterial	24,150	422	5		1,919	1,811	0.94	D+
2.37	2.44	S. MANASSAS ST.	Adams & Jefferson	16	Urban Minor Arterial	6,160	476	4		1,536	462	0.30	D+
0	0.38	S. PARKWAY EAST	Lowell and Malone Ave	16	Urban Minor Arterial	5,190	784	4		1,536	389	0.25	D+
10.59	10.6	S. THIRD ST.	E.H. Crump & Georgia	16	Urban Minor Arterial	10,450	143	4	35	1,536	784	0.51	D+
11.15	11.16	S. THIRD ST.	Pontotoc & Vance	16	Urban Minor Arterial	4,040	498	4	35	1,536	303	0.20	D+
11.16	11.52	S. THIRD ST.	Pontotoc & Vance	16	Urban Minor Arterial	4,040	498	3	35	1,152	303	0.26	D+
11.52	11.89	S. THIRD ST.	Union & Beale	16	Urban Minor Arterial	1,530	505	3	35	1,152	115	0.10	D+
11.66	11.8	S. THIRD ST.	Washington & Adams	16	Urban Minor Arterial	8,130	141	3	35	1,152	610	0.53	D+
0	0.17	SANDERLIN AVE.	Perkins Rd and Grove Park Rd	16	Urban Minor Arterial	9,430	798	4		1,536	707	0.46	D+
0.24	0.34	SANDERLIN AVE.	Perkins Rd and Grove Park Rd	16	Urban Minor Arterial	9,430	798	2		768	707	0.92	D+
0	0.43	SANGA RD.	Germantown Rd & Walnut Bend	16	Urban Minor Arterial	9,350	643	2	35	768	701	0.91	D+
0.46	0.57	SANGA RD.	Germantown Rd & Walnut Bend	16	Urban Minor Arterial	9,350	643	4	35	1,536	701	0.46	D+
0.63	1.05	SANGA RD.	Germantown Rd & Walnut Bend	16	Urban Minor Arterial	9,350	643	4	40	1,536	701	0.46	D+
1.09	1.18	SANGA RD.	Germantown Rd & Walnut Bend	16	Urban Minor Arterial	9,350	643	2	40	768	701	0.91	D+
0	0.36	SCHEIBLER	Mem-Arlington & Dawnhill	16	Urban Minor Arterial	3,650	703	4		1,536	274	0.18	D+
0.36	0.49	SCHEIBLER	Mem-Arlington & Dawnhill	16	Urban Minor Arterial	3,650	703	2		768	274	0.36	D+
0	0.17	SCOTT ST.	Garden Ln & Poplar Ave	16	Urban Minor Arterial	4,270	667	2		768	320	0.42	D+
0	0.14	SEMMES ST	Kimball Ave and Barron Ave	16	Urban Minor Arterial	6,990	781	2		768	524	0.68	D+
1.04	1.24	SEMMES ST	Kimball Ave and Barron Ave	16	Urban Minor Arterial	6,990	781	4		1,536	524	0.34	D+
4.73	5.28	SGT. WALTER K. SINGLET	Loosahatchie R. & Old Brownsvi	16	Urban Minor Arterial	17,060	387	6	45	2,303	1,280	0.56	D+
5.28	6.73	SGT. WALTER K. SINGLET	Loosahatchie R. & Old Brownsvi	16	Urban Minor Arterial	17,060	387	4	55	1,536	1,280	0.83	D+
11.08	11.13	SGT. WALTER K. SINGLET	Loosahatchie R. & Old Brownsvi	16	Urban Minor Arterial	17,060	387	4	35	1,536	1,280	0.83	D+
1.05	1.15	SHADY GROVE RD	Oak Grove & Yates	16	Urban Minor Arterial	6,290	569	2		768	472	0.61	D+
6.75	6.82	SHADY GROVE RD.	Briarcrest Ave and Shady Grove	16	Urban Minor Arterial	9,910	804	4	40	1,536	743	0.48	D+
7.05	7.35	SHADY GROVE RD.	Briarcrest Ave and Shady Grove	16	Urban Minor Arterial	9,910	804	2	40	768	743	0.97	D+
2.47	2.78	SHARPE AVE	Semmes St and Prescott Rd	16	Urban Minor Arterial	7,390	769	2		768	554	0.72	D+
0	0.33	SHELBY DR.	Weaver & U.S. 61	16	Urban Minor Arterial	4,200	132	4		1,536	315	0.21	D+
1.2	2.31	SHELBY DR.	U.S. 61 & Horn Lake	16	Urban Minor Arterial	11,490	130	4	45	1,536	862	0.56	D+
2.31	2.75	SHELBY DR.	Horn Lake & Tulane	16	Urban Minor Arterial	19,010	188	4	45	1,536	1,426	0.93	D+
4.68	4.76	SHELBY DR.	Horn Lake & Tulane	16	Urban Minor Arterial	19,010	188	5	45	1,919	1,426	0.74	D+
15.77	15.94	SHELBY DR.	Germantown Ext. & Hacks Cross	16	Urban Minor Arterial	12,760	233	6	45	2,303	957	0.42	D+
16.52	16.66	SHELBY DR.	Germantown Ext. & Hacks Cross	16	Urban Minor Arterial	12,760	233	2	45	768	957	1.25	D+
16.66	16.8	SHELBY DR.	Germantown Ext. & Hacks Cross	16	Urban Minor Arterial	12,760	233	4	45	1,536	957	0.62	D+
17.76	17.8	SHELBY DR.	Hacks Cross & Forest Hill-Iren	16	Urban Minor Arterial	2,600	116	4	45	1,536	195	0.13	D+
18.01	18.09	SHELBY DR.	Hacks Cross & Forest Hill-Iren	16	Urban Minor Arterial	2,600	116	2	45	768	195	0.25	D+
19.82	19.91	SHELBY DR.	Forest Hill-Irene & Bailey Sta	16	Urban Minor Arterial	1,400	389	2	45	768	105	0.14	D+
0	0.16	SHELBY OAKS DR	State Rd and Patmore Rd	16	Urban Minor Arterial	7,610	676	4		1,536	571	0.37	D+
1.66	2.06	SHELBY OAKS DR	State Rd and Patmore Rd	16	Urban Minor Arterial	7,610	676	2		768	571	0.74	D+
0	0.07	SHELBY RD.	Quito & U.S. 51	16	Urban Minor Arterial	6,340	16	2		768	476	0.62	D+
2.05	2.39	SHELTON RD.	Peterson Lake & Collierville-A	16	Urban Minor Arterial	3,900	417	2		768	293	0.38	D+
0.3	0.39	SMITH AVE.	Manassas & Morehead	16	Urban Minor Arterial	4,600	563	4		1,536	345	0.22	D+
1.55	1.58	SOMERVILLE AVE	Peabody & Pauline	16	Urban Minor Arterial	5,780	491	2		768	434	0.56	D+
2.43	2.6	SOUTH MCLEAN BLVD.	Madison & Poplar	16	Urban Minor Arterial	11,700	369	4		1,536	878	0.57	D+
2.6	2.61	SOUTH MCLEAN BLVD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	6,500	899	4		1,536	488	0.32	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
3.22	3.44	SOUTH MCLEAN BLVD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	6,500	899	3		1,152	488	0.42	D+
0.75	0.77	SOUTH PARKWAY EAST	Florida & Third	16	Urban Minor Arterial	8,300	348	4		1,536	623	0.41	D+
2.51	2.57	SOUTH PARKWAY EAST	Florida & Third	16	Urban Minor Arterial	8,300	348	6		2,303	623	0.27	D+
4.91	5.21	SOUTH PARKWAY EAST	Lamar & South Parkway E.	16	Urban Minor Arterial	6,490	184	4		1,536	487	0.32	D+
0	0.09	SOUTH PARKWAY WEST	Florida & Third	16	Urban Minor Arterial	8,300	348	4		1,536	623	0.41	D+
0.08	0.1	SOUTH SECOND ST.	Union & Beale	16	Urban Minor Arterial	6,140	506	4		1,536	461	0.30	D+
0.42	0.83	SOUTH SECOND ST.	Vance & Calhoun	16	Urban Minor Arterial	3,210	501	2		768	241	0.31	D+
0.44	1.37	SOUTHERN AV.	Highland & Goodlett	16	Urban Minor Arterial	7,880	518	4	45	1,536	591	0.38	D+
1.37	1.79	SOUTHERN AV.	Highland & Goodlett	16	Urban Minor Arterial	7,880	518	2	35	768	591	0.77	D+
3.01	3.24	SOUTHERN AV.	East Parkway & Hollywood	16	Urban Minor Arterial	10,250	371	4	35	1,536	769	0.50	D+
5.61	5.71	SOUTHERN AV.	Wellington & Lauderdale	16	Urban Minor Arterial	7,410	602	4	35	1,536	556	0.36	D+
0	0.61	ST. ELMO AVE.	Overton Crossing & Range Line	16	Urban Minor Arterial	6,520	446	2		768	489	0.64	D+
0.61	1.29	ST. ELMO AVE.	Overton Crossing & Range Line	16	Urban Minor Arterial	6,520	446	4		1,536	489	0.32	D+
1.29	1.33	ST. ELMO AVE.	Overton Crossing & Range Line	16	Urban Minor Arterial	6,520	446	3		1,152	489	0.42	D+
0	0.65	ST. ELMO RD.	Whitten Rd & Oak Rd	16	Urban Minor Arterial	8,900	692	6		2,303	668	0.29	D+
0	0.12	ST. ELMO RD.	west of Forest Dr	16	Urban Minor Arterial	3,030	693	5	35	1,919	227	0.12	D+
0.12	0.13	ST. ELMO RD.	west of Forest Dr	16	Urban Minor Arterial	3,030	693	4	35	1,536	227	0.15	D+
0	0.44	STAGE AVE.	Overton Crossing & Range Line	16	Urban Minor Arterial	10,450	333	4		1,536	784	0.51	D+
0.62	1.11	STAGE DELANO AVE.	Overton Crossing & Range Line	16	Urban Minor Arterial	10,450	333	4		1,536	784	0.51	D+
0.11	0.2	STAGE RD	Coleman & Covington Pike	16	Urban Minor Arterial	25,250	70	7		2,687	1,894	0.70	D+
0.2	0.38	STAGE RD	Coleman & Covington Pike	16	Urban Minor Arterial	25,250	70	6		2,303	1,894	0.82	D+
		State Line Rd.	Horn Lake & Miss. Hwy. 301	16	Urban Minor Arterial	3,700	1210	2		768	278	0.36	D+
		State Line Rd.	Swinnea & Tchulahoma	16	Urban Minor Arterial	12,000	1242	2		768	900	1.17	F
		State Line Rd.	Tulane & U.S. 51	16	Urban Minor Arterial	11,000	5025	2		768	825	1.07	F
		State Line Rd.	I-55 & Airways	16	Urban Minor Arterial	17,000	5035	4		1,536	1,275	0.83	D+
		State Line Rd.	Airways & Swinnea	16	Urban Minor Arterial	12,000	5040	2		768	900	1.17	F
0	0.41	STATE RD.	Whitten & Sycamore View	16	Urban Minor Arterial	9,690	328	2	30	768	727	0.95	D+
0	1.14	SWINNEA RD.	Winchester & Shelby	16	Urban Minor Arterial	9,490	523	4	45	1,536	712	0.46	D+
1.14	2.19	SWINNEA RD.	Winchester & Shelby	16	Urban Minor Arterial	9,490	523	4	50	1,536	712	0.46	D+
0	0.38	SYCAMORE VIEW RD.	Macon Rd and State Rd	16	Urban Minor Arterial	13,770	674	6		2,303	1,033	0.45	D+
3.99	4.17	SYCAMORE VIEW RD.	U.S. 70 & I-40	16	Urban Minor Arterial	32,500	73	6	45	2,303	2,438	1.06	D+
0	0.63	TCHULAHOMA RD.	Shelby & Holmes	16	Urban Minor Arterial	5,680	126	2	35	768	426	0.55	D+
2.64	2.87	TCHULAHOMA RD.	Shelby & Holmes	16	Urban Minor Arterial	5,680	126	4	45	1,536	426	0.28	D+
3.31	4.21	TCHULAHOMA RD.	Knight Arnold & Winchester	16	Urban Minor Arterial	18,290	395	4	45	1,536	1,372	0.89	D+
4.37	4.52	TCHULAHOMA RD.	Knight Arnold & Winchester	16	Urban Minor Arterial	18,290	395	6	45	2,303	1,372	0.60	D+
4.52	5.15	TCHULAHOMA RD.	0	16	Urban Minor Arterial	22,190	623	6	45	2,303	1,664	0.72	D+
13.53	13.98	THOMAS ST.	FA-101 & Wolf River	16	Urban Minor Arterial	12,250	62	4	35	1,536	919	0.60	D+
0	0.06	TILLMAN ST.	Walnut Grove & Broad	16	Urban Minor Arterial	11,730	462	4	35	1,536	880	0.57	D+
0.06	0.75	TILLMAN ST.	Walnut Grove & Broad	16	Urban Minor Arterial	11,730	462	2	35	768	880	1.15	F
0	0.07	TREZEVANT ST.	Jackson & North Parkway	16	Urban Minor Arterial	13,690	176	4	40	1,536	1,027	0.67	D+
3.37	3.49	TRINITY RD.	Macon & Germantown	16	Urban Minor Arterial	12,210	329	2	45	768	916	1.19	F
3.49	3.82	TRINITY RD.	Macon & Germantown	16	Urban Minor Arterial	12,210	329	4	45	1,536	916	0.60	D+
3.82	3.96	TRINITY RD.	Germantown Rd & Walnut Bend	16	Urban Minor Arterial	12,060	642	4	45	1,536	905	0.59	D+
3.96	4.09	TRINITY RD.	Germantown Rd & Walnut Bend	16	Urban Minor Arterial	12,060	642	4	40	1,536	905	0.59	D+
4.61	5.46	TRINITY RD.	Germantown Rd & Walnut Bend	16	Urban Minor Arterial	12,060	642	6	45	2,303	905	0.39	D+
11.32	11.54	UNION AV.	Danny Thomas & Manassas	16	Urban Minor Arterial	19,970	162	4	35	1,536	1,498	0.98	D+
0.08	0.15	UNION AVE.	Wagner Pl and Front St	16	Urban Minor Arterial	5,200	851	3		1,152	390	0.34	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
0.15	0.19	UNION AVE.	Wagner Pl and Front St	16	Urban Minor Arterial	5,200	851	4		1,536	390	0.25	D+
1.59	1.66	UNION ST.	Second & Third	16	Urban Minor Arterial	13,010	482	3		1,152	976	0.85	D+
0	0.16	UNIVERSITY ST	Vollintine Ave & Chelsea Ave	16	Urban Minor Arterial	2,610	710	4		1,536	196	0.13	D+
16.78	19.59	US/HWY-70/79	Oak & U.S. 64	16	Urban Minor Arterial	16,700	49	4		1,536	1,253	0.82	D+
20.04	20.05	US/HWY-70/79	Brunswick & Canada	16	Urban Minor Arterial	5,620	224	4		1,536	422	0.27	D+
22.84	23.83	US/HWY-70/79	Canada & Airline	16	Urban Minor Arterial	8,440	42	4		1,536	633	0.41	D+
1.19	1.47	W. MASSEY RD.	Eastern Ave and Poplar Pike	16	Urban Minor Arterial	4,330	756	4		1,536	325	0.21	D+
9.13	9.32	W. MCLEMORE AV.	Wellington & Lauderdale	16	Urban Minor Arterial	7,410	602	4	35	1,536	556	0.36	D+
0	0.18	WALES AVE.	Wales & Chelsea	16	Urban Minor Arterial	5,200	456	2		768	390	0.51	D+
0	0.01	WALNUT GROVE RD.	Rocky Point & Houston Levee	16	Urban Minor Arterial	10,660	227	6		2,303	800	0.35	D+
3.05	3.15	WALNUT GROVE RD.	Tillman & Poplar	16	Urban Minor Arterial	17,300	181	4		1,536	1,298	0.84	D+
3.97	4.63	WALNUT GROVE RD.	Goodlett & Perkins	16	Urban Minor Arterial	27,080	179	4		1,536	2,031	1.32	D+
7.7	8.59	WALNUT GROVE RD.	I-240 & White Station	16	Urban Minor Arterial	31,580	205	4		1,536	2,369	1.54	D+
0	0.76	WARFORD ST.	Jackson & Chelsea	16	Urban Minor Arterial	6,100	388	4		1,536	458	0.30	D+
0.96	1.42	WARFORD ST.	Chelsea & I-40	16	Urban Minor Arterial	8,480	314	4		1,536	636	0.41	D+
2.16	2.22	WARFORD ST.	I-40 & James	16	Urban Minor Arterial	14,360	313	4		1,536	1,077	0.70	D+
2.36	2.85	WARFORD ST.	I-40 & James	16	Urban Minor Arterial	14,360	313	6		2,303	1,077	0.47	D+
0	0.57	WARING RD.	Tutwiler & Macon	16	Urban Minor Arterial	7,870	589	2		768	590	0.77	D+
0.58	0.74	WEAVER RD.	Raines & Shelby	16	Urban Minor Arterial	2,870	535	2		768	215	0.28	D+
1.68	2.17	WEAVER RD.	Mitchell & Raines	16	Urban Minor Arterial	6,080	261	2		768	456	0.59	D+
2.67	3.15	WEAVER RD.	Mitchell & Raines	16	Urban Minor Arterial	6,080	261	4		1,536	456	0.30	D+
3.39	3.4	WHITE STATION RD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	20,040	890	6	40	2,303	1,503	0.65	D+
3.4	3.46	WHITE STATION RD.	Byhalia Rd & Hwy 72	16	Urban Minor Arterial	20,040	890	4	40	1,536	1,503	0.98	D+
5.22	5.95	WHITE STATION RD.	Poplar & Shady Grove	16	Urban Minor Arterial	21,140	342	4	40	1,536	1,586	1.03	D+
6.7	7.28	WHITE STATION RD.	I-40 & Walnut Grove	16	Urban Minor Arterial	19,730	86	4	40	1,536	1,480	0.96	D+
8.3	8.58	WHITE STATION RD.	Graham & Stratford	16	Urban Minor Arterial	11,900	238	4	40	1,536	893	0.58	D+
0	0.45	WHITNEY AV.	Wingate & Mountain Terrace	16	Urban Minor Arterial	7,130	586	4	40	1,536	535	0.35	D+
1.66	2.11	WHITNEY AV.	U.S. 51 & Watkins	16	Urban Minor Arterial	4,530	61	4	40	1,536	340	0.22	D+
2.11	2.31	WHITNEY AV.	U.S. 51 & Watkins	16	Urban Minor Arterial	4,530	61	3	40	1,152	340	0.30	D+
2.51	2.67	WHITNEY AV.	U.S. 51 & Watkins	16	Urban Minor Arterial	4,530	61	4	45	1,536	340	0.22	D+
3.37	3.45	WHITNEY AV.	Wolf River & Whitney	16	Urban Minor Arterial	5,670	300	4	40	1,536	425	0.28	D+
3.45	4.01	WHITNEY AV.	Wolf River & Whitney	16	Urban Minor Arterial	5,670	300	2	35	768	425	0.55	D+
1.43	1.63	WHITTEN RD.	Dexter & Mullins Station	16	Urban Minor Arterial	9,840	327	2	45	768	738	0.96	D+
2.47	3.06	WHITTEN RD.	Macon Rd and Goodlett Farms	16	Urban Minor Arterial	15,520	677	2	45	768	1,164	1.52	F
3.06	3.25	WHITTEN RD.	U.S. 70 & I-40	16	Urban Minor Arterial	31,020	257	2	45	768	2,327	3.03	F
3.35	3.72	WHITTEN RD.	U.S. 70 & I-40	16	Urban Minor Arterial	31,020	257	3	45	1,152	2,327	2.02	F
5.09	5.21	WHITTEN RD.	Stage & Memphis-Arlington	16	Urban Minor Arterial	13,740	555	2	40	768	1,031	1.34	F
0	0.44	WILLOW RD	Colonial & Perkins	16	Urban Minor Arterial	11,160	571	4		1,536	837	0.55	D+
1.38	3.38	WOLF RIVER PKWY	Humphreys Blvd. & New Riverdal	16	Urban Minor Arterial	28,720	554	6		2,303	2,154	0.94	D+
5.92	6.12	YALE RD.	Raleigh-Millington & Coleman	16	Urban Minor Arterial	21,990	362	4		1,536	1,649	1.07	D+
7.08	7.14	YALE RD.	Austin Peay & Covington Pike	16	Urban Minor Arterial	16,170	283	4		1,536	1,213	0.79	D+
7.91	8.08	YALE RD.	Bartlett Blvd & Altruria Rd	16	Urban Minor Arterial	12,780	690	4		1,536	959	0.62	D+
8.54	8.55	YALE RD.	Bartlett Blvd & Altruria Rd	16	Urban Minor Arterial	12,780	690	6		2,303	959	0.42	D+
0	0.15	YATES RD.	Brantford Rd and Shady Grove R	16	Urban Minor Arterial	7,670	800	4		1,536	575	0.37	D+
0	0.09	AIRWAYS BLVD.	Southern & Park	14	Urban Other Principal Arterial	25,380	183	4	35	1,536	1,904	1.24	D+
0	0.08	AIRWAYS BLVD.	Democrat & Brooks	14	Urban Other Principal Arterial	20,850	290	2	45	768	1,564	2.04	D+
0.08	0.12	AIRWAYS BLVD.	Democrat & Brooks	14	Urban Other Principal Arterial	20,850	290	3	45	1,152	1,564	1.36	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
0.17	0.26	AIRWAYS BLVD.	Democrat & Brooks	14	Urban Other Principal Arterial	20,850	290	4	45	1,536	1,564	1.02	D+
0.26	0.87	AIRWAYS BLVD.	Democrat & Brooks	14	Urban Other Principal Arterial	20,850	290	6	45	2,303	1,564	0.68	D+
1.45	1.47	AIRWAYS BLVD.	I-240 & Democrat	12	Urban Other Principal Arterial	55,660	298	5	55	4,821	3,827	0.79	D+
1.66	1.67	AIRWAYS BLVD.	Ball & Dunn	14	Urban Other Principal Arterial	28,400	95	5	40	1,919	2,130	1.11	D+
1.78	1.92	AIRWAYS BLVD.	Ball & Dunn	14	Urban Other Principal Arterial	28,400	95	4	40	1,536	2,130	1.39	D+
3.39	3.66	AIRWAYS BLVD.	Ball & Dunn	14	Urban Other Principal Arterial	28,400	95	6	40	2,303	2,130	0.92	D+
3.83	3.87	AIRWAYS BLVD.	Winchester & Raines	14	Urban Other Principal Arterial	31,360	353	3		1,152	2,352	2.04	D+
3.87	4.04	AIRWAYS BLVD.	Winchester & Raines	14	Urban Other Principal Arterial	31,360	353	4		1,536	2,352	1.53	D+
4.04	4.15	AIRWAYS BLVD.	Winchester & Raines	14	Urban Other Principal Arterial	31,360	353	6		2,303	2,352	1.02	D+
1.79	2.22	AIRWAYS RD.	Raines & Shelby	14	Urban Other Principal Arterial	22,070	127	6		2,303	1,655	0.72	D+
2.8	3.07	AIRWAYS RD.	Winchester & Raines	14	Urban Other Principal Arterial	31,360	353	6		2,303	2,352	1.02	D+
20.06	20.21	AUSTIN PEAY HWY.	I-240 & Stage Road	12	Urban Other Principal Arterial	59,860	612	9	55	8,679	4,115	0.47	D+
20.21	20.57	AUSTIN PEAY HWY.	I-240 & Stage Road	12	Urban Other Principal Arterial	59,860	612	7	55	6,750	4,115	0.61	D+
20.57	20.67	AUSTIN PEAY HWY.	I-240 & Stage Road	12	Urban Other Principal Arterial	59,860	612	6	55	5,786	4,115	0.71	D+
20.67	20.85	AUSTIN PEAY HWY.	Stage Road & Raleigh-Millingto	12	Urban Other Principal Arterial	53,950	613	6	55	5,786	3,709	0.64	D+
20.85	21.02	AUSTIN PEAY HWY.	Coleman & Raleigh-Millington	12	Urban Other Principal Arterial	36,020	68	6	55	5,786	2,476	0.43	D+
22.11	22.18	AUSTIN PEAY HWY.	Yale & Covington Pike	14	Urban Other Principal Arterial	27,690	326	6	45	2,303	2,077	0.90	D+
22.18	23.29	AUSTIN PEAY HWY.	Yale & Covington Pike	14	Urban Other Principal Arterial	27,690	326	6	50	2,303	2,077	0.90	D+
23.29	23.31	AUSTIN PEAY HWY.	Pleasant Ridge & Loosahatchie	14	Urban Other Principal Arterial	12,700	32	6	50	2,303	953	0.41	D+
23.31	23.38	AUSTIN PEAY HWY.	Pleasant Ridge & Loosahatchie	14	Urban Other Principal Arterial	12,700	32	4	50	1,536	953	0.62	D+
23.38	23.51	AUSTIN PEAY HWY.	Pleasant Ridge & Loosahatchie	2	Urban Other Principal Arterial	12,700	32	2	50	1,714	1,445	0.84	D+
23.91	25.59	AUSTIN PEAY HWY.	Pleasant Ridge & Loosahatchie	2	Urban Other Principal Arterial	12,700	32	2	55	1,800	1,445	0.80	D+
0	0.04	BAILEY STATION RD.	U.S. 72 & Collierville	14	Urban Other Principal Arterial	9,730	403	4	40	1,536	730	0.48	D+
0.25	0.35	BAILEY STATION RD.	U.S. 72 & Collierville	14	Urban Other Principal Arterial	9,730	403	6	40	2,303	730	0.32	D+
5.95	6.75	BARTLETT BLVD.	Pleasant View & Ral.-LaGrange	14	Urban Other Principal Arterial	37,720	363	6	40	2,303	2,829	1.23	F
0.87	0.92	BROOKS RD.	Democrat & Brooks	14	Urban Other Principal Arterial	20,850	290	4	45	1,536	1,564	1.02	E
0.92	0.96	BROOKS RD.	Millbranch & Airways	14	Urban Other Principal Arterial	18,560	94	4	45	1,536	1,392	0.91	D+
1.02	1.27	BROOKS RD.	Millbranch & Airways	14	Urban Other Principal Arterial	18,560	94	6	45	2,303	1,392	0.60	D+
2.55	2.68	BROOKS RD.	Graves & U.S. 51	14	Urban Other Principal Arterial	13,070	92	4	45	1,536	980	0.64	D+
0	0.07	CHELSEA AV.	Chelsea & I-40	14	Urban Other Principal Arterial	3,480	139	2		768	261	0.34	D+
0	0.06	COVINGTON PIKE	Pleasant View & I-40	14	Urban Other Principal Arterial	48,160	286	5		1,919	3,612	1.88	D+
0.06	0.2	COVINGTON PIKE	Pleasant View & I-40	14	Urban Other Principal Arterial	48,160	286	4	45	1,536	3,612	2.35	D+
1.78	2.54	COVINGTON PIKE	Stage & Raleigh-LaGrange	14	Urban Other Principal Arterial	32,770	405	4	45	1,536	2,458	1.60	D+
2.62	2.72	COVINGTON PIKE	Stage & Raleigh-LaGrange	14	Urban Other Principal Arterial	32,770	405	6	45	2,303	2,458	1.07	D+
2.72	2.92	COVINGTON PIKE	Yale & Stage	14	Urban Other Principal Arterial	25,440	390	6	40	2,303	1,908	0.83	D+
2.92	3.1	COVINGTON PIKE	Yale & Stage	14	Urban Other Principal Arterial	25,440	390	4	40	1,536	1,908	1.24	D+
3.71	4.27	COVINGTON PIKE	Yale & Austin Peay	14	Urban Other Principal Arterial	23,640	404	4	40	1,536	1,773	1.15	D+
8.93	8.94	COVINGTON PIKE	Macon & I-40	14	Urban Other Principal Arterial	28,420	309	4	40	1,536	2,132	1.39	F
8.94	9.48	COVINGTON PIKE	Macon & I-40	14	Urban Other Principal Arterial	28,420	309	4	45	1,536	2,132	1.39	F
1.14	1.19	DANNY THOMAS BLVD.	Georgia & E.H. Crump	14	Urban Other Principal Arterial	11,070	267	5		1,919	830	0.43	D+
1.19	1.43	DANNY THOMAS BLVD.	Georgia & E.H. Crump	14	Urban Other Principal Arterial	11,070	267	4		1,536	830	0.54	D+
2.01	2.13	DANNY THOMAS BLVD.	Union & Beale	14	Urban Other Principal Arterial	17,830	495	4		1,536	1,337	0.87	D+
2.49	2.61	DANNY THOMAS BLVD.	Union & Beale	14	Urban Other Principal Arterial	17,830	495	6		2,303	1,337	0.58	D+
2.61	2.65	DANNY THOMAS BLVD.	I-40 & Poplar	14	Urban Other Principal Arterial	22,130	252	6		2,303	1,660	0.72	D+
3.37	3.47	DANNY THOMAS BLVD.	I-40 & Poplar	14	Urban Other Principal Arterial	22,130	252	5		1,919	1,660	0.86	D+
12.81	13.17	E.H. CRUMP BLVD.	East & Pauline	14	Urban Other Principal Arterial	21,540	147	6		2,303	1,616	0.70	D+
0.49	0.56	EAST PARKWAY N.	North Parkway & Poplar	14	Urban Other Principal Arterial	35,540	157	6	40	2,303	2,666	1.16	F

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
0.56	1.04	EAST PARKWAY N.	North Parkway & Poplar	14	Urban Other Principal Arterial	35,540	157	7	40	2,687	2,666	0.99	D+
0.64	0.7	EAST PARKWAY SOUTH	Central & Southern	14	Urban Other Principal Arterial	28,520	180	4		1,536	2,139	1.39	D+
0.93	0.99	EAST PARKWAY SOUTH	Central & Southern	14	Urban Other Principal Arterial	28,520	180	6		2,303	2,139	0.93	D+
1.4	1.43	EAST PARKWAY SOUTH	Central & Southern	14	Urban Other Principal Arterial	28,520	180	2		768	2,139	2.79	D+
1.43	1.47	EAST PARKWAY SOUTH	Byhalia Rd & Hwy 72	14	Urban Other Principal Arterial	30,160	992	2		768	2,262	2.95	F
1.47	1.58	EAST PARKWAY SOUTH	Byhalia Rd & Hwy 72	14	Urban Other Principal Arterial	30,160	992	6		2,303	2,262	0.98	D+
1.87	1.92	EAST PARKWAY SOUTH	Byhalia Rd & Hwy 72	14	Urban Other Principal Arterial	30,160	992	4		1,536	2,262	1.47	F
1.95	2	EAST PARKWAY SOUTH	Poplar & Madison	14	Urban Other Principal Arterial	31,930	156	6		2,303	2,395	1.04	E
0	0.24	ELVIS PRESLEY BLVD.	Holmes & DeSoto Co. Line	14	Urban Other Principal Arterial	12,910	129	4	40	1,536	968	0.63	D+
0.8	1.07	ELVIS PRESLEY BLVD.	Shelby & Holmes	14	Urban Other Principal Arterial	16,800	529	4	40	1,536	1,260	0.82	D+
1.81	2.81	ELVIS PRESLEY BLVD.	Raines & Shelby	14	Urban Other Principal Arterial	27,900	530	4	40	1,536	2,093	1.36	D+
2.81	3.15	ELVIS PRESLEY BLVD.	Winchester & Raines	14	Urban Other Principal Arterial	38,980	93	5	40	1,919	2,924	1.52	D+
3.15	3.47	ELVIS PRESLEY BLVD.	Winchester & Raines	14	Urban Other Principal Arterial	38,980	93	4	40	1,536	2,924	1.90	D+
3.56	4.1	ELVIS PRESLEY BLVD.	Winchester & Raines	14	Urban Other Principal Arterial	38,980	93	6	40	2,303	2,924	1.27	D+
4.1	4.62	ELVIS PRESLEY BLVD.	Brooks & Mitchell	14	Urban Other Principal Arterial	35,340	515	6	40	2,303	2,651	1.15	D+
4.7	4.72	ELVIS PRESLEY BLVD.	Brooks & Mitchell	14	Urban Other Principal Arterial	35,340	515	5	40	1,919	2,651	1.38	D+
4.72	4.74	ELVIS PRESLEY BLVD.	Norris & I-240	14	Urban Other Principal Arterial	23,950	168	5	40	1,919	1,796	0.94	D+
0	0.12	GERMANTOWN RD	Winchester & Stout	2	Urban Other Principal Arterial	14,520	562	2	40	1,388	871	0.63	E
1.82	1.86	GERMANTOWN RD	Winchester & Stout	2	Urban Other Principal Arterial	14,520	562	4	50	3,429	1,652	0.48	D+
1.86	2.38	GERMANTOWN RD	Hacks Cross & Cedar Rige	2	Urban Other Principal Arterial	18,550	872	2	35	768	1,391	1.81	F
3.01	3.22	GERMANTOWN RD.	Wolf River & U.S. 72	14	Urban Other Principal Arterial	57,940	103	4	30	1,536	4,346	2.83	D+
3.22	3.34	GERMANTOWN RD.	Wolf River & U.S. 72	14	Urban Other Principal Arterial	57,940	103	6	35	2,303	4,346	1.89	D+
3.82	4.46	GERMANTOWN RD.	Wolf River & U.S. 72	14	Urban Other Principal Arterial	57,940	103	6	40	2,303	4,346	1.89	D+
5.78	5.82	GERMANTOWN RD.	Raleigh-LaGrange & Macon	14	Urban Other Principal Arterial	68,430	406	6	40	2,303	5,132	2.23	D+
6.04	6.18	GERMANTOWN RD.	Raleigh-LaGrange & Macon	14	Urban Other Principal Arterial	68,430	406	6	50	2,303	5,132	2.23	D+
7.32	7.61	GERMANTOWN RD.	I-40 & Dexter	14	Urban Other Principal Arterial	44,140	258	6	50	2,303	3,311	1.44	D+
8.99	10.12	GERMANTOWN RD.	I-40 & Dexter	14	Urban Other Principal Arterial	44,140	258	6	40	2,303	3,311	1.44	D+
10.14	10.19	GERMANTOWN RD.	U.S. 64 & I-40	14	Urban Other Principal Arterial	35,930	75	6	50	2,303	2,695	1.17	D+
10.33	10.44	GERMANTOWN RD.	U.S. 64 & I-40	14	Urban Other Principal Arterial	35,930	75	8	50	3,071	2,695	0.88	D+
5.82	5.95	GERMANTOWN RD.	Raleigh-LaGrange & Macon	14	Urban Other Principal Arterial	68,430	406	6	40	2,303	5,132	2.23	D+
5.95	6.04	GERMANTOWN RD.	Raleigh-LaGrange & Macon	14	Urban Other Principal Arterial	68,430	406	6	50	2,303	5,132	2.23	D+
3.06	3.23	HICKORY HILL DR.	Knight Arnold & Mt. Moriah	14	Urban Other Principal Arterial	33,310	383	6	45	2,303	2,498	1.08	E
9.96	10.20	HOUSTON-LEVEE RD.	Byhalia Rd & Hwy 72	14	Urban Other Principal Arterial	11,050	889	4	40	1,536	829	0.54	D+
20.78	20.90	HWY-51	Overton Crossing & Watkins	14	Urban Other Principal Arterial	23,750	165	4	55	1,536	1,781	1.16	D+
21.93	22.06	HWY-51	Chase & Lucy	2	Urban Other Principal Arterial	22,650	28	4	55	3,600	2,576	0.72	D+
27.25	27.55	HWY-51	Paul Barret & Navy	14	Urban Other Principal Arterial	28,090	15	4	55	1,536	2,107	1.37	F
27.55	27.56	HWY-51	Paul Barret & Navy	14	Urban Other Principal Arterial	28,090	15	4	40	1,536	2,107	1.37	F
29.67	29.77	HWY-51	West Union & Wilkinsville	14	Urban Other Principal Arterial	28,690	12	4	55	1,536	2,152	1.40	F
12.36	12.4	JACKSON AV.	Thomas & I-40	14	Urban Other Principal Arterial	7,230	175	4	35	1,536	542	0.35	D+
13.3	13.38	JACKSON AV.	Watkins & McLean	14	Urban Other Principal Arterial	16,760	471	4	35	1,536	1,257	0.82	D+
13.94	14.74	JACKSON AV.	Watkins & McLean	14	Urban Other Principal Arterial	16,760	471	4	40	1,536	1,257	0.82	D+
14.74	15.05	JACKSON AV.	McLean & Trezevant	14	Urban Other Principal Arterial	20,780	160	4	40	1,536	1,559	1.01	D+
15.67	15.68	JACKSON AV.	Trezevant & Hollywood	14	Urban Other Principal Arterial	19,650	161	4	40	1,536	1,474	0.96	D+
17.3	18.2	JACKSON AV.	Chelsea & I-40	14	Urban Other Principal Arterial	28,000	311	4	40	1,536	2,100	1.37	D+
18.5	18.62	JACKSON AV.	Chelsea & I-40	14	Urban Other Principal Arterial	28,000	311	6	40	2,303	2,100	0.91	D+
19.8	19.81	JACKSON AV.	I-240 & Stage Road	12	Urban Other Principal Arterial	59,860	612	6	40	2,303	4,490	1.95	F
19.94	20.03	JACKSON AV.	I-240 & Stage Road	12	Urban Other Principal Arterial	59,860	612	5	50	1,919	4,490	2.34	F

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20.03	20.06	JACKSON AV.	I-240 & Stage Road	12	Urban Other Principal Arterial	59,860	612	9	50	3,455	4,490	1.30	F
27.56	27.6	JEFFERSON DAVIS HWY.	Paul Barret & Navy	14	Urban Other Principal Arterial	28,090	15	4	40	1,536	2,107	1.37	F
28.2	28.53	JEFFERSON DAVIS HWY.	Shelby Road and Navy	14	Urban Other Principal Arterial	30,700	244	4	40	1,536	2,303	1.50	F
28.53	28.68	JEFFERSON DAVIS HWY.	West Union & Wilkinsville	14	Urban Other Principal Arterial	28,690	12	4	40	1,536	2,152	1.40	F
29.61	29.67	JEFFERSON DAVIS HWY.	West Union & Wilkinsville	14	Urban Other Principal Arterial	28,690	12	4	55	1,536	2,152	1.40	F
3.08	3.73	LAMAR AVE	Perkins & Shelby	14	Urban Other Principal Arterial	39,600	123	4		1,536	2,970	1.93	D+
3.74	3.81	LAMAR AVE	Winchester & Perkins	14	Urban Other Principal Arterial	35,700	264	4		1,536	2,678	1.74	D+
4.82	4.97	LAMAR AVE	Getwell & Winchester	14	Urban Other Principal Arterial	41,540	352	4		1,536	3,116	2.03	D+
5.23	5.34	LAMAR AVE	Getwell & Winchester	14	Urban Other Principal Arterial	41,540	352	6		2,303	3,116	1.35	D+
5.34	5.42	LAMAR AVE	American Way & Knight Arnold	14	Urban Other Principal Arterial	38,890	218	6		2,303	2,917	1.27	D+
7.18	7.24	LAMAR AVE	American Way & Knight Arnold	14	Urban Other Principal Arterial	38,890	218	4		1,536	2,917	1.90	D+
7.4	7.42	LAMAR AVE	Prescott & Pendleton	14	Urban Other Principal Arterial	35,160	96	4		1,536	2,637	1.72	D+
8.75	9.77	LAMAR AVE	Airways & Barron	14	Urban Other Principal Arterial	26,950	153	4		1,536	2,021	1.32	D+
9.88	9.99	LAMAR AVE	South Parkway & Park	14	Urban Other Principal Arterial	25,250	516	4		1,536	1,894	1.23	D+
10.15	10.22	LAMAR AVE	South Parkway & Park	14	Urban Other Principal Arterial	25,250	516	6		2,303	1,894	0.82	D+
10.39	10.57	LAMAR AVE	Bellevue & Cleveland	14	Urban Other Principal Arterial	22,890	151	5		1,919	1,717	0.89	D+
10.57	10.97	LAMAR AVE	Bellevue & Cleveland	14	Urban Other Principal Arterial	22,890	151	4		1,536	1,717	1.12	D+
11.8	11.84	LAMAR AVE	Bellevue & Cleveland	14	Urban Other Principal Arterial	22,890	151	2		768	1,717	2.24	D+
12.28	12.47	LAMAR AVE	Bellevue & Cleveland	14	Urban Other Principal Arterial	22,890	151	6		2,303	1,717	0.75	D+
12.65	12.79	LAMAR AVE	Linden & I-240 Midtown	14	Urban Other Principal Arterial	24,770	149	6		2,303	1,858	0.81	D+
0	0.11	MENDENHALL RD.	Knight Arnold & Winchester	14	Urban Other Principal Arterial	28,770	285	4		1,536	2,158	1.41	D+
1.95	1.96	MENDENHALL RD.	Shelby Dr and Raines Rd	14	Urban Other Principal Arterial	18,360	736	6		2,303	1,377	0.60	D+
2.88	3.13	MENDENHALL RD.	Shelby Dr and Raines Rd	14	Urban Other Principal Arterial	18,360	736	4		1,536	1,377	0.90	D+
0	0.3	MITCHELL RD.	U.S. 61 & Graves	14	Urban Other Principal Arterial	14,770	262	5	45	1,919	1,108	0.58	D+
0.45	0.57	MITCHELL RD.	U.S. 61 & Graves	14	Urban Other Principal Arterial	14,770	262	6	45	2,303	1,108	0.48	D+
2.56	2.63	MT. MORIAN RD.	I-240 & American Way	14	Urban Other Principal Arterial	47,160	171	6	40	2,303	3,537	1.54	D+
2.63	2.85	MT. MORIAN RD.	I-240 & American Way	14	Urban Other Principal Arterial	47,160	171	7	40	2,687	3,537	1.32	D+
1.27	1.28	MT. MORIAN RD. EXTD.	Byhalia Rd & Hwy 72	14	Urban Other Principal Arterial	17,230	893	6	40	2,303	1,292	0.56	D+
1.28	1.51	MT. MORIAN RD. EXTD.	I-240 & American Way	14	Urban Other Principal Arterial	47,160	171	6	40	2,303	3,537	1.54	D+
4.95	5.04	N. HIGHLAND ST.	Summer & Macon	14	Urban Other Principal Arterial	11,660	458	4		1,536	875	0.57	D+
0.43	0.58	N. SECOND ST.	Chelsea & I-40	14	Urban Other Principal Arterial	3,480	139	2		768	261	0.34	D+
0.61	0.65	N. SECOND ST.	North Parkway & I-40	14	Urban Other Principal Arterial	4,030	467	3		1,152	302	0.26	D+
0.79	0.84	N. SECOND ST.	North Parkway & I-40	14	Urban Other Principal Arterial	4,030	467	2		768	302	0.39	D+
1.34	1.51	N. SECOND ST.	Wolf River & Whitney	14	Urban Other Principal Arterial	5,670	300	2	40	768	425	0.55	D+
12.39	12.42	N. THIRD ST.	North Parkway & I-40	14	Urban Other Principal Arterial	7,830	538	3	35	1,152	587	0.51	D+
12.45	12.64	N. THIRD ST.	North Parkway & I-40	14	Urban Other Principal Arterial	7,830	538	4	35	1,536	587	0.38	D+
12.67	13.18	N. THIRD ST.	Chelsea & Jackson	14	Urban Other Principal Arterial	2,360	138	4	35	1,536	177	0.12	D+
4.27	4.48	NEW COVINGTON PIKE	Yale & Austin Peay	14	Urban Other Principal Arterial	23,640	404	4	40	1,536	1,773	1.15	F
4.48	4.73	NEW COVINGTON PIKE	Yale & Austin Peay	14	Urban Other Principal Arterial	23,640	404	6	40	2,303	1,773	0.77	D+
2.9	3.08	NEW GETWELL RD.	Raines & Winchester	14	Urban Other Principal Arterial	19,900	306	4		1,536	1,493	0.97	D+
4	4.36	NEW GETWELL RD.	Lamar Ave and Winchester Rd	14	Urban Other Principal Arterial	25,560	750	4		1,536	1,917	1.25	F
4.36	4.52	NEW GETWELL RD.	Nonconnah Creek & American W	14	Urban Other Principal Arterial	39,770	97	6		2,303	2,983	1.29	D+
20.92	20.93	PAUL W. BARRET MEM. PK	Singleton Parkway & Sledge	12	Urban Other Principal Arterial	3,750	617	4	65	1,536	281	0.18	D+
20.93	21.05	PAUL W. BARRET MEM. PK	Singleton Parkway & Sledge	12	Urban Other Principal Arterial	3,750	617	2	55	768	281	0.37	D+
21.05	22.52	PAUL W. BARRET MEM. PK	Raleigh-Millington & Singleton	12	Urban Other Principal Arterial	17,540	386	2	55	768	1,316	1.71	F
22.6	22.72	PAUL W. BARRET MEM. PK	Raleigh-Millington & Singleton	12	Urban Other Principal Arterial	17,540	386	4	55	1,536	1,316	0.86	D+
22.72	23.22	PAUL W. BARRET MEM. PK	U.S. 51 & Raleigh-Millington	12	Urban Other Principal Arterial	10,910	385	4	55	1,536	818	0.53	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
23.72	23.77	PAUL W. BARRET MEM. PK	U.S. 51 & Raleigh-Millington	12	Urban Other Principal Arterial	10,910	385	2	55	768	818	1.07	F
23.77	23.95	PAUL W. BARRET MEM. PK	#N/A	14	Urban Other Principal Arterial	10,310	PROP	2	55	768	773	1.01	E
0	0.3	PERKINS RD.	U.S. 78 & Winchester	14	Urban Other Principal Arterial	22,350	375	4	45	1,536	1,676	1.09	D+
1.16	1.3	PERKINS RD.	Knight Arnold & Winchester	14	Urban Other Principal Arterial	27,260	172	4	45	1,536	2,045	1.33	D+
1.34	1.83	PERKINS RD.	Knight Arnold & Winchester	14	Urban Other Principal Arterial	27,260	172	4	40	1,536	2,045	1.33	D+
1.83	1.97	PERKINS RD.	Knight Arnold & Winchester	14	Urban Other Principal Arterial	27,260	172	6	40	2,303	2,045	0.89	D+
1.97	2.17	PERKINS RD.	I-240 & American Way	14	Urban Other Principal Arterial	36,310	170	6	40	2,303	2,723	1.18	E
3.01	3.07	PERKINS RD.	I-240 & American Way	14	Urban Other Principal Arterial	36,310	170	4	40	1,536	2,723	1.77	E
1.22	1.23	POPLAR AV.	East Parkway & Hollywood	14	Urban Other Principal Arterial	29,050	158	6	40	2,303	2,179	0.95	D+
1.93	2.26	POPLAR AV.	Highland & Goodlett	14	Urban Other Principal Arterial	28,180	163	6	40	2,303	2,114	0.92	D+
4.68	5.12	POPLAR AV.	Mendenhall & White Station	14	Urban Other Principal Arterial	36,560	169	6	40	2,303	2,742	1.19	E
7.03	7.71	POPLAR AV.	White Station & I-240	14	Urban Other Principal Arterial	41,030	519	6	40	2,303	3,077	1.34	D+
7.71	7.82	POPLAR AV.	White Station & I-240	14	Urban Other Principal Arterial	41,030	519	4	40	1,536	3,077	2.00	D+
8.08	8.09	POPLAR AV.	White Station & I-240	14	Urban Other Principal Arterial	41,030	519	5	40	1,919	3,077	1.60	D+
8.09	8.15	POPLAR AV.	Shady Grove & I-240	14	Urban Other Principal Arterial	60,020	421	5	40	1,919	4,502	2.35	F
8.15	8.18	POPLAR AV.	Shady Grove & I-240	14	Urban Other Principal Arterial	60,020	421	7	40	2,687	4,502	1.68	F
8.18	8.22	POPLAR AV.	Shady Grove & I-240	14	Urban Other Principal Arterial	60,020	421	6	40	2,303	4,502	1.95	F
8.38	8.45	POPLAR AV.	Shady Grove & I-240	14	Urban Other Principal Arterial	60,020	421	8	40	3,071	4,502	1.47	F
8.83	9.27	POPLAR AV.	Ridgeway & Kirby Road	14	Urban Other Principal Arterial	43,590	266	6	40	2,303	3,269	1.42	D+
9.27	9.47	POPLAR AV.	Ridgeway & Kirby Road	14	Urban Other Principal Arterial	43,590	266	5	40	1,919	3,269	1.70	D+
9.99	10.1	POPLAR AV.	Kirby Parkway & Germantown	14	Urban Other Principal Arterial	36,920	102	5	40	1,919	2,769	1.44	D+
10.47	10.69	POPLAR AV.	Kirby Parkway & Germantown	14	Urban Other Principal Arterial	36,920	102	4	40	1,536	2,769	1.80	D+
11.79	11.86	POPLAR AV.	Dogwood & Forest Hill-Irene	14	Urban Other Principal Arterial	23,460	229	5	40	1,919	1,760	0.92	D+
13.83	14.02	POPLAR AV.	Dogwood & Forest Hill-Irene	14	Urban Other Principal Arterial	23,460	229	4	40	1,536	1,760	1.15	F
0	0.24	POPLAR AVE.	Cleveland & McLean	14	Urban Other Principal Arterial	26,320	297	6		2,303	1,974	0.86	D+
2.97	3.49	POPLAR AVE.	N Third St and Fourth St	14	Urban Other Principal Arterial	11,350	855	6		2,303	851	0.37	D+
18.37	18.52	POPLAR ST.	Bray Station & Byhalia	14	Urban Other Principal Arterial	23,210	110	4	40	1,536	1,741	1.13	D+
19.75	20.11	POPLAR ST.	U.S. 72 & Peterson Lake	14	Urban Other Principal Arterial	20,770	442	4	40	1,536	1,558	1.01	D+
20.11	20.29	POPLAR ST.	U.S. 72 & Peterson Lake	14	Urban Other Principal Arterial	20,770	442	3	40	1,152	1,558	1.35	D+
20.29	20.49	POPLAR ST.	U.S. 72 & Peterson Lake	14	Urban Other Principal Arterial	20,770	442	2	40	768	1,558	2.03	D+
21.37	21.39	POPLAR ST.	U.S. 72 & Peterson Lake	14	Urban Other Principal Arterial	20,770	442	2	50	768	1,558	2.03	D+
21.39	21.61	POPLAR ST.	Coll.-Arl. & Fayette Co. Line	14	Urban Other Principal Arterial	11,030	107	2	50	768	827	1.08	D+
21.78	22.06	POPLAR ST.	Coll.-Arl. & Fayette Co. Line	14	Urban Other Principal Arterial	11,030	107	2	40	768	827	1.08	D+
2.45	2.48	RAINES RD.	Getwell & U.S. 78	14	Urban Other Principal Arterial	15,840	522	2		768	1,188	1.55	F
2.48	2.62	RAINES RD.	Getwell & U.S. 78	14	Urban Other Principal Arterial	15,840	522	6		2,303	1,188	0.52	D+
3.36	3.62	RAINES RD.	Getwell & U.S. 78	14	Urban Other Principal Arterial	15,840	522	4		1,536	1,188	0.77	D+
4.64	4.72	RIDGEWAY RD.	Knight Arnold & Mt. Moriah	14	Urban Other Principal Arterial	33,310	383	6	45	2,303	2,498	1.08	E
4.84	4.88	RIDGEWAY RD.	Park & Quince	14	Urban Other Principal Arterial	25,100	381	6	45	2,303	1,883	0.82	D+
5.65	6.03	RIDGEWAY RD.	Park & Quince	14	Urban Other Principal Arterial	25,100	381	6	40	2,303	1,883	0.82	D+
1.78	1.95	RIVERDALE RD.	Nonconnah Parkway & Wincheste	14	Urban Other Principal Arterial	38,410	608	6	45	2,303	2,881	1.25	E
0	0.07	S. THIRD ST.	Holmes & DeSoto Co. Line	2	Urban Other Principal Arterial	22,310	136	4	50	3,429	2,538	0.74	D+
2.13	2.68	S. THIRD ST.	Shelby & Weaver	14	Urban Other Principal Arterial	23,920	133	4	50	1,536	1,794	1.17	D+
2.82	2.9	S. THIRD ST.	Shelby & Weaver	14	Urban Other Principal Arterial	23,920	133	6	45	2,303	1,794	0.78	D+
2.9	2.92	S. THIRD ST.	Raines & Shelby	14	Urban Other Principal Arterial	27,840	131	6	45	2,303	2,088	0.91	D+
2.92	4.56	S. THIRD ST.	Raines & Shelby	14	Urban Other Principal Arterial	27,840	131	2	45	768	2,088	2.72	D+
4.56	4.58	S. THIRD ST.	Byhalia Rd & Hwy 72	14	Urban Other Principal Arterial	30,810	898	2	45	768	2,311	3.01	F
4.58	5.14	S. THIRD ST.	Byhalia Rd & Hwy 72	14	Urban Other Principal Arterial	30,810	898	6	45	2,303	2,311	1.00	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
5.79	7.09	S. THIRD ST.	Nonconnah Creek & Brooks	14	Urban Other Principal Arterial	45,140	90	6	45	2,303	3,386	1.47	D+
7.27	7.36	S. THIRD ST.	Nonconnah Creek & Brooks	14	Urban Other Principal Arterial	45,140	90	5	45	1,919	3,386	1.76	D+
7.44	7.45	S. THIRD ST.	I-55 & Mallory	14	Urban Other Principal Arterial	24,730	208	5	45	1,919	1,855	0.97	D+
7.45	7.5	S. THIRD ST.	I-55 & Mallory	14	Urban Other Principal Arterial	24,730	208	6	45	2,303	1,855	0.81	D+
7.68	7.96	S. THIRD ST.	I-55 & Mallory	14	Urban Other Principal Arterial	24,730	208	6	40	2,303	1,855	0.81	D+
7.96	7.97	S. THIRD ST.	Person & Mallory	14	Urban Other Principal Arterial	17,790	512	6	40	2,303	1,334	0.58	D+
9.02	9.42	S. THIRD ST.	Person & Mallory	14	Urban Other Principal Arterial	17,790	512	4	40	1,536	1,334	0.87	D+
9.42	9.49	S. THIRD ST.	McLemore & Trigg	14	Urban Other Principal Arterial	15,930	511	4	40	1,536	1,195	0.78	D+
10.1	10.59	S. THIRD ST.	McLemore & Trigg	14	Urban Other Principal Arterial	15,930	511	4	35	1,536	1,195	0.78	D+
4.76	5.17	SHELBY DR.	U.S. 51 & Millbranch	14	Urban Other Principal Arterial	30,920	187	6	40	2,303	2,319	1.01	D+
5.76	5.85	SHELBY DR.	U.S. 51 & Millbranch	14	Urban Other Principal Arterial	30,920	187	5	40	1,919	2,319	1.21	D+
5.9	6.03	SHELBY DR.	U.S. 51 & Millbranch	14	Urban Other Principal Arterial	30,920	187	4	40	1,536	2,319	1.51	D+
6.03	6.29	SHELBY DR.	I-55 & Airways	14	Urban Other Principal Arterial	38,210	128	4	40	1,536	2,866	1.87	D+
6.29	6.38	SHELBY DR.	I-55 & Airways	14	Urban Other Principal Arterial	38,210	128	6	40	2,303	2,866	1.24	D+
6.77	6.85	SHELBY DR.	Swinnea & Tchulahoma	14	Urban Other Principal Arterial	41,530	524	6	40	2,303	3,115	1.35	D+
6.85	7.09	SHELBY DR.	Swinnea & Tchulahoma	14	Urban Other Principal Arterial	41,530	524	6	45	2,303	3,115	1.35	D+
9.77	10.03	SHELBY DR.	Getwell & U.S. 78	14	Urban Other Principal Arterial	32,460	237	6	45	2,303	2,435	1.06	E
10.79	11.82	SHELBY DR.	0	14	Urban Other Principal Arterial	33,360	122	6	45	2,303	2,502	1.09	F
11.97	12.6	SHELBY DR.	Mendenhall & Hickory Hill	14	Urban Other Principal Arterial	30,730	119	4	45	1,536	2,305	1.50	D+
12.83	13.77	SHELBY DR.	Mendenhall & Hickory Hill	14	Urban Other Principal Arterial	30,730	119	6	45	2,303	2,305	1.00	D+
13.78	13.88	SHELBY DR.	Crumpler & Ross	14	Urban Other Principal Arterial	24,590	331	6	45	2,303	1,844	0.80	D+
2.73	2.83	SOUTH PARKWAY EAST	Lamar & Bellevue	14	Urban Other Principal Arterial	10,530	357	4		1,536	790	0.51	D+
3.36	3.54	SOUTH PARKWAY EAST	Lamar & Bellevue	14	Urban Other Principal Arterial	10,530	357	5		1,919	790	0.41	D+
1.64	1.79	STAGE RD	Memphis-Arlington & U.S. 70	14	Urban Other Principal Arterial	25,360	52	7		2,687	1,902	0.71	D+
1.79	2.04	STAGE RD	Memphis-Arlington & U.S. 70	14	Urban Other Principal Arterial	25,360	52	6		2,303	1,902	0.83	D+
2.57	2.59	STAGE RD	Memphis-Arlington & U.S. 70	14	Urban Other Principal Arterial	25,360	52	4		1,536	1,902	1.24	D+
2.59	2.81	STAGE RD	Memphis-Arlington & U.S. 70	14	Urban Other Principal Arterial	25,360	52	2	40	768	1,902	2.48	D+
5.07	5.12	STAGE RD	U.S. 70 & Appling	14	Urban Other Principal Arterial	34,160	50	4		1,536	2,562	1.67	D+
7.5	7.56	STAGE RD	Byhalia Rd & Hwy 72	14	Urban Other Principal Arterial	32,060	886	4		1,536	2,405	1.57	F
7.56	8.15	STAGE RD	Byhalia Rd & Hwy 72	14	Urban Other Principal Arterial	32,060	886	5		1,919	2,405	1.25	F
8.59	8.71	STAGE RD	I-40 & Berryhill	14	Urban Other Principal Arterial	40,680	76	4		1,536	3,051	1.99	D+
9.33	9.36	STAGE RD	I-40 & Berryhill	14	Urban Other Principal Arterial	40,680	76	2	55	768	3,051	3.97	D+
10.86	10.96	STAGE RD	Airline & Collierville-Arlingt	14	Urban Other Principal Arterial	16,560	77	4		1,536	1,242	0.81	D+
8.02	8.26	STRAFFORD RD.	Macon & I-40	14	Urban Other Principal Arterial	28,420	309	4	40	1,536	2,132	1.39	F
6.68	6.73	SUMMER AVE	Trezevant & Hollywood	14	Urban Other Principal Arterial	20,910	159	6		2,303	1,568	0.68	D+
6.81	7.25	SUMMER AVE	Trezevant & Hollywood	14	Urban Other Principal Arterial	20,910	159	4		1,536	1,568	1.02	D+
7.83	8.77	SUMMER AVE	Holmes Street & Highland	14	Urban Other Principal Arterial	10,690	240	4		1,536	802	0.52	D+
8.77	10.85	SUMMER AVE	Graham & Perkins	14	Urban Other Principal Arterial	27,050	87	6		2,303	2,029	0.88	D+
10.85	11.76	SUMMER AVE	Mendenhall & I-40	14	Urban Other Principal Arterial	27,650	284	6		2,303	2,074	0.90	D+
12.04	12.08	SUMMER AVE	Sycamore View & Wolf River	14	Urban Other Principal Arterial	15,350	166	5		1,919	1,151	0.60	D+
12.24	12.49	SUMMER AVE	Sycamore View & Wolf River	14	Urban Other Principal Arterial	15,350	166	4		1,536	1,151	0.75	D+
13.78	15.42	SUMMER AVE	Sycamore View & Ral.-LaGrange	14	Urban Other Principal Arterial	22,060	303	4		1,536	1,655	1.08	F
15.42	15.63	SUMMER AVE	Stage & Elmore	14	Urban Other Principal Arterial	20,660	51	4		1,536	1,550	1.01	D+
4.17	4.33	SYCAMORE VIEW RD.	U.S. 70 & I-40	14	Urban Other Principal Arterial	32,500	73	6	45	2,303	2,438	1.06	D+
4.38	4.46	SYCAMORE VIEW RD.	U.S. 70 & I-40	14	Urban Other Principal Arterial	32,500	73	6	40	2,303	2,438	1.06	D+
4.8	4.97	SYCAMORE VIEW RD.	Pleasant View & Ral.-LaGrange	14	Urban Other Principal Arterial	37,720	363	5	45	1,919	2,829	1.47	D+
4.97	5.37	SYCAMORE VIEW RD.	Pleasant View & Ral.-LaGrange	14	Urban Other Principal Arterial	37,720	363	4	45	1,536	2,829	1.84	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
5.59	5.95	SYCAMORE VIEW RD.	Pleasant View & Ral.-LaGrange	14	Urban Other Principal Arterial	37,720	363	6	40	2,303	2,829	1.23	D+
14.23	14.26	THOMAS BLVD.	Jackson & Chelsea	14	Urban Other Principal Arterial	11,940	296	4		1,536	896	0.58	D+
15.99	16.2	THOMAS ST.	James & Whitney	14	Urban Other Principal Arterial	31,740	320	4	35	1,536	2,381	1.55	D+
16.79	16.97	THOMAS ST.	James & Whitney	14	Urban Other Principal Arterial	31,740	320	4	40	1,536	2,381	1.55	D+
18.84	19.13	THOMAS ST.	Overton Crossing & Watkins	14	Urban Other Principal Arterial	23,750	165	4	40	1,536	1,781	1.16	F
19.13	19.47	THOMAS ST.	Overton Crossing & Watkins	14	Urban Other Principal Arterial	23,750	165	4	50	1,536	1,781	1.16	F
19.47	20.45	THOMAS ST.	Overton Crossing & Watkins	14	Urban Other Principal Arterial	23,750	165	4	55	1,536	1,781	1.16	F
9.9	10.06	UNION AV.	I-240 Midtown & Bellevue	14	Urban Other Principal Arterial	37,920	152	4	35	1,536	2,844	1.85	F
10.06	10.1	UNION AV.	Pauline & I-240 Midtown	14	Urban Other Principal Arterial	42,940	488	4	35	1,536	3,221	2.10	F
10.76	10.86	UNION AV.	Danny Thomas & Manassas	14	Urban Other Principal Arterial	19,970	162	4	35	1,536	1,498	0.98	D+
0	1.18	UNION AVE	Bellevue & Cleveland	14	Urban Other Principal Arterial	34,820	154	4		1,536	2,612	1.70	F
1.18	2.09	UNION AVE	McLean & East Parkway	14	Urban Other Principal Arterial	34,230	155	4		1,536	2,567	1.67	F
2.09	2.19	UNION AVE. EXTD.	East Parkway & Hollywood	14	Urban Other Principal Arterial	28,520	174	6		2,303	2,139	0.93	D+
15.63	16.78	US/HWY-64/70/79	Stage & Elmore	14	Urban Other Principal Arterial	20,660	51	4		1,536	1,550	1.01	D+
1.09	1.38	US/HWY-72	Tenn. Hwy. 57 & Fayette Co. Li	14	Urban Other Principal Arterial	9,470	108	2		768	710	0.93	D+
1.61	1.73	US/HWY-72	Tenn. Hwy. 57 & Fayette Co. Li	14	Urban Other Principal Arterial	9,470	108	4		1,536	710	0.46	D+
15.97	16.63	US/HWY-72	Dogwood & Forest Hill-Irene	14	Urban Other Principal Arterial	23,460	229	4	40	1,536	1,760	1.15	F
16.98	17.02	US/HWY-72	Bray Station & Byhalia	14	Urban Other Principal Arterial	23,210	110	4	40	1,536	1,741	1.13	F
0	0.84	US/HWY-78	Pleasant Hill & Holmes	2	Urban Other Principal Arterial	40,360	120	4	50	3,429	4,591	1.34	F
2.1	3.04	US/HWY-78	Perkins & Shelby	14	Urban Other Principal Arterial	39,600	123	4		1,536	2,970	1.93	F
0	0.07	W. FARMINGTON BLVD.	Poplar Ave & Germantown Rd	14	Urban Other Principal Arterial	22,140	876	6		2,303	1,661	0.72	D+
0	0.1	W.H. CRUMP BLVD.	Main & Third	14	Urban Other Principal Arterial	13,060	144	4		1,536	980	0.64	D+
0.1	0.29	W.H. CRUMP BLVD.	Main & Third	14	Urban Other Principal Arterial	13,060	144	6		2,303	980	0.43	D+
0.69	1.14	W.H. CRUMP BLVD.	Third & Danny Thomas	14	Urban Other Principal Arterial	16,880	146	6		2,303	1,266	0.55	D+
0	0.13	WALNUT GROVE RD.	I-240 & Shady Grove	14	Urban Other Principal Arterial	55,510	204	4	40	1,536	4,163	2.71	D+
0.13	0.4	WALNUT GROVE RD.	I-240 & Shady Grove	14	Urban Other Principal Arterial	55,510	204	6	40	2,303	4,163	1.81	D+
0.4	0.64	WALNUT GROVE RD.	I-240 & Shady Grove	14	Urban Other Principal Arterial	55,510	204	5	40	1,919	4,163	2.17	D+
0.64	0.69	WALNUT GROVE RD.	Wolf River & Germantown	2	Urban Other Principal Arterial	39,150	378	5	45	4,071	4,453	1.09	F
0.69	0.87	WALNUT GROVE RD.	Wolf River & Germantown	2	Urban Other Principal Arterial	39,150	378	4	45	3,257	4,453	1.37	F
1.71	2.36	WALNUT GROVE RD.	Wolf River & Germantown	2	Urban Other Principal Arterial	39,150	378	4	55	3,600	4,453	1.24	F
2.55	2.61	WALNUT GROVE RD.	East Parkway & Hollywood	14	Urban Other Principal Arterial	28,520	174	4		1,536	2,139	1.39	F
3.83	4.11	WALNUT GROVE RD.	Wolf River & Germantown	14	Urban Other Principal Arterial	39,150	378	6	55	2,303	2,936	1.27	F
0	0.79	WEAVER RD.	U.S. 61 & Holmes	14	Urban Other Principal Arterial	3,480	536	2	45	768	261	0.34	D+
0.79	1.2	WEAVER RD.	U.S. 61 & Holmes	14	Urban Other Principal Arterial	3,480	536	2	40	768	261	0.34	D+
2.38	2.56	WEST RD.	Hacks Cross & Cedar Rige	14	Urban Other Principal Arterial	18,550	872	2	35	768	1,391	1.81	F
2.56	2.82	WEST RD.	Hacks Cross & Cedar Rige	14	Urban Other Principal Arterial	18,550	872	4	35	1,536	1,391	0.91	D+
1.95	2.01	WHITNEY AV.	Wolf River & Whitney	14	Urban Other Principal Arterial	5,670	300	2	40	768	425	0.55	D+
0	2.12	WINCHESTER RD.	Perkins & Mendenhall	14	Urban Other Principal Arterial	32,070	265	6	45	2,303	2,405	1.04	D+
0	0.07	WINCHESTER RD.	Byhalia Rd & Hwy 72	14	Urban Other Principal Arterial	7,330	906	4	40	1,536	550	0.36	D+
0.72	0.76	WINCHESTER RD.	U.S. 61 & Graves	14	Urban Other Principal Arterial	14,770	262	6	45	2,303	1,108	0.48	D+
1.44	2	WINCHESTER RD.	U.S. 61 & Graves	14	Urban Other Principal Arterial	14,770	262	6	40	2,303	1,108	0.48	D+
2	2.35	WINCHESTER RD.	I-55 & Airways	14	Urban Other Principal Arterial	25,210	263	6	40	2,303	1,891	0.82	D+
2.02	2.21	WINCHESTER RD.	Byhalia Rd & Hwy 72	14	Urban Other Principal Arterial	7,330	906	4	40	1,536	550	0.36	D+
3.92	4	WINCHESTER RD.	I-55 & Airways	14	Urban Other Principal Arterial	25,210	263	4	40	1,536	1,891	1.23	D+
4.08	4.1	WINCHESTER RD.	Perkins & U.S. 78	14	Urban Other Principal Arterial	33,940	124	4	40	1,536	2,546	1.66	D+
4.18	4.46	WINCHESTER RD.	Perkins & U.S. 78	14	Urban Other Principal Arterial	33,940	124	5	40	1,919	2,546	1.33	D+
5.25	5.49	WINCHESTER RD.	Perkins & U.S. 78	14	Urban Other Principal Arterial	33,940	124	6	40	2,303	2,546	1.11	D+

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blm	elm	Route Name	Location	Functional Class	Functional Classification	AADT	Count Station	Lanes	Speed Limit	Capacity	Volume	V/C Ratio	Level of Service
5.39	5.72	WINCHESTER RD.	Germantown & Hacks Cross	14	Urban Other Principal Arterial	33,790	232	6	45	2,303	2,534	1.10	F
5.72	6.17	WINCHESTER RD.	Germantown & Hacks Cross	14	Urban Other Principal Arterial	33,790	232	4	45	1,536	2,534	1.65	F
5.88	7.09	WINCHESTER RD.	Perkins & U.S. 78	14	Urban Other Principal Arterial	33,940	124	6	45	2,303	2,546	1.11	D+
6.48	8.49	WINCHESTER RD.	Germantown & Hacks Cross	14	Urban Other Principal Arterial	33,790	232	6	50	2,303	2,534	1.10	F
		Goodman	Miss. Hwy. 301 & Horn Lake	14	Urban Principal Arterial	19,000	460	4		1,536	1,425	0.93	D+
		Goodman	Getwell & Pleasant Hill	14	Urban Principal Arterial	28,000	494	7		2,687	2,100	0.78	D+
		Goodman	Horn Lake & Hurt	14	Urban Principal Arterial	24,000	5000	2		768	1,800	2.34	F
		Goodman	Hurt & U.S. 51	14	Urban Principal Arterial	33,000	5005	2		768	2,475	3.22	F
		Goodman	U.S. 51 & I-55	14	Urban Principal Arterial	39,000	5010	5		1,919	2,925	1.52	F
		Goodman	I-55 & Airways	14	Urban Principal Arterial	41,000	5015	5		1,919	3,075	1.60	F
		Goodman	Airways & Swinnea	14	Urban Principal Arterial	42,000	5020	5		1,919	3,150	1.64	D+
		Miss. Hwy. 301	State Line Road & Goodman	14	Urban Principal Arterial	5,000	730	4		1,536	375	0.24	D+
		State Line Rd.	U.S. 51 & I-55	14	Urban Principal Arterial	21,000	5030	4		1,536	1,575	1.03	E
		U.S. 51	Goodman & Nail	14	Urban Principal Arterial	14,000	100	2		768	1,050	1.37	F
		U.S. 51	Rasco & Goodman	14	Urban Principal Arterial	17,000	110	4		1,536	1,275	0.83	D+
		U.S. 51	At the TN/MS State Line	14	Urban Principal Arterial	11,000	120	4		1,536	825	0.54	D+

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High occupancy vehicles facilities

High occupancy vehicle (HOV) facilities are travel lanes or other roadway improvements restricted to vehicles with two or more passengers. They are intended to provide buses, vanpools and carpools using them with a travel time savings and a predictable travel time. These travel advantages can serve as a significant incentive for individuals to choose to rideshare and therefore, increase the person-moving capacity of the transportation system. HOV facilities are typically only successful when combined with transportation demand management measures to encourage use. These include rideshare-matching services, employer incentives such as preferential parking, public information and education programs, and bus transfer and park-and-ride facilities.

HOV lanes on freeways can vary from barrier-separated "roadways" within the freeway median, to simply dedicating a new lane for HOV-only usage, which can be constructed at about the same cost as a conventional freeway lane. Locally, HOV lanes are separate lanes designated for multiple occupancy vehicles during rush hour traffic flows (7 am to 9 am for inbound traffic and 4 pm to 6pm for outbound traffic).

Feasibility of HOV Facilities

The major factor motivating the establishment of HOV lanes is severe and recurring traffic congestion. An HOV lane should be considered only when there is freeway congestion necessitating more efficient use of the roadway, particularly when, for environmental, financial or other reasons, additional road capacity cannot be constructed. A good measure of congestion is when average freeway speeds are 35 MPH or less during the peak period. In addition, an HOV lane is usually only successful when it will provide a reliable travel time for HOV users on the order of about one minute per mile over a typical trip from origin to destination. A five-minute timesaving overall is considered a minimum, and a savings of eight minutes is considered desirable.

For suburban-oriented lanes, initial usage during the peak hour should be a minimum of 400 to 800 vehicles, whereas for radial-oriented lanes, initial usage below 450 vehicles during the peak hour can be considered if there is a significant volume of buses using the facility.

A preliminary feasibility analysis was conducted for the above corridors. The results indicate that no corridor meets the general criteria outlined earlier. The time savings provided by the HOV corridor segments are minimal since operating speeds in the general use lanes are projected to be high, primarily as a result of planned capacity improvements to the roads in the affected corridors. This is apparent in the travel time savings per mile, which are no more than 0.14 minute per mile (in the I-240 corridor through Midtown), compared to the rule-of-thumb minute-per mile-minimum requirement. Peak period operating speeds in the general use lanes are projected to be well in excess of 40 MPH. Overall, the time savings offer very little incentive for motorists to make the effort to form or join car or vanpools or transfer to transit. Most of the projected demand would exist without the presence of the HOV facilities. Clearly, additional incentives would be required to cause drivers to rideshare. The analysis also determined that the combined HOV facilities would have a minimal impact on regional

travel. Vehicle miles of travel would decrease by approximately 0.4 percent in the peak period, while vehicle hours of delay would decrease by 2.7 percent in the same period.

Designated HOV Corridors

As part of the development of the congestion management system for the Memphis region, a number of corridors were identified as being potentially feasible for HOV application. The following **Table** shows the criteria used and scoring of these potential segments. Of those segments studied those identified below and on the **Figure** were selected. Two projects are open, and four others are in the Transportation Improvement Program (TIP):

- I-40 between I-240 and Germantown Road (open);
- I-55 from I-240 to the Mississippi State Line (open);
- I-240 South, Lamar Avenue to Nonconnah Parkway (Under study);
- I-240 Midtown from I-40 to I-55 (Under study);
- I-55 from Mississippi State Line to Goodman Road (Under study);
- Interstate 240 From Walnut Grove to Nonconnah Parkway (Under study).

The remaining locations are not currently in the TIP but were selected for study by the Engineering and Technical Committee (ETC) of the Metropolitan Planning Organization (MPO) which identified corridors projected to experience congestion in the plan's horizon years. These include:

- I-40/I-240 between the Northwest Freeway (to the north) and I-40 Midtown Interchange (to the south) and
- I-40 between Germantown Road and the proposed Collierville Arlington Parkway

In total, 57 miles of HOV corridor are included in the analysis.

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HOV Corridors

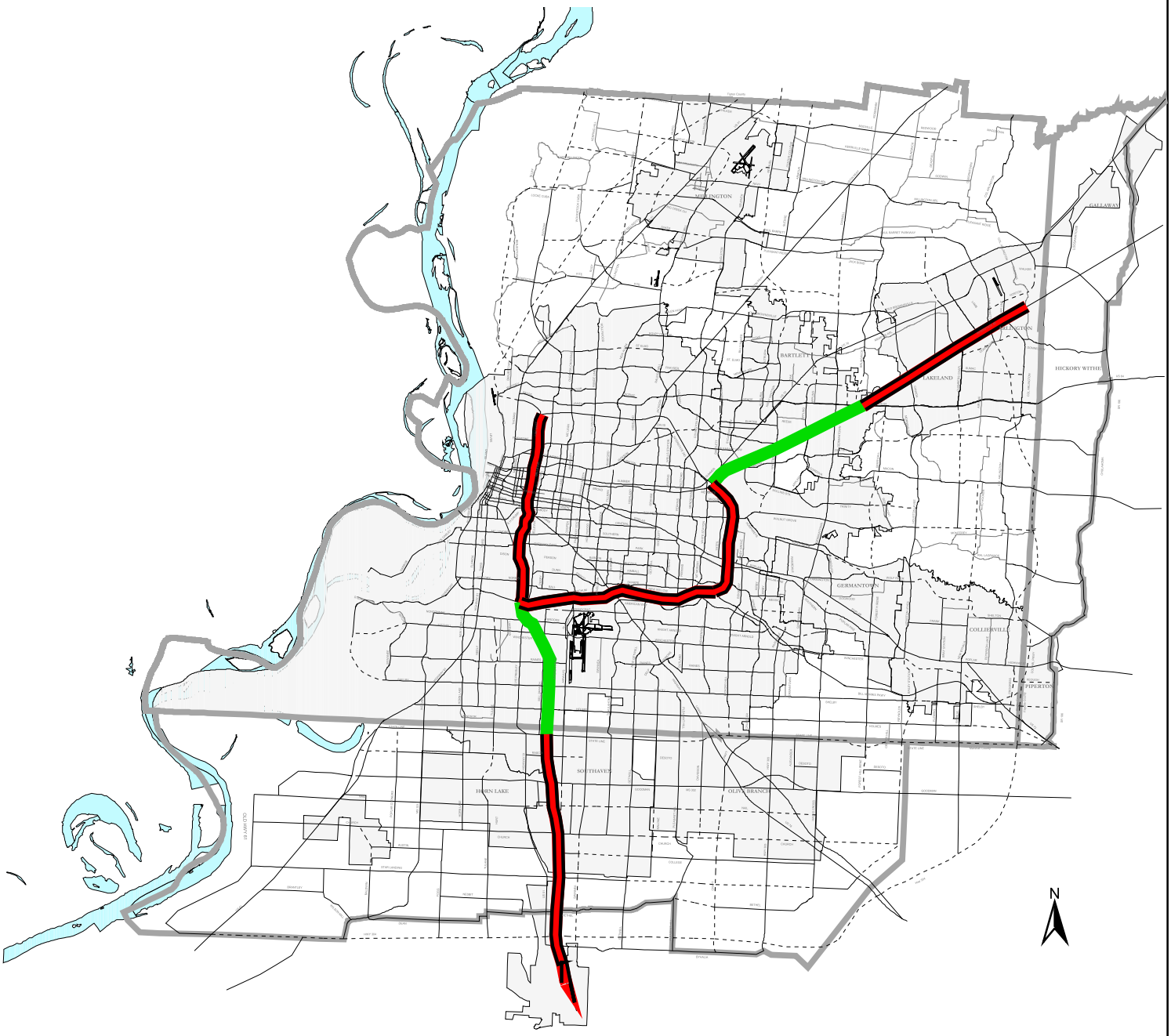


Table 1 HOV Corridor Analysis Results (2020)

Corridor No.[1]	Corridor Name	From	To	Length (miles)	Volume-to-Capacity Ratio[2]	Time Savings (minutes)	Time Savings per Mile (minutes)	Projected HOV Peak Hour Demand (2+ excluding transit)[3]	Transit Utilization (Peak Hour Ridership)[4]
1	I-40	I-240	Germantown Rd	8.1	.65 - .78	.28	0.03	228	180
2	I-55	I-240	State Line Rd.	5.7	.72 - 1.13	.46	0.08	537	180
3	I-55	State Line Rd.	Byhalia Rd.	10.8	.48 - 1.0	.42	0.04	278	180
4	I-40/I-240	NW Freeway	I-40 split (Midtown)	3.0	.42 - .66	.09	0.03	238	360
5	I-240	I-40 split (Midtown)	I-55	5.1	.75 - 1.05	.72	0.14	554	360
6	I-240	I-55	Nonconnah Pkwy	9.1	.59 - 1.01	.71	0.08	612	360
7	I-240	Nonconnah Pkwy	I-40/Sam Cooper Blvd	4.7	.78 - 1.06	.5	0.11	648	360
8	I-40	Germantown Rd	Future C-A Pkwy	6.7	.67 - 1.05	.63	0.09	114	180

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Appendix M

2004-2026 Fiscally Constrained Plan-
All Projects (by funding type)

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LRTP ID	State/Fed Rt.	Name	From	To	EX Lane	Lane0 6	Lane1 6	Lane2 6	Fund Source	2006	2016	2026	Grand Total
60010001	I-240	I-40 INTERCHANGE	at AIRWAYS						IM		$ 10,000,000		
60020001	I-40	I-40 INTERCHANGE	at CANADA RD						IM	$ 6,100,000			
60020002	I-40	I-40 INTERCHANGE	at I-240 East Memphis						IM	$ 25,000,000			
60020003	I-40	I-40 INTERCHANGE	at US 64						IM		$ 10,000,000		
60030001	I-55	I-55 INTERCHANGE	at MALLORY AVE						IM	$ 25,800,000			
60030002	I-55	I-55 INTERCHANGE	at US 64 (SR-1/CRUMP)						IM	$ 3,200,000	$ 9,400,000		
02500005	I-240	INTERSTATE 240	I-55	MILLBRANCH	6	8	8	8	IM		$ 13,878,000		
02500006	I-240	INTERSTATE 240	MILLBRANCH	AIRWAYS	6	8	8	8	IM		$ 14,965,000		
02500007	I-240	INTERSTATE 240	AIRWAYS	LAMAR	8	8	10	10	IM		$ 20,636,000		
02500013	I-240	INTERSTATE 240	WALNUT GROVE	PARK	6	6	8	8	IM		$ 26,067,000		
60020004	I-240	I-240 INTERCHANGE	at SR 385						IM		$ 15,000,000		
01040003	I-40	INTERSTATE 40	I-240 MT	JACKSON	6	8	8	8	IM		$ 7,362,000		
01040004	I-40	INTERSTATE 40	JACKSON	CHELSEA	6	8	8	8	IM		$ 10,500,000		
01040005	I-40	INTERSTATE 40	CHELSEA	101 CONNECTOR	6	6	8	8	IM		$ 17,016,000		
01040017	I-40	INTERSTATE 40	HWY 64	CANADA	4	4	6	6	IM		$ 28,750,000		
01040018	I-40	INTERSTATE 40	CANADA	AIR LINE	4	4	6	6	IM		$ 56,500,000		
60040001	SR-385	SR-385 INTERCHANGE	at DEXTER						IM		$ 10,000,000		
60040002	SR-385	SR-385 INTERCHANGE	at RAL-LAGRANGE						IM		$ 10,000,000		
60040003	SR-385	SR-385 INTERCHANGE	at SHELTON						IM		$ 10,000,000		
80000002		Interstate ITS Program							IM	$ 44,400,000			
30000006		CMS Project Improvements							IM		$ 2,426,000	$ 3,969,624	
									IM Total	**$ 104,500,000**	**$ 272,500,000**	**$ 3,969,624**	**$ 380,969,624**
80000004		Germantown Pkwy ITS							CESA*	$ 3,000,000			
30000005		Beale Street Landing Dock	Beale Street at the cobblestones and pedestrian river walk						CESA*		$ 19,500,000		
									CESA Total	**$ 3,000,000**	**$ 19,500,000**	**$ -**	**$ 22,500,000**
80000002 80000001		Interstate ITS Program							**CMAQ Total**	**$ 1,100,000**	**$ 30,000,000**	**$ 30,000,000**	**$ 61,100,000**
70000001		Hernando DeSoto Bridge Retrofit	I-40	I-55					**BRR-S Total**	**$ 60,000,000**	**$ 32,000,000**	$ -	**$ 92,000,000**
60020002	I-40	I-40 INTERCHANGE	at I-240 East Memphis						NHS/NCPD	$ 500,000			
60020005	I-40	I-40 INTERCHANGE	SR-196						NHS/NCPD		$ 10,000,000		
60030004	I-55	I-55 INTERCHANGE	at HOLMES RD.						NHS/NCPD		$ 10,000,000		
02500001	I-240	INTERSTATE 240 MT	I-40	UNION	6	8	8	8	NHS/NCPD	$ 4,250,000			
02500002	I-240	INTERSTATE 240 MT	UNION	LAMAR	6	6	8	8	NHS/NCPD	$ 4,250,000			
02500003	I-240	INTERSTATE 240 MT	LAMAR	SOUTH PARKWAY	6	6	8	8	NHS/NCPD	$ 4,250,000			
02500004	I-240	INTERSTATE 240 MT	SOUTH PARKWAY	I-55	6	6	8	8	NHS/NCPD	$ 4,250,000			
02500013	I-240	INTERSTATE 240 East	POPLAR AVENUE	WALNUT GROVE	6	6	8	8	NHS/NCPD	$ 25,200,000			
20000001	I-69	4 Lane Interstate	TN-MS Stateline	North of Millington	0	0	4	4	NHS/NCPD	$ 60,000,000	$ 90,886,830	$ 90,886,830	
00340012	NHS-C	WINCHESTER	Airways	PLOUGH BLVD	5	5	7	7	NHS/NCPD		$ 20,535,400		
30000006		CMS Project Improvements							NHS/NCPD		$ 6,802,810		
									NHS/NCPD Total	**$ 102,700,000**	**$ 138,225,040**	**$ 90,886,830**	**$ 331,811,870**
01180005	SR-1	St JUDE & N PARKWAY	N PARKWAY Realignment		2	5	5	5	SSTP	$ 3,000,000			
01190005	SR-205	AIR LINE	HORTON	I-40	2	2	5	5	SSTP		$ 1,263,000		
01190006	SR-205	AIR LINE	HWY 70	HORTON	2	2	5	5	SSTP		$ 2,367,000		
02020024	SR-14	AUSTIN PEAY	COVINGTON PIKE	EGYPT CENTRAL	2	2	7	7	SSTP	$ 2,500,000	$ 3,022,800		
02020025	SR-14	AUSTIN PEAY	EGYPT CENTRAL	OLD BROWNSVILLE	2	2	4	4	SSTP	$ 2,500,000	$ 4,068,000		
02020026	SR-14	AUSTIN PEAY	OLD BROWNSVILLE	OLD BROWNSVILLE	2	2	4	4	SSTP	$ 2,500,000	$ 3,804,000		
02020027	SR-14	AUSTIN PEAY	OLD BROWNSVILLE	BILLY MAHER	2	2	4	4	SSTP	$ 2,500,000	$ 3,910,000		
02020028	SR-14	AUSTIN PEAY	BILLY MAHER	LOOSAHATCHIE PKWY	2	2	4	4	SSTP	$ 2,500,000	$ 3,645,000		
02020029	SR-14	AUSTIN PEAY	LOOSAHATCHIE PKWY	WHITTEN	2	2	4	4	SSTP	$ 2,500,000	$ 3,645,000		
02020030	SR-14	AUSTIN PEAY	WHITTEN	PLEASANT RIDGE	2	2	4	4	SSTP	$ 2,500,000	$ 7,925,000		
02020031	SR-14	AUSTIN PEAY	PLEASANT RIDGE	PAUL BARRETT PKWY	2	2	4	4	SSTP	$ 2,500,000	$ 4,015,000		
02020032	SR-14	AUSTIN PEAY	PAUL BARRETT PKWY	MILLINGTON ARLINGTON	2	2	4	4	SSTP	$ 380,000	$ 16,271,000		

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LRTP ID	State/Fed Rt.	Name	From	To	EX Lane	Lane0 6	Lane1 6	Lane2 6	Fund Source	2006	2016	2026	Grand Total
02020033	SR-14	AUSTIN PEAY	MILLINGTON ARLINGTON	ROSEMARK	2	2	4	4	SSTP	$ 380,000	$ 7,291,000		
02020034	SR-14	AUSTIN PEAY	ROSEMARK	KERRVILLE-ROSEMARK	2	2	4	4	SSTP	$ 380,000	$ 1,744,000		
02020035	SR-14	AUSTIN PEAY	KERRVILLE-ROSEMARK	MUDVILLE	2	2	4	4	SSTP	$ 380,000	$ 6,234,000		
02020036	SR-14	AUSTIN PEAY	MUDVILLE	North	2	2	4	4	SSTP	$ 380,000	$ 16,377,000		
00730001 00730002 00730003	SR-385	BILL MORRIS PKWY	I-240	RIVERDALE	6	6	6	10	SSTP			$ 25,000,000	
01270006	SR-175	BYHALIA	WINCHESTER	BILL MORRIS PKWY	5	5	7	7	SSTP		$ 547,332		
01270007	SR-175	BYHALIA	POPLAR	WINCHESTER	5	5	7	7	SSTP		$ 659,531		
02590001	SR-196	CHULAHOMA	SHELBY DR	STATE LINE	2	2	5	5	SSTP		$ 5,820,500		
02590002	SR-196	CHULAHOMA	KEOUGH	SHELBY DR	2	2	5	5	SSTP		$ 3,416,500		
02590003	SR-196	CHULAHOMA	HWY 57	KEOUGH	2	2	5	5	SSTP		$ 2,973,500		
02590004	SR-196	CHULAHOMA	SHELTON	HWY 57	2	2	5	5	SSTP		$ 3,511,000		
02590005	SR-196	CHULAHOMA	RAL LAGRANGE	SHELTON	2	2	5	5	SSTP		$ 10,565,500		
02590006	SR-196	CHULAHOMA	MACON	RAL LAGRANGE	2	2	2	5	SSTP			$ 12,558,000	
02590007	SR-196	CHULAHOMA	DEXTER	MACON	2	2	2	5	SSTP			$ 5,630,500	
02590008	SR-196	CHULAHOMA	HWY 64	DEXTER	2	2	2	5	SSTP			$ 10,565,500	
00730016	SR-385	COL ARLINGTON PKWY	HWY 72	SR-57	0	0	4	4	SSTP	$ 3,000,000			
01680013	SR-385	COL ARLINGTON PKWY	I-40	DONNELSON	0	0	4	4	SSTP	$ 1,500,000			
01680014	SR-385	COL ARLINGTON PKWY	DONNELSON	SUMAC	0	0	4	4	SSTP	$ 1,500,000			
01680015	SR-385	COL ARLINGTON PKWY	SUMAC	HWY 64	0	0	4	4	SSTP	$ 1,500,000			
01680016	SR-385	COL ARLINGTON PKWY	HWY 64	COL ARLINGTON RD	0	0	4	4	SSTP	$ 1,500,000			
01680017	SR-385	COL ARLINGTON PKWY	COL ARLINGTON RD	DEXTER	0	0	4	4	SSTP	$ 4,500,000	$ 2,029,325		
01680018	SR-385	COL ARLINGTON PKWY	DEXTER	MACON	0	0	4	4	SSTP	$ 4,500,000	$ 4,632,214		
01680019	SR-385	COL ARLINGTON PKWY	MACON	WALNUT GROVE	0	0	4	4	SSTP	$ 6,250,000	$ 7,831,870		
01680020	SR-385	COL ARLINGTON PKWY	WALNUT GROVE	RAL-LAGRANGE	0	0	4	4	SSTP	$ 6,250,000	$ 9,115,555		
01680021	SR-385	COL ARLINGTON PKWY	RAL-LAGRANGE	SHELTON	0	0	4	4	SSTP	$ 6,250,000	$ 10,435,512		
01680022	SR-385	COL ARLINGTON PKWY	SHELTON	SR-57	0	0	4	4	SSTP	$ 6,250,000	$ 10,003,563		
02170001	SR-205	COL ARLINGTON RD	SHELTON	SR-57	2	2	2	4	SSTP		$ 4,327,751		
02170002	SR-205	COL ARLINGTON RD	RAL LAGRANGE	SHELTON	2	2	2	4	SSTP			$ 3,989,683	
02170003	SR-205	COL ARLINGTON RD	RAL LAGRANGE	RAL LAGRANGE	2	2	2	4	SSTP			$ 258,172	
02170004	SR-205	COL ARLINGTON RD	MONTEREY	RAL LAGRANGE	2	2	2	4	SSTP			$ 1,828,395	
02170005	SR-205	COL ARLINGTON RD	MACON	MONTEREY	2	2	2	4	SSTP			$ 3,697,283	
02170006	SR-205	COL ARLINGTON RD	MACON	DEXTER	2	2	2	4	SSTP			$ 2,569,400	
02170007	SR-205	COL ARLINGTON RD	HWY 64	DEXTER	2	2	2	4	SSTP			$ 3,158,111	
02170008	SR-205	COL ARLINGTON RD	HWY 64	SUMAC	2	2	5	5	SSTP		$ 2,033,000		
02170009	SR-205	COL ARLINGTON RD	SUMAC	DONNELSON	2	2	2	5	SSTP			$ 1,925,000	
02170013	SR-205	COL ARLINGTON RD	PLEASANT RIDGE	CHAPEL HILL RD	2	2	2	5	SSTP			$ 705,217	
02170014	SR-205	COL ARLINGTON RD	MILLINGTON ARLINGTON	PLEASANT RIDGE	2	2	2	5	SSTP			$ 717,401	
02190001	SR-205	COL ARLINGTON RD	DONNELSON	COL ARLINGTON	2	2	5	5	SSTP		$ 1,215,000		
02190002	SR-205	COL ARLINGTON RD	I-40	DONNELSON	2	2	5	5	SSTP		$ 1,049,000		
00570003	SR-204	COVINGTON PIKE	PLEASANT VIEW	I-40	5	5	6	6	SSTP		$ 3,000,000		
00570004	SR-204	COVINGTON PIKE	CHELSEA	PLEASANT VIEW	5	5	5	7	SSTP			$ 1,000,000	
00570005	SR-204	COVINGTON PIKE	RAL LAGRANGE	CHELSEA	4	4	4	7	SSTP			$ 1,500,000	
00570006	SR-204	COVINGTON PIKE	STAGE	PAL LAGRANGE	4	4	4	7	SSTP			$ 1,200,000	
00250007	US-51	ELVIS PRESLEY	HOLMES	STATE LINE	5	5	5	7	SSTP			$ 1,500,000	
00250008	US-51	ELVIS PRESLEY	SHELBY	HOLMES	5	5	5	7	SSTP			$ 1,566,660	
00250009	US-51	ELVIS PRESLEY	RAINES	SHELBY	5	5	5	7	SSTP			$ 1,665,560	
00250010	US-51	ELVIS PRESLEY	WINCHESTER	RAINES	5	5	5	7	SSTP			$ 2,002,160	
00250011	US-51	ELVIS PRESLEY	BROOKS	WINCHESTER	5	5	5	7	SSTP			$ 803,900	
00250012.1	US-51	ELVIS PRESLEY	I-55	BROOKS	5	5	7	7	SSTP		$ 231,460		
00250012.2	US-51	ELVIS PRESLEY	I-240	I-55	5	5	5	7	SSTP			$ 1,457,600	
00250013	US-51	ELVIS PRESLEY	NORRIS	I-240	4	4	4	6	SSTP			$ 1,067,120	
00790004.2	SR-177	GERMANTOWN	CRESTRIDGE	STOUT	2	2	4	4	SSTP	$ 1,900,000			
00790011	SR-177	GERMANTOWN	WALNUT GROVE	WOLF RIVER	6	6	8	8	SSTP		$ 6,000,000		
00790012	SR-177	GERMANTOWN	RAL LAGRANGE	WALNUT GROVE	6	6	8	8	SSTP		$ 944,900		
00790013	SR-177	GERMANTOWN	MACON	RAL LAGRANGE	6	6	8	8	SSTP		$ 935,000		
00790014	SR-177	GERMANTOWN	CORDOVA	MACON	6	6	8	8	SSTP		$ 328,700		
00790015	SR-177	GERMANTOWN	DEXTER	CORDOVA	6	6	8	8	SSTP		$ 1,234,700		

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STATE OF TENNESSEE

LRTP ID	State/Fed Rt.	Name	From	To	EX Lane	Lane0 6	Lane1 6	Lane2 6	Fund Source	2006	2016	2026	Grand Total
00790016	SR-177	GERMANTOWN	I-40	DEXTER	6	6	8	8	SSTP		$ 4,200,000		
00410010.2	SR-176	GETWELL	STATELINE	HOLMES	4	4	7	7	SSTP		$ 560,340		
00410011	SR-176	GETWELL	HOLMES	SHELBY DR	4	4	7	7	SSTP		$ 3,992,000		
00410012.1	SR-176	GETWELL	SHELBY DR	RAINES	4	4	4	7	SSTP			$ 5,080,000	
02590009 02590010	SR-196	HICKORY WITH	HWY 64	I-40	2	2	2	5	SSTP			$ 5,000,000	
02590011	SR-196	HICKORY WITH	I-40	HWY 70	2	2	2	5	SSTP			$ 5,000,000	
01140001.1	US-57	HIGHWAY 57	HWY 72	KELSEY	5	5	5	7	SSTP			$ 2,642,000	
01140002	US-57	HIGHWAY 57	KELSEY	PETERSON LAKE	2	2	2	5	SSTP			$ 2,594,000	
01140005	US-57	HIGHWAY 57	COL-ARLING PKW	MPO BOUND EAST	2	2	2	5	SSTP			$ 2,500,000	
00030012	US-61	HIGHWAY 61	HOLMES	STATE LINE	4	4	4	5	SSTP			$ 2,000,000	
00030013	US-61	HIGHWAY 61	WEAVER	HOLMES	4	4	5	5	SSTP		$ 2,013,000		
00030014	US-61	HIGHWAY 61	SHELBY	WEAVER	4	4	5	5	SSTP		$ 2,460,000		
00030022	US-61	HIGHWAY 61	SOUTH PARKWAY	PERSON	5	5	6	6	SSTP		$ 1,310,000		
00030023	US-61	HIGHWAY 61	MCLEMORE	SOUTH PARKWAY	4	4	6	6	SSTP		$ 3,223,000		
01320016	US-64	HIGHWAY 64	SUMMER	APPLING	6	6	6	6	SSTP		$ 288,750		
01320017	US-64	HIGHWAY 64	APPLING	GERMANTOWN	6	6	6	6	SSTP		$ 270,305		
01320018	US-64	HIGHWAY 64	GERMANTOWN	PEMBROKE ELLIS	6	6	6	6	SSTP		$ 137,720		
01320019	US-64	HIGHWAY 64	PEMBROKE ELLIS	I-40	6	6	6	6	SSTP		$ 98,230		
01320021	US-64	HIGHWAY 64	I-40	BERRYHILL	5	5	7	7	SSTP		$ 5,389,000		
01320022	US-64	HIGHWAY 64	BERRYHILL	MORNING SUN	4	5	7	7	SSTP		$ 4,808,000		
01320023	US-64	HIGHWAY 64	MORNING SUN	CANADA	4	5	7	7	SSTP		$ 750,000		
01320024	US-64	HIGHWAY 64	CANADA	CHAMBERS CHAPEL	5	5	5	7	SSTP			$ 2,000,000	
01320025	US-64	HIGHWAY 64	CHAMBERS CHAPEL	AIR LINE	5	5	5	7	SSTP			$ 5,652,000	
01320026	US-64	HIGHWAY 64	HWY 385	AIR LINE	5	5	5	7	SSTP			$ 7,238,000	
01320027	US-64	HIGHWAY 64	HWY 385	COL ARLINGTON	5	5	5	7	SSTP			$ 1,955,000	
01120028	US-72	HIGHWAY 72	KIRBY	RIVERDALE	4	4	7	7	SSTP		$ 1,369,800		
01120029	US-72	HIGHWAY 72/SR-57	RIVERDALE	FARMINGTON	4	4	7	7	SSTP	$ 800,000			
01120030	US-72	HIGHWAY 72/SR-57	FARMINGTON	GERMANTOWN	4	4	7	7	SSTP	$ 800,000			
01120031	US-72	HIGHWAY 72/SR-57	GERMANTOWN	HACKS CROSS	4	4	7	7	SSTP	$ 800,000	$ 1,866,000		
01120032	US-72	HIGHWAY 72	HACKS CROSS	FOREST HILL	4	4	7	7	SSTP		$ 3,312,600		
01120033	US-72	HIGHWAY 72	FOREST HILL	POPLAR PIKE	4	4	7	7	SSTP		$ 1,572,900		
01120034	US-72	HIGHWAY 72	POPLAR PIKE	HOUSTON LEVEE	4	4	7	7	SSTP		$ 1,469,400		
01120035	US-72	HIGHWAY 72	HOUSTON LEVEE	BRAY STATION	4	4	7	7	SSTP		$ 9,996,000		
01120036	US-72	HIGHWAY 72	BRAY STATION	BYHALIA	5	5	7	7	SSTP		$ 4,860,000		
02640002	US-72	HIGHWAY 72	PROGRESS	TN -196	2	4	4	4	SSTP	$ 3,850,000			
02640001 02640002	US-72	HIGHWAY 72 Bypass	I-69	TN State Line	0	0	0	4	SSTP			$ 25,000,000	
02640003	US-72	HIGHWAY 72	SHELBY	PROGRESS	2	4	4	4	SSTP	$ 3,850,000			
02640004	US-72	HIGHWAY 72	BILL MORRIS PARKWAY	SHELBY DR	2	5	5	5	SSTP	$ 4,300,000		$ 284,750	
02640005	US-72	HIGHWAY 72	WINCHESTER	BILL MORRIS PKWY	2	5	5	5	SSTP	$ 4,300,000			
02640006	US-72	HIGHWAY 72	HWY 57	WINCHESTER	2	5	5	5	SSTP	$ 4,300,000			
00820026	US-78	HIGHWAY 78	GETWELL	PERKINS EXTD	4	4	6	6	SSTP		$ 5,652,000		
00820027	US-78	HIGHWAY 78	PERKINS EXTD	SHELBY	4	4	6	6	SSTP	$ 25,000,000	$ 8,664,000		
00820028	US-78	HIGHWAY 78	SHELBY	HOLMES	4	4	6	6	SSTP		$ 6,234,000		
00820029	US-78	HIGHWAY 78	HOLMES	STATE LINE	4	4	6	6	SSTP		$ 1,000,000		
00820012.1	US-78	LAMAR	CENTRAL	MCLEAN	5	5	5	6	SSTP			$ 6,000,000	
00820016	US-78	LAMAR	AIRWAYS	BARRON	5	5	5	6	SSTP			$ 379,600	
00820025	US-78	LAMAR	NEW GETWELL	WINCHESTER	4	4	7	7	SSTP		$ 1,161,800		
02220011	SR-193	MACON	COL ARLINGTON	HWY 385	2	2	2	5	SSTP			$ 2,606,884	
02220012	SR-193	MACON	HWY 385	CHULAHOMA	2	2	5	5	SSTP		$ 3,800,000		
01780002	SR-205	MILLINGTON ARLINGTON	NAVY	AUSTIN PEAY HWY	2	2	5	6	SSTP			$ 2,271,746	
01780003	SR-205	MILLINGTON ARLINGTON	AUSTIN PEAY	ROSEMARK	2	2	2	6	SSTP			$ 1,805,058	
01780004	SR-205	MILLINGTON ARLINGTON	ROSEMARK	BRUNSWICK	2	2	2	6	SSTP			$ 2,507,284	
01780005	SR-205	MILLINGTON ARLINGTON	BRUNSWICK	OSBORNTOWN	2	2	2	6	SSTP			$ 1,958,286	
01780009	SR-205	MILLINGTON ARLINGTON	OSBORNTOWN	COL ARLINGTON RD	2	2	2	6	SSTP			$ 2,325,894	
01760001	SR-205	NAVY	SHELBY	HWY 51	0	0	6	6	SSTP		$ 1,021,143		
01760005	SR-205	NAVY	RAL-MILLINGTON	WEST UNION	4	4	4	5	SSTP			$ 176,439	
01760006	SR-205	NAVY	WEST UNION	SEVENTH	4	4	4	5	SSTP			$ 772,398	

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STATE OF TENNESSEE

LRTP ID	State/Fed Rt.	Name	From	To	EX Lane	Lane0 6	Lane1 6	Lane2 6	Fund Source	2006	2016	2026	Grand Total
01760009	SR-205	NAVY	ARMOUR	MILLINGTON ARLINGTON	2	2	6	6	SSTP		$ 2,680,000		
00410013	SR-176	NEW GETWELL	WINCHESTER	RAINES	4	4	4	6	SSTP			$ 2,800,000	
00410014	SR-176	NEW GETWELL	HWY 78	WINCHESTER	4	4	4	6	SSTP			$ 1,500,000	
00410015	SR-176	NEW GETWELL	KNIGHT ARNOLD	LAMAR	4	4	4	6	SSTP			$ 2,200,000	
02520003.1	SR-385	PAUL BARRET	SHAKERAG	I-69	0	0	0	4	SSTP			$ 1,000,000	
02520003.2	SR-385	PAUL BARRET	I-69	WOODSTOCK CUBA	0	0	0	4	SSTP			$ 1,000,000	
01120023.1	US-72	POPLAR	YATES	CRESTHAVEN	5	5	7	7	SSTP		$ 483,200		
01120023.2	US-72	POPLAR	CRESTHAVEN	I-240	4	4	6	6	SSTP		$ 548,300		
00180020	SR-175	SHELBY	HACKS CROSS	FOREST HILL	4	4	7	7	SSTP		$ 2,177,938		
00180022	SR-175	SHELBY	FOREST HILL IRENE	REYNOLDS	2	2	7	7	SSTP		$ 3,951,572		
00180023	SR-175	SHELBY	REYNOLDS	HOUSTON LEVEE	2	2	7	7	SSTP		$ 1,207,599		
02610001	SR-196	STATE ROAD 196	HICKORY WITH	US - 70	2	2	2	5	SSTP			$ 2,000,000	
01200026	US-70	SUMMER	MACON	BARTLETT	4	4	7	7	SSTP		$ 5,314,000		
01200027	US-70	SUMMER	BARTLETT	SYCAMORE VIEW	4	4	7	7	SSTP		$ 5,188,000		
01200028	US-70	SUMMER	SYCAMORE VIEW	RAL-LAGRANGE	4	4	7	7	SSTP		$ 4,998,000		
01200029	US-70	SUMMER	ELMORE RD	RAL-LAGRANGE	4	4	7	7	SSTP		$ 5,378,000		
01200030	US-70	SUMMER	ALTRURIA	ELMORE	5	4	7	7	SSTP		$ 1,110,000		
01200031	US-70	SUMMER	ELMORE RD	GERMANTOWN	4	4	7	7	SSTP		$ 5,000,000		
00070011	SR-175	WEAVER	HWY 61	TN State Line	2	2	5	5	SSTP		$ 6,088,000		
30000006		CMS Project Improvements							SSTP		$ 16,771,190	$ 3,969,624	
SSTP Total										**$ 117,800,000**	**$ 320,799,000**	**$ 188,584,625**	**$ 627,183,625**
												Grand Total	**$ 1,515,565,119**

*Interchanges related to I-69 orI-269 are included in the total project costs.

*CESA (Congressional Earmark Special Appropriation)

US EPA ARCHIVE DOCUMENT

STATE OF MISSISSIPPI PROGRAMMED COSTS

LRTP ID	State/Fed Rt.	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
01330010	I-55	INTERSTATE 55	STATE LINE	GOODMAN	4	4	8	8	NHS		$ 4,823,934		
01330011	I-55	INTERSTATE 55	NAIL	MS 304	4	4	6	6	NHS		$ 4,616,848		
02670001	I-55	INTERSTATE 55	NAIL	GOODMAN	4	4	6	6	NHS	$ 1,686,600	$ 1,124,400		
60030005	I-55	I-55 INTERCHANGE	at Starlanding						NHS			$ 6,000,000	
00020007	I-269	HIGHWAY 304	I-55	SWINNEA	0	0	0	4	NHS		$ 5,660,551	$ 5,660,551	
00020008	I-269	HIGHWAY 304	SWINNEA	GETWELL	0	0	0	4	NHS		$ 13,165,877	$ 13,165,877	
00020009	I-269	HIGHWAY 304	GETWELL	PLEASANT HILL	0	0	0	4	NHS		$ 14,346,691	$ 14,346,691	
00020010	I-269	HIGHWAY 304	PLEASANT HILL	CRAFT	0	0	0	4	NHS		$ 11,842,596	$ 11,842,596	
00020011	I-269	HIGHWAY 304	CRAFT	HWY 305	0	0	0	4	NHS		$ 13,718,790	$ 13,718,790	
00020012	I-269	HIGHWAY 304	HWY 305	HWY 78	0	0	0	4	NHS		$ 38,752,594	$ 38,752,594	
00020013	I-269	HIGHWAY 304	HWY 78	OLD LAMAR	0	0	0	4	NHS		$ 1,466,689	$ 1,466,689	
00020014	I-269	HIGHWAY 304	OLD LAMAR	BYHALIA	0	0	0	4	NHS		$ 24,505,658	$ 24,505,658	
00020015	I-269	HIGHWAY 304	BYHALIA	GOODMAN	0	0	0	4	NHS		$ 22,223,313	$ 22,223,313	
00020016	I-269	HIGHWAY 304	GOODMAN	MS stateline	0	0	0	4	NHS		$ 14,766,321	$ 14,766,321	
80000003		ITS							NHS		$ 2,000,000		
NHS Total										**$ 1,686,600**	**$ 173,014,262**	**$ 166,449,080**	**$ 341,149,942**
00070001	MS301	MS 301	WILSON MILL	HWY 304	2	2	2	5	MSSTP			$ 1,481,208	
00070002	MS301	MS 301	WILSON MILL	DEAN	2	2	2	5	MSSTP			$ 1,194,332	
00070003	MS301	MS 301	DEAN	STAR LANDING	2	2	2	5	MSSTP			$ 5,083,484	
00070004	MS301	MS 301	AUSTIN	STAR LANDING	2	2	2	5	MSSTP			$ 1,760,129	
00070005	MS301	MS 301	CHURCH	AUSTIN	2	2	2	5	MSSTP			$ 1,372,288	
70000002	MS302	Goodman Road Bridge	Bridge over Horn Lake Creek						MSSTP		$ 750,000		
00100002	MS302	GOODMAN	HWY 61	POPLAR CORNER	5	5	5	7	MSSTP			$ 1,687,231	
00100003	MS302	GOODMAN	POPLAR CORNER	HWY 301	5	5	5	7	MSSTP			$ 1,152,368	
00100004	MS302	GOODMAN	MS 301	HORN LAKE	5	5	5	7	MSSTP			$ 1,869,443	
00100005	MS302	GOODMAN	HORN LAKE	TULANE	5	5	5	7	MSSTP			$ 901,290	
00100006	MS302	GOODMAN	TULANE	HURT	5	5	5	7	MSSTP			$ 809,591	
00100007	MS302	GOODMAN	HURT	HWY 51	5	5	5	7	MSSTP			$ 1,112,635	
00100008	MS302	GOODMAN	HWY 51	I-55	5	5	7	7	MSSTP		$ 1,137,348		
00100009	MS302	GOODMAN	I-55	AIRWAYS	5	5	7	7	MSSTP		$ 522,348		
00100010	MS302	GOODMAN	AIRWAYS	ELMORE	5	5	7	7	MSSTP		$ 497,005		
00100011	MS302	GOODMAN	ELMORE	SWINNEA	5	5	7	7	MSSTP		$ 612,555		
00100012	MS302	GOODMAN	SWINNEA	TCHULAHOMA	5	5	7	7	MSSTP		$ 1,107,521		
00100013	MS302	GOODMAN	TCHULAHOMA	GETWELL	5	5	7	7	MSSTP		$ 1,034,085		
00100014	MS302	GOODMAN	GETWELL	MALONE	5	5	5	7	MSSTP			$ 1,047,971	
00100015	MS302	GOODMAN	MALONE	PLEASANT HILL	5	5	5	7	MSSTP			$ 1,051,025	
00100016	MS302	GOODMAN	PLEASANT HILL	DAVIDSON	5	5	5	7	MSSTP			$ 1,041,755	
00100017	MS302	GOODMAN	DAVIDSON	CRAFT	5	5	5	7	MSSTP			$ 1,032,411	
00100018	MS302	GOODMAN	CRAFT	HWY 78	5	5	5	7	MSSTP			$ 806,863	
00100019	MS302	GOODMAN	HWY 78	GERMANTOWN EXTD	3	3	3	5	MSSTP			$ 1,348,010	
00100022	MS302	GOODMAN	MS 305	OLD LAMAR	3	3	3	5	MSSTP			$ 321,164	
00100024	MS302	GOODMAN	OLD LAMAR	ALEXANDER	2	2	2	5	MSSTP			$ 1,112,580	
00100026	MS302	GOODMAN	ALEXANDER	GOODMAN	2	2	2	5	MSSTP			$ 916,596	
00100029	MS302	GOODMAN	HOUSTON LEVEE	BYHALIA	2	2	2	4	MSSTP			$ 2,755,460	
00100030	MS302	GOODMAN	BYHALIA	HWY 304	2	2	2	4	MSSTP			$ 2,280,000	
00100031	MS302	GOODMAN	HWY 304	out east	2	2	2	4	MSSTP			$ 2,800,000	
00020001	MS304	HIGHWAY 304	HWY 61	MS 304 cutoff	0	0	4	4	MSSTP		$ 8,326,055		
00810006	MS305	GERMANTOWN EXTD	STATE LINE	GOODMAN	2	5	5	5	MSSTP	$ 3,516,235			
00810005	MS305	GERMANTOWN RD	GOODMAN	NAIL	2	5	5	5	MSSTP	$ 1,636,098			
00810001	MS305	HIGHWAY 305	HWY 304	BYHALIA	2	2	5	5	MSSTP		$ 500,000		
0810001.1	MS305	HIGHWAY 305	BETHEL	HWY304	2	2	5	5	MSSTP		$ 2,867,399		
0810002.2	MS305	HIGHWAY 305	COLLEGE	BETHEL	2	2	5	5	MSSTP		$ 3,279,794		
00810003	MS305	HIGHWAY 305	CHURCH	COLLEGE	2	2	5	5	MSSTP		$ 1,506,781		

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STATE OF MISSISSIPPI PROGRAMMED COSTS

LRTP ID	State/Fed Rt.	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
00810004	MS305	HIGHWAY 305	NAIL	CHURCH	2	2	5	5	MSSTP		$ 1,873,982		
00250007	US-51	HIGHWAY 51	TN state line	STATE LINE RD	5	5	5	7	MSSTP			$ 2,000,000	
00250001.1	US-51	HIGHWAY 51	HWY 304	BYHALIA	2	2	2	5	MSSTP			$ 500,000	
0250001.2	US-51	HIGHWAY 51	NESBIT	HWY 304	2	2	2	5	MSSTP			$ 2,259,000	
00250002	US-51	HIGHWAY 51	STAR LANDING	BETHEL	2	2	2	5	MSSTP			$ 2,417,953	
00250003	US-51	HIGHWAY 51	CHURCH	STAR LANDING	2	2	2	5	MSSTP			$ 3,261,111	
MSSTP Total										**$ 5,152,333**	**$ 24,014,873**	**$ 45,375,898**	**$ 74,543,104**
00020001	MS304	HIGHWAY 304 CUTOFF	MS 304	US 61	0	0	4	4	CASINO	$ 3,500,000			
00020002	MS304	HIGHWAY 304	MS 304	MS 301	0	0	4	4	CASINO	$ 3,729,843			
00020003	MS304	HIGHWAY 304	MS 301	FOGG	0	0	4	4	CASINO	$ 8,678,344			
00020004	MS304	HIGHWAY 304	FOGG	TULANE	0	0	4	4	CASINO	$ 4,516,000			
00020005	MS304	HIGHWAY 304	TULANE	HWY 51	0	0	4	4	CASINO	$ 5,208,061			
00020006	MS304	HIGHWAY 304	HWY 51	I-55	0	0	4	4	CASINO	$ 976,085			
CASINO Total		**TOTAL**								**$ 26,608,333**	**$ -**	**$ -**	**$ 26,608,333**
												Grand Total	**$ 442,301,379**

*Interchanges related to I-69 orI-269 are included in the total project costs.

US EPA ARCHIVE DOCUMENT

MPO PROGRAMMED COSTS TENNESSEE

LRTP ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
00890004	APPLING	I-40	DEXTER	4	4	4	6	LSTP			$ 1,106,200	
01270003	BYHALIA	HOLMES	STATE LINE	2	2	2	7	LSTP		$ 866,573		
01270004	BYHALIA	SHELBY	HOLMES	2	2	5	7	LSTP			$ 4,983,279	
01150004	CANADA	I-40	HWY 64	2	4	4	6	LSTP			$ 1,321,038	
01150005	CANADA	SEED TICK	I-40	2	2	7	7	LSTP		$ 298,130		
01150006	CANADA	MEMPHIS ARLINGTON	SEED TICK	2	2	7	7	LSTP		$ 2,600,000	$ 3,500,000	
01150007	CANADA	HWY 70	MEMPHIS ARLINGTON	2	2	7	7	LSTP			$ 610,695	
01150008	CANADA	OLD BROWNSVILLE	HWY 70	2	2	7	7	LSTP			$ 1,929,231	
01150009	CANADA	BRUNSWICK	OLD BROWNSVILLE	0	0	2	5	LSTP		$ 925,511	$ 1,388,266	
02180003	DEXTER	APPLING	GERMANTOWN	2	2	7	7	LSTP	$ 2,540,000	$ 7,000,000		
01500004.1	FITE	US-51	WOODSTOCK ROAD	2	2	5	5	LSTP	$ 7,000,000			
01010009	FOREST HILL	DOGWOOD	POPLAR	2	2	4	4	LSTP		$ 1,344,000		
01010011	FOREST HILL IRENE	WALNUT GROVE	WOLF RIVER	0	0	0	6	LSTP			$ 10,325,460	
01010012	FOREST HILL IRENE	TRINITY	WALNUT GROVE	0	0	6	6	LSTP	$ 3,563,500			
01010013	FOREST HILL IRENE	ROCKY POINT	TRINITY	0	0	6	6	LSTP	$ 4,000,000			
00790022	GERMANTOWN	OLD BROWNSVILLE	HWY 70	2	2	6	6	LSTP		$ 3,024,560	$ 1,000,000	
00160007	HOLMES	MILLBRANCH	I-55	5	5	7	7	LSTP	$ 770,000			
00160008	HOLMES	I-55	AIRWAYS	5	5	7	7	LSTP	$ 1,400,000			
01090001	HOUSTON LEVEE	HOLMES	STATE LINE	2	2	2	6	LSTP			$ 2,532,826	
01090007	HOUSTON LEVEE	DOGWOOD	FRANK	2	2	6	6	LSTP		$ 2,557,575	$ 1,200,000	
01090008	HOUSTON LEVEE	WOLF RIVER	WOLF RIVER BLVD	2	2	2	7	LSTP			$ 2,099,681	
01090009	HOUSTON LEVEE	RAL LAGRANGE	WOLF RIVER	2	2	2	7	LSTP			$ 1,667,747	
01090010	HOUSTON LEVEE	WALNUT GROVE	RAL LAGRANGE	2	2	2	7	LSTP			$ 1,889,356	
01090011	HOUSTON LEVEE	RAL LAGRANGE	WALNUT GROVE	2	2	2	7	LSTP			$ 1,771,193	
01090012	HOUSTON LEVEE	MACON	RAL LAGRANGE	2	2	2	7	LSTP			$ 2,462,384	
01090013	HOUSTON LEVEE	MORNING SUN	MACON	2	2	2	7	LSTP			$ 4,639,886	
01090014	HOUSTON LEVEE	MORNING SUN	CANADA	2	2	2	7	LSTP			$ 746,239	
00490012	KIRBY WHITTEN	OLD BROWNSVILLE	EGYPT CENTRAL	0	0	6	6	LSTP	$ 4,024,000			
00490013	KIRBY WHITTEN	LOOSAHATCHIE PKWY	OLD BROWNSVILLE	0	2	6	6	LSTP		$ 1,558,200		
00490014	KIRBY WHITTEN	AUSTIN PEAY	LOOSAHATCHIE PKWY	0	0	0	6	LSTP			$ 6,037,327	
02660002.1	LOWERY	SHELBY	MITCHELL	3	3	5	5	LSTP		$ 3,435,000		
01460005	OLD BROWNSVILLE	AUSTIN PEAY	BILLY MAHER	2	2	5	5	LSTP		$ 925,475		
01460006	OLD BROWNSVILLE	BILLY MAHER	KIRBY WHITTEN	2	2	5	5	LSTP		$ 4,750,000		
01460012	OLD BROWNSVILLE	DONNELL	BRUNSWICK	2	2	2	5	LSTP			$ 2,225,521	
01460013	OLD BROWNSVILLE	BRUNSWICK	CANADA	2	2	2	5	LSTP			$ 1,155,590	
02390006	RAL LAGRANGE	SYCAMORE VIEW	Shelby Oaks	2	2	5	5	LSTP	$ 2,700,000			
00830002	RIVERDALE	NASHOBA	POPLAR	2	2	4	4	LSTP	$ 2,400,000			
02660005	RIVERPORT	MALLORY	I-55	2	2	5	5	LSTP		$ 400,000		
02540001	SECOND	WHITNEY	ISLAND	2	2	2	6	LSTP	$ 2,000,000		$ 38,150,000	
02540002	SECOND	ISLAND	CHELSEA	2	2	6	6	LSTP	$ 2,000,000	$ 8,000,000		
02540003	SECOND	CHELSEA	AUCTION	3	3	4	4	LSTP	$ 2,000,000	$ 8,000,000		
02540004	SECOND	AUCTION	NORTH PARKWAY	3	3	4	4	LSTP	$ 2,000,000	$ 8,000,000		
02540005	SECOND	NORTH PARKWAY	I-40	3	3	4	4	LSTP	$ 2,000,000	$ 8,000,000		
00180018 00180019	SHELBY DR	HARVEST KNOLL	HACKS CROSS	2	7	7	7	LSTP	$ 1,096,000			
00180026	SHELBY DR	BYHALIA	US-72	2	2	7	7	LSTP		$ 2,000,000		
00180027.1	SHELBY	HWY 72	PROGRESS	2	2	7	7	LSTP		$ 711,429		
00180028	SHELBY	PROGRESS	HWY 304	0	0	7	7	LSTP		$ 1,817,223		
02660001	SHELBY	MITCHELL	SEWANEE	0	0	5	5	LSTP		$ 8,000,000		
00180029	SHELBY DR	HWY 304	CHULAHOMA	0	0	6	6	LSTP			$ 6,297,750	
00030025	THIRD	GE PATTERSON	EH CRUMP	5	5	7	7	LSTP		$ 19,750,000		

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MPO PROGRAMMED COSTS TENNESSEE

LRTP ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
00900009	WALNUT GROVE	I-240	BRIERVIEW	7	7	8	8	LSTP	$ 8,500,000			
00900010	WALNUT GROVE	BRIERVIEW	HUMPHREYS	7	7	8	8	LSTP	$ 8,500,000			
00900011	WALNUT GROVE	HUMPHREYS	KIRBY	4	4	8	8	LSTP	$ 7,000,000			
00900012	WALNUT GROVE	KIRBY	GERMANTOWN	4	4	6	6	LSTP	$ 6,000,000			
00900013	WALNUT GROVE	GERMANTOWN	FOREST HILL	4	4	6	6	LSTP	$ 1,050,000	$ 3,450,000		
00900014	WALNUT GROVE	FOREST HILL	ROCKY POINT	2	2	6	6	LSTP	$ 1,050,000	$ 3,450,000		
00900015	WALNUT GROVE	ROCKY POINT	HOUSTON LEVEE	2	2	2	6	LSTP			$ 2,082,718	
00900016	WALNUT GROVE	HOUSTON LEVEE	CHAMBERS CHAPEL	0	0	0	4	LSTP			$ 3,490,805	
00900017	WALNUT GROVE	CHAMBERS CHAPEL	BYHALIA	0	0	0	4	LSTP			$ 1,306,672	
00900018	WALNUT GROVE	BYHALIA	RIED HOOKER	0	0	0	4	LSTP			$ 410,786	
00900019	WALNUT GROVE	RIED HOOKER	COL ARLINGTON	0	0	0	4	LSTP			$ 1,845,000	
00900020	WALNUT GROVE	COL ARLINGTON	MONTEREY	0	0	0	4	LSTP			$ 1,613,100	
00900021	WALNUT GROVE	MONTEREY	east	0	0	0	4	LSTP			$ 360,000	
00490001	WHITTEN	SYCAMORE VIEW	WALNUT GROVE	2	2	6	6	LSTP	$ 3,500,000			
00490002.1	WHITTEN	DEXTER	MULLINS STATION	2	2	7	7	LSTP	$ 8,700,000			
00490002.2	WHITTEN	MULLINS STATION	SYCAMORE VIEW	2	2	6	6	LSTP	$ 3,500,000			
00340013.1	WINCHESTER	PLOUGH	Airport Entrance	4	4	6	6	LSTP		$ 3,229,000		
60050001	WINCHESTER INTERCHA	PERKINS						LSTP	$ 9,500,000			
02280005	WOLF RIVER	KIMBROUGH	FARMINGTON	0	0	6	6	LSTP		$ 17,700,000		
00460004.1	WOLF RIVER	NEW HOUSTON LEVEE	BRAY STATION	0	2	6	6	LSTP		$ 1,750,000		
00460004.2	WOLF RIVER	BRAY STATION	BYHALIA	0	2	6	6	LSTP		$ 1,750,000		
00460004.3	WOLF RIVER	BYHALIA	SHELTON	0	2	6	6	LSTP		$ 1,750,000		
00480005	WOLF RIVER	COL ARLINGTON RD	HWY 385	0	0	6	6	LSTP		$ 1,750,000		
00480006 00480007	WOLF RIVER	HWY 385	CHULAHOMA	0	0	6	6	LSTP		$ 2,025,000		
02230004	WOODSTOCK CUBA	RUST	HIGHWAY 51	0	0	0	5	LSTP			$ 485,000	
02230005	WOODSTOCK CUBA	HIGHWAY 51	FITE	0	0	0	5	LSTP			$ 2,555,500	
30000002	TRAVEL MODEL - FREIGHT MODE							LSTP	$ 500,000			
30000001	MEMPHIS AREA RIDESHARE							LSTP	$ 750,000	$ 2,500,000	$ 2,500,000	
30000006	CMS Project Improvements							LSTP			$ 18,060,752	
			TENNESSEE LSTP Total						**$ 98,043,500**	**$ 133,317,676**	**$ 133,750,000**	**$ 365,111,176**

90000001	Shelby County Congestion Management Program	Signalization improvements at various locations in unicorporated Shelby County, Bartlett, Collierville, Germantown and Millington					CMAQ (L)	$ 3,000,000	$ 3,000,000		
90000002	Deploy Traffic Signal Systems Year 3	Construction of coordinated signal systems throughout the City of Memphis					CMAQ (L)	$ 2,500,000			
90000003	Deploy Traffic Signal Systems Year 4	Installation of signal systems along major roadways within the City of Memphis.					CMAQ (L)	$ 4,000,000	$ 9,572,800	$ 9,572,800	
90000004	Medical Center Rail Extension (Operating)	Offset operating costs from 2004-2006 in accord with federal regulations.					CMAQ (L)	$ 3,150,000			
90000005	Memphis Area Rideshare	Provide rideshare, vanpooling and commuter services throughout the MPO area.					CMAQ (L)	$ 2,700,000			
90000006	Transit Centers	Planning, land acquisition, design and construction of transit centers in various suburban locations					CMAQ (L)	$ 875,000	$ 2,528,750		
90000007	Interstate 40 and Covington Pike Intersection	Redesign turning lane configuration					CMAQ (L)	$ 3,060,000			
90000008	Inspection Station	Construct new vehicle inspection station in the southeast area of the City of Memphis.					CMAQ (L)	$ 4,550,000			
90000013	Farmington and Germantown Intersection Improvments	Engineering for traffic signal upgrade and construction of additioal turning lanes.					CMAQ (L)	$ 60,000	$ 400,000		

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MPO PROGRAMMED COSTS TENNESSEE

LRTP ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
90000010	Kimbrough and Dogwood Intersections	Traffic signal upgrade and add turning lanes at the intersection.						CMAQ (L)	$ 275,000			
90000011	Bartlett Signal Improvements	Sycamore View Rd/Yale Rd and Memphis Arlington Rd/Bartlett Blvd						CMAQ (L)	$ 1,000,000			
90000012	Communication Trunk Lines	Central connection line for signalized intersections in Shelby County						CMAQ (L)	$ 5,500,000	$ 10,498,450	$ 15,798,800	
90000014	Traffic Signal Improvements Isolated Locations							CMAQ (L)				
30000001	Memphis AreaRideshare	Provide rideshare, vanpooling and commuter services.						CMAQ (L)		$ 10,000,000	$ 10,000,000	
								CMAQ (L) Total	**$ 30,670,000**	**$ 36,000,000**	**$ 35,371,600**	**$ 102,041,600**

*CMAQ Hold Over Projects included in Conformity Analysis list.

50000001	Arlington Depot Square	Mott St	Chester St					ENHANCE	$178,310			
50000002	Riverfront Bicycle/ Pedestrian System, Phase 2- C&D	Ashburn-Coppock	Chickasaw Heritage Park					ENHANCE	$200,000			
50000003	Riverfront Bicycle/ Pedestrian System, Phase 2-A	Auction Ave bridge	Welcome Center along Wolf River Harbor					ENHANCE	$395,850			
50000004	Memphis Bicycle Network Phase 1	5 bike loops including areas of downtown Memphis, Frayser, Raleigh and East Memphis.						ENHANCE	$151,786			
50000005	University of Memphis/ Central Avenue	Patterson	Zack Curlin					ENHANCE	$969,206			
50000006	Memphis Parkway System Phase 2	Beginning at N. Parkway and Dunlap, following N. Parkway, E. Parkway and S. Parkway to King-Riverside Park						ENHANCE	$500,000			
50000007	Florida Street Landscaping	McKellar	Mallory					ENHANCE	$242,500			
50000008	Downtown Bike Racks	various locations-City of Memphis						ENHANCE	$62,640			
50000009	Project #977 Cobblestone Walkway and Restoration	Tom Lee Park	Jefferson Davis Park					ENHANCE	$2,812,500			
50000010	Project #1743 Cobbleston Ramp and Restoration	Tom Lee Park	Jefferson Davis Park					ENHANCE	$875,000			
50000011	Old Germantown Streetscape	Northfolk-Southern Railroad track on north	Poplar Pike to the south					ENHANCE	$114,790			
50000012	Shelby County- Shelby Farms Trail System	south side of Summer Ave west entrance	Shelby Farms hiking trails					ENHANCE	$206,817			

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MPO PROGRAMMED COSTS TENNESSEE

LRTP ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
50000013	Nonconnah Creek Greenbelt	east side of Hacks Cross Rd	on both sides of Nonconnah Creek					ENHANCE	$879,624			
50000014	Nonconnah Greenbelt Phase I	west of Forest Hill Rd	in between Nonconnah Creek to the north and Nonconnah Pkwy to the south					ENHANCE	$1,766,600			
50000015	Shelby Farms Trails and Lucius Birch Greenway	Germantown Pkwy	Wolf River					ENHANCE	$418,302			
50000016	Bartlett Citywide Bike Trail	Germantown Pkwy parallel to Fletcher Creek to the future extension of Yale Rd	Bartlett's waste water treatment plant along Old Brownsville Rd					ENHANCE				
50000017	Shelby Farms Biking and Hiking Phase II	of Mullins Station Rd and Raleigh Lagrange Rd to Gate 13	south under Walnut Grove Rd. and back to Patriot Lake via another underpass under Walnut Grove Rd					ENHANCE				
50000018	Arena Area Corridor Enhancements	between Main and Danny Thomas, Union and Peabody	various streets near Arena at Linden and Third St					ENHANCE				
50000019	Airways/Lamar Gateway	southeast corner of Airways Blvd	Lamar Ave					ENHANCE				
50000020	S.R. 385/Kirby Pkwy Landscape Enhancement	S.R. 385	Bill Morris Pkwy and Kirby Pkwy Interchange					ENHANCE				
50000021	Park Ave Landscaping & Improvements	Lamar Ave	Second St					ENHANCE				
50000016	Bartlett Citywide Bike Trail	parallel to Fletcher Creek to the future extension of Yale Rd	Bartlett's waste water treatment plant along Old Brownsville Rd					ENHANCE		$470,375		
50000017	Shelby Farms Biking and Hiking Phase II	Shelby Farms on the south side of Mullins Station Rd and Raleigh Lagrange Rd to Gate 13	south under Walnut Grove Rd. and back to Patriot Lake via another underpass under Walnut Grove Rd					ENHANCE		$501,590		
50000018	Arena Area Corridor Enhancements	between Main and Danny Thomas, Union and Peabody	various streets near Arena at Linden and Third St					ENHANCE		$1,463,440		
50000019	Airways/Lamar Gateway	southeast corner of Airways Blvd	Lamar Ave					ENHANCE		$260,000		
50000020	S.R. 385/Kirby Pkwy Landscape Enhancement	S.R. 385	Bill Morris Pkwy and Kirby Pkwy Interchange					ENHANCE		$395,126		
50000021	Park Ave Landscaping & Improvements	Lamar Ave	Second St					ENHANCE		$389,900		
								Enhancement Total	**$ 9,773,925**	**$ 3,480,431**	**$ -**	**$ 13,254,356**
											Grand Total	**$ 480,407,132**

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MPO PROGRAMMED COSTS MISSISSIPPI

LRTP ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
00410006	GETWELL	CHURCH	NAIL	2	5	7	7	LSTP		$ 1,346,924		
00410007	GETWELL	NAIL	GOODMAN	2	5	7	7	LSTP		$ 1,024,140		
00410008	GETWELL	GOODMAN	DESOTO	2	5	7	7	LSTP	$ 433,333	$ 1,179,497		
00410009	GETWELL	DESOTO	STATE LINE	2	5	7	7	LSTP	$ 433,333	$ 900,194		
00410010.2	GETWELL	STATE LINE	TN State Line	4	4	7	7	LSTP	$ 433,333	$ 1,438,678		
00060013	CHURCH	ELMORE	SWINNEA	2	2	5	5	LSTP		$ 561,036		
00060014	CHURCH	SWINNEA	TCHULAHOMA	2	2	5	5	LSTP		$ 1,883,493		
00060015	CHURCH	TCHULAHOMA	NEW GETWELL	2	2	5	5	LSTP		$ 1,627,395		
00770007	CRAFT	HWY 78	GOODMAN	2	2	5	5	LSTP	$ 1,100,000			
00770008	CRAFT	OLD HWY 78	HWY 78	2	2	5	5	LSTP		$ 1,007,162		
00770009	CRAFT	STATE LINE	OLD HWY 78	0	0	5	5	LSTP		$ 2,589,382		
00080013	NAIL	SWINNEA	TCHULAHOMA	0	0	2	5	LSTP			$ 1,589,266	
00080014	NAIL	TCHULAHOMA	GETWELL	0	0	2	5	LSTP			$ 1,532,519	
00130001	TULANE	DEAN	HWY 304	2	2	2	5	LSTP			$ 1,530,000	
00130003	TULANE	NESBIT	DEAN	2	2	2	5	LSTP			$ 900,000	
00130004	TULANE	STAR LANDING	NESBIT	2	2	2	5	LSTP			$ 1,635,000	
00130005	TULANE	CHURCH	STAR LANDING	2	2	2	5	LSTP			$ 3,000,000	
00130006	TULANE	NAIL	CHURCH	2	2	2	5	LSTP			$ 1,740,000	
30000004	Traffic Signal	US 51	Horn Lake Fire Stn.					LSTP	$ 38,000			
30000003	Traffic Model							LSTP	$ 150,000			
Mississippi LSTP Total									**$ 2,588,000**	**$ 13,557,901**	**$ 11,926,785**	**$ 28,072,686**
											Grand Total	**$ 28,072,686**

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SHELBY COUNTY LOCALLY PROGRAMMED COSTS

LRTP_ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
01870022	AIRWAYS	SOUTH PARKWAY	PARK	4	4	4	6	LOCAL			$ 4,000,000	
00470005	ALTURIA	OLD BROWNSVILLE	EGYPT CENTRAL	2	2	5	5	LOCAL		$ 2,750,000		
00890001	APPLING	RAL-LAGRANGE	MULLINS STATION	0	0	6	6	LOCAL		$ 840,000		
00890002	APPLING	CORDOVA	RAL LAGRANGE	2	4	7	7	LOCAL		$ 4,405,899		
00890003	APPLING	DEXTER	CORDOVA	4	4	7	7	LOCAL		$ 1,017,721		
00890009	APPLING	HWY 70	BROTHER BLVD	2	5	5	5	LOCAL	$ 2,400,000			
00890010	APPLING	MEMPHIS ARLINGTON	HWY 70	2	2	5	5	LOCAL		$ 1,200,000		
00890011	APPLING	EGYPT CENTRAL	MEMPHIS ARLINGTON	0	0	5	5	LOCAL		$ 1,250,000		
00890012	APPLING	OLD BROWNSVILLE	EGYPT CENTRAL	0	0	5	5	LOCAL		$ 4,250,000		
01950003	ARMOUR	MIL ARLINGTON	NAVY	2	2	2	5	LOCAL			$ 879,697	
01950004	ARMOUR	KERRVILLE ROSEMARK	MIL ARLINGTON	2	2	2	5	LOCAL			$ 2,620,184	
01950005	ARMOUR	MUDVILLE	KERRVILLE ROSEMARK	2	2	2	5	LOCAL			$ 1,015,960	
00620001	BARRON	LAMAR	PENDELTON	2	2	2	5	LOCAL			$ 1,075,200	
02550001	BARTLETT	PLEASANT VIEW	SUMMER	2	2	2	4	LOCAL			$ 4,800,000	
02550002	BARTLETT	RAL LAGRANGE	PLEASANT VIEW	2	2	2	4	LOCAL			$ 1,890,000	
02550003	BARTLETT	ELMORE RD	RAL LAGRANGE	0	0	0	5	LOCAL			$ 1,187,263	
02550004	BARTLETT	STAGE	ELMORE	0	0	0	5	LOCAL			$ 2,558,218	
00250018.2	BELLEVUE	LAMAR	MCLEMORE	4	4	4	5	LOCAL			$ 11,807,660	
02520006	BENJESTOWN	BENJESTOWN	I-69	0	0	0	5	LOCAL			$ 14,900,000	
02520006	BENJESTOWN	ROBERTSON	I-69	0	0	0	5	LOCAL			$ 20,000,000	
01010015	BERRYHILL	DEXTER	MACON	2	2	6	6	LOCAL		$ 2,802,488		
00490015	BETHUEL	PLEASANT RIDGE	AUSTIN PEAY	0	0	0	6	LOCAL			$ 4,508,214	
00490016	BETHUEL	PAUL BARRETT	PLEASANT RIDGE	0	0	0	6	LOCAL			$ 1,905,837	
00490017	BETHUEL	NAVY	PAUL BARRETT PKWY	0	0	0	6	LOCAL			$ 5,983,145	
00490018	BETHUEL	CENTER COLLEGE	NAVY	2	2	2	6	LOCAL			$ 1,756,264	
00490019	BETHUEL	MUDVILLE	CENTER COLLEGE	2	2	2	6	LOCAL			$ 4,157,609	
00490020	BETHUEL	MUDVILLE	north	0	0	0	6	LOCAL			$ 5,247,400	
02360002	BEVERLY RIVERA	CANADA	SEED TICK	2	5	5	5	LOCAL	$ 1,392,752			
00450011	BILLY MAHER	ST ELMO	MEMPHIS ARLINGTON	2	2	4	4	LOCAL		$ 3,000,000		
00450012	BILLY MAHER	EGYPT CENTRAL	ST ELMO	2	2	4	4	LOCAL		$ 743,337		
00450013	BILLY MAHER	OLD BROWNSVILLE	EGYPT CENTRAL	2	2	4	4	LOCAL		$ 1,231,050		
00450014	BILLY MAHER	AUSTIN PEAY	OLD BROWNSVILLE	0	0	4	4	LOCAL		$ 1,457,878		
01460001	BOLEN HUSE	NEW ALLEN	OLD BROWNSVILLE	2	2	5	5	LOCAL		$ 1,997,635		
01460003	BOLEN HUSE	OLD BROWNSVILLE	SINGLETON	2	2	5	5	LOCAL		$ 1,839,324		
01460004	BOLEN HUSE	SINGLETON	AUSTIN PEAY	2	2	5	5	LOCAL		$ 1,609,852		
01230001	BRAY STATION	FRANK	HWY 72	2	2	5	5	LOCAL		$ 3,372,992		
01230002	BRAY STATION	SHELTON	FRANK	2	2	5	5	LOCAL		$ 1,528,715		
01230003	BRAY STATION	WOLF RIVER	SHELTON	0	0	5	5	LOCAL		$ 1,464,903		
00380003	BROOKS	HWY 61	TULANE	5	5	7	7	LOCAL		$ 946,560		
00380004	BROOKS	TULANE	GRAVES	5	5	7	7	LOCAL		$ 417,620		
00380005	BROOKS	GRAVES	LAKEVIEW	5	5	7	7	LOCAL		$ 393,120		
00380006	BROOKS	LAKEVIEW	ELVIS PRESLEY	5	5	7	7	LOCAL		$ 922,360		
00380007	BROOKS	ELVIS PRESLEY	I-55	5	5	7	7	LOCAL		$ 422,940		
00380008	BROOKS	I-55	MILLBRANCH	5	5	5	7	LOCAL			$ 1,020,160	
00380009	BROOKS	MILLBRANCH	AIRWAYS	5	5	5	7	LOCAL			$ 1,284,440	
00950002	BRUNSWICK	MEMPHIS ARLINGTON	BRUNSWICK	2	2	2	5	LOCAL			$ 1,745,431	
00950004	BRUNSWICK	HWY 70	MEMPHIS ARLINGTON	2	2	2	5	LOCAL			$ 491,795	
00950005	BRUNSWICK	OLD BROWNSVILLE	HWY 70	2	2	2	5	LOCAL			$ 2,086,726	
00950006	BRUNSWICK	CANADA	OLD BROWNSVILLE	2	2	2	5	LOCAL			$ 1,638,987	
01270005	BYHALIA	BILL MORRIS PKWY	SHELBY	2	2	7	7	LOCAL		$ 3,292,862		
00950007	CANADA	JACK BOND	CANADA	2	2	2	5	LOCAL			$ 2,116,865	
00950008	CANADA	PLEASANT RIDGE	JACK BOND	2	2	2	5	LOCAL			$ 707,578	
00950009	CANADA	PAUL BARRETT	PLEASANT RIDGE	2	2	2	5	LOCAL			$ 937,308	
01210002	CHAMBERS CHAPEL	DEXTER	MACON	0	0	0	6	LOCAL			$ 6,736,652	
01210003	CHAMBERS CHAPEL	HWY 64	DEXTER	0	0	0	6	LOCAL			$ 6,608,383	
01210004	CHAMBERS CHAPEL	SUMAC	HWY 64	2	2	6	6	LOCAL		$ 3,296,400		
01210005	CHAMBERS CHAPEL	DONNELSON	SUMAC	2	2	6	6	LOCAL		$ 1,381,410		
01210006	CHAMBERS CHAPEL	I-40	DONNELSON	2	2	4	6	LOCAL		$ 486,804	$ 486,804	

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SHELBY COUNTY LOCALLY PROGRAMMED COSTS

LRTP_ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
01210007	CHAMBERS CHAPEL	HWY 70	I-40	2	2	2	6	LOCAL			$ 4,594,480	
02700003.1	CHAPEL HILL RD	WALKER	COL ARLINGTON	0	0	5	5	LOCAL		$ 2,227,000		
02700003.2	CHAPEL HILL RD	WALKER	COL ARLINGTON	0	0	5	5	LOCAL		$ 1,125,000		
02700004	CHAPEL HILL RD	HWY 70	WALKER	2	2	5	5	LOCAL		$ 1,014,000		
01880002	CHARLES BARTLT	DODSON	QUITO	2	2	2	6	LOCAL			$ 1,646,994	
01880003	CHARLES BARTLT	QUITO	QUITO	2	2	2	6	LOCAL			$ 755,433	
01880004	CHARLES BARTLT	QUITO	WILKINSVILLE	2	2	2	6	LOCAL			$ 5,844,000	
01880005	CHARLES BARTLT	WILKINSVILLE	EVANDER	2	2	2	6	LOCAL			$ 3,884,161	
01880006	CHARLES BARTLT	EVANDER	BETHUEL	2	2	2	6	LOCAL			$ 3,180,000	
01260001	CHELSEA	SECOND	THIRD	2	2	2	4	LOCAL			$ 185,800	
01260002	CHELSEA	THIRD	THOMAS	2	2	2	4	LOCAL			$ 604,800	
01260013 01260014	CHELSEA	JACKSON	WELLS STATION	2	2	2	5	LOCAL			$ 3,000,000	
02220003	CORDOVA	GERMANTOWN	DEXTER LANE	2	2	7	7	LOCAL		$ 1,137,907		
02220004	CORDOVA	DEXTER LANE	MACON	2	2	7	7	LOCAL		$ 2,885,094		
00770010	CRUMPLER	TN State Line	HOLMES	2	2	5	5	LOCAL		$ 2,179,500		
00770011	CRUMPLER	HOLMES	SHELBY	2	2	5	5	LOCAL		$ 2,179,500		
00500001.3	DEMOCRAT	MILLBRANCH	PLOUGH	0	0	0	7	LOCAL			$ 3,957,770	
02180001	DEXTER	SYCAMORE VIEW	WHITTEN	4	5	7	7	LOCAL		$ 1,701,000		
02180002	DEXTER	WHITTEN	APPLING	2	2	7	7	LOCAL		$ 4,812,968		
02180004.1	DEXTER	GERMANTOWN	BERRYHILL	4	4	6	6	LOCAL		$ 1,845,170		
02180005	DEXTER	BERRYHILL	HOUSTON LEVEE	0	0	5	5	LOCAL		$ 3,900,000		
02180006	DEXTER	HOUSTON LEVEE	PISGAH	0	0	0	5	LOCAL			$ 749,484	
02180007	DEXTER	PISGAH	CHAMBERS CHAPEL	0	0	0	5	LOCAL			$ 4,448,200	
02180008	DEXTER	CHAMBERS CHAPEL	AIR LINE	0	0	0	5	LOCAL			$ 2,114,958	
02180009	DEXTER	AIRLINE	COL ARLINGTON	0	0	0	5	LOCAL			$ 2,006,066	
02180010	DEXTER	COL ARLINGTON	HWY 385	2	2	2	5	LOCAL			$ 892,174	
00790023	DONNELL	LOOSAHATCHIE PKWY	OLD BROWNSVILLE	0	0	0	6	LOCAL			$ 2,299,200	
00790024	DONNELL	JACK BOND	LOOSAHATCHIE PKWY	0	0	0	6	LOCAL			$ 8,485,938	
00790025	DONNELL	PLEASANT RIDGE	JACK BOND	0	0	0	6	LOCAL			$ 1,018,976	
00790026	DONNELL	PLEASANT RIDGE	PLEASANT RIDGE	0	0	0	6	LOCAL			$ 806,971	
00790027	DONNELL	PAUL BARRETT	PLEASANT RIDGE	2	2	2	6	LOCAL			$ 485,690	
00790028	DONNELL	MILLINGTON-ARLINGTON	PAUL BARRETT	2	2	2	6	LOCAL			$ 5,095,454	
02420001	DONNELSON	CHAMBERS CHAPEL	COL ARLINGTON PKWY	0	0	5	5	LOCAL		$ 4,619,000		
02420002	DONNELSON	COL-ARL PKWY	COL ARLINGTON RD	0	0	5	5	LOCAL		$ 2,230,000		
02460001	DONNELSON	COL ARLINGTON RD.	HICKORY WITHE	2	2	5	5	LOCAL		$ 4,211,000		
01400002	EGYPT CENTRAL	RAL-MILLINGTON	SINGLETON	0	0	5	5	LOCAL		$ 3,850,000		
01400003	EGYPT CENTRAL	SINGLETON PKWY	AUSTIN PEAY	2	2	5	5	LOCAL		$ 797,306		
01400004	EGYPT CENTRAL	AUSTIN PEAY	OLD BROWNSVILLE	2	2	5	5	LOCAL		$ 740,482		
01400005	EGYPT CENTRAL	OLD BROWNSVILLE	OLD BROWNSVILLE	2	2	5	5	LOCAL		$ 134,055		
01400006	EGYPT CENTRAL	OLD BROWNSVILLE	BILLY MAHER	0	0	5	5	LOCAL		$ 2,081,979		
01400007	EGYPT CENTRAL	BILLY MAHER	FISKE	2	2	5	5	LOCAL		$ 500,000		
01400011.1	EGYPT CENTRAL	MEMPHIS ARLINGTON	APPLING	0	0	0	5	LOCAL			$ 2,200,000	
00660003	FARINDON	QUINCE	KIRBY	0	0	5	5	LOCAL		$ 925,000		
01500003.1	FITE	RUST	HWY 51	2	2	2	5	LOCAL			$ 674,491	
01250001	FLEMING	HOLMES	STATE LINE	2	2	2	5	LOCAL			$ 1,232,040	
01250002	FLEMING	SHELBY	HOLMES	2	2	5	5	LOCAL		$ 1,614,965		
01250003	FLEMING	BILL MORRIS PKWY	SHELBY	0	0	5	5	LOCAL		$ 2,579,123		
01250004	FLEMING	WINCHESTER	BILL MORRIS PKWY	0	0	5	5	LOCAL		$ 2,415,363		
01430015	FLORIDA	MCLEMORE	SOUTH PARKWAY	4	4	4	5	LOCAL			$ 539,240	
01430016	FLORIDA	EH CRUMP	MCLEMORE	4	4	4	5	LOCAL			$ 510,000	
01430017	FLORIDA	CALHOUN	EH CRUMP	2	2	5	5	LOCAL		$ 1,600,000		
01010007	FOREST HILL	POPLAR PIKE	WINCHESTER	2	2	4	4	LOCAL		$ 1,115,200		
01010008	FOREST HILL	POPLAR	POPLAR PIKE	3	3	5	5	LOCAL		$ 385,400		
01010003.1	FOREST H IRENE	HOLMES	STATE LINE	2	2	2	5	LOCAL			$ 1,265,464	
01010004	FOREST H IRENE	SHELBY	HOLMES	2	2	2	5	LOCAL			$ 1,590,704	
01010014	FOREST HILL IRENE	MACON	ROCKY POINT	0	0	6	6	LOCAL		$ 2,472,623		
01010017	FOREST HILL IRENE	HWY 64	BERRYHILL	2	2	6	6	LOCAL		$ 787,536		

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SHELBY COUNTY LOCALLY PROGRAMMED COSTS

LRTP ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
01160001	FRANK	NEW HOUSTON LEVEE	BRAY STATION	2	2	2	5	LOCAL			$ 3,064,308	
01340001.1	FRAYSER	LOOSAHATCHIE PKWY	THOMAS	0	0	0	5	LOCAL			$ 1,980,480	
01340001.2	FRAYSER	I-69	THOMAS	2	2	2	5	LOCAL			$ 1,891,350	
00560003	FRISCO	AIRWAYS	PENDELTON	2	2	2	5	LOCAL			$ 3,577,800	
00800001	G E PATTERSON	FRONT	MAIN	4	4	4	5	LOCAL			$ 152,500	
00800002	G E PATTERSON	MAIN	SECOND	4	4	4	5	LOCAL			$ 176,000	
00800003	G E PATTERSON	SECOND	THIRD	4	4	4	5	LOCAL			$ 158,100	
00800004	G E PATTERSON	THIRD	DANNY THOMAS	4	4	4	5	LOCAL			$ 294,200	
00790002	GERMANTOWN	BILL MORRIS PKWY	WINCHESTER	2	2	7	7	LOCAL		$ 7,000,000		
00790003	GERMANTOWN	BILL MORRIS PKWY	KNIGHT ARNOLD	2	2	7	7	LOCAL		$ 1,300,000		
00790004.1	GERMANTOWN	KNIGHT ARNOLD	CRESTRIDGE	2	2	7	7	LOCAL		$ 1,300,000		
00430001	GOODLETT	PARK	GETWELL	0	0	0	5	LOCAL			$ 3,000,000	
00990006	HACKS CROSS	HOLMES	STATE LINE	2	2	7	7	LOCAL		$ 2,072,548		
00990007	HACKS CROSS	SHELBY	HOLMES	2	2	7	7	LOCAL		$ 2,648,857		
00990012	HACKS CROSS	POPLAR	POPLAR PIKE	0	0	0	5	LOCAL			$ 1,826,000	
01830004	HOLLYWOOD	SAM COOPER	POPLAR	2	2	2	5	LOCAL			$ 2,009,020	
01830005	HOLLYWOOD	SUMMER	SAM COOPER	2	2	2	5	LOCAL			$ 484,130	
01830006	HOLLYWOOD	JACKSON	SUMMER	2	2	2	5	LOCAL			$ 1,194,960	
00160001	HOLMES	HWY 61	WEAVER	2	2	5	5	LOCAL		$ 2,200,000		
00160002	HOLMES	WEAVER	HORN LAKE	2	2	5	5	LOCAL		$ 6,065,000		
00160003	HOLMES	HORN LAKE	NEELY	2	2	5	5	LOCAL		$ 2,470,000		
00160004	HOLMES	NEELY	CRAIGWOOD	2	2	5	5	LOCAL		$ 6,000,000		
00160009	HOLMES	AIRWAYS	SWINNEA	2	2	7	7	LOCAL		$ 2,649,643		
00160010	HOLMES	SWINNEA	TCHULAHOMA	2	2	7	7	LOCAL		$ 2,638,755		
00160011	HOLMES	TCHULAHOMA	GETWELL	4	4	7	7	LOCAL		$ 1,910,000		
00160012	HOLMES	GETWELL	MALONE	2	2	7	7	LOCAL		$ 8,472,330		
00160013	HOLMES	MALONE	PLEASANT HILL	2	2	7	7	LOCAL		$ 3,509,834		
00160014	HOLMES	PLEASANT HILL	HWY 78	2	2	7	7	LOCAL		$ 3,500,000		
00160017	HOLMES	CRUMPLER	RIVERDALE	2	2	7	7	LOCAL		$ 2,633,550		
00160018	HOLMES	RIVERDALE	HACKS CROSS	2	2	7	7	LOCAL		$ 5,307,528		
00160019	HOLMES	HACKS CROSS	FOREST HILL IRENE	2	2	7	7	LOCAL		$ 5,383,824		
00160021	HOLMES	FOREST HILL IRENE	BAILEY STATION	2	2	7	7	LOCAL		$ 4,541,475		
00160022	HOLMES	BAILEY STATION	FLEMING	2	2	7	7	LOCAL		$ 3,391,492		
00160023	HOLMES	FLEMING	BYHALIA	2	2	7	7	LOCAL		$ 2,637,107		
00160024	HOLMES	BYHALIA	HWY 304	0	0	7	7	LOCAL		$ 9,450,000		
01430006	HORN LAKE	HOLMES	TN State Line	2	2	2	5	LOCAL			$ 1,751,000	
02700002	HORTON	AIRLINE	COLLIERVILLE ARL. RD	2	2	5	5	LOCAL		$ 3,000,000		
02700001	HORTON	AIR LINE	PAUL BARRET PKWY	0	0	5	5	LOCAL		$ 2,771,000		
01090002	HOUSTON LEVEE	SHELBY DR	HOLMES	0	0	7	7	LOCAL		$ 3,630,750		
01090004.2	HOUSTON LEVEE	WINCHESTER	BILL MORRIS PKWY	0	7	7	7	LOCAL	$ 6,451,071			
02050001	HUNGERFORD	PERKINS EXTD	OUTLAND	2	2	2	5	LOCAL			$ 1,754,300	
00360001	KEOUGH	PROGRESS	HWY 385	2	2	5	5	LOCAL		$ 751,944		
00990013	KIMBROUGH	POPLAR	DOGWOOD	2	4	4	5	LOCAL	$ 74,600		$ 37,300	
00770026.1	KIRBY	HUMPHREYS	Corsica	5	5	7	7	LOCAL		$ 795,000		
00520008.1	KNIGHT ARNOLD	QUINCE	RIVERDALE	0	0	7	7	LOCAL		$ 3,647,100		
00520008.2	KNIGHT ARNOLD	KIRBY	QUINCE	0	0	7	7	LOCAL		$ 5,000,000		
00520009	KNIGHT ARNOLD	RIVERDALE	GERMANTOWN	0	0	7	7	LOCAL		$ 3,000,000		
00520010.2	KNIGHT ARNOLD	GERMANTOWN	E/o Germantown	0	0	7	7	LOCAL		$ 2,310,000		
02740002	LOOSAHATICHIE PKWY	SINGLETON	AUSTIN PEAY	0	0	0	4	LOCAL			$ 3,832,127	
02740003	LOOSAHATICHIE PKWY	AUSTIN PEAY	KIRBY WHITTEN	0	0	0	4	LOCAL			$ 2,390,065	
02740004	LOOSAHATICHIE PKWY	KIRBY WHITTEN	GERMANTOWN	0	0	0	4	LOCAL			$ 5,148,597	
02220005	MACON	MACON	BERRYHILL	2	2	7	7	LOCAL		$ 580,055		
02220006	MACON	BERRYHILL	HOUSTON LEVEE	2	2	2	5	LOCAL			$ 2,741,087	
02220008	MACON	CANADA	CHAMBERS CHAPEL	2	2	2	5	LOCAL			$ 1,281,075	
02220009	MACON	CHAMBERS CHAPEL	RIED HOOKER	2	2	2	5	LOCAL			$ 1,468,457	
02220010	MACON	RIED HOOKER	COL ARLINGTON	2	2	2	5	LOCAL			$ 1,490,734	
00400003	MALLORY	FLORIDA	THIRD	2	2	2	5	LOCAL			$ 715,780	
02010007	MALONE	SHELBY DR	HOLMES	2	2	5	5	LOCAL		$ 3,885,000		

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SHELBY COUNTY LOCALLY PROGRAMMED COSTS

LRTP_ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
02010006	MALONE	HOLMES	TN State Line	2	2	5	5	LOCAL		$ 3,000,000		
02110001	MCLEAN	OVERTON CROSSING	JAMES	0	0	5	5	LOCAL		$ 2,000,000		
00740008	MC LEMORE	BELLEVUE	SOUTHERN	3	3	3	5	LOCAL			$ 882,300	
02680001	MEMPHIS ARL	YALE	BILLY MAHER	2	4	4	4	LOCAL	$ 400,000			
00640002	MESSICK	KIRBY ROAD	KIRBY PKWY	2	2	2	5	LOCAL			$ 615,130	
00640003.1	MESSICK	KIRBY PKWY	RIVERDALE	2	2	2	5	LOCAL			$ 1,175,200	
00340002.1	MITCHELL	SEWANEE	LOWERY	2	2	2	5	LOCAL			$ 6,878,000	
00340002.2	MITCHELL	SEWANEE	WEAVER	2	2	2	5	LOCAL			$ 3,578,000	
00340011	MITCHELL	WEAVER	HORN LAKE	3	3	3	5	LOCAL			$ 4,700,000	
01900003	MUDVILLE	BETHUEL	CENTER COLLEGE	2	2	2	6	LOCAL			$ 1,774,662	
01900004	MUDVILLE	CENTER COLLEGE	ARMOUR	2	2	2	6	LOCAL			$ 1,146,244	
01900005	MUDVILLE	ARMOUR	ROSEMARK	2	2	2	6	LOCAL			$ 6,102,833	
01900006	MUDVILLE	ROSEMARK	AUSTIN PEAY	2	2	2	6	LOCAL			$ 1,759,594	
01900007	MUDVILLE	AUSTIN PEAY	BRUNSWICK	2	2	2	6	LOCAL			$ 2,019,010	
02160001	MULLINS STATION	SYCAMORE VIEW	WHITTEN	2	2	7	7	LOCAL		$ 5,129,000		
02160002	MULLINS STATION	WHITTEN	APPLING	2	2	7	7	LOCAL		$ 7,000,000		
02310003	NEELY	MITCHELL	RAINES	2	2	5	5	LOCAL		$ 1,720,950		
02550005.1	OLD BROWNSVILLE	YALE	STAGE	2	2	5	5	LOCAL		$ 400,000		
01460009	OLD BROWNSVILLE	KIRBY WHITTEN	Appling	2	2	5	5	LOCAL		$ 2,300,000		
01460011	OLD BROWNSVILLE	APPLING	DONNELL	2	2	5	5	LOCAL		$ 1,677,324		
01510008	OLD MILLINGTON	QUITO	SYKES	2	2	2	5	LOCAL			$ 1,178,394	
02110004 02110005	OVERTON CROSSING	ST. ELMO	THOMAS	0	0	5	5	LOCAL		$ 2,000,000		
00680012	PARK	I-240	RIDGEWAY	5	5	5	7	LOCAL			$ 1,164,800	
00910002	PEMBROKE ELLIS	GERMANTOWN	HWY 64	0	0	5	5	LOCAL		$ 1,000,000		
00550007	PERKINS	QUINCE	NEW WILLOW	4	4	4	5	LOCAL			$ 479,200	
00550008.1	PERKINS	CHIP	QUINCE	4	4	4	5	LOCAL			$ 780,800	
00550008.2	PERKINS	PARK	CHIP	2	2	2	5	LOCAL			$ 500,600	
01990010	PLEASANT HILL	SHELBY DR	HOLMES	2	2	7	7	LOCAL		$ 937,000		
01990009	PLEASANT HILL	HOLMES	TN State Line	2	2	5	5	LOCAL		$ 2,000,000		
01580001.2	PLEASANT RIDGE	PLEASANT RIDGE	WOODSTOCK CUBA	0	0	0	2	LOCAL			$ 500,000	
01580002.1	PLEASANT RIDGE	WOODSTOCK CUBA	PLEASANT RIDGE	0	0	0	2	LOCAL			$ 997,839	
01580001.1	PLEASANT RIDGE	WATKINS	WOODSTOCK CUBA	0	0	0	6	LOCAL			$ 4,984,925	
01580002.2	PLEASANT RIDGE	WOODSTOCK CUBA	SHAKERAG	0	0	0	6	LOCAL			$ 2,751,217	
01580003	PLEASANT RIDGE	SHAKERAG	HWY 51	0	0	0	6	LOCAL			$ 1,107,563	
01580004	PLEASANT RIDGE	HWY 51	CHASE	0	0	0	6	LOCAL			$ 1,995,298	
01580005	PLEASANT RIDGE	CHASE	RALEIGH MILLINGTON	0	0	0	6	LOCAL			$ 4,635,856	
01580006	PLEASANT RIDGE	RALEIGH MILLINGTON	PLEASANT RIDGE	2	2	2	6	LOCAL			$ 822,890	
01580007	PLEASANT RIDGE	PLEASANT RIDGE	PLEASANT RD	2	2	2	6	LOCAL			$ 976,774	
01580008	PLEASANT RIDGE	PLEASANT RD	SYKES	2	2	2	6	LOCAL			$ 1,601,033	
01580009	PLEASANT RIDGE	SYKES	SINGLETON	2	2	2	6	LOCAL			$ 1,052,739	
01580010	PLEASANT RIDGE	SINGLETON	BETHUEL	2	2	2	6	LOCAL			$ 3,580,569	
01580011	PLEASANT RIDGE	BETHUEL	SLEDGE	2	2	2	6	LOCAL			$ 1,948,762	
01580012	PLEASANT RIDGE	SLEDGE	AUSTIN PEAY HWY	2	2	2	6	LOCAL			$ 640,909	
01580013	PLEASANT RIDGE	AUSTIN PEAY HWY	JACK BOND	2	2	2	6	LOCAL			$ 4,269,075	
01640001	PLEASANT RIDGE	JACK BOND	BRUNSWICK	2	2	2	6	LOCAL			$ 4,266,745	
00680013	POPLAR PIKE	RIDGEWAY	KIRBY RD	5	5	5	7	LOCAL			$ 1,142,700	
00680014	POPLAR PIKE	KIRBY RD	KIRBY PKWY	5	5	5	7	LOCAL			$ 848,800	
00680017	POPLAR PIKE	WEST	SOUTHERN	2	2	4	4	LOCAL		$ 529,200		
00680019	POPLAR PIKE	HACKS CROSS	FOREST HILL	2	2	5	5	LOCAL		$ 2,295,200		
00680020	POPLAR PIKE	FOREST HILL	HWY 72	2	2	5	5	LOCAL		$ 914,200		
01310001	PROGRESS	SHELBY	HWY 72	0	0	5	5	LOCAL		$ 761,352		
01310002	PROGRESS	BILL MORRIS PKWY	SHELBY	0	0	4	4	LOCAL		$ 1,118,798		
01310003	PROGRESS	KEOUGH	BILL MORRIS PKWY	0	0	4	4	LOCAL		$ 1,784,941		
01310004.1	PROGRESS	HWY 57	KEOUGH	0	2	4	4	LOCAL	$ 420,378	$ 420,378		
00710007	QUINCE	MESSICK	FARINDON	2	5	5	5	LOCAL	$ 400,000			
00710008	QUINCE	FARINDON	KIRBY	2	5	5	5	LOCAL	$ 900,000			
00710009	QUINCE	KIRBY	KNIGHT ARNOLD	2	2	5	5	LOCAL		$ 2,300,000		

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LRTP ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
00710010	QUINCE	KNIGHT ARNOLD	RIVERDALE	2	2	5	5	LOCAL		$ 2,300,000		
00710011	QUINCE	RIVERDALE	385	2	2	2	5	LOCAL			$ 1,200,000	
00710012	QUINCE	385	WINCHESTER	2	2	2	5	LOCAL			$ 1,168,000	
01710001	QUITO	PAUL BARRETT PKWY	OLD MILLINGTON	0	0	0	5	LOCAL			$ 2,101,827	
01710002	QUITO	SHELBY RD	PAUL BARRETT PKWY	0	0	0	5	LOCAL			$ 3,525,168	
01710003	QUITO	CUBA MILLINGTON	SHELBY RD	2	2	2	5	LOCAL			$ 502,697	
01710004	QUITO	WEST UNION	CUBA MILLINGTON	2	2	2	5	LOCAL			$ 1,513,865	
01710005	QUITO	CHARLES BARTLETT	WEST UNION	2	2	2	5	LOCAL			$ 2,570,646	
00320001	RAINES	SEWANEE	WEAVER	2	5	5	5	LOCAL	$ 2,700,000			
00940005	RAL LAGRANGE	COL ARLINGTON	HWY 385	2	2	5	5	LOCAL		$ 2,136,853		
00940006	RAL LAGRANGE	HWY 385	CHULAHOMA	2	2	5	5	LOCAL		$ 3,500,000		
01670006	RALEIGH MILL	New Allen	EGYPT CENTRAL	2	2	5	5	LOCAL		$ 5,197,000		
01670008	RALEIGH MILL	LOOSAHATCHIE PKWY	NEW ALLEN	2	2	7	7	LOCAL		$ 11,000,000		
01830013	RANGE LINE	LOOSAHATCHIE PKWY	ST ELMO	2	2	2	4	LOCAL			$ 1,929,980	
00660001	RIDGEWAY	QUINCE	MT MORIAH EXTD	0	0	5	5	LOCAL		$ 7,156,000		
00830001	RIVERDALE	WOLF RIVER	NASHOBA	2	5	5	5	LOCAL		$ 875,100		
00810015.1	RIVERDALE	MESSICK	FARINDON	0	0	0	5	LOCAL			$ 1,686,000	
00810015.2	RIVERDALE	MESSICK	MCVAY	2	2	2	5	LOCAL			$ 159,900	
01480002	ROBERTSON	WATKINS	FITE	2	2	2	6	LOCAL			$ 3,206,423	
01500002	ROBERTSON	ROBERTSON	RUST	2	2	2	6	LOCAL			$ 5,547,770	
02520006	ROBERTSON	OLD BENJESTOWN	NEW BENJESTOWN	0	0	0	4	LOCAL			$ 1,500,000	
02360001	SEED TICK	BEVERLY RIVERA	HWY 70	2	2	2	5	LOCAL			$ 3,400,000	
00570017	SEVENTH	NAVY	BETHUEL	0	0	4	4	LOCAL		$ 2,879,628		
02070001	SEWANEE	RAINES	SHELBY	2	2	2	5	LOCAL			$ 2,123,900	
02070002	SEWANEE	MITCHELL	RAINES	2	2	2	5	LOCAL			$ 3,218,680	
00180001	SHELBY DR	Weaver	LOWERY	2	2	5	5	LOCAL		$ 16,000,000		
00180024	SHELBY DR	HOUSTON LEVEE	FLEMING	0	7	7	7	LOCAL		$ 4,708,999		
00180026	SHELBY DR	FLEMING	BYHALIA	2	2	6	6	LOCAL		$ 4,604,573		
01740003	SHELBY RD	SHAKERAG	NAVY	2	2	2	6	LOCAL			$ 3,620,378	
01740004	SHELBY RD	QUITO	NAVY	2	2	2	6	LOCAL			$ 1,557,747	
01740005	SHELBY RD	NAVY	HWY 51	2	2	2	6	LOCAL			$ 537,363	
00480003 00480004	SHELTON	WOLF RIVER	COLLIERVILLE ARL. RD	0	2	4	6	LOCAL			$ 3,000,000	
01950001	SLEDGE	PAUL BARRETT	PLEASANT RIDGE	2	2	2	5	LOCAL			$ 950,098	
01950002	SLEDGE	NAVY	PAUL BARRETT	2	2	2	5	LOCAL			$ 3,160,844	
00720001.1	SOUTH PARKWAY	Top of Bluff	I-55	2	2	2	5	LOCAL			$ 1,000,000	
00720001.2	SOUTH PARKWAY	HARBOR	Top of Bluff	0	0	0	5	LOCAL			$ 11,000,000	
00760005	SOUTHERN	MIDLAND	PRESCOTT	4	4	4	5	LOCAL			$ 1,039,970	
00760006	SOUTHERN	HIGHLAND	GOODLETT	2	2	2	4	LOCAL			$ 1,713,400	
01380002.1	ST ELMO	OVERTON CROSSING	HOLLYWOOD	2	2	2	5	LOCAL			$ 877,650	
01380003.1	ST ELMO	HOLLYWOOD	NEW ALLEN	0	0	0	5	LOCAL			$ 4,097,200	
01380004	ST ELMO	NEW ALLEN	RALEIGH-MILLINGTON	0	0	0	5	LOCAL			$ 2,288,850	
01180005	ST JUDE & N PARKWAY	N PARKWAY realignment		2	5	5	5	LOCAL	$ 3,000,000			
00140017	STATE LINE	OLD LAMAR	HICKORY HILL	2	2	5	5	LOCAL		$ 775,000		
00140018	STATE LINE	BN Railroad	CRUMPLER	2	2	5	5	LOCAL		$ 1,552,000		
00140019	STATE LINE	CRUMPLER	RIVERDALE	2	2	5	5	LOCAL		$ 1,584,087		
00140020	STATE LINE	GERMANTOWN EXTD	ALEXANDER	2	2	5	5	LOCAL		$ 1,535,912		
00140021	STATE LINE	ALEXANDER	HACKS CROSS	2	2	5	5	LOCAL		$ 1,636,500		
00140024	STATE LINE	HOUSTON LEVEE	FLEMING	0	0	0	5	LOCAL			$ 4,595,000	
00140025	STATE LINE	FLEMING	BYHALIA	0	0	0	5	LOCAL			$ 2,725,000	
00140026	STATE LINE	BYHALIA	HWY 304	0	0	0	5	LOCAL			$ 6,650,000	
01210009	STEWART	PLEASANT RIDGE	PAUL BARRETT	0	0	0	6	LOCAL			$ 2,476,992	
00570002	STRATFORD	I-40	MACON	5	5	7	7	LOCAL		$ 926,220		
02400002	SUMAC	CHAMBERS CHAPEL	HWY 385	0	0	2	5	LOCAL		$ 592,000	$ 888,000	
02400003	SUMAC	HWY 385	COL ARLINGTON	0	0	2	5	LOCAL		$ 612,000	$ 918,000	
00690001	SWEETBRIER	BRIARCREST	Park	2	2	5	5	LOCAL		$ 12,195,000		
00350010	SWINNEA	HOLMES	STATE LINE	2	2	2	5	LOCAL			$ 1,780,500	
00450001	SYCAMORE VIEW	MULLINS STATION	WHITTEN	0	0	4	6	LOCAL	$ 2,500,000	$ 1,500,000		

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SHELBY COUNTY LOCALLY PROGRAMMED COSTS

LRTP_ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
00450005	SYCAMORE VIEW	PLEASANT VIEW	SUMMER	5	5	7	7	LOCAL		$ 2,000,000		
00450006	SYCAMORE VIEW	RALEIGH LAGRANGE	PLEASANT VIEW	5	5	7	7	LOCAL		$ 270,000		
01600001	SYKES	OLD MILLINGTON	HWY 51	2	2	2	5	LOCAL			$ 468,636	
01600002	SYKES	HWY 51	RALEIGH MILLINGTON	2	2	2	6	LOCAL			$ 3,653,608	
01600003	SYKES	RALEIGH MILLINGTON	PLEASANT RIDGE	0	0	0	6	LOCAL			$ 3,849,635	
00370005	TCHULAHOMA	HOLMES	STATE LINE	2	2	5	5	LOCAL		$ 1,926,000		
00370006	TCHULAHOMA	SHELBY	HOLMES	2	2	5	5	LOCAL		$ 1,586,241		
00370008.2	TCHULAHOMA	CHRISTINE	SHELBY	2	2	7	7	LOCAL		$ 4,097,688		
01790001	TILLMAN	WALNUT GROVE	POPLAR	4	4	4	5	LOCAL			$ 200,000	
01790002	TILLMAN	SAM COOPER	WALNUT GROVE	2	2	2	5	LOCAL			$ 2,712,400	
01790003	TILLMAN	SUMMER	SAM COOPER	4	4	4	5	LOCAL			$ 250,000	
01790004.1	TILLMAN	JACKSON	PERSHING	2	2	2	5	LOCAL			$ 1,041,840	
01790004.2	TILLMAN	PERSHING	SUMMER	0	0	0	5	LOCAL			$ 1,395,050	
02240002	TRINITY	MULLINS STATION	GERMANTOWN	2	2	7	7	LOCAL		$ 4,907,800		
02240003.1	TRINITY	Sanga	FOREST HILL	0	0	7	7	LOCAL		$ 2,400,000		
02240004	TRINITY	FOREST HILL	ROCKY POINT	0	0	5	5	LOCAL		$ 2,834,000		
02240005	TRINITY	ROCKY POINT	HOUSTON LEVEE	0	0	0	5	LOCAL			$ 3,867,500	
00130010	TULANE	HOLMES	TN State Line	2	2	2	5	LOCAL			$ 963,090	
00130011	TULANE	SHELBY DR	HOLMES	2	2	2	5	LOCAL			$ 2,144,880	
00130012.1	TULANE	RAINES	SHELBY	0	0	0	5	LOCAL			$ 1,429,400	
00130013.2	TULANE	WINCHESTER	RAINES	0	0	0	5	LOCAL			$ 3,265,800	
02720001	WALKER	COL ARLINGTON	HWY 196	2	2	5	5	LOCAL		$ 3,668,000		
00070012	WEAVER	SHELBY DR	HWY 61	2	2	5	5	LOCAL		$ 3,100,000		
00070013	WEAVER	RAINES	SHELBY	2	2	5	5	LOCAL		$ 2,607,990		
01860002	WEST UNION	SHAKERAG	QUITO	2	2	2	5	LOCAL			$ 2,427,438	
01860003	WEST UNION	QUITO	WILKINSVILLE	2	2	2	5	LOCAL			$ 3,681,869	
01860004	WEST UNION	WILKINSVILLE	HWY 51	2	2	2	5	LOCAL			$ 915,323	
01860005	WEST UNION	HWY 51	NAVY	0	0	5	5	LOCAL		$ 5,236,152		
01860006	WEST UNION	BILOXI	NAVY	2	2	5	5	LOCAL		$ 954,000		
01300001	WHITNEY	I-69	BENJESTOWN	2	2	2	5	LOCAL			$ 2,263,260	
01300002	WHITNEY	BENJESTOWN	THOMAS	4	4	4	5	LOCAL			$ 350,740	
01590001	WILKINSVILLE	CHARLES BARTLETT	WEST UNION	2	2	2	5	LOCAL			$ 2,953,815	
01590002	WILKINSVILLE	CHARLES BARTLETT	up north	2	2	2	5	LOCAL			$ 702,232	
00340028	WINCHESTER	BAILEY STATION	FLEMING	4	4	6	6	LOCAL		$ 2,274,631		
00340029	WINCHESTER	FLEMING	BYHALIA	4	4	6	6	LOCAL		$ 1,417,299		
00340030	WINCHESTER	BYHALIA	HWY 72	0	0	6	6	LOCAL		$ 3,336,241		
		Shelby County LocalTotal							**$ 20,638,801**	**$ 388,012,090**	**$ 424,268,463**	**$ 832,919,354**
											Grand Total	**$ 832,919,354**

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DESOTO COUNTY LOCALLY PROGRAMMED COSTS

LRTP ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
01870001	AIRWAYS	COLLEGE	STAR LANDING	2	2	2	5	Local			$ 1,703,213	
01870002	AIRWAYS	CHURCH	COLLEGE	2	2	2	5	Local			$ 1,338,171	
01870004.2	AIRWAYS	NAIL RD	GOODMAN RD	2	2	5	5	Local		$ 788,357		
00060002	CHURCH	HWY 61	DEAN	2	2	5	5	Local		$ 2,755,500		
00060003	CHURCH	BALDWIN	POPLAR CORNER	2	2	5	5	Local		$ 2,379,560		
00060004	CHURCH	POPLAR CORNER	MS 301	2	2	5	5	Local		$ 1,767,000		
00060005	CHURCH	MS 301	FOGG	2	2	5	5	Local		$ 1,609,333		
00060006	CHURCH	FOGG	HORN LAKE	2	2	5	5	Local		$ 1,291,782		
00060007	CHURCH	HORN LAKE	TULANE	2	2	5	5	Local		$ 1,758,000		
00060008	CHURCH	TULANE	HURT	2	2	5	5	Local		$ 684,633		
00060009	CHURCH	HURT	HWY 51	2	2	5	5	Local		$ 2,113,576		
00060021	CHURCH	HWY 305	HWY 78	0	0	5	5	Local		$ 4,225,858		
00060022	CHURCH	HWY 78	HACKS CROSS	0	0	5	5	Local		$ 1,107,457		
00060023	CHURCH	HACKS CROSS	OLD HWY 78	0	0	5	5	Local		$ 364,974		
00060024	CHURCH	OLD HWY 78	HOUSTON LEVEE	0	0	2	5	Local			$ 5,404,267	
00770001	CRAFT	HWY 304	BYHALIA	0	2	5	5	Local	$ 678,088	$ 1,017,132		
00770002	CRAFT	BETHEL	HWY 304	0	2	5	5	Local	$ 1,431,000	$ 2,146,500		
00770003	CRAFT	COLLEGE	BETHEL	0	2	5	5	Local	$ 2,216,087	$ 3,324,130		
00770004	CRAFT	CHURCH	COLLEGE	0	2	5	5	Local	$ 946,416	$ 1,419,624		
00770005	CRAFT	NAIL	CHURCH	0	0	5	5	Local		$ 3,197,829		
00770006	CRAFT	GOODMAN	NAIL	0	0	5	5	Local		$ 2,660,650		
00120003	DESOTO	POPLAR CORNER	HWY 301	2	2	2	5	Local			$ 1,786,088	
00120004	DESOTO	HWY 301	HORN LAKE	2	2	2	5	Local			$ 2,764,176	
00120008	DESOTO	ALEXANDER	HACKS CROSS	2	2	2	5	Local			$ 1,588,500	
00120009	DESOTO	FOREST HILL IRENE	HOUSTON LEVEE	2	2	2	5	Local			$ 2,540,100	
00330001	ELMORE RD	NAIL	CHURCH	2	2	5	5	Local		$ 1,944,000		
00330002	ELMORE RD	GOODMAN	NAIL	2	2	5	5	Local		$ 1,528,500		
00110001	FOGG	DEAN	HWY 304	2	2	2	5	Local			$ 1,200,000	
00110002	FOGG	NESBIT	DEAN	2	2	2	5	Local			$ 1,621,667	
00110003	FOGG	STAR LANDING	NESBIT	2	2	2	5	Local			$ 1,638,619	
00110004	FOGG	AUSTIN	STAR LANDING	2	2	2	5	Local			$ 1,573,556	
00110005	FOGG	CHURCH	AUSTIN	2	2	2	5	Local			$ 1,386,807	
01010001	FOREST HILL	DESOTO	GOODMAN	0	0	2	5	Local			$ 1,573,357	
01010002	FOREST HILL	STATE LINE	DESOTO	0	0	2	5	Local			$ 1,583,285	
00410001	GETWELL	HWY 304	BYHALIA	2	2	5	5	Local		$ 799,637		
00410002	GETWELL	HWY 304	BETHEL	2	2	5	5	Local		$ 1,866,162		
00410003	GETWELL	BETHEL	STAR LANDING	2	2	5	5	Local		$ 2,025,077		
00410004	GETWELL	STAR LANDING	COLLEGE	2	2	5	5	Local		$ 1,671,001		
00410005	GETWELL	COLLEGE	CHURCH	2	2	5	5	Local		$ 1,341,591		
00990001.1	HACKS CROSS	CHURCH	COLLEGE	2	2	2	5	Local			$ 1,106,973	
01430001	HORN LAKE	NAIL	CHURCH	2	2	2	5	Local			$ 1,758,056	
01430002	HORN LAKE	GOODMAN	NAIL	2	2	2	5	Local			$ 1,727,077	
01430003	HORN LAKE	DESOTO	GOODMAN	2	2	2	5	Local			$ 1,659,302	
01430004	HORN LAKE	STATE LINE RD	DESOTO	2	2	2	5	Local			$ 1,629,805	
01430005	HORN LAKE	STATE LINE RD	TN state line	2	2	2	5	Local			$ 926,606	
01070001	HOUSTON LEVEE	BETHEL	HWY 78	0	0	2	5	Local			$ 3,402,571	
01070002	HOUSTON LEVEE	HWY 78	OLD HWY 78	0	0	0	5	Local			$ 1,000,000	
01070002	HOUSTON LEVEE	CHURCH	OLD HWY 78	2	2	5	5	Local		$ 3,633,297		
01070003	HOUSTON LEVEE	GOODMAN	CHURCH	2	2	5	5	Local		$ 3,413,831		
02670001	INTERSTATE ROAD	GOODMAN	NAIL	0	0	5	5	Local		$ 2,000,000		
02010002	MALONE	CHURCH	NAIL	2	2	2	5	Local			$ 1,960,861	

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DESOTO COUNTY LOCALLY PROGRAMMED COSTS

LRTP ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
02010003	MALONE	NAIL	GOODMAN	2	2	2	5	Local			$ 1,512,329	
02010004	MALONE	GOODMAN	RASCO	2	2	2	5	Local			$ 1,742,728	
02010005	MALONE	RASCO	STATE LINE	2	2	2	5	Local			$ 1,327,114	
02010006	MALONE	STATE LINE	TN state line	2	2	5	5	Local		$ 1,812,986		
00080007	NAIL	TULANE	HURT	2	4	4	4	Local	$ 580,524			
00080008	NAIL	HURT	HWY 51	2	4	4	4	Local	$ 1,154,145			
00080009.1	NAIL	HWY 51	INTERSTATE RD	2	2	5	5	Local		$ 900,086		
00080009.2	NAIL	INTERSTATE RD	I-55	0	0	5	5	Local		$ 1,581,551		
00080010	NAIL	I-55	AIRWAYS	0	0	5	5	Local		$ 953,522		
00080011	NAIL	AIRWAYS	ELMORE	0	0	5	5	Local		$ 1,187,916		
00080012	NAIL	ELMORE	SWINNEA	0	0	5	5	Local		$ 1,482,332		
00080015	NAIL	GETWELL	MALONE	2	2	2	5	Local			$ 1,562,142	
00080016	NAIL	MALONE	PLEASANT HILL	2	2	2	5	Local			$ 1,814,083	
01990002	PLEASANT HILL	MS 304	BETHEL	2	2	2	5	Local			$ 2,703,086	
01990003	PLEASANT HILL	BETHEL	STAR LANDING	2	2	2	5	Local			$ 1,245,645	
01990003.1	PLEASANT HILL	STAR LANDING	COLLEGE	2	2	2	5	Local			$ 1,711,300	
01990004	PLEASANT HILL	COLLEGE	CHURCH	2	2	2	5	Local			$ 2,104,808	
01990005	PLEASANT HILL	CHURCH	NAIL	2	2	5	5	Local		$ 1,938,168		
01990006	PLEASANT HILL	NAIL	GOODMAN	2	2	5	5	Local		$ 1,553,605		
01990007	PLEASANT HILL	GOODMAN	RASCO	2	2	5	5	Local		$ 1,752,377		
01990008	PLEASANT HILL	RASCO	STATE LINE RD	2	2	5	5	Local		$ 1,342,343		
01990009	PLEASANT HILL	STATE LINE RD	TN state line	2	2	5	5	Local		$ 1,776,907		
01070004	HOUSTON LEVEE	DESOTO	GOODMAN	2	2	5	5	Local		$ 1,515,000		
01070005	HOUSTON LEVEE	STATE LINE	DESOTO	2	2	5	5	Local		$ 1,998,000		
00040005	STAR LANDING	MS 301	FOGG	2	2	2	5	Local			$ 2,041,182	
00040006	STAR LANDING	FOGG	TULANE	2	2	2	5	Local			$ 3,221,488	
00040007	STAR LANDING	TULANE	HIGHWAY 51	2	2	2	5	Local			$ 4,039,747	
00040008	STAR LANDING	HIGHWAY 51	I-55	2	2	2	5	Local			$ 775,219	
00040009	STAR LANDING	I-55	AIRWAYS	2	2	2	5	Local			$ 400,727	
00040010	STAR LANDING	AIRWAYS	SWINNEA	2	2	2	5	Local			$ 930,947	
00040011	STAR LANDING	SWINNEA	GETWELL	2	2	2	5	Local			$ 3,326,104	
00040012	STAR LANDING	GETWELL	PLEASANT HILL	0	0	2	5	Local			$ 3,834,000	
00040013	STAR LANDING	PLEASANT HILL	CRAFT	0	0	2	5	Local			$ 2,302,500	
00040014	STAR LANDING	CRAFT	HIGHWAY 305	0	0	2	5	Local			$ 3,477,000	
00040015	STAR LANDING	HIGHWAY 305	BETHEL	0	0	2	5	Local			$ 3,210,000	
00140001	STATE LINE	HWY 61	POPLAR CORNER	2	2	5	5	Local		$ 1,322,067		
00140002	STATE LINE	POPLAR CORNER	MS 301	2	2	5	5	Local		$ 1,782,415		
00140003	STATE LINE	MS 301	HORN LAKE	2	2	5	5	Local		$ 2,802,195		
00140004	STATE LINE	HORN LAKE	TULANE	2	2	5	5	Local		$ 1,627,925		
00140005	STATE LINE	TULANE	HWY 51	2	2	5	5	Local		$ 2,195,386		
00140007	STATE LINE	MILLBRANCH	I-55	5	5	7	7	Local		$ 322,081		
00140008	STATE LINE	I-55	AIRWAYS	5	5	7	7	Local		$ 782,236		
00140009	STATE LINE	AIRWAYS	SWINNEA	2	2	5	5	Local		$ 1,605,651		
00140010	STATE LINE	SWINNEA	TCHULAHOMA	2	2	5	5	Local		$ 1,651,241		
00140011	STATE LINE	TCHULAHOMA	GETWELL	2	2	5	5	Local		$ 1,500,581		
00140012	STATE LINE	GETWELL	MALONE	2	2	5	5	Local		$ 1,654,667		
00140013	STATE LINE	MALONE	PLEASANT HILL	2	2	5	5	Local		$ 1,528,126		
00140014	STATE LINE	PLEASANT HILL	DAVIDSON	2	2	5	5	Local		$ 1,604,921		
00140015	STATE LINE	DAVIDSON	HWY 78	0	0	0	5	Local			$ 948,543	
00140016	STATE LINE	HWY 78	BN Railroad	0	0	0	5	Local			$ 950,000	
00140022	STATE LINE	HACKS CROSS	FOREST HILL IRENE	2	2	5	5	Local		$ 3,309,000		

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DESOTO COUNTY LOCALLY PROGRAMMED COSTS

LRTP ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
00140023	STATE LINE	FOREST HILL IRENE	HOUSTON LEVEE	2	2	5	5	Local		$ 2,546,049		
00350001	SWINNEA	HWY 304	BYHALIA	0	0	5	5	Local		$ 1,080,342		
00350002	SWINNEA	BETHEL	HWY 304	0	0	5	5	Local		$ 2,975,999		
00350003	SWINNEA	STAR LANDING	BETHEL	0	0	5	5	Local		$ 3,787,748		
00350004	SWINNEA	COLLEGE	STAR LANDING	0	2	5	5	Local	$ 1,110,413	$ 1,665,619		
00350005	SWINNEA	CHURCH	COLLEGE	0	2	5	5	Local	$ 870,198	$ 1,305,297		
00350006	SWINNEA	NAIL	CHURCH	2	2	5	5	Local		$ 1,958,980		
00350007	SWINNEA	GOODMAN	NAIL	2	2	5	5	Local		$ 1,533,476		
00350008	SWINNEA	RASCO	GOODMAN	2	2	5	5	Local		$ 1,843,500		
00350009	SWINNEA	TN state line	RASCO	2	2	5	5	Local		$ 1,400,433		
00370001	TCHULAHOMA	CHURCH	NAIL	2	2	5	5	Local		$ 1,956,282		
00370002	TCHULAHOMA	NAIL	GOODMAN	2	2	5	5	Local		$ 1,484,062		
00370003	TCHULAHOMA	GOODMAN	RASCO	2	2	5	5	Local		$ 1,826,283		
00370004	TCHULAHOMA	RASCO	TN state line	2	2	5	5	Local		$ 1,365,661		
00130007	TULANE	GOODMAN	NAIL	2	4	4	4	Local	$ 1,240,992			
00130008.1	TULANE	STATE LINE RD	GOODMAN	0	0	0	5	Local			$ 4,140,412	
00130008.2	TULANE	STATE LINE RD	TN state line	0	0	0	5	Local			$ 689,341	
00070010	WEAVER	STATE LINE RD	TN state line	2	2	5	5	Local		$ 1,656,174		
	DeSoto County Local Total								**$ 10,227,863**	**$ 126,704,181**	**$ 92,883,502**	**$ 229,815,546**
											Grand Total	**$ 229,815,546**

US EPA ARCHIVE DOCUMENT

FAYETTE COUNTY LOCALLY PROGRAMMED COSTS

LRTP ID	Name	From	To	EX Lane	Lane06	Lane16	Lane26	Fund Source	2006	2016	2026	Grand Total
00360002	KEOUGH	HWY 385	CHULAHOMA	2	2	5	5	Local		$ 2,700,000		
00940006	RAL LAGRANGE	HWY 385	CHULAHOMA	2	2	5	5	Local		$ 3,500,000		
00140027	STATE LINE	HWY 304	CHULAHOMA	0	0	0	5	Local			$ 3,324,000	
02180011	DEXTER	HWY 385	CHULAHOMA	2	2	5	5	Local		$ 5,679,387		
Fayette County LocalTotal									**$ -**	**$ 11,879,387**	**$ 3,324,000**	**$ 15,203,387**
											Grand Total	**$ 15,203,387**

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TRANSIT

LRTP ID	Name	Description	Fund Source	2006	2016	2026	Grand Total
	Passenger Terminals and Other Capital Expenses		TRANSIT	$ 24,993,046	$ 83,310,150	$ 83,310,150	
	Fixed Guideway -Southeast Corridor	Downtown-Airport line		$ 104,648,317	$ 271,310,452	$ -	
	Fixed Guideway-Southeast Corridor (remainder)	Remainder of Southeast corridor to Collierville	TRANSIT	$ 18,966,925	$ -	$ 455,206,214	
	Fixed Guideway-South Corridor	Downtown-Southaven line		$ -	$ -	$ 308,830,396	
	Fixed Guideway-North Corridor	Downtown-Millington line Alternative Analysis	TRANSIT	$ -	$ -	$ 3,878,521	
			Transit Total	**$ 148,608,288**	**$ 354,620,602**	**$ 851,225,281**	**$ 1,354,454,171**
						Grand Total	**$ 1,354,454,171**

The following projects are contained in the 2004-2006 TIP and are included in the total costs above. More detailed project information for transit projects can be found in the conformity analysis section of the LRTP.

40000001	Preventitive Maintenance	Funds for inspection and preventative maintenance for all MATA capital assets.	TRANSIT	$ 32,485,500
40000002	ADA Paratransit Services	Covers costs associated with a portion of MATA plus	TRANSIT	$ 8,500,000
40000003	Fixed Route Buses	Purchase of buses	TRANSIT	$ 9,485,000
40000004	Paratransit Buses (Demand-Response)	Purchase of paratransit buses	TRANSIT	$ 6,806,000
40000005	Bus Facility Improvments	Various building and grounds improvements	TRANSIT	$ 4,250,000
40000006	Rail Facility Improvments	Various improvements to rail facilites (tracks, crossties, bridges, etc.)	TRANSIT	$ 1,350,000
40000007	Computer Hardware and Software	Periodically add, upgrade and/or replace hardware and software	TRANSIT	$ 650,000
40000008	Transit Centers	Construct a system of transit centers in various suburban locations.	TRANSIT	$ 8,740,000
40000009	Transit Enhancements	Various enhancement to facilities (modifications to historic facilities, public art, shelters, signage, landscaping, etc.)	TRANSIT	$ 850,000
40000011	Service Vehicles	Replace service vehicles.	TRANSIT	$ 70,000
40000012	Job Access Reverse Commute	Funds for continuing fixed route and demand response bus service to enhance connections to employment centers.	TRANSIT	$ 13,500,000
40000013	Advanced Public Transportation Systems	Apply advanced technologies to public transportation needs (fare collection systems, vehicle location devices, security cameras, etc.)	TRANSIT	$ 8,500,000
40000014	Fixed Guideway Modernization	Various routine improvements to rail operations and maintenance facilites, rail lines and infrastructure.	TRANSIT	$ 3,409,000
40000015	Medical Center Rail Extension	Construction of rail line.	TRANSIT	$ 11,500,000
40000017	Transit Centers	Construct a system of transit centers in various suburban locations.	TRANSIT	$ 1,156,250
40000016	Regional Rail Program	Engineering phase of Downtown-Airport rail project	TRANSIT	$ 30,000,000
40000010	Regional Rail Program	Engineering phase of Downtown-Airport rail project	TRANSIT	$ 250,000
			Total	**$ 141,501,750**

*TRANSIT funding includes FTA 5307, FTA 5309, Federal Transportation Funds such as IM, NHS and STP that would be flexed to FTA and Shelby County local funds.

Appendix N

Conformity Determination

Appendix not currently available

US EPA ARCHIVE DOCUMENT