Montgomery Metropolitan Planning Organization (MPO)

Draft Final
Year 2035 Long Range Transportation Plan

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This report was prepared as a cooperative effort of the U.S. Department of Transportation, Federal Highway Administration, the Federal Transit Administration, the Alabama Department of Transportation, and the Montgomery Metropolitan Planning Organization in partial fulfillment of Task **??????** of the Fiscal Year 2010 Unified Planning Work Program. This document is produced by the Transportation Planning Division of the City of Montgomery, Alabama as staff to the Metropolitan Planning Organization, in fulfillment of requirements set forth in Title 23 USC 134 and as amended by Public Law 109-59 SAFETEA-LU 2005. The contents of this report do no necessarily reflect the official views or policy of the U.S. Department of Transportation.

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1. Introduction

The Montgomery, Alabama region, that includes the City of Montgomery and parts of three surrounding counties, is a U.S. Census Bureau designated metropolitan planning area with an urbanized population of 196,896 – Actual as of 2000 census. As such, the Montgomery region is subject to metropolitan transportation planning requirements under Section 134 of Title 23 and Section 5303 of Title 49 of the United States Code and in the Code of Federal Regulations (CFR) Title 23, Part 450. The statute states that each metropolitan area shall have:

> *A continuing, cooperative, and comprehensive transportation planning process that results in plans and programs that consider all transportation modes and supports metropolitan community development and social goals. These plans and programs shall lead to the development and operation of an integrated, Intermodal transportation system that facilitates the efficient, economic movement of people and goods (23 CFR 450.300).*

The Long Range Transportation Plan (LRTP) is one of the key products of the planning process. The *Montgomery Study Area 2035 Long Range Transportation Plan* addresses the federal planning requirements that are the responsibility of the Metropolitan Planning Organization (MPO) as the organization authorized to carry out the transportation planning process. Specific LRTP requirements are itemized in CFR Title 23, Section 450.322. The LRTP must contain the following element and perspectives:

- Address a 20-year planning horizon;
- Include long-range and short-range multimodal strategies that facilitate efficient movement of people and goods;
- Be updated at least every five years;
- Identify transportation demand over the plan horizon;
- Include citizen and public official involvement and participation in the plan development process;
- Consider local comprehensive and land use plans, and
- Include a financial plan.

The previous *Montgomery Study Area 2030 Long Range Transportation Plan* was adopted by the Montgomery MPO in June 30, 2005. To assist in the development of the 2035 LRTP update, the MPO contracted with Mr. Rod Wilburn, an independent consultant, in November 2008 and with Jacobs in January 2009.

1.1 Planning Factors

The purpose of the *Montgomery Area 2035 LRTP* is to plan for the efficient movement of people and goods. The LRTP seeks orderly development of multimodal transportation infrastructure to facilitate regional connectivity and mobility as well as supporting the planning factors established by federal statute and code. *The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)* slightly modified the planning factors developed in the *Transportation Equity Act for the 21st Century (TEA-21)* and the *Intermodal Surface Transportation Efficiency Act (ISTEA)* to guide metropolitan planning. The revised planning factors are considered in the transportation planning process conducted by the Montgomery Study Area and reflected in the updated 2035 LRTP. These include:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for motorized and nonmotorized users.
4. Increase the accessibility and mobility options available to people and for freight.

5. Protect and enhance the environment, promote energy conservation, improve quality of life, promote consistency between transportation improvements and State and local planning growth and economic development patterns.
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing system (Public Law 105-178 §1203(f), 23 USC 134).

The 2035 LRTP seeks to establish transportation priorities and identify improvements that will be needed by the horizon year 2035, based on development and population changes in the area.

1.2 LRTP Study Area

The 2035 LRTP study area is the planning area defined by the Montgomery MPO. The study area is 1,005.5 square miles and encompasses the urbanized region surrounding the City of Montgomery, Alabama and includes portions of Montgomery, Elmore and Autauga Counties, as shown in Figure 1.1. Incorporated jurisdictions within the MPO study area are the Cities of Montgomery, Prattville, Millbrook, and Wetumpka, and Towns of Coosada, Elmore, Deatsville, and Pike Road. The study area is characterized by its physiographic province as a settlement within the Alabama-Coosa-Tallapoosa River basin. The Alabama and Tallapoosa Rivers divide the study area and serve as county boundary lines between Montgomery, Elmore and Autauga Counties. Numerous bridge crossings unite the area, and Interstates 65 and 85 meet near the midpoint of the study area. The area has a rich history of human settlement from prehistoric Indians to French development of Fort Toulouse to development to the City of Montgomery as Alabama's State Capital.

1.3 Montgomery MPO Structure

Federal law establishes transportation planning areas for metropolitan regions throughout the country and requires the organization of Metropolitan Planning Organizations to cooperatively develop goals for transportation improvements. After passage of the 1962 Federal Aid Highway Act, new transportation projects that included federal funds could not be approved for urban areas with populations of more than 50,000, unless these projects were based on a "comprehensive, coordinated, and continuing (3-C)" planning process between the state and local communities. The Montgomery MPO was created in 1973 to guide the 3-C planning process.

The MPO is comprised of a MPO Policy Board, Technical Coordinating Committee and Citizens Advisory Committee supported by MPO staff who perform the planning duties, including development and approval of the LRTP. The MPO Policy Board membership includes local elected officials, the ALDOT Sixth Divisions Engineer and the City of Montgomery Director of Planning and Development. Federal Highway Administration and Federal Transit Administration, the Alabama DOT, the Montgomery Area Transit System, Central Alabama Regional Planning & Development Commission and the Autauga County Rural Transportation System are non voting Policy Board members.

The MPO is supported by two advisory committees, the Technical Coordinating Committee (TCC) and the Citizens Advisory Committee (CAC). The TCC provides the technical guidance for the planning process. It is composed of planners, project engineers, transit managers and other professional persons from the MPO planning area. The TCC also includes representatives from Federal, State and Local agencies, including the Central Alabama Regional Planning and Development Commission, Montgomery Area Transit System and Autauga County Rural Transportation System. The Montgomery Regional Airport Director is a non voting member of the TCC.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

Study Area

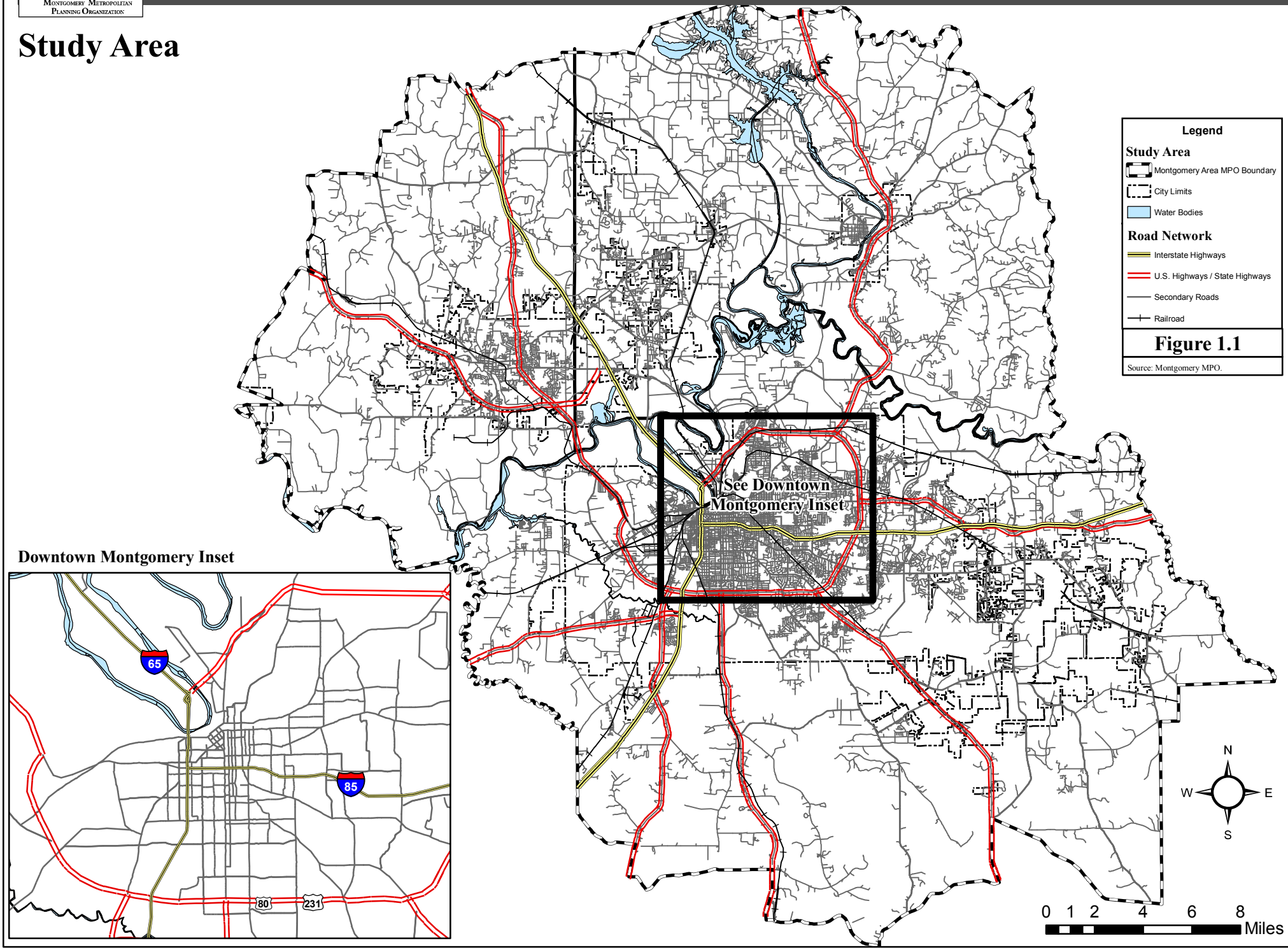


Figure 1.1

Source: Montgomery MPO.

The CAC provides advisory input from a citizen's perspective on plans, programs and projects in the MPO study area. The 25 member committee is appointed by the MPO Policy Committee from their respective jurisdictional areas. The MPO planning staff supports the MPO, TCC, and CAC and is housed in the Transportation Planning Division of the City of Montgomery's Planning and Development Department. A list of members of the MPO, TCC, and CAC committee are in the beginning of this document.

1.4 LRTP Development

The *Montgomery Study Area 2035 LRTP* was developed in cooperation and coordination with local, state, and federal planning partners, as well as the general public. The LRTP development proceeded with full cooperation and coordination from all local jurisdictions, the Alabama Department of Transportation (ALDOT), and Federal Highway Administration (FHWA). The process has closely followed federal regulations and requirements. The transportation plan began with an evaluation of the area's transportation network. The review addressed the spectrum of elements that comprise the area's mobility network and development. Since the 2005 Base Year is not a US Census survey year, some data had to be updated from 2000 to 2005. The 2005 base number of households was aggregated from the 2000 US Census data and building permits issued between 2001 and 2005. The 2005 employments data was obtained from InfoUSA, and then the data was individually confirmed by MPO staffers. The school data was obtained from the Alabama Department of Education, while the daycare enrollment was obtained from the Department of Human Resources and confirmed by MPO staffers. It also researched land use and development patterns, transportation system infrastructure inventory and operations, as well as multimodal facility utilization. Stakeholder and public outreach and involvement were key components of the LRTP process.

Throughout the process there was special efforts were made to interact directly with citizens, stakeholders and local governments throughout the region. Meetings were scheduled in Montgomery, Prattville, Millbrook and Wetumpka with presentations that highlighted the plan's findings for each area. The MPO staffers coordinated with local City and County staff to determine future population and employment growth. The consultation process between MPO planners, member city, and member county staff enabled each municipality to determine the population and employment characteristics of their area in 2035. The LRTP development was covered in the local media, which resulted in a relatively active public involvement response. The net results can be seen in the recommended list of programs and projects that have identified transportation needs, potential solutions and local priorities. The study members met with the Mayors Advisory Committee for Improved Accessibility (MACIA) handicapped individuals group.

The 2035 LRTP Document Organization: Section 2 and 3 describes the plan development process which includes the technical and qualitative means used to develop the LRTP. Section 3 also provides the planning context for analyzing the transportation system such as current trends, development patterns, socioeconomic characteristics, and demographic factors. Section 4 presents the inventory of the transportation system by mode. Section 5 describes the identified needs of the transportation system based on technical analysis. The financial plan and discussion about transportation financing are presented in Section 6. The long range transportation plan program of projects is included in Section 7, which includes a concluding discussion of plan implementation and future planning efforts.

1.5 Consistency with Other Plans

There are general and specific directions under SAFETEA-LU (Section 6001) for the consistency requirement. 23 USC 134, Section 6001(a)(g)(3) states "The secretary shall encourage each metropolitan planning organization to consult with officials responsible for other types of planning activities……..economic development, environmental protection, airport operations, and freight movements….to coordinate its planning process…with such planning activities.

Under the metropolitan planning process, transportation plans and TIPs shall be developed with due consideration of other related planning activities…." The MPO addresses this requirement by including planning, economic development, engineering, and other technical personnel from various levels of government on the Technical Coordinating Committee (TCC). In addition, the MPO consults with agencies and officials responsible for other planning activities within the Study Area that are affected by transportation when developing the Long Range Transportation Plan and Transportation Improvement Program (TIP). This includes Federal, State and Local agencies responsible for:

- Economic growth and development
- Environmental protection
- Airport operations
- Freight movement
- Land use management
- Natural resources
- Conservation
- Historic preservation
- Human service transportation providers

A contact list of these officials and agencies has been developed and is maintained by MPO staff. Incorporating these key individuals in the transportation planning process allows for broad understanding of transportation planning and land use development activities at the local and regional level, which can afford opportunities for cooperation and coordination.

The spirit and intent of SAFETEA-LU 6001 are clear. In accordance with Public Law 109-59 policy provisions and subsequent agency interpretation, the metropolitan plan should acknowledge consistency with other plans that include transportation and land use components: regional, long range, municipal and county comprehensive and master plans (airport, multimodal, transit, and utility), Congestion Management Plans, Air Quality Conformity Determination, freight, bicycle/pedestrian, Public Participation, and environmental plans.

2. Plan Development Process

The Montgomery Area 2035 Long Range Transportation Plan defines a program of projects to address the MPO Study area's existing and future multimodal transportation needs. The plan will be used to guide future investments through the Transportation Improvement Program (TIP) process. The LRTP evaluates a wide range of transportation solutions to accommodate expected changes in transportation demands as a result of new development and redevelopment, and from population and employment growth through the horizon year 2035. The process for developing the LRTP included a multifaceted study approach that combined technical analysis with qualitative assessment and input. This section presents the steps taken to create the LRTP, including:

- Project Goals
- Project Section and Funding Availability
- Public outreach
- Data collection
- Technical tools and analysis, and
- Program screening and approval

2.1 Project Goals

Establishing goals is important to creating the framework for decision-making, and ensures a long range perspective to assist in identifying and implementing appropriate transportation improvements for the region. The federal *SAFETEA-LU* act emphasizes that transportation infrastructure investments should be driven by "the" need for improvement. The goals established for the 2035 LRTP were designed to meet the region's needs while incorporating sensitivity to the efforts of the region's multiple planning partners. The 2035 LRTP goals, which mirror the 2030 LRTP goals, are as follows:

- Goal 1 – Develop, maintain, and preserve a balanced multimodal transportation system that provides for safe, integrated, and convenient movement of people and goods.
- Goal 2 – Optimize the efficiency, effectiveness, connectivity, safety, and security of the transportation system.
- Goal 3 – Coordinate the transportation system with existing and future land use and planned development.
- Goal 4 – Develop a financially feasible multimodal transportation system to support expansion of the regional economy.
- Goal 5 – Provide viable travel choices to improve accessibility and mobility, sustain environmental quality, and preserve community values.
- Goal 6 – Increase jurisdictional coordination and citizen participation in the transportation planning process to enhance all regional travel opportunities.

As part of *SAFETEA-LU*, Congress adopted into law eight planning factors, which target national transportation priorities. Required for all metropolitan long range transportation plans nationwide, the federal planning factors were taken into consideration in the development of the 2035 LRTP goals. Federal factors were compared with LRTP goals to ensure all factors were addressed; some of the factors are applicable to more than one goal. Table 2.1 presents a matrix of the 2035 LRTP goals compared against the eight planning factors.

Table 2.1
Montgomery LRTP Goals Compared Against TEA-21 Planning Factors

LRTP Goal	SAFETEA-LU Planning Factor*							
	1: Support economic vitality	2: Increase safety	3: Increase security	4: Increase accessibility and mobility options	5: Protect and enhance the environment; Promote consistency	6: Enhance integration and connectivity	7: Promote efficient system management and operation.	8: Emphasize system preservation
1: Develop, maintain, and preserve a balanced multimodal transportation system that provides for safe, integrated, and convenient movement of people and goods		✓		✓		✓	✓	✓
2: Optimize the efficiency, effectiveness, connectivity, safety, and security of the transportation system	✓	✓	✓	✓	✓	✓	✓	✓
3: Coordinate the transportation system with existing and future land use and planned development	✓				✓	✓		
4: Develop a financially feasible multimodal transportation system to support expansion of the regional economy	✓			✓		✓		✓
5: Provide viable travel choices to improve accessibility and mobility, sustain environmental quality, and preserve community values		✓	✓		✓	✓		
6: Increase jurisdictional coordination and citizen participation in the transportation planning process to enhance all regional travel opportunities						✓		

* Note: The full text for the planning factors is listed on page 1-2.

2.2 Project Selection and Funding Availability

Early in the 2035 LRTP process, the Alabama Department of Transportation, the Federal Highway Administration, and the Federal Transit Administration released guidelines for each funding category and guidelines regarding operations and maintenance project funding vs. capacity project funding. Table 2.2 details the Montgomery average annual cost per funding category and type; Table 2.3 details the 25 year projections for Montgomery by funding category and type. Operating within these funding constraints, the Montgomery MPO staff and consultants began systematically evaluating the available funds against the needed and planned projects.

Table 2.2
Montgomery Urban Area Highway Capacity, Operations and Maintenance Costs
Federal Funds Only (Costs in Thousands)

		CAPACITY			OPERATIONS AND MAINTENANCE		
Funding Category	Montgomery Average Annual Costs*	Average Annual Capital Costs*	% Costs	25 Year Total Projection	Average Annual Operations & Maintenance Costs*	% Costs	25 Year Total Projection
Surface Transportation (Other Area) (Attributable)*°	$4,209	$463	11%	$11,575	$3,746	89%	$93,650
Surface Transportation (Other Area) (Not Attributable)	$901	$541	60%	$13,520	$361	40%	$9,013
Surface Transportation (Any Area)	$2,375	$1,306	55%	$32,659	$1,069	45%	$26,721
National Highway System	$10,479	$6,287	60%	$157,185	$4,192	40%	&104,790
Interstate Maintenance	$13,976	$1,398	10%	$34,940	$12,578	90%	$314,460
Bridge*	$4,055	$43	1%	$1,079	$4,012	99%	$100,288
Safety (All)	$824	$0	0%	$0	$824	100%	$20,608
Equity Bonus	$4,268	$2,561	60%	$64,018	$1,707	40%	$42,678
Congressional Special Projects*	$576	$59	10%	$1,475	$517	90%	$12,933
TOTAL	$41,664	$12,658		$316,450	$29,006		$725,142

*Based on a 6 year average of authorized funds.
*Percentages are based on actual funds.
°Include STP (Urban>200,000) funds

The first step undertaken was to evaluate the cost associated with the projects in the current Transportation Improvement Program (TIP). The costs for all projects were calculated thru construction even if construction was not included in the current TIP. The total cost of all capital projects in the TIP thru construction is $441,506,583. The total capital cost includes no money for cost overruns. The total difference between the total capacity budget and the total capacity projects in the TIP is negative $45,844,583. The total cost of all operation and maintenance projects in the TIP thru construction is $187,357,594. The total capital cost includes no money for cost overruns. The total difference between the total operations and maintenance budget and the total operations and maintenance projects in the TIP is $716,208,406. The ability to complete capacity projects is hindered by the federal guidelines requiring Metropolitan Planning Organizations to include the cost of maintaining the transportation infrastructure, not just the cost to expand the infrastructure. In response to these funding constraints on capacity projects, a request was made to all Technical Coordinating Committee (TCC) members to evaluate each capacity project in the current TIP to determine whether a capacity project is the only solution to relieve congestion.

Table 2.3
Montgomery Urban Area Highway Capacity, Operations and Maintenance Costs
Federal, State, and Local Funds (Costs in Thousands)

	CAPACITY			OPERATIONS AND MAINTENANCE		
Funding Category	25 Year Federal Projection	25 Year Local/State Match Projection	25 Year Total Funding Projection	25 Year Federal Projection	25 Year Local/State Match Projection	25 Year Total Funding Projection
Surface Transportation (Other Area) (Attributable)*°	$11,475	$2,894	$14,468	$93,650	$23,413	$117.063
Surface Transportation (Other Area) (Not Attributable)	$13,520	$3,380	$16,900	$9,013	$2,253	$11,267
Surface Transportation (Any Area)	$32,659	$8,165	$40,823	$26,721	$6,680	$33,401
National Highway System	$157,185	$39,296	$196,481	$104,790	$26,198	$130,988
Interstate Maintenance	$39,940	$8,735	$43,675	$314,460	$78,615	$393,075
Bridge*	$1,079	$270	$1,349	$100,288	$25,072	$125,359
Safety (All)	$0	$0	$0	$20,608	$2,290	$22,072
Equity Bonus	$64,018	$16,004	$80,022	$42,678	$10,670	$53,348
Congressional Special Projects*	$1,475	$369	$1,844	$12,933	$3,233	$16,167
TOTAL	$316,450	$79,112	$395,562	$725,142	$178,423	$903,565

*Percentages are based on actual funds.
°Include STP (Urban>200,000) funds

The second step undrtaken was to evaluate the capacity projects identified in the 2030 LRTP that are not in the current TIP. The total cost of the capacity projects in the current TIP and identified in the 2030 LRTP is $878,868,680. The difference between the capacity budget and the TIP and 2030 LRTP capacity projects cost is negative $483,303,680. As in the previous step, a request was made to all Technical Coordinating Committee (TCC) members to evaluate each capacity project identified in the 2030 LRTP to determine whether a capacity project is the only solution to relieve congestion.

The third step undertaken was to evaluate the 2005 Existing Network-Volume to Capacity Comparison. The roads identified by the 2005 Existing Network Volume to Capacity as deficient were grouped according to capacity deficiency severity. The least severe deficiency was identified as a deficiency of between 0.27 and 0.60 or level of service B or C. This deficiency was identified on the map as green. The next severe deficiency was identified as a deficiency of between 0.61 and 0.80 or level of service D. This deficiency was identified on the map as orange. The worst deficiency was identified as a deficiency of more than 0.80 or level of service E and F. This deficiency was identified on the map as red. See Figure 2.1, 2005 Existing Network-Volume to Capacity Comparison.

The fourth step undertaken was to evaluate the 2035 Segments over Capacity. Because of the sheer volume of projects identified in step three, it was determined a more descriptive evaluation of the deficient projects needed to be completed to ensure the most important road segments were identified. To achieve this, the actual number of vehicles per hour over capacity was evaluated instead of the level of service to better compare the severity of the level of service F road segments. The roads identified by the 2035 Segments over Capacity as over capacity were grouped according to the number of cars per hour over capacity. The first set of road segments were over capacity by less than 150 vehicles per hour during peak hour. These projects were deemed as needing traffic signalization and signal coordination type projects. These road segments are identified on the map as green. The next set of road segments were over capacity by between 150 and 490 vehicles per hour during peak hour. These projects were deemed as turn lanes or intersection improvement projects. These road segments are identified on the map as orange. The last set of road segments were over capacity by more than 490 vehicles per hour during peak hour. These projects were deemed as needing a capacity project. These road segments are identified on the map as red. See Figure 2.2, 2035 Segments over Capacity.

The fifth step undertaken utilizes the results of steps one, two and four to identify modeled identified capacity projects that are both not covered by current TIP and 2030 LRTP projects and also identified as a over capacity road segment in step four. In step four, the projects identified as green, less than 150 vehicles a pay during peak hour over capacity that were deemed unnecessary and not already addressed by a current TIP project or 2030 LRTP project, were removed from the list of potential new capacity projects. An example of the type of projects removed is as follows:

- Widen Fairview from Norman Bridge Rd to Woodley Rd

An example of the type of projects identified as green with less than 150 vehicles a day during peak hour over capacity that were deemed necessary are as follows:

- Widen Wares Ferry Rd in Montgomery to 4 lane urban arterial from East Blvd to McElmore Rd
- Extend service road along SR 9/Northern Blvd NB from Hackel Dr to Plantation Way and SB from Lagoon Park Dr to existing service

Further detailed analysis and a listing of projects are located in Section 5, Table 5.5.

In step four, the projects identified as orange, between 150 and 490 vehicles per hour during peak hour over capacity, and identified as red, more than 490 vehicles per hour during peak hour over capacity, not already addressed by a current TIP project or 2030 LRTP project, were analyzed further. For orange designated road segments, the total additional lane miles are 62.9 miles at an estimated cost of $438.2 million. For red designated road segments, the total additional lane miles are 17.7 miles at an estimated cost of $124 million. The rough estimate of $7 million per lane mile was used for both estimates. It was determined that the orange road segments were not over capacity enough to necessitate a capacity type project, but the segments do warrant an operation and maintenance improvement such as turn lanes or intersection improvement. The red road segments not already addressed with a current TIP or 2035LRTP project are as follows:

- SR 53/SR 9/SR 21 from Coliseum Blvd to Old Wetumpka Highway-4.7 miles
- US 31/SR 3 from CF 40 to proposed new road-4.8 miles
- US 31/SR 3 from US 82 to West Blvd-2.4
- SR 271 from I-85 to 1.7 miles north of US 231-2.5 miles
- Emerald Mountain Expressway from CR 64 to Rifle Range Rd-1.8
- Marler Rd from I-85 to 1.5 miles south of I-85-1.5 miles

These red road segments were analyzed to determine whether a capacity project was necessary and feasible. See Figure 2.3, Identification of Additional Project Needs.

The sixth step undertaken analyzes the orange projects identified in step five. The projects were analyzed using accident data to determine which projects are deemed as needing a capacity project due to the additional data. These identified projects could then be added to the capacity projects list, if funds are available after step five.

The last step undertaken was to requests from each TCC member road or road segments that warrant a capacity project, but is not currently listed as a capacity road project. The requests was made to ensure all factors, known and unknown, were utilized to determine necessary capacity projects.

After completing the seven steps, the capacity projects list includes all capacity projects in the current TIP, all capacity projects in the 2030 LRTP that were deemed necessary, some projects identified as red in step five, any projects identified as orange in step five that warrant a capacity project and funding was available, and any additional capacity projects presented by TCC members if deemed necessary and funding was available.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2005 Existing Network Volume to Capacity Comparison

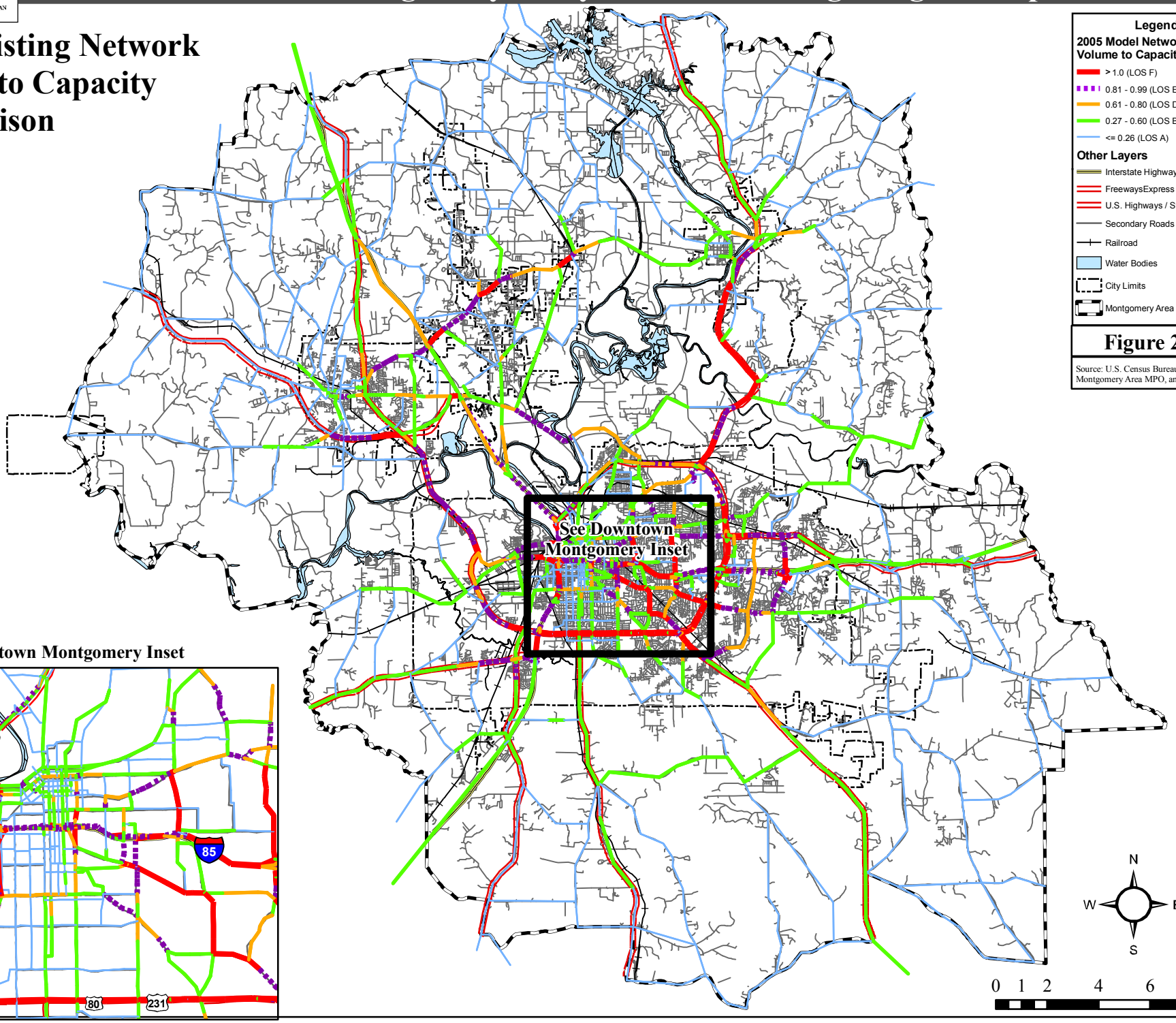


Figure 2.1

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2035 Segments Over Capacity

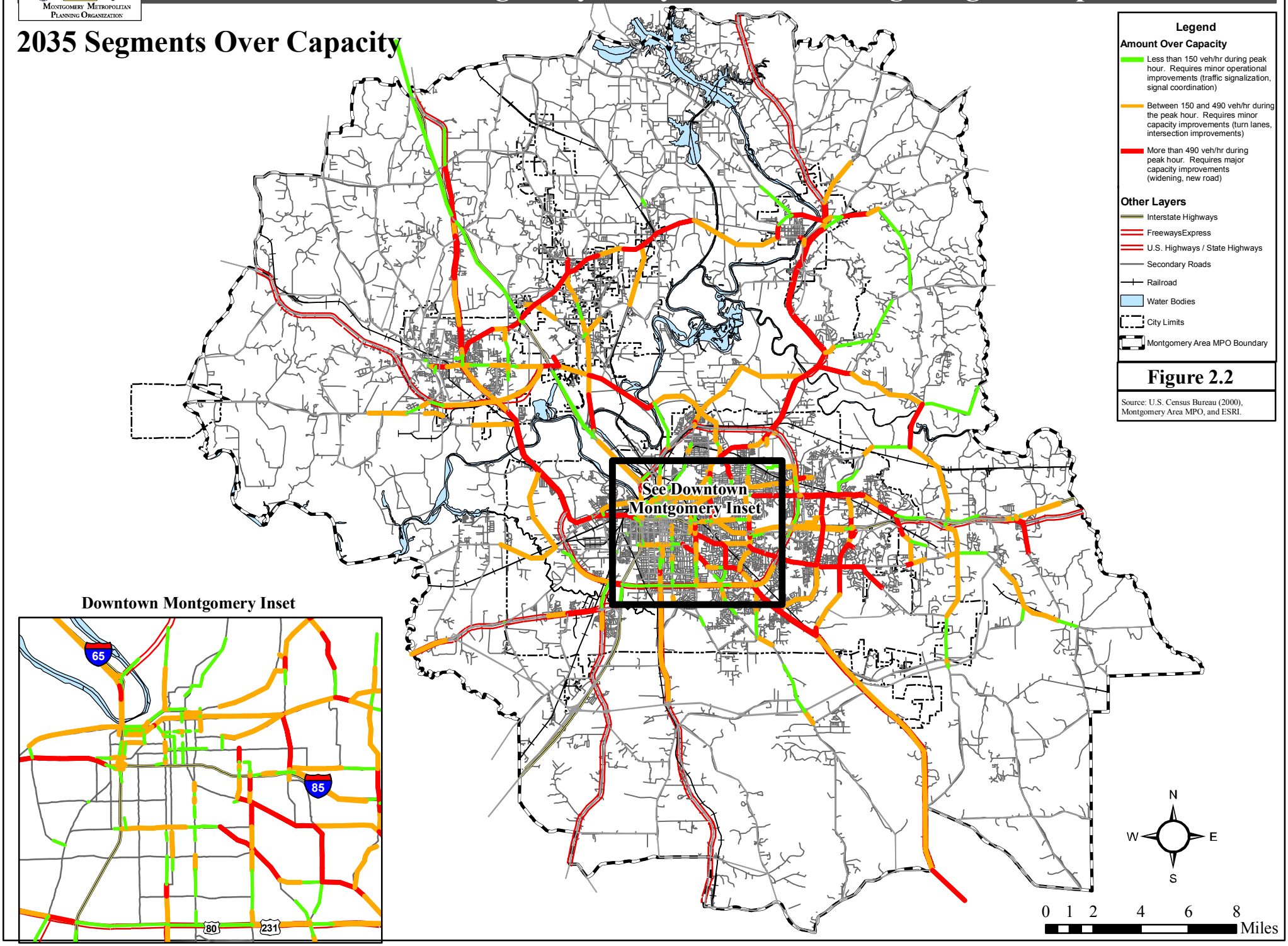


Figure 2.2

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

Identification of Additional Project Needs

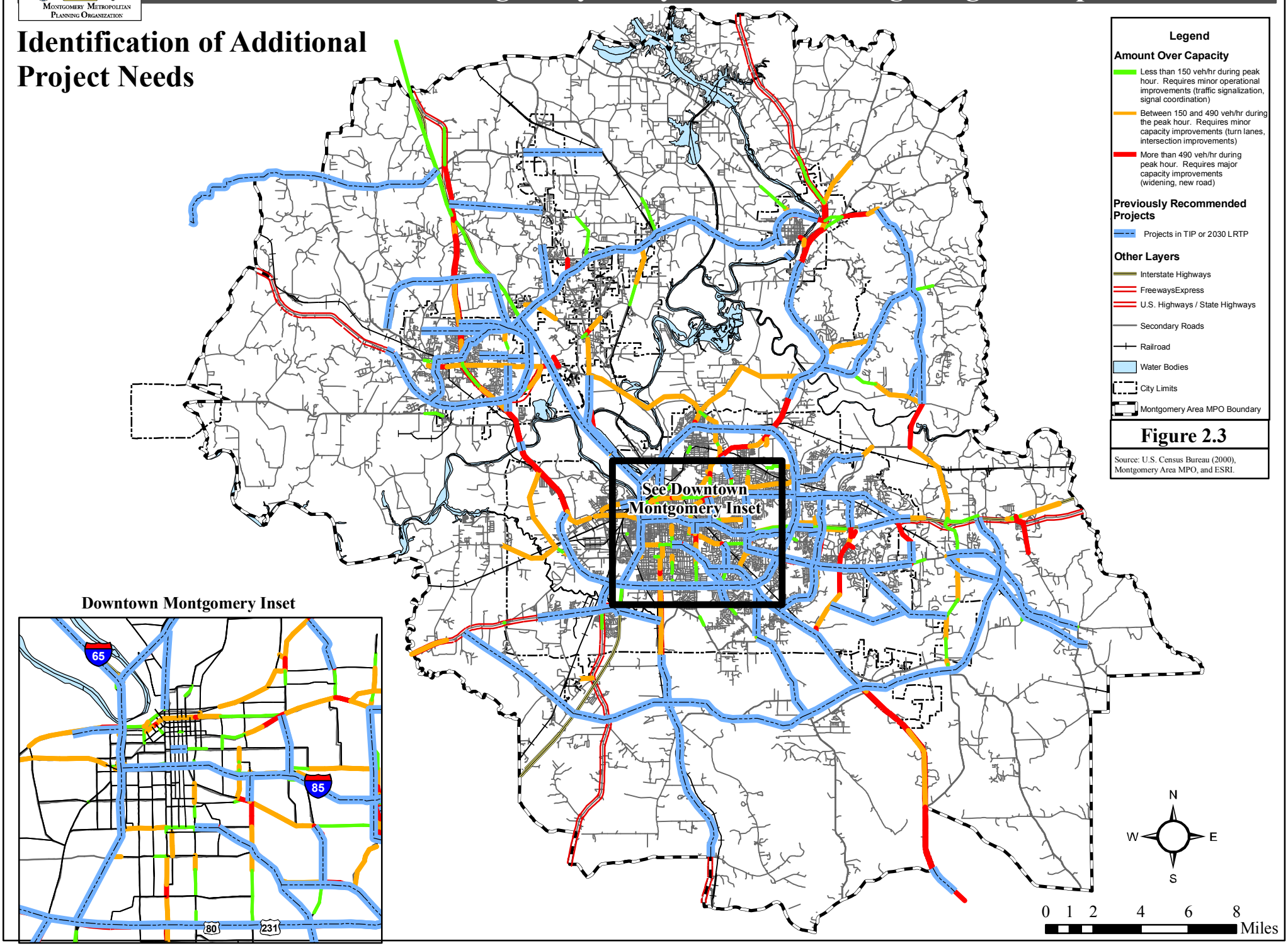


Figure 2.3

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

2.3 Public Involvement

Public input is essential to the development of community-focused transportation recommendations and determining the long range transportation needs of the Montgomery metropolitan area. A Public Involvement Plan (PIP) was developed for the 2030 LRTP. For the 2035 LRTP, the *Public Involvement Plan for the Montgomery Area MPO*, adopted in September 2008 was utilized to ensure the LRTP met federal, state, and local transportation planning requirements, employed a wide variety of outreach techniques to reach the largest possible audience, and provided a means to evaluate the public outreach effort and respond to public comments.

Public outreach has been a vital and ongoing element throughout the 2035 LRTP development process. Study stakeholders, including local governments, businesses, community and special interest groups, and the general public, provided input and feedback throughout the study through meetings, interviews, work sessions, and a study website. Public meetings were scheduled at key milestones during the study schedule to encourage the general public to participate in identifying transportation needs and determining the best future transportation solutions for the Montgomery area. In an effort to involve the whole region, public involvement meetings were held at convenient locations in the City of Montgomery, and cities in Autauga and Elmore Counties.

Appendix A summarizes key sections of the *Public Involvement Plan for the Montgomery Area MPO*, adopted in September 2008; in addition, Appendix A contains a copy of all display ads for meeting and public hearings regarding the 2035 LRTP, and all associated.

2.3.1 Public Information Meetings

Two sets of public information meetings were conducted in each of the three counties that comprise the Montgomery urbanized area (Montgomery, Autauga and Elmore Counties). The first series of meetings were held in February 2010 at the beginning of the study to inform the community about the study and to elicit input on local transportation needs and issues. The second series of meetings were held in June 2010 to review and comment on the proposed LRTP program of projects. The meetings were conducted at different times and locations in the City of Montgomery, the City of Prattville, the City of Millbrook, and the City of Wetumpka to provide the greatest opportunity for public participation. Meeting attendees were able to review study boards and individually discuss transportation-related issues with members of the LRTP team. Study information and comment forms were distributed at each meeting. At the first round of public involvement meetings held in February 2010, thirty-four persons signed-in for all of the public meetings with 4 comment forms collected. Following each meeting, a summary of the meeting comments was compiled as a means to gauge participant input and to evaluate the public outreach effort. Appendix A also contains the sign-in sheets and display ads for each series of meetings

2.3.2 Study Website and Media Outreach

A 2035 LRTP study page was developed on the MPO's website www.montgomerympo.org. The website was used to announce public meeting opportunities, project information, study calendar, presentations, and notes on the 2035 LRTP. The website was updated frequently throughout the study to ensure public access to all of the information.

Media outreach is one of the key means to reach the general public. A variety of media outreach tools were used to increase both attendance and participant diversity at public information meetings. Public information meetings were publicized through newspaper ads and press releases in the *Montgomery Independent, Montgomery Advertiser, Prattville Progress,* and the *Wetumpka Herald.*

2.3.3 MPO Coordination

Coordination and consultation with the MPO committees and staff occurred regularly throughout the LRTP planning process. As identified in Section 1, the MPO Policy Committee is responsible for adopting the 2035 LRTP. Through the time of the adoption of the plan, the study team will have conducted three sets of meetings with the MPO committee, TCC, and CAC, and one meeting with just the TCC. Each committee has been engaged throughout the study in the LRTP development, providing data sources, doing reviews and providing comments. The participation of the committees has contributed to making the LRTP a much more comprehensive evaluation, reflecting the priorities of all parts of the region.

2.3.4 Public Outreach Evaluation

Evaluation of public involvement efforts is critical to the continuing success of the public involvement program, and helps in determining the effectiveness of the tools utilized. It is important to document the results of the public involvement effort and the level of public participation achieved. Designed to measure the level of success achieved by the LRTP Public Involvement Plan, the evaluation process strives to determine effectiveness in achieving public participation and obtaining useful feedback from the public. Table 2.4 outlines the qualitative and quantitative evaluation criteria used to monitor each public involvement technique and evaluate the success of the public involvement activities.

Public involvement is continuous in the planning process. Understanding which public involvement methodologies work best in the region will be important to the MPO as it continues to consult with the public in the future. Evaluation of the LRTP program outreach success will be important to the planning process. Appendix A includes contains documentation of the public outreach efforts.

Table 2.4
Public Involvement Evaluation Criteria

PIP Technique	Evaluation Criteria	
	Quantitative	**Qualitative**
Technical Review Committee Meetings	Attendance Diversity of Representation Quantity of Feedback Received	Was Input Used in Planning Process? Effectiveness of Meeting Format
Media Outreach	Extent and Quantity of Media Coverage	Effectiveness of Notification and Communication Tools How and How Often Contact is Made
News Articles	Number of Additions to a Mailing List Quantity of Articles Distributed	Concise and Clear Information Effectiveness of News articles
Website	Number of visitors Number of comments received Number of comment responses	Comments to MMPO Webmaster on website format/presentation of information
Public Meetings	Number of Events/Opportunities for Public Involvement Number of Comments Received Number of Participants Diversity of Attendees	Effectiveness of Meeting Format Public Understanding of Process Quality of Feedback Obtained Timing of Public Involvement Meeting Convenience: Time, Place, and Accessibility Was Public's Input Used in Developing the Plan?

Table 2.5
Public and Stakeholder Meetings

Summary of Activity	Date	Agenda Items	Attendees
Individual County Work Sessions - Autauga County and City of Prattville - Elmore County and City of Wetumpka - Elmore County, City of Millbrook, and Town of Coosada - Montgomery County - Town of Pike Road	 February 26, 2009 March 3, 2009 March 5, 2009 March 6, 2009 April 1, 2009	- Introduce 2035 LRTP study - Discuss travel demand model and required input - In depth discussion of employment, household, and school/daycare enrollment for the 2005 Base Year and 2035 Forecast Year	Agency stakeholders and other interested parties
MPO Policy Board (MPO) **Technical Coordinating Committee (TCC)** **Citizens Advisory Committee (CAC)**	February 5, 2009 February 4, 2009 February 4, 2009	- Timeline for the 2035 LRTP - 2035 LRTP Goals, Methodology, and Objectives - Process of compiling socioeconomic data	MPO Committee Members TCC Members CAC Members
Stakeholder Interviews With Area Agencies, Organizations, and Advocates - Montgomery County Board of Education Representative - Montgomery Area Transit System (MATS) - Craig Cornwell, Trolley Advocate and Historian - Mark Wnuk, Montgomery Regional Airport - Smitty Thorne, State Port Authority - Toby Roth, Capitol Resources of Alabama, LLC - Robert Martin, CSX Corp - Steven Hrabovsky, Chief of Navigation Section, US Army Corp of Engineers, Mobile District - Fred Horn, Chief of Navigation Unit, US Army Corp of Engineers, Tuscaloosa Unit - Rachel Madore, Montgomery Chamber of Commerce	 April 6, 2009 Ongoing June 5, 2009 June 2009 & May 2010 June 2010 July 2009 & June 2010 July 2009 June 2009 June 2009 July 2009	- Future school enrollment growth and trends in Montgomery County - Future transit needs and plans - Historical significance of the Downtown City of Montgomery trolley service and feasibility of restarting downtown trolley service - Montgomery Regional Airport freight & cargo facilities - Rail car annual numbers & capacity at Mobile port; Freight traffic on I-65 - Rail traffic & cpacity at Montgomery CSX Terminal - Rail traffic in Montgomery County - Barge traffic, dredging, channel depth, width, and northernmost dredging point. - Dredging channel depth & barge traffic - Trucking Companies in tri-county area.	Agency/organization representatives
MPO Policy Committee (MPO) **Technical Coordinating Committee (TCC)** **Citizens Advisory Committee (CAC)**	April 21, 2009 April 21, 2009 April 22, 2009	- 2005 and 2035 socioeconomic data - Next steps in the 2035 LRTP - Transit and the Travel Demand Model	MPO Committee Members TCC Members CAC Members
Agency Work Session	July 13, 2009	- 2035 socioeconomic data - Review of model data	MPO staff, Jacobs representative, and Rod Wilburn

Table 2.5
Public and Stakeholder Meetings

Summary of Activity	Date	Agenda Items	Attendees
Model Technical Meeting	October 29, 2009	- Review the 2005 Base Year Model	Agency stakeholders and other interested parties
Public Information Meetings – Round #1 - City of Wetumpka and Elmore County - City of Millbrook and Elmore County - City of Prattville and Autauga County - Montgomery County and the City of Montgomery (Two meetings)	 February 9, 2010 February 10, 2010 February 10, 2010 February 18, 2010	- Presentation of boards depicting transportation deficiencies and needs	Open house to public and area stakeholders
Technical Coordinating Committee (TCC)	May 5, 2010	- 2035 Funding projection - Review 2030 plan projects and current TIP projects thru construction against funding constraints - Solicit comments on funding tables, projects in the 2030 LRTP, and projects in the current TIP	TCC Members
MPO Policy Board (MPO) **Technical Coordinating Committee (TCC)** **Citizens Advisory Committee (CAC)**	June 14, 2009 June 14, 2009 June 15, 2009	- Present and Approve Draft 2035 LRTP	MPO Committee Members TCC Members CAC Members
Public Information Meetings – Round #2 - City of Wetumpka and Elmore County - City of Millbrook and Elmore County - City of Prattville and Autauga County - Montgomery County and the City of Montgomery (Two meetings)	 June 21, 2010 June 21, 2010 June 16, 2010 June 17, 2010	- Presentation of boards depicting transportation deficiencies, needs, draft LRTP projects and projected funding constraints	Open house to public and area stakeholders
MPO Policy Board (MPO) **Technical Coordinating Committee (TCC)** **Citizens Advisory Committee (CAC)**	TBD TBD TBD	- Present and Approve Final 2035 LRTP	MPO Committee Members TCC Members CAC Members

2.4 Data Collection

The outcome of any planning process is contingent on the breadth and depth of data collected for the process. Data is needed to help describe the existing transportation system and the context in which it exists. Both qualitative and quantitative data are needed. Qualitative data sources include input from all members of the community such as elected officials, agency staff, stakeholders, and the general public. In addition, existing documents and plans provide qualitative input. Technical analysis cannot be completed without quantitative data. Quantitative data collected for the LRTP includes any data that can be used to analyze the system such as that collected by state and local transportation departments and agencies, the Census bureau, and other state agencies. The greatest need for reliable, timely, and accurate data is for updating the travel demand model. Updating the model requires traffic counts, population, employment, school enrollment and income data, and roadway network characteristics (number of lanes, speed limits and functional classification). Another analysis tool requiring robust data is the geographic information system (GIS) processor. Table 2.6 presents a summary of information collected and utilized throughout the planning process. Appendix D provides a bibliography and list of sources used in preparation of the LRTP.

Table 2.5
Data Summary

Category	Data Resources
Plans/Programs	Montgomery Study Area 2030 Long Range Transportation Plan (June 2005)
	Public Involvement Plan for the Montgomery Area MPO (September 2008)
	Summary of Public Involvement for the 2030 Long Range Transportation Plan (June 2005)
	Montgomery Area Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP), Fiscal Years (FY) 2008 through 2011 (September 2008)
	Montgomery Area Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP), Fiscal Years (FY) 2006 through 2008
	Montgomery Area Congestion Management System Plan (April 2009)
	Montgomery Downtown Plan (January 2009)
	City of Prattville, AL Comprehensive Plan (2009)
Socio-economic Data	Forecast of Selected Socioeconomic Variables for Montgomery, Elmore, and Autauga Counties in the Montgomery MPO Area, University of Alabama CBER (July 2008)
	AUM Center for Demographic and Cultural Research - Socio-Demographic Projections fro Autauga, Elmore, and Montgomery Counties: 2005-2035 (Sept. 2008)
	Census American Community Survey (ACS) Travel Data 2005-2007
	2005 Base Year & Forecast Year 2035 Socioeconomic Data
	2000 US Census Data
	Bureau of Economic Analysis (2006)
	Business Alabama (2008)
	Montgomery Area Chamber of Commerce (2009)
	Town of Coosada, City of Millbrook, City of Montgomery, City of Prattville, and City of Wetumpka Building Permit Data
	Montgomery County Parcel Data
	Alabama State Department of Education
	Alabama State Department of Human Resources
	InfoUSA Socioeconomic Data package (2005)
Roadway Network	Montgomery MPO Travel Demand Model (2008)
	Montgomery Study Area Functional Classification Map (ALDOT - June 2009)

Category	Data Resources
	University of Alabama, CARE Safety Data (March 2006-2008)(1999-2008)
	CSX Transportation, Inc (2009)
	ALDOT Railway Plan (2009)
	Norfolk Southern (2009)
	Alabama Department of Transportation Website (2009)
	ALDOT Bridge Sufficiency Data (2007)
Transit System	Montgomery Urbanized Area Transit Development Plan (2009 – 2013), Fall 2008
	Montgomery Area Transit System data for Fiscal Years 2005 through 2008
	Transit Route Maps (Primary Routes Nos. 1-12 & 15; State Shuttle and Lightning Routes Nos. 13 and 14, Entertainment Express)
	Transit Needs Analysis Montgomery 2030 LRTP Update March 2005
	National Transit Database
	ALDOT Transit Reporting System: Section 5311 Quarterly Report FY 2009
	Montgomery Area Transit System On-Board Passenger Ridership Study (2007)
	Autauga Rural Transit 4th Quarter Transportation Management Reports (FY 2009)
Bicycle and Pedestrian	Montgomery Study Area Bicycle and Pedestrian Plan (September 2003)
Air	Montgomery Regional Airport website
	Federal Aviation Administration Data
	Website: www.airnav.com
Waterways	Coalition of Alabama Waterways (June 2009)
Organizational Information	Montgomery Transportation Coalition – Organization Information and Goals

2.5 Needs Identification Process

A transportation system needs assessment is achieved through a variety of means including statistical and spatial analysis, travel demand modeling, and qualitative screening. To provide the basis and understanding of the context in which the transportation exists, it is necessary to look at factors that shape and influence the transportation planning environment. This includes examining socioeconomic and demographic trends as well as development patterns, land use characteristics, and natural and built environmental constraints. Each element of the transportation system is assessed. All transportation modes were evaluated during the LRTP process, including automobile, transit, pedestrian, bicycle, rail, aviation and water. The baseline year established for the LRTP was 2005. The horizon year is 2035. In order to assess future conditions, assumptions are made to anticipate future changes to the planning context (population, employment, and development) as well as to the transportation system.

Two tools utilized to perform the transportation system analysis were spatial analysis and travel demand modeling. Spatial analysis is conducted through Geographic Information System (GIS) mapping of data. GIS applications for the plan included mapping existing and future population and employment distribution to understand changes in growth and development patterns, identifying environmental justice community (low income and non-white) populations, identification of environmentally sensitive areas, mapping transportation facilities to show where facilities are provided across the area, and mapping known built and natural features.

Updating the travel demand model, a major component of the LRTP update, provided a quantitative means to evaluate the existing and future transportation system. The Montgomery model runs in the TRANPLAN platform. The model updated and refined for this plan is a computer simulation that uses a

four-step process (trip generation, trip distribution, modal split, and trip assignment) to allocate traffic to the roadway system and transit system based on existing and future socio-economic data. The travel demand modeling effort for this plan update included the following elements:

- A base year (2005) model was developed using existing socioeconomic and traffic data to represent current transportation system conditions.
- The future year (2035) travel demand forecast was modeled using future year socioeconomic forecasts.
- Existing and committed short-range transportation projects were tested to determine the extent the projects could resolve anticipated future needs identified by the model.
- New long-range projects were tested to determine their ability to improve future transportation needs. The program of projects includes only projects that have identified future funding.

The model simulates the transportation system by reflecting the major road network (collectors and arterials) within geographic units called traffic analysis zones (TAZs). TAZs generally reflect similar, cohesive socio-economic characteristics, i.e., trip attractors such as employment centers are separate from trip generators such as residential clusters. The updated 2005 Montgomery travel demand model contains a total of 387 TAZs. Socioeconomic data for the 2005 base year and future year 2035 was developed by the MPO from several sources, including the 2000 CTTP (Census Transportation Planning Package), 2000 US Census, from private sources (InfoUSA), and from data collected from member municipalities. The 2035 socioeconomic data forecast was based on growth trends for the region and control totals established by projecting the growth rate established for each county from 2000 to 2007. The forecast household data was compared to a report prepared by the Center for Demographic Research at Auburn University Montgomery and to a report prepared by the University of Alabama Center for Business and Economic Research. The base network came primarily from the 2000 model update work updated to 2005 conditions. The network characteristics were coded to include number of lanes, capacity, speed, whether roadway was one-way or two-way, and 2005 traffic count volumes, on links where there are count stations. The base year model network represents 965 miles, of which 41 percent are arterials and 52 percent are collectors. Figure 2.4 illustrates the TAZ geography and network of the base year model.

Staff from the MPO, counties, cities, ALDOT, and the MPO reviewed data and model validation information to ensure accuracy and currency. Ultimately, the MPO Board reviewed and adopted a resolution approving the socio-economic data, including population and employment assigned to each of the TAZs that comprise the Montgomery MPO. Figure 2.4 shows the TAZ geography used for the modeling. The Model Development Report (Appendix F) describes data and methodology utilized to update and validate the TRANPLAN model.

2.6 Plan Development

The 2035 LRTP program of projects was developed to provide solutions for future transportation needs. The Montgomery Area has a number of planned improvements in the existing short-range Fiscal Years 2008-2011 Transportation Improvement Program (TIP), as well as the previous TIPs since the 2005 LRTP update. Other projects were also identified from each area to consider for inclusion in the plan. During the project development phase, each project was screened to identify the level of need, potential benefits, impacts, and cost. The final program of projects must be fiscally constrained by anticipated future revenue stream from local, state, federal and other sources.

2.7 Plan Approval

A draft 2035 LRTP list of projects was reviewed at the June 2010 public information meetings. The draft 2035 LRTP document will be released to the MPO committees and the public in the beginning of June 2010, with the public comment period extending two weeks. Comments from the meetings will be

reviewed and incorporated into the final plan. The final Montgomery Study Area 2035 LRTP will be presented for adoption by the MPO committee at the scheduled MPO, TCC, and CAC meetings in the end of June 2010.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

Model Geography

Legend

Model Geography

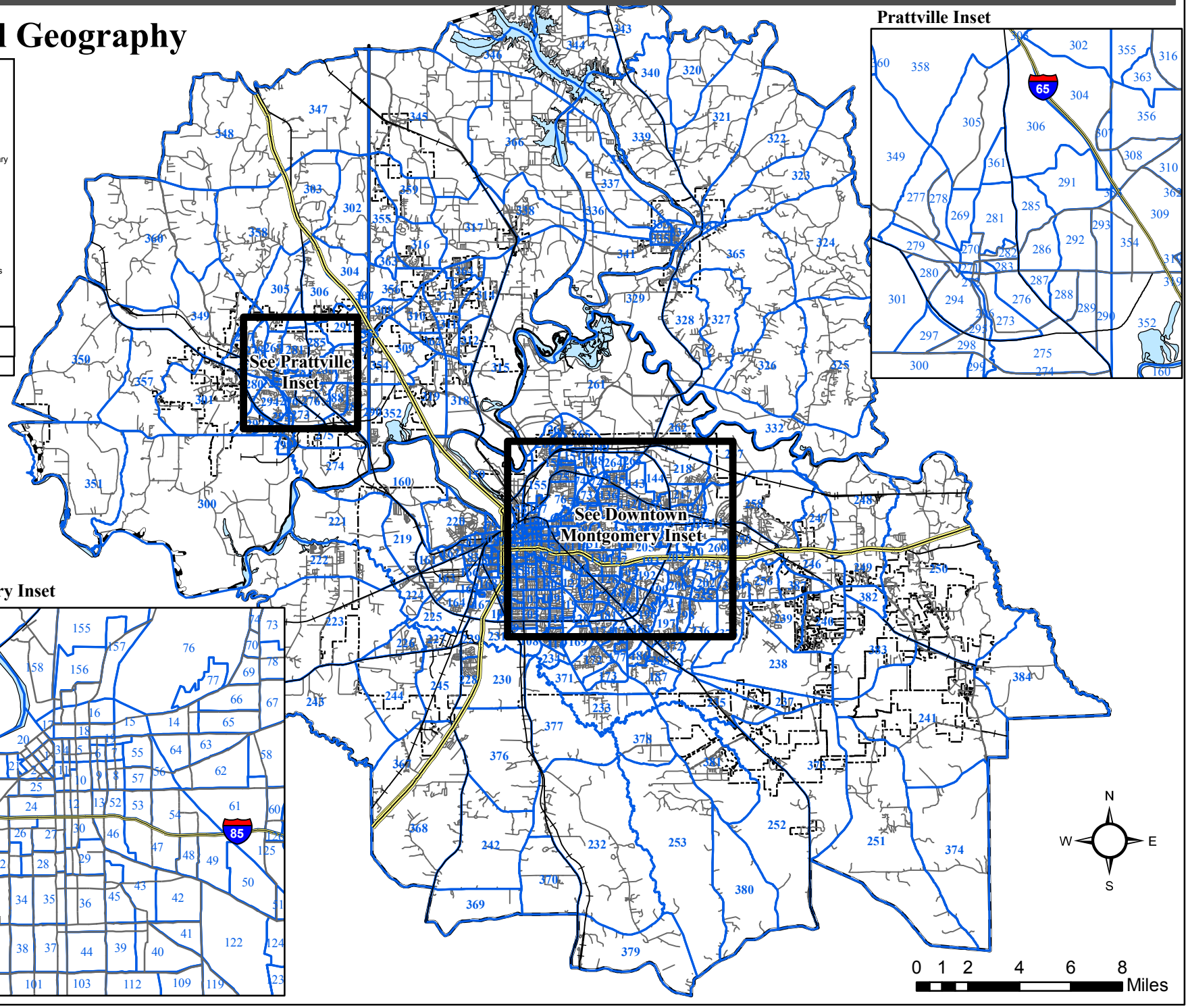
- 00 TAZ ID
- Traffic Analysis Zones (TAZ)
- Montgomery Area MPO Boundary
- City Limits
- Water Bodies

Road Network

- Interstate Highways
- U.S. Highways / State Highways
- Secondary Roads
- Railroad

Figure 2.4

Source: Montgomery MPO.



3. Montgomery Area Trends

This section provides the transportation planning context for development of the 2035 Long Range Transportation Plan (LRTP). The transportation system is dependent upon the economical, physical, and cultural characteristics of the area population. The intensity of transportation infrastructure investment needs to match land development patterns: urban, suburban or rural. How people live, where they live, and who they are require varying transportation solutions. High speed highways and heavy rail investments facilitate travel between home and work over longer distances and interregional travel. Conversely, pedestrian infrastructure such as sidewalks provide a safe travel environment for local, compact trip making between home and shopping areas or from home to school. The various economic, social and land development considerations that impact travel demand are presented here. These considerations influence the planning environment and are essential to creating a plan that reflects and meets community needs for an integrated transportation system.

3.1 Population, Household, School/Daycare Enrollment, and Employment Trends

Addressing transportation needs involves understanding area growth patterns and distribution. Identifying high growth areas versus stable areas helps to determine what kinds of transportation investment may be needed to serve the community. Developing growth areas may need new infrastructure whereas established areas may need maintenance or enhancement investments. Understanding household distribution is also important since transportation needs vary by conditions, from rural to urban. Density plays an important factor in identifying feasible transit services as well. Fixed route transit services require greater household densities while other transit options are more suited to areas of lower density.

3.1.1 Population and Household Trends

The household characteristics in the study area vary. According to the 2000 U.S. Census, the least populated County is Autauga County with a population of 43,671 and a total of 16,003 households; Elmore County is the second most populated county with a population of 65,874 and a total of 22,737 households. The most populated is Montgomery County with a population of 223,510 and a total of 86,068 households. Since the study area consists of portions of Autauga, Elmore, and Montgomery County, the 2000 population and households within the study area in each county is a portion of overall county totals from the 2000 U.S. Census. Ninety-eight percent of the total Montgomery County population and households are within the study area; Eighty-two percent of the total Autauga County population and households are within the study area; and Sixty-nine percent of the total Elmore County population and households are within the study area. Historic population change by county, state, and MPO study area is shown in Table 3.1, from 1980 through 2000. Table 3.2 details the population estimates for each county between 2000 and 2008 released by the U.S. Census and Table 3.3 details the household estimates for each county between 2000 and 2005. In addition to annual estimates, the U.S. Census released county population projections to 2025. Table 3.4 details these projections.

All three counties experienced a higher growth rate than the state between 1980 and 1990, with Elmore County having the highest growth rate of 13.4%. The actual population increase between 1980 and 1990 was greatest in Montgomery County with an increase in population of 12,047, followed by Elmore County with an increase of 5,820 and Autauga County with an increase of 1,963. Both Autauga and Elmore Counties have experienced a greater rate of growth than the state as a whole between 1990 and 2000, while Montgomery County experienced a lower growth rate than the state. The actual population increase between 1990 and 2000 was greatest in Elmore County with an increase in population of 16,664, followed by Montgomery County with an increase of 14,425 and Autauga County with an increase of 9,449. According to Census annual estimates the population in both Elmore and Autauga Counties increased every year from 2001 to 2008; however, while Montgomery County increased in population

from 2001 to 2008, the yearly population fluctuated during the 8 year span. According to Census annual household estimates the households in each county increased every year from 2001 to 2005.

Table 3.1
Population Total and Percent Change from 1980 to 2000

Geographic Area	1980	1990	2000	1980-1990	1990-2000
Alabama	3,893,888	4,040,587	4,447,100	3.8%	10.1%
Montgomery MPO Study Area	--	--	299,180	--	--
Autauga County*	32,259	34,222	43,671	6.1%	27.6%
Elmore County*	43,390	49,210	65,874	13.4%	33.9%
Montgomery County*	197,038	209,085	223,510	6.1%	6.9%

*Note: Population is shown for the entire county and includes areas outside of the MPO study area.
Source: U.S. Census

Table 3.2
Population Estimates from 2001 to 2008 by County

County	2001	2002	2003	2004	2005	2006	2007	2008
Autauga County*	44,437	45,160	45,766	46,941	47,882	49,039	49,830	50,364
Elmore County*	67,570	68,826	70,157	71,286	73,254	75,382	77,358	78,106
Montgomery County*	222,877	222,895	222,415	221,985	222,071	225,286	226,089	224,810

*Note: Population is shown for the entire county and includes areas outside of the MPO study area.
Source: U.S. Census

Table 3.3
Household Estimates from 2001 to 2005 by County

County	2001	2002	2003	2004	2005
Autauga County*	18,065	18,449	18,700	18,963	19,263
Elmore County*	26,329	26,717	27,167	27,607	28,046
Montgomery County*	96,470	97,159	97,923	98,851	99,880

*Note: Households is shown for the entire county and includes areas outside of the MPO study area.
Source: U.S. Census

Table 3.4
Population Projections from 2000 to 2025 by County

County	2000	2005	2010	2015	2020	2025	Actual Change 2000-2025	Percent Change 2000-2025	Average Household Size
Autauga County*	16,003	17,819	19,615	21,386	23,208	25,107	9,104	56.9%	2.71
Elmore County*	22,737	25,750	28,779	31,777	34,697	37,525	14,788	65.0%	2.66
Montgomery County*	86,068	88,796	91,712	94,753	97,805	100,789	14,721	17.1%	2.46
Total	124,808	132,365	140,106	147,916	155,710	163,421	38,613	30.94%	n/a

*Note: Households is shown for the entire county and includes areas outside of the MPO study area.
Source: U.S. Census

The U.S. Census releases annual population estimates for census designated places in addition to the annual county estimates. Table 3.5 details the census designated place population estimates from 2001 to 2006.

Table 3.5
Population Estimates from 2001 to 2008 by County

Census Designated Place	2001	2002	2003	2004	2005	2006
Coosada	1,442	1,458	1,469	1,469	1,504	1,567
Elmore	496	501	505	508	516	524
Deatsville	346	349	352	354	360	366
Millbrook	11,608	12,113	12,918	13,707	14,771	15,580
Montgomery	200,862	200,724	200,029	199,500	199,350	201,998
Pike Road	308	307	305	303	301	303
Prattville	26,396	27,291	27,989	28,922	30,000	31,119
Wetumpka	6,000	6,201	6,386	6,508	6,793	7,313

Source: U.S. Census

Because the base year for the 2035 Long Range Transportation Plan is 2005, a methodology had to be developed to determine the base year households within the study area since no 2005 US Census data was completed. It was determined that the most accurate household total could be calculated using US Census 2000 data, building permit data from 2001 to 2005, plat data from 2001 to 2005, and parcel data from 2001 to 2005. The 2000 US Census number of households formed the base total for each Traffic Analysis Zone (TAZ). TAZs are the basic geographic unit for inventorying demographic data and land use within a study area. There are 387 TAZs in the Montgomery MPO study area. The next step was to build upon this base number to the year 2005 number of households per TAZ. This was accomplished by compiling the building permit, plat and parcel data from all municipalities within the study area.

A request was made to each municipality to provide the residential building permits from 2001 to 2005 for their areas. Unfortunately not all areas issue residential building permits. The Town of Coosada, the City of Millbrook, the City of Montgomery, and the City of Wetumpka provided 2001 to 2005 residential building permits; and the City of Prattville provided 2002 to 2005 residential building permits. The building permits were assigned to the geographically correct TAZ. For the TAZs within municipal planning boundaries that issues building permits, the base year 2005 number of households was complete. For the TAZs in Autauga County, Elmore County, Montgomery County, the City of Deatsville, the Town of Elmore and the Town of Pike Road, an additional source of data was needed to determine the base year 2005 number of households.

Each of the before mentioned areas, with the exception of unincorporated Montgomery County and the Town of Pike Road, were able to provide plat data from 2001 to 2005. Since the exact number of households built in each plat from 2001 to 2005 was unknown and the area had relatively low numbers of plats, the lots within each plat for these areas were treated as individual households and assumed built when computing the base year 2005 households per TAZ. A comparison between building permits and plats was completed to ensure that no plats were double counted as building permits.

For Montgomery County and the Town of Pike Road, the most accurate data source was the parcel file maintained by Montgomery County. The parcel file contains information on the type of property and the year the structure was built. Using this information, the number of residential units built from 2001 to 2005 was determined. The 2000 US Census number of households and the households built between 2001 and 2005 were combined to determine the base year 2005 number of households for the TAZs in Montgomery County and Pike Road. Table 3.3 shows the percent increase in households within the study area in each county and within the study area as a whole between 2000 and the base year 2005 and between the base year 2005 and 2007. The year 2007 was the last year that all building permit data, plat data and parcel data were collected.

The average annual household growth from 2000 to 2007 was calculated to project the number of households to the forecast year 2035. Residential building permits and residential platted development

was collected for years 2006 to 2007. Table 3.6 details the total household change and percent change between the 2000 U.S. Census and the 2005-2007 American Community Survey. Table 3.7 shows the actual increase in households and the percent increase in households between the base year 2005 and the forecast year 2035.

Table 3.6
Total Households & Percent Change 2000 to 2005 and 2005 to 2007

Geographic Area	2000	2005	% Household Change 2000 to 2005	2007	% Household Change 2005 to 2007
Montgomery MPO Study Area	111,800	121,765	12.28%	126,996	4.30%
Autauga County within the Study Area	12,610	14,159	15.36%	15,131	6.86%
Elmore County within the Study Area	15,447	17,819	7.22%	19,336	8.51%
Montgomery County within the Study Area	83,743	89,787	8.91%	92,529	3.05%

*Note: Households is shown for only the portion of each county within the MPO study area.
Source: U.S. Census, City of Prattville, Autauga County, City of Coosada, City of Millbrook, City of Wetumpka, Elmore County, City of Montgomery, Town of Pike Road, and Montgomery County.

Table 3.7
Total and Percent Change in Households from 2005 to 2035

Geographic Area	2005	2035	% Household Change 2000 to 2005
Montgomery MPO Study Area	121,765	182,711	50.05%
Autauga County within the Study Area	14,159	26,764	89.02%
Elmore County within the Study Area	17,819	33,713	89.20%
Montgomery County within the Study Area	89,787	122,234	36.14%

Source: U.S. Census, City of Prattville, Autauga County, City of Coosada, City of Millbrook, City of Wetumpka, Elmore County, City of Montgomery, Town of Pike Road, and Montgomery County.

According to the 2000 U.S. Census, Autauga County has an average of household size of 2.71, Elmore County has an average household size of 2.66, and Montgomery County has an average household size of 2.46. The average household size by county was used to calculate the base year 2005 population in each county within the study area base upon all household data gathered. The distribution of population across the Montgomery MPO study area varies by county. Table 3.7 shows the population and household density for each county, the MPO study area, and the state according to the 2000 U.S Census. Table 3.8 shows the 2005 population and household density for each county and the MPO study area using the collected household data, and it shows the 2005 state population and household density according to the U.S. Census. Table 3.9 shows the 2035 population and household density for each county and the MPO study area using the collected household data. Figure 3.1 shows existing (2005) and Figure 3.2 shows projected future (2035) household density by square mile by traffic analysis zone (TAZ).

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2005 Household Density

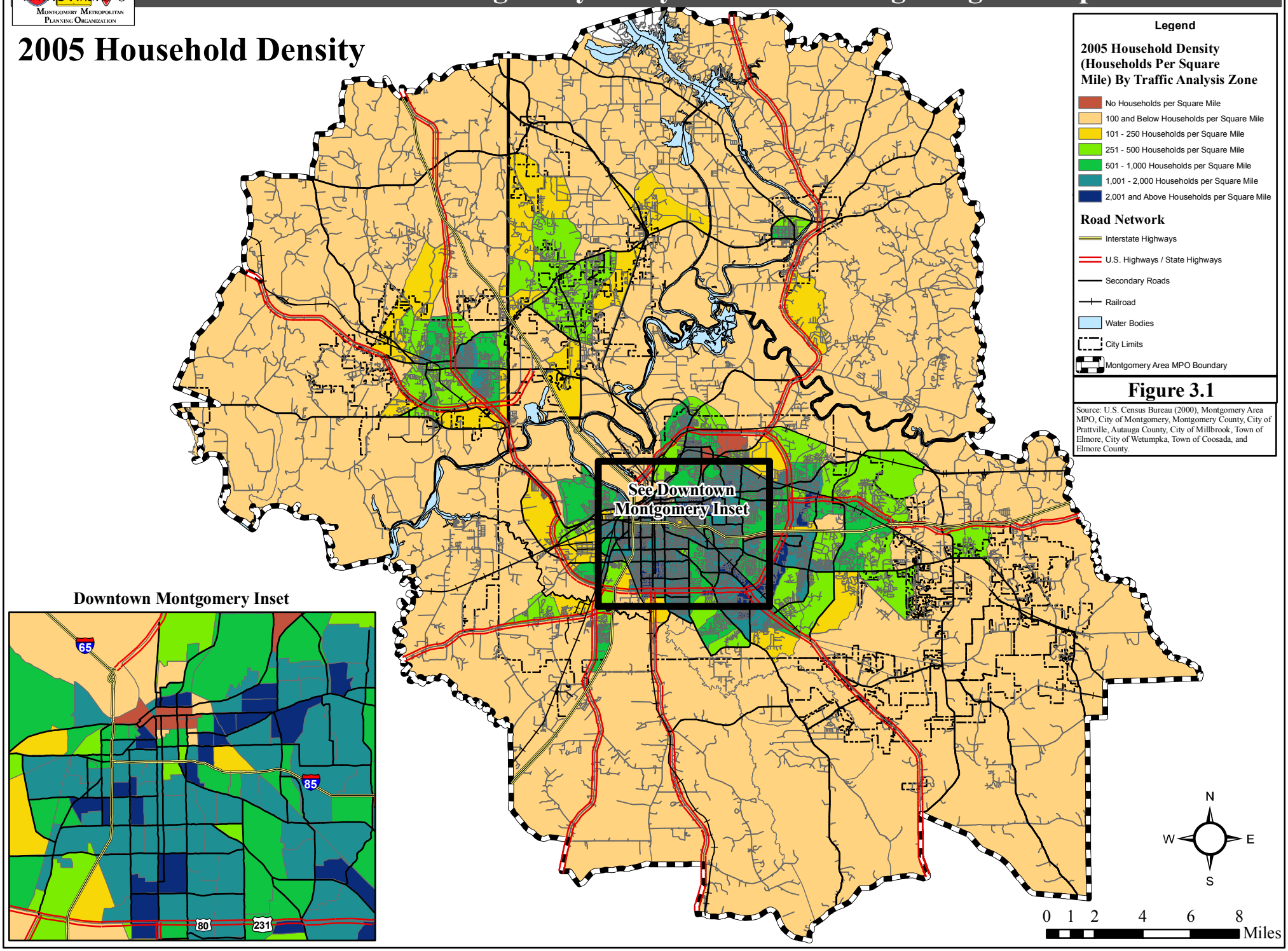


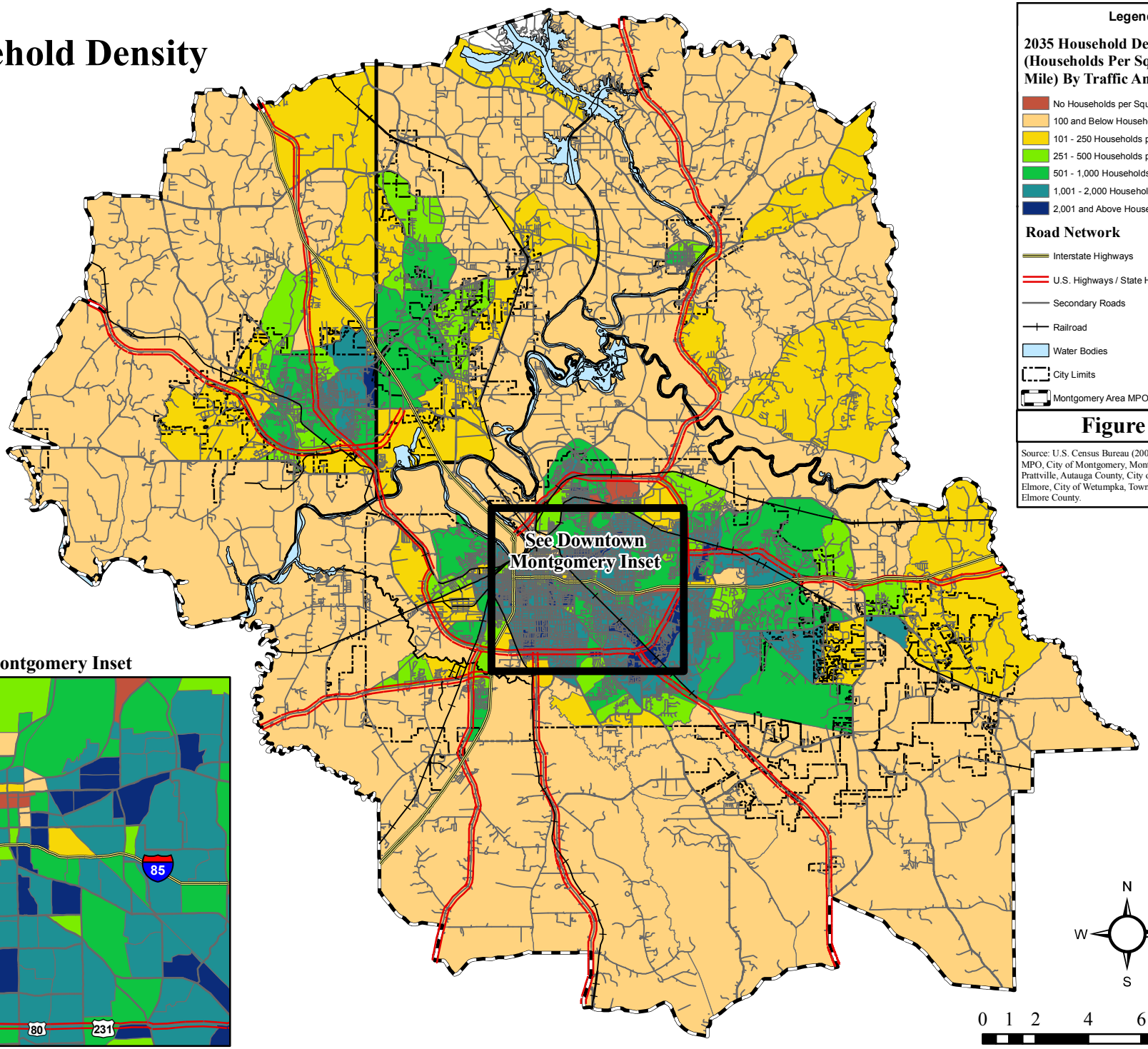
Figure 3.1

Source: U.S. Census Bureau (2000), Montgomery Area MPO, City of Montgomery, Montgomery County, City of Prattville, Autauga County, City of Millbrook, Town of Elmore, City of Wetumpka, Town of Coosada, and Elmore County.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2035 Household Density



Legend

2035 Household Density (Households Per Square Mile) By Traffic Analysis Zone

- No Households per Square Mile
- 100 and Below Households per Square Mile
- 101 - 250 Households per Square Mile
- 251 - 500 Households per Square Mile
- 501 - 1,000 Households per Square Mile
- 1,001 - 2,000 Households per Square Mile
- 2,001 and Above Households per Square Mile

Road Network

- Interstate Highways
- U.S. Highways / State Highways
- Secondary Roads
- Railroad
- Water Bodies
- City Limits
- Montgomery Area MPO Boundary

Figure 3.2

Source: U.S. Census Bureau (2000), Montgomery Area MPO, City of Montgomery, Montgomery County, City of Prattville, Autauga County, City of Millbrook, Town of Elmore, City of Wetumpka, Town of Coosada, and Elmore County.

Downtown Montgomery Inset

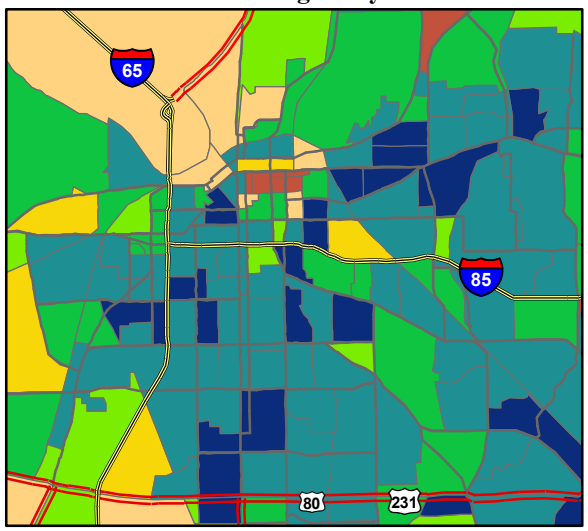


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Table 3.8
2000 Population and Household Density

Geographic Area	2000 Population	2000 Households	Land Area (Square miles)	Persons per Square Mile	Households per Square Mile
Alabama	4,447,100	1,737,080	50,744	88	34
Montgomery MPO Study Area	281,270	111,800	1,005	280	111
Autauga County within the Study Area	34,173	12,610	201	170	63
Elmore County within the Study Area	41,089	15,447	278	148	56
Montgomery County within the Study Area	206,008	83,743	526	392	159

Source: U.S. Census, Montgomery MPO

Table 3.9
2005 Population and Household Density

Geographic Area	2005 Population	2005 Households	Land Area (Square miles)	Persons per Square Mile	Households per Square Mile
Montgomery MPO Study Area	306,645	121,765	1,005	305	121
Autauga County within the Study Area	38,371	14,159	201	191	70
Elmore County within the Study Area	47,399	17,819	278	170	64
Montgomery County within the Study Area	220,876	89,787	526	420	171

Source: U.S. Census, City of Prattville, Autauga County, City of Coosada, City of Millbrook, City of Wetumpka, Elmore County, City of Montgomery, Town of Pike Road, and Montgomery County.

Table 3.10
2035 Population and Household Density

Geographic Area	2035 Population*	2035 Households	Land Area (Square miles)	Persons per Square Mile	Households per Square Mile
Montgomery MPO Study Area	462,902	182,711	1,005	461	182
Autauga County within the Study Area	72,530	26,764	201	361	133
Elmore County within the Study Area	89,677	33,713	278	323	121
Montgomery County within the Study Area	300,695	122,234	526	572	232

*Population derived by using the 2000 US Census average household size per county.
Source: U.S. Census, City of Prattville, Autauga County, City of Coosada, City of Millbrook, City of Wetumpka, Elmore County, City of Montgomery, Town of Pike Road, and Montgomery County.

The distribution patterns show the greatest household densities are found in multiple locations. In Autauga County, the greatest densities are found within the City of Prattville along Cobbs Ford Road/Main Street. In Elmore County, the greatest densities are found in the City of Millbrook along Highway 14 and in the City of Wetumpka Downtown area. In Montgomery County, the greatest densities are found along Vaughn Road east of the Eastern Blvd; along the Eastern Boulevard/E. South Boulevard between Woodley Road and Wares Ferry Road; in the historic neighborhoods of Capital Heights, Old Cloverdale and the Garden District; along South Court Street; along I-65 between I-85 and W. Fairview Avenue; and along Ray Thorington Road.

Between 2005 and 2035, it is anticipated that the household growth in Montgomery County will be concentrated in East Montgomery County along I-85, Vaughn Road, Taylor Road, Ray Thorington Road, and Pike Road. In Autauga County the growth will be concentrated along Highway 14 and Cobbs Ford Road/Main Street. In Elmore County the growth is anticipated to be concentrated along Highway 14, US 231, and Redland Road.

3.1.2 School and Daycare Enrollment Trends

School enrollment is a component of the transportation planning model. Areas with a high amount of residential development tend to have a correlating higher amount of schools and daycare facilities. Montgomery County has plans to build new schools in high growth areas in the eastern portion of the City of Montgomery; while closing schools with low enrollment in other parts of the City of Montgomery. Elmore County has plans to expand and build new schools to accommodate new residential development. The increase in school enrollment in Autauga County is dispersed throughout the City of Prattville, typically at current school/daycare sites. Figure 3.3 shows existing (2005) school/day care enrollment and Figure 3.4 shows projected (2035) school/day care enrollment.

Table 3.11
Total and Percent Change in School & Daycare Enrollment from 2000 to 2035

Geographic Area	Total School & Daycare Enrollment		Change	
	2005	2035	Total	Percent
Montgomery MPO Study Area	113,023	136,319	23,196	20.51%
Autauga County within the Study Area	9,258	12,804	3,546	38.30%
Elmore County within the Study Area	11,915	17,953	6,038	50.68%
Montgomery County within the Study Area*	91,850	105,719	13,869	15.10%

* Includes upper level education enrollment.
Source: U.S. Census, InfoUSA, City of Prattville, Autauga County, City of Coosada, City of Millbrook, City of Wetumpka, Elmore County, City of Montgomery, Town of Pike Road, and Montgomery County.

3.1.3 Employment Trends

Consideration of employment growth components is important in transportation planning because different types of employment categories typically generate different types and levels of trips. Areas with concentrations of retail businesses generate more traffic than areas with finance, insurance, and real estate businesses. Similarly, growth in the transportation and wholesale trade categories indicate the increased importance of freight movement in a community. Employment growth generates work trips and creates commuting patterns which can result in congestion on the transportation system.

The Department of Industrial Relations and the Bureau of Labor Statistics releases employment data annually for each county. Data from 2005 and 2006 was analyzed to determine trends in overall employment at the county level. Table 3.12 details the labor force, employment, unemployment, and unemployment rate in 2005 and 2006 for each county and the two largest cities within the study area.

Data from the InfoUSA database was utilized to establish the base year retail and non-retail employment by TAZ. MPO staff confirmed when possible all employers that according to InfoUSA had 10 or more employees. After these employers were confirmed the database for each county was reviewed for the known large employers within the study area to ensure no major employers were excluded from the database. Once employers and number of employees were confirmed the total retail and non-retail employees were aggregated to each TAZ. The first step to determining the 2035 employment forecast was to analyze known data from 2005 to 2008 regarding business openings and closures and information on business downsizing and expansions, and business. The data was aggregated to the TAZs and was

termed as the build-out total for each TAZ. The Center for Business and Economic Research at the University of Alabama completed a socioeconomic forecast establishing a 2005 and 2035 county wide total for retail and non-retail employment. After analyzing the report, the growth rate for retail and non-retail employment for each county was determined. This growth rate was applied to the 2005 total retail and non-retail employment for each county to determine the 2035 control retail and non-retail employees total for each county. The build-out total for each county was subtracted from the 2035 county control total, and the result was termed the county retail and non-retail growth total. Representatives from each county were asked to disperse the county retail and non-retail growth total to TAZs within their county. The result was the 2035 totals per TAZ for retail and non-retail employment.

Table 3.12
2005 and 2006 Labor Force, Employment, Unemployment, and Unemployment Rate

County/ Municipality	2005				2006			
	Labor Force	Employment	Unemployment	Unemployment Rate	Labor Force	Employment	Unemployment	Unemployment Rate
Autauga County	23,454	22,680	774	3.3%	24,538	23,808	730	3.0%
Elmore County	33,619	32,528	1,091	3.2%	35,339	34,266	1,073	3.0%
Montgomery County	105,984	101,589	4,395	4.1%	107,668	103,691	3,977	3.7%
City of Montgomery	96,000	92,092	3,908	4.1%	97,553	93,995	3,558	3.6%
City of Prattville	13,831	13,448	383	2.8%	15,423	15,045	378	2.5%

Source: The Department of Industrial Relations and the Bureau of Labor Statistics.

Existing and forecast employment from 2005 through 2035 is shown in Table 3.13 and 3.14. From 2005 to 2035, retail employment is expected to increase 38.19 percent, from 33,369 in 2005 to 46,111 in 2035. Elmore County is expected to experience the greatest rate of retail employment growth, 147.98 percent. Autauga County is expected to experience the least rate of retail employment growth, 38.01 percent. Montgomery County, in particular the City of Montgomery, will continue to have the largest share of retail employment in the area with 80.9 percent of the region's 2035 total.

From 2005 to 2035, non-retail employment is expected to increase 52.94 percent, from 157,019 in 2005 to 240,144 in 2035. Elmore County is expected to experience the greatest rate of non-retail employment growth, 97.02 percent; followed by Autauga County with a non-retail employment growth rate of 64.50 percent. Montgomery County is expected to experience the least rate of non-retail employment growth, 34.28 percent. Montgomery County has the greatest actual non-retail employment increase with a gain of 46,027 non-retail employees

Table 3.13
Total and Percent Change in Retail Employment from 2005 to 2035

Geographic Area	Total Retail Employment		Change	
	2005	2035	Total	Percent
Montgomery MPO Study Area	33,369	46,111	12,742	38.19%
Autauga County within the Study Area	3,068	4,234	1,166	38.01%
Elmore County within the Study Area	3,437	8,523	5,086	147.98%
Montgomery County within the Study Area	26,864	37,306	10,442	38.87%

Source: U.S. Census, InfoUSA, City of Prattville, Autauga County, City of Coosada, City of Millbrook, City of Wetumpka, Elmore County, City of Montgomery, Town of Pike Road, and Montgomery County.

Table 3.14
Total and Percent Change in Non-Retail Employment from 2005 to 2035

Geographic Area	Total Non-Retail Employment		Change	
	2005	2035	Total	Percent
Montgomery MPO Study Area	157,019	240,144	83,125	52.94%
Autauga County within the Study Area	9,882	16,256	6,374	64.50%
Elmore County within the Study Area	12,878	25,372	12,494	97.02%
Montgomery County within the Study Area	134,260	180,287	46,027	34.28%

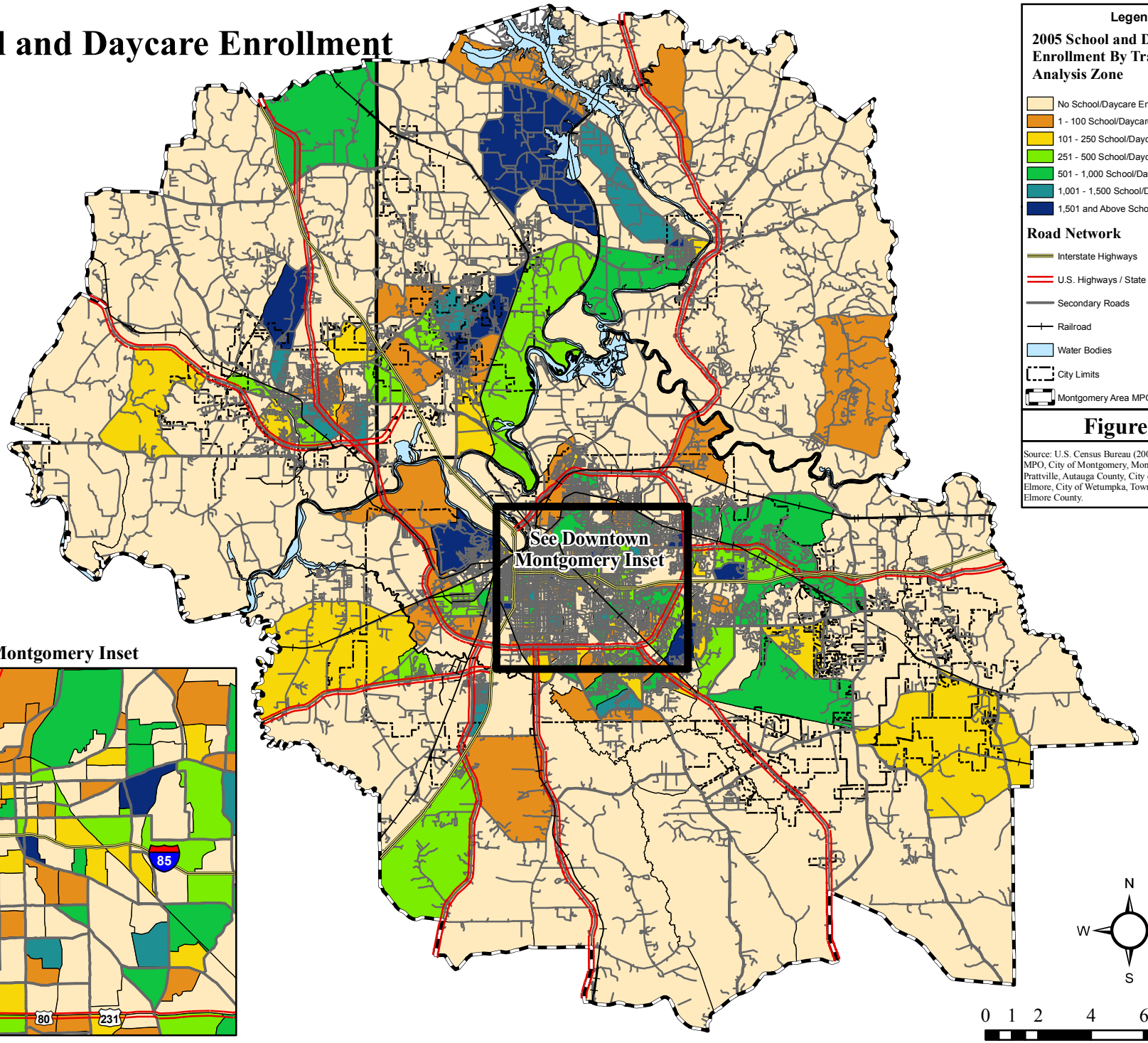
Source: U.S. Census, InfoUSA, City of Prattville, Autauga County, City of Coosada, City of Millbrook, City of Wetumpka, Elmore County, City of Montgomery, Town of Pike Road, and Montgomery County.

Figure 3.5 shows existing (2005) total employment and Figure 3.6 shows projected future (2035) total employment density by square mile by TAZ. Figure 3.7 shows existing (2005) retail employment and Figure 3.8 shows projected future (2035) retail employment density by square mile by TAZ. Figure 3.9 shows existing (2005) non-retail employment and Figure 3.10 shows projected future (2035) non-retail employment density by square mile by TAZ. The distribution patterns show the greatest retail employment density in established and developing shopping areas. The distribution patterns show the greatest non-retail employment density occurs in the downtown area of the City of Montgomery, as well as along the Eastern Boulevard, the E. South Boulevard, the I-85 corridor, Cobbs Ford Road/Main Street in the City of Prattville, and within the area between Highway 14 and US 231 in the City of Wetumpka. Figure 3.11 details the employers that have 25 or more employees in 2005. The highest concentration of large employers is in Downtown Montgomery, along major corridors, and industrial or manufacturing areas.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2005 School and Daycare Enrollment



Legend

2005 School and Daycare Enrollment By Traffic Analysis Zone

- No School/Daycare Enrollment
- 1 - 100 School/Daycare Enrollment
- 101 - 250 School/Daycare Enrollment
- 251 - 500 School/Daycare Enrollment
- 501 - 1,000 School/Daycare Enrollment
- 1,001 - 1,500 School/Daycare Enrollment
- 1,501 and Above School/Daycare Enrollment

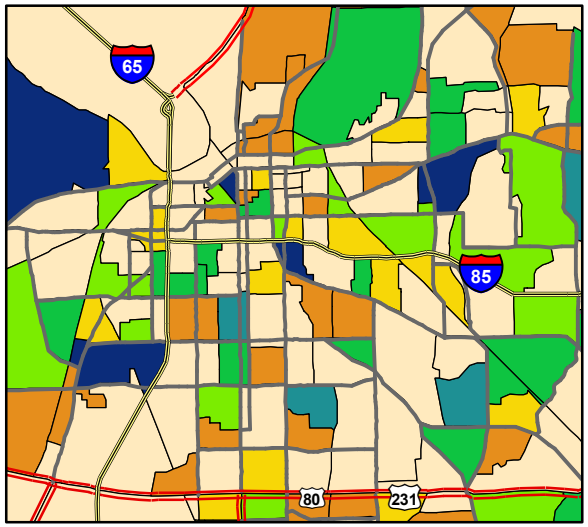
Road Network

- Interstate Highways
- U.S. Highways / State Highways
- Secondary Roads
- Railroad
- Water Bodies
- City Limits
- Montgomery Area MPO Boundary

Figure 3.3

Source: U.S. Census Bureau (2000), Montgomery Area MPO, City of Montgomery, Montgomery County, City of Prattville, Autauga County, City of Millbrook, Town of Elmore, City of Wetumpka, Town of Coosada, and Elmore County.

Downtown Montgomery Inset



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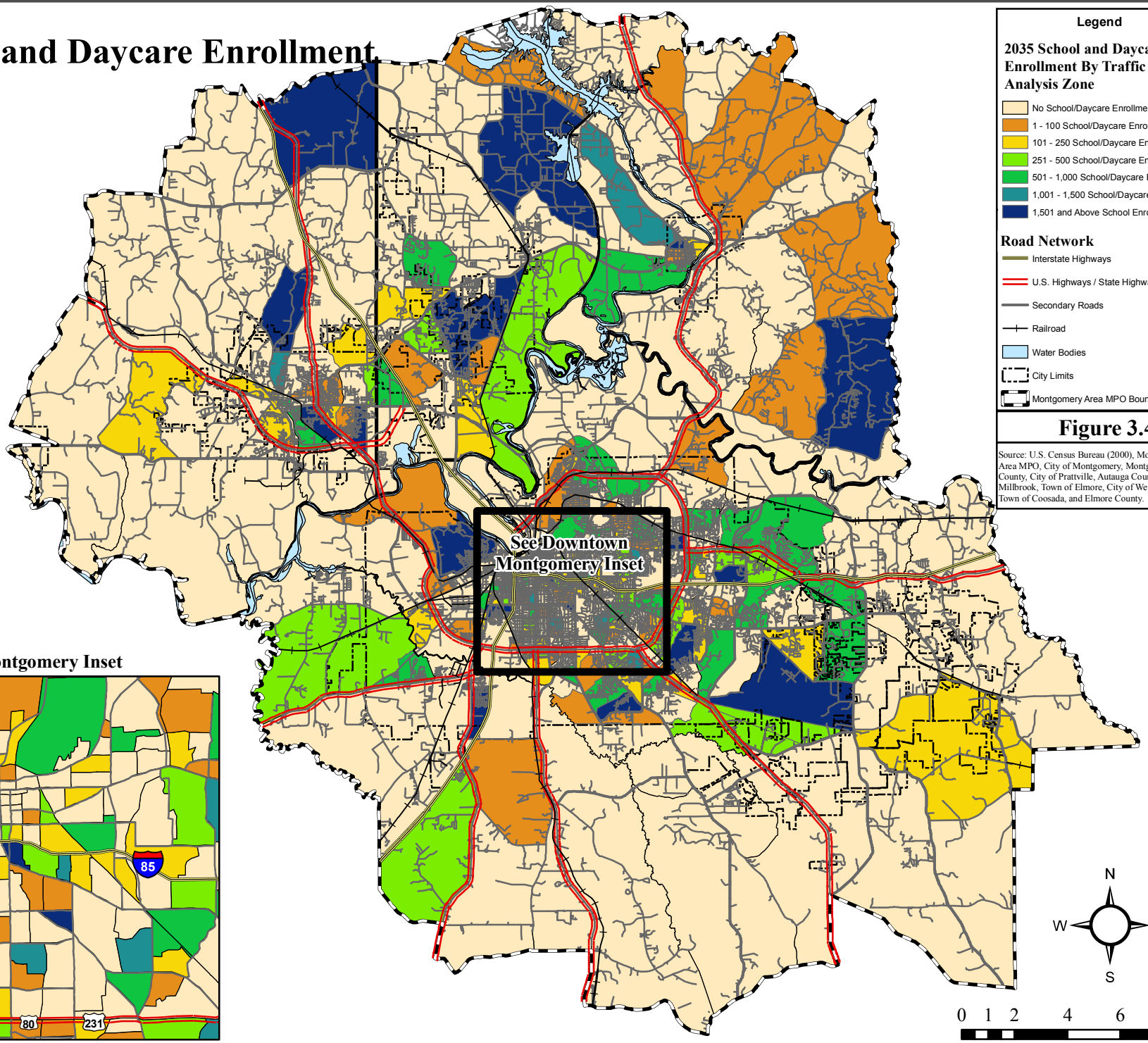
Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2035 School and Daycare Enrollment



Legend

2035 School and Daycare Enrollment By Traffic Analysis Zone

- No School/Daycare Enrollment
- 1 - 100 School/Daycare Enrollment
- 101 - 250 School/Daycare Enrollment
- 251 - 500 School/Daycare Enrollment
- 501 - 1,000 School/Daycare Enrollment
- 1,001 - 1,500 School/Daycare Enrollment
- 1,501 and Above School Enrollment

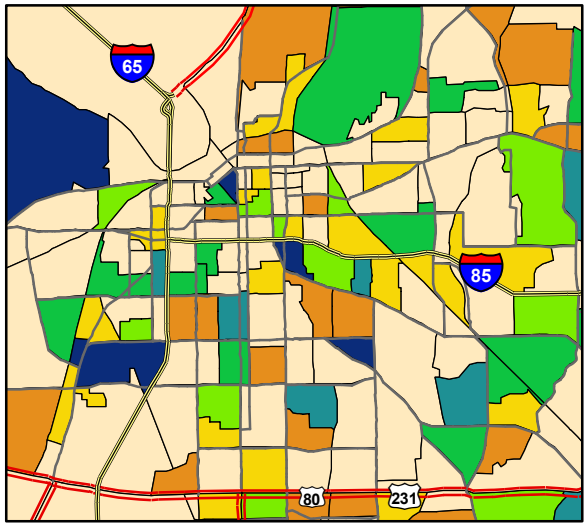
Road Network

- Interstate Highways
- U.S. Highways / State Highways
- Secondary Roads
- Railroad
- Water Bodies
- City Limits
- Montgomery Area MPO Boundary

Figure 3.4

Source: U.S. Census Bureau (2000), Montgomery Area MPO, City of Montgomery, Montgomery County, City of Prattville, Autauga County, City of Millbrook, Town of Elmore, City of Wetumpka, Town of Coosada, and Elmore County.

Downtown Montgomery Inset



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Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2005 Employment Density

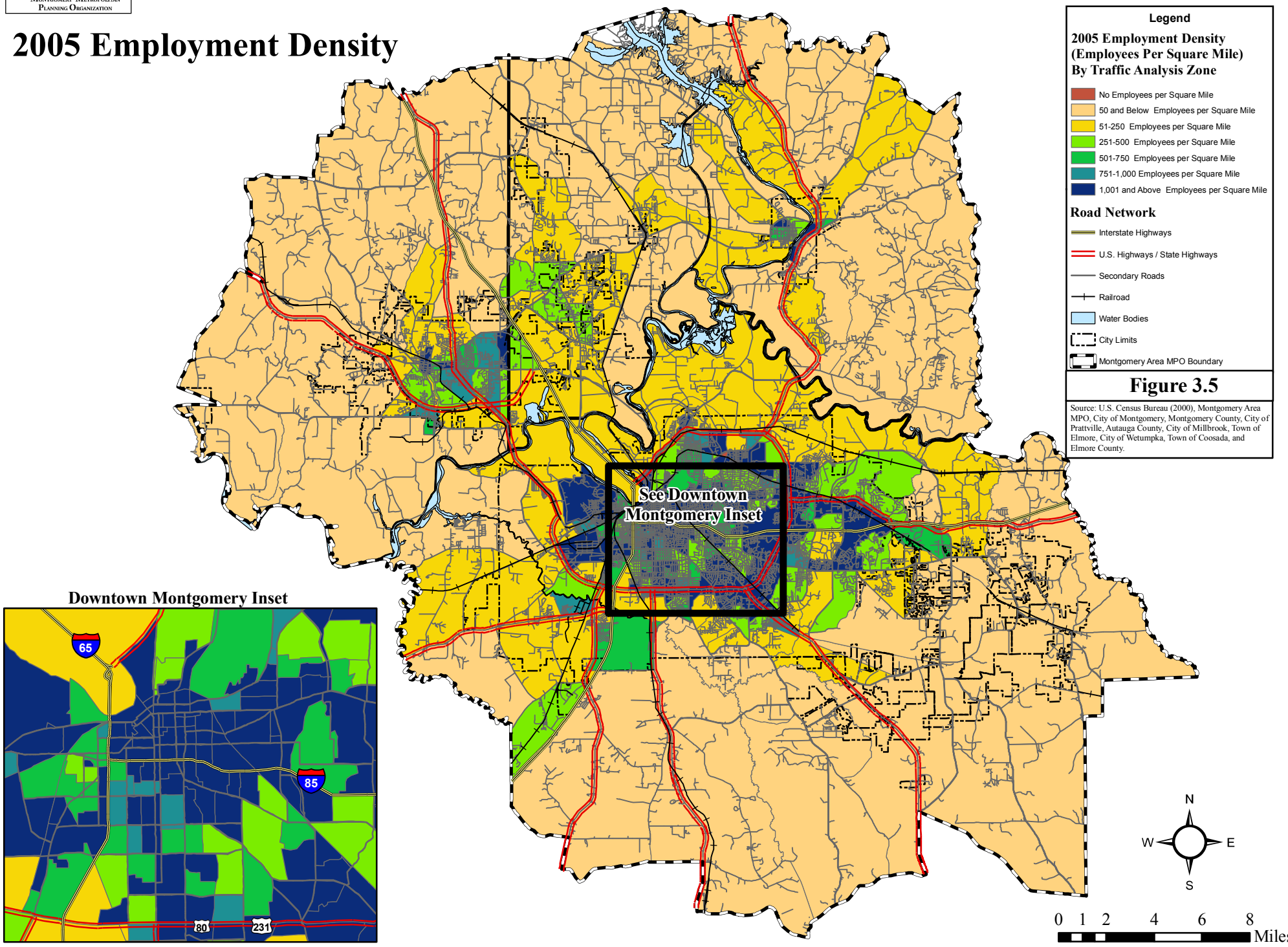


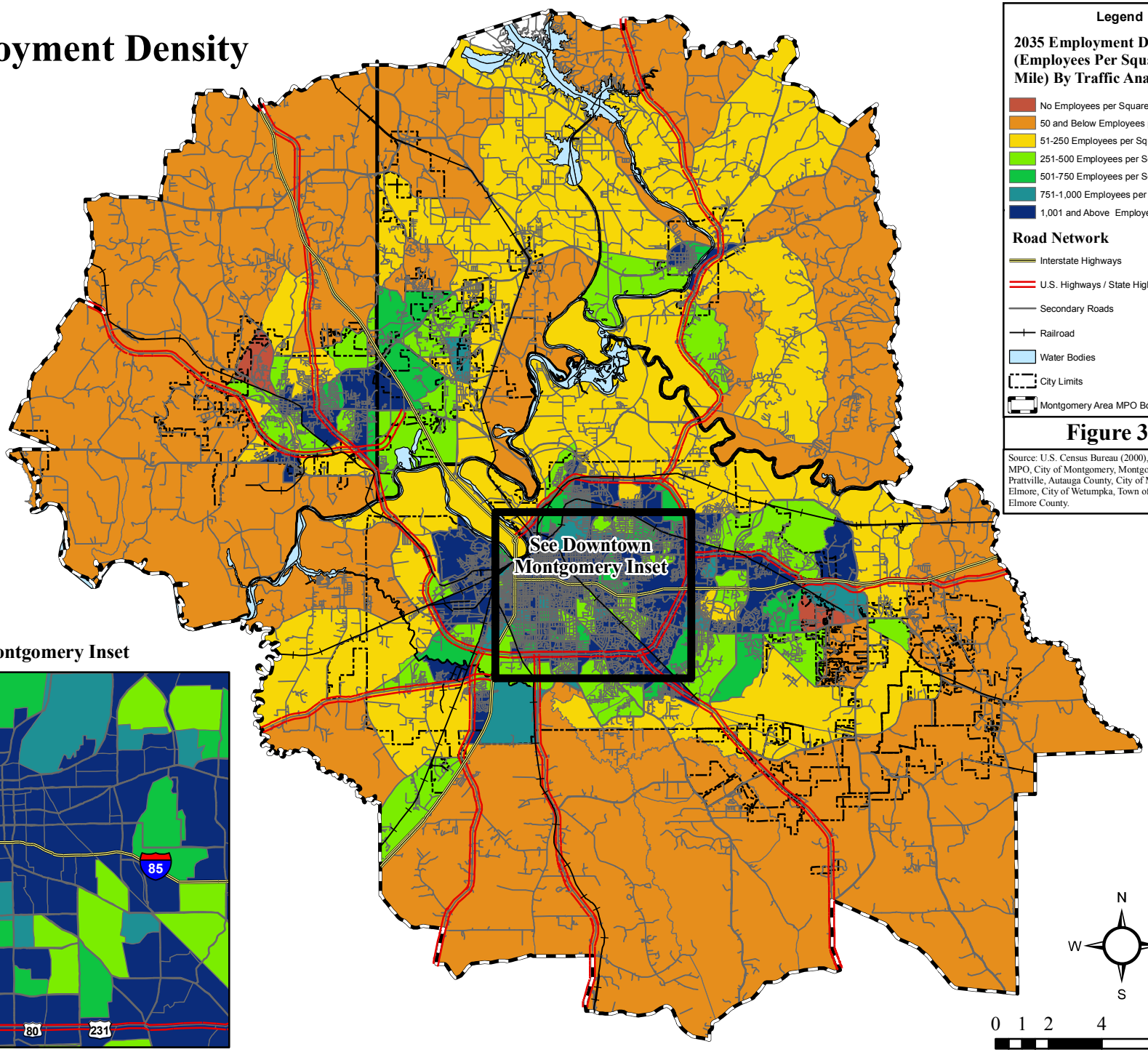
Figure 3.5

Source: U.S. Census Bureau (2000), Montgomery Area MPO, City of Montgomery, Montgomery County, City of Prattville, Autauga County, City of Millbrook, Town of Elmore, City of Wetumpka, Town of Coosada, and Elmore County.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2035 Employment Density



Legend

2035 Employment Density (Employees Per Square Mile) By Traffic Analysis Zone

- No Employees per Square Mile
- 50 and Below Employees per Square Mile
- 51-250 Employees per Square Mile
- 251-500 Employees per Square Mile
- 501-750 Employees per Square Mile
- 751-1,000 Employees per Square Mile
- 1,001 and Above Employees per Square Mile

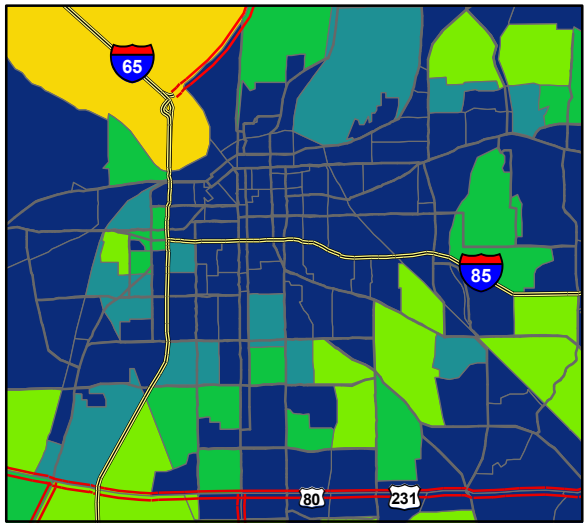
Road Network

- Interstate Highways
- U.S. Highways / State Highways
- Secondary Roads
- Railroad
- Water Bodies
- City Limits
- Montgomery Area MPO Boundary

Figure 3.6

Source: U.S. Census Bureau (2000), Montgomery Area MPO, City of Montgomery, Montgomery County, City of Prattville, Autauga County, City of Millbrook, Town of Elmore, City of Wetumpka, Town of Coosada, and Elmore County.

Downtown Montgomery Inset



Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2005 Retail Employment Density

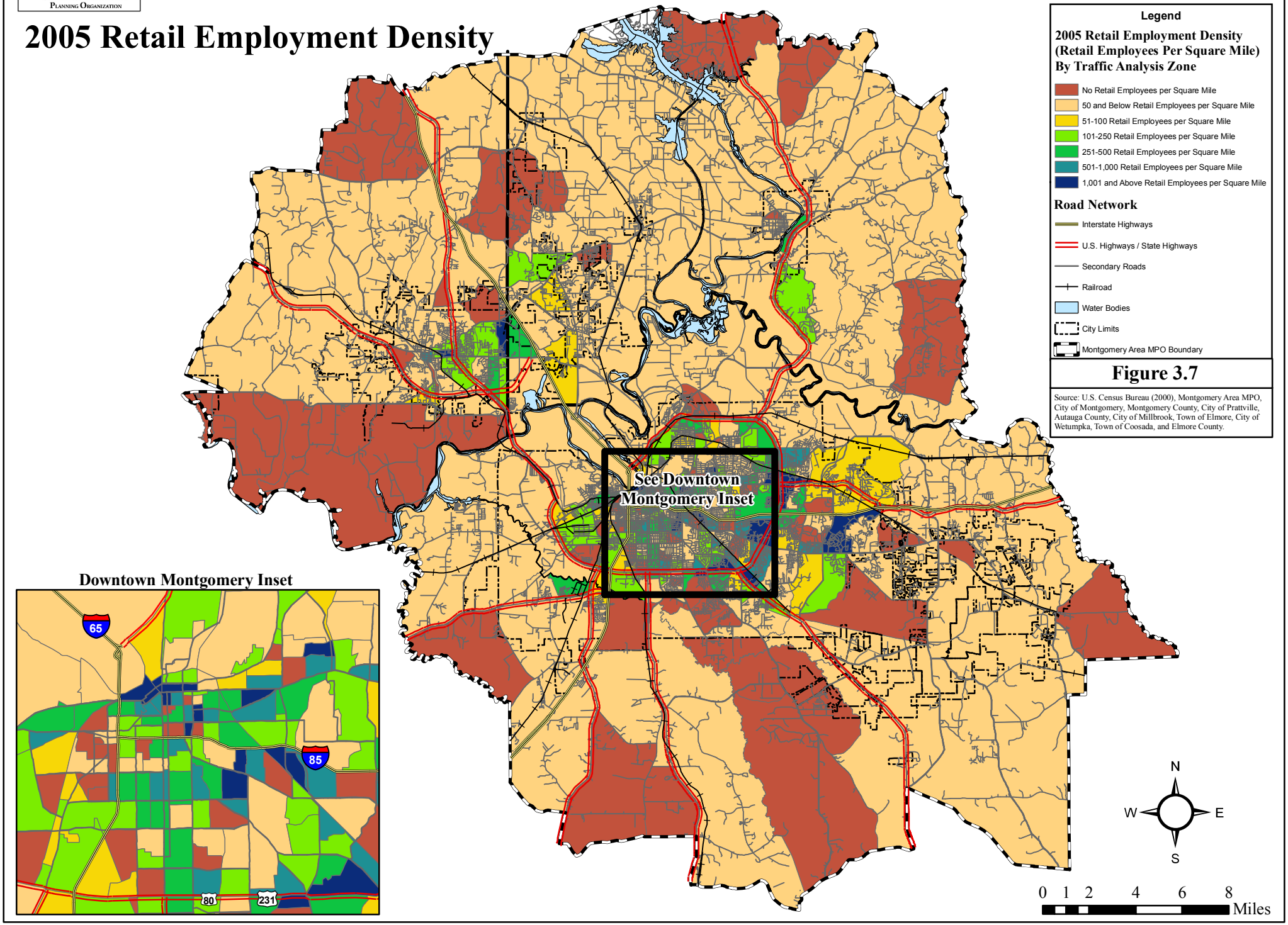
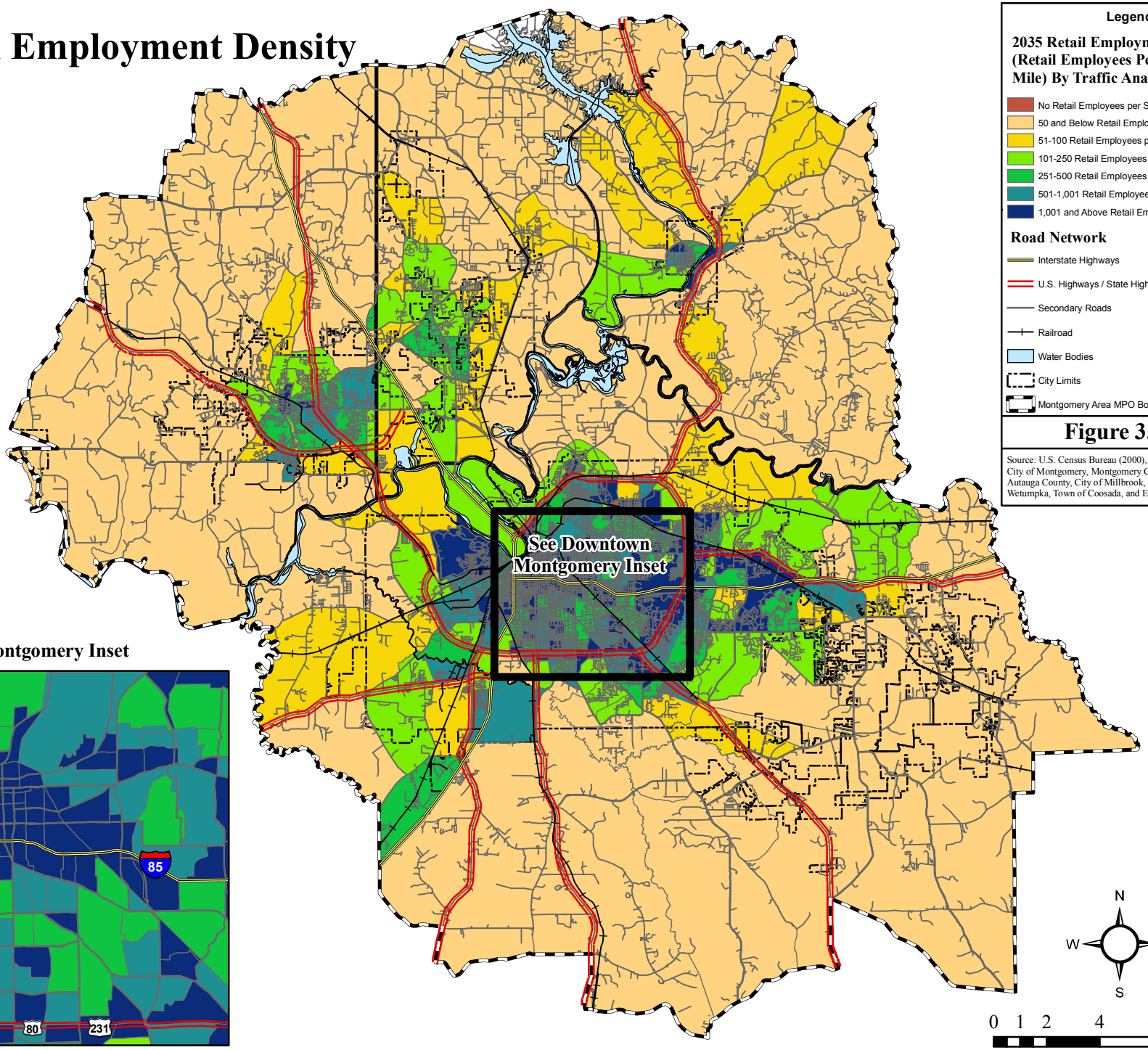


Figure 3.7

Source: U.S. Census Bureau (2000), Montgomery Area MPO, City of Montgomery, Montgomery County, City of Prattville, Autauga County, City of Millbrook, Town of Elmore, City of Wetumpka, Town of Coosada, and Elmore County.

2035 Retail Employment Density



Legend

2035 Retail Employment Density (Retail Employees Per Square Mile) By Traffic Analysis Zone

- No Retail Employees per Square Mile
- 50 and Below Retail Employees per Square Mile
- 51-100 Retail Employees per Square Mile
- 101-250 Retail Employees per Square Mile
- 251-500 Retail Employees per Square Mile
- 501-1,001 Retail Employees per Square Mile
- 1,001 and Above Retail Employees per Square Mile

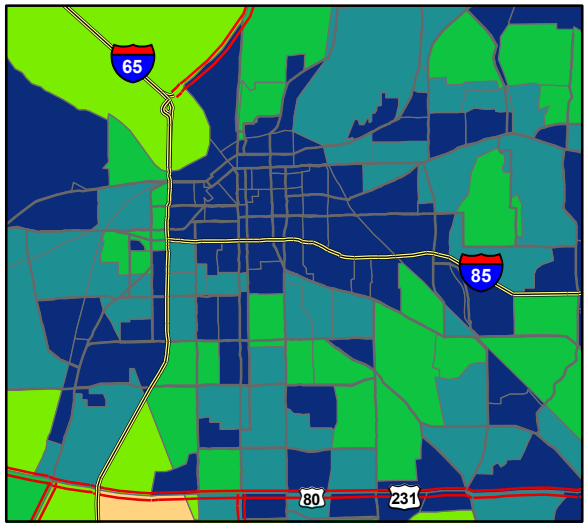
Road Network

- Interstate Highways
- U.S. Highways / State Highways
- Secondary Roads
- Railroad
- Water Bodies
- City Limits
- Montgomery Area MPO Boundary

Figure 3.8

Source: U.S. Census Bureau (2000), Montgomery Area MPO, City of Montgomery, Montgomery County, City of Prattville, Autauga County, City of Millbrook, Town of Elmore, City of Wetumpka, Town of Coosada, and Elmore County.

Downtown Montgomery Inset



Montgomery Metropolitan Planning Organization

2005 Non-Retail Employment Density

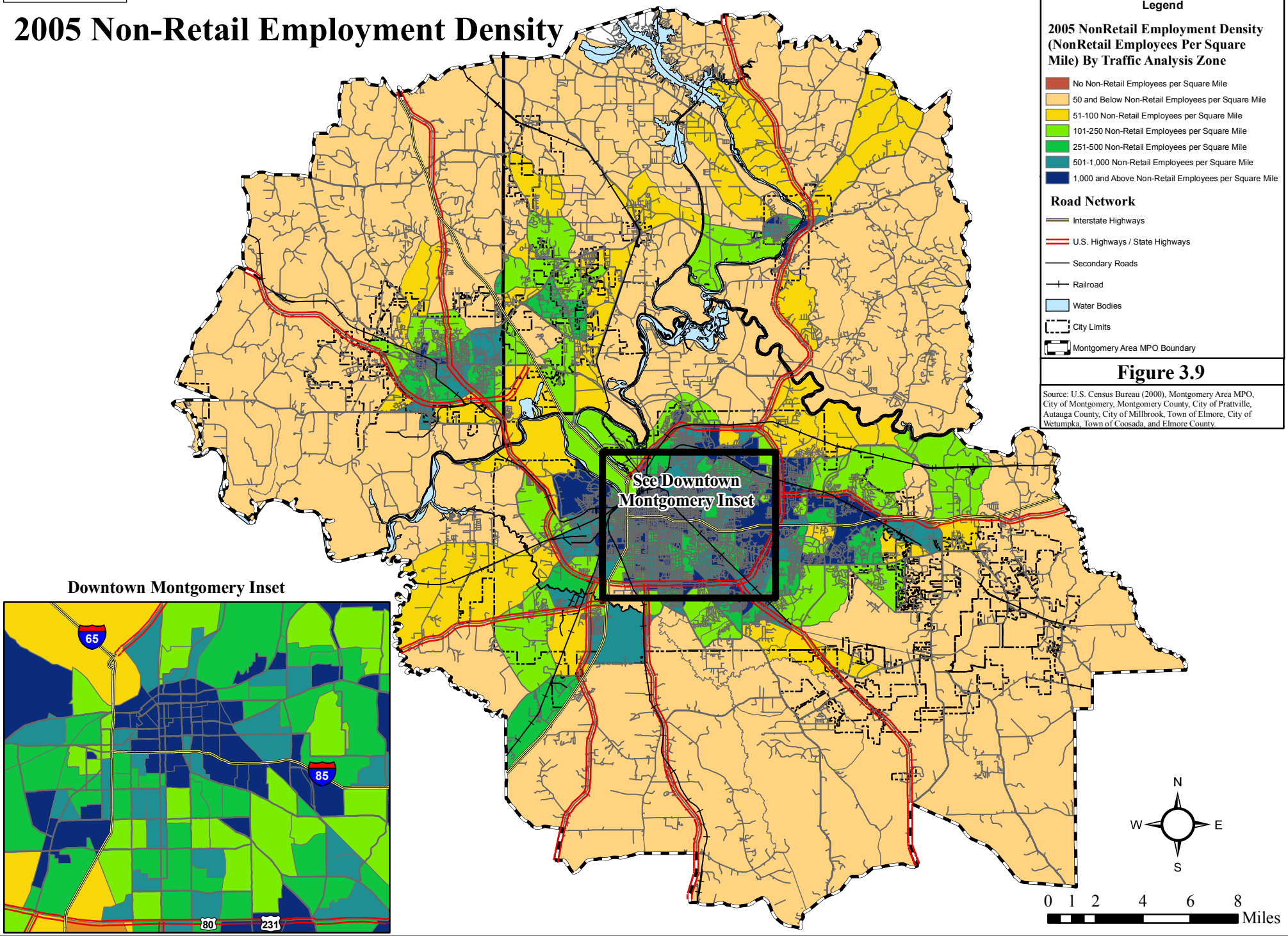
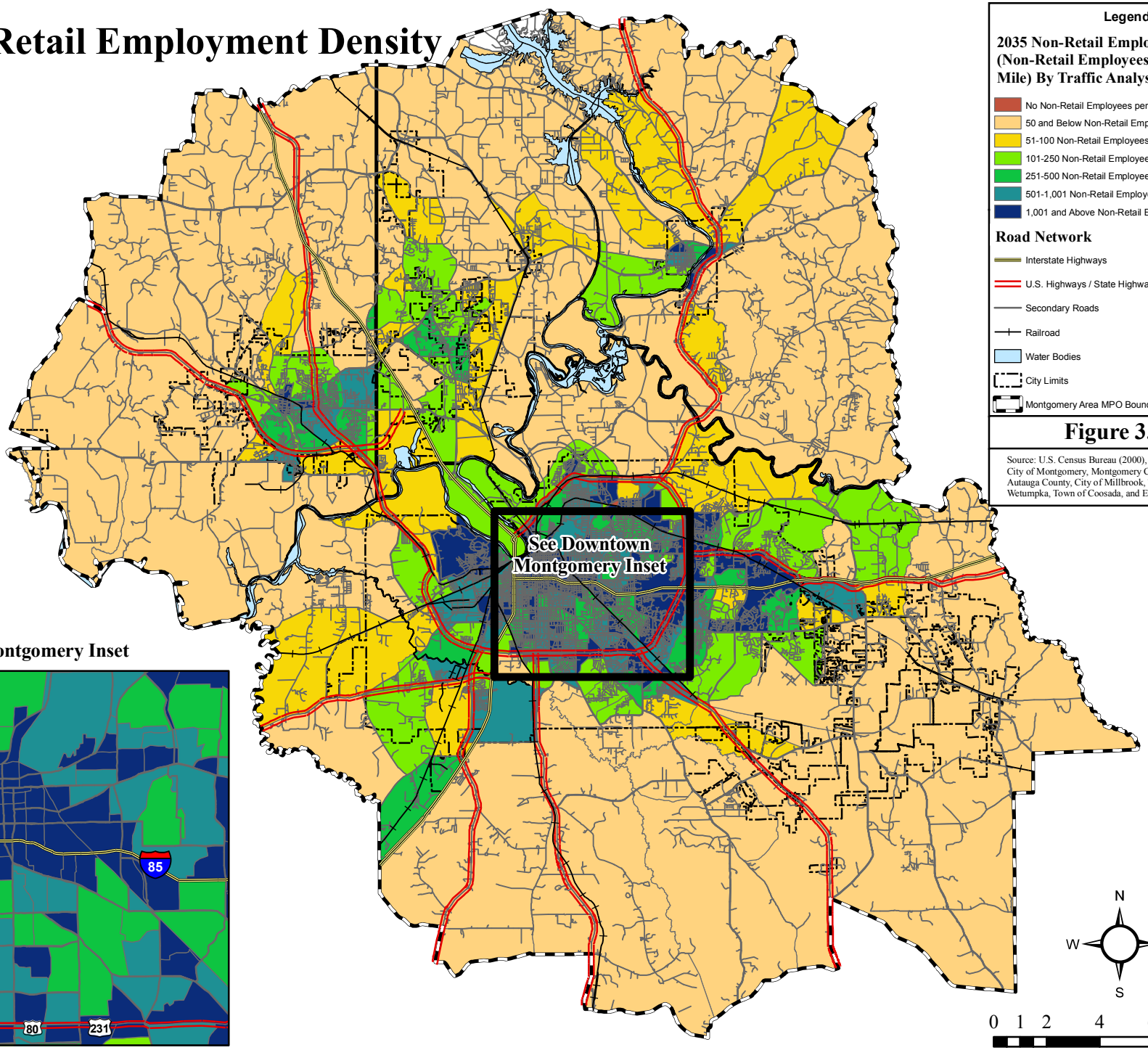


Figure 3.9

Source: U.S. Census Bureau (2000), Montgomery Area MPO, City of Montgomery, Montgomery County, City of Prattville, Autauga County, City of Millbrook, Town of Elmore, City of Wetumpka, Town of Coosada, and Elmore County.

Montgomery Metropolitan Planning Organization

2035 Non-Retail Employment Density



Legend

2035 Non-Retail Employment Density (Non-Retail Employees Per Square Mile) By Traffic Analysis Zone

- No Non-Retail Employees per Square Mile
- 50 and Below Non-Retail Employees per Square Mile
- 51-100 Non-Retail Employees per Square Mile
- 101-250 Non-Retail Employees per Square Mile
- 251-500 Non-Retail Employees per Square Mile
- 501-1,001 Non-Retail Employees per Square Mile
- 1,001 and Above Non-Retail Employees per Square Mile

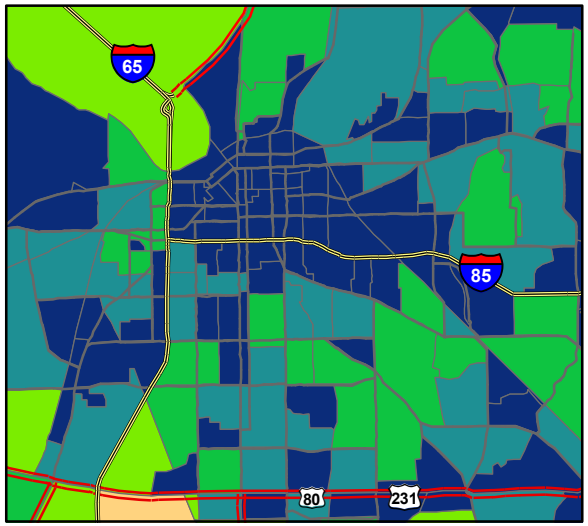
Road Network

- Interstate Highways
- U.S. Highways / State Highways
- Secondary Roads
- Railroad
- Water Bodies
- City Limits
- Montgomery Area MPO Boundary

Figure 3.10

Source: U.S. Census Bureau (2000), Montgomery Area MPO, City of Montgomery, Montgomery County, City of Prattville, Autauga County, City of Millbrook, Town of Elmore, City of Wetumpka, Town of Coosada, and Elmore County.

Downtown Montgomery Inset



Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2005 Employers with 50 or more Employees

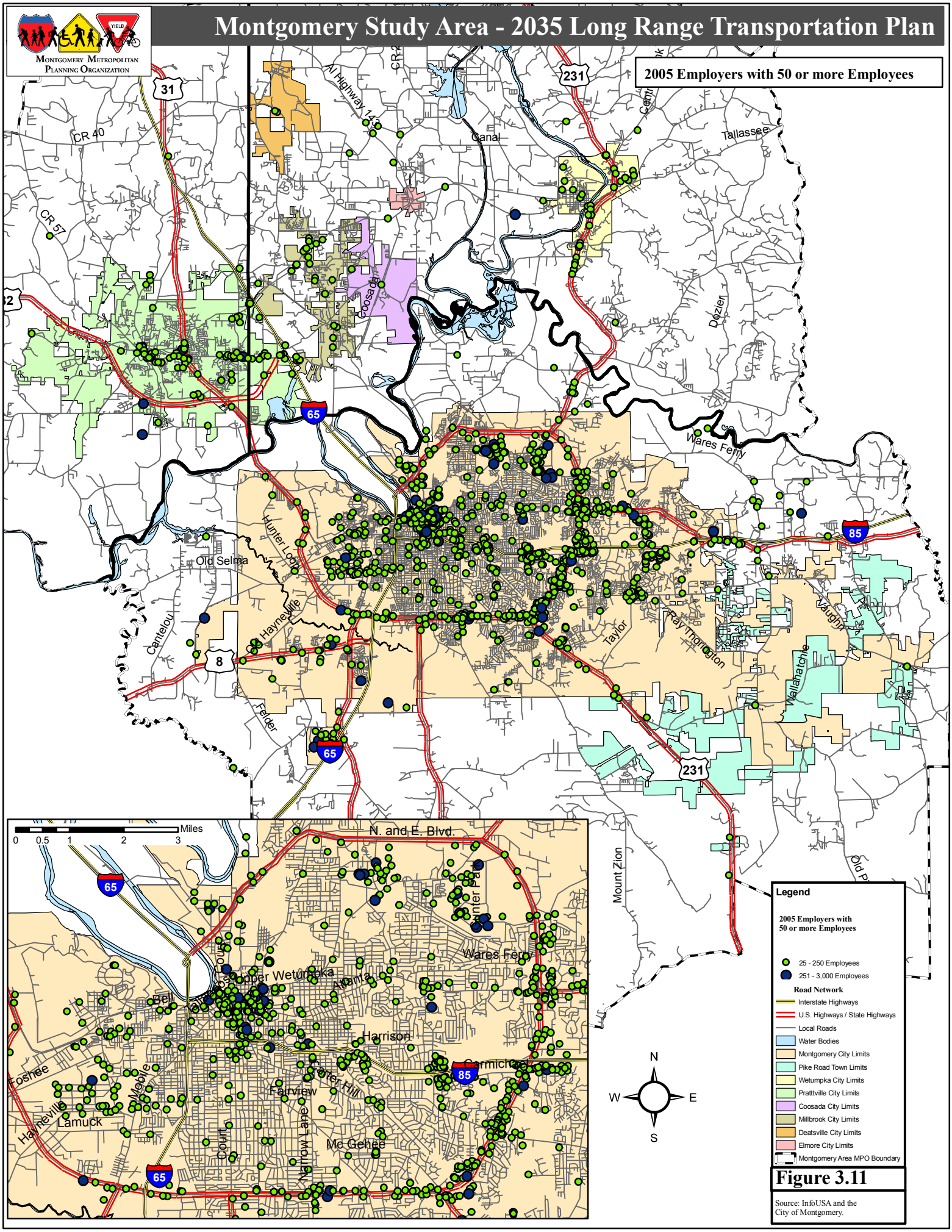


Figure 3.11

Source: InfoUSA and the City of Montgomery.

3.2 Land Use

Transportation planning is quickly evolving from an era of strict interpretation of when and where road capacity and improvements are necessary to a flexible field that requires understanding the implications and effects of transportation decisions and the ability to implement unique, multimodal solutions. Land use can be both adversely and positively affected by transportation decisions. Transportation projects can be utilized to encourage desired land uses for nearby parcels. For example, industrial land uses tend to be central around interstate access. The decision to not build transportation infrastructure in an area, tends to discourage heavy development; therefore, encouraging agricultural and large lot residential land use. Understanding the effect of transportation decisions on current and future land use is quickly becoming the heart of the movement known as "smart growth." In the future, models will be able to predict the most likely effect on land use for each transportation decision allowing all planners to cultivate and develop their community and culture. Figure 3.12 is the current land use for the MPO Study Area.

3.3 Future Growth Trends and Commute Characteristics

The long term trend within the Montgomery MPO Study Area continues to indicate a decentralization of the population and development into suburban Autauga County, suburban Elmore County, and eastern Montgomery County; however, in the last decade, a resurgence of housing options in downtown Montgomery has facilitated a revitalization of downtown life after dark. In addition, the downtown area of the City of Prattville continues to maintain residents and employment. US Census population data for year 2000-2008 indicate that Elmore County ranked No. 4 with a growth rate of 15.7 percent, Elmore County ranked No. 8 with a 13.4 percent growth rate, and Montgomery County ranked No. 31 with a growth rate of 0.6 percent.[1] In actual growth, Elmore County population increased by 12,323, Autauga County population increased by 6,693, and Montgomery County population increased by 1,600. This ranks Elmore County No. 7, Autauga County No. 10, and Montgomery County No. 19 in terms of actual population growth.

The U.S. Census 2005-2007 American Community Survey 3-Year Estimates were analyzed for more information on developmental trends. The first variable analyzed was the commuting characteristics for the population of each county. The information is detailed in Table 3.15, Table 3.16, and Table 3.17.

Table 3.15
Autauga County Commuting Characteristics

AUTAUGA COUNTY						
Subject	**Total**	**Margin of Error**	**Male**	**Margin of Error**	**Female**	**Margin of Error**
Workers 16 years and over	**22,788**	**+/-805**	**12,426**	**+/-485**	**10,362**	**+/-518**
PLACE OF WORK						
Worked in state of residence	99.6%	+/-0.3	99.5%	+/-0.5	99.8%	+/-0.3
Worked in county of residence	36.9%	+/-2.9	33.9%	+/-4.2	40.4%	+/-3.8
Worked outside county of residence	62.8%	+/-2.8	65.6%	+/-4.1	59.4%	+/-3.8
Worked outside state of residence	0.4%	+/-0.3	0.5%	+/-0.5	0.2%	+/-0.3

Source: U.S. Census Bureau, 2005-2007 American Community Survey

[1] US Census

Montgomery Metropolitan Planning Organization

Montgomery MPO Study Area
Land Use by County Parcel

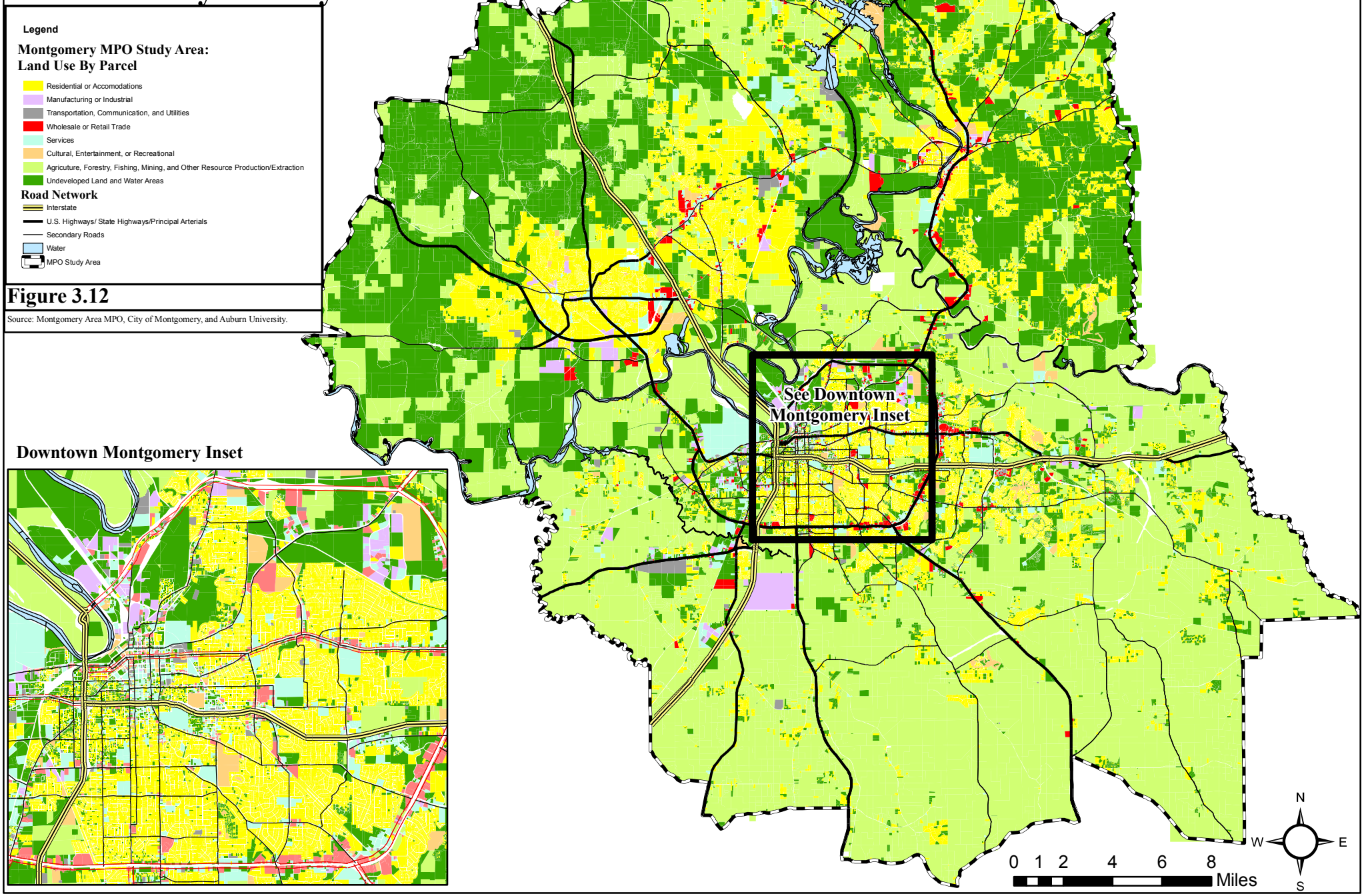


Figure 3.12

Source: Montgomery Area MPO, City of Montgomery, and Auburn University.

It should be noted that since the American Community Survey is an estimate, the value is calculated with a margin of error, such that there is a 90% probability that the actual value is between the value minus the margin of error and the value plus the margin of error. According to the U.S. Census 2005-2007 American Community Survey 3-Year Estimates, the percent of workers that live within Autauga County but work in another Alabama county is between 60% and 65.6%. In Elmore County between 60.2% and 66.6% of workers that live in Elmore County actually work in another Alabama county and in Montgomery County between 7% and 9% of workers that live in Montgomery County actually work in another Alabama county. The percent of the population in Montgomery County that live and work in Montgomery County and the percent of the population in Autauga and Elmore County that work outside the county can be explained by the large concentration of employment in the City of Montgomery. The commuting patterns demonstrate the decentralized pattern of residential growth that has occurred over the past couple of decades.

Table 3.16
Elmore County Commuting Characteristics

ELMORE COUNTY						
Subject	**Total**	**Margin of Error**	**Male**	**Margin of Error**	**Female**	**Margin of Error**
Workers 16 years and over	**29,904**	**+/-1,057**	**16,809**	**+/-642**	**13,095**	**+/-810**
PLACE OF WORK						
Worked in state of residence	98.8%	+/-0.6	98.2%	+/-0.9	99.5%	+/-0.4
Worked in county of residence	35.4%	+/-3.3	35.3%	+/-3.6	35.5%	+/-4.5
Worked outside county of residence	63.4%	+/-3.2	62.9%	+/-3.5	63.9%	+/-4.6
Worked outside state of residence	1.2%	+/-0.6	1.8%	+/-0.9	0.5%	+/-0.4

Source: U.S. Census Bureau, 2005-2007 American Community Survey

Table 3.17
Montgomery County Commuting Characteristics

ONTGOMERY COUNTY						
Subject	**Total**	**Margin of Error**	**Male**	**Margin of Error**	**Female**	**Margin of Error**
Workers 16 years and over	**97,761**	**+/-2,092**	**50,681**	**+/-1,324**	**47,080**	**+/-1,402**
PLACE OF WORK						
Worked in state of residence	99.1%	+/-0.2	98.7%	+/-0.4	99.5%	+/-0.3
Worked in county of residence	91.1%	+/-1.0	89.7%	+/-1.5	92.6%	+/-1.4
Worked outside county of residence	8.0%	+/-1.0	8.9%	+/-1.4	6.9%	+/-1.4
Worked outside state of residence	0.9%	+/-0.2	1.3%	+/-0.4	0.5%	+/-0.3

Source: U.S. Census Bureau, 2005-2007 American Community Survey

The second variable from the U.S. Census 2005-2007 American Community Survey 3-Year Estimates analyzed was the geographic mobility in the past year for the population within each county. The mobility data details the influx of population from within the state, other states, and abroad, as well as, the mobility within each county. The information by county is detailed in Table 3.18. Elmore County has the greatest influx of residences from other counties in the state of between 6,760 and 9,118, while Montgomery County has the highest influx from other states of between 6,711 and 9,149 and from abroad of between 957 and 2,511.

Retail development is also surging within the outlying counties, such as the City of Prattville which has been called the central shopping hub for metropolitan Montgomery north of the Alabama River. Recent projects such as the 85-acre Legends Park mixed-use district indicate that accessibility to I-65 and available undeveloped land will continue to make this area ripe for future commercial and residential growth.

Table 3.18
Geographic Mobility

	Autauga County		Elmore County		Montgomery County	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total:	48,302	+/-179	74,145	+/-303	220,904	+/-531
Same house 1 year ago:	40,943	+/-1,199	59,758	+/-1,507	177,916	+/-2,914
Moved within same county:	3,576	+/-914	4,488	+/-1,163	25,831	+/-2,462
Moved from different county within same state:	1,596	+/-381	7,934	+/-1,174	7,493	+/-1,287
Moved from different state:	2,056	+/-796	1,771	+/-607	7,930	+/-1,219
Moved from abroad:	131	+/-127	194	+/-141	1,734	+/-777

Source: U.S. Census Bureau, 2005-2007 American Community Survey

Development trends within Montgomery County indicate the highest rates of growth in the eastern reaches of the County. This eastward migration trend within Montgomery County began several decades ago, and is evident by tracing the County's historic retail center development: Normandale Shopping Center, Montgomery Mall, Eastdale, and now EastChase. Residential development is following a similar pattern and is projected to continue the east ward migration at least until the 2035 horizon year.

Several accomplishments and new initiatives within the downtown Montgomery central business district may alter the historic decentralizing trends and bring new life to downtown. Recent accomplishments include the very successful Riverfront renaissance, which has brought a new convention center, four-star hotel, Riverwalk, amphitheatre, "Biscuits" baseball stadium, intermodal bus transfer center with pedestrian access way and pedestrian access tower connecting to the Riverwalk, the Alleyway Entertainment area, as well as numerous new entertainment, dining, residential and business opportunities. A West Montgomery renaissance is expected to be sparked by the new 2000-employee Hyundai Motor Manufacturing Alabama facility, Maxwell-Gunter Air Force Base, and large state employee base will continue to provide redevelopment opportunities within the Montgomery urban core.

3.4 Demographic Characteristics

Understanding study area demographics provides an indication of what types of transportation infrastructure and services may be needed. For instance, some population groups are more likely to need or use transit, including low-income individuals, elderly individuals, young individuals, non-white individuals and households without vehicle access. The geographic distribution of population groups is also a component for meeting federal environmental justice guidelines and regulations established by Title VI, Executive Order 12898 and Section 450 of SAFETEA-LU. Environmental justice regulations require any federally supported investment—whether a planning study or road widening— not to disproportionately impact minority and low-income communities. The investments should allow environmental justice groups to fully share in the benefits of the investment. The transportation planning process should be inclusive and provide a public outreach program to include environmental justice communities in the process.

Table 3.15 summarizes the 2000 population and household characteristics by jurisdiction within the Montgomery MPO Study Area reported in the decennial census. Statewide statistics are shown for

comparison. The data shows a wide variation in the distribution of diverse population groups across the area as shown in Figures 3.13 through 3.16. In the Montgomery urbanized area, the proportion of non-white individuals (53.2 percent) exceeded the statewide average of 29.7 percent in 2000. The greatest proportion of non-white individuals live in the City of Montgomery (52.9 percent), followed by Montgomery County (51.7 percent), the Town of Coosada (44.1 percent), Town of Pike Road (41.0 percent), City of Wetumpka (33.0 percent), and Town of Elmore (32.7 percent). The proportion of non-white individuals was less than statewide in Elmore County (23.5 percent), City of Millbrook (20.8 percent), Autauga County (20.3 percent), City of Prattville (17.9 percent) and Town of Deatsville (2.6 percent).

The proportion of individuals below poverty in the Montgomery urbanized area, 18.0 percent, exceeded statewide average of 16.1 percent in 2000. The greatest proportion of individuals living below poverty live in the Town of Elmore (20.5 percent), followed by the Town of Pike Road (19.8 percent), City of Montgomery (17.7 percent) and Montgomery County (17.3 percent). The Town of Deatsville had the smallest proportion of individuals living below poverty in the area at 0.9 percent, followed by the City of Prattville (8.3 percent), City of Millbrook (8.9 percent), Elmore County (10.2 percent), Town of Coosada and Autauga County (10.9 percent), and City of Wetumpka (11.7 percent).

For the entire study area, there were proportionally fewer individuals age 65 and older than statewide (13.0 percent) in 2000. The greatest proportion of individuals age 65 and older live in the Town of Deatsville (13.8 percent), followed by the Town of Pike Road (11.9 percent), the City of Montgomery, Montgomery County, and Montgomery urbanized area (11.8 percent each), and Town of Elmore (11.6 percent). The City of Wetumpka had the smallest proportion of individuals age 65 and older at 5.3 percent, followed by the City of Prattville and City of Millbrook (7.0 percent), Autauga County (10.2 percent), Town of Coosada (10.3 percent) and Elmore County (10.7 percent).

The distribution of young persons age 15 to 19 in 2000 varied from a low of five percent in the Town of Elmore to a high of 11.9 percent in the Town of Pike Road. A majority of the jurisdictions had proportionally more persons age 15 to 19 than the statewide average (7.3 percent), including the Town of Coosada (8.0 percent), the City of Montgomery, Montgomery urbanized area, and Montgomery County (7.7 percent each), Autauga County (7.5 percent), and Town of Deatsville (7.4 percent). The jurisdictions that had proportionally fewer persons age 15 to 19 included the City of Wetumpka (5.3 percent), Elmore County (6.9 percent), and the City of Prattville (7.0 percent).

The distribution of households without access to private vehicles generally paralleled the distribution of persons living below poverty. The proportion of households without vehicles in the Montgomery urbanized area (10.2 percent) exceeded the statewide average (8.3 percent) in 2000. The greatest proportion of households without vehicle access live in the Town of Elmore (13.3 percent), followed by the Town of Pike Road (13.1 percent), City of Montgomery and Montgomery urbanized area (10.2 percent each), and Montgomery County (9.8 percent). The greatest vehicle ownership was in the City of Millbrook, where 97 percent of households owned a vehicle. Other jurisdictions with relatively high vehicle ownership included the Town of Deatsville (96.1 percent), Elmore County (95.9 percent), City of Prattville (95.4 percent), Autauga County (94.8 percent), Town of Coosada (93.7 percent), and City of Wetumpka (93.5 percent).

In August 2007, the U.S. Department of Commerce, Bureau of Census, Estimates Division, released county level estimates of the population by race and sex. Table 3.20 details the results by county.

Table 3.19
Demographic Characteristics by Jurisdiction - 2000

Geographic Area	Total		Percent				
	Population	Households	Non-White Persons	Persons below Poverty	Persons Age 65+	Persons Age 15-19	Households without Vehicles
Alabama	4,447,100	1,737,080	29.7%	16.1%	13.0%	7.3%	8.3%
Montgomery Urbanized Area*	196,892	76,489	53.2%	18.0%	11.8%	7.7%	10.2%
Autauga County**	43,671	16,003	20.3%	10.9%	10.2%	7.5%	5.2%
Elmore County**	65,874	22,737	23.5%	10.2%	10.7%	6.9%	4.1%
Montgomery County**	223,510	86,068	51.7%	17.3%	11.8%	7.7%	9.8%
Town of Coosada	1,382	473	44.1%	10.9%	10.3%	8.0%	6.3%
Town of Deatsville	340	130	2.6%	0.9%	13.8%	7.4%	3.9%
Town of Elmore	199	77	32.7%	20.5%	11.6%	5.0%	13.3%
City of Millbrook	10,386	3,660	20.8%	8.9%	7.0%	7.0%	3.0%
City of Montgomery	201,568	78,384	52.9%	17.7%	11.8%	7.7%	10.2%
Town of Pike Road	310	110	41.0%	19.8%	11.9%	11.9%	13.1%
City of Prattville	24,303	8,939	17.9%	8.3%	7.0%	7.0%	4.6%
City of Wetumpka	5,726	1,797	33.0%	11.7%	5.3%	5.3%	6.5%

*As defined by the U.S. Census
**Note: Data is shown for the entire county and includes areas outside of the MPO study area.
Source: U.S. Census

Table 3.20
2006 Estimates of the Population by Race by County

Race Description	Autauga County		Elmore County		Montgomery County	
	Male	Female	Male	Female	Male	Female
Non-Hispanic Total	23,767	25,136	37,752	36,696	104,878	115,264
White Alone	19,340	20,028	28,489	28,713	46,928	49,370
Black Alone	3,986	4,573	8,496	7,196	55,317	63,073
American Indian & Alaskan Native Alone	99	104	153	155	305	216
Asian Alone	108	163	166	216	1,345	1,554
Native Hawaiian & Other Pacific Islander Alone	4	8	2	6	27	60
Two or More Races	230	260	446	410	956	991
White Alone or in Combination with Another Race	19,568	20,285	28,889	29,091	47,664	50,144
Black Alone or in Combination with Another Race	4,026	4,621	8,671	7,363	55,796	63,594
American Indian & Alaskan Native Alone or in Combination with Another Race	230	242	382	362	584	535
Asian Alone or in Combination with Another Race	169	240	274	301	1,783	1,940
Native Hawaiian & Other Pacific Islander Alone or in Combination with Another Race	4	8	4	9	41	78
Hispanic	420	827	638	602	1,779	1,650

Source: U.S. Department of Commerce, Bureau of Census, Estimates Division

The U.S. Census 2005-2007 American Community Survey 3-Year Estimates were analyzed for household and population characteristics. Table 3.21 details the Median Household Income from the

2000 U.S. Census, and it details the Median Household Income and Median Income range from the U.S. Census 2005-2007 American Community Survey 3-Year Estimates. According to the 2000 U.S. Census Autauga County had a median income of $42,013, and in the 2005-2007 American Community Survey 3-Year Estimates, Autauga County had a median income of between $44,717 and $51,387. In Elmore County, the 2000 Census median income was $41,243, but in the American Community Survey the median income was between $47,825 and $53,525. In Montgomery County, the 2000 Census median income was $35,962, but in the American Community Survey the median income was between $40,559 and $43,387. The Regional Economic Information System, Bureau of Economic Analysis released annual per capita personal income by county, Table 3.22 details the annual estimates from 2001 to 2006.

Table 3.21
Median Income by County – 2000 & 2005-2007 Estimates

	Autauga County		Elmore County		Montgomery County	
2000 U.S. Census Median Income	$42,013		$41,243		$35,962	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total:	18,275	+/-366	25,229	+/-573	88,590	+/-1,362
Less than $10,000	1,314	+/-307	1,604	+/-325	9,065	+/-840
$10,000 to $14,999	1,139	+/-268	1,140	+/-254	7,402	+/-1,047
$15,000 to $19,999	926	+/-203	1,490	+/-345	5,363	+/-615
$20,000 to $24,999	1,050	+/-255	1,471	+/-346	5,473	+/-663
$25,000 to $29,999	1,201	+/-290	1,403	+/-349	4,930	+/-591
$30,000 to $34,999	819	+/-221	1,699	+/-367	4,839	+/-609
$35,000 to $39,999	1,092	+/-233	1,125	+/-280	5,517	+/-689
$40,000 to $44,999	1,196	+/-322	1,207	+/-305	4,579	+/-615
$45,000 to $49,999	706	+/-194	1,345	+/-341	3,612	+/-622
$50,000 to $59,999	1,661	+/-330	2,600	+/-462	7,044	+/-847
$60,000 to $74,999	2,261	+/-370	3,288	+/-446	7,413	+/-788
$75,000 to $99,999	2,294	+/-381	3,150	+/-416	10,076	+/-919
$100,000 to $124,999	1,150	+/-220	1,535	+/-299	4,852	+/-496
$125,000 to $149,999	609	+/-187	1,059	+/-256	3,294	+/-519
$150,000 to $199,999	653	+/-195	613	+/-221	2,292	+/-371
$200,000 or more	204	+/-101	500	+/-165	2,839	+/-431
Median household income in the past 12 months (in 2007 inflation-adjusted dollars)	$48,052	+/-$3,335	$50,675	+/-$2,850	$41,973	+/-$1,414

Source: U.S. Census Bureau, 2005-2007 American Community Survey

Table 3.22
2001-2006 per Capita Personal Income by County

	Autauga County	Elmore County	Montgomery County	State of Alabama	United States
2001	$24,569	$23,253	$28,478	$24,740	$30,574
2002	$24,709	$24,010	$29,848	$25,561	$30,821
2003	$25,592	$24,989	$30,896	$26,371	$31,504
2004	$26,315	$25,727	$32,932	$28,007	$33,123
2005	$27,485	$26,628	$34,309	$29,306	$34,757
2006	$28,794	$27,951	$36,147	$30,894	$36,714
2006 Percent of State Average	93%	90%	117%	100%	119%
2006 Percent of National Average	78%	76%	98%	84%	100%

Source: U.S. The Regional Economic Information System, Bureau of Economic Analysis and U.S. Census.

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Non-White Population (2000)

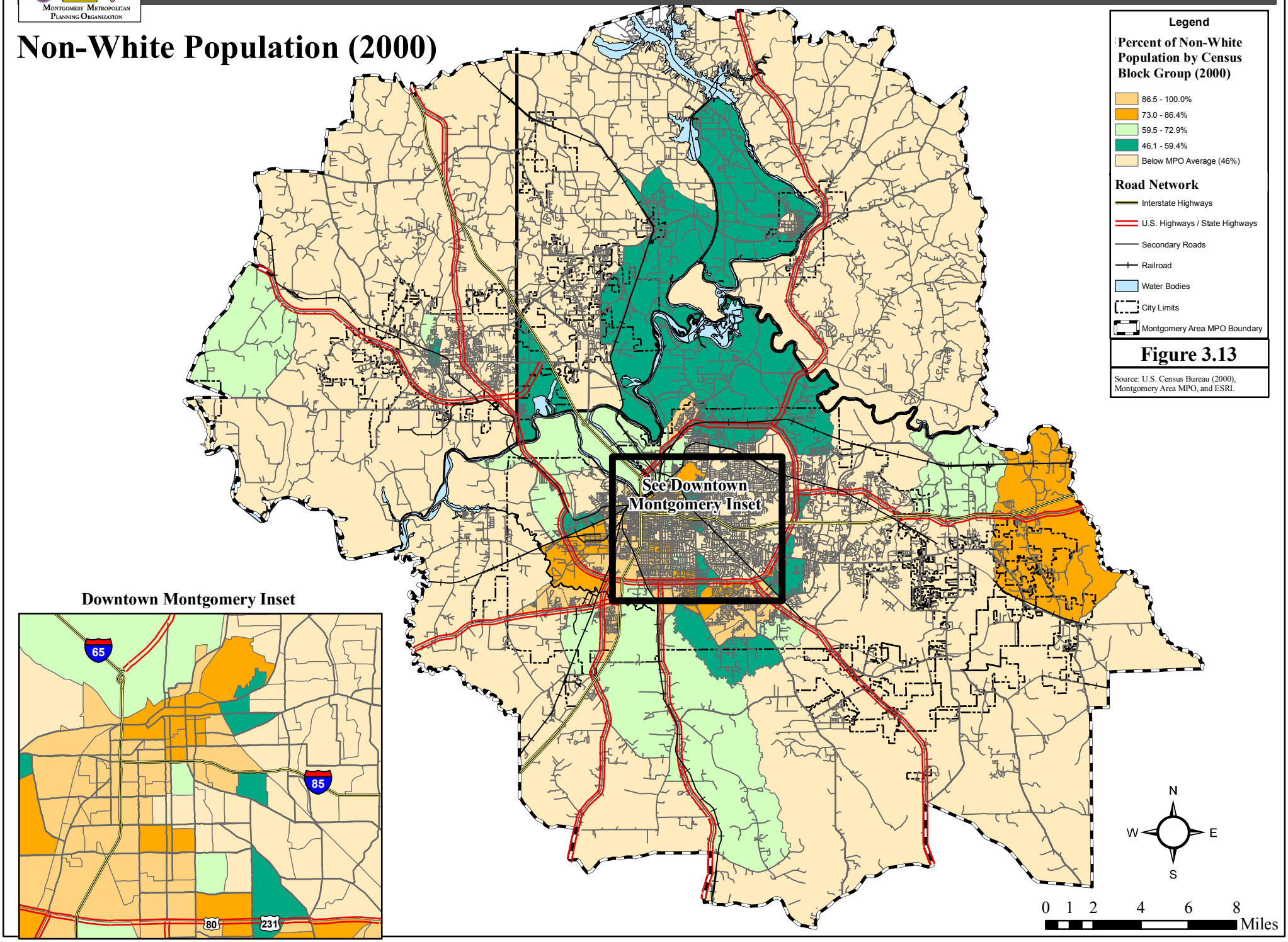

Figure 3.13

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

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Population Below Poverty Level (2000)

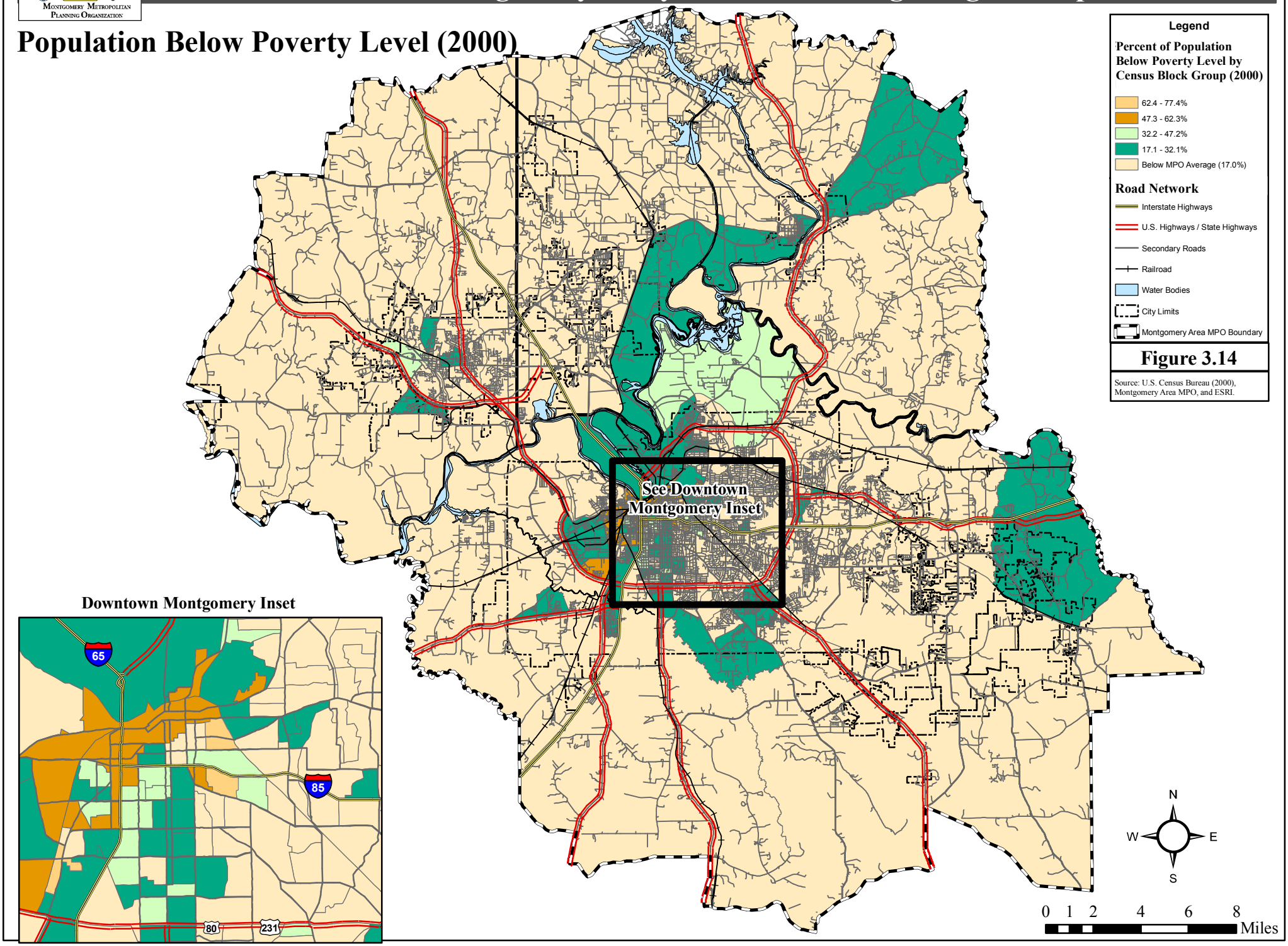

Figure 3.14

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

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Population Age 65+ (2000)

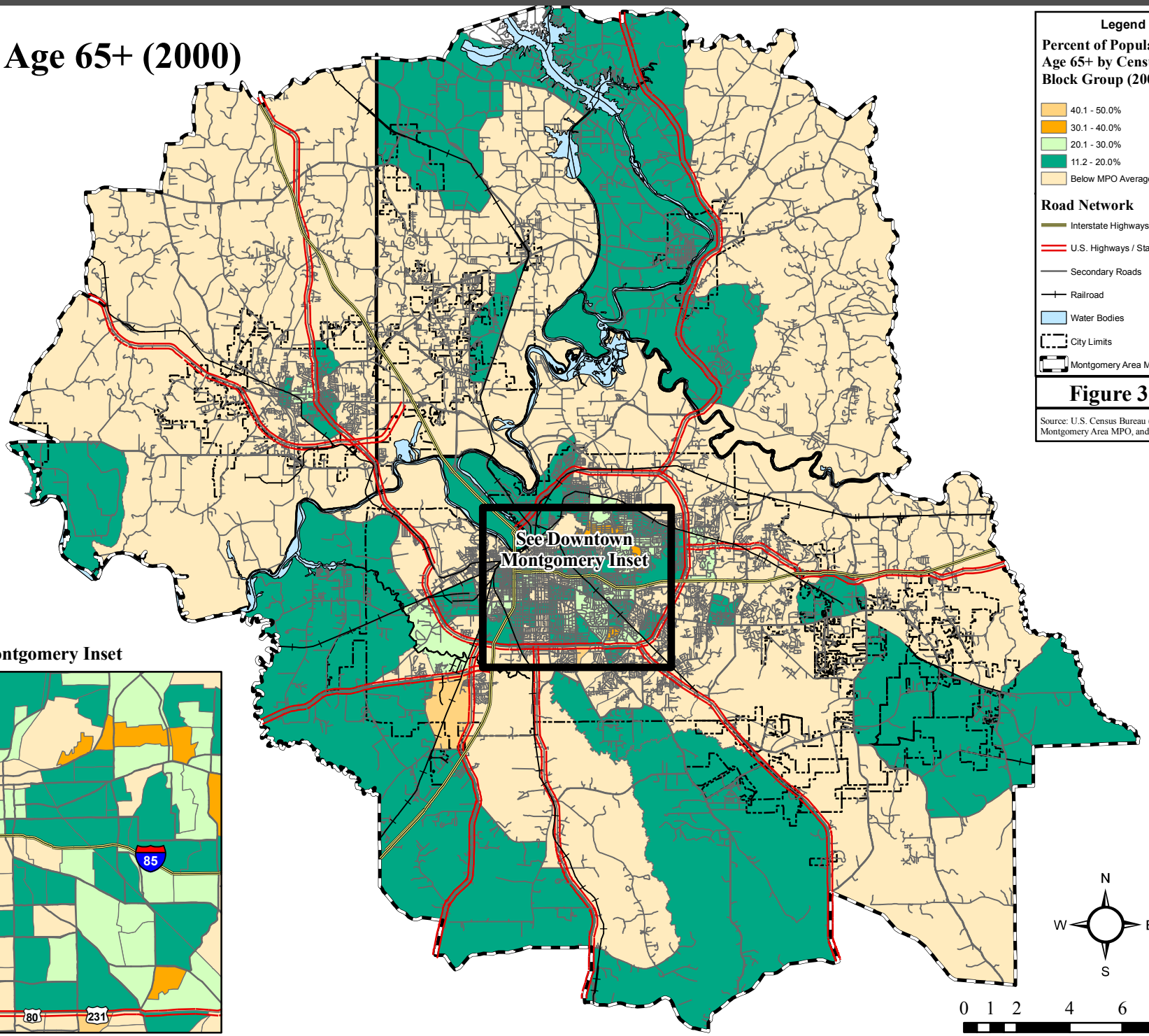
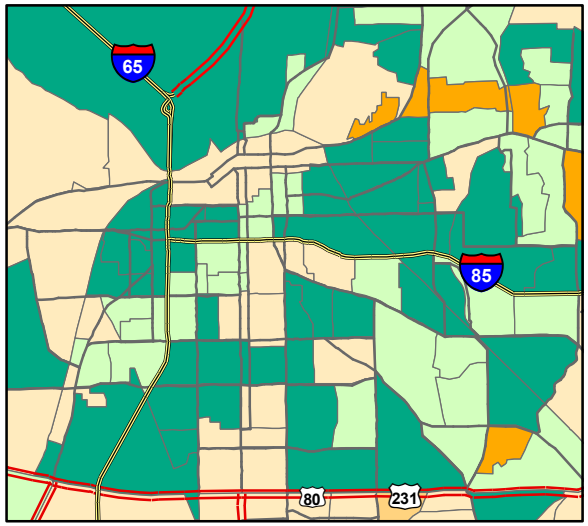


Figure 3.15

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Downtown Montgomery Inset



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Montgomery Metropolitan Planning Organization

Median Income (2000)

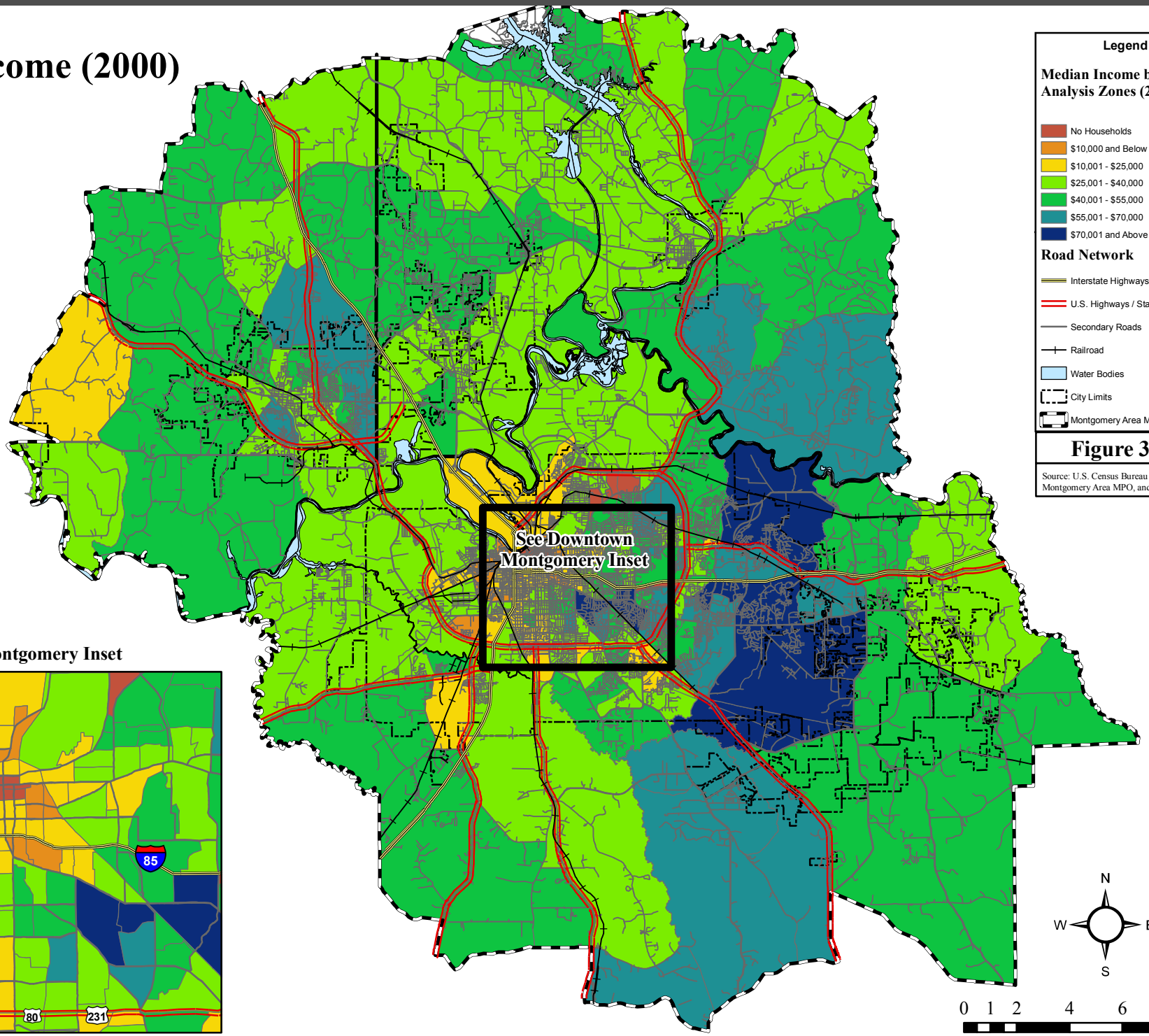
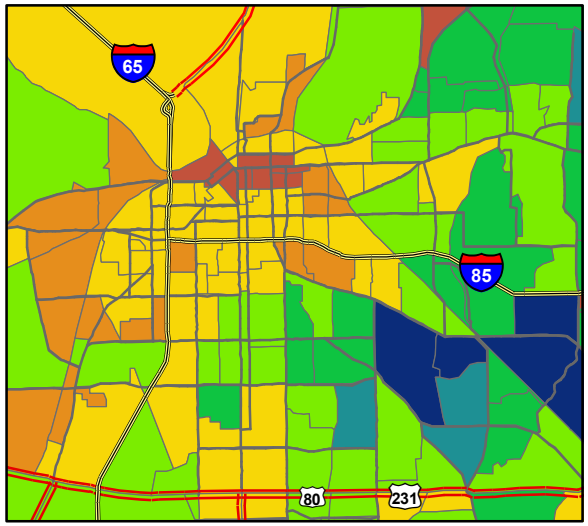


Figure 3.16

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Downtown Montgomery Inset



3.5 Commute Characteristics and Patterns

In addition to demographic information, the Census collects data on local travel characteristics for persons age 16 years and older who commute to work. The data provides insight on where people work and how they get to work. Since the morning and afternoon commute periods are most often the peak travel demand periods, the data gives insight into the transportation system utilization across modes and geographically.

Tables 3.23 and 3.24 summarize journey to work data for Autauga, Elmore, and Montgomery Counties. Table 3.23 shows data by work destination and where persons working in each county live. Within the study area, the greatest employment attractor for the region is Montgomery County, which employed 128,844 persons in 2000. By comparison, Elmore County employed 13,556 persons and Autauga County employed 11,619 persons. For persons working in Montgomery County, the majority lives in Montgomery County (70.2 percent), followed by Elmore County (11.8 percent), other (8.0 percent), and Autauga County (7.2 percent). For persons working in Elmore County, the majority lives in Elmore County (69.5 percent), followed by Montgomery County (11.4 percent) and Tallapoosa County (6.6 percent). For persons working in Autauga County, the majority lives in Autauga County (67.7 percent), followed by Elmore County (12.7 percent), and Montgomery County (11.2 percent). Overall, the data indicates that the strongest work trip direction still follows a traditional flow from outside the central employment core to inside. For example, 15,246 workers commuted from Elmore County and 9,307 workers commuted from Autauga County into Montgomery County for work. In contrast, only 1,539 workers from Montgomery County commuted to Elmore County and 1,294 workers from Montgomery County commuted to Autauga County, which is characterized as the "reverse commute".

Table 3.23
Where Workers Live by County - 2000

Work County – Autauga*			Work County – Elmore*			Work County – Montgomery*		
County of Residence	**Number**	**Percent**	**County of Residence**	**Number**	**Percent**	**County of Residence**	**Number**	**Percent**
Autauga	7,871	67.7%	Elmore	9,415	69.5%	Montgomery	90,453	70.2%
Elmore	1,477	12.7%	Montgomery	1,539	11.4%	Elmore	15,246	11.8%
Montgomery	1,294	11.1%	Tallapoosa	894	6.6%	Autauga	9,307	7.2%
Chilton	408	3.5%	Autauga	741	5.5%	Lowndes	2,414	1.9%
Dallas	179	1.5%	Chilton	191	1.4%	Crenshaw	1,159	0.9%
Other	390	3.4%	Other	776	5.7%	Other	10,265	8.0%
Total	11,619	100.0%	Total	13,556	100.0%	Total	128,844	100.0%

*Note: Data is shown for the entire county and includes areas outside of the MPO study area.
Source: U.S. Census

Table 3.24 shows the journey to work data from resident origin county to work destination county. Montgomery County attracts the greatest share of workers from all three counties in the study area. As presented in Table 3.24, 93.3 percent of persons living in Montgomery County work in Montgomery County, followed by Elmore County (54.2 percent) and Autauga County (47.0 percent). Within Autauga and Elmore Counties, the data indicates a fairly substantial housing-work imbalance in that nearly half of Elmore County workers leave the County to work and over half of Autauga County workers leave the County to work. The 2000 census data also indicates a comparatively low travel flow between Autauga and Elmore Counties during the commute periods, with only 741 Autauga County workers commuting to Elmore County and 1,477 Elmore County workers commuting to Autauga County.

Table 3.24
Where County Residents Work - 2000

Residence County – Autauga*			Residence County – Elmore*			Residence County – Montgomery*		
County of Work	**Number**	**Percent**	**County of Work**	**Number**	**Percent**	**County of Work**	**Number**	**Percent**
Montgomery	9,307	47.0%	Montgomery	15,246	54.2%	Montgomery	90,453	93.3%
Autauga	7,871	39.7%	Elmore	9,415	33.5%	Elmore	1,539	1.6%
Elmore	741	3.7%	Autauga	1,477	5.2%	Autauga	1,294	1.3%
Dallas	585	3.0%	Tallapoosa	582	2.1%	Macon	550	0.6%
Chilton	350	1.8%	Lee	170	0.6%	Lowndes	361	0.4%
Lowndes	213	1.1%	Chilton	143	0.5%	Jefferson	259	0.3%
Other	741	3.7%	Other	1,110	3.9%	Other	2,487	2.6%
Total	19,808	100.0%	Total	28,143	100.0%	Total	96,943	100.0%

*Note: Data is shown for the entire county and includes areas outside of the MPO study area.
Source: U.S. Census

Table 3.25 and 3.26 summarize by geographic area the average commute time and the manner in which persons living in the Montgomery MPO Study Area travel to work. For the Montgomery urbanized area, commuters in 2000 experienced shorter overall average commutes (19.5 minutes) than statewide average (24.8 minutes). This is likely because the majority of commuters in the Montgomery urbanized area live within the same area, as indicated by the journey to work data. Workers living in Elmore and Autauga Counties faced the longest average commutes, at 28.7 minutes and 26.5 minutes, respectively. Approximately half of workers leave their county to work elsewhere, which likely contributes to their longer average commute times.

Table 3.25
Commute Characteristics – 2000

Geographic Area	Workers Who Commute Age 16 and over	Average Commute Time (Minutes)	Percent					
			Drive Alone	**Carpool**	**Public Transit**	**Walk**	**Other**	**Work at Home**
Alabama	1,900,089	24.8	83.0%	12.3%	0.5%	1.3%	0.8%	2.1%
Montgomery Urbanized Area*	85,787	19.5	82.5%	12.5%	0.8%	1.7%	0.8%	1.7%
Autauga County**	19,808	26.5	83.2%	13.3%	0.2%	0.7%	0.8%	1.9%
Elmore County**	28,143	28.7	84.4%	12.1%	0.2%	0.7%	0.4%	2.2%
Montgomery County**	96,943	20.2	82.7%	12.4%	0.7%	1.6%	0.8%	1.7%
Town of Coosada	570	25.2	81.9%	12.6%	1.4%	0.2%	0.7%	3.2%
Town of Deatsville	221	29.5	81.4%	14.9%	--	--	--	3.6%
Town of Elmore	69	26.0	85.5%	4.3%	0.0%	0.0%	7.2%	2.9%
City of Millbrook	4,969	25.6	82.6%	13.4%	0.6%	0.8%	0.5%	2.1%
City of Montgomery	87,989	19.6	82.6%	12.4%	0.8%	1.7%	0.8%	1.7%
Town of Pike Road	140	21.1	87.1%	8.6%	0.0%	0.0%	0.0%	4.3%
City of Prattville	11,380	22.5	86.7%	10.2%	0.1%	0.3%	0.9%	1.8%
City of Wetumpka	1,859	25.3	87.4%	11.1%	0.0%	0.6%	0.0%	0.9%

*As defined by the U.S. Census
**Note: Data is shown for the entire county and includes areas outside of the MPO study area.
Source: U.S. Census

How Montgomery area commuters get to work generally parallels state trends, with a vast majority of workers driving single occupant vehicles. The City of Wetumpka had the greatest percentage of persons driving alone (87.4 percent), followed by the Town of Pike Road (87.1 percent), City of Prattville (86.7 percent), Town of Elmore (85.5 percent), Elmore County (84.4 percent), and Autauga County (83.2 percent). Persons living in Montgomery urbanized area had the greatest propensity for using commute alternatives such as carpooling (12.5 percent), taking transit (0.8 percent) or walking (1.7 percent).

Since the base year is 2005, the U.S. Census 2005-2007 American Community Survey 3-Year Estimates commute characteristics were also analyzed. Table 3.26 details the commute characteristics for each county based on the survey. According to the U.S. Census 2005-2007 American Community Survey 3-Year Estimates, the average commute time with a 90% probability in Autauga County is between 24.1 minutes and 26.5 minutes, in Elmore County is between 26 minutes and 28.4 minutes, and in Montgomery County is between 18.5 minutes and 19.5 minutes.

Table 3.26
Commute Characteristics – 2005 to 2007

	Autauga County		Elmore County		Montgomery County	
Subject	**Total**	**Margin of Error**	**Total**	**Margin of Error**	**Total**	**Margin of Error**
Workers 16 years and over	**22,788**	**+/-805**	**29,904**	**+/-1,057**	**97,761**	**+/-2,092**
MEANS OF TRANSPORTATION TO WORK						
Car, truck, or van	95.2%	+/-1.3	95.6%	+/-1.2	94.8%	+/-0.7
Drove alone	85.6%	+/-2.4	83.4%	+/-2.0	83.7%	+/-1.3
Carpooled	9.6%	+/-1.9	12.1%	+/-2.0	11.1%	+/-1.2
In 2-person carpool	8.2%	+/-1.7	9.9%	+/-1.9	8.9%	+/-1.2
In 3-person carpool	1.0%	+/-0.6	1.6%	+/-0.7	1.6%	+/-0.5
In 4-or-more person carpool	0.5%	+/-0.4	0.7%	+/-0.3	0.6%	+/-0.3
Workers per car, truck, or van	1.11	+/-0.02	1.12	+/-0.02	1.13	+/-0.01
Public transportation (excluding taxicab)	0.3%	+/-0.3	0.2%	+/-0.2	0.7%	+/-0.3
Walked	0.6%	+/-0.4	1.0%	+/-0.5	1.0%	+/-0.3
Bicycle	0.0%	+/-0.2	0.0%	+/-0.2	0.0%	+/-0.1
Taxicab, motorcycle, or other means	1.5%	+/-0.7	1.1%	+/-0.6	0.9%	+/-0.3
Worked at home	2.3%	+/-1.0	2.1%	+/-0.8	2.6%	+/-0.5
Workers 16 years and over who did not work at home	**22,268**	**+/-782**	**29,262**	**+/-1,108**	**95,207**	**+/-2,149**
TRAVEL TIME TO WORK						
Less than 10 minutes	10.1%	+/-1.7	12.2%	+/-1.8	13.6%	+/-1.4
10 to 14 minutes	9.9%	+/-1.8	7.6%	+/-1.6	18.3%	+/-1.2
15 to 19 minutes	13.6%	+/-2.4	12.7%	+/-1.9	23.9%	+/-1.4
20 to 24 minutes	18.1%	+/-2.0	13.0%	+/-1.9	20.2%	+/-1.3
25 to 29 minutes	8.6%	+/-1.8	9.5%	+/-2.0	6.0%	+/-0.9
30 to 34 minutes	19.9%	+/-2.3	18.6%	+/-2.1	10.8%	+/-1.1
35 to 44 minutes	7.2%	+/-1.5	10.9%	+/-1.9	2.3%	+/-0.5
45 to 59 minutes	8.4%	+/-1.9	10.1%	+/-1.6	2.5%	+/-0.4
60 or more minutes	4.3%	+/-1.3	5.4%	+/-1.1	2.4%	+/-0.6
Mean travel time to work (minutes)	25.3	+/-1.2	27.2	+/-1.2	19	+/-0.5

Source: U.S. Census Bureau, 2005-2007 American Community Survey

Results from the travel demand model indicate similar results to that presented in Tables 3.23 through 3.26. Figure 3.17 and corresponding Table 3.27 present a numeric summary of daily work (vehicle) trips by origination and destination districts within the Montgomery MPO Study Area. This model information indicates the strong employment center destinations within the Central Business District, which serves as a major work destination for residents of outlying suburban areas (including Autauga County, Elmore County and Eastern Montgomery County).

Table 3.27
2035 Daily Work (Vehicle) Trips By District

		Destination District																
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	17
Origin District	**1**	8,155	4,677	1,665	850	1,091	2,532	1,659	827	857	503	1,107	1,184	1,609	1,490	410	320	892
	2	4,672	3,097	2,110	452	537	1,618	956	485	546	299	762	745	926	793	304	182	644
	3	1,498	1,976	3,925	118	211	860	622	390	542	328	990	1,137	1,298	336	726	105	486
	4	853	462	139	413	351	683	852	598	435	252	339	449	941	373	91	268	265
	5	1,082	541	230	348	172	437	584	506	419	259	445	666	1,055	270	121	315	265
	6	2,533	1,603	886	678	430	492	1,134	1,185	765	480	866	1,866	3,278	546	576	709	415
	7	1,664	949	643	847	580	1,150	1,150	1,128	910	587	1,215	1,984	3,063	756	340	738	686
	8	1,059	638	447	697	591	1,266	1,366	1,090	884	555	946	1,652	2,752	557	240	762	530
	9	856	548	560	431	416	768	908	753	433	339	744	1,304	2,168	448	370	543	440
	10	506	295	337	252	258	487	590	488	336	167	420	794	1,266	306	212	237	255
	11	1,101	766	1,011	341	446	874	1,220	868	739	416	692	1,519	2,495	527	453	486	443
	12	1,060	663	1,046	394	589	1,683	1,782	1,369	1,196	732	1,395	2,117	4,122	622	682	1,341	760
	13	1,633	941	1,356	964	1,083	3,355	3,114	2,404	2,217	1,280	2,544	4,595	6,335	1,046	774	2,084	1,216
	14	1,495	804	358	372	263	549	753	502	447	304	524	696	1,027	285	173	312	310
	15	405	309	745	96	122	582	339	218	369	207	451	743	766	174	189	173	268
	16	313	193	111	267	313	717	740	629	533	241	479	1,433	2,065	314	170	630	309
	17	899	639	508	260	267	424	687	468	437	259	439	842	1,196	312	268	307	190

Source: Montgomery Study Area 2035 LRTP Travel Demand Model

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2035 Districts

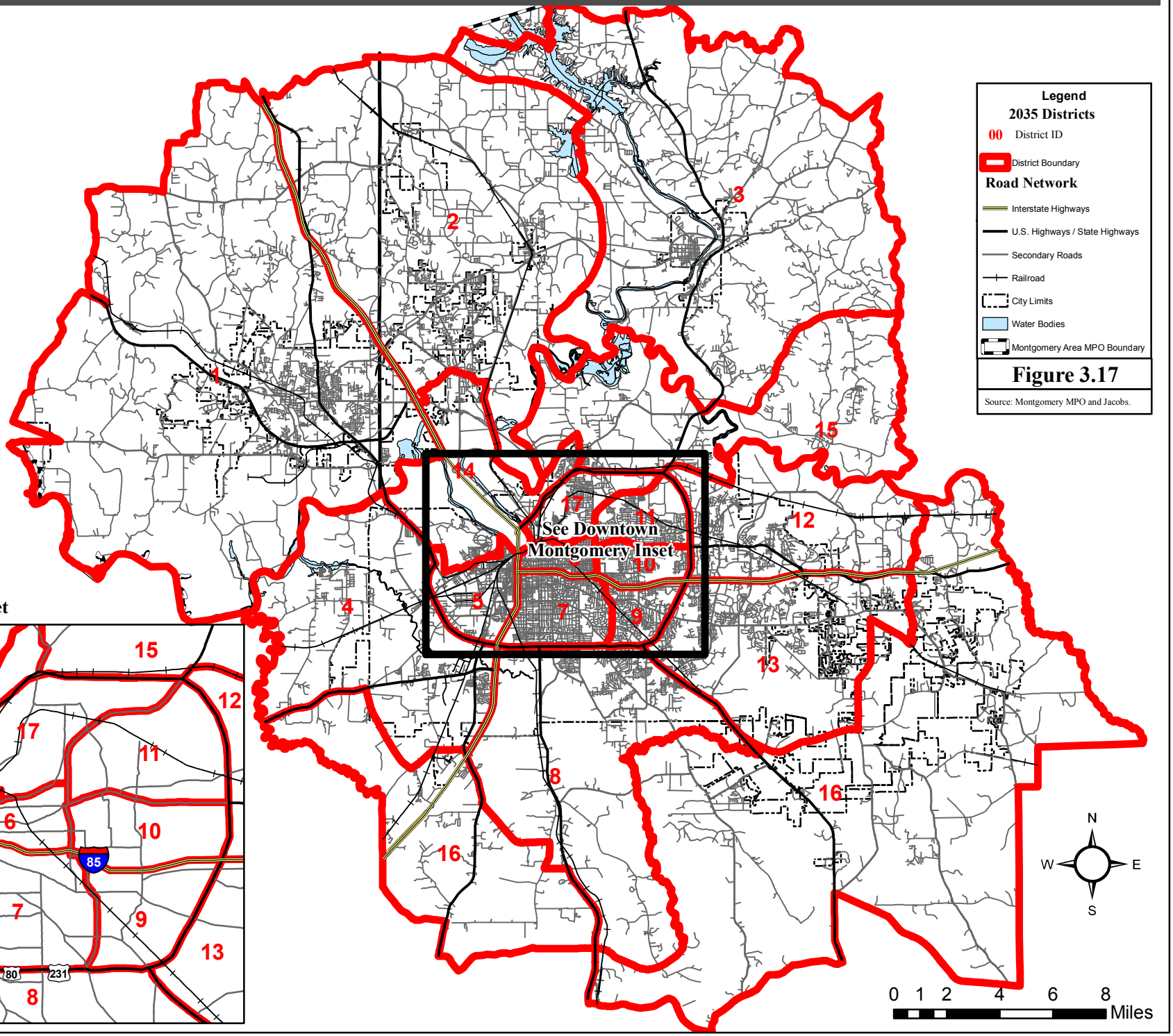


Figure 3.17

Source: Montgomery MPO and Jacobs.

3.6 Environmental Justice

Title VI, Executive Order 12898 and Section 450 of the SAFETEA-LU legislation establish environmental justice requirements for Federal agencies and federally funded programs. The three major principles of environmental justice are:

- provide a full and fair participation by minority and low-income communities
- avoid, minimize or mitigate disproportional impact to minority and low-income communities
- ensure that low-income and minority citizens fully share in the benefits

MPOs are required to make sure transportation plans and programs meet the environmental justice requirements. During the Montgomery Study Area 2035 Long Range Transportation Plan process, environmental justice issues were considered during the planning process to include environmental justice populations. Planned projects in the 2035 LRTP were screened to determine the potential for impacts to environmental justice populations.

3.6.1 Identifying Minority and Low-Income Populations

The initial activity for fulfilling environmental justice requirements was identifying environmental justice communities within the study area. Though no standards exist for population identification, a fairly common method is to utilize US Census data to identify areas of greatest concentration low-income and minority populations. For the Montgomery area, data by Census block group were utilized for income and race/ethnicity. In order to identify potential environmental justice communities, the data was mapped using GIS, and areas exceeding the study area's average for that population group were shown (see Figures 3.12 to 3.13). The non-white (minority) population consists of all persons who consider themselves a race other than white and includes persons of Hispanic origin. For the low-income identifier, population of persons below the poverty level was used.

3.6.2 Environmental Justice Outreach

Specific measures utilized to engage environmental justice community members included conducting two sets of two public meetings in the City of Montgomery during each set of public meeting meetings to provide ample opportunity for public comment. The location of the first set of Montgomery public meetings was the Montgomery Small Business Incubator, which is accessible by Montgomery Area Transit System (MATS), and the location of the second set of meetings was the Downtown Intermodal Transfer Facility, which a the transfer facility used by the Montgomery Area Transit System (MATS). Meeting advertisements included advertising in general circulation newspapers in advance of the June 2010 meetings.

3.6.3 Project Screening

In the development of the 2035 LRTP program of projects, each potential project was screened to determine the probability of it impacting communities in a negative way. Appendix B lists the program of projects and potential impacts of each, to ensure that benefits and burdens are equally shared. This process utilized the 2000 U.S. Census population characteristics by block group to determine the total number of various populations and the percent of those populations that are located within block groups adjacent or intersected by the project.

3.7 Safety

Analysis of roadway transportation safety requires examining three components: driver safety (human factors), vehicle safety, and roadway safety. Numerous national and state agencies collaborate to ensure

overall transportation safety. For example, the National Highway Traffic Safety Administration (NHTSA) evaluates vehicle safety and conducts crash tests to ensure vehicles on the road meet a standard level of safety. The Alabama Department of Public Safety oversees driver licensing requirements to ensure that all of Alabama's licensed drivers have acceptable driving proficiency levels and can operate vehicles safely. Law Enforcement and Traffic Safety Division (LETS) of the Alabama Department of Economic and Community Affairs administers federal funding for an array of victims' services, law enforcement, juvenile justice and highway traffic safety programs. LETS supports law enforcement and educational efforts to increase safety awareness and to reduce crashes, injuries and fatalities on Alabama roadways. Finally, ALDOT and the local governments apply roadway design standards to ensure facilities meet all national safety requirements.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) required every state to develop a Strategic Highway Safety Plan (SHSP) in order to improve highway safety. In 2006 Alabama adopted a SHSP that was based on an analysis of fatal automobile crashes in the state. The SHSP includes five emphasis areas: Emergency Medical Service, Legislation, Older or At-Risk Drivers, Risky Driving, and Lane Departures. Countermeasures for each emphasis area were developed as part of the safety plan. While the countermeasures apply to the entire state, no specific projects are listed. Most of the counter measures fall outside of the MPOs specialization and area of control and are related to driver behavior. The exceptions are proposed roadway improvements that are related to older or at-risk drivers and lane departure crashes. These countermeasures either propose blanket improvement to signage, signals, and markings or site specific improvements to address issues at high crash sites.

The 2035 LRTP addressed safety issues for motorized and non-motorized users by analyzing accident data from the CARE (Critical Analysis Reporting Environment) maintained by the Center for Advanced Public Safety at the University of Alabama. High vehicle, pedestrian, or bicycle accident data/locations provide a qualitative means of analyzing the proposed program of projects. This analysis enables a reactive response to safety issues in the transportation system, but as with any safety issue a preventative program is preferred to eliminate safety issues before it is an issue for all modes of transport. One aspect of the preventative program is the Safe Routes to School (SRTS) administered by the Alabama Department of Transportation.

3.7.1 High Accident Locations

CARE data from 2005 to 2008 Dataset and from the 1999 to 2008 Dataset was utilized to analyze the safety issues within the Montgomery MPO for vehicles, pedestrians, and bicycles. Figure 3.18 details the accident locations and frequency between 2005 and 2008. As expected, Montgomery County had the highest number of accidents. The corridors with the highest accident frequency are the more heavily congested corridors during peak hour. Table 3.28 details the accident locations that averaged 35 or more accidents per year between 2005 and 2008.

The frequency of accidents is one criteria analyzed by the equity report in Appendix C. In addition to accident frequency, CARE details the number of fatal and injury accidents for each county in the state. Table 3.29 details the number of fatal and/or injury accidents per county between 1999 and 2008.

Locations with a high accident frequency and locations with a high incidence of severe accidents are part of the criteria to evaluate projects in the program of projects. In addition to vehicle accident data, CARE data tracks the incidence of both bicycle and pedestrian crashes. Table 3.30 details the number of bicycle and Pedestrian Accident per County from 1999 to 2008.

Table 3.28
Locations that Averaged 35 or More Vehicle Accidents per Year between 2005 and 2008

Location	Location Type
Interstate 85 at the Montgomery City Limit	Segment
Interstate 65 at South Blvd Interchange	Intersection
Taylor Road at Vaughn Road	Intersection
East Boulevard at the Interstate 85 Interchange	Intersection
Carmichael Road at East Boulevard	Intersection
East Boulevard at Atlanta Highway	Intersection
Interstate 85 at the Perry Hill Road Interchange	Intersection
Ann Street at the I-85 Interchange	Intersection
Between Interstate 85 and Interstate 65 Interchange and Interstate 85 at the South Court Street Interchange	Segment
East Boulevard at Vaughn Road	Intersection

Source: ALDOT CARE Database.

Table 3.29
Number of Fatal and/or Injury Accidents per County from 1999 to 2008

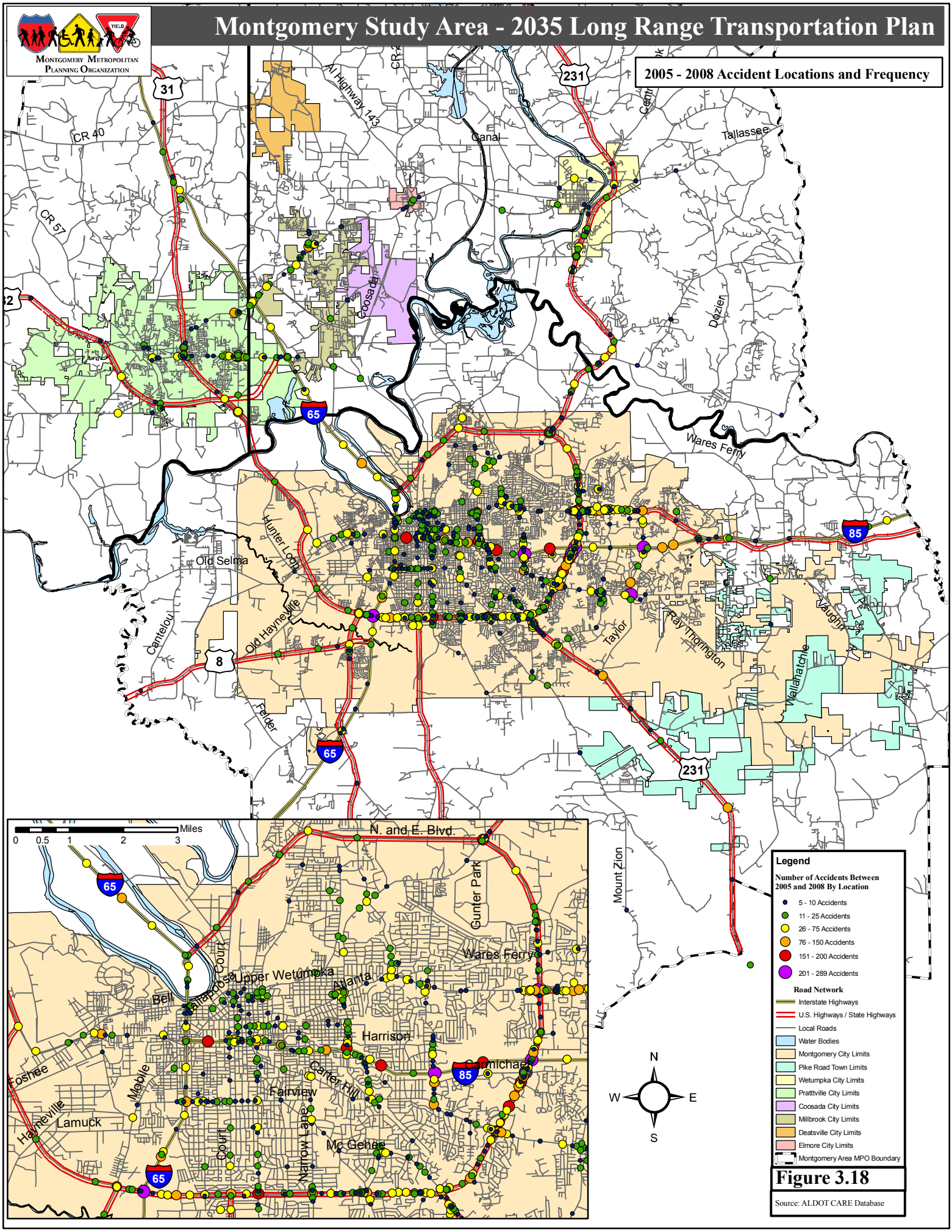
	Autauga County		Elmore County		Montgomery County	
YEAR	# of Fatal Accidents	# of Fatal or Injury Accidents	# of Fatal Accidents	# of Fatal or Injury Accidents	# of Fatal Accidents	# of Fatal or Injury Accidents
1999	8	285	20	413	21	2,390
2000	14	290	9	390	34	2,080
2001	11	262	11	453	46	1,994
2002	9	240	8	391	33	2,189
2003	13	323	16	502	25	2,088
2004	8	323	13	489	39	2,255
2005	13	374	15	472	38	2,173
2006	15	355	21	499	39	2,098
2007	12	295	16	456	38	1,887
2008	13	270	18	351	33	1,541
Total	119	3,017	147	4,416	346	20,695

Source: ALDOT CARE Database.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2005 - 2008 Accident Locations and Frequency



Legend

Number of Accidents Between 2005 and 2008 By Location

- 5 - 10 Accidents
- 11 - 25 Accidents
- 26 - 75 Accidents
- 76 - 150 Accidents
- 151 - 200 Accidents
- 201 - 289 Accidents

Road Network

- Interstate Highways
- U.S. Highways / State Highways
- Local Roads
- Water Bodies
- Montgomery City Limits
- Pike Road Town Limits
- Wetumpka City Limits
- Prattville City Limits
- Coosada City Limits
- Millbrook City Limits
- Deatsville City Limits
- Elmore City Limits
- Montgomery Area MPO Boundary

Figure 3.18

Source: ALDOT CARE Database

Table 3.30
Number of Bicycle and Pedestrian Accidents per County from 1999 to 2008

	Autauga County		Elmore County		Montgomery County	
YEAR	# of Accidents Involving Bicycles	# of Accidents Involving Pedestrians	# of Accidents Involving Bicycles	# of Accidents Involving Pedestrians	# of Accidents Involving Bicycles	# of Accidents Involving Pedestrians
1999	1	1	2	3	38	70
2000	3	6	3	7	44	61
2001	3	4	3	3	25	51
2002	1	2	2	11	29	59
2003	5	4	3	5	24	60
2004	4	4	1	4	29	77
2005	6	9	2	11	25	74
2006	2	3	3	8	20	65
2007	1	4	4	11	24	67
2008	1	8	0	2	12	31
Total	27	45	23	65	270	615

Source: ALDOT CARE Database.

3.7.2 Safe Routes to School

The Federal-Aid Safe Routes to School (SRTS) Program was created by section 1404 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users Act (SAFETEA-LU). The act was signed into Public Law (P.L. 109-59) on August 10, 2005. The SRTS Program provides $612 million Federal-aid highway funds to state DOT's over five Federal fiscal years (FY2005-FY2009). The funds may be used for infrastructure and non-infrastructure projects and to administer SRTS programs for Elementary and Middle school students in grades K-8.

The Safe Routes to School is a Federal Highway Administration (FHWA) program to help improve safe methods of travel to and from school. Alabama's program is administered by the Alabama Department of Transportation (ALDOT). The State Departments of Education and Public Health (ADPH) also provide assistance. The program focuses on enabling and encouraging children, including those with disabilities, to walk and bicycle to school and to be more active and healthy. Improvements may include signage, crosswalks, new sidewalks, caution lights, bike rodeos, safe walking and biking seminars, bike racks, traffic calming devices. Several key points of the program are as follows:

- Cost-Reimbursement Program.
- Plans must be prepared by a registered professional engineer or architect.
- Projects must go through the bid process.
- Sponsor must advertise 21 days prior to bid opening.
- ALDOT reviews bids and awards contracts.
- Project records must be available for audit for 3 years.
- Infrastructure projects must be within the Right-of-Way.

Table 3.31 details the proposed SRTS plan for fiscal year 2010.

Table 3.31
2010 Safe Rotes to School Plan

School	Location	Proposed Improvement
Chisholm Elementary School	Montgomery	-Add new sidewalk -New speed limit signs -Add for new crosswalks -Add new transit bus shelter
Carver Elementary School	Montgomery	-Add new sidewalk -Add new crosswalk -Repaint and stripe
Harrison Elementary School	Montgomery	-Add new sidewalk -Install new signs -New bike racks
Capital Heights Junior High School	Montgomery	-Install new signs -Add turnarounds for transit -Add new transit bus shelter
Dalraida Elementary School	Montgomery	-Add new bike rack

3.8 Environmental and Social Factors

A variety of environmental and social factors affect transportation planning decisions. Some of those environmental factors such as wetland, floodplains, and floodways can be minimized or mitigated for planned projects where feasible, while other environmental factors like hazardous sites can be, when fiscally feasible, cleaned up in conjunction with planned transportation projects. Social factors often prove to be the most controversial and publically challenged factors in planned transportation projects.

3.8.1 Wetlands, Floodplains, and Floodways

According to EPA Regulations listed at 40 CFR 230.3(t), wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas."

Executive Order 11990 requires that MPOs avoid, minimize, or mitigate wetland impacts to the extent possible. The Montgomery MPO has a large amount of wetlands throughout the study; therefore, numerous roads within the existing transportation system already impact wetlands. Figure 3.19 details the wetlands throughout the Montgomery MPO study area. A review of the environmental and social factors in relation to the proposed program of projects is detailed in Appendix C.

The development patterns in the MPO study area correlate with the floodplains areas. The large overall growth in population in east Montgomery County is located between two sections of floodplains, while the large increase in households in Autauga and Elmore Counties generally develop outside the established floodplain. Generally the flood plain extends east to west with Montgomery County to the south and Autauga and Elmore Counties to the north. In Montgomery County, the floodplain covers a large section in the northwest corner of the county, a large portion south of the South Boulevard between US 331 and US 231, the easternmost section of the county east of the Town of Pike Road, and sporadically throughout the rest of the county. In Autauga County, the floodplain covers a much smaller amount of the county. The main areas of floodplain are along US 82 west of the City of Prattville, near Town of Autaugaville, and sporadically throughout the City of Prattville. In Elmore County, the floodplain covers a large portion of the City of Wetumpka and sporadically throughout all municipalities in the county. Figure 3.19 details the wetlands within the Montgomery MPO study area, and Figure 3.20 details the floodplains and associated floodways.

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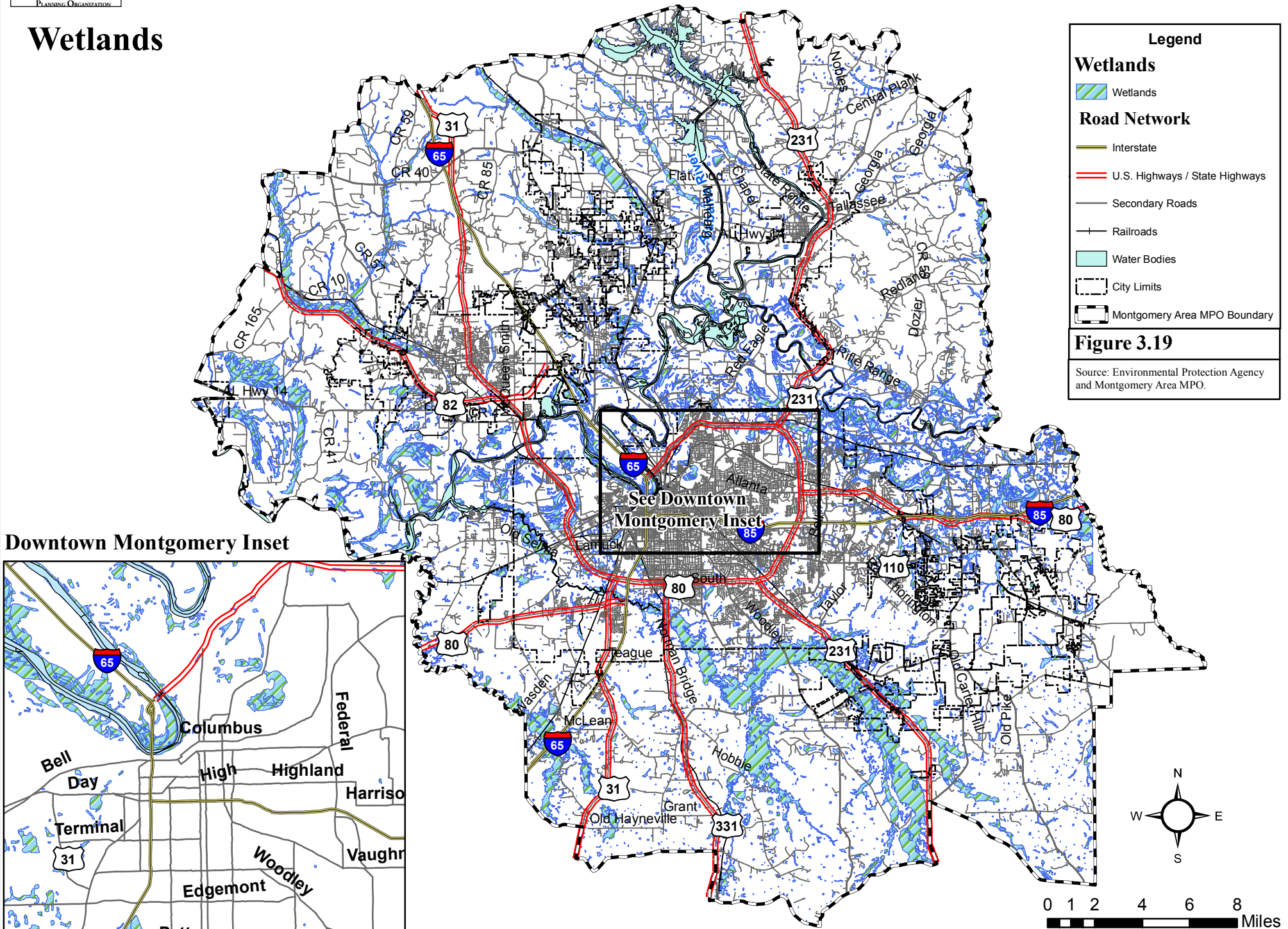
Wetlands



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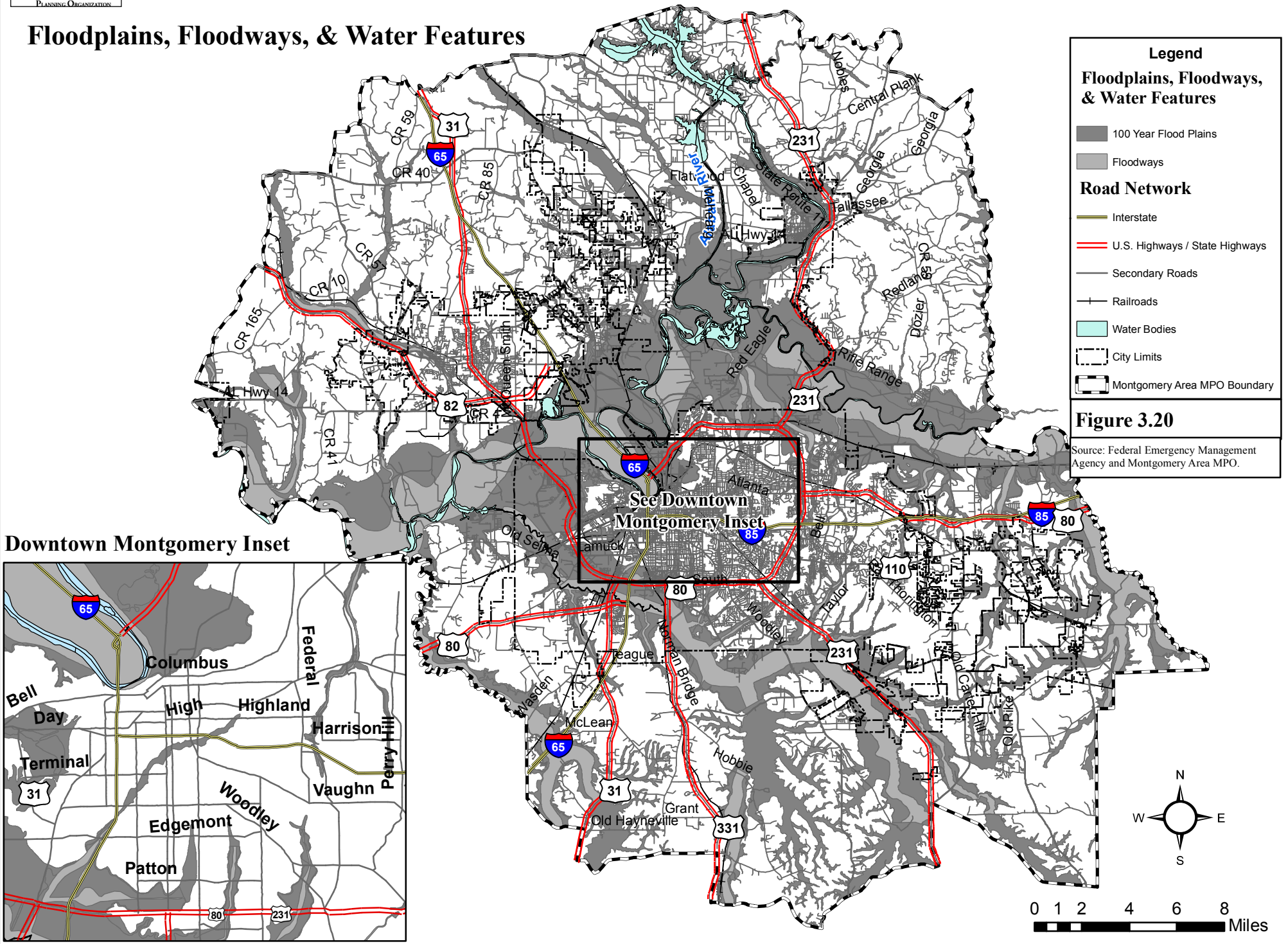
Floodplains, Floodways, & Water Features



3.8.2 Landfills and Hazardous Sites

Hazardous sites include but are not limited to superfund sites, brownfields, and landfills. Many hazardous sites are heavily regulated due to the significant health risks associated with each. The Environmental Protection Agency (EPA) regulates the designation and clean-up of superfund and brownfield sites, while landfills are typically monitored by the associated municipalities. Hazardous sites are significant impacts on proposed projects because of the health hazards, the cost, the time delays, and the probable liability of local, state and federal in regards to existing and acquired right-of-way. The significant fiscal and social cost associated with cleanup of these sites makes development and redevelopment difficult and at times fiscally impossible. Table 3.32 details the EPA sites listed on www.epa.gov and details the landfills obtained from member municipalities. Figure 3.26 details the location, when available, of hazardous locations throughout the MPO Study Area. A review of the environmental and social factors in relation to the proposed program of projects is detailed in Appendix C.

Table 3.32
Hazardous Locations by County

Superfund/Landfill Name	County
Brothers Grease Trap Disposal Site, City of Prattville Construction/Demolition, City of Prattville SLF, Crystal Lake Mfg. Landfill, Lake Haven Scott, Prattville Mill Industrial Landfill, Union Camp Corporation	Autauga
Central Sanitary Landfill, City of Wetumpka Construction/Demolition Landfill, Old Speigner Landfill, Schlumberger Ind. LF (Formerly Neptune), Speigner Sanitary Landfill, Wetumpka Industrial Park Landfill	Elmore
187th Fighter Wing/ANG Dannelly Field, Angelica Healthcare Services, Bigbee Fertilizer Co., Browder Landfill, Buchanan Lumber, Capital City Plume (PCE and TCE Contamination), Capital Veneer Works Landfill, Carolina Steel Fabrication Facility, Circle J Inert Landfill, City of Montgomery Inert Landfill, Former Tampa Fertilizer Company, Gambles/Trinity Property, Jones Property, Kopper Industries, Maxwell AFB Sanitary Landfill, Montgomery Plating Works, North Montgomery Landfill, Oil Spill-Thermal Components, Peterbilt of Montgomery, Ramer Sanitary Landfill, Rebuilt Auto Paint & Body, Riverside Chemical/Terra International Inc, Safety-Kleen Systems Inc, Southland Agricultural Chemicals, Southland International Trucks, Standard Forge & Axle, Sullivan Landfill, T.H. Agriculture & Nutrition, Tocwah Land Reclamation and C/D Landfill, Victorian Classic Inc, Wadsworth Brookview, Wares Ferry Road Landfill, Western Yard of Alabama	Montgomery

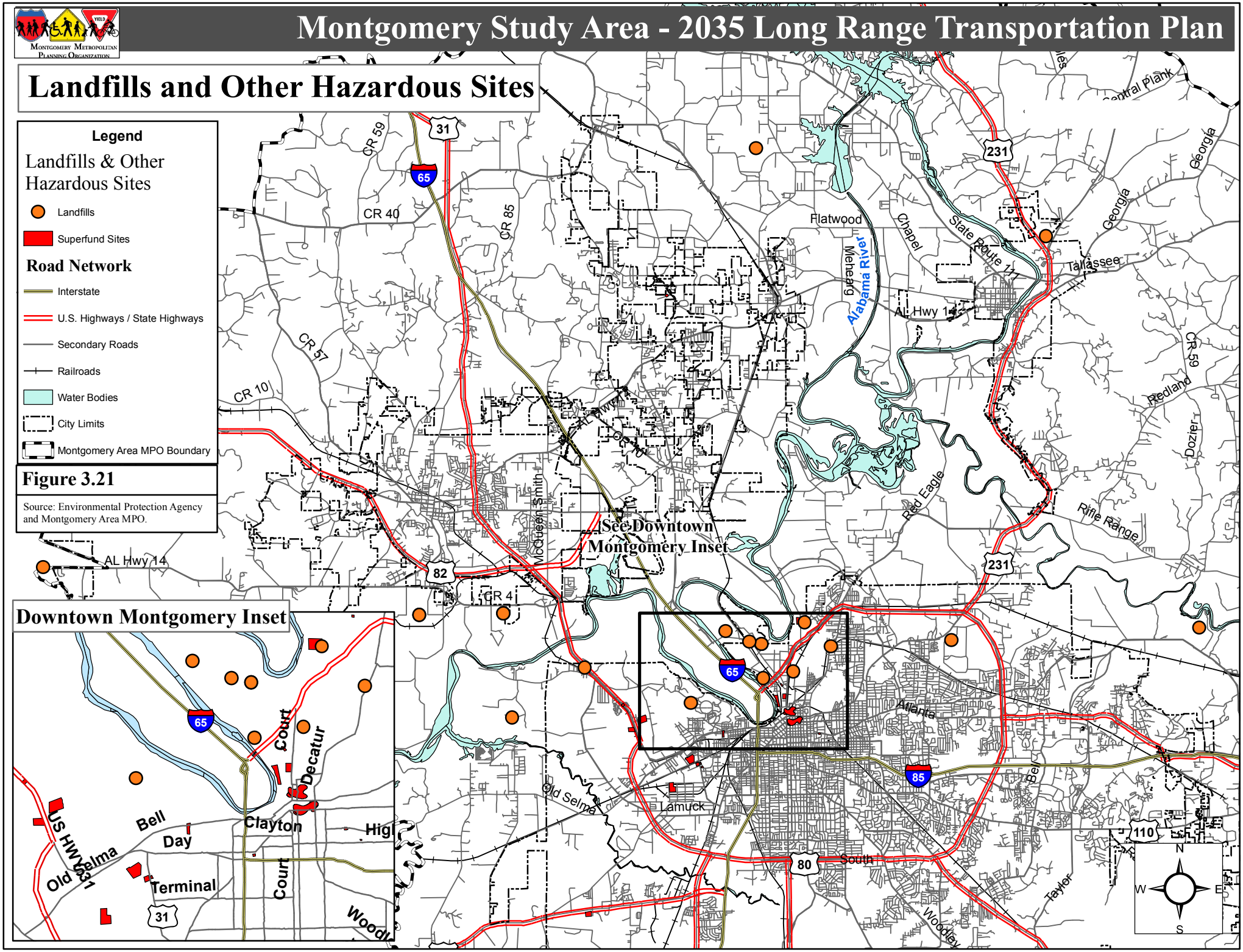
Source: Environmental Protection Agency, ADEM, and MPO member municipalities.

3.8.3 Churches and Cemeteries

Church and cemetery locations are important environmental and social factors when assessing each potential project in the program of projects. Appendix C details the possible affect on churches and cemeteries for each project in the program of projects. The preliminary engineering phase of the proposed project will further detail potential positive or negative affects. Figure 3.22 details the cemeteries in the MPO Study Area. It should be noted that not all cemeteries are featured on the map because some cemeteries lacked detailed information on location. A review of the environmental and social factors in relation to the proposed program of projects is detailed in Appendix C.

Montgomery Study Area - 2035 Long Range Transportation Plan

Landfills and Other Hazardous Sites



Montgomery Metropolitan Planning Organization

Montgomery Study Area - 2035 Long Range Transportation Plan

Cemeteries

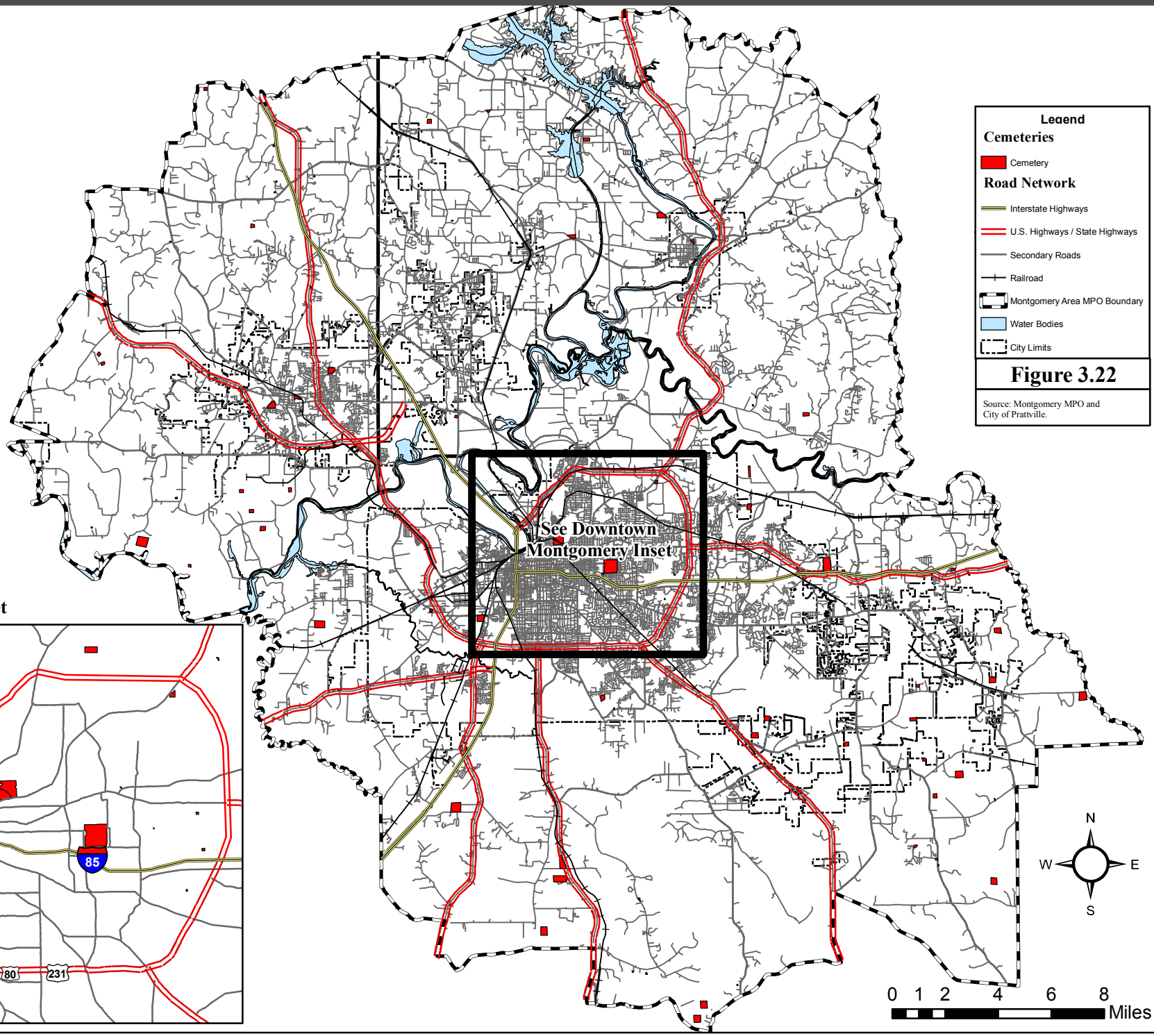


Figure 3.22

Source: Montgomery MPO and City of Prattville.

3.8.4 Schools and Daycares

The Montgomery MPO study area includes three school districts: Autauga County, Elmore County, and Montgomery County. In addition to public schools, each county has private schools and multiple daycare facilities that are included in the enrollment total, and in Montgomery County, the enrollment at numerous colleges, universities, and trade schools are included in the total enrollment. Within the MPO study area, Autauga County has a total 2005 enrollment of 9,358, Elmore County has a total 2005 enrollment of 11,915, Montgomery County has a total 2005 Enrollment of 48,095 for students age under 19, and Montgomery County has a total 2005 enrollment of 43,755 for student age 19 and older. New schools spur an increase in residential development around the new school location, and conversely, heavy residential development increases demand in the area for a public school to serve the new residents. Currently, in Montgomery County, the greatest concentration of residential growth corresponds with the location of the newest Elementary School and Middle School. The large population increases in east Montgomery County and throughout Autauga and Elmore Counties is creating an increased need for classroom space in previously agricultural areas. In addition the population increase is causing a shortage of affordable daycare facilities. Tables 2.33 to 2.35 detail the enrollment in public schools, private schools, and Department of Human Resources certified daycares in 2005.

Enrollment in higher education in Montgomery is reflective of the multitude of colleges, universities, and trade schools available. In addition, Maxwell Air Force Base has a large enrollment in higher education specifically for military personnel. Table 3.36 details the 2005 enrollment in higher education by college, university, or trade school. Figure 3.23 details the daycares and schools within the Montgomery MPO study area. A review of the environmental and social factors in relation to the proposed program of projects is detailed in Appendix C.

Table 3.33
Autauga County Public, Private and Daycare Enrollment in 2005

NAME	2005 Enrollment
Autauga Academy	212
Autauga Academy Preschool	16
Camellia Baptist Church	71
Daniel Pratt Elementary School	1,105
East Memorial Baptist Church	107
East Memorial Christian Academy	280
Kiddie College School	160
Kinder Care Learning Center #21	35
Kinder Care Learning Center #753	50
Ms Cindi's Learning Center	62
North Highland Head Start Center	40
Prattville Christian Academy	56
Prattville Elementary School	578
Prattville High School	2,105
Prattville Intermediate School	685
Prattville Junior High School	1,152
Prattville Kindergarten	445
Prattville Primary School	649
Prattville YMCA Preschool & CDC	55
The Church of the Living Waters	105
The Learning Tree Child Dev Center	100
Tri County Christian Academy	275
Wee Bee Child Development Center	75

Source: Alabama Department of Human Resources and the Alabama Department of Education.

Table 3.34

Elmore County Public, Private and Daycare Enrollment in 2005

NAME	2005 Enrollment
Millbrook First United Methodist Church	50
Cobblestone Learning Center	111
Victory Baptist School Junior & Senior High/Nursery & Preschool	115
Victory Baptist School K4-6th Grade	255
Millbrook middle/Junior High School	1,545
Sandtown Head Start Program	58
Chapman Christian Academy	278
New Life Christian Academy	214
Robinson Springs Elementary School	547
Coosada Elementary School	609
Stanhope Elmore High School	1,097
Edgewood Academy	337
Cousin Jane's Preschool	74
Refuge International Corporation	50
Emerald Mountain Christian School	100
Wetumpka Elementary School	1,033
Wetumpka Intermediate School	749
Periscope After School Summer Program	45
Wetumpka Preschool & Child Development Center	73
Calvary Baptist Church/ Noah's Ark	15
Wetumpka Head Start Daycare	30
Wetumpka Junior High School	630
Wetumpka High School	1,084
Thelma Baker Bradford Head Start Program	39
First Baptist Church Wetumpka	145
Wetumpka Early Head Start	587
Cain's Chapel Weekday Children's Ministry	50
Delightful Child Care Center	19
Pine Level Elementary School Prattville	977
The Learning Tree CDC Millbrook	95
JF Ingram State Technical College	712
Creative Learning Center	27
Kiddie College	45
Sesame Street Clubhouse	67
Holtville Elementary School	576
Holtville High School	446
Holtville Middle School	513

Source: Alabama Department of Human Resources and the Alabama Department of Education.

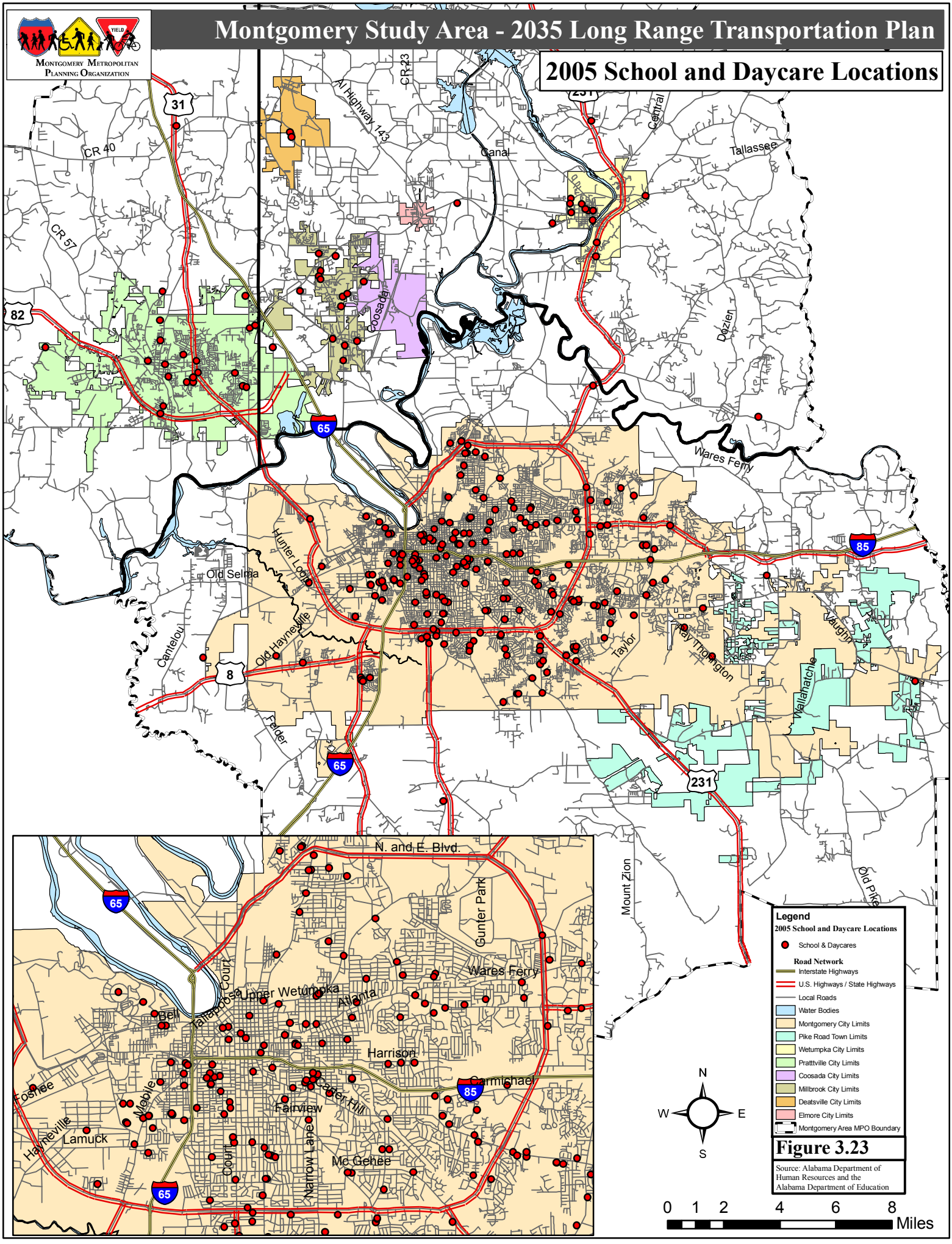


Figure 3.23

Source: Alabama Department of Human Resources and the Alabama Department of Education

Table 3.35
Montgomery County Public, Private and Daycare Enrollment in 2005

NAME	2005 Enrollment
Dunbar Ramer Elementary School	194
Baldwin Arts/Academic Magnet School	589
Bear Elementary School	517
Bellingrath Junior High School	795
Brewbaker Intermediate School	600
Brewbaker Junior High School	1,196
Capitol Heights Junior High School	827
Carver High School	1,368
Catoma Elementary School	172
Booker T Washington Magnet High School	499
Chisholm Elementary School	751
Peter Crump Elementary School	535
Dalraida Elementary School	608
Dannelly Elementary School	664
Davis Elementary School	455
Dozier Elementary School	336
Fews Secondary Alternative School	84
Flowers Elementary School	300
Floyd Elementary School	531
Forest Avenue Elementary School	682
Georgia Washington Junior High School	720
ED Nixon Elementary School	534
Goodwyn Junior High School	762
Harrison Elementary School	368
Hayneville Road Elementary School	375
Highland Avenue Elementary School	327
Highland Gardens Elementary School	556
Houston Hill Junior High School	277
McIntyre Middle School	481
Jefferson Davis High School	1,436
Sidney Lanier High School	927
Robert E Lee High School	1,503
TS Morris Elementary School	511
MacMillan International Academy	273
Peterson Elementary School	192
Garret Elementary School	590
Morningview Elementary School	541
Paterson Elementary School	259
Pintlala Elementary School	192
Seth Johnson Elementary School	572
Southlawn Elementary School	361
Head Elementary School	536
Vaughn Road Elementary School	539
Wares Ferry Road Elementary School	523
Carver Elementary School	564
Fitzpatrick Elementary School	687
Floyd Middle Magnet School	547

Halcyon Elementary School	654
McKee Elementary School (New)	524
Martin Luther King Elementary	311
McKee Junior High School (New)	760
Southlawn Middle School	561
Brewbaker Technology Magnet High School	439
Blount Elementary School	643
Brewbaker Primary School	832
Loveless Academic Magnet Program High School	389

Source: Alabama Department of Human Resources and the Alabama Department of Education.

Table 3.36
2005 Higher Education Enrollment

College, University, or Trade School Name	2005 Enrollment
Air University	24,408
Alabama Police Academy	52
Alabama State University	5,469
Ambridge University	720*
Auburn University at Montgomery	5,128
Faulkner University	1,780
Huntington College	790
JK Ingram State Technical College (Montgomery)	276
Montgomery Job Corps	322
Prince Institute of Professional Studies	59
South University	363
Trenholm State Technical College (Air Base Blvd)	602
Trenholm State Technical College (Troy Highway)	796
Troy State University Montgomery	4,257
Troy State University School of Nursing	440

*97% online
Source: Each university, college, or trade school.

3.8.5 Historic Sites and Districts

Historic sites are protected by Section 4(f) of the Departments of Transportation Act (as amended) and Section 106 of the Historic Preservation Act. The preservation of historic sites and districts enables the preservation of both structural and cultural artifacts that both define and shape our past and future. In particular, the City of Montgomery has significant historical sites from the Civil Rights Movement. The National Register of Historic Places, the Alabama Register of Landmarks & Heritage, and Local Historic Listings were used to compile the list of historical sites and Districts. Table 3.37 lists the Historic Districts in the MPO Study Area, and Figure 3.24 details their locations. A review of the environmental and social factors in relation to the proposed program of projects is detailed in Appendix C.

Table 3.37
Historic Districts by Location and Register

Name	Register	County
City of Prattville Historic District	National	Autauga
Daniel Pratt Historic District	Local	Autauga
East Wetunpka Commercial Histiric District	National	Elmore
Tuskeena Street District	State	Elmore
Alabama State University Historic District	National/State	Montgomery
Baldwin District	Local	Montgomery
Capital Heights-Capital Parkway	Local	Montgomery
Capital Heights Madison	Local	Montgomery
Capital Heights-St. Charles	Local	Montgomery
Capital Heights-Winona	Local	Montgomery
Centennial Hill Historic District	State	Montgomery
City of St. Jude Historic District	National	Montgomery
Cloverdale-Idlewood	Local	Montgomery
Cloverdale Historic District	National	Montgomery
Cottage Hill Historic District	National/State/Local	Montgomery
Court Square-Dexter Avenue Historic District	National	Montgomery
Dowe Historic District	National	Montgomery
Garden District	National/Local	Montgomery
Highland Avenue	Local	Montgomery
Huntington College Campus Historic District	National	Montgomery
Lower Commerce Street Historic District	National/Local	Montgomery
Maxwell Air Force Base Senior Officer's Quarters	National	Montgomery
North Hull Street	Local	Montgomery
North Lawrence-Monroe Street Historic Districts	National	Montgomery
Old Cloverdale	Local	Montgomery
Ordeman-Shaw Historic District	National	Montgomery
Perry Street Historic District	National	Montgomery
Powder Magazine	Local	Montgomery
South Highland Court	Local	Montgomery
South Perry Street Historic District	National	Montgomery
Western Railway of Alabama Carshops/Engine Terminal	State	Montgomery

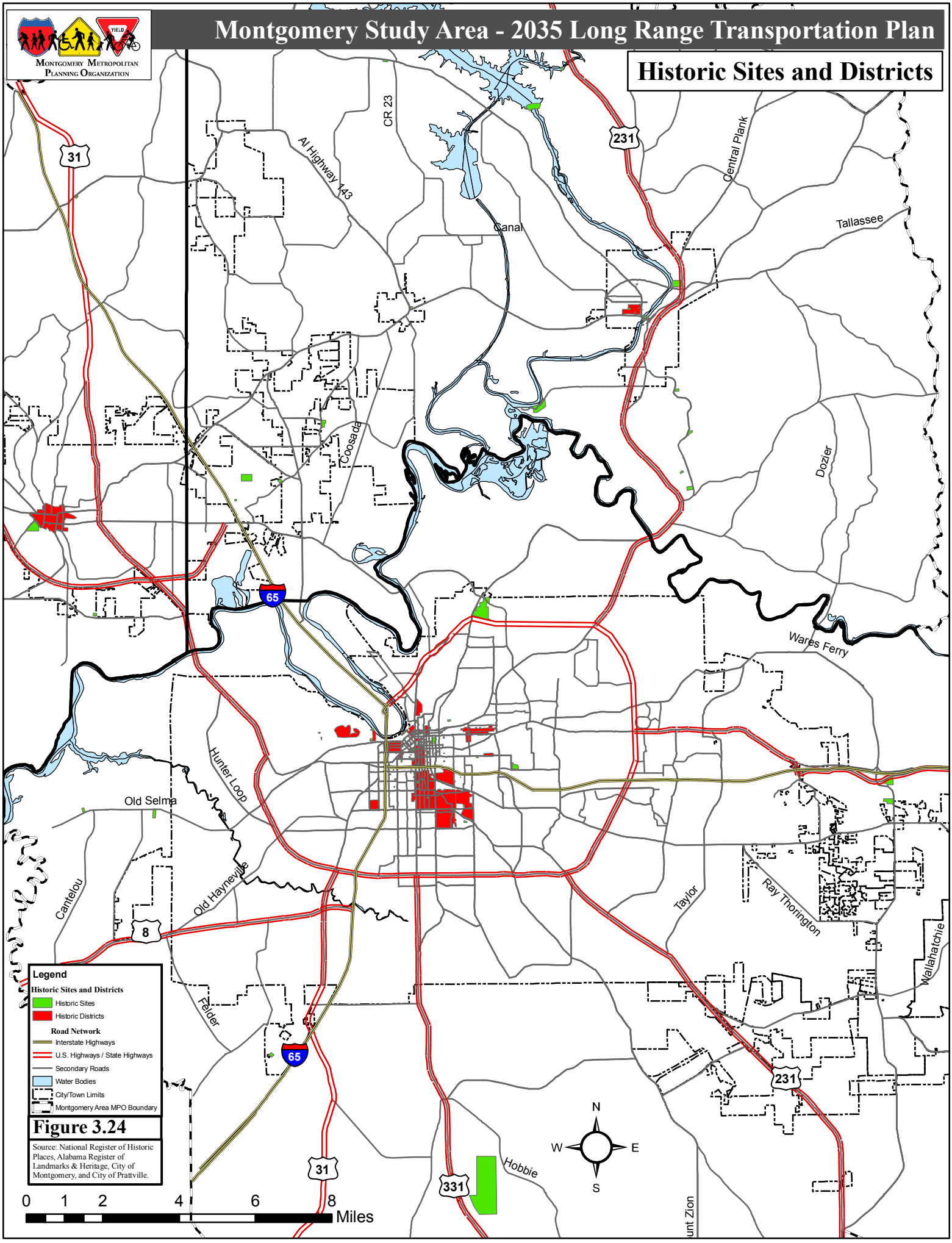
Source: National Register of Historic Places, Alabama Register of Landmarks & Heritage, City of Montgomery, and City of Prattville.

3.8.6 Hospitals, Libraries, YMCA, Parks and Community Centers

Hospitals, libraries, parks, community center and YMCAs are social/environmental factors that both affect quality of life and development patterns. Increasing access to medical care is a possible positive outcome for transportation projects, while decreasing or eliminating park lands is a possible negative outcome. Unlike many other factors these factors can both negatively and positively affected by the same project depending on the population questioned. The possibility of affecting one of these factors can be evaluated at the project proposal phase, and the possible positive or negative effects can be detailed in the preliminary engineering phase of each project. Figure 3.25 details the location of each throughout the study area. Appendix C evaluates the possibility of affecting these social /environmental facts.

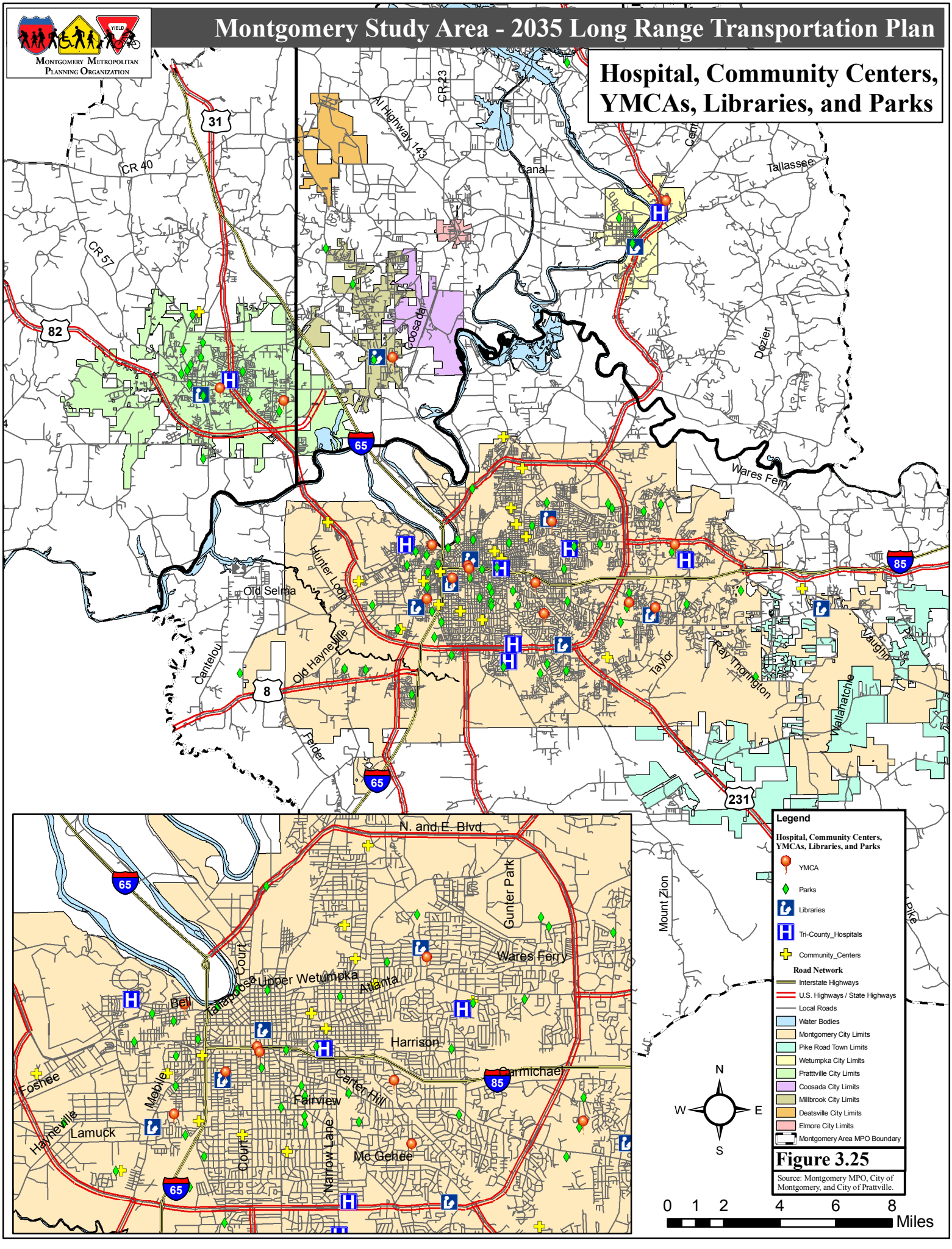
Montgomery Study Area - 2035 Long Range Transportation Plan

Historic Sites and Districts



Montgomery Study Area - 2035 Long Range Transportation Plan

Hospital, Community Centers, YMCAs, Libraries, and Parks



3.9 Environmental Mitigation and Climate Change

According to the FHWA report "Integrating Climate Change into the Transportation Planning Process," there is general scientific consensus that the earth is experiencing a long-term warming trend and that human-induced increases in atmospheric greenhouse gases (GHGs) may be the predominant cause. The combustion of fossil fuels is by far the biggest source of GHS emissions. In the United States, transportation is the largest source of GHG emissions, after electricity generation. Within the transportation sector, cars and trucks account for a majority of emissions.

Opportunities to reduce GHG emissions from transportation include switching to alternative fuels, using more fuel efficient vehicles, and reducing the total number of miles driven. Each of these options requires a mixture of public and private sector involvement. Transportation planning activities, which influence how transportation systems are built and operated, can contribute to these strategies.

In addition to contributing to climate change, transportation will likely also be affected by climate change. Transportation infrastructure is vulnerable to predicted changes in sea level and increases in severe weather and extreme high temperatures. Long-term transportation planning will need to respond to these threats.

3.10 Air Quality Conformance Process

The Clean Air Act (CAA), codified as Title 42 of United States Code (USC) Section 7401, and implemented by the Environmental Protection Agency (EPA) under Title 40 of Code of Federal Regulations (CFR), Parts 51 and 93, establishes tolerance standards on ground-level and atmospheric pollutants and provides for corrective mitigation measures when area monitor readings exceed allowable levels. Air quality in Alabama, as in other states, is adversely affected by pollutant emissions from automobile and truck exhaust systems, and this condition is exacerbated by congestion on urban roadways. This connection between automobile/truck emissions, traffic congestion, and increasing pollutant levels is well established and acknowledged by EPA, Federal Highway Administration (FHWA), and other agencies.

Common pollutants include ozone (O□) and particulate matter 2.5 (PM□.□), among others, and the EPA standards, which determine tolerance violations, are known as the National Ambient Air Quality Standards (NAAQS). Standards are typically established for ground-level ozone in terms of parts per billion (ppb) and for particulate matter, in tons per day. A violating pollutant is measured by a monitoring station in 1-hour and 8-hour increments for a given year to arrive at allowable averages.

Title 40 CFR Part 93 provides the rules and regulations for Air Quality Conformity, stating the procedures and requirements necessary by states and local governments to reach conformity, and Titles 23 and 49 of USC are interpreted through the Federal Highway Administration's (FHWA) 23 CFR 450 to insure conformity compliance is carried through in local planning by the MPO's and other transportation agencies.

3.10.1 Transportation Conformity

Conformity, as commonly defined, is *a process which ensures federal funding and approval goes to transportation activities that are consistent with our air quality goals.* SAFETEA-LU links conformity requirements to continued funding of transportation projects. The US Department of Transportation cannot fund, authorize, or approve federal actions to support projects that do not conform to Clean Air Act requirements governing the current NAAQS. Air Quality Conformity requires that projects are included in a *conforming* and fiscally constrained transportation plan (Long Range Plan) and a similarly constrained short range program, a Transportation Improvement Program (TIP).

States are required to establish State Implementation Plans (SIP), providing air quality goals for transportation plans and programs. The SIP, as set forth in 23 CFR 450.104, will generally state *that transportation activities will not cause new air quality violations, worsen existing conditions, or delay timely attainment of the air quality standards.*

SIP's are established for the various pollutants monitored in a given area, as required by CAA. Each pollutant is assigned an allowable emission ceiling, referred to as the emissions "budget." This becomes the highest level of emissions allowed under a Long Range Transportation Plan or TIP, while demonstrating attainment of standards. It is against the budgets that readings from monitoring stations are measured to determine whether an area or county is non-conforming and thus must begin the mitigation process. Failing to meet conformity rules or exceeding emissions budgets can have varying outcomes. They may include the loss of federal funding, projects underway can be halted, federal permits can be denied, and projected projects can be frozen in place, any of which can seriously and immediately impact a road network. For any and all of those reasons, it is essential that immediate steps are taken by the affected MPO to begin the Air Quality Conformity Determination process.

3.10.2 Conclusion

The Montgomery MPO Area is currently classified as an attainment area for all criteria pollutants (the pollutants for which EPA has developed NAAQS under the Clean Air Act). Though the Montgomery study area is currently an attainment area, EPA has indicated their intention to publish proposed revisions to the standard, which may push the area into non-attainment. EPA plans to have a final rule in August 2010, and designate areas as attainment or nonattainment under the revised standard beginning in August 2011. Depending on the stringency of the revised standard, the Montgomery area could be designated as a non-attainment area in 2011.

3.11 Transportation Demand Management

The transportation system consists of infrastructure supply (roadways, rail, air space, and navigable waters) and the means to utilize the system (vehicles, pedestrians, bicyclists, public transit, trains, airplanes, and water craft). One goal of the 2035 LRTP is to effect efficient utilization and achieve a balance of mobility options across all modes. When any element of the multimodal system is in great demand, over utilization may result. Commonly referred to as traffic congestion, crush load, or delayed flights, one of the most common solutions to alleviating transportation demand is provide greater supply through adding capacity. However, the ability to add capacity is constrained by other 2035 LRTP goals, including keeping the program financially feasible and ensuring the plan is environmentally and community sensitive. Due to any number of constraints, it is not always practical or feasible to add capacity; therefore, one set of solutions that is always considered in the planning process is utilization of Transportation Demand Management (TDM) strategies.

TDM strategies focus on reducing the demand for any given element in the transportation system and are implemented in addition to or in lieu of infrastructure or service investments. TDM strategies are generally applied to reduce traffic congestion and combine both policy initiatives and infrastructure investments that promote trip reduction. Policy initiatives that encourage reduction of single occupant vehicle (SOV) trips often target commute trips and include changes to the standard 8 a.m. to 5 p.m. work schedule such as telecommuting, changing work hours or working on a compressed work schedule. Infrastructure and service investments that can reduce trip production include the addition of high occupancy vehicle (HOV) lanes, park and ride facilities, and improved bus service. By investing in HOV lanes, transit service, and park and ride facilities, HOV travel is encouraged through carpooling, vanpooling, and transit use.

In the Montgomery 2035 LRTP, the need for improved bus service and park and ride lots and other transit service type offerings were identified. The LRTP identified potential opportunities for express bus/vanpool service transit service improvements throughout the plan period, which is in addition to projected FTA Section 5311 funds (Autauga County Rural Transportation) and FTA Section 5307 funds (MATS) to maintain the existing level of service for these two systems.

4. Transportation System Overview

The purpose of the 2035 LRTP is to provide a long transportation range plan to ensure the transportation system network is suited to regional transportation needs and provides an efficient and effective, multimodal transportation system. The Transportation system within the Montgomery region includes roadways, railways, aviation, water, bicycling, pedestrian, and transit local bus and private bus. In this section, an inventory and description of each element of the transportation system is presented.

4.1 Roadways

The backbone of the transportation system is composed of a roadway network system ranging from Interstates and state highways to county roads and city streets. The Montgomery Study Area is bisected by two Interstates, I-65, which connects Montgomery to Birmingham to the north and Mobile to the south, and I-85, which connects Montgomery to Atlanta, Georgia. Roadways designated as part of the National Highway System (NHS) include US-331, US-31, US-231/State Route 9, and State Routes (SR) 108 and 152. US 231/SR-53 and US-80/SR-8 are designated as NHS Strategic Highway Network (STRAHNET) routes. The study area also has three designated Surface Transportation Assistance Act (STAA) routes: US-82, from SR-206 in Prattville to US-231; US-231, from north of Wetumpka thru Montgomery to the Florida state line; and SR-152, from US-231 to I-65. Other major roads in the study area are SR-3, SR-6, SR-14, SR-63, SR-110, SR-111, SR-143, SR-170, and SR-271.

In order to determine the adequacy of a highway system, it is necessary to inventory roadways according to how they fulfill two purposes: movement of traffic (for people and goods movement) and access to property. By assessing the degree to which a particular roadway serves each of the two basic functions, a roadway functional classification can be determined. ALDOT along with local transportation professionals working at Metropolitan Planning Organizations (MPO) and the Federal Highway Administration (FHWA) are responsible for classifying all roads in the public road system by their geographic location in rural, small urban or urban areas according to their character of service. Functional classification was determined for each road in the network using the ALDOT/FHWA functional classification system in order to accurately identify service characteristics of each roadway. The MPO study area contains 965 centerline miles of roadways. All roads in the study area have been grouped into the following four functional classifications:

- Interstates - Defined as significant highways that feature limited access and continuous, high-speed movements for a wide variety of traffic types. I-85 and I-65 run approximately 56 centerline miles through the MPO Study area, accounting for 6 percent of the system. I-65 is a 4 to 6-lane facility with a posted speed of between 55-70 miles per hour (mph), and I-85 is a 4 to 6-lane facility with a posted speed of between 55-70 mph.

- Arterials - Classified as principal or minor, these roads connect activity centers and carry large volumes of traffic at moderate speeds. The arterial system in the MPO Study area totals approximately 392 centerline miles, of which 121 miles are principal arterials and 271 miles are minor arterials. Arterials comprise 41 percent of the system. The arterial system is significant because it accommodates a substantial share of the volume yet constitutes only a small share of the existing roadway system.

- Collectors - Typically allow access to activity centers from residential areas. ALDOT classifies collectors as urban, major rural, or minor rural. Their purpose is to collect traffic from streets in residential and commercial areas and distribute it to the arterial system. The collector system in the MPO Study area is 506 centerline miles, or 52 percent of the system.

- Local Roads - Feed the collector system from low volume residential and commercial areas. Usually local streets are found in subdivisions and rural areas. There are approximately 2,249 centerline miles classified as local roads in the MPO study area.

The travel demand model is a tool that provides a means to evaluate the roadway network. The travel demand model is an abstraction of the actual network. Only roadways classified as collector or above are coded into the model network. Table 5.1 summarizes the 2005 base year model network distribution by functional classification. Figure 5.1 illustrates the model network functional classification.

Table 4.1
2005 Model Network Description

Functional Classification	Total Centerline Miles	Percent of Model Network
Interstate	56	6%
Freeways/Expressways Urban	11	1%
Principal Arterial	121	13%
Minor Arterial	271	28%
Collector Urban	196	20%
Major Collector Rural	227	23%
Minor Collector Rural	83	9%
Total	965	100%

Source: Montgomery MPO Transportation Planning Staff

4.2 Network Utilization

ALDOT collects and prepares both hourly traffic volume counts and annual average daily traffic (AADT) for the entire state. AADT data is used to update, calibrate and validate the travel demand model, and ensure the model can reasonably replicate actual roadway conditions, within an acceptable range of variability as determined by the ALDOT and FHWA. The 2005 base year travel demand model average daily volumes are shown in Figure 5.2. As is expected, the roadway network with the greatest volumes is the Interstate system and principal arterial network. The City of Montgomery has the most facilities with volumes exceeding 20,000 vehicles per day.

4.3 Bridges

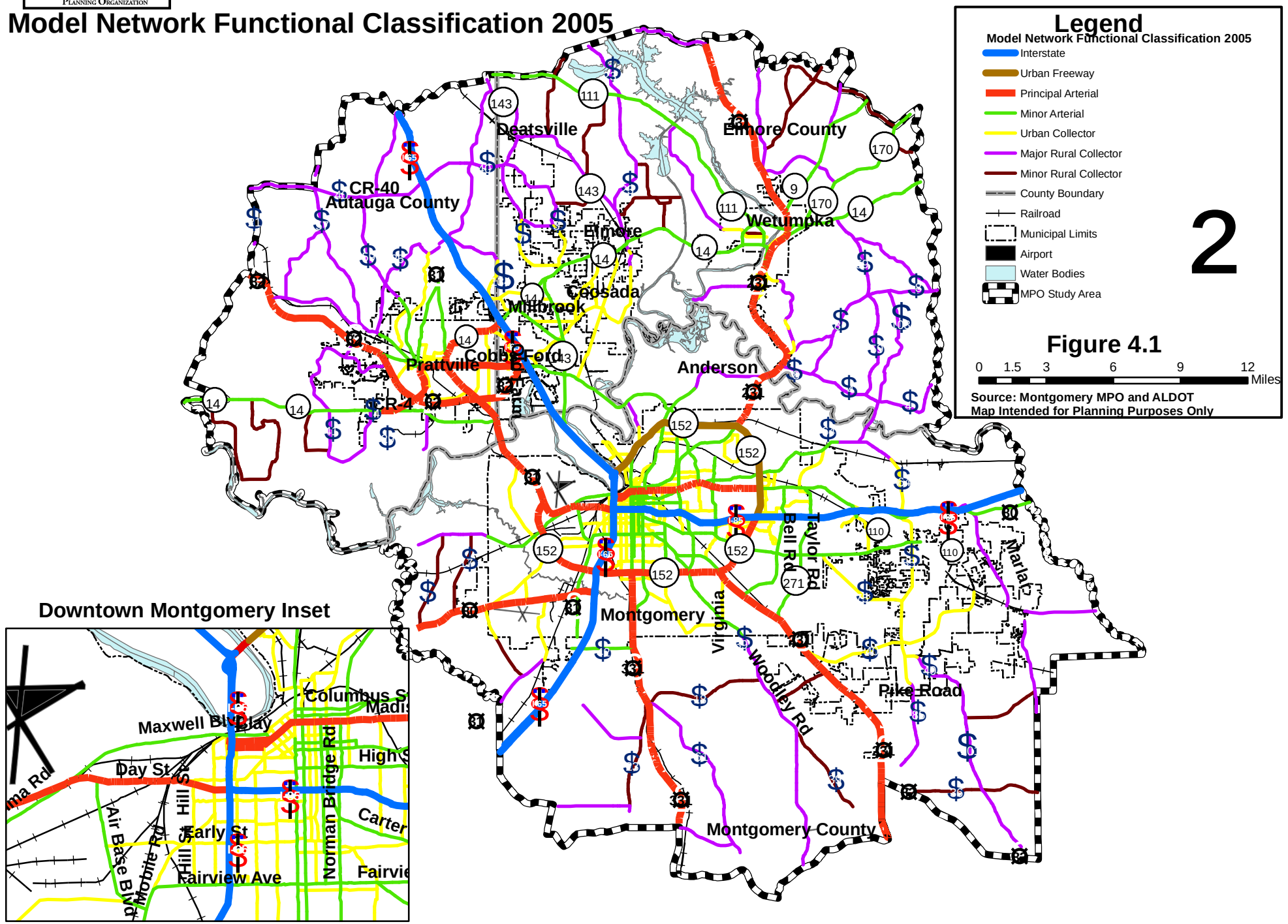
Bridges are categorized separately from the roadway system because bridges are structural; Special attention must be paid to bridge structural integrity and performance. ALDOT is responsible for the state bridge inventory and periodic bridge inspection, which is reported to the National Bridge Inventory (NBI). ALDOT inspects bridges every two years, and each bridge is assigned a sufficiency rating of between 0 (poor) and 100 (excellent). The sufficiency rating is based on the following:

- Structural adequacy and safety
- Serviceability and functional obsolescence
- Essentiality for public use

ALDOT also identifies functionally obsolete and structurally deficient bridges. Bridges can be categorized as functionally obsolete even when in good structural condition. Functionally obsolete bridges are structurally unable to accommodate current traffic. An example of a reason a bridge would be categorized as functionally obsolete would be if it is too narrow for two large vehicles to cross simultaneously.

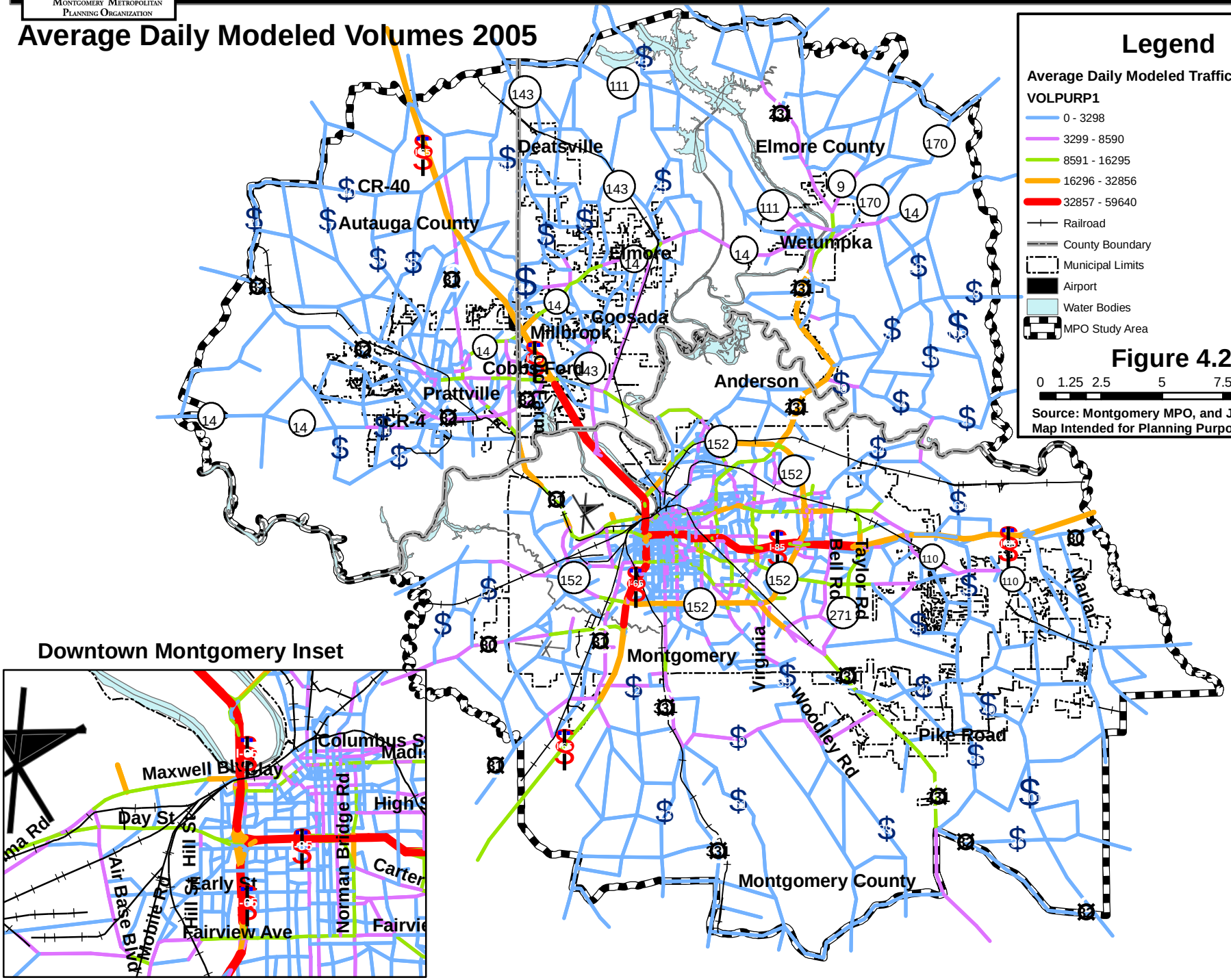
Montgomery Study Area - 2035 Long Range Transportation Plan

Model Network Functional Classification 2005



Montgomery Study Area - 2035 Long Range Transportation Plan

Average Daily Modeled Volumes 2005



Legend

Average Daily Modeled Traffic Volumes 2005

VOLPURP1

- 0 - 3298
- 3299 - 8590
- 8591 - 16295
- 16296 - 32856
- 32857 - 59640
- Railroad
- County Boundary
- Municipal Limits
- Airport
- Water Bodies
- MPO Study Area

2

Figure 4.2

0 1.25 2.5 5 7.5 10 Miles

Source: Montgomery MPO, and Jacobs Engineering

Map Intended for Planning Purposes

Eligibility for federal funding is determined by FHWA guidelines based on sufficiency ratings. The guidelines governing bridge replacement and rehabilitation are as follows:

- To be eligible for bridge replacement, the bridge sufficiency rating must be 50 or below, and it must be categorized as functionally obsolete and/or structurally deficient.
- To be eligible for bridge rehabilitation funding, the bridge sufficiency rating must be between 50 and 80, and it must be categorized as functionally obsolete and/or structurally deficient.
- Bridges with a sufficiency rating above 80 are not eligible for federal bridge funds.

The current consensus is that once a bridge is over the age of 50, either rehabilitation or replacement is necessary. Figure 4.3 details the sufficiency rating of the bridges within the MPO study area, Figure 4.4 details the bridges that are classified as functionally obsolete or structurally deficient, and Figure 4.5 details the bridges that will be over the age of 50 in 2035.

Of the 363 Montgomery area bridges, 76 (20.94 percent) are rated functionally obsolete and 4 (1.1 percent) are rated structurally deficient. Three of 80 functionally obsolete and structurally deficient bridges received the lowest sufficiency rating and require replacement. Sixty-two bridges received a sufficiency rating between 50 and 80 and have been identified as needing rehabilitation. The remaining fifteen bridges received a sufficiency rating above 80 and are not eligible for federal replacement funds.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2007 Sufficiency Rating of Bridges with MPO Study Boundary

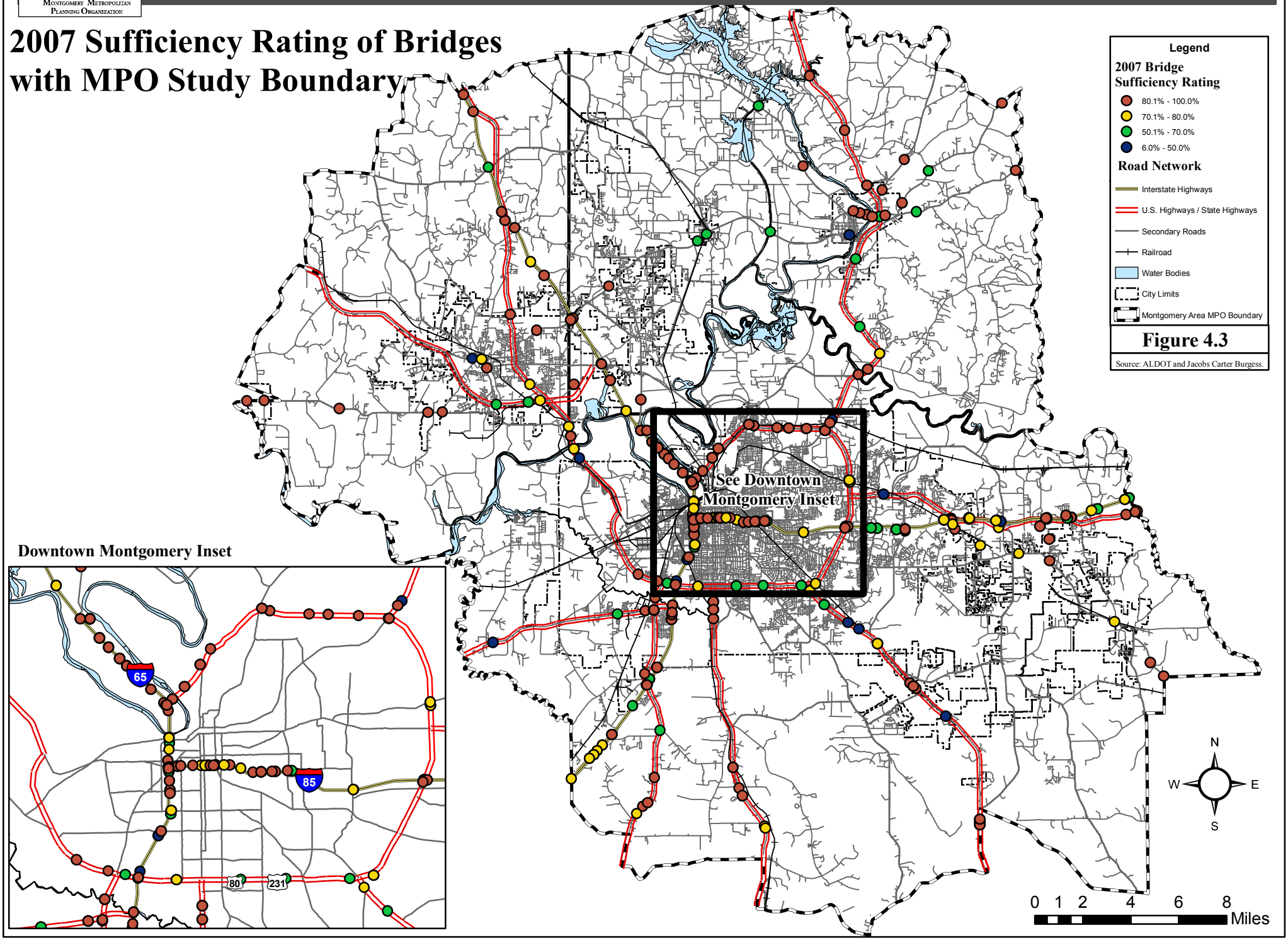


Figure 4.3

Source: ALDOT and Jacobs Carter Burgess.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2007 Structurally Defecient and Functionally Obsolete Bridges

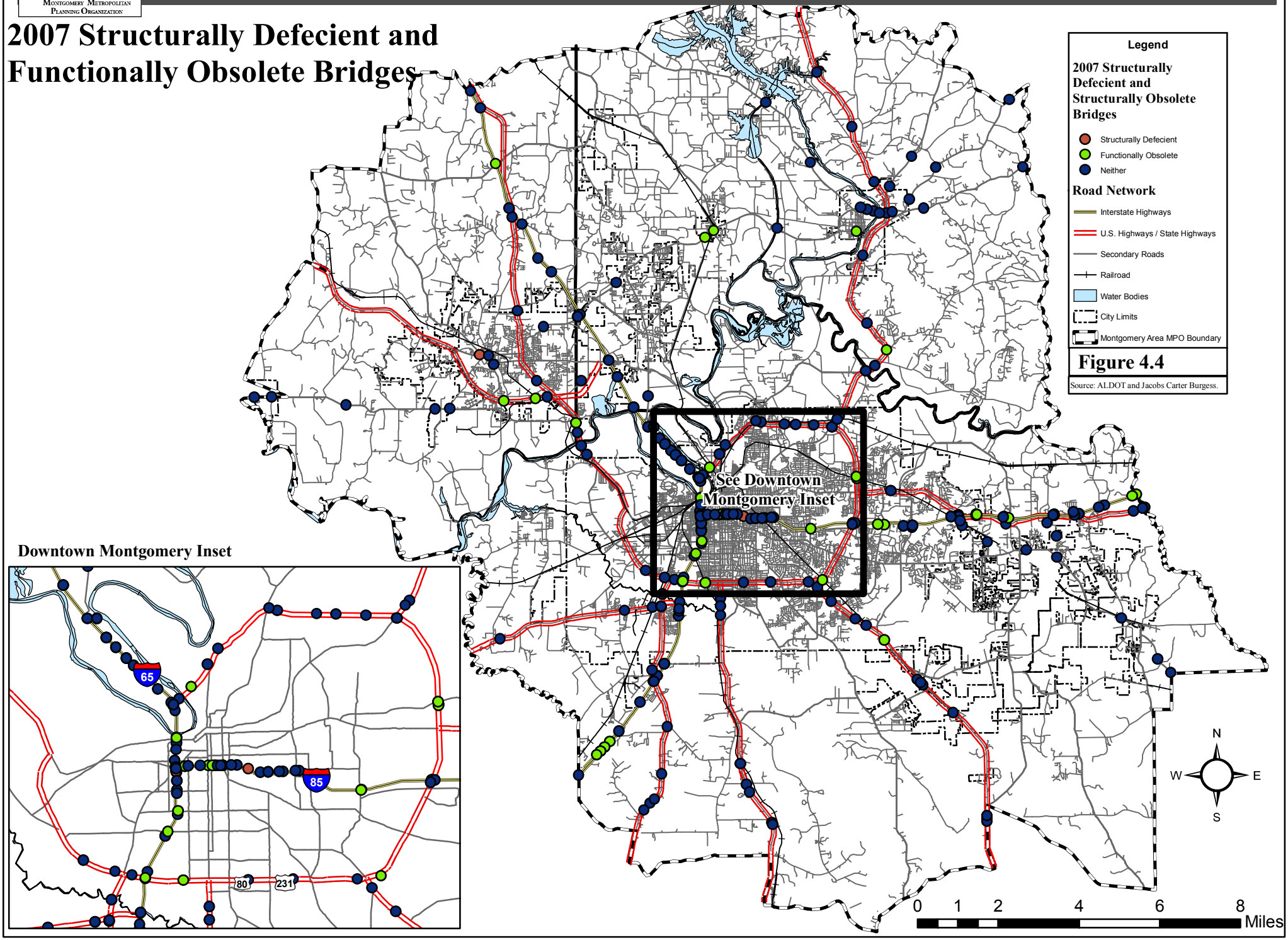


Figure 4.4

Source: ALDOT and Jacobs Carter Burgess.

Montgomery Study Area - 2035 Long Range Transportation Plan

Bridges 50 Years and Older in 2035

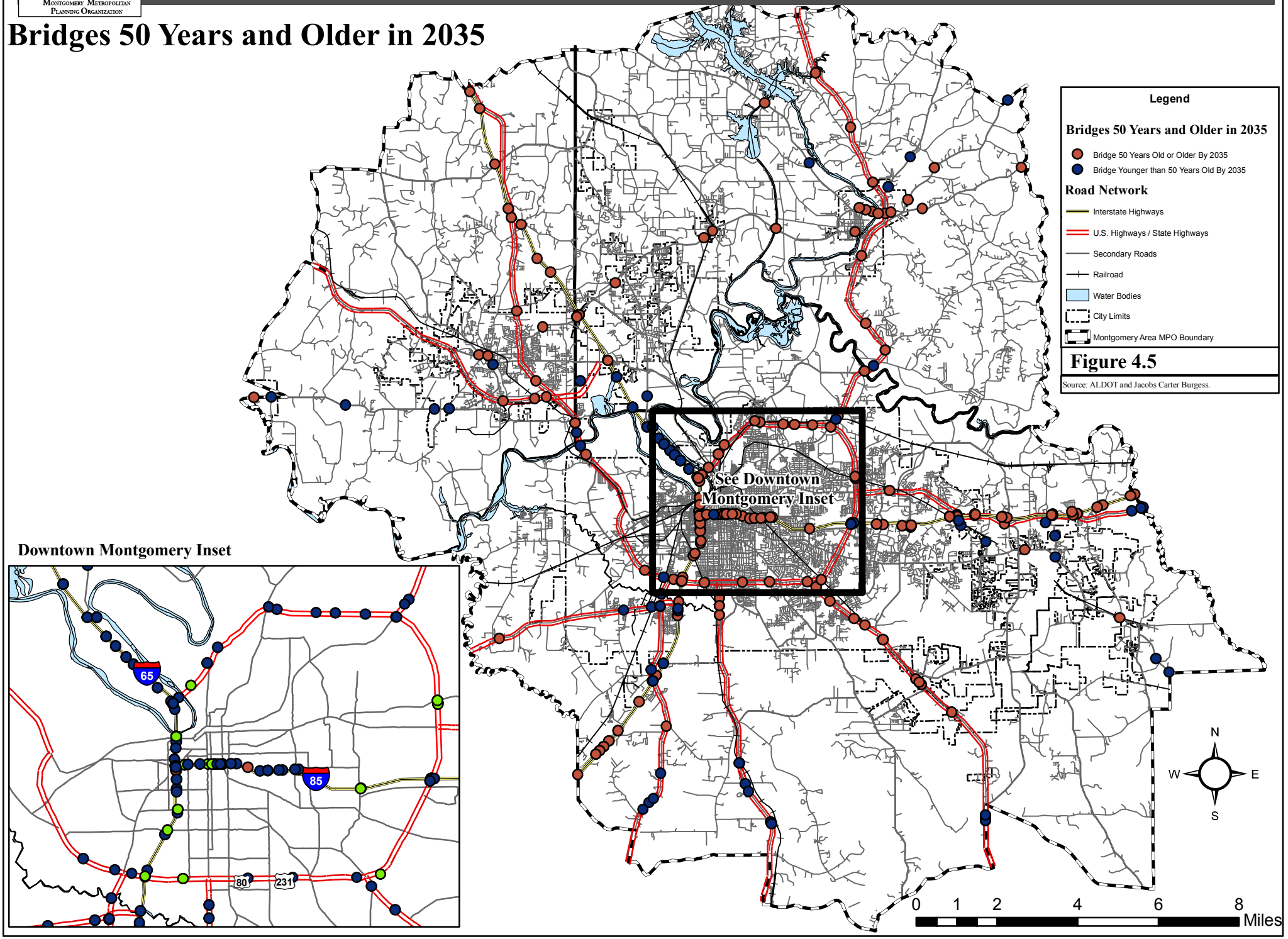


Figure 4.5

Source: ALDOT and Jacobs Carter Burgess.

4.4 Transit

The MPO Study area is served by local, rural, and intercity transit services. Montgomery Area Transit System (MATS) operates within the city limits of Montgomery. Autauga County Rural Transportation Program operates within the rural portions of Autauga County and within Prattville and also deliver transit patrons to and from Montgomery County (city mostly). Intercity bus service is provided by Greyhound and Capital Trailways.

4.4.1 Montgomery Area Transit System (MATS)

MATS was purchased by the City of Montgomery in 1974, and contracted with American Transit Corporation and later Queen Management Group until 1998 to operate the system. In 1998, MATS' 17 fixed routes were temporarily replaced with a Demand and Response Transit (DART) system (call-in reservation system). The service changes were due to reductions in federal operating support for the system and seen as a cost-effective option. The Montgomery Area Paratransit (MAP) service was maintained during this period to continue service to persons with disabilities.

After a change of administration, City leaders realized that the newly implemented DART system was not effectively meeting the needs of the citizens of Montgomery. A trial run of three new fixed routes was implemented in March 2000, which led to an additional six fixed routes in March 2001 after to the overwhelming success of the first three routes. MATS is currently owned by the City of Montgomery and operated under a management contract with the First Transit Group.

In 2007, MATS was awarded the FTA MegaStar award for the FTA's Region IV, the award was granted to the transit system for successful initiatives resulting in significant contributions and excellence in public transportation implemented in the calendar years 2005-2007. In 2009 MATS was awarded $2,675,000 by the Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER) Grant program. These funds were used to purchase five 30-35 ft Hybrid Electric buses to replace older existing buses within the MATS fleet.

MATS operates a fixed route and paratransit service within the City of Montgomery. The fixed route system includes 16 fixed routes, the trolley service *State shuttle* and new *Entertainment Express* trolley. Fixed Route services operate Monday through Saturday from around 5 a.m. to 9:30 p.m., depending on the route. The frequency of service varies by route from 20 minute headways to 45 minute headways. The current fixed routes were initiated in March 2000. MATS also operates a paratransit service titled Montgomery Area Paratransit (MAP). The base one-way fare for fixed route service is $1.00. The fare for senior citizens, disabled persons, and students is $0.50; MAP fare is $2.00.

Data from the National Transit Database (NTD) indicate MATS provided a daily average of 4,870 trips Monday through Friday, and a daily average of 2,005 trips on Saturday in fiscal year 2009 for its fixed route service. MAP provided an average of 3,128 trips Monday through Friday in fiscal year 2008. The Lighting Route provided a monthly average of 2,260 trips with a weekday average of 77 and weekend average of 150 trips.

The *Lightning Route* ended in April, 2009 in lieu of the *Entertainment Express* which began service in November 2009. The *Entertainment Express* operates on Thursday, Friday and Saturday between the hours of 6:30pm and 11:30 with headways of 30 minutes. There are two (2) trolleys operating this service which provides transit service for military personnel on Maxwell and Gunter Air Force Bases located in Montgomery as well as local citizens to the Downtown and Old Cloverdale entertainment districts. The base one-way fare for the Entertainment Express is $1.00.

The MATS/MAP are funded through farebox revenue, the City of Montgomery, and Federal Transit Administration (FTA) funding through the urbanized area funding program under Section 5307. The fiscal year 2010 available appropriation for the Montgomery urbanized area was $2,653,645. To be eligible for FTA Section 5307 funds, The City of Montgomery must provide a local match of 50/50 for operating funds and 80/20 federal/local for capital and planning funds. Table 4.2 gives a brief summary of existing MATS services and current ridership data. Figure 4.6 details the MATS regular fixed routes and Figure 4.7 details the entertainment express routes.

Table 4.2
Summary of Existing MATS Service

- Twenty fixed routes with weekday service, and Saturday service on most routes. Typical weekday headways range from 30 minutes to 1 hour, with exceptions being the #14 (see below) and the #13 state shuttle, which runs every 10 minutes but only during peak hours, No weekends for state shuttle.
- Route #14 operates as the "Lightning Route," which serves as a downtown circulator using replica rubber tired trolley-style buses. The #14 operates on 20-minute headways from 9AM to 6PM.
- Typical weekday service hours for most routes is 5:30 AM to 9:30 PM. Earliest weekday service (route #11) is 4:40 AM, latest is 9:30 PM.
- One demand-response service is available for disabled persons only and is called Montgomery Area Paratransit (MAP). It is available anywhere within Montgomery city limits:
    - MAP (Montgomery Area Para transit) – Offers curb-to-curb service to persons with disabilities that are unable to use fixed bus route service.
- Standard one-way fares: $1.00 for fixed bus routes and $2.00 for MAP. Free transfers. $0.50 fare available to students (K-12), seniors, and riders with disabilities.
- Ridership data from National Transit Database (Fiscal year 2009, most recent NTD statistics available):
    - Annual unlinked trips: 1,336,936 (1,298,751 fixed route; 38,185 MAP)
    - Average daily boardings: 4,870 weekday (Monday-Friday; 1,846 Saturday
    - Annual passenger miles: 7,097,170 (6,753,505 fixed bus routes; 343,665 MAP
    - Annual vehicle revenue miles: 1,637,663 (1,290,296 fixed; 347,367 MAP)
    - Annual vehicle revenue hours: 103,994 (84,916 fixed; 19,078 MAP)
- Financial information (2009 NTD):
    - Operating expenses: $5,826,367 ($4,532,155 for fixed route; $1,294,212 for MAP
    - Breakdown of operating sources: 11% farebox revenues; 35% local funds; 50% federal assistance; 4% other
- Fleet characteristics (2009 NTD):
    - 33 vehicles operated in maximum service (25 for fixed bus route; 8 for MAP bus)
- Average fleet age: 7.3 years for fixed route, 5.1 for MAP

Source: National Transit Database, MATS Website

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Area Transit System (MATS) Map

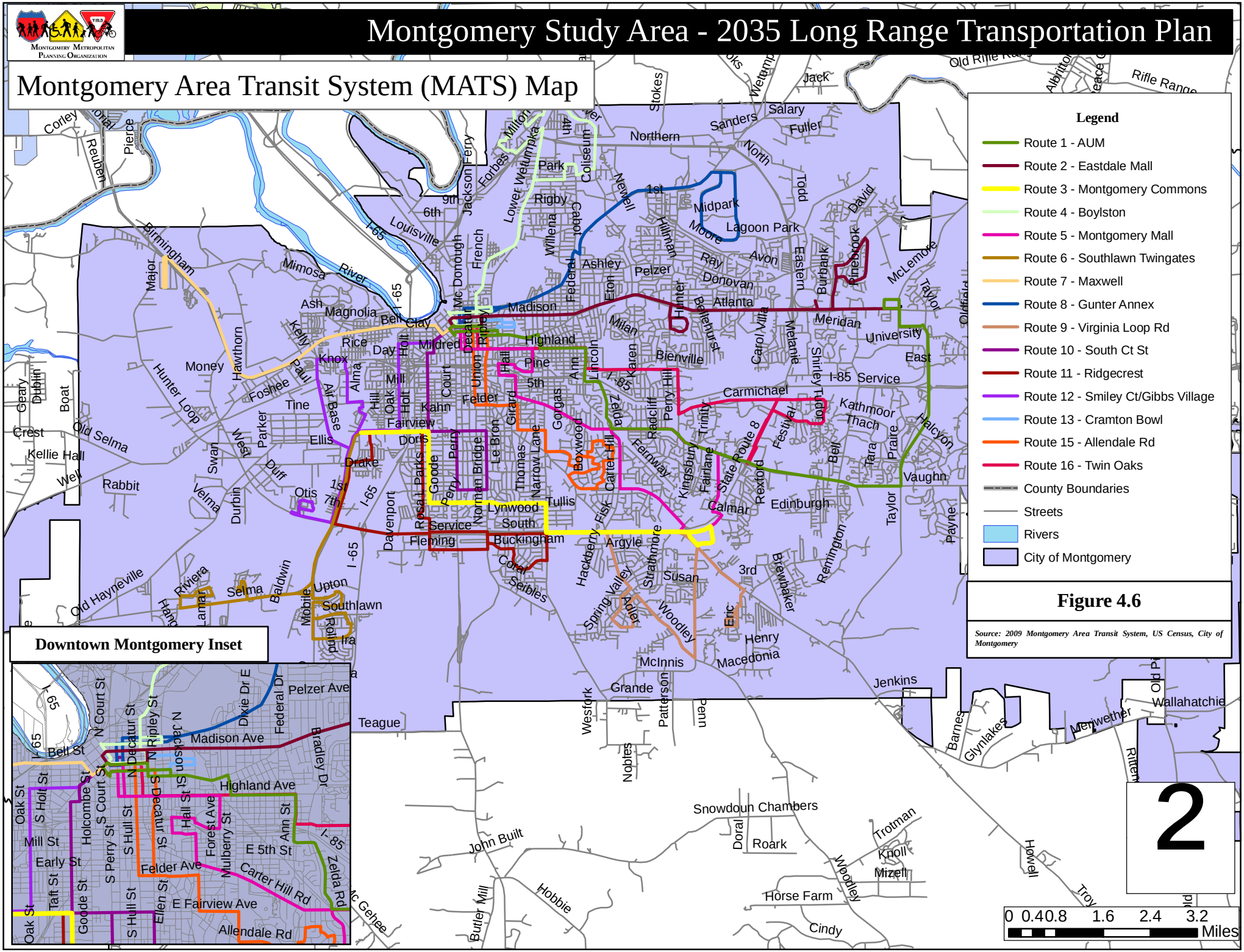


Figure 4.6

Source: 2009 Montgomery Area Transit System, US Census, City of Montgomery

Montgomery Study Area - 2035 Long Range Transportation Plan

MATS Entertainment Express Trolley Routes

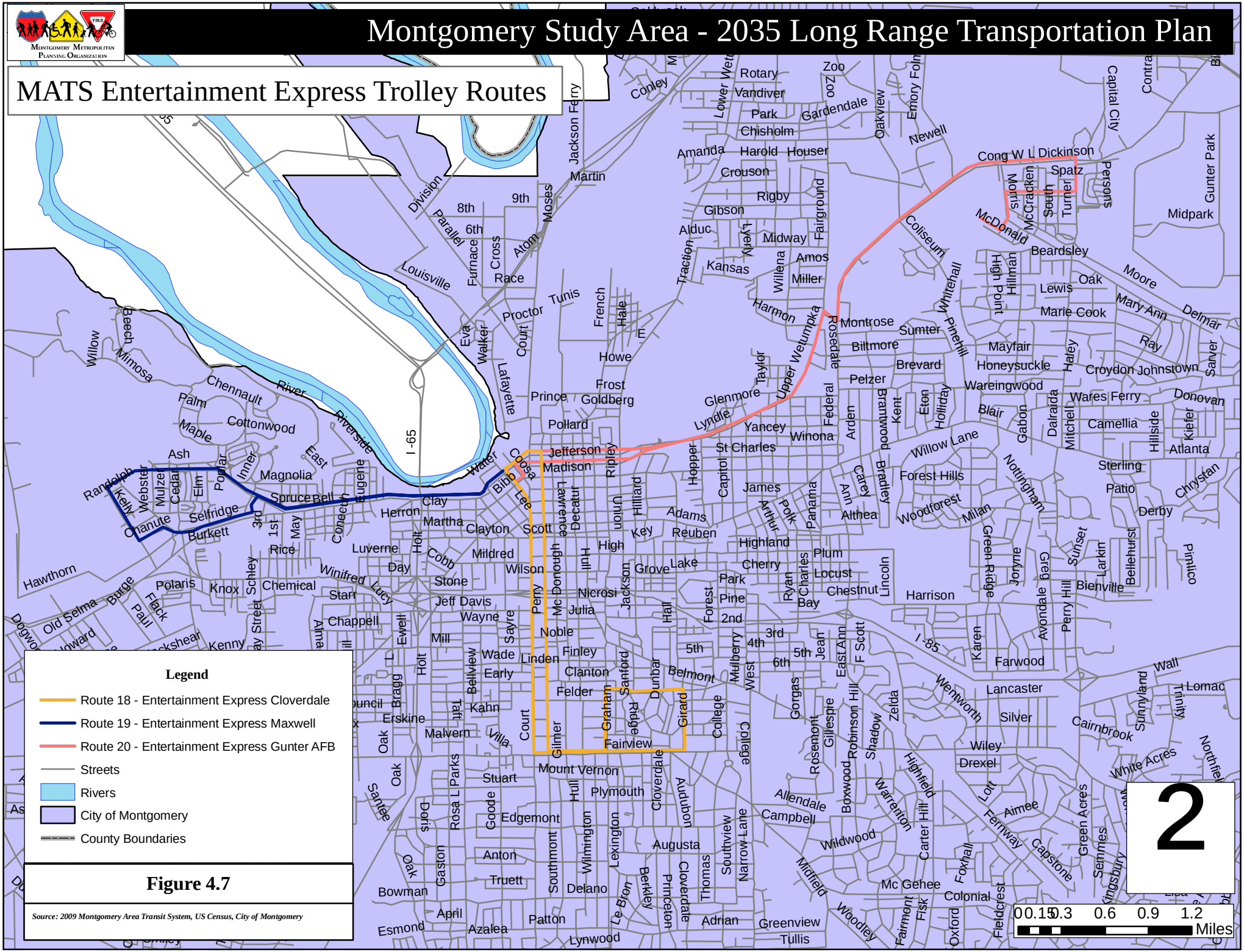


Figure 4.7

Source: 2009 Montgomery Area Transit System, US Census, City of Montgomery

Table 4.3 indicates that there has been a small increase in fixed-route ridership between 2008-2009; but not a significance in overall performance measurement unit costs. The same is true for the paratransit-demand response service, which shows a small increase in ridership for the same 2008-2009 period and not a significance in overall performance measure unit costs.

Table 4.3
MATS 2008 and 2009 Operating Performance

	Fixed Route		Demand Response	
Service, Ridership and Costs	**2008**	**2009**	**2008**	**2009**
Operating Expenses	$5,024,309	$4,532,155	$1,398,528	$1,294,212
Revenue Miles	1,282,023	1,290,296	360,159	347,367
Revenue Hours	86,138	84,916	21,004	19,078
Passenger Trips	1,291,254	1,298,751	37,205	38,185
Performance Measures				
Cost per Mile	$3.89	$3.51	$3.88	$3.73
Cost per Revenue Hour	$58.33	$53.37	$66.58	$67.84
Cost per Passenger Trip	$3.88	$3.49	$37.59	$33.89
Passengers per Revenue Hour	15.02	15.29	1.77	2.03

Source: 2007 and 2008 National Transit Database

The following is a summary of needs identified in the Montgomery Urbanized Area *Transit Development Plan* (FY09-FY12). The recommendations cover the period of FY 2008 and beyond in the TDP. The proposed improvements are designed to meet a number of planning objectives. By addressing these objectives, MATS will be able to sustain the service and ridership growth achieved during the last five years. The system should also be able to reach a higher level of performance in the future. The planning objectives include:

- Simpler route alignments and system design
- More direct travel
- Consistent frequency of service
- Greater route connectivity that eliminates double transfers and offers timed transfers to the majority of passengers
- Higher passenger productivity and on-time performance
- Consideration of new markets or non-traditional riders

Below are observations within the *2009-2012 Transit Development Plan* based on the data collected and tasks completed:

- Although Montgomery has a long history of providing public transportation, the existing system is relatively new.
- Reintroducing fixed-route service has brought about significant ridership growth.
- Refinements to the existing routes and schedules are needed to help meet the planning objectives. Not addressing these issues could result in a less effective system with major cost issues.
- Most of the demand for public transportation is still found in the older, established neighborhoods located south and west of downtown Montgomery.
- Although some redevelopment activity is taking place in midtown and downtown, most of the residential, business/commercial and employment growth is taking place in the east and southeast sectors of the city.
- Poor on-time performance is having a major impact on timed transfers and system reliability.

4.4.2 Autauga County Rural Transportation Program

In service for over 25 years, the Autauga County Rural Transportation operates a demand response service within Autauga County, including the City of Prattville. The service operates Monday through Friday from 6 a.m. to 5 p.m. A 24-hour advanced reservation is required for service. The primary service market includes elderly, low-income workers, disabled persons, head start participants, school-aged children, and dialysis patients. The base one-way fare is $2.00 for trips within Prattville, $2.50 between communities within Autauga County, and $5.00 between Autauga County and the City of Montgomery. Autauga County Rural Transportation is funded through farebox revenue, Autauga County Commission Funds, City of Prattville and FTA funding through the rural program under Section 5311. Table 4.4 details the 2009 Autauga County Rural Transportation Program and 2009 Operating Performance for fixed-route and demand response (MAP) ridership. Data from the NTD indicates the Autauga County Rural Transportation service provided an average of 233 daily trips in FY 2009. The total number of trips provided in 2009 was 40,044. The total operating cost was $278,865. Total farebox revenues were $140,271, accounting for 41 percent of operating funds.

Table 4.4
ACRT 2004 and 2009 Operating Performance

Service, Ridership and Costs	Demand Response	
	2004	2009
Operating Expenses	$288,253	$278,865
Revenue Miles	301,568	225,168
Revenue Hours	14,880	15,152
Passenger Trips	62,248	40,044
Performance Measures		
Cost per Mile	$0.95	$1.23
Cost per Revenue Hour	$19.37	$22.56
Cost per Passenger Trip	$4.63	$8.49
Passengers per Revenue Hour	4.18	2.64

Sources: 2004 National Transit Database and 2009 ALDOT Transit Reporting System

4.4.3 Intercity Bus

Intercity bus services are operated by Greyhound and Capital Trailways. Greyhound operates a 24-hour passenger terminal at 950 W. South Boulevard in Southwest Montgomery. Major cities accessible via direct routes from the Montgomery terminal include Selma, Birmingham, and Mobile, Alabama; Atlanta and Columbus, Georgia; and Pensacola and Panama City, Florida.

Capital and Colonial Trailways have been providing safe and reliable motorcoach charter and tour transportation in the Southeast for over 77 years. Serving destinations throughout the entire U.S., they are equipped to meet every transportation need. Capital Trailways can help with any bus charter; bus rental; group charter; group tour; and any special event requiring tour planning. Capital Trailways currently has a fleet of 31 Luxury Motorcoaches, 33 Motorcoaches and 2 Mini Coaches/ Trolleys.

4.4.4 CommuteSmart Montgomery

CommuteSmart is a program that aims to reduce traffic and its negative environmental effects by coordinating Car and Van pools between the metropolitan areas of the state of Alabama. Persons are matched with an existing car or vanpool via the CommuteSmart website (www.commutesmart.org). There are car/van pools coming to and from Montgomery every day, currently there are 283 persons from

the Montgomery area in the rideshare database, 8 persons that vanpool from Montgomery to Birmingham and 53 persons that vanpool from Birmingham to Montgomery. CommuteSmart is offered in Montgomery, Mobile, and Birmingham.

4.5 Bicycle and Pedestrian Facilities

One stated goal of the LRTP is to "address all modes providing a framework for modal connectivity that enhances mobility options for the community." In order to meet this goal, pedestrian and bicycle facilities need to be identified within the LRTP. Pedestrian and bicycle facilities are used for transportation as well as recreation and serve as an integral element of a multimodal transportation network. Pedestrian and bicycle facilities are vital for providing links to transit, accommodating short trips between neighborhoods and community facilities, and providing circulation between land uses in denser activity centers. The connection of neighborhoods to activity centers such as employment centers, community facilities, and retail opportunities by way of pedestrian and bicycle facilities will improve resident accessibility to these locations.

At a minimum, FHWA requires that "bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plan," according to 23 USC 217. FHWA's guidance on this states that "due consideration" of bicycle and pedestrian needs should include, at a minimum, a presumption that bicyclists and pedestrians will be accommodated in the design of new and improved transportation facilities. Inclusion of bicycle and pedestrian facilities in transportation facilities should be the routine, and the decision not to include them should be the exception rather than the rule. Bicycle and pedestrian facilities will be included on all transportation projects unless exceptional circumstances, as defined below, exist for denying such facilities:

- If bicyclists and pedestrians are prohibited by law from using the roadway. In this instance, an effort may be necessary to accommodate bicyclists and pedestrians elsewhere within the right-of-way or within the same transportation corridor.
- If the cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. Excessively disproportionate is defined as exceeding twenty percent of the cost of the larger transportation project. This twenty percent figure should be used in an advisory rather than an absolute sense.
- Where sparsity of population or other factors indicate an absence of existing and future need. For example, the Portland Pedestrian Guide requires "all construction of new public streets" to include sidewalk improvements on both sides, unless the street is a cul-de-sac with four or fewer dwellings, or the street has severe topographic or natural resource constraints.

In order to comply with these requirements, the MPO long range transportation plans must, at a minimum:

- Consider the context of the project setting. In other words, MPOs should consider whether the general project area includes features like neighborhoods, shopping, schools, transit, or other facilities likely associated with the needs of bicyclists or pedestrians;
- Consider any evidence of existing, informal bicycle-pedestrian activities. An example could be a worn, dirt path along an existing road;
- Consider any reference to bicycle or pedestrian needs in the planning process for the project area;
- Consider public, agency, or other comments requesting such facilities.

The Montgomery Area Metropolitan Planning Organization transportation planning staff developed the 2003 *Montgomery Study Area Bicycle and Pedestrian Plan* to address the growing interest and use of bike and pedestrian modes. Emphasis on health and fitness benefits, combined with the advantage of walking and biking for short trip segments has resulted in more interest in these modes.

4.5.1 Bicycle and Pedestrian Plan

In developing the Plan, the MPO reached out to involve the public, including the Montgomery Bicycle club, Elmore County Trail of Legends and other interested riders, who participated actively. The resulting plan identified bicycle routes, pedestrian facilities, generators and attractors, and an ongoing process for incorporating bicycle and pedestrian modal opportunities into the transportation planning process. The MPO Bicycle and Pedestrian Plan provided a direction for developing a bike / ped program that enhances modal choices to travelers in Montgomery.

Bicycle use in the Montgomery area is a small part of total trip making. The Bicycle and Pedestrian Plan's objective was to develop a network system with emphasis on interconnectivity of facilities, developing new bike routes, improved or new storage such as bike racks, signage and improving safety. Education of cyclists and pedestrians was emphasized to improve safety awareness, as well as, to promote the benefits of cycling and walking.

Federal guidelines recommend that the transportation planning process consider the safety of pedestrians and cyclists, furthermore the FHWA has suggested that sidewalks and/or bike lanes should be at least considered in each project. The suitability of bike routes to their location is important in identifying potential projects and assessing the correct rider level experience for the route. Bicycle and pedestrian paths / lanes need to be located in environments that do not offer an adverse location for riding, such as adjacent to roads with a high-percentage of trucks or with excessive operating speeds.

4.4.2 Bicycle Suitability

As part of the 2035 LRTP review of pedestrian and bicycle modes, bicycle routes were evaluated for "suitability". The suitability evaluation produced a rating for each bicycle route recommended in the *Montgomery Study Area Bicycle and Pedestrian Plan*. The suitability rating is based on three traffic operations criteria: traffic volumes, travel speeds and functional classification of the road. The average of the three criteria scores resulted in a bike route suitability rating of "Best, Medium, Difficult or Very Difficult".

The suitability evaluation was applied to the 396.44 miles of bicycle routes identified in the Montgomery Study Area Bicycle and Pedestrian Plan along with 2 proposed routes. A complete list of projects and the suitability analysis results is included in Appendix G. The proposed improvements include 69 percent of the system (about 281 miles) have a "Best" conditions rating; 25 percent of the system (about 102 miles) has a "Medium" conditions rating; five percent of the system (about 20 miles) is rated as being "Difficult" and less than one percent was rated as "Very Difficult" (about 5 miles). Table 4.5 details how suitability ratings were used to classify bike routes:

Suitability scores were calculated from an average of factor scores. Suitability is indicative of level of difficulty of the proposed route. The suitability ranges are as follows:

- Best conditions for bicycling range from 3 to 4.0
- Medium conditions for bicycling range from 2 to 2.9
- Difficult conditions fro bicycling range from 1 to 1.9
- Very difficult conditions for bicycling range <1

Table 4.5
Bicycle Suitability Rating Descriptions

Bicycle Suitability Factors		Score
Traffic Volume	Less than 2,500 vehicles per day per lane (vpdpl)	4
	Between 2,500 and 5,000 vpdpl	2
	More than 5,000 vpdpl	0
Travel Speeds	Less than or equal to 30 mph	4
	Between 30 and 40 mph	2
	Greater than 40 mph	0
Functional Class	Local Streets and Collectors	4
	Minor Arterials	2
	Other (Major Arterials and Highways)	0

Source: Montgomery MPO.

The 2003 Montgomery Study Area Bicycle and Pedestrian Plan identified 106 projects comprised of 396.44 miles in Montgomery (60 projects), Autauga (13 projects) and Elmore Counties (33 projects). The beginning and end distance of projects ranged from the smallest, a project in Montgomery on Sagewood Drive (0.27 miles distance), to a project in Elmore County on State Highway 111 (a distance of 13 miles). Figure 4.8 details the proposed Bicycle Routes.

The project improvements ranged from signage to construction of lanes – of the 106 projects all but one were for signing of the bicycle facilities. The estimated cost of the signing projects is approximately $500,000 at a cost of $300 per sign and signs appearing every quarter mile.

Construction of bicycle lanes is calculated to cost an additional $200,000 per mile for bicycle projects.

Since the 2003 *Montgomery Study Area Bicycle and Pedestrian Plan*, two new projects for the City of Montgomery have been amended into the plan, a Midtown to Downtown route starting on Fieldcrest Drive traveling downtown and ending in Old Cloverdale and a Rails to Trails project using an old rail line near Chestnut Street traveling downtown toward the riverfront. These amended routes are a total of 12.19 miles with a total cost of $2,438,000. Another new project is the Hall Street Bike Lane project from Interstate 85 to High Street. The total length is 0.36 miles, and the total cost is $150,000. It is slated to be completed in late 2010. In 2008, the Fort Toulouse Road bike path and signage project was completed by Elmore County. Figure 4.8 details theses projects in addition to the projects proposed in the *Montgomery Study Area Bicycle and Pedestrian Plan* adopted in 2003.

Montgomery Area Transit System fixed route buses are able to accommodate bikes. MATS has bike racks on the 30 foot and 35 foot buses operating on fixed routes. In addition there are two 35 foot buses on order that will also be equipped with bike racks similar to those on the rest of the fleet. The MATS has good use of their bike racks – the cycling community makes significant use of the transit linkage. Each 30 feet and 35 feet bus can hold two bikes.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

Proposed Bicycle Projects

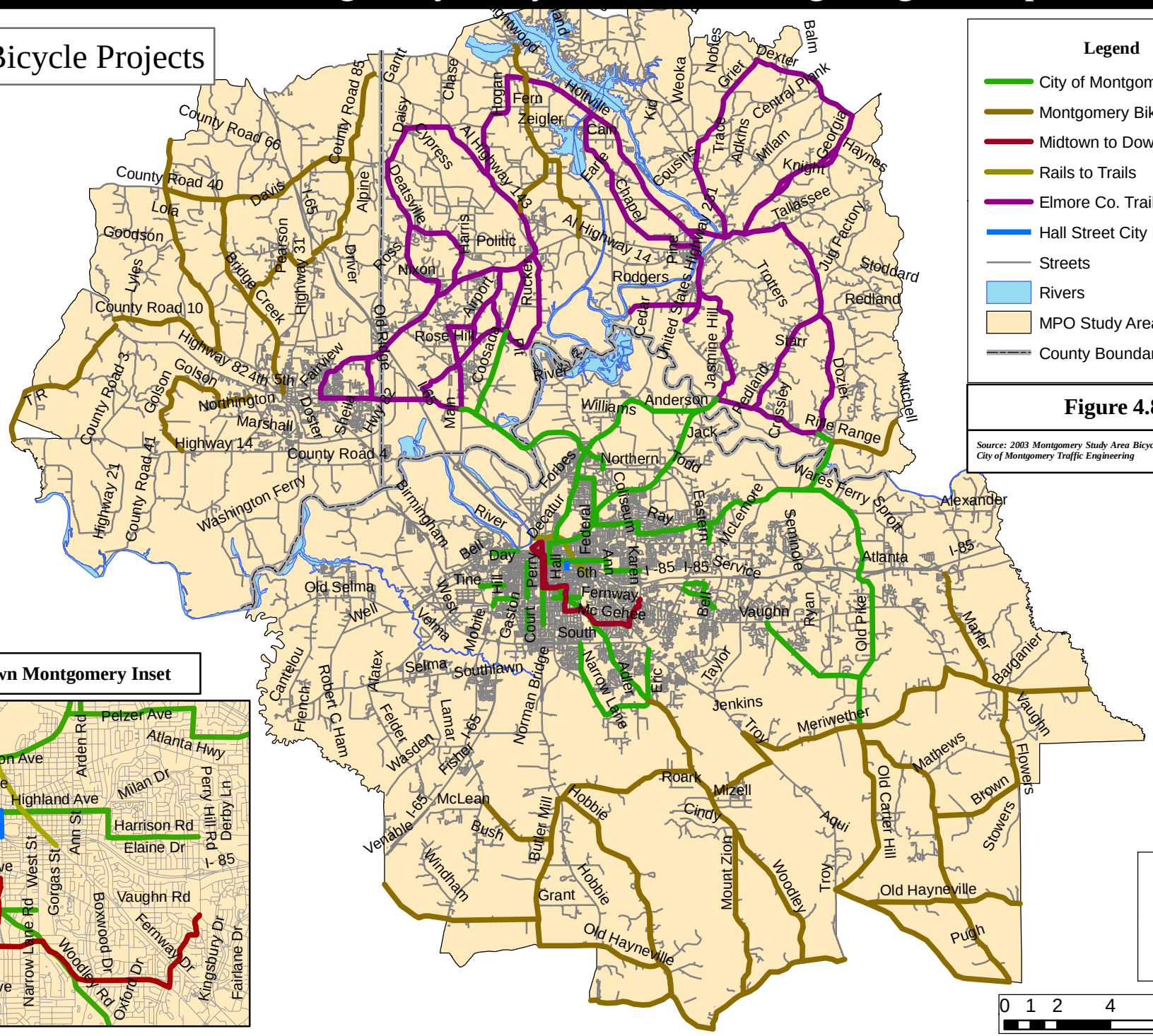


Figure 4.8

Source: 2003 Montgomery Study Area Bicycle and Pedestrian Plan; City of Montgomery Traffic Engineering

4.5.3 Sidewalk and Pedestrian Facilities

Sidewalk facilities were identified as an important part of the transportation system by the public. The network of sidewalks facilitates access to various parts of the community – schools, social service offices, public transit stops and other trip attractors. According to the University of North Carolina Highway Safety Research Center, a high correlation exists between communities who meet the needs of the pedestrian and an increased level of pedestrian travel. In communities that do not provide adequate pedestrian facilities, fewer people walk and those who do are more at risk of pedestrian injuries and fatalities.

Pedestrian projects in most areas span three main categories: engineering (condition of the sidewalks, signals, signing, marking, design of curb ramps, etc), education (pedestrian safety, walk to school programs, etc.), and enforcement (enforcement of motorist compliance with crosswalk rules, requiring pedestrian facilities in new residential areas, etc.). A comprehensive sidewalk inventory of both existing and needed facilities has been completed for the MPO Study Area on all functionally classified roads except for interstates and those roads with traffic volumes deemed too dangerous for pedestrian traffic. This inventory indicated that that downtown streets located within member municipalities are walkable with sidewalks often on both sides of the street; however as streets progressed away from the central business districts sidewalks often stop or progress on one side of the street. Tables 4.6 to 4.8 detail the needed sidewalks, walking trails, and path projects that have been identified in each county. Figure 4.9 to 4.10 Show the identified projects.

Table 4.6
Autauga County Sidewalk Cost Estimates

Road	From	To	Mileage	Cost
East Main Street	McQueen Smith Road	Pratt Street	2.74	$982,323
Wetumpka Road	Memorial Drive	Northington Street	0.95	$340,586
East 6th Street.	Memorial Drive	Northington Street	1.08	$387,193
Northington Street	East 6th Street	10th Street	0.60	$215,107
Sheila Boulevard	Jay Street	Memorial Drive	0.57	$204,352
Doster Road	Pratt Street	Memorial Drive	2.96	$1,061,196
Bridge Street	Main Street	US Highway 82	1.33	$476,821
West 4th Street	Lower Kingston Road	US Highway 82	1.41	$505,502
Lower Kingston Road	Breakfast Creek Road	West 4th Strett	1.97	$706,269
Upper Kingston Road	West 6th Street	Jordan Crossing	1.55	$555,694
Fairview Avenue	North Memorial Dr	Summit Parkway	2.42	$867,599
North McQueen Smith Road	Fairview Avenue	East Main Street	1.55	$555,694
South McQueen Smith Road	East Main Street	Memorial Drive	1.92	$688,343
Old Farm Lane	Existing Sidewalk	Cobbs Ford Road	1.94	$695,513
		Total Mileage and Cost	**22.99**	**$8,242,191**

*Cost Estimate is based on constructing sidewalks with curb and gutters on both sides of the street at a cost of $358,512 per mile.
Source: ALDOT and Montgomery MPO.

The Montgomery Area Transit System has been interested in facilitating and accommodating passenger access to buses and bus transit stops. As part of the ongoing planning work of the MPO, pedestrian access to transit facilities is studied, evaluated and improvements identified as needed. To date, MATS has installed 150 benches and 11 shelters along the fixed routes of the transit system in a continued effort, to provide more benches and shelters citywide to meet the needs of the passengers. The installation process is determined by the ridership numbers with preference given to the busier routes. More benches are being added as funding allows.

The 2035 LRTP has identified several potential federal funding sources for bicycle and pedestrian projects. Federal Surface Transportation Program Other Area (STP/OA) funds are eligible for use on bicycle and pedestrian projects. In addition, there is the possibility of using FHWA Transportation Enhancement Program funds available through ALDOT for bike and pedestrian projects. To make most effective use of the available funds, there should be coordination of bicycle and pedestrian projects with contiguous road widening or other appropriate road improvement projects.

Table 4.7
Elmore County Sidewalk Cost Estimates

City	Road	From	To	Mileage	Cost
Millbrook	South Edgewood Drive /Egdewood Road	Cobbs Ford Road	Existing sidewalk	1.72	$616,641
Millbrook	Main Street	Grandview Road	Existing sidewalk	1.19	$426,629
Millbrook	Rose Hill Road	Grandview Road	Coosada Road	1.80	$645,322
Millbrook	Browns Road	Main Street	SR 14	0.76	$272,469
Millbrook	Main Street	Chapman Road	SR 14	1.25	$448,140
Millbrook	Chapman Road	Ex. Sidewalk	Sandtown Road	0.30	$107,554
Millbrook	Coosada Road	Main Street	Sandtown Road	0.89	$319,076
Millbrook	Coosada Road	Sandtown Road	Auburn Hill Drive	0.89	$319,076
Millbrook	Kennedy Ave	Coosada Road	Airport Road	1.19	$426,629
Millbrook	Airport Road	Coosada Road	Kennedy Avenue	2.01	$720,609
Millbrook	Airport Road	Kennedy Avenue	SR 14	1.17	$419,459
Wetumpka	Elmore Road /SR14	Existing Sidewalk	N/A	1.06	$380,023
Wetumpka	Chapel Road	Coosa River Parkway	End of Collector	0.93	$333,416
Wetumpka	Holtville Road	Existing Sidewalk	Nolen Lane	0.96	$344,172
Wetumpka	West Micanopy Street	Coosa River Parkway	Existing Sidewalk	0.94	$337,001
Wetumpka	West Osceola Street	Existing Sidewalk	West Micanopy Street	0.30	$107,554
Wetumpka	Coosa River Parkway	West Bridge Street	US Highway 231	2.77	$993,078
Wetumpka	Company Street	North Bridge Street	US Highway 231	1.40	$501,917
			Millbrook Total Mileage and Cost	**13.17**	**$4,721,603**
			Wetumpka Total Mileage and Cost	**8.36**	**$2,997,160**
			Elmore County Total Mileage and Cost	**21.53**	**$7,718,763**

*Cost Estimate is based on constructing sidewalks with curb and gutters on both sides of the street at a cost of $358,512 per mile.
Source: ALDOT and Montgomery MPO.

Montgomery Study Area - 2035 Long Range Transportation Plan

Autauga and Elmore County Sidewalk Inventory

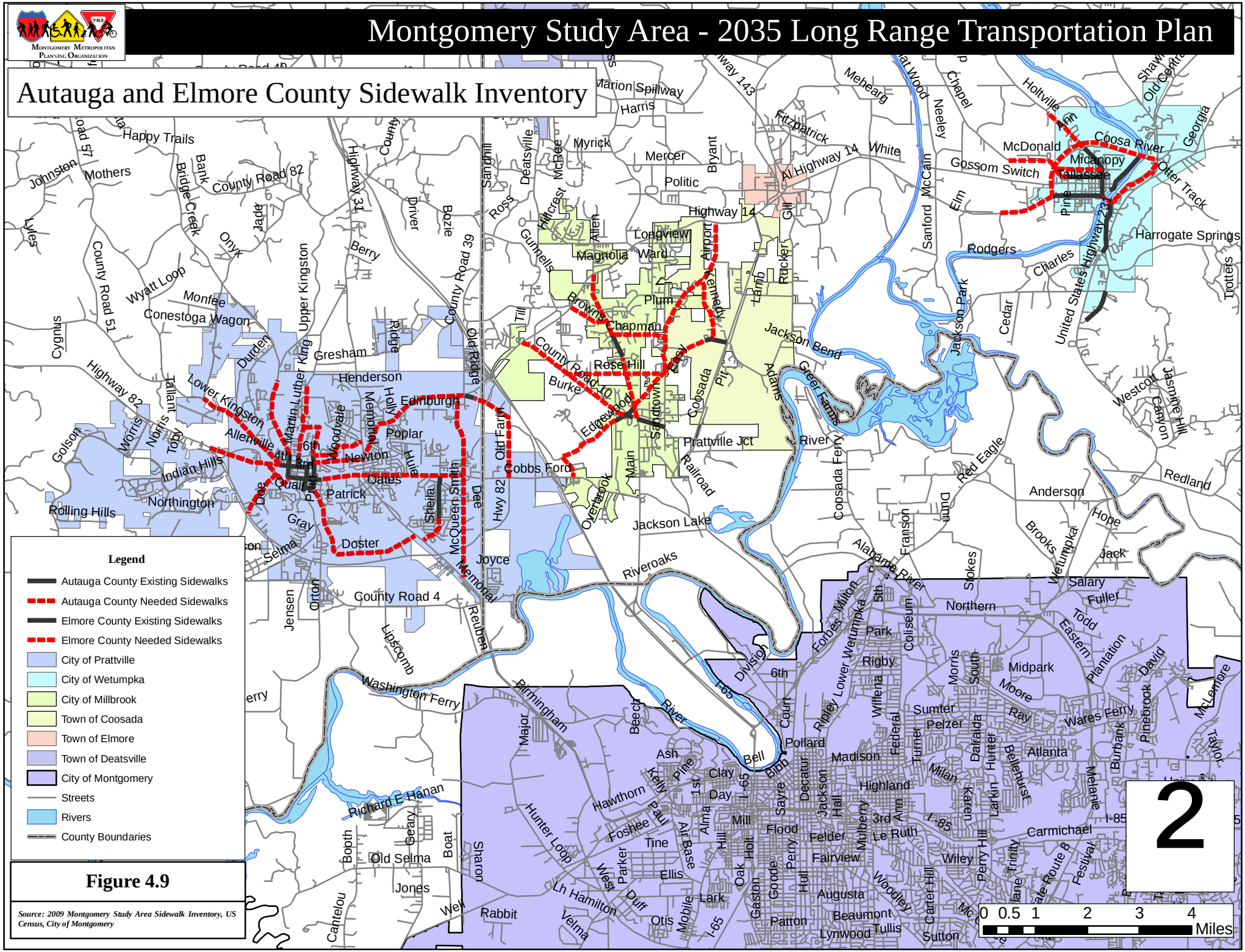


Figure 4.9

Source: 2009 Montgomery Study Area Sidewalk Inventory, US Census, City of Montgomery

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery County Sidewalk Inventory

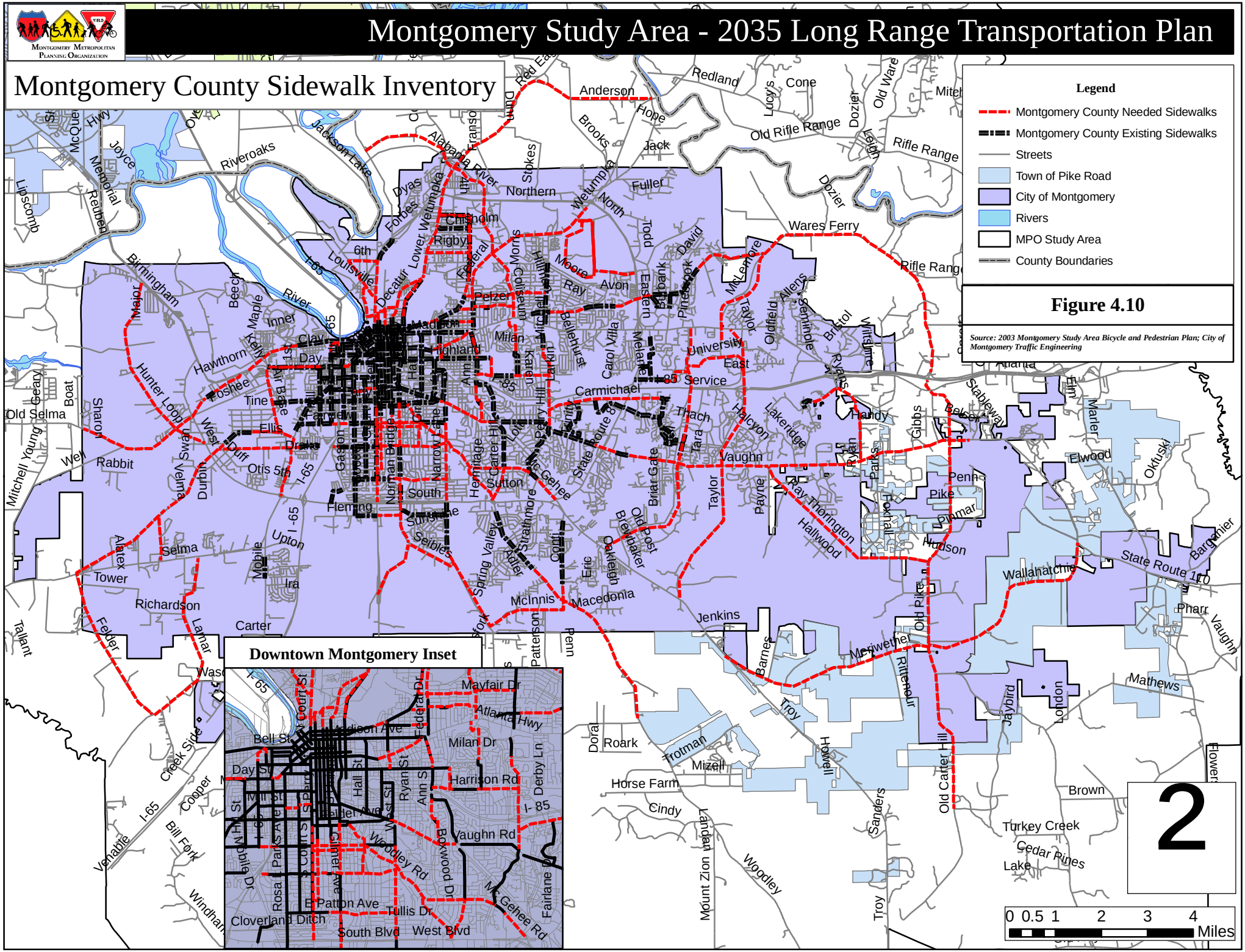


Figure 4.10

Source: 2003 Montgomery Study Area Bicycle and Pedestrian Plan; City of Montgomery Traffic Engineering

Table 4.8
Montgomery County Sidewalk Cost Estimates

Road	From	To	Mileage	Cost
North Court Street	Randolph Street	6th Street	1.35	$483,991
Parallel Street	6th Street	North Court Street	0.99	$354,927
6th Street	North Court Street	Parallel Street	0.65	$233,033
Walker/Lafaytte Street	Chandler Street	Railroad Street	0.70	$250,958
Railroad Street	Lafayette Street	North Perry Street	0.26	$93,213
Prince Street/Clisby Park	North Perry Street	Sadler Street	0.44	$157,745
North McDonough Street	Existing Sidewalk	Clisby Park	0.36	$129,064
Sadler Street	Existing Sidewalk	Lower Wetumpka Road	1.14	$408,704
North Ripley Street (L)	Existing Sidewalk	Fourney Street	0.95	$340,586
North Ripley Street	Fourney Street	Alabama River Parkway	2.53	$907,035
Gibson Street	North Ripley Street	Fairground Road	0.93	$333,416
East Vandiver Blvd (L)	Lower Wetumpka Road	Biltmore Avenue	2.40	$860,429
Biltmore Avenue	Upper Wetumpka Road	Dalraida Road	1.79	$641,736
Pelzer Avenue	Federal Drive	Coliseum Blvd	0.91	$326,246
Coliseum Boulevard	Atl Highway	Cong WL Dickison	1.56	$559,279
Coliseum Boulevard	Cong WL Dickison	Lower Wetumpka Road	2.32	$831,748
Federal/ Cong WL	Ashley Avenue	Northeast Boulevard	5.45	$1,953,890
Lagoon Park Drive	East Boulevard	Gunter Park	0.82	$293,980
Gunter Park Drive	Cong WL Dickison	N/A	3.27	$1,172,334
Upper Wetumpka Road	Vonora Street	South Capitol Parkway	0.28	$100,383
McCarter Avenue	Upper Wetumpka Road	Federal Drive	0.31	$111,139
Yancey Avenue	Existing Sidewalk	Federal Drive	0.31	$111,139
Mount Meigs Road	Hopper Street	Atlanta Highway	0.91	$326,246
Capitol Parkway	Highland Avenue		0.34	$121,894
Ann Street	Highland Avenue	Brewton Street	0.51	$182,841
Green Ridge Road	Atlanta Highway	Milan Drive	0.85	$304,735
Lincoln Road	Highland Avenue	Chestnut Street	0.37	$132,649
Chestnut Road	Ann Street	Fairfax Road	0.75	$268,884
Chestnut Road	Noremac Road	Perry Hill Road	0.76	$272,469
Perry Hill Ct	Perry Hill Ct	Vaughn Road	1.73	$620,226
Carmichael Road	Perry Hill Road	Forest Grove Drive	2.45	$878,354
Vaughn Road	Central Parkway	Existing Sidewalk	0.48	$172,086
Oliver Drive	Bell Road	Taylor Road	1.56	$559,279
Monticello Drive	Existing Sidewalk	Bell Road	0.73	$261,714
Bell Road	Atl Highway	Old Park Row	1.94	$695,513
Bell Road	Old Park Row	Vaughn Road	1.04	$372,852
Bell Road	Vaughn Road	Troy Highway	2.95	$1,057,610
Vaughn Road	Existing Sidewalk	Taylor Road	2.06	$738,535
Taylor Road	Vaughn Road	Troy Highway	3.15	$1,129,313
Taylor Road	Vaughn Road	Atlanta Highway	3.15	$1,129,313
Ray Thorington Road	Vaughn Road	Pike Road	4.36	$1,563,112
Ryan Road	Vaughn Road	Minnie Brown	2.48	$889,110
Brown Springs/McLemore Road	Wares Ferry Road	Atlanta Highway	2.41	$864,014
Wares Ferry Road	Existing Sidewalk	McLemore Road	1.60	$573,619
Wares Ferry Road	McLemore	I85/Highway 80	5.90	$2,115,221
Narrow Lane/Virginia Loop	Existing Sidewalk	Existing Sidewalk	4.16	$1,491,410
Siebles Road	Narrow Lane Road	Norman Bridge Road	1.08	$387,193
McGhee Road	East Boulevard	Governors Drive	0.60	$215,107
Fisk Road	McGehee Road	Woodley Road	0.73	$261,714
McGehee Road	Existing Sidewalk	Narrow Lane Road	2.17	$777,971
Woodley Road	East South Blvd	McGehee Road	0.94	$337,001

Narrow Lane Road	East Fairview Avenue	South Boulevard	1.71	$613,056
Carter Hill Road	Existing Sidewalk	Zelda Road	1.33	$476,821
East Ann Street	Zelda Road	Carter Hill Road	0.85	$304,735
South Court Street	Felder Avenue	South Blvd	2.07	$742,120
Norman Bridge Road	Cloverdale Road	Edgemont Avenue	0.93	$333,416
South Perry Street	Frederick Avenue	East Delano Avenue	1.20	$430,214
Woodley Road	East Fairview Avenue	Narrow Lane Road	0.67	$240,203
Gilmer Avenue	Clanton Avenue	East Fairview Avenue	0.50	$179,256
East Fairview Avenue	South Court Avenue	Woodley Road	0.94	$337,001
Arlington Road	South Court Avenue	Colverdale Road	0.94	$337,001
E Edgemont Avenue	South Hull Street	Narrow Lane Road	1.19	$426,629
Cloverdale Road	Felder Avenue	East Edgemont Avenue	1.05	$376,438
East Edgemont Avenue	South Perry Street	Gilmer Avenue	0.17	$60,947
East Patton Avenue	Existing Sidewalk	Narrow Lane Road	1.23	$440,970
Stokely Drive	East Patton Avenue	Seibles Road	1.43	$512,672
East Fleming Road	South Court Avenue	Stokley Drive	0.49	$175,671
West Fairview Avenue	Oak Street	Taft Street	0.37	$132,649
Hayneville Road	Existing Sidewalk	Bozeman Drive	0.67	$240,203
West Edgemont Avenue	Hayneville Road	Caffey Drive	1.76	$630,981
Air Base Blvd	Mobile Highway	Day Street	1.77	$634,566
Day Street	Loring Street	Air Base Blvd	1.16	$415,874
Mobile Street	Mildred Street	Holt Street	0.22	$78,873
Georgia Street	Rosa Parks Avenue	Goode Street	0.23	$82,458
West Cromwell Street	Goode Street	South Court Street	0.23	$82,458
Oak Street	Bell Street	Existing Sidewalk	0.32	$114,724
Dickerson Street	Bell Street	Existing Sidewalk	0.10	$35,851
Bell Street	Existing Sidewalk	Birmingham Highway	1.18	$423,044
Old Selma Road	Birmingham Highway	Existing Sidewalk	0.71	$254,544
Old Selma Road	Existing Sidewalk	Ashley Road	0.94	$337,001
Hayneville Road	Existing Sidewalk	Selma Highway	4.39	$1,573,868
Brewer Road	Old Hayneville Road	Selma Highway	0.95	$340,586
Felder Road	Selma Highway	Wasden Road	3.53	$1,265,547
Lamar Road	Selma Highway	Felder Road	4.13	$1,480,655
Woodley Road	Existing Sidewalk	Snowdoun Chambers Road	4.33	$1,552,357
Vaughn Road	Taylor Road	End	5.46	$1,957,476
Hunter Loop Road	Birmingham Highway	West Boulevard	4.37	$1,566,697
		Total Mileage and Cost	**135.4**	**$48,542,525**

*Cost Estimate is based on constructing sidewalks with curb and gutters on both sides of the street at a cost of $358,512 per mile.
Source: ALDOT and Montgomery MPO.

4.6 Freight

The volume of freight moved by the U.S. transportation system has grown dramatically in recent decades and is projected to increase nearly 70 percent by 2020. As demand for freight service grows, concerns intensify about capacity shortfalls and congestion. Congestion is a serious problem for freight transportation. Reliable, predictable travel times are especially important in a global economy where many goods are needed in tightly scheduled manufacturing and distribution systems. Late arrivals can have significant economic costs for factories waiting for parts to assemble and for carriers who miss guaranteed delivery times. Public transportation planning has long focused on moving people around; however, understanding and planning for goods movement (freight) has been a part of metropolitan transportation planning requirements since ISTEA. Part of the Public sector's challenge of planning for freight is that freight movement is largely generated by the private sector in a competitive rail and trucking industry. The Montgomery Regional Airport does have a small amount of air freight, and water transport could resume with the dredging of the Alabama River near Montgomery.

4.6.1 Rail

The Montgomery area has two Class I rail freight operators with rail lines traversing through the study area: Norfolk Southern and CSX Transportation (CSXT). CSXT has the greatest rail presence within Autauga, Elmore and Montgomery Counties with three major lines: Montgomery-Flomaton (110 miles), Montgomery-West Point, Georgia (89 miles), and Parkwood-Montgomery (87 miles). CSX has major rail yards in Montgomery, Mobile, and Birmingham, with the Montgomery CSX terminal handling 390,646 rail cars in 2008. In addition to the three rails yards in Alabama, CSX operates an intermodal facility in Mobile and serves at least nine stations in the state. It operates over 1,500 miles of track and hauls more than 575,000 carloads of freight through the state each year. The major freight goods hauled are coal, corn, limestone, and pulp. CSX operates over 21,000 miles of track across 23 states and into Canada.

One Norfolk Southern line branch line traverses through Autauga County from Maplesville to Autauga Creek (41 miles). The average yearly traffic volume on the line is 1.1 million gross tonmiles per mile. Norfolk Southern indicates that traffic on the line is steady to declining. Norfolk Southern has trackage rights over CSXT on the Autauga Creek to Montgomery line. Norfolk Southern has rail stations in Prattville, Autauga Creek, and Montgomery. NS operates over 1,300 track miles and hauls more than 6.3 million tons of cargo each year to 40 stations in Alabama. Figure 4.11 details the rail lines in the MPO Study Area.

4.6.2 Truck

All state routes in Alabama are designated truck routes for tractor trailer travel. The proximity of the Montgomery area to I-65 and I-85 provides significant interstate access for goods movement. After researching lists of local freight operators from the Montgomery Area Chamber of Commerce and from Elmore County Economic Development Authority, a total of 35 freight companies were confirmed as being within the Montgomery MPO study area. However, it is assumed not all freight operators within the study area were captured by the list. Table 4.9 details the confirmed freight operators.

Table 4.9
2010 Confirmed Freight Operators within the Montgomery MPO Study Area

Company Name	County
AAA Cooper Transportation	Montgomery
ABF Freight System Inc.	Montgomery
Alabama Food Service	Autauga
AMX Inc. (Alabama Motor Express Inc.)	Montgomery
Barnes & Berry Trucking	Elmore
Brown Trucking	Montgomery
Charles Lawson Trucking	Montgomery
Con-Way Southern Express	Montgomery
Eagle Motor Freight Inc.	Montgomery
FedEx Freight, Inc	Montgomery
Florida Rock & Tank Lines	Montgomery
Forward Air Solutions (previously Service Express)	Montgomery
Foshee Trucking	Montgomery
Gulfstream Express	Montgomery
JEB Trucking	Autauga
Loftin Brothers Transportation	Montgomery
Milan Express Co Inc.	Montgomery
Montgomery Air Freight Inc. (BHM Express)	Montgomery
Old Dominion Freight Line	Montgomery
Osborne Transportation Inc	Montgomery
Panalpina Inc	Montgomery

Penn Tank Lines	Montgomery
Priest Trucking	Montgomery
R&L Carriers	Montgomery
Romero Trucking	Autauga
Saia Motor Freight Line	Montgomery
Southeastern Freight Lines	Montgomery
Southern Cal Transport (also operates as Southern Cartage)	Montgomery
Todd Sheridan Trucking	Autauga
University Corp Inc.	Montgomery
US Foodservice (USF Distribution)	Montgomery
Waggoners Trucking	Montgomery
Whitfield Food Inc. (Whitfield Lines Inc.)	Montgomery
Wilson Trucking	Montgomery
YRC Inc.(Yellow Roadway Corporation)	Montgomery

Source: Montgomery MPO, Montgomery Chamber of Commerce, and the Elmore County Economic Development Authority.

Within the State of Alabama, freight traffic is the dominate method of freight movement. Because of Montgomery's location between Columbus, Georgia; Atlanta, Georgia; Birmingham; and Mobile; a large portion of the freight movements are thru the Montgomery area creating stress on the major interstate and US Highways within the study area. As ThyssenKrupp steel mill, Hyundai Motor Manufacturing, and the new Kia Motors plant increase production, truck traffic will increase significantly.

4.6.3 Aviation

Within the Montgomery MPO study area, the Montgomery Regional Airport (MGM) (Dannelly Field) is the only public airport with freight traffic; however, due to the lack of ground support equipment (tugs, forklifts and conveyer belts) and hanger facilities, the amount of air freight is insignificant compared to rail and truck. The airport is approximately 6 miles S.W. of Montgomery adjacent to U.S. Highway 80 (Selma Highway), and is served by Delta-Dash and AmeriStar on occasion.

Ground cargo carriers such as UPS, FedEx, and DHL do serve the airport. Air cargo is especially attractive to businesses which require faster import or export of their parts, goods, and services. The majority of businesses dependant on air cargo for its speed are located within 30 minutes of the airport. For passenger service details, see section 5.6.1 below.

Details regarding the Montgomery Regional Airport are as follows:

- Runway 10/28 is 9,010 feet long and 150 feet wide with grooved asphalt and high intensity lighting. Runway is overseen by a control tower.
- Runway 3/21 is 4,010 feet long and 150 feet wide asphalt and has medium intensity lighting. Runway is overseen by a control tower.
- The elevation is 221 feet above sea level.
- 136 aircraft are based at the airport.
- There are nearly 196 aircraft operations per day.
- The airport recently completed a $40 million renovation and expansion and now covers 2000 acres and serves 13 counties.

In addition to the public Montgomery Regional Airport, the Maxwell Air Force Base Airport can handle military freight. Details regarding the MAFB Airport are as follows:

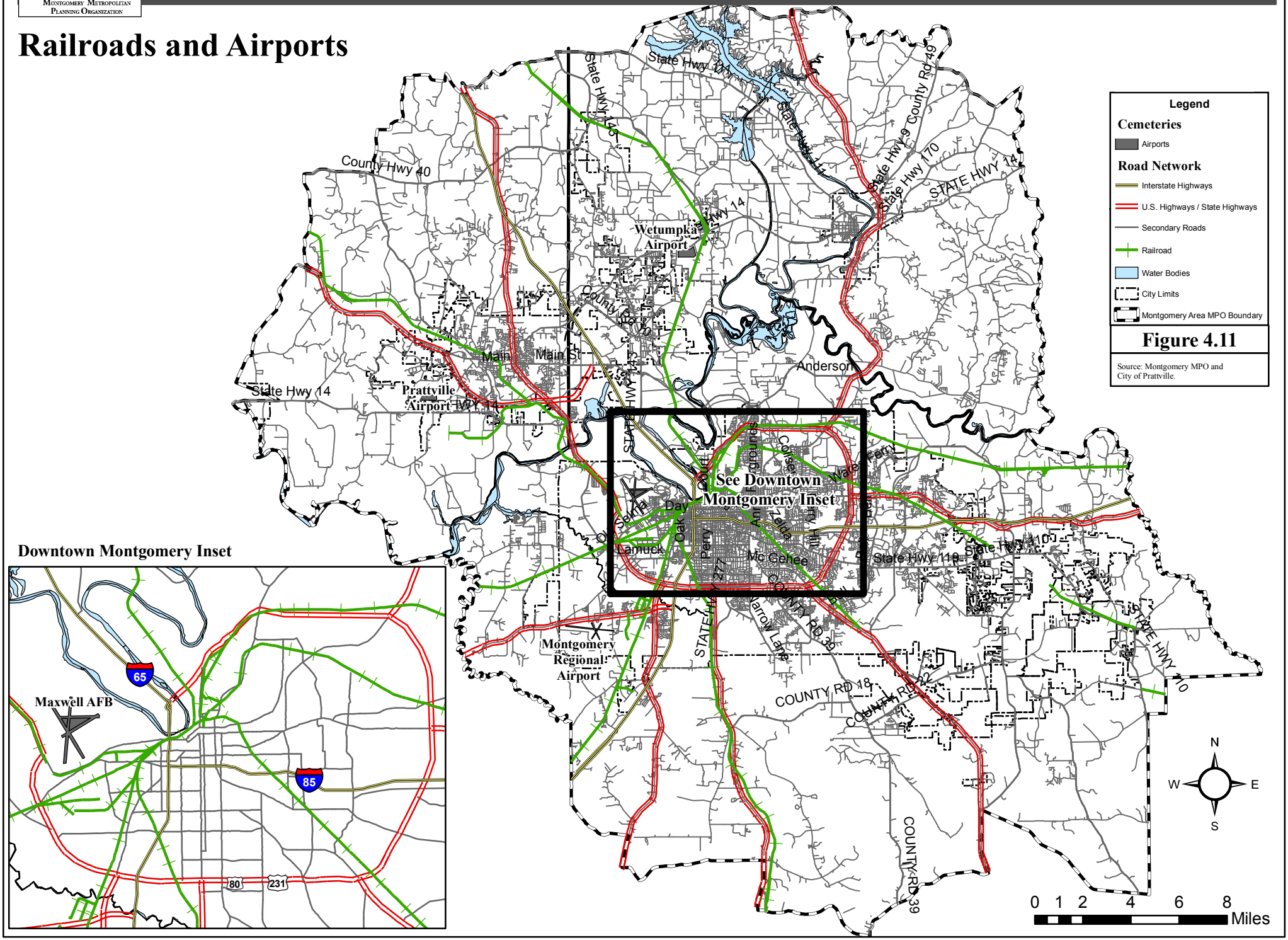
- Runway 15/3328 is 8,013 feet and 150 feet wide with asphalt and high intensity lighting.
- Runway 7/187 is 3,015 feet long and 60 feet wide
- The elevation is 171 feet above sea level.

Figure 4.11 details the airport locations in the Montgomery MPO study area.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

Railroads and Airports



4.6.4 Waterway

The Montgomery MPO area is traversed by the Alabama, Coosa, and Tallapoosa Rivers. According to the US Army Corps of Engineers, the Alabama River's northernmost points for navigation are the Bibb Graves Bridge in Wetumpka (Coosa River) and the US 231 Bridge (Tallapoosa River). The Corps states that there is little or no freight movement on the Alabama River near the MPO area. The Corps maintains a nine-foot deep x 150 foot wide channel for barge traffic from the Port of Mobile at the Gulf of Mexico to the Claiborne Lock and Dam in Monroe County (Alabama River mile 72). The dry season flow is about 4,640 cubic feet per second augmented by water released from the Coosa River. There have been no dredging funds in the federal budget for the past five years, and the last dredging was in July 2005.

The Montgomery Inland Dock (65 foot x 60 foot open dock) is located at mile 289 on the Alabama River near SR 143, I-65, and I-85. The dock can handle nearly 600 tons, and is currently leased to a grain company.

Existing Cargo Port Facilities include four locations near downtown Montgomery and one just west of the MPO study area in Burkville, AL. The Burkville dock at the GE Plastics Facility is owned by the Montgomery Industrial Development Board. Adequate road and rail services are near all five facilities, but three of the facilities are not in use (YR 1997). (CAWA Freight Mobility Study 4-9-07).

Freight movement via barge on the states waterways could be a viable mobility option because of the Mobile Container Terminal, ThyssenKrupp steel, and Alabama's auto industry. The expansion of the Panama Canal is scheduled to open in 2014. This expansion should make for a faster route from Asia and increase the number of containers, steel and other products coming in and out of Mobile as trade increases globally. Waterway travel in Alabama is feasible north through the Tennessee-Tombigbee Waterway all the way to the Great Lakes. An increase in freight movement via water would decrease highway traffic congestion, make roads safer by taking trucks off the road, and therefore, make roads less congested and more efficient. The State Port Authority and five Alabama Waterway Associations have formed the Coalition of Alabama Waterway Association to promote port and waterway projects. The Coosa-Alabama River Improvement Association (CARIA) was formed to promote improvements to the Alabama River.

4.7 Aviation

The Montgomery MPO area is served by a regional airport, Montgomery Regional Airport (Dannelly Field) and two general aviation airports: Prattville Airport (Grouby Field) and Wetumpka Airport. Montgomery also is home to Maxwell Air Force Base, but in most cases, passenger is exclusively for military personnel, dependents, and civil service employees. Figure 4.11 details the airport locations in the Montgomery MPO study area.

4.7.1 Montgomery Regional Airport

The MPO Study area population that flies from within the study area utilizes the Montgomery Regional Airport for air transport; however, a large percentage of the MPO study area population utilizes the Birmingham International Airport or the Atlanta International Airport due to better prices and more routes and carriers. In response, the Montgomery Regional Airport completed a $40 million dollar renovation and upgrade in 2006 that expanded the terminal and added new gates, a new customer service center, flight information displays, new restrooms and elevators, and new jet bridges to increase the airport's ability to compete with the larger international airports.

The Montgomery Regional Airport is operated by the Montgomery Airport Authority. Counties serviced by the airport include Autauga, Bullock, Butler, Chilton, Coosa, Crenshaw, Dallas, Elmore, Lowndes, Macon, Montgomery, Pike, Tallapoosa, and Wilcox. The airport is located at 4445 Selma Highway/US

80 in the City of Montgomery, approximately six miles southwest of downtown. The airport is accessible from I-65 via the US 80 (exit 167), and accessible by MATS bus route No. 6, which runs near the airport on US 80. Nearly 400,000 travelers fly in and out of the airport each year. Approximately 1 million people pass through the terminal and create nearly $1.32 billion in economic impact for the region.

Delta Airlines is the main commercial passenger operator, as well as, USAir and American Eagle. Airport facilities include two runways, terminal building, parking area, fixed base operator, ten corporate hangars, aircraft rescue and fire fighting facility, rental car service facility, airport authority maintenance facility, fueling areas, and an air traffic control tower. The airport is served by seven automobile rental agencies, the Montgomery Transit Service (MATS), shuttle and taxi service. The facility also maintains and operates its own police force. For more details about freight and the airport see section 5.5.3 above.

4.7.2 Prattville Airport

The Prattville Grouby Field Airport (1A9) is a Class 5 general aviation airport located approximately three miles southwest of Prattville off of SR 14 and Grouby Airport Road. It is operated by the City of Prattville and the Autauga County Commission. The facility operates one lighted, asphalt runway (9/27) which is 5,400 feet long and 100 feet wide. The elevation is 225' above sea level. The airport operates without a control tower. The facility provides several aircraft hangars, maintenance and refueling equipment. The airport is predominately used for small, private, recreational planes but also handles some small, commercial and corporate jet aircraft. According to airnav.com as of October 2007, thirty Eight aircraft are based at the field, and there are on average 24 daily operations per day. The breakdown of operations is 67 percent transient general aviation, 30 percent local general aviation, and 3 percent military.

4.7.3 Wetumpka Municipal Airport

The Wetumpka Airport (08A) is a Class 5 general aviation airport approximately 6 miles west of the city of Wetumpka. It is located at the intersection of Highway 14, Airport Road, and Coosada Parkway in Elmore County. The airport is owned and operated by the City of Wetumpka. The airport operates one lighted, asphalt runway (9/27) which is 3,011 feet long and 80 feet wide, and one unlighted turf runway (18/36) which is 2,876 feet long and 130 feet wide. The airport operates without a control tower. The runways are located at an elevation of 197 feet above sea level. Services include maintenance and refueling equipment, flight training, and plane storage in open and closed hangars. The facility is mainly used for small, private, recreational planes.

According to airnav.com as of October 2009, 88 aircraft are based at the field with an average of 108 daily operations. The breakdown of operations is 82 percent transient general aviation and 18 percent local general aviation. Due to the shorter length of the runways at Wetumpka, it is limited to the types of aircraft that can land on shorter runways and may exclude certain aircraft such as corporate jets.

4.8 Waterway Accessibility

The Montgomery MPO area is served by the Alabama, Coosa, and Tallapoosa Rivers. There are currently two recreational/entertainment paddlewheel dinner boats operating in the MPO area. One is located on the Coosa River in Wetumpka and one, the Harriott II, is located at the Riverfront in downtown Montgomery. There is also one small-watercraft rental business located at the Riverfront in downtown Montgomery. The Montgomery Marina has been in operation for many years and is located near the Downtown Riverfront.

There are approximately eleven public boat ramps on the rivers and river lakes in the MPO area. Lake Jordan covers 6,800 acres inside 188 miles of shoreline, and provides many recreational and residential

living opportunities inside the MPO boundary just north of Wetumpka. Lake Martin, covering 44,000 acres within 750 miles of shoreline, is located within 15 minutes of the MPO boundary, and also offers many recreational and residential living amenities.

4.9 Intelligent Transportation System (ITS)

In April, 1999, the City of Montgomery developed an Intelligent Transportation System (ITS) Plan to install a fiber-optic cables network and ITS components to more effectively manage traffic in the City of Montgomery and emergency response. The City is partnering with the ALDOT and the FHWA, and will comply with National ITS Architecture. A Montgomery Area ITS Architecture Plan was prepared for the ALDOT by two Transportation Engineering firms (Iteris and Arcadis) in December 2003. ALDOT provides ITS funding that requires an 80/20 or 50/50 (Federal/State/local) match for ITS projects. The State, Federal, and local governments also provide project oversight. In FY 2006 a Federal Transit Administration (FTA) capital grant was awarded in the amount of $47,500 for the development of an automatic vehicle locator system (AVL) to be used for the Montgomery Area Transit Service (MATS) and paratransit software for increased efficiency in order to get real time location information for passengers and operations staff to determine next bus arrival times for improved effectiveness, efficiency, safety, and security.

The first goal was to install a fiber-optic infrastructure and upgrade traffic control equipment for an operational closed loop system with communication between ALDOT and the City of Montgomery's Traffic Engineering Department. The key components of the ITS are to:

- Construct a fiber optic network (closed loop system with communication) or purchase and use wireless a wireless technology network,
- Provide real time information on incidents and traffic congestion,
- Provide motorist information via dynamic message signs, internet service providers, TV stations, kiosks and other communications methods,
- Adjust traffic signal timing along West, South, and East Boulevards and various other locations as needed to improve traffic flow,
- Manage incidents more efficiently and improve incident response time, and
- Use incident and congestion information to more effectively provide and manage MATS transit service using Global Positioning System (GPS) units on MATS buses.

To date, the following ITS projects have been installed within the Montgomery Study Area, including:

- Elevated cameras have been installed at the following intersections:
  - Taylor Road at East Chase Parkway,
  - Vaughn Road at East Boulevard,
  - I-65 at US-80,
  - Madison Ave at Jackson Street,
  - Court Street at Tallapoosa Street,
  - Commerce Street at Bibb Street,
  - Court Square at Dexter Ave,
  - Hull Street at Dexter Ave,
  - On top of the Montgomery Riverfront Police Substation overlooking the Montgomery River Walk, and
  - Coosa Street at Tallapoosa Street.

- Permanent vehicle detection units have been installed at the following locations:
  - Vaughn Road at East Boulevard,
  - Bell Street at Dickerson Street,

  - Troy Highway (US-231) at Taylor Road,
  - Mitylene area at I-85 north off ramp at Chantilly Parkway and Atlanta Highway (US-80),
  - Berry Hill Road at East Chase Parkway,
  - East Chase Loop at East Chase Parkway,
  - East Boulevard at Woodmere Boulevard,
  - Mobile Highway (US-31) at West Boulevard
  - East Boulevard at Stratford Square Shopping Center near Lowe's Home Improvement Warehouse.
- Fiber-optic cable installed and traffic signal controllers upgrades along Southern and Eastern Bypass from US 31 (Mobile Highway) to Plantation Way. (Phase 1A)
- Fiber-optic cable installed and traffic signal controllers upgrades along Eastern and Northern Bypass from Plantation Way to Coliseum Boulevard and along Colisium Boulevard to the ALDOT TMC and Montgomery Traffic Engineering. (Phase 1B)
- Fiber-optic cable installed from I-65 through Civic Center (future drop), through City Hall (future drop), to Montgomery TCC. Install CCTV and VDS at key interchanges. (Phase 2)
- ITS System on I-65 from South of SR-3 (US-31 to North of SR-6 (US-82, Cobbs Ford Road in Prattville). (Phase 3)
- ITS System on I-85 from I-65 to East of SR-8 (US- 80/Selma Highway in Montgomery) (Phase 4)
- ITS System on Vaughn Road from Eastern Boulevard to Ray Thorington Road. (Phase 5)
- Control center populated, hardware and software will be integrated, camera control and signal control software will be integrated. A diversion route study completed. A fiber network management tool created.
- Transportation Management Center (TMC) at the ALDOT offices located at 1409 Coliseum Boulevard, Montgomery
- The City of Montgomery Communications Center (TMC) (adjacent to the Traffic Engineering Department) that will provide the City of Montgomery's Traffic Engineering Department with the ability monitor real-time traffic and signal operations and gives them the ability to adjust signal timing.
- Alvarion Wimax radio equipment on 10 existing towers, four (4) new towers, and TCC equipment to monitor (communications center and traffic engineering) traffic devices in City of Montgomery.

Figure 5.3 details the first five phases from the ITS Infrastructure Plan.

There are several longer-term proposed ITS infrastructure projects for the Montgomery Study Area. One such project is for the City of Montgomery's Fire and Rescue Department and Police Department EMS services. The proposed project will allow the EMS will utilize the future ITS infrastructure to monitor traffic for incidents and improve incident management/response time to more efficiently clear vehicle crashes and traffic-impeding incidents. Other future ITS plans include:

- Installation of dynamic message signs around the perimeter of the Cities of Montgomery and Prattville to better inform incoming motorists of existing traffic conditions and incidents.
- Potential creation of a City of Prattville TMC, with installation of ITS Cameras and vehicle detection units.
- Link all vehicle detection units with ITS to have a live feed back to the TMC's in the area.
- Link the City of Montgomery downtown signal controllers with either radio or fiber optic cable.

Montgomery Study Area - 2035 Long Range Transportation Plan

Intelligent Transportation System (ITS) Infrastructure Development Implementation Plan

Montgomery Metropolitan Planning Organization

ITS Design Along I-65 End Project

ITS Design Along I-85 End Project

ITS Design Along I-85 Begin Project

ITS Design Along I-65 Begin Project

ITS Facilities

Legend

- FreewaysExpress
- ALDOT TMC
- ITS Towers
- Cameras
- Vehicle Detection Units
- Montgomery Traffic Engineering

ITS Implementation Phase

- Phase 1A
- Phase 1B
- Phase 2
- Phase 3
- Phase 4
- Phase 5

Roac

- Interstate Highways
- U.S. Highways / State Highways
- Secondary Roads
- Railroad
- Water Bodies
- City Limits
- Montgomery Area MPO Boundary

Figure 4.12

Source: Montgomery MPO and City of Prattville.

Currently, further ITS infrastructure wireless network is being completed by two consultants, Information Transport Solutions Inc and Big Wireless. The network is being built to support the current and future ITS system, to support the various interconnecting agencies, and to provide network connectivity where wired access was cost prohibitive. This system enables expanded municipal ITS services. In accordance with the RFP, the goals are a 900 MHz Mobile Network with 99% in-street coverage and 1 Mbps RF throughout and a 4.9 GHz Backhaul Network with 12 Mbps throughput and 99.9% uptime. The current design is as follows:

- (3) Core Distribution Sites
    - WNCF Tower (3 sectors)
    - Fire HQ (1 sector)
    - Girard Street Water Tank (3 sectors)
- (30) Distribution Nodes
    - (13) Fire Stations (includes Fire Training)
    - (7) Water Tanks
    - Approximately 10 New Towers (locations TBD)

The Montgomery Area Transit System (MATS) currently has Automatic Vehicle Location (AVL) equipment which uses Global Positioning System (GPS) technology to determine vehicle locations on all of the paratransit fleet. On fixed route service cell phone equipment in used to determine vehicle location. A project to replace the cell phone system with an AVL system is planned for the fixed route system. In addition the Montgomery Area Transit System (MATS) also has plans to integrate the AVL technology to provide internet and cell phone route planning and information to the riding public. Customers will be able to go to a site or get e-mail updates on the location of a vehicle and estimated time the vehicle will be at a particular stop. The last project involves implementing a self service phone portal which interacts with current phone system to provide paratransit customers with the ability to book trips cancel trips and confirm trips over the phone. This technology will be combined with AVL so customers can get real-time "where's my ride" information.

5. 2030 Long Range Transportation Plan Performance-Travel Demand Model Base and Forecast

The Montgomery Study 2035 Long Range Transportation Plan (LRTP) has been developed through an intensive process combining technical analyses with community, stakeholder and agency input collectively balanced against the financial resources (coming from Federal and local resources) of the MPO area. This section presents a detailed analysis of the multi-modal transportation system network performance, including current deficiencies and needs. The following sub-sections include discussions by mode, including roadway, transit, bicycle and pedestrian.

5.1 Roadways-Travel Demand Analysis

The transportation system should provide choices to people and be safe, convenient, efficient and accessible for all users. To achieve these goals, roadway projects contained in the 2035 LRTP provide multimodal accommodations. As a matter of standard practice, the transportation system should be designed, built, and maintained in a manner that accommodates not only automobiles, but also transit vehicles and non-motorized modes (bicycle and pedestrian facilities). Accommodating multi-modal travel allows for more efficient use of roadway facilities by providing the means for increasing capacity without solely adding additional roadway lanes. A true multimodal system is a network that provides transportation options for those who do not have the resources to travel alone in a single-occupant vehicle (SOV), or simply prefer alternate modes.

As presented in Section 3, the predominant travel mode within the Montgomery MPO Study Area is the single occupant vehicle (SOV) automobile, followed by carpooling, public transportation and a combined taxicab, motorcycle, bicycle and walking. According to the U.S. Census Bureau's American Community Survey (ACS), between the years 2005-2007 111,347 total workers drove alone to work in Montgomery County (compared to 107,710 in year 2000) (105,331 within the City of Montgomery out of the 111,347 in Montgomery County total drove alone). As for Autauga County between the years 2005-2007 22,268 workers drove alone to work (compared to 19,444 in year 2000) (no statistics were done for the City of Prattville for total workers that drove alone or by other means, but it is assumed that the majority of the workers stated reside in the City of Prattville). As for Elmore County, 24,947 workers drove alone to work between the years of 2005-2007 (compared to 23,755 in the year 2000). The majority of commuters going to work currently drive alone, with a small percentage of total workers carpooling, using public transit, taxicab, motorcycle, bicycling and walking. Barring unforeseen circumstances, roadways will most likely continue to be the predominant mode of travel within the Montgomery MPO Study Area transportation system.

Section 2 and the *Model Development Report* (Appendix E) of this document discuss the use and importance of the Montgomery MPO's travel demand model (the model) as part of the development of 2035 LRTP program of projects. The model is one of the fundamental analytical tools used by transportation planners and transportation planning engineers to identify existing roadway conditions and deficiencies, as well as to test specific system improvements. Two travel service criteria are typically presented to assess the quality of roadway performance: Level-of-service (LOS) and volume-to-capacity (v/c) ratios rating scales. LOS is letter designation ranging from A (excellent free flow operations with minimum delay) to F (long traffic delays and queues). Typically, v/c ratios (existing traffic levels to the maximum available throughput) correspond to LOS for roadway facilities. Table 5.1 presents an equivalency table for LOS and v/c. LOS D is used for the threshold for acceptable roadway performance, which conforms to standard practice around the country.

Table 5.1
Level-of-Service and V/C Ratios

LOS	V/C Ratio
A	<= 0.26
B	0.26-0.43
C	0.43-0.60
D	0.60-0.80
E	0.80-1.00
F	>1.0

5.1.1 2005 Base Year Roadway Conditions

For the purposes of the Montgomery Area 2035 LRTP, year 2005 has been chosen as the "base year" for travel demand model analysis using 2005 traffic analysis zone (TAZ) structure, roadway characteristics, residential housing units, retail and non-retail employment and household income in addition to, MPO Transportation Planning Staff and local jurisdiction planning and engineering staff's local knowledge were utilized to develop the base year socioeconomic data (SE data). As detailed in the *Model Development Report* (Appendix E) and in Section 5, the roadway TAZ and network structures were also updated from the 2030 LRTP to incorporate changes since the last LRTP update. Figures 5.1 and 5.2 present the 2005 congestion levels and loaded model volumes (with count data), respectively.

Based upon review of the 2005 base year model run, the following major roadway segments were identified as those with 'high congestion', or below the threshold (v/c > 0.8, or LOS E or F):

- SR-14 between Prattville and the Town of Elmore
- US-231 (Wetumpka Hwy) from North Blvd to Wetumpka
- West Blvd from Hayneville Road to South Blvd to East Blvd, East Blvd to North Blvd from US-231/Wetumpka Hwy to Coliseum Blvd and North Blvd from Court St to I-65
- Perry Hill Road from Atlanta Hwy to Vaughn Road
- Vaughn Road from Carter Hill Road to Taylor Road
- Taylor Road from Vaughn Road to Auburn University Montgomery
- US-231/Troy Hwy from South Boulevard and Bell Road
- I-85 from I-65 to Taylor Road
- I-65 from US-80/Selma Hwy to SR-143
- McGhee Road from Carter Hill Road to Governors Drive
- Ann Street from Atlanta Hwy to Highland Ave
- Carter Hill Road from Norman Bridge Road to McGehee Road
- Narrow Lane Road from Carter Hill Road to Woodley Road
- Woodley Road Narrow Lane Road and McGhee Road
- Day Street from Air Base Blvd to I-85
- Maxwell Blvd from Air Base Blvd to I-65
- US-80/Selma Hwy from US-31/Mobile Hwy to County Road 15/Lamar Road
- Stretches of Atlanta Highway west of East Boulevard
- Madison Ave from Hall Street to Federal Drive
- US-82 Bypass in Prattville from SR-14 to US-31/Memorial Drive
- Main Street from Norfolk Southern Railway to SR-14/Washington Street

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2005 Congestion Levels

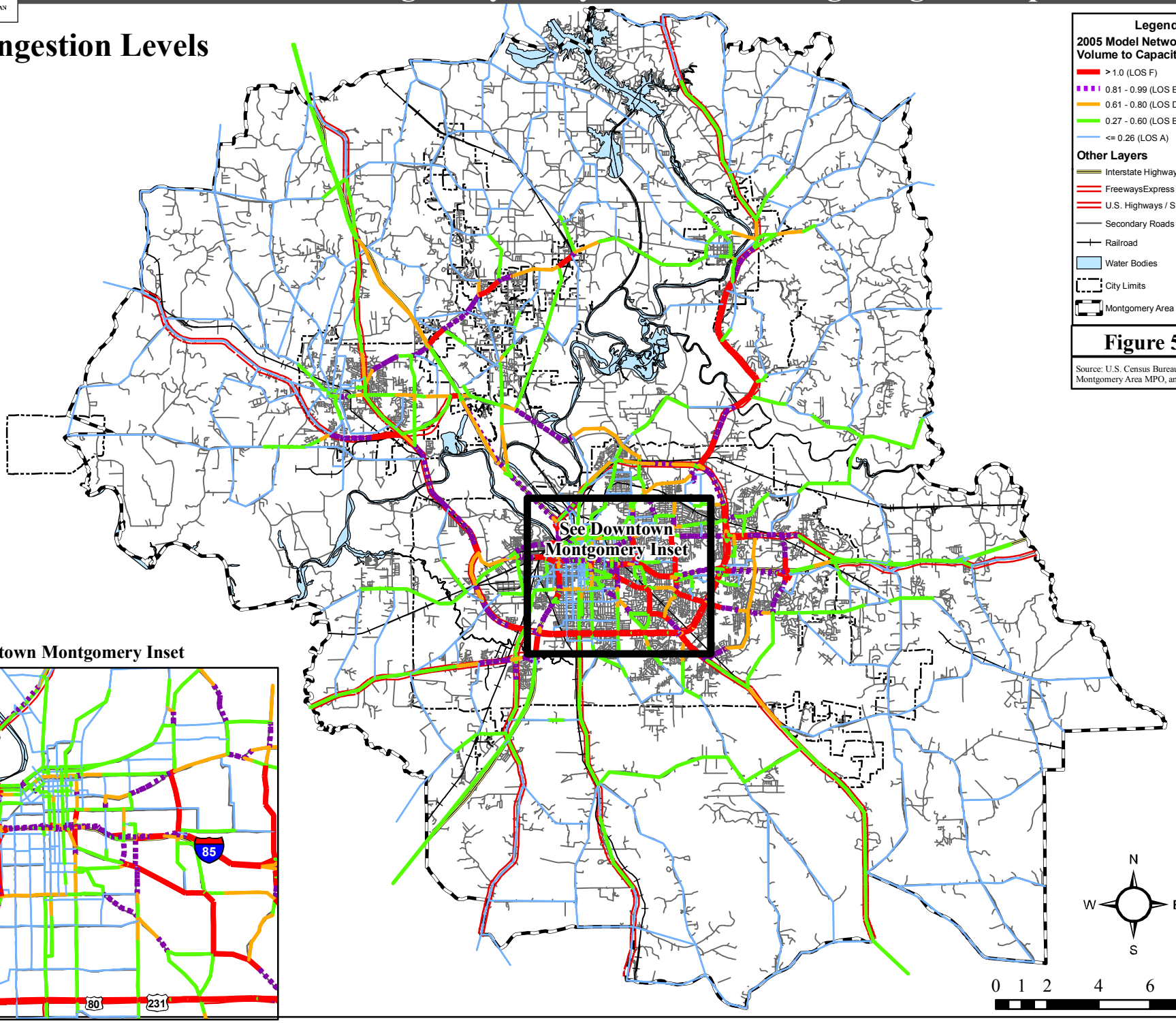
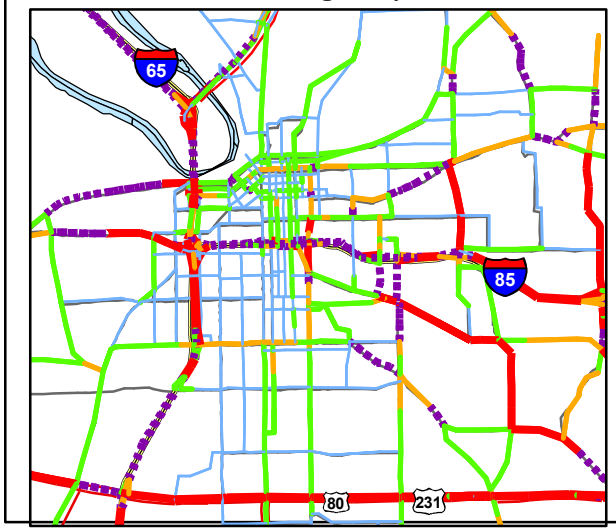


Figure 5.1

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Downtown Montgomery Inset



Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2005 Loaded Model Volumes With Counts

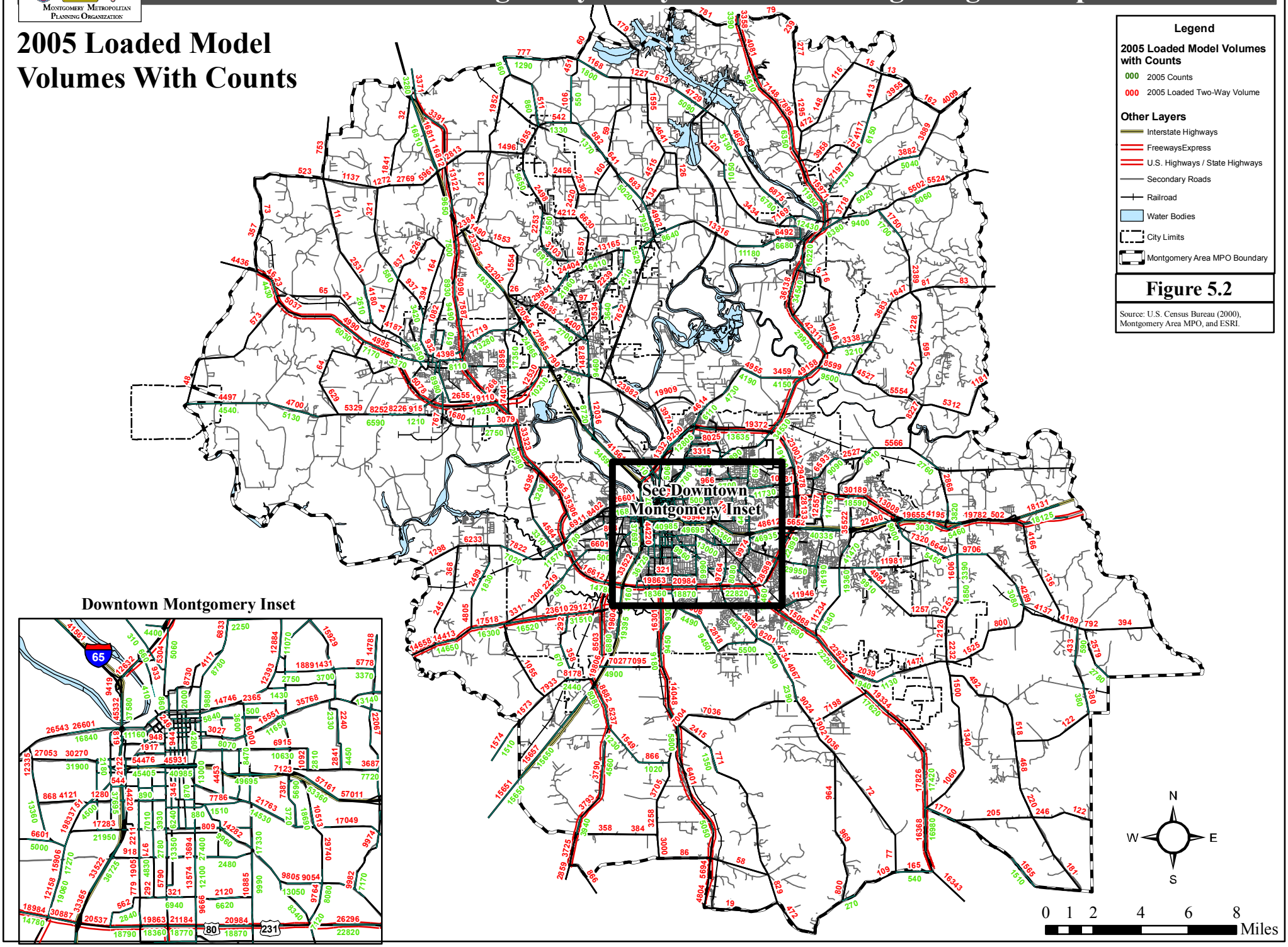


Figure 5.2

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

One of the primary indicators of travel performance is average congested speeds. Table 5.2 presents a summary of the overall average congested travel speeds (by functional classification) for the Montgomery Area Study Area in base year 2005.

Table 5.2
Average Congested Speed by Functional Classification (in mph)

Analysis Period	Functional Classification						
	Freeway	Expressway	Principal Arterial	Minor Arterial	Urban Collector	Rural Major Collector	Rural Minor Collector
2005 Base Year	65	53	51	45	38	45	45

5.1.2 2035 Forecast Year Roadway Conditions Performance and Analysis

Using the methodology presented in the *Model Development Report* (Appendix E), forecast year 2035 SE data was developed by the MPO staff with local area jurisdiction input for the same TAZs utilized for the 2005 base year model. The 2035 SE Data was developed using countywide growth projections / control totals developed by the University of Alabama Center for Business and Economic Research (CBER) and adjusted by MPO Staff, as well as local knowledge from area local jurisdictions for a final SE data set.

The initial 2035 model run was completed using the 2035 SE data as well as the Existing plus Committed (E+C) projects network. The E+C network represents existing and future transportation infrastructure for which a committed funding source exists. For the Montgomery Study Area 2035 LRTP, the E+C projects have been designated as those for which right-of-way acquisition or construction has been authorized to begin or programmed to begin, is in the process of being constructed or has been constructed for both private and publicly financed transportation roadway projects during previous (FY-2006-2008) or current TIP period (FY 2008 - FY 2011). The purpose of the 2030 E+C model run is to determine future roadway travel service performance based upon current level of investment in conjunction with the existing highway network. Figure 5.3 represents a map of projects that are considered committed for right of way, construction or privately funded. Figure 5.4 represents a map of actual travel demand model loaded volumes for existing plus committed applied to the existing highway network. Figure 5.5 represents 2035 existing plus committed travel demand model network volumes color coded from lowest to highest model volumes. Figure 5.6 represents a map of 2035 E+C roadway segments over capacity by color code. Figure 5.7 represents the 2035 roadway segments over capacity in relation to existing 2030 LRTP projects, which represents differences in need from 2030 to 2035.

Upon review of the 2035 E+C travel demand model run, the following major roadway segments were identified as those with 'high congestion', or below the threshold (v/c > 0.8, or LOS E or F):

- West Blvd from Hayneville Road to South Blvd to East Blvd, East Blvd to North Blvd from US-231/Wetumpka Hwy to Coliseum Blvd and North Blvd from Court St to I-65
- Fairview Ave from I-65 to Norman Bridge Road
- Hunter Loop from Air Base Blvd to US-31/Birmingham Hwy
- Old Selma Road from Keelie Hall Road to Hunter Loop
- Perry Hill Road from Atlanta Hwy to Vaughn Road
- Harrison Road from Perry Hill Road to Ann Street
- Vaughn Road from Carter Hill Road to Taylor Road
- Taylor Road from US-231/Troy Hwy to Auburn University Montgomery
- Bell Road from US-231/Troy Hwy to US-80/Atlanta Hwy
- Wares Ferry Road from I-85 to Dozier Road
- Dozier Road from Wares Ferry Road to Rifle Range Road

- US-231/Troy Hwy from South Boulevard to MPO Study Area Boundary in South Montgomery County
- US-331 from South Blvd/SR-152 to proposed Outer Loop interchange at US-331
- Court Street from South Blvd to Fairview Ave
- Norman Bridge Road from Patton Ave to Carter Hill Road
- Narrow Lane Road from Adrain Lane to Carter Hill Road
- I-85 from I-65 to near the Macon County line
- I-65 from Lowndes County Line to MPO Study Area Boundary in Autauga County
- McGehee Road from Woodley Road to South Blvd
- Fieldcrest Drive from McGehee Road to Wiley Road
- Ann Street from Atlanta Hwy to Highland Ave
- Carter Hill Road from Norman Bridge Road to McGehee Road
- Narrow Lane Road from Carter Hill Road to Woodley Road
- Woodley Road Narrow Lane Road and McGehee Road
- Day Street from Air Base Blvd to I-85
- Maxwell Blvd from Air Base Blvd to I-65
- US-80/Selma Hwy from I-65 to County Road 15/Lamar Road
- US-80 from Lowndes County Line to proposed Outer Loop Interchange
- Atlanta Highway from Ann Street to I-85/Mitylene Interchange
- Madison Ave from Hall Street to Federal Drive
- Coliseum Blvd from Pelzer Ave to Federal Drive
- Lower Wetumpka Road from North Blvd to Brooks Road and Anderson Road to US-231/Wetumpka Hwy
- Marlar Road from I-85 to The Waters
- US-82 Bypass in Prattville from SR-14 to US-31/Memorial Drive
- Main Street from Norfolk Southern Railway to SR-14/Washington Street
- Cobbs Ford Road from I-65 to Main Street
- SR-14 in Prattville from US-31/Memorial Drive to US-231 in Wetumpka
- US-231 (Wetumpka Hwy) from North Blvd to SR-9 in Wetumpka
- SR-9 from US-231 to Four Mile Creek Flat
- CR-8/Redland Road from US-231 to CR-4/Rifle Range Road
- Willow Springs Road from US-231 to CR-8/Red Land Road
- Coosa River Pkwy from SR-212 to US-231
- Grandview Road from Rose Hill Road to SR-14
- Alabama River Pkwy from SR-143 from North Blvd
- SR-143 from I-65 to Jackson Lake Road
- Coosada Pkwy from Coosad Road to Sr-14
- Main Street/SR-143 from Cobbs Ford Road to
- US-31/Memorial Drive from SR-14/Fairview Ave to CR-40
- US-31 from US-82 to CR-54/Old Selma Road

Montgomery Study Area - 2035 Long Range Transportation Plan

Committed Projects (Construction or Right of Way In Current TIP)

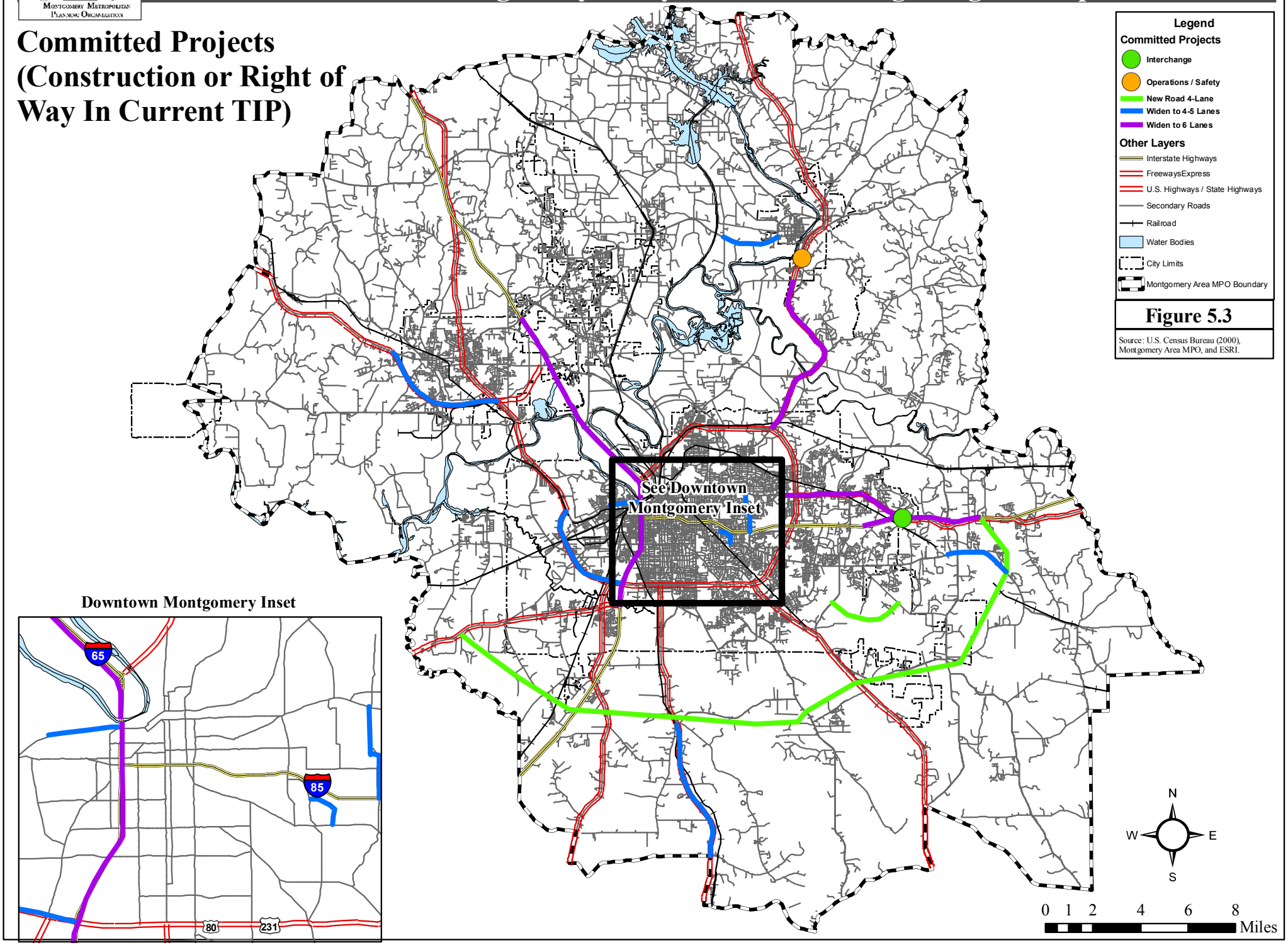


Figure 5.3

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Downtown Montgomery Inset

A review of the 2035 E+C model run also shows a decrease in average congested speeds for all but one of the seven functional classification groups, as presented in Table 5.3. Based upon this comparison (and assuming no additional investment but the E+C projects), the largest decreases in travel speeds between 2005 and 2035 will occur on the areas freeways, expressway, arterials and urban collectors, with lesser impacts upon rural collectors.

Table 5.3
Change in Average Congested Speed by Functional Classification (in mph)
2005 Base Year to 2035 E+C

Analysis Period	Functional Classification						
	Freeway	Expressway	Principal Arterial	Minor Arterial	Urban Collector	Rural Major Collector	Rural Minor Collector
2005 Base Year	65	53	51	45	38	45	45
2035 E+C	48	59	45	41	37	44	45
Percent Change	-26%	+11%	-11%	-9%	-3%	-2%	0%

Table 5.4 presents a summary of the overall LOS change for the MPO study area travel demand model network.

Table 5.4
LOS Summary for 2005 and 2035 E+C

LOS	2005 Base Year		2035 E+C	
	Miles of Network	Percent of Network		Miles of Network
A	582	55%	A	582
B	110	10%	B	110
C	166	16%	C	166
D	76	7%	D	76
E	77	7%	E	77
F	58	5%	F	58
Totals	1,069	--	Totals	1,069

Note: Excluding ramps and local roadways

5.1.3 Needs

Continued growth and development generates continued challenges to the transportation system. The biggest challenge on the transportation system is congestion, which is linked to the steady growth and development. Transportation professionals are tasked with coming up with solutions to meet those challenges. As stated before, the tool that transportation professionals use primarily to analyze the transportation system and meet future needs is called the TranPlan travel demand model.

Based on TranPlan model results for the 2005 base year and 2035 forecast year and as presented in Table 5.4, there is an overall worsening of LOS for the Montgomery Area functionally classified roadway network between the 2005 base year and the 2035 E+C forecast conditions. Total roadway miles with unacceptable LOS (E or F) increases from 12% in the 2005 base year to 34% in the 2035 E+C forecast run. Compared to the previous 2030 LRTP base year 2000, there was an unacceptable LOS (E or F) of 5% and a year 2030 E+C unacceptable LOS (E or F) of 17%. This represents an increase of unacceptable

LOS of 7% over the five (5) year period from the year 2000 to the year 2005 and an increase of 17% from the year 2030 to the year 2035.

An additional and more in depth review method of the year 2035 E+C travel demand model network was performed using a technical technique whereby the volume minus capacity was used to better and more accurately determine needs. A further detailed explanation of this analysis method is discussed below as follows:

To determine whether congested 2035 E+C segments required major or minor capacity additions or less expensive operational improvements, an additional calculation, volume minus capacity (V-C) of each congested roadway was conducted and results were evaluated. Figure 5.6 illustrates the V-C analysis that was used to determine the appropriate improvement required to meet the need on the specific roadway segment over capacity. This calculation illustrates the number of vehicles by which a particular roadway segment exceeds the LOS D threshold (which is considered an acceptable level of congestion). The relative number of vehicles that overload this threshold determines the level of capacity improvement necessary – major capacity, minor capacity or operational improvements.

Segments having greater than half the capacity of a new lane were identified as needing capacity improvements. Segments with a deficiency between 15 and 50 percent of the capacity of a new lane were considered for operational improvements, intersection modifications, and/or access management. Segments with a deficiency of less than 15 percent were considered for minor operational improvements or signal upgrades. Using these criteria, congested roadway segments requiring capacity additions and operational improvements were defined as listed in Table 5-5. Due to the budget constraints faced by ALDOT and the MPO, this process helps to determine the appropriate response to the projected level of congestion. It was used as a guide to develop transportation project recommendations.

The framework for the development of the 2035 LRTP 'Needs Plan' was the 2030 LRTP program of projects. Subsequent to the completion of the 2005 base year and forecast year 2035 E+C and potential needs projects, a base project list was generated to compare the 2030 LRTP program of projects against the following questions and criteria:

- Is the project on the 2035 E+C list?
- Is the project on the FY08-FY11 TIP?
- Is project (or segment of project) in CPMS?
- Travel Service Performance Measures (v/c ratios)
  - 2005 Base Year
  - 2035 E+C
  - Scenario Tests
- Potential Community Impacts (including environmental justice)
- Potential Community Facility Impacts
- Potential Safety Benefits
- Potential Support for Economic Development
- Public/Stakeholder Comments
- Total Estimated Project Cost
- Estimated Year Roadway Volume Exceeds Capacity

A work session was held on May 5, 2010 with TCC representatives from each MPO jurisdiction, MPO Staff, MATS General Manger and ALDOT Sixth Division Staff. In addition, a comparison of the current TIP programmed projects, as well as, other out year programmed ALDOT CPMS projects were compared against the 25 years of forecasted budget amounts by funding category in order to see how much funding would be available based on what was programmed. It was determined that more projects were programmed than funds were forecasted. Based on this estimate of more projects than funds to complete

them, each TCC members was asked to review the projects list and remove projects that were determined to be unneeded. Each TCC member was asked to review the projects list and return in short order which projects weren't needed and a further analysis would be done to develop a financially constrained plan.

Figure 5.6 2035 Segments Over Capacity, demonstrates what kind of roadway transportation improvements are needed based on how far over capacity a roadway segment is during the peak period. Again, the reason this analysis was used was due to serious funding constraints, which will not allow the MPO to widen every road that has a volume to capacity ration near or slightly over capacity during the peak hour. This method actually gives a better understanding of which roads most warrant major capacity improvements, and assists in eliminating roadways that don't need full capacity projects, such as, additional lanes or new roadways. Projects not needing major capacity improvements actually get minor capacity improvements, such as, turn lanes and intersection improvements and minor operational improvements, such as, traffic signalization and signal coordination.

Based on figure 5.6 titled Segments Over Capacity, a listing of 2035 Roadway and Operational Improvement Needs are listed below in Table 5.5.

Table 5.5
2035 Roadway and Operational Improvement Needs

Roadway	Location	Identified Need
Marlar Road	From I-85 to Williams-Stinson Road	Major Capacity
Pike Road	From I-85 to Wallahatchie Road	Minor Capacity/Oper
SR-110/Vaughn Rd	From Chantilly Pkwy to CR-37	Minor Capacity/Oper
Wallahatchie Road	Wallahatchie Road at Vaughn Road	Operational Improve
Vaughn Road at Ryan	Vaughn Road at Ryan Road	Major Capacity & Op
Chantilly Pkwy	From I-85 to Ryan Road	Major Capacity
Ryan Road	From Chantilly Pkwy to Vaughn Road	Major Capacity
Ray Thorington Rd	From Vaughn Road to Hallwood Drive	Major Capacity
Taylor Road	From US-80/Atlanta Hwy to AUM	Minor Capacity
Taylor Road	From AUM to 1 mile past Vaughn Road	Major Capacity
Taylor Road	From 1 mile past Vaughn Rd to Troy Hwy	Minor Capacity
Taylor Road	From New Harvest Dr to Troy Hwy	Major Capacity
Troy Hwy	From East Blvd to Taylor Road	Major Capacity
Troy Hwy	From Taylor Road to MPO Study Area	Minor Capacity
Virginia Loop Road	From Troy Hwy to Woodley Rd	Minor Capacity/Oper
Woodley Road	From South Blvd to Whispering Pine Dr	Minor Capacity/Oper
Woodley Road	From Narrowlane Rd to McGehee Road	Operational Improve
Woodley Road	From Virginia Lp Rd to Snowdoun Chambers	Minor Capcity/Ops
Siebles Road	At Narrow Lane and Siebles Road	Operational Improve
McGehee Road	From Woodley Road to South Blvd	Minor Capacity/Oper
Bell Road	From Troy Hwy to Vaughn Road	Minor Capacity/Oper
Bell Road	From Vaughn Road to US-80/Atlanta Hwy	Major Capacity
Atlanta Hwy	From East Plaza to East Blvd north ramp	Major Capacity
US-80/Atlanta Hwy	From Brown Springs Road to Lake Forest	Major Capacity
US-80/Atlanta Hwy	From Lake Forest Dr to Chantilly Pkwy	Minor Capacity/Oper
Vaughn Road	From Carter Hill Road to Ray Thorington	Operational Improve
Carter Hill Road	From Norman Bridge Road to Vaughn Rd	Minor Capacity/Oper
Fieldcrest Drive	From McGehee Road to Vaughn Road	Operational Improve
Perry Hill Road	From Atlanta Hwy to Vaughn Road	Operational Improve
Harrison Road	From Perry Hill Road to Ann Street	Minor Capacity
Ann Street	From Federal Drive to Highland Ave	Operational Improve
Mulberry Street	From Carter Hill Road to I-85	Minor Capacity/Ops
Narrow Lane Road	From Carter Hill Road to South Blvd	Operational Improve
Norman Bridge Road	From Carter Hill Road to South Blvd	Operational Improve
Norman Bridge Road	From Fairview Ave to Carter Hill Road	Operational Improve
Court Street	From Fairview Ave to South Blvd	Minor Capacity

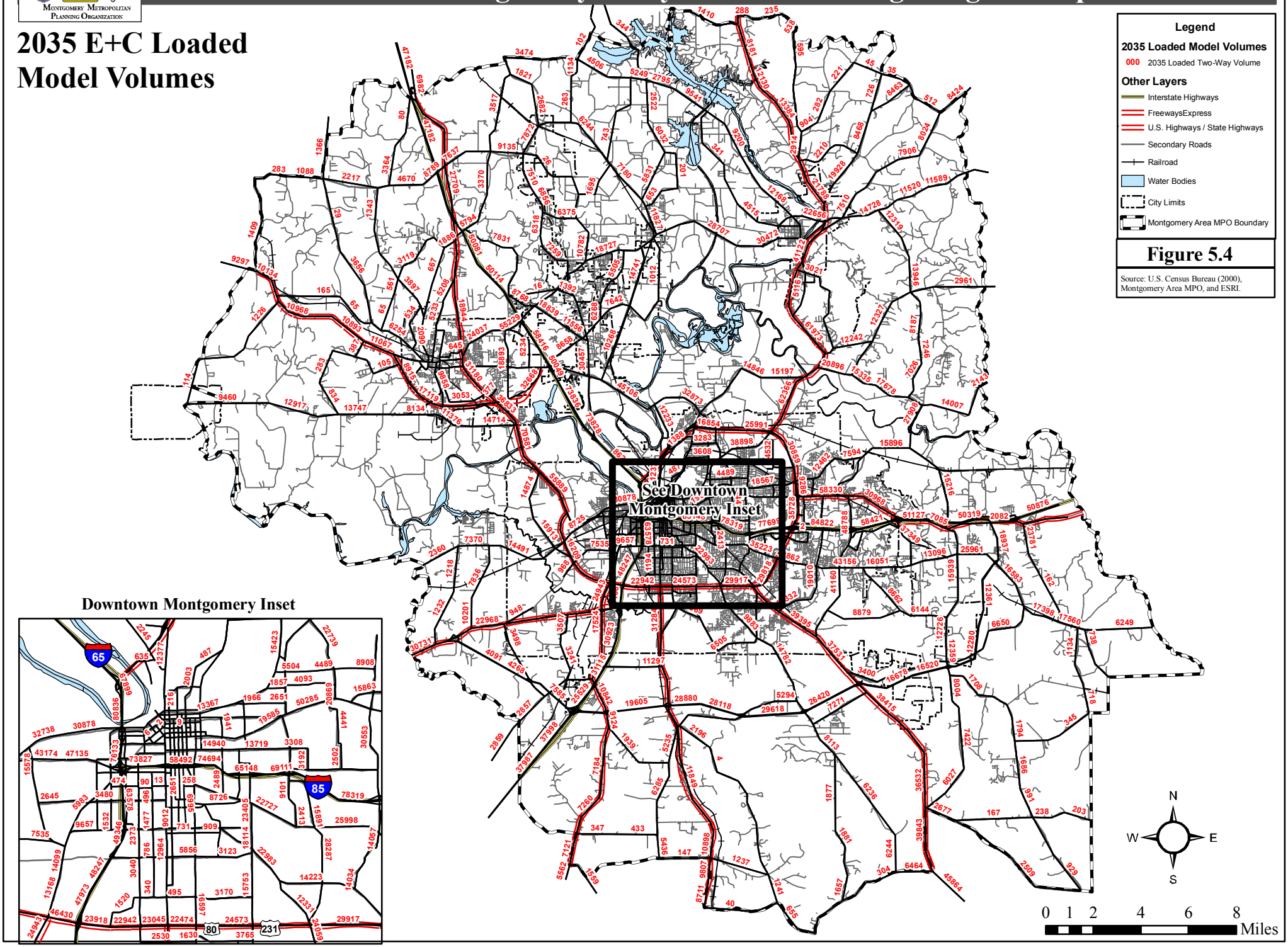
US-331	From South Blvd to 2 miles past Hyundai	Minor Capacity
US-31	From South Blvd to Greenleaf Drive	Operational Improve
Wasden Road	From US-31 to Hope Hull Post Office	Operational Improve
US-80/Selma Hwy	From US-31 to Richardson Road	Major Capacity/Opera
US-80/Selma Hwy	From Montgomery County Line to Cantelou	Minor Capacity
Ashley Road	From West Blvd to US-31	Minor Capacity/Oper
Old Selma Road	From Hunter Loop Keelie Hall Rd	Minor Capacity
West Blvd	From Ashley Road to I-65	Minor Capacity/Oper
South Blvd	From I-65 to Troy Highway	Minor Capacity/Oper
East Blvd	From Troy Highway to Vaughn Rd	Minor Capacity/Oper
East Blvd	From Carmichael Rd to Monticello Dr	Minor Capacity/Oper
Carmichael Road	From Perry Hill Road to Trinity Blvd	Operational Improve
Carmichael Road	From Woodmere Blvd to East Blvd	Major Capacity
Madison Ave	From Coosa Street to Atlanta Hwy	Minor Capacity/Oper
Atlanta Hwy	From Madison Ave to Mountainview Dr	Minor Capacity
Atlanta Hwy	Mountainview Dr to East Blvd	Minor Capacity
Wares Ferry Road	Atlanta Hwy to Burbank Dr.	Minor Capacity/Oper
Wares Ferry Road	From I-85 to Dozier Road	Minor Capacity
Dalraida Road	From Atlanta Hwy to Beardsley Dr.	Minor Capacity/Oper
Coliseum Blvd	From Atlanta Hwy to North Blvd	Minor Capacity/Oper
Alabama River Pkwy	From North Blvd to Montgomery Limits	Minor Capacity/Oper
Lower Wetumpka Rd	From North Blvd to US-231	Minor Capacity
North Court Street	From Madison Ave to Chandler	Minor Capacity/Oper
Upper Wetumpka Rd	From CSX Railroad to Crestview Street	Minor Capacity
Maxwell Blvd	From I-65 to Air Base Blvd Bridge	Minor Capacity
Day Street	From I-85/I-65 interchange to West Blvd	Minor Capacity
US-31	From West Blvd to US-82	Major Capacity
I-65	From US-80 to South Blvd	Operational Improve
I-65	From I-85 to MPO Boundary in Autauga Co	Minor Capacity/Oper
Lagoon Park Drive	From Gunter Park Drive to East Blvd	Minor Capacity/Oper
Cong. Dickinson Dr	From Coliseum Blvd to Wetumpka	Major Capacity
CR-4 in Autauga Co.	From County Road 35/Ferry Road	Operational Improve
US-82 in Prattville	From Cobbs Ford Road to SR-14	Minor Capacity/Oper
US-31 in Prattville	From US-82 to East 6th Street	Minor Capacity/Oper
US-31 in Prattville	From 6th Street to CR-40	Major/MinorCapacity
SR-14 in Prattville	From US-31 to Coosa River Pkwy	Major/MinorCapacity
Cobbs Ford Road	From I-65 to US-31	Minor Capacity
Main Street-Prattville	From US-31 to Court Street	Minor Capacity
McQueen Smith Rd	From SR-14 to Wynford Court	Minor Capacity/Oper
SR-143	From I-65 to Jackson Lake Road	Major Capacity
SR-143	From Jackson Lake Road to AL River Pkwy	Operational Improve
Main St/SR-143	From Alabama River Pkwy to Coosada Rd	Minor Capacity
Coosada Road	From Main Street/SR-143 to Airport Road	Minor Capacity
Grandview Road	From Rose Hill Road to SR-14	Minor Capacity
Allen Drive	From SR-14 to Nixon Road	Major Capacity
CR-3	From SR-14 to Myrick Road	Operational Improve
Coosada Pkwy	From Coosada Road to SR-14	Minor Capacity/Oper
SR-143	From SR-14 to CR-23	Operational Improve
Coosa River Pkwy	From SR-14 to US-231	Major/MinorCapacity
SR-111	From Coosa River Pkwy to Camilla A. Dr	Minor Capacity/Oper
US-231	From Coosa River Pkwy to SR-9	Major Capacity
US-231	From SR-9 to CR-211/Woeka Rd	Operational Improve
SR-9	From US-231 to Williams Road	Minor Capacity
SR-14	US-231 to CR-59/Fire Tower Road	Ops/Major/Minor Cap
Willow Springs Rd	From US-231 to Dozier Road	Minor Capacity/Oper
Redland Road	From US-231 to Emerald Mountain Express	Minor Capacity/Oper

Figure 5.7 titled *Identification of Additional Project Needs*, shows the volume minus capacity comparisons for increasing levels of peak hour congestion, as well as, previously recommended transportation projects. This was used to determine if any congestion needs were not served by a TIP/STIP or 2030 LRTP project. Several new projects were defined as a result of this process, but most were deemed infeasible due to ROW constraints or other issues. The one project that remained from this assessment was the widening of Marler Road from I-85 to 1.5 miles south of the interstate.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2035 E+C Loaded Model Volumes



Legend

2035 Loaded Model Volumes

000 2035 Loaded Two-Way Volume

Other Layers

- Interstate Highways
- FreewaysExpress
- U.S. Highways / State Highways
- Secondary Roads
- Railroad
- Water Bodies
- City Limits
- Montgomery Area MPO Boundary

Figure 5.4

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2035 E+C Model Network Volume to Capacity Comparison

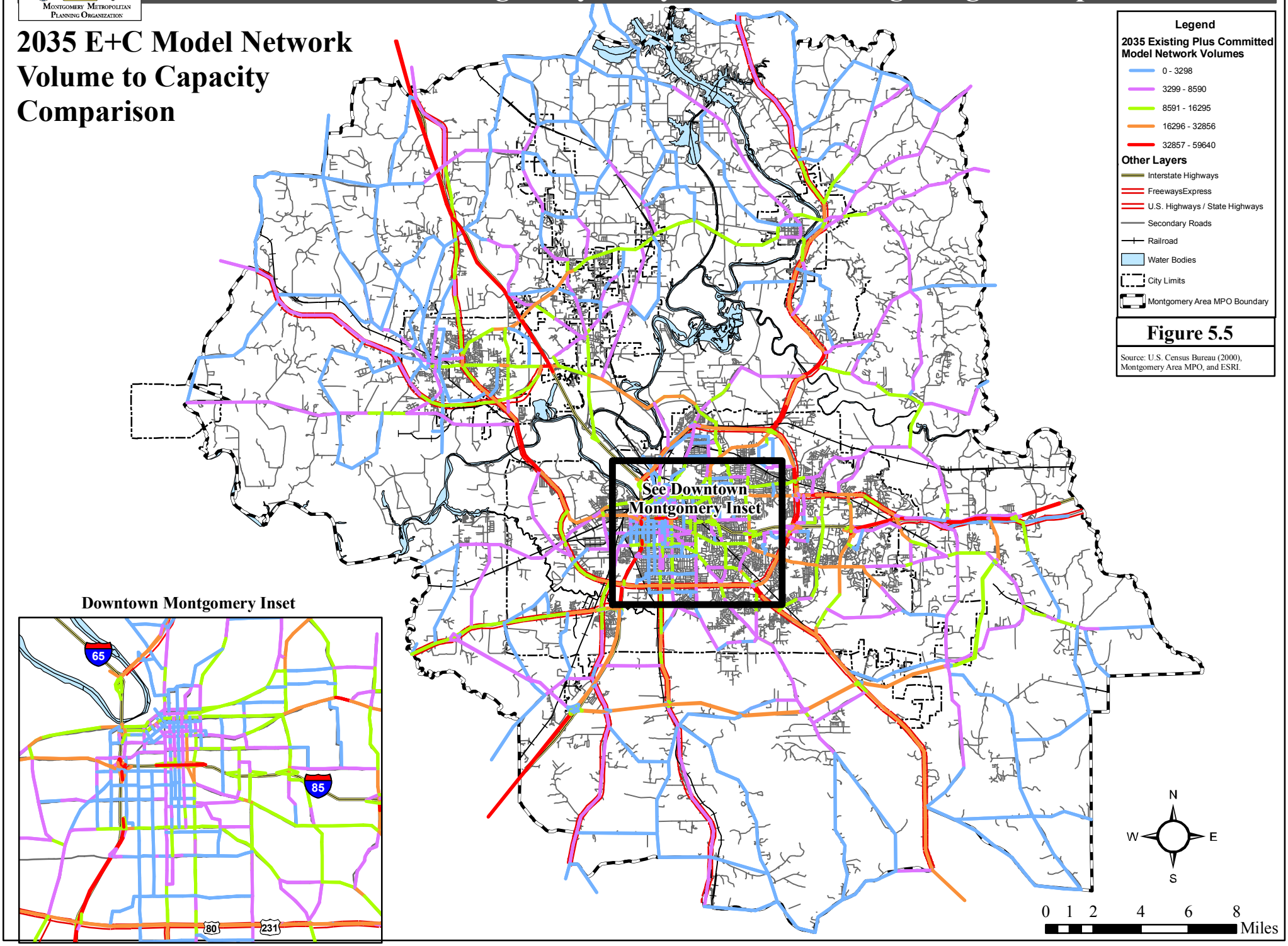


Figure 5.5

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

2035 E+C Segments Over Capacity

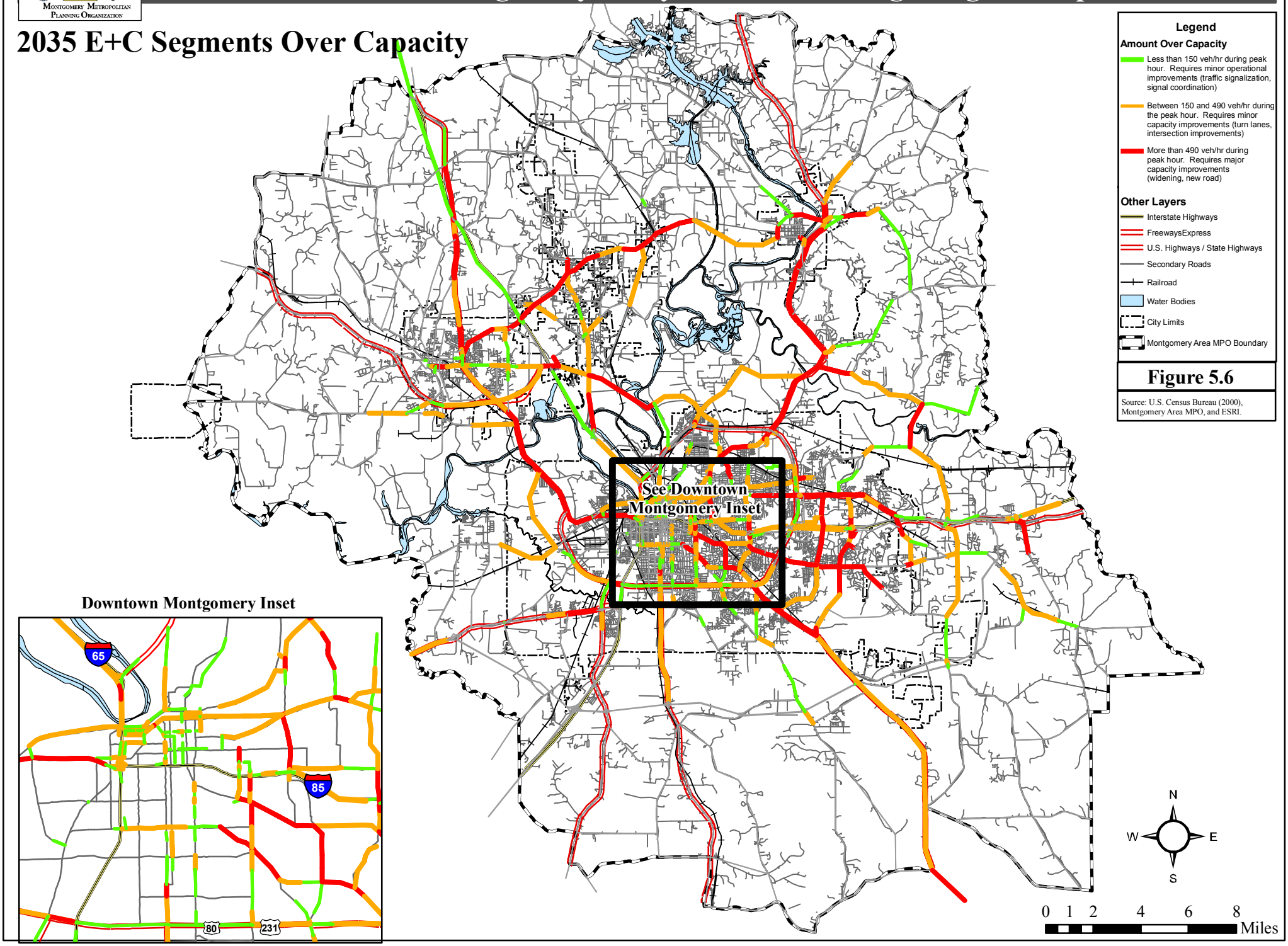


Figure 5.6

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Montgomery Study Area - 2035 Long Range Transportation Plan

Identification of Additional Project Needs

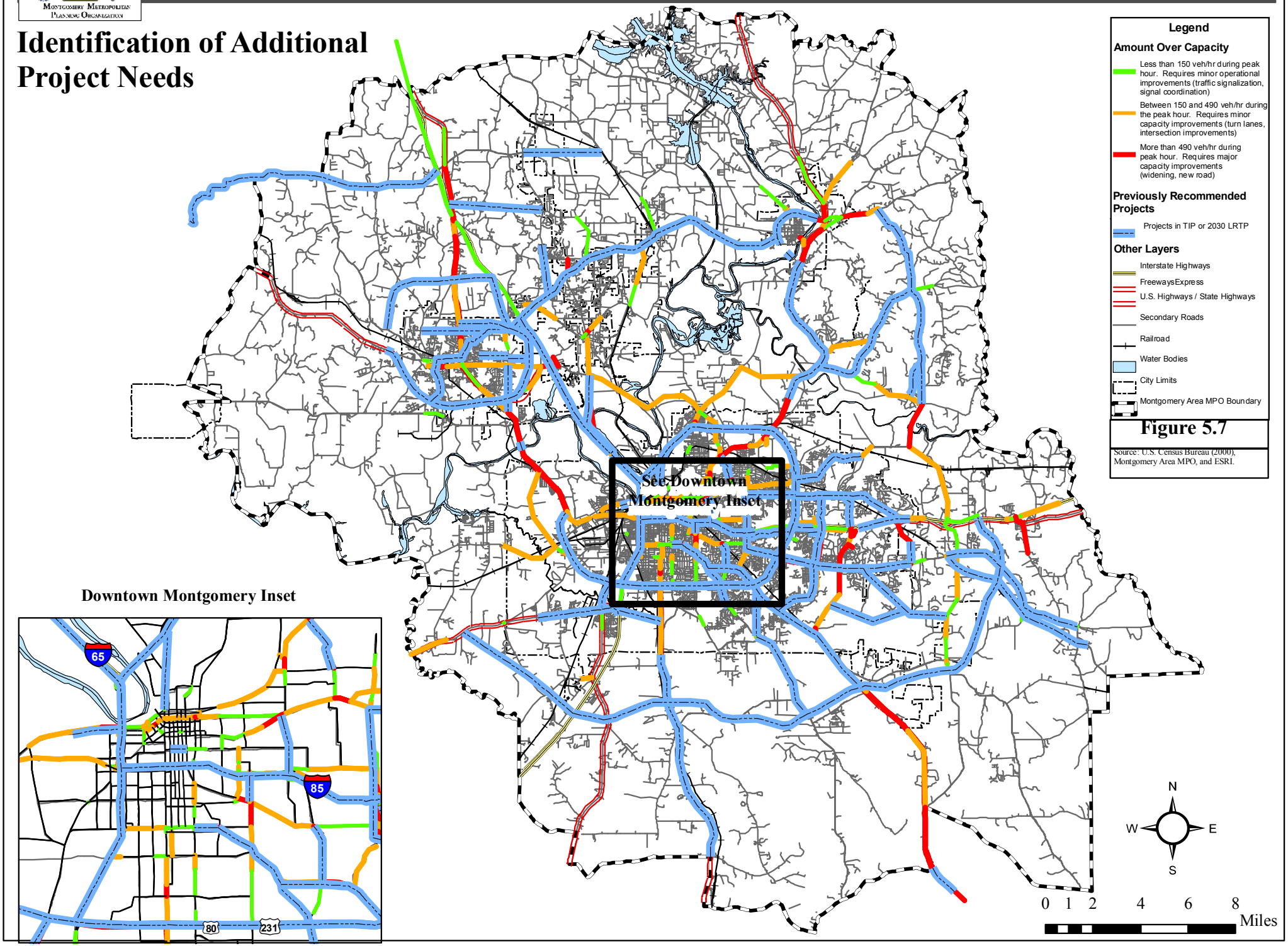


Figure 5.7

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

5.1.4 Additional Scenario Runs and Results

Additional travel demand model scenario tests were run on the following requested transportation roadway projects in order to justify or not justify perceived needs.

Project 1.

A scenario was proposed for the City of Millbrook and Elmore County for the proposed widening of Grandview Road from SR-14 to SR-143 and construction of a new roadway to the north connecting County Road 7 (Deatsville Highway) in the vicinity of Kenner Creek Bridge to SR-14 east of I-65.

To assess the need for the new road between Deatsville Hwy and AL 14 and the widening of Grandview Rd from AL 14 to AL 143, a V-C analysis was performed, which was the methodology applied to the rest of the system. Looking at the 2035 E+C network, the only roads in proximity to these recommended projects that would be designated as needing capacity improvement is AL 14. Projects that indirectly provide significant congestion relief to this corridor would be considered for implementation. Therefore, the scenario was tested using the travel demand model to determine what kind of impact such an improvement might have on AL 14 and the surrounding network. See figure 5.8.1 to see the location of the proposed project scenario for the City of Millbrook and Elmore County project.

The results of this test do show a potential long range benefit for these projects. Through the model run, we noted that the section of AL 14 between the new road/Grandview Rd and AL 143 would improve from requiring major capacity improvements to needing only minor capacity improvements in 2035. Since this portion of AL 14 is already 4 lanes and will not likely be expanded to 6 lanes in the near future, any relief of this portion of road is important. A majority of this improvement is the result of the new road, as this attracts about 12,000 trips per day. The widening of Grandview Rd provides far less benefit, as it attracts only about 3,000 trips per day. See figure 5.8.2 for review of travel demand model results.

With the funding constraints the MPO faces and the other high priority projects that have greater impact on the roadway network, it is recommended that the widening of Grandview be included in the Needs Plan as opposed to the Financially Constrained Plan for the 2035 LRTP. Therefore, should funds become available, this project could be moved forward towards implementation.

Project 2.

A scenario was also tested for the City of Wetumpka, for a proposed new roadway from SR-14/Coosa River Parkway to Fort Toulouse Road. It was envisioned by the City of Wetumpka leadership that this roadway would provide much needed relief in the near future and best serve the rapidly developing portions of the City of Wetumpka between the Creek Indian Casino and proposed Crater exhibit. See figure 5.8.3 for project location of the proposed new roadway.

Based on travel demand model results, this project provides some relief, but still lacks justification. This new road would attract about 9,000 cars per day from the parallel portion of US- 231, which is about 15% of the vehicles on this road. Though this is a significant number, it does not reduce the capacity need along US-231 and would not alone justify a new road. It would be better to focus funds on additional operational improvements along the entire congested portion of US-231 rather than implement this expensive option which would only relieve a section of the road. All of this traffic would eventually funnel back onto US-231 south of the new proposed road. Therefore, this project has been included in the "Needs" list, but not in the constrained plan. See figure 5.8.4 for the travel demand model results of this scenario.

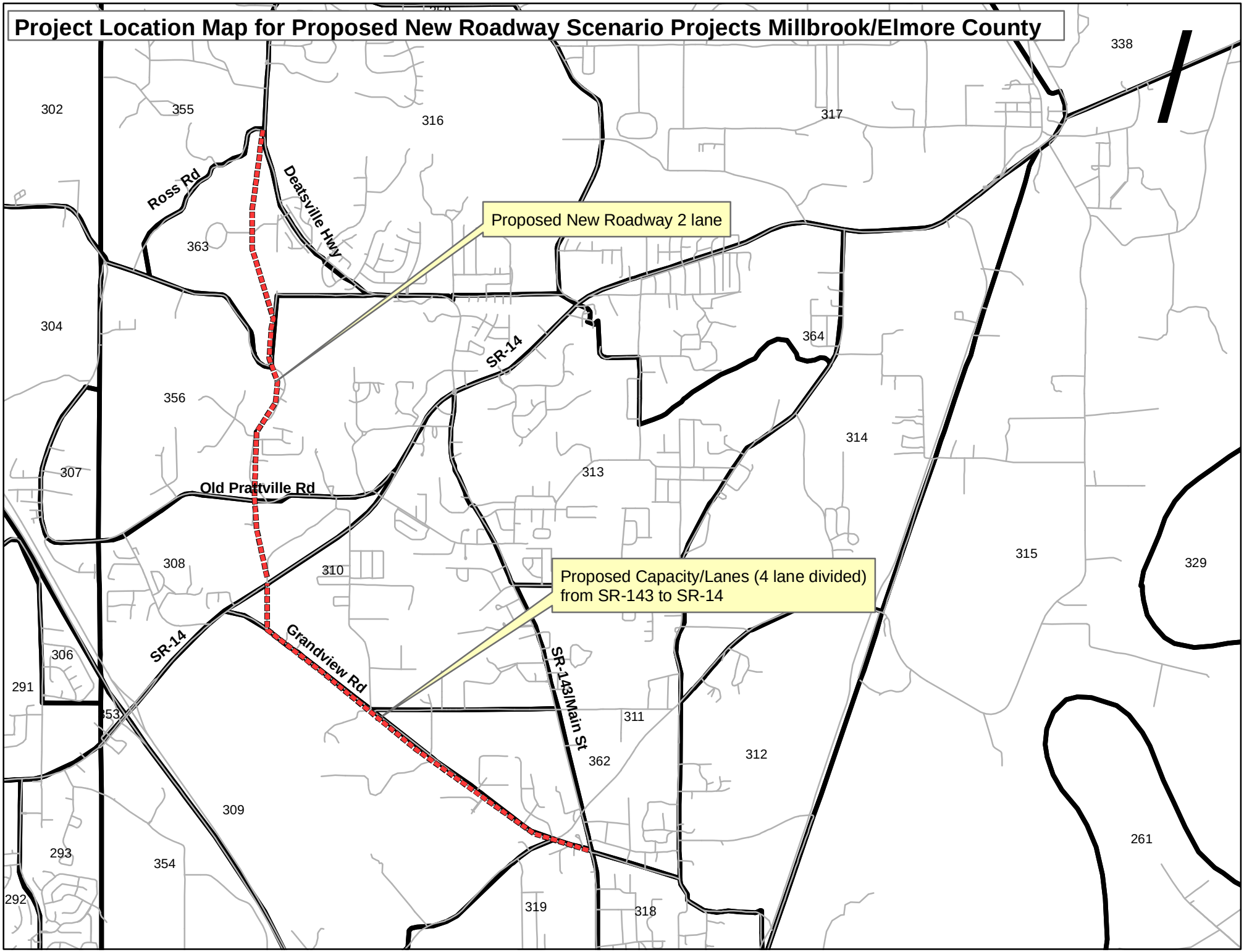
Project 3.

A scenario was proposed for Montgomery County for the construction of a new interchange at Wares Ferry Road at I-85, the construction of a new roadway from Wares Ferry Road through undeveloped land to Chantilly Parkway and constructing a proposed Outer Loop segment from I-85 to SR-110/Vaughn Road. See figure 5.9.4 for project locations for this scenario.

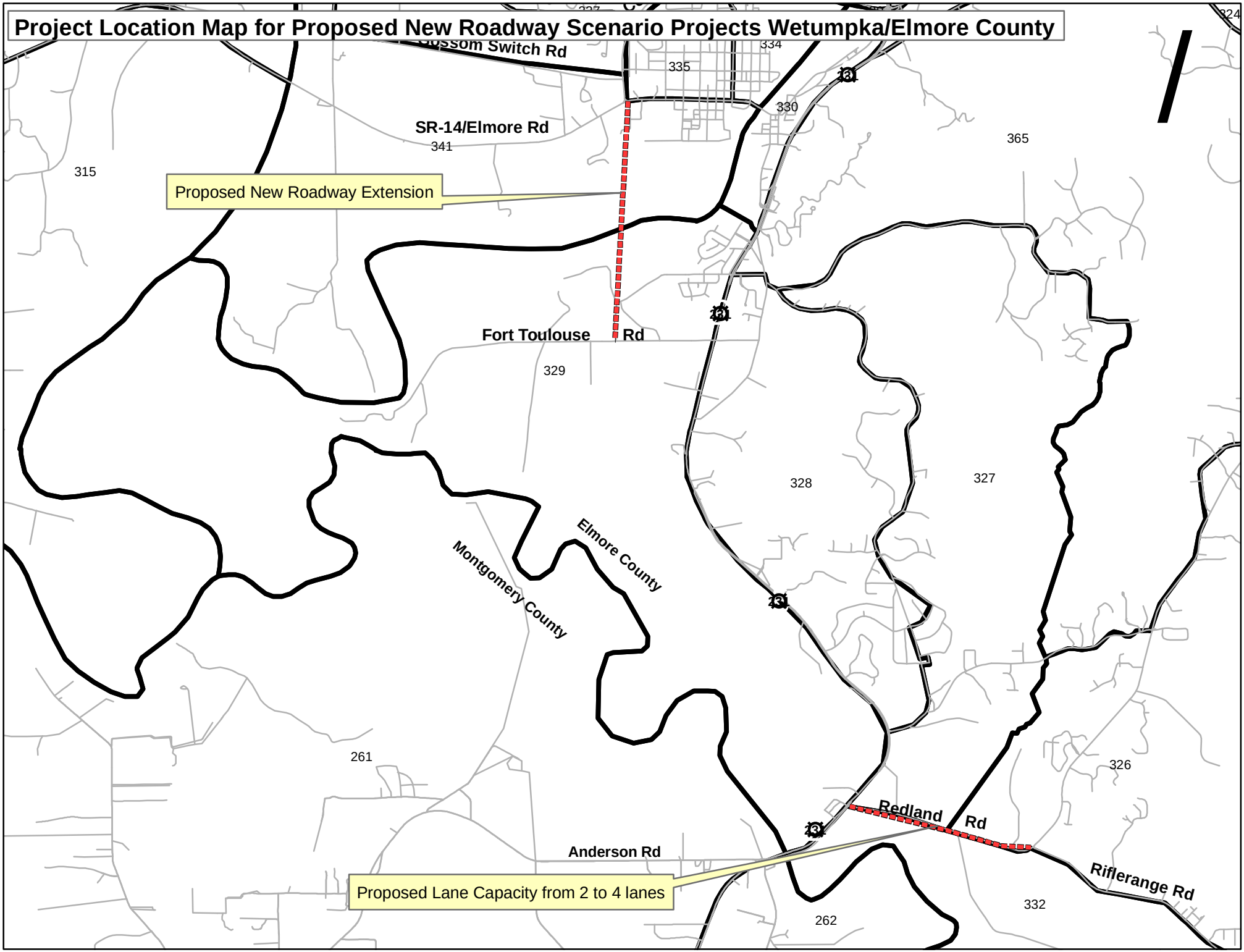
Justification for a new interchange at Wares Ferry Rd and I-85 is not shown for the purpose of relieving congestion of roadways leading to the Mitylene interchange at I-85 and Chantilly Parkway or relieving congestion at the Mitylene interchange. The purpose of a new interchange at this location would be to provide relief to the adjacent roads and/or to provide needed connectivity. As you can see in figure 5.8.5 and 5.8.6, the new interchange at this location would not provide significant benefit to any of the surrounding facilities. The model shows a reduction of only a few hundred trips on Chantilly Pkwy, which would not justify this improvement. However, due to the spacing between the Chantilly Pkwy and US 80 interchanges (5 miles), this location would be an attractive location for future consideration of a new interchange. For these reasons, this project should be included in the needs plan.

As for the proposed new roadway that would be constructed from Wares Ferry Road to Chantilly Parkway. The proposed new roadway would only be beneficial if the interchange was implemented. As you can see, Wares Ferry goes from grey to green in this figure with the interchange. Since this figure represents the V-C analysis, that means that this segment of Wares Ferry will be slightly over capacity with the interchange and would, therefore, benefit from the new road, but again, this would be a Needs Plan project.

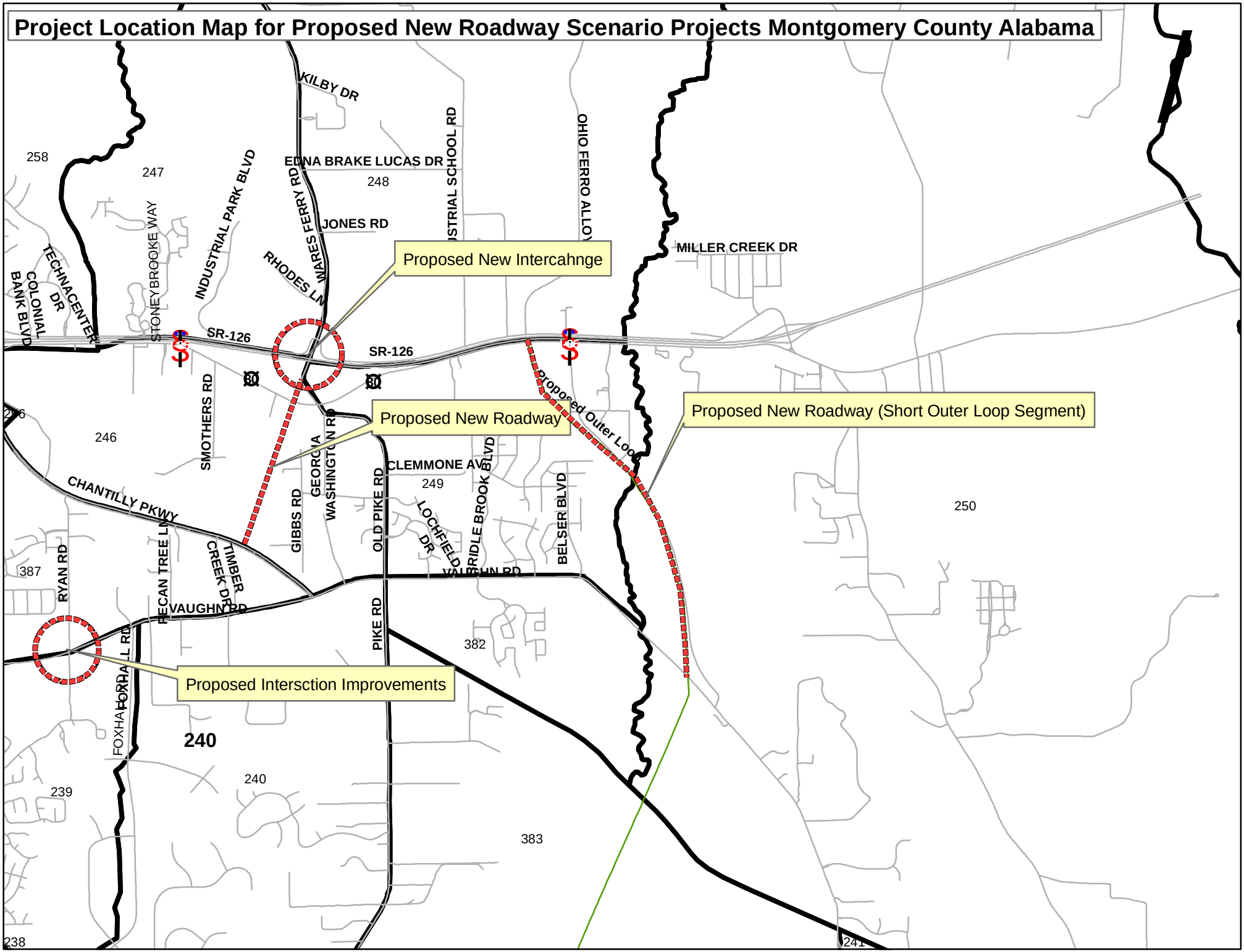
As for the short Outer Loop segment from I-85 to SR-110/Vaughn Road, the model doesn't appear to demonstrate congestion relief to the primary congestion problem at the Mitylene interchange. However, the true benefits of the Outer Loop from US-80 (Selma Hwy) to I-85 will not be realized until it is fully implemented, but access is provided if access to is an objective. In order to complete the project, however, it will need to be done in sections as this represents the most affordable option to the $400 million dollar project. Therefore, the short segment from I-85 to SR-110/Vaughn Road (to the extent we have already included it) should remain in the Constrained Plan Program of projects. See figures 5.8.5 and 5.8.6 for travel demand model scenario results for this scenario.


Project Location Map for Proposed New Roadway Scenario Projects Millbrook/Elmore County
Proposed New Roadway 2 lane
Proposed Capacity/Lanes (4 lane divided) from SR-143 to SR-14
Ross Rd
Deatsville Hwy
SR-14
Old Prattville Rd
Grandview Rd
SR-143/Main St
302
355
316
317
338
363
304
364
356
314
307
313
308
310
315
329
306
291
353
311
312
362
309
293
354
261
292
319
318

Placeholder for
Figure 5.8.2 2035 Project Scenario Travel Demand Model Results for Millbrook/Elmore County Scenario Request


Project Location Map for Proposed New Roadway Scenario Projects Wetumpka/Elmore County
Blossom Switch Rd
SR-14/Elmore Rd
Proposed New Roadway Extension
Fort Toulouse Rd
Elmore County
Montgomery County
Redland Rd
Anderson Rd
Proposed Lane Capacity from 2 to 4 lanes
Riflerange Rd
231
324
334
335
330
365
341
315
329
328
327
261
326
262
332

Placeholder for
Figure 5.8.4 2035 Project Scenario Travel Demand Model Results Location Map for Wetumpka Scenario Request


Project Location Map for Proposed New Roadway Scenario Projects Montgomery County Alabama
Proposed New Intercahnge
Proposed New Roadway
Proposed New Roadway (Short Outer Loop Segment)
Proposed Intersction Improvements
SR-126
SR-126
KILBY DR
EDNA BRAKE LUCAS DR
JONES RD
MILLER CREEK DR
INDUSTRIAL PARK BLVD
WARES FERRY RD
RHODES LN
TECHNACENTER DR
COLONIAL BANK BLVD
STONEYBROOKE WAY
SMOTHERS RD
GEORGIA WASHINGTON RD
GIBBS RD
OLD PIKE RD
CLEMMONE AV
CHANTILLY PKWY
LOCHFIELD DR
BRIDLE BROOK BLVD
BELSER BLVD
RYAN RD
PECAN TREE LN
TIMBER CREEK DR
VAUGHN RD
PIKE RD
FOXHALL RD
258
247
248
246
249
250
387
382
240
239
383
238
241

Placeholder for
Figure 5.8.6 2035 Project Scenario Travel Demand Model Results Location Map for Montgomery County Scenario Request

5.2 Transit-Travel Demand Analysis

As presented in Section 4 of the LRTP, local public transit transportation service within the Montgomery MPO Area is provided by two main agencies: the Montgomery Area Transit System (MATS) and the Autauga County Rural Transportation (ACRT) with private intercity service provided by Greyhound and Capital Trailways respectively.

5.2.1 MATS Service

The MATS system has grown tremendously over the past five-years due to public need and the municipal support. MATS was purchased by the City of Montgomery in 1974, who contracted with American Transit Corporation and later Queen Management Group until 1998 to operate the system. In 1998, MATS' 17 fixed routes were temporarily replaced with a Demand and Response Transit (DART) system (call-in reservation system). The service changes were due to reductions in federal operating support for the system and seen as a cost-effective option. The Montgomery Area Paratransit (MAP) service was maintained during this period to continue service to persons with disabilities.

After a change of administration, City leaders realized that the newly implemented DART system was not effectively meeting the needs of the citizens of Montgomery. A trial run of three new fixed routes was implemented in March 2000, which led to an additional six fixed routes in March 2001 after to the overwhelming success of the first three routes. Fixed bus routes have been added on a yearly basis, along with bus route adjustments. The MATS currently as of FY-2010 has a total of 20 fixed bus routes and still maintains a complementary paratransit service for disabled persons.

MATS is owned by the City of Montgomery and operated under a management contract by private First Transit, Inc. First Transit, Inc. provides a General Manage and Assistant General Manager/Maintenance Director. Both members of the management team manage a private transit agency named Transit Management of Montgomery, and the bus system is called Montgomery Area Transit System (MATS). Together, the team manages 95 employees of MATS. The current contract period ends on September 30, 2010, and will re-signed for another 5 years to run through 2015. MATS currently provides paratransit and 20 fixed bus routes that cover the Montgomery urbanized area, as shown in Figure 5.9, including the downtown rubber tired trolley circulator routes (The Lightning routes), State Shuttle route and Entertainment Express Routes. Table 5.6 presents an overview of the existing MATS service and Table 5.7 presents an overview of the existing financial operations and other performance statistics of the system.

Montgomery Study Area - 2035 Long Range Transportation Plan

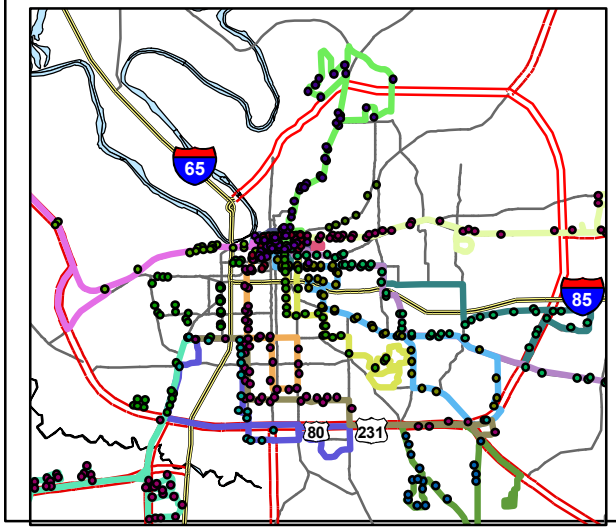
Montgomery Metropolitan Planning Organization

Montgomery Area Transit System Routes and Ridership 2005 and 2035

Daily Transit Trips

Route	Route Service Area	2005 Observed	2035 Modeled
1	Downtown AUM	162	170
2	Bastdale	589	587
3	Montgomery Commons	273	276
4	Boylston	316	303
5	Montgomery Mall	305	348
6	South Lawn Twin Gates	150	209
7	Maxwell	105	86
8	Gunter	57	65
9	Virgina Loop	81	88
10	South Count	517	507
11	Ridgecrest	161	129
12	Smiley Ct. Gibbs Village	465	388
13	Cramton Bowl	119	100
14	Lightning Route	104	134
15	Allendale Road	27	24
16	Twin Oaks	180	211
	Total	3,591	3,632

Downtown Montgomery Inset



See Downtown Montgomery Inset

Legend

Stops
- Ligntning Route
- Lunch Trolley Express
- Route 10
- Route 11
- Route 12
- Route 15
- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6
- Route 7
- Route 8
- Route 9

Routes
- Route 1
- Route 10
- Route 11
- Route 13
- Route 14
- Route 15
- Route 16
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6
- Route 7
- Route 9
- Gibbs Village

- Interstate Highways
- FreewaysExpress
- U.S. Highways / State Highways
- Secondary Roads
- Railroad
- Water Bodies
- City Limits
- Montgomery Area MPO Boundary

Figure 5.9

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

N W E S

0 1 2 4 6 8 Miles

Table 5.6
Summary of Existing MATS Service

- Twenty fixed routes with weekday service, and Saturday service on most routes. Typical weekday headways range from 30 minutes to 1 hour, with exceptions being the #14 (see below) and the #13 state shuttle, which runs every 10 minutes but only during peak hours, No weekends for state shuttle.
- Route #14 operates as the "Lightning Route," which serves as a downtown circulator using replica rubber tired trolley-style buses. The #14 operates on 20-minute headways from 9AM to 6PM.
- Typical weekday service hours for most routes is 5:30 AM to 9:30 PM. Earliest weekday service (route #11) is 4:40 AM, latest is 9:30 PM.
- One demand-response service is available for disabled persons only and is called Montgomery Area Paratransit (MAP). It is available anywhere within Montgomery city limits:
    - MAP (Montgomery Area Para transit) – Offers curb-to-curb service to persons with disabilities that are unable to use fixed bus route service.
- Standard one-way fares: $1.00 for fixed bus routes and $2.00 for MAP. Free transfers. $0.50 fare available to students (K-12), seniors, and riders with disabilities.
- Ridership data from National Transit Database (Fiscal year 2009, most recent NTD statistics available):
    - Annual unlinked trips: 1,336,936 (1,298,751 fixed route; 38,185 MAP)
    - Average daily boardings: 4,870 weekday (Monday-Friday; 1,846 Saturday
    - Annual passenger miles: 7,097,170 (6,753,505 fixed bus routes; 343,665 MAP
    - Annual vehicle revenue miles: 1,637,663 (1,290,296 fixed; 347,367 MAP)
    - Annual vehicle revenue hours: 103,994 (84,916 fixed; 19,078 MAP)
- Financial information (2009 NTD):
    - Operating expenses: $5,826,367 ($4,532,155 for fixed route; $1,294,212 for MAP
    - Breakdown of operating sources: 11% farebox revenues; 35% local funds; 50% federal assistance; 4% other
- Fleet characteristics (2009 NTD):
    - 33 vehicles operated in maximum service (25 for fixed bus route; 8 for MAP bus)
    - Average fleet age: 7.3 years for fixed route, 5.1 for MAP

Source: National Transit Database and Montgomery Area Transit System

Table 5.7
MATS 2008 and 2009 Operating Performance

Service, Ridership and Costs	Fixed Bus Route		Paratransit Bus - Demand Response	
	2008	2009	2008	2009
Operating Expenses	$5,024,309	$4,532,155	$1,398,528	$1,294,212
Revenue Miles	1,282,023	1,290,296	360,159	347,367
Revenue Hours	86,138	84,916	21,004	19,078
Passenger Trips	1,291,254	1,298,751	37,205	38,185
Performance Measures				
Cost per Mile	$3.89	$3.51	$3.88	$3.73
Cost per Revenue Hour	$58.33	$53.37	$66.58	$67.84
Cost per Passenger Trip	$3.88	$3.49	$37.59	$33.89
Passengers per Revenue Hour	15.02	15.29	1.77	2.03

Source: 2008 and 2009 National Transit Database

Table 5.7 indicates that there has been a small increase in fixed-route ridership between 2008-2009; but not a significance in overall performance measure unit costs. The same is true for the paratransit-demand response service, which shows a small increase in ridership for the same 2008-2009 period and not a significance in overall performance measure unit costs.

According to desires of MATS, ACRT, Montgomery County, Elmore County and Autauga County governmental entities, the following items are recommended for enhanced transit services:

- Over the long term, MATS needs to increase the service frequencies of all bus routes that are in need of this service, add service to areas in Montgomery that aren't currently served that want to be served, construct a transit oriented development of east Montgomery transit station and serve bus routes to and from the east Montgomery station, as well as let the station serve as a transfer point for transit travelers to and from downtown Montgomery and decreasing the length of certain bus routes.
- ACRT needs has plans to increase the total number of demand-response vehicles in order to serve more trips as well as starting to serve trips for either a fixed bus route type service for Prattville as well as serving trips to employment destinations in Montgomery, particularly Maxwell Air Force Base.
- Elmore County needs to start a similar rural transit system like Autauga County Rural Transit and begin to serve trips within Elmore County, as well as serve trips to and from Montgomery.
- Montgomery County needs to start a similar rural transit system like Autauga County Rural Transit and begin to serve trips from rural Montgomery County to inner city Montgomery, as well as coordinate trips where possible with the existing MATS system. It should be noted that an existing brokered demand and response transit program is in placed called *Job Link. Job Link* uses a call center to take calls and serve trips on demand from private transportation providers in the Montgomery MPO area. Job Link appears to be a useful service, but more is needed by the governmental entity (Montgomery County Commission).

The following is a summary of needs and observations identified in the City of Montgomery's - Montgomery Urbanized Area *Transit Development Plan (TDP)* (2009-2013), prepared by First Transit, Inc. The following recommendations cover the period of FY 2009-2013 in the TDP:

During the last five years, MATS has introduced a progression of strategic public transportation improvements with the purpose of rebuilding the City's fixed-route transit system. This chapter describes a set of improvements for the next five years (2008-2012). The goals of these improvements are to preserve the progress that has been made and continue to improve public transportation service in the City of Montgomery. Each recommendation is the product of a close collaboration between the City of Montgomery, MATS, general public and advocacy groups, bus operators, stakeholders, current users, and the consultants that were retained to update the TDP.

The proposed improvements are designed to meet a number of planning objectives. By addressing these objectives, MATS will be able to sustain the service and ridership growth achieved during the last five years. The system should also be able to reach a higher level of performance in the future. The planning objectives include:

- Simpler route alignments and system design
- More direct travel
- Consistent frequency of service
- Greater route connectivity that eliminates double transfers and offers timed transfers to the majority of passengers
- Higher passenger productivity and on-time performance
- Consideration of new markets or non-traditional riders

Based on the data collected and the tasks completed for this project, several key observations can be made that affect the TDP update recommendations:

- Although Montgomery has a long history of providing public transportation, the existing system is relatively new.
- Reintroducing fixed-route service has brought about significant ridership growth.
- Refinements to the existing routes and schedules are needed to help meet the planning objectives. Not addressing these issues could result in a less effective system with major cost issues.

- Most of the demand for public transportation is still found in the older, established neighborhoods located south and west of downtown Montgomery.
- Although some redevelopment activity is taking place in midtown and downtown, most of the residential, business/commercial and employment growth is taking place in the east and southeast sectors of the city, which might bring about potential for new customers, but creative bus route offerings/services might yield more riders from midtown and downtown.
- Poor on-time performance is having a major impact on timed transfers and some system reliability and needs improving.

5.2.2 ACRT Service

The ACRT is a demand response service providing weekday service to residents of Autauga County and the City of Prattville. A 24-hour advance reservation is required. Riders of ACRT includes primarily elderly persons, low-income workers, disabled persons, head-start participants, school-age children and dialysis patients. Table 5.8 presents an overview of the existing financial operations of the system.

Table 5.8
ACRT 2004 and 2009 Operating Performance

Service, Ridership and Costs	Demand Response	
	2004	2009
Operating Expenses	$288,253	$278,865
Revenue Miles	301,568	225,168
Revenue Hours	14,880	15,152
Passenger Trips	62,248	40,044
Performance Measures		
Cost per Mile	$0.95	$1.23
Cost per Revenue Hour	$19.37	$22.56
Cost per Passenger Trip	$4.63	$8.49
Passengers per Revenue Hour	4.18	2.64

Sources: 2004 National Transit Database and 2009 ALDOT Transit Reporting System

Table 5.7 indicates a decrease in ACRT system ridership between 2004 and 2009 years; therefore, decreases in savings for overall performance measure unit costs was observed, as well as increases in costs. According to the ACRT general manager, they stay very busy filling calls for demand responsive purpose trips and have been approached about serving military personnel that work at Maxwell Air Force Base with service to and from the Air Force Base. The majority of the destinations for the ACRT services are the five senior centers, medical, educational, and shopping facilities. All (12) buses are utilized during peak periods; however, average ridership is about 60% capacity of 10-14 person van capacity due to demand responsive transport. The most immediate needs of the ACRT system include:

- Need to serve more trips into and out of Montgomery and possible fixed route service as a trial
- Additional replacement vehicles

5.2.3 Additional Fixed Route Service

In order to assess potential transit improvement opportunities, several model-based as well as off-model technical analysis tools were used. To assess need for expanding fixed route transit service, existing demand and projected future trip making patterns were analyzed. This data was used to determine where additional capacity might be needed on existing routes as well as where route expansions might be justified.

One of the easiest and most beneficial methods to improve transit in any area is to increase service in areas that are approaching capacity. By assessing existing ridership numbers, it can be determined which routes would currently, or in the near future, benefit from additional buses or increased headways. Figure 5.10 illustrates existing routes with maximum occupancy rates greater than 80% of the vehicle's capacity. More detailed analysis would be needed to determine which route segments and what time of day would benefit from enhanced service. As illustrated in this figure, the following routes would likely benefit from additional service:

- South Court Route
- Ridgecrest Route
- Boylston Route
- Simley Court East Route
- Gold Loop
- Cramton Bowl Shuttle

In addition to enhancing service on existing routes, it is often necessary to expand the service area. To assess the potential need for route expansion, high growth areas and large employment centers were considered. Understanding the operational requirements of fixed route transit (e.g. routes must have short enough trip lengths to attract and maintain ridership while connecting key points), the areas analyzed were concentrated around the periphery of the existing system which is centered in Downtown Montgomery.

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Potential Future Fixed Route Transit

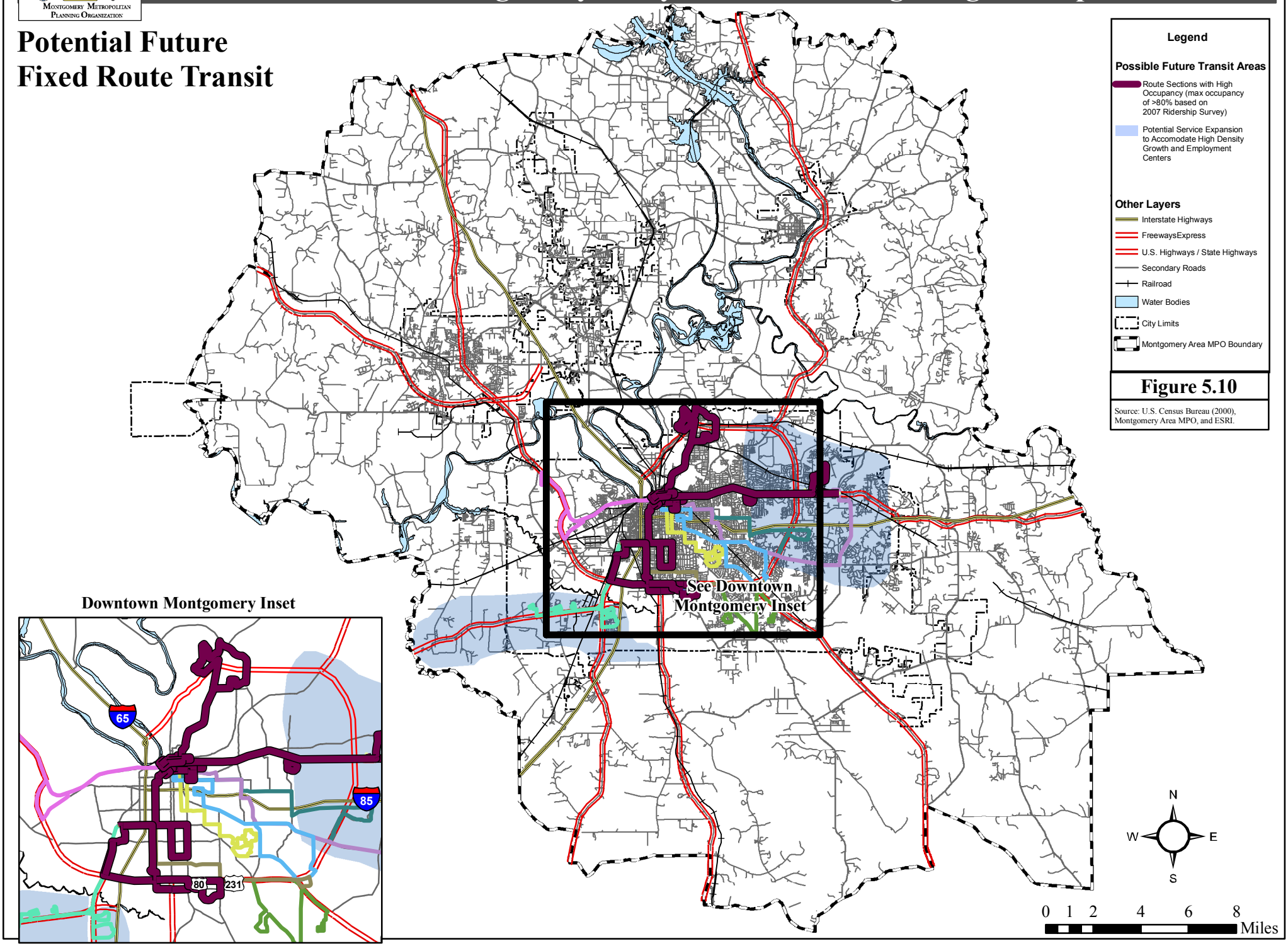

Figure 5.10

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

The areas identified for potential fixed route expansion, which are also shown in Figure 5.9, include the Airport and industrial area along US 80/Selma Hwy west of I-65 and the high growth residential and retail employment area surrounding I-85 from west of Eastern Blvd/US 231 to Atlanta Highway. These areas were identified using the Household and Employment Density figures shown in Section 3 as well as model results for trip density, trip attractions and productions shown in Figures 5.11 through 5.16. These figures illustrate the existing and future total trip density by TAZ as well as the Home Based Work (HBW) trips going to employment centers and from households. Comparing the 2005 and 2035 maps demonstrates the magnitude of trip increases in each TAZ, which can provide insight on which areas are good candidates for future transit. The residential/commercial area surrounding I-85 shows significant increase in HBW trips and would, therefore, benefit from additional fixed routes to serve the projected employment and population growth. The industrial area along US 80/Selma Highway should be considered for fixed route transit expansion due to high employment projections as illustrated in Figures 3.6 and 3.8.

The existence of transit dependant populations was also considered in the assessment of potential fixed route transit needs. The local service analysis included a review of low-income demographic data overlaid with the MATS fixed routes. The intent of the review was to determine the adequacy of service coverage based upon locations of typical transit-dependent populations, which include low-income and elderly populations. As depicted in Figures 3.13 through 3.16, the major concentrations of transit-dependent population were focused on the downtown area where improvement recommendations have been made.

5.2.4 Local and Express/Vanpool Transit Service

In addition to improving Montgomery's existing transit services, it is critical to continue to explore new technologies and types of service. To assess the potential for implementing new forms of transit, including express bus and vanpool strategies, off-model analyses were performed. The previously shown model-based trip maps (Figures 5.10 through 5.13) were also used to assess the need for these types of new transit services.

Express bus transit routes and vanpools perform a different function than fixed route transit and, therefore, the need for such services must be assessed using a different methodology. Express/vanpool services operate more as a shuttle, transporting passengers from a remote location to a centralized area, while making few or no stops. This service typically generates from a moderate density residential area destined for a high density employment center. This type of service can be implemented for the purpose of providing mobility as well as reducing congestion on heavily traveled corridors.

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Total Trip Density 2005 In Relation to Transit Fixed Bus Routes

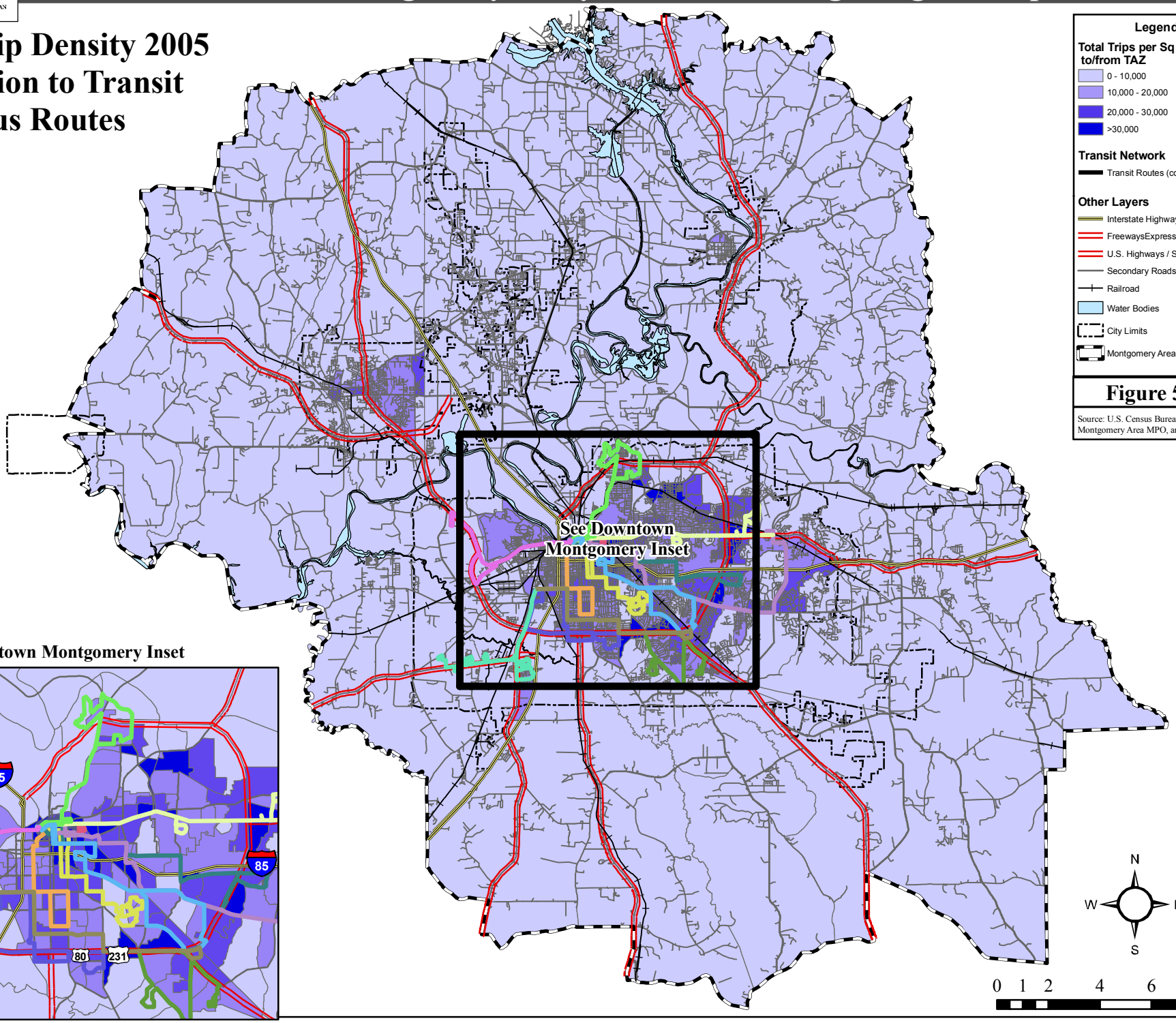
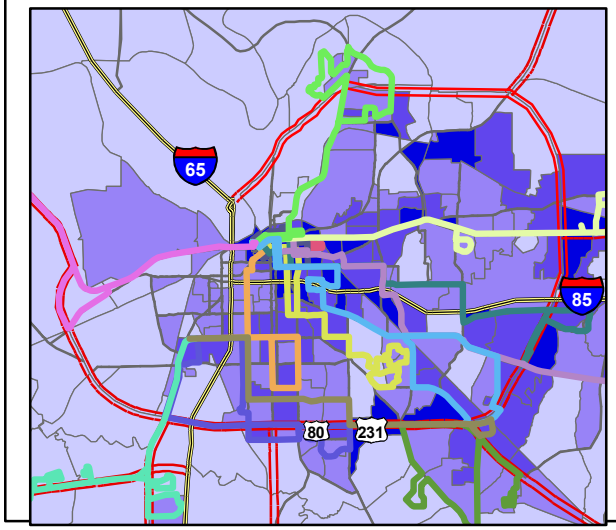


Figure 5.11

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Downtown Montgomery Inset



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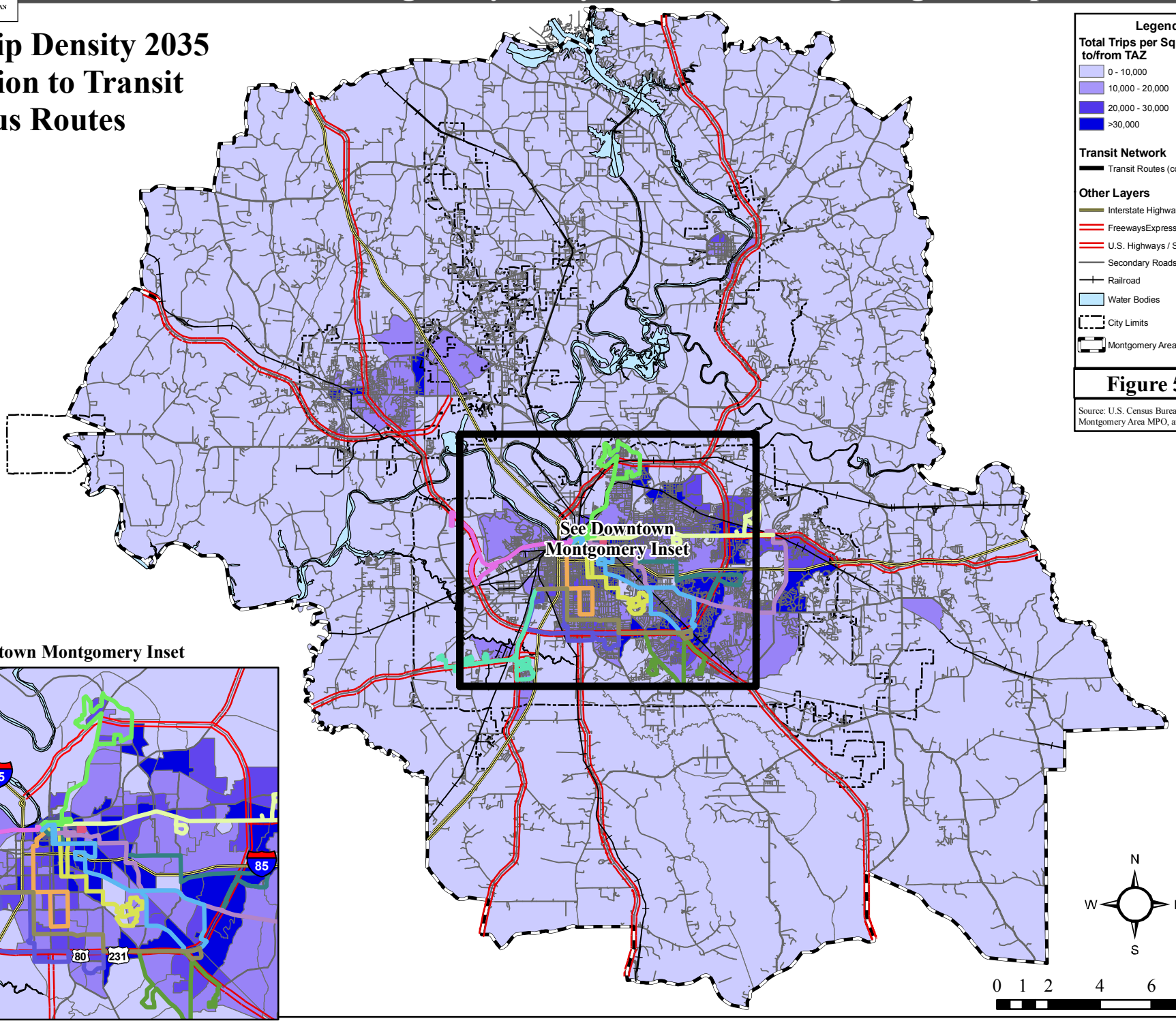
Total Trip Density 2035 In Relation to Transit Fixed Bus Routes



Legend

Total Trips per Sq Mi to/from TAZ
- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- >30,000

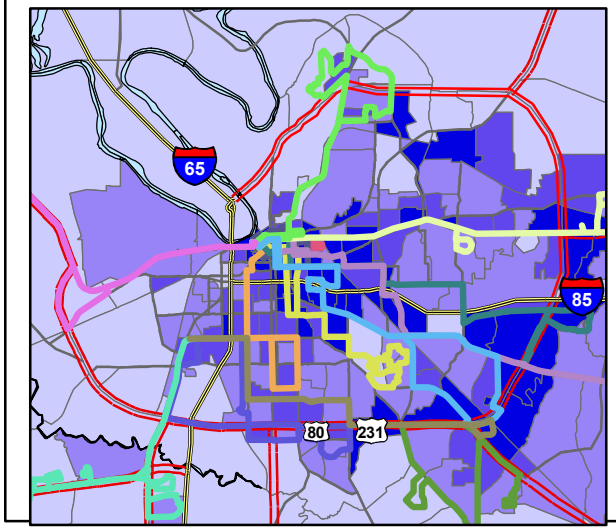
Transit Network
- Transit Routes (color varies)

Other Layers
- Interstate Highways
- FreewaysExpress
- U.S. Highways / State Highways
- Secondary Roads
- Railroad
- Water Bodies
- City Limits
- Montgomery Area MPO Boundary

Figure 5.12

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Downtown Montgomery Inset



N W E S

0 1 2 4 6 8 Miles

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HBW Trips to Employment Destinations 2005 in Relationto Transit Fixed Bus Routes

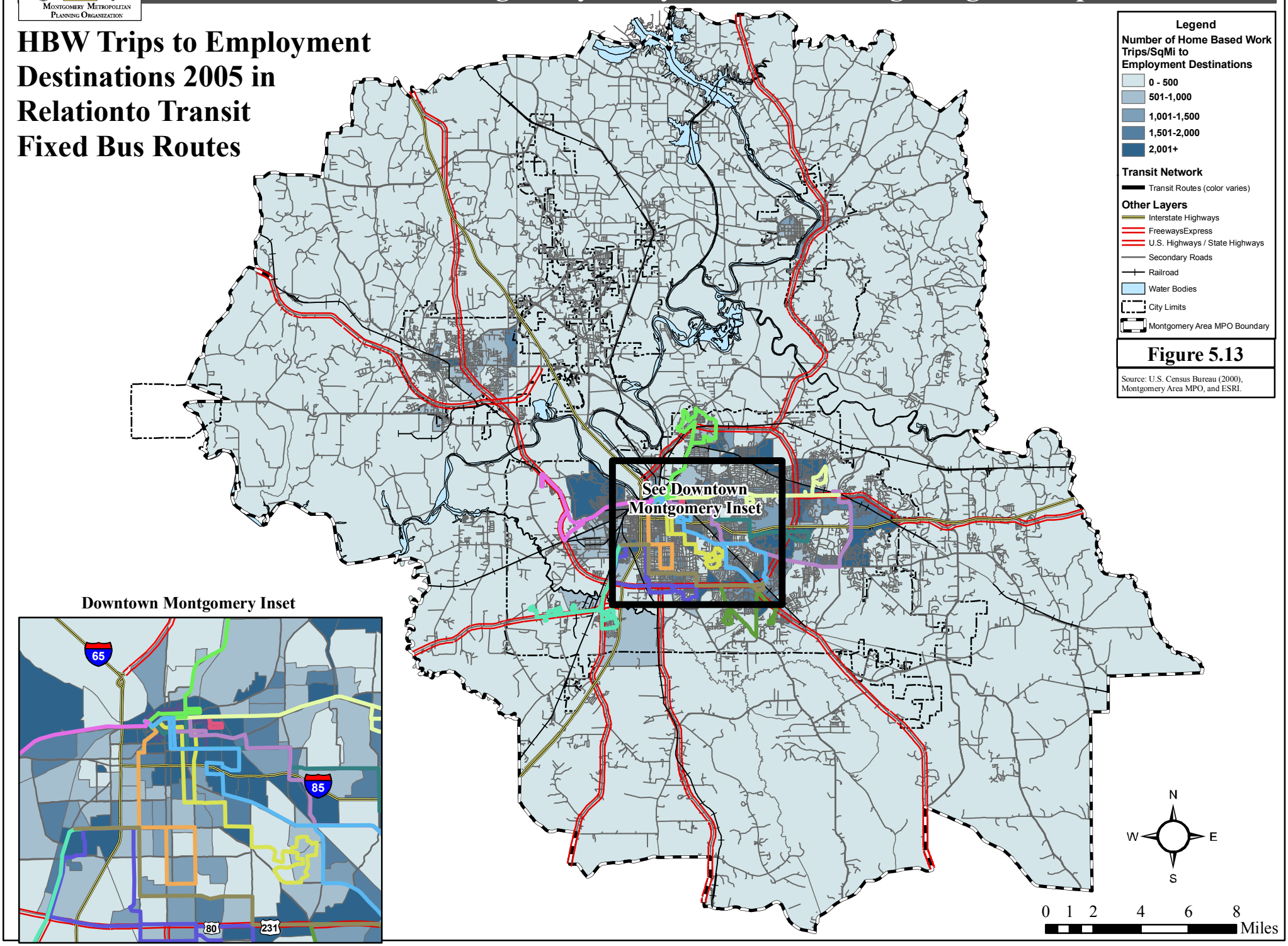

Figure 5.13

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

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HBW Trips From Households 2005 in Relation to Transit Fixed Bus Routes

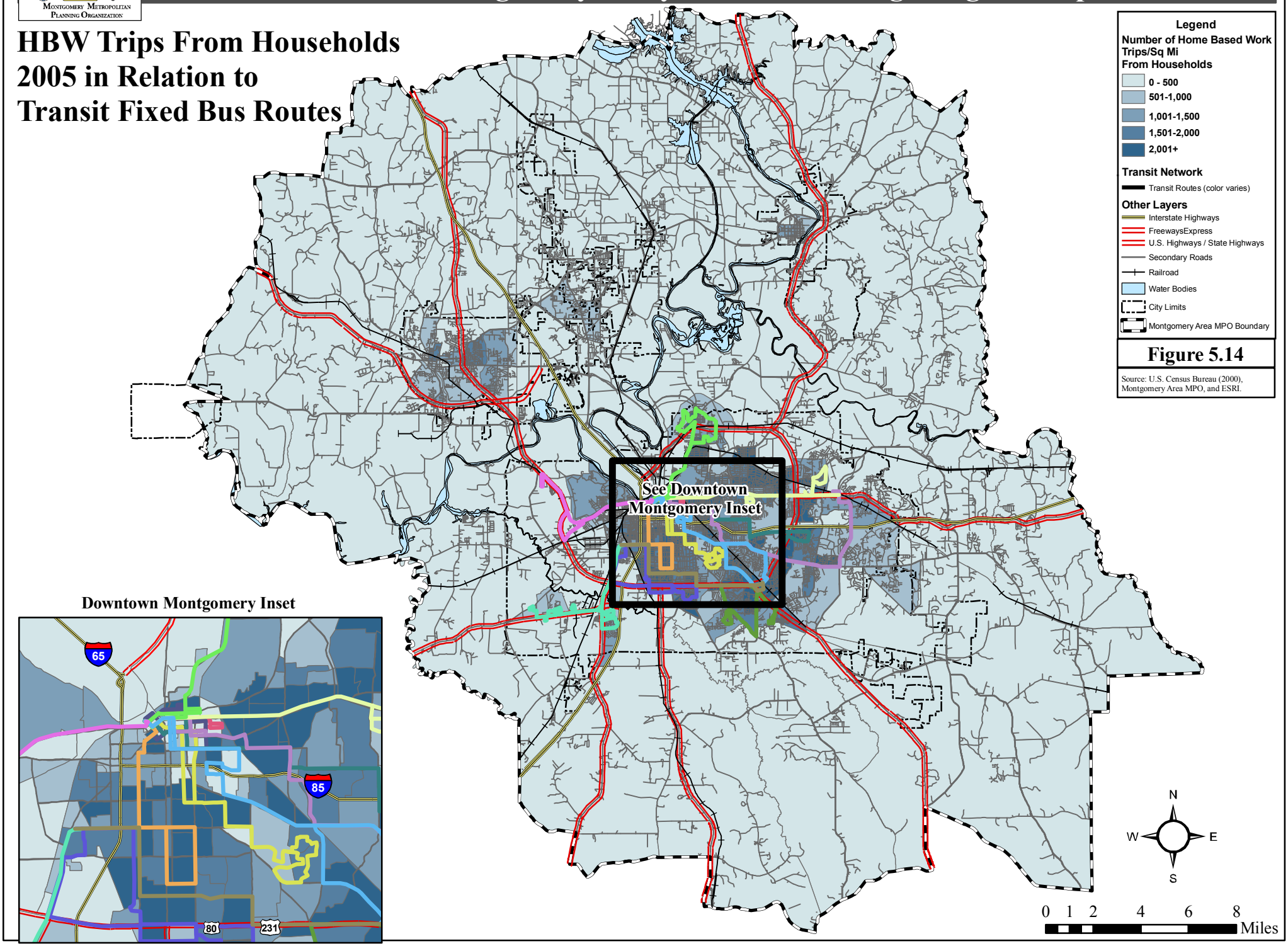

Figure 5.14

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

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HBW Trips to Employment Destinations 2035 in Relationto Transit Fixed Bus Routes

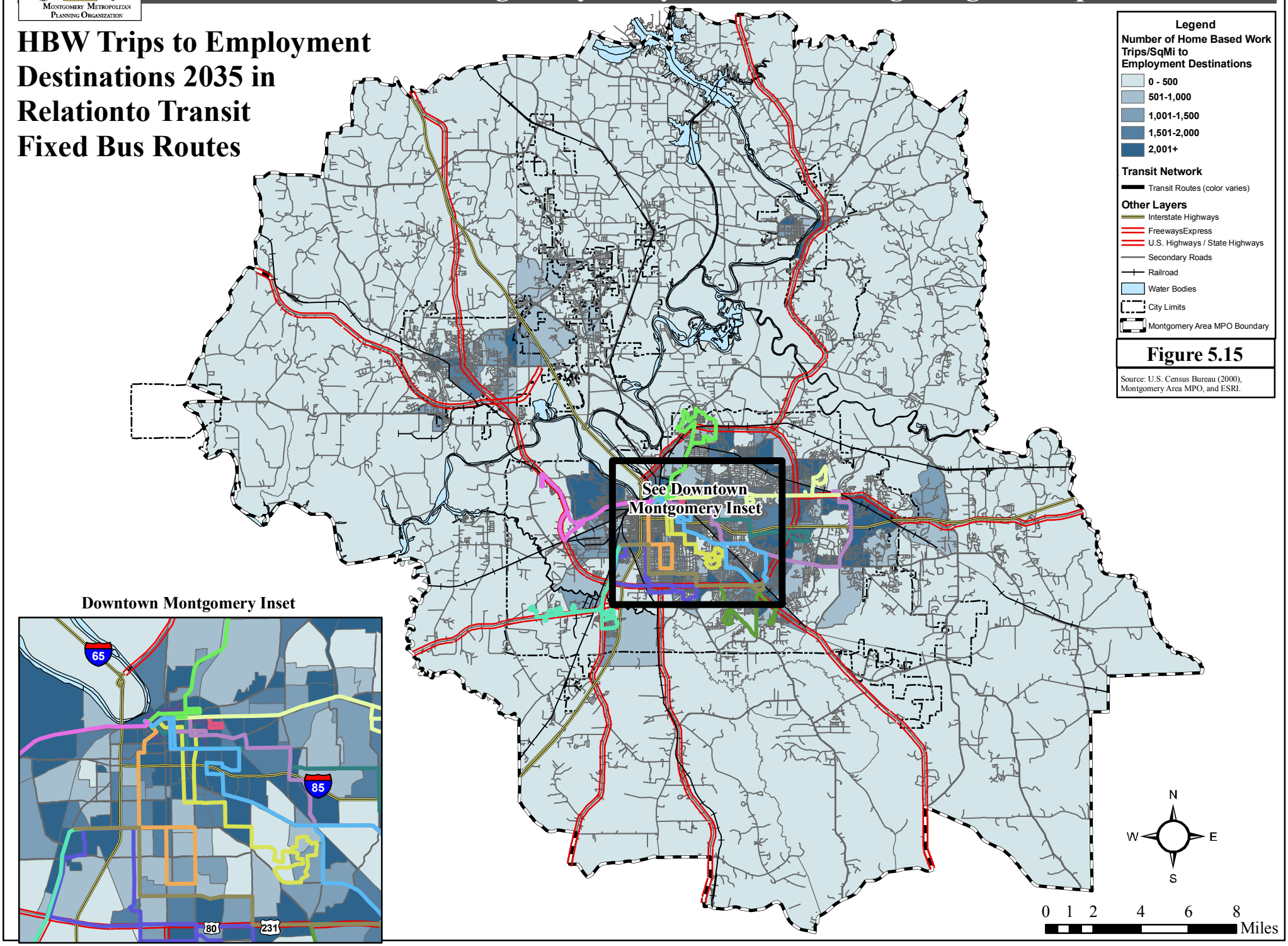

Figure 5.15

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

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HBW Trips From Households 2035 in Relation to Transit Fixed Bus Routes

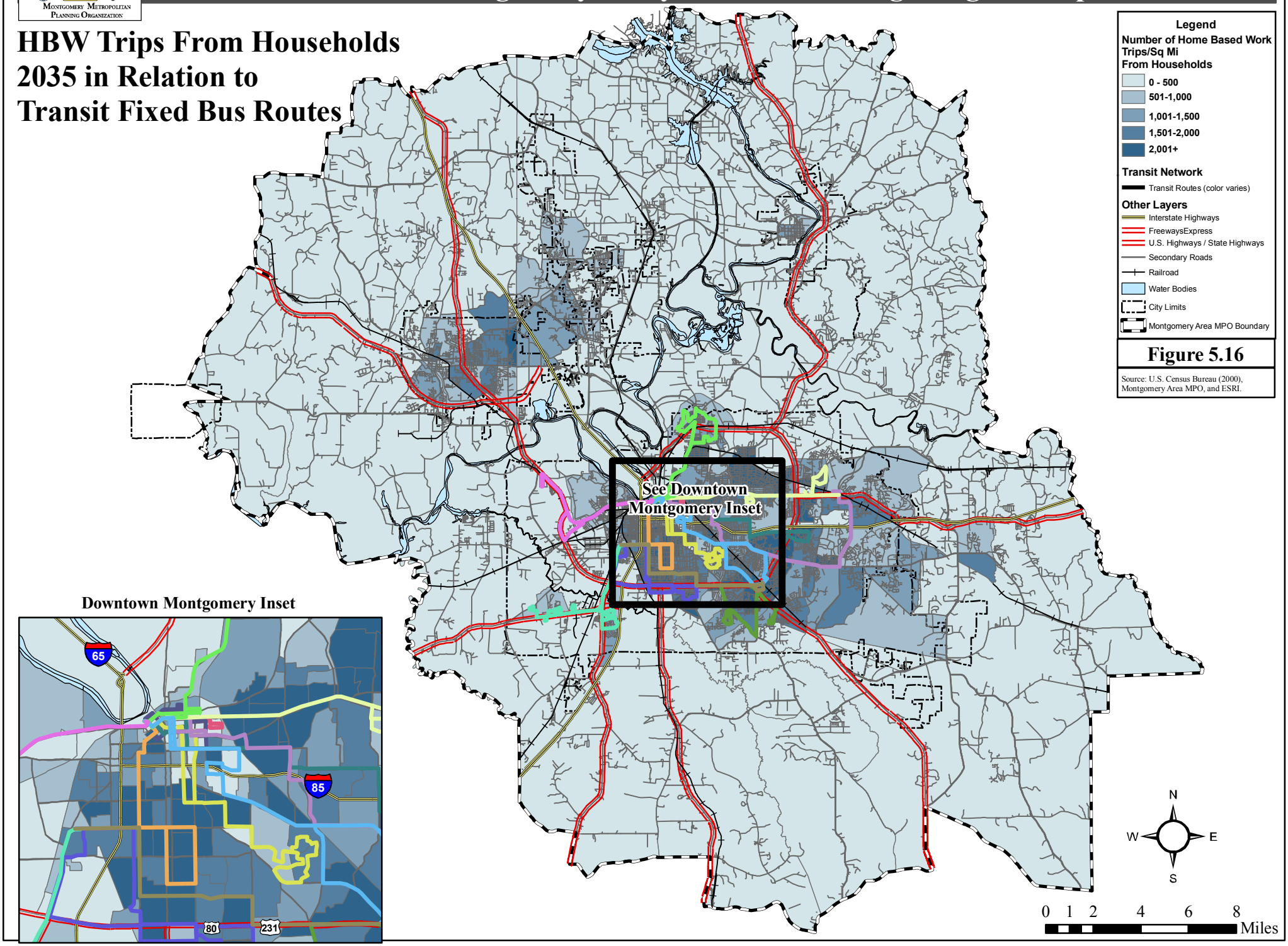

Figure 5.16

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

To assess potential opportunities for express bus/vanpool service, relationships between areas with large populations and high density employment centers were analyzed. Corridors with high volume to capacity ratios were also assessed for potential improvement with the implementation of this type of service. The residential areas that were identified as large population sheds or those that use congested corridors to travel to Downtown Montgomery included the areas surrounding Wetumpka, Prattville/Millbrook and Pike Road. The potential express bus/vanpool corridors that would serve these communities are shown in Figure 5.17.

In order to quantify the potential ridership on express bus/vanpool service on these corridors, origin-destination data was used to estimate the total trips between these areas and the employment centers also shown in Figure 5.16. These include the following areas:

- East Downtown – bounded by Madison Avenue to the north, I-65 to the west, Perry Hill Road to the east and McGehee Road to the South
- West Downtown – bounded by Eastern Blvd to the east, extending on either side of I-85 to near Atlanta Highway on the west
- Car Plant/Industrial Area – segments on either side of I-65 near the southeast portion of the MPO area, one is bound by
- Airport – area surrounding airport, mostly north of US 80

Table 5.9 shows the results of this origin-destination assessment, which looked at trips made between the identified origin (residential) zones and the designated destinations (employment) zones. This table shows the total number of trips between these regions on a daily basis.

Table 5.9
Daily Trips Between Residential Areas and Employment Destinations
Year 2035 Projected Traffic

	Destination			
Origin	**Industrial Area on I-65**	**Airport**	**East Downtown**	**West Downtown**
Pike Rd	--	--	356	306
Prattville	1,714	924	5,350	17,370
Wetumpka	192	128	2,010	3,146

As illustrated in Table 5-9, the Prattville route shows the best potential to attract enough ridership to make this type of service a viable option. However, even if all of the trips with origin-destination matches between Prattville and the two downtown areas were to use the new service (which would never be the case), this would only account for 13% of the total trips on these corridors. Therefore, express bus or vanpool service should not be anticipated to significantly reduce congestion on these roads. However, this new service would provide mobility options for motorists traveling from Prattville to Montgomery and the number of trips made between these areas could potentially sustain an express route service.

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Congested Roadways Potentially Served by Express Bus or Vanpool

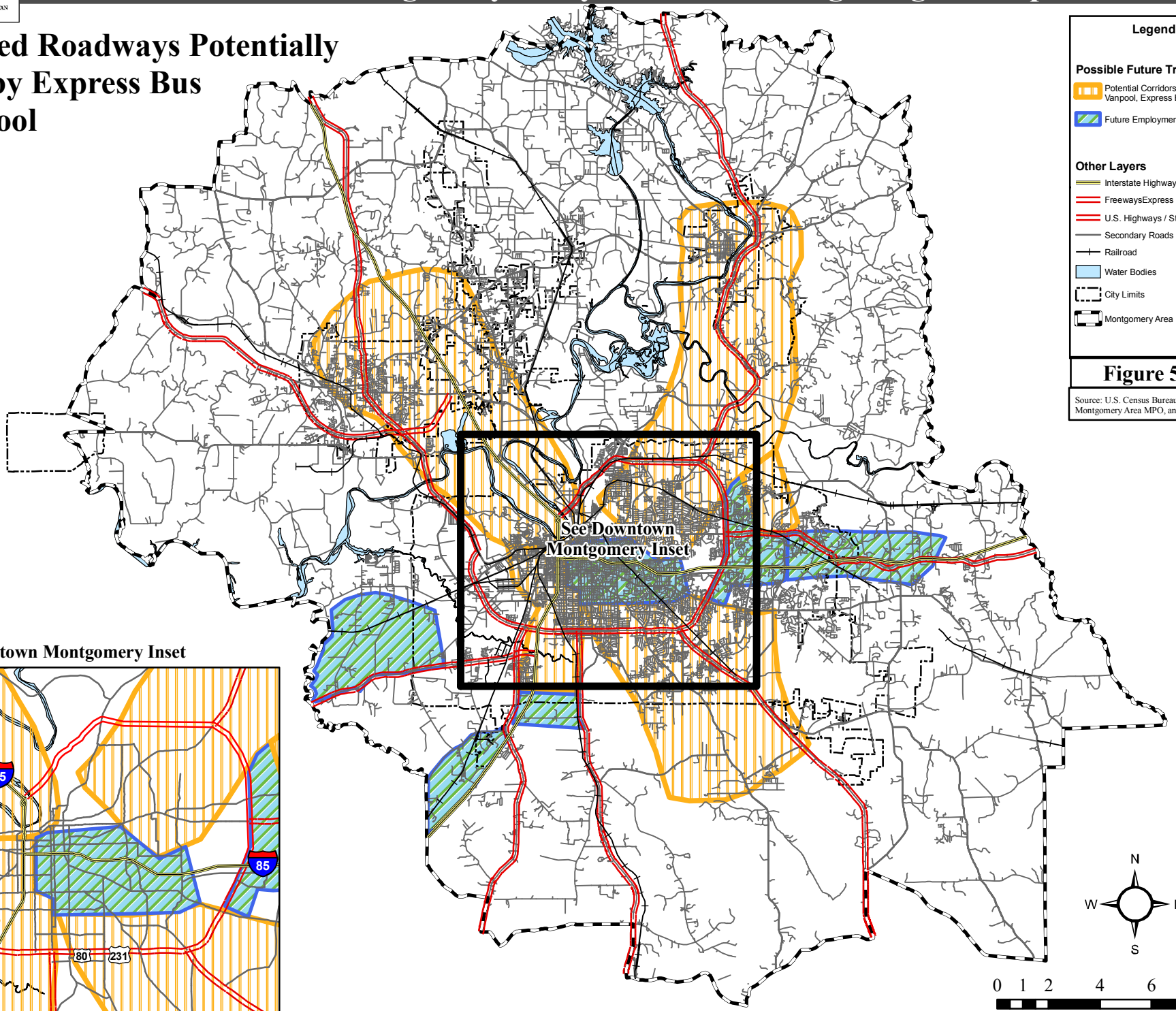
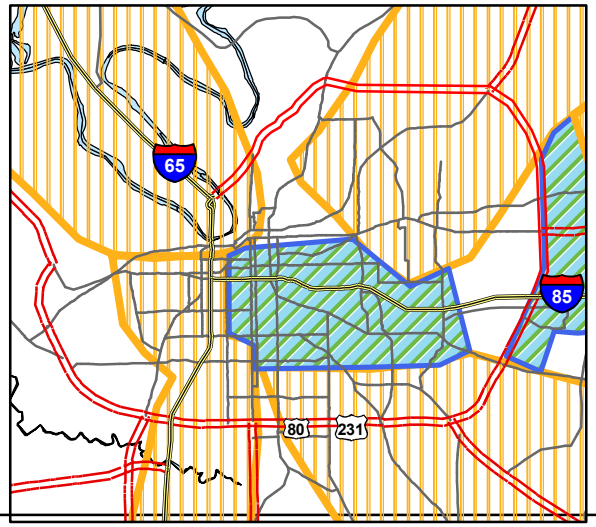


Figure 5.17

Source: U.S. Census Bureau (2000), Montgomery Area MPO, and ESRI.

Downtown Montgomery Inset



Express bus and vanpool services differ in both the demand required to sustain such a service and operational characteristics. The MPO will need to assess in more detail which transit option would best meet the needs of the area based on current demand and trip-making patterns. Some areas have implemented these services sequentially, where vanpool services are initially implemented and, once ridership builds to a level to deem it necessary, express bus service are implemented. It should be noted that the market for this type of services is enhanced if there is any sort of operational benefit that provide the priority for transit vehicles, for example signal priority or queue jumping.

Based upon the express bus/vanpool and local transit service analyses, several findings have been identified and are presented below:

- Several existing routes, as identified previously, would benefit from enhanced service, including additional buses and reduced headways.
- Opportunities exist for expanding the fixed route network to the high growth residential and retail employment area surrounding I-85 from west of Eastern Blvd/US 231 to Atlanta Highway as well as to the industrial area surrounding the Airport/US 80/Selma Highway and car manufacturing facility off of I-65.
- Opportunity for express bus service exists from Prattville to downtown Montgomery, particularly along corridors expected to operate primarily at LOS F. These areas include Prattville and Millbrook via I-65 and areas of East Montgomery via I-85.

5.2.5 Possible Passenger Rail Transit Needs

The City of Montgomery once was home to the first electric passenger rail transit streetcar in the nation from 1886-1936. The name of the system was called the Montgomery Street Railway System (commonly known as "The Lightning Route"). The Montgomery Street Railway System was last owned and operated by Alabama Power Company. It operated initially in 1886 a network 4 passenger rail streetcar rail lines and once it ended in 1936 a total of 20 passenger streetcar rail lines throughout Montgomery at that time. The passenger rail streetcar lines went as far north along Lower Wetumpka Road to Vandiver Blvd (in the city limits at that time), southeast to the intersection of Narrow Lane Road and Woodley Road (in the city limits at that time), west along what is now Maxwell Blvd stopping at the entrance to Maxwell Air Force Base and east along Highland Ave stopping at Panama Street. All streetcar lines originated in downtown Montgomery at historic Union Station, and dispersed on a radial system in all directions of the city limits at that time. Figure 5.22 shows the 1936 Montgomery Street Railway lines when they ended in 1936.

The City of Montgomery has plans to study the possibility of returning to streetcar passenger rail transit and will perform an alternatives analysis for small starts funding when funds can be obtained. Further alternatives analysis will also be done to study a CSX commercial freight rail line that runs from downtown Montgomery to Gunter Industrial Park, then along an abandoned rail line that parallels Atlanta Highway/US-80 to Chantilly Parkway to determine the feasibility of converting the old freight rail for the purpose commuter passenger rail. Figure 5.23 shows the abandoned freight rail line that parallels Chantilly Parkway and Atlanta Highway to Gunter Industrial Park and switches to an existing CSX switching line that runs to downtown Montgomery.

The Alabama Department of Economic and Community Affairs (ADECA) was awarded a grant from the Federal Railroad Administration (FRA) to study the feasibility of high-speed passenger rail returning to Alabama from Birmingham to Montgomery to Mobile, a 274 mile corridor. As recent as 1995 a passenger rail service was operated by Amtrak on what was called the Amtrak Gulf Breeze route. The operation was funded in part by the State of Alabama. Figure 5.24 shows a map of the potential high-speed passenger rail corridor location.

5.3 Bicycle Suitability Analysis

5.3.1 Bicycle and Pedestrian Facilities

The Montgomery Area Metropolitan Planning Organization transportation planning staff developed the 2003 *Montgomery Study Area Bicycle and Pedestrian Plan* to address the growing interest and use of bike and pedestrian modes. Emphasis on health and fitness benefits, combined with the advantage of walking and biking for short trip segments has resulted in more interest in these modes.

5.3.2 Bicycle and Pedestrian Plan

In developing the Plan, the MPO reached out to involve the public, including the Montgomery Bicycle club, Elmore County Trail of Legends and other interested riders, who participated actively. The resulting plan identified bicycle routes, pedestrian facilities, generators and attractors, and an ongoing process for incorporating bicycle and pedestrian modal opportunities into the transportation planning process. The MPO Bicycle and Pedestrian Plan provided a direction for developing a bike / ped program that enhances modal choices to travelers in Montgomery.

Bicycle use in the Montgomery area is a small part of total trip making. The Bicycle and Pedestrian Plan's objective was to develop a network system with emphasis on interconnectivity of facilities, developing new bike routes improved or new storage such as bike racks, signage and improving safety. Education of cyclists and pedestrians was emphasized to improve safety awareness as well as to promote the benefits of cycling and walking.

Federal guidelines recommend that the transportation planning process consider the safety of pedestrians and cyclists, furthermore the FHWA has suggested that sidewalks and/or bike lanes should be at least considered in each project. The suitability of bike routes to their location is important in identifying potential projects and assessing the correct rider level experience for the route. Bicycle and pedestrian paths / lanes need to be located in environments that do not offer an adverse location for riding, such as adjacent to roads with a high-percentage of trucks or with excessive operating speeds.

5.3.3 Bicycle Suitability

As part of the 2035 LRTP review of pedestrian and bicycle modes, bicycle routes were evaluated for "suitability". The suitability evaluation produced a rating for each bicycle route recommended in the *Montgomery Study Area Bicycle and Pedestrian Plan*. The suitability rating is based on three traffic operations criteria: traffic volumes, travel speeds and functional classification of the road. The average of the three criteria scores resulted in a bike route suitability rating of "Best, Medium, Difficult or Very Difficult".

The suitability evaluation was applied to the 396.44 miles of bicycle routes identified in the Montgomery Study Area Bicycle and Pedestrian Plan along with 2 proposed routes. A complete list of projects and the suitability analysis results is included in Appendix G. The proposed improvements include 69 percent of the system (about 281 miles) have a "Best" conditions rating; 25 percent of the system (about 102 miles) has a "Medium" conditions rating; five percent of the system (about 20 miles) is rated as being "Difficult" and less than one percent was rated as "Very Difficult" (about 5 miles). Table 4.5 details how suitability ratings were used to classify bike routes:

Table 5.10
Bicycle Suitability Rating Descriptions

Bicycle Suitability Factors	Score	
Traffic Volume	Less than 2,500 vehicles per day per lane (vpdpl)	4
	Between 2,500 and 5,000 vpdpl	2
	More than 5,000 vpdpl	0
Travel Speeds	Less than or equal to 30 mph	4
	Between 30 and 40 mph	2
	Greater than 40 mph	0
Functional Class	Local Streets and Collectors	4
	Minor Arterials	2
	Other (Major Arterials and Highways)	0

Source: Montgomery MPO.

Suitability scores were calculated from an average of factor scores. Suitability is indicative of level of difficulty of the proposed route. The suitability ranges are as follows:

- Best conditions for bicycling range from 3 to 4.0
- Medium conditions for bicycling range from 2 to 2.9
- Difficult conditions fro bicycling range from 1 to 1.9
- Very difficult conditions for bicycling range <1

The 2003 Montgomery Study Area Bicycle and Pedestrian Plan identified 106 projects comprised of 396.44 miles in Montgomery (60 projects), Autauga (13 projects) and Elmore Counties (33 projects). The beginning and end distance of projects ranged from the smallest, a project in Montgomery on Sagewood Drive (0.27 miles distance), to a project in Elmore County on State Highway 111 (a distance of 13 miles). Figure 5.18 details the proposed Bicycle Routes.

The project improvements ranged from signage to construction of lanes – of the 106 projects all but one were for signing of the bicycle facilities. The estimated cost of the signing projects is approximately $500,000 at a cost of $300 per sign and signs appearing every quarter mile.

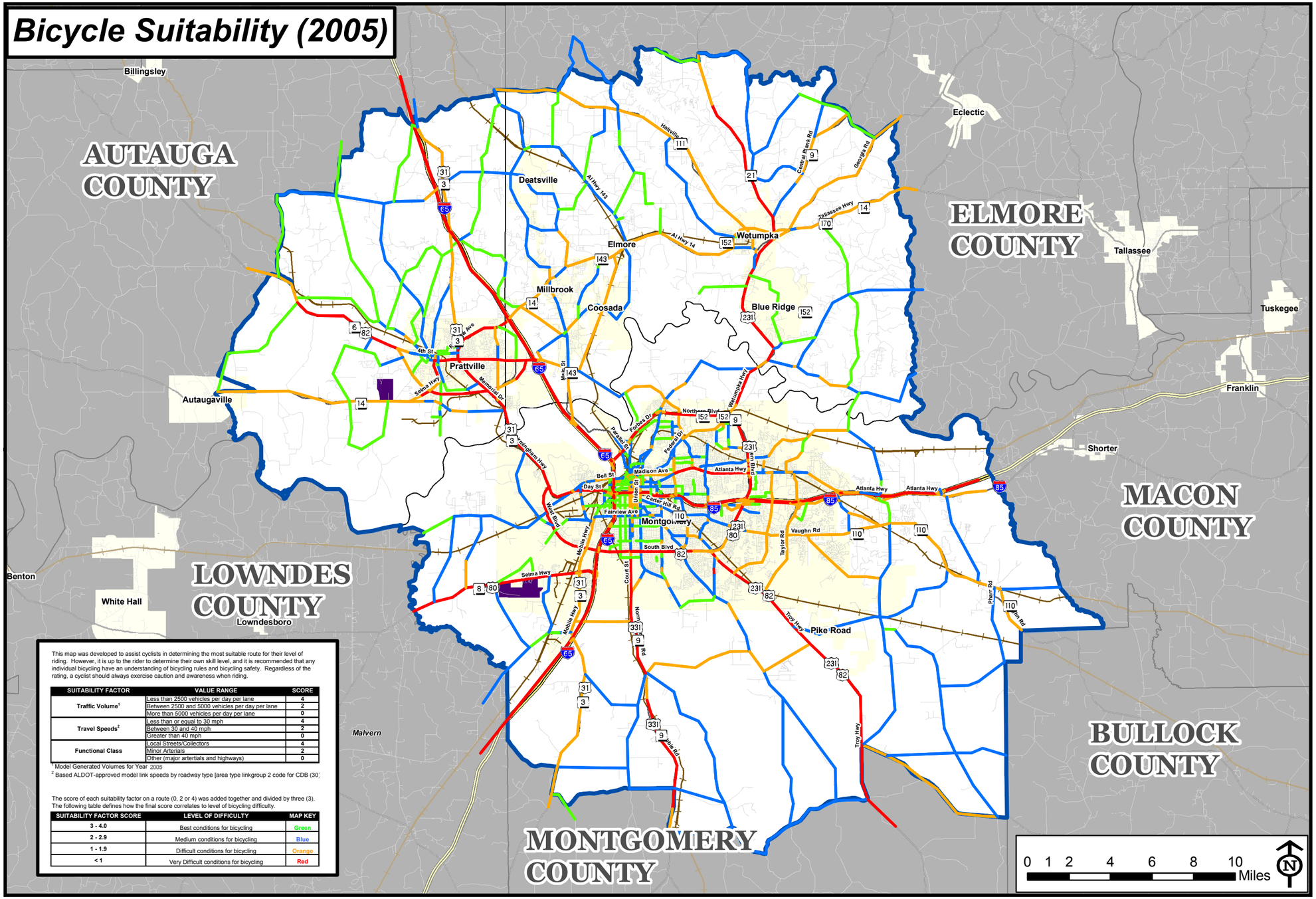
Construction of bicycle lanes is calculated to cost an additional $200,000 per mile for bicycle projects.

Since the 2003 Bike & Pedestrian plan, 2 new projects for the City of Montgomery have been amended into the plan, a Midtown to Downtown route starting on Fieldcrest Drive traveling downtown and ending in Old Cloverdale and Rails to Trails project using an old rail line near Chestnut St. traveling downtown toward the riverfront. These amended routes are a total of 12.19 miles with a total cost of $2,438,000. Also, the Hall Street Bike Lane project from Interstate 85 to High Street is 0.36 miles in length, will cost $150,000 and is slated to be completed in late 2010. In 2008, the Fort Toulouse Rd bike path and signage project was completed by Elmore County. Figure 5.18 details the completed Fort Toulouse bike route, the two projects amended into the *Montgomery Study Area Bicycle and Pedestrian Plan* adopted in 2003, and the proposed Hall Street Bike Lane project from Interstate 85 to High Street.

Montgomery Area Transit System fixed route buses are able to accommodate bikes. MATS has bike racks on the 30 foot and 35 foot buses operating on fixed routes. In addition there are two 35 foot buses on order that will also be equipped with bike racks similar to those on the rest of the fleet. The MATS has good use of their bike racks – the cycling community makes significant of the transit linkage. Each 30 ft. and 35 ft. bus can hold two bikes.

Montgomery - 2035 LRTP Update

Bicycle Suitability (2005)



This map was developed to assist cyclists in determining the most suitable route for their level of riding. However, it is up to the rider to determine their own skill level, and it is recommended that any individual bicycling have an understanding of bicycling rules and bicycling safety. Regardless of the rating, a cyclist should always exercise caution and awareness when riding.

SUITABILITY FACTOR	VALUE RANGE	SCORE
Traffic Volume[1]	Less than 2500 vehicles per day per lane	4
	Between 2500 and 5000 vehicles per day per lane	2
	More than 5000 vehicles per day per lane	0
Travel Speeds[2]	Less than or equal to 30 mph	4
	Between 30 and 40 mph	2
	Greater than 40 mph	0
Functional Class	Local Streets/Collectors	4
	Minor Arterials	2
	Other (major artertials and highways)	0

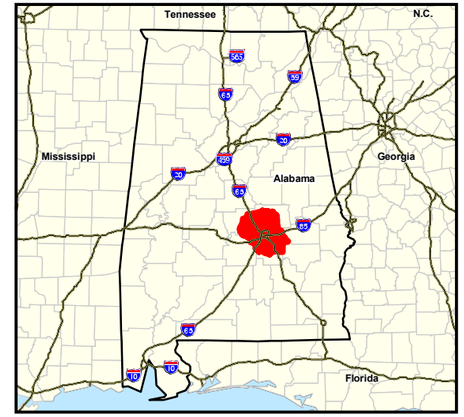
[1] Model Generated Volumes for Year 2005

[2] Based ALDOT-approved model link speeds by roadway type [area type linkgroup 2 code for CDB (30)

The score of each suitability factor on a route (0, 2 or 4) was added together and divided by three (3). The following table defines how the final score correlates to level of bicycling difficulty.

SUITABILITY FACTOR SCORE	LEVEL OF DIFFICULTY	MAP KEY
3 - 4.0	Best conditions for bicycling	Green
2 - 2.9	Medium conditions for bicycling	Blue
1 - 1.9	Difficult conditions for bicycling	Orange
< 1	Very Difficult conditions for bicycling	Red

Regional Inset



Legend

Bicycle Suitability

- 3.0 - 4.0 (Best Conditions For Bicycling)
- 2.0 - 2.9 (Medium Conditions For Bicycling)
- 1.0 - 1.9 (Difficult Conditions For Bicycling)
- < 1.0 (Very Difficult Conditions For Bicycling)

Road Network

- Interstate
- U.S. Route / State Route
- Other Roads

Other Layers

- Railroad
- MPO Boundary
- Airport
- County Boundaries
- City Limits (2000 Census)

Source: U.S. Census (2005), ESRI, & Jacobs

This map is intended for planning purposes only.

Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

Proposed Bicycle Projects

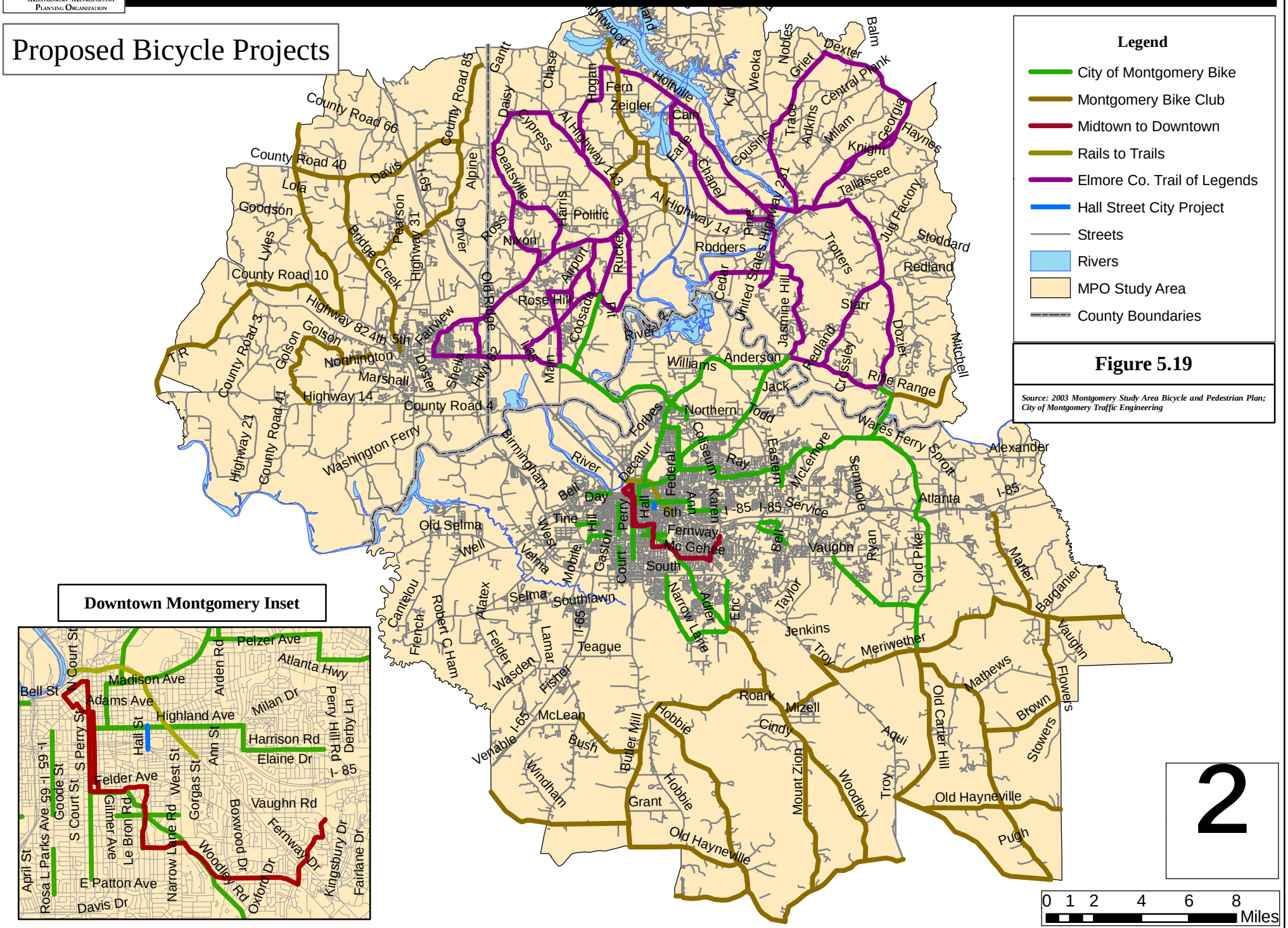


Figure 5.19

Source: 2003 Montgomery Study Area Bicycle and Pedestrian Plan; City of Montgomery Traffic Engineering

5.4 Sidewalk and Pedestrian Facilities

Sidewalk facilities were identified as an important part of the transportation system by the public. The network of sidewalks facilitates access to various parts of the community – schools, social service offices, public transit stops and other trip attractors. According to the University of North Carolina Highway Safety Research Center, a high correlation exists between communities who meet the needs of the pedestrian and an increased level of pedestrian travel. In communities that do not provide adequate pedestrian facilities, fewer people walk and those who do are more at risk of pedestrian injuries and fatalities.

Pedestrian projects in most areas span three main categories: engineering (condition of the sidewalks, signals, signing, marking, design of curb ramps, etc), education (pedestrian safety, walk to school programs, etc.), and enforcement (enforcement of motorist compliance with crosswalk rules, requiring pedestrian facilities in new residential areas, etc.). A comprehensive sidewalk inventory of both existing and needed facilities has been completed for the MPO Study Area on all functionally classified roads except for interstates those roads with traffic volumes deemed too dangerous for pedestrian traffic. This inventory displayed that downtowns located with in the study area are walkable with sidewalks often on both sides of the street, however as streets progressed away from the central business districts sidewalks often stop or progress on one side of the street. Tables 5.11 To 5.13 Detail the needed sidewalks, walking trails, and path projects that have been identified in each county. Figure 5.20 To 5.21 Show the identified projects.

Table 5.11
Autauga County Sidewalk Cost Estimates

Road	From	To	Mileage	Cost
East Main Street	McQueen Smith Road	Pratt Street	2.74	$982,323
Wetumpka Road	Memorial Drive	Northington Street	0.95	$340,586
East 6th Street.	Memorial Drive	Northington Street	1.08	$387,193
Northington Street	East 6th Street	10th Street	0.60	$215,107
Sheila Boulevard	Jay Street	Memorial Drive	0.57	$204,352
Doster Road	Pratt Street	Memorial Drive	2.96	$1,061,196
Bridge Street	Main Street	US Highway 82	1.33	$476,821
West 4th Street	Lower Kingston Road	US Highway 82	1.41	$505,502
Lower Kingston Road	Breakfast Creek Road	West 4th Strett	1.97	$706,269
Upper Kingston Road	West 6th Street	Jordan Crossing	1.55	$555,694
Fairview Avenue	North Memorial Dr	Summit Parkway	2.42	$867,599
North McQueen Smith Road	Fairview Avenue	East Main Street	1.55	$555,694
South McQueen Smith Road	East Main Street	Memorial Drive	1.92	$688,343
Old Farm Lane	Existing Sidewalk	Cobbs Ford Road	1.94	$695,513
		Total Mileage and Cost	**22.99**	**$8,242,191**

*Cost Estimate is based on constructing sidewalks with curb and gutters on both sides of the street at a cost of $358,512 per mile.
Source: ALDOT and Montgomery MPO.

The 2035 LRTP has identified several potential federal funding sources for bicycle and pedestrian projects. Federal Surface Transportation Program Other Area (STPOA) funds are eligible for use on bicycle and pedestrian projects. In addition, there is the possibility of using FHWA Transportation Enhancement Program funds available through ALDOT for bike and pedestrian projects. To make most effective use of the available funds, there should be coordination of bicycle and pedestrian projects with contiguous road widening or other appropriate road improvement projects.

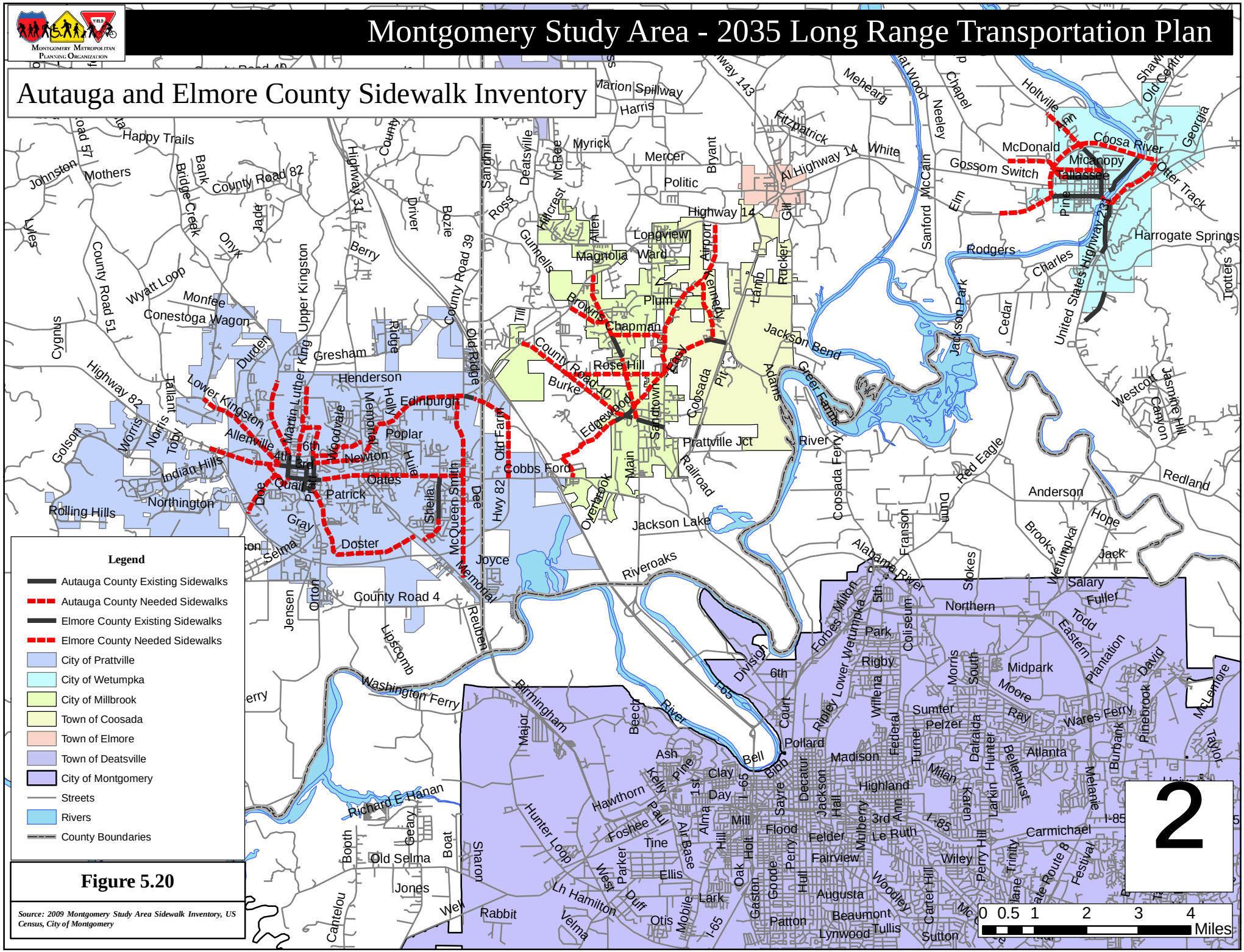
Table 5.12
Elmore County Sidewalk Cost Estimates

City	Road	From	To	Mileage	Cost
Millbrook	South Edgewood Drive /Egdewood Road	Cobbs Ford Road	Existing sidewalk	1.72	$616,641
Millbrook	Main Street	Grandview Road	Existing sidewalk	1.19	$426,629
Millbrook	Rose Hill Road	Grandview Road	Coosada Road	1.80	$645,322
Millbrook	Browns Road	Main Street	SR 14	0.76	$272,469
Millbrook	Main Street	Chapman Road	SR 14	1.25	$448,140
Millbrook	Chapman Road	Ex. Sidewalk	Sandtown Road	0.30	$107,554
Millbrook	Coosada Road	Main Street	Sandtown Road	0.89	$319,076
Millbrook	Coosada Road	Sandtown Road	Auburn Hill Drive	0.89	$319,076
Millbrook	Kennedy Ave	Coosada Road	Airport Road	1.19	$426,629
Millbrook	Airport Road	Coosada Road	Kennedy Avenue	2.01	$720,609
Millbrook	Airport Road	Kennedy Avenue	SR 14	1.17	$419,459
Wetumpka	Elmore Road /SR14	Existing Sidewalk	N/A	1.06	$380,023
Wetumpka	Chapel Road	Coosa River Parkway	End of Collector	0.93	$333,416
Wetumpka	Holtville Road	Existing Sidewalk	Nolen Lane	0.96	$344,172
Wetumpka	West Micanopy Street	Coosa River Parkway	Existing Sidewalk	0.94	$337,001
Wetumpka	West Osceola Street	Existing Sidewalk	West Micanopy Street	0.30	$107,554
Wetumpka	Coosa River Parkway	West Bridge Street	US Highway 231	2.77	$993,078
Wetumpka	Company Street	North Bridge Street	US Highway 231	1.40	$501,917
			Millbrook Total Mileage and Cost	**13.17**	**$4,721,603**
			Wetumpka Total Mileage and Cost	**8.36**	**$2,997,160**
			Elmore County Total Mileage and Cost	**21.53**	**$7,718,763**

*Cost Estimate is based on constructing sidewalks with curb and gutters on both sides of the street at a cost of $358,512 per mile.
Source: ALDOT and Montgomery MPO.

Montgomery Study Area - 2035 Long Range Transportation Plan

Autauga and Elmore County Sidewalk Inventory



Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery County Sidewalk Inventory

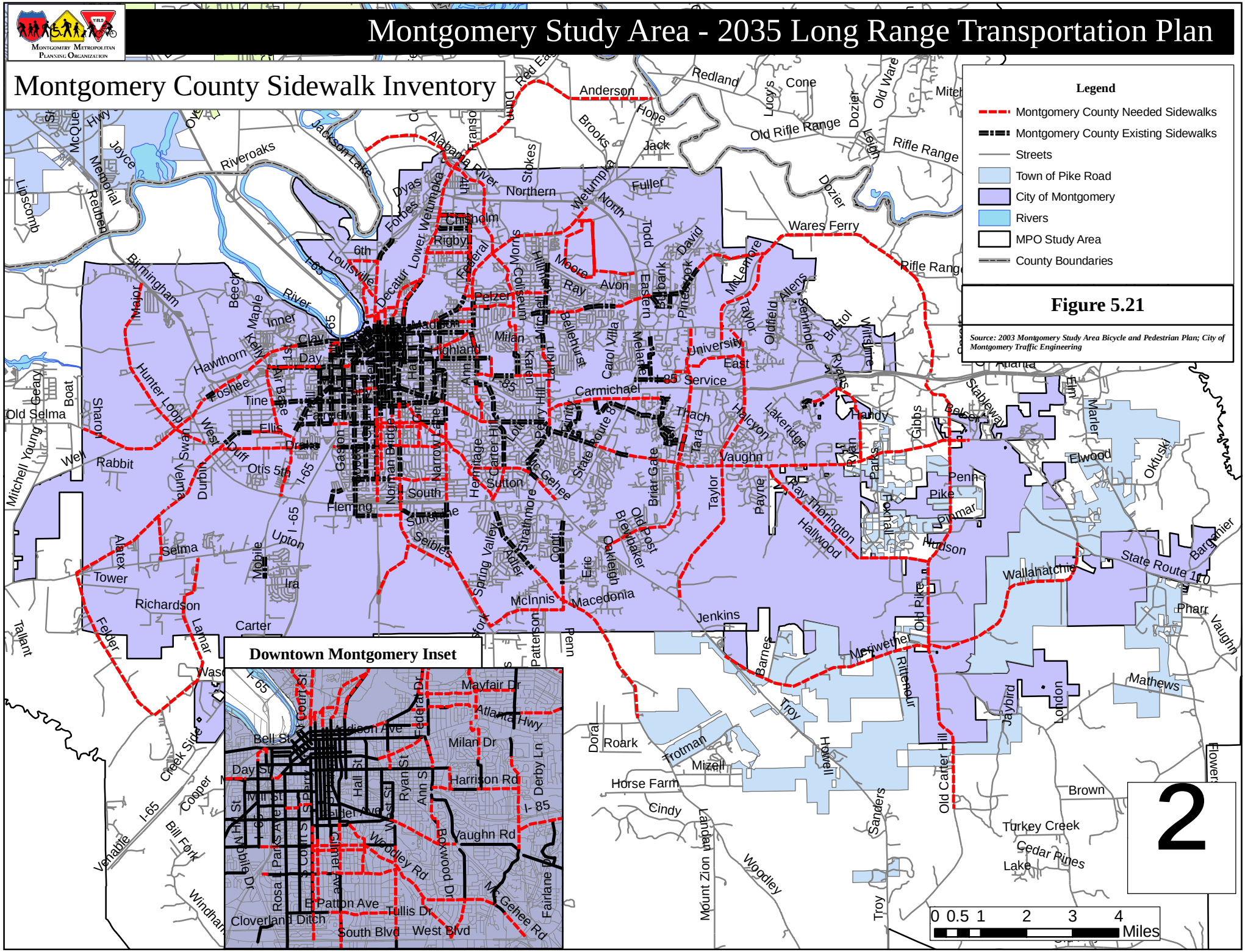


Figure 5.21

Source: 2003 Montgomery Study Area Bicycle and Pedestrian Plan; City of Montgomery Traffic Engineering

Table 5.13
Montgomery County Sidewalk Cost Estimates

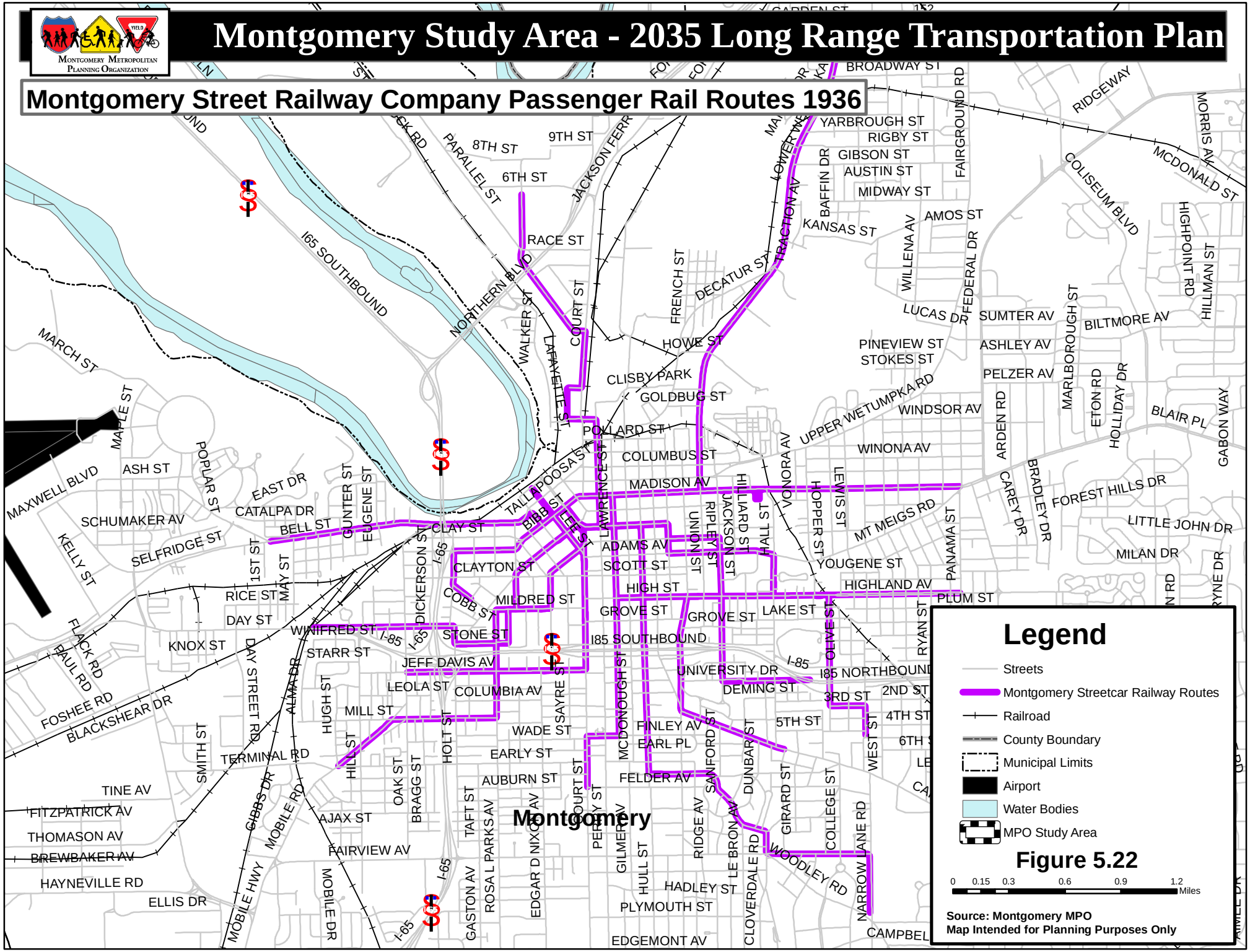
Road	From	To	Mileage	Cost
North Court Street	Randolph Street	6th Street	1.35	$483,991
Parallel Street	6th Street	North Court Street	0.99	$354,927
6th Street	North Court Street	Parallel Street	0.65	$233,033
Walker/Lafaytte Street	Chandler Street	Railroad Street	0.70	$250,958
Railroad Street	Lafayette Street	North Perry Street	0.26	$93,213
Prince Street/Clisby Park	North Perry Street	Sadler Street	0.44	$157,745
North McDonough Street	Existing Sidewalk	Clisby Park	0.36	$129,064
Sadler Street	Existing Sidewalk	Lower Wetumpka Road	1.14	$408,704
North Ripley Street (L)	Existing Sidewalk	Fourney Street	0.95	$340,586
North Ripley Street	Fourney Street	Alabama River Parkway	2.53	$907,035
Gibson Street	North Ripley Street	Fairground Road	0.93	$333,416
East Vandiver Blvd (L)	Lower Wetumpka Road	Biltmore Avenue	2.40	$860,429
Biltmore Avenue	Upper Wetumpka Road	Dalraida Road	1.79	$641,736
Pelzer Avenue	Federal Drive	Coliseum Blvd	0.91	$326,246
Coliseum Boulevard	Atl Highway	Cong WL Dickison	1.56	$559,279
Coliseum Boulevard	Cong WL Dickison	Lower Wetumpka Road	2.32	$831,748
Federal/ Cong WL	Ashley Avenue	Northeast Boulevard	5.45	$1,953,890
Lagoon Park Drive	East Boulevard	Gunter Park	0.82	$293,980
Gunter Park Drive	Cong WL Dickison	N/A	3.27	$1,172,334
Upper Wetumpka Road	Vonora Street	South Capitol Parkway	0.28	$100,383
McCarter Avenue	Upper Wetumpka Road	Federal Drive	0.31	$111,139
Yancey Avenue	Existing Sidewalk	Federal Drive	0.31	$111,139
Mount Meigs Road	Hopper Street	Atlanta Highway	0.91	$326,246
Capitol Parkway	Highland Avenue		0.34	$121,894
Ann Street	Highland Avenue	Brewton Street	0.51	$182,841
Green Ridge Road	Atlanta Highway	Milan Drive	0.85	$304,735
Lincoln Road	Highland Avenue	Chestnut Street	0.37	$132,649
Chestnut Road	Ann Street	Fairfax Road	0.75	$268,884
Chestnut Road	Noremac Road	Perry Hill Road	0.76	$272,469
Perry Hill Ct	Perry Hill Ct	Vaughn Road	1.73	$620,226
Carmichael Road	Perry Hill Road	Forest Grove Drive	2.45	$878,354
Vaughn Road	Central Parkway	Existing Sidewalk	0.48	$172,086
Oliver Drive	Bell Road	Taylor Road	1.56	$559,279
Monticello Drive	Existing Sidewalk	Bell Road	0.73	$261,714
Bell Road	Atl Highway	Old Park Row	1.94	$695,513
Bell Road	Old Park Row	Vaughn Road	1.04	$372,852
Bell Road	Vaughn Road	Troy Highway	2.95	$1,057,610
Vaughn Road	Existing Sidewalk	Taylor Road	2.06	$738,535
Taylor Road	Vaughn Road	Troy Highway	3.15	$1,129,313
Taylor Road	Vaughn Road	Atlanta Highway	3.15	$1,129,313
Ray Thorington Road	Vaughn Road	Pike Road	4.36	$1,563,112
Ryan Road	Vaughn Road	Minnie Brown	2.48	$889,110
Brown Springs/McLemore Road	Wares Ferry Road	Atlanta Highway	2.41	$864,014
Wares Ferry Road	Existing Sidewalk	McLemore Road	1.60	$573,619
Wares Ferry Road	McLemore	I85/Highway 80	5.90	$2,115,221
Narrow Lane/Virginia Loop	Existing Sidewalk	Existing Sidewalk	4.16	$1,491,410
Siebles Road	Narrow Lane Road	Norman Bridge Road	1.08	$387,193
McGhee Road	East Boulevard	Governors Drive	0.60	$215,107
Fisk Road	McGehee Road	Woodley Road	0.73	$261,714
McGehee Road	Existing Sidewalk	Narrow Lane Road	2.17	$777,971
Woodley Road	East South Blvd	McGehee Road	0.94	$337,001

Narrow Lane Road	East Fairview Avenue	South Boulevard	1.71	$613,056
Carter Hill Road	Existing Sidewalk	Zelda Road	1.33	$476,821
East Ann Street	Zelda Road	Carter Hill Road	0.85	$304,735
South Court Street	Felder Avenue	South Blvd	2.07	$742,120
Norman Bridge Road	Cloverdale Road	Edgemont Avenue	0.93	$333,416
South Perry Street	Frederick Avenue	East Delano Avenue	1.20	$430,214
Woodley Road	East Fairview Avenue	Narrow Lane Road	0.67	$240,203
Gilmer Avenue	Clanton Avenue	East Fairview Avenue	0.50	$179,256
East Fairview Avenue	South Court Avenue	Woodley Road	0.94	$337,001
Arlington Road	South Court Avenue	Colverdale Road	0.94	$337,001
E Edgemont Avenue	South Hull Street	Narrow Lane Road	1.19	$426,629
Cloverdale Road	Felder Avenue	East Edgemont Avenue	1.05	$376,438
East Edgemont Avenue	South Perry Street	Gilmer Avenue	0.17	$60,947
East Patton Avenue	Existing Sidewalk	Narrow Lane Road	1.23	$440,970
Stokely Drive	East Patton Avenue	Seibles Road	1.43	$512,672
East Fleming Road	South Court Avenue	Stokley Drive	0.49	$175,671
West Fairview Avenue	Oak Street	Taft Street	0.37	$132,649
Hayneville Road	Existing Sidewalk	Bozeman Drive	0.67	$240,203
West Edgemont Avenue	Hayneville Road	Caffey Drive	1.76	$630,981
Air Base Blvd	Mobile Highway	Day Street	1.77	$634,566
Day Street	Loring Street	Air Base Blvd	1.16	$415,874
Mobile Street	Mildred Street	Holt Street	0.22	$78,873
Georgia Street	Rosa Parks Avenue	Goode Street	0.23	$82,458
West Cromwell Street	Goode Street	South Court Street	0.23	$82,458
Oak Street	Bell Street	Existing Sidewalk	0.32	$114,724
Dickerson Street	Bell Street	Existing Sidewalk	0.10	$35,851
Bell Street	Existing Sidewalk	Birmingham Highway	1.18	$423,044
Old Selma Road	Birmingham Highway	Existing Sidewalk	0.71	$254,544
Old Selma Road	Existing Sidewalk	Ashley Road	0.94	$337,001
Hayneville Road	Existing Sidewalk	Selma Highway	4.39	$1,573,868
Brewer Road	Old Hayneville Road	Selma Highway	0.95	$340,586
Felder Road	Selma Highway	Wasden Road	3.53	$1,265,547
Lamar Road	Selma Highway	Felder Road	4.13	$1,480,655
Woodley Road	Existing Sidewalk	Snowdoun Chambers Road	4.33	$1,552,357
Vaughn Road	Taylor Road	End	5.46	$1,957,476
Hunter Loop Road	Birmingham Highway	West Boulevard	4.37	$1,566,697
		Total Mileage and Cost	**135.4**	**$48,542,525**

*Cost Estimate is based on constructing sidewalks with curb and gutters on both sides of the street at a cost of $358,512 per mile.
Source: ALDOT and Montgomery MPO.

Montgomery Study Area - 2035 Long Range Transportation Plan

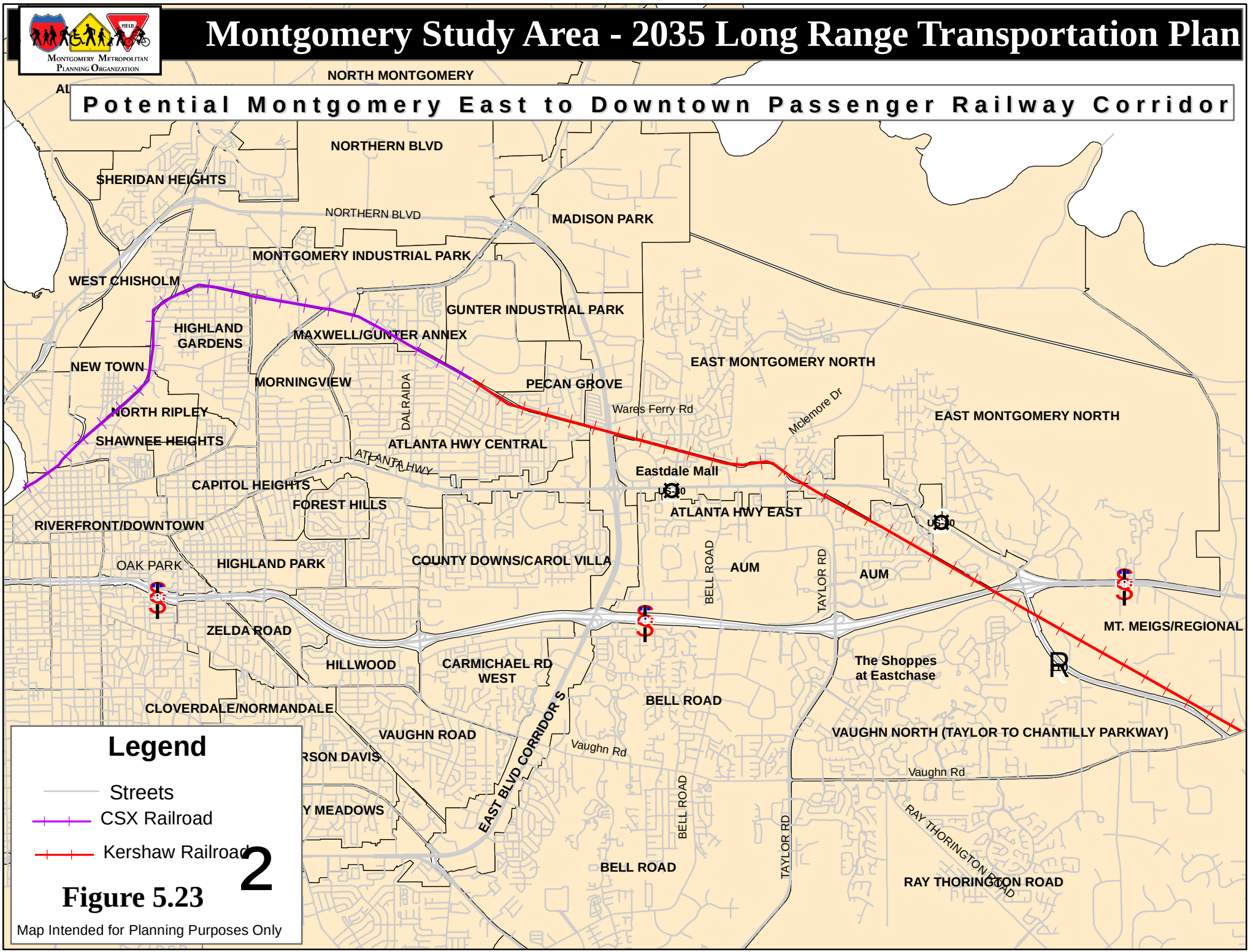
Montgomery Street Railway Company Passenger Rail Routes 1936



Montgomery Study Area - 2035 Long Range Transportation Plan

Montgomery Metropolitan Planning Organization

Potential Montgomery East to Downtown Passenger Railway Corridor



Legend

- Streets
- CSX Railroad
- Kershaw Railroad

Figure 5.23

Map Intended for Planning Purposes Only

2

Montgomery Study Area - 2035 Long Range Transportation Plan

Project Location Map of Proposed New Service Ridership, Revenue and Feasibility Study

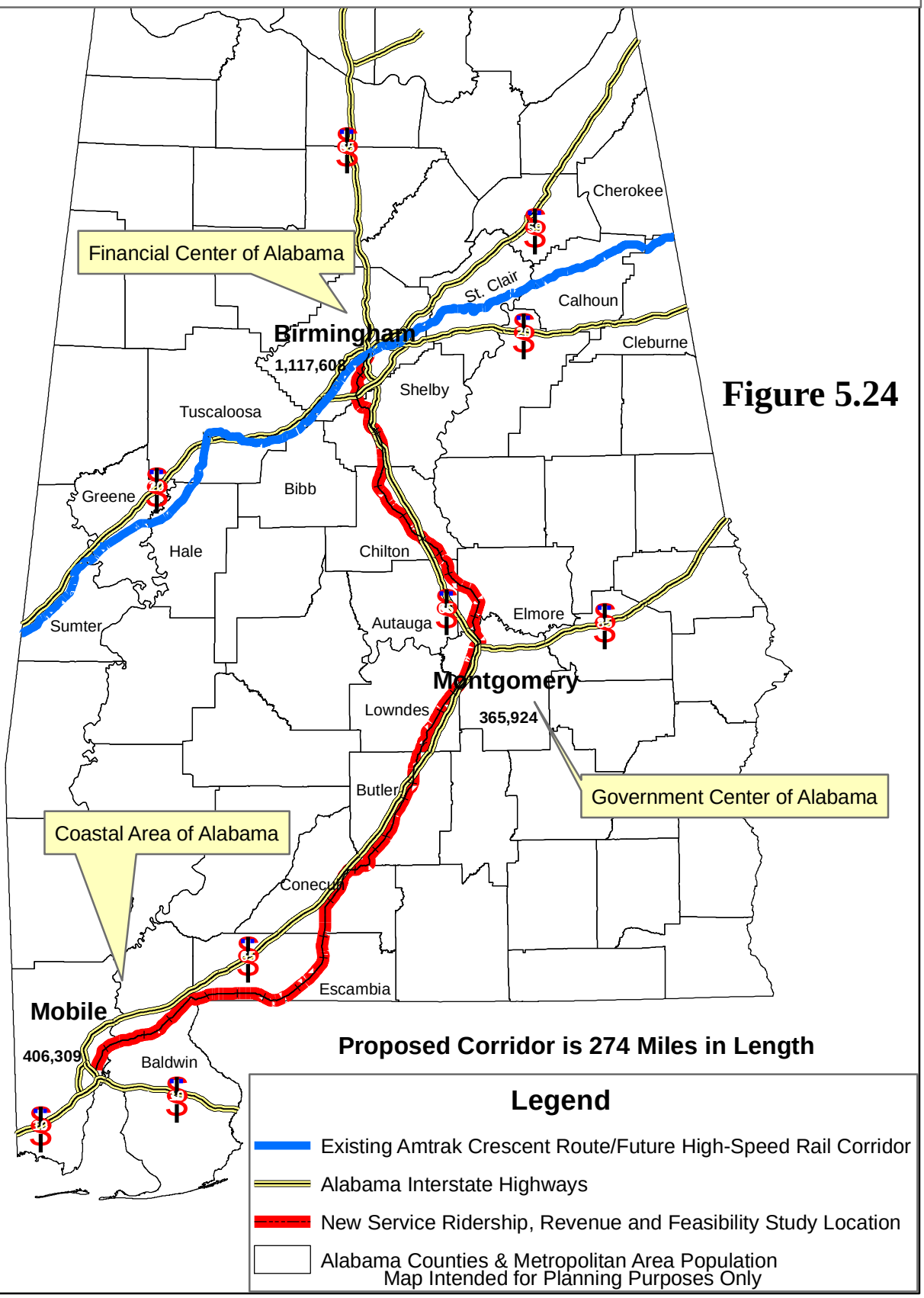


Figure 5.24

6. Financial Plan

As a result of the long range transportation planning process and the methodologies described in this report, specific projects were defined for the Montgomery 2035 LRTP update. The recommended projects provide multimodal solutions to address the area's future transportation needs. As is a requirement for developing an LRTP, the plan includes a financially constrained list of projects. This list represents the most critical projects that can be funded with the amount of funding projected for the 25 year study horizon. The projects were screened for inclusion in the LRTP based on their ability to achieve the goals established for the LRTP and meet the previously defined system needs.

The program of projects is based on forecasts of Year 2035 population and employment which are used to predict future traffic volumes. The results reflect planning assumptions and are based on data available to date and identified needs. Therefore, the program of projects should be evaluated periodically and modified as necessary to ensure the plan reflects the changing conditions and needs in Montgomery urbanized area.

6.1 Financial Considerations

To meet federal requirements, metropolitan LRTPs must be financially constrained. Forecasted funds based on historic revenues, including local, state, federal and other, must be sufficient to fund projects proposed in the LRTP. For the purpose of developing a financially constrained LRTP, ALDOT provided projected funding allocations for each MPO. These funding allocations were based on the expectation of future federal funding as well as historical expenditures and projected need for the MPO regions throughout Alabama.

The projected funding is separated into several categories, which define what types of projects can receive funds. The eligibility and matching requirements for these categories are detailed in Table 6.1. As shown in Table 6.1, the surface transportation funds are broken into Surface Transportation Program-Other Area (STP-OA) and Surface Transportation Program-Any Area (STP-AA). STP-OA funds are allocated by ALDOT across the state's small urban areas (populations less than 200,000) using a population-based formula. The 2035 projected federal funding allocations for the Montgomery MPO are shown in Tables 6.2 and 6.3.

Table 6.1

Description of Funding Categories

Funding Category	Eligibility Requirements	Federal Amount	Local/State Match
Interstate Maintenance	Facilities on Interstate System	80%	20%
National Highway System	NHS facilities (includes Interstate Highways and other roads important for nation's defense)	80%	20%
Surface Transportation (Any Area)	Roads classified as collectors and above. Can also be used for multimodal needs (i.e. transit, seaports, aiport access, bicycle/pedestrian)	80%	20%
Surface Transportation (Other Area)	Roads classified as collectors and above. Typically used for roads, bridges, intersections and other operational improvements.	80%	20%
Bridge	Structurally Deficient or Functionally Obsolete bridges on any public road	80%	20%
Safety	Any public road	90%	10%
Congressional Special Projects	Roads classified as a collector or above	80%	20%

Table 6.2
2035 Projected Highway Capacity, Operation and Maintenance Federal Funding Allocations (cost in thousands)

		CAPACITY			OPERATIONS AND MAINTENANCE		
FUNDING CATEGORY	MONTGOMERY AVERAGE ANNUAL COSTS ╬	AVERAGE ANNUAL CAP COSTS ╬	% COSTS	25 YEAR TOTAL PROJECTION	AVERAGE ANNUAL O&M COSTS ╬	% COSTS	25 YEAR TOTAL PROJECTION
♦*SURFACE TRANS. (OA) (ATTRIB)	$4,209	$463	11%	$11,575	$3,746	89%	$93,650
SURFACE TRANS.(OA) (NOT ATTRIB)	$901	$541	60%	$13,520	$361	40%	$9,013
SURFACE TRANS.(ANY AREA)	$2,375	$1,306	55%	$32,659	$1,069	45%	$26,721
NATIONAL HIGHWAY SYSTEM	$10,479	$6,287	60%	$157,185	$4,192	40%	$104,790
INTERSTATE MAINTENANCE	$13,976	$1,398	10%	$34,940	$12,578	90%	$314,460
♦ BRIDGE OPTIONAL	$4,055	$43	1%	$1,079	$4,012	99%	$100,288
SAFETY (ALL)	$824	$0	0%	$0	$824	100%	$20,608
EQUITY BONUS	$4,268	$2,561	60%	$64,018	$1,707	40%	$42,678
♦ CONGRESSIONAL SPECIAL PROJECTS	$576	$59	10%	$1,475	$517	90%	$12,933
TOTAL	$41,664	$12,658		$316,450	$29,006		$725,142

╬ Based on a 6 year average of authorized funds.
♦ Percentages are based on actual funds.
* Includes STP (Urban >200^{K}) funds.

Table 6.3
2035 Projected Transit Operations, Preventative Maintenance and Capital Funding Allocations (cost in thousands)

FUNDING CATEGORY	FY 2007	FY 2008	AVERAGE PER YEAR	25 YEAR PROJECTION
*SECTION 5307 (URBAN)	$2,501	$2,501	$2,501	$62,525
SECTION 5311 (NON-URBAN)	$580	$580	$580	$14,500
SECTION 5310 (ELDERLY & DISABLED)	$28	$28	$28	$700
SECTION 5316 (JARC)	$42	$42	$42	$1,050
SECTION 5317 (NEW FREEDOM)	$0	$0	$0	$0
SECTION 5309 (NEW STARTS, BUSES)	$2,894	$2,894	$2,894	$72,350
TOTAL	**$6,045**	**$6,045**	**$6,045**	**$151,125**

*Section 5307 Funds are based on the Federal Register February 28, 2008.

Tables 6.2 and 6.3 represent the amount of money anticipated from federal sources. As indicated in Table 4-1, these funds require a match (typically 20 percent) by the state or local entity. Therefore, the total amount available for funding projects over the 25 year study period will include the federal funds in addition to the required local/state match. The total projected funding for projects in the LRTP is shown in Table 6-4.

Table 6-4

2035 Projected Highway Capacity, Operation and Maintenance Total Funding Allocations (cost in thousands)

	CAPACITY			OPERATIONS AND MAINTENANCE		
FUNDING CATEGORY	25 Year Federal Projection	25 Year Local/State Match Projection	25 Year Total Funding Projection	25 Year Federal Projection	25 Year Local/State Match Projection	25 Year Total Funding Projection
♦*SURFACE TRANS. (OA) (ATTRIB)	$11,575	$2,894	$14,468	$93,650	$23,413	$117,063
SURFACE TRANS.(OA) (NOT ATTRIB)	$13,520	$3,380	$16,900	$9,013	$2,253	$11,267
SURFACE TRANS.(ANY AREA)	$32,659	$8,165	$40,823	$26,721	$6,680	$33,401
NATIONAL HIGHWAY SYSTEM	$157,185	$39,296	$196,481	$104,790	$26,198	$130,988
INTERSTATE MAINTENANCE	$34,940	$8,735	$43,675	$314,460	$78,615	$393,075
♦ BRIDGE OPTIONAL	$1,079	$270	$1,349	$100,288	$25,072	$125,359
SAFETY (ALL)	$0	$0	$0	$20,608	$2,290	$22,898
EQUITY BONUS	$64,018	$16,004	$80,022	$42,678	$10,670	$53,348
♦ CONGRESSIONAL SPECIAL PROJECTS	$1,475	$369	$1,844	$12,933	$3,233	$16,167
TOTAL	$316,450	**$79,112**	**$395,562**	**$725,142**	**$178,423**	**$903,565**

╬ Based on a 6 year average of authorized funds.

♦ Percentages are based on actual funds.

* Includes STP (Urban >200^{K}) funds.

Note: Total includes ALDOT Federal funding allocation and assumed 20 percent match (10 percent match for Safety funds.

7. 2030 Long Range Transportation Plan Program of Projects

Using the previous LRTP as a starting point, and building upon this list with analysis performed for the plan update, projects were assessed based on their ability to meet the MPO area's multimodal needs and achieve the goals set for this plan. The final project list includes projects from the previous plan as well as newly defined projects. The program of projects also includes some projects from the previous plan which have been redefined to best meet the identified needs of the system.

7.1 Capacity Projects

Analysis of future conditions indicated the need for one new widening project (Widen Marler Rd from I-85 to 1.5 miles south of I-85) to meet capacity needs in the study area beyond those included in the 2030 LRTP. ***Capacity*** projects from the previous plan that remain in the 2035 program of projects include:

- Widen US 231 North in Wetumpka from River Oaks Dr to near Blue Ridge Rd – widen to 6 lanes
- Widen US 80 W from US 31 to Montgomery Regional Airport – widen to 6 lanes
- Widen Carmichael Rd in Montgomery from Woodmere Blvd to East Blvd in Montgomery – widen to 6 lanes
- Widen Ray Thorington Rd from Vaughn Rd to Old Pike Rd – widen to XXX lanes
- Widen Ryan Rd from Vaughn Rd to Chantilly Pkwy – widen to XXX lanes
- Widen McGehee Rd in Montgomery from Governors Dr to Carter Hill Rd – widen to 4 lanes
- Widen Bell Rd from Vaughn Rd to Chapparel Dr – widen to 4 lanes
- Construct Connector in Elmore County to tie in County Rd 7 (Deatsville Hwy) more directly with SR 14 near Grandview Rd – new road
- Additional lanes on SR 3/US 31/West Blvd from Sylvest Dr to Birmingham Hwy
- Additional lanes on US 231 from south of Tallapoosa River Bridge to Blue Ridge Rd (2 projects)
- Widen US 231 from Blue Ridge Rd to River Oaks Dr
- Additional lanes on US 82 from SR260 to US 31 in Prattville (2 projects)
- Extend service road along SR 9/Northern Blvd NB from Hackel Dr to Plantation Way and SB from Lagoon Park Dr to existing service road.
- Additional lanes on I-85, median widening from 0.7 miles east of SR 126 to 0.7 miles east of SR271 (2 projects)
- Interchange modification on I-85 at Perry Hill Rd (Exit 4) - add loop ramp
- Add lanes on SR 14 from west of CR 3 to Wetumpka (4 projects)
- Widen US 80 West to a 6 lane urban arterial from US 31 S to Montgomery Regional Airport
- Additional lanes on SR 110 from Chantilly Pkwy to the Outher Loop
- Widen and resurface Ann St from Brewton St and realign to Federal Dr
- Widen and resurface Ann St from Highland Ave to Brewton St
- Widen Redland Rd from US 231 to Riflerange Rd
- Widen Carmichael Road in Montgomery to a 6 lane urban arterial from Woodmere Blvd to East Blvd in Montgomery
- Ray Thorington Rd from Vaughn Rd to Old Pike Rd
- Ryan Rd from Vaughn Rd to Chantilly Pkwy
- Widen McGehee Road in Montgomery to a 4 lane urban arterial from Governors Dr to Carter Hill Rd in Montgomery
- Construct Connector in Elmore County to tie in County Road 7 (Deatsville Hwy), a 2 lane urban collector, more directly with SR 14 near Grandview Rd

The following capacity projects were removed from the project list for the reasons listed below:

- SR 14 Relocation from US 82 to West of McQueen Smith Rd – lack of anticipated benefit
- Widen Fairview Ave from Norman Bridge Rd to Woodley Rd – ROW concerns

7.2 Bridges

Three (non-interstate) bridge projects have been identified by ALDOT through the TIP/STIP, which identify bridges in need of repair or replacement. In addition to these projects, 133 of the bridges within the MPO area have been identified as structurally deficient or functionally obsolete. To ensure the safety of the transportation network and improve efficiency, these bridges should be repaired as funding allows. For this purpose, a funding allocation has been included for bridge rehabilitation beyond the years covered by the projects in the TIP/STIP.

7.3 Pedestrian and Bicycle Network

The development of a successful transportation plan relies on the careful consideration of all modes of transportation. All planning efforts should give due consideration to each mode, to the extent allowed. At a minimum, FHWA requires that "bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plan," according to 23 USC 217. FHWA's guidance on this states that "due consideration" of bicycle and pedestrian needs should include, at a minimum, a presumption that bicyclists and pedestrians will be accommodated in the design of new and improved transportation facilities. Inclusion of bicycle and pedestrian facilities in transportation facilities should be the routine, and the decision not to include them should be the exception rather than the rule. There must be exceptional circumstances, which include legal exceptions, excessive cost compared to the project, and lack of density to support the need, for denying such facilities.

Following FHWA guidance, sidewalks and bicycle facilities will be included in all transportation projects unless exceptional circumstances exist. Therefore, cost estimates for all roadway widening projects included in the LRTP have been adjusted to include sidewalks and bicycle lanes.

In addition, the Montgomery MPO has developed a detailed list of pedestrian and bicycle needs. These projects should be implemented over the course of the study horizon, as funds become available. For the purpose of implementing these projects on a regular basis an allocation of $2 million per year has been included in the financially constrained program of projects.

Table 7-1 describes the program of projects for the 2035, including the time frame for implementation and the purpose of the project. All project cost estimates are given in Year of Expenditure dollars. Costs for projects in TIP were taken directly, as they developed as Year of Expenditure estimates. For annual allocations, the costs were estimated to the midpoint year. The program of projects for roadways is shown in Figure 7-1.

Table 7-1: 2035 Needs Plan

Capacity Projects

Project ID	Project Description	Length (mi)		Cost
100038152	Bridge rehab on SR 111 in Wetumpka over Coosa River (BIN#000928)	0.05	BRIDGE WIDENING	$2,080,000
100040324 100040325	Widening bridges at Pintlala Creek Relief (BIN # 00852, 00853, 008584, 008586, 008587)	1.6	BRIDGE WIDENING	$12,902,000
100039365	MGM Outer Loop - from south of I-85 through I-85 interchange - Clearing and grubbing, utility relocation	0.65	NEW ROAD	$227,000
100016431	MGM Outer Loop - from south of SR 110 to I-85, Phase V, Service Rd, Ramps at SR 110 interchange	2.9	NEW ROAD	$16,901,000
100016433	MGM Outer Loop - from south of SR 110 to I-85, Phase II, includes dual bridges over SR 110, Milies Creek and bridge on US 80 relocation	2.79	NEW ROAD	$19,848,000
100016434	MGM Outer Loop north of I-85 interchange	0.11	NEW ROAD	$15,263,000
100016429 100016430	MGM Outer Loop - Carters Hill Rd to SR 110	5.22	NEW ROAD	$77,198,000
100016440 100016443	MGM Outer Loop - US 231 to Carters Hill Rd	3.835	GRADE, DRAIN, BASE, PAVE & BRG/BASE AND PAVE /UTILITY ADJUSTMENT	$34,157,000
100043306	MGM Outer Loop from I-65 west of US 331, includes interchange at SR 3/US 31	3.75	GRADE AND DRAIN	$33,872,000
100043326	MGM Outer Loop from west of Woodley Rd to SR 6/US 231	2.94	GRADE, DRAIN AND BRIDGE	$54,777,000
	MGM Outer Loop from US 331 to west of Woodley Rd			$97,700,000
100038171	Widen bridge and interchange improvement on I-85 at Perry Hill Rd	0	UTILITY ADJUSTMENT	$348,000
100044978	Additional lanes on SR 3/US 31/West Blvd from Sylvest Dr to Birmingham Hwy	4.055	ADDITIONAL ROADWAY LANES	$5,066,000
100052732	Roadway improvements to portion of SR 53/US 231 NB from near Athey Rd to 0.5 mi north of Canty Rd	4.334	GRADE, DRAIN, BASE AND PAVE	$5,148,000
100052730	Additional lane on US 231 from just south of the Tallapoosa River Bridge to Redland	1.523	WIDENING	$149,000
100045612	Additional lanes on SR 9 (US 231) from Redland Rd to Near Blue Ridge Rd and Wetumpka Welcome Center	1.523	WIDENING	$309,000
100049117	Additional lane on US 231 from just south of the Tallapoosa River Bridge to Redland (includes Tallapoosa Relief bridge widening)	0.9	WIDENING	$3,170,000
100004463	US 82 from SR 14 to US 31 in Prattville	2.74	WIDENING	$17,395,000
100004464	US 82 from SR 260 to SR 14 in Prattville	2.44	WIDENING	$6,117,000
100050519	Extend service road along SR 9/Northern Blvd NB from Hackel Dr to Plantation Way and SB from Lagoon Park Dr to existing service road.	0.763	NEW ROADWAY	$1,162,000
100054608	Additional lanes on I-85, median widening from Jenkins Creek to 0.7 miles east of SR 126	7.09	WIDENING	$14,804,000
100054607	Additional lanes on I-85, median widening from Jenkins Creek to 0.7 miles east of SR 271	3.5	WIDENING	$11,928,000
100051237	Interchange modification on I-85 at Perry Hill Rd (Exit 4) - add loop ramp	0	INTERCHANGE	$2,163,000
100055337	Protective Purchase of ROW, MGM Outer Loop from west of SR 9/US 331 to west of Woodley Rd	0	ROW	$300,000
47	Widen US 231 North in Wetumpka to a 6 lane urban arterial River Oaks Dr (South of Wetumka) to Near CR 200 (Blue Ridge Rd)	3.6	WIDENING	$17,289,000
24	Widen Atlanta Highway (US 80) in Montgomery to a 6 lane urban arterial from Perry Hill Rd to East Blv in Montgomery	2.2	WIDENING	$19,028,000
8	Widen South Boulevard from US 231 S to Rosa Parks Ave in Montgomery to a 6 lane urban arterial, add one-way service roads in eacd direction, and add grade separation (diamond interchanges) at five(5)intersections including:Troy Highway (US 231), Woodley R	4.4	WIDENING	$82,763,000
48	Widen East Boulevard in Montgomery to an 8 lane urban arterial from US 231 N to I-85 N in Montgomery	4.4	WIDENING	$37,276,000
49	Widen East Boulevard from I-85 N to US 231 S in Montgomery to an 8 lane urban arterial with intersection improvements at Vaughn Road, Carmichael Road, and Woodmere Blvd	3.0	WIDENING	$23,770,000
100054496 100054493	SR 14 from 0.5 miles west of CR 3 to Coosada Pkwy	2.7	WIDENING	$7,700,000
100054497 100054494	SR 14 add lane from East of Elmore at Lucky Town Rd to Calloway Creek	3.8	WIDENING	$9,460,000
100032367	SR 14 at CR 59 (Correct vertical curvature)	0.5	WIDENING	$232,000
43	Widen SR 14 in Elmore County to a 4 lane urban arterial from Coosada pkwy in Elmore County to Lucky Town Rd	1.3	WIDENING	$6,062,667
9	Widen SR 14 from Calloway Creek to Wetumpka Elmore County	2.8	WIDENING	$12,543,448
19	Widen US 80 West in Montgomery to a 6 lane urban arterial from US 31 S to Montgomery Regional Airport	2.8	WIDENING	$20,171,000
100043877 100043868	Additional lanes on SR 110 from Chantilly Pkwy to the Outher Loop	2.81	WIDENING	$11,898,000
100053060	Widen and resurface Ann St from Brewton St and realign to Federal Dr (Phase I)	0.22	WIDENING	$114,000
100053061	Widen and resurface Ann St from Highland Ave to Brewton St (Phase II)	0.45	WIDENING	$1,238,000
100050966	Redland Rd from US 231 to Riflerange Rd - includes intersection improvements at SR 8 to CR 8	1.5	WIDENING	$7,039,000
	Widen Marler Rd from I-85 to 1.5 miles south of I-85	1.5	WIDENING	$8,250,000
100052056	Improvements to Old Farm Lane from north of Rocky Mount Rd to SR 14 (Phase II)	0.58	WIDENING	$2,379,520
100052058	Improvements to Old Farm Lane from Prattville City limits to Rocky Mount Rd (Phase III)	0.965	WIDENING	$3,338,000
29	Widen Carmichael Road in Montgomery to a 6 lane urban arterial from Woodmere Blvd to East Blvd in Montgomery	1.7	WIDENING	$11,323,000
38	Ray Thorington Rd from Vaughn Rd to Old Pike Rd	3.5	WIDENING	$19,552,000
39	Ryan Rd from Vaughn Rd to Chantilly Pkwy	0.82	WIDENING	$3,569,000
27	Widen Bell Road in Montgomery to a 4 lane urban arterial from Vaughn Rd in Montgomery to Chapparal Dr	1.2	WIDENING	$7,887,000
63	Construct Connector in Elmore County to tie in County Road 7 (Deatsville Hwy), a 2 lane urban collector, more directly with SR 14 near Grandview Rd	1.2	WIDENING	$7,991,000
42	Widen bridges over CSX Railroad at South Boulevard to 6 lanes in Montgomery from Rosa Parks Ave to US 31 S in Montgomery	1.6	BRIDGE	$8,644,000
28	Widen Coliseum Blvd in Montgomery to a 4 lane urban arterial from Federal Drive to Biltmore Ave in Montgomery	1.0	WIDENING	$5,402,000
22	Construct Prattville Northern Bypass at new location as a 4 lane urban arterial from SR 14 and Old Farm Ln to US 31 N in Prattville	3.6	NEW ROADWAY	$33,115,000
18	Widen Wares Ferry Road in Montgomery to 4 lane urban arterial from East Blvd to Mclemore Rd in Montgomery	3.2	No	$8,644,000
N/A	Widen US 31/SR 3 from US 82 to West Blvd. Includes bridge over the Alabama River	4.8	WIDENING	$48,268,000
N/A	Widen US 31/SR 3 from CR 40 to SR 14	4.7	WIDENING	$65,176,000
N/A	Widen and Resurface Grandview Road from AL 14 to AL 143	2.5	WIDENING	$8,419,000
N/A	New Roadway from SR-14/Coosa River Pkwy to Fort Toulouse Rd	1.5	NEW ROADWAY	$12,212,000
N/A	New interchange Wares Ferry at I-85	0	INTERCHANGE	$30,000,000
			Total Capacity Projects	**$973,737,635**
			Total Capacity Budget	**$395,562,000**
			Difference	**-$578,175,635**

Table 7-1: 2035 Needs Plan

Maintenance and Operations Projects				
Bridge				
100050029	Replace bridge (BIN #002922) on SR 8/US 80 over Pintlala Creek	0.4	BRIDGE REPLACEMENT	$3,874,932
100002545	Bridge rehab on SR 111 in Wetumpka over Coosa River (BIN#000928	0.1	BRIDGE REHABILITATION	$1,897,979
100044831	Replace bridge on SR 206 over Autauga Creek (BIN # 002736)	0.5	BRIDGES AND APPROACHES	$3,487,078
N/A	Annual allocation for bridge rehabilitation/replacement projects over the course of the study period.	N/A	BRIDGE	$175,000,000
			Total Bridge Projects	$184,259,988
			Total Bridge Budget	$125,359,000
			Difference	-$58,900,988
High Priority Projects				
100043346	MGM Outer LOOP at I-85 interchange ramp bridges 1,2,3 and 4 substructure	0.4	BRIDGE	$25,706,000
100016432	MGM Outer Loop - from south of SR 110 to I-85, lighting at interchange	2.9	LIGHTING	$2,748,947
100051099	Traffic striping on various Autauga County Roads	18.2	TRAFFIC STRIPING	$58,110
100036855	Montgomery integration project. Various Intelligent Transportation System elements including vehicle detection, freeway management, software integration, message signs, fiber optic cable and TMC equipment	0.0	UNCLASSIFIED	$2,140,134
			Total HPP Projects	$30,653,191
			Total HPP Budget	$16,167,000
			Difference	-$14,486,191
Interstate Maintenance				
100052591	I-65 pavement rehab from the north end of Alabama River Bridge to Relief Bridge, 1.8 miles south of US 82 (BIN# 10677	4.6	PAVEMENT REHABILITATION	$7,500,000
100053170	Bridge rail retrofit on I-85 from I-65 to Ann St - includes I-85/I-65 interchange bridges and bridges on I-85 at various locations	0.0	BRIDGE REHABILITATION	$1,664,000
100052593	I-85 pavement rehab from south of SR 8/US 80 to Macon County line	8.4	PAVEMENT REHABILITATION	$9,500,000
N/A	Annual allocation for resurfacing on Interstate system	0.0	PAVEMENT REHABILITATION	$450,000,000
			Total IM Projects	$468,664,000
			Total IM Budget	$393,075,000
			Difference	-$75,589,000
National Highway System				
100053053	Resurface SR 9/US 331 from Southern City limits of Montgomery to SR 6/US 82	2.0	RESURFACING	$2,934,753
100052888	Resurface SR 21/US 231 from SR 9 to end of 4 lane north of Wallsboro	2.9	RESURFACING	$1,815,483
100004823	North Bypass at Coliseum Blvd (interchange)	0.0	INTERCHANGE	$6,553,340
100051873	Resurface and 2' safety widening on SR 3/US 31 from SR 8/US 80 to the Pine Creek Bridge	9.8	WIDENING & RESURFACING (RDWY)	$5,991,613
100051864	Resurface and safety widening SR 9/US 231 from Tallapoosa River Bridge to SR 21	8.5	WIDENING & RESURFACING (RDWY)	$4,399,794
100053047	Resurface and 2' widening on SR 21/US 231 from end of 4 lane north of Wallsboro to Coosa County line	11.9	WIDENING & RESURFACING (RDWY)	$2,800,000
100052164	Resurface and 2' safety widening on SR 53/US 231 from CR 89 at Pine Level to just south of Athey Rd	4.6	WIDENING & RESURFACING (RDWY)	$4,838,364
100046479	I-65 interchange improvements at Clay St and Bell St	0.1	INTERSECTION IMPROVEMENTS	$19,738,977
100048963	Interchange Improvements on I-85 at US 80, Mitylene interchange	0.0	INTERCHANGE	$1,973,898
N/A	Annual allocation for resurfacing on NHS System	N/A	RESURFACING	$150,000,000
			Total NHS Projects	$201,046,221
			Total NHS Budget	$130,988,000
			Difference	-$70,058,221
Surface Transportation (Any Area)				
100053346	Resurfacing SR 143 from I-65 to Elmore County line	1.0	RESURFACING	$452,400
100053345	Resurfacing SR 143 from Montgomery County line to Coosada Rd	3.4	RESURFACING	$878,597
100009315	Roadway Lighting on SR 271/Taylor Rd from Vaughn Rd to I-85	1.7	LIGHTING	$777,453
100009316	Signal upgrade on Bell and Dickerson/Bell and Holt. Work to be performed by City of Montgomery forces	0.0	SIGNALIZATION	$131,593
100008652	Alabama River Drainage Basin Mitigation		UNCLASSIFIED	$394,780
100052872	Resurface and 2' inside widening on SR 8/US 80 from US 231 to I-85	4.7	WIDENING & RESURFACING (RDWY)	$3,500,000
100007109	SR 14 at SR 143 Signalization Upgrade Hazard Elimination Program	0.2	SIGNALIZATION	$9,561
N/A	Annual allocation for resurfacing throughout roadway network	N/A		$150,000,000
			Total STP(AA) Projects	$156,144,384
			Total STP (AA) Budget	$33,401,000
			Difference	-$122,743,384
Surface Transportation (Other Area)				
100052873	Resurface SR 271/Taylor Rd from SR 6/US 231 to Vaughn Rd	3.1	RESURFACING	$2,584,324
100054295	Shoulder paving Redland Rd from Rifle Range Rd to CR 116	7.7	SHOULDER PAVING	$555,555
100054297	Shoulder paving Fire Tower Rd from Redland Rd to SR 14	3.9	SHOULDER PAVING	$279,942
100050968	Resurface E Old Haynville Rd from US 331 to Hobbie Rd	4.8	RESURFACING	$773,344
100044512	Widen and resurface Bell Rd from Norris Farm Rd to South End I-85 bridge	2.1	WIDENING & RESURFACING (RDWY)	$912,490
100044513	Widen, resurface and add turn lanes on Bell Rd from SR 6/US 82 to Chaparral Dr, turn lanes along various side streets	1.7	WIDENING & RESURFACING (RDWY)	$851,657
100044515	Widen, resurface and add turn lanes on Bell Rd from north end I-85 bridge to US 80/Atlanta Hwy	1.4	WIDENING & RESURFACING (RDWY)	$948,989
100040817	Widen and Resurface Zelda Rd from Ann St to Carter Hill Rd	1.0	WIDENING & RESURFACING (RDWY)	$1,560,000
100054282	Resurface South Perry St from Fairview Ave to Arba St	1.0	RESURFACING	$1,437,500

Table 7-1: 2035 Needs Plan

Surface Transportation (Other Area)				
100007740 100044272 100044273	Widen and Resurface Perry Hill Rd from Harrison Rd to Atlanta Hwy	1.7	UTILITY ADJUSTMENT/WIDENING & RESURFACING	$8,934,016
100054277	Resurface South Court St from Fairview Ave to SR 6/US 331	1.7	UTILITY ADJUSTMENT/RESURFACING	$2,025,000
100054285	Resurface Fairview Ave from South Court St to I-65	0.8	RESURFACING	$1,868,750
100045392	Resurface and widen Ann St from Highland Ave to Brewton St Phase 2	0.5	WIDENING & RESURFACING (RDWY)	$1,703,314
100040822	Widen and resurface Atlanta Hwy from Mountainview Dr to US 231/SR 9	0.4	WIDENING & RESURFACING (RDWY)	$865,280
100050970	Resurface Bell St from Washington Ferry Rd to SR 3/US 31	2.6	RESURFACING	$2,950,000
100054292	Resurface E Main St from SR 3/US 31 to Virginial St	0.6	RESURFACING	$219,780
100054293	Resurface E Main St from Shady Oak Dr to McQueen Smith Rd	1.0	RESURFACING	$440,000
100054294	Resurface Cobbs Ford Rd from McQueen Smith Rd to SR 62/US 82	0.9	RESURFACING	$396,000
100039970	Drainage improvements on S Northington St (Link #5162), from Doster St to north of 3rd St south of Prattville	0.1	DRAINAGE CORRECTION	$1,664,001
100050963	Widen and resurface McQueen Smith Rd from SR 3/US 31 to Cobbs Ford Rd	2.0	RESURFACING	$10,318,348
100050969	Resurface Meriweather Rd from US 231 to Pike Rd	4.3	WIDENING & RESURFACING (RDWY)	$605,697
100050971	Widen and resurface Airport Rd from Coosada Rd to Kennedy Ave	2.1	WIDENING & RESURFACING (RDWY)	$374,774
100050336	Purchase and installation of Closed Circuit Televisions for installation at various intersections in the City of Montgomer	0.0	UNCLASSIFIED	$197,600
100046478	Intersection improvements at Clay St and Herron St	0.1	INTERSECTION IMPROVEMENTS	$1,124,864
100054280	Resurface Adams Ave from Decatur St to South Court St and Washington Ave from Decatur St to South Court St and Lee S	0.7	RESURFACING	$1,543,750
100054291	Wetumpka Riverwalk Extension from Tallassee St to SR 14/Coosa River Pkwy	0.5	UNCLASSIFIED	$577,113
100050988	Corridor Study for new route from SR 14 to Deatsville Hwy	3.0	CORRIDOR STUDY	$208,000
	Add Turn Lanes at Intersections on US 31 between 6th St (Prattville) north to I-65	0.0	INTERSECTION IMPROVEMENTS	$2,500,000
	Add Turn Lanes at Intersections on AL 14/Fairview Ave between US 31 and Jasmine Trail	0.0	INTERSECTION IMPROVEMENTS	$3,000,000
100042568	Land Acquisition - Montgomery	0.0	UNCLASSIFIED	$615,750
100042640	Security enhancements, expand terminal building -	0.0	UNCLASSIFIED	$4,474,434
100053855	Bridge scour repair I-85, SR 8, SR 126 at Jenkins Creek, Millies Creek Site ID's (014-06-51-1, 014-06-51-8	0.0	BRIDGE SCOUR	$721,514
100053875	Embankment, slope pavement and shoulder repair, several sites in Montgomery County	0.0	UNCLASSIFIED	$378,287
100051099	Traffic striping on various Autauga County Roads	18.2	TRAFFIC STRIPING	$58,110
100036855	Montgomery integration project. Various ITS elements including vehicle detection, freeway management, software integration, message signs, fiber optic cable and TMC equipment	0.0	UNCLASSIFIED	$2,140,134
100048458	Old Selma Rd Railroad Crossing improvements at CSXT Railroad (DOT# 306-574N), near US 231	0.0	RR CROSSING IMPROVEMENTS	$140,608
100047259	Railroad crossing improvements on Forbes Dr at Norfolk Southern RR, north of SR 152 and south of Alabama River Pkwy	0.0	RR CROSSING IMPROVEMENTS	$140,608
100047258	Railroad crossing improvements on Old Selma Rd at CSXT RR	0.0	RR CROSSING IMPROVEMENTS	$140,608
100040963	Landscape Visual enhancement along I-85 from I-65 interchange to Union St	1.3	LANDSCAPING	$316,330
100049669	Landspace improvements at Governor's Mansion (Phase 2)	0.0	UNCLASSIFIED	$86,526
100050660	Mt Meigs Rd sidewalks and streetscape in the City of Montgomery. This project is located is	0.0	STREETSCAPE	$463,768
100050659	Multi-purpose natural trail along Meriwether, Pike and Old Pike Rd in the Town of Pike Road	0.0	UNCLASSIFIED	$760,873
100052186	Landscaping along Carter Hill Rd, Union St and along property adjacent to I-85 around ASL	0.0	LANDSCAPING	$287,500
100054120	Cloverdale Rd streetscape in the City of Montgomery. This project is located on Cloverdale Rd from Felder to West of Graham S	0.0	STREETSCAPE	$500,000
	Annual allocation for implementing pedestrian and bicycle projects defined in the LRTP	0.0	PED/BIKE	$50,000,000
	Annual allocation for implementing safety improvements at intersections throughout the MPO area (1 per year	0.0	INTERSECTION IMPROVEMENTS	$12,500,000
			TotalOther Projects	$52,741,336
			Total Other Budget	$128,330,000
			Difference	$75,588,664
Stimulus				
100054719	Resurface Cloverfield/Federal Rd from Lowndes Co line to SR 3/US 31 and Woodley Rd from CR 030 to Montgomery City Limit	8.0	RESURFACING	$1,215,000
100040820	Widen Perry Hill Rd and Resurface from I-85 on/off ramps to Harrison Rd	0.4	WIDENING & RESURFACING (RDWY)	$2,400,000
100053771	Resurface Alabama River Pkwy from SR 143 to Jackson Lake Rd	1.7	RESURFACING	$619,000
100053770	Resurface McQueen Smith Rd from E Main St to SR 14	1.6	RESURFACING	$740,000
100053769	Resurface Gin Shop Hill Rd from SR 206/W 4th St to SR 6/US 82	1.2	RESURFACING	$219,780
100047407	Resurfacing various streets in the City of Montgomery Central Business District	0.0	RESURFACING	$2,400,000
100052328	SR 14 intersection improvement at SR 143 in Elmore (CSX RR)	0.0	INTERSECTION IMPROVEMENTS	$5,065,479
			Total Stimulus Projects	$12,659,259
			Total Stimulus Budget	$0
			Difference	-$12,659,259
Other Funds				
			Equity Bonus Budget	$53,348,000
			Safety Budget	$22,898,000
Budget Comparison				
			Total Maintenance and Operations Projects	**$1,093,509,121**
			Total Maintenance and Operations Budget	**$903,566,000**
			Difference	**-$189,943,121**
Budget Comparison				
			Total Needs Plan Projects	**$2,067,246,755**
			Total Budget	**$1,299,128,000**
Note: Stimulus Costs not included in comparison, as these were not traditionally allocated funds			**Difference**	**-$768,118,755**

Placeholder for
Figure 7-1

7.4 Estimated Program Capital Costs

Cost estimates and the ability to match costs with potential funding streams constrain the 2035 LRTP program of projects. Based on the projected funding estimates, there will be approximately $1,041,592,000 available for operations/maintenance and capacity projects to the year 2035 for the Montgomery MPO study area. The total cost of the program of multimodal projects, listed in Table 6.4, totals $2,072,504,755, which demonstrates that almost 63% of the projects in the needs plan will not be included in the 2035 financially constrained program of projects. For transit, it is estimated that $151,125,00 will be available through 2035. This will not sustain the level of current expenditure for transit projects, which would total $256,000,000 through year 2035.

7.5 Developing a Financially Constrained Plan

In order to address funding constraints, projects were categorized based on the previously defined funding categories. Once separated into the appropriate category (Capacity or Operations and Maintenance), the estimated costs for the recommended projects in each category were compared to the projected funding. A financially constrained list was developed to match the projected funding. Projects were chosen based on their ability to achieve the goals established for the plan and to meet the needs defined as part of the planning process.

Capacity funds were focused on completing key widening projects currently underway (such as the US 231 and US 82 corridors). Additional capacity funds were attributed to projects that increase connectivity and provide alternates to congested segments of the downtown roadway network.

As a high priority for the MPO area, special consideration was made for inclusion of the Montgomery Outer Loop. This high cost project should be implemented in phases, as funds become available. Currently, ALDOT and FHWA projections show High Priority Project funding projections of only $1.8 million, which would not even cover one percent of this project's cost. To show the MPO's commitment to this project, funds from other categories have been reserved for the purpose of funding this project. In setting aside these funds, the MPO demonstrates the importance of the Montgomery Outer Loop and positions themselves better for acquiring future HPP funding for this project.

With funding constraints in mind, capacity projects from the previous LRTP were assessed to determine if smaller-scale operational improvements would address the issue. Small-scale improvements can often be incorporated into the existing roadway network to improve the flow of traffic, and they usually have a relatively short completion schedule and lower cost than roadway widening or new construction. Traffic operations can be optimized in many ways, including providing inter-parcel access, adding medians, closing curb cuts (driveways), adding turn, acceleration or deceleration lanes, or installing or upgrading traffic signals. Coordinated signal timing plans link together the operations of a series of traffic signals located close enough together to impact traffic conditions along an entire corridor, increasing the corridor's effective capacity by 10-15 percent. As noted previously, several projects defined as widening needs in the past plan were changed to operational or access management improvements.

To sufficiently plan for the study horizon, the LRTP must consider operations and maintenance needs beyond those specifically defined in the program of projects. Resurfacing needs, safety issues and bridge needs cannot always be defined far in the future. However, funding should be set aside for these types of projects when the need arises. Therefore, an annual need was calculated for these categories and included in the plan. Additionally, annual allocations were set aside for pedestrian and bicycle improvements, to be implemented based on the results of the needs assessment documented in this plan. These annual allocations will help maintain and enhance the existing infrastructure.

The financially constrained program of projects is shown in Table 6.5. This table provides a break-down of projects by funding category. It provides a comparison of the projected funding for each category, the estimated costs of the projects assigned to each funding category and the difference between these numbers. Though some of the individual funding categories do not balance, the funding by project type (Capacity/Operations and Maintenance) does balance. The MPO must work with ALDOT to ensure funding allocations can be adjusted to meet the area's projected needs.

Table 7-2: 2035 Financially Constrained Plan

All Capcity Projects

Bridge

Project ID	County	Project Description	Implementation Time Frame	Length (mi)		Cost
100038152	ELMORE	Bridge rehab on SR 111 in Wetumpka over Coosa River (BIN#000928)	Short (1-5 yrs)	0.05	BRIDGE WIDENING	$2,080,000
100040324 100040325	MONTGOMERY	Widening bridges at Pintlala Creek Relief (BIN # 00852, 00853, 008584, 008586, 008587)	Short (1-5 yrs)	1.6	BRIDGE WIDENING	$12,902,000
					Total Bridge Projects	$14,982,000
					Total Bridge Budget	$1,349,000
					Difference	-$13,633,000

High Priority Projects

Project ID	County	Project Description	Implementation Time Frame	Length (mi)		Cost
100039365	MONTGOMERY	MGM Outer Loop - from south of I-85 through I-85 interchange - Clearing and grubbing, utility relocation		0.65	NEW ROAD	$227,000
100016431	MONTGOMERY	MGM Outer Loop - from south of SR 110 to I-85, Phase V, Service Rd, Ramps at SR 110 interchange	Short (1-5 yrs)	2.9	NEW ROAD	$16,901,000
100016433	MONTGOMERY	MGM Outer Loop - from south of SR 110 to I-85, Phase II, includes dual bridges over SR 110, Milies Creek and bridge on US 80 relocation	Short (1-5 yrs)	2.79	NEW ROAD	$19,848,000
100016434	MONTGOMERY	MGM Outer Loop north of I-85 interchange	Short (1-5 yrs)	0.11	NEW ROAD	$15,263,000
100016429 100016430	MONTGOMERY	MGM Outer Loop - Carters Hill Rd to SR 110	Visionary (beyond 25 yrs)	5.22	NEW ROAD	$77,198,000
					Total HPP Projects	$129,437,000
					Total HPP Budget	$1,844,000
					Difference	-$127,593,000

Interstate Maintenance

Project ID	County	Project Description	Implementation Time Frame	Length (mi)		Cost
100038171	MONTGOMERY	Widen bridge and interchange improvement on I-85 at Perry Hill Rd	Short (1-5 yrs)	0	UTILITY ADJUSTMENT	$348,000
					Total IM Projects	$348,000
					Total IM Budget	$43,675,000
					Difference	$43,327,000

National Highway System

Project ID	County	Project Description	Implementation Time Frame	Length (mi)		Cost
100044978	MONTGOMERY	Additional lanes on SR 3/US 31/West Blvd from Sylvest Dr to Birmingham Hwy	Short (1-5 yrs)	4.055	LANES	$5,066,000
100052732	MONTGOMERY	Roadway improvements to portion of SR 53/US 231 NB from near Athey Rd to 0.5 mi north of Canty Rd	Short (1-5 yrs)	4.334	AND PAVE	$5,148,000
100052730	ELMORE	Additional lane on US 231 from just south of the Tallapoosa River Bridge to Redland	Short (1-5 yrs)	1.523	WIDENING	$149,000
100045612	ELMORE	Additional lanes on SR 9 (US 231) from Redland Rd to Near Blue Ridge Rd and Wetumpka Welcome Center	Short (1-5 yrs)	1.523	WIDENING	$309,000
100049117	ELMORE	Additional lane on US 231 from just south of the Tallapoosa River Bridge to Redland (includes Tallapoosa Relief bridge widening'	Short (1-5 yrs)	0.9	WIDENING	$3,170,000
100004463	AUTAUGA	US 82 from SR 14 to US 31 in Prattville	Short (1-5 yrs)	2.74	WIDENING	$17,395,000
100004464	AUTAUGA	US 82 from SR 260 to SR 14 in Prattville	Short (1-5 yrs)	2.44	WIDENING	$6,117,000
100050519	MONTGOMERY	Extend service road along SR 9/Northern Blvd NB from Hackel Dr to Plantation Way and SB from Lagoon Park Dr to existing service road.	Short (1-5 yrs)	0.763	NEW ROADWAY	$1,162,000
100054608	MONTGOMERY	Additional lanes on I-85, median widening from Jenkins Creek to 0.7 miles east of SR 126	Short (1-5 yrs)	7.09	WIDENING	$14,804,000
100054607	MONTGOMERY	Additional lanes on I-85, median widening from Jenkins Creek to 0.7 miles east of SR 271	Short (1-5 yrs)	3.5	WIDENING	$11,928,000
100051237	MONTGOMERY	Interchange modification on I-85 at Perry Hill Rd (Exit 4) - add loop ramp	Short (1-5 yrs)	0	INTERCHANGE	$2,163,000
100055337	MONTGOMERY	Protective Purchase of ROW, MGM Outer Loop from west of SR 9/US 331 to west of Woodley Rd	Short (1-5 yrs)	0	ROW	$300,000
47	Elmore	Widen US 231 North in Wetumpka to a 6 lane urban arterial River Oaks Dr (South of Wetumka) to Near CR 200 (Blue Ridge Rd)	Long (15-25 yrs)	3.6	WIDENING	$17,289,000
24	Montgomery	Widen Atlanta Highway (US 80) in Montgomery to a 6 lane urban arterial from Perry Hill Rd to East Blv in Montgomery	Long (15-25 yrs)	2.2	WIDENING	$19,028,000
					Total NHS Projects	$104,028,000
					Total NHS Budget	$196,481,000
					Difference	$92,453,000

Note: Projects in yellow are from previous LRTP and are not in current TIP

Table 7-2: 2035 Financially Constrained Plan

Surface Transportation (Any Area)						
Project ID	**County**	**Project Description**		**Length (mi)**		**Cost**
100054496 100054493	ELMORE	SR 14 from 0.5 miles west of CR 3 to Coosada Pkwy	Short (1-5 yrs)	2.7	WIDENING	$7,700,000
100054497 100054494	ELMORE	SR 14 add lane from East of Elmore at Lucky Town Rd to Calloway Creek	Short (1-5 yrs)	3.8	WIDENING	$9,460,000
100032367	ELMORE	SR 14 at CR 59 (Correct vertical curvature)	Short (1-5 yrs)	0.5	WIDENING	$232,000
43	Elmore	Widen SR 14 in Elmore County to a 4 lane urban arterial from Coosada pkwy in Elmore County to Lucky Town Rd	Long (15-25 yrs)	1.3	WIDENING	$6,062,667
9	Elmore	Widen SR 14 from Calloway Creek to Wetumpka Elmore County	Visionary (beyond 25 yrs)	2.8	WIDENING	$12,543,448
19	Montgomery	Widen US 80 West in Montgomery to a 6 lane urban arterial from US 31 S to Montgomery Regional Airport	Long (15-25 yrs)	2.8	WIDENING	$20,171,000
					Total STP (AA) Projects	$56,169,115
					Total STP (AA) Budget	$40,823,000
					Difference	-$15,346,115

Surface Transportation (Other Area)						
Project ID	**County**	**Project Description**		**Length (mi)**		**Cost**
100043868 100050187 100050520	MONTGOMERY	Additional lanes on SR 110 from Chantilly Pkwy to the Outher Loop	Short (1-5 yrs)	2.81	WIDENING	$11,898,000
100053060	MONTGOMERY	Widen and resurface Ann St from Brewton St and realign to Federal Dr (Phase I)	Short (1-5 yrs)	0.22	WIDENING	$114,000
100053061	MONTGOMERY	Widen and resurface Ann St from Highland Ave to Brewton St (Phase II)	Short (1-5 yrs)	0.45	WIDENING	$1,238,000
100050966	ELMORE	Redland Rd from US 231 to Riflerange Rd - includes intersection improvements at SR 8 to CR 8	Short (1-5 yrs)	1.5	WIDENING	$7,039,000
	MONTGOMERY	Widen Marler Rd from I-85 to 1.5 miles south of I-85	Short (1-5 yrs)	1.5	WIDENING	$8,250,000
100052056	ELMORE	Improvements to Old Farm Lane from north of Rocky Mount Rd to SR 14 (Phase II)	Short (1-5 yrs)	0.58	WIDENING	$2,379,520
100052058	ELMORE	Improvements to Old Farm Lane from Prattville City limits to Rocky Mount Rd (Phase III)	Short (1-5 yrs)	0.965	WIDENING	$3,338,000
29	Montgomery	Widen Carmichael Road in Montgomery to a 6 lane urban arterial from Woodmere Blvd to East Blvd in Montgomery	Short (1-5 yrs)	1.7	WIDENING	$11,323,000
38	Montgomery	Ray Thorington Rd from Vaughn Rd to Old Pike Rd	Long (15-25 yrs)	3.5	WIDENING	$19,552,000
39	Montgomery	Ryan Rd from Vaughn Rd to Chantilly Pkwy	Long (15-25 yrs)	0.82	WIDENING	$3,569,000
27	Montgomery	Widen Bell Road in Montgomery to a 4 lane urban arterial from Vaughn Rd in Montgomery to Chapparal Dr	Long (15-25 yrs)	1.2	WIDENING	$7,887,000
63	Elmore	Construct Connector in Elmore County to tie in County Road 7 (Deatsville Hwy), a 2 lane urban collector, more directly with SR 14 near Grandview Rd	Long (15-25 yrs)	1.2	WIDENING	$7,991,000
					Total STP (OA) Projects	$76,587,520
					Total STP (OA) Budget	$31,368,000
					Difference	-$45,219,520

Other Funds	
Equity Bonus	$80,022,000

Budget Comparison	
Total Capacity Projects	**$381,551,635**
TotalCapacity Budget	**$395,562,000**
Difference	**$14,010,365**

Note: Projects in yellow are from previous LRTP and are not in current TIP

Table 7-2: 2035 Financially Constrained Plan (cont.)

Maintenance and Operations Projects					
Bridge					
100050029	LOWNDES	Replace bridge (BIN #002922) on SR 8/US 80 over Pintlala Creek	0.4	BRIDGE REPLACEMENT	$3,874,932
100002545	ELMORE	Bridge rehab on SR 111 in Wetumpka over Coosa River (BIN#000928)	0.1	BRIDGE REHABILITATION	$1,897,979
100044831	AUTAUGA	Replace bridge on SR 206 over Autauga Creek (BIN # 002736)	0.5	BRIDGES AND APPROACHES	$3,487,078
N/A	Areawide	Annual allocation for bridge rehabilitation/replacement projects over the course of the study period.	N/A	BRIDGE	$175,000,000
				Total Bridge Projects	$184,259,988
				Total Bridge Budget	$125,359,000
				Difference	-$58,900,988
High Priority Projects					
100043346	MONTGOMERY	MGM Outer LOOP at I-85 interchange ramp bridges 1,2,3 and 4 substructure	0.4	BRIDGE	$25,706,000
100016432	MONTGOMERY	MGM Outer Loop - from south of SR 110 to I-85, lighting at interchange	2.9	LIGHTING	$2,748,947
100051099	AUTAUGA	Traffic striping on various Autauga County Roads	18.2	TRAFFIC STRIPING	$58,110
100036855	MONTGOMERY	Montgomery integration project. Various Intelligent Transportation System elements including vehicle detection, freeway management, software integration, message signs, fiber optic cable and TMC equipment	0.0	UNCLASSIFIED	$2,140,134
				Total HPP Projects	$30,653,191
				Total HPP Budget	$16,167,000
				Difference	-$14,486,191
Interstate Maintenance					
100052591	MONTGOMERY	I-65 pavement rehab from the north end of Alabama River Bridge to Relief Bridge, 1.8 miles south of US 82 (BIN# 10677)	4.6	PAVEMENT REHABILITATION	$7,500,000
100053170	MONTGOMERY	Bridge rail retrofit on I-85 from I-65 to Ann St - includes I-85/I-65 interchange bridges and bridges on I-85 at various locations	0.0	BRIDGE REHABILITATION	$1,664,000
100052593	MONTGOMERY	I-85 pavement rehab from south of SR 8/US 80 to Macon County line	8.4	PAVEMENT REHABILITATION	$9,500,000
N/A	Areawide	Annual allocation for resurfacing on Interstate system (this amount covers one half of the identified need)	0.0	PAVEMENT REHABILITATION	$225,000,000
				Total IM Projects	$243,664,000
				Total IM Budget	$393,075,000
				Difference	$149,411,000
National Highway System					
100053053	MONTGOMERY	Resurface SR 9/US 331 from Southern City limits of Montgomery to SR 6/US 82	2.0	RESURFACING	$2,934,753
100052888	ELMORE	Resurface SR 21/US 231 from SR 9 to end of 4 lane north of Wallsboro	2.9	RESURFACING	$1,815,483
100004823	MONTGOMERY	North Bypass at Coliseum Blvd (interchange)	0.0	INTERCHANGE	$6,553,340
100051873	MONTGOMERY	Resurface and 2' safety widening on SR 3/US 31 from SR 8/US 80 to the Pine Creek Bridge	9.8	WIDENING & RESURFACING (RDWY)	$5,991,613
100051864	ELMORE	Resurface and safety widening SR 9/US 231 from Tallapoosa River Bridge to SR 21	8.5	WIDENING & RESURFACING (RDWY)	$4,399,794
100053047	ELMORE	Resurface and 2' widening on SR 21/US 231 from end of 4 lane north of Wallsboro to Coosa County line	11.9	WIDENING & RESURFACING (RDWY)	$2,800,000
100052164	MONTGOMERY	Resurface and 2' safety widening on SR 53/US 231 from CR 89 at Pine Level to just south of Athey Rd	4.6	WIDENING & RESURFACING (RDWY)	$4,838,364
100046479	MONTGOMERY	I-65 interchange improvements at Clay St and Bell St	0.1	INTERSECTION IMPROVEMENTS	$19,738,977
100048963	MONTGOMERY	Interchange Improvements on I-85 at US 80, Mitylene interchange	0.0	INTERCHANGE	$1,973,898
N/A	Areawide	Annual allocation for resurfacing on NHS System	N/A	RESURFACING	$150,000,000
				Total NHS Projects	$201,046,221
				Total NHS Budget	$130,988,000
				Difference	-$70,058,221
Surface Transportation (Any Area)					
100053346	MONTGOMERY	Resurfacing SR 143 from I-65 to Elmore County line	1.0	RESURFACING	$452,400
100053345	ELMORE	Resurfacing SR 143 from Montgomery County line to Coosada Rd	3.4	RESURFACING	$878,597
100009315	MONTGOMERY	Roadway Lighting on SR 271/Taylor Rd from Vaughn Rd to I-85	1.7	LIGHTING	$777,453
100009316	MONTGOMERY	Signal upgrade on Bell and Dickerson/Bell and Holt. Work to be performed by City of Montgomery forces.	0.0	SIGNALIZATION	$131,593
100008652	DIVISIONWIDE	Alabama River Drainage Basin Mitigation		UNCLASSIFIED	$394,780
100052872	MONTGOMERY	Resurface and 2' inside widening on SR 8/US 80 from US 231 to I-85	4.7	WIDENING & RESURFACING (RDWY)	$3,500,000
100007109	ELMORE	SR 14 at SR 143 Signalization Upgrade Hazard Elimination Program	0.2	SIGNALIZATION	$9,561
N/A	Areawide	Annual allocation for resurfacing throughout roadway network	N/A		$150,000,000
				Total STP(AA) Projects	$156,144,384
				Total STP (AA) Budget	$33,401,000
				Difference	-$122,743,384
Surface Transportation (Other Area)					
100052873	MONTGOMERY	Resurface SR 271/Taylor Rd from SR 6/US 231 to Vaughn Rd	3.1	RESURFACING	$2,584,324
100054295	ELMORE	Shoulder paving Redland Rd from Rifle Range Rd to CR 116	7.7	SHOULDER PAVING	$555,555
100054297	ELMORE	Shoulder paving Fire Tower Rd from Redland Rd to SR 14	3.9	SHOULDER PAVING	$279,942
100050968	MONTGOMERY	Resurface E Old Haynville Rd from US 331 to Hobbie Rd	4.8	RESURFACING	$773,344
100044512	MONTGOMERY	Widen and resurface Bell Rd from Norris Farm Rd to South End I-85 bridge	2.1	WIDENING & RESURFACING (RDWY)	$912,490
100044513	MONTGOMERY	Widen, resurface and add turn lanes on Bell Rd from SR 6/US 82 to Chaparral Dr, turn lanes along various side streets	1.7	WIDENING & RESURFACING (RDWY)	$851,657
100044515	MONTGOMERY	Widen, resurface and add turn lanes on Bell Rd from north end I-85 bridge to US 80/Atlanta Hwy	1.4	WIDENING & RESURFACING (RDWY)	$948,989
100040817	MONTGOMERY	Widen and Resurface Zelda Rd from Ann St to Carter Hill Rd	1.0	WIDENING & RESURFACING (RDWY)	$1,560,000
100054282	MONTGOMERY	Resurface South Perry St from Fairview Ave to Arba St	1.0	RESURFACING	$1,437,500

Table 7-2: 2035 Financially Constrained Plan (cont.)

Surface Transportation (Other Area)					
100007740 100044272 100044273	MONTGOMERY	Widen and Resurface Perry Hill Rd from Harrison Rd to Atlanta Hwy	1.7	UTILITY ADJUSTMENT/WIDENING & RESURFACING	$8,934,016
100054277	MONTGOMERY	Resurface South Court St from Fairview Ave to SR 6/US 331	1.7	UTILITY ADJUSTMENT/RESURFACING	$2,025,000
100054285	MONTGOMERY	Resurface Fairview Ave from South Court St to I-65	0.8	RESURFACING	$1,868,750
100045392	MONTGOMERY	Resurface and widen Ann St from Highland Ave to Brewton St Phase 2	0.5	WIDENING & RESURFACING (RDWY)	$1,703,314
100040822	MONTGOMERY	Widen and resurface Atlanta Hwy from Mountainview Dr to US 231/SR 9	0.4	WIDENING & RESURFACING (RDWY)	$865,280
100050970	MONTGOMERY	Resurface Bell St from Washington Ferry Rd to SR 3/US 31	2.6	RESURFACING	$2,950,000
100054292	AUTAUGA	Resurface E Main St from SR 3/US 31 to Virginial St	0.6	RESURFACING	$219,780
100054293	AUTAUGA	Resurface E Main St from Shady Oak Dr to McQueen Smith Rd	1.0	RESURFACING	$440,000
100054294	AUTAUGA	Resurface Cobbs Ford Rd from McQueen Smith Rd to SR 62/US 82	0.9	RESURFACING	$396,000
100039970	AUTAUGA	Drainage improvements on S Northington St (Link #5162), from Doster St to north of 3rd St south of Prattville	0.1	DRAINAGE CORRECTION	$1,664,001
100050963	AUTAUGA	Widen and resurface McQueen Smith Rd from SR 3/US 31 to Cobbs Ford Rd	2.0	UTILITY ADJUSTMENT/WIDENING & RESURFACING	$10,318,348
100050969	MONTGOMERY	Resurface Meriweather Rd from US 231 to Pike Rd	4.3	WIDENING & RESURFACING (RDWY)	$605,697
100050971	ELMORE	Widen and resurface Airport Rd from Coosada Rd to Kennedy Ave	2.1	WIDENING & RESURFACING (RDWY)	$374,774
100050336	MONTGOMERY	Purchase and installation of Closed Circuit Televisions for installation at various intersections in the City of Montgomery	0.0	UNCLASSIFIED	$197,600
100046478	MONTGOMERY	Intersection improvements at Clay St and Herron St	0.1	INTERSECTION IMPROVEMENTS	$1,124,864
100054280	MONTGOMERY	Resurface Adams Ave from Decatur St to South Court St and Washington Ave from Decatur St to South Court St and Lee St	0.7	RESURFACING	$1,543,750
100054291	ELMORE	Wetumpka Riverwalk Extension from Tallassee St to SR 14/Coosa River Pkwy	0.5	UNCLASSIFIED	$577,113
100050988	ELMORE	Corridor Study for new route from SR 14 to Deatsville Hwy	3.0	CORRIDOR STUDY	$208,000
	ELMORE	Add Turn Lanes at Intersections on US 31 between 6th St (Prattville) north to I-65	0.0	INTERSECTION IMPROVEMENTS	$2,500,000
	ELMORE	Add Turn Lanes at Intersections on AL 14/Fairview Ave between US 31 and Jasmine Trail	0.0	INTERSECTION IMPROVEMENTS	$3,000,000
100042568	MONTGOMERY	Land Acquisition - Montgomery	0.0	UNCLASSIFIED	$615,750
100042640	MONTGOMERY	Security enhancements, expand terminal building -	0.0	UNCLASSIFIED	$4,474,434
100053855	MONTGOMERY	Bridge scour repair I-85, SR 8, SR 126 at Jenkins Creek, Millies Creek Site ID's (014-06-51-1, 014-06-51-8,	0.0	BRIDGE SCOUR	$721,514
100053875	MONTGOMERY	Embankment, slope pavement and shoulder repair, several sites in Montgomery County	0.0	UNCLASSIFIED	$378,287
100051099	AUTAUGA	Traffic striping on various Autauga County Roads	18.2	TRAFFIC STRIPING	$58,110
100036855	MONTGOMERY	Montgomery integration project. Various ITS elements including vehicle detection, freeway management, software integration, message signs, fiber optic cable and TMC equipment	0.0	UNCLASSIFIED	$2,140,134
100048458	MONTGOMERY	Old Selma Rd Railroad Crossing improvements at CSXT Railroad (DOT# 306-574N), near US 231	0.0	RR CROSSING IMPROVEMENTS	$140,608
100047259	MONTGOMERY	Railroad crossing improvements on Forbes Dr at Norfolk Southern RR, north of SR 152 and south of Alabama River Pkwy	0.0	RR CROSSING IMPROVEMENTS	$140,608
100047258	MONTGOMERY	Railroad crossing improvements on Old Selma Rd at CSXT RR	0.0	RR CROSSING IMPROVEMENTS	$140,608
100040963	MONTGOMERY	Landscape Visual enhancement along I-85 from I-65 interchange to Union St	1.3	LANDSCAPING	$316,330
100049669	MONTGOMERY	Landspace improvements at Governor's Mansion (Phase 2)	0.0	UNCLASSIFIED	$86,526
100050660	MONTGOMERY	Mt Meigs Rd sidewalks and streetscape in the City of Montgomery. This project is located is	0.0	STREETSCAPE	$463,768
100050659	MONTGOMERY	Multi-purpose natural trail along Meriwether, Pike and Old Pike Rd in the Town of Pike Road	0.0	UNCLASSIFIED	$760,873
100052186	MONTGOMERY	Landscaping along Carter Hill Rd, Union St and along property adjacent to I-85 around ASU	0.0	LANDSCAPING	$287,500
100054120	MONTGOMERY	Cloverdale Rd streetscape in the City of Montgomery. This project is located on Cloverdale Rd from Felder to West of Graham St	0.0	STREETSCAPE	$500,000
	Areawide	Annual allocation for implementing pedestrian and bicycle projects defined in the LRTP	0.0	PED/BIKE	$50,000,000
	Areawide	Annual allocation for implementing safety improvements at intersections throughout the MPO area (1 per year)	0.0	INTERSECTION IMPROVEMENTS	$12,500,000
				TotalOther Projects	$52,741,336
				Total Other Budget	$128,330,000
				Difference	$75,588,664
Stimulus					
100054719	MONTGOMERY	Resurface Cloverfield/Federal Rd from Lowndes Co line to SR 3/US 31 and Woodley Rd from CR 030 to Montgomery City Limits	8.0	RESURFACING	$1,215,000
100040820	MONTGOMERY	Widen Perry Hill Rd and Resurface from I-85 on/off ramps to Harrison Rd	0.4	WIDENING & RESURFACING (RDWY)	$2,400,000
100053771	ELMORE	Resurface Alabama River Pkwy from SR 143 to Jackson Lake Rd	1.7	RESURFACING	$619,000
100053770	AUTAUGA	Resurface McQueen Smith Rd from E Main St to SR 14	1.6	RESURFACING	$740,000
100053769	AUTAUGA	Resurface Gin Shop Hill Rd from SR 206/W 4th St to SR 6/US 82	1.2	RESURFACING	$219,780
100047407	MONTGOMERY	Resurfacing various streets in the City of Montgomery Central Business District	0.0	RESURFACING	$2,400,000
100052328	ELMORE	SR 14 intersection improvement at SR 143 in Elmore (CSX RR)	0.0	INTERSECTION IMPROVEMENTS	$5,065,479
				Total Stimulus Projects	$12,659,259
				Total Stimulus Budget	$0
				Difference	-$12,659,259
Other Funds					
				Equity Bonus Budget	$53,348,000
				Safety Budget	$22,898,000
Budget Comparison					
				Total Maintenance and Operations Projects	**$868,509,121**
				Total Maintenance and Operations Budget	**$903,566,000**
				Difference	**$35,056,880**

Note: Stimulus Costs not included in comparison, as these were not traditionally allocated funds