May 2010

BASTROP COUNTY Comprehensive Transportation Plan

Prepared by:

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Capital Area Council of Governments
Capital Area Metropolitan Planning Organization
Concept Development & Planning
Texas Department of Transportation
Texas Transportation Institute
URS Corporation

Dedicated to the Citizens of Bastrop County

In memory of Dan Richards, enthusiastic member of the Citizens Advisory Committee

ACKNOWLEDGEMENTS

The Bastrop County Comprehensive Transportation plan is the work of many people dedicated to planning the best transportation system for Bastrop County. This plan was prepared through a partnership with regional and local governments, consultants and resident volunteers.

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EXECUTIVE SUMMARY

The Bastrop County Comprehensive Transportation Plan takes the vision of citizens and technical advisors and culminates it into a tool we can use to prepare for our future. The plan presents a priority grouping of transportation projects from all modes of daily travel- car, bus, rail, walking and biking and will help local and regional elected officials in decision-making. Importantly, the transportation plan reflects a cross-section of our community. The plan addresses the transit needs of those who cannot drive and the commuter needs of the more than 50% of our working population who work outside the County. It reflects the desire to attract passenger rail to some parts of the County and to ensure the permanence of the County's natural beauty all the while planning for growth of the roadway system. The plan was a collaborative effort of local, county and regional governments, consultants, residents, transportation experts, and elected officials.

This planning document outlines the links between land uses, growth patterns and transportation needs. First, the county's transportation, demographic and land uses for a base year 2005 are described. Bastrop County has one of the fastest growing populations in Texas. Within the study period of the plan 2005 to 2035, the population is expected to grow from 69,500 to 215,500; this represents a 68% increase within 30 years. The land uses in the county are changing from agricultural and rural lands to more commercial and residential and the county is experiencing the subdivision of large tracks of agricultural farm lands into communities. Much of the new growth is occurring in the unincorporated areas of Cedar Creek as well as along the US 290 and SH 71 corridors. In 2005 about half of the employed population was commuting west to neighboring Travis County for work or school; almost 41% of the population remains within Bastrop County for work or school. This commuter pattern is causing much of the growth to occur toward the west, impacting roads that run north/south, such as SH 95 and east/west US 290 and SH 71. In the base year of 2005, these roads were generally operating at acceptable levels of service. It is expected by 2035, without significant improvements to the transportation system, these major corridors along with other vital roads in the County would operate at unacceptable congestion levels.

To address the future transportation needs, the plan utilized the knowledge of local volunteers, planners, city and county officials to address the transportation needs in 2035. This group developed a list called the "universe of projects" for Bastrop County. The "universe of projects" produced a variety of project types including roadway, bicycle and pedestrian, rail, and safety projects. Thirty-four projects were identified as needed improvements in the next 30 years. These projects were ranked by the public and then discussed and evaluated by the Steering Committee (SC) and Technical Advisory Committee (TAC) and the Citizens Advisory Committee (CAC). The projects where ranked on a variety of merits including:

- system connectivity
- safety considerations
- mobility and accessibility
- environmental impacts and benefits
- economic development
- public support/participation
- regional impact
- funding, and
- partnerships.

The implementation of these projects will be an ongoing and ever changing process as available funding sources are identified, partnerships develop and a range of environmental and engineering elements are met for each project. In January 2010 the County became a member of the Capital Area Metropolitan Planning Organization, which consists of Bastrop, Caldwell, Hays, Travis and Williamson Counties. The project priority list will allow the county to quickly move forward on any available funding opportunities because of this guiding document.

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CHAPTER 1 – INTRODUCTION

1.1 REPORT ORGANIZATION

The Bastrop County Comprehensive Transportation Plan is the result of a 2-year collaborative effort between Bastrop County, the Austin District of the Texas Department of Transportation, the Capital Area Council of Governments and the Capital Area Metropolitan Planning Organization to develop the first comprehensive transportation plan for Bastrop County.

The report is organized by the following major tasks:

- **Introduction** – description of the study area, background, purpose and study process; goals and objectives of the study; the participants in the study; community vision for the study; purpose, benefits and elements of a transportation plan; the relationship between transportation and land use; public involvement; and the study process.
- **Existing conditions** – discussion of the existing socioeconomic trends and conditions, including age and population, employment and schools; existing land use and the natural environment; and existing transportation conditions, including alternative transportation modes.
- **Future conditions** – description of the projected socioeconomic conditions, including population and employment; the future land use plan; and planned and programmed roadway improvements.
- **Comprehensive transportation plan** – details of the process utilized in prioritizing the projects; the future roadway plan, including proposed functional classifications and cross sections; and multimodal characteristics of the proposed plan, including pedestrian, bicycle, transit (both bus and passenger rail), freight transportation (both rail and truck) and aviation elements of the proposed plan.
- **Recommendations and plan implementation strategies** – findings and recommendations from the study; the process utilized in prioritizing the projects; possible funding sources for the projects; and steps to implement the plan.

1.2 STUDY BACKGROUND AND PURPOSE

The Bastrop County Comprehensive Transportation Plan (BCCTP) was undertaken because the Capital Area Council of Governments (CAPCOG) and the Texas Department of Transportation (TxDOT) Austin District recognized the need for coordinated regional transportation plans. These plans will provide for system connectivity and continuity, both within and between the counties. TxDOT sponsored the BCCTP in an effort to develop long-range transportation plans for counties that might otherwise not have the resources to develop these types of plans. The BCCTP is the first of the rural county plans to be started within the 12-county Austin District and will serve as the county's major thoroughfare plan as defined in Local Government Code 232. Bastrop County was selected by the Capital Area Regional Transportation Planning Organization (CARTPO) to be the first county to create a comprehensive transportation plan because of development pressure from the growth in the Austin metropolitan region.

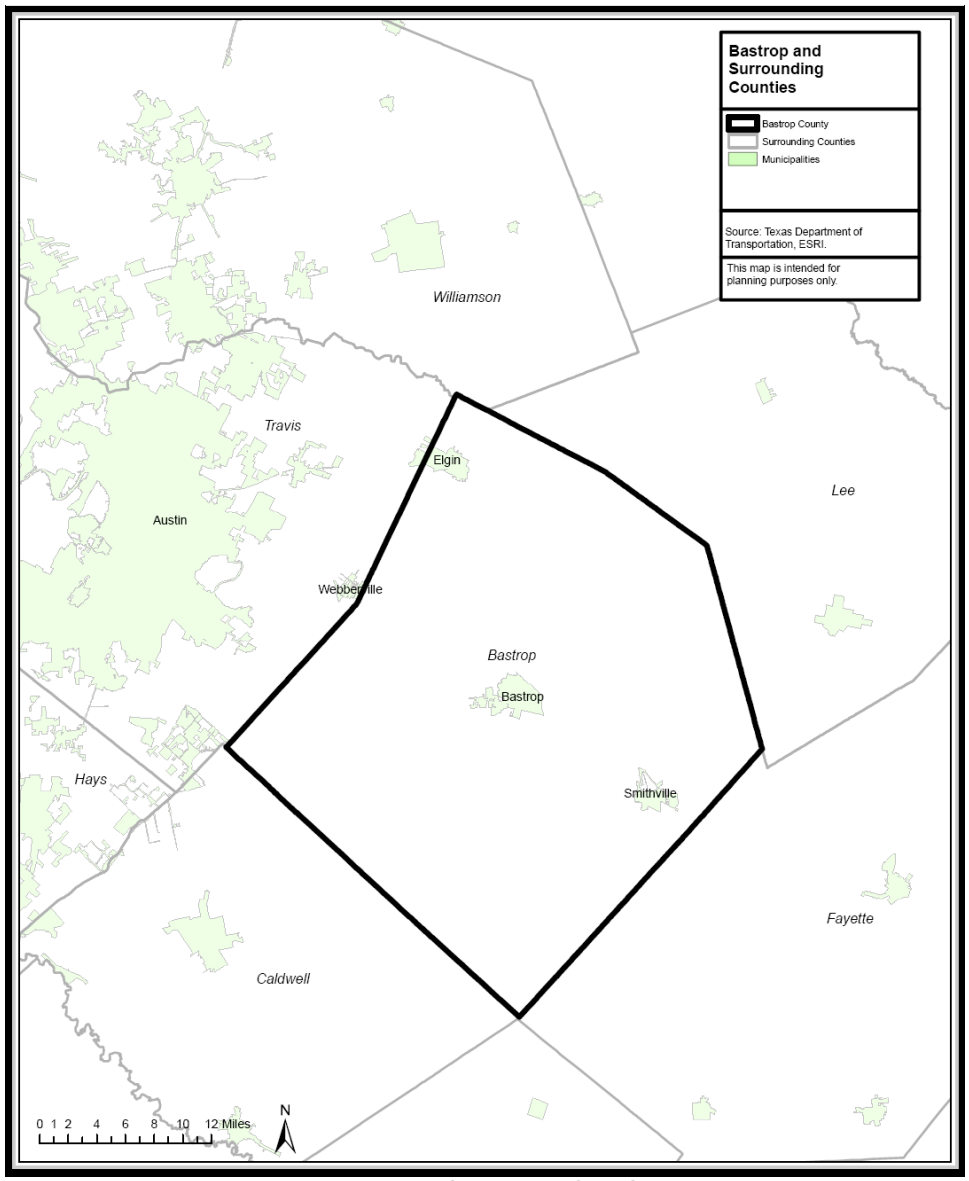
A county comprehensive transportation plan (CCTP) is a blueprint for the future that looks at all modes of transportation, including roads, transit, aviation, rail, pedestrian and bicycle facilities. The CTTP allows local county officials to identify and preserve rights-of-way needed for expansion of existing facilities as well as future new location corridors to serve anticipated growth and development. The CCTP process assesses the future transportation needs based on the community's vision for maintaining and enhancing the quality of life and character of the community as growth occurs.

The need for such a plan was driven by the continuing rapid population growth occurring in the five-county Austin-Round Rock Metropolitan Statistical Area (A-RR MSA). The availability of developable property in

rural Bastrop and Caldwell Counties, which are located east of the Capital Area Metropolitan Planning Organization (CAMPO) area, has spurred significant development in these two counties since 1980. A proactive public involvement/outreach process assured that this comprehensive multimodal plan is developed *by county residents for county residents* to address the transportation needs of a growing population.

1.3 Study Area

Bastrop County is one of the five counties included in the A-RR MSA and is located east of Travis County. The vicinity map for Bastrop County is provided in Figure 1.1. The study area for the BCCTP included all of Bastrop County.



Source: TxDOT, ESRI

Figure 1.1 Vicinity Map

Bastrop County is approximately 896 square miles, of which 888 square miles are land and the remaining 8 square miles are water. The county seat is the City of Bastrop, with the other major cities in the county being the City of Elgin and the City of Smithville. There are also three census-designated places (CDPs) in Bastrop County. Wyldwood is a CDP and is located in the western portion of the county on approximately 12 square miles of land. This CDP had a population of 2,310 residents in the 2000 census and is served by the Bastrop Independent School District (ISD). The Circle D-KC Estates is another CDP and is located in the central portion of the county on approximately 9 square miles of land. This CDP had a population of 2,010 residents in the 2000 census and is also served by the Bastrop ISD. The third CDP is Camp Swift, with a population of 4,731 residents in the 2000 census and with schools in Bastrop ISD. The 2008 population of Bastrop County was approximately 73,491 residents.

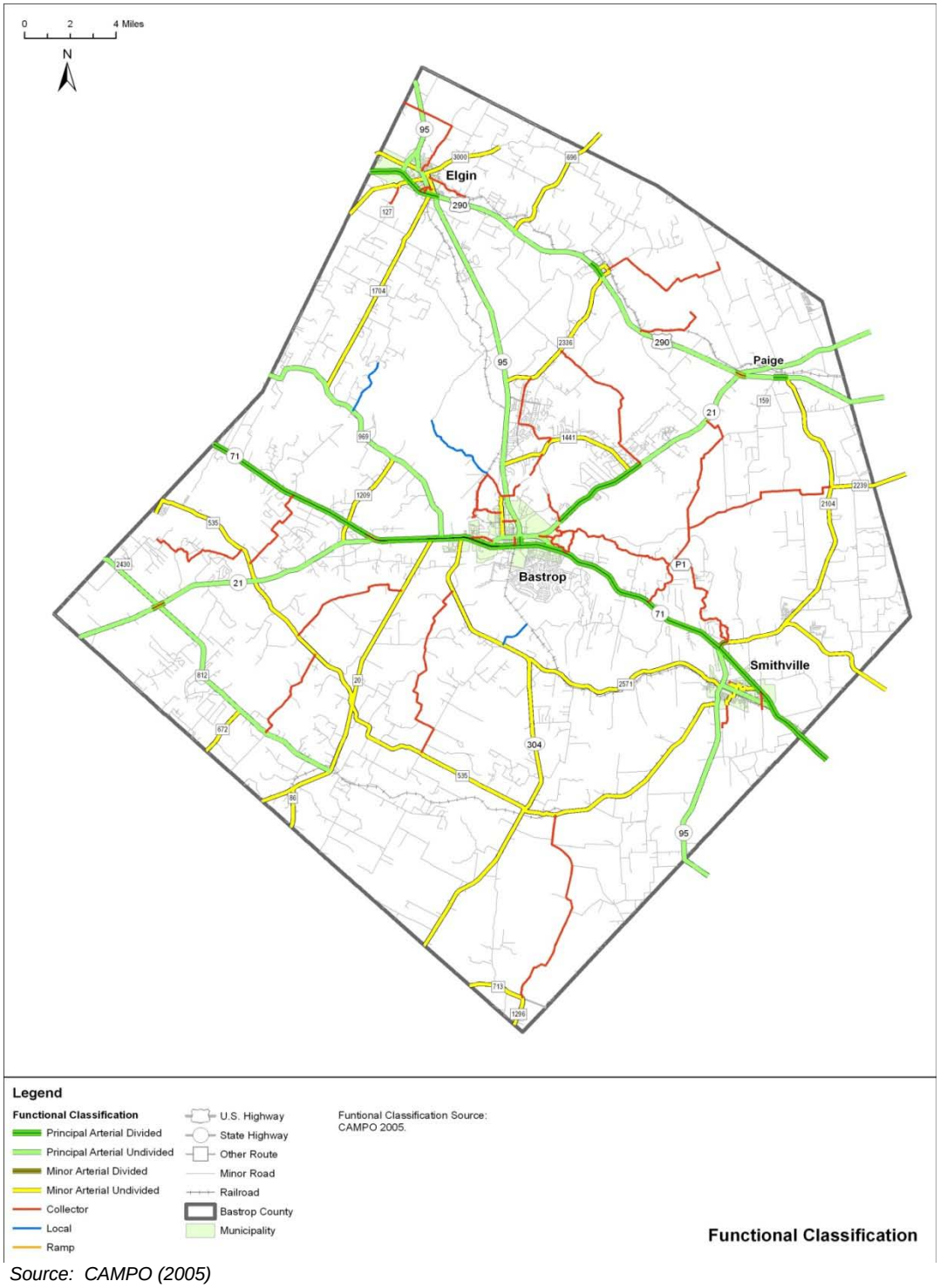
Four public school districts serve Bastrop County residents: Bastrop, Elgin, Smithville and McDade ISDs. The McDade ISD provides grades 1 through 8, with students attending high school in Elgin. Elgin ISD also serves a portion of eastern Travis County.

There are two state parks in Bastrop County, Bastrop State Park and Buescher State Park. In addition, the Lower Colorado River Authority operates three parks, McKinney Roughs, Northshore Park on Lake Bastrop and Southshore Park on Lake Bastrop. The county also operates a park, Cedar Creek Park, in Cedar Creek.

Camp Swift is now a Texas Army National Guard training site of more than 11,000 acres in the north-central portion of the county.

The Interstate Highway System does not go through Bastrop County. Roadways within Bastrop County are classified by TxDOT as principal arterial, minor arterial, major collector, minor collector or local road. Figure 1.2 shows the functional classification of the state highways (SH) within Bastrop County.

The major roadways for through traffic in Bastrop County are U.S. Highway (US) 290, SH 21 and SH 71. SH 95 and SH 304 are north/south corridors, and FM 535 is an east/west corridor; they serve primarily local and regional traffic.



Source: CAMPO (2005)

Figure 1.2 Functional Classification Map

The roadway system in Bastrop County totals 1,308 miles. Table 1.1 provides a summary of the jurisdictional responsibilities.

Table 1.1 Roadway Network Summary

Jurisdiction	Number of Centerline Miles
City Streets	89
County Roads	905
State Highways	314*

*Source: CAMPO (2008), * includes all US and state facilities*

1.4 STUDY PARTICIPANTS

Seven groups or agencies participated in the BCCTP planning process. The agencies and their responsibilities are listed below:

- **Bastrop County** – served as the lead agency; served as the point of contact for the public; identified members for the Technical Advisory Committee (TAC) and Citizen Advisory Committee (CAC); had a county representative attend project management meetings; provided all applicable county data for use; participated in the public hearing process; and worked on edits for the plan.
- **CAPCOG** – provided support to other agency members; provided support to county and local officials; provided guidance for the public involvement activities; provided technical analysis for specific aspects of existing and future conditions; hosted a website; and assured that the planning process was consistent with the local and regional transportation planning process.
- **CARTPO** – was the committee within CAPCOG responsible for general oversight of the process.
- **TxDOT** – provided support to other agency members; provided support to county and local officials to meet the goals and objectives outlined by the Steering Committee; provided guidance for the public involvement activities; coordinated with CAMPO and CAPCOG to facilitate data sharing; provided technical analysis for specific aspects of existing conditions; and assured that the planning process was consistent with the local and regional transportation planning process.
- **The consultant (URS Corporation)** – was in charge of the data collection effort and the data analyses; developed and prepared the public involvement outline and plan; coordinated and provided support of local public officials at meetings; and provided technical analysis of traffic data.
- **Texas Transportation Institute** – provided overall guidance for participants in the preparation process; assured uniformity in the process and content of the BCCTP; provided technical analysis for specific aspects of existing conditions and finance; facilitated public meetings; served on the project management team; and provided technical support and analysis of the project questionnaire.
- **CAMPO** – was a study participant and technical resource.

In addition to the participants listed above, three committees were developed to assist in the BCTTP process – the Steering Committee, the Technical Advisory Committee and the Citizens Advisory Committee. The Steering Committee was comprised of locally elected officials from the county who were recommended by each city and appointed by the County Commissioners Court. The TAC included representatives from the county, local cities, TxDOT, regional planning agencies, school districts and utility companies and other appointed representatives as selected by the Commissioners Court. The CAC members were appointed by the Commissioners Court based on recommendations from the county Judge, county commissioners and city councils.

1.5 PROJECT GOALS

The goals of the BCCTP were developed by the Steering Committee and were adopted on July 10, 2008. These goals are addressed in the BCCTP and guided the committees in their efforts. The goals of the BCCTP are:

- Improve and enhance mobility including exploring multimodal options,
- Protect the environment and natural beauty,
- Address and improve safety,
- Increase and explore transportation financing options and opportunities,
- Incorporate and ensure the plan is consistent with the regional transportation planning process,
- Address planning for future growth and development, and
- Ensure public involvement.

1.6 COMMUNITY VISION

Several planning studies have been undertaken by the county and the municipalities within the county in recent years that provide insight into what county residents want to see as Bastrop County grows and develops in the future. The BCCTP incorporated local goals and objectives identified from these planning studies. These plans were reviewed to gain an understanding of how the county is currently planning for future growth.

The goal of *Envision Elgin* is to "promote sustainable growth of Elgin, through coordinated and cooperative leadership in order to attract businesses, encourage lifelong learning and maintain the shared belief in Elgin's core values." The plan identified eight focus areas, the fourth area being sustainable growth and planning, of which transportation and mobility are key elements.

The cities of Bastrop, Elgin and Smithville have completed comprehensive plans recently, with Elgin's being an update of a previous plan. The goal of the *Elgin Comprehensive Plan Update 2008* was to plan for the growth and development occurring in the city.

One of the top five priorities identified by residents as a part of this process was the need to provide transportation options such as transit, commuter rail and elder transportation for those who don't have access to a car. – Elgin Comprehensive Plan

The *Elgin Comprehensive Plan Update* focuses on land use, recognizing that current development patterns are a product of zoning ordinances and acknowledging these relationships with the transportation network. The future land use plan identifies where new development should occur and defines policies that can be adopted to ensure the community goals are met as development occurs. The plan identified three land use goals, the first being that adequate infrastructure is in place to support the planned growth and development. The plan asserts that multi-modal transportation options integrated with supportive land use patterns are vital to the quality of life for Elginites. Included in the plan are Transit Oriented Development locations and urban land use categories that balance a mix of uses throughout the city. The plan is expected to aid in strategic growth and supports form-based zoning codes.

The Smithville Comprehensive Plan provides guidance "on how to protect Smithville from uncontrolled growth while providing jobs and other amenities desired by citizens."

The City of Bastrop's Comprehensive Plan identifies several strategies for effectively managing future growth and evaluates a multimodal approach to transportation issues. One of the products from the

Bastrop's Thoroughfare Plan indicates new roads will be needed to serve new developments.

comprehensive plan is a thoroughfare plan identifying approximate alignments for planned thoroughfares that should be considered in the platting of subdivisions, right-of-way dedication, and construction of major roadways within the city and its extra-territorial jurisdiction (ETJ).

A strategic county-wide plan, titled *Opportunity Bastrop County*, was initiated in 2006 in an effort to understand what county residents envision for the future of their county. The community identified five major areas of concern, including transportation enhancements that focus on the county-wide roadway network and a county transit system. One of the recommendations made in *Opportunity Bastrop County* was for Bastrop County to join CAMPO in order to receive some of the planning and financial benefits that the organization offers. In January 2010, the Capital Area Metropolitan Planning Organization voted to include Bastrop and Caldwell Counties in the organization. Bastrop County will be included in CAMPO's 2035 Metropolitan Transportation Plan.

1.7 Purpose and Benefits of a County Comprehensive Transportation Plan

As stated earlier in this chapter, the purpose of a CCTP is to create a blueprint for the future that looks at all modes of transportation and to identify and preserve rights-of-way needed for expansion and growth. House Bill (HB) 1857 has given counties more control over how the growth occurs if the county has a thoroughfare plan. HB 1857 amended local government code 232 in 1997 to give authority to the county commissioners court and city councils to refuse, partially or in whole, a plat that encroaches on a future transportation corridor.

The BCCTP serves a collective vision of how transportation needs will be addressed as growth occurs in the future. It is a guideline for the county, the cities within the county and residents to consider in planning new residential, commercial and industrial developments. The county will be able to share this plan with other entities, such as utility providers, school districts, economic development groups, TxDOT and land developers. The BCCTP will also be a reference during any general planning updates and will be instrumental as undeveloped land is converted to other uses or as property is redeveloped. The BCCTP was adopted by each incorporated city prior to adoption by the county commissioners court.

1.8 Relationship between Transportation and Land Use

Transportation and land use are interrelated. This means, in part, that land use affects the level of transportation service that is needed. For example, where land is used in a low-density residential pattern, frequent transit service is usually not cost-effective. Similarly, it means that the level of transportation service affects the kind of land use that will be suitable for an area. For example, an established truck route will make it easier for adjacent land to be used for industrial or commercial uses. A multimodal, high-quality transportation system can help attract or retain intended land uses. Conversely, a new large-scale residential development will generate additional travel for the existing roads that provide access to the new development. Improvements to the roads serving the development may be needed to improve access to the development.

Given the relationship between transportation and land use, decisions about needed transportation facilities and programs should take into account the demands of the local population and the growing economy. Transportation planning should provide for a circulation system that reflects existing and proposed land use patterns – for example, to provide efficient access within a commercial core for pedestrians, bicyclists, cars, trucks and buses – while also encouraging quiet access in a residential neighborhood. Investments in the transportation system are expected to support growth and/or redevelopment targeted by the county's land use goals.

Land use plans at both the regional and local level are used to forecast future transportation demands. Projected employment and population growth translate to growth in traffic volumes in specific geographic areas. High-intensity land uses, such as office space and retail, generate significant demands on the

transportation system. Planning for high-intensity land use should include an assessment of the traffic impact on the existing streets.

1.9 Public Involvement

The objective of the public involvement plan (PIP) was to maintain a high level of two-way communication by informing, involving, educating and listening to the public about the BCCTP. The communication strategy integrated each of the elements of public outreach, advertising and community/neighborhood/public relations to create and sustain a message platform that proactively communicated the vision, benefits, progress and impact of the BCCTP for Bastrop County. The primary methods used to involve the public in the development of the plan were five public meetings, 34 community meetings, two newsletters, two questionnaires, comment cards and the media. In addition, three public meetings, one public hearing, a website and comment cards were used for comments on the final draft of the plan.

1.10 Study Process

The BCCTP planning process was conducted in three phases. Phase I was the project initiation stage and consisted of data collection, execution of a memorandum of understanding between the participating entities, baseline mapping, public involvement planning, establishment of the committees and initial coordination efforts. Phase II was the needs assessment stage in which land use forecasts, scenario planning and additional public involvement took place. Phase III was the actual plan development stage. This stage included evaluation of potential projects, drafting of the financial options, an additional public comment period and adoption of the plan by the county and cities.

CHAPTER 2 – EXISTING CONDITIONS

In order to develop a plan for the future, the first step in the planning process was to gain an understanding of the existing conditions in Bastrop County. A variety of factors that were considered in the assessment of transportation needs were:

- Demographic and socioeconomic analysis, which help describe who is living/working in Bastrop County as well as lay the foundation for population and employment projections;
- Land use that influences transportation needs as it relates to the location of residential, commercial, educational and industrial developments.
- Numerous natural environmental features that affect decisions on both land use and transportation;
- New air quality standards issued by the Environmental Protection Agency (EPA), which will impact the transportation planning activities in most MPOs,; and
- Vehicle crash data to help identify key locations where spot improvements may be warranted.

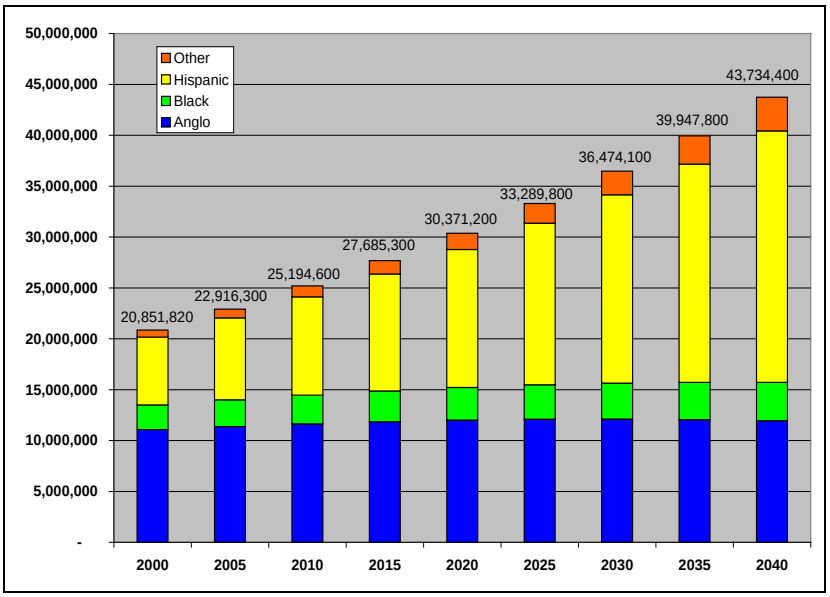
2.1 DEMOGRAPHIC TRENDS

2.1.1 Population

Demographic trends, as discussed in this chapter, are based upon the baseline population and employment figures used by the Capital Area Metropolitan Planning Organization (CAMPO) in preparation for the *2035 Metropolitan Transportation Plan Update (MTP)*. For this update, CAMPO considered projections prepared by the Texas State Data Center and the State Demographer under two growth scenarios. Growth scenario 1, or the "high-growth" scenario, assumes that trends in age, sex and race/ethnicity net migration rates of the 1990s will continue into the future. The 1990s were a period of rapid growth throughout the state, and since it is unlikely that these rates will be sustainable in the long term, this scenario is thus considered to be "high growth." Growth scenario 0.5 assumes migration rates will be one half of what was experienced in the 1990s. In developing population projections for the greater Austin area, CAMPO computed an average of these two scenarios and rounded the resulting number to the nearest 100. Chapter 3 will address population projections in greater detail.

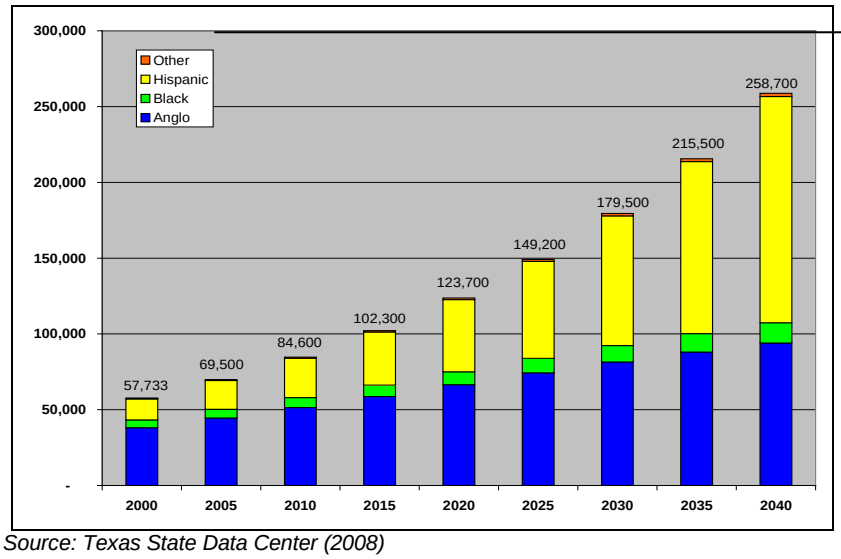
Both the state (Figure 2.1) and Bastrop County (Figure 2.2) are projected to sustain substantial growth throughout the next 40 years, with Bastrop County projected to grow to a total population of 258,700 by 2040. Both projections are based on the rounded average of growth scenarios 1 and 0.5 as developed by the Texas State Data Center. (It should be noted that Figure 2.1 shows projections that were developed in early 2008, prior to the economic recession of 2008/2009.)

Population growth is projected to occur at a much greater rate in the Austin- Round Rock Metropolitan Statistical Area and Bastrop County relative to the rest of the state. In fact, it is projected that Bastrop County will grow at rates well over twice that of the rest of the state.



Source: Texas State Data Center (2008)

Figure 2.1 Population Projections for the State of Texas



Source: Texas State Data Center (2008)

Figure 2.2 Population Projections for Bastrop County

2.1.2 Employment

Over the past 20 years, employment opportunities in Bastrop County have become more diverse, with the added commercial development generated by the growing population base. CAPCOG estimates that employment opportunities in Bastrop County will continue to grow, but the rate of growth will decline (Table 2.1).

Table 2.1 Employment and Projected Employment for Bastrop County

	1990	1995	2000	2005	2010	2015	2020
Total Employment	**12,129**	**15,519**	**19,064**	**21,858**	**25,332**	**27,916**	**29,931**
% Increase		**27.9%**	**22.8%**	**14.7%**	**15.9%**	**10.2%**	**7.2%**

Source: CAPCOG (2008)

Agricultural, forestry, and fish services and retail currently account for the two largest private employment sectors in the county, and the trend is projected to continue through the year 2020 (Table 2.2). Employment in the construction, finance, insurance and real estate sectors is also expected to remain strong throughout that time. The projections were performed prior to the economic recession of 2008/2009 and do not reflect the potential impacts to the various industries.

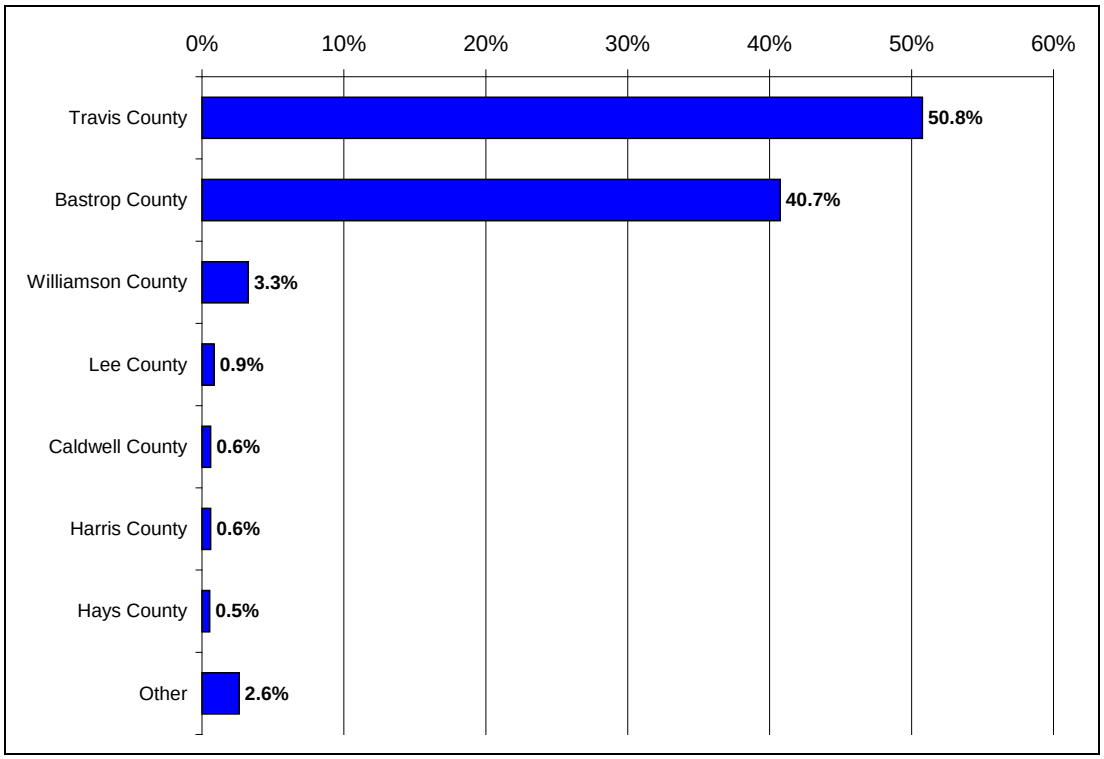
Table 2.2 Private-Sector Employment and Projected Private-Sector Employment for Bastrop County

	Private-Sector Employment	1990	1995	2000	2005	2010	2015	2020
Total	Durables Manufacturing	718	770	663	717	762	826	900
	Non-durables Manufacturing	231	411	295	307	334	367	394
	Mining	140	129	120	137	182	246	338
	Construction	697	1126	1722	1924	2277	2438	2539
	Trans. & Public Utilities	333	485	614	657	761	845	929
	Fin., Ins., & Real Estate	683	802	1392	1848	2191	2361	2426
	Retail Trade	1943	2842	3331	3738	4266	4680	4972
	Services	182	218	382	414	464	482	481
	Ag., For. and Fish Services	2592	3231	4243	4805	5603	6123	6562
	Total	7519	10014	12762	14547	16840	18368	19541
As a % of County Private Sector Employment	Durables Manufacturing	9.5%	7.7%	5.2%	4.9%	4.5%	4.5%	4.6%
	Non-durables Manufacturing	3.1%	4.1%	2.3%	2.1%	2.0%	2.0%	2.0%
	Mining	1.9%	1.3%	0.9%	0.9%	1.1%	1.3%	1.7%
	Construction	9.3%	11.2%	13.5%	13.2%	13.5%	13.3%	13.0%
	Trans. & Public Utilities	4.4%	4.8%	4.8%	4.5%	4.5%	4.6%	4.8%
	Fin., Ins., & Real Estate	9.1%	8.0%	10.9%	12.7%	13.0%	12.9%	12.4%
	Retail Trade	25.8%	28.4%	26.1%	25.7%	25.3%	25.5%	25.4%
	Services	2.4%	2.2%	3.0%	2.8%	2.8%	2.6%	2.5%
	Ag., For. and Fish Services	34.5%	32.3%	33.2%	33.0%	33.3%	33.3%	33.6%
Percentage Growth	Non-durables Manufacturing		77.9%	-28.2%	4.1%	8.8%	9.9%	7.4%
	Mining		-7.9%	-7.0%	14.2%	32.8%	35.2%	37.4%
	Construction		61.5%	52.9%	11.7%	18.3%	7.1%	4.1%
	Trans. & Public Utilities		45.6%	26.6%	7.0%	15.8%	11.0%	9.9%
	Fin., Ins., & Real Estate		17.4%	73.6%	32.8%	18.6%	7.8%	2.8%
	Retail Trade		46.3%	17.2%	12.2%	14.1%	9.7%	6.2%
	Services		19.8%	75.2%	8.4%	12.1%	3.9%	-0.2%
	Ag., For. and Fish Services		24.7%	31.3%	13.2%	16.6%	9.3%	7.2%

Source: CAPCOG (2008)

2.1.2.1 Travel to Work

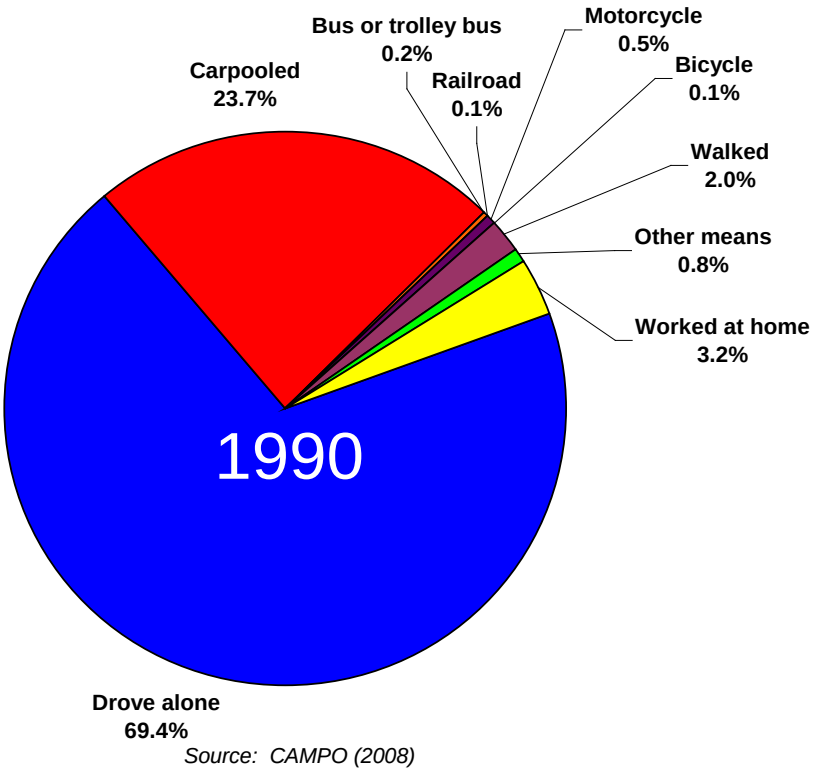
The majority of Bastrop County workers are employed outside of Bastrop County (Figure 2.3). A little over half of the workers commute into Travis County for employment, while 40.7 percent remain in Bastrop County. The U.S. Census Bureau estimates that the county has roughly 0.52 jobs per worker/resident and that 12,655 resident workers commute to other counties, mostly Travis County, to work. County residents remaining within the county for employment often commute into the city of Bastrop. During the workday, the size of the city of Bastrop increases by 41.5 percent as a net 2,214 workers arrive from outside the city limits. The county's other large city, Elgin, actually shrinks by 5.1 percent during the workday, as a net 290 city residents commute to other areas for employment.



Source: U.S. Census Bureau

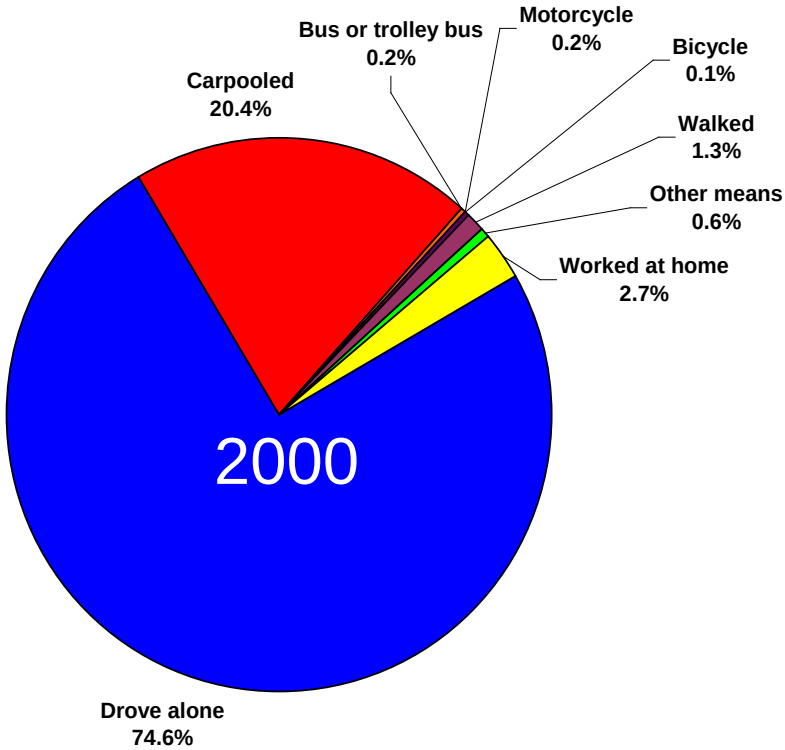
Figure 2.3 Location of Workplace for Bastrop County Workers

One of the travel statistics relied upon by CAMPO in developing the travel demand model component of the *2035 Update to the Metropolitan Transportation Plan* is mode of transportation to work, as provided by the U.S. Census Bureau's decennial census. Data for Bastrop County shows that between the 1990 and 2000 census, county residents generally shifted away from higher occupancy modes of travel in favor of travelling alone (Figures 2.4 and 2.5). Carpooling rates dropped from 23.7 percent in 1990 to 20.4 percent in 2000, and the percentage of residents working from home dropped from 3.2 percent to 2.7 percent over that time. County residents driving to work alone rose from 69.4 percent to 74.6 percent.



Source: CAMPO (2008)

Figure 2.4 Means of Travel to Work in 1990 for Bastrop County Workers



Source: CAMPO (2008)

Figure 2.5 Means of Travel to Work in 2000 for Bastrop County Workers

2.1.3 School Enrollment

Enrollment data presented in this section are taken from two sources. The first set of data is taken from the U.S. Census's Bureau's decennial censuses from 1990 and 2000 with supplemental data for 2005 and 2006 from the Bureau's American Community Survey. These data cover the county as a whole and represent an aggregate of the county's four public school districts. While there are eight private schools in the county, enrollment figures were not readily available for those schools.

The second and more detailed set of data is taken from the Academic Excellence Indicators System (AEIS) compiled by the Texas Education Agency (TEA). These data are often used by school districts, such as Bastrop ISD, to determine trends in enrollment rates and to plan for future facilities. For this analysis, AEIS data have been collected for only the county's four public school districts.

Children enrolled in elementary, middle or high schools have generally accounted for approximately 20 percent of the Bastrop County population, fluctuating from a high of 21.8 percent in the year 2000 to 15.9 percent in 2005 (Table 2.3). Residents enrolled in college have generally accounted for less than 3.5 percent of the population; however, that number has increased to 4 percent in 2006 from 3.4 percent in 1990 and 2.7 percent in 2000. Preprimary enrollment has increased from 1.7 percent of the total population in 1990 to 2.7 percent in 2006.

Table 2.3 Bastrop County School Enrollment

					As a Percentage of County Population			
Bastrop County Residents, Age 3 and Up	**1990**	**2000**	**2005**	**2006**	**1990**	**2000**	**2005**	**2006**
Enrolled in preprimary school	613	839	538	1720	1.7%	1.5%	0.9%	2.7%
Enrolled in elementary or high school	7724	12022	9330	13120	21.1%	21.8%	15.9%	20.9%
Enrolled in college	1251	1514	1621	2508	3.4%	2.7%	2.8%	4.0%
Not enrolled in school	26941	40875	47173	45282	73.8%	74.0%	80.4%	72.3%

Source: U.S. Census Bureau (2008)

CAPCOG estimates that the number of school-age children within Bastrop County will continue to increase through the year 2020 (Table 2.4). The rate of growth of school-age children is expected to peak around the year 2010.

Table 2.4 School-Age Children and Projected Number of School-Age Children in Bastrop County

	1990	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**
School-Age Children (age 5-19)	8,911	10,697	13,392	17,352	22,904	29,382	35,164
% Increase		**20.0%**	**25.2%**	**29.6%**	**32.0%**	**28.3%**	**19.7%**

Source: CAPCOG (2008)

2.1.4 Public School Districts

School districts collect data from the Texas State Data Center and the State Demographer's Office as well as enrollment data from TEA. The *Spring 2008 School District Report* presents data for the 1996 through 1997 school year and for the 2006 through 2007 school year (Table 2.5). Approximately 30 percent of the Elgin ISD service area is in Travis County. No attempt was made to separate that portion of the student population.

Table 2.5 Bastrop County Student Enrollment

		Total Number of Students				*As a % of County Student Population*			
School Year	All Students	Bastrop ISD	Elgin ISD	Smithville ISD	McDade ISD	Bastrop ISD	Elgin ISD	Smithville ISD	McDade ISD
1996-1997	**9,921**	5,524	2,559	1,671	167	55.68%	25.79%	16.84%	1.68%
1997-1998	**10,272**	5,765	2,611	1,718	178	56.12%	25.42%	16.73%	1.73%
1998-1999	**10,453**	5,844	2,638	1,794	177	55.91%	25.24%	17.16%	1.69%
1999-2000	**10,827**	6,122	2,691	1,804	210	56.54%	24.85%	16.66%	1.94%
2000-2001	**11,434**	6,486	2,843	1,871	234	56.73%	24.86%	16.36%	2.05%
2001-2002	**11,785**	6,758	2,951	1,851	225	57.34%	25.04%	15.71%	1.91%
2002-2003	**12,331**	7,233	3,005	1,872	221	58.66%	24.37%	15.18%	1.79%
2003-2004	**12,709**	7,499	3,076	1,895	239	59.01%	24.20%	14.91%	1.88%
2004-2005	**13,014**	7,730	3,190	1,845	249	59.40%	24.51%	14.18%	1.91%
2005-2006	**13,364**	7,960	3,346	1,826	232	59.56%	25.04%	13.66%	1.74%
2006-2007	**13,623**	8,155	3,556	1,731	181	59.86%	26.10%	12.71%	1.33%

Source: TEA, AEIS (2008)

2.1.5 Demographic Conclusions

The data presented in this chapter have been drawn from several sources and provide a brief glimpse of the socioeconomic and demographic conditions within Bastrop County. Among the major findings, the following appear to be the most important from a planning perspective:

- Population growth is projected to occur at a much greater rate in the A-RR MSA and Bastrop County relative to the rest of the state. In fact, it is projected that Bastrop County will grow at rates well over twice that of the rest of the state.
- Over 50% of county residents commute outside the county
- County residents are becoming more educated, as the percentage of residents with less than a high school education dropped from 31.8 percent in 1990 to 16.5 percent in 2006, while the percentage of residents with an associate's or a bachelor's degree increased from 14.3 percent in 1990 to 22.7 percent in 2006.
- Agricultural, forestry, and fish services and retail currently account for the two largest private employment sectors in the county, and the trend is projected to continue through the year 2020. (Employment in the construction, finance, insurance and real estate sectors is also expected to remain high.

Population growth within Bastrop County is projected to occur at a rate more than twice that of the rest of Texas.

2.2 Socioeconomic Conditions

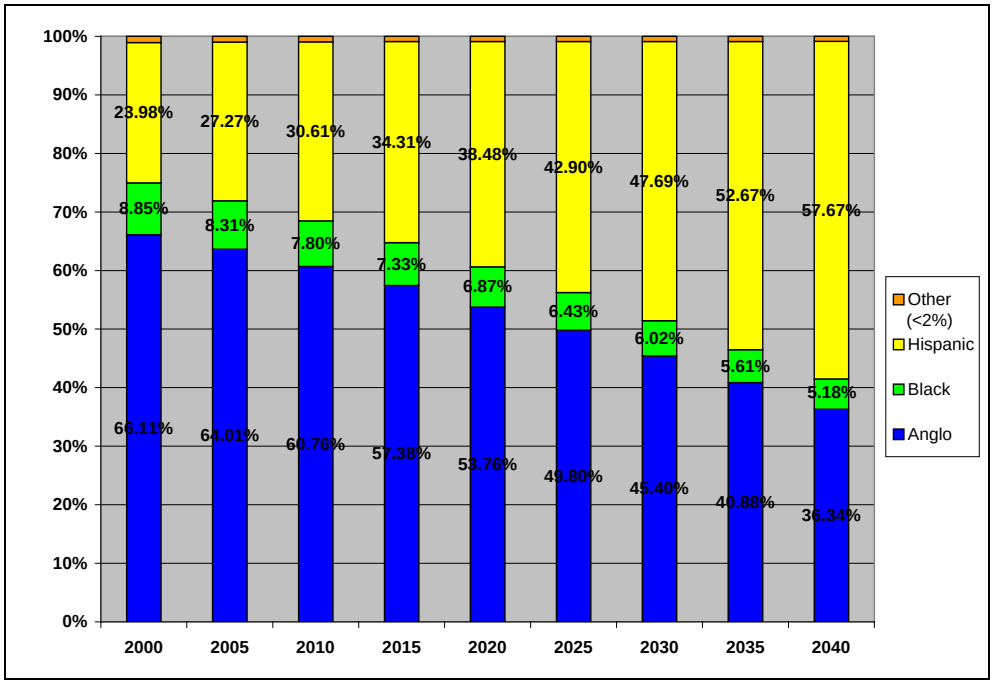
2.2.1 Race/Ethnicity

Table 2.6 provides a growth scenario through the year 2040 of the population makeup of both the state and of Bastrop County. The growth of the Hispanic population is expected to be rapid, and by the year 2030, Hispanics will account for over half of the county population (Figure 2.6).

Table 2.6 Projected Changes in Population through Year 2040

		2005	2010	2015	2020	2025	2030	2035	2040
Total Population	Texas	9.9%	9.9%	9.9%	9.7%	9.6%	9.6%	9.5%	9.48%
	Bastrop County	20.38%	21.73%	20.92%	20.92%	20.31%	20.31%	20.06%	20.05%
Anglo	Texas	2.74%	2.28%	1.86%	1.34%	0.76%	0.11%	-0.48%	-0.90%
	Bastrop County	16.56%	15.53%	14.20%	13.29%	11.73%	9.69%	8.10%	6.70%
Black	Texas	8.16%	7.73%	7.08%	6.14%	5.25%	4.46%	3.75%	3.11%
	Bastrop County	13.01%	14.29%	13.64%	13.33%	12.94%	12.50%	12.04%	10.74%
Hispanic	Texas	20.81%	19.97%	18.95%	17.88%	17.14%	16.55%	15.90%	15.19%
	Bastrop County	36.89%	36.66%	35.52%	35.61%	34.45%	33.75%	32.59%	31.45%
Other	Texas	25.70%	24.10%	22.68%	21.73%	21.03%	20.33%	19.61%	18.85%
	Bastrop County	12.56%	16.70%	12.50%	22.22%	18.18%	23.08%	18.75%	15.79%

Source: Texas State Data Center (2008)



Source: Texas State Data Center (2008)

Figure 2.6 Race or Hispanic Origin as a Percentage of Projected Bastrop County Population

2.2.2 Income

Annual income levels in Bastrop County have steadily increased since the year 1990. Annual median household income for the area has increased by 122 percent, from $23,967 in 1990 to $53,157 in 2006. Recent growth in median household income can be seen in Table 2.7, which shows the increase in median annual household income in Bastrop County. The table shows that median annual income increased 15 percent in 2006 over annual median income in 2005, and increased 22 percent in 2006 over annual median income in 2000.

Table 2.7 Annual Median Household Income for Bastrop County

	1990	2000	2005	2006
Median Income for Bastrop County	**$ 23,967**	**$ 43,578**	**$ 46,097**	**$ 53,157**
Percentage Change from 1990		82%	92%	122%
Percentage Change from 2000			6%	22%
Percentage Change from 2005				15%

Source: U.S. Census Bureau (2008)

2.2.3 Poverty Levels

Poverty levels are set pursuant to the United States Office of Management and Budget (OMB) guidelines for reporting statistical information, and they can vary depending upon the number of people in a household, the age of the householder and the number of related children present in the household (Table 2.8).

Table 2.8 Ratio of Income to Poverty Level for Bastrop County

				As a % of County Population		
Ratio of Income to Poverty Level	**1990**	**2000**	**2006**	**1990**	**2000**	**2006**
Under 1.00	6602	6456	5,957	18%	12%	9%
1.00 to 1.99	8771	10319	13,282	24%	19%	21%
2.00 and over	21598	38802	44,093	58%	70%	70%

Source: U.S. Census Bureau (2008)

Poverty levels in Bastrop County have generally declined since 1990. The percentage of county residents with incomes below the poverty level has steadily decreased from 18 percent in 1990 to 12 percent in 2000 and to 9 percent in 2006. The percentage of county residents with incomes above the poverty level and up to two times the poverty level has declined over that time. The percentage of residents with incomes over twice the poverty level has increased by 12 percent since 1990.

2.3 Existing Land Use

Bastrop County has experienced exceptional growth since 1980, and in light of this growth, there should be a balance between accommodating new development and preserving the county's natural resources. Land use is a term planners and policy makers employ that simply describes how humans "use the land." Descriptive terms commonly associated with land use include:

- Type, including residential, commercial, industrial, agricultural, etc.;
- Intensity, meaning rural, exurban, suburban and urban;
- Density, or persons or households per square mile; and
- Connectivity, in terms of transportation, water, wastewater, power, etc.

In the past, the planning perspective was that land use determines transportation needs. For example, traffic associated with a new development on a county road outside of town creates demand for additional lanes. The new development is the catalyst for increased road capacity. Many communities are finding that increasing road capacity to support existing development can actually spur additional residential and/or commercial growth that, in turn, increases traffic and the demand for additional capacity. This experience demonstrates there is a much closer connection between land use and transportation.

Historically, Bastrop County's rural land use pattern has been supported by a network of local, county, farm-to-market and state arterial roadways that have satisfied county residents' transportation needs. As Austin's growth has influenced Bastrop County's land use pattern, the transportation system required to support this new pattern is changing. The new traffic signals and overpasses along SH 71 illustrate the

new shift in transportation infrastructure required to support Bastrop County's changing land use and serve the large number of commuters to Austin. Understanding these changing land use patterns provides insight into future transportation requirements as well as the types of land use they stimulate.

2.3.1 Historical Land Use

Prior to 1980, Bastrop County experienced only incremental changes to the land use pattern. Agricultural, timber and mining settlements served a traditional county seat. The small communities were influenced by natural features (i.e., the Colorado River, mining deposits, timber stands) and man-made features (i.e., the Union Pacific Railroad, US 290 and SH 71) that occurred in the region. Between 1880 and 1980, Bastrop County's population grew from 17,215 to 24,726. This change was only 7,500 new residents over a span of 100 years.

2.3.2 Current Land Use

Bastrop County's period of dormancy ended after 1980. Austin's explosive growth extended out along US 290 and SH 71 and began influencing Bastrop County's 100-year-old settlement patterns. The population has almost tripled since 1980, with a 2008 estimated population of 73,491. Residential and retail developments are now some of Bastrop County's primary industries.

Most of this growth is along the US 290 and SH 71 corridors. There has been growth in and around the incorporated cities of Bastrop and Elgin, as well as the unincorporated areas of Cedar Creek. Figures 2.7 and 2.8 demonstrate the effects of the county's growth in the area where SH 71 enters the city of Bastrop. Figures 2.9 and 2.10 illustrate the growth west of Elgin over the same period. Figures 2.11 and 2.12 show growth in the City of Smithville

Source: CAPCOG

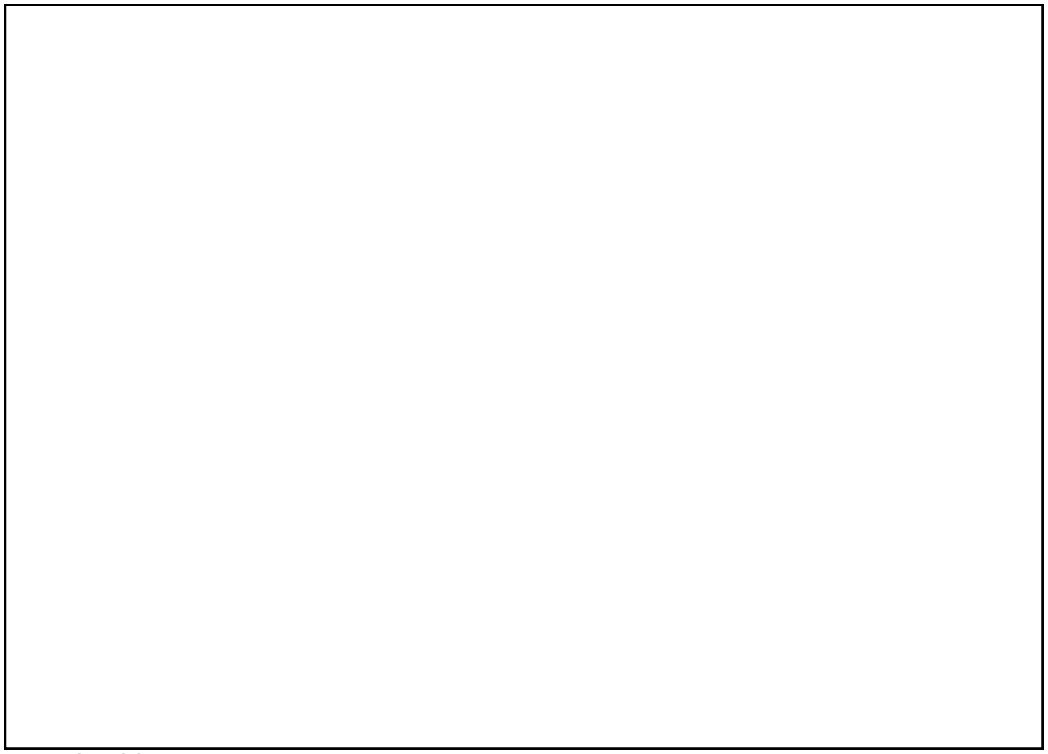
Figure 2.7 1997 Aerial Photograph of the City of Bastrop, Texas

Source: CAPCOG

Figure 2.8 2008 Aerial Photograph of the City of Bastrop, Texas

Source: CAPCOG

Figure 2.9 1997 Aerial Photograph of US 290 West of the City of Elgin



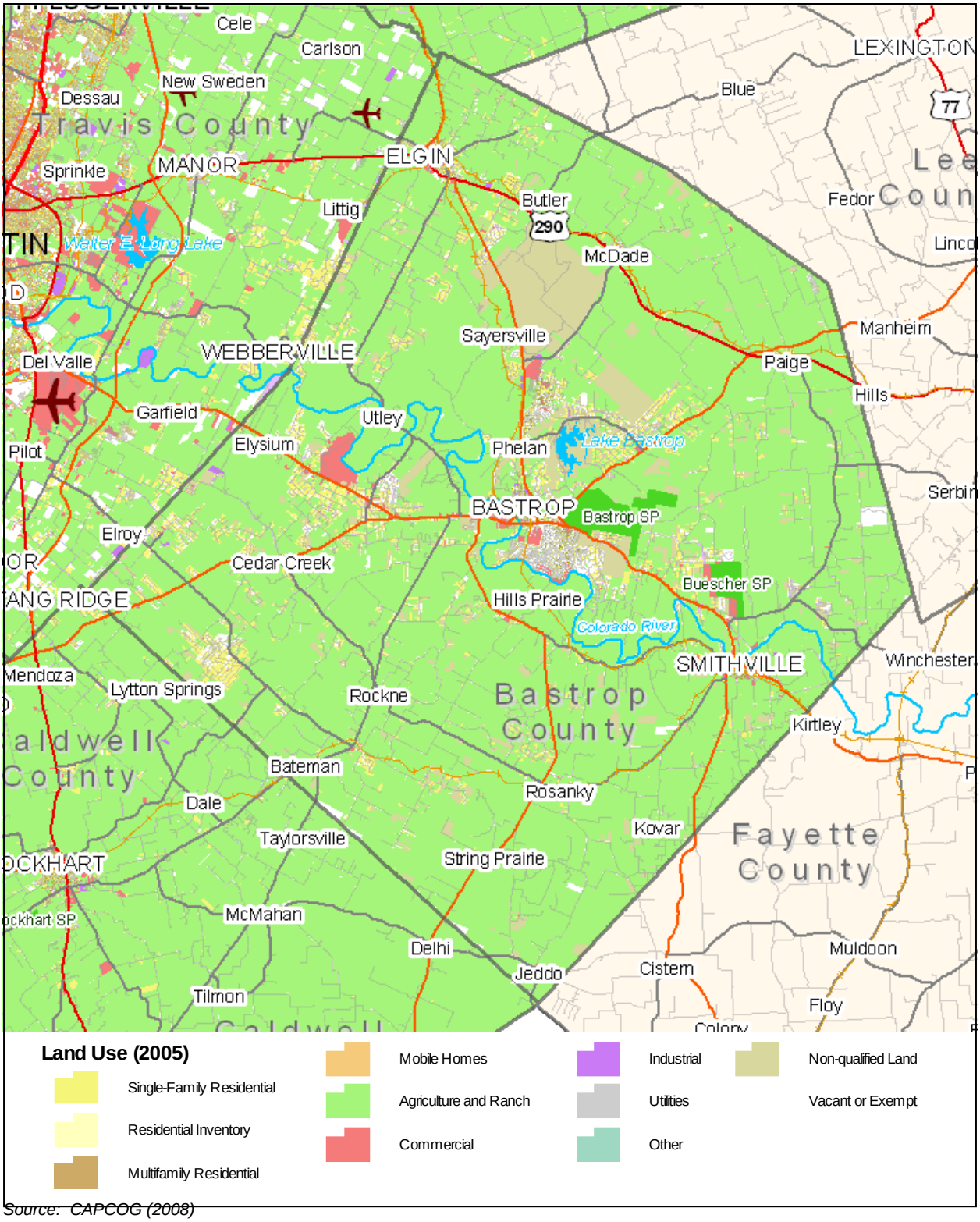
Source: CAPCO

Figure 2.10 2006 Aerial Photograph of US 290 West of the City of Elgin

It is important to note the large lot subdivisions away from the cities called exurban areas. These areas are characterized by low-density residential large-lot or acreage subdivisions. Many of the congestion and traffic safety issues facing Bastrop County today stem from an increasing number of exurban residents traveling on the state farm-to-market (FM) and county road systems. The rural roads were constructed to serve a rural agricultural community, yet today, these roads have become feeders into the increasingly congested arterials in Bastrop and Travis Counties.

Even with its unprecedented growth, Bastrop County remains largely a sparsely populated county and one that is agriculturally oriented. CAPCOG's 2005 Vacant Land Inventory found land owners still farm roughly 70 percent of Bastrop County's 896 total square miles. Another 10 percent has a non-intensive land use categorization such as large-acreage home sites or vacant land. That means that only 20 percent of Bastrop County has an intensive land use, with most of it focused in the central and western portions of the county.

Figure 2.11 illustrates land use across all of Bastrop County in the year 2005. CAPCOG generated the map using the Texas State Land Use Code present in the Bastrop Central Appraisal District certified tax roles for 2005. It is important to recognize the large tracts of agricultural and ranch land across the entire county.



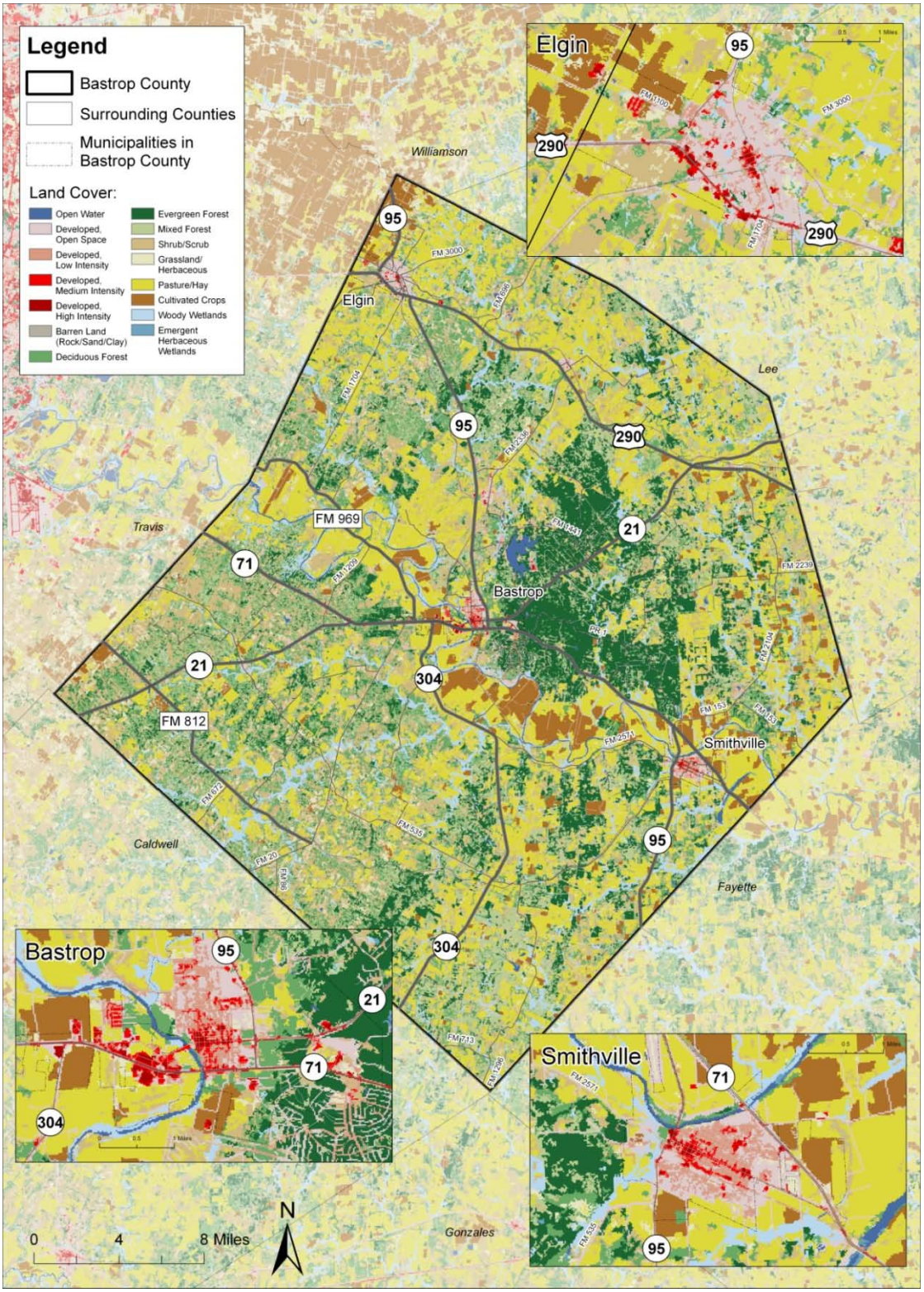
Source: CAPCOG (2008)

Figure 2.11 Bastrop County Land Use (2005)

2.4 NATURAL ENVIRONMENT

As Bastrop County continues to grow, one aspect that requires close attention is the county's natural environment. Bastrop County has several unique and defining features. The county is home to the Lost Pines of Texas, a remarkable ecosystem based on loblolly pines (*Pinus taeda*) that are discontinuous from similar areas by roughly 100 miles. The general vicinity of the Lost Pines is home to the Houston toad, an amphibian and endangered species that has almost completely lost its habitat outside of Bastrop County.

These unique features, combined with the Colorado River and Lake Bastrop, provide residents and visitors with a strong natural element that contributes to the overall quality of the Bastrop County experience. Bastrop County residents will face a balancing act of preserving the county's natural resources while accommodating the strong population growth that is anticipated. The intertwining of the county's natural environment with its developed areas can be seen in Figure 2.12.



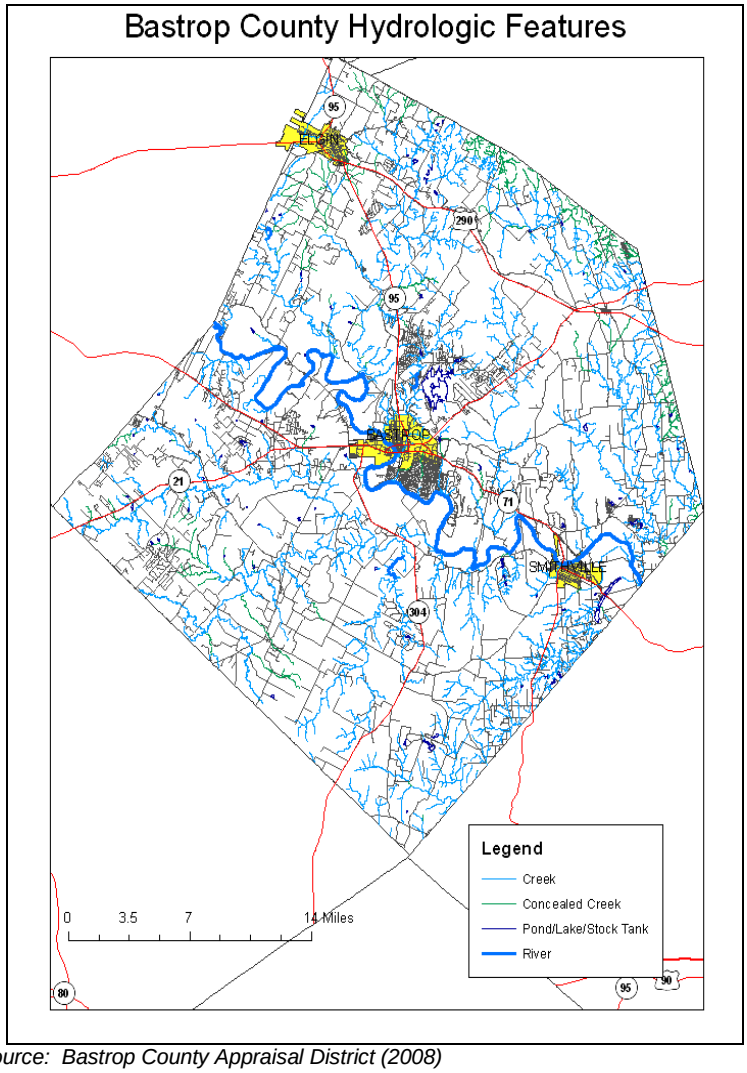
Source: Texas Parks and Wildlife (2008) (provisional dataset)

Figure 2.12 Bastrop County Land Cover

2.4.1 Water Resources/Drainage/Floodplains

2.4.1.1 Major Rivers and Streams

Most of Bastrop County is in the Colorado River Basin, with only small parts at the northeastern and southern extremes of the county in the Brazos and Guadalupe River Basins, respectively. Major rivers and streams in Bastrop County include the Colorado River, Cedar Creek, Walnut Creek, Wilbarger Creek, Sandy Creek, Willow Creek, Gazley Creek, Piney Creek, Bartons Creek, Alum Creek and Pin Oak Creek. Numerous smaller streams are also found in the county. The Colorado River originates in New Mexico and flows approximately 900 miles to the Gulf of Mexico near Bay City, Texas. The lower 300 miles of the river, which includes Bastrop County, are unimpounded. However, flows through this portion of the river are affected by the Highland Lakes and regulated by the Lower Colorado River Authority, specifically by the Buchanan and Mansfield Dams. The county's rivers, streams and lakes can be seen in Figure 2.13.



Source: Bastrop County Appraisal District (2008)

Figure 2.13 Bastrop County Hydrologic Features

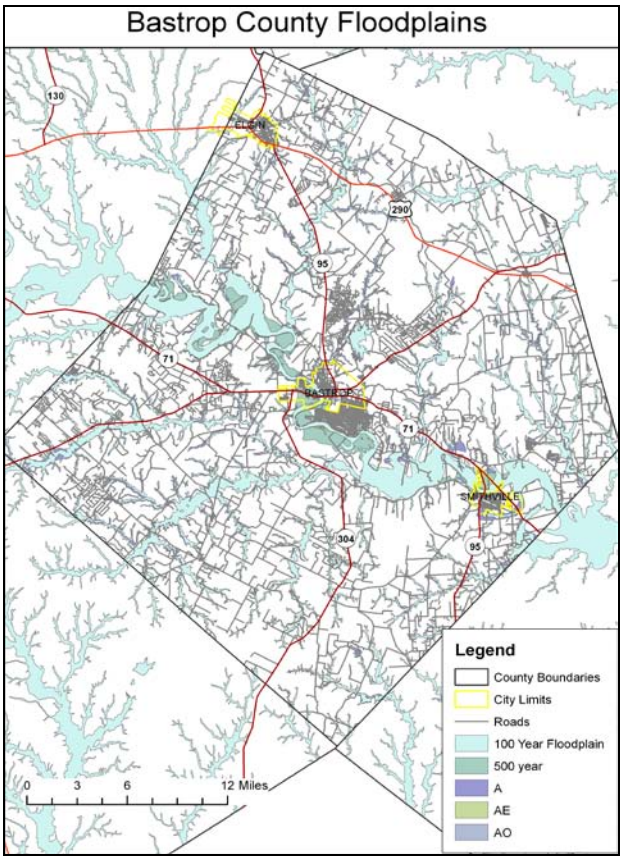
2.4.1.2 Subsurface Water

Most of central and western Bastrop County is in the Carrizo Aquifer, while the county's eastern third is located within the Wilcox Aquifer area. The Carrizo-Wilcox Aquifer is one of Texas' major aquifer systems. Two minor aquifers, the Queen City Aquifer and Sparta Aquifer, also underlie portions of the county.

Currently, the Carrizo-Wilcox Aquifer system within the study area is nearly full and takes a limited amount of recharge. With varying availability estimates, however, mining of the aquifer will result when pumpage exceeds recharge.

2.4.1.3 Lakes and Floodplains

There are 32 lakes in Bastrop County, the largest of which is Lake Bastrop. Other large impounded waters within the county include Buescher Lake, Droemer Lake, Lake Thunderbird and several small lakes in Bastrop State Park. In addition, numerous small, excavated stock ponds also occur throughout the county. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) of Bastrop County, areas within the 100-year floodplain have been identified along the Colorado River, as well as along numerous other intermittent streams, including Piney Creek, Alum Creek, West Yegua Creek, Pin Oak Creek, Gravelly Creek and associated tributaries. See Figure 2.14 for the location of the floodplains.

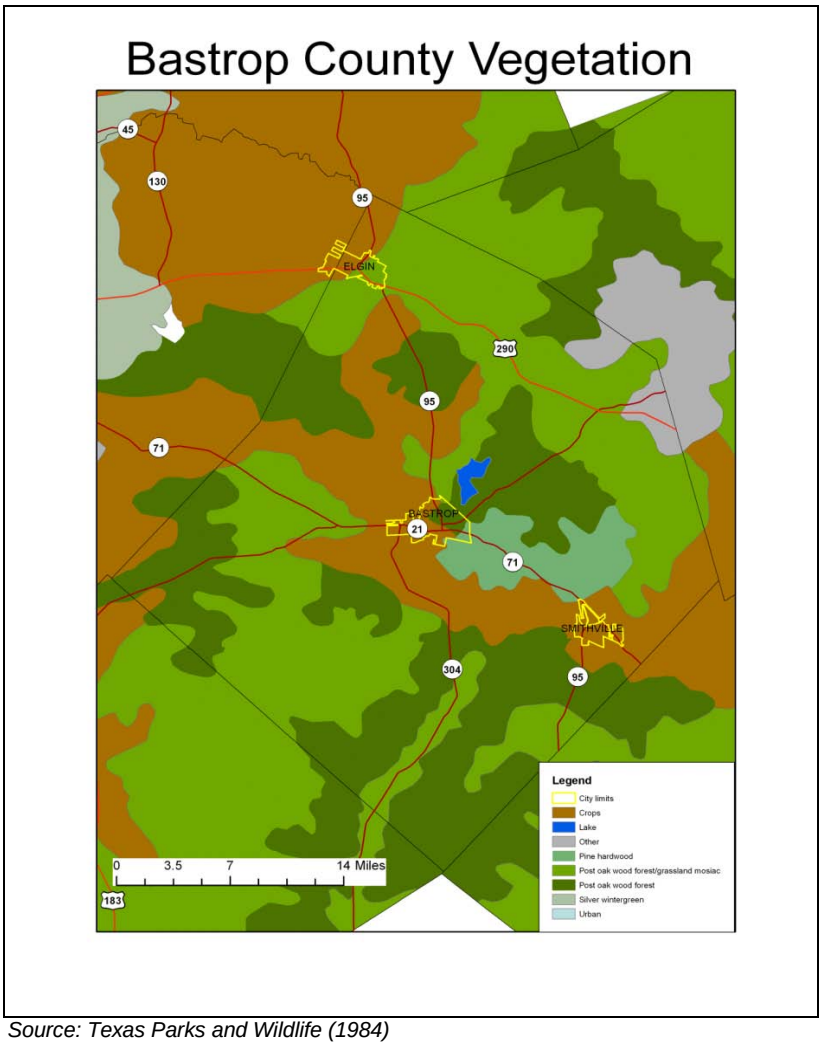


Source: FEMA (2006)

Figure 2.14 Bastrop County Floodplains

2.4.2 Vegetation

The county lies primarily within the Post Oak Savannah vegetation area of Texas, which commingles with a contingent of loblolly pine stands, with the remainder classified as Blackland Prairie. According to the World Wildlife Fund, the Blackland Prairie is the most-endangered large ecosystem in North American with only one percent of original prairie remaining. Vegetation types within the county include pine hardwood forest, post oak woodland and forest mosaic, post oak woodland/forest/grassland mosaic, and areas of introduced vegetation, such as improved pasture and crops (see Figure 2.15).



Source: Texas Parks and Wildlife (1984)

Figure 2.15 Bastrop County Vegetation

The underlying geology of the area, primarily the Carrizo Sands formation, provides the deep, moist, acidic and sandy soils necessary for the loblolly pines to persist. Other plants commonly associated with the Lost Pines area include: black hickory, blackjack oak, eastern red cedar, cedar elm, hackberry, greenbriar, yaupon, elbow bush, purpletop, sand lovegrass, broomsedge bluestem, little bluestem, brownseed paspalum, bushclover, tickclover, gay feather, yellow neptunia, bitter sneezeweed and velvet bundleflower. Many of these plants are also associated with the broader Post Oak Savannah region, as well.

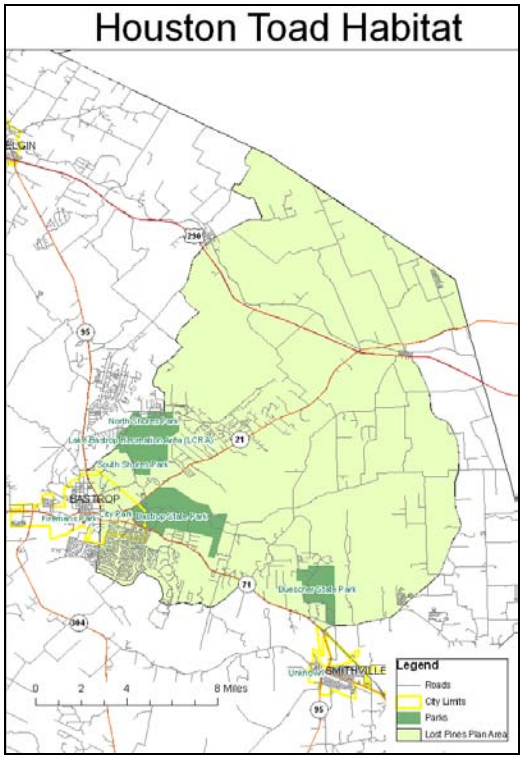
The unique biological situation of the Lost Pines mentioned above has survived primarily because the underlying Carrizo sandstone formations allow considerable infiltration of water, which is then made available to the plants. The annual rainfall of 35 inches that is characteristic of the area would not normally be enough to sustain a forest community of this type in Central Texas, but the moisture-holding properties of the soil have enabled the pine oak forest to persist. The forest forms dense canopies with an understory of shade-tolerant species.

2.4.2 Threatened and Endangered Species

A "threatened" species is one that is likely to become endangered in the foreseeable future. An "endangered" species is one that is in danger of extinction through a major portion of its range.

Given these definitions, Bastrop County includes a portion of the habitat area for the Houston toad (*Bufo houstonensis*). This species is listed as endangered because there are estimated to be fewer than 2,500 mature individuals in existence, and the vast majority of these individuals are isolated in a single subpopulation. The Houston toad was the first amphibian granted protection under the Endangered Species Act. Houston toads are restricted to areas with sandy and crumbly soil such as loblolly pine forest, mixed deciduous forest, Post Oak Savannah and coastal prairie.

Several populations of the toads were eliminated as a consequence of the expansion of the Houston urbanized area. The Bastrop State Park Lake is the prime breeding habitat for this species. Because of the endangered status of the Houston toad, this lake is closed to the public during the toad's mating season during February and March. The habitat area for the Houston toad is contiguous with the area of the Lost Pines in Bastrop County (see Figure 2.16). The largest threats to the Houston toad are habitat loss, automobiles, predators, pesticides and drought.



Source: Texas Parks and Wildlife (1985)

Figure 2.16 Houston Toad Habitat

There is one fish species considered threatened within Texas of potential occurrence in Bastrop County dependent upon an aquatic environment: the blue sucker (*Cycleptus elongatus*). The blue sucker is dependent upon flows of the Colorado River. The impacts to this species from increased groundwater pumping are expected to be small. However, this species is very susceptible to pollution levels in the Colorado River. As such, the Lower Colorado River Authority (LCRA) views the blue sucker's persistence in the Colorado River as evidence of the overall health of the river.

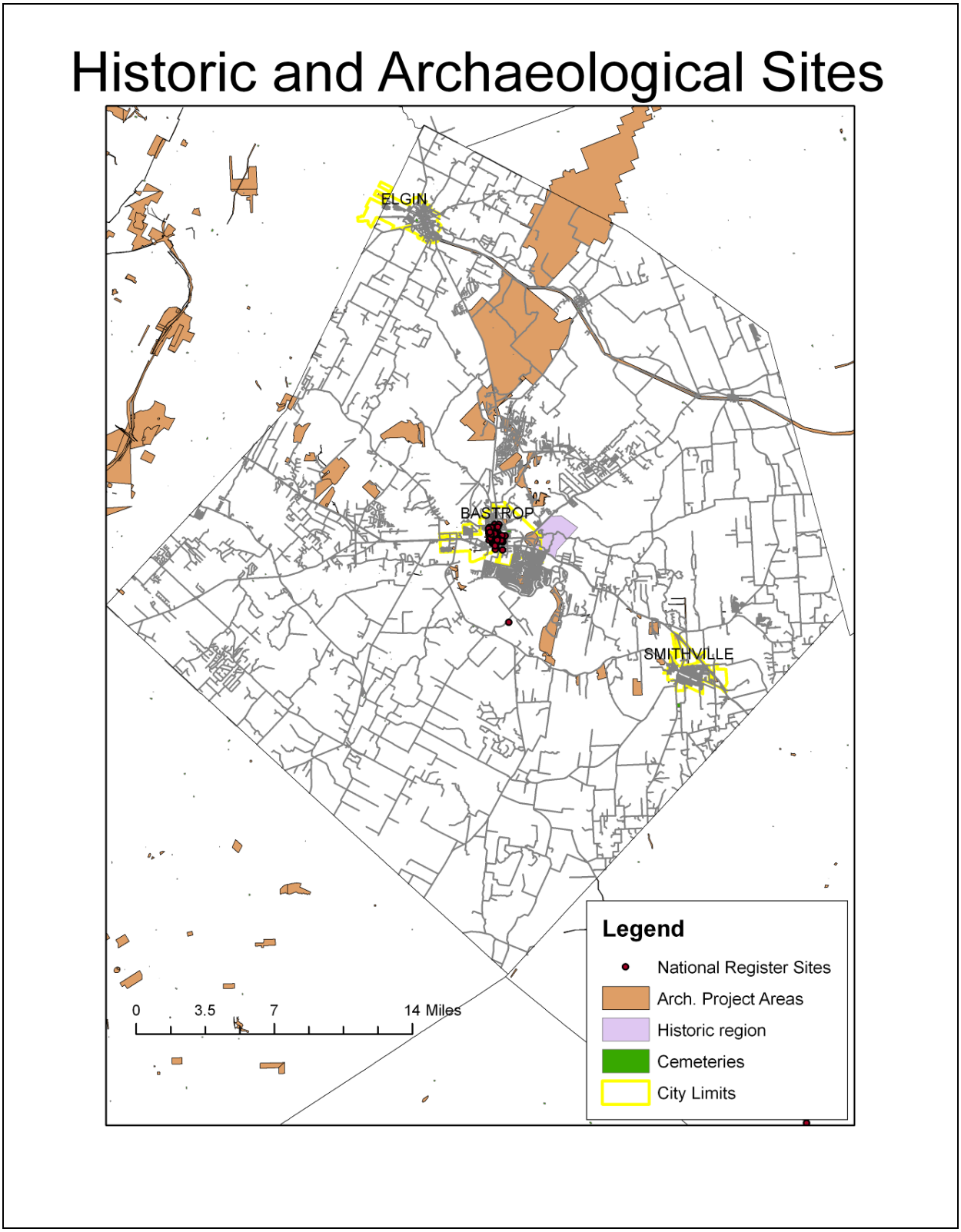
There are several other endangered or threatened species that travel through the county or are intermittently present. These species include American peregrine falcons, Arctic peregrine falcons, whooping cranes, bald eagles, wood storks, interior least terns, timber canebrake rattlesnakes, spot-tailed earless lizards and Texas horned lizards.

2.4.4 Archaeological and Historic Resources

During the construction of the Hyatt Lost Pines Resort Hotel adjacent to the McKinney Roughs area west of the city of Bastrop, significant archaeological evidence of past inhabitants surfaced. Excavation of this site revealed numerous prehistoric living surfaces that remained remarkably intact since the area was abandoned. The evidence found in this area has helped archaeologists make further inferences about the changes in technology and living patterns as well as heightened contact between populations that occurred during the transition period between the Transitional Archaic and Late Prehistoric eras in this region.

The McCormick site near McDade has produced archeological evidence of human life in the area during the Neo-American period 1,000 years ago. By the beginning of the 19th century, Tonkawa Indians inhabited the area, and Comanche Indians came to hunt along the river each autumn. With an early road between Nacogdoches and San Antonio running through the region, Spanish Governor Manuel Antonio Cordero y Bustamante established a fort in 1804 at the Colorado River crossing where the town of Bastrop now stands. The Baron de Bastrop planned a German community at the site, but it was not until after Stephen F. Austin obtained a grant for a "Little Colony" from the Mexican government in 1827 that settlement began. Pioneers met with intense Indian resistance, but by 1830 the town of Bastrop, named for the Baron, had been founded, and settlers from Austin's lower colonies were clearing farms over the southern portion of the county.

Many smaller investigations into sites of early Western settlers in the county have also been conducted, including historic sites of churches and cemeteries. Most of the results of these investigations are available from local universities and archaeological societies. The National Register of Historic Places has designated several sites in Bastrop County for inclusion. Among the places and areas included are Bastrop State Park, the Bastrop and Smithville commercial areas, and a large number of individual structures, especially in and near downtown Bastrop (see Figure 2.17).



Source: Texas Historical Commission (2007)

Figure 2.17 Historic and Archaeological Sites

2.4.5 Natural Environment Conclusions

Bastrop County is home to a very notable wildlife area – the Lost Pines of Texas.

There are several important facts about the natural environment in Bastrop County:

- Most of Bastrop County is in the Colorado River Basin.
- Other major rivers and streams include Cedar Creek, Walnut Creek, Wilbarger Creek, Sandy Creek, Willow Creek, Gazley Creek, Piney Creek, Bartons Creek, Alum Creek and Pin Oak Creek.
- Flows through this portion of the Colorado River are affected by the Highland Lakes and regulated specifically by the Buchanan and Mansfield Dams.
- The Carrizo-Wilcox Aquifer is currently near capacity levels and takes a limited amount of recharge.
- Greater rates of surface pumping of the aquifer threaten to move it into negative recharge, which could threaten sensitive habitats of water-borne plants and animals.
- The rapid growth and development of Bastrop County's alluvial soils and unique landscape have not only strained the existing transportation infrastructure, but aspects of the natural environment as well.
- The county lies primarily within the Post Oak Savannah vegetation area of Texas, which commingles with a contingent of loblolly pine stands, with the remainder classified as Blackland Prairie.
- Bastrop County includes a portion of the habitat area for the Houston toad, an endangered species that has lost most of its native area due to urban development.
- The Lost Pines and Houston toad are both threatened by increased residential development near Bastrop.
- During the construction of the Hyatt Lost Pines Resort Hotel adjacent to the McKinney Roughs area west of the city of Bastrop, significant archaeological evidence of past inhabitants surfaced.
- The National Register of Historic Places has designated several sites in Bastrop County for inclusion.

2.5 AIR QUALITY

In addition to population growth, traffic and weather, air quality is an important shared condition that affects life throughout the region. This is especially true because the Austin-Round Rock Metropolitan Statistical Area may be on the verge of becoming an EPA non-attainment area, a status that could have severe impacts upon regional transportation planning. Therefore, it is crucial that growth in the A-RR MSA does not detract from the region's recent trend of improving air quality.

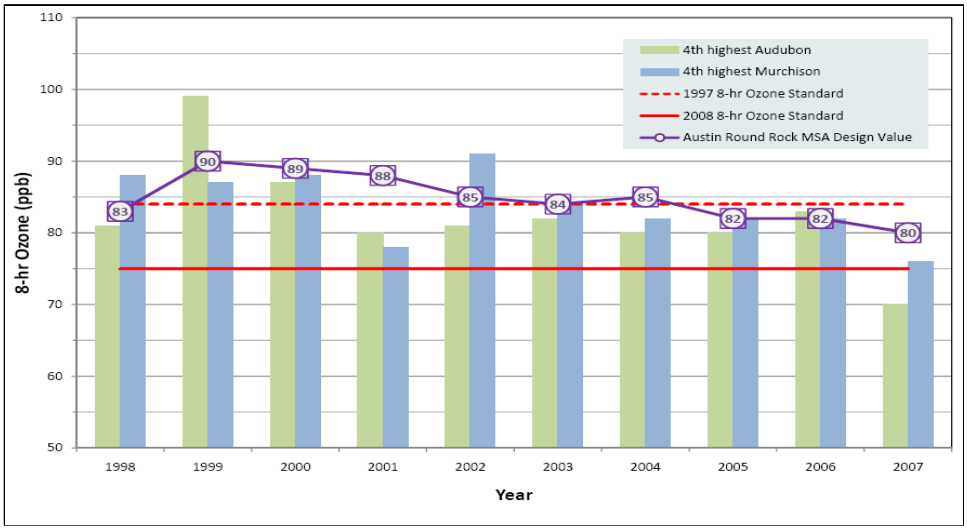
Federal and state transportation planning guidance requires that the air quality impact of transportation-related emissions be considered in the state air quality planning process. Ozone is the primary air pollutant of concern in the A-RR MSA. Air quality readings taken from monitors within the A-RR MSA indicate that ozone levels have exceeded federal standards on occasion, at the date of publication the area is not currently designated as being in non-attainment of air quality standards.

2.5.1 Definitions

Ozone is a form of oxygen with three atoms. At ground level, ozone is the main component of smog. Ground-level ozone is formed through chemical reactions between natural and man-made emissions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) in the presence of heat and sunlight. Vehicle emissions are a major source of both VOCs and NOx emissions in the A-RR MSA.

2.5.2 Current Status

Attainment of the ozone National Ambient Air Quality Standards (NAAQS) is based on the 3-year average of the fourth highest daily maximum 8-hour average ozone concentrations measured annually at each regulatory monitor. The 3-year average is called the design value. The ozone season for the A-RR MSA begins April 1 and ends October 31. Figure 2.18 shows the design value trend and fourth highest readings at the two regulatory monitors in the A-RR MSA, both of which are located in Travis County.

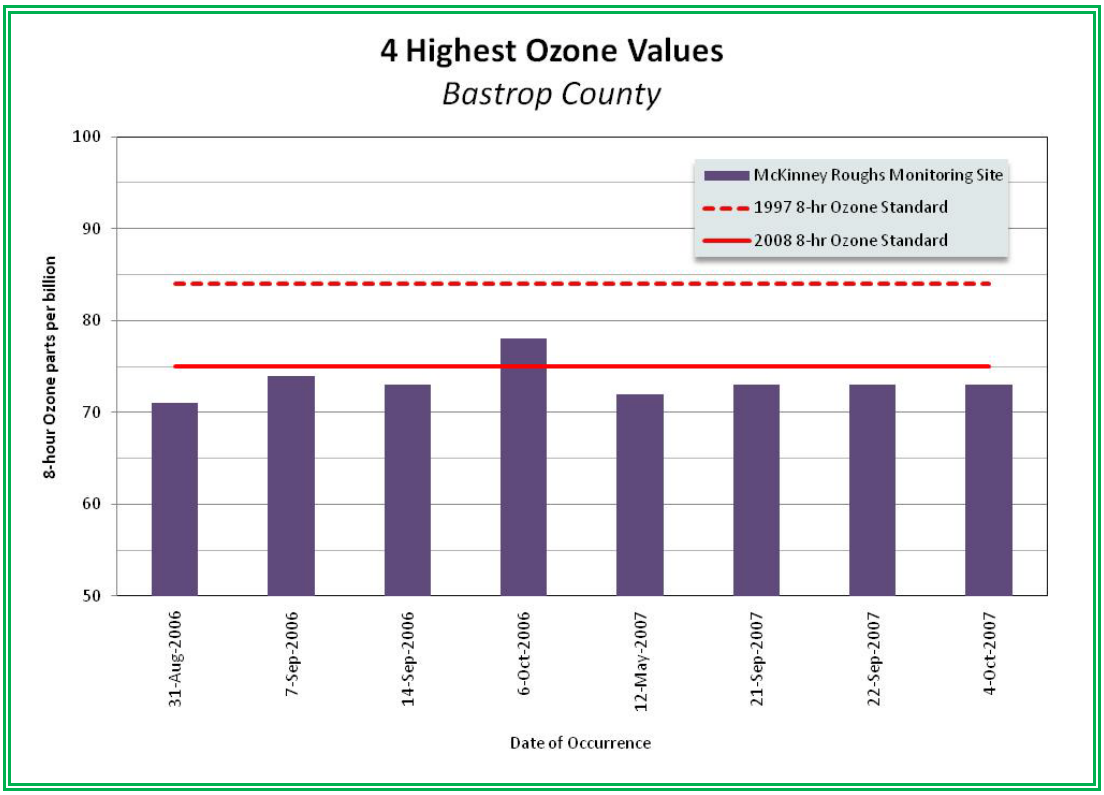


Source: Texas Commission on Environmental Quality (TCEQ)

Figure 2.18 A-RR MSA 8-Hour Ozone Design Value Historic Trend

The A-RR MSA is currently designated in attainment of the 1997 NAAQS for ozone. The attainment designation was based on the design value of 80 parts per billion (calculated as an average of the fourth highest reading from 2005, 2006 and 2007).

In 2006, the CAPCOG McKinney Roughs Monitoring Site was installed in Bastrop County. Figure 2.19 shows the fourth highest ozone measurements recorded during 2006 through 2008 and during 2009 through September 30, 2009, at this monitor.



Source: TCEQ

Figure 2.19 Fourth Highest Ozone Readings per Year, 2006-2007, Bastrop County

2.5.3 Air Quality Conclusions

A brief review of air quality in Bastrop County revealed the following:

- Air quality in Bastrop County meets the 2008 EPA 8-hour ozone standard based on the 2006/2009 data.
- Bastrop County 8-hour ozone levels are below the values reported for the entire A-RR MSA.
- Additional traffic volumes coupled with increased congestion could increase the ozone levels in Bastrop County.

2.6 Existing Transportation Conditions

Bastrop County transportation facilities include roadways, sidewalks, transit vehicles and services, multi-use trails, freight facilities, railroads and a general aviation airport. During the initial stages of the planning process, a variety of descriptive data was collected from numerous local, regional, state and federal sources. Transportation data included roadway characteristics, crash records, bridge inventory data, traffic counts, freight movement, railroad information, an inventory of bicycle and pedestrian facilities, public transportation facilities and service characteristics, and airport information. Based on the data collected, the roadway network condition was summarized, followed by conditions of alternative mode facilities including transit, bicycle and pedestrian. Lastly, freight services and airport facilities have been inventoried, identified and discussed.

2.6.1 Roadway Network

The roadway system in Bastrop County is provided and maintained by the state, the county, and the cities of Bastrop, Elgin and Smithville. It provides a network for people and goods to move through and within Bastrop County. The functional classification of the roadways within the roadway network is presented first to facilitate the analysis and evaluation of the effectiveness of the roadways within the system. Secondly, existing roadway capacities have been evaluated to serve as a benchmark against which the analysis of the future proposed improvements will be compared. Existing roadway conditions can be evaluated based on a variety of performance measures to identify facilities in potential need of improvement. These performance measures are:

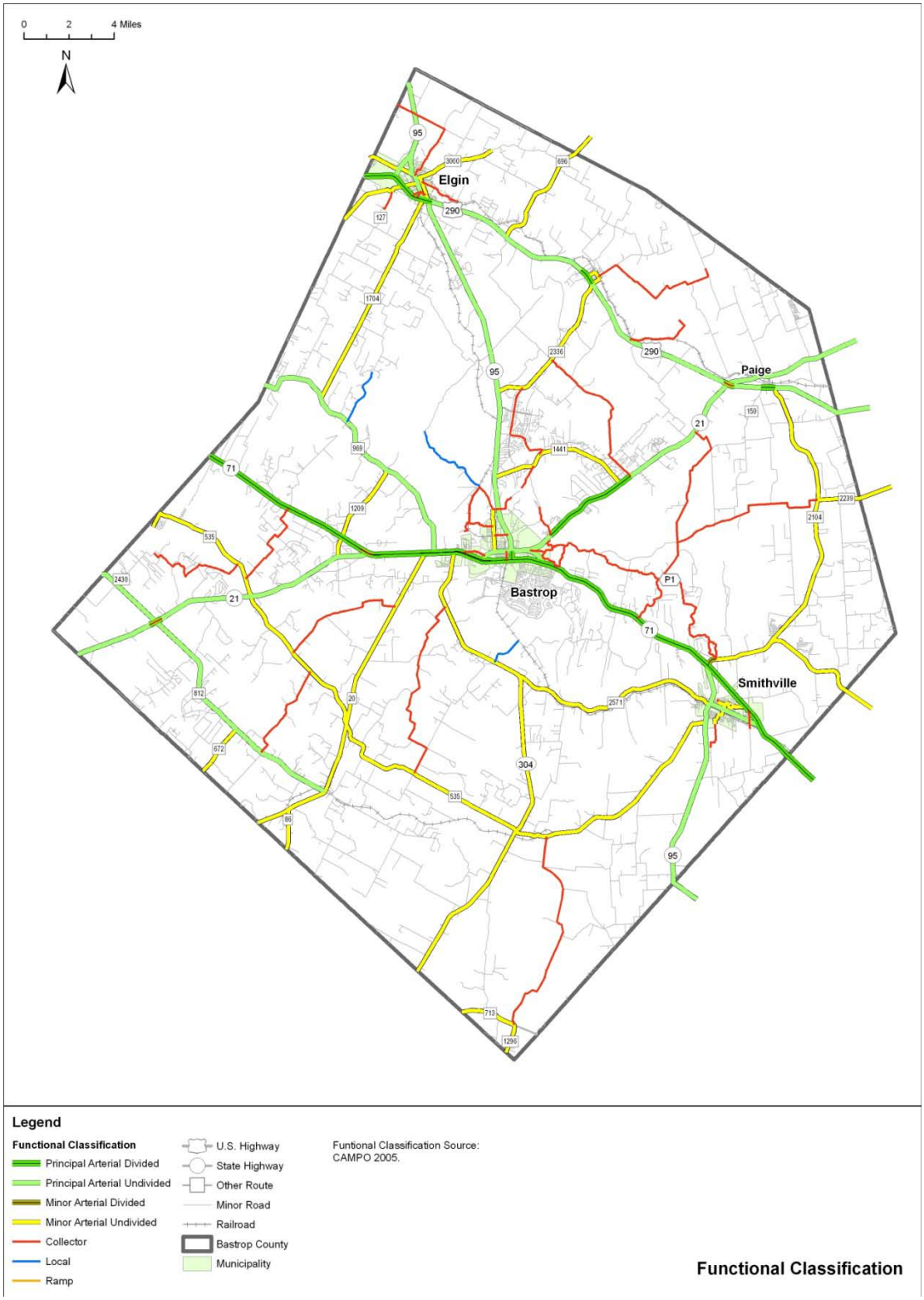
- **Congestion** – historic traffic volume trends and level of service,
- **Safety** – vehicular crashes (included in Section 2.7) and traffic signals, and
- **System preservation** – bridge conditions.

2.6.1.1 Existing Functional Classification

Roadways can be described by the function that they serve, whether it is access to abutting property or mobility for through passenger and truck traffic. On one end of the functional classification spectrum is the Interstate Highway System, which provides the greatest mobility while limiting access to both the highway (through ramps at interchanges) and to adjacent land. At the other end of the spectrum are local roads that provide the greatest accessibility to adjacent property but restrict rapid through movement, either due to the speed limit, roadway design features or number of driveways.

FHWA provides guidelines by which TxDOT works with local governments to establish or verify roadway functional classifications of all public roadways. The guidelines include target values on the number of centerline miles in each functional classification that is based on the total number of publicly maintained roadways in each city and in each county. Similarly, the number of centerline miles for the higher functional classifications must be within target ranges when looking at the state of Texas as a whole.

The analysis included in this chapter is based on the TxDOT 2008 Functional Classification Map as shown in Figure 2.20. A description of the various TxDOT roadway classifications and corresponding Bastrop County classifications is provided in Table 2.10, following Figure 2.20. Note that TxDOT views roads on a statewide perspective, so for example, an activity center may be considered a small town or large shopping district. Bastrop County views roads on a county-wide perspective, so for example an activity center may be considered a high school, retail center or major employer.



Source: TxDOT (2005)

Figure 2.20 Functional Classification Map

Table 2.10 Roadway Classification Comparison.

Classification Type	TxDOT Definition (Statewide Perspective)	Bastrop County Definition (Local Perspective)
Interstates and Expressways	Provide the greatest mobility because they permit high-speed movement with limited access at ramps. Access to these facilities is generally limited to defined interchanges.	Provide the greatest mobility because they permit high-speed movement with limited access at ramps. Access to these facilities is generally limited to defined interchanges.
Principal Arterials	Connect activity centers and carry large volumes of traffic at moderate to high speeds.	Connect activity centers and carry large volumes of traffic at moderate to high speeds.
Major Arterials	Term not used by TxDOT	Provide for through vehicle traffic traveling at mid-level speeds. They provide connections to the local road system and allow for access to adjacent development. Major divided arterials are high-volume surface roadways with high priority at intersections with all lower-level facilities. Typically, signalization is provided at significant crossings.
Minor Arterials	Continuous routes through urban and rural areas, forming the backbone of the typical urban street and rural road network. They are primarily oriented toward community-level vehicle travel, connecting town centers, corridors, main streets and neighborhoods.	Serve as secondary facilities that meet local access and circulation requirements in addition to providing through vehicle movement. Typically, full movement access (left and right turns) is permitted along the route.
Collector Streets	Accumulate traffic from local streets in residential and commercial areas and distribute it to the arterial system at low to moderate speeds. Collectors also serve as freight access routes. Typically, the farm-to-market highways in the rural areas serve this function	Accumulate traffic from local streets in residential and commercial areas and distribute it to the arterial system at low to moderate speeds. Collectors may restrict access movement and use traffic signs more than traffic signals.
Local Streets	Make up the majority of the roadway network and provide access to adjacent properties, carrying relatively low traffic volumes at low speeds. Local streets are often found in subdivisions and near non-residential land uses that do not depend on a high volume of walk-in business.	Make up the majority of the roadway network and provide access to adjacent properties, carrying relatively low traffic volumes at low speeds. Local streets are often found in subdivisions and near non-residential land uses that do not depend on a high volume of walk-in business.

2.6.1.2 Existing Roadway Capacity

TxDOT traffic count maps for Bastrop County were reviewed for the 10-year period of 1997 through 2006. To identify the roadways that will need additional capacity within the planning horizon year of 2035, an average annual growth rate of 2.5 percent was assumed and applied to existing traffic volumes. This growth rate is typically used for 20-year traffic projections in rural areas outside of metropolitan areas that are sustaining moderate to high levels of growth.

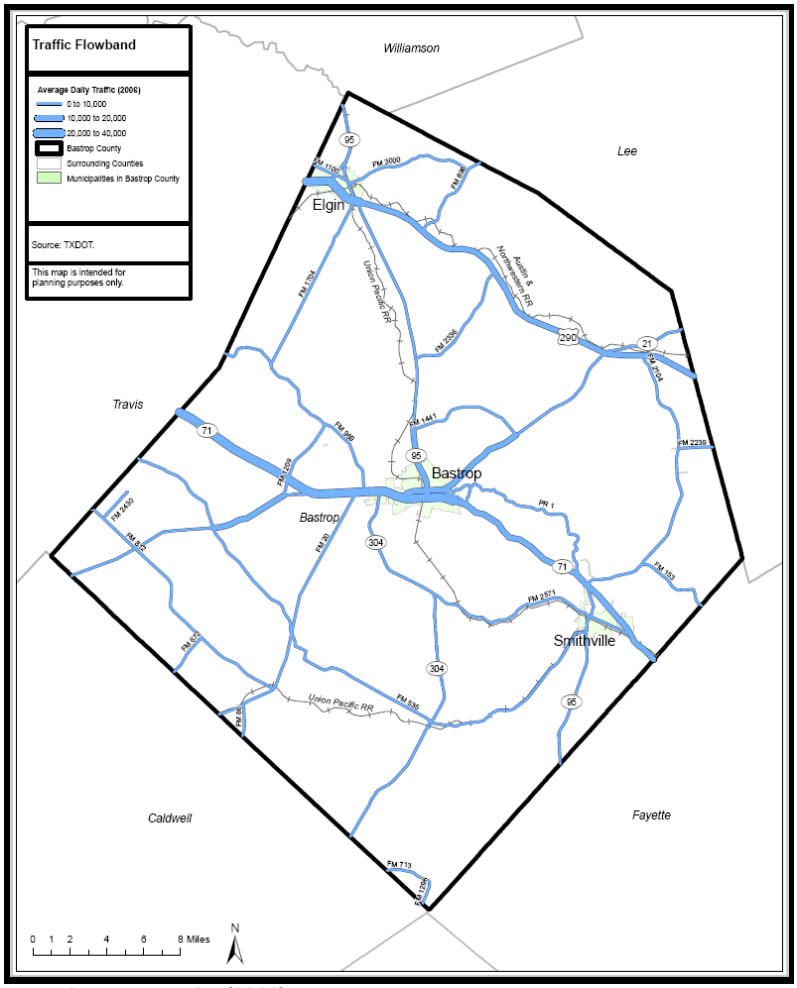
The state roadways listed in Table 2.11 have been identified under the assumed growth rate methodology as possibly warranting additional capacity by or before 2035.

Table 2.11 Traffic Analysis Locations – State Roadways

Highway System	State Roadways			
State Loop	Loop 150, Bastrop	Loop 230, Smithville		
FM Highway	FM 812	FM 1100	FM 1441	
State Highway	SH 21	SH 304	SH 71	SH 95
US Highway	US 290			

Source: URS (2008)

Figure 2.21 provides a graphical summary of the 2006 average annual daily traffic (AADT) on the state-maintained roadways located within Bastrop County based on TxDOT traffic counts.



Source: TxDOT (2006)

Figure 2.21 Traffic Flowbands

2.6.1.3 Existing Major Traffic Generators

Existing land use is the main component of travel demand. Some land uses, such as retail and commercial, generate one type of traffic stream of a certain duration, whereas others, such as a football stadium, generate special event volumes of traffic lasting different durations.

For purposes of this study, major traffic generators are defined as businesses or employers that employ 100 or more people (at one specific location) and public school campuses. Interviews were conducted with either the chamber of commerce or economic development association for each incorporated city to either obtain this information or to confirm these data. Tables 2.12 and 2.13 provide the names and locations of each identified business and school, respectively. Figure 2.22 shows the location of each major traffic generator in Bastrop County.

Table 2.12 Major Employers in Bastrop County

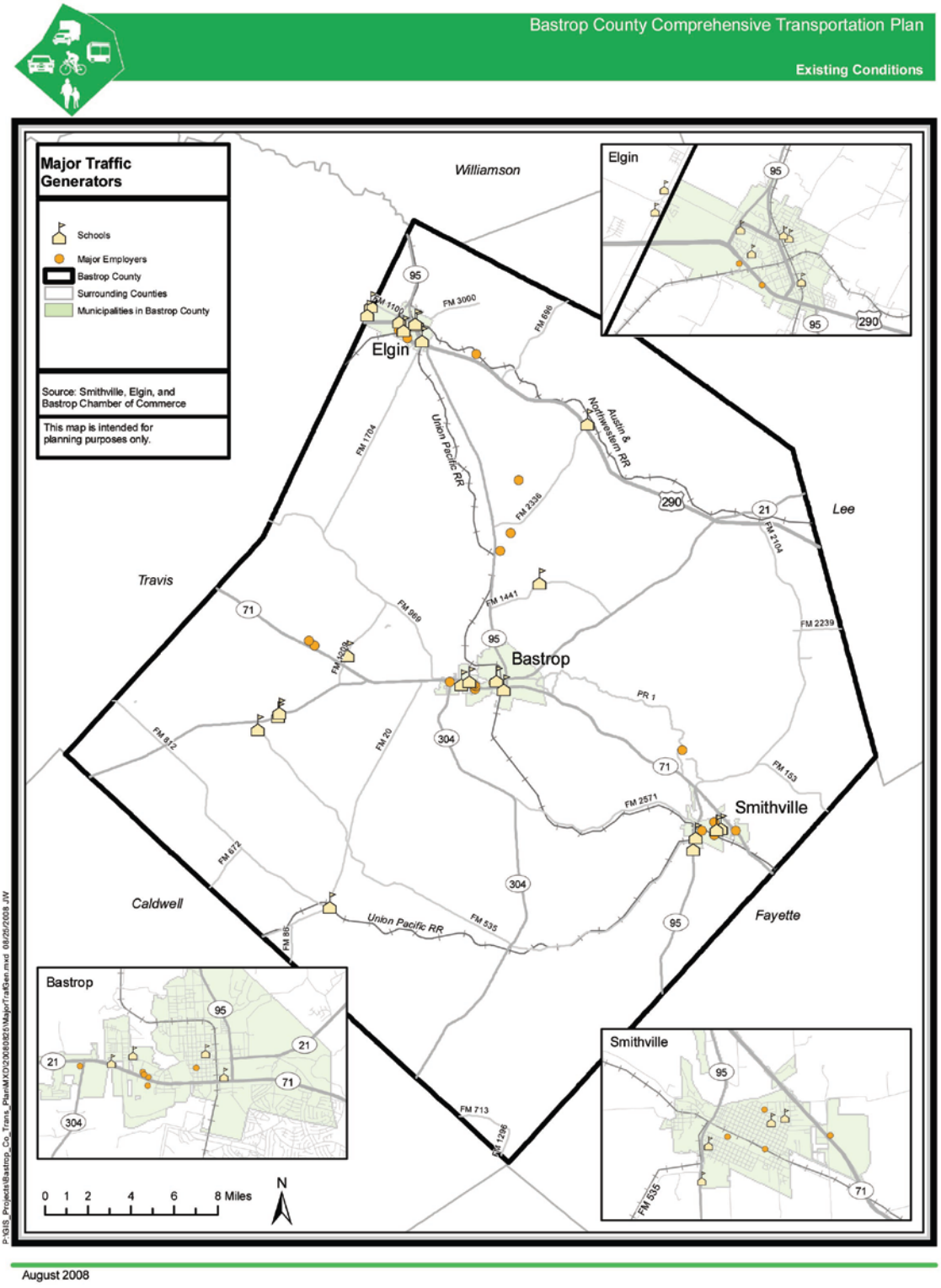
NAME	CITY
HEB Bastrop #582	Bastrop
Wal-Mart Supercenter #1042	Bastrop
Bastrop Medical and Professional Clinic	Bastrop
Bastrop County Government	Bastrop
Covert Chevrolet	Bastrop
First National Bank of Bastrop	Bastrop
Agilent Technologies	Cedar Creek
Camp Swift Military Reservation, Texas Army National Guard	Bastrop/Elgin
Bastrop Federal Correction Institution	Bastrop/Elgin
Michael E. Keeling Center for Comparative Medicine & Research	Bastrop
Hyatt Lost Pines Resort	Lost Pines
HEB Elgin #475	Elgin
Acme Brick	Elgin
Elgin-Butler Brick	Elgin
Hanson Brick	Elgin
Smithville Regional Medical Center	Smithville
Smithville Medical and Professional Clinic & Smithville Regional Hospital Home	Smithville
University of Texas Virginia Harris Cockrell Cancer Research Center	Smithville
Union Pacific Railroad, Smithville Rail Fleet Maintenance Facility	Smithville
Centex Marine Fabricators	Smithville

Source: Bastrop, Elgin and Smithville Chambers of Commerce

Table 2.13 Public Schools in Bastrop County

DISTRICT NAME	CAMPUS NAME	STREET	CITY/COMMUNITY
Smithville ISD	Smithville High School	285 Hwy 95	Smithville
	Smithville Junior High School	900 Wilkes St.	Smithville
	Brown Primary School	4th & Harris	Smithville
	Smithville Elementary	8th & Bishop St.	Smithville
Elgin ISD	Elgin Middle School	1351 N Avenue C	Elgin
	Neidig Elementary School	13700 County Line Rd	Elgin
	Elgin Elementary School	1005 W. 2nd St.	Elgin
	Booker T. Washington Elementary School	510 S. Ave. F	Elgin
	Phoenix Learning Center	1002 N. Ave. C, Portable 3 & 4	Elgin
	Elgin High School	14000 County Line Rd.	Elgin
Bastrop ISD	Bluebonnet Elementary School	416 FM 1209	Bastrop
	Lost Pines Elementary School	151 Tiger Woods Dr.	Bastrop
	Bastrop Middle School	709 Old Austin Hwy.	Bastrop
	Mina Elementary School	1203 Hill St.	Bastrop
	Emile Elementary School	1500 Emile St.	Bastrop
	Bastrop Intermediate School	509 Old Austin Hwy.	Bastrop
	Red Rock Elementary School	2401 FM 20	Red Rock
	Cedar Creek Middle School	125 Voss Pkwy.	Cedar Creek
	Cedar Creek Intermediate School	151 Voss Pkwy.	Cedar Creek
	Cedar Creek Elementary School	5582 FM 535	Cedar Creek
McDade ISD	McDade Elementary School	Marlin St.	McDade

Source: Bastrop, Elgin, Smithville and McDade ISDs



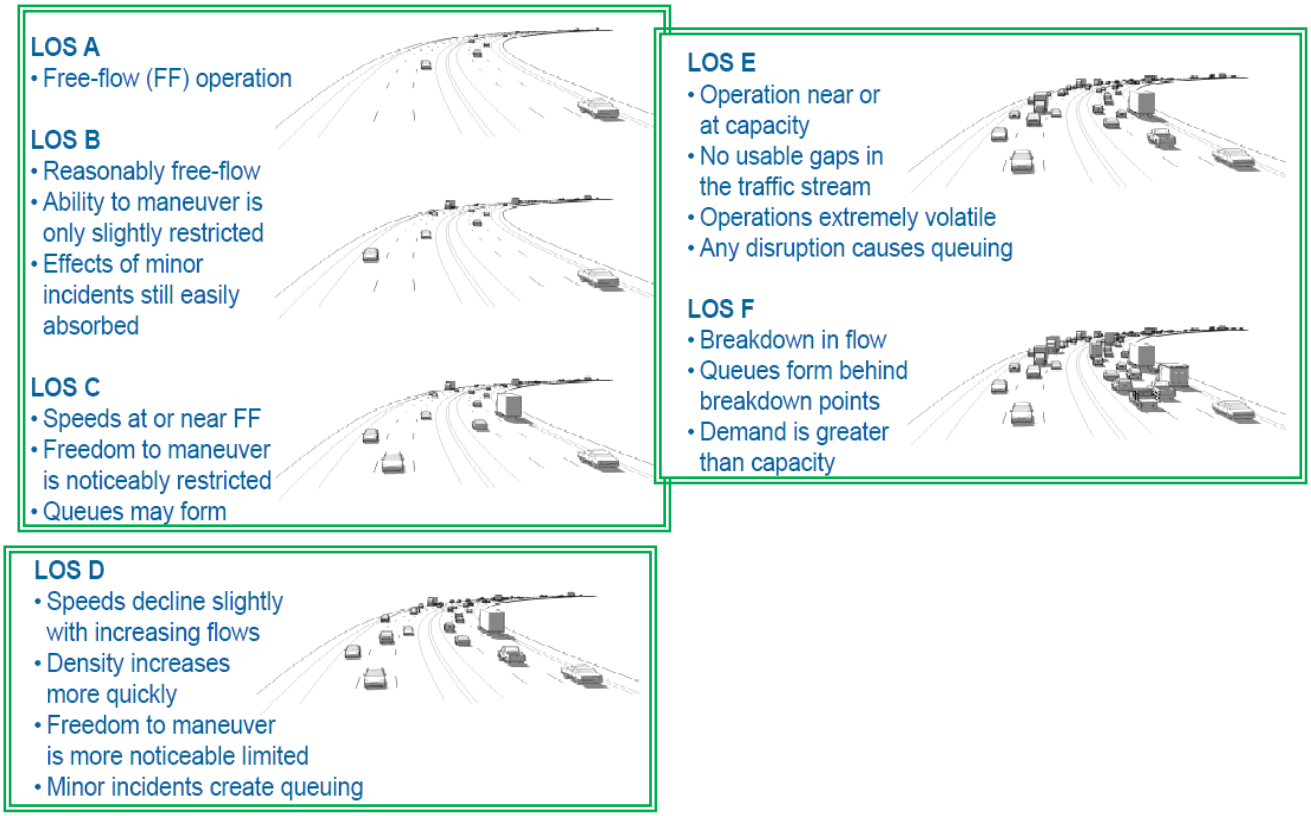
Source: Bastrop, Elgin and Smithville Chambers of Commerce

Figure 2.22 Major Traffic Generators in Bastrop County

One of the major traffic generators in the county, Camp Swift Military Reservation, is noteworthy because of the traffic generated by the facility. Camp Swift has been conducting training cycles, and in 2009 10 training cycles of 700 to 1,000 troops were involved. Non-commissioned troops stay at Camp Swift during these training cycles, but 300 officers and higher ranking non-commissioned officers stay at local hotels/motels and commute to the camp. Also worth mentioning is heavy vehicles, because of internal access and safety restrictions within the camp, travel from the main gate on SH 95 to FM 2336 to access other training facilities and sites on the camp. This additional traffic, between 10 and 20 trucks daily, add congestion to the local roadway network.

2.6.1.4 Existing Level of Service (LOS)

LOS is a qualitative term describing the density of traffic and relates travel speeds, delays and other measures to performance on a roadway. LOS ranges from A to F, with LOS E generally representing operation at the capacity of the highway (or highway segment). Definitions for each LOS and a graphic representation of each level are provided below in Figure 2.23.



Source: Interstate 81 Corridor Improvement Study, Virginia Department of Transportation

Figure 2.23 Level of Service Descriptions

Traffic volumes and LOS were evaluated for 10 state-maintained roadways to categorize congestion in Bastrop County during the AM peak period. The AM peak period was chosen for the evaluation because of the effect of morning school traffic on the roadways. Two methodologies were used for the evaluation based on the number of travel lanes. It should be noted that the LOS analysis for existing state-maintained roadways is based on the segments outside of the influence of intersections controlled by

stop signs or traffic signals. The impact of traffic control devices at intersections during peak-hour operations will provide different results.

For two-lane roadways within the county, there are three roadways currently operating at LOS D during the AM peak period. These roadways are:

Three two-lane roadways currently operate at LOS D.

- SH 21, extending from FM 535 to SH 71, which is heavily impacted by the three school campuses in Cedar Creek served by SH 21;
- Loop 150, which does not take into account the traffic signals through downtown Bastrop or the influence of other traffic control devices; and
- SH 95, between US 290 and south of Old Sayers Rd.; and
- SH 95, between FM 1441 and Loop (LP) 150, which is at the low end of the LOS D range.

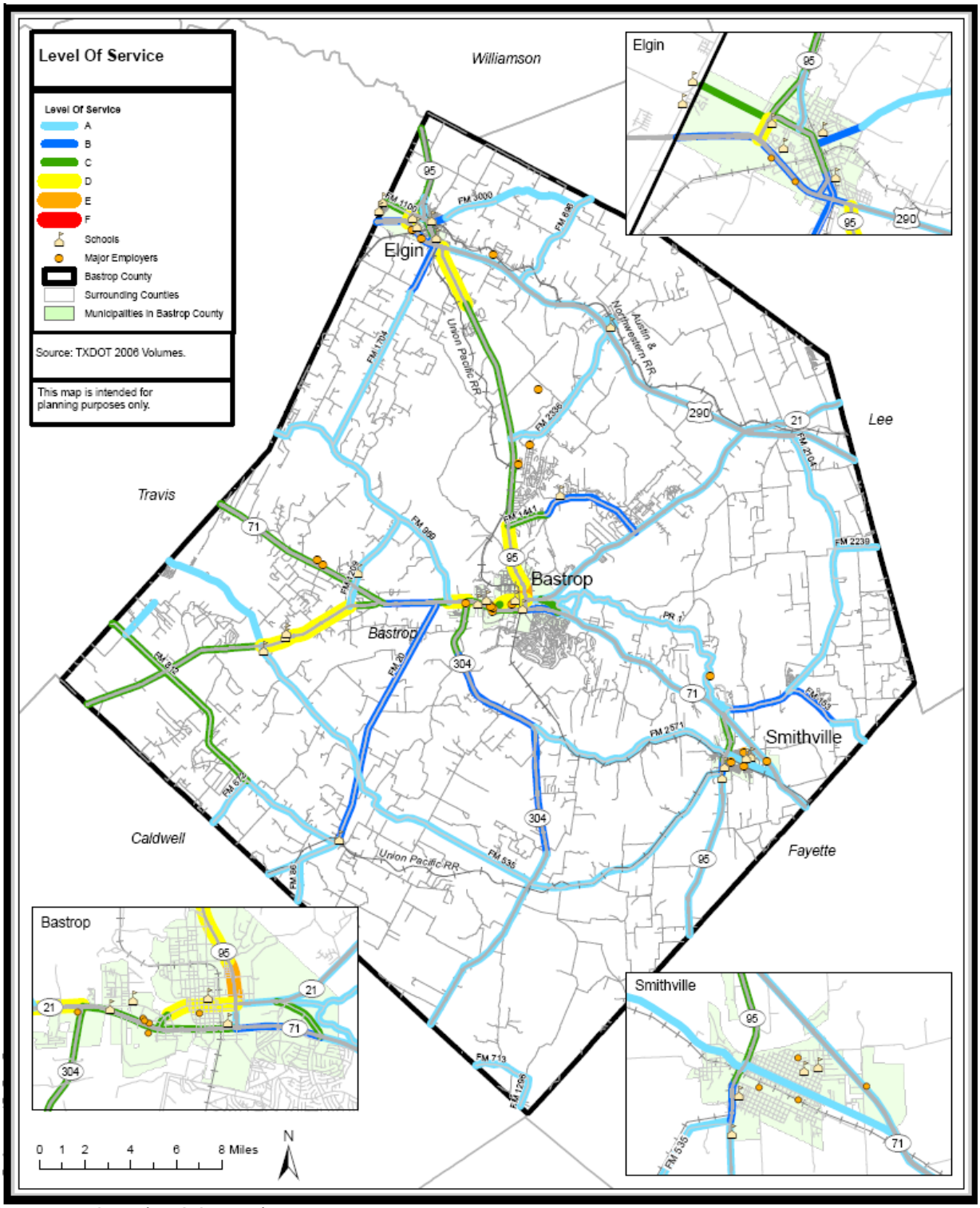
There are three roadways that are at the bottom of the LOS C range and approach LOS D during the AM peak period. These roadways are:

- SH 21, from FM 812 to FM 535; and
- FM 812, from the Travis County line to SH 21; and
- The remainder of most of SH 95.

For the four-lane roadways, peak-hour flows were developed for each direction of road with adjustments for truck volumes, and the method of calculating the volume to capacity ratio (v/c) was used in the analysis. The two primary commuter routes into Austin have lower LOS (D or E) west of SH 95 compared to the corridors east of SH 95 during the AM peak period. Overall, SH 71 west of Bastrop has a lower LOS during the AM peak period than US 290 west of and through Elgin. The actual LOS on the freeway section on SH 71/SH 21 through Bastrop is dependent upon the amount of traffic using the frontage roads rather than the traffic using the main lanes.

Two four-lane commuter routes are operating at LOS D or E.

In summary, several of the state highways identified for the analysis are approaching lower LOS. A more thorough analysis is recommended for these highways using roadway-specific information from the Transportation Planning and Programming (TP&P) Division of TxDOT. Additionally, high-volume intersections on this group of highways should be analyzed to see if left- and/or right-turn lanes would improve operations. The highways serving the areas that experienced the highest residential growth since 1997 are operating at lower LOS.



Source: TxDOT and URS Corporation

Figure 2.24 2006 Bastrop County Levels of Service

2.6.1.5 Existing Network Connectivity

Connectivity is a term used to describe the ability to move from place to place within an area or region and, often, between modes of travel. Given the location of Bastrop relative to Austin, Houston and San Antonio, connectivity can also be used to assess the number and design characteristics of roads or highways that are used for traveling to these large urban areas.

The major traffic generation centers within the county are the cities of Bastrop, Elgin and Smithville; Bastrop State Park; and other facilities defined previously in Section 2.6.1.3 There are heavy traffic flows between the major cities of Austin and Houston along US 290 and SH 71, and between East Texas and San Antonio along SH 21.

US 290 runs through the northern portion of the county, running in a westerly to southeasterly direction, serving Elgin and providing mobility between the cities of Austin and Houston. SH 71 runs through the middle portion of the county, running west to east and serving Bastrop, Smithville, Lost Pines State Park, the Hyatt Lost Pines Resort and the Smithville Airport and providing mobility between the cities of Austin and Houston. The southern portion of the county contains collector roadways with FM 535 and FM 812 carrying commuter traffic to south Austin. The middle of the county contains the collector roadway FM 969 which eventually turns into "MLK" in Central Austin.

North/south through traffic is limited to SH 95, which serves all three incorporated cities, SH 21, which runs from the northeast to the southwest and FM 1704 which connects Elgin to the east-west route out of Austin, FM 969. The various other north/south FM roadways are not designed for large amounts of through traffic.

As part of the consideration for connectivity, a review of the *Bastrop County Community Wildfire Protection Plan* (BCCWPP) that was approved by the Commissioners Court on June 23, 2008, provides an overview of the need for roadway improvements to adequately allow for concurrent access for firefighting equipment and egress for evacuation of residents. Over 70 neighborhoods throughout the county have been identified in the report as at risk for "…inadequate entrances and exits, narrow roadways, insufficient turning space, or dangerously inadequate firefighting operational space".. Coordination with Bastrop County Emergency Management is recommended to identify deficient roadways identified by this process for improvements to local roads and minor collectors.

2.6.1.6 Bridge Inventory

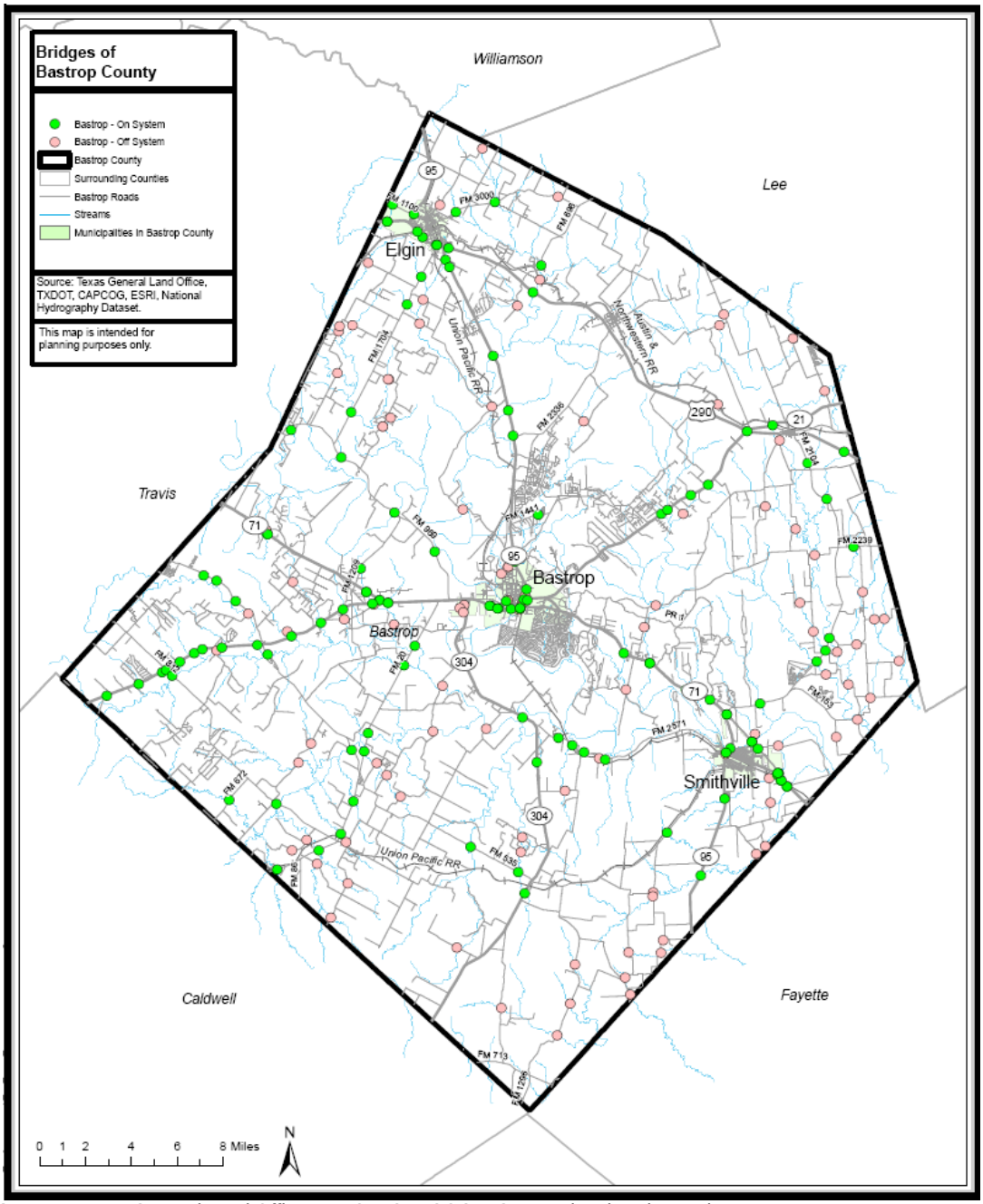
Maintaining the bridge network is important for safety as well as to avoid delays created by detours when bridges are closed. Not only is the movement of goods and people diverted and delayed, but also emergency vehicle response time can be greatly increased due to bridge restrictions.

FHWA established the National Bridge Inventory (NBI) to monitor the condition of bridges on public roads. The NBI identifies bridge characteristics including age, sufficiency and composition. Structural deficiency and functional obsolescence are calculated using the federal definition for these terms. Generally, structural deficiency refers to the inadequacy of the bridge structure, while functional obsolescence is related to the bridge's insufficient geometric capability to carry traffic, including inadequate deck geometry, under-clearance or approach roadway alignment. The National Bridge Inspection Standards require that all bridges carrying public roads be inspected and evaluated for safety biennially. Additionally, each bridge must be rated for its safe load capacity. If the maximum legal load exceeds the operating load, the bridge must be immediately strengthened, closed or posted. The calculated NBI sufficiency rating, on a scale of 0 to 100, is indicative of the fitness of the bridge to remain in service. Bridges that score 50 or less are eligible for federal bridge replacement funds. Bridges that score between 51 and 80 are eligible for federal bridge rehabilitation funds.

Thirty-two bridges were deemed functionally obsolete and 13 bridges were found to be structurally deficient.

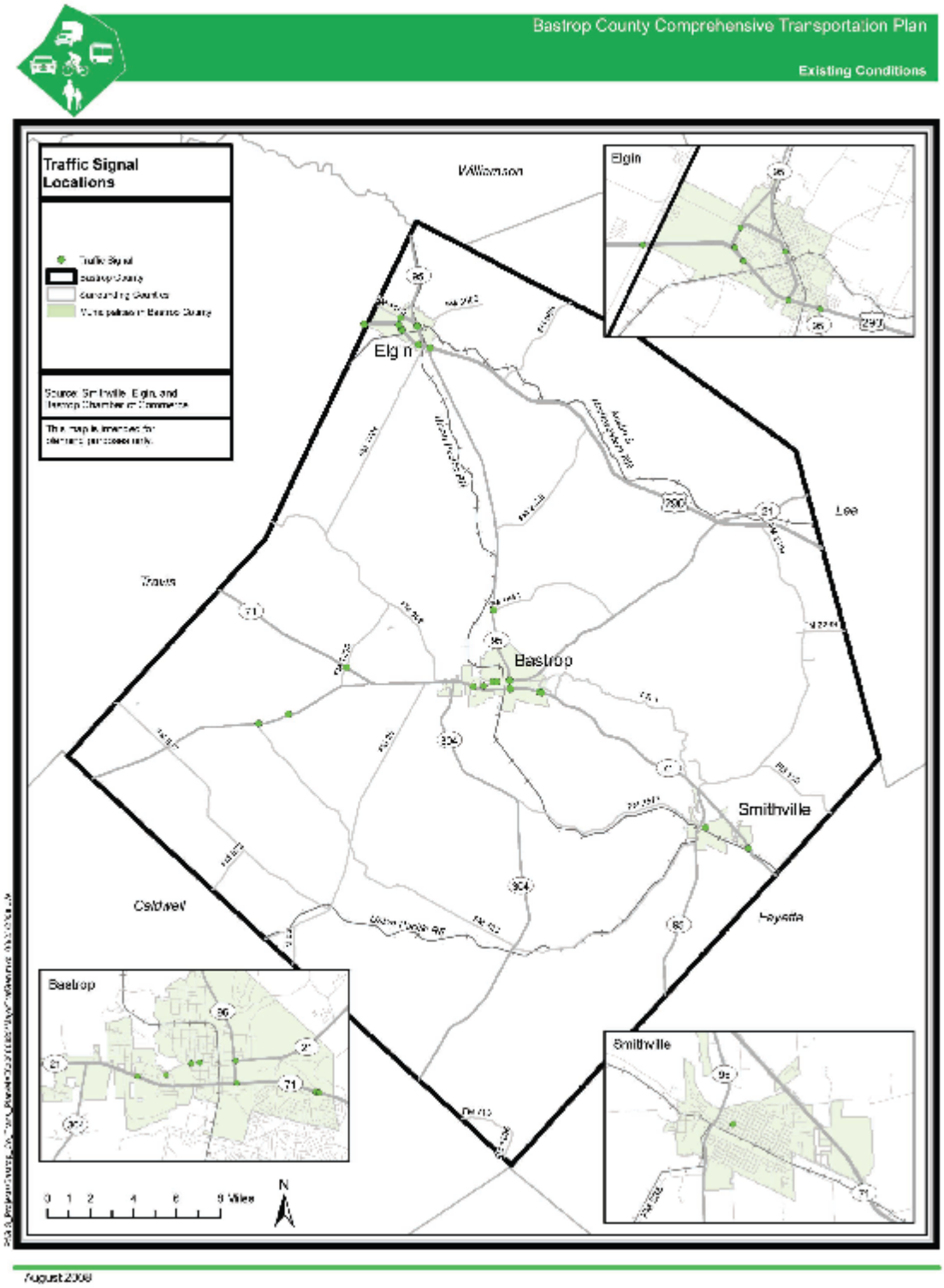
Bastrop County has a total of 229 bridges, which are either state maintained (127 bridges) or locally maintained (102 bridges).

Figure 2.25 shows the location of all bridges in Bastrop County. For purposes of this study, the 2006 bridge inventory was used. Three of the bridges were designated for pedestrian and bicycle use only. One hundred fifty-seven of the 229 bridges, or 69 percent, were in very good or excellent condition, with an NBI rating between 80 and 100 points. Fifty-one of the 229 bridges, or 22 percent, were in good condition with an NBI rating between 50 and 80 points. The remaining 21 bridges, or 9 percent, were in poor condition with an NBI rating below 50 points and potentially signifying a need for replacement. Thirty-two bridges were deemed functionally obsolete, and more importantly 13 bridges were found to be structurally deficient. In 2006, 119 of the 229 bridges, or 52 percent, were more than 25 years old, and 79 bridges, or 35 percent, were over 50 years old.



Source: Texas General Land Office, TxDOT, CAPCOG, ESRI, National Hydrography Dataset

Figure 2.25 Bridges of Bastrop County



Source: Smithville, Elgin and Bastrop Chambers of Commerce

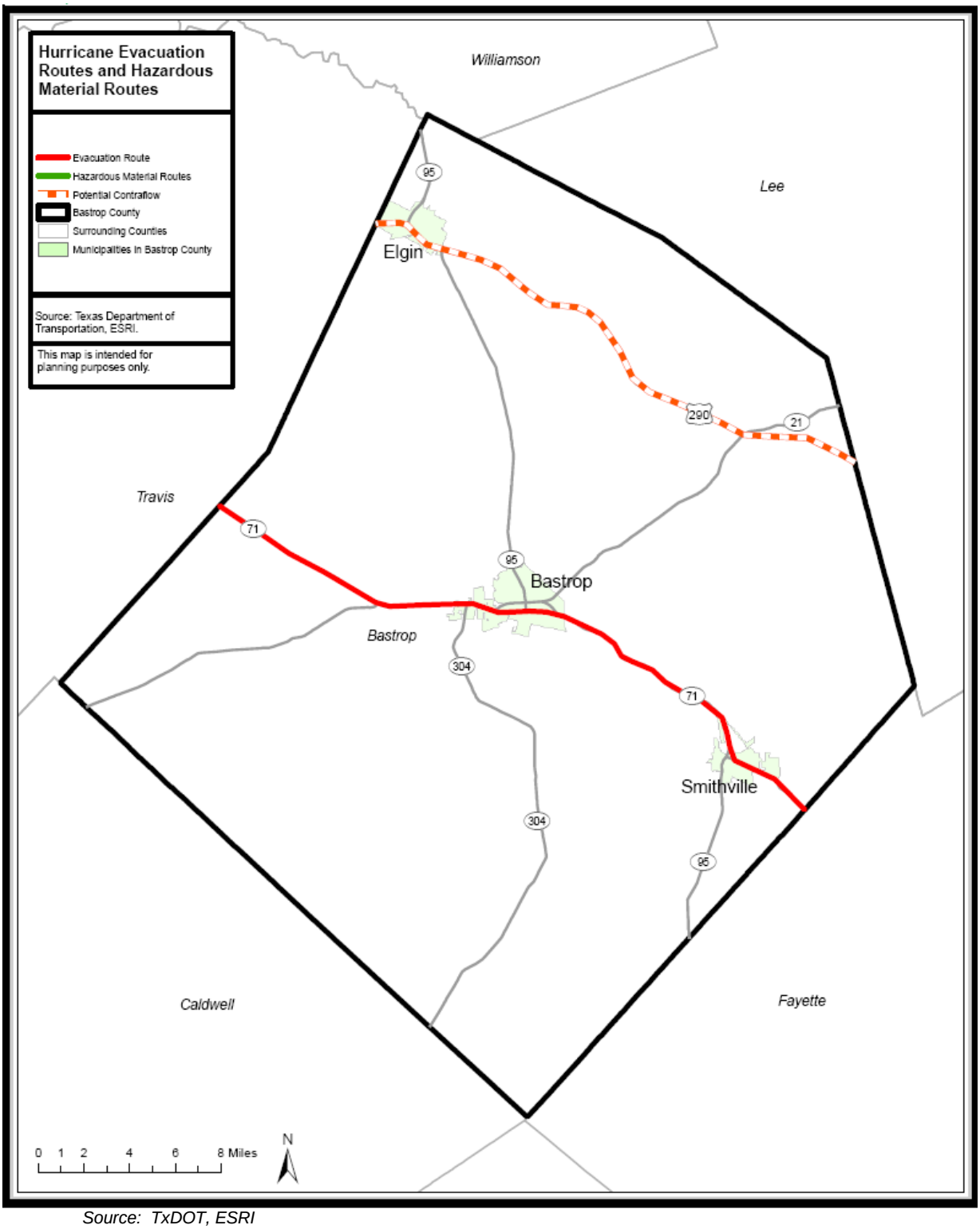
Figure 2.26 Traffic Signal Locations in Bastrop County

2.6.1.7 Inventory of Traffic Signalization

Traffic signals are used to provide interruptions in traffic flows to allow traffic on intersecting streets to safely cross the main roadway or to turn onto the main roadway. TxDOT maintains signals on the state highway system in cities with populations of less than 50,000 and in areas outside of incorporated cities. All three cities in Bastrop County meet this criterion. Above, Figure 2.26 shows all state-maintained traffic signals in Bastrop County.

2.6.1.8 Hurricane Evacuation Routes

The Texas Department of Transportation has identified routes between the coastal areas and inland cities of San Antonio, Laredo, Austin, College Station and Lufkin that are to be used for evacuation in the event of a hurricane striking the Texas coast. In Bastrop County, SH 71 and US 290 are designated evacuation routes, as shown in Figure 2.27.



Source: TxDOT, ESRI

Figure 2.27 Hurricane Evacuation Routes and Hazardous Material Routes within Bastrop County

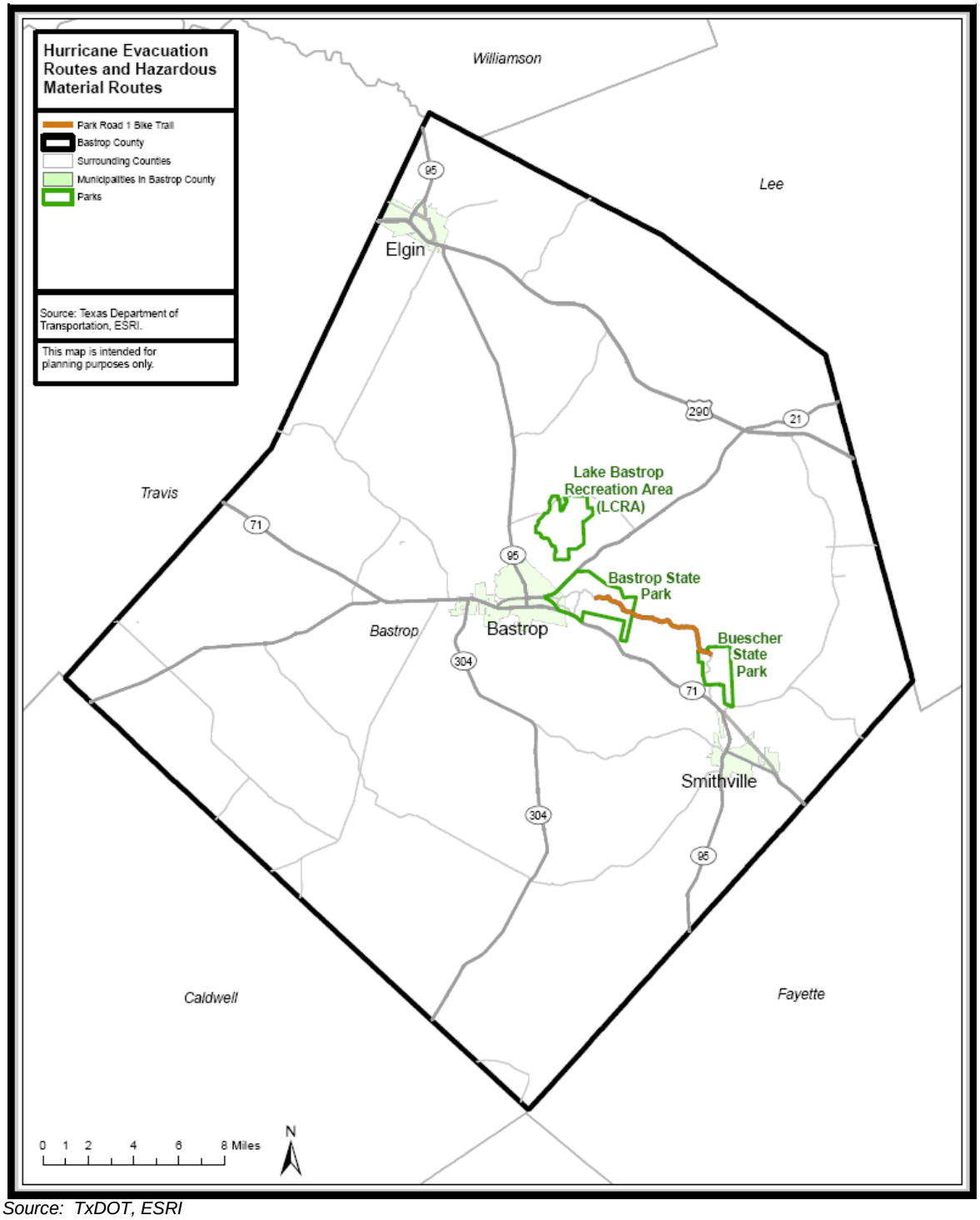
US 290 is also designated as a potential contraflow route. This contraflow designation means that in the event of a coastal evacuation, all eastbound traffic could be halted, and those lanes could be converted to carry westbound traffic away from the coast toward Austin.

2.6.2 Alternative Modes

Bastrop County relies upon a diverse network of transportation infrastructure, including roadways, bicycle/pedestrian facilities, transit services, railroads and airports.

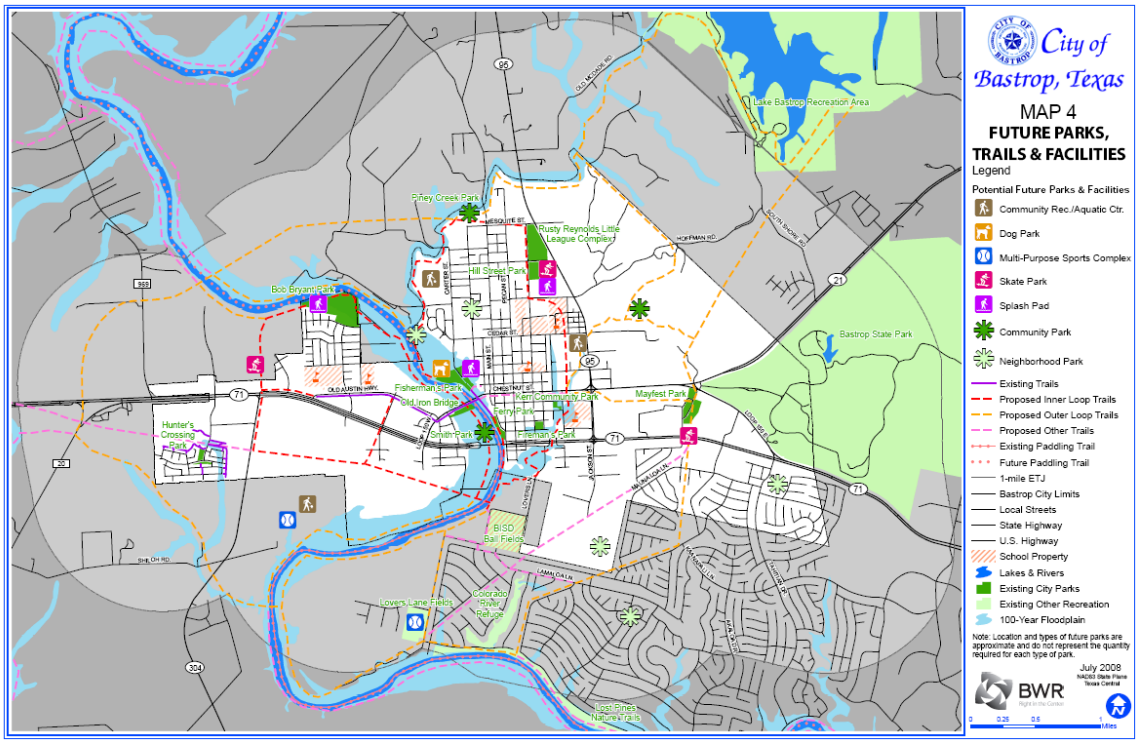
2.6.2.1 Bicycle Facilities

Several recreational facilities exist for bicyclists within the State Parks in Bastrop County, the most notable of which is Park Road 1 that connects Bastrop State Park to Buescher State Park (see Figure 2.28). The city of Bastrop has a partially developed network of paths and trails between parks and activity centers within the city (see Figure 2.29). A system of connected trails and linear parks exists throughout the city, including the June Hill Pape Riverwalk Trail and the El Camino Real Pedestrian and Bicycle Trail. The city of Elgin has a limited network of paths and trails between parks and activity centers within the city (see Figure 2.30). Bicycle connectivity is a part of the City of Smithville's Comprehensive Plan for a trail network to connect downtown to the various parks and recreation areas, including Buescher State Park (see Figure 2.31).



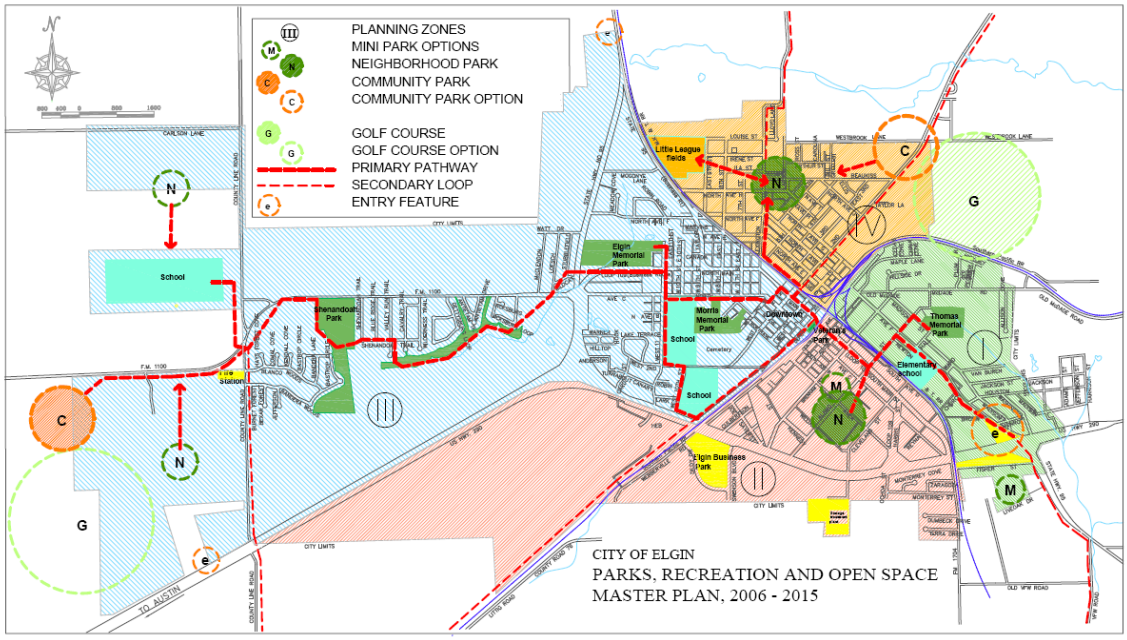
Source: TxDOT, ESRI

Figure 2.28 Park Road 1 Trail



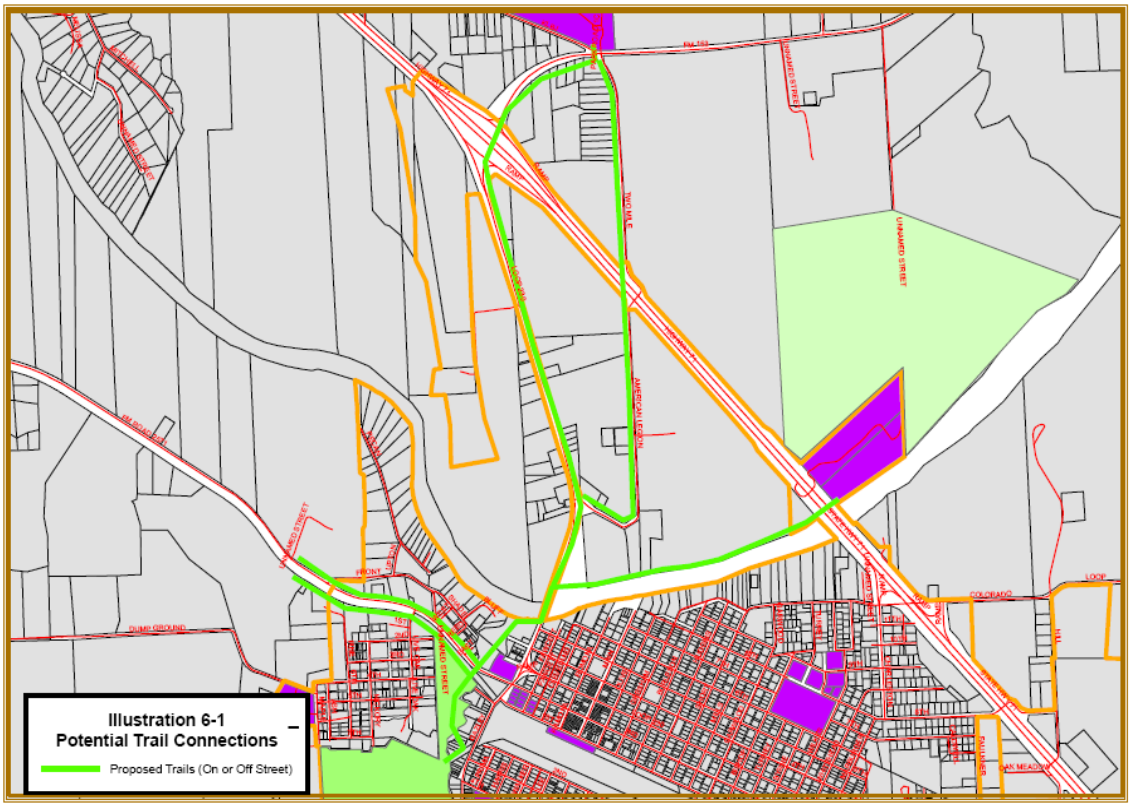
Source: City of Bastrop Master Parks Plan Update

Figure 2.29 City of Bastrop Future Parks, Trails and Facilities



Source: City of Elgin Parks, Recreation and Open Space Master Plan 2006 to 2015

Figure 2.30 City of Elgin Parks, Recreation and Open Space Master Plan 2006-2015



Source: Smithville Comprehensive Plan 2007: Community Development

Figure 2.31 City of Smithville Potential Trail Connections

2.6.2.2 Pedestrian Facilities

Because traffic volumes on streets and highways (other than the primary corridors of US 290, SH 71 and SH 21) are moderate to low, pedestrians often use vehicle lanes or the adjacent unimproved rights-of-way. The city of Bastrop has a developing system of sidewalks throughout the central business and residential districts. Sidewalks are not consistently provided in the more densely populated central business and residential districts of Elgin and Smithville.

It is important to these communities to increase bicycle/pedestrian connectivity, access to transit and access along higher density corridors and between major points of interest or activity centers such as parks and schools. All of the cities, as well as unincorporated areas of Bastrop County, would benefit from the enhancement of way-finding/warning signage and striping to direct bicyclists/pedestrians to safe facilities and warn traffic of the presence of bicyclists/pedestrians. Vehicular traffic volumes are low enough in most areas to warrant the sharing of facilities, particularly within central business districts, but high-speed rural highways, such as US 290 and SH 71, are unsafe for bicyclists traveling within the county.

2.6.2.3 Transit

One goal of the BCCTP is to begin developing an initial plan for a county-wide public transit system in Bastrop County. As Bastrop County continues to grow, the level and type of transportation service historically provided by the Capital Area Rural Transportation System (CARTS) will need to grow to meet the needs of the rapidly growing population.

This plan should consider the county-wide needs for citizens to travel to work, medical and other city businesses, by considering city fixed-route services, regional connections between major population

centers and the basic mobility needs of the county's rural residents. Additional research should look at the number and types of routes for Bastrop County, with origins, destinations and timetables being developed in an implementation planning phase. A public transportation plan will account for the diversity of the county by addressing all of Bastrop County's local communities and rural residents.

2.6.2.3.1 About CARTS

CARTS is a rural transit district, a 7,200-square-mile region surrounding Austin. It is a mixture of a rapidly growing metropolitan center surrounded by rural, suburban, exurban and rapidly urbanizing rural to metropolitan transition areas.

2.6.2.3.2 Current Transit Services

CARTS Around Town (CAT) is a deviated fixed-route service in the City of Bastrop, which provides for circulation through neighborhoods and connects employment, schools, medical facilities, recreation, shopping and other destination centers. CARTS provides a regional Bastrop County connector for travel between Bastrop, Elgin and Smithville, connecting these three communities by feeding into the local transfer points to access the fixed-route and local service. There are two commuter buses originating in Smithville that stop in Bastrop daily for persons working in Austin. Commuter service into Austin is a highly desirable service for rural residents. Currently, this service has a 4-month waiting list.

Demand response routes in Bastrop, Elgin and Smithville provide door-to-door local service to citizens within these communities. Some smaller communities have little to low demand for daily service. However, these communities, including Cedar Creek, Alum Creek, Elgin, McDade, Rockne, Red Rock, Smithville, Rosanky, Upton, Indian Lake, Lake Thunderbird, Peach Creek, String Prairie and other rural areas, are served by utilizing the demand service routes.

2.6.2.3.3 Funding

The State of Texas provides funding from its general revenues and allocates rural transit funds from the Federal Transit Administration (FTA) Section 5311 Rural Program. The Section 5311 Rural Program has seen an increase for rural Texas, while state funding for transit has declined in recent years. The state has initiated a formula to distribute both federal and state dollars. Currently 80 percent of the formula is based on square miles and population, and the other 20 percent is based on performance measures for rural transit systems across the state.

Local funding is provided from Bastrop County, the City of Bastrop, the City of Elgin and the City of Smithville. Other sources of funding come from fare-box revenues and contract for services.

2.6.3 Freight Services

Understanding and planning for goods movement has been a part of metropolitan and statewide transportation planning requirements since the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. Commercial operators within the private sector manage freight movement, which is a complex, multimodal endeavor. One shipment of consumer goods may move via ship, train, airplane and/or truck from the manufacturer to the retail outlet. Therefore, not only are the means for transporting goods important but so are the connections between the modes, known as the intermodal junctions. Bastrop County highways serve the movement of goods from Austin to Houston by US 290 and SH 71 and from San Antonio to northeast Texas via SH 21. The railroads are the other key component of freight movement in Bastrop County.

2.6.3.1 Rail Freight Service

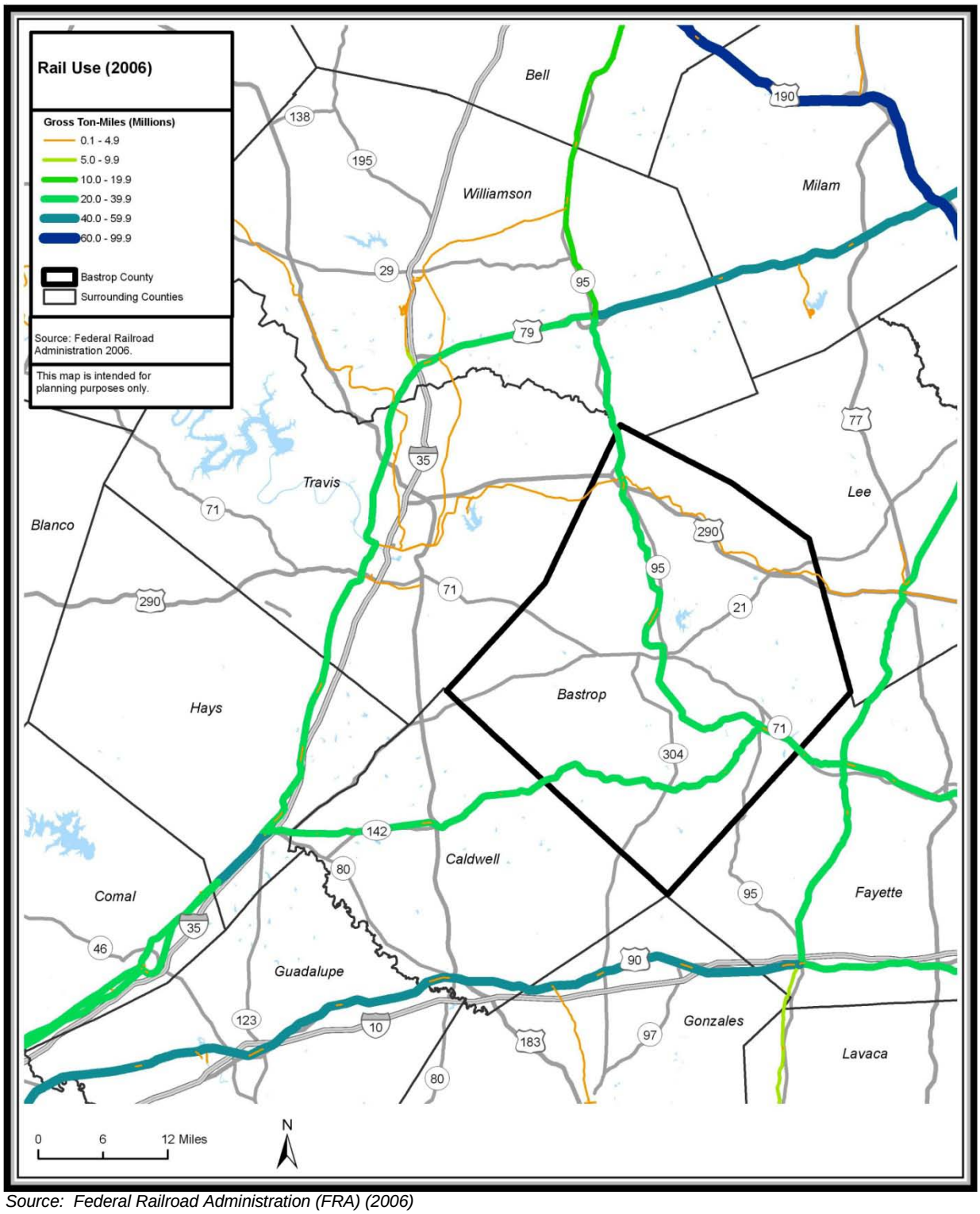
Union Pacific (UP) is a Class I freight operator, defined by the Surface Transportation Board as "having annual operating revenues of $250 million or more," and is the largest rail network in the United States. UP has coverage over most of the central and western portions of the country west of Chicago, Illinois, and

New Orleans, Louisiana. Major commodities hauled by UP in Texas include chemicals, export grain, gravel and aggregates, automobiles and automobile parts, paper, glass, coal and general merchandise.

UP operates two rail tracks within Bastrop County. The first track generally travels north to south from the city of Elgin to the city of Bastrop along SH 95 in the central portion of Bastrop County, and then it trends southeasterly toward the city of Smithville along FM 2571 and SH 71. This rail track has 76 roadway crossings, of which 73 are at-grade. The second track traverses the southern portion of Bastrop County from the city of Smithville westerly along FM 535 and FM 20 toward the city of Lockhart and on to San Antonio. This rail track has 32 roadway crossings, all of which are at-grade. Additionally, there is a minor rail yard/intermodal terminal, located within the city of Smithville, where trains out of Houston can transfer either to northbound rail tracks and travel toward Fort Worth, or to westbound rail tracks and travel toward San Antonio.

Bastrop County also has one short-line rail operator, which is an independent railroad company that operates over a relatively short distance to serve local shippers. The Austin Western Railroad (AWRR) is a short-line freight rail Class III operator that provides local link-haul services between Llano and Giddings on 155 miles of track from Llano to Giddings, with a 6.4-mile branch extending from Fairland to Marble Falls. The AWRR operates on track owned by the Capital Metropolitan Transportation Authority (Capital Metro). The AWRR rail track dates back to 1871 when the Houston and Texas Central Railroad built the Giddings to Austin line. Within Bastrop County, the AWRR traverses the northern portion of the county and interchanges with a UP rail track in the city of Elgin. Nearly 49,000 carloads move annually, shipping commodities such as aggregates, crushed limestone, calcium bicarbonate, lumber, beer, chemicals, plastics and paper. The AWRR is a subsidiary of the Watco Companies, which is a holding company of several short-line rail tracks throughout the United States. This rail track has 49 roadway crossings, of which 47 are at-grade.

Figure 2.32 shows a comparison of freight volume, by millions of ton-miles, based on 2006 data.



Source: Federal Railroad Administration (FRA) (2006)

Figure 2.32 Freight Volume in Bastrop County

2.6.3.2 Truck-Based Freight Service

Connectivity to interstate highways and other regional roadways is essential to attract and retain industrial users. It is imperative that industrial sites, which are important to the economic well-being of a community, be served by appropriate roadways designed, constructed and designated for truck use. However, large trucks may hinder the operation and maintenance of local roads built for use by automobiles and light trucks. Heavier vehicles take more time than lighter vehicles to accelerate and decelerate, negatively affecting traffic flow, and also cause more damage to roadway facilities. Additionally, the presence of many large trucks hampers visibility of smaller vehicles.

Specific routes for oversized trucks are designated by the Surface Transportation Assistance Act of 1982 (STAA), a federal highway program administered by TxDOT. There are a number of federally identified National Network Truck Routes and state-identified STAA Access Routes in Bastrop County. US 290 and SH 71 are the two primary truck routes in the county, with SH 21 and SH 95 as secondary truck routes. However, all state-maintained roadways are intended to accommodate large trucks given their generous geometric design standards and purpose of aiding regional mobility. Table 2.16 highlights the truck restrictions on roadways in Bastrop County.

Table 2.16 Bastrop County Truck Restriction Summary, State Roadways

Location	Effective Date	Truck Restriction
Bastrop County, Fisher Street in Elgin	12-02-99	No permits on Fisher Street located on the south side of US 290 between SH 95 and FM 1704 in Elgin without the company contacting Gary Cook with the City of Elgin (512-281-0119) prior to permit issuance.
Bastrop County, SH 304/SH 71	04-20-07	65 feet maximum length: SH 304 NB to SH 71 WB and SH 71 WB to SH 304 SB. This is a permanent restriction.
Bastrop County, SH 71	03-31-08	12 feet maximum width from SE SH 95-FM 153 to LP 230 in Smithville.
Bastrop County, FM 1704	06-21-07	10 feet maximum width from US 290 to FM 969.
Bastrop County, FM 1704	07-09-97	There is no access to/from US 290 without using city streets or other roads.
Bastrop County, FM 535	08-29-07	No loads over 28,000 lb/axle group on the two bridges between SH 304 and FM 20.
Bastrop County, FM 20	08-29-07	No loads over 15,000 lb/axle group on the bridge between FM 86 and the Bastrop-Caldwell County line.
Bastrop County, FM 969	11-01-07	10 feet maximum width from the Travis-Bastrop County line to FM 1209.
Bastrop County, LP 230	06-23-08	10 feet maximum width from SH 71 to SH 95 in Smithville.

Source: TxDOT (2008)

The county as well as the Cities of Elgin, Bastrop and Smithville have ordinances relating to truck usage on various roadways. Weight limits are the most common method of designating roads or road types on which trucks may travel, with residential streets having the most stringent restrictions. There are no local roads in Bastrop County currently designated as truck routes. Increasing levels of future freight movement will likely necessitate the formal designation of official truck routes for a number of reasons. Defined truck routes will provide more attractive options than inappropriate traversal of residential areas, decrease the amount of time required for trucks to access their destinations, and ensure continued economic development and industry retention in Bastrop County.

A recently completed Austin Area Freight Transportation Study (Draft March 2008) examined the needs of the freight community, and assessed needs and opportunities for the future expansion of freight transit safely and efficiently in the Austin- Round Rock Metropolitan Statistical Area that is defined as Williamson, Travis, Hays, Bastrop and Caldwell Counties.

The A-RR MSA had a total of about 76 million tons of truck freight moving through or within the region in 2003. Nearly 95 percent of the freight by tonnage in the A-RR MSA was moved by rubber tire vehicles. Roadway freight can be classified as pass through, inter-region or intra-region. The majority of pass-through freight movement is via IH 35. Inter-region freight moves via IH 35, US 290 and SH 71 to destinations outside the A-RR MSA. Both pass-through and inter-region traffic is typically via tractor-trailer

transport, while intra-region freight moves via the local road network via units ranging from tractor-trailers to panel vans. Though the presence of many trucks can cause significant operational impacts on local roadways, freight carriers typically use US 290, SH 71 or SH 95 to travel though Bastrop County because other routes are viewed as inadequate or inefficient.

2.6.4 Airports

2.6.4.1 Commercial Aviation

The Austin-Bergstrom International Airport (ABIA) is the largest source of commercial passenger and air freight service to the Central Texas service area. The next closest commercial airports are the Killeen/Ft. Hood Regional Airport, located approximately 100 miles north of Bastrop County and Easterwood Airport in Bryan/College Station, located approximately 90 miles northeast of Bastrop County. By comparison, ABIA is located approximately 20 miles west of the city of Bastrop on SH 71 in southeast Austin.

2.6.4.2 General Aviation

The Smithville-Crawford Municipal Airport, owned by the City of Smithville, is a public-use general aviation airport located in southeastern Bastrop County. The airport, which is situated approximately 2 miles northwest of downtown Smithville, is located at the intersection of SH 71 and SH 95. The airport operates one asphalt runway that is 4,000 feet long and 75 feet wide. Total aircraft operations for 2007 were 9,300, with an aircraft operation being defined as either a takeoff or a landing.

The primary use of the Smithville-Crawford Municipal Airport is recreational flying. Additionally, the airport hosts an annual fly-in and also serves as a gateway for visitors who use the facility to access nearby recreational opportunities. Expansion of this airport to serve a wider range of aircraft is not anticipated in the foreseeable future.

2.6.4.3 Private Airports

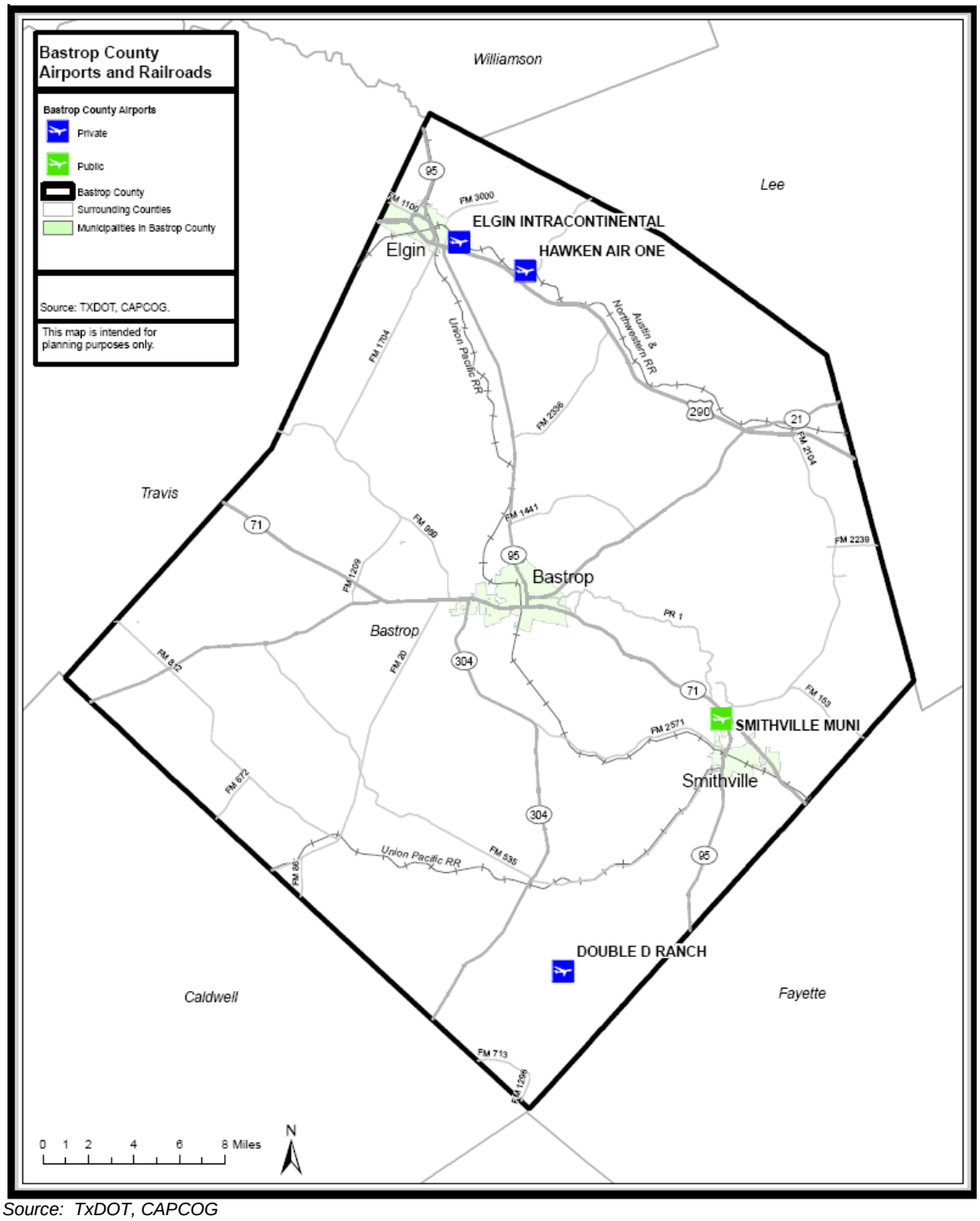
There are three private-use airports in Bastrop County: Elgin Intracontinental Airport, Hawken Air One Airport and Double D Ranch Airport. The three airports are briefly described below.

Elgin Intracontinental Airport is located approximately 0.5 miles southeast of Elgin near the intersection of County Road (CR) 106 and Roy Davis Road. This airport has five turf grass runways, with the largest being 1,050 feet long and 40 feet wide and the smallest being a helipad 75 feet long and 50 feet wide. No facilities exist at this airport.

Hawken Air One Airport is located approximately 2.5 miles southeast of Elgin near the intersection of FM 696 and CR 117. This airport has only one natural soil runway that is 1,550 feet long and 50 feet wide. No facilities exist at this airport.

Double D Ranch Airport is located 4 miles south of Rosanky off of CR 297. This airport has one asphalt runway that is 4,500 feet long and 50 feet wide. No aircraft were based at this airport at the time of the inquiry, but facilities include two hangars and two storage buildings.

Aircraft operations data were not available for these airports. Permission to use all three airports is required by the individual owner. Expansion of these airports to serve a wider range of aircraft is not anticipated in the foreseeable future. A location map of airports in Bastrop County is provided in Figure 2.33.



Source: TxDOT, CAPCOG

Figure 2.33 Railroads and Airports in Bastrop County

2.7 SAFETY

Assessing the safety of the existing roadway system is a critical component of any transportation plan. Crash statistics can help identify key locations where safety improvements would be most beneficial. To perform a safety analysis, the Crash Records Information System (CRIS) database that is maintained by TxDOT was used. It summarizes crash data for the three most current years, 2005 through 2007, and by injury type.

Only reportable motor vehicle traffic crashes were queried for the summary, with TxDOT defining a vehicle crash as "Any crash involving a motor vehicle in transport that occurs or originates on a traffic way, results in injury to or death of any person, or damage to the property of any one person to the apparent extent of $1,000 and having at least one vehicle towed due to the damage sustained in the crash." Table 2.17 shows the summary of vehicle crashes for the three most current years as well as the number of persons involved in the crashes.

Table 2.17 Vehicle Crashes in Bastrop County, 2005-2007

Year	Fatal	Incapacitating Injury	Non-incapacitating Injury	Possible Injury	Non-injury	Unknown Injury	Total
Crashes							
2005	20	56	183	197	763	32	1,251
2006	24	66	222	196	667	37	1,212
2007	16	53	230	171	711	51	1,232
Total	60	175	635	564	2,141	120	3,695
Persons Involved							
2005	21	71	267	333	2,577	181	3,450
2006	32	94	353	372	2,248	236	3,335
2007	17	74	366	328	2,221	227	3,233
Total	70	239	986	1,033	7046	644	10,018

Source: CRIS July (2008)
Note: *The crash data contained in this table are preliminary and have not been finalized or certified.*

Between January 1, 2005, and December 31, 2007, there were 3,695 vehicle crashes reported in Bastrop County. Sixty vehicle crashes (2 percent) resulted in fatalities, while a total of 1,374 vehicle crashes (37 percent) resulted in injuries. Seventy persons (0.7 percent) lost their lives on Bastrop County roads during this 3-year period, while 2,258 persons (23 percent) suffered other of injuries. These trends are very indicative of rapidly developing rural counties adjacent to major urban population areas. Most of the roadways in Bastrop County were developed as rural routes and were built to minimum standards. These roadways are now carrying higher than anticipated traffic volumes and are experiencing higher rates of crashes.

2.8 TRANSPORTATION CONCLUSIONS

The transportation system in Bastrop County is representative of historically rural counties adjacent to metropolitan areas. The following is a summary of existing transportation conditions:

- The roadway system in Bastrop County is provided and maintained by the state, the county and the cities of Bastrop, Elgin and Smithville.
- The two primary four-lane commuter routes into Austin have lower LOS (D or E) west of SH 95 compared to the corridors east of SH 95 during the AM peak period, and overall, SH 71 west of Bastrop has a lower LOS during the AM peak period than US 290 west of and through Elgin.
- Twenty-one bridges in Bastrop County, or 9 percent, were in poor condition with an NBI rating below 50 points and potentially signifying a need for replacement.
- Bastrop County is characterized by an absence of bicycle facilities on existing streets and roadways; however, several recreational facilities exist for bicyclists within the State Parks and within the major cities in Bastrop County.
- Pedestrian facilities in the cities of Elgin and Smithville and other unincorporated communities are mostly absent, and pedestrians often use vehicle lanes or the adjacent unimproved rights-of-way.
- The county is served by CARTS, which is limited to a few routes within the city of Bastrop and demand response service in Elgin and Smithville as well as the outlying areas.
- The county is served by the Union Pacific, a Class I freight operator, and the Austin Western Railroad, a short-line freight rail Class III operator.
- The county has one public-use general aviation airport (the Smithville-Crawford Municipal Airport) and three private-use airports.

CHAPTER 3 – FUTURE CONDITIONS

3.1 FUTURE POPULATION AND EMPLOYMENT

Bastrop County has been one of Texas' fastest-growing counties since 1980.

Bastrop County has been one of Texas' fastest-growing counties since 1980. The county is expected to continue its rapid growth through the period this plan covers. In fact, Bastrop County is expected to add population at double the projected rate for the state of Texas. The growth that is projected will make Bastrop County a larger presence in the A-RR MSA while developing a more local job base. However, the county will likely remain dependent upon the region's core for jobs and educational and cultural amenities. This chapter will show the likely patterns of the placement of the coming residential units and employment sites within Bastrop County, while understanding the limitations that a lack of the statutory ability to conduct land use planning and zoning throughout most of the county places on the ability to direct growth.

3.1.1 Growth Projections

A full discussion of Bastrop County's historical growth is detailed in Chapter 2. This section details the potential impacts the projected growth should have on future transportation and land use.

3.1.1.1 Population and Household Growth

Bastrop County is expected to grow from an estimated population of 69,500 in 2005 to a projected population of 215,500 by 2035, the time horizon for this plan. Using the most current data regarding household size, which places the county's average household size at 3.24 from 2005-2007, the projected growth should result in over 45,000 new households being formed by 2035. Because of expected vacancies in housing occupancy, this means an even greater number of new housing units will need to be built, with the resulting number of additional housing units to be added by 2035 likely to be in excess of 50,000. Land use controls specifying the location and type of these housing units are only allowed within the full-service jurisdiction of cities. Areas of extra-territorial jurisdiction as well as unincorporated areas do not have full land use control. As such, barring any major changes to the Texas Local Government Code, many of these units will be built in areas without zoning or land use planning.

3.1.1.2 Employment Growth

Similar to population and households, employment is also expected to increase dramatically in Bastrop County during the period this plan covers. While Bastrop County is expected to remain a suburban community that will largely grow with the expansion of the economy in the core of the metropolitan area in and near Austin, significant new employment will accompany the county's population growth. The Capital Area Metropolitan Planning Organization (CAMPO) projects the county's employment will increase from an estimated 12,000 in 2005 to 58,200 by 2035. When compared against the projections for population growth, the expected job growth will increase the proportion of residents who are able to find work within the county. While the 2005 ratio of residents to jobs is 5.79:1, the ratio will decrease to 3.70:1 by 2035. This will make Bastrop County more economically self-sufficient than it is at the current time. However, even with the lowered ratio of residents to jobs, Bastrop County is still expected to be a net exporter of workers to Travis and Williamson Counties through 2035. This is best exemplified by the fact that more households than jobs are predicted to be created between now and 2035. This predicted trend underscores the importance of transportation in assuring the economic viability of Bastrop and other counties in the region through maintaining regional links.

3.1.1.3 Age Distribution

Bastrop County's age distribution is expected to show a great increase in its under-18 population, as shown in Chapter 2 of this document. The number of school-age children in Bastrop County is expected to double between 2005 and 2020. This will undoubtedly affect traffic patterns as increased trips to schools are made and new school facilities are added. The addition of schools to meet the needs of an increasing population in turn further affects land use patterns as the site of a new school attracts increasing residential development. Because of this, location planning for new schools should consider possible impacts on residential growth and the traffic patterns that may result.

Additionally, Bastrop County is also expected to see an increase in the number and percentage of elderly residents that mirrors what is anticipated to occur at the national level. In 2005, there were estimated to be 6,878 residents age 65 or over in Bastrop County, roughly 10 percent of the county population. For 2035, the Texas State Data Center estimates that there will be 27,658 elderly residents. In addition to representing an increase of 20,000 elderly residents, this projection also means that elderly residents will account for 16.25 percent of the county population at that time. This projection shows that the provision of senior living facilities and services as well as transportation serving seniors as they travel to medical appointments will be of very high importance by 2035. The importance of integrating transportation and land use in meeting the needs of the elderly cannot be overstated as this segment of the county population grows.

3.2 Future Land Use

3.2.1 Future Land Use

The cities of Bastrop, Elgin and Smithville all have comprehensive plans that include future land use. Bastrop and Smithville updated their plans in 2007 and Elgin completed theirs in 2008. All three planning efforts are promoting mixed-use residential in an effort to make their communities more walkable and the underlying infrastructure more efficient.

On a broader scale, both Envision Central Texas (ECT) and CAMPO have developed general land use plans that include Bastrop County. CAMPO's Growth Concept is loosely based on ECT's 2003 Preferred Scenario. While these plans are a good start, there is no formal plan that ties them all together in a comprehensive effort to address the county's overall transportation needs. The BCCTP is the first county-wide plan that considers all of these planning efforts.

In order to implement a land use plan, the governing authority must have both the implicit and explicit authority to manage growth (i.e., future land use). Implicitly, the governing authority's elected officials must agree on a set of policies that reinforce the plan. The current and future Bastrop, Elgin and Smithville comprehensive planning documents represent these municipalities' efforts to define policies that govern future land use. Bastrop County is also taking steps to define their policies relative to growth. Opportunity Bastrop County and the BCCTP are both efforts to shape the future of Bastrop County.

These planning documents are then implemented via explicit authorities granted to the governing bodies by the State of Texas. For municipalities, that means land use control in the form of zoning and building codes. These controls are implemented in coordination with the comprehensive plan in an effort to encourage efficient growth. Counties have less authority, but with a completed major thoroughfare plan such as this document, Bastrop County can begin requiring right-of-way (ROW) dedication for future corridors. This explicit, but subtle, tool will allow Bastrop County to do its part in encouraging an efficient transportation system while significantly reducing the cost of future ROW acquisition.

Though the county has limited authority in land use, it should be recognized that a close partnership with the cities of Bastrop, Elgin and Smithville, through the use of their ETJs, can result in more effective multi-jurisdictional planning and development review. Such partnerships would provide some access for county input or control into the developmental process.

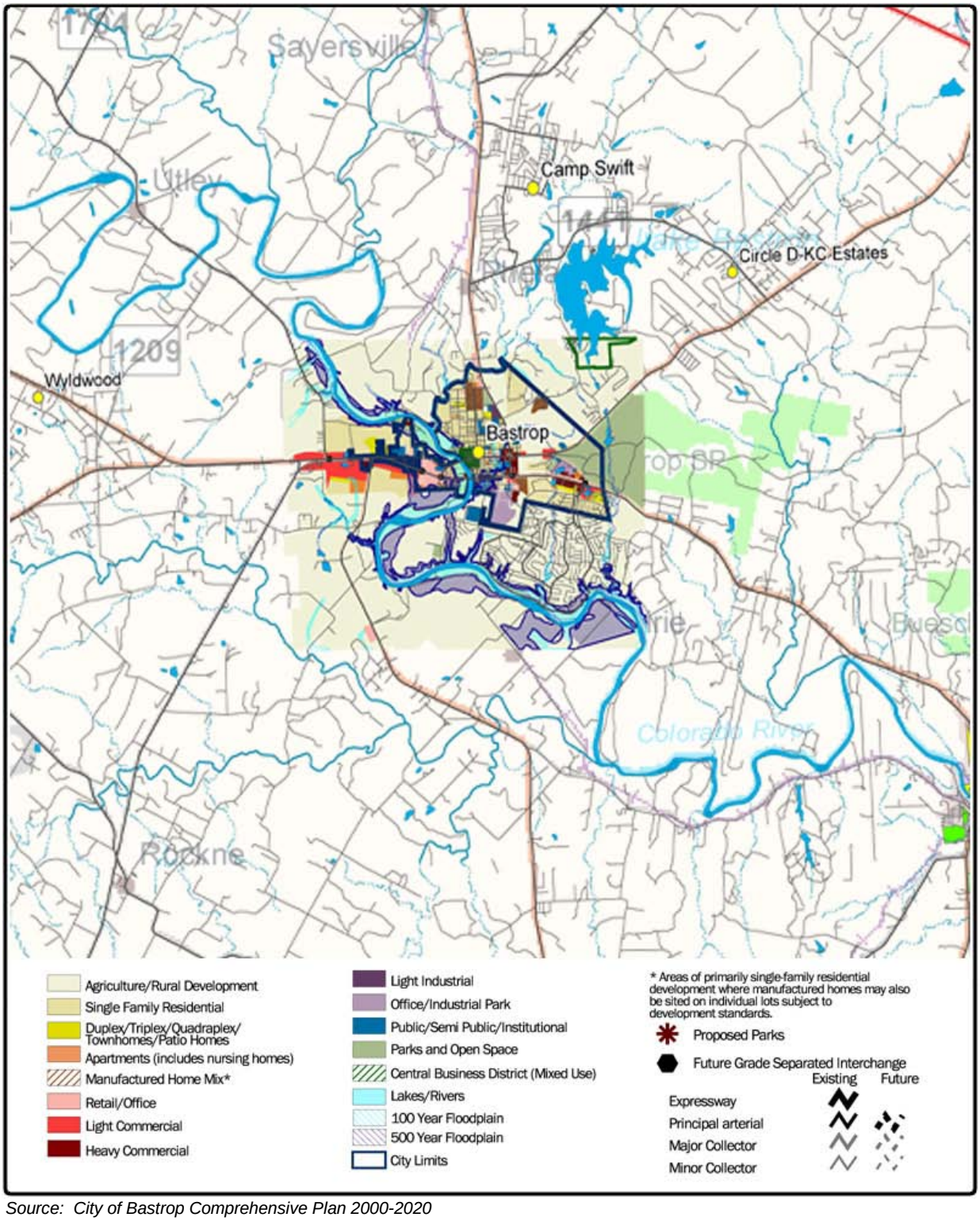
The future land use plans for the cities of Bastrop, Elgin, and Smithville are discussed below.

3.2.2 City of Bastrop

The *City of Bastrop Comprehensive Plan 2000-2020* includes a future land use plan that provides a guide for ongoing land development and redevelopment over the next 10 years through 2020, in hopes of influencing the direction of future land development and to better manage the city's growth in terms of location, type, scale and density. Several key land use issues were identified through a community forum and input from the Comprehensive Plan Steering Committee as well as other community leaders and residents. The key issues presented are:

- planning for development (new roads, potential annexation activity) in Bastrop's ETJ,
- protecting older neighborhoods and ensuring adequate zoning to protect historic areas,
- planning for additional schools as new development and school population growth occurs,
- locating a junior college campus in Bastrop,
- dealing with the impacts of Austin's growth,
- addressing the need for all levels of housing,
- ensuring quality development,
- maintaining a small community character,
- saving green space,
- developing a strong tax base,
- providing health care facilities, and
- providing residents with places to work, recreate and shop.

A graphic representation of the future land use plan is shown on Figure 3.1. This plan shows 13 different land use types, and Table 3.1 gives the calculations of future land use needs based on the expected population growth.



Source: City of Bastrop Comprehensive Plan 2000-2020

Figure 3.1 City of Bastrop Future Land Use Plan

Table 3.1 City of Bastrop Future Land Use

Land Use Category	Existing Developed Land (2000)			Projected Developed Land (2020)		2020 Land Use Plan
	Estimated Acreage	Percent of Total	Acres Per 100 Persons	Projected Acreage	Increase from 2000	Estimated Acreage
Single-Family Residential	577.8	46.8%	9.0	946.9	369.1	1,338.9
Multiple-Family Residential	24.9	2.0%	0.4	40.8	15.9	61.5
Other Residential[1]	20.6	1.7%	0.3	33.8	13.2	82.1
Manufactured Homes[2]	32.8	2.7%	0.5	53.8	21.0	68.9
Residential Subtotal	*656.1*	*53.1%*	*10.2*	*1,075.2*	*419.1*	*1,551.4*
Retail/Office[3]	112.9	9.1%	1.8	185.0	72.1	258.8
Commercial	126.4	10.2%	2.0	207.1	80.7	219.9
Retail/Office/Commercial Subtotal	*239.3*	*19.4%*	*3.7*	*392.2*	*152.9*	*478.7*
Industrial[4]	24.9	2.0%	0.4	40.8	15.9	259.4
Public/Semi-Public/Institutional	253.5	20.5%	4.0	415.4	161.9	241.4
Parks and Open Space[5]	60.9	4.9%	1.0	99.8	38.9	88.0
TOTAL	**1,234.7**	**100.0%**	**19.3**	**2,023.5**	**788.8**	**2,618.9**

Source: Wilbur Smith Associates

1 "Other Residential" includes duplexes, triplexes, quadraplexes, townhomes and patio homes ("Multiple Family" is 5 or more apartment units)

2 The acreage in "MH Mix" in the 2020 Land Use Plan (147.2 acres) was equally divided between Single-Family Residential and Manufactured Homes for this table

3 The acreage in "CBD" in the 2020 Land Use Plan (34.3 acres) was included in Retail/Office for this table

4 "Industrial" includes Light Industrial and the Office/Industrial Park designation in the 2020 Land Use Plan

5 The portion of Bastrop State Park within the city limits (261.4 acres) is not included in any of the columns or calculations for this table

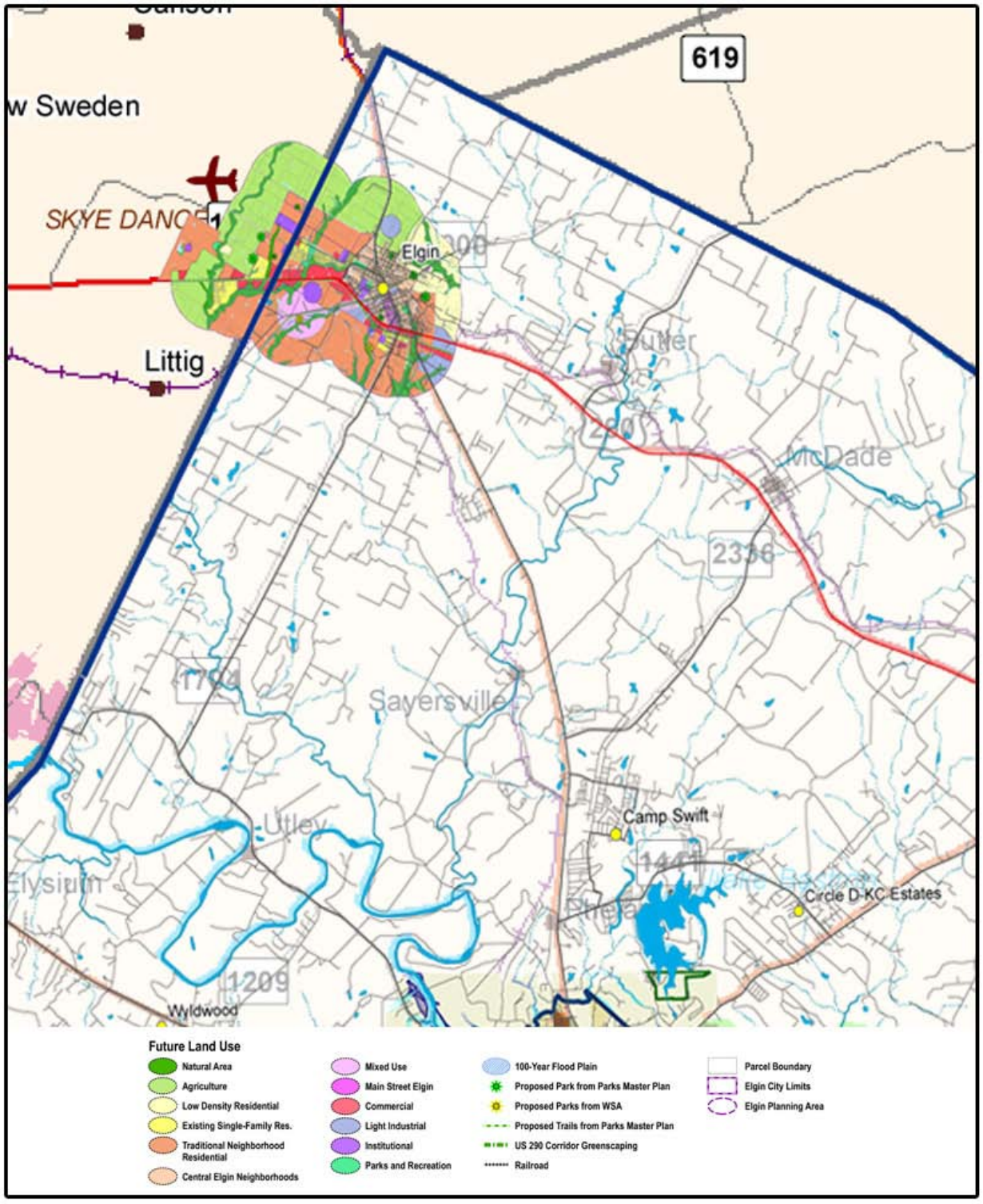
Note: The "2020 Land Use Plan" column only includes future acreages within the current city limits although the plan map shows some other areas

Note: Percentages may not total 100% due to rounding

3.2.3 City of Elgin

The *Elgin Comprehensive Plan Update 2008* included input from the public to identify areas of the city where they would like to see different types of development as well as areas that they would like to see preserved. One of the most commonly identified priorities mentioned by the participants was "managed or strategically planned development that accommodates growth while also preserving Elgin's character and small-town charm." The draft of the future land use plan is shown in Figure 3.2, and illustrates Elgin's general vision for future growth and development within the city and the ETJ. The future land use plan aims to reflect the comprehensive plan guiding principles, while also taking into account existing development patterns and projected population growth. The land use categories outline a general development pattern and a mix of land uses appropriate for the character of each area, in contrast to the zoning ordinance, which is the legal authority regulating individual parcels of land.

The Elgin plan identifies 11 land use types, with each type having a primary land use and one or more supporting land use types that complement the primary land use type. Densities for each type are given, as is a general description of the physical form of development, such as building height, street layout and aesthetic treatments for each category. Provisions for open space areas and park land are also detailed for each land use type.



Source: Elgin Comprehensive Plan Update 2008

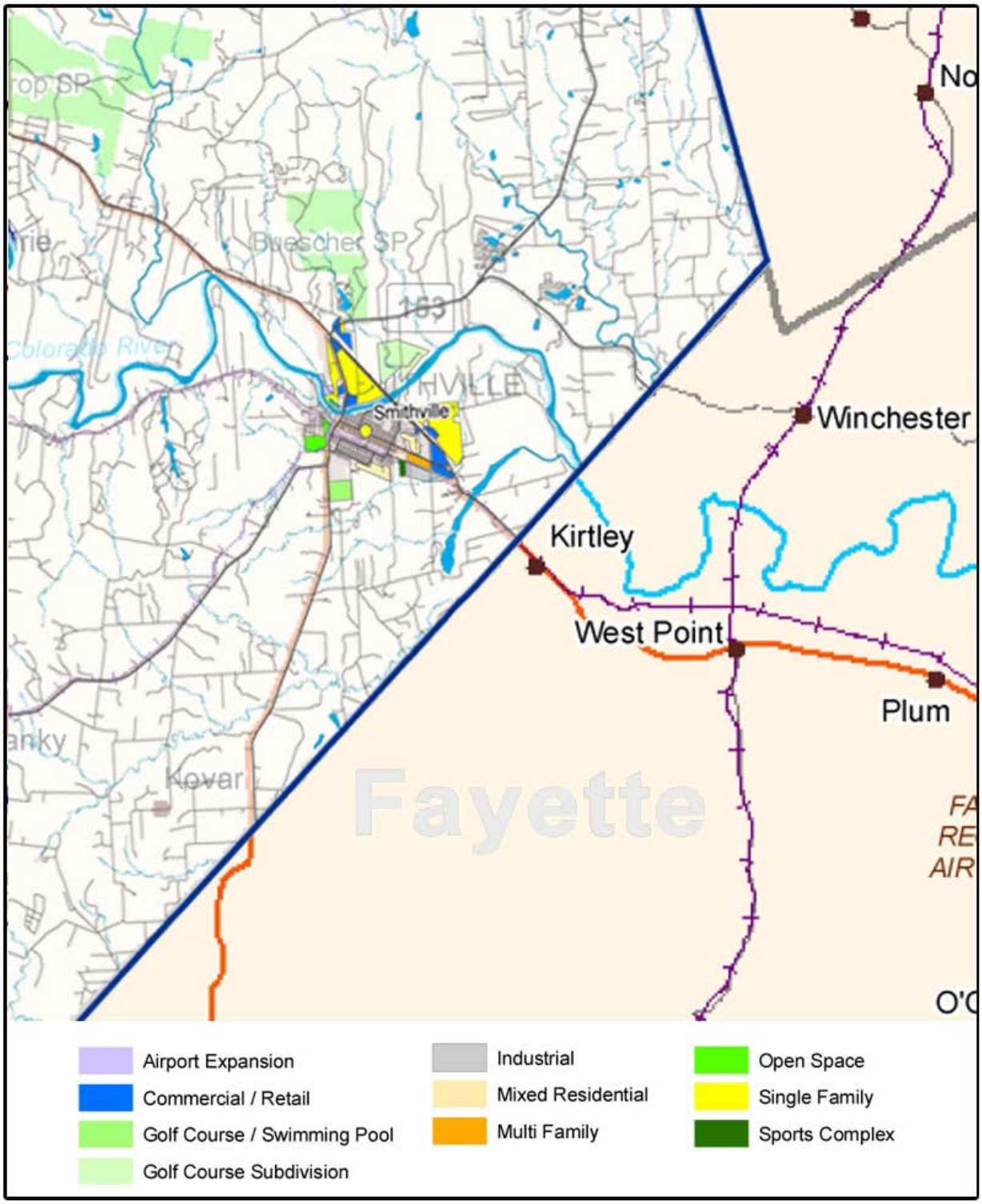
Figure 3.2 City of Elgin Future Land Use Plan

3.2.4 City of Smithville

The *Smithville Comprehensive Plan 2007* is the first effort at generating a plan for existing conditions and mapping out a plan for future conditions. The plan identified these future land use goals with objectives:

- Ensure adequate infrastructure to support development by:
  - identifying and prioritizing needed road improvements,
  - identifying and prioritizing needed water and wastewater improvements,
  - determining planning thresholds for capacity expansion at water and wastewater facilities and
  - monitoring the Carrizo Wilcox Aquifer to ensure it remains viable as a water source.
- Review and update subdivision and zoning ordinances by:
  - reviewing ordinances from other communities and identifying best practices, and
  - updating ordinances to support land use goals.

Other aspects of the plan include community development and focus on projects that enhance Smithville's quality of life. Projects that are transportation related are improving access to the Colorado River and increasing pedestrian safety and enhancing connectivity. The revitalization of the downtown area is another goal in the plan, as is making the downtown area more pedestrian friendly and adding improvements that will allow pedestrians to walk to the downtown area (Figure 3.3).



Source: Smithville Comprehensive Plan 2007

Figure 3.3 City of Smithville Future Land Use

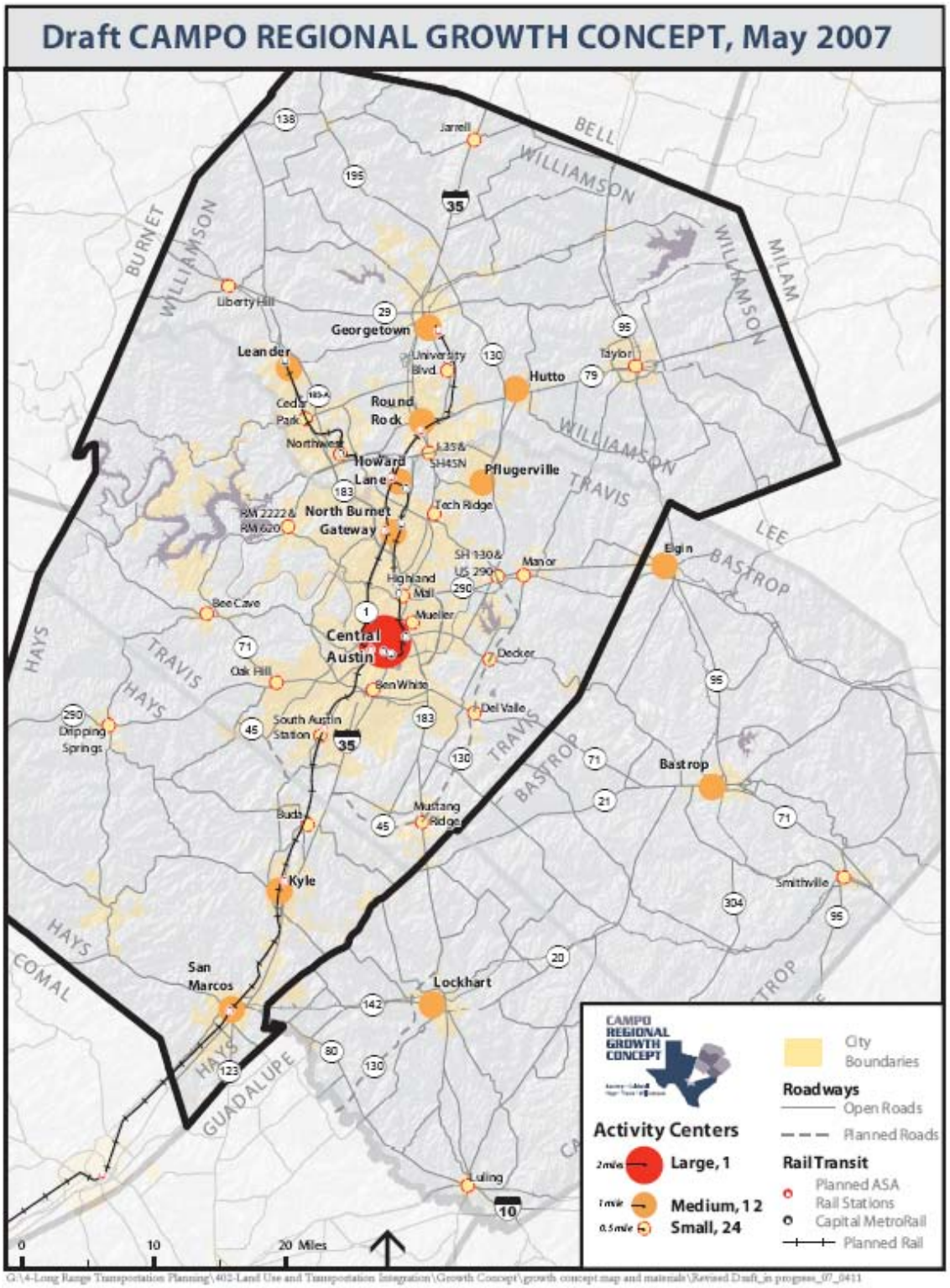
All three planning efforts in Bastrop, Elgin and Smithville are promoting mixed-use residential in an effort to make their communities more walkable and the underlying infrastructure more efficient.

3.2.5 Other Plans

Envision Central Texas is a non-profit organization composed of a diverse group of citizens, including neighborhoods, environmental interests, business leaders and policy makers, who share the common goal of addressing growth sensibly with the interests of the region's citizens in mind. ECT has established six implementation committees to develop tools, resources and projects for these critical issue areas, including the Transportation and Land Use Committee. One of the key elements for the regional vision is "an effective transportation system that improves mobility throughout the region, increases choices of how we get around – including roads, rails, trails and bikeways – and is coordinated with land use planning."

As part of the consideration for connectivity, a review of the *Bastrop County Community Wildfire Protection Plan* that was approved by the commissioners' court on June 23, 2008, provides an overview of the need for roadway improvements to adequately allow for concurrent access for firefighting equipment and egress for evacuation of residents. Over 70 neighborhoods throughout the county have been identified in the report as at risk for "…inadequate entrances and exits, narrow roadways, insufficient turning space, or dangerously inadequate firefighting operational space" (BCCWPP, 2008). Continued coordination with Bastrop County Emergency Management is recommended to obtain the list of the deficient roadways identified by this process for improvements to local roads and minor collectors.

CAMPO's Regional Growth Concept Initiative, as illustrated in Figure 3.4, is loosely based on ECT's 2003 Preferred Scenario. CAMPO's Growth Concept focuses growth in various activity centers that will be small, medium or large scale. One of the benefits of focusing growth in these activity centers is the minimizing of infrastructure costs. Bastrop County is projected to have two medium-sized activity centers in Elgin and Bastrop and one small-scale activity center in Smithville. CAMPO is in the process of creating a 2035 transportation plan for the five-county A-RR MSA. As a part of this plan, CAMPO projects the distribution of the population growth that is forecasted during the planning period. Additionally, much of the anticipated growth is projected to occur near the Travis County line since most of the growth is driven by the Austin-centered regional job market and assumptions.



Source: CAMPO (2007)

Figure 3.4 Draft CAMPO Regional Growth Concept (2007)

3.3 Other Possible Mechanisms to Plan for Growth

3.3.1 Greenprint

The Trust for Public Land, working with Bastrop County officials and stakeholders, CAPCOG and Envision Central Texas, has created a greenprint (an environmental plan) for Bastrop County. The plan focuses on parks, waterways, greenways and other shared open spaces. This effort involved extensive public meetings, modeling and drafting to create a county-wide prioritization of lands to be conserved. This project is particularly useful in the selection of highway and other transportation corridors because it identifies the most sensitive features that should be avoided by infrastructure projects.

3.3.2 Lost Pines Habitat Conservation Plan

In recognition of the fragility of the Lost Pines ecosystem and the extremely endangered status of the Houston toad, Bastrop County has created the Lost Pines Habitat Conservation Plan (HCP). Participation in the HCP is optional, but may save participants time and effort compared to meeting federal requirements to demonstrate incidental takings of the Houston toad habitat separately. Funds gathered from participants are used to preserve and improve the condition of habitat lands. The HCP will likely affect land use and transportation due to the requirements of satisfying the HCP if one wishes to develop in the area.

3.3.3 County Transportation/CAMPO 2035 Mobility Plan

This plan, along with the CAMPO 2035 Metropolitan Transportation Plan, will heavily affect the scope, type and location of transportation improvements to be made in Bastrop County between the years 2010 and 2035. These transportation decisions will greatly impact the land use intensity and mix within the county and may even influence overall growth, depending upon what is or is not built.

3.3.4 County Subdivision Regulations

County land use controls, while very limited in Texas, can still be used in conjunction with the BCCTP to manage growth. In addition to the basic subdivision regulations, requirements based on roadway standards, infrastructure and protection of environmental resources may be combined to exert some control over the placement and intensity of land uses. Bastrop County works closely with the cities to ensure that the review of proposed development within cities' ETJs is monitored to ensure this development, which is often focused around major transportation corridors, is consistent with the county's transportation objectives.

3.4 Future Transportation

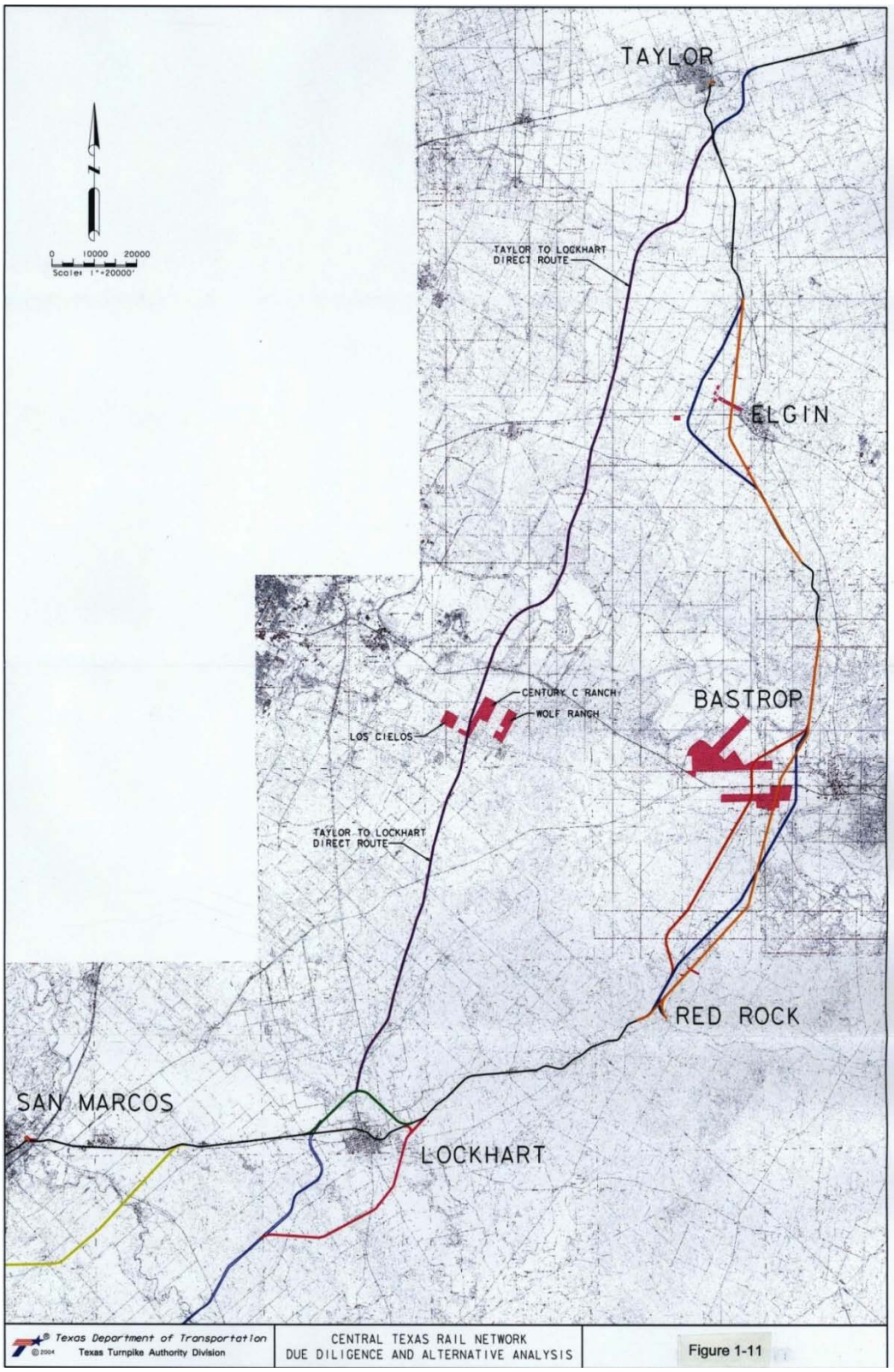
3.4.1 Freight Rail

In July 2008, TxDOT completed a feasibility study for the relocation of the Union Pacific through-freight rail operations to alternative routes in an effort to reduce traffic congestion and resulting safety concerns associated with the high volume of train traffic between Austin and San Antonio. This study was prompted by a series of three train accidents in San Antonio during 2004 that resulted in four fatalities and continuing work on the Lone Star Rail District project to provide passenger service between Georgetown and San Antonio.

Figure 3.7 shows the study area considered for bypass corridors in the Central Texas Railroad Relocation Study (CTRR). The segment of the study corridor between Taylor and Lockhart included both a direct route in a new location between Taylor and Seguin as well as an option of improving the existing rail corridor from Taylor through Elgin and Bastrop to connect to existing UP track near Lockhart. The new location alternative would be located in Williamson, Travis and southwestern Bastrop Counties.

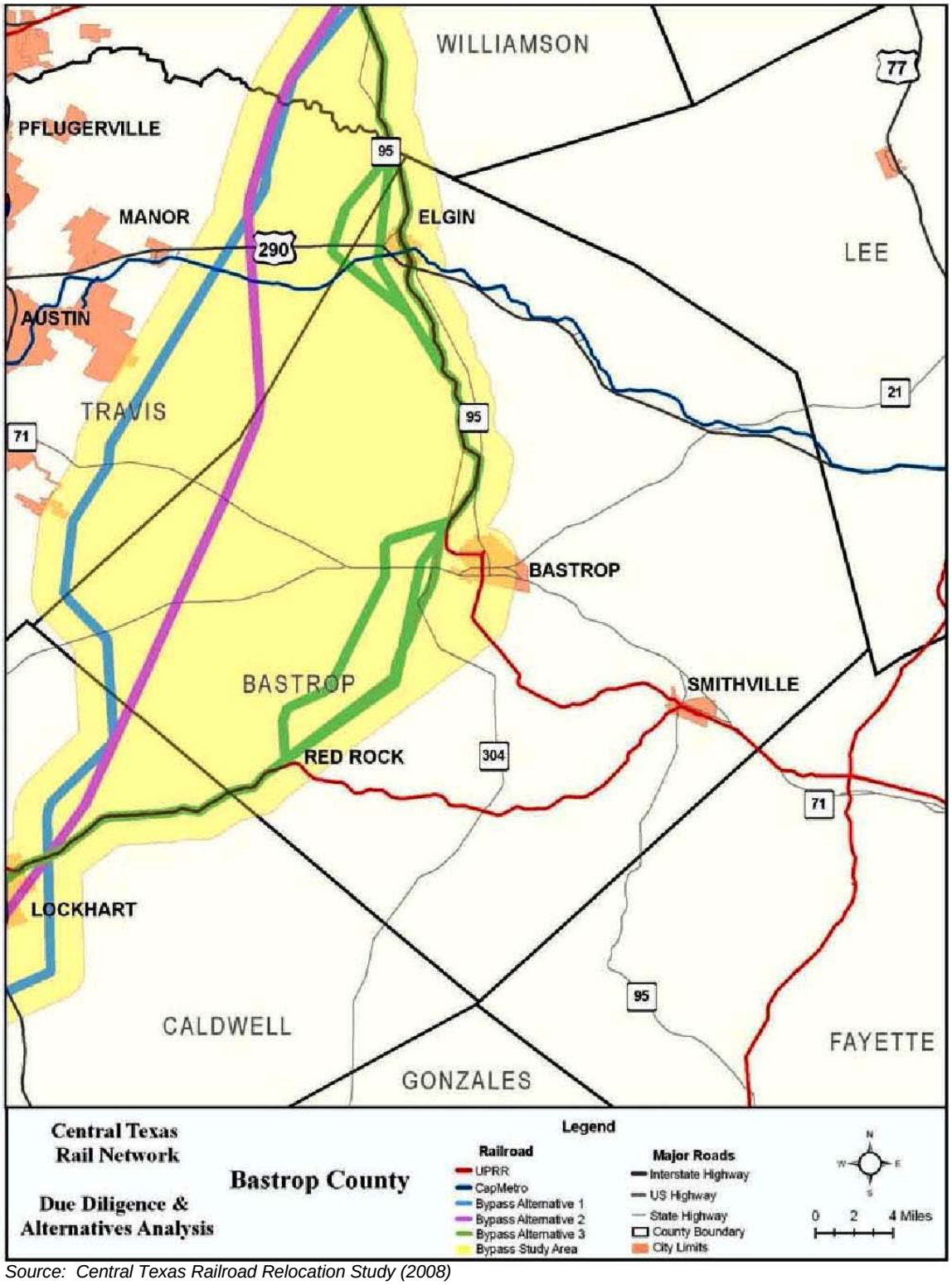
The alternative for improving the existing track between Taylor and Bastrop considered rail bypasses that would be located west of Elgin and west of Bastrop. Figure 3.8 shows the preliminary corridors considered at these locations. The study concluded that relocation of through freight rail services is feasible through the construction of an entirely new freight rail facility or through upgrades to UP's existing facilities between Taylor and San Antonio.

The Central Texas Railroad Relocation Study was the first step in a multi-phase and multi-year planning process that is needed to determine the preferred alternative. The full report and additional information about TxDOT's rail study are available on the Internet at http://www.txdot.gov/txdot_library/publications/rail.htm.



Source: Central Texas Railroad Relocation Study (2008)

Figure 3.7 Rail Relocation Map



Source: Central Texas Railroad Relocation Study (2008)

Figure 3.8 Rail Relocation Map – Bastrop County

3.4.2 Passenger Rail

Passenger rail service between Austin, Manor and Elgin was identified as a future service in the Capital Metropolitan Transportation Authority's (CMTA's, aka Capital Metro) 2004 All Systems Go Plan using freight railroad track that extends from downtown Austin to Giddings and is owned by CMTA. In 2008, the City of Elgin and CMTA evaluated the feasibility of providing commuter rail service between downtown Austin, Manor and Elgin, named the Green Line. In September 2008, CMTA presented the results of the feasibility study to CAMPO's Transit Working Group.

The study determined that passenger rail was a viable transportation alternative that would serve east Austin, Manor and Elgin commuters into Austin. Additional studies are needed to further refine costs, ridership, financing and operations of the proposed Green Line. The Elgin Economic Development Corporation has acquired 80 acres southwest of downtown Elgin for a future rail station and associated commercial development.

3.4.3 Roadways

3.4.3.1 State

At the present time, TxDOT provides the funding for state-maintained roads in Bastrop County. Preventive maintenance projects, such as seal coats, overlays and minor safety improvements, are generally funded with state funds. Major rehabilitation work and capacity improvements are typically funded with a mix of state and federal funds.

3.4.3.2 Local Roads

The comprehensive plans completed for the Cities of Bastrop, Elgin and Smithville have identified roadway improvements for both the local road network and the state-maintained network. Each city will be working with TxDOT to advance their respective projects on the state-maintained roads. The addition of Bastrop County into CAMPO will provide access to additional federal funds. Projects submitted through the MPO will be selected for funding by the Policy Board.

The process used by the BCCTP to identify needs for additional lanes and safety improvements did not extend to the local roadway network since traffic volumes on those roadways are much lower than volumes on state-maintained highways. The BCCTP does identify a few new arterials that should be considered as development occurs in those areas.

3.5 Future Conditions Conclusions

As shown in this chapter, the following items summarize future conditions in Bastrop County:

- The county is expected to continue its rapid growth through and is expected to add population at double the projected rate for the state of Texas.
- Bastrop County is expected to grow from an estimated population of 69,500 in 2005 to a projected population of 215,500 by 2035.
- Additional new housing units to be added by 2035 are likely to be in excess of 50,000.
- Employment is expected to increase dramatically in Bastrop County through the year 2035, with CAMPO projecting that the county's employment will increase from an estimated 12,000 in 2005 to 58,200 by 2035, making the county more self-sufficient than it is today.
- The number of school-age children in Bastrop County is expected to double between 2005 and 2020.
- Bastrop County is expected to see an increase in the number and percentage of elderly residents that mirrors what is anticipated to occur at the national level.

- There are several city and county plans that will help to shape the patterns of land use and growth in the county in the future, as well as transportation spending, city planning, county land use authority and environmental protections.
- The Central Texas Railroad Relocation Study identified bypass corridors for the relocation of Union Pacific between Taylor and Lockhart.
- Future passenger rail service between Austin, Manor and Elgin was identified as a future service in the Capital Metropolitan Transportation Authority's 2004 All Systems Go Plan.

CHAPTER 4 – COMPREHENSIVE TRANSPORTATION PLAN

4.1 THE PUBLIC INVOLVEMENT PROCESS

4.1.1 Public Involvement Plan

Development of the Bastrop County Comprehensive Transportation Plan has always had a firm guiding principle: to be developed by Bastrop County, for Bastrop County. From the start of the project, the need for extensive community outreach was recognized, and the Public Involvement Plan was developed. This plan is a combined effort between the Bastrop County Commissioners Court and staff, TxDOT, and the Capital Area Regional Transportation Planning Organization.

The objective of the Public Involvement Plan was to maintain a high level of communication by informing and involving the public about the development of the BCCTP. The communication strategy integrated each of the elements of public information, advertising, and community, neighborhood and public relations to create and sustain a message platform that proactively communicated the vision, benefits, progress and impact of the BCCTP for Bastrop County.

4.1.2 Project Resource Team

The Project Resource Team (PRT) assisted Bastrop County in planning and implementing the development process of the BCCTP. The team met regularly to coordinate project tasks and to keep the process on schedule. Members of the PRT included:

- Bastrop County,
- TxDOT Austin District,
- Texas Transportation Institute,
- Capital Area Council of Governments,
- URS (consultant to TxDOT), and
- Concept Development and Planning (sub-consultant to URS).

4.1.3 Committees

Three committees guided the planning process.

Three committees were created to guide the planning process, share information and implement the Public Involvement Plan. Committees met regularly throughout the development of the BCCTP.

4.1.3.1 Steering Committee (SC)

The Steering Committee was comprised of locally elected officials from Bastrop County and the Cities of Bastrop, Elgin and Smithville. The committee was tasked with providing guidance, review and oversight of the BCCTP process and ensuring that the community's vision is reflected in the final plan. The Steering Committee completed the following activities:

- developed study goals,
- provided guidance on and approved the Public Involvement Plan,
- reviewed and approved technical memoranda throughout the process,
- served as a liaison between the study team and their member entity,

- provided oversight and approved all public and community meeting materials,
- participated in a mapping exercise to identify possible projects,
- evaluated projects for inclusion in the final plan, and
- developed and supported the plan adoption process.

4.1.3.2 Technical Advisory Committee

The TAC included representatives from the Cities of Bastrop, Elgin and Smithville; Bastrop, Elgin, Smithville and McDade Independent School Districts; Bastrop County; Bastrop County Emergency Services District 1; Aqua Water; Bluebonnet Electric; CAPCOG; CARTS; and CAMPO. The TAC was instrumental in providing background information and coordinating planning efforts. The TAC completed the following activities:

- facilitated data collection and analysis from various agencies;
- coordinated the incorporation of existing plans into the BCCTP;
- provided background on development patterns, trends and future needs, feedback on assumptions, such as growth in population and employment, and methodology for comparing improvement scenarios; and
- evaluated projects for inclusion in the final plan.

4.1.3.3 Citizen Advisory Committee

The CAC was comprised of volunteer community members who donated time and effort to promote participation by the entire community. The primary responsibility of the CAC was to disseminate project information and involve the public in the planning process. The CAC completed the following activities:

- implemented the Public Involvement Plan;
- presented project information to local community service groups, organizations and clubs;
- distributed both the questionnaire and the project ranking card; and
- promoted public participation through e-mail outreach.

4.1.4 Public Involvement

4.1.4.1 Public Meetings

During the project, Bastrop County conducted two rounds of public meetings and held a public hearing in a presentation/open house format to inform the public about the planning process, to report on the progress and to receive community input. These meetings took place in different communities and on different days to provide for maximum participation by interested citizens.

During the first round of public meetings, three identical public meetings were held to inform the community about the development of comprehensive transportation plans, share information about the planning process, explain the project goals, and seek questions and comments from the public. The team gave a brief presentation and then answered questions and visited with the community in an open house format. Finally, a questionnaire was given to attendees to solicit input on transportation in Bastrop County. Sixty-eight attendees participated in this round of public meetings. The meetings were held in the following locations on the dates noted:

- Elgin: September 23, 2008;
- Smithville: September 30, 2008; and
- Bastrop: October 2, 2008.

Over 60 attendees attended the second round of public meetings. At these meetings, the Project Resource Team gave a brief overview of the purpose and benefit of developing a comprehensive transportation plan, discussed the project timeline and shared the results of the public information

questionnaire. The PRT also shared the project scoring process and criteria. The list of the 34 transportation projects that scored highest during the Steering and Technical Advisory Committee's project scoring process was presented at this meeting. A project ranking/comment card was distributed, and attendees were asked to rank their top 10 priority projects. Comments and project rankings were collected at these meetings. Other exhibits included level of service maps, traffic flowband table, population projections, accident data and maps locating the proposed projects. Two public meetings were held during the second round:

- Bastrop: July 21, 2009; and
- Elgin: July 23, 2009.

In spring of 2010, the draft final plan was presented to Commissioner's Court, and the City Councils of Bastrop, Elgin and Smithville. A public open house was held on April 7, 2010. Plan information was on display and staff was available to answer questions. Approximately 27 comments were received on the draft final plan (see appendix G).

4.1.4.2 Community Meetings

The PRT had tremendous success in reaching citizens of Bastrop County by attending and giving update presentations at several community meetings. The CAC reached out to different service and business organizations and asked to give project updates and distribute materials. If any organizations were unable to receive a project update, information was sent to them for electronic distribution to their members. Two rounds of meetings occurred, and they are summarized below.

The first round of community meeting outreach took place from September to October 2008. A PowerPoint presentation was given covering the project overview, goals, timeline and participation opportunities. After the presentation, a questionnaire and comment card were distributed. The meetings attended during this first round included:

- 3N1 Fire Department;
- Bastrop Chamber of Commerce;
- Bastrop Networking Group;
- Bluebonnet Volunteer Fire Department;
- 5 Points Volunteer Fire Department (VFD);
- Cedar Creek Rotary Club;

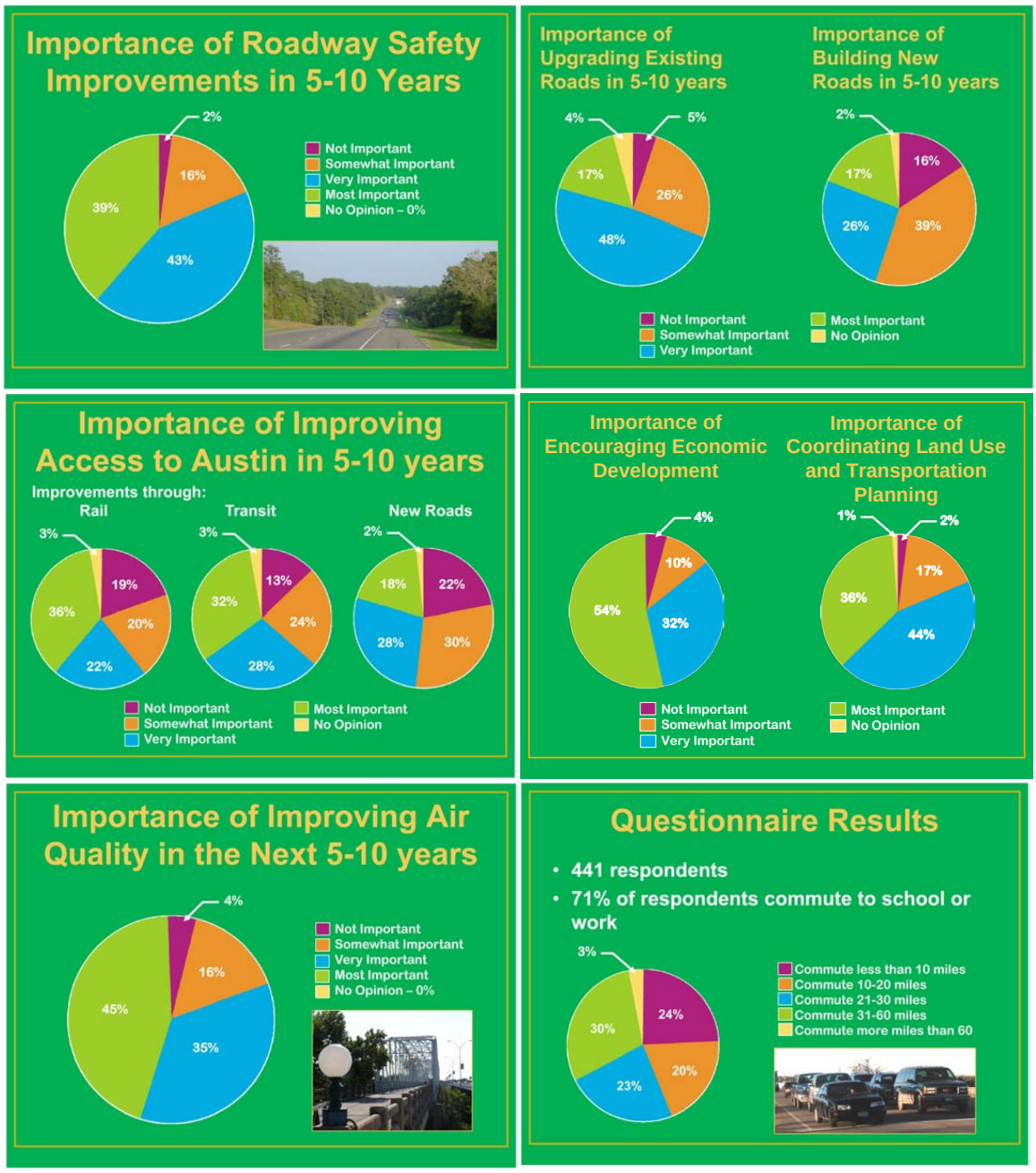
- Colovista Country Club;
- Bastrop, Elgin and Smithville City Halls;
- Elgin Chamber of Commerce;
- Elgin Noon Lions Club;
- Hunters Crossing;
- Tahitian Village; and
- Smithville Lions Club.

The CAC did a second round of community meeting outreach from August to September 2009. In these updates, the presenters reviewed the questionnaire results, presented the proposed project list and distributed a project ranking comment card. Due to late summer/early fall scheduling conflicts, more information was distributed electronically rather than in person at these meetings. The community was very well informed and very involved in this part of the project. The groups reached during this second round included:

- Bluebonnet VFD;
- 5 Points VFD;
- Bastrop Riverside Grove Homeowners' Association (HOA);
- Jacob's Landing HOA;
- Bastrop Board of Realtors;
- Bastrop Chamber of Commerce;
- Bastrop, Elgin and Smithville City Halls;
- Bastrop and Elgin Libraries;
- Camp Swift;
- Friends of Central School;
- Community Gardens;
- Elgin Chamber of Commerce;
- La Reata Ranch Property Owners Association (POA);
- Lost Pines Artisan Alliance;
- Poetry Reading Group;
- Safe Routes to School in Smithville;
- Smithville Business Association;
- Smithville Chamber of Commerce;
- Smithville Noon Lions Club;
- Stacy Bricka church group;
- Tahitian Village POA; and
- the Colony HOA.

4.1.4.3 Public Information Questionnaire

In the fall of 2008 the BCCTP team developed a questionnaire to gather input on travel patterns and to collect the community's opinions on future transportation improvements. Four-hundred-forty-one members of the community participated in the questionnaire, and their input was used to guide the Steering and Technical Advisory Committees in developing the list of proposed projects to be included in the plan. Figure 4.1 is a summary of the results, which specifically reflect the community's vision for a comprehensive transportation plan.

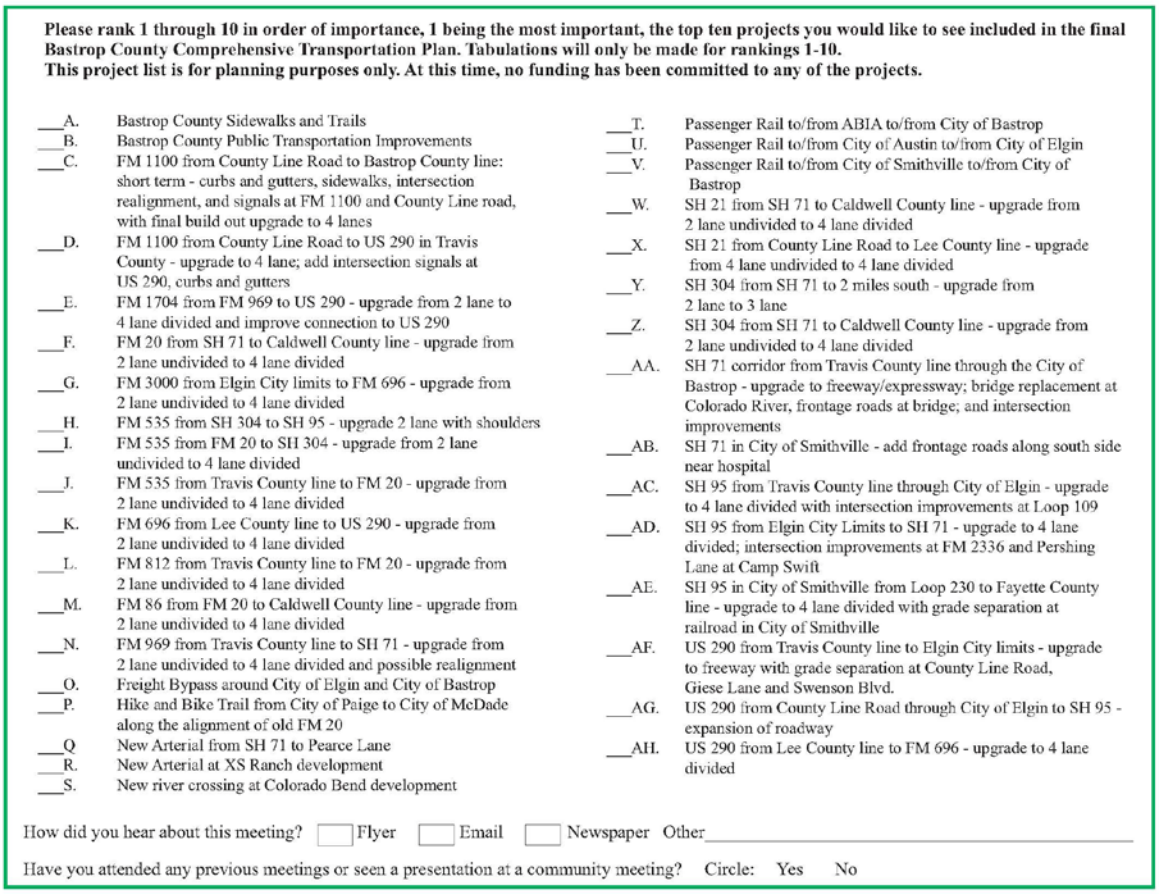


Source: BCCTP Project Questionnaire Results (2008)

Figure 4.1 Project Questionnaire Results

4.1.4.4 Project Ranking Card

In the summer of 2009, the BCCTP team developed a project ranking card for the public to use to convey their priorities for transportation improvements to be included in the final plan. The card, Figure 4.2, lists 34 transportation projects and asks citizens to rank in order of importance from 1-10 the projects they prioritize for the county and to fill out a comment card. The project ranking card generated 307 responses with rankings and an additional 145 comments. The SC and TAC used the results of this ranking in their calculations for a final project list.



Please rank 1 through 10 in order of importance, 1 being the most important, the top ten projects you would like to see included in the final Bastrop County Comprehensive Transportation Plan. Tabulations will only be made for rankings 1-10.
This project list is for planning purposes only. At this time, no funding has been committed to any of the projects.

___A. Bastrop County Sidewalks and Trails
___B. Bastrop County Public Transportation Improvements
___C. FM 1100 from County Line Road to Bastrop County line: short term - curbs and gutters, sidewalks, intersection realignment, and signals at FM 1100 and County Line road, with final build out upgrade to 4 lanes
___D. FM 1100 from County Line Road to US 290 in Travis County - upgrade to 4 lane; add intersection signals at US 290, curbs and gutters
___E. FM 1704 from FM 969 to US 290 - upgrade from 2 lane to 4 lane divided and improve connection to US 290
___F. FM 20 from SH 71 to Caldwell County line - upgrade from 2 lane undivided to 4 lane divided
___G. FM 3000 from Elgin City limits to FM 696 - upgrade from 2 lane undivided to 4 lane divided
___H. FM 535 from SH 304 to SH 95 - upgrade 2 lane with shoulders
___I. FM 535 from FM 20 to SH 304 - upgrade from 2 lane undivided to 4 lane divided
___J. FM 535 from Travis County line to FM 20 - upgrade from 2 lane undivided to 4 lane divided
___K. FM 696 from Lee County line to US 290 - upgrade from 2 lane undivided to 4 lane divided
___L. FM 812 from Travis County line to FM 20 - upgrade from 2 lane undivided to 4 lane divided
___M. FM 86 from FM 20 to Caldwell County line - upgrade from 2 lane undivided to 4 lane divided
___N. FM 969 from Travis County line to SH 71 - upgrade from 2 lane undivided to 4 lane divided and possible realignment
___O. Freight Bypass around City of Elgin and City of Bastrop
___P. Hike and Bike Trail from City of Paige to City of McDade along the alignment of old FM 20
___Q New Arterial from SH 71 to Pearce Lane
___R. New Arterial at XS Ranch development
___S. New river crossing at Colorado Bend development
___T. Passenger Rail to/from ABIA to/from City of Bastrop
___U. Passenger Rail to/from City of Austin to/from City of Elgin
___V. Passenger Rail to/from City of Smithville to/from City of Bastrop
___W. SH 21 from SH 71 to Caldwell County line - upgrade from 2 lane undivided to 4 lane divided
___X. SH 21 from County Line Road to Lee County line - upgrade from 4 lane undivided to 4 lane divided
___Y. SH 304 from SH 71 to 2 miles south - upgrade from 2 lane to 3 lane
___Z. SH 304 from SH 71 to Caldwell County line - upgrade from 2 lane undivided to 4 lane divided
___AA. SH 71 corridor from Travis County line through the City of Bastrop - upgrade to freeway/expressway; bridge replacement at Colorado River, frontage roads at bridge; and intersection improvements
___AB. SH 71 in City of Smithville - add frontage roads along south side near hospital
___AC. SH 95 from Travis County line through City of Elgin - upgrade to 4 lane divided with intersection improvements at Loop 109
___AD. SH 95 from Elgin City Limits to SH 71 - upgrade to 4 lane divided; intersection improvements at FM 2336 and Pershing Lane at Camp Swift
___AE. SH 95 in City of Smithville from Loop 230 to Fayette County line - upgrade to 4 lane divided with grade separation at railroad in City of Smithville
___AF. US 290 from Travis County line to Elgin City limits - upgrade to freeway with grade separation at County Line Road, Giese Lane and Swenson Blvd.
___AG. US 290 from County Line Road through City of Elgin to SH 95 - expansion of roadway
___AH. US 290 from Lee County line to FM 696 - upgrade to 4 lane divided

How did you hear about this meeting? ☐ Flyer ☐ Email ☐ Newspaper Other_____

Have you attended any previous meetings or seen a presentation at a community meeting? Circle: Yes No

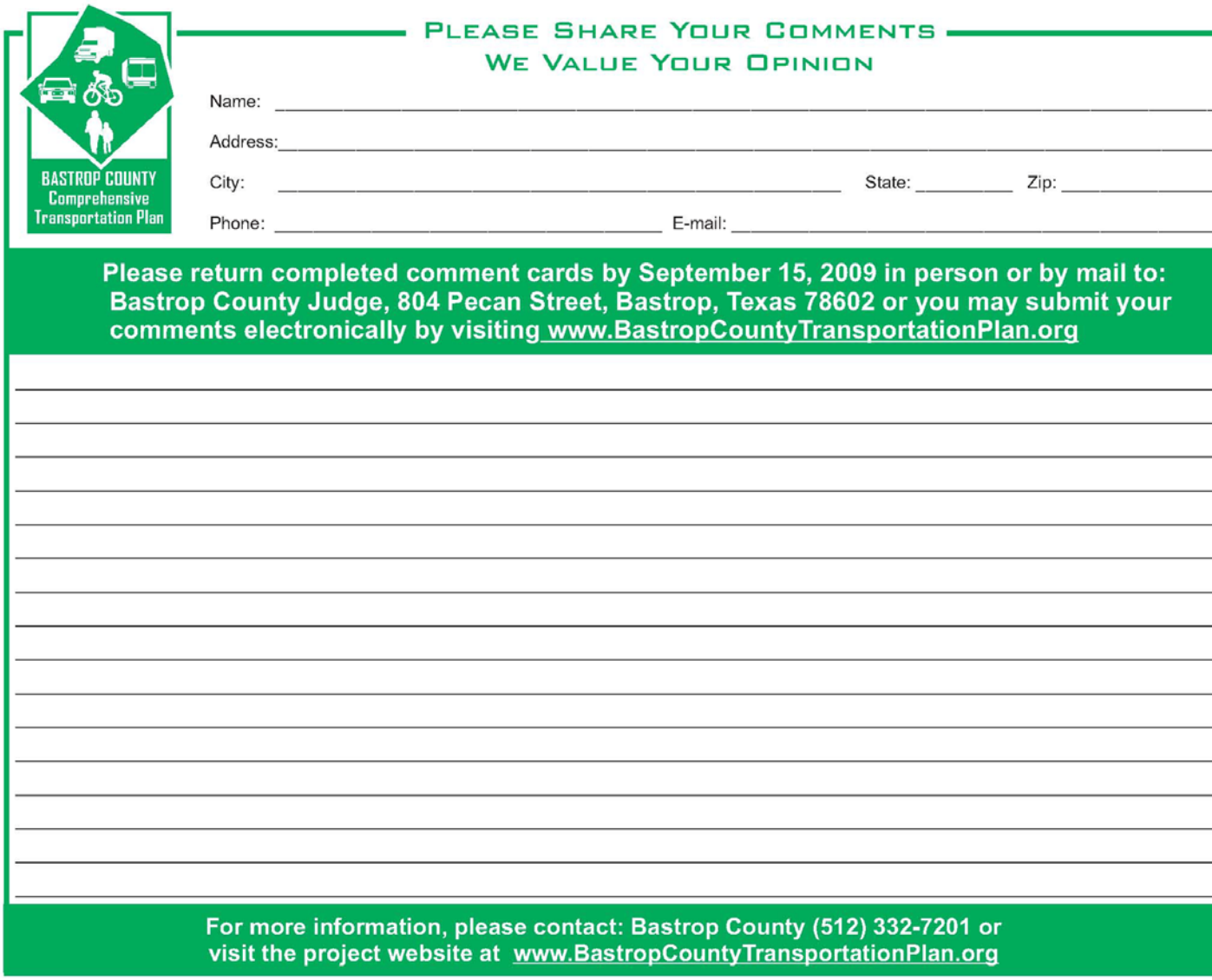
Source: BCCTP Project Questionnaire (2008)

Figure 4.2 Project Ranking Card

4.1.4.5 Project Website

Throughout the development of the plan, the community had access to project updates, event dates, contact information, important documents, committee meeting notes and highlights of the project available at the project website at the following address: www.BastropCountyTransportationPlan.org.

The project website address was included in all communications to the public including e-mails, flyers and comment cards (see Figure 4.3).



Source: BCCTP Project Comment Card (2008)

Figure 4.3 Project Comment Card

4.1.4.6 Media Releases

- Media releases were issued before and after project milestones, before and after public meetings, and when specific opportunities for public participation were announced. This project was well covered by local media. Media releases were sent to local and regional newspapers, local and regional radio and television outlets, and transportation and economic development organizations.

4.1.4.7 Public Hearings

On April 7, 2010, Bastrop County held a public hearing at the Bastrop County Courthouse. At this meeting the goals, process and plan preparation were reviewed. Copies of the BCCTP were available for the public to review.

4.1.4.8 Participation Outreach

The PRT made additional efforts to engage the public by coordinating with community groups, civic entities and the media to provide additional access to public input tools and information. The following is a summary of those efforts:

- coordinated meeting flyer distribution announcing public meetings with homeowners' associations, city and county offices, chambers of commerce, and libraries; and
- coordinated questionnaire and project ranking card distribution with homeowners' associations, city and county offices, chambers of commerce, and libraries.

4.1.5 Public Involvement Conclusions

The public involvement effort for the development of the BCCTP is summarized below, and a numerical evaluation of the public outreach is summarized in Table 4.1:

- The public involvement effort was very successful.
- Leadership of the Bastrop County Commissioners Court and the committed work of the Steering, Technical Advisory and Citizen Advisory Committees enabled a coordinated implementation of the Public Involvement Plan and facilitated development of the resulting BCCTP.
- Public involvement was an effort by Bastrop County and for Bastrop County.

Table 4.1 Public Involvement Outreach Summary

Method of Outreach	Response
Questionnaire	441
Public Meeting Attendance First Round	68
Public Meeting Attendance Second Round	61
Community Meetings Presentations/Outreach	35
Project Ranking Cards	307
E-mail Blasts	To date 5 e-mail blasts have been sent to the project database, which includes over 400 e-mail addresses
Comments	145

Source: Concept Development and Planning

4.2 NEEDS ASSESSMENT AND PROJECT PRIORITIZATION

4.2.1 Process

The BCCTP goals served as the starting point for developing a project scoring criteria. The goals, as noted below, were vetted through each of the committees and adopted by the Steering Committee on July 10, 2008. There are seven goals that guide the BCCTP:

- Improve and enhance mobility including exploring multimodal options.
- Protect the environment and natural beauty.
- Address and improve safety.
- Increase and explore transportation financing options and opportunities.
- Incorporate and ensure the plan is consistent with the regional transportation planning process.
- Address planning for future growth and development.
- Ensure public involvement.

An integral part of developing a comprehensive transportation plan is assessing the needs of the county. The needs of the county may also differ depending on one's perspective. City and county technical staff may recognize needs differently than the general public. To develop a comprehensive plan that considers all the perspectives in the county, it was necessary to develop mechanisms that facilitated input from all.

4.2.1.1 Committee Process

Prior to beginning the project selection and prioritization process, the Project Resource Team presented a draft set of project scoring criteria to the SC and the TAC. Both committees were asked to review and provide input on the draft criteria. The final evaluation criteria for the committees were adopted by the SC and TAC on March 5, 2009.

To begin the project scoring process it was first necessary to identify the "universe of projects." Several resources were used to identify projects, such as:

- local cities of Bastrop, Elgin and Smithville;
- Bastrop County;
- Capital Area Metropolitan Planning Organization Mobility 2030 Plan;
- Texas Department of Transportation Bastrop Area Office;
- Capital Area Rural Transportation Planning Organization 2008 Call for Projects;
- Capital Metro plans; and
- CARTS plans.

A "universe of projects" was developed.

The "universe of projects" produced a variety of project types, including added capacity roadway projects, bicycle and pedestrian projects, rail projects, and safety projects. With this information the Project Resource Team compiled a list of 34 projects to be scored by the Steering Committee and Technical Advisory Committee. To facilitate the scoring process and provide for meaningful results, some project segments were combined, and other projects were divided into multiple segments. The compilation of this information, along with available data that included accident information, level of service results and future traffic volume projections, produced this needs assessment.

On June 23, 2009, the SC and TAC met jointly again to score the projects based on the previously adopted criteria. Prior to actually beginning the scoring, "project sponsors" had the opportunity to provide information about a particular project and/or advocate on behalf of the project. Project

sponsors were city and county staff, TxDOT area office staff and other interested parties. Additionally, maps were provided for each project. Projects were scored based on the following criteria:

- system connectivity,
- safety considerations,
- mobility and accessibility,
- environmental impacts,
- environmental benefits,
- economic development,
- public support/participation,
- regional impact,
- funding, and
- partnerships.

4.2.2 Needs Assessment Results

After the project scoring was completed, the results were presented to the Steering Committee, the Technical Advisory Committee and the Citizens Advisory Committee. It was agreed among committee members that the top 10 projects would be presented to the public during public meetings scheduled during July. The project ranking results reflected many of the same priorities expressed by Bastrop County residents in the public questionnaire that was administered in the fall of 2008. However, there were also discrepancies between the two. Improving sidewalks and bicycle routes was a priority for the majority of the survey respondents, but these types of projects scored low in the committees' project rankings.

4.2.3 Public Input

The project scoring results were presented to Bastrop County residents at two public meetings. The first was held July 21, 2009, at the Bastrop County Courthouse Annex, and the second was held on July 23, 2009, at the Elgin Independent School District's Administration Building. Attendance at both meetings was good, with over 60 people in attendance. A presentation was given that detailed the project selection and scoring process as well as the progress of development of the comprehensive transportation plan. Exhibits were available for attendees to visualize project locations and view data used in the needs analyses.

Also at the public meetings, a handout was available that allowed guests to rank the projects from the entire list of 34. This provided another opportunity for the public to have input into the plan. Furthermore, the project ranking list was made available on the BCCTP website. Here people could complete a survey that allowed them to rank their top 10 projects and also provide any additional comments. Members of the CAC were also available to present information at community meetings and allow attendees to rank projects throughout the summer. Public input on the project ranking lasted until September 15, 2009.

4.2.4 Project Prioritization Results

The web-based ranking was the preferred method of providing input, with 261 responses.

The final project rankings for the BCCTP from the combined committees and public rankings are shown below and reflect a blending of the two groups. In order to develop this list, the TAC weighted both the public and committee scores on a scale of 0 to 100. The projects were sorted based on a combined score and discussed among the TAC members, resulting in the TAC agreeing that this project list represented a balance across the region, an emphasis on safety and public concerns, and a mix of transportation mode types. The ranked list was then aggregated into three categories: most important, very important and important, and was presented to the Steering Committee for their approval. The Steering Committee approved of the methodology and the project list.

The following is the ranked list of projects (see map in Figure 4.4):

- Most important projects:
  - SH 71 corridor from Travis County line through Bastrop County – upgrade to freeway, bridge replacement at Colorado River, frontage roads at bridge and intersection improvements;
  - SH 95 from Elgin city limits to SH 71 – upgrade to four-lane divided highway and intersection improvements at FM 2336 and Pershing Lane;
  - SH 21 from SH 71 to Caldwell County line – upgrade to four-lane divided highway;
  - Passenger rail to/from Austin to/from Elgin;
  - FM 969 from Travis County line to SH 71 – upgrade to four-lane divided highway;

  - Passenger rail to/from Austin to/from Bastrop;
  - US 290 from Travis County line to Elgin city limits – upgrade to freeway with grade separation at County Line Road, Geise Lane and Swenson Boulevard;
  - FM 20 from SH 71 to Caldwell County line – upgrade to four-lane divided highway;
  - Bastrop County public transportation improvements;
  - FM 1100 from County Line Road to SH 95– upgrade to include curb and gutter, sidewalks, and intersection realignment and improvements;
  - US 290 from County Line Road through city of Elgin – roadway expansion; and
  - FM 1704 from FM 696 to US 290 – upgrade to four-lane divided highway with intersection improvements at US 290.
- Very important projects:
  - SH 95 from Travis County line through city of Elgin – upgrade to four-lane divided highway and intersection improvements at Loop 109;
  - US 290 from Lee County line to FM 696 – upgrade to four-lane divided highway;
  - SH 304 from SH 71 to 2 miles south – upgrade;
  - Bastrop County sidewalks and trails;
  - SH 95 from Loop 230 to Fayette County line – upgrade to four lanes, divided, with grade separation at railroad crossing in Smithville.
  - FM 1100 from SH 95 to US 290 – upgrade to four-lane divided highway;
  - FM 535 from SH 304 to SH 95 – upgrade to two lanes with shoulders;
  - freight bypass around cities of Elgin and Bastrop;
  - SH 21 from County Line Road to Lee County line – upgrade to four-lane divided highway;
  - FM 535 from FM 20 to SH 304 – upgrade to four-lane divided highway;
  - FM 535 from Travis County line to FM 20 – upgrade to four-lane divided highway; and
  - SH 71 in Smithville from regional hospital to Loop 230 – frontage roads on the south side.
- Important projects:
  - FM 812 from Travis County line to FM 20 – upgrade to four-lane divided highway;
  - Passenger rail to/from Bastrop to/from Smithville;
  - New arterial from the planned XS Ranch development;
  - New river crossing between SH 304 and Tahitian Village;
  - FM 3000 from city of Elgin limits to FM 696 – upgrade to four-lane divided highway;
  - New arterial from SH 71 to Pearce Lane;
  - FM 696 from Lee County line to US 290 – upgrade to four lanes;
  - Hike and bike trail from Paige to McDade along old FM 20; and
  - FM 86 from FM 20 to Caldwell County line – upgrade to four-lane divided highway.

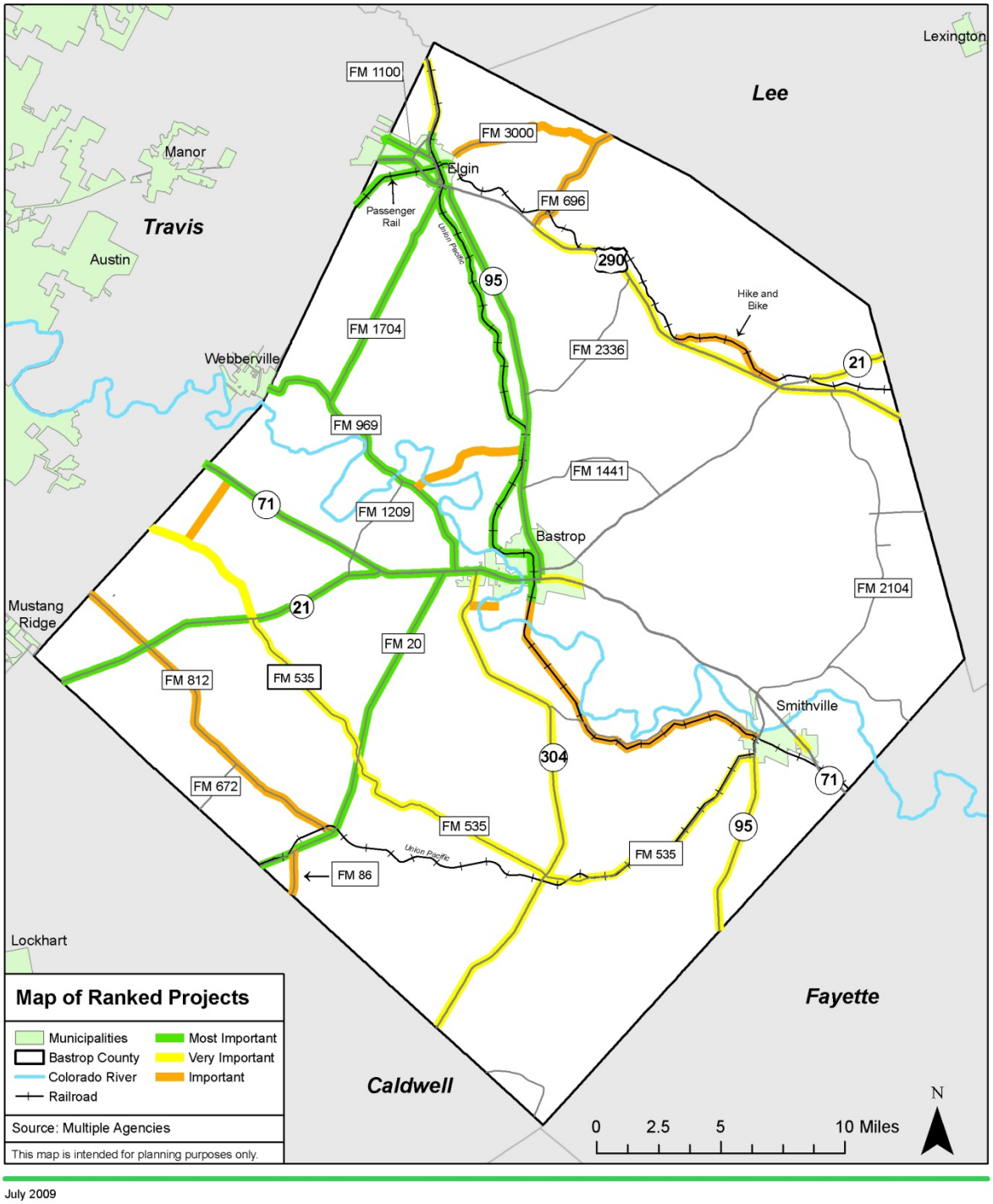


Figure 4.4 Map of Ranked Projects

CHAPTER 5 – RECOMMENDATIONS AND PLAN IMPLEMENTATION STRATEGIES

5.1 FINDINGS AND RECOMMENDATIONS

The project groupings listed in Chapter 4 may change as funding sources change or become available. An example of this might be the current emphasis on passenger rail in Central Texas, and available funding may move one or more of those projects to a higher priority group level. Five years from now, the emphasis may shift, and available funding may move other projects to the "most important" category. A full discussion of potential funding opportunities is presented in Appendix F- Transportation Funding.

5.2 IMPLEMENTATION OF THE PLAN

The plan has gone through an extensive public involvement process as previously described. A final public hearing on the plan document was held on April 7, 2010, to receive comments on this document prior to submission of the plan to the Cities of Bastrop, Elgin and Smithville for adoption. Upon adoption by each of the cities, the county will take the final action to adopt the plan.

As future development occurs within the extra-territorial jurisdictions of Bastrop, Elgin and Smithville, this plan provides a blueprint for the future transportation system, which developers will need to consider when planning new communities. There is a direct relationship between land use and transportation, and the impacts on the transportation system need to be considered as each new community is built. The plan is intended to be a tool for the county, the cities, developers, the chambers of commerce and the general public as Bastrop County continues to grow over the next 25 years. It is particularly important that residents within the county had the opportunity to identify transportation needs and to identify a group of priority projects prior to joining CAMPO as a full member in 2010.

The plan should be reviewed and updated on a regular basis to see if the assumptions are still valid. A recommended interval is to review the plan every 5 years to be on the same update cycle as CAMPO's long-range plan.

APPENDIX A- EXISTING TEXAS COUNTY LAND USE CONTROLS

SB 873

The 77th Legislature passed SB 873 that took effect on September 1, 2001. SB 873 is largely implemented in Local Government Code 232. Prior to SB 873 counties within the State of Texas had very little control in the development of infrastructure for subdivisions. SB 873 gave certain counties the authority to adopt infrastructure planning provisions that:

- have a population of 150,000 or more and is adjacent to an international border; or
- have a population of 700,000 or more (Travis County); or
- is adjacent to a county with a population of 700,000 or more and is within the same metropolitan statistical area as that adjacent county (Bastrop, Caldwell, Hays and Williamson and Counties).

SB 873 allows counties to adopt rules governing plats and the subdivision of land to promote the health, safety, morals, or general welfare of the county. SB 873 strictly prohibits the regulation of land use. The county will not be able to regulate the use, design standards, and density of buildings.

SB 873 granted counties the authority to enforce a major thoroughfare plan which an require the right-of-way dedication of a major thoroughfare street (not to exceed 120 feet) or require the right-of-way dedication of a major thoroughfare street to exceed 120 feet as long as the requirement is consistent with the transportation plan of the metropolitan planning organization.

APPENDIX B- BASTROP COUNTY COMPREHENSIVE TRANSPORTATION PLAN QUESTIONNAIRE RESULTS

Total = 441

1. Looking at the map below, select the zone you live in.
   1 17.46% 2 21.54% 3 29.02% 4 15.56% 5 12.47%
2. Do you live within the city limits or a rural area? City Limits 31.75% Rural Area 67.57%
3. Mark the selection below that best describes where you live.

30.84%	Bastrop	0.91%	Hills Prairie	2.27%	Rosanky
0.0%	Bateman	4.76%	McDade	7.71%	Smithville
0.0%	Butler	3.40%	Paige	0.45%	String Prairie
0.68%	Camp Swift	0.45%	Phelan	0.0%	Togo
9.75%	Cedar Creek	1.81%	Red Rock	0.23%	Upton
29.48%	Elgin	0.68%	Rockne	3.85%	Other

4. Do you commute to work/school? Yes 70.07% No 28.80%
5. To what ZIP Code do you commute? Open ended
6. How many miles is your commute to work/school one-way?
   Less than 10 16.78% 10-20 13.83% 21-30 16.33% 31-60 **20.63%** More than 60 2.04%
7. How many minutes does your one-way commute take?
   Less than 10 11.79% 10-20 14.06% 21-30 9.07% 31-60 **29.25%** More than 60 4.99%
8. If you do not commute to work/school, on average, how many miles do you travel each day?
   Less than 10 **10.88%** 10-20 8.84% 21-30 4.99% 31-60 2.72% More than 60 1.81%
9. Please tell us about your household.

	0	1	2	3	4	5	6
Number of people	0.00%	9.07%	**49.89%**	14.06%	18.14%	6.35%	2.49%
Number of drivers	0.00%	12.24%	**67.80%**	11.34%	5.22%	0.23%	0.00%
Number of vehicles	0.45%	12.47%	**49.66%**	23.81%	8.84%	0.91%	0.91%

10. Please rate the following aspects of the LOCAL transportation system in your community.

	Poor	Fair	Good	Very Good	NA
Traffic congestion	10.66%	29.71%	**36.05%**	17.46%	1.81%
Maintenance conditions	27.66%	**44.90%**	18.59%	7.03%	0.23%
Availability of sidewalks/crosswalks	**53.06%**	23.81%	10.43%	2.72%	7.48%
Availability of bike lanes	**74.15%**	8.84%	2.04%	1.13%	12.02%
Shoulder widths	**51.47%**	25.85%	14.97%	3.17%	2.04%
Traffic signal timing	21.32%	30.16%	**31.52%**	4.99%	9.07%
Ability to easily travel w/n the county	8.62%	31.52%	**43.99%**	14.06%	0.23%
……to neighboring counties	6.12%	31.52%	**47.85%**	12.47%	0.68%

11. Please rate the following aspects of the STATE transportation system in your community.

	Poor	Fair	Good	Very Good	NA
Traffic congestion	15.87%	**38.10%**	34.01%	7.48%	0.68%
Maintenance conditions	8.39%	30.39%	**46.26%**	12.02%	0.45%
Availability of sidewalks/crosswalks	**52.83%**	22.00%	5.44%	1.36%	15.19%
Availability of bike lanes	**65.08%**	13.15%	2.72%	1.59%	14.97%
Availability of transit services	**59.18%**	14.51%	7.94%	1.81%	13.38%
Shoulder widths	25.62%	**40.59%**	23.36%	6.58%	1.59%
Traffic signal timing	19.95%	**35.15%**	31.07%	4.54%	4.99%
Ability to easily travel w/n the county	6.12%	26.08%	**48.07%**	16.10%	1.13%
……to neighboring counties	6.12%	23.13%	**51.25%**	15.65%	1.36%

12. During a typical week, how do you travel to the following places?

	Drive Alone	Carpool	Bus	Walk	Bicycle	DNA
a. Commute to Work / Job	**63.72%**	10.88%	0.23%	0.45%	0.45%	20.41%
b. Travel for Work / Job	**48.98%**	6.58%	0.23%	0.23%	0.23%	39.46%
c. School (for yourself)	**11.56%**	1.81%	0.00%	0.00%	0.23%	77.55%
d. Shopping / errands	**79.82%**	17.01%	0.00%	0.45%	0.23%	0.91%
e. Medical transportation	**67.12%**	7.94%	0.00%	0.00%	0.00%	19.50%

12.5. Which best describes the other passengers the vehicle when riding with others?

Adult family member **17.91%** Children 6.80% Co-workers 1.81% Neighbors/friends 2.49%

13. Do you have children in your home that attend school (K-12) in Bastrop County?

Yes 26.76% No **71.88%**

13.5. What is their usual mode of transportation to and from school?

	School Bus	Ride in car	Walk	Bicycle	Drive
To school	4.76%	**18.37%**	0.23%	0.68%	2.72%
From school	7.71%	**14.97%**	0.91%	0.68%	2.49%

14. How important do you think it is to accomplish the items below in the next 5-10 years?

	Not at all Important	Somewhat Important	Very Important	Most Important	No opinion
Improving traffic signal operation	6.12%	31.52%	**44.67%**	12.47%	1.13%
Upgrading existing roads	4.76%	24.94%	**46.26%**	15.65%	4.08%
Maintenance on existing roads	0.00%	9.52%	**56.92%**	31.07%	0.00%
Paving country roads	2.95%	28.34%	**37.41%**	27.66%	1.36%
Developing alternate routes for commercial traffic	7.94%	25.40%	**34.69%**	26.53%	1.59%
Improving roadway safety	2.27%	15.87%	**41.50%**	37.41%	0.00%
Building new roads	14.97%	**38.10%**	24.94%	16.55%	1.81%
Building a new bridge across the Colorado River	24.49%	**29.02%**	19.50%	15.19%	6.80%
Improving access to Austin through rail	18.14%	18.82%	20.41%	**33.79%**	2.72%
…through transit	12.02%	22.22%	26.76%	**30.39%**	2.49%
...through building new roads	20.63%	**28.80%**	26.30%	17.69%	1.59%

15. How important do you think it is to accomplish the items below in the next 5-10 years?

	Not at all Important	Somewhat Important	Very Important	Most Important	No opinion
Purchasing land for future roadways	16.10%	**39.91%**	28.34%	9.30%	2.27%
Providing more bike lanes and sidewalks	15.65%	**33.33%**	31.07%	16.10%	1.81%
Preserving historic homes and buildings	7.48%	28.12%	**39.00%**	22.00%	1.36%
Encouraging economic development to create jobs locally	4.08%	9.75%	31.52%	**52.15%**	0.23%
Coordination land use and transportation planning	2.04%	16.10%	**43.08%**	35.15%	1.13%
Protecting natural resources	2.27%	14.97%	33.79%	**45.80%**	0.91%
Improving air quality	3.85%	15.19%	34.24%	**43.54%**	0.45%
Improving access to alternative modes through more bus service	9.52%	27.21%	**30.39%**	27.44%	1.13%
…through Park-and-Ride lots	8.62%	28.57%	**30.16%**	26.76%	1.59%
...through HOV lanes	17.23%	**31.07%**	25.85%	19.73%	1.81%

16. Please rank the following in their order of importance to you where 1 is the most important and 8 is the least important.

	1	2	3	4	5	6	7	8
Adding lanes to existing roadways	**18.14%**	15.87%	16.78%	13.83%	11.56%	9.75%	4.99%	2.49%
Building new roads	3.63%	7.48%	9.30%	15.19%	14.06%	15.87%	**16.55%**	11.11%
Maintaining roadways	**22.68%**	21.54%	19.05%	15.87%	7.48%	4.31%	2.27%	1.13%
Improving road safety	**21.54%**	19.50%	17.46%	14.97%	9.75%	4.76%	3.63%	2.49%
Providing more bus service	3.63%	9.52%	10.88%	9.98%	15.42%	**22.68%**	14.74%	6.35%
Providing passenger rail service	14.51%	9.30%	8.16%	9.07%	8.84%	12.24%	14.74%	**16.10%**
Providing more bike lanes or sidewalks	4.08%	7.03%	8.16%	9.98%	15.65%	13.61%	**19.73%**	14.74%
Building another bridge across the Colorado River	7.03%	4.08%	4.54%	4.54%	10.66%	9.30%	15.65%	**37.19%**

Other Findings

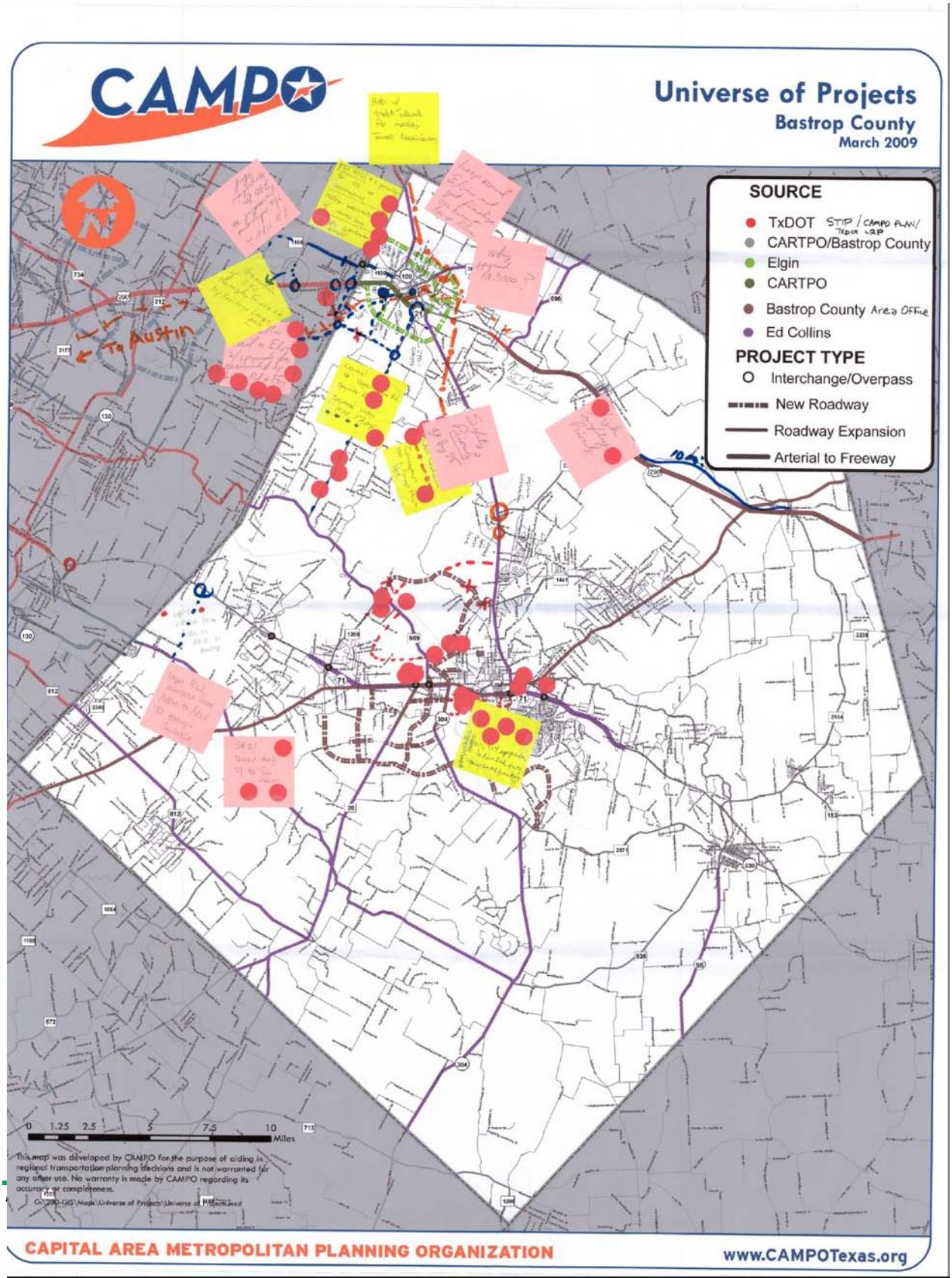
6. Do you live within the city limits or a rural area? City Limits 31.75% Rural Area 67.57%

	City Limits	Rural Area
Bastrop (136)	40%	60%
Elgin (130)	51%	49%
Smithville (34)	53%	47%

14. How important do you think it is to accomplish the items below in the next 5-10 years?

	Not at all Important	Somewhat Important	Very Important	Most Important	No response/ opinion
West (Zones 1,2,3)	25%	28%	19%	15%	13%
East (Zones 4,5)	26%	32%	19%	16%	7%

APPENDIX C- TECHNICAL ADVISORY MAPPING EXERCISE



APPENDIX D- LIST OF ACRONYMS

AASHTO: American Association of State Highway and Transportation Officials

ADA – Americans with Disabilities Act

ADT – Average Daily Traffic

BCCTP – Bastrop County Comprehensive Transportation Plan

CAAA – Clean Air Act Amendment of 1990

CAMPO – Capital Area Metropolitan Planning Organization

CAPCOG – Capital Area Council of Governments

CapMetro – Capital Metropolitan Transportation Authority

CARTPO – Capital Area Regional Transportation Planning Organization

CARTS – Capital Area Rural Transportation System

CBD – Central Business District

CMAQ – Congestion Mitigation and Air Quality Improvement Program

DOT – Department of Transportation (U. S.)

ECT – Envision Central Texas

EIS – Environmental Impact Statement

EJ – Environmental Justice

EPA – Environmental Protection Agency

FHWA – Federal Highway Administration

FRA – Federal Highway Administration

FTA – Federal Transit Administration

HOV – High Occupancy Vehicle Lanes

ISTEA – Intermodal Surface Transportation Efficiency Act of 1991

ITS – Intelligent Transportation System

LCRA – Lower Colorado River Authority

LOS – Level of Service

MPO – Metropolitan Planning Organization

MSA – Metropolitan Statistical Area

MUD – Municipal Utility District

NAAQS – National Ambient Air Quality Standards

OBC – Opportunity Bastrop County

PE – Preliminary Engineering (for a transportation project)

ROW – Right of Way

SAFETEA-LU – The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

SIP – State Implementation Plan

SOV – Single Occupant Vehicle

STIP – Surface Transportation Program

TAZ – Traffic Analysis Zone

TCEQ – Texas Commission of Environmental Quality

TDM – Transportation Demand Management

TEA – Transportation Enhancement Activities

TEA-21 – Transportation Equity Act for the 21st Century

TIP – Transportation Improvement Program

TMMP – Texas Metropolitan Mobility Plan

TNRCC – Texas Natural Resource Conservation Commission

TOD – Transit Oriented Development

TSM – Transportation System Management

TTI – Texas Transportation Institute

TxDOT – Texas Department of Transportation

UP – Union Pacific Railroad

USDOT – United States Department of Transportation

VHT – Vehicle Hours of Travel

VMT – Vehicle Miles of Travel

v/c – Volume to Capacity Ratio

APPENDIX E- GLOSSARY

Accessibility: The ability to reach a location; a ways or means of approach.

Access Management: Methods to preserve efficient and safe operations of roads through application of design approaches, land use control measures, and coordination of transportation and land use planning.

Air Quality Conformity: A process in which transportation plans and spending programs (i.e., Regional Transportation Plans and Transportation Improvement Programs) are reviewed to ensure that they are consistent with federal clean air requirements and contribute to attainment of air quality standards.

Alternative Mode: Loosely defined term generally used to identify any form of travel other than driving alone in a single occupant vehicle (SOV), including carpooling, transit, walking and bicycling.

Americans with Disabilities Act of 1990 (ADA): A federal law mandating sweeping changes in building codes, transportation, and hiring practices to prevent discrimination against persons with disabilities, not just in projects involving federal dollars, but all new public places, conveyances and employers. The significance of ADA in transportation is mainly felt in terms of transit operations, capital improvements and hiring.

Arterial: Functional classification for roadway facilities which are major thoroughfares vital for moving people and goods longer distances. Arterials often provide connectivity with the interstate and freeway systems.

Attainment Area: An area considered to have air quality at least as good as the U.S. Environmental Protection Agency (EPA) health standards used in the Clean Air Act. An area may be an Attainment Area for one pollutant and a Non-Attainment Area for others.

Average Daily Traffic (ADT): The average number of vehicles passing a fixed point in a 24-hour timeframe; a convention for measuring traffic volume.

Base Year: An analysis or study's baseline or lead off year. The year to which other years are compared.

Bicycle Lane: A designated portion of the roadway cross-section reserved for the use of bicyclists, accompanied by appropriate signing and marking. Bicycle lanes are one-way facilities in the same direction as motor vehicle traffic and are generally located to the outside edge of the roadway.

Bicycle Route: A street or overall route which has been determined as preferable for use by bicyclists and is generally signed to alert motorists of the presence of bicyclists. Infrastructure improvements are commonly made along the route to improve safety, but bicyclists are expected to share travel lanes with motor vehicles.

Bikeway: A facility intended to accommodate bicycle travel for recreational or commuting purposes. Bikeways are not necessarily separate facilities; they may be designed and operated to be shared with other travel modes.

CAMPO: Capital Area Metropolitan Planning Organization is the Metropolitan Planning Organization (MPO) for Williamson, Travis and Hays Counties in Central Texas. CAMPO was established in 1973 and is comprised of state, regional and local officials.

Capacity: The maximum achievable throughput for a transportation facility consistent with the safe operation of the facility. Capacity is usually measured in vehicles per hour.

CAPCOG: The Capital Area Planning Council of Governments was organized in 1970 to serve local governments in its ten-county region. CAPCOG is a regional planning commission organized under Chapter 391, Local Government Code, whose primary focus is to serve as advocate, planner and coordinator of initiatives that, when undertaken on a regional basis, can be more effective and efficient.

CapMetro: The Capital Metropolitan Transportation Authority was created in 1985 when voters approved its creation and approved a one percent sales tax for funding. Ten capital-area jurisdictions originally participated in CapMetro, which expanded bus service and called for the development of a light rail system to serve the area.

CARTPO: The Capital Area Regional Transportation Planning Organization serves as a forum for elected officials to come together on transportation issues to recommend changes in policy and practice, advocate for legislation, recommend regional priorities, direct certain planning and data initiatives, oversee the federally-prescribed local consultation process, and collaborate with the Capital Area Metropolitan Planning Organization (CAMPO).

CARTS: The Capital Area Rural Transportation System is a Rural Transit District formed through interlocal agreement by nine county governments in the seventy-five hundred square mile region surrounding Austin. CARTS delivers transportation tailored specifically for each of the one hundred and sixty-nine communities it serves.

Census Tract: Census tracts are small, relatively permanent subdivisions of a county which are delineated for all metropolitan areas and other densely populated counties by local census statistical area committees following Census Bureau guidelines.

Central Business District (CBD): The most intensely commercial sector of a city.

Clean Air Act Amendment of 1990 (CAAA): Federal legislation that establishes acceptable levels of certain criteria pollutants. Regional Transportation Plans and Transportation Improvement Programs must demonstrate conformity to the air quality attainment plans that serve as a blueprint outlining how a region will demonstrate attainment of the air quality standards by a particular year.

Collector Street: Functional classification for roadway facilities intended to balance access and mobility considerations by serving through movement as well as access to land. Collectors serve as the link between arterials (highways) and local streets (neighborhood streets).

Commuter Rail: Transit service that utilizes a multi-car system along an existing rail corridor (mainly, freight lines). Commuter rail usually connects cities and does not have a large amount of stops. Commuter rail runs along or next to existing freight lines. The trains typically reach speeds of 80-90 MPH and connect suburban metropolitan areas to an urban core.

Congestion Mitigation and Air Quality Improvement Program (CMAQ): Federal funding category used to fund transportation projects or programs that will contribute to attainment or maintenance of the national ambient air quality standards for ozone and carbon monoxide. SAFETEA-LU also allows CMAQ funding to be expended in the particulate matter non-attainment and maintenance areas.

Connectivity: Measure of how much an area is interconnected; an important determinant of travel patterns and the likely use of alternative modes.

Demography: Characteristics of a total population. Characteristics can include, but are not restricted to: ethnic makeup, age distribution, education levels, and occupation patterns.

Emissions: Pollutants which result in decreased air quality. For the purposes of transportation planning, emissions is generally defined as being those pollutants generated by vehicle internal combustion engines.

Employment Density: The number of jobs within a defined geographical area.

Environmental Impact Statement (EIS): Documentation required by the National Environmental Policy Act of 1969 whenever federal funds are used on transportation projects. The purpose of an EIS is to review and study all impacts the project will have on its surroundings. The EIS must also identify mitigation strategies for the generated impacts. For lower impact projects, an Environmental Assessment (a less detailed environmental document) may be required instead.

Environmental Justice (EJ): The concept which prohibits recipients of federal funds (including transportation agencies) from discriminating against or creating disproportionate impacts to minority and/or low-income communities in their programs or activities.

Environmental Protection Agency (EPA): EPA is the source agency of air quality control regulations affecting transportation.

Envision Central Texas (ECT): Envision Central Texas is a non-profit organization composed of a diverse group of citizens, including neighborhood, environmental, business leaders and policy makers, who share the common goal of addressing growth sensibly with the interests of the region's citizens in mind.

Expressway: A divided highway facility usually having two or more lanes for the exclusive use of traffic in each direction and partial control of access.

Facility: The means by which a transportation mode is provided. For example, sidewalks are a facility serving the walking mode, a roadway is a facility serving the driving mode and a heavy rail line is a facility serving the transit mode.

Federal Functional Class: Federal classification of streets and highways into functional highways into functional operating characteristics. Categories are: Interstate, Other Urban Freeways and Expressways, Other Principal Arterial, Minor Arterial, Urban Collectors and Rural Major Collectors, Rural Minor Collectors, Urban and Rural Local Streets and Roads.

Federal Highway Administration (FHWA): Arm of the U.S. Department of Transportation which provides federal financial and technical assistance in planning, constructing and upgrading the nation’s network of highways, roads and bridges.

Federal Transit Administration (FTA): Arm of the U.S. Department of Transportation which provides federal financial and technical assistance in planning, constructing and upgrading transit systems at the local, regional and national levels.

Fixed-Route: Term applied to transit service that is regularly scheduled and operating over a set route. Usually refers to bus service.

Freight Rail: The commercial transport of goods or cargo by train.

Freeway: A divided highway having two or more lanes for the exclusive use of traffic in each direction and full control of access (accessible only via interchanges). The freeway is the only type of highway intended to provide complete "uninterrupted" flow.

Frontage Road: A roadway that parallels a major transportation facility such as a freeway. It serves to collect and distribute traffic along the freeway corridor between interchanges. A frontage road differs from a collector/distributor facility in that it provides at-grade intersection access to other roadways in the corridor.

Functional Classification: Hierarchical ranking based on the degree of mobility and accessibility that a street provides to the traveler. Streets are generally classified as arterials, collectors and local streets.

GIS: Geographic Information System is a system for capturing, storing, analyzing and managing data and associated attributes which are spatially referenced to the earth.

Greenway: A corridor of undeveloped land which features multi-use paths or trails and which is designated for the exclusive use of bicycles, pedestrians and other non-motorized modes of transportation.

Guideway: A travel way separated from other transportation modes, which supports a form of transit. An example would be a road to be used only by a trolley or a bus or a rail line for heavy rail.

High Occupancy Vehicle Lanes (HOV): Lanes dedicated for exclusive use by multi-occupant vehicles such as buses, carpools and vanpools.

Highway: Term applies to roads, streets, and parkways, and also includes rights-of-way, bridges, railroad crossings, drainage tunnels, drainage structures, signs, guardrails, and protective structures in connection with highways.

Home-Based Work Trip: A trip for the purpose of one's employment, with the trip end being one's home.

Household Density: The number of households within a defined geographical area.

Infrastructure: A term connoting the physical underpinnings of society at large, including, but not limited to, roads, bridges, transit, waste system, public housing, sidewalks, utility installations, parks, public buildings, and communication networks.

Intelligent Transportation System (ITS): Collective term for technologies which improve the flow of traffic on the transportation network without the addition of physical capacity. Most commonly seen on highways, these technologies include changeable message signs, surveillance cameras and loop detectors. ITS can also be applied to vehicles in the form of in-vehicle navigation systems, global positioning trackers and communications equipment. The term ITS is commonly interchanged with ATMS.

Intermodal: Interconnectivity between various types (modes) of transportation.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA): A federal mandate signed into law December 18, 1991, ISTEA proposed broad changes to the way transportation decisions are made by emphasizing diversity and balance of modes and preservation of existing systems over construction of new facilities, especially roads, and by proposing a series of social, environmental and energy factors which must be considered in transportation planning, programming and project selection.

Interstate System: That system of highways which connects the principal metropolitan areas, cities, and industrial centers of the United States. The interstate system also connects at suitable border points with routes of continental importance in Canada and Mexico. The routes of the

interstate system were selected by joint action of the state highway department of each state and the adjoining states, subject to the approval of the U.S. Secretary of Transportation.

Land Use: The way that parcels of land are used currently or envisioned as being used in the future.

Level of Service (LOS): A qualitative measure on a scale of "A" to "F" describing operational conditions within a traffic stream and motorists' perceptions of those conditions. LOS "A" is described as free flow conditions with low volumes and high speeds. Motorists perceive traffic conditions as "excellent" at this LOS. Conditions deteriorate across the scale, with LOS "F" characterized by frequent stops and starts and very unstable flow. Motorists perceive LOS "F" conditions as "completely unsatisfactory".

Local Street: Functional classification for a roadway facility which emphasizes access to land, such as streets within a neighborhood, and are generally characterized by relatively low speeds and low volumes.

Long-Range: Refers in transportation planning to a time span of more than five years. The Transportation Improvement Program (TIP) is typically regarded as a short-range program.

Lower Colorado River Authority (LCRA): LCRA is a conservation and reclamation district operating with no taxing authority. The mission of the LCRA is to provide reliable, low-cost utility and public services in partnership with customers and communities and to use their leadership and environmental authority to ensure the protection and constructive use of the area's natural resources.

Major Investment Studies: A planning toll to provide the regional multimodal planning effort with more in-depth technical analysis of various sub-area or corridor options.

Metropolitan Planning Organization (MPO): A federally required planning body responsible for the transportation planning and project selection in its region. The governor designates an MPO in every urbanized area with a population of over 50,000 people. An MPO is responsible for developing the TIP and RTP for the urbanized area it represents. CAMPO is the MPO for the 3-county Austin region.

Metropolitan Statistical Area (MSA): The census classifications for areas having a population over 50,000. The MSA may contain several urbanized areas, but contains one or more central city or cities.

Metropolitan Utility District (MUD): A political subdivision of the State authorized by the Texas Commission of Environmental Quality (TCEQ) to provide water, sewage, drainage and other services within the MUD boundaries.

Mobility: The ease with which desired destinations can be reached.

Mode: A particular form of travel such as walking, bicycling, traveling by automobile, traveling by bus or traveling by train.

Model: A mathematical and geometric projection of activity and the interactions in the transportation system in an area. This projection must be able to be evaluated according to a given set of criteria which typically include criteria pertaining to land use, economics, social values, and travel patterns.

Multimodal: The availability of multiple transportation options, especially within a system or corridor. A concept embraced in federal transportation legislation; a multimodal approach to

transportation planning focuses on the most efficient way of getting people or goods from place to place, be it by truck, train, bicycle, automobile, airplane, bus, boat or foot.

Multi-Use Path: A transportation corridor along separate right-of-way designated for the exclusive use of bicycles, pedestrians and other non-motorized modes of transportation. Paths are commonly constructed along abandoned rail lines, utility easements or parallel to roadways. Also commonly referred to as a multi-use trail or facility.

National Ambient Air Quality Standards (NAAQS): Federal standards defined in the Clean Air Act that define maximum allowable concentrations and exposure limits for a number of pollutants.

Network: A graphic and/or mathematical representation of multimodal paths in a transportation system.

Non-Attainment Area: A designation by the Environmental Protection Agency of any place in the United States failing to meet national air quality standards (NAAQS).

Non-Motorized Travel: Travel accomplished by bicycling, walking or any other mode which does not use a vehicle with an engine.

Origin: The point of locale where a trip begins.

Ozone: A colorless gas that is one of the primary components of smog. There are two types of ozone. "Good" ozone protects the Earth from the sun's harmful ultraviolet rays and is found in the upper atmosphere. "Bad" ozone usually lingers at ground level and can cause respiratory problems, especially with children and the elderly. The EPA sets standards for the maximum allowable concentration and associated exposure limit of ground level ozone.

Paratransit: Alternatively known as special transportation when applied to social services systems. Applies to a variety of smaller, often flexibly scheduled and routed non-profit oriented transportation services using low capacity vehicles to operate within normal urban transit corridors or rural areas. These services usually serve the needs of persons whom standard mass transit services would serve with difficulty or not at all. Common patrons are the elderly and persons with disabilities.

Particulate Matter: Solid or liquid particles found in the air which can cause respiratory problems, especially with children and the elderly. The EPA sets standards for the maximum allowable concentration and associated exposure limit of particulate matter of 10 micrometers or less in diameter.

Peak Hour: The 60 minute period in the morning or evening in which the largest volume of travel is experienced.

Peak Period: Times of the day when traffic volumes are typically heaviest. The peak period is commonly referred to as "rush hour". In travel demand modeling, the term has a more precise definition, with various time intervals over the course of a day being defined as peak periods.

Performance Measures: Indicators of how well the transportation system is performing in terms of accessibility between origins and destinations, the mobility and reliability of travel and the characteristics of the system itself.

Person-Trip: A trip made by one person from origin to one destination.

Preliminary Engineering (PE): The first stage of project development, as defined by the TIP. The PE stage includes the development of all concept plans and engineering design drawings, as well as any planning or environmental studies preceding the final definition of a project.

Program: A system of funding for implementing transportation projects of policies.

Programmed Funds: Funds associated with a specific project in the TIP. No federal funds may be used on any phase of any transportation project without being included in an approved TIP.

Public Participation: The active involvement of the public in the development of plans and improvement programs. Federal transportation legislation requires that citizens, affected public agencies, representatives of transportation agency employees, private providers of transportation and other interested parties have an opportunity to comment on the regional long range transportation plan and transportation improvement program.

Right of Way (ROW): The second phase of project development, following preliminary engineering and preceding construction, as defined by the TIP. Within the context of the TIP, ROW is the acquisition of property required to implement a project. In more general terms, ROW is an area which usually holds the public utilities (both overhead and underground) and acts as a buffer between transportation infrastructure (for example – road or rail) and private property.

SAFETEA-LU: The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009.

Single Occupant Vehicle (SOV): A private vehicle, such as an automobile, SUV or light truck, which contains only the driver.

Stakeholder: An individual or organization involved in or affected by the transportation planning process. In a broad sense, everybody is a transportation stakeholder.

Statewide Transportation Improvement Program (STIP): Document prepared by the Texas Department of Transportation which incorporates the individual Transportation Improvement Programs prepared for each urbanized area.

Surface Transportation Program (STP): Federal funding category which can be used to fund virtually any type of transportation project or program, including highways and bridges, bicycle and pedestrian facilities, transit services and facilities, and studies.

TMMP: Texas Metropolitan Mobility Plan – A long range, needs-based initiative to reduce congestion, improve mobility and address transportation related quality of life factors. TMMPs are developed by the MPO.

Telecommuting: Using a home computer or a neighborhood work center for work, effectively eliminating the need to travel to a conventional workplace.

Texas Commission of Environmental Quality (TCEQ): The environmental agency for the state whose mission statement is to protect the state's human and natural resources consistent with sustainable economic development. TCEQ's goal is clean air, clean water, and the safe management of waste.

Traffic Analysis Zone (TAZ): The unit of geographic area, generally of small size (several blocks in dense urban areas to a few square miles in semi-rural areas) and of similar development characteristics, used in travel demand modeling.

Traffic Calming Measures: A set of design features or concepts generally used to make residential streets safer by slowing motorized traffic. Typical applications include construction of speed humps and speed tables, reducing the number of travel lanes, narrowing the travel land width by striping for bikes and pedestrians, installing traffic islands and roundabouts at intersections and designing streets with continuous curves.

Transit: Transportation mode which moves larger numbers of people than does a single automobile. Generally renders to passenger service provided to the general public along established routes with fixed or variable schedules at published fares.

Transit Dependent: Persons who must rely on public transit or para-transit services for most of their transportation. Typically refers to individuals without access to personal vehicles.

Transit Oriented Development (TOD): Mixed-use development undertaken in the vicinity of transit services, particularly rail stations, to reduce dependence on SOV travel.

Transportation Demand Management (TDM): Low cost ways to reduce demand by automobiles on the transportation system, such as programs to promote telecommuting, flextime and ridesharing.

Transportation Enhancement Activities (TEA): A funding category created in ISTEA. Ten percent of STP monies must be set aside for projects that enhance the compatibility of transportation facilities with their surroundings.

Transportation Efficiency Act For The 21st Century (TEA-21): The reauthorization bill for ISTEA designed to support transportation across the nation.

Transportation Improvement Program (TIP): A multimodal set of short-range transportation projects and initiatives developed by an MPO for its urbanized area. It is required by the federal government and must cover a minimum of three years and be updated at least every other year. The program must be financially balanced (costs equal anticipated revenues) and be drawn from a conforming RTP.

Transportation System Management (TSM): Actions that control or improve the movement of cars and trucks on the highway system and buses on the transit system. It includes the coordination of the available transportation systems for more efficient operations.

Travel Demand Model: A computer application which uses travel and land use data to determine how a transportation network will function in the future. It is a planning tool that is used to develop and test numerous scenarios. The modeling process used by CAMPO has four essential steps: 1) trip generation, 2) trip distribution, 3) mode split and 4) trip assignment.

Travel Time: Customarily calculated as the time it takes to travel from "door-to-door". For transit service measures of travel time include time spent accessing, waiting, and transferring between vehicles, as well as that time spent on board.

Trip: A one-direction movement from an origin to destination.

Trip End: Origin or destination of a trip.

Trip Purpose: Reason for a trip.

Trunk System: The Texas Trunk System is a plan designed to connect parts of the state and integrate rural communities with a high quality highway network. The goals and objectives of the system are provide a rural four-lane divided (or better) highway network to improve mobility, connect major activity centers within Texas and to provide access to major points of entry to Texas.

TxDOT: The Texas Department of Transportation is responsible for planning, designing, building, operating and maintaining the state's transportation system. TxDOT's goals are to reduce congestion, enhance safety, expand economic opportunity, improve air quality and increase the value of transportation assets.

United States Department of Transportation (USDOT): The federal agency which sets national policy and provides funding and technical assistance to state and local transportation agencies for all transportation modes. The USDOT is comprised of several modally oriented (such as highways, transit, railroad or aviation) administrations.

Vehicle Hours of Travel (VHT): A measurement of the total hours spent by vehicles in the process of traveling along the roadway network. Estimation of regional VHT is a result of the travel demand modeling process and is used to compute network speeds. It is the denominator in the speed formula, while the numerator is VMT (VMT/VHT=speed).

Vehicle Miles of Travel (VMT): A measurement of the total miles traveled by all vehicles on the roadway network in the area for a specified time period. Estimation of regional VMT is a result of the travel demand modeling process. It is the numerator in the speed formula, while the denominator is VHT (VMT/VHT=speed).

Volume to Capacity Ratio (v/c): The relationship between the amount of traffic being served by a transportation facility to its theoretical capacity, expressed as a decimal. Under congested conditions, the v/c ration can exceed 1.0. The v/c ratio is related to the concept of level of service.

APPENDIX F- TRANSPORTATION FUNDING

POSSIBLE FUNDING SOURCES

This section of the chapter presents material covering funding sources for transportation programs, and also discusses traditional transportation funding sources, such as the fuel taxes, property taxes and sales taxes. Newer, more innovative funding mechanisms such as pass-through financing and regional mobility authorities are also discussed.

Federal funding programs are identified and briefly described. An overview of the role of a metropolitan planning organization with regards to federal funding is provided in this section since Bastrop County will be joining CAMPO in June 2010. State programs, specifically TxDOT spending and various operational programs, are discussed next, with information relating to current projects that have been funded in Bastrop County. State transit and aviation funding programs are also discussed.

The last part of this section discusses how Bastrop County and the cities of Elgin and Bastrop fund their transportation programs. This chapter concludes with a brief discussion of each entity's taxing system and information regarding how funds are spent on public works.

Transportation Revenue Sources

Fuel Tax

The fuel tax is the most common source of transportation funding at the state and federal level. The current federal fuel tax on gasoline is $0.184 per gallon, and the state tax is $0.20 per gallon. For diesel fuel, the federal tax rate is $0.244 per gallon, and the state tax is $0.20 per gallon. Of the $14.2 billion in revenues for the Texas State Highway Fund in 2007 and 2008, 81 percent came from fuel tax revenues. This $14.2 billion includes federal reimbursements and the highway portion of the state's motor fuel tax. Federal fuel taxes are remitted back to the states through various programs using allocation formulas that are based on several factors, which vary depending upon the program.

In Texas, 25 percent of the state fuel tax is dedicated to public schools by constitutional amendment.

Local Sales Tax

Local sales taxes are widely used in other parts of the country for the funding of transportation projects. In addition to the fact that revenues are fairly consistent and predictable from year to year, they have the added advantage of being inflation sensitive when applied as a percentage of the cost of the goods being purchased. They are relatively easy to administer, especially in situations where they can be "piggy backed" on a state sales tax. The major drawback to these types of taxes as a revenue source for transportation projects is that it is not possible to link the use of the transportation network with payment of the tax.

In Texas, the state imposes a sales tax of 6.25 percent per purchase and allows local taxing jurisdictions, such as cities and counties, to impose an additional 2 percent combined minimum on top of the state rate for a maximum sales tax of 8.25 percent. Bastrop County receives up to 9 percent of its revenues from a county sales tax of 0.5 percent.

Vehicle Registration Fees

Vehicle registration fees are an important part of transportation financing in the state, accounting for an estimated 14.8 percent of revenue to be deposited into the State Highway Fund in the 2008/2009 biennium. County and municipal governments are free to impose such fees for the funding of transportation and other programs within their jurisdictions. Such fees are stable revenue generators from year to year and require minimal additional administrative expense. They are generally perceived as a user-based tax, even though the assessment is not made on a trip-by-trip basis.

The Texas comptroller of public accounts estimates that the state will take in $2.1 billion in motor vehicle registrations for the 2008/2009 biennium, not counting deductions from county governments. These fees are collected at the county level, and each county retains the first $60,000 collected and receives an additional $350 for each mile of county road maintained by the county, up to a maximum of 500 miles. The Texas Constitution prohibits revenues from vehicle registration fees being used except for acquiring right-of-way; constructing, maintaining and policing public roadways; and administering laws pertaining to the supervision of traffic and safety on public roadways.

Bastrop County received $72,395 in vehicle registration fees in 2006 and 2007, and estimated receipts of $70,000 in 2007 and 2008. The county also received $71,336 in 2006 and 2007 from the Motor Vehicle Tax Commission, and estimated receipts of $75,000 in 2007 and 2008.

Property Taxes

In Texas, local governments, such as counties, school districts, cities and special purpose districts, are authorized to levy property taxes. The value of appraised property is determined by each county's appraisal district. Property taxes are among the most common in the state, accounting for 46.4 percent of all taxes collected within the state in 2006 according to the Texas state comptroller of public accounts.

The majority of Bastrop County's revenues comes from property taxes, accounting for 53 percent of budgeted revenues in the 2008-2009 Bastrop County General Fund.

> Property taxes were used to fund 73.4 percent of the county's 2008-2009 Road and Bridge Fund, which totaled $6,494,500.

Rural Improvement Districts and Special Assessment Districts

Special Assessment Districts are often employed in areas that stand to realize a substantial increase in property values because of various improvements in the area. These districts work particularly well if the group receiving benefits from the new program is clearly defined. Generally, the costs associated with the district are paid for by residents within the district. Most Special Assessment District levies are placed on the value of property, usually per $100 valuation. Bastrop County currently has several special taxing districts, some of which include Emergency Services Districts (ESDs), Metropolitan Utility Districts (MUDs) and Improvement Districts.

Regional Mobility Authorities

Proposition 15, a constitutional amendment approved by Texas voters in 2001, allows for the creation of regional mobility authorities (RMAs) for the purpose of constructing, maintaining and operating toll facilities. As political subdivisions formed by one or more counties, RMAs allow for more transportation development to occur at the local level. Formation of an RMA can be requested by one or more counties with the submission of a resolution by the requesting parties' county commissioners court and a statement on how the RMA will improve mobility in the region. Each request must also identify proposed transportation projects, contain an agreement to obtain necessary environmental permits, list any other RMA projects being considered, and establish criteria for determining the geographic makeup and appointment processes for board members. RMA formation requests must be approved by the Texas Transportation Commission (TTC).

The closest RMA to Bastrop County is the Central Texas Regional Mobility Authority in Travis and Williamson Counties.

In general, RMAs possess the same powers as the Turnpike Authority Division of TxDOT, but they operate at the local level. This provides local governments with more control over transportation planning, provides additional funding for transportation projects and allows for projects to be developed faster. Their scope of influence includes a broad range of transportation facilities in addition to turnpikes and roadways. An RMA may develop passenger and freight rail systems, ferries, airports, pedestrian and bicycle facilities, intermodal hubs, and even automated conveyors for freight movement. They possess bonding authority and are authorized to maintain a revolving fund, acquire and/or condemn property, enter into contracts with other states and with Mexico, borrow money, apply for grants and loans, and seek other sources of revenue with the exception that funds from the State General Revenue Fund or State Highway Fund may only be used on turnpikes and road projects. RMAs may also enter into comprehensive development agreements (CDAs).

One tool that is particularly useful for RMAs in developing transportation projects is the ability to issue revenue bonds. Title 43, Section 370 of the Texas Administrative Code grants RMAs the authority to issue tax-exempt revenue bonds for a term not to exceed 40 years. These bonds may be repaid from any financial source available to the RMA with the exception that they may not be repaid with revenues from a project that is not a part of the system that the bonds were originally issued for. Bonds issued by RMAs are not the debt of the state or counties within the RMA's jurisdiction.

RMAs may also seek funding from the Texas Mobility Fund, a funding source supported by transportation-related fees. The Texas Transportation Commission is authorized to issue up to $3 billion in bonds from the fund, which may be used to finance construction or improvements to state highways, publicly owned toll roads and other transportation projects.

Funding from the State Infrastructure Bank (SIB) is also available to RMAs. SIB funds are typically available for projects that are on a state highway system and included in the State Transportation Improvement Plan (STIP). SIBs will be discussed at a later point within this chapter.

Pass-Through Financing

In pass-through financing, the state enters into a partnership with a private developer, toll authority, mobility authority or local/county government for development of a roadway on the state highway system. Under such an agreement, the entity applying for pass-through financing agrees to finance, construct, maintain and/or operate the facility. After the facility opens, TxDOT makes periodic reimbursements to the partnering entity based on the volume of traffic on the facility. This partnering shifts some of the risks associated with revenue from traffic volumes onto the developer/local entity and may encourage expedited implementation since the sooner a roadway is open, the sooner the developer/local entity can begin recouping costs. Pass-through financing may be particularly useful in areas that require transportation improvements but where tolling is not politically or socially feasible because users do not experience the time delays or out-of-pocket expenses associated with conventional tolling. Pass-through financing may also be beneficial in the reconstruction or upgrading of projects and can provide a significant incentive for developers/local entities to provide high levels of quality service in such situations.

Pass-through financing has recently been approved for several projects in Central Texas. Pass-through financing has been approved for projects at IH 35 and SH 29 in Georgetown, US 79 in eastern Williamson County, FM 1660 in Williamson County and Williams Drive in Georgetown. Pass-through financing has also been approved for construction activities on FM 3407, FM 110, Ranch-to-Market (RM) 12 and FM 1626 in Hays County.

Federal Funding

The Highway Trust Fund (HTF) is the primary funding source for most federal transportation programs. The HTF is composed of two elements: the Highway Account, which funds highways and intermodal programs, and the Mass Transit Account, which provides federal funding for public transportation projects. The HTF itself is funded with fuel tax revenues, which are remitted back to the states based on allocation formulas that vary depending upon the program from which the funds are allocated.

Federal funding of transportation programs is laid out in the Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users (SAFETEA-LU). This $244.1 billion bill is the largest surface transportation investment in the nation's history and follows the Intermodal Surface Transportation Efficiency Act of 1991 and the Transportation Equity Act of the 21st Century (TEA-21). Many of the programs and funding categories present in TEA-21 and ISTEA are continued and/or expanded upon in SAFETEA-LU; however, SAFETAE-LU also highlights several new areas for investment.

Transportation Planning and Federal Funds

When a city reaches a population of 50,000, a metropolitan planning organization is created in accordance with the Federal-Aid Highway Act of 1962 as well as from subsequent legislation over the last 45 years. The MPO's role is to oversee the coordinated, comprehensive and cooperative planning of transportation projects as a condition for federal transportation financial assistance. The MPOs are currently responsible for coordinating and cooperating with state and other transportation providers in carrying out the metropolitan transportation planning requirements of federal highway and transit legislation.

In each urban area, the MPO must be designated by agreement between the governor and local units of government representing 75 percent of the affected population, including the central city or cities as defined by the Bureau of the Census, and adjacent communities that are anticipated to be developed into urbanized areas over the next 25 years. The MPO is governed by a Policy Board, comprised of local elected officials from each of the member jurisdictions. MPO boundaries may be adjusted after each decennial census or as deemed appropriate by the Policy Board to include adjacent areas that are anticipated to urbanize through residential and commercial development.

Cities and counties within the jurisdiction of an MPO face additional requirements in the planning and financing of transportation projects since MPOs are required to develop long-range metropolitan transportation plans and transportation improvement plans (TIPs) subject to requirements established in Title 23, Chapter 1, Section 134 of the U.S. Code (USC). The MTP has a planning horizon of 25 years and must be financially constrained to realistically anticipate funding. The MTP is updated every 5 years. The TIP must be updated at least every 4 years and must identify transportation facilities serving as an integrated metropolitan transportation system, discuss potential environmental mitigation strategies, demonstrate how the adopted plan is to be implemented financially, discuss operational and management strategies, establish capital investment strategies, and propose transportation and transit improvements.

Bastrop and Caldwell Counties will join CAMPO as full members in June 2010.

The CAMPO Policy Board recognized the impact on the transportation system by Bastrop and Caldwell County residents commuting into Williamson, Travis and Hays Counties. The planning efforts for the next CAMPO long-range plan included Bastrop and Caldwell Counties in the travel demand modeling effort to gain a better understanding of the future needs. An invitation to join CAMPO was extended to the counties in late 2008. Because the timing of the invitation was late in this 4-year planning process, the counties are serving as ex-officio members of the Policy Board and may possibly be added to CAMPO with the adoption of the long-range plan in May 2010.

The National Highway System

The National Highway System (NHS) is a 163,000-mile system of roads that serves major population centers, international border crossings and intermodal transportation facilities. The NHS program provides funding for improvements to the system of rural and urban roads. States may transfer up to 50 percent of their NHS funds to their Interstate Maintenance (IM) Program, Surface Transportation Program (STP), Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Replacement and Rehabilitation Program, or Recreational Trails Program.

Interstate Maintenance

Originally established under ISTEA, the IM program provides funding for resurfacing, restoring, rehabilitating and reconstructing routes on the 46,000-mile Dwight D. Eisenhower System of Interstate and Defense Highways (Interstate Highway System). Funds are apportioned to the states based on formulas that take into account lane miles, total vehicle miles traveled and numbers of commercial vehicles. Any project on the Interstate Highway System, with the exception of those that add lanes for single-occupancy vehicles, is eligible to receive IM funds.

Surface Transportation Program

The STP is a flexible program that provides funding to state and local entities for projects on any federal-aid highway, bridge project, transit capital project, and intra-city or intercity bus terminal or facilities. Funds are apportioned to the states based on a formula similar to the one described above.

STP funds may be used for a variety of projects, including but not limited to construction, reconstruction, rehabilitation, resurfacing, restoration, and operational improvements for highways (including Interstate highways) and bridges (including bridges on public roads of all functional classifications); various types of transit projects, carpool projects, corridor parking facilities and programs that benefit bicyclists and pedestrians, particularly modifications to comply with the Americans with Disabilities Act of 1990 (ADA); and traffic monitoring and management systems.

States are required to set aside funds for transportation enhancement programs. These programs are aimed at strengthening the cultural, aesthetic and environmental aspects of the nation's roadways.

Congestion Mitigation and Air Quality Improvement

The CMAQ Program provides a flexible source of funding for state and local governments in areas that do not meet National Ambient Air Quality Standards for ozone, carbon monoxide and particulate matter (non-attainment) to use on projects to help meet Clean Air Act requirements. Funds are apportioned to the states based on a formula that takes into account population and the severity of ozone and carbon monoxide pollution.

CMAQ funds may be used on congestion mitigation and air quality improvement programs such as those that reduce vehicle miles traveled, improve traffic flow or reduce fuel consumption. Projects that increase single-occupant vehicle capacity may not receive CMAQ funds with the exception of high-occupancy toll (HOT) lane facilities. States may transfer up to 50 percent of CMAQ funds to surface transportation, National Highway System, interstate maintenance, bridge, highway safety improvement and/or recreational trails programs.

Highway Bridge Program

The Highway Bridge Program provides funding for states, counties and cities to improve the condition of highway bridges through replacement, rehabilitation and preventative maintenance. Each state's apportionment is based on the relative share of the total cost to replace or repair deficient highway bridges.

Highway Safety Improvement Program

The Highway Safety Improvement Program (HSIP) is aimed at reducing highway fatalities. The program requires strategic highway safety planning at the state level that is oriented toward results. Funds for this program are set aside from the STP. Prior to the apportionment of HSIP funds, a portion is set aside for the Railway-Highway Crossing Program. The remaining funds are then apportioned among the states based on several factors, such as lane miles, vehicle miles traveled and fatalities on federal highways.

States with adopted Strategic Highway Safety Plans (SHSPs) that conform to the requirements of 23 USC 148, like Texas, may obligate HSIP funds for the purposes listed in Section 148. These purposes include but are not limited to intersection safety improvements, pavement and shoulder widening, improvements for pedestrian or bicyclist safety or safety of the disabled, and construction of projects at railway/highway crossings.

Safe Routes to School

The Safe Routes to School Program was developed with the aim of encouraging children and children with disabilities to walk and/or bicycle to school. The program funds activities that make walking and bicycling safer and more appealing, and aids in the planning, development and implementation of projects that improve safety, reduce traffic, reduce fuel consumption and reduce air pollution around schools. States are also required to set aside between 10 and 30 percent of program funds for non-infrastructure-related projects such as public awareness campaigns, outreach and traffic education, and enforcement in the vicinity of schools. Funds are apportioned to the states based on each state's share of total enrollment of primary and middle school students. Each state is guaranteed to receive $1 million.

Recreational Trails Program

The Recreational Trails Program provides funding to states to develop and maintain recreational trails and related facilities for motorized and non-motorized recreational use. Half of the funds from the program are apportioned equally among the states, while the remaining 50 percent are apportioned based on the amount of non-highway recreational fuel used in each state. Funds can be used to develop, construct, maintain and rehabilitate trail facilities for hiking, biking, skating, equestrian use, cross country skiing, snowmobiling and recreational off-road vehicle use such as all-terrain vehicles and four-wheel drive vehicles.

Work Zone Safety

Under the Work Zone Safety (WZS) Program, the secretary of transportation provides grants to non-profit organizations for the provision of training and prevention programs aimed at reducing work zone injuries and fatalities. These grants may be used for training and developing guidelines.

Equity Bonus Program

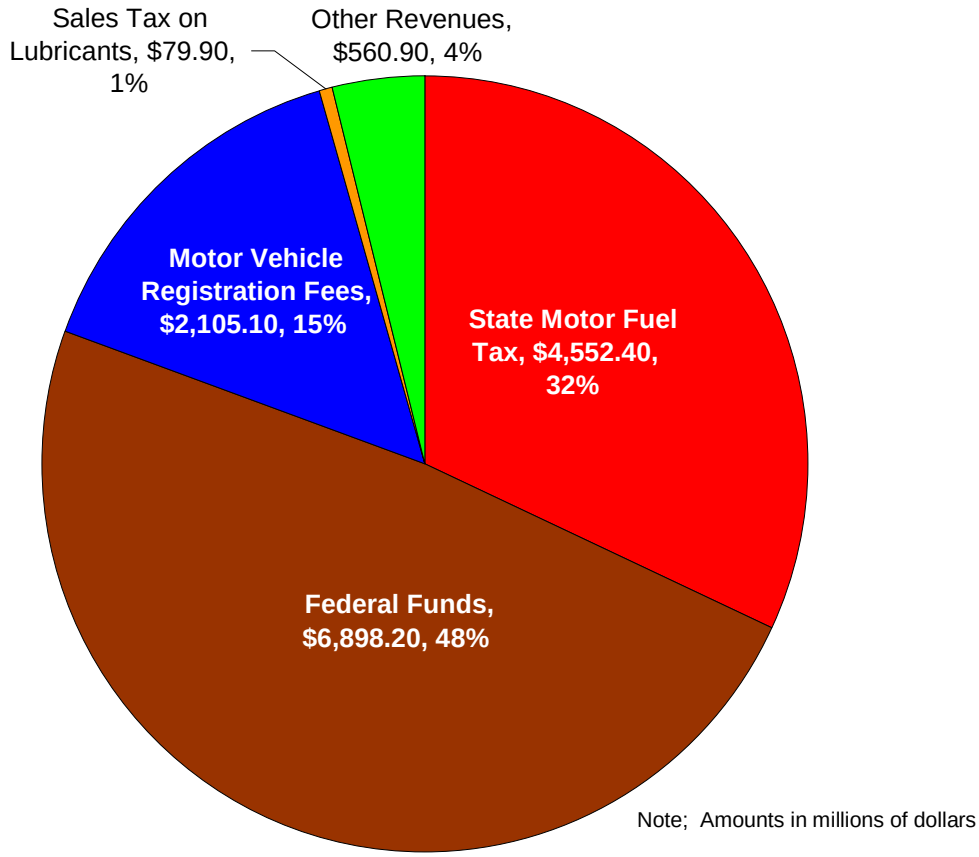
In an attempt to ensure that federal funding for transportation is equitable among the states, SAFETEA-LU features an Equity Bonus Program (EBP) that guarantees that each state will receive a return on its share of contributions to the HTF. These guarantees apply to the federal programs where states typically receive apportionment from sources such as IM, NHS, Bridge, STP, HSIP, CMAQ, Metropolitan Planning, Recreational Trails, Safe Routes to School, Rail-Highway Grade Crossing, and Coordinated Border Infrastructure Programs and High Priority

Projects. The EBP sets rules for the apportionment of these funds, but there are no rules in the EBP regarding what types of projects are eligible for funding from other federal programs.

State Spending Programs

State funding of transportation projects is done through the State Highway Fund (SHF), which is comprised primarily of fuel tax revenues. Figure 5.1 shows the estimated State Highway Fund and sources of revenue for Texas for 2008 and 2009. Federal fuel taxes are remitted to the federal government, where they are apportioned back to the states through various formulas, which have already been discussed. They are then deposited directly into the SHF, where the majority of these funds take the form of reimbursements for highway planning and construction expenditures. Prior to deposit in the SHF, 25 percent of the total state fuel tax revenues are taken out and deposited into the Available School Fund.

Unless otherwise indicated, all data regarding TxDOT spending programs are taken from the State Unified Transportation Plan, which includes the Statewide Preservation Program (SPP) and the Statewide Mobility Program (SMP).



Source: Texas State Legislative Budget Board

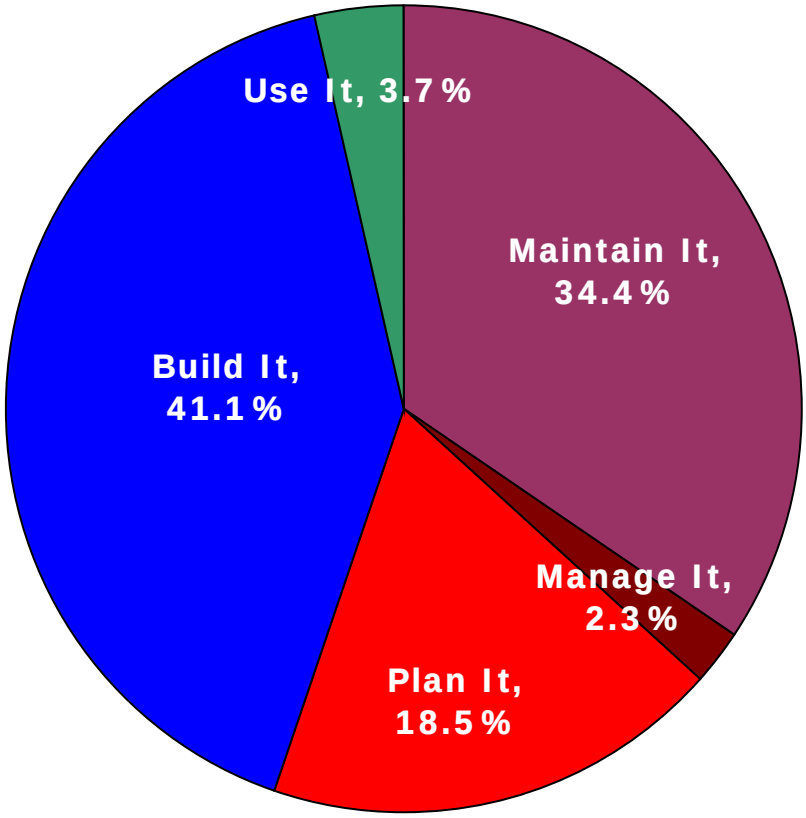
Figure 5.1 Estimated State Highway Fund, Sources of Revenue for 2008-2009

The Texas comptroller of public accounts estimated in 2007 that $14.2 billion would be available in the SHF for the 2008-2009 biennium, with approximately 86 percent being allocated to TxDOT. The TxDOT Strategic Plan for 2007-2011 categorized the various functions of TxDOT into five operational areas:

- *Plan It* – planning, design, right-of-way acquisition, and contracted planning and design;

- *Build It* – highway construction and aviation services;
- *Maintain It* – contracted maintenance, routine maintenance, Gulf Intercoastal Waterway, ferry system, and gross weight and axle fees;
- *Use It* – public transportation, client transportation services, registration and titling vehicle dealer registration, traffic safety, travel information, auto theft prevention and rail safety; and
- *Manage It* – central administration, information services, other support services and regional administration.

The *Build It* and *Maintain It* activities currently account for 75.5 percent of TxDOT spending, which can be seen in Figure 5.2.



Source: TxDOT, 2007-2011 Strategic Plan

Figure 5.2 TxDOT Operational Spending

Build It

Build It (BI) activities include building highways and bridges and making improvements to airports. These activities account for 41.1 percent of TxDOT spending, and projects that receive funding under the BI operational category must be approved under the SMP.

The TxDOT Austin District was programmed to receive $274,344,319 in funding for Build It activities in fiscal year (FY) 2007 and $314,503,030 in FY 2008. For FY 2007 through FY 2010, the district should receive 9.165 percent of statewide BI funding at estimated amounts of $634,429,277 in FY 2009 and $65,237,387 in FY 2010. These funds are allocated at the district level under one of nine various categories:

- **Category 2**: Metropolitan Area (Transportation Management Area) Corridor Projects – Funds are project specific and are dedicated to MPO-approved added-capacity projects within transportation management areas (TMAs), which are areas represented by an MPO with a population of greater than 200,000. Projects are selected for funding based on a formula and on a statewide basis by the TTC on the recommendation of TxDOT districts that make recommendations based on metropolitan transportation plans developed by MPOs. Bastrop County may be eligible for these funds after the MPO boundary is expanded in 2010.

- **Category 3**: Urban Area (Non-TMA) Corridor Projects – Funds are project specific and dedicated to added-capacity projects for MPO areas that are not within TMAs and may only be spent on projects that are approved by the area MPO. Projects are selected on a statewide basis by the TTC on the recommendation of TxDOT districts, which make recommendations based on MTPs developed by MPOs. Since CAMPO is a TMA, no funds are allocated to the MPO under this category.

- **Category 4**: Statewide Connectivity Corridor Projects – Funds are project specific and are dedicated for mobility and added-capacity projects on state major highway system corridors that provide statewide connectivity between urban areas and other major corridors. Projects are selected on a statewide basis by the TTC and are scheduled by consensus of the state's various department of transportation districts. With the exception of projects on SH 195 in Williamson County and FM 3477 in Gillespie County, the district's Category 4 funds are dedicated to toll projects in Travis and Caldwell Counties (SH 130).

- **Category 5**: Congestion Mitigation and Air Quality Improvement – Funding is allocated from the TTC and is for projects in non-attainment areas to meet National Ambient Air Quality Standards, and cannot be used to add capacity for single-occupant vehicles. Funding is allocated by the TTC to TxDOT districts, and projects are selected in consultation with area MPOs. Funding provided is determined by the population of the area weighted by air quality severity. The district has not received any of this funding because the Austin area is still an attainment area for air quality.

- **Category 7**: Metropolitan Mobility and Rehabilitation – Funds are allocated by the TTC and go to districts to address transportation needs within TMAs. Projects are selected for funding by area MPOs, and the amount each TxDOT district receives is determined by the population of the area based on the 2000 census. Cities and counties within the MPO boundaries of TMAs may submit local projects for these funds if the jurisdiction is able to finance the 20 percent local match. The Policy Board then selects which projects will receive the funding.

- **Category 9**: Transportation Enhancements – Funds are project specific and may be dispersed for several different types of projects that are generally classified as being above and beyond the expected standard for TxDOT roadway activities as outlined in SAFETEA-LU. Candidate projects are selected and approved by the TTC by minute order.

- **Category 10**: Supplemental Transportation Projects – Funds are allocated by the TTC and are 100 percent state funds. These funds may be used for a variety of purposes. At the time of the BCCTP development, there was $2,594,000 in Category 10 funding for the construction of an overpass and frontage roads on SH 71 from FM 20 to SH 304 in Bastrop County. The estimated cost of the project is $9,100,000, leaving an unfunded balance of $6,506,000.

- **Category 11**: District Discretionary – Funds are allocated to TxDOT districts, with each district receiving a minimum of $2.5 million, for projects that may be selected at the discretion of each district. Funding is allocated by the TTC based on a formula.

- **Category 12**: Strategic Priority – Funding under this programming category is provided to projects by the TTC that promote economic opportunity, increase efficiency on military deployment routes, or retain military assets in response to federal military base realignment and closure reports or maintain the ability to respond to both man-made and natural emergencies. The TTC may also approve pass-through financing for projects under this program in order to help local communities address transportation needs. There are no projects in Bastrop County that are receiving Category 12 funding, and there are also no pass-through financing projects in Bastrop County.

Maintain It

Maintain It (MI) activities include maintenance and rehabilitation, structures replacement and rehabilitation, and safety, and account for 34.4 percent of TxDOT spending. The details of the programs encompassed by MI activities are found in the SPP. The TxDOT Austin District was programmed to receive $166,905,787 in funding for MI activities in FY 2007 and $198,294,445 in FY 2008. For FY 2007 through FY 2010, the district was scheduled to receive 5.27 percent of statewide MI funding at estimated amounts of $111,526,483 in FY 2009 and $120,580,446 in FY 2010. MI funds are allocated at the district level under one of three categories:

- **Category 1**: Preventative Maintenance and Rehabilitation – Funding is allocated on a statewide basis on the basis of a formula and by the TTC for the preventative maintenance and rehabilitation of the existing state highway system. Additionally, the Transportation Planning and Programming Division may authorize the use of rehabilitation funds for the construction of interchanges and high-occupancy vehicle (HOV) lanes on the Interstate Highway System.

- **Category 6**: Structures Replacement and Rehabilitation – Funds are project specific and are for the replacement and/or rehabilitation of bridges or for projects that eliminate at-grade highway/railroad crossings. Bridge replacement and rehabilitation projects may be on- or off-system and are selected by the TTC based on prioritization rankings and the Texas Eligible Bridge Selection System Score (TEBSS). Projects are selected for Category 6 funding on a statewide basis. As of 2008, Category 6 funding has been allocated for the following on-system projects in Bastrop County:

  - $4,367,700 for the replacement of the bridge and approaches at Loop 230 and the Colorado River in Smithville;
  - $460,200 for the replacement of the bridge and approaches at FM535 at Sandy Creek near Bastrop (the project will cost an estimated $790,200, and the remaining $330,000 balance will be satisfied with other funds);
  - $846,400 for the replacement of the bridge and approaches at FM 812 in Cedar Creek;
  - $831,530 for the rehabilitation of the bridge and approaches at SH 21 and Gills Branch;
  - $250,000 for the rehabilitation of the bridge and approaches at SH 21 and Gills Branch;
  - $670,000 for the replacement of the bridge and approaches at FM 535 and Piney Creek; and
  - $1,200 for the replacement of the bridge and approaches at FM 535 in Cedar Creek.

  Category 6 funding has been allocated for the following off-system projects in Bastrop County:

- $207,700 for the replacement of the bridge and approaches on Frerich Road at Pin Oak Creek;
- $236,500 for the replacement of the bridge and approaches on CR 143 at West Yegua Creek;
- $120,400 and $424,450 for the replacement of the bridges and approaches at Big Sandy Creek;
- $141,350 for the replacement of the bridge and approaches at Long Prairie Branch;
- $184,690 for the replacement of the bridge and approaches at Upper Elm Creek;
- $295,600 for the replacement of the bridge and approaches at Pin Oak Creek; and
- $170,000 for the replacement of the bridge and approaches at Lee County Road and CR 168.

- **Category 8**: Safety – Several state and federal safety programs fall under the Category 8 funding, including the Federal Highway Safety Improvement Program, the Federal Railway Highway Crossing Program, the Federal Safe Routes to School Program and the Federal High Risk Roads.

Transit Programs

SAFETEA-LU authorizes the Federal Transit Administration to support locally planned and operated public mass transit systems. According to FTA, fare-box revenues account for only about 40 percent of public transit system operating costs, so transit systems must generally rely on additional funding from federal, state and local sources as well as private investment. Federal funding for transit comes from fuel tax revenues and general fund appropriations. Since 1997, $0.0286 on every gallon of federal fuel taxes collected has been dedicated to the Mass Transit Account (MTA). Funding from state and local authorities may come from numerous sources including sales taxes, property taxes, income taxes and direct transit system taxing authority.

TxDOT's role in transit programs is limited to rural and small urban systems. TxDOT transit programs receive a large percentage of funding from federal sources. This funding is in turn awarded in the form of grants that typically require matching funds depending on the type of program to individual transit systems by formulas that may vary from year to year. TxDOT itself does not own capital equipment and does not provide direct transit services. State and federal funds are disbursed on a reimbursement basis, so expenses must be incurred by the provider prior to disbursement by the state or by FTA. State funds may be used by providers to meet the matching requirements of federal grants.

The following transit programs provide potential funding:

- **Section 5303 and 5304 Planning Programs** – The Section 5303 Metropolitan Planning and Research Program provides planning funds for MPOs based on budget worksheets submitted with annual Unified Planning Work Programs. These funds are comingled with FHWA planning funds and are distributed directly to the MPO by formula. Section 5304 Statewide Planning and Research funds are received by TxDOT and are used internally for administration and for planning and development of public transportation programs.

- **Section 5309 Major Capital Investments ("New Starts" and "Small Starts")** – The New Starts Program is a federal grant program that provides funds for capital assistance for the construction of new fixed guideway systems or the extension of existing fixed guideway systems such as light rail, heavy rail, commuter rail, monorail, automated fixed guideway systems (such as a "people mover") or an HOV facility for transit use. Projects seeking New Starts funding must clear various capital investment planning and project development processes. The "Small Starts" program refers to grants awarded under New Starts that are less than $75 million with a total project cost of less than $250 million. These types of projects are sponsored by transit systems in large cities outside of TxDOT's purview.

- **Section 5310 Elderly/Persons with Disabilities Transportation Program** – TxDOT is the designated recipient of Section 5310 funds and distributes them to public transportation providers to meet the needs of the elderly and persons with disabilities. Roughly 160 providers in the state benefited from this program. The state utilizes local planning processes to assist in determining how money should be used by recipient agencies.

- **Section 5311 Rural/Non-urbanized Program** – This program funds capital, operating and administrative expenses for the state's 39 rural transit agencies. Federal law requires that at least 15 percent of rural program funds be used to support intercity bus services, unless it has been certified that such needs are already being met. TxDOT has therefore developed an annual RFP process for the solicitation of proposals to develop, promote and support intercity bus mobility. The Section 5311 Program also includes the Rural Transit Assistance Program, which provides technical training services and materials on transit-related subjects such as driver education, operations, maintenance and management.

- **Section 5316 Job Access and Reverse Commute (JARC) Program** – This program is targeted at developing new and/or expanded transportation services for low-income persons, such as shuttles, vanpools, bus routes, mass transit connector services and guaranteed ride home programs. The Reverse Commute Program provides transportation services to suburban centers from urban, suburban and rural areas. TMAs in MPO areas decide which projects will be selected in their area, and TxDOT selects projects for the remainder of the state.

- **Section 5317 New Freedom** – These projects provide transit services to individuals with disabilities above and beyond the requirements of the Americans with Disabilities Act.

- **Medical Transportation Program (MTO)** – This program is operated by TxDOT to fulfill federal requirements that all Medicaid-eligible individuals be provided with transportation to allowable services if they have no means of transportation. The Children with Special Health Care Needs (CSHCN) and Transportation for Indigent Cancer Patients (TICP) programs also fall under the MTP. A network of statewide transportation providers, including both public and private providers, operates under contract with TxDOT to provide these services. The MTP also reimburses eligible individuals' mileage expenses for approved medical services and can provide bus tickets from transit authorities.

- **Human Service and Workforce Transportation** – TxDOT contracts with both the Texas Health and Human Services Commission (HHSC) and the Texas Workforce Commission (TWC) to provide funding for transportation for clients in various eligible programs. TWC distributes its funding to local workforce development boards, while HHSC contracts with agency programs under the HHSC umbrella for the distribution of transportation-related funds.

- **Non-Unified Transportation Plan (UTP) Transit Funding Programs** – Transit providers are also eligible for federal funding for projects not included in the state UTP and therefore not under the control of TxDOT. These include the Section 5307 Urbanized Program, Section 5309 Capital Investment Grant Program and the Section 5311 Tribal Program.

Aviation Capital Improvement Program

Included in the Statewide Preservation Plan are details of the Aviation Capital Improvement Program (CIP), which is aimed at developing general aviation airports within the state. The

program is funded by the Federal Aviation Administration's (FAA's) Airport Improvement Program and the Texas Aviation Facilities Development Program.

TxDOT is responsible for applying for, receiving and disbursing federal funds for general aviation projects within the state, and the agency works with airport sponsors and the FAA in developing the Aviation CIP. TxDOT therefore takes on a predominant role in the implementation of state and federal projects and may act as an agent for airport sponsors by assisting with, reviewing, advertising, approving and inspecting projects.

The Aviation CIP is a tentative schedule of airport development projects, but projects included in the CIP are not guaranteed to be funded. Requests for funding are categorized by the needs of the airport facility and the objectives those needs address.

The only Bastrop County facility listed in the 2007-2009 Aviation Capital Improvement Program is the Smithville Crawford Municipal Airport in Smithville. The facility is expected to receive $100,000 in 2008 ($90,000 state and $10,000 local) for engineering and design costs, and $750,000 in 2009 ($675,000 state and $75,000 local) for installation of erosion and sediment controls ($40,000), installation of signage ($10,000), and construction costs ($700,000).

County Spending Programs

Funding for Bastrop County transportation activities is done through the county's Road and Bridge Fund, which itself receives funding from the county's General Fund. Maintenance activities in the unincorporated areas of Bastrop County, which account for the bulk of the work done by the county on area roadways, are undertaken by the various county commissioners precincts. Each of these four precincts is funded with county revenues, supported mainly by property taxes and vehicle registration fees (these funding sources are shown on Table 5.1).

Table 5.1 Source of Funds, Bastrop County Road and Bridge Fund

	Property Taxes	State & Lateral Road Funds	Sales & Service	Vehicle Registration	Other
Precinct 1	72%	1%	0%	25%	2%
Precinct 2	79%	1%	3%	16%	1%
Precinct 3	77%	1%	0%	20%	2%
Precinct 4	70%	1%	2%	23%	4%

Source: Bastrop County Budget, Fiscal Year 2007-2008

Road maintenance on the county's 1,811 county lane miles (767 of which are unpaved) accounts for the majority of the county's Road and Bridge Fund expenditures for FY 2007-2008, and can be seen in Table 5.2. Road worker salaries generally account for the second largest expenditure. The only exception to this is in Precinct 4, where road worker salaries account for 48 percent of road and bridge fund expenditures and maintenance accounts for only 25 percent.

Table 5.2 Bastrop County Transportation Expenditure

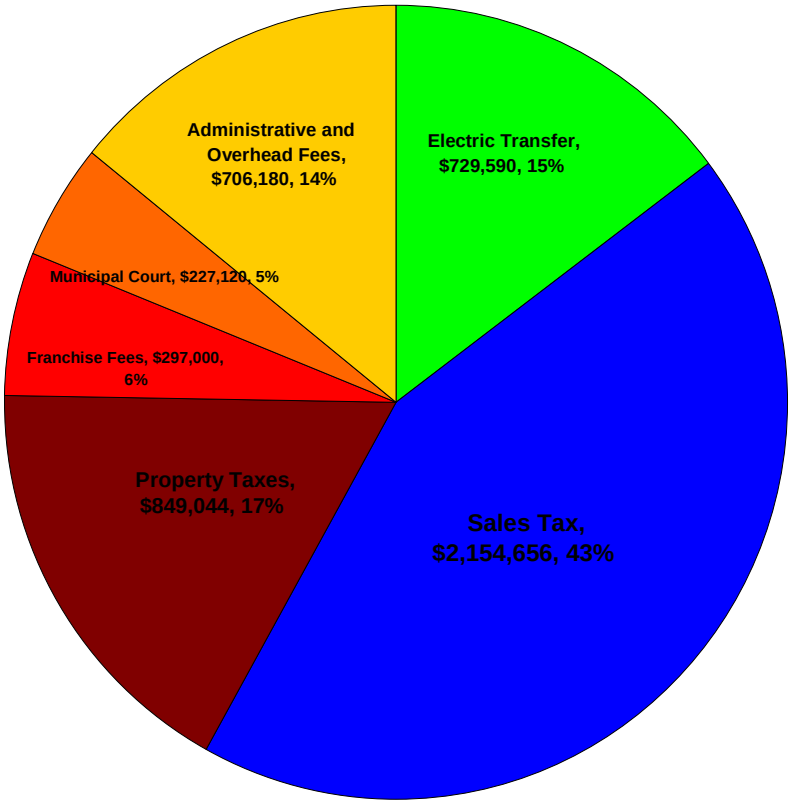
	Precinct 1		Precinct 2		Precinct 3		Precinct 4	
	2006-2007	*% of Total*	*2006-2007*	*% of Total*	*2006-2007*	*% of Total*	*2006-2007*	*% of Total*
Road Worker Salaries	$ 352,020	31%	$ 451,101	25%	$ 399,799	27%	$ 391,494	48%
Fringe Benefits Summary	$ 143,378	13%	$ 175,140	10%	$ 155,848	11%	$ 140,421	17%
Road Maintenance	$ 464,389	41%	$ 633,941	35%	$ 870,069	60%	$ 206,356	25%
Transfer Station	$ 16,940	2%	$ -	0%	$ -	0%	$ -	0%
Professional Service	$ 2,072	0%	$ 7,924	0%	$ 414	0%	$ -	0%
Communications	$ 3,074	0%	$ 7,636	0%	$ 4,764	0%	$ 3,339	0%
Utilities	$ 6,446	1%	$ 6,557	0%	$ 6,841	0%	$ 6,943	1%
Maintenance/Repair	$ 46,491	4%	$ 109,294	6%	$ 195	0%	$ 54,604	7%
Operational Expenses	$ -	0%	$ 124,609	7%	$ -	0%	$ -	0%
Capital Outlay	$ -	0%	$ 11,502	1%	$ -	0%	$ -	0%
Machinery/Equipment	$ 34,035	3%	$ 188,355	10%	$ 11,300	1%	$ -	0%
Debt Service	$ 51,819	5%	$ 97,551	5%	$ 9,163	1%	$ 15,944	2%
Total	**$ 1,120,664**		**$ 1,813,610**		**$ 1,458,393**		**$ 819,101**	

Source: Bastrop County Budget, Fiscal Year 2007-2008

City Transportation Programs

City of Bastrop

A little under half of the City of Bastrop's revenues for governmental operations comes from a local sales tax, and about 17 percent of revenues comes from property taxes. Other sources of revenue for the city come from franchise fees, electric transfer fees into the General Fund from the Electric Fund, the city's Water/Wastewater Fund, the 0.5 percent economic development sales tax revenues, which are deposited into the Bastrop Economic Development Corporation Fund, and a 7 percent hotel/motel occupancy tax. Revenues from this source may only be used for purposes as designated by the state or city council and are not included in the General Fund. These revenue sources and their portions are graphically displayed in Figure 5.3.



Source: City of Bastrop

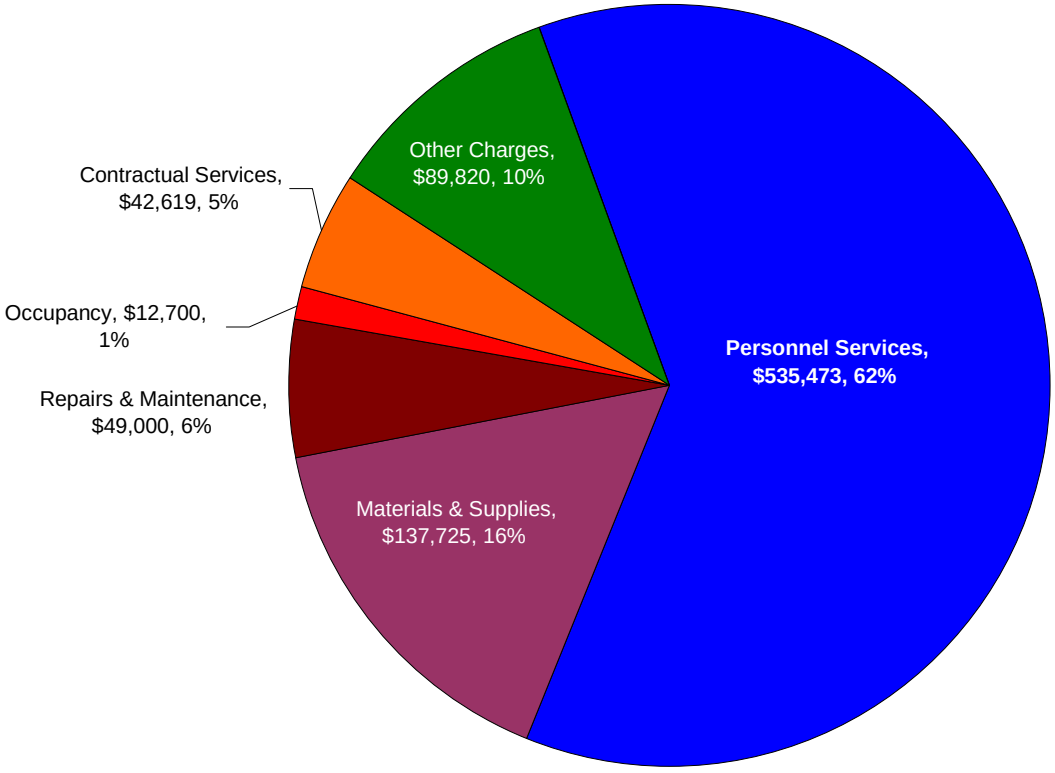
Figure 5.3 City of Bastrop Revenue, FY 2006-2007

The city's Public Works Department is responsible for maintaining city streets and area signage in addition to several other responsibilities including storm drainage and maintenance of city buildings and facilities. Recent work completed by the City of Bastrop's Public Works Department with regard to projects on the transportation network in 2007 and 2008 include:

- resurfaced Hoffman Road;
- hosted 2008 Clean Sweep program to eliminate refuse and debris;
- performed irrigation and drainage work at Industrial Park and Industrial Boulevard, Laura Lane, Kani Street, Austin Street, and Bob Bryant Park;
- made improvements to SH 71 planter beds to reduce excessive maintenance requirements;
- landscaped Old Austin Highway/SH 21 to improve and enhance trail system;
- completed Kerr Park Phase II addition including parking and sidewalks;
- reconstructed Water Street from College Street to water treatment plant including parking facilities;
- began construction on Hill Street from Mesquite Street to the Bastrop Independent School District's Ninth Grade Academy;
- began mowing operations on all TxDOT rights-of-way within the city limits; and
- provided support for all special events held within the city.

It is estimated in the city's proposed 2008-2009 budget that the Public Works Department will be responsible for 52 miles of paved streets, 1,425 street signs, 51 miles of open drainage ditches and 67 miles of storm sewer lines. The department's budgeted expenditures for 2009 are shown in Figure 5.4 and are estimated to be $867,337 and accounted for 12.06 percent of the city budget. The majority of the department's expenditures are from personnel services.

The City of Bastrop's 2000-2020 Comprehensive Plan highlights several programs from TEA-21 as possible sources of funding for future transportation projects. While a new federal transportation funding bill has been passed since that time, most of these programs are still in place and have been amended. The plan identifies Transportation Enhancement Funds, allocated by the federal government under the Surface Transportation Program and set aside by the state, as a possible source of funding for "nontraditional" projects such as restoration of historic transportation facilities, bike and pedestrian facilities, and landscaping. The plan also identifies the Recreational Trails Program and the Job Access and Reverse Commute Grant Programs as possible sources for additional funding. The plan identifies state programs such as the Bridge Replacement and Rehabilitation Program, State Preventative Maintenance Program and Strategic Priority Program as possible sources of funding for future projects.



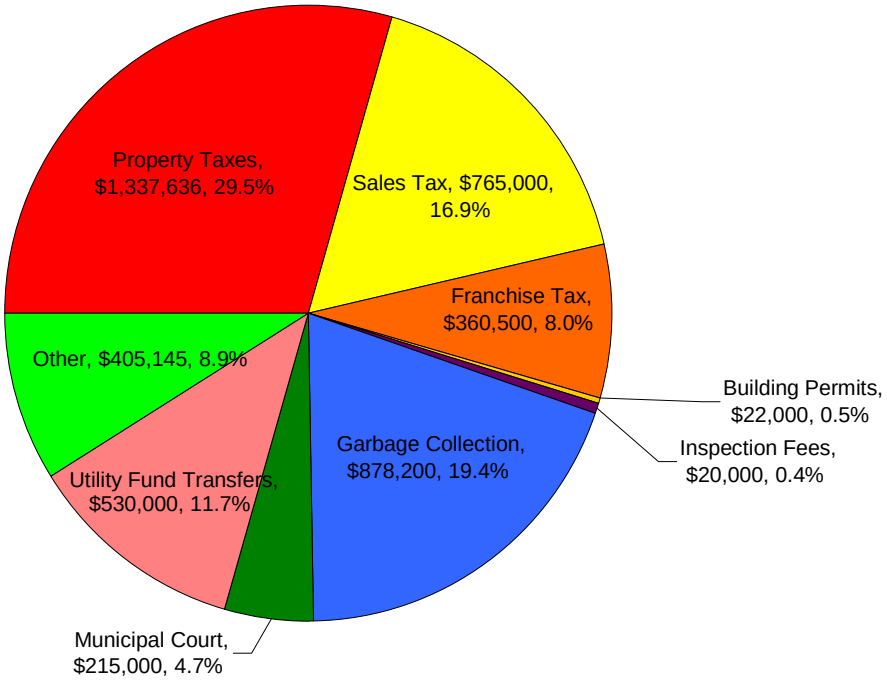
Source: City of Bastrop

Figure 5.4 City of Bastrop Public Works Expenditures, 2009

City of Elgin

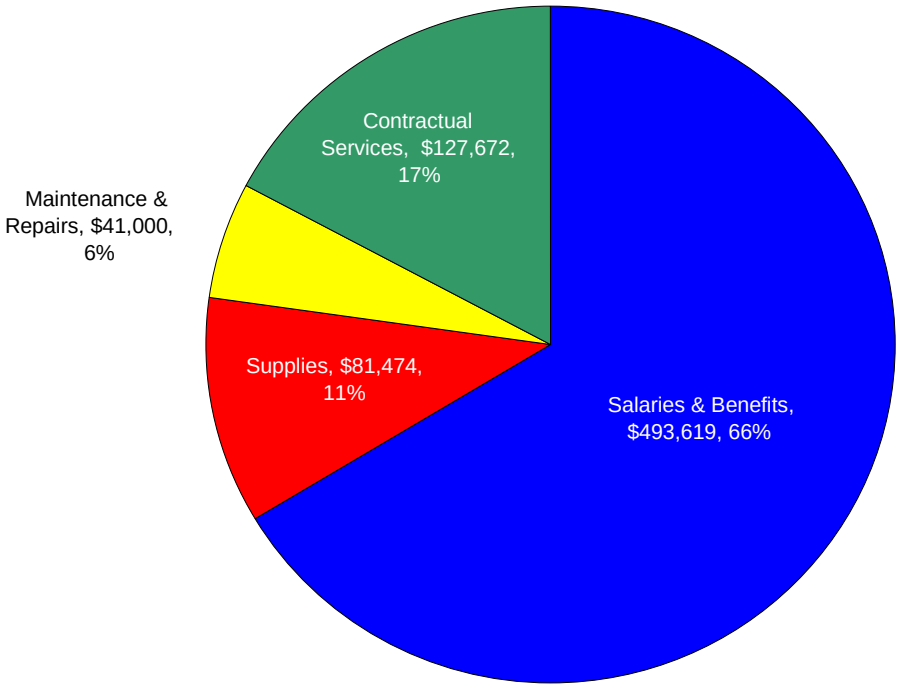
The City of Elgin receives revenue from a number of different sources, including property taxes and a local sales tax, shown in Figure 5.5. The city also maintains a Utility Fund, which receives revenues for the provision of water and sewage services and other utility services to city residents, which are then transferred into the General Fund. The city brings in substantial amounts of revenue from garbage collections, and a hotel/motel tax is in place, which, unlike the City of Bastrop's hotel/motel tax, is included in the General Fund.

The majority of Elgin's public works expenditures are for salaries and benefits, as shown in Figure 5.6. Contractual services account for the next highest expenditure at 17 percent.



Source: City of Elgin

Figure 5.5 City of Elgin General Fund Revenue Sources, FY 2009-2010

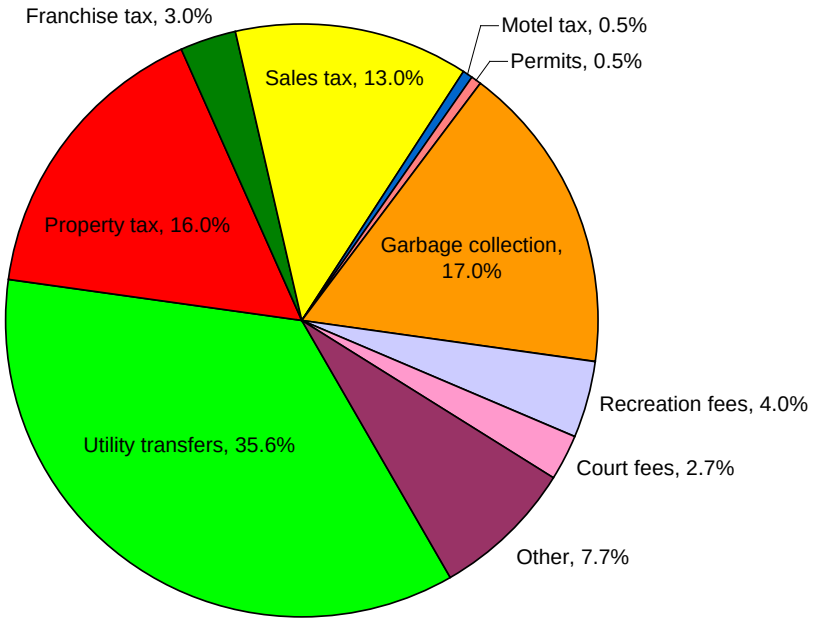


Source: City of Elgin

Figure 5.6 City of Elgin, Public Works Expenditures, 2010

City of Smithville

The City of Smithville operates with revenue sources similar to Bastrop and Elgin. However, unlike Bastrop and Elgin, the city derives the largest portion of revenues from utility transfers, which account for 35.6 percent of city revenues. Garbage collection fees, property taxes and sales taxes account for the next highest sources of revenue at 17 percent, 16 percent and 13 percent, respectively. **Figure 5.7** graphically shows these revenue sources and their portions. All revenues are deposited into the General Fund, there is no dedicated Transportation Fund, and no revenue sources are dedicated to transportation-related activities.



Source: City of Smithville

Figure 5.7 City of Smithville General Fund Revenue Sources (Estimated FY 2009)

APPENDIX G- PUBLIC COMMENT ON THE FINAL DRAFT

A public comment period on the final draft of the Bastrop County Comprehensive Transportation Plan took place from March 8, 2010 until April 19, 2010. During this time period presentations were made to all three local City Councils and the County Commissioners Court. In addition, information was sent to the media, copies of the plan were placed in locations easily accessible to the public and a website with a downloadable copy of the plan was implemented. A public hearing was held on April 7, 2010. Below are the issues with the plan and how they were addressed.

Issue/ Comment	How Addressed
The Plan is too long and has too much extra information.	The Plan was edited to shorten the length. In addition, the sections of the Plan dealing with potential funding solutions was moved from the Implementation Chapter to the Appendices. Lastly, an Executive Summary has been added which details the highlights of the Plan.
The Plan has tables which show minorities but do not include Hispanic populations.	The table referred to was based on Census data. Because of the confusion associated with this table, it was removed. Other charts and tables in demographics sections of the plan include Hispanic populations.
The plan could skew the public's response in support of rail.	This Plan involved a great deal of public involvement, of which included a great deal of support for passenger rail projects in Bastrop County. The Plan's primary agenda is to represent the people of Bastrop County and their opinions on how to best manage the growth of our transportation system.
There is no mention of landing and takeoff zones for Personal Air Vehicles.	There is a discussion of airports in 2.6.4 which covers Commercial, General and private airports. Personal Air Vehicles are still in the experimental stages and are not widely used for personal transportation. The Plan is expected to be updated every 5 years and if PAVs become a viable option for transportation in Bastrop County the Plan could be amended to include this.
There are typos in the Plan.	All typos that were identified in the public comment period are now corrected. Specific typos are not listed in this table.
Section 2.6.1.4: FM 1100 in Elgin is heavily impacted by 3 school campuses, much like SH 21. AM congestion along FM 1100 has adversely impacted the intersection and traffic flow of SH 95, creating dangerous situations just north of US 290.	According to the 2006 Level of Service data used for this Plan, FM 1100 operated at LOS C. Future corridor-specific planning should consider the impacts of the schools on FM 1100 and the impacts of FM 1100 on abutting facilities.
Section 2.6.1.4: Segments of SH 95 near Elgin experiencing this congestion (LOS D) are not adequately cited.	This has been corrected in the Plan to show the correct boundary of the SH 95 congestion near Elgin to be from US 290 and south of Old Sayers Rd.
Section 4.2.4: FM 1100 was submitted to the ranking as a project over its entire length. There is much need and public demand, for the SH 95 to County Line Rd. section to be improved to 4 lanes, with	The three committees who worked with this plan were tasked with compiling community comments on transportation needs for the County. This section of FM 1100 was one that came up multiple times. The public and committee scoring of projects was based on this corridor. It is not practical to change the corridor description at this time; but may be considered in future plan updates.

intersections, turn lanes and pedestrian facilities to ensure child safety.	
Several descriptions of projects in the northern part of the County include elements in Travis County.	All projects known to enter Travis County in the Plan have been edited to remove the Travis County section. Bastrop County cannot implement projects in Travis County, though Bastrop County can coordinate with Travis County in the project development phase.
Section 4.2.4. SH 95 between Elgin and Smithville should be improved in sections to a 4 lane divided highway, south from US 290 and north from SH 71 since the congestion is closer to each city.	The three committees who worked with this plan were tasked with compiling community comments on transportation needs for the County. These section of SH 95 came up multiple times. The public and committee scoring of projects was based on this corridor. It is not practical to change the corridor description at this time; but may be considered in future plan updates.
Section 4.2.4. Intersection improvements at FM 2336 and Pershing Blvd. should remain a high priority.	They will continue to be in the most important section of the ranked projects.
Section 4.2.4. FM 1704 is listed as Most Important but does not include the US 290 connection cited in the survey.	This has been corrected to reflect intersection improvements at FM 1704 and US 290.
FM 1704 is incorrectly represented as very important in Figure 4.4.	The map has been corrected.
Should we include US Highway mileage in Table 1.1?	US Highways in Texas are maintained by TxDOT and are therefore considered State Highways in this table. A note has been added to clarify this.
Elgin Comprehensive Plan Update description needs improvement.	The following language, based on the comments received, was added to the description of the Elgin Comprehensive Plan Update, "The plan asserts that multi-modal transportation options integrated with supportive land use patterns are vital to the quality of life for Elginites. Included in the plan are Transit Oriented Development locations and urban land use categories that balance a mix of uses throughout the city. The plan is expected to aid in strategic growth and supports form-based zoning codes."
Some images in the plan are missing.	The images appear to have been "lost" in the conversion to Adobe acrobat and printing. The "lost" images have been recovered and are included in the plan.
The Blackland Prairie is mentioned only as a remainder land cover.	The following text was added regarding Blackland Prairie, "according to the World Wildlife Fund, the Blackland Prairie is the most-endangered large ecosystem in North America with only one percent of original prairie remaining."
Some data in the plan appears to be old (2005/ 2006)	2005 was used as the base year for the plan development as it was the most current year with accurate data. The plan is expected to be updated every 5 years and will include more up-to-date data.
Add Elgin-Butler Brick as a major employer in Elgin to Table 2.12	This was added.
Correct the Elgin ISD school locations in tables and maps.	This has been corrected in the table and awaiting on response from TxDOT on map.
Sections of SH 95 near Elgin are not included in the	This section has been edited to include SH 95.

discussion of LOS D comments in 2.6.1.4.	
Traffic signal at FM 3000 and Main St. in Elgin is not shown on Figure 2.26	Requested fix from TxDOT.
There should be a map based on Table 2.17	As stated on the table, this data is preliminary and has not been finalized. Mapping of this data would add considerable time to this planning process.