DRAFT
Burnet County Comprehensive Transportation Plan

September 2010

Prepared by:

Jacobs Engineering, in association with:
Texas Department of Transportation
Texas Transportation Institute
Capital Area Council of Governments
RJ Rivera and Associates
Burnet County

ACKNOWLEDGEMENTS

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

BCCTP Steering Committee

Donna Klaeger
Burnet County Judge, Chair

Ronny Hibler
Burnet County Commissioner

Judy Miller
Representing City of Marble Falls

Ben Farmer
Hoover Valley Management, representing City of Burnet

City of Horseshoe Bay

Sylvia Breen
Representing City of Cottonwood Shores

Polly Krenek
Representing City of Bertram

Jim Embrey
Representing City of Granite Shoals

Carlton Pullen
Representing City of Meadowlakes

Pete Freehill

Tem Moody

BCCTP Technical Advisory Committee

Brian Shirley
Marble Falls, Chair

Herb Darling
Burnet County Flood Plains Director

Greg Haley
KC Engineering

Howard Lyons
Texas Department of Transportation

City of Horseshoe Bay

Dennis Schaefer
City of Granite Shoals

Riley Walker
City of Spicewood

Charles Shell
City of Bertram

David Vaughn
City of Burnet, City Planner

Danny Lester
City of Burnet, Director of Public Works

Crista Bromley
City of Burnet, Airport Manager

Nelson Miner
Citizen, City of Highland Haven

Nena Hoover
Citizen, City of Burnet

Bill Neve
Burnet County Commissioner

Joe Don Dockery
Burnet County Commissioner

Mike Foster
Marble Falls ISD

Nancy Barnhill
Burnet CISD

Citizen's Awareness Committee

George Russell
Citizen representative, Chair

Kathy Golson
Commissioners Court Coordinator

Russell Graeter
Burnet County Commissioner

Dorothy James
Office of Rep. Jimmie Don Aycock

John Gayle
City of Granite Shoals

Charlie Dickey
Citizen representative

Ted Deyo
Citizen representative

Bill Flynn
City of Burnet Council Member

Sylvia Breen
City of Cottonwood Shores

Christian Fletcher
Marble Falls Chamber of Commerce

Burnet County Chamber of Commerce

River Cities Tribune
Media representative

Burnet Bulletin
Media representative

The Highlander
Media representative

EXECUTIVE SUMMARY

The Burnet County Comprehensive Transportation Plan takes the vision of the citizens and technical advisors and culminates it into a tool we can use to prepare for our future. The plan presents the results of a traffic model utilizing various transportation improvements. The traffic model and the results incorporated into the plan will aid local and regional elected officials in decision-making. Importantly, the plan reflects the vision of a cross-section of the county. It reflects a desire to ensure the permanence of the natural beauty of the County while planning and preparing for the growth that will keep the County viable. This 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. Burnet County has one of the fastest growing populations in the state of Texas. Within the study period of the plan, the population is expected to grow from approximately 40,000 in 2005 to 104,000 in 2040. This is a 62 percent increase. The land uses in the county are changing from rural agricultural and ranch uses to more commercial and residential. Large tracks of vacant lands are being turned into communities.

The majority of Burnet County workers are employed within Burnet County. A little over two-thirds of the workers remain in Burnet County, while another 15.2 percent commute into Travis County, and 6.6 percent commute into Williamson County. County residents remaining within the county for employment often commute into the city of Burnet, swelling the size of the city by 29 percent, or a net of 1,387 workers, during the workday. Similarly, the size of the city of Marble Falls increases by 44 percent as a net 2,174 workers arrive from outside of the city limits.

To address the future transportation needs, the plan utilized the knowledge of local volunteers, planners, city and county officials to develop a plan for the future. The public and the Burnet County Transportation committees provided information and local knowledge about population growth and employment and where it will most likely occur in the future. This allocation exercise allowed the traffic modelers to run various scenarios to determine how the transportation system would function in the future with various improvements to the system. The projects were scored using a variety of factors including:

- system connectivity
- safety considerations
- mobility and accessibility
- environmental impacts and benefits
- economic development
- public support/participation
- regional impact
- fund, 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. Burnet County will face many decisions in the future regarding the growth. Having a comprehensive transportation plan that identifies the needs will be instrumental in allowing the county to take advantage of opportunities as they arise.

TABLE OF CONTENTS

List of Figures

List of Tables

CHAPTER 1 – INTRODUCTION

1.1 REPORT ORGANIZATION

The Burnet County Comprehensive Transportation Plan (BCCTP) is the result of a two-year collaborative effort between Burnet County, the Austin District of the Texas Department of Transportation (TxDOT), and the Capital Area Council of Governments (CAPCOG) to develop the first comprehensive transportation plan for Burnet County since 1974.

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, schools and health facilities; 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.
- **Travel demand modeling** – discussion of process utilized to develop the model, including traffic zone analyses and projected traffic volumes; deficiencies and needs; and an evaluation of the alternative roadway network, including a consideration of county goals.
- **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), 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.

The detailed analysis for each of these topics is provided in the Appendices.

1.2 STUDY BACKGROUND AND PURPOSE

The Burnet 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 would 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 second of the rural county plans to be started within the 11-county Austin District and will serve as the county's major thoroughfare plan as defined in Local Government Code 232. Burnet County was selected by the Capital Area Regional Transportation Planning Organization (CARTPO) to be the second county, after Bastrop 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 CCTP 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 nearby five-county Austin-Round Rock Metropolitan Statistical Area (A-RR MSA). Significant development has occurred in western Travis and Williamson Counties since 1980, and continued development of the unincorporated areas near the Highland Lakes can be expected to have a more direct impact on Burnet County in the future.

An example of the increasing impact of the Austin metropolitan region came in 2009, when the US Census Bureau classified Burnet County as being a new "micropolitan area" centered around Marble Falls. This micropolitan area was combined with the existing Austin-Round Rock MSA to create a new Austin-Round Rock-Marble Falls Consolidated Metropolitan Statistical Area.

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

Burnet is located west of Travis and Williamson Counties. The vicinity map for Burnet County is provided in **Figure 1.1**. The study area for the BCCTP included all of Burnet County and also coordinated with all of the adjoining counties.

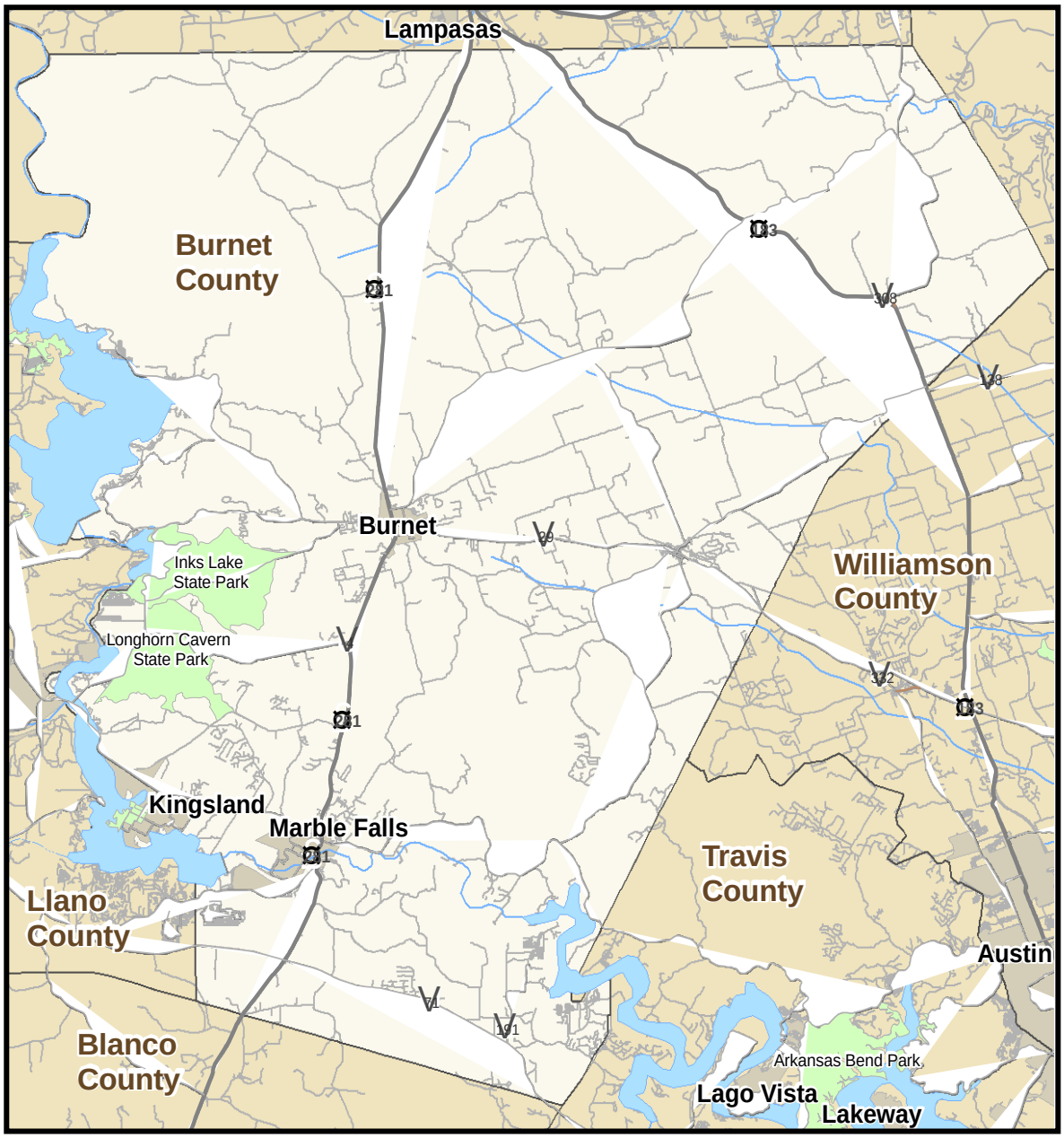
Burnet County is approximately 1,021 square miles, of which 996 square miles are land and the remaining 25 square miles are water. The county seat is the city of Burnet, with the other major cities in the county being the city of Marble Falls, the city of Bertram, and the city of Granite Shoals. The 2005 population of Burnet County was approximately 39,490 residents, with an average density of 40 residents per square mile.

Two public school districts serve Burnet County residents: Burnet Consolidated and Marble Falls Independent School Districts.

There are two state parks in Burnet County, Inks Lake State Park and Longhorn Cavern State Park.

The Interstate Highway System does not go through Burnet County. Roadways within Burnet County are classified 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 Burnet County.

The major roadways for through traffic in Burnet County are U.S. Highway (US) 183, US 281, and SH 71 east of US 281. SH 29 and SH 71 west of US 281 are the rural minor arterials within the county.



Source: TxDOT

Figure 1.1 Vicinity Map

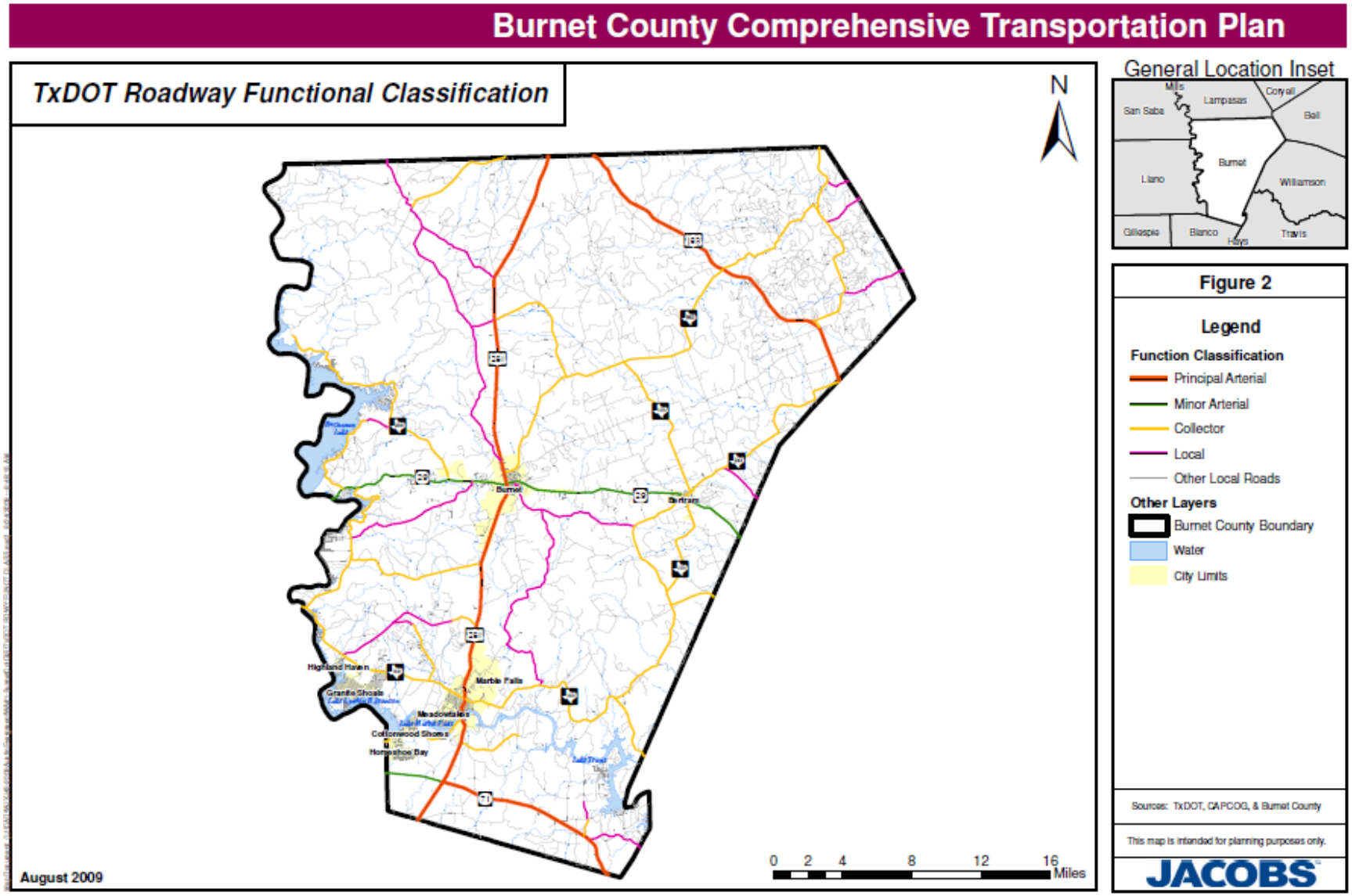


Figure 1.2 Functional Classification Map

1.4 Study Participants

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

- **Burnet County** – served as the lead agency; served as the point of contact for the public; identified members for the Steering Committee, the Technical Advisory Committee (TAC) and Citizen Advisory Committee (CAC); had a county representative attend project management meetings; and provided all applicable county data for use.
- **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 the 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 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 (Jacobs Engineering)** – 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** – built the Burnet County transportation model for future roadway analysis; provided overall guidance for participants in the preparation process; assured uniformity in the process and content of the CCTP; 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.

In addition to the participants listed above, three committees were developed to assist in the CTTP process – the Steering Committee, the Technical Advisory Committee and the Citizens Advisory Committee. (Members of each committee are listed in the Appendices.) 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 county commissioners. The CAC members were appointed by the County Commissioners Court based on recommendations from county commissioners and city councils.

1.5 Goals and Objectives

The goals of the BCCTP were developed by the Steering Committee and were adopted on July 15, 2008. These goals are addressed in the BCCTP and guided the committees in their efforts. The goals, and the corresponding objectives, of the BCCTP are to:

- address traffic safety and congestion concerns:
    - find additional routes and/or alternatives for hazardous cargo, emergency alternate routes, and traffic congestion;
    - involve the school districts in the transportation planning process/Safe Routes to School program;
    - upgrade the existing infrastructure (City, County, State) to current needs, to the extent possible; and
    - prioritize roadways based upon current and projected traffic needs
- coordinate and synchronize transportation needs with economic development guidelines in the County:

  - work with the county, cities, and schools to adopt transportation goals within the current and future development plans,
  - work with developers to address roadways during development (examine total infrastructure needs, not just utilities),
  - ensure adequate right-of-way (ROW) for roadway expansion to accommodate future growth,
  - advancement of environmental quality assurances, guidelines and aesthetics,
  - increase economic competitiveness,
- increase and explore financing options and opportunities with County, State and Federal agencies
  - match priorities to funding availability,
  - explore the creation of a regional mobility authority (RMA) to help share resources on projects outside of city limits and to get projects completed faster,
  - explore county, state, and federal partnership opportunities to fund improvements,
  - identify the benefits of multi-agency funding coordination,
  - lobby the legislature regarding policies that affect local roads; for increased TxDOT funding,
  - explore joint venture funding opportunities,
  - prepare for and plan for Burnet County inclusion in the Austin MSA
- provide citizens with transportation choices to enhance quality of life
  - examine multimodal priorities and possibilities – bike routes/rail/airports (at Spicewood and Horseshoe Bay)/public transportation
  - enhance bike and pedestrian facilities.

1.6 Community Vision

The Burnet County Commissioner's Court in 2008 approved a mission statement that reflects the County's commitment to develop a comprehensive transportation plan that will direct local governments and agencies through 2035. This statement reads as follows:

"To develop a regional, collaboratively based Burnet County Strategic Transportation Plan that encompasses and reflects existing and projected demographic, environmental, infrastructural, and resource factors – to include all modes of travel that will safely and efficiently provide for the movement of personal, and commercial and emergency travel through 2035."

"to develop a regional, collaboratively-based Burnet County Strategic Transportation Plan that encompasses and reflects existing and projected demographic, environmental, infrastructural, and resource factors – to include all modes of travel that will safely and efficiently provide for the movement of personal, and commercial and emergency travel through 2035." – 2008 Burnet County Commissioners Court Vision Statement

The City of Marble Falls has recently completed the 2009 update of its comprehensive plan. This plan was developed from input received from focus groups and stakeholder interviews. The community vision indicates a desire to maintain the "feel" of the picturesque lake community, while continuing to develop a diverse economic base. The goals reflect this desire by detailing land use and transportation objectives that discourage spot zoning, promote tourism, and encourage connectivity between the Main Street area and the parks system, and downtown circulation, including the creation of a pedestrian-friendly environment *(1)*.

The Granite Shoals Comprehensive Plan 2010 integrates community plans regarding transportation, future land use, infrastructure, housing strategies, and parks and open space *(2)*. The goals and objectives reflect a community desire for balanced growth, a variety of available housing, the preservation of the "small town" feel of the community, the promotion of tourism, and planned infrastructure renovation and expansion. The plan defines additional goals and objectives related to economic development and job creation, community design standards, the continued creation and maintenance of the open space

system, and the protection of natural open spaces and ecosystems. All these goals work toward a 30-year plan that enhances the city's image as a "City of Parks."

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. Section 232.102 of the Texas Local Government Code gives 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 CCTP 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 CCTP 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.

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 instance, 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 – 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 education, 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 Burnet County. The primary methods used to involve the public were two public meetings and a questionnaire.

1.10 Study Process

The CCTP 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, traffic projections/travel demand modeling, needs analysis, 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 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 Burnet 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 Burnet 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, which in turn may impact the ability of adjacent counties to provide a coordinated transportation system; and
- vehicle crash data to help identify key locations where spot improvements may be warranted.

2.1 REVIEW OF EXISTING PLANS

2.1.1 1974 Transportation Plan

The 1974 Burnet County Transportation Plan was developed by TxDOT Austin District in response to Texas Highway Commission Minute Order 65741, which directed the State Highway Engineer to expand formal transportation planning to all counties that were not already covered by an urban transportation plan *(1)*. Approved by Burnet County, the City of Burnet, City of Marble Falls, City of Bertram, and City of Granite Shoals, the plan was created with the specific purpose of identifying vehicular traffic needs for future roadway system development through the year 1990. Previous to the 1974 plan, Burnet County had utilized the Your County Program adopted in 1963, and the Long Range County Program adopted in 1973. Both were created by the Burnet County Building Committee, which consisted of citizens and the County Agricultural Agent.

The 1974 plan was concerned with future development as it pertained to the quality of family living, agricultural resources, youth resources, business, industry, and recreational attractions. The rural nature of the county was reflected in the goals set by the plan:

- keeping young people in the county
- developing additional parks and recreational facilities along the lakes
- surveying mineral deposits for potential development and
- developing agricultural markets.

Long range objectives included:

- providing jobs as an economic incentive to keep local people in the county
- attracting more tourists, and
- attracting small manufacturing plants.

The plan utilized population projections taken from the Comprehensive Plans for the cities of Burnet and Marble Falls, and the Capital Area Planning Council. A comparison of the projected 1990 population to the actual 1990 census results show that the projections for the county and Granite Shoals fell well below the actual population, while the populations of Burnet, Marble Falls, and Bertram were noticeably overestimated *(2)*.

Suggested improvements included the development of loop facilities in Burnet and opening city streets across creeks in both Burnet and Marble Falls. The plan indicated that for Burnet County, the "existing county road system is generally adequate for its intended service."

Other transportation facilities identified at the time included three airports – city-owned Kate Craddock Field, privately-owned Horseshoe Bay Airport, and Sherwood Shores Field – bus service provided by two companies, three motor freight services, and the Southern Pacific railroad, which served the local quarries.

2.1.2 Burnet County Comprehensive Plan

In 2009, Burnet County adopted a comprehensive plan. This plan covered projected demographic changes, infrastructure needs, county service levels and other issues important in shaping the county's future prior to laying out specific policy objectives. The plan is mostly laid out as a strategic plan for county operations and initiatives. Unlike city comprehensive plans, the Burnet County Comprehensive Plan does not address land use in a substantive manner other than the preservation of open space and agriculture. This is largely due to the lack of county zoning and land use planning authority, which have not been permitted in the Texas Local Government Code,

One of the plan's major goals directly addresses transportation issues. The Goal "Identify and Address Critical Safety Issues" includes a call to identify dangerous intersections and develop a priority list to improve them. The county's preferred action is a combination increased patrols at these intersections and physical improvements to be made according to the order of the priority list.

2.1.3 Municipal Plans

2.1.3.1 The 2009 City of Marble Falls Comprehensive Plan Update

As this document was being developed, the City of Marble Falls was also updating its 1998 Comprehensive Plan. This plan looked at land use, transportation, public facilities, parks/recreation/open space, infrastructure/drainage/utilities, urban design, and annexation issues. The update documents shifts in Marble Falls' demographics and growth patterns, and outlines a preferred growth scenario and also a thoroughfare plan for the 30-year planning period. Key issues include development of the US 281 corridor, including congestion relief, the US 281 Bridge, neighborhood non-residential traffic, circulation around the downtown area, and pedestrian needs.

2.1.3.2 The City of Granite Shoals Comprehensive Plan 2010

The Granite Shoals Comprehensive Plan focuses on several key principles for future transportation-related decisions:

- The community should have convenient internal circulation between residences, businesses, and special districts.
- Through traffic should be directed to specific facilities designed to accommodate non-local and regional traffic, and the facilities should define residential neighborhoods so that neighborhood integrity may be preserved.
- Interconnectivity between residential, retail, and community areas should be accomplished with a safe bicycle/pedestrian system.
- The transportation plan should monitor regional growth implications and proactively work to resolve accessibility and mobility issues in the Granite Shoals vicinity.

With these principles in mind, the plan calls for the adoption of a functional street classification system, construction of new roadways and the upgrading of existing roadways, along with the development of a capital improvements plan, and the identification of specific sites for gateway entrances into the city. It also recommends the implementation of context sensitive design principles along FM 1431, the coordination of the Transportation Plan with the Parks & Open Space Plan to ensure connectivity throughout the city for both pedestrians and vehicles, and coordination with Burnet County and TxDOT to ensure that Transportation Plan standards are applied to County and State improvements within the city and its ETJ.

2.2 DEMOGRAPHIC TRENDS

2.2.1 Population

Demographic trends, as discussed in this chapter, are based upon the baseline population and employment figures taken from the U. S. Census 2000 *(3)*. Estimates and projections were prepared by the Texas State Data Center at the University of Texas at San Antonio 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. An average of these two scenarios is used here, and rounds the resulting number to the nearest 100. Chapter 3 will address population projections in greater detail.

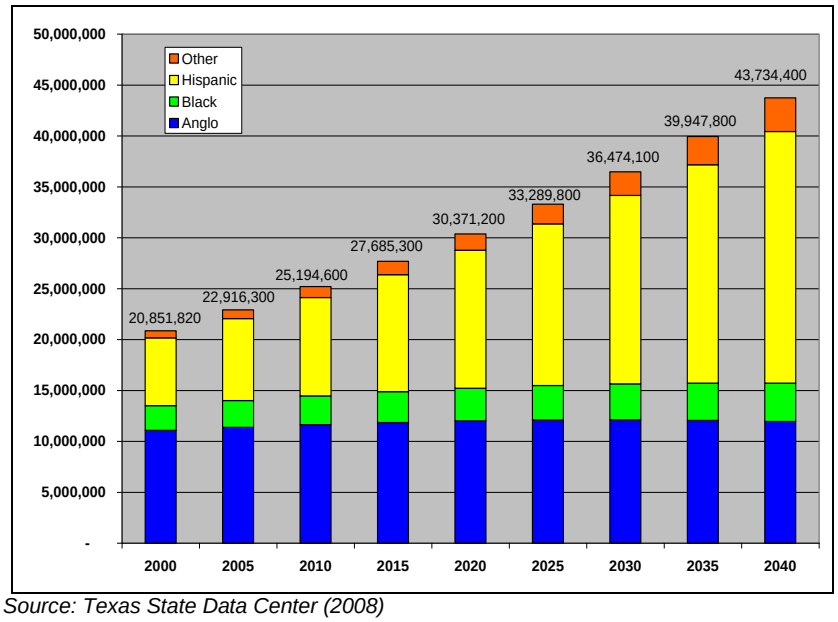
Both the state (**Figure 2.1**) and Burnet County (**Figure 2.2**) are projected to sustain substantial growth throughout the next 40 years, with Burnet County projected to grow to a total population of 104,000 by 2040. Both projections are based on the rounded average of growth scenarios 1 and 0.5 as developed by the Texas State Data Center *(4, 5)*. (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 within Burnet County is projected to occur at a rate of almost twice that of the rest of Texas.

Population growth is projected to occur at a much greater rate in the Austin-Round Rock Metropolitan Statistical Area (A-RR MSA) and Burnet County relative to the rest of the state. In fact, it is projected that Burnet County will grow at rates nearly twice that of the rest of the state.

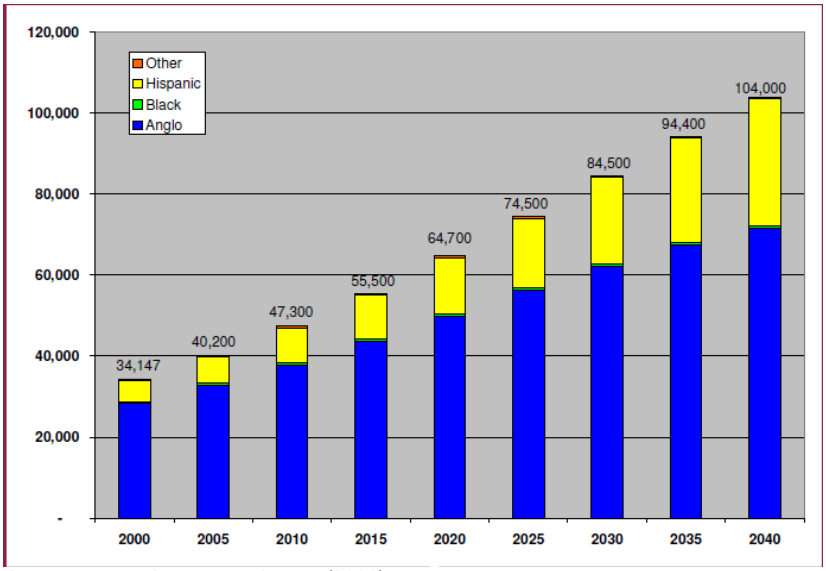
2.2.2 Employment

Over the past 20 years, employment opportunities in Burnet County have become more diverse, with the added commercial development generated by the growing population base. CAPCOG estimates that employment opportunities in Burnet County will continue to grow, but the rate of growth will soon decline, as shown in **Table 2.1** *(6)*.



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 Burnet County

Table 2.1 Projected Employment for Burnet County

	Number of Jobs	% Change from Previous Year	% Change from 2007
2007	24,888		
2008	26,179	5.19%	5.19%
2009	27,235	4.03%	9.43%
2010	28,120	3.25%	12.99%
2011	28,885	2.72%	16.06%
2012	29,348	1.60%	17.92%
2013	30,009	2.25%	20.58%
2014	30,601	1.97%	22.95%
2015	31,132	1.74%	25.09%
2016	31,609	1.53%	27.00%
2017	32,037	1.35%	28.72%
2018	32,422	1.20%	30.27%

Source: CAPCOG, EMSI Complete Employment - Spring 2008 Release v. 2

Retail and management occupations currently account for the two largest private employment sectors in the county, and the trend is projected to continue through the year 2018 (**Table 2.2**). The largest increases in jobs as a percentage of countywide jobs will be for:

- building and grounds cleaning,
- maintenance occupations, and
- business and financial operations occupations.

The largest declines as a percentage of countywide jobs will be in:

- management occupations,
- office and administrative support occupations,
- food preparation and serving related occupations, and
- production occupations.

It should be noted that all projected increases or decreases in job types as a percentage of countywide jobs are less than one percent. The projections were performed prior to the economic recession of 2008/2009 and do not reflect the potential impacts to the various industries.

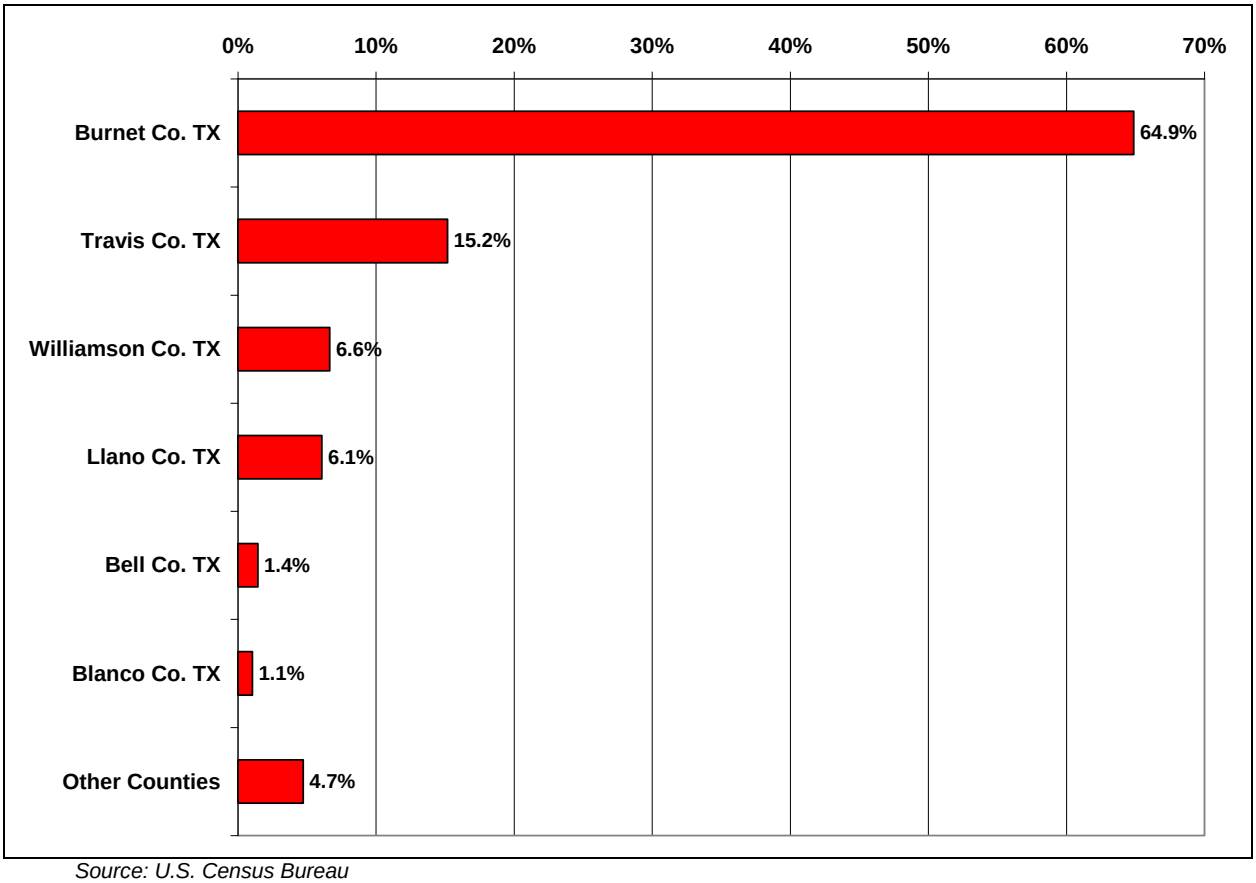
Table 2.2 Projected Employment for Burnet County

Job Types	2007	2018	% Change	2007	2018	% Change
Sales and related occupations	4,332	5,618	29.69%	17.41%	17.33%	-0.08%
Management occupations	3,568	4,415	23.74%	14.34%	13.62%	-0.72%
Construction and extraction occupations	2,478	3,270	31.96%	9.96%	10.09%	0.13%
Office and administrative support occupations	2,339	2,915	24.63%	9.40%	8.99%	-0.41%
Food preparation and serving related occupations	1,500	1,820	21.33%	6.03%	5.61%	-0.41%
Building and grounds cleaning and maintenance occupations	1,419	2,045	44.12%	5.70%	6.31%	0.61%
Production occupations	1,165	1,351	15.97%	4.68%	4.17%	-0.51%
Business and financial operations occupations	1,108	1,635	47.56%	4.45%	5.04%	0.59%
Education, training, and library occupations	1,074	1,510	40.60%	4.32%	4.66%	0.34%
Transportation and material moving occupations	1,061	1,419	33.74%	4.26%	4.38%	0.11%
Installation, maintenance, and repair occupations	909	1,089	19.80%	3.65%	3.36%	-0.29%
Personal care and service occupations	708	894	26.27%	2.84%	2.76%	-0.09%
Healthcare practitioners and technical occupations	650	917	41.08%	2.61%	2.83%	0.22%
Arts, design, entertainment, sports, and media occupations	642	857	33.49%	2.58%	2.64%	0.06%
Healthcare support occupations	448	617	37.72%	1.80%	1.90%	0.10%
Other Job Types	1,486	2,050	37.95%	5.97%	6.32%	0.35%
Total Jobs	**24,887**	**32,422**	**30.28%**			

Source: CAPCOG, EMSI Complete Employment - Spring 2008 Release v. 2

2.2.2.1 Travel to Work

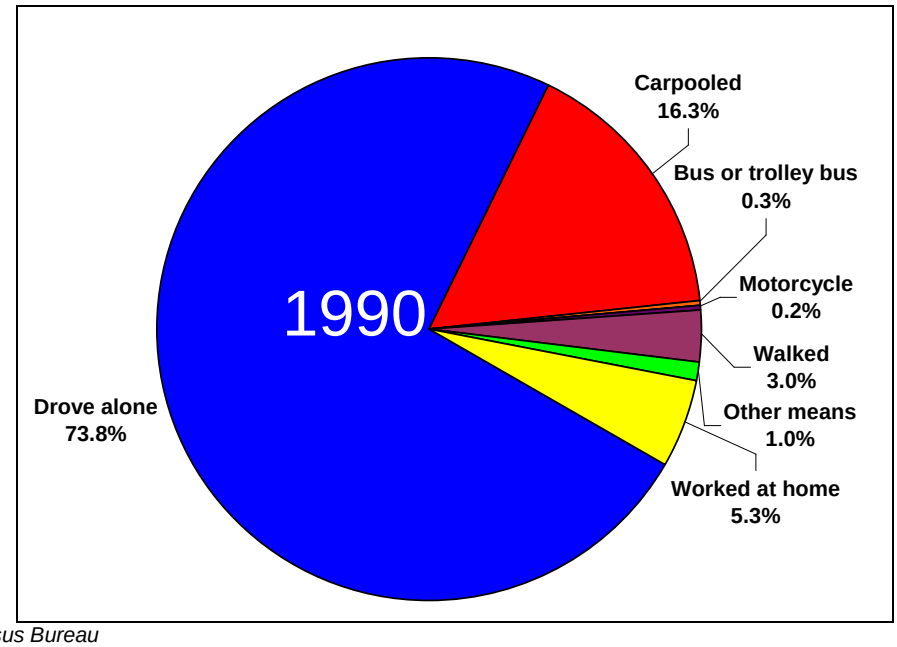
The majority of Burnet County workers are employed within of Burnet County (**Figure 2.3**). A little over two-thirds of the workers remain in Burnet County, while another 15.2 percent commute into Travis County, and 6.6 percent commute into Williamson County. County residents remaining within the county for employment often commute into the city of Burnet, swelling the size of the city by 29 percent, or a net of 1,387 workers, during the workday. Similarly, the size of the city of Marble Falls increases by 44 percent as a net 2,174 workers arrive from outside of the city limits.



Source: U.S. Census Bureau

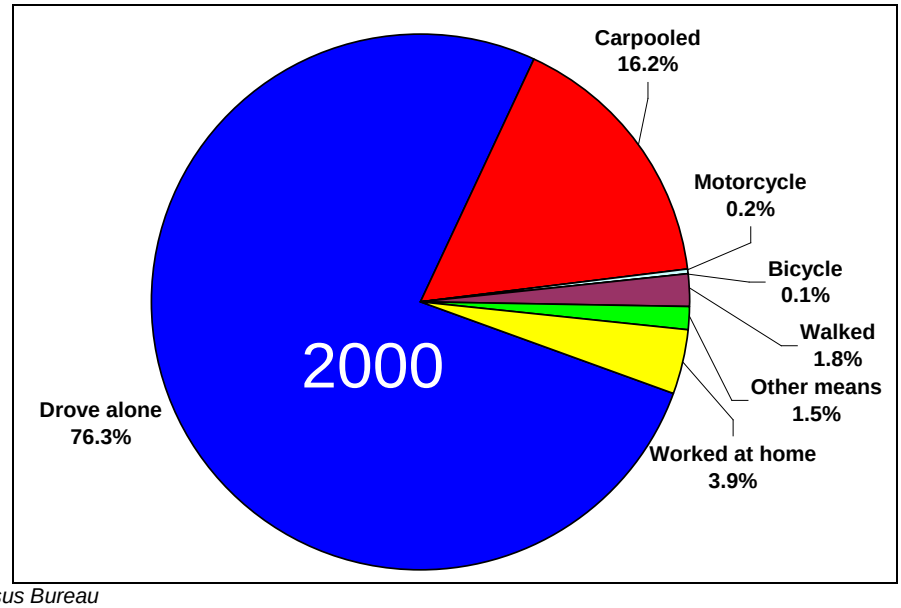
Figure 2.3 Location of Workplace for Burnet County Workers

The U.S. Census Bureau's decennial census also provides statistics for mode of transportation to work. Data for Burnet County shows that between the 1990 and 2000 census, county residents generally favored travelling alone (**Figures 2.4 and 2.5**). County residents driving to work alone rose from 73.8 percent in 1990 to 76.3 percent in 2000. Carpooling rates dropped marginally, and the percentage of residents working from home dropped from 5.3 percent to 3.9 percent over this same period.



Source: US Census Bureau

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



Source: US Census Bureau

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

2.2.3 Age

Approximately 6.5 percent of the population in 2000 were under the age of five, 20.4 percent were of school age (ages 5 through 19), 55.1 percent were of adult employment age (20 through 64), and 17.9 percent were of retirement age (65 and older). These figures indicate a slight shift toward an older

population from the figures provided by the 1990 Census. The city of Burnet has had a large influx of retirees in recent years, as has Marble Falls and the smaller communities along the Highland Lakes.

2.2.4 Schools

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 *(7)*. These data cover the county as a whole and represent an aggregate of the county's two major school districts.

The second and more detailed set of data is taken from the Academic Excellence Indicators System (AEIS) compiled by the Texas Education Agency (TEA) *(8)*. These data are often used by school districts, such as Burnet 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 two major school districts.

Children enrolled in elementary, middle or high schools have generally accounted for approximately 18 percent of the Burnet County population, fluctuating from 17.7 percent in the year 1990 to 18.9 percent in 2000 (**Table 2.3**). Residents enrolled in college decreased to 1.8 percent in 2000 from 2.4 percent in 1990. Preprimary enrollment has also decreased from 1.6 percent of the total population in 1990 to 1.4 percent in 2000.

Table 2.3 Burnet County School Enrollment

			As a Percentage of County Population	
Burnet County Residents, Age 3 and Up	**1990**	**2000**	**1990**	**2000**
Enrolled in preprimary school	339	462	1.6%	1.4%
Enrolled in elementary or high school	3853	6182	17.7%	18.9%
Enrolled in college	519	599	2.4%	1.8%
Not enrolled in school	17059	25467	78.4%	77.9%

Source: U.S. Census Bureau (2008)

CAPCOG estimates that the number of school-age children within Burnet 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 Burnet County

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

Source: Texas State Data Center

2.2.4.1 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**). The Marble Falls Independent School District (MFISD) is the largest of the three school districts serving Burnet County. Enrollment currently accounts for almost 55 percent of student enrollment in public schools countywide; however, in recent years the Burnet Consolidated Independent School District (BCISD) has steadily increased as a share of countywide school enrollment from 43.7 percent in 1996 to 45 percent in 2006. The other district serving Burnet County is the Lampasas ISD, which serves an area in the far north of the county. This district has no schools within Burnet County. There are approximately 150-200 Burnet County students enrolled in schools in the Lampasas school district.

Table 2.5 Burnet County Student Enrollment

	Total Number of Students			*As a % of Couty Student Population*	
School Year	All Students	Burnet CISD	Marble Falls ISD	Burnet CISD	Marble Falls ISD
1996-1997	**5,875**	2,567	3,308	43.69%	56.31%
1997-1998	**5,996**	2,625	3,371	43.78%	56.22%
1998-1999	**6,239**	2,710	3,529	43.44%	56.56%
1999-2000	**6,175**	2,723	3,452	44.10%	55.90%
2000-2001	**6,417**	2,820	3,597	43.95%	56.05%
2001-2002	**6,584**	2,936	3,648	44.59%	55.41%
2002-2003	**6,698**	3,066	3,632	45.77%	54.23%
2003-2004	**6,768**	3,079	3,689	45.49%	54.51%
2004-2005	**6,875**	3,030	3,845	44.07%	55.93%
2005-2006	**7,159**	3,249	3,910	45.38%	54.62%
2006-2007	**7,306**	3,291	4,015	45.05%	54.95%

Source: TEA, AEIS (2008)

2.2.5 Health Facilities

Burnet County has a number of local health clinics and private medical and dental providers. However, limited access is available to emergency healthcare facilities, with one hospital located in Burnet, and another under construction in Marble Falls. For trauma care, patients must be transported to Austin or Temple.

2.3 Existing Socioeconomic Conditions

2.3.1 Environmental Justice Considerations

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. In 1994 President Bill Clinton issued Executive Order 12898. The order states “to the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal Agency shall make achieving Environmental Justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations in the United States and its territories and possessions”.

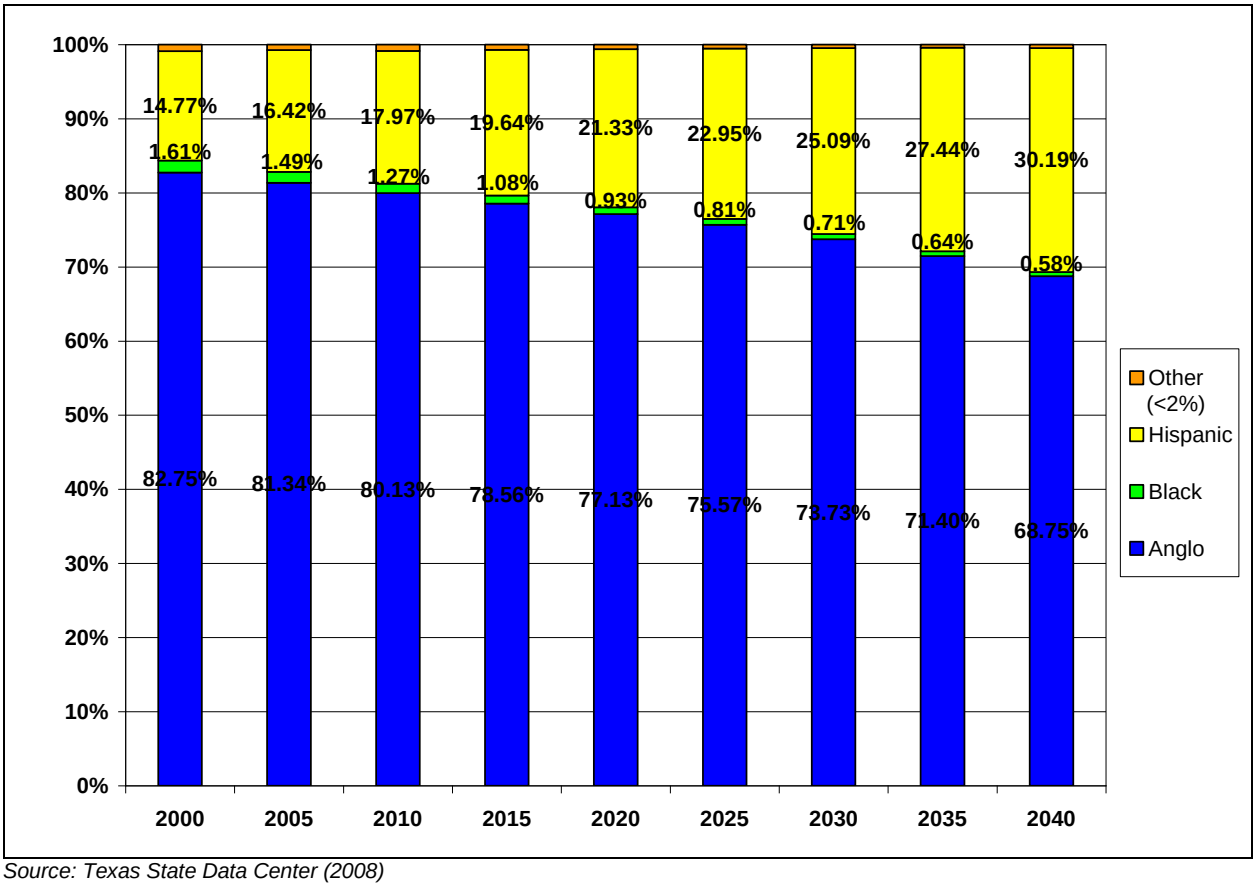
2.3.1.1 Race/Ethnicity

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

Table 2.6 Projected Change in Population through Year 2040

		2005	2010	2015	2020	2025	2030	2035	2040
Total Population	Texas	9.9%	20.8%	32.8%	45.7%	59.6%	74.9%	91.6%	109.74%
	Burnet County	17.73%	38.52%	62.53%	89.47%	118.17%	147.46%	176.45%	204.57%
Anglo	Texas	2.74%	5.07%	7.03%	8.46%	9.28%	9.40%	8.89%	7.91%
	Burnet County	15.72%	34.12%	54.29%	76.59%	99.24%	120.47%	138.52%	153.03%
Black	Texas	8.16%	16.52%	24.77%	32.43%	39.39%	45.61%	51.06%	55.76%
	Burnet County	8.89%	8.89%	8.89%	8.89%	8.89%	8.89%	8.89%	8.89%
Hispanic	Texas	20.81%	44.93%	72.40%	103.23%	138.07%	177.46%	221.56%	270.40%
	Burnet County	30.85%	68.52%	116.10%	173.59%	239.02%	320.30%	413.48%	522.52%
Other	Texas	25.70%	55.98%	91.36%	132.94%	181.93%	239.25%	305.77%	382.26%
	Burnet County	0.00%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	66.67%

Source: Texas State Data Center (2008)



Source: Texas State Data Center (2008)

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

2.3.1.2 Income

Annual income levels in Burnet County have steadily increased since the year 1990. Annual median household income for the area has increased by 77 percent, from $21,420 in 1990 to $37,921 in 2000. Recent growth in median household income can be seen in **Table 2.7.**

Table 2.7 Annual Median Household Income for Burnet County

	1990	2000
Median Household Income for Burnet County	**$ 21,420**	**$ 37,921**
Percentage Change from 1990		77%

Source: U.S. Census Bureau (2008)

2.3.1.3 Poverty Levels

Poverty levels are set pursuant to 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 Burnet County

			As a % of County Population	
Ratio of income to Poverty Level	**1990**	**2000**	**1990**	**2000**
Under 1.00	3948	3614	18%	11%
1.00 to 1.99	5925	7362	27%	22%
2.00 and over	12396	22177	56%	67%

Source: U.S. Census Bureau (2008)

2.4 Inventory of Existing Land Use

Burnet County has experienced steady 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.

Land use introduces a common language that provides a collective understanding of how development impacts our communities.

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, Burnet County's rural land use pattern has been supported by a network of local, county, farm-to-market and arterial roadways that have satisfied county residents' transportation needs. As Austin's growth has influenced Burnet County's land use pattern, the transportation required to support this new pattern is changing. Discussion of a bypass around Marble Falls illustrates the shift in transportation infrastructure required to support Burnet County's changing land use pattern. Understanding these changing land use patterns provides insight into future transportation requirements as well as the types of land use they stimulate.

Prior to 1980, Burnet County experienced only incremental changes to the land use pattern. Early settlement patterns in Burnet County were defined by animal stock and subsistence farming. Between 1880 and 1930, this original land use pattern was typical and found throughout the county. The Great

Depression of 1929 made farming largely uneconomical and many of the farms were converted to ranches. The 1930's also saw the Lower Colorado River Authority (LCRA) build a series of dams along the Colorado River. The dams provided reliable, economical electric service; flood control protection; and construction jobs that transformed the County's land use pattern. The Highland Lakes were completed by the early 1950s. Between 1880 and 1950, Burnet County's population remained around 10,000 residents, with only incremental changes in land use. After the dams were completed in 1950, Marble Falls was no longer restricted by flood risks along the Colorado River and the population along the Highland Lakes began to grow.

Burnet County's growth accelerated after 1970 as the lake shores became a popular vacation and retirement area. Explosive growth in Travis and Williamson County extended out along SH 71 and SH 29 and began influencing Burnet County's historical settlement patterns. The county's population grew from 11,420 in 1970 to over 40,000 residents today.

Most of this growth has been focused in the unincorporated areas around Spicewood, Bertram and the Highland Lakes; and in the incorporated cities of Burnet and Marble Falls. **Figures 2.7 and 2.8** demonstrate the effects of the county's growth in the city of Burnet. **Figures 2.9 and 2.10** illustrate the growth in Marble Falls over the same period.

Source: CAPCOG

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

Source: CAPCOG

Figure 2.8 2006 Aerial Photograph of the City of Burnet, Texas

Source: CAPCOG

Figure 2.9 1997 Aerial Photograph of the City of Marble Falls

Source: CAPCOG

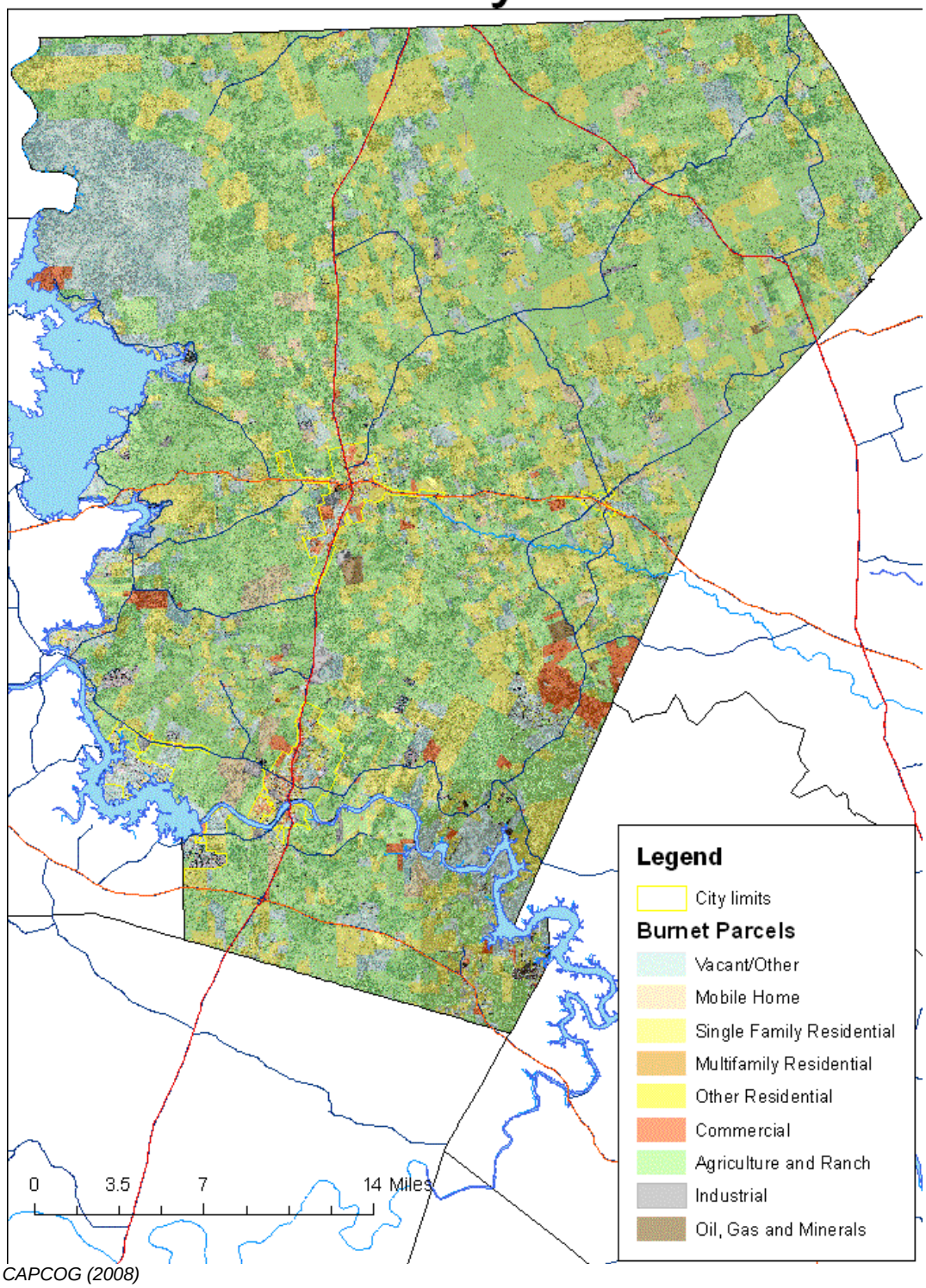
Figure 2.10 2006 Aerial Photograph the City of Marble Falls

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 Burnet County today stem from an increasing number of exurban residents

traveling on the state FM and county road systems. The rural roads were constructed to serve a rural agricultural community, not an urban residential community. Instead, these roads have become feeders into the increasingly congested US 281, SH 71, and SH 29 corridors. Even with its unprecedented growth around the Highland Lakes, the majority of Burnet County remains sparsely populated.

Figure 2.11 illustrates land use across all of Burnet County in the year 2008. CAPCOG generated the map using the Texas State Land Use Code present in the Burnet Central Appraisal District certified tax roles for 2008. Notice the large tracts of agricultural, ranch, and large acreage residential present throughout the entire county.

Burnet County Land Use



Source: CAPCOG (2008)

Figure 2.11 Burnet County Land Use (2008)

2.5 NATURAL ENVIRONMENT

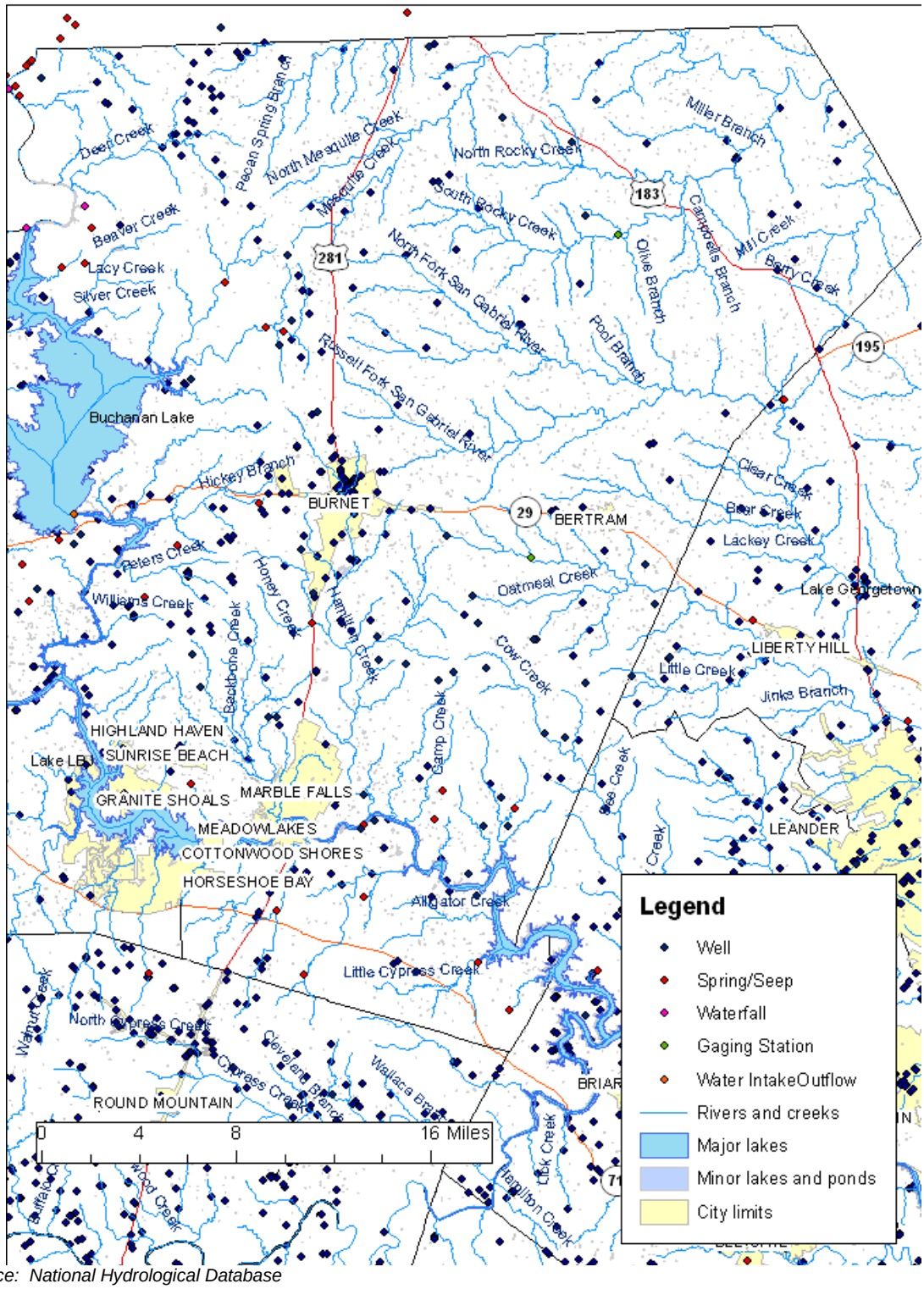
Burnet County is an area that is commonly forecasted as having the potential for strong growth over the next 30 years. One factor that should be instrumental in drawing new residents and visitors to the county is the combination of desirable natural features that can be found throughout the county. Burnet County is distinguished by its location along many of the Highland Lakes as well as the Colorado and San Gabriel rivers, its wildflowers and the rolling rangeland that characterizes much of the northern part of the county. While these natural resources are a major calling card for the county, they also provide a set of constraints that limits the county's present and future transportation infrastructure. For example, the county's rivers and lakes provide scenic beauty, but are expensive to cross as added traffic can increase the need for crossings via bridges or waterside roads that are more expensive to build than their inland equivalents. Similarly, the county's granite outcroppings are a rare feature that can be highly valued for its appearance, but this geological feature makes road construction much more expensive than in typical areas with greater soil depth. These factors serve both in a negative way, limiting the possibilities of planning for new roads while also having positive effects due to providing greater focus to transportation planning effects while preserving the county's valuable natural features.

2.5.1 Water Resources/Drainage/Floodplains

2.5.1.1 Major Rivers and Streams

Most of Burnet County is in the Colorado River Basin, with much of the rest of the county in the San Gabriel River Basin and a small portion in the Lampasas River Basin. The Colorado River forms much of the western boundary of Burnet County, winding eastward across the southern portion of the County south of Marble Falls. Two forks of the San Gabriel River can be found in Northern Burnet County, heading eastward towards Georgetown. Major streams in Burnet County include Rocky Creek, Mesquite Creek, Delaware Creek and Oatmeal 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 portion of the Colorado River that flows through Burnet County is in a major segment in the portion of the river that is highly unimpounded, including dams such as Buchanan Lake and Lake LBJ, as well as the segment leading to Lake Travis, which is just west of the Travis County line (Texas Parks and Wildlife, 14). The county's rivers, streams and lakes can be seen in **Figure 2.12** *(9)*.

Burnet County Hydrologic Features



Source: National Hydrological Database

Figure 2.12 Burnet County Hydrologic Features

2.5.1.2 Subsurface Water

Most of central and eastern Burnet County is in the Trinity Aquifer. The Trinity Aquifer is part of the larger Edwards-Trinity Aquifer system that is associated with the Colorado River and is a major issue in the supply of drinking water to Central Texas. The Trinity Aquifer is the primary water source for much of the Hill Country. Unlike the Edwards, the Trinity Aquifer recharges very slowly. Only 4-5 percent of water that falls as rain over the area ends up recharging the Aquifer, and water also moves through the Trinity much more slowly than through the Edwards. The Trinity contributes a significant amount of water as recharge for the Edwards. According to scientific studies, somewhere between 59,000 and 360,000 acre-feet per year enters the Edwards from the Trinity. Recharge to the Edwards can occur where the layers are juxtaposed by faults or, where the Trinity underlies the Edwards, by upwelling *(10)*.

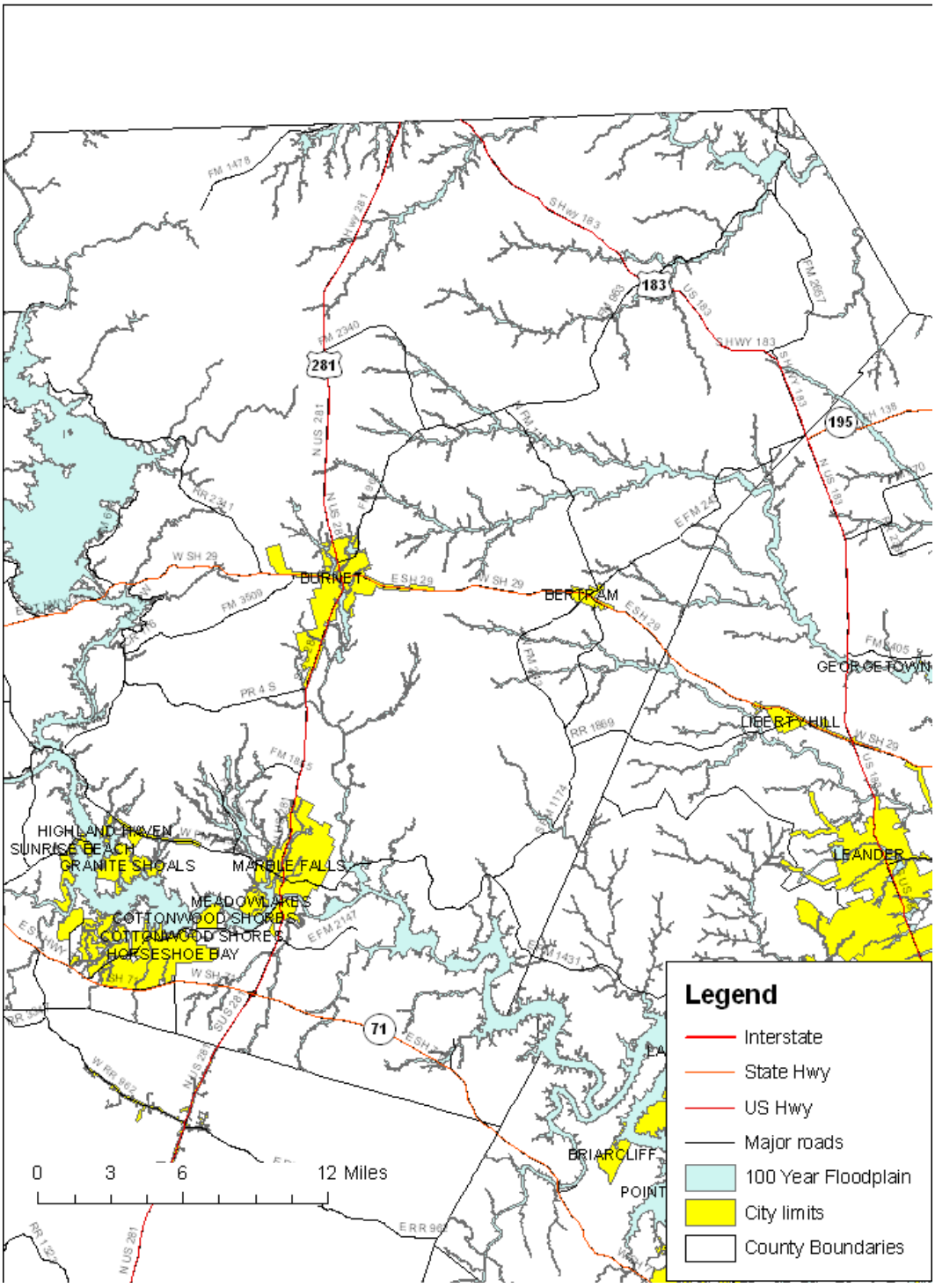
2.5.1.3 Springs

Numerous springs have been identified in Burnet County. These springs serve the county both as water sources and recreational amenities. Increased groundwater use will result in a lowering of aquifer levels and, more than likely, a reduction in flow for the existing springs in the study area. The location of the County's springs can be viewed in **Figure 2.12**.

2.5.1.4 Lakes and Floodplains

There are 19 major lakes in Burnet County, the largest of which is Buchanan Lake. Other larger impounded waters within the county include Lake Marble Falls, Lake LBJ, and several small lakes throughout the county. 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 Burnet County, areas within the 100-year floodplain have been identified along the Colorado River and San Gabriel Rivers, as well as along numerous other intermittent streams, including Oatmeal Creek, Rocky Creek, Mesquite Creek, Pin Oak Creek, Backbone/Dry Creek and associated tributaries. See **Figure 2.13** for the location of the floodplains (*11)*.

Burnet County Floodplains



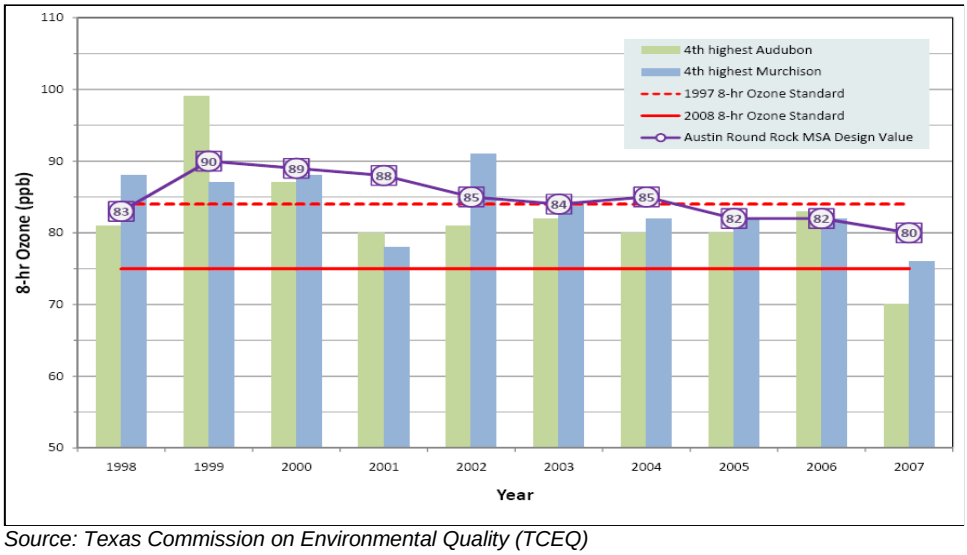
Source: FEMA (2006)

Figure 2.13 Burnet County Floodplains

2.6 AIR QUALITY

In addition to population growth, traffic and weather, air quality is an important shared condition that affects life throughout the region. 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. Ground-level ozone is the primary air pollutant of concern in Central Texas. Air quality readings taken from monitors within the A-RR MSA indicate that ozone levels have exceeded federal standards on numerous occasions. Ground-level ozone is a regionally transported pollutant and due to predominant weather patterns and wind directions in central Texas, Burnet County's air could, on occasion, be impacted by high regional levels of ozone, though no monitoring equipment is currently operated in the County to measure such impacts.

The ozone season for Central Texas begins April 1st and ends October 31st. 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. **Figure 2.14** 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 *(12)*. The A-RR MSA is currently designated in attainment of the 1997 NAAQS standard of 84 ppb for ozone.



Source: Texas Commission on Environmental Quality (TCEQ)

Figure 2.14 A-RR MSA 8-Hour Ozone Design Value Historic Trend

There are no ozone monitoring stations currently located in Burnet County; however, the Texas Commission on Environmental Quality's (TCEQ) regulatory monitor Austin Audubon CAMS 38 monitoring station is located less that 15 miles east of the Burnet County line. As show in **Figure 2.14**, from 1998 to 2007 the ozone concentration levels monitored at the Audubon monitoring station were consistently above the 2008 8-hour ozone standard.

2.7 SAFETY

While the purpose of transportation is to provide mobility for all modes of travel, doing so safely is the utmost concern. To perform a safety analysis, TxDOT Crash Data from the Crash Record Information System (CRIS) was used to map incident locations. Between January 1st, 2005 and December 31st, 2007, the most recent data available, a total of 2,020 traffic incidents were reported in Burnet County, resulting in an average of over 600 incidents a year as seen in **Table 2.10** *(13)*. These incidents involved 3,493 vehicles and resulted in 38 fatalities and 881 injuries. **Figure 2.15** illustrates the combined number of crashes occurring within the last three years, along the TxDOT and county roadways, with the fatal crash locations shown.

Table 2.10 Burnet County Incidents Per Year

Year	Number of Accidents	Number of Fatalities	Number of Injuries	No. of Vehicles Involved
2005	681	8	302	1,227
2006	648	18	317	1,145
2007	691	12	262	1,121
TOTAL	**2,020**	**38**	**881**	**3,493**

Source: CRIS, TxDOT

There were 27 fatal crashes that resulted in the 38 deaths and 17 injuries. Of the 27 crashes, 25 (93%) occurred on the higher speed roadways. The accident locations were categorized as 16 accidents on US and State Highways, nine accidents on farm-to-market or ranch-to-market roads and two accidents on city streets. In a majority of the fatal single-vehicle accidents, the vehicle struck a roadside fixed object such as a fence, tree, guard rail or utility pole. Only three were confirmed to be driving under the influence. Weather conditions and the roadway alignment did not seem to be a factor in a majority of the accidents.

According to the day-of-week chart, seen in **Figure 2.16**, it appears that the day with the highest frequency of accidents is Friday. Tabulating the accident data according to the month in which they occurred, as seen in **Figure 2.17**, reveals a higher likelihood for accidents to occur during the months of March through July. This seems to correlate to the fact that Burnet County has a tourist appeal in the spring and summer months and an increase in activity during that time.

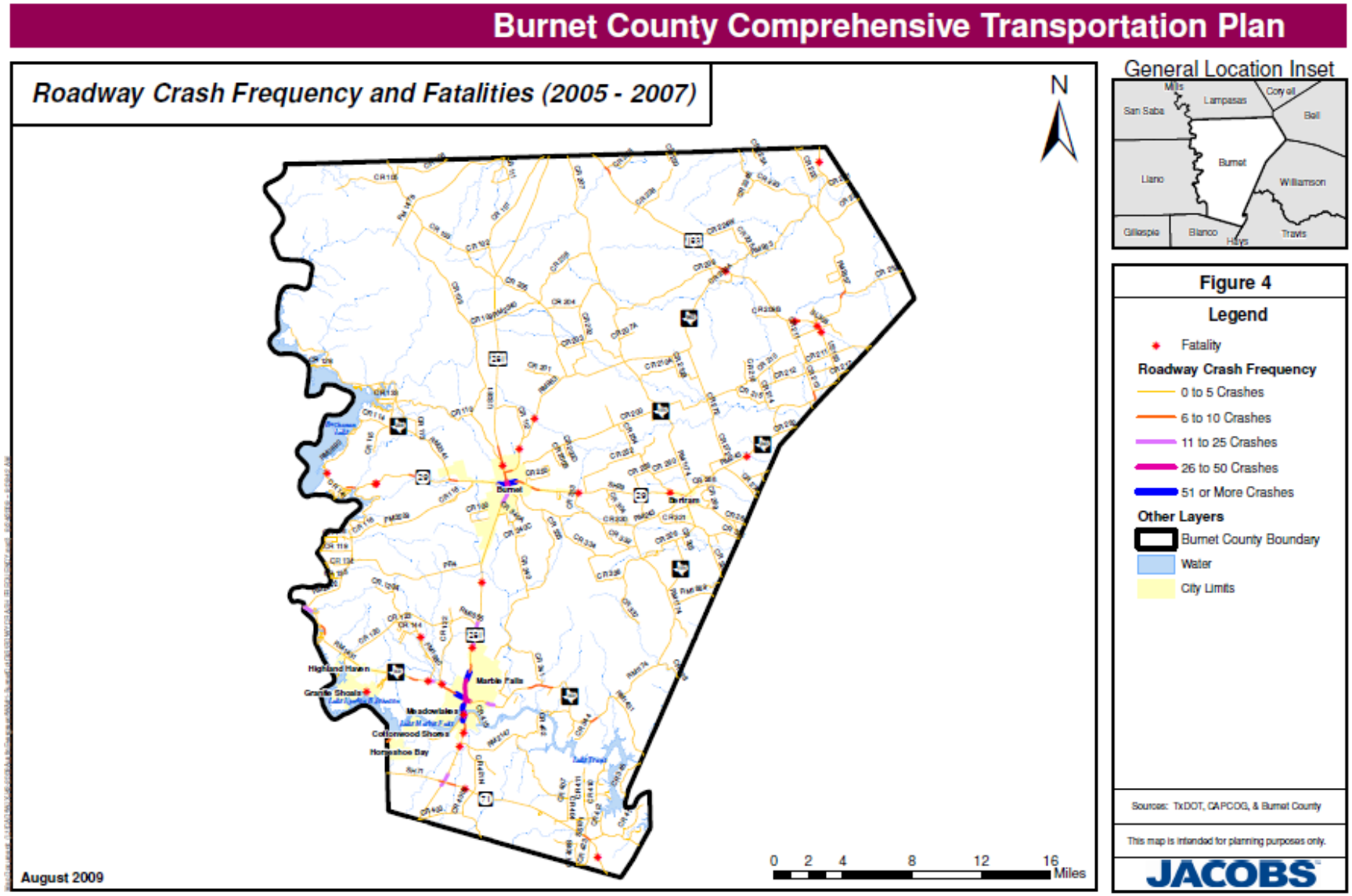


Figure 2.15 Burnet County Traffic Incidents, 2005- 2007

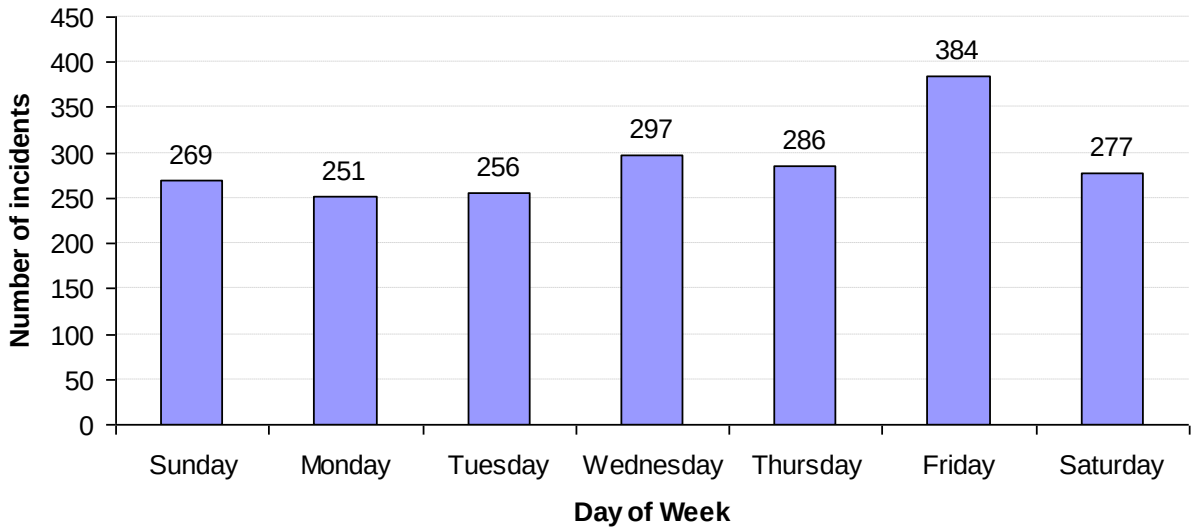


Figure 2.16 Vehicular Incidents by Day of Week, 2005-2007.

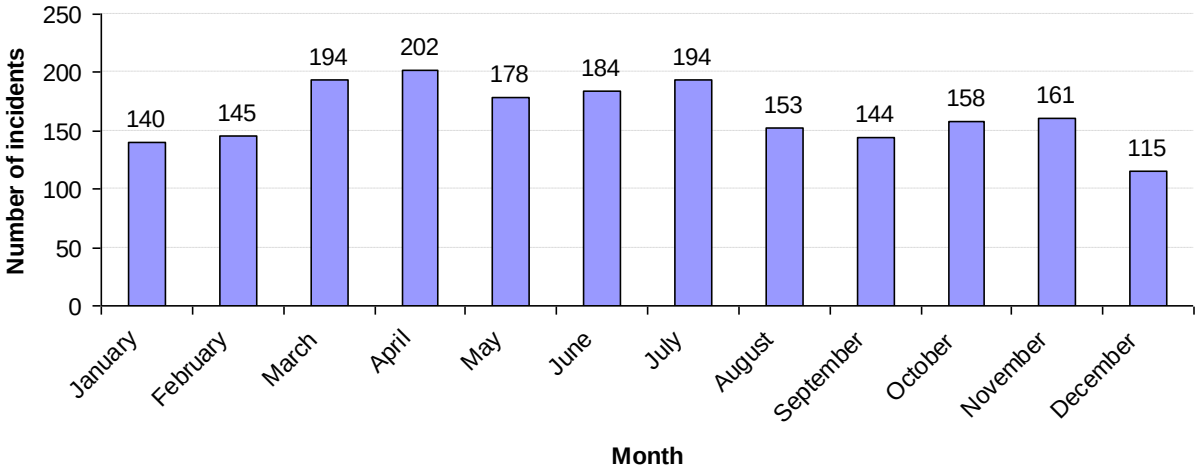


Figure 2.17 Vehicular Incidents by Month, 2005-2007

The roadways experiencing the highest frequency of incidents were generally located in the incorporated areas, nearing the intersection of two main thoroughfares. This can be associated with many factors:

- more intersections and access points which can cause conflicting movements with left and right hand turns
- traffic stopping and starting
- higher volumes of traffic.

2.8 EXISTING TRANSPORTATION CONDITIONS

Burnet 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 will be discussed.

2.8.1 Roadway Network

The roadway system in Burnet County is provided and maintained by the state, the county, and the cities of Bertram, Burnet and Marble Falls. It provides a network for people and goods to move through and within Burnet 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 as related to congestion, safety and system preservation are:

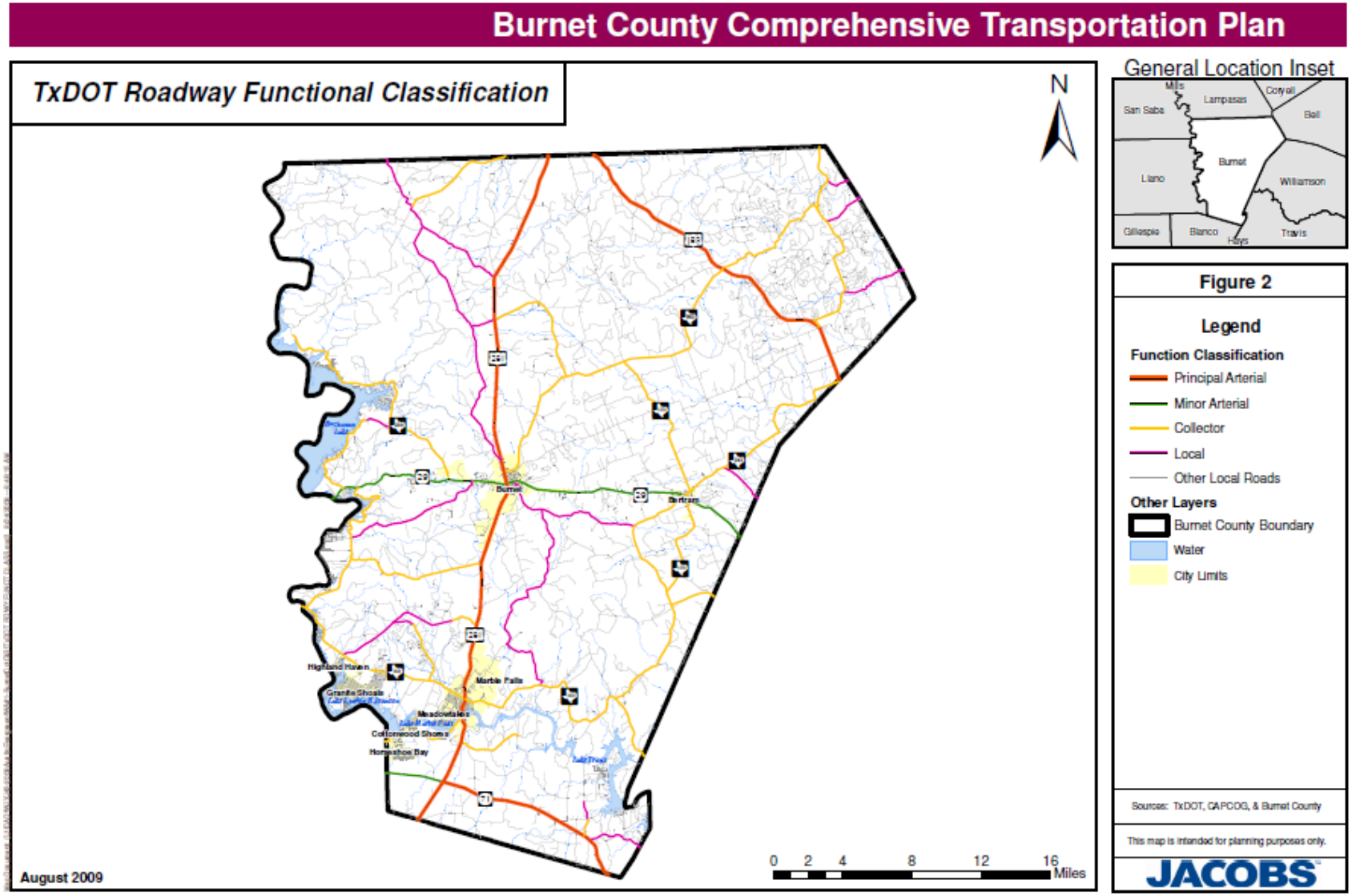
- **Congestion** – historic traffic volume trends and level of service,
- **Safety** – vehicular crashes (included in Section 2.7) and traffic signals, and
- **System preservation** – bridge conditions.

2.8.1.1 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.

The Federal Highway Administration (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 section is based on the TxDOT 2000 Functional Classification Map as shown in **Figure 2.18**.



Source: Jacobs

Figure 2.18 Functional Classification Map

2.8.1.2 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 set 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 2.11 and 2.12** provide the names and locations of each identified business and school, respectively.

Table 2.11 Major Employers in Burnet County

NAME	CITY
Marble Falls ISD	Marble Falls
Burnet CISD	Burnet
Wal-Mart Supercenter	Marble Falls
Horseshoe Bay Resort	Horseshoe Bay
Burnet County	Burnet
Coldspring Granite Corp.	Burnet/various other
H.E.B. Grocery	Marble Falls
City of Burnet	Burnet
Texas Dept. of Corrections	Burnet
Seton Highland Lakes	Burnet
ATMI	Burnet
City of Marble Falls	Marble Falls
Home Depot	Marble Falls
U.S. Post Office	Marble Falls
Bluebonnet Café	Marble Falls

Source: Burnet County

Table 2.12 Public Schools in Burnet County

DISTRICT NAME	CAMPUS NAME	STREET	CITY/COMMUNITY
Marble Falls ISD	Marble Falls High School	2101 Mustang Dr	Marble Falls
	Marble Falls Middle School	1511 Pony Circle	Marble Falls
	MF Elem School/Admin	1909 Broadway	Marble Falls
	Colt Elem/Transportation	1800 Colt Dr	Marble Falls
	Highland Lakes Elem School	8200 SM 1431 W	Granite Shoals
	Spicewood Elem School	1005 Spur 191	Spicewood
Burnet CISD	Burnet High School	1000 The Green Mile	Burnet
	Burnet Elem School	608 N Vanderveer	Burnet
	Bertram Elem School	315 Main St	Bertram
	Burnet Middle School	1401 N Main	Burnet
	RJ Richie Elem School	500E Graves	Burnet
	Shady Grove Elem School	101 Shady Grove Rd	Burnet

Source: Burnet CISD and Marble Falls ISD

2.8.1.3 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 Burnet relative to Austin 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 Burnet and Marble Falls; Inks Lake State Park; and other facilities defined previously in Section 2.8.1.2. Outside the county, there are heavy traffic flows to and from San Antonio along US 281, and along SH 71 to and from Austin.

US 281 runs north-south through the middle portion of the county, serving both Marble Falls and Burnet, and providing mobility between the cities of San Antonio and Wichita Falls, as well as acting as an alternate route to I-35 for individuals traveling between the Mexico border and the Dallas-Fort Worth area. SH 71 runs through the bottom portion of the county, running west to east serving Spicewood, connecting to US 281, and providing mobility between the city of Austin and the cities of the Edwards plateau. US 183 traverses the northern portion of the county, traveling northwest from Williamson County, and providing residents of the Austin area with access to those areas of north Texas west of I-35.

Smaller roads running east to west, such as FM 1431, rural minor arterial, and SH 29, a rural major collector, carry commuter traffic into Travis and Williamson County.

2.8.1.4 Bridge Inventory

Maintaining the bridge network is important for safety as well as to avoid delays created by detours when bridges are closed or have weight limit postings. 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. The National Bridge Inspection Standards require that all bridges carrying public roads be inspected and evaluated for safety biennially. The FHWA criteria will determine whether a bridge is classified as deficient, meaning it is either structurally deficient or functionally obsolete. A structurally deficient bridge is not able to carry the truckloads expected on that roadway system. A functionally obsolete bridge is one in which the deck width, vertical clearance, or waterway is not adequate to accommodate the traffic or water volume demands. The NBI sufficiency rating can range from 0 to 100. A rating of 50 or less signifies that a bridge structure is eligible to receive funding for replacement. A rating between 51 and 80 signifies a bridge is eligible for rehabilitation funding.

There are 107 bridges in Burnet County, 81 are on-system bridges and 26 are off-system. On-system routes are on the designated state highway system while off-system routes are not part of the designated state highway system and are under the direct jurisdiction of the local government such as the county or city. **Figure 2.19** illustrates this information for the bridges in Burnet County. The FHWA provides a summary of the deficient bridges by state. **Table 2.13** compares Burnet County against the state and national statistics.

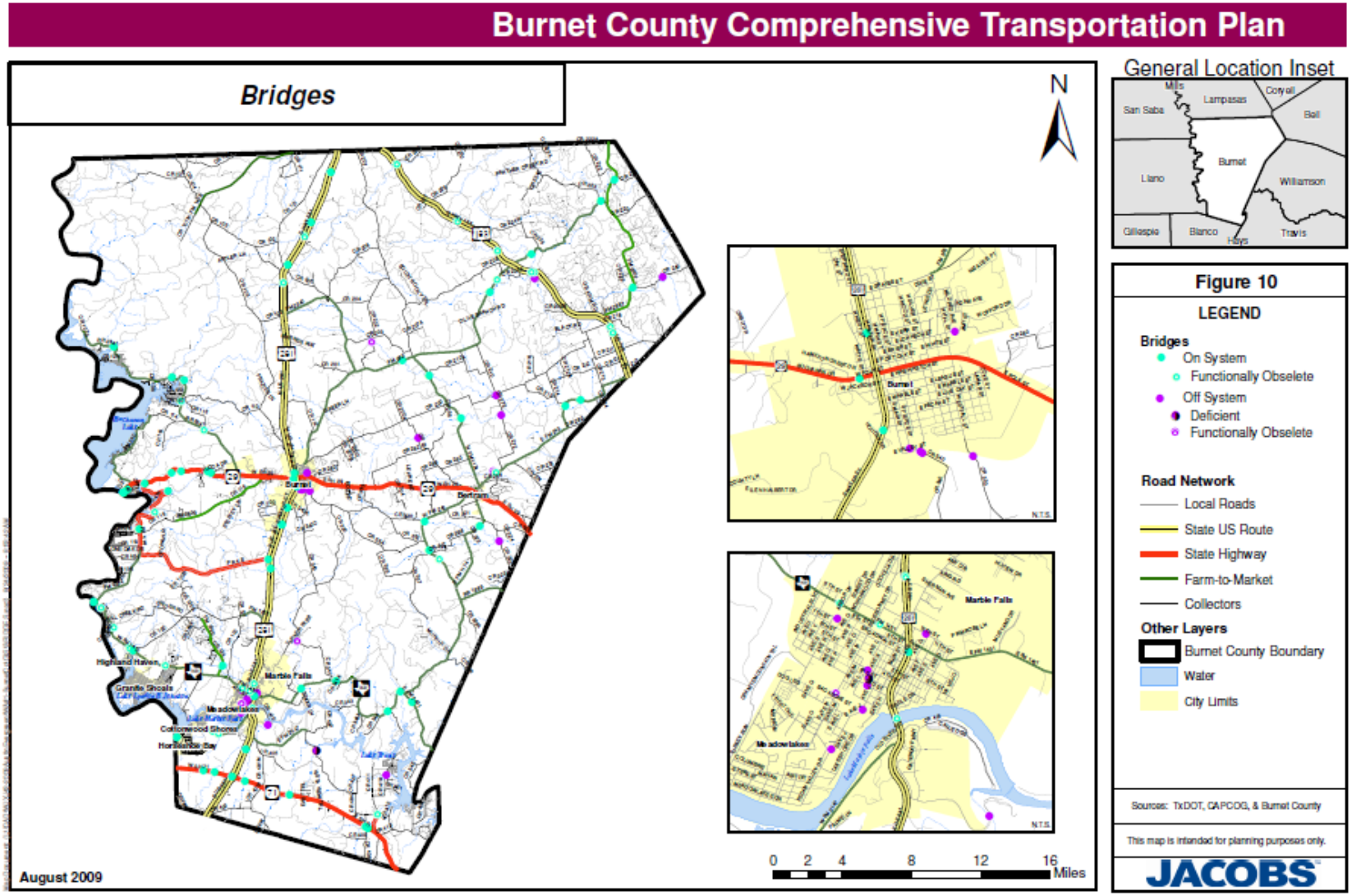


Figure 2.19 Burnet County Bridges

A bridge of major significance for the county mobility is the US 281 bridge over Lake Marble Falls. The original two-lane truss bridge was built in the 1930's and widened to a four-lane bridge in 1975. The existing bridge is narrow and lacks adequate shoulder widths, giving it an NBI sufficiency rating of functionally obsolete. Because it provides the major north-south access for local and through traffic, the US 281 bridge is under design to be replaced with two new structures. Each new structure will accommodate two traffic lanes, along with the required shoulder widths and sidewalks. Two structures also provide the capacity for detouring traffic if one structure is for some reason closed.

The US 281 bridge over Lake Marble Falls being rebuilt as two structures with adequate shoulders.

Table 2.13 Burnet County Bridge Inventory

	No. of Bridges	No. of Bridges Structurally Deficient	Percent of Bridges Structurally Deficient	No. of Bridges Functionally Obsolete	Percent of Bridges Functionally Obsolete
Burnet County	107	2	1.9%	29	27.1%
State of Texas	50,599	1,876	3.7%	7,946	15.7%
All States	601,411	71,469	11.9%	79,922	13.3%

Source: FHWA

2.8.1.8 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 Burnet County meet this criterion. Burnet County has 21 signalized intersections, all of which fall within the incorporated areas of Burnet, Marble Falls, and Granite Shoals as seen in **Figure 2.20**. In addition, there are flashing beacons in four locations throughout the county.

2.8.1.9 Hurricane Evacuation and Hazardous Cargo Routes

Burnet County does not contain any official hurricane evacuation or hazardous material routes, although US 281 is generally recognized as a route for truck traffic to use, avoiding I-35 through Austin. There are also size and curfew restrictions along I-35 within the Austin city limits that cause the diversion of oversized loads to utilize US 281.

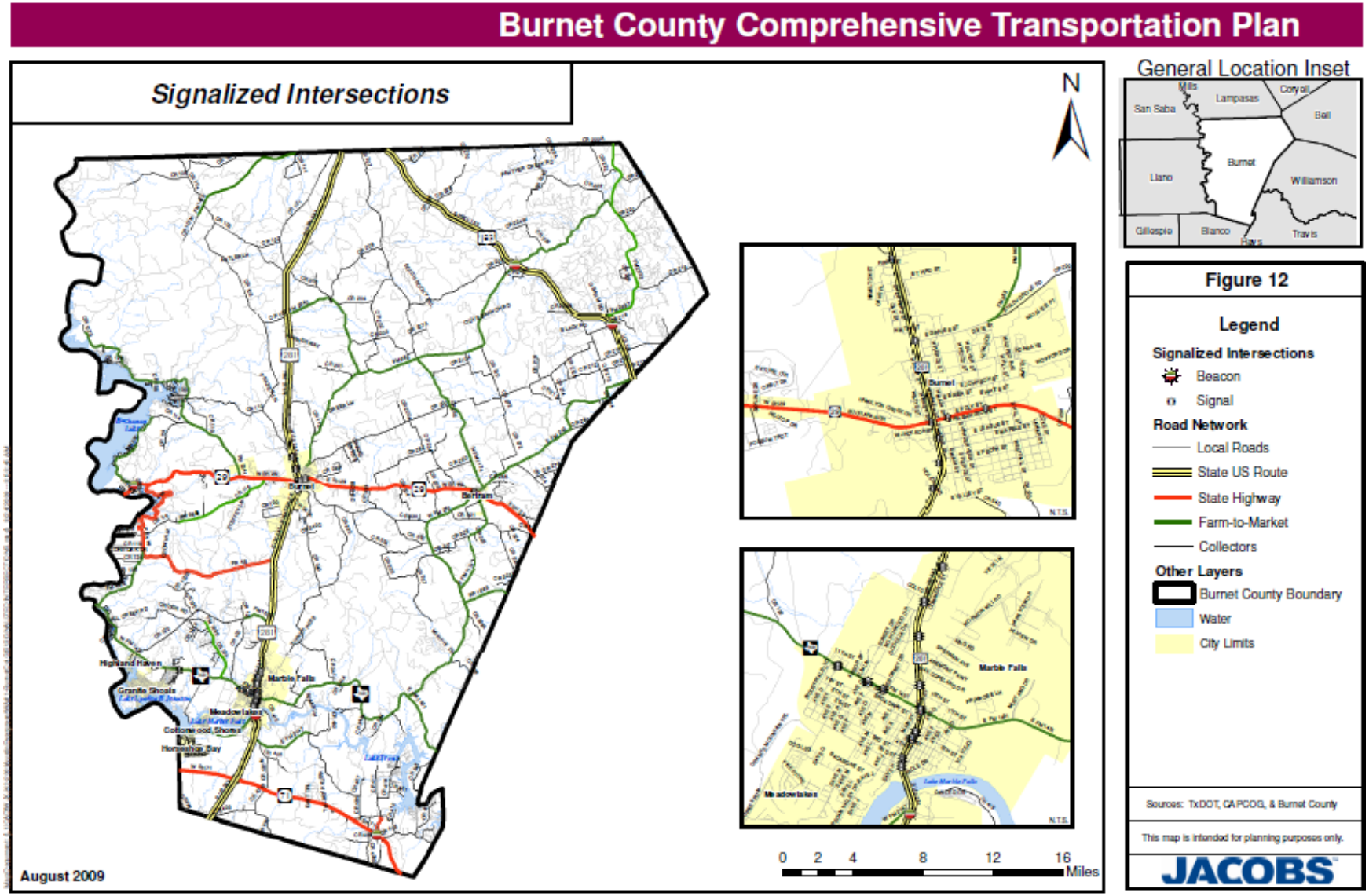


Figure 2.20 Signalized Intersections in Burnet County

2.8.2 Alternative Modes

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

2.8.2.1 Pedestrian Facilities

GIS data on existing sidewalk locations is not available, but from field observations and aerial imagery, the general locations of existing sidewalk can be identified. They are primarily located in the incorporated cities, although even within the cities, the existing system lacks connectivity and completeness. More recent development tends to contain sidewalks on a consistent basis, due to urban subdivision regulations requiring its installation. Most county roadways are void of sidewalks given the rural nature of the roadway. High-speed and rural roads are a barrier to pedestrian activity due to crossing safety.

2.8.2.2 Bicycle Facilities

While areas that are more rural such as Burnet County will experience somewhat higher average trip lengths, bicycles can provide convenient transportation for trips less than 5 miles. Bicycle usage for commuting these shorter distances is more feasible in the incorporated cities.

There are no designated bike routes in Burnet County, although public input suggests that the county has a regular occurrence of recreational bike traffic. Local input has identified FM 243 as a highly used bicycle route on weekends.

The City of Marble Falls Comprehensive Plan expresses the desire for more pedestrian connections and trails. The plan also recommends bike lanes and sidewalks for arterials and collectors, or in lieu of a bike lane, a multi-use path or shared use travel lane.

2.8.2.3 Other

The City of Burnet 2005 Parks Plan indicates that hike and bike trails will be included in the development of Westside Park. A 2003 quality of life survey indicated that hike and bike trails ranked fifth in the public's prioritization of recreational needs.

2.8.3 Transit Element

As Burnet County continues to grow, the level and type of transportation service historically provided by the Capital Area Rural Transportation System (CARTS) will need to change and grow to meet the needs of the rapidly growing population.

To increase the efficiency of the transportation system, public transit vehicles can be utilized to accommodate many people who are taking similar routes to a common destination. Because Burnet County does not have large employment centers like occur in dense urban area, public transit also serves the purpose of transporting those who are unable to drive, walk or bicycle to their destination. Paratransit is a flexible alternative to fixed route/schedule traditional transit, and utilizes vehicles such as shuttle buses, vans, and taxis. Paratransit service ranges from those allowing pick-up/drop-off along a defined route by request to those which offer on-demand door-to-door service within a given geographical area.

2.8.3.1 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.

2.8.3.2 Current Transit Services

Demand-response service is available to Burnet County. CARTS offers prearranged service to the public for inter-city, inter-county, or travel outside of Burnet County to its service area. Their services are offered Monday through Friday from 8:00 AM to 4:00 PM. Route information can be accessed at their website www.ridecarts.com. Standardized routes serve Bertram, Briggs, Burnet, Cottonwood, Granite Shoals, Marble Falls, and Spicewood. Routes include travel from most of these cities to Austin, Georgetown, Round Rock, and Temple.

The Regional Transit Coordination Committee (RTCC), an effort covering the 10-county capital region and including multiple regional partners, is studying how to create a more seamless transit network for all residents. The eventual product of the study will be an integrated ride finding system and an enhancements to service in areas that show demonstrated needs. Burnet County is one of the counties within the RTCC study area.

2.8.3.3 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 Burnet County, the City of Burnet, and the City of Marble Falls and the City of Granite Shoals. Other sources of funding come from fare-box revenues and contract for services. While a limited amount of state/federal funding may be available to support new services, local funding sources will become increasingly important for local transit systems.

2.8.4 Rail 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. Burnet County highways serve the movement of goods from Austin to points westward by SH 71 and US 183, and from San Antonio to northwest Texas via US 281. The railroads are the other key component of freight movement in Burnet County.

All of the rail lines in Burnet County are owned by the Capital Metropolitan Transportation Authority (CMTA) and operated by Austin Western Railroad (AWRR). This line is used primarily for freight movement. There are currently 79 rail crossings in the county, 37 of which are at-grade crossings on public roads, see **Figure 2.21**. The others are on private land and/or are grade separated. See **Table 2.14** for a complete listing of crossing locations. The frequency of trains is two per day to transport mining goods of granite, aggregate, lime, and wood products.

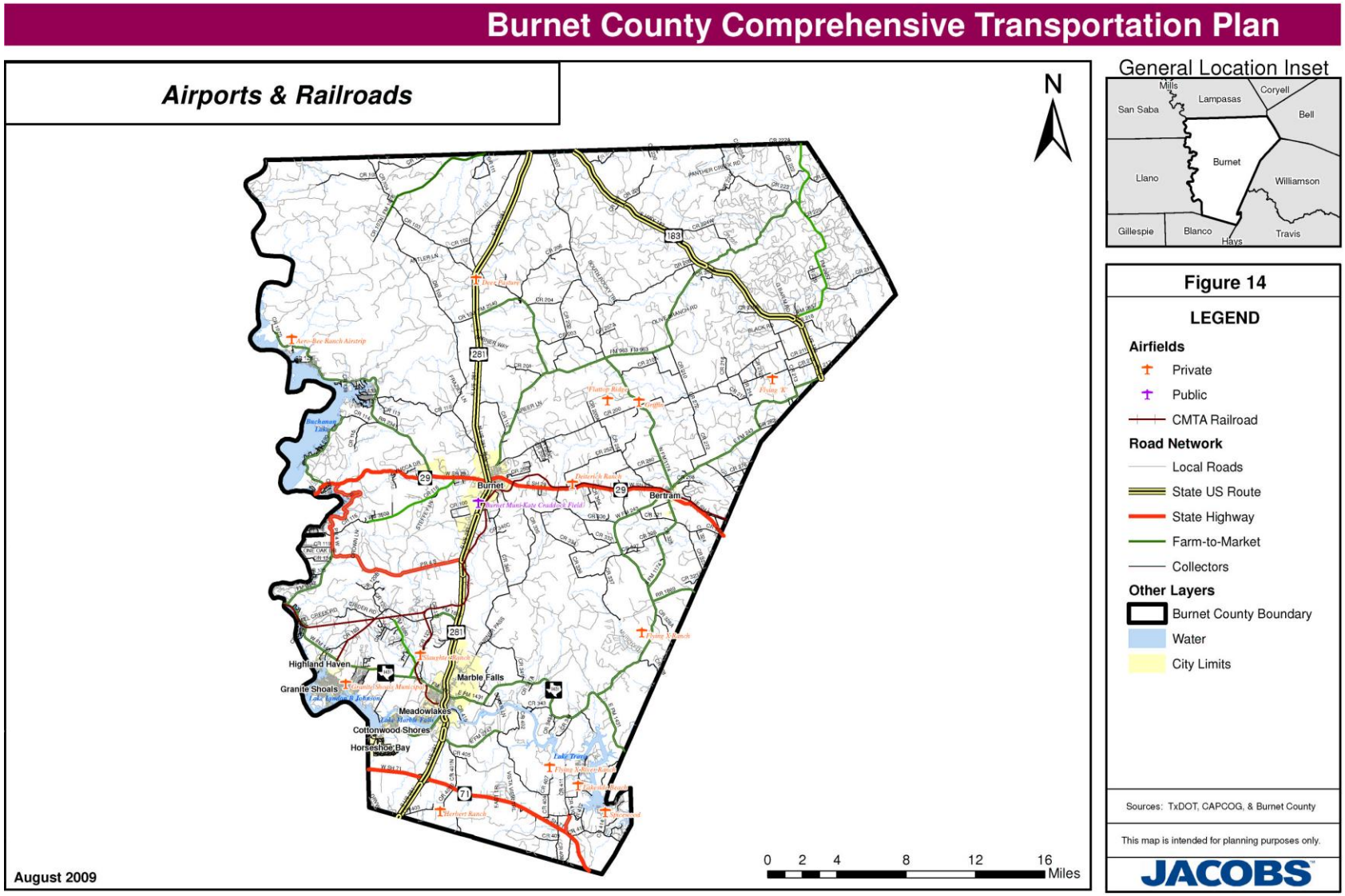


Figure 2.21 Railroads and Airports in Burnet County

Table 2.14 Rail Crossing Inventory

No.	City	Crossing Safety				Roadway Surface	Crossing Street Name	Crossing location	Type of crossing
		Cross Bucks	Flasher Mast	Cantilevers	Gates				
1	BERTRAM	2	0	0	0	asphalt & flange	CR 269	At Grade	PUBLIC
2	BERTRAM	0	0	0	0	other	PRIVATE XING	At Grade	PRIVATE
3	BERTRAM	0	0	0	0	other	PRIVATE XING	At Grade	PRIVATE
4	BERTRAM	0	0	0	0	other	PRIVATE XING	At Grade	PRIVATE
5	BERTRAM	0	0	0	0		PRIVATE XING	At Grade	PRIVATE
6	BERTRAM	0	0	0	0		PRIVATE XING	At Grade	PRIVATE
7	BERTRAM	0	0	0	0		PRIVATE XING	At Grade	PRIVATE
8	BERTRAM	2	0	0	0	asphalt & flange	SE BERTRAM	At Grade	PUBLIC
9	BERTRAM	2	0	0	0	asphalt & flange	W BERTRAM	At Grade	PUBLIC
10	BERTRAM	0	0	0	0			At Grade	PRIVATE
11	BERTRAM	0	0	0	0		PRIVATE XING	At Grade	PRIVATE
12	BERTRAM	0	0	0	0		PRIVATE XING	At Grade	PRIVATE
13	BERTRAM	1	0	0	0		PRIVATE XING	At Grade	PRIVATE
14	BERTRAM	2	0	0	0		PRIVATE XING	At Grade	PRIVATE
15	BERTRAM	2	0	0	0	asphalt & flange	CR 252	At Grade	PUBLIC
16	BERTRAM	2	0	0	0	asphalt & flange	WEST STREET	At Grade	PUBLIC
17	BERTRAM	2	4	2	0	concrete	GRANGE STREET	At Grade	PUBLIC
18	BERTRAM	2	0	0	0	asphalt & flange	LAMPASAS STREET	At Grade	PUBLIC
19	BERTRAM	2	0	0	0	asphalt & flange	S GABRIEL STREET	At Grade	PUBLIC
20	BERTRAM	2	0	0	0	asphalt & flange	EAST STREET	At Grade	PUBLIC
21	BERTRAM	2	0	0	0	other	FLYING B RANCH	At Grade	PUBLIC
22	BERTRAM	2	0	0	0	asphalt & flange	W BERTRAM	At Grade	PUBLIC
23	BERTRAM	0	0	0	0		PRIVATE XING	At Grade	PRIVATE
24	BERTRAM	2	0	0	0		PRIVATE XING	At Grade	PRIVATE
25	BURNET	2	0	0	0	asphalt & flange	S BURNET	At Grade	PUBLIC
26	BURNET	0	0	0	0			At Grade	PRIVATE
27	BURNET	0	0	0	0			At Grade	PRIVATE
28	BURNET	0	0	0	0			At Grade	PRIVATE
29	BURNET	0	0	0	0			At Grade	PRIVATE
30	BURNET	1	0	0	0		PRIVATE XING	At Grade	PRIVATE
31	BURNET	0	0	0	0			At Grade	PRIVATE
32	BURNET	0	0	0	0			At Grade	PRIVATE
33	BURNET	0	0	0	0			At Grade	PRIVATE
34	BURNET	0	0	0	0	other	PRIVATE XING	At Grade	PRIVATE
35	BURNET	2	4	2	0	concrete	S BURNET	At Grade	PUBLIC
36	BURNET	2	0	0	0	asphalt & flange	POLK STREET	At Grade	PUBLIC
37	BURNET	1	0	0	0	asphalt		At Grade	PUBLIC
38	BURNET	2	0	0	0	asphalt & flange	E JACKSON STREET	At Grade	PUBLIC
39	BURNET	2	0	0	0	asphalt & flange	E PECAN STREET	At Grade	PUBLIC
40	BURNET						BOUNDARY ST.	RR Over	PUBLIC
41	BURNET						BOUNDARY ST.	RR Over	PUBLIC
42	BURNET						WESTFALL ST.	RR Over	PUBLIC
43	BURNET	4	4	2	0	concrete	POLK STREET	At Grade	PUBLIC
44	BURNET	0	0	0	0		BAKER RD	At Grade	PRIVATE
45	BURNET	2	0	0	0		LEAGUE ST	At Grade	PUBLIC
46	FAIRLIE	0	0	0	0		PRIVATE XING	At Grade	PRIVATE
47	FAIRLIE	0	0	0	0		SCOBEE LEAD	At Grade	PRIVATE
48	FAIRLIE	0	0	0	0		PRIVATE XING	At Grade	PRIVATE
49	FAIRLIE	0	0	0	0		PRIVATE XING	At Grade	PRIVATE
50	KINGSLAND	4	0	0	0	other	N FAIRLAND	At Grade	PUBLIC
51	KINGSLAND	0	0	0	0	other	PRIVATE XING	At Grade	PRIVATE
52	KINGSLAND	0	0	0	0	other	PRIVATE XING	At Grade	PRIVATE
53	KINGSLAND	0	0	0	0	other	PRIVATE XING	At Grade	PRIVATE
54	KINGSLAND	0	0	0	0	other	PRIVATE XING	At Grade	PRIVATE
55	KINGSLAND	0	0	0	0	asphalt & flange	E SCOBEE	At Grade	PUBLIC
56	KINGSLAND	0	0	0	0		MEADOR RD	At Grade	PRIVATE
57	KINGSLAND	0	0	0	0	Unconsolidated		At Grade	PUBLIC
58	KINGSLAND	1	0	0	0	asphalt & flange	W TOBEX	At Grade	PUBLIC
59	KINGSLAND	0	0	0	0		PRIVATE XING	At Grade	PRIVATE
60	KINGSLAND	0	0	0	0	other	SW TOBEX	At Grade	PUBLIC
61	KINGSLAND	2	0	0	0	concrete &	N GRANIE SHOALS	At Grade	PUBLIC
62	KINGSLAND	0	0	0	0			At Grade	PRIVATE
63	KINGSLAND	4	4	2	0	concrete	SE KINGSLAND	At Grade	PUBLIC
64	KINGSLAND	4	0	0	0	asphalt & flange	SE KINGSLAND	At Grade	PUBLIC
65	KINGSLAND	2	0	0	0	asphalt & flange	SE KINGSLAND	At Grade	PUBLIC
66	KINGSLAND	2	0	0	0	other	E KINGSLAND	At Grade	PUBLIC
67	KINGSLAND	1	0	0	0	other	E KINGSLAND	At Grade	PUBLIC
68	KINGSLAND	0	0	0	0	asphalt & flange	RAINDROP LN	At Grade	PRIVATE
69	KINGSLAND	0	0	0	0	asphalt & flange	MOUNTAIN VIEW RD	At Grade	PRIVATE
70	MARBLE	4	0	0	0	asphalt & flange	W FAIRLAND	At Grade	PUBLIC
71	MARBLE	0	0	0	0			At Grade	PRIVATE
72	MARBLE	4	0	0	0	other		At Grade	PUBLIC
73	MARBLE	1	0	0	0	asphalt		At Grade	PUBLIC
74	MARBLE	4	4	2	0	concrete	NW MARBLE FALLS	At Grade	PUBLIC
75	MARBLE	1	0	0	0	other	PRIVATE XING	At Grade	PRIVATE
76	MARBLE	1	0	0	0	asphalt & flange	NW MARBLE FALLS	At Grade	PRIVATE
77	MARBLE	2	0	0	0	asphalt & flange	AVENUE S	At Grade	PUBLIC
78	MARBLE	3	0	0	0	asphalt & flange	AVENUE N	At Grade	PUBLIC
79	MARBLE	2	0	0	0	other	AVENUE L	At Grade	PUBLIC

Source: TxDOT Traffic Operations Division

2.8.5 Passenger Rail Service

CMTA, the transit authority for the Austin metropolitan area, has recently begun commuter rail service from its western limits in Leander into the Austin metropolitan area. The rail line that services Leander is the same rail line that extends into Burnet County for freight activity. The fact that the tracks are in existence and owned by the metropolitan transit provider makes regional rail service a viable option for the future. The possibilities would need to be investigated in the future to determine the ridership viability. The City of Marble Falls has planned in their long-range vision for the City to be a potential endpoint for this regional commuter service.

2.8.6 Airports

Burnet County has one municipally owned airport and several privately owned, see **Figure 2.27**. Of the privately owned airports, most are not open to the public; they function as ranch air strips or private development strips. The Horseshoe Bay Airport is privately owned, but open to the public in serving the Horseshoe Bay Resort Development.

2.8.6.1 Commercial Aviation

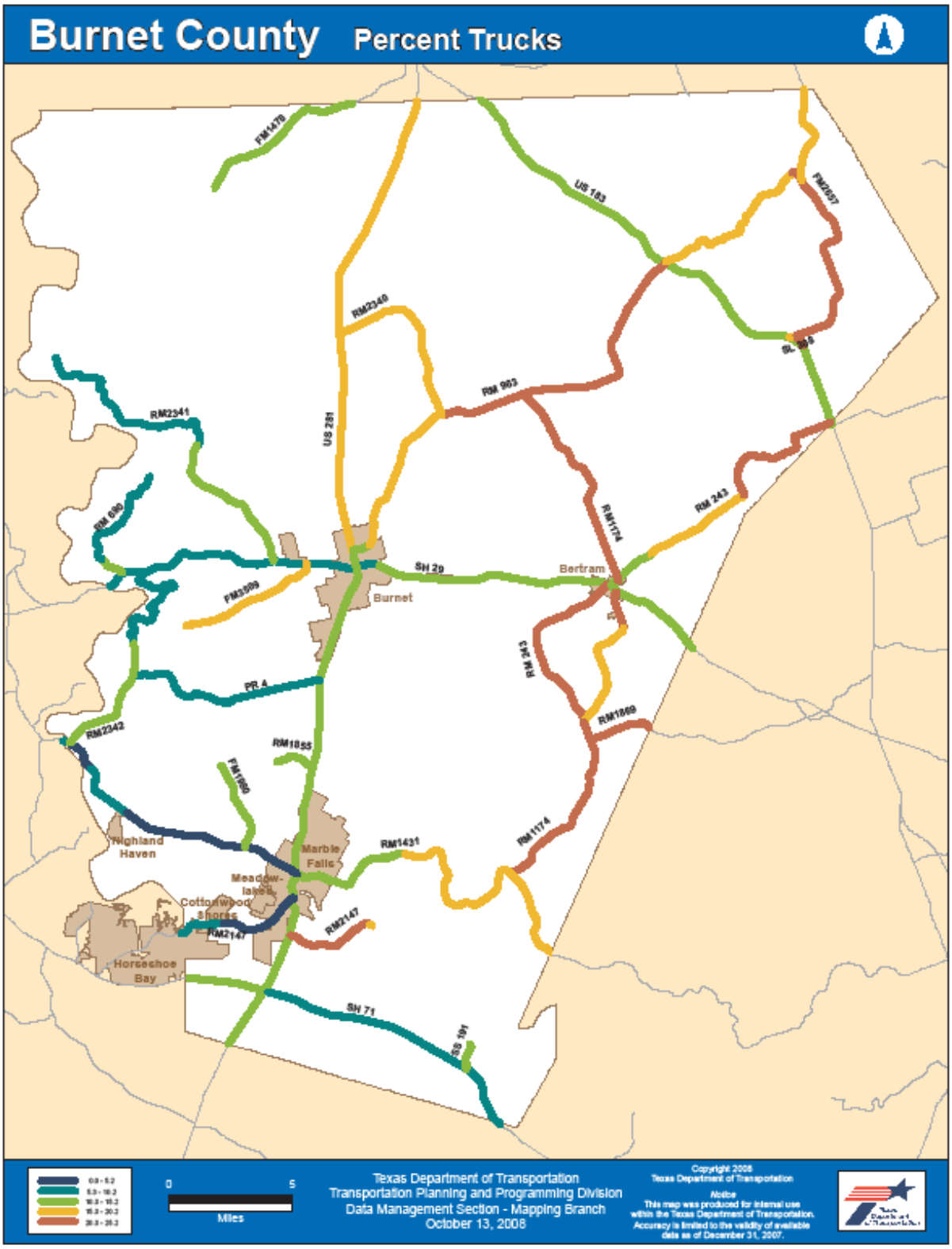
The Austin-Bergstrom International Airport (ABIA) is the largest source of commercial passenger and air freight service to the Central Texas service area. The closest commercial airport, however, is the Killeen/Ft. Hood Regional Airport, located approximately 14 miles northeast of Oakalla. By comparison, ABIA is located approximately 30 miles southeast of the city of Spicewood on SH 71 in southeast Austin. Both are equidistant from the city of Burnet at distance of approximately 51 miles.

2.8.6.2 General Aviation

The one municipal airport is the Burnet Municipal Airport, also known as Kate Craddock Field, and has been in operation since 1961. The lighted runway has an asphalt surface measuring 5,000 feet by 75 feet with a full-length parallel taxiway. Also available are two instrument approaches. The 2,355 square foot terminal building is occupied by the Airport's fixed-base operator (FBO), and has an attached FBO hangar providing 6,400 square feet of aircraft storage and maintenance space. Privately owned aircraft charter flights to the Burnet Municipal Airport are for business or recreation. Scheduled public air service is not available to Burnet County.

2.8.7 Truck Traffic

It is important that industrial sites, which impact the economic well-being of the community, are served by appropriate roadways which are designed, constructed and designated for truck use. Connectivity to regional arterials is essential to maintain the mining industry in Burnet County. Yet, large trucks may hinder the operation of local roads built for the use of passenger vehicles. Heavier vehicles cannot maneuver and stop/start with the same agility as passenger vehicles, thereby reducing traffic flow and causing damage to the existing pavement. In addition, there are safety concerns associated with large industrial traffic mixing with local traffic. Based on public input, this situation exists in Burnet County on the local roads in which the mining industry is prevalent. Many of these roads contain a high percentage of truck traffic, as seen in **Figure 2.22**.



Source: TxDOT

Figure 2.22 Percent Trucks in Burnet County

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 I-35. Inter-region freight moves via I-35, US 281 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.

2.9 Existing Transportation Financing

Burnet County maintains five road and bridge (R&B) funds *(14)*. These funds receive revenues from a $0.0301 percent road and bridge levy on top of the county's $0.3085 percent general property tax levy. The funds also receive a substantial portion of revenues from motor vehicle registrations, which accounted for approximately 32 percent of the R&B General Fund's revenues in 2008. Burnet County's R&B General Fund was budgeted for $2,082,847 for fiscal year 2008, $907,847 (about 44 percent) of which is attributable to property taxes.

Revenues are transferred from the R&B General Fund to the county's various precincts' R&B Funds. Of the $2,082,847 budgeted for the R&B General Fund, $1,774,172 (about 85 percent) will be transferred to the county's precincts as shown in **Table 2.15**. The remaining $324,967 not transferred to the county precincts will be used for department wide expenditures such as medical insurance ($114,900), retirement ($73,153), workers compensation insurance ($30,009) and FICA/Medicare ($54,919).

Table 2.15 Burnet County Transportation Expenditures

	Precinct 1		Precinct 2		Precinct 3		Precinct 4	
	2006 - 2007	*% of Total*	***2006 - 2007***	*% of Total*	***2006 - 2007***	*% of Total*	***2006 - 2007***	*% of Total*
Labor	$ 197,744	44%	$ 198,023	37%	$ 165,094	40%	$ 133,129	35%
Operating Supplies	$ 143,520	32%	$ 166,100	31%	$ 139,317	34%	$ 87,292	23%
Gasoline/Diesel/Oil	$ 40,000	9%	$ 40,000	7%	$ 24,000	6%	$ 38,000	10%
Repairs & Maintenance	$ 16,000	4%	$ 21,000	4%	$ 11,500	3%	$ 17,000	5%
Professional Service	$ 5,000	1%	$ -	0%	$ 500	0%	$ 2,000	1%
Uniforms	$ 5,800	1%	$ 5,500	1%	$ 5,000	1%	$ 4,000	1%
Utilities	$ 3,800	1%	$ 2,800	1%	$ 3,000	1%	$ 3,000	1%
Tires/Tubes/Batteries	$ 4,500	1%	$ 6,000	1%	$ 7,000	2%	$ 4,000	1%
Principal	$ 12,739	3%	$ 65,113	12%	$ 26,135	6%	$ 39,578	10%
Machinery/Equipment	$ -	0%	$ -	0%	$ -	0%	$ 23,500	6%
Other	$ 23,430	5%	$ 29,865	6%	$ 28,161	7%	$ 26,032	7%
Total	**$ 452,533**		**$ 534,401**		**$ 409,707**		**$ 377,531**	

Through the general fund, Burnet County also allocates funds for contract services for CARTS. Funds in the amount of $8,000 were approved for CARTS for fiscal year 2008.

2.9.1 City of Burnet Funding

The largest portion of revenues for the City of Burnet comes from billing for electrical services, which accounted for 39.5 percent of city revenues in the city's 2007 – 2008 budget as illustrated in **Figure 2.23** *(15).* The city also utilizes a property tax and a sales tax, which combine to account for 12 percent of total city revenues but account for a large percentage of the city's general fund revenues, through which street services are provided.

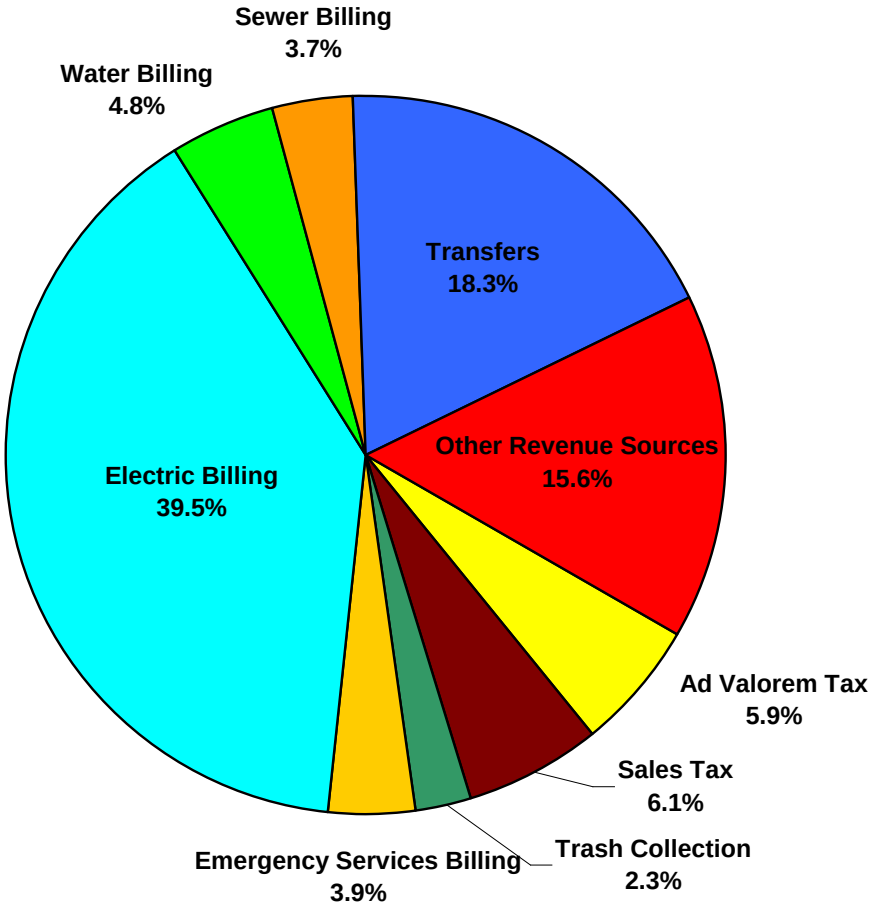


Figure 2.23 City of Burnet Revenues, 2007 - 2008

Street services received funding in the amount of $757,435, **Figure 2.24**, a little less than 14 percent from the city's $5,434,772 2007-2008 general fund budget.

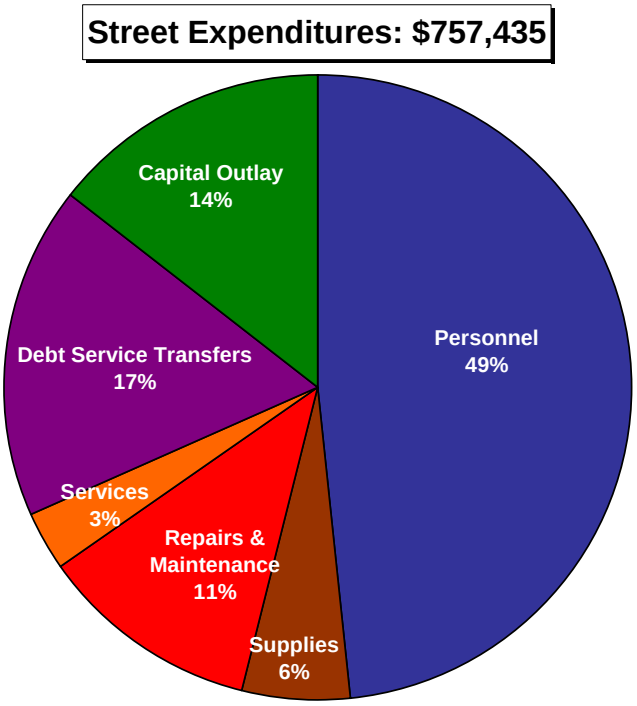


Figure 2.24 City of Burnet Street Expenditures, 2007 - 2008

2.9.2 City of Marble Falls Funding

Sales taxes make up the largest percentage of the City of Marble Falls' revenue, accounting for 58 percent of revenues in the 2007-2008 fiscal year and an estimated 57 percent for the 2008 -2009 fiscal year as shown in **Figure 2.25** *(16, 17).* Property taxes also make up a substantial portion of city revenues at 12 percent as do transfers from other city funds, such as the water and Hotel/Motel Fund, which account for 11 percent.

Street services are provided through the city's Street Department which receives funding through the general fund. These services accounted for 12 percent of city expenditures in the 2007 – 2008 fiscal year, and are expected to account for 11.6 percent of city expenditures in the 2008 – 2009 budget.

Figure 2.26 shows that the majority of the city's street department budget goes to personnel services, including salaries and benefits, which will account for a little over 60 percent in the 2008 – 2009 fiscal year. Expenditures for street maintenance make up the second largest percentage of street expenditures at 17.8 percent and expenditures on street lights will account for 5.6 percent.

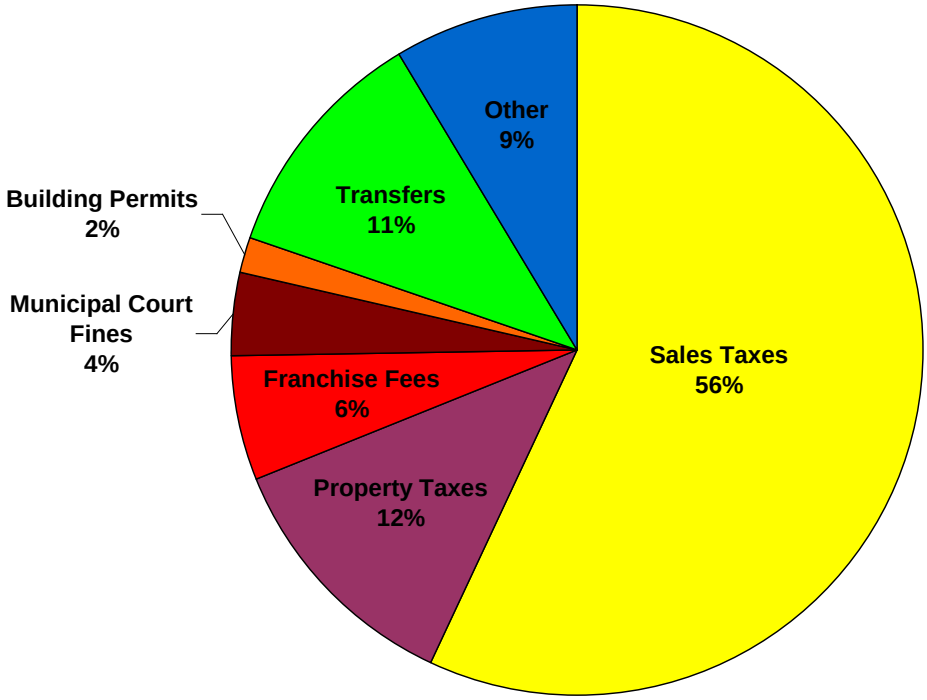


Figure 2.25 City of Marble Falls Revenue Sources

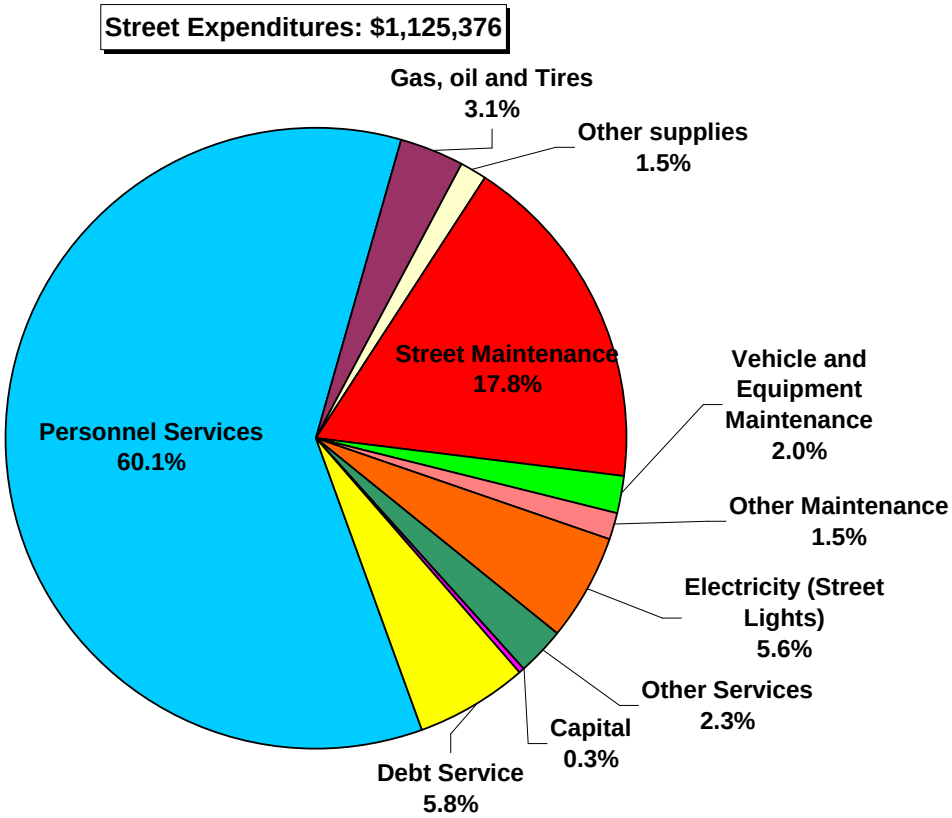


Figure 2.26 City of Marble Falls Street Expenditures

CHAPTER 3 – FUTURE CONDITIONS

3.1 FUTURE POPULATION AND EMPLOYMENT

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

Burnet 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, Burnet County is expected to add population at almost double the projected rate for the state of Texas. The growth that is projected will make Burnet County a larger presence in the A-RR MSA while developing a more local job base. To analyze the future roadway network, it was necessary to determine the socioeconomic characteristics of the county. The future population and employment estimates provide a basis for understanding the socioeconomic conditions expected in Burnet County. The future transportation needs will be based on growth patterns and distribution of population and employment throughout the county.

The 2005 base year estimates for existing socioeconomic data was based on information provided by CAPCOG *(1)*. **Table 3.1** illustrates the CAPCOG base year data.

Table 3.1 Burnet County Base Year Estimate

County Totals	CAPCOG Base Year Estimate 2005
Demographics	
Population	38,322
Households	17,960
Employment	
Basic Employment	3,294
Retail Employment	3,647
Service Employment	6,138
Education Employment	1,117
Unclassified Employment	4
Total Employment	14,260

Source: CAPCOG

The county is expected to grow 246 percent between 2005 and 2035 to an approximate population of 94,400 people. As transportation corridors leading to Burnet County from Travis and Williamson County are upgraded, residential growth is expected to increase near these exterior corridors. **Figure 3.1** represents the results of the population density for 2005 and the 2035 design year.

The control totals for Burnet County projected a 238 percent growth in employment from 14,260 jobs in 2005 to 34,010 jobs in 2035. The employment was further refined by employment sector as seen in **Table 3.2**.

Table 3.2 Burnet County 2035 Employment Estimates

Burnet County Totals	DESIGN YEAR 2035
Employment	
Basic Employment	9,452
Retail Employment	6,778
Service Employment	16,179
Education Employment	1,601
Total Employment	34,010

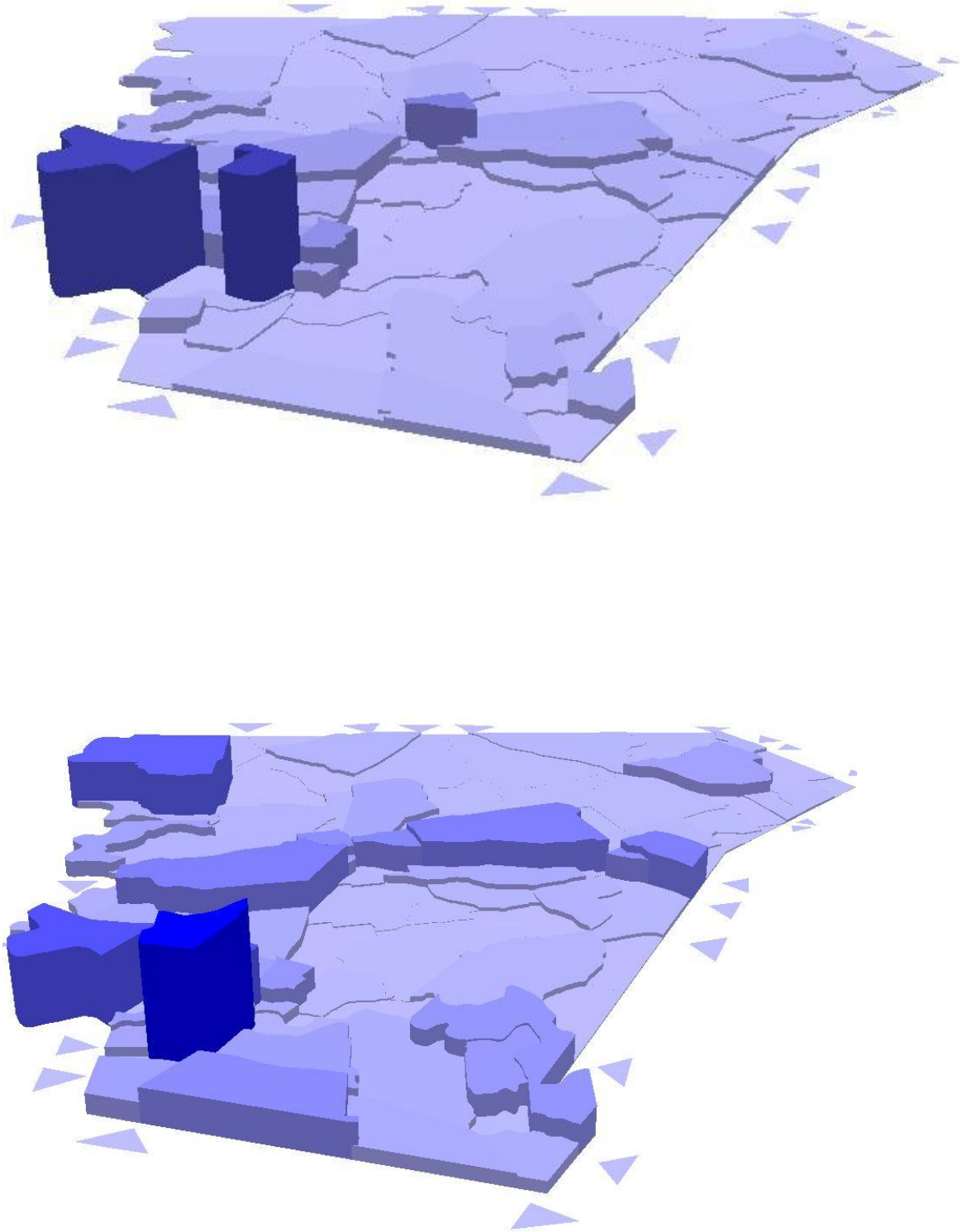


Figure 3.1 2005 and Estimated 2035 Burnet County Population Density

While Burnet County will continue to provide mining resources, there are a variety of new developments anticipated within the county to create additional job growth. In addition, with the projected population growth, the goods and services required by the residences will create jobs within the county. **Figure 3.2** represents the results of the employment density for the 2035 design year. The majority of employment growth was projected for the Burnet, Marble Falls, and the SH 29 and SH 71 corridors.

3.2 Future Land Use

The cities of Burnet and Marble Falls both have comprehensive plans that include future land use. The City of Marble Falls recently kicked-off an effort to update their 1998 Comprehensive Plan. The 1998 document includes a Future Land Use Plan that is intended to guide the day-to-day actions of those entities responsible for determining Marble Falls' future.

In addition to Burnet and Marble Falls, Burnet County and the LCRA released the Burnet County Comprehensive Plan in 2009. The Comprehensive Plan has created a framework document that guides the various planning efforts taking place in Burnet County. The Burnet County Comprehensive and Transportation Plans are the first county-wide plans that will consider all of the County's overall transportation needs.

In order to implement a 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 Burnet and Marble Falls comprehensive planning documents represent these municipalities' efforts to define policies that govern future land use. Burnet County is also taking steps to define their policies relative to growth. The Burnet County Comprehensive Plan and Transportation Plan are both efforts to shape the future of Burnet County. However, one must be aware that counties' abilities to control land use is extremely limited, especially in comparison to cities,

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, Burnet County can begin requiring right-of-way (ROW) dedication for future corridors. This explicit, but subtle, tool will allow Burnet County to do its part in encouraging an efficient transportation system while significantly reducing the cost of future ROW acquisition.

3.3 Planned and Programmed Transportation Improvements

Both TxDOT and Burnet County have transportation improvements that have already been conceived and which are already underway, or will begin in the next several years. These improvements address some of the more immediate transportation needs within the county. Future needs will be addressed in Chapter 4. **Table 3.3** lists recent improvements undertaken by TxDOT, and **Table 3.4** lists those projects currently proposed by TxDOT *(2)*.

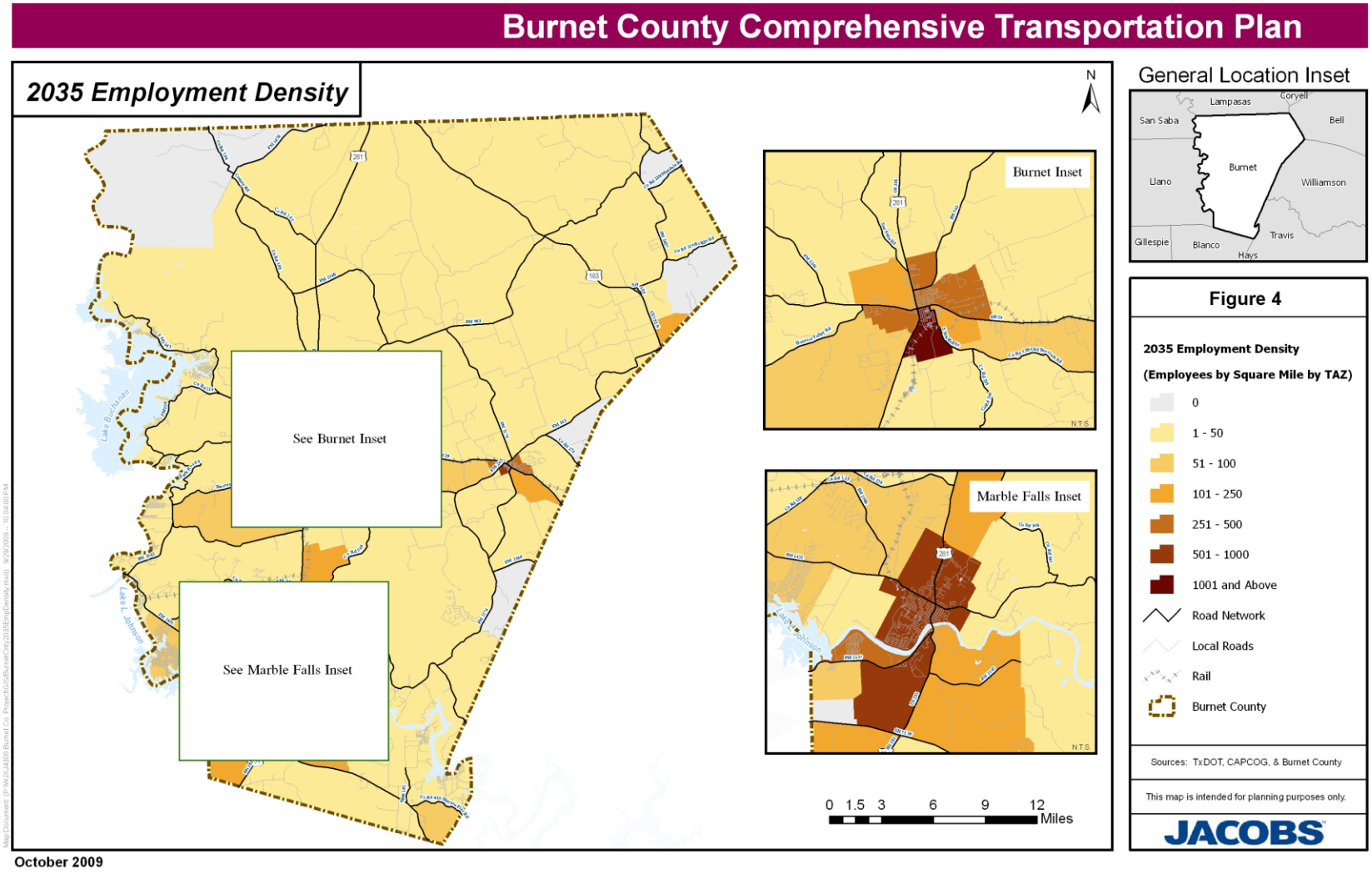


Figure 3.2 Estimated 2035 Burnet County Employment Density

Table 3.3 Existing Highway Projects in Burnet County

CSJ	Hwy	From	To	Description	Total Contract	Complete	Est Complete	Contractor
2687-01-012	RM 2147	0.5 mi West of Llano Co Line	0.5 mi East of Burnet Co Line	Widen To 2-12' Lns W/14' Left Turn Lane & 12' Shldrs	$ 5,588,094	100%	Nov-07	Capital Excavation
1349-03-012	RM 1174	RM 243 S of Bertram	RM 1431	Additional paved surface width	$ 2,656,600	90%	Nov-07	Lindsey Contr., Inc.
0151-03-032	SH 29	RM 243	Williamson Co Line	Safety End Treatments & Guardrail	$ 917,473	100%	Nov-07	Dan Williams
0252-01-060	US 281	1.535 mi North Of RM 1855	1.062 mi North Of RM 1855	Add Left Turn Lane	$ 616,458	100%	Nov-07	Asphalt Pav of Austin
0700-01-026	SH 71	At Little Cypress & Sycamore Creeks	.	Replace Bridge	$ 2,701,753	61%	Dec-07	Cactus Concrete
2206-01-011	RM 2341	9.7 mi North of SH 29	3.8 mi North of SH 29	Rehab Exist Road	$ 4,286,084	96%	Jun-08	Capital Excavation
2926-01-005	FM 2657	RM 963	LP 308	Additional paved surface width	$ 2,621,024	61%	Jun-08	Mann Contr., LTD
0700-01-030	SH 71	At CR 413	.	Add Left Turn Lane	$ 2,289,421	63%	Jun-08	Ryan Materials, Inc.
1378-03-025	FM 1431	9.8 mi E of US 281	0.5 mi E of RM 1174	Upgrade Non-Frwy	$ 9,998,971	56%	Mar-09	Dan Williams
				TOTAL CONSTRUCTION	**$ 31,675,877**			

Source: TxDOT Austin District

Table 3.4 Proposed Highway Construction Projects in Burnet County

Proposed Letting	Highway	From	To	Description	Length (mi)	Estimated Construction Cost	CSJ	CCSJ	Priority Code	Estimate ROW Cost	Comments
Jan-2008	US 281	N end of Colorado River bridge	Mission Hills	Mill & Overlay	0.92	$380,000	0252-01-064	0252-01-064	C	$0	(City) Night work- after July 4, 2008
Jan-2008	CR	RM 963 (on CR 200-Shady Grove Rd)	RM 1174	Improve Guardrail And Safety Treat	8.80	$448,141	0914-24-010	0914-24-010	C	$0	(County) Co. part ~$29,820
Feb-2008	RM 963	at N Rocky Creek	.	Replace Bridge And Approaches	0.10	$550,000	1198-02-017	1198-02-017	C	$0	(City) Night work- after July 4, 2008
Sep-2008	US 183	at Little Rocky & S Rocky Crks	STR 273-3-13 & STR 273-3-14	Rehabilitate Bridge And Approaches	0.20	$1,191,250	0273-03-022	0273-03-022	C	$0	(County)
Sep-2008	RM 1431	Marble Falls W City Limits	Industrial Blvd	Add Left Turn Lanes	0.91	$2,900,000	1378-04-039	1378-04-039	C	$0	(County)
Sep-2008	RM 1431	Marble Falls E City Limits	0.54 mi E of Sycamore Crk	Realign & Reconst To 2 12' Lns W/10' Shldrs	4.44	$15,842,200	1378-03-021	1378-03-021	C	$0	(City)
Nov-2008	US 183	at North Rocky Creek	.	Rehabilitate Bridge And Approaches	0.00	$1,073,300	0273-02-018	0273-02-018	C	$0	(County)
Nov-2008	US 183	at Mesquite Creek	.	Rehabilitate Bridge And Approaches	0.10	$1,173,000	0273-02-019	0273-02-018	C	$0	(County)
Dec-2008	US 281	at Colorado River bridge	.	Replace Bridge And Approaches	0.00	$25,000,000	0252-02-046	0252-02-046	C	$1,000,000	(City) City part ~$100,000
Aug-2009	CR	CR 270 at Bear Creek	STR AA0711001	Replace Bridge And Approaches	0.10	$94,300	0914-24-012		C	$0	(County) Co. part ~10%
Aug-2009	CR	CR 404 at Gridiron Branch	STR AA0545001	Replace Bridge And Approaches	0.10	$161,200	0914-24-011		C	$0	(County) Co. part ~10%
Sep-2009	US 183	at Draw 0.7 mi SE of LP 308	STR 273-3-18	Rehabilitate Bridge And Approaches	0.38	$160,800	0273-03-021	0273-03-021	C	$0	(City)
Aug-2010	US 183	at Draw	.	Rehabilitate Bridge And Approaches	0.10	$248,216	0273-02-020	0273-02-020	C	$0	(Couty)
Aug-2010	US 183	at Berry Creek	.	Rehabilitate Bridge And Approaches	0.10	$560,736	0273-03-024	0273-03-024	C	$0	(Couty)
Aug-2010	US 281	at N Mesquite Creek	.	Replace Bridge And Approaches	0.10	$822,400	0251-07-021		C	$0	(Couty)
Sep-2010	RM 1431	at Powermill Creek	.	Replace Bridge And Approaches	0.10	$527,850	1378-04-043		C	$0	(Couty)
Jun-2011	RM 2147	W of US 281	US 281	Reconstruct To 4-12' Lanes And Ctl	0.25	$1,230,000	2687-02-014	2687-02-014	D	$1,000,000	City part ~$109,200 Developer $60K
-	SH 29	US 281	RM 243	Rehab Rdwy	10.38	-	0151-01-039	0151-01-039	D	$0	Planning
-	SH 29	RM 243	Williamson County Line	Rehab Rdwy	4.18	-	0151-02-020	0151-02-020	D	$0	Planning
-	VA	US 281 N of Marble Falls	US 281 S of Marble Falls	Construct Relief Roadway	-	-	0914-24-009	0914-24-009	D	$0	Planning
-	RM 1431	RM 1174	Travis County Line	Reconstruct 2-12'Lanes W/10' Shoulders	3.97	-	1378-03-026	1378-03-026	D	$0	Future project
-	SH 29	RM 243 in Bertram	Williamson County Line	Rehab&Upgrade&Ctl	3.00	$600,000	0151-02-019		D	$0	Aerial survey- planning future needs
-	US 281	The Green Mile Rd near Burnet	Near 3rd St in Marble Falls	Roadway Improvements	0.10	$50,000	0252-01-066		D	$0	Aerial survey- planning future needs
-	US 281	Near 3rd St in Marble Falls	Blanco County Line	Roadway Improvements	0.10	$50,000	0252-02-047		D	$0	Aerial survey- planning future needs

Source: TxDOT Austin District

CHAPTER 4 – TRAVEL DEMAND MODELING

4.1 TRAVEL DEMAND MODELING

The travel demand model serves as an important tool during the analysis of the future transportation system. Its primary role is to forecast future vehicular trips then distribute them onto the county network of roadways. This section provides an overview of the modeling procedure used to develop and evaluate the existing and future network performance.

4.1.1 Model Development

Burnet County is not included in the regional planning area for the Capital Area Metropolitan Planning Organization (CAMPO). CAMPO currently covers Travis, Williamson, Hays, Bastrop, and Caldwell counties. For this reason, there was no existing travel demand model for Burnet County. Through this project, a travel demand model was created that would be compatible with the CAMPO model should Burnet County be included in CAMPO's planning boundary in the future. To develop the base model, the team relied heavily on data which was provided by TxDOT and the Texas Transportation Institute (TTI). The data provided included the definition of 93 internal traffic analysis zones (TAZs), relatively small geographic zones used for analysis of travel activity, and 21 external traffic nodes to represent traffic entering into the county from the exterior boundary. The travel demand model is developed by the following four step process:

1) Trip generation determines how many trips are produced and attracted in each TAZ based upon its socioeconomic characteristics.

2) Trip distribution combines the trip productions and attractions into origin-destination trip patterns.

3) Mode choice determines how trips use transit versus private automobiles. For Burnet County, only private automobile trips were considered.

4) Assignment loads the trips onto appropriate links in the roadway network in order to identify levels of roadway congestion.

In developing the base year model, limited information was available on the travel characteristics within the county. Often times a travel survey will be conducted to gauge the travel patterns of the residents. Due to the absence of this information, historic travel patterns were provided by state and county officials based on local knowledge of the area.

The travel demand model for Burnet County was calibrated using the 2005 roadway network, 2005 TAZ system, and 2005 socioeconomic data. Data characteristics were defined on each roadway in the network defining the functional classification, number of lanes, speed, and capacity.

4.1.2 Traffic Analysis Zones

Socioeconomic data was developed to include various categories and allocated to TAZs. The TAZs are geographical areas, polygons, generally bounded by a roadway network, natural barrier, or geographic feature. The Burnet County model consisted of two zone types: internal and external. Internal zones are those zones within the study area, and external zones were placed along roadways entering and leaving Burnet County. **Figure 4.1** shows the TAZ boundaries developed for this study. There are a total of 120 zones. These include the 93 internal and 21 external zones, as well as six "extra" internal zones that were created to accommodate the subdivision of existing zones for future use.

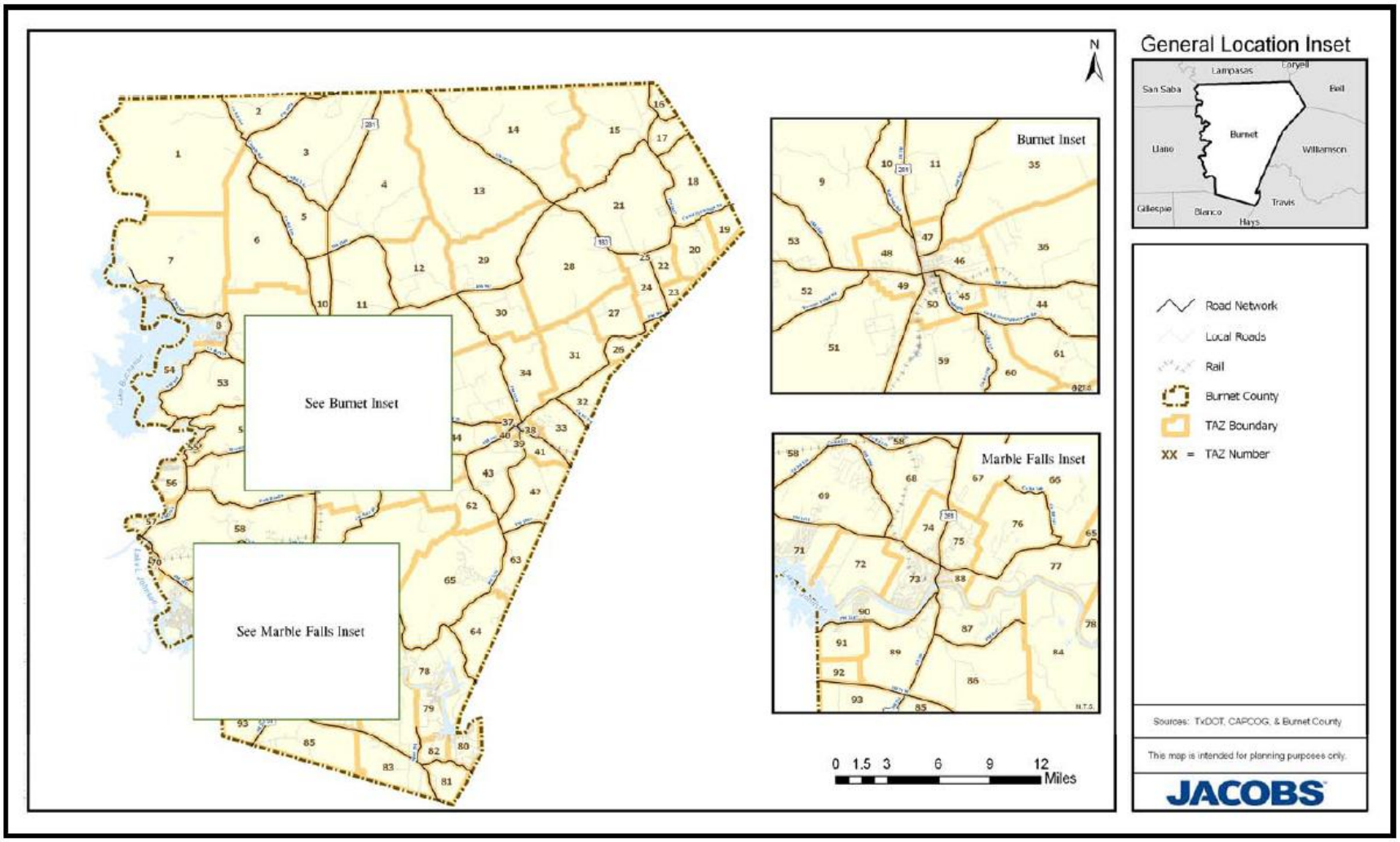


Figure 4.1 2005 Traffic Analysis Zones

4.1.3 Traffic Volume Projections

The assigned 2005 daily traffic volumes were compared with the counted daily traffic volumes for individual links. The comparison indicated the following: 1) the computed vehicle miles traveled (VMT) in the study area are approximately 675,200 per day, 2) the estimated vehicle hours traveled (VHT) in the study area are approximately 11,500 per day, and 3) the average daily speed on the network equated to approximately 36 miles per hour (MPH), based on model speed data. The resulting 2005 traffic assignment volumes for the study area are shown in **Figure 4.2**.

4.2 Evaluation of Deficiencies and Needs

Once the 2005 travel demand model network was developed and validated, the model was used to evaluate the transportation needs for the 2035 planning horizon. In looking at the 2035 system, two situations were evaluated with the 2035 socioeconomic data that was developed through public and agency input. One situation evaluated was the no build scenario. In the no build scenario, the network was evaluated with the projected population and employment growth, but no changes to the system roadway network. The second situation evaluated was the existing plus committed (E+C) network. An industry standard in assessing future travel demand is to assume that no additional improvements will occur to the existing transportation system beyond what is currently under construction or being funded, resulting in the E+C network. The E+C network for Burnet County included the following project improvements:

- FM 1431 – install center left turn lane from Industrial Blvd. to Marble Falls city limit
- RM 2147 – install center left turn lane from US 281 to 0.575 miles west
- City street in Marble Falls – replace the bridge at 3rd street over Whitman Branch
- US 281 – replace the bridge over the Colorado River in Marble Falls
- US 281 – install center left turn lane from Delaware Springs Blvd. to Park Road (PR) 4
- SH 29 – install center left turn lane at RM 1174 in Bertram

These two scenarios were used to begin the deficiency identification process and help to formulate alternatives to address congestion areas.

From the analysis, the portion of roadway expected to operate at Level of Service (LOS) F (forced traffic flow with significant delays) is forecast to increase from 2.8 percent in 2005 to 32.2 percent in 2035 with the committed projects being constructed.

Based on model results, the most congested segment in the county in 2035 will be the US 281 bridge over Lake Marble Falls. This existing segment already experiences volumes exceeding its capacity and continued development will only generate additional volume. Similar to the segment of US 281 over Lake Marble Falls, the US 281 corridor from US 71 to Marble Falls and RM 2147 west of US 281 will experience significant congestion problems in the future.

Figure 4.2 illustrates the need for long term improvements to the main network of state routes within the county. The analysis indicates a failure in LOS of many of the major roadway network connections such as SH 29, US 281, US 71, FM 1431, RM 2147, and RR 2342.

Also evident from the travel patterns and public input is the lack of connectivity for local traffic west of Marble Falls. A second crossing over Lake Marble Falls has been considered at Wirtz Dam and should be analyzed further for viability.

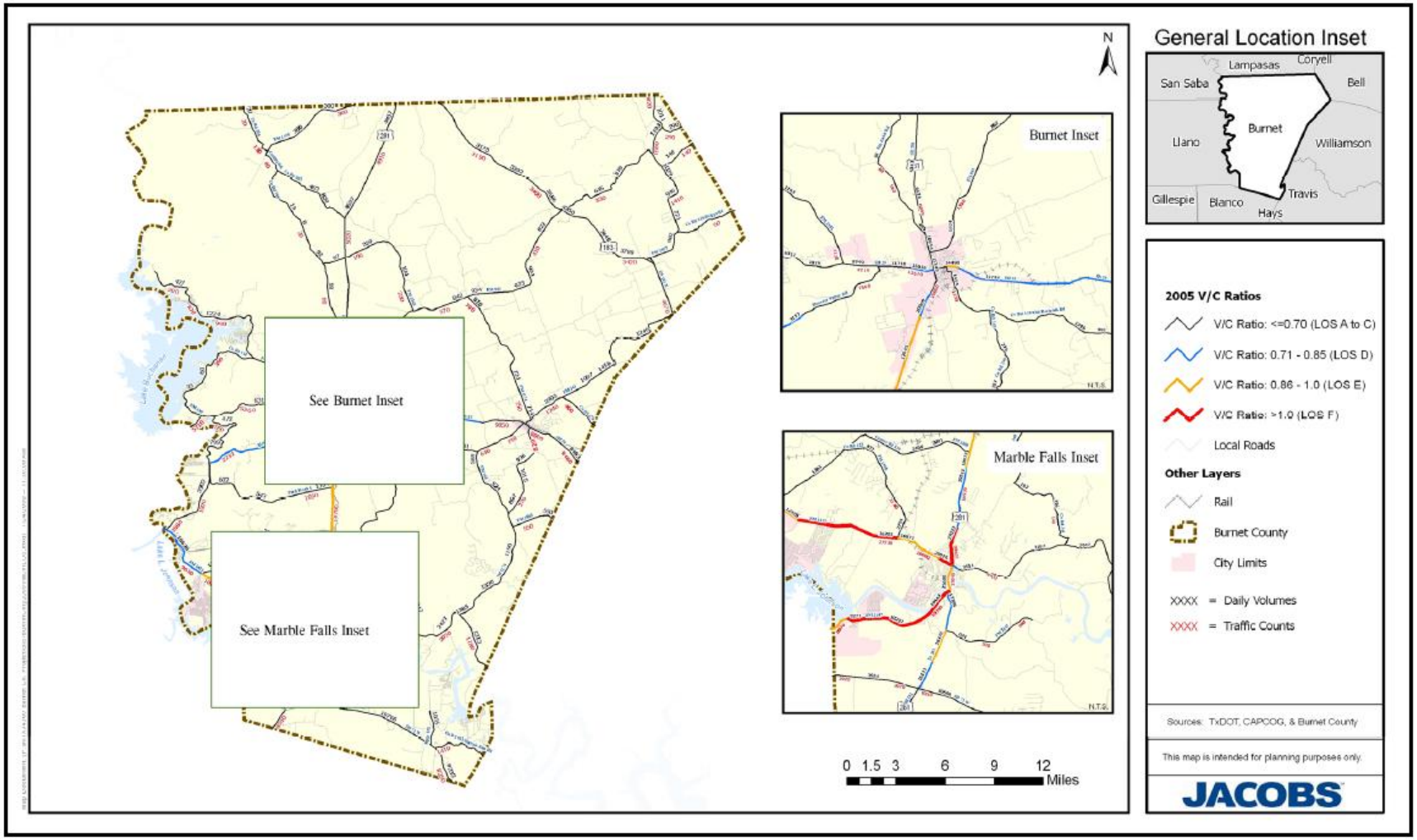


Figure 4.2 2005 Modeled Burnet County Traffic Volumes and LOS

4.3 Alternative Roadway Network Evaluation

After the traffic model was validated, multiple scenarios were developed for analysis to provide the county with options to consider and determine the best overall plan for the county. Seven scenarios came out of this analysis, all developed by adding projects to the E+C base.

Scenario 1 considered adding two new roadway connections, without making any upgrades to the capacity of the existing roadway network. The connections added were the Wirtz Dam Road connection, and bypass 1 as shown in Figure 4.3. The Wirtz Dam connection, an assumed two-lane roadway, will offer an alternative to US 281 for motorists traveling from RM 2147 to FM 1431, and will result in reduced traffic volumes on RM 2147 and US 281. The bypass 1 connection will enable through traffic traveling northbound and southbound on US 281 to avoid Marble Falls. Bypass 1 is assumed to be a 4-lane divided roadway with at-grade intersections.

Scenario 2 is the same as Scenario 1, but with bypass 2 added, as shown in Figure 4.3. Bypass 2 diverts around both Marble Falls and Burnet, and is also assumed to be an at-grade 4-lane divided roadway.

Scenario 3 did not add any new connections but considered making capacity improvements to the existing roadway network. The improvements are listed in Table 4.1. Scenarios 4 through 7 build upon scenario 3 and add different combinations of new network connections. Table 4.2 summaries these scenarios. Figure 4.4 is a graphic depiction of Scenario 7 which includes all the improvements.

Table 4.1 Scenario 3 Road Improvements

Improvement Corridor	Improvement Location
RM 2147	Widen to a 5-lane section from Horseshoe Bay to US 281
RM 1431	Widen to a 4-lane section from US 281 to CR 344
SH 29	Widen to a 5-lane section from FM 2341 to Burnet
SH 29	Widen to a 5-lane section from Burnet to Williamson Co. Line
SH 71	Widen to a 5-lane suburban section from US 281 to Spur 191
US 281	Widen to a 6-lane section from Marble Falls to PR 4
US 281	Widen to a 6-lane section from RM 2147 to SH 71

Table 4.2 Summary of Scenarios 4 through 7

Scenario	Improvements
4	Scenario 3 + Wirtz Dam Road
5	Scenario 3 + Bypass 1
6	Scenario 3 + Bypass 1 and 2
7	Scenario 3 + Wirtz Dam Road + Bypass 1 and 2

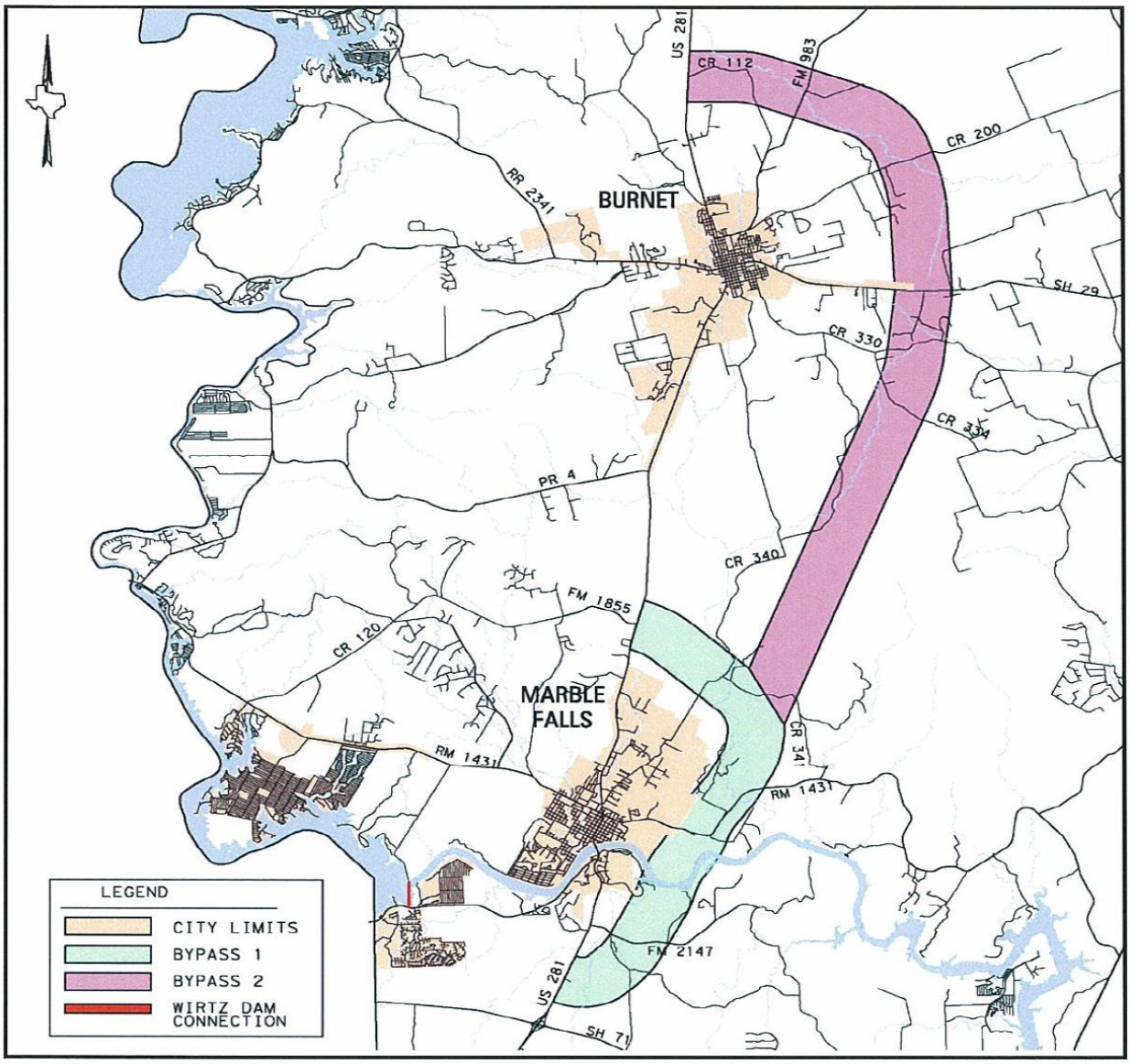


Figure 4.3 Alternative Connectors (This map is for *PLANNING* purposes only)

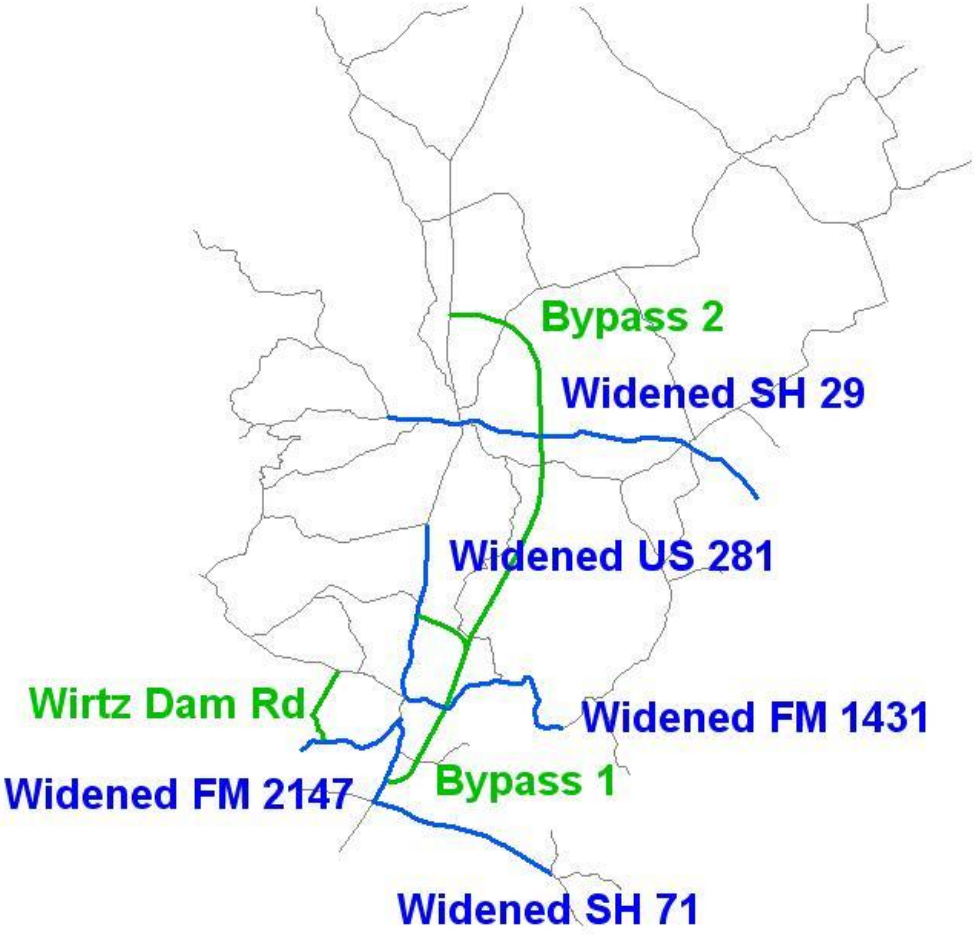


Figure 4.4 Scenario 7 All Planned Improvements

4.3.1 Considerations of County Goals

All scenarios presented above reflect improvements only to state-maintained roadways. Any future improvements should adhere to the goals set forth by the County in order to ensure that state, county, and cities work together specifically to coordinate and synchronize transportation needs, and to provide transportation choices that enhance quality of life for Burnet County citizens.

CHAPTER 5 – COMPREHENSIVE TRANSPORTATION PLAN

5.1 THE PUBLIC INVOLVEMENT PROCESS

Development of the Burnet County Comprehensive Transportation Plan has always had a firm guiding principle: to be developed by Burnet County, for Burnet County. From the start of the project, the need for community outreach was recognized, and a process was developed.

5.1.1 Committees

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 Comprehensive Transportation Plan.

5.1.1.1 Steering Committee (SC)

The Steering Committee was comprised of officials and citizen members from Burnet County offices and communities in Burnet County. The SC was tasked with providing guidance, review, and oversight of the process and assuring that the community's vision is reflected in the final County Transportation Plan. The SC also developed and adopted study goals, provided guidance and approval on the public involvement plan, provided background information on development patterns and trends and served as a liaison between the study team and member entity. Members of the SC included:

- Burnet County Judge Donna Klaeger, Chair
- Burnet County Commissioners Court
- Commissioners Court Coordinators, Kathy Golson and Jeanne Emerson
- Burnet County Flood Plains Director, Herb Darling
- City of Marble Falls, represented by Brian Shirley
- City of Burnet, represented by Crista Bromley
- City of Cottonwood Shores, represented by Sylvia Breen
- City of Horseshoe Bay, represented by Mike Thuss
- City of Bertram, represented by Polly Krenek
- City of Highland Haven, represented by Jim Embrey
- City of Granite Shoals, represented by John Gayle
- City of Meadowlakes, represented by Carlton Pullen

5.1.1.2 Technical Advisory Committee

The Technical Advisory Committee was responsible for ten primary functions:

- Facilitating data collection from various entities;
- Coordinating the incorporation of any previous plans by member entity;
- Developing study goals, in conjunction with the SC;
- Providing comments on public involvement plan;
- Providing background on development patterns, trends, and future needs for member organization;
- Providing feedback on public information materials prepared for public meetings and outreach events;
- Serving as a liaison between the SC, Citizens Awareness Committee and member entities;

- Providing feedback or vetting of assumptions, such as growth in population and employment, methodology for comparing improvement scenarios;
- Providing input on the potential use and functionality of the GIS deliverable; and
- Developing and finalizing the Comprehensive Transportation Plan.

Members of the Technical Advisory Committee included:

- Brian Shirley, Marble Falls, Chair
- Greg Haley, KC Engineering
- Howard Lyons, TX Department of Transportation
- Dennis Schaefer, City of Granite Shoals
- Mike Thuss, City of Horseshoe Bay
- Riley Walker, City of Spicewood
- Charles Shell, City of Bertram
- David Vaughn, City of Burnet, City Planner
- Danny Lester, City of Burnet, Director of Public Works
- Crista Bromley, City of Burnet, Airport Manager
- Nelson Miner, Citizen, City of Highland Haven
- Nena Hoover, Citizen, City of Burnet
- Burnet County Commissioners Court

5.1.1.3 Citizens Awareness Committee

The Citizens' Awareness Committee assured all segments of the county had an opportunity to provide input throughout the process. It also provided the general community with an understanding of community objectives and the interaction and trade-offs between land uses and transportation. These volunteer community members donated their time and effort to promote participation by the entire community.

5.2 Public Involvement

5.2.1 Burnet County Questionnaire

As noted, a specific goal of the Burnet County Comprehensive Transportation Plan included gathering residents opinions and thoughts about the future growth of Burnet County. In 2008, 917 Burnet County residents completed the Burnet County Comprehensive Transportation Plan Questionnaire. The survey was available to Burnet County residents in an on-line and paper format. The on-line survey link was posted on many Burnet County websites and placed in several newsletters, while the paper surveys were placed at various public locations throughout the county. The cities of Burnet and Marble Falls were both selected by about 18 percent of survey respondents when asked to select the location that best describes where you live. The remaining locations were all selected by less than 10 percent of respondents. There was a close distribution between those living within city limits and those living in rural areas. A majority of the respondents indicated they have a two person household with two vehicles. A majority, 70.67 percent, do not have children in the home that attend school in kindergarten through 12th grade. Almost 20 percent of those who responded they have children revealed their children ride in a car to and from school. More sidewalks were selected as the method to make transportation routes to school safer. When questionnaire respondents were asked how they traveled a majority of respondents drove alone to work, for work, shopping, and medical transportation. The minority of people who carpooled described their passengers as adult family members.

The questionnaire then asked about transportation issues within Burnet County. The availability of sidewalks and crosswalks was rated the lowest with 43.51 percent selecting *poor*. The ability to easily travel within the county and to neighboring counties rated the highest as *good*, 44.93% and 49.29% respectively. No aspects of Burnet County transportation rated *Very Good*. When asked what was most important to accomplish within the next 5-10 years, developing alternate routes for commercial traffic

rated *most important* with 43. 51 percent. *Very important* aspects included improving traffic signal operation, upgrading existing roads, maintenance on existing roads, and improving roadway safety. Improving access to Austin through rail was the only transportation aspect in which *not at all important* was rated the highest. When asked about lessening the congestion along US 281; alternate routes for general traffic, additional bridge, alternative hazardous cargo route, and alternative truck routes were selected as very good. The lowest rated aspect to reduce congestion was more options for transit and carpooling which ranked *fair* at 29.99 percent. A majority of questionnaire respondents stated they would not use more or expanded bus service, passenger rail service, park and ride lots, or vanpools if they were available. A majority, 86.7 percent, of Burnet County residents who participated in the questionnaire never use local airports.

5.2.2 Public Meetings

In addition to gathering input through the questionnaire, two public meetings were held to inform residents about the status of the plan and provide them an opportunity to comment on the work thus far. The first meeting held May 14, 2009 at the Marble Falls Pavilion presented information to the public about the existing conditions in Burnet County and the results of the questionnaire. At the meeting the attendees had the opportunity to view several exhibits including:

Existing Land use (2 exhibits) – Displayed population growth and resulting changes in land use.

Cultural Resources – Provided information on Texas Historical Commission archeological landmark and places on the National Register of Historic Places.

Floodplain – Identified lakes and floodplain areas along the Colorado and San Gabriel rivers.

Population Projections – Provided Texas State Data Center population projections.

Education Levels – Provided US Census Bureau information on education levels.

Travel for Work – Provided US Census Bureau information on commute patterns.

TxDOT Roadway Functional Classification – Provided the functional classifications of major roadways in Burnet County.

2005 Annual Average Daily Traffic (AADT) – Provided counts that will be used for the base year (2005) traffic modeling.

Other Traffic Count Data – Provided Burnet County traffic count totals as of November 2008 and 2007 counts within the City of Marble Falls.

Airports, Bridges and Railroads – Described existing multimodal infrastructure.

Signalized Intersections – Identified signalized intersections on the state roadway system.

Percent Trucks – Provided information on the percent of truck traffic utilizing the state roadway system.

Historic Growth Patters (2 exhibits) – Displayed aerial images of growth in Marble Falls and Burnet in 1997 and 2006.

A short presentation was made that reiterated the community vision and goals of the project. Information was shared about the questionnaire results and the assumptions about future growth and land use. Residents had the opportunity provide written comments. A map of Burnet County was also available where residents could comment on needed transportation improvements. Several comments were collected on the map.

A second public meeting was held August 6, 2009 at the Burnet County Courthouse. A total of 15 people attended this meeting. The same exhibits as the May meeting were on display along with additional exhibits including:

2005 Level of Service with Volumes and Traffic Counts

2035 Level of Service with Volumes and Traffic Counts

2005 Population Density

2035 Population Density

2005 Employment Density

2035 Employment Density

Roadway Crash Frequency and Fatalities (2005 – 2007).

At this meeting a presentation was made that focused on the public comments from the first meeting and the growth projections expected through 2035. The growth that is expected in population and employment and how that relates to land use and ultimately the impact on the transportation system was highlighted. At this meeting there was also a handout available that presented a project list of 47 potential projects. The project list was compiled from information from the committees, the public input received thus far and TxDOT. Participants were asked to rank the projects according to their level of importance. The participants could also add projects that were not included in the list.

5.3 Infrastructure Needs

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. Using the Burnet County Comprehensive Transportation Plan goals as the starting point and the public input gathered about potential projects the initial list of projects was pared from 47 to 22.

The transportation model provides valuable information about how the system will operate as various improvements are made or not made. Using the no-build scenario (see Chapter 4), planners can see where the worst conditions occur. Inputs into the model can also be adjusted that will result in different outcomes. For example, an increase in truck traffic percentages will produce a different result than using passenger auto inputs. As conditions change the model can be updated to reflect that change. As the population and employment of Burnet County grows more schools will be built, more goods will be transported and more business will be conducted within the county. To maintain the economic vitality as well as the quality of life of citizens the transportation plan must be updated.

Moreover, the transportation model shows which roads will need expansion in the future. This allows the county to proactively plan for growth and expansion. The county may require developers to donate ROW. This plan gives them the authority to do so, see appendix C. Identifying infrastructure needs assures that environmental quality concerns can be avoided or mitigated when planning future transportation improvements.

5.4 Roadway Prioritization

Prior to beginning the project selection and prioritization process, the Project Resource Team (PRT) presented a draft set of project scoring criteria to the Burnet County Transportation Committee. The

Committee was asked to review and provide input on the draft criteria. **Table 5.1** below identifies the final evaluation criteria and the scoring associated with it.

Table 5.1 Evaluation Criteria for Road Prioritization.

Criterion	Scoring
System Connectivity: Project promotes system efficiency by providing and/or increasing connectivity. This includes interconnectivity between modes.	10-8 High Priority 7-4 Medium Priority 3-0 Low Priority
Safety Considerations: Project addresses known safety issues.	10-8 High Priority 7-4 Medium Priority 3-0 Low Priority
Mobility and Accessibility: Project increases mobility through the county through new construction, added capacity or increased access to other modes	10-8 High Priority 7-4 Medium Priority 3-0 Low Priority
Environmental Impacts: The impact the project has on environmental factors.	**NOTE: Reverse Order** 0-3 High – Project has significant environmental impacts that must be overcome 4-7 Medium – Project has moderate environmental impacts that can be readily mitigated 8-10 Low – Project has minimal environmental impacts
Economic Development: Project will increase economic development opportunities or improve economic productivity	10-8 High – Substantial economic development benefits 7-4 Medium – Some economic development benefits 3-0 Low – Little to no economic development benefits
Public Support/Participation: Project has received significant public attention and support	10-8 High – Received substantial public support 7-4 Medium – Received some public support 3-0 Low – Received no public support or received opposition
Regional Impact: Impact of project on other cities in the county and ability to address regional goals	10-8 High – Substantial regional impact 7-4 Medium – Some regional impact 3-0 Low – Little to no regional impact
Funding: Project can be funded (Note – Bonus points for local contribution)	10-8 High – Funding has been identified and allocated 7-4 Medium – Funding options exist 3-0 Low – There is no foreseeable way to fund the project
Partnerships: Can the project be leveraged with other projects/partners? Does the project have political support of other jurisdictions?	Yes or No
TOTAL	

Source: Texas Transportation Institute

5.4.1 TxDOT On-System Projects

The transportation model that was developed (see Chapter 4) provided information about how the transportation system would operate in the future if no improvements (no build scenario) were made. This data along with candidate projects from the Transportation Committee and the TxDOT Burnet Area Engineer produced the list of 22 possible projects. As the projects were discussed in the committee meeting some projects were combined resulting in 19 projects that were scored.

Each project listed in **Table 5.2** was discussed in detail with regards to any known safety issues, known environmental impacts, general public support and regional impact. The discussion allowed committee members unfamiliar with the particular improvements a better understanding of the issues surrounding that area of the county. From the scoring of potential improvements, scenarios were developed for evaluation. The projects highlighted in yellow were ultimately included in the modeling scenarios that were developed. Example of each scenario are detailed in Appendix B. Scenario 7 (see Chapter 4), as noted in **Figure 5.1** below, was adopted by the Commissioners' Court as the Burnet County Thoroughfare Plan on March 9, 2010.

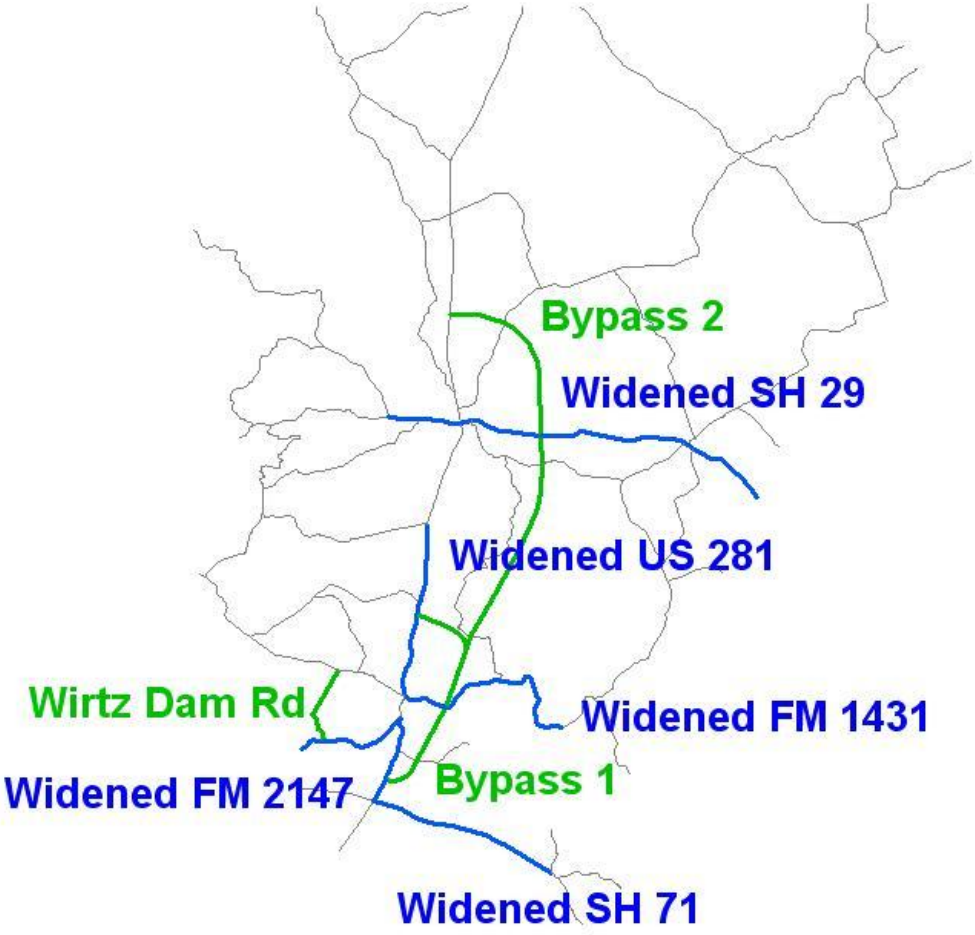


Figure 5.1 Burnet County Adopted Thoroughfare Plan

Table 5.2 TxDOT On-System Roads Priority Improvements.

Improvement Corridor	Improvement Type and Location
RM 2147	Widen to a 5-Lane section from Horseshoe Bay to US 281
FM 2341	Widen to a 3-Lane section from CR 128 to SH 29
FM 2342	Widen to a 3-Lane section from FM 1431 to Hoovers Valley Road
PR 4	Widen to a 3-Lane section from US 281 to 3.4 miles west of US 281
RM 1431	Widen to a 5-Lane section from FM 2342 to US 281
RM 1431	Widen to a 4-Lane section from US 281 to CR 344
SH 29	Widen to a 3-Lane section from west county line to FM 690
SH 29	Widen to a 5-Lane section from FM 2341 to Burnet
SH 29	Widen to a 5-lane section from Burnet to Williamson Co. Line
SH 71	Widen to a 5-Lane suburban section from US 281 to Spur 191
SH 71	Widen to a 3-Lane section from west county line to US-281
US 183	Widen to 5-lane section from Williamson Co. line to Briggs
US 281	Widen to a 6-Lane section from Marble Falls to PR 4
US 281	Widen to a 6-Lane section from RM 2147 to SH 71
-	Construct a reliever route around Marble Falls and Burnet
-	Bike and pedestrian accommodations
-	Public transit with fixed route service, commuter service to Austin
-	Use existing rail line to implement commuter rail service to Austin
-	Construct Wirtz Dam, connecting FM 1431 and RM 2147 with a 2-Lane collector

5.4.2 TxDOT Off-System Projects (County Roads)

Because the transportation model was designed to provide an analysis of improvements on the state highway system, the County Commissioners expressed a desire to develop a similar exercise that would allow for a scoring of needed transportation improvements to the county road system.

On October 21, 2009, the County Commissioners met in an open meeting to discuss various improvements to the county road system. Prior to that meeting each commissioner was asked to submit a list of priority county road project improvements for their respective precinct. The resulting list is displayed in **Table 5.3** below, and illustrated in **Figure 5.2**.

Table 5.3 County Roads Priority Improvements.

Improvement Location
CR 120
CR 116
CR 114
CR 207 @ Mesquite Creek - low water crossing
CR 223 along Lampasas River - guard rails
CR 200 - 1 mi E of FM963 - improve curve
CR 340 - Marble Falls to Burnet
CR 330 - Burnet to Bertram
CR 404 - CR 413 to Travis Co. line
CR 413 - SH 71 to CR 404
CR 410 - Spur 191 to CR 410
CR 252 (Burnet to Bertram)
CR 200 (Burnet to 1174 (963)

Each commissioner had an opportunity to educate the fellow commissioners about the project and the need for improvements. The commissioners used the same scoring process used on state project scoring with the funding category removed. The results of the county project rankings are detailed in Appendix B.

The project prioritization exercise provided valuable input into the county's Comprehensive Transportation Plan process. It identified projects there were included in the travel demand modeling exercise. Additionally, it allowed the county commissioners to identify and discuss possible improvements to the county road network.

The results of the modeling and resulting system operation allows the county leadership to make the best determination of project prioritization. The model and the project list and priority can be updated as situations change.

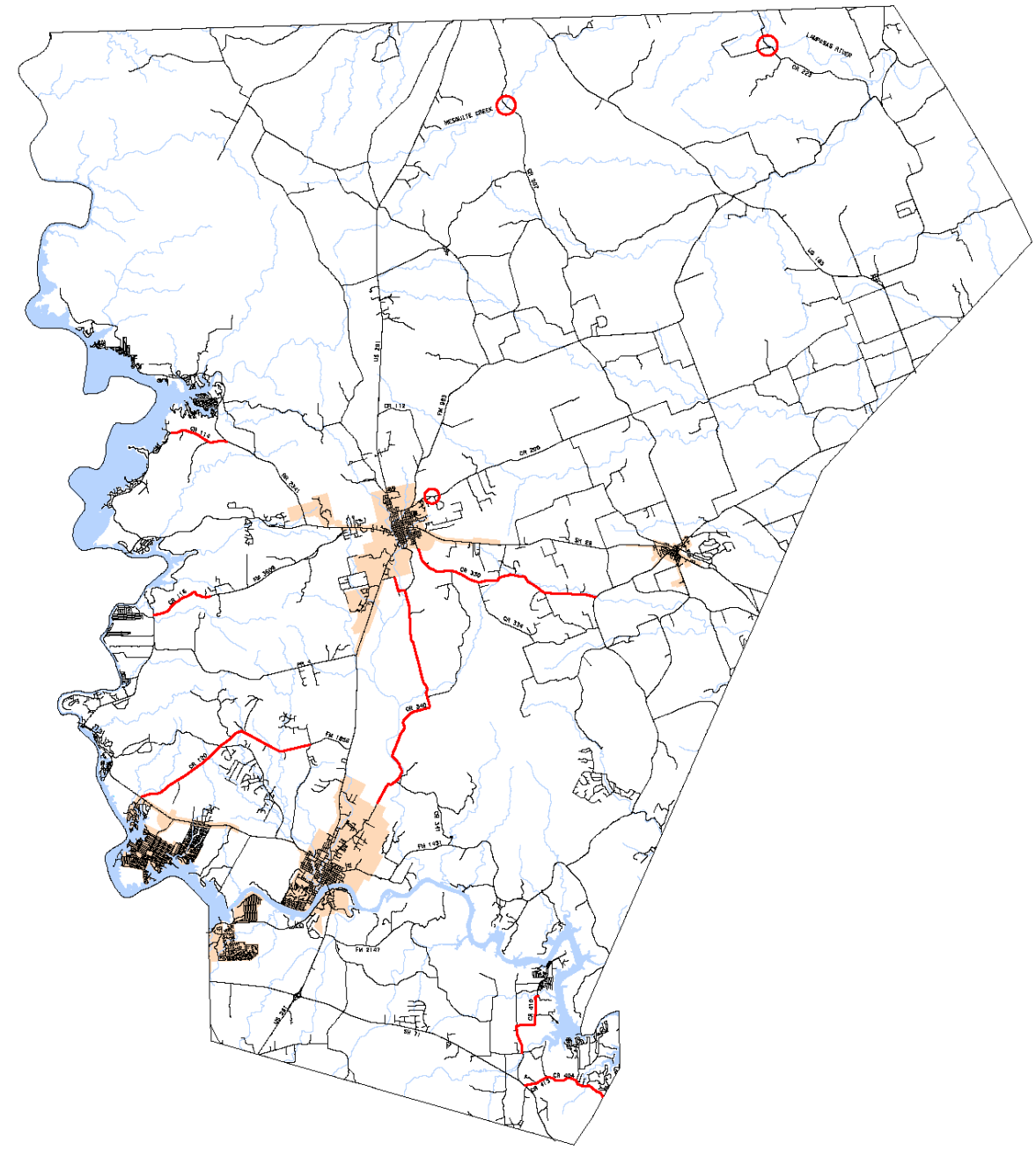


Figure 5.2 Burnet County Off-System Priorities

5.5 Increase and Explore Financing Options and Opportunities with State and Federal Entities

This section of the chapter presents basic 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. County and city financing options were discussed in Chapter 2. More detailed funding options can be found in Appendix E.

Burnet County is adjacent to, but not part of the Capital Area Metropolitan Planning Organization (CAMPO), and does not belong to any other MPO. Therefore, transportation funding programs that are administered through or with the cooperation of an MPO will not be eligible for use in Burnet County. Should Burnet County join CAMPO in the future, funding opportunities through the MPO should be considered.

5.5.1 Funding Availability and Opportunities

5.5.1.1 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.

5.5.1.2 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. Burnet County does not utilize a sales tax for revenue generation.

5.5.1.3 Vehicle Registration Fees

Vehicle registration fees are a substantial 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 *(1)*. 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. Depending on how often assessment rates are adjusted, vehicle registration fees are likely to be insensitive to inflation and decline in purchasing power.

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 500 miles. The Texas Constitution prohibits revenues from vehicle registration fees to be used for purpose other than acquiring right-of-way, constructing, maintaining and policing public roadways, and for administering laws pertaining to the supervision of traffic and safety on public roadways.

Burnet County expects to receive $660,000 in vehicle registration revenues for the 2008 fiscal year.

5.5.1.4 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. School districts collect the most in property taxes each year, accounting for 58.8 percent property taxes collected in the state in 2006 compared to 15 percent for cities, 15 percent for counties and 11.2 percent for special districts.

The majority of Burnet County's revenues come from property taxes, bringing in $11,125,462 and accounting for 71.3 percent of budgeted revenues in the 2007 fiscal year and an estimated $12,203,253 accounting for 71.4 percent of revenues in fiscal year 2008.

5.5.1.5 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. They work especially well if the group receiving benefits from the new program is clearly defined. Revenue may not be certain and predictable in situations where the public has the option of protesting or preventing funding. 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.

Burnet County currently has several special taxing districts:

- Cottonwood Shores Crime Control and Prevention District; utilizes $0.05 cent sales tax
- Meadowlakes Municipal Utilities District; $0.23 tax levy
- Burnet Emergency Services District; $0.0295 tax levy
- Central Texas Groundwater Water Conservation District; $0.01653 tax levy

Revenues collected by these districts are not used for transportation related programs.

5.5.1.6 Regional Mobility Authorities

Proposition 15, a constitutional amendment approved by Texas voters in 2001, allows for the creation of regional mobility authorities (RMA) 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 *(2)*. RMA formation requests must be approved by the Texas Transportation Commission.

The closest RMA to Burnet 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 turnpikes, roadways, systems of facilities, passenger and freight rail systems, ferries, airports, pedestrian and bicycle facilities, intermodal hubs, automated conveyors for freight movement, border crossing inspection stations, public utility facilities, and air-quality improvement initiatives. They possess bonding authority and are authorized to maintain a revolving fund, acquire and/or condemn property, enter into contracts with other states and 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. They may also enter into comprehensive development agreements.

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, public 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. SIBs will be discussed at a later point within this memorandum.

5.5.1.7 Pass-Through Financing

In pass-through financing, the state enters into a partnership with a private developer, tollway authority, mobility authority or local or 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. Pass-through financing is sometimes referred to as "shadow tolls," in that revenue is generated for the developer by users of the facility, except that in this scenario TxDOT pays for all tolls. This partnering shifts some of the risks associated with revenue from traffic volumes onto the developer and may encourage expedited implementation, as the sooner a roadway is open the sooner the developer can begin recouping costs *(3)*. Pass-through financing may be especially useful in areas that require transportation improvements but tolling is not politically or socially feasible, as users do not experience the time delays or out-of-pocket expenses associated with conventional tolling *(4)*. Pass-through financing may also be beneficial in the reconstruction or upgrading of projects and can provide a significant incentive for developers to provide high levels of quality service in such situations.

Pass-through financing has recently been approved for several projects in Texas. Within the Austin District of TxDOT, pass-through financing has been approved for projects at IH-35 and State Highway 29, the 183A toll facility, U.S. Highway 79, FM 1660, and RM 2338. Pass-through financing has also been approved for construction activities on FM 3407, FM 110, RM 12, and FM 1626, in Hays County.

5.5.1.8 Federal Spending

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 which vary depending on the program from which the funds are being allocated.

Federal funding for transportation projects is done by apportionment, which utilizes formulas to determine what each state will receive. The formulas take into account several factors, depending on the program, and a score is generated that determines what each state's share will be.

5.5.1.9 State Spending Programs

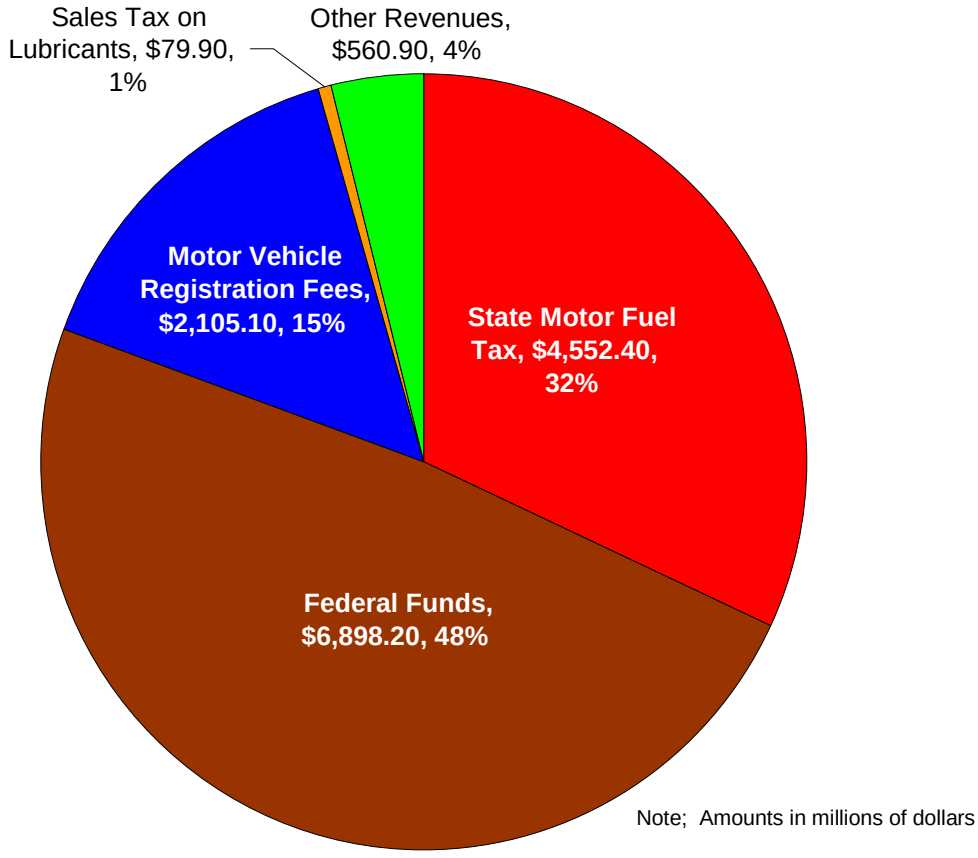
The federal fuel tax accounts for $0.18 of the $0.38 collected on each gallon of gasoline. These revenues are remitted to the federal government, where they are apportioned back to the states through various formulas which have already been discussed. They are then deposited directly into the State Highway

Fund (SHF) upon receipt. The majority of these funds take the form of reimbursements for highway planning and construction expenditures.

The remaining $0.20 paid on each gallon of gasoline purchased is the state fuel tax. It is remitted to the Texas Comptroller of Public Accounts, where it is deposited in the state's general fund. One percent of the gross state fuel tax revenues collected is retained by the comptroller's office for administration and enforcement of motor fuel tax laws and 25 percent is taken out and deposited into the Available School Fund. The remainder is deposited in the SHF.

State funding is often designated for on-system or off-system roadways. Off-system roadways are roadways that are not part of the State Highway system and are not maintained by TxDOT, such as city streets and county roads. On-system roadways are roadways that are designated as being part of the State Highway system and are usually maintained by TxDOT.

State funding of transportation projects is done through the SHF, which is comprised primarily of fuel tax revenues. **Figure 5.3** shows the estimated State Highway Fund and sources of revenue for Texas for 2008 and 2009 *(5)*. 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 5.3 Estimated State Highway Fund, Sources of Revenue for 2008-2009

5.5.2 Transit Programs

SAFETEA-LU authorizes the Federal Transit Administration (FTA) 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 in 2007 was nearly $9 billion, most of which comes from fuel tax revenues and general fund appropriations *(6)*. Since 1997, 2.86 cents 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.

As is the case with state highway programs, 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 which 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 the Federal Transit Administration (FTA). State funds may be used by providers to meet the matching requirements of federal grants.

CHAPTER 6 – RECOMMENDATIONS AND PLAN IMPLEMENTATION STRATEGIES

6.1 FINDINGS AND RECOMMENDATIONS

The Burnet County Comprehensive Transportation Plan process produced a transportation demand model that will provide valuable information to Burnet County. The model was instrumental in developing the initial project list and ultimately in the projects that were included in the model run scenarios. The scenarios that have been modeled have produced this comprehensive plan. The priority of their implementation may change over time as conditions change and funding becomes available. To keep the plan relevant it should be reviewed periodically. How often this occurs will be dependent on how often conditions in Burnet County change.

6.2 IMPLEMENTATION OF THE PLAN

The plan has gone through extensive public involvement. It is anticipated that a final public hearing will be held on the plan document to receive comments on this document prior to adoption by the county commissioners' court. The court has already adopted Scenario 7 as the county thoroughfare plan.

As future development occurs within the extra-territorial jurisdictions of Burnet, Marble Falls and Granite Shoals, 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.

As stated in the introduction of this document, the plan is intended to be a tool for the county, the cities, developers, the chambers of commerce and the general public as Burnet 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.

6.2.1 Jurisdictional Changes

The plan should be reviewed and updated on a regular basis to see if the assumptions are still valid. Likewise, if there are jurisdictional changes the plan should be reviewed to make sure the priorities still make sense or to take advantage of opportunities. For example, if Burnet County is designated as a micro-metropolitan area or is absorbed by CAMPO this may change funding availability which could impact project priorities.