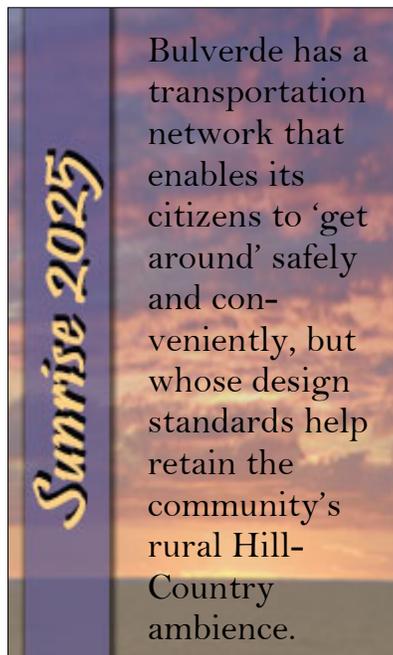


Transportation

A community's transportation network is critical to its citizens' quality of life. Actual or perceived traffic congestion and dangerous, noisy or ugly roads can be deterrents to people's enjoyment of their town. When traffic moves freely and safely, people generally feel positively about their community. The Comprehensive Plan Survey indicated that the residents of the Bulverde area think there are both minimal traffic congestion and "too much traffic" in Bulverde. In the open-ended section of the survey, some respondents cited the lack of traffic congestion as one of the most desirable things about living in the city, while others listed "traffic" as one of the least desirable things about living in the area. Particular traffic woes include high speed traffic, traffic noise, traffic into San Antonio, dangerous roads/intersections in and around Bulverde, and traffic on State Highway 46, U.S. Highway 281 and congestion at that intersection. One person commented that the congestion on State Highway 46 west of U.S. Highway 281 is the "baggage" caused by retail and commercial development in that area. Another person noted that "we need ways to get people to drive slower, especially on Farm/Market 1863."



Approximately three out of four of those surveyed work outside the Bulverde and its ETJ. Of those who commute to work, over forty percent drive more than 20 miles one way. These commuters may be thinking about traffic at rush hours into and out of San Antonio when they are commenting about the negative aspects of traffic. The average daily traffic count on U.S. Highway 281 north of Loop 1604 has more than doubled from 1990 to 2000, going from approximately 24,000 vehicles to approximately 51,000 vehicles per day. Still, proximity to San Antonio with its "big city" conveniences and amenities is a highly attractive attribute of the Bulverde area.

Eighty-two percent of survey respondents feel that "solving traffic problems" is an important or very important growth management priority for the City. Eighty-four percent think promoting more efficient and safe flow of traffic is an important or very important goal statement for the Comprehensive Plan. When asked what additional city services should be provided, ninety-one percent of survey respondents were either supportive or very supportive of the City solving traffic problems. When asked about the quality of existing City services, only thirty-nine percent rated the City's current performance as either excellent or good, while fifty-six percent rated it either fair or poor.

Regardless, the most desirable things about living in the Bulverde area are the quiet/slow-paced living, the country/rural atmosphere, the beauty and feel of the Hill Country, and the small town/village charm. Attributes associated with the rural lifestyle include “twisty” two-lane roads. At a January 2004 Steering Committee meeting, members commented that “winding roads” and “slower roads” contribute to more of a country atmosphere. Narrower roads mandate that traffic moves slower, and they can be used as a growth management tool. After all, wider roads can enhance undesirable or unplanned growth. The Steering Committee concluded that Bulverde needs a thoroughfare plan, and Amman Road can be improved and serve as a major route to the western part of the city’s ETJ.

A balanced transportation system should offer residents access to both work and non-work related destinations, a structure of connectivity that offers choices of routes and modes of travel. Transportation options should include pedestrian, bicycle and automobile facilities along with access to nearby air transport, and perhaps someday in the future, light rail or some kind of public transportation into San Antonio. This chapter describes the policy and structure for providing a sound transportation system. Bulverde can achieve safe and efficient local and regional transportation by striving toward the goals set forth in this chapter while keeping in mind there is more to a desirable transportation system than moving automobiles on four- (or more) lane highways at high rates of speed.

6.1 Transportation Planning Agencies Affecting Bulverde

The Texas Department of Transportation (TxDOT) and Comal County

At a September 24 2003 meeting of the Comprehensive Plan Steering Committee, Gregory Malatek, an engineer from the New Braunfels office of the San Antonio District of the Texas Department of Transportation (TxDOT) spoke to committee members and other citizens about transportation planning in Comal County. The New Braunfels office does the design and construction for most of Comal County, but everything west of U.S. Highway 281 is handled by the Boerne office. Thus, Bulverde falls within two TxDOT area offices.

The New Braunfels office has been concentrating on improvements to Interstate 35 in the eastern portion of the county. However, they are now looking at other heavily traveled routes such as State highway 46, U.S. Highway 281 and Farm/Market 1863. TxDOT’s goal is to flatten curves and hills to increase the design speed and capacity of these roads. Malatek predicted that within ten years State Highway 46 from New Braunfels all the way to U.S. Highway 281 will be a four lane divided highway but with a five lane “urban section” near the three Comal ISD schools, the Bracken Christian Academy and the retail and commercial development there. Their more immediate goal is to work on acquiring right-of-way, and then proceed with environmental assessments. Currently, Pape-Dawson Engineering is doing schematics of the section of U.S. Highway 281 in Bulverde, looking into right-of-way requirements that they estimated at between 400 and 500 feet. They are also studying the need for the location of grade separations. TxDOT is also studying

ROW requirements for Farm/Market 1863, expressing a desire for a minimum ROW of 120 feet, but prefer 150 to 180 feet. The City is responsible for ten percent of right-of-way acquisition costs. The City can avoid this expense by requiring developers to dedicate this right-of-way through the subdivision process.

According to the TxDOT District Engineer, the “big question” is how far to take frontage roads along U.S. Highway 281 north of Loop 1604. The feeling within TxDOT is to take them all the way to Highway 46. Currently they are planned to go to the Comal County line.

Comal County recently developed a Transportation Master Plan with the primary goal of obtaining right-of-way for future new roadways and improvements along existing roads. The proposed State Highway 46 bypass is part of this plan. Also, the Plan envisions major improvements, straightening and widening of Blanco Road from the Comal County line to Highway 46. The proposed road would then continue on a new path north of State highway 46 in a northeasterly direction all the way to Highway 281 and County Road 311 south of the Guadalupe River. For roads under county control, the County Road Department will attempt to straighten and flatten roads whenever possible, and allow for left turn lanes for deceleration when needed. The County is looking at 80 foot rights-of-way for their standard road sections, which would have two lanes with unpaved shoulders and turn lanes as needed. Shoulders would be paved in certain situations. Roads in Comal County’s jurisdiction near Bulverde that would be affected by the County’s plans are Spring Branch, Bulverde, Amman, Stahl and Smithson Valley roads.

Metropolitan Planning Organizations

Today, much transportation planning is done by Metropolitan Planning Organizations (MPOs). There are over 300 MPOs across the U.S.A., and most of them are part of a city, county or area council of governments. Metropolitan Planning Organizations were first required by the Federal Highway Act of 1962 to provide a "3C" transportation planning process by local, state and federal officials. An MPO is federally required for any urbanized area with a population of 50,000 or greater. Federal and State transportation dollars cannot be expended in these areas without an MPO in place. MPOs are made up of representatives from any affected government entities that are charged with overseeing the expenditure of federal, state and local dollars on improvements to the various modes of transportation in the area.

In 1963, the City of San Antonio, Bexar County and the Texas Department of Transportation agreed to establish the San Antonio-Bexar County Urban Transportation Study. In 1977, the Governor of Texas designated the Study’s Steering Committee as the official MPO for the San Antonio urbanized area. The San Antonio-Bexar County MPO, unlike many other MPOs, is an independent agency and includes only Bexar County. The MPO is charged with overseeing the expenditure of transportation-related dollars, and they accomplish this through the development of a long-range transportation plan (MTP). By law, this plan is required to have a forecast year of at least 20 years and lists all short, medium and

long-range transportation improvements that will utilize federal, state and local transportation dollars. The MTP is required to be financially constrained and must be updated every five years.

Its long range plan calls for widening U.S. Highway 281 to three lanes in each direction with frontage roads up to 2.5 miles north of Loop 1604 with estimated costs of over \$25 million dollars. This project is not included in their FY 2004-2006 Transportation Improvement Plan (TIP), a 3-year list of proposed transportation improvements within Bexar County that are funded by federal and state transportation dollars. Since many residents of Bulverde commute into San Antonio using U.S. Highway 281 and other roads, it behooves the City to keep in touch and work with the San Antonio-Bexar County MPO to make sure residents of Bulverde interests are considered.

The Capital Area Metropolitan Planning Organization (CAMPO) is the regional transportation planning group responsible for working with transportation providers in Williamson, Travis and Hays counties. CAMPO is responsible to ensure that the Austin-Round Rock-San Marcos metropolitan area's planning process is cooperative, continuing and comprehensive (the 3Cs). While this organization may not have as much direct affect on Bulverde as the San Antonio-Bexar County MPO, it would behoove the City to stay abreast of their plans and policies.

6.2 A Transportation Policy

There are those who say we currently have a transportation system only an automobile could love. The 1994 edition of the American Association of State Highway and Traffic Officials' (AASHTO) *Policy on Geometric Design of Highways and Streets* ("the Green Book") is the most current design guide for transportation planning in the U.S.A. Use of the Green Book provides consistency in safety and operational efficiency of highways and roads throughout the nation. This consistency also provides comfort and convenience to motorists who do not have to deal with varying roadway characteristics as they travel from area to area or state to state. The AASHTO Green Book guidelines have been used as the final word in most highway design for the past 50 years. However, it was not intended to limit the ability of engineers to design for site-specific needs or opportunities. Indeed, AASHTO stresses the need for thoughtful design to mitigate traffic and resultant environmental impacts:

BE IT FURTHER RESOLVED that the Member Departments of AASHTO will work through AASHTO's design standards committees with DOT and with interested parties on design criteria and a design process for NHS routes that integrate safety, environmental, scenic, historic, community and preservation concerns, and on standards which also foster access for bicycles and pedestrian traffic along with other transportation modes.

Congress has, through the Intermodal Transportation Efficiency Act (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21), aided this effort by providing flexibility to states to develop their own criteria for some projects.

As traffic increases, congestion brings angry complaints from motorists who want safe, fast, well-maintained highways. However, there is also growing demand by neighborhood groups and ordinary citizens for involvement in the transportation decision-making process. These groups often give priority to the protection of historic and natural resources, beautiful landscapes, and residential neighborhoods over high traffic capacity roadway designs.

Often, the terrain through which a highway passes constrains its design. Vehicle speed is directly related to the degree of the highway's horizontal and vertical curves. High speeds increase the time it takes for a vehicle to stop on the highway. The "stopping sight distance" is decreased by steep vertical curves or tight horizontal curves, both of which are prevalent in western Comal County. Thus, higher speeds may require significant alteration of the natural terrain to provide the flat horizontal and vertical curves necessary for a motorist's safety at high speeds. This alteration may not only remove individual items or areas of environmental importance, it also tends to smooth out the natural terrain, creating a less interesting and less aesthetic environment through which to drive.

The width of the highway right-of-way includes not only the width of the pavement itself, but it must allow for adjoining drainage facilities, roadside utilities, and a "clear zone." This zone is to remain clear of obstacles that will damage a vehicle on impact — including trees, fences, rock walls, and other elements of a scenic view. Highway designers use information in the Green Book and the *AASHTO Roadside Design Guide* to determine the appropriate width of the clear zone for highways. Most design engineers have traditionally viewed solutions that solve capacity problems as their top priority, and thus, the high-end solutions have usually won out. Despite the context-sensitive language in ISTEA, TEA-21 and the National Highway System Designation Act, the flexibility allowed by the Green Book and the option of design exceptions have been used only on a limited basis.

Context Sensitive Design (CSD), mentioned in the previous chapter, does consider the total context within which a transportation improvement project will exist. But to be successful, all stakeholders must become involved to help develop roads that fit their physical setting and preserve scenic, aesthetic, historic, and environmental resources. At a workshop sponsored by the Federal Highway Administration the following principles were presented as critical to successful context sensitive design techniques:

- The project satisfies the purpose and needs as agreed to by a full range of stakeholders. This agreement is forged in the earliest phase of the project and amended as warranted as the project develops.
- The project is a safe facility for both the user and the community.
- The project is in harmony with the community, and it preserves environmental, scenic, aesthetic, historic, and natural resource values of the area, i.e., exhibits context sensitive design.
- The project exceeds the expectations of both designers and stakeholders and achieves a level of excellence in people's minds.

- The project involves efficient and effective use of the resources (time, budget, community) of all involved parties.
- The project is designed and built with minimal disruption to the community.
- The project is seen as having added lasting value to the community.

6.3 Thoroughfare Master Plan

The Thoroughfare Master Plan (Figure 6.1) proposed in this comprehensive plan is a result of work by the Infrastructure/Transportation subcommittee and other citizen input. In its simplest form, the Plan is a vision/map of a desirable and complete build-out of the city and county's current roadway system. It shows proposed extensions of existing roadways, the general location of proposed roadways, and classifies them by function to determine the right-of-way (ROW) and ultimate design standards for the facility. The plan is primarily implemented through the city's subdivision and development process and cooperation with the Texas Department of Transportation and Comal County. As property is developed, landowners are required to dedicate and preserve ROW along existing and proposed roadways. As can be seen from Figure 6.1, a Highway 46 bypass to the north is envisioned to alleviate the congestion at the Comal ISD schools and HEB shopping center. The city, school district, county and highway department will need to work together to solve traffic problems on State Highway 46.

6.4 Existing Roadway Network

The existing roadway network serves as the backbone of the transportation system for Bulverde. The purpose of this section is to provide a brief description of the existing roadway network and how the City of Bulverde inventories this system. As seen from the Thoroughfare Master Plan (Figure 6.1) there currently exists a good roadway network made up of an expressway, primary arterials, secondary arterials, collectors and local streets.

Expressways/Freeways/Parkways

An expressway or freeway provides for rapid and efficient movement of large volumes of through traffic between regions and across an urban area. Typically these facilities have multiple lanes and are divided for safety. It is not the purpose of an expressway/freeway to provide direct access to abutting property. U.S. Highway 281, while not meeting all the above criteria, is the closest thing to an expressway/freeway in Bulverde. It connects Bulverde with San Antonio to the south as a 4-lane divided facility and carried approximately 20,000 vehicles per day in 1999. As mentioned above, a portion of U.S. Highway 281 north of loop 1604 is designated for widening to three lanes in each direction and installation of service roads. In addition, there are plans for an additional grade separation somewhere in the vicinity of Casey Road.

A parkway is a broad, landscaped thoroughfare with a park-like setting. Parkway are typically characterized by landscape features such as broad medians incorporating tree and shrub masses, spacious tree lawns and linear tree plantings flanking wide streets. The term parkway and boulevard are often used interchangeably. An expressway or freeway can be a parkway if it does not have access roads and has the scenic characteristics of most of U.S. Highway 281 through Bulverde in its present condition. Basically, parkways are greener than other roadways and do not have frontage roads with all the commercial and signage clutter such as that found along Interstate Highway 35 and the portions of US. Highway 281 with access roads south of Bulverde.

The Steering Committee envisions the portion of U.S. Highway 281 within the city limits of Bulverde to be a parkway. Some members wondered if we cannot prevent commercial development along 281, and should actually promote it to take advantage of potential property and sales tax revenue. However the majority of the Infrastructure/Transportation Subcommittee prefers shopping nodes at intersections rather than strip retail/commercial development along frontage roads. Thus, the City should discourage the installation of frontage roads in the future along this portion of the highway.

Major Arterials

Major or primary arterials move large volumes of traffic between major traffic generators and land use concentrations across the community, and they also serve as connections to other urbanized areas. A secondary function of a primary arterial is to provide direct access to abutting property such as commercial and retail establishments.



State Highway 46 west of U.S. Highway 281

According to the Bulverde Subdivision Ordinance, major “thoroughfares” in Bulverde must have 120 feet of Right-of-Way (ROW) and 48 to 72 feet of pavement, and be designed for 60 mph traffic. Such a speed is quite unimaginable for the section of Highway 46 near the Comal ISD schools and HEB shopping center. This reinforces the need for a Highway 46 bypass which may become more critical if Highway 46 becomes a shortcut or alternate route for vehicles on Interstate 10 that want to avoid San Antonio. If such a bypass were installed, the present Highway 46 could be converted into a parkway type thoroughfare with landscaped medians and turning lanes. In actuality, the major arterials in Bulverde have ROW widths as designated by the Texas Department of Transportation and Comal County. Currently the ROW planned for Highway 46 is 160 feet and provides for an ultimate roadway section of a 6-lane divided facility with a 96’ pavement width. The primary arterials within

Bulverde along with 2003 traffic volumes are as follows (shown in **red** on Figure 6.1):

- State Highway 46
- Farm/Market 1863 east of U.S. Highway 281

Minor Arterials

Minor or secondary Arterials typically serve as connections between local/collector streets and major arterials and move relatively large volumes of traffic over shorter distances within the community. Direct access to abutting property is a secondary function. According to the Subdivision Ordinance, these facilities typically must have 86 feet of ROW for an ultimate roadway section with 48 feet of pavement. The following are the secondary arterials within Bulverde (shown in **orange** on Figure 6.1):



- Smithson Valley Road
- Stahl Lane
- Bulverde Road
- Amman Road (*shown at right*)
- Blanco Road
- Spring Branch Road
- Casey Road

Collector Streets

Collector Streets provide for the transition from higher speeds and traffic volumes to lower speeds and traffic volumes accessing abutting land uses. Collector streets typically connect residential areas, parks, churches, etc., with arterial streets and move traffic over shorter distances than a secondary arterial. According to the Subdivision Ordinance and as outlined in Table 5.5 in Chapter 5, there can be two types of collectors in the city: *rural* with 72 feet of ROW and 40 feet of pavement, and *urban* with 72 feet of ROW and 44 feet of pavement. Consideration should be given to lowering these pavement minimums (See Section 1 in Chapter 5). The following are collector streets within Bulverde (shown in **green** and **yellow** on Figure 6.1):

- Old Boerne Road
- River Way (*shown at right*)
- Bridlegate Drive
- John Charles Road
- Circle G Ranch



Local Streets

Local streets are all the remaining roads within Bulverde and function to provide access to abutting property and to distribute traffic to collectors and arterial streets. Currently local streets can be either *rural* locals with a minimum ROW of 60 feet and pavement of 22 feet, or an *urban* local with a minimum ROW width of 50 feet and minimum pavement width of 30 feet. Again, see Chapter 5 for a discussion of alternate widths for local streets.

6.5 Air Transportation

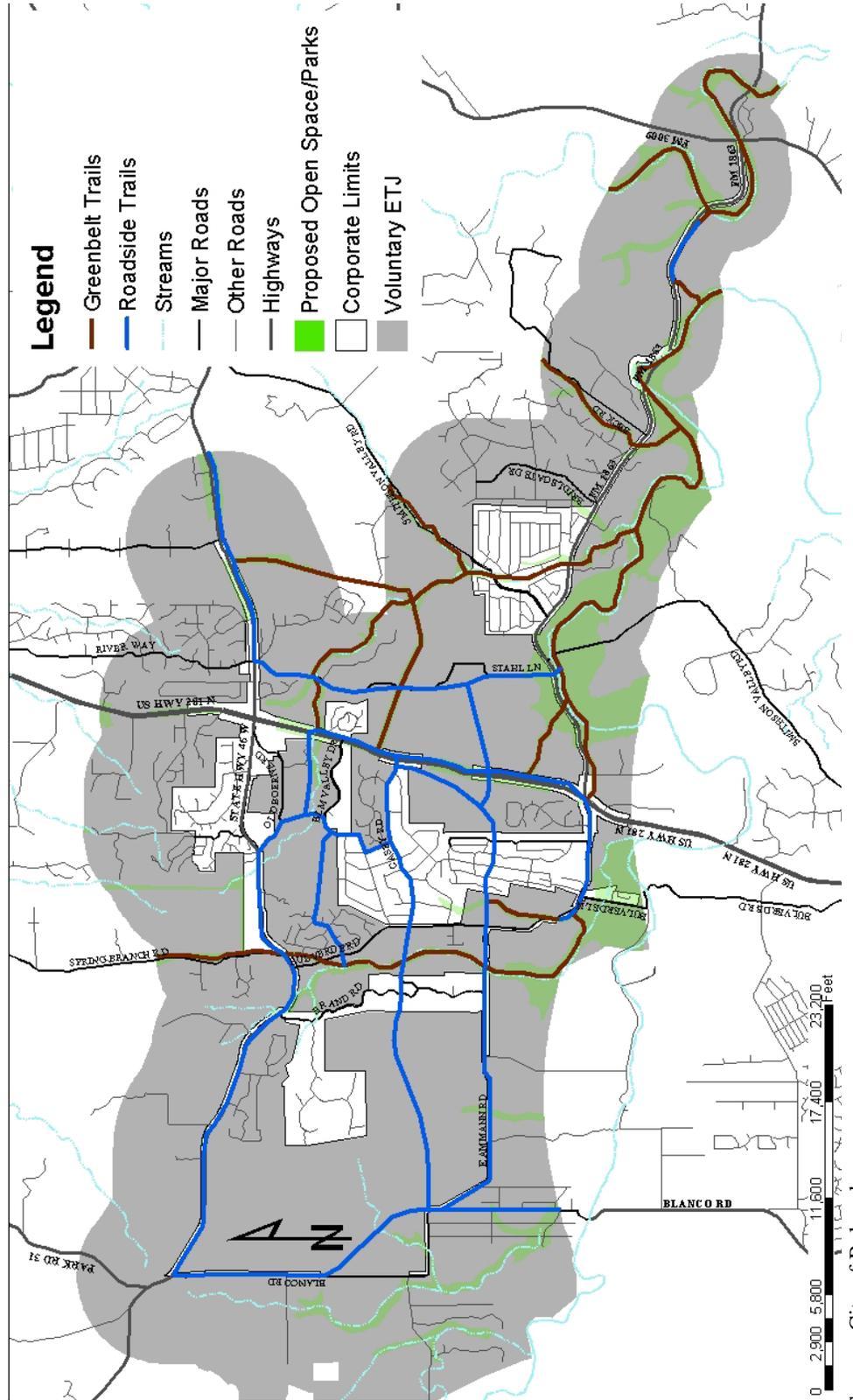
The San Antonio International Airport provides convenient air transportation for the citizens of Bulverde. The airport is located only twenty miles from Bulverde on San Antonio's north side with direct access from US Highway 281. There are fourteen air carriers serving the San Antonio Airport: Aerolitoral, American Airlines, America West, Continental, Continental Express, Delta and Delta Connection carriers (ASA, Comair and Skywest), Mexicana, Midwest, Northwest, Southwest, and United. Airlines provide non-stop flights to 28 destinations including Atlanta, Baltimore, Chicago O'Hare, Cincinnati, Dallas-Fort Worth, Dallas-Love Field, Denver, El Paso, Guadalajara, Harlingen, Houston Intercontinental, Houston Hobby, Kansas City, Las Vegas, Nevada, Los Angeles, Memphis, Mexico City, Minneapolis/St. Paul, Monterrey, Nashville, Newark, Orlando, Phoenix, Salt Lake City, St. Louis and Tampa. Air cargo service is provided by Aeroground Services Inc., Airborne, Baron Aviation, Eagle USA, Air Freight, Federal Express, Integrated Airline Services Inc., Lone Star Overnight, Prime Time LTD, and United Parcel Service. At the end of 2002 San Antonio International Airport had an average of 248 daily domestic and international departures and arrivals, a total of 3,249,469 passenger enplanements per year, and a total of 234,417 aircraft landings and take-offs during that time.

6.6 *Alternative Transportation*

Walking and biking can be practical alternatives to driving, especially for short trips, and can contribute greatly to a community's quality of life and personal well-being. Pedestrian and bike improvements to intersections, roadways and sidewalks and separate hike and bike trails can improve access and safety for people who choose to use these modes of transportation. Support of alternative modes of transportation can help relieve congestion, provide recreational opportunities, and reduce vehicle emissions thus helping to improve the region's air quality.

Currently, there are no bikeways in the City, yet many cyclists enjoy the country lanes in and around Bulverde. Establishing bikeways would introduce a new transportation mode within the city limits and provide safe routes for existing and future riders. Bikeways can be utilized for recreation purposes and on paved roadways to connect residential areas with work and retail areas. A network of hike and bike trails can also be established along creeks, utility easements or public land. The Comprehensive Plan prioritizes trails or "bike paths" separated from roadways.

Figure 6.2 City of Bulverde hike and Bike Plan



Source: City of Bulverde.

These are dedicated bikeways whereas “bike lanes’ are usually a part of a road, either in place of or in addition to the shoulder. The latter are designated by signs, striping and bicycle-shaped pavement symbols.

Since July 1998, Comal County Trails (CCT), a citizens group from New Braunfels, has been working with the Rivers, Trails, and Conservation Assistance Program of the National Park Service on a plan for hiking and bicycle trails in Comal County. A series of public meetings and workshops resulted in the identification of corridors that trail supporters would like to see developed for use by pedestrians and bicyclists. Most of the proposed trails would serve recreation and transportation purposes. However, several on-street routes would be intended mainly for bicycle transportation. With a grant from the National Park Service, CCT produced a brochure that includes a map of the group’s vision for the trail system. In addition to the CCT, the San Antonio Wheelmen promote bicycling and bicycle education in the region.

Sidewalk linkages are necessary for pedestrians to access schools and other destinations. The Subdivision Ordinance calls for sidewalks along urban locals, urban collectors and minor and major thoroughfares. Sidewalks can link neighborhoods with other neighborhoods, parks, shopping and employment centers. Complete sidewalks are missing around many of the schools as well as pedestrian signals and crosswalks. A network of sidewalks is necessary to encourage citizens to walk to their destination.

6.7 Air Quality

Air pollution is a problem facing most rapidly growing areas which can be alleviated by alternative transportation systems. Ozone is a colorless, odorless gas that occurs both in the upper atmosphere and at ground level. The ozone that occurs in the upper atmosphere protects the earth from harmful ultraviolet radiation. Ground level ozone is formed when volatile organic compounds (VOCs) react chemically with nitrogen oxides (NOX) in the presence of sunlight, and is more prevalent during hot summer weather. VOC's come from things that evaporate like gasoline, paint fumes, lighter fluid and consumer products. NOX is emitted from motor vehicles, power plants and other sources of combustion like gas-powered lawn equipment. High accumulations of ground level ozone can be harmful to health in a number of ways, including irritation of the respiratory system, aggravation of asthma, and can cause headaches, nausea and eye irritation.

In Texas there are several areas classified as non-attainment areas for ozone under the Federal Clean Air Act. Thus far, the San Antonio MSA has escaped such a designation. However, the area is close to exceeding the federal air quality limit for ozone. In order to qualify as an ozone attainment area, a region may not exceed maximum air pollution levels on more than three days during any three-year monitoring period. Failure to comply with air quality standards could result in the

loss of federal transportation funds and restrictions on the growth of businesses in the region.

During the past several years, air quality planning in the San Antonio region has intensified since ozone concentrations have exceeded the values permitted in the 8-hour ozone National Ambient Air Quality Standards (NAAQS). According to data from the Texas Commission on Environmental Quality (TCEQ), the three-year average of the fourth-highest eight-hour averaged ozone values recorded at CAMS 23 (an air monitoring station in northwest San Antonio) for 1997, 1998 and 1999 was 88 parts per billion. The three-year average of the fourth-highest eight-hour averaged ozone values recorded at CAMS 23 for 1998, 1999, and 2000 was 85 parts per billion. The three-year average for 2000, 2001, and 2002 was 88 parts per billion. All of these three-year averages are violations of the eight-hour ozone NAAQS. Areas formally designated in violation of the NAAQS and contributing to a violation are called "non-attainment areas."

Local elected officials, concerned leaders in business and industry, and other citizens committed to air quality planning have been working together to create an air quality plan for the citizens of the San Antonio region. In December 2002, the Air Improvement Resources Committee of the Alamo Area Council of Governments submitted a *Clean Air Plan* for the San Antonio Metropolitan Statistical Area (MSA) (Bexar, Wilson, Comal and Guadalupe Counties). The EPA recommends that the MSA serve as the presumptive boundary for the 8-hour ozone National Ambient Air Quality Standards non-attainment areas. The Clean Air Plan was designed to enable a local approach to ozone attainment and to encourage early emission reductions that will help keep the region in attainment of the 1-hour ozone NAAQS and ensure attainment of the 8-hour ozone NAAQS, and so protect human health. Entities which are expected to endorse this Clean Air Plan are Bexar, Wilson, Comal and Guadalupe Counties, the cities of San Antonio, Floresville, Seguin and New Braunfels, the EPA and TCEQ, and the Alamo Area Council of Governments. The City of Bulverde should join with these entities in endorsing the Plan.

6.7 Summary

A well-maintained and balanced transportation system can provide for a healthy, stable and pleasant Bulverde. A good transportation system should support the vital functions of a city by safely circulating people and goods around the community with minimal delays. It should offer a choice of travel modes without degrading the air quality or the environment. By maintaining and by providing timely upgrades to the existing roadway network, Bulverde can continue to benefit from a safe and efficient means of transportation. Without that connectivity, without context sensitive road design, and without providing alternative modes of transportation such as hike/bike facilities and sidewalks, Bulverde can lose the vitality, accessibility and environment that contributes to its exceptional quality of life. A well-maintained and thought out transportation system is not only needed to attract business, it is also needed to provide a safe and pleasing experience for the citizens of Bulverde and for those that travel through our city.

6.7 Goals and Objectives

Goal 1: Promote a transportation network that is safe and efficient while at the same time discourages high speeds, four-lane roads and heavy traffic within the City.

Objective 1.1: Develop a Transportation Master Plan that coordinates as well as possible with Comal County's Transportation Master Plan.

Objective 1.2: Review street and thoroughfare design standards with the intent of enabling aesthetically pleasing as well as safe roads.

Objective 1.3: Work more closely with the region's Metropolitan Planning Organizations (MPOs) to ensure citizen input and coordination in future highway projects.

Objective 1.4: Work as closely as possible with TxDOT and the Comal County Road Department to ensure that their plans take into consideration the desires of the citizens of Bulverde.

Objective 1.5: Investigate whether Road Utility districts (RUDs) and Community Improvement Projects (CIPs) would be useful tools for improving Bulverde's transportation network.

Goal 2: Support transportation alternatives to the automobile such as hike/bike networks and pedestrian circulation.

Objective 2.1: Promote carpool areas.

Objective 2.2: Work more closely with the region's MPOs to provide a multi-modal approach to project planning.

Objective 2.3: Support the implementation of Bike/Pedestrian pathways that would connect the various subdivisions throughout Bulverde as well as promote the health and general well-being of the citizens of Bulverde.

Objective 2.4: Develop transportation strategies that will reduce dependence on the automobile and continue to ensure the city's clean air quality.

Objective 2.5: Increase awareness of and encourage the use of alternative transportation options.

Objective 2.6: Support AACOG's Clean Air Plan for the San Antonio MSA.

Objective 2.7: Review subdivision standards and revise as necessary to encourage pedestrian/bicycle pathways/sidewalks within a development as well as their connectivity to pathways in other subdivisions.