# CITY OF GATESVILLE

STATE DEPT

State Department of Correction

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# Comprehensive Plan

ATESVILL

May 2020

FORT

HOOD

Fort Gates

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Bald Knob

FORT

# **CITY OF GATESVILLE**

# Comprehensive Plan

Prepared by Benchmark Planning

ADOPTED: May 26, 2020

# ACKNOWLEDGMENTS

### CITY COUNCIL

Gary Chumley, Mayor Robert Kent (Ward 1) Randy Hitt (Ward 1) Meredith Rainer, Mayor Pro Tem (Ward 1) Bill Robinette (Ward 2) Greg Casey (Ward 2) Jack Doyle (Ward 2)

### PLANNING AND ZONING COMMISSION

Teresa Johnson Wyllis Ament Charles Ament Lute Sullins John Clawson Joe Patterson Bob Brown

### CITY STAFF

William Parry, City Manager Wendy Cole, City Secretary Charlie Olson, City Attorney Rene Ochoa, City Planner

### PREPARED BY Benchmark Planning

DATE ADOPTED May 26, 2020

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# **CHAPTER 1: INTRODUCTION**

## **1.1 COMPREHENSIVE PLAN OVERVIEW**

The City of Gatesville Comprehensive Plan was developed to establish a cohesive vision for the future growth and development of the community. It is intended to help guide the city's elected and appointed bodies, as well as city staff, property owners, businesses and developers as they prepare for the future. Furthermore, the purpose of the adoption of a comprehensive plan, as stated in the enabling statute (Texas LGC Chapter 213), is to promote sound development, and the health, safety, and welfare of the community. The adoption of a comprehensive plan helps a city to achieve these basic goals by enabling the enactment of zoning regulations (Texas LGC Chapter 211.004), providing strategic guidance on capital investments, and identifying potential transportation improvements. At its core, the plan serves as an expression of a set of basic community ideals that form the basis for ongoing growth and prosperity.

The last time that he City of Gatesville undertook a comprehensive planning process was in 1970 when the city received a HUD grant to develop and adopt a plan in preparation for initially enacting zoning regulations in the city. With a horizon year of 1990, the plan became disused over time as it stopped reflecting the conditions and challenges found in the community as it grew and changed over time (for example: the establishment of the six-unit TDCJ facility in Gatesville beginning in the early 1980s).

Recognizing the need to update the plan to reflect the changes that had taken place in the city over the 45+ years since its adoption, the city embarked on this planning process in mid-2017. Partial funding for the plan was provided by the Office of Economic Adjustment (an agency of the Department of Defense), whose interest in Gatesville's future growth and development is tied to neighboring Fort Hood. As an implementation effort spurred by the Fort Hood Joint Land Use Study (which Gatesville participated in), the plan has some additional focus on Fort Hood, its role in the community, and compatible growth guidance related to military training impacts associated with the installation.

Although growth in Gatesville has slowed somewhat in recent years, the city's proximity to Fort Hood, major transportation corridors, and the booming growth of the Texas Triangle (see Figure 1.1), make it a likely candidate to see new development pressure emerge as businesses, workers and developers seek more affordable options to the I-35 corridor and cities such as Waco and Temple (see Map 1,1). With this impending growth pressure, there is a critical need for the city and its leaders to ensure that they are prepared with a vision

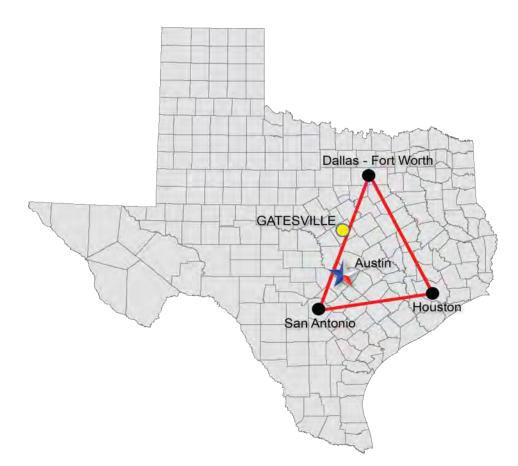
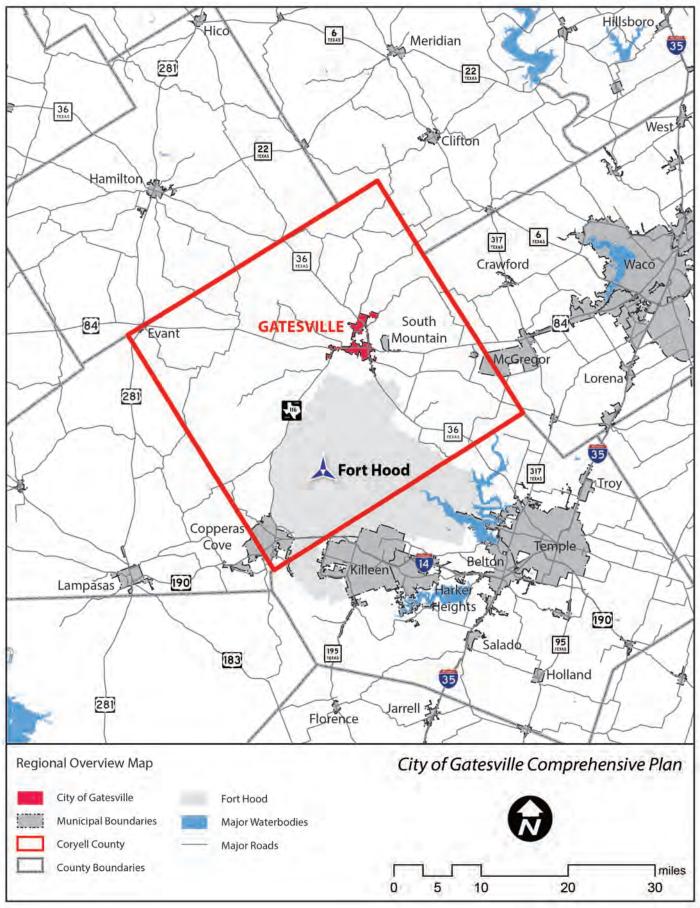


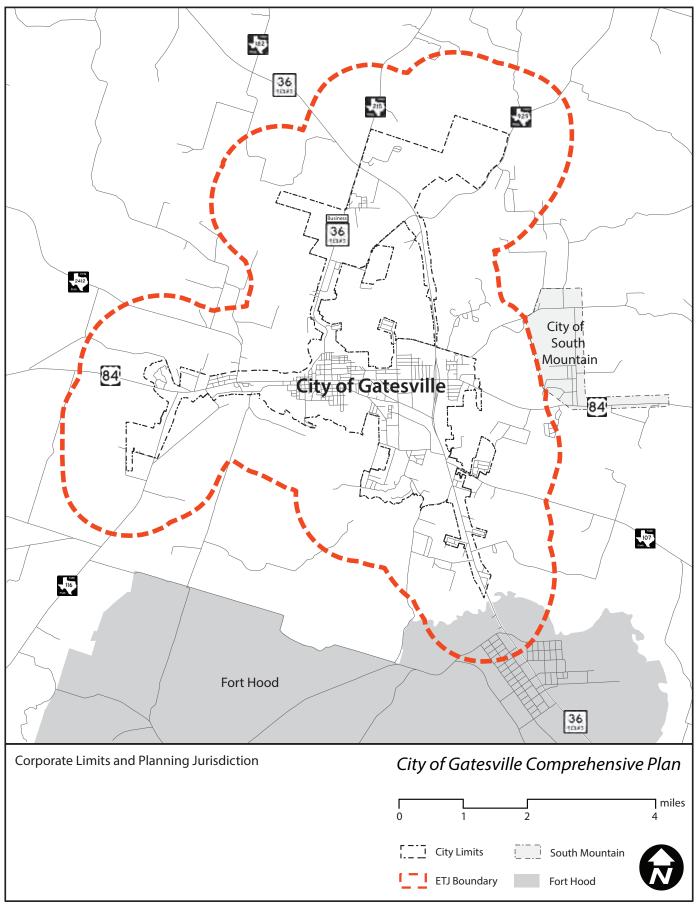
Figure 1.1: The Texas Triangle

and policies to aid decision-making that will help to preserve the desired aspects of the city's character, respond to changing conditions in a coordinated manner, and make wise investments with the limited resources available to the city.

The planning area includes the corporate limits of the city of Gatesville, as well as its extraterritorial jurisdiction and adjacent areas into which the city may reasonably be expected to expand over the coming years (see Map 1.2). Within the planning area, the city will need to address a range of issues, spanning land use, utility service, parks and recreation, public safety, transportation, and a host of other issues to prepare for growth and ensure that it is continuing to provide efficient and effective services to its residents and neighbors. The Comprehensive Plan is organized to identify current conditions and concerns while laying out a strategic vision that will help the city to prepare for the future.



Map 1.1: Regional Context





# **1.2 COMMUNITY INPUT**

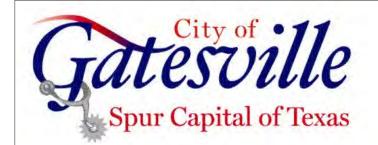
In order to ensue that community concerns were taken into account and addressed as part of the planning process, the city hosted several community forums and gathered additional input through the use of a community survey. The input received through the process was used to help shape the city's vision and develop a set of guiding principles that will be used to help implement the plan following its adoption.

In total, almost 350 surveys were completed during the early phases of the planning process. In order to reach as broad of an audience as possible, the city made the survey available on its website, notified the Gatesville Messenger, distributed fliers in the city library, and reached out to large employers and community organizations. Once completed, the survey results were summarized to identify key trends and issues. The results were then presented back to the community, as well as to the City Council and Planning and Zoning Commission, to ensure that the results were consistent with their thoughts and to identify any anomalies that might warrant further investigation. The survey results and response summaries are included on the following pages.

Throughout the process, the City Manager and the planning consultant made several other presentations to the Council and the Planning and Zoning Commission during open meetings to keep them apprised of progress and get feedback on key points of the plan. As the draft plan was completed, the community was once again invited to provide input on the plan and again at the formal public hearing prior to the plan's adoption.



Figure 1.2: April 26, 2018 Comprehensive Plan Forum Credit: Gatesville Messenger - May 2, 2018 Edition



Gatesville Comprehensive Plan Survey

Introduction

The City of Gatesville is updating its 1970 Comprehensive Plan, and residents' perceptions of what Gatesville has, what residents want, and how to achieve those over the next 20 years will assist the City in ensuring orderly development without sacrificing our quality of place. Your input is important. Please take a few minutes to complete this brief survey before November 17, 2017. No personal information will be collected. Stay tuned for the next steps where you can be involved.

1. Which of the following most closely describes your perception of the City of Gatesville:

- Bedroom community for workers with jobs in larger cities in the region
- services to the region
- Public service oriented community focused on government jobs and services
- Industrial community that is a hub of
- manufacturing employment
- Other (please specify)

- Commercial hub providing retail goods and
- Military oriented community focused on Fort Hood

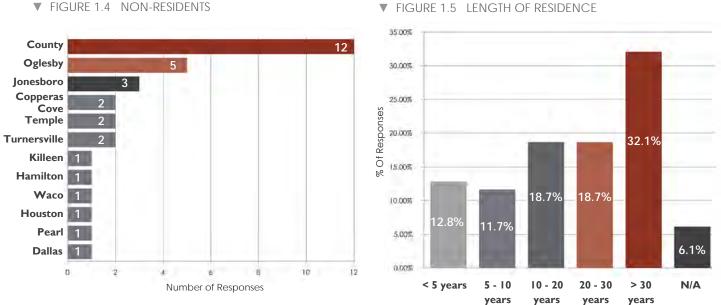
Figure 1.3: Comprehensive Plan Web Survey

## COMMUNITY SURVEY RESPONDENT DEMOGRAPHICS

#### ▼ TABLE 1.1 SURVEY PARTICIPANTS

	PERCENT OF RESPONSES*	NUMBER OF RESPONSES*
Live in Gatesville	86.1%	298
Work in Gatesville	63.9%	221
Own property in Gatesville	58.1%	201
Own a business in Gatesville	15.3%	53
Other	4.1%	14

\*More than one response allowed.

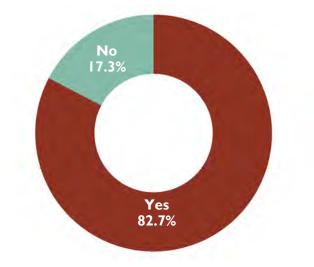


#### ▼ FIGURE 1.4 NON-RESIDENTS

The vast majority of those who responded to the survey either live in Gatesville (86%) and/ or work in Gatesville (64%). A significant number of the respondents reported that they have resided in the city for more than 30 years (32%) and another 37% reported living in the area for between 10 and 30 years. Fifty-eight percent (58%) of respondents own property in Gatesville as well. Thirty-eight respondents (11%) stated that they live outside of Gatesville in Coryell County, Jonesboro, Oglesby, Turnersville, Dallas, Pearl, Houston, Waco, Temple, Killeen, Hamilton, and Copperas Cove.

▼ FIGURE 1.6 RESPONDENT EMPLOYED IN GATESVILLE

#### ▼ TABLE 1.2 RESPONDENT EMPLOYMENT STATUS



	PERCENT OF RESPONSES
Employed- Private Business	33.0%
Employed- Government/Public Service	46.2%
Employed- Military (including DoD)	2.0%
Unemployed	1.2%
Student	3.2%
Retired	10.4%
Other	4.0%

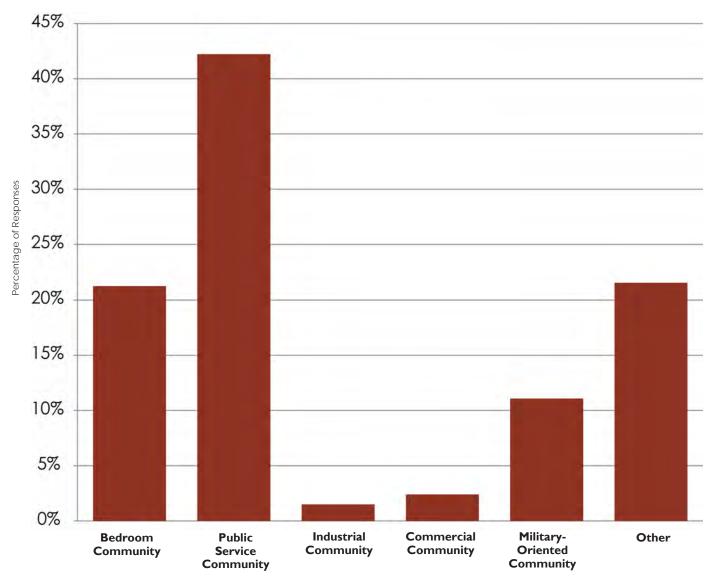
#### ▼ FIGURE 1.4 RESPONDENT AGE DISTRIBUTION



The largest share of respondents reported being between the ages of 35 and 50, with the overwhelming majority of respondents stating their age as between 25 and 65. Of the respondents who reported that they were currently employed, over 80% reported that their place of employment is within the City of Gatesville. Most of the respondents are employed in the government/public service sector (46%), with private business closely following (33%). Only one percent of respondents stated that they were retired, while just over 10% of the respondents reported that they were retired,

### COMMUNITY SURVEY RESPONSE SUMMARY

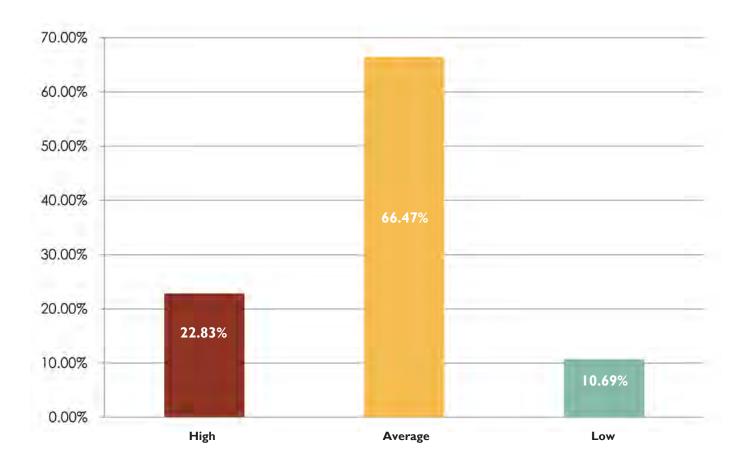
# Question 1: Which of the following most closely describes your perception of the City of Gatesville?



▼ FIGURE 1.7 COMMUNITY PERCEPTION

When asked about their perception of Gatesville, the majority of respondents stated that Gatesville is a public service-oriented community focused on government jobs and services (42%). The other significant responses include a "bedroom community" for workers with jobs in larger cities in the region, and a "military community" due to the proximity and longstanding ties to Fort Hood. Around 20% of respondents indicated "other" as their response and provided their own take on the nature of the city. These responses included descriptions of the city focused on its association with TDCJ facilities, as a retirement community, and as a small "hometown" type of community.

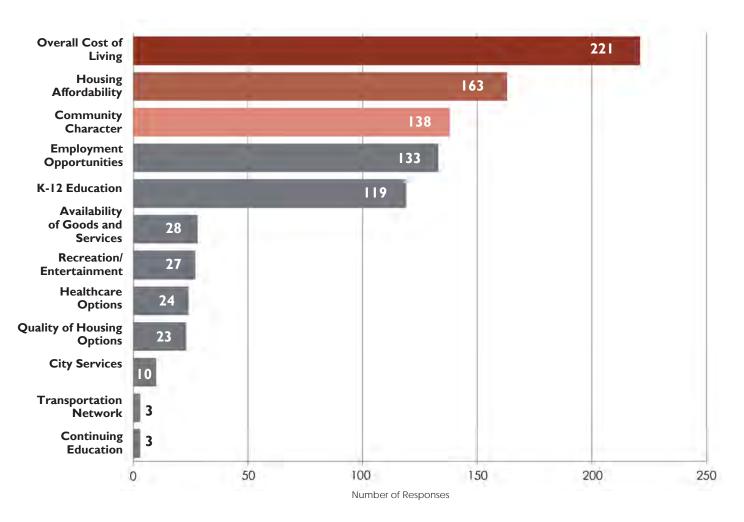
Question 2: How would you rank the quality of life that you experience living in Gatesville?



▼ FIGURE 1.8 QUALITY OF LIFE

When asked about the quality of life that they experience as residents of Gatesville, the majority of respondents indicated that they felt that their quality of life was "average" with approximately two-thirds of people giving this answer. Another 20% of the respondents felt that the quality of life in Gatesville was "high" and only 10% felt that their quality of life was "low."

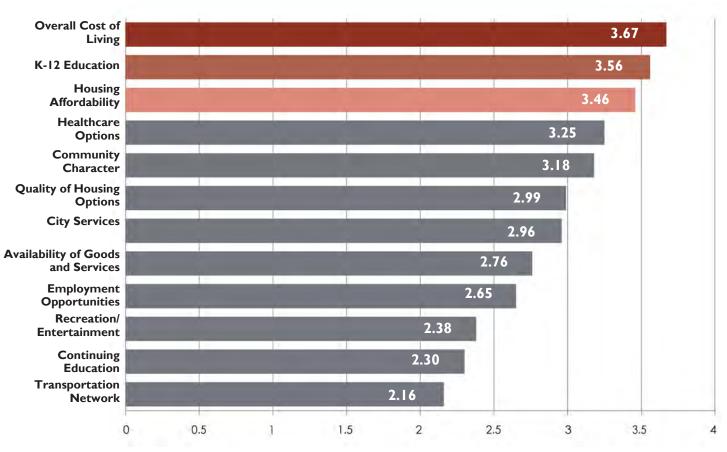
# Question 3: Of the following quality of life factors, which three were the most important to your decision to live in Gatesville?



#### ▼ FIGURE 1.9 DECISION TO LIVE IN GATESVILLE

When asked to indicate the top 3 quality of life factors that influenced their decision to live in Gatesville, the top five scoring responses were overall cost of living (63%), housing affordability (47%), community character/appearance (40%), employment opportunities (38%), and K-12 education opportunities (34%). The other listed choices each represented less than 10% of the responses. Notable among the low scoring factors were recreation / entertainment options, city services and the quality of housing.

Question 4: What is your perception of the following quality of life factors in Gatesville? (Rating on a scale from Poor(1) to Excellent (5))

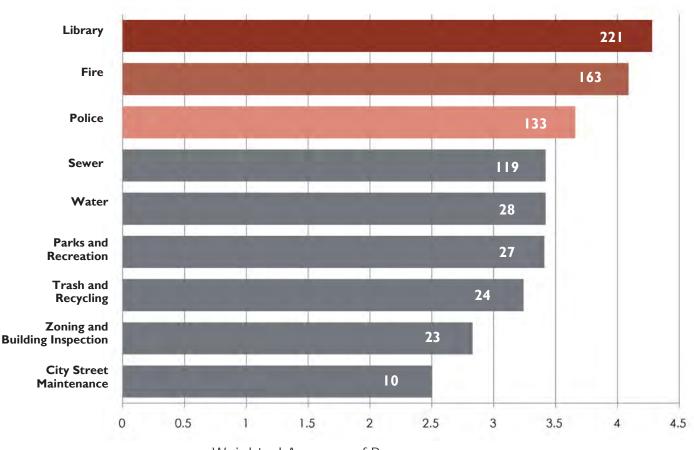


#### ▼ FIGURE 1.10 QUALITY OF LIFE FACTORS

Weighted Average of Responses

This question asked respondents to indicate their perception of a list of quality of life factors. They were asked to rate them with responses of poor, below average, adequate, good, or excellent. There was also an option for respondents to give an answer of "no opinion." The chart above shows the weighted average score associated with the responses for each of the factors, with scores closer to 1 indicating "poor" perception and scores closer to 5 indicating "excellent" perception of the quality of life factor. The most positively perceived factors included the cost of living, K-12 education and housing affordability, while recreation / entertainment, continuing education and transportation were the least positively perceived, receiving average scores that indicated a "below average perception of those factors.

# Question 5: How would you rate the level and quality of the following City services? (Rating on a scale from Poor(1) to Excellent (5))



#### ▼ FIGURE 1.11 QUALITY OF CITY SERVICES

Weighted Average of Responses

Question 5 asked respondents to give their perception of the level and quality of services provided by the City of Gatesville. These were scored in the same manner as the previous question, with weighted responses closer to 1 indicating "poor" perception of the service and responses closer to 5 indicating "excellent" perception of the level or quality of each service. The responses to this question showed that the city's library and public safety services (fire and police) had the most positive perception of their quality, while street maintenance, zoning and building inspection services and trash and recycling services had the lowest perceived quality, as indicated by the responses to the question.

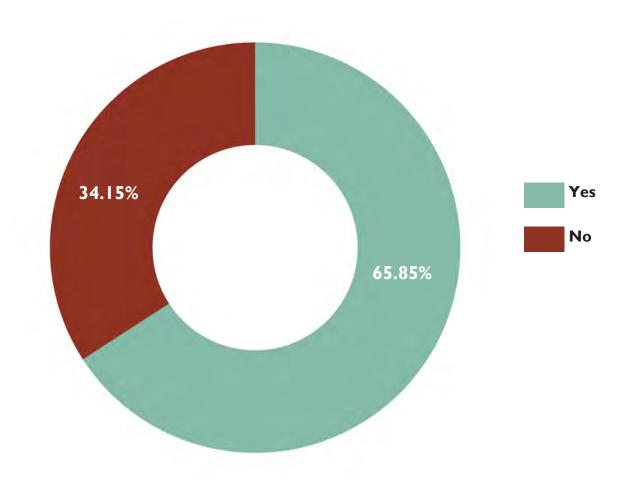
Question 6: What services (including expansion of existing services) should the city offer to residents and businesses that are not currently offered of available in Gatesville?

▼ FIGURE 1.12 DESIRED SERVICES



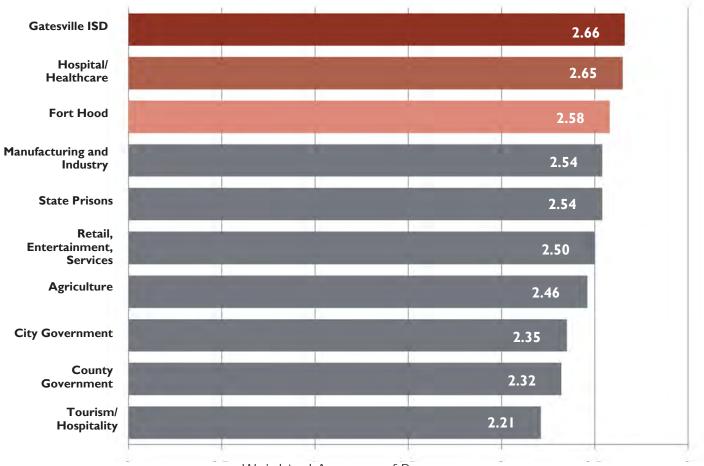
This question offered respondents the opportunity to provide their ideas and suggestions about the types of services the City should offer to residents and businesses that are not currently provided by the city. The cloud is a generalized summary of the 155 responses that were received, with those words shown in the largest font indicating words that were most frequently mentioned in responses. Among the top responses were recycling, which received 33 mentions, and the internet (specifically the need for higher speed service), which received 29 mentions.

Question 7: Would you support an increase in taxes of user fees to pay for adding new services or increasing the level of services that are currently provided?



▼ FIGURE 1.13 SUPPORT FOR INCREASE IN TAXES FOR SERVICES

A clear majority of the respondents (66%) said that they would support an increase in taxes or user fees to pay for adding new services or increasing the level of services currently provided by the City of Gatesville. Question 8: The city's economic health is dependent on a variety of business and employment sectors. How important do you feel each of the following are to the city's ongoing economic prosperity? (Rating on a scale from Poor(1) to Excellent (5))

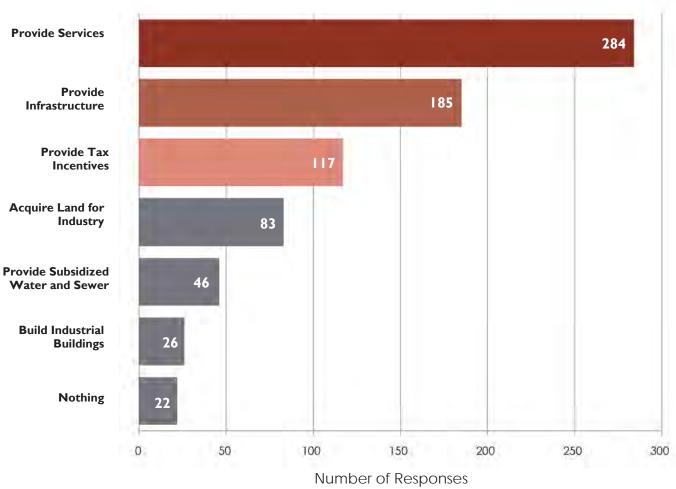


▼ FIGURE 1.14 IMPORTANCE OF BUSINESS AND EMPLOYMENT SECTORS

Weighted Average of Responses

This survey question asked respondents about their perception of the importance of a variety of economic / employment sectors to the City's ongoing economic prosperity. These responses were weighted on a scale of 1 to 5, with the higher scores indicating a higher perception of the importance of the particular sector. The generally tight grouping of scores in response to this question indicates that no particular sector is perceived as having a significantly greater impact on the local economy by the public. The generally perceived to be on the lower end of the scale of importance to the local economy.

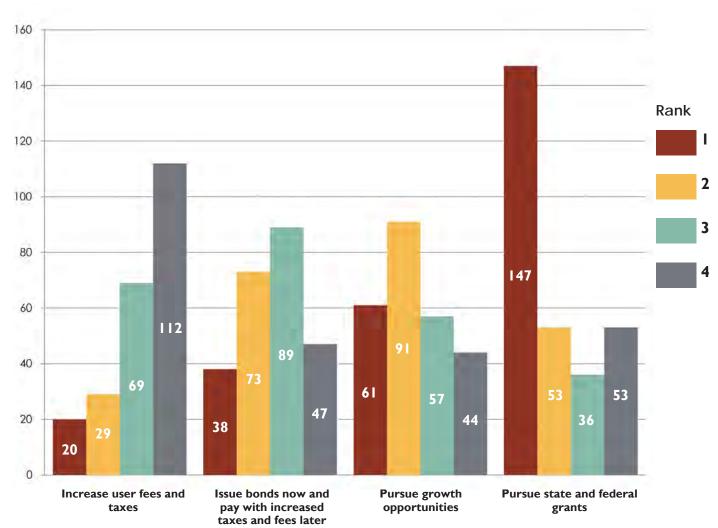
# Question 9: What should the City's role be in supporting economic development efforts to attract new employment opportunities to the city or help retain existing employers? (Select all that apply)



#### ▼ FIGURE 1.15 CITY'S ROLE IN ECONOMIC DEVELOPMENT

When asked to select from a range of options regarding the appropriate role for the City in supporting economic development efforts, respondents overwhelmingly selected the response of "provide services and make improvements to the city that promote a high quality of life for residents and make the city attractive to new businesses" (83%). This question allowed respondents to select multiple responses since the various policies and actions presented as choices are not exclusive of each other. The other response that received significant support (54%) encourages the City to undertake infrastructure improvements to spur economic development. This question also presented a choice of "do nothing" and this response received only 6% of the overall number of votes, which indicates underlying support in the community for the city to take positive actions in support of economic development efforts.

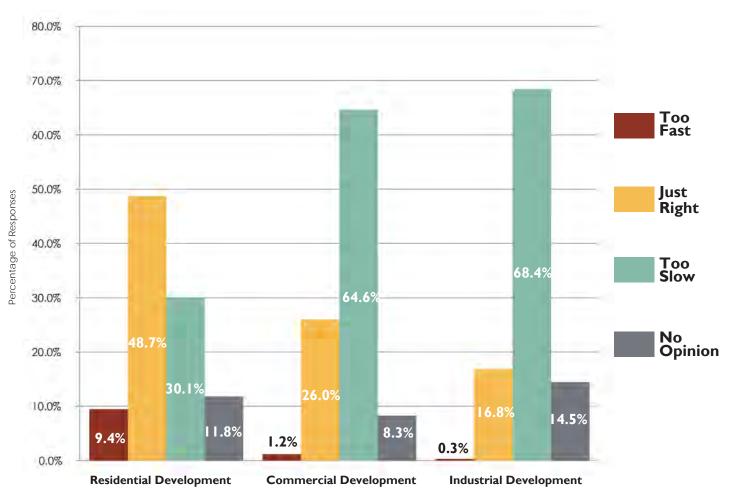
Question 10: From the following choices, please rank the methods that you feel are appropriate for the city to pursue to improve its infrastructure network, such as water and sewer systems, street network, and public facilities:



▼ FIGURE 1.16 METHODS TO IMPROVE CITY'S INFRASTRUCTURE

In regards to the improvement of the city's infrastructure, residents were asked to rank, from most desirable to least desirable, the options that the city could do to finance such improvements. The choice receiving the largest number of first choice rankings was for the city to pursue state and federal grants to fund infrastructure upgrades. The choice receiving the greatest number of fourth choice rankings was for the city to increase user fees and taxes to pay for improvements. It is important to note that 54 respondents skipped this question (15%).

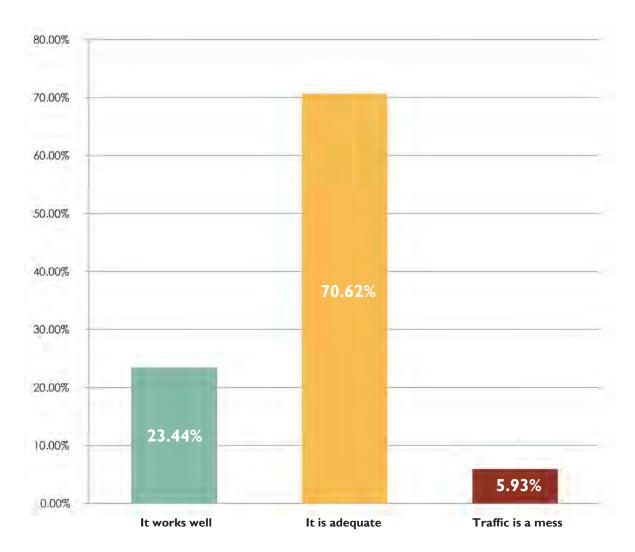
Question 11: How would you characterize your perception of the pace of development in Gatesville in recent years with regard to the following?



#### ▼ FIGURE 1.17 PERCEIVED RATE OF DEVELOPMENT

Respondents were asked to rate how they felt about the pace of development in Gatesville in recent years. They were asked about residential, commercial and industrial development in terms of being too fast, just right, too slow, or no opinion. In general, respondents indicates that residential development in Gatesville was proceeding at a pace that they felt was "just right." Both commercial and industrial development, however were perceived as lagging behind, with nearly 2/3 of respondents indicating that the pace of both was "too slow."

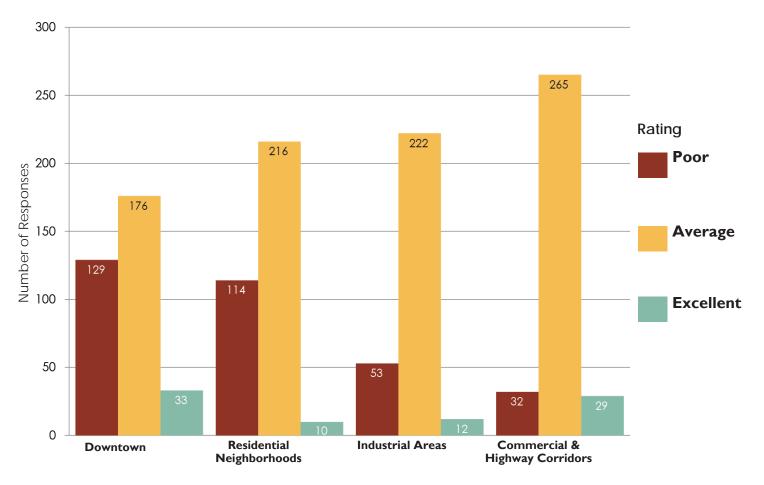
# Question 12: Which of the following best describes your perception of the city's vehicular transportation network?



▼ FIGURE 1.18 PERCEPTION OF TRANSPORTATION NETWORK

When asked about their perception of the City's vehicular transportation network, respondents felt that "it is adequate for current traffic levels, but may need improvement if the city grows" (71%). This was followed by 24 percent stating that "it works very well – no problems getting around the city." From the standpoint of functionality, it appears that the city has the backbone of a network that serves residents and businesses well. This is in direct contrast to the perception of the maintenance of the network, which respondents indicated a negative view of in previous questions in the survey.

### Question 13: What is your perception about the aesthetic (visual) appearance and quality of development in the following general areas of the city:



▼ FIGURE 1.19 PERCEIVED VISUAL APPEARANCE OF DEVELOPMENT IN EACH AREA

Residents were asked what their perception of the visual appearance and quality of development is for several generalized areas of the city. The most common response for each of the areas was "average." In contrast to the other two areas, downtown and residential neighborhoods both received significant numbers of responses of "poor" perception of the quality of those areas. Ratings of "excellent" were infrequently given for any of the areas, with "poor" ratings outnumbering "excellent" ratings for each area. Although somewhat tightly clustered below an average rating (with a 1 indicating "poor" and a 3 indicating excellent) the weighted average scores reveal that residential areas have the lowest perception of quality, while the commercial areas have the highest perception of quality:

•	Downtown	1.72
•	Residential Neighborhoods	1.69 (LOWEST)
•	Industrial Areas	1.86
•	Commercial Districts/Highway Corridors	1.99 (HIGHEST)

Question 14: Please share any additional thoughts that you have about the City of Gatesville, the services that it offers, quality of life issues, or anything else that you would like to share.

The final question asked respondents to share any additional thoughts they had about the City of Gatesville, such as city services, quality of life issues, or anything else they might want to share. There were 112 responses to this question, and some comments that are representative of the general themes from the responses received are listed below:

- Internet access is a problem.
- Zoning codes need to be enforced so that the City looks clean and welcoming (whole neighborhoods need code enforcement).
- Downtown improvements are needed.
- Street repairs are a necessity as well as enforcement for loud vehicles at all hours of the night.
- More restaurants, youth, and family-friendly activities would be a welcome improvement.
- Need additional mail drop boxes (blue boxes) throughout the City.
- Work hard to clean up the drug issues in the City.
- We need more and good job opportunities.
- We may need an idea director or coordinator to support a community-wide improvement effort.
- Property taxes make it difficult to live in the area.
- Development needs to enhance the positives of our small-town City, not remake ourselves in the image of some other city.
- We need good quality childcare services and programs for special needs children.
- Better post-secondary educational opportunities would be nice so residents do not have to drive an hour or get online.
- Invest in the history and historic places of the City.
- I do not get the same amount of services for the amount of taxes I pay (which has increased steeply).

## **1.3 VISION AND GUIDING PRINCIPLES**

Following the receipt of community input, a new vision for the future of Gatesville was developed that draws upon the ideals of its residents. This vision statement is intended to help focus the community and its leaders on the core mission of the city, and serve as a barometer with which to guide future actions. Supporting the vision are a set of guiding principles that are intended to direct the implementation of the plan through strategic actions and policy recommendations.

# VISION

"The City of Gatesville commits to providing a high quality of life for all its citizens while building on its unique character. Working collaboratively, we will foster pride, develop a vibrant economy, thoughtfully plan for the future, and preserve our small town feel."

# **GUIDING PRINCIPLES**

**INVESTMENT:** The City of Gatesville will invest its resources in a manner that ensures that its municipal infrastructure, programs, and human resources meet both current needs and prepare the city for growth.

**RENEWAL:** The City of Gatesville will embrace and facilitate the positive renewal of the community through compatible growth, redevelopment, and expansion of economic opportunity.

**BALANCE:** The City of Gatesville will become a community that is well-balanced in all respects, including demographically and economically, as well as in its approach to growth and the environment.

**GROWTH:** The City of Gatesville will grow in an orderly and efficient manner that strengthens the local economy while preserving Gatesville's unique physical character that reinforces shared pride and responsibility.



# **CHAPTER 2: COMMUNITY PROFILE**

# 2.1 INTRODUCTION

The City of Gatesville, Texas is located north of central Coryell County on the east side of the Leon River. The city is 40 miles from Waco Texas, and halfway between Austin and Fort Worth. Traversed by U.S. Route 84 and Texas State Highway 36, the city is easily accessible to neighboring cities. The U.S. Census Bureau identifies the city as 8.9 square miles in total acreage and .05% covered by water.

Shortly after Texas became a state, the United States Army built a chain of frontier forts between the Rio Grande and Red Rivers to protect area settlers. In 1849, when a major Comanche Indian trail was discovered in the Coryell Creek valley, Fort Gates was established five miles south of the current city. As the frontier moved west, Fort Gates was closed in 1852. In 1854, the City of Gatesville (literally the "Village of Gates" named after Fort Gates) was established by settlers who had developed farms and ranches on the outskirts of Fort Gates. The land was donated to the city by Richard G. Grant who operated a mill northwest of Fort Gates which provided food to the fort shortly after the County of Coryell was organized. Due to its isolation, the city grew slowly in the 1850s and during the Civil War.

After the Civil War, the state of Texas experienced a large influx of settlers and Gatesville was incorporated by 1870. By 1880, the town had become an important frontier supply station and became the County's major shipping and supply center after rail service was extended into the town. Following the railway, saw mills, cotton gins, schools, and businesses all contributed to the continued growth of the population to 1,375 by 1890, largely attributed to an emigration of farmers into Coryell County. In 1911 a second railway line was extended to Gatesville from the north, and by 1920 the population had reached 2,499. In the 1940s, Fort Hood, a military base and tank destroyer training center, was constructed nearby aiding in the population growth and economy of the city. Fort Hood continues to play a significant role in the Gatesville economy today. Later, In the 1960s and 70s the rail lines to Gatesville were abandoned and growth began to slow.

Between 1980 and 1997, Gatesville became the location of six adult correctional institutions under the control of the Texas Department of Corrections (later Criminal Justice) following a tradition dating to the early years of Gatesville's formation. In 1887, the Texas Legislature established the House of Correction and Reformatory (renamed the Gatesville School for Boys in 1939) on 900 acres three miles north of Gatesville – the first juvenile training and rehabilitation institution in the southern United States. In 1974 when the State approved

#### COMMUNITY PROFILE

alternatives to large juvenile penal institutions, it employed over 250 staff with approximately 1,500 enrollees; the State School was closed in 1979. Other local industries that arose during the 1980s included manufacturing and agricultural business. While these industries remain in the Gatesville area, other sectors have grown to be more prominent.

Gatesville Texas serves as the County seat of Coryell County and in 2001 was designated the "Spur Capital of Texas" due to the collection of Loyd and Madge Mitchell's 10,000 spurs in the Coryell County Museum. The main industries in Gatesville involve retail, manufacturing, and corrections.

The City of Gatesville has many assets such as historic sites, progressive business, and scenic beauty in the heart of central Texas. Gatesville also has a low cost of living and is located along major highways, making it accessible to multiple major cities and contributing to a tourism industry with festivals, parades, and an annual rodeo.

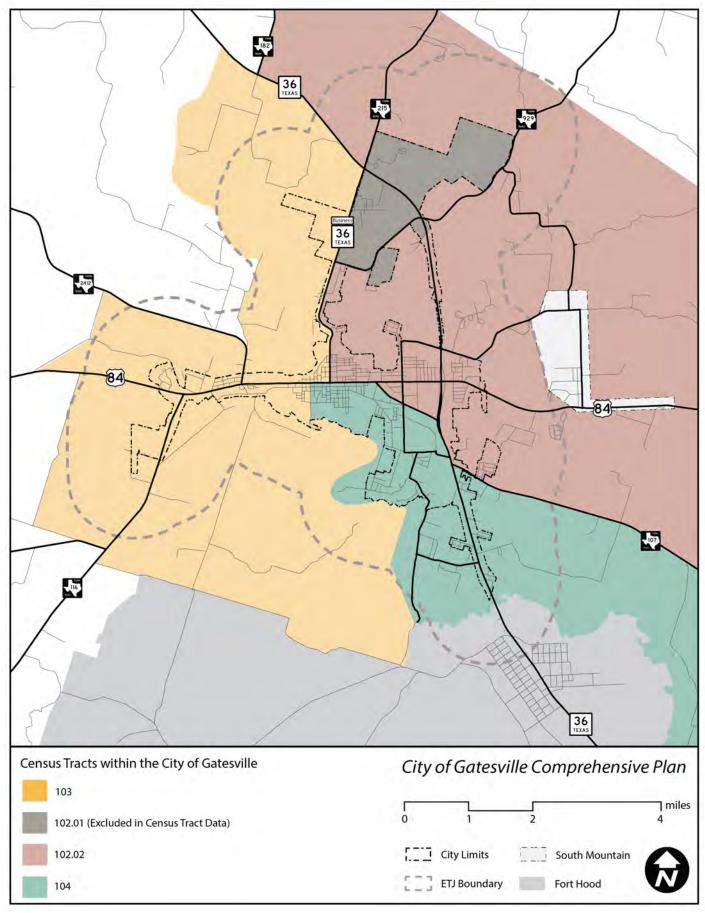
# 2.2 DEMOGRAPHIC PROFILE

Presenting an accurate description of the demographic composition of the City of Gatesville is somewhat challenging given the significant share of the population that is institutionalized (50% or more) in one of the several TDCJ correctional facilities in the city. Although the inmates of these facilities are included in the City's residential population and descriptive statistics published by the US Census Bureau, their inclusion in these products tends to present a skewed picture of who lives in Gatesville.

In order to present a more accurate picture of the city and its residents, three Census tracts (see Map 2.1) were identified that, while extending outside of the city, presented a more accurate view of the non-institutionalized population of the city and its environs due to the exclusion of most of the TDCJ inmate population. The excluded Census tract is identified as 102.01 and shown in brown on Map 2.1. Where this alternate geography is used to represent the city, it is referred to as "Census Tracts" in the referenced table or figure.

## **POPULATION CHANGE**

The most recent full count of the population residing within the City of Gatesville was taken during the 2010 Census. This showed that the population, including the population residing in a TDCJ institution, totaled 15,751 residents. The 2010 Census noted that around 8,200 of those residents were institutionalized, resulting in a non-institutionalized population



Map 2.1: Demographic Analysis Census Tracts

of around 7,500 residents. Interim estimates of the City's population (2017 American Community Survey) put the total figure at just over 12,400 residents, with just over 5,500 institutionalized residents - a significant decrease from the number of institutionalized residents in 2010. Since the American Community Survey uses sample data, there is some debate about the accuracy of this component of the population estimate, especially given an official February 2017 estimate from TDCJ that showed an inmate population of over 8,100 at its Gatesville facilities. Given this apparent flaw, it also calls into question the non-institutionalized component of the population estimate, which would give the city an estimated 6,900 +/- residents as of 2017 - a decrease of nearly 10% since 2010.

Due to the uncertainty of the most recent population estimate, certain projections about the non-institutionalized population will likely be unknown until the 2020 Census is completed and the full (rather than estimated) population counts for the TDCJ facilities are reincorporated into the count. While it is possible that there has been some population loss since the 2010 Census, the uncertainty about the accuracy of the official estimate makes it difficult to assess the true size of any loss that has occurred.

What can be more accurately stated is that since 1950, the non-institutionalized portion of the population of the city has essentially doubled; growing from 3,856 residents in 1950 to around 7,500 residents in 2010. The previously adopted Comprehensive Plan made an estimate of around 7,500 residents in 1990, which was the horizon year of the plan. While a loss of some non-institutionalized population may have occurred since the 2010 Census, it can be inferred that such loss occurred following a decade (2000-2010) of stagnation in the population (assuming that the inmate population stayed relatively stable over that decade).

### AGE AND GENDER DISTRIBUTION

The gender distribution of the population of the City of Gatesville and the Census Tract geography that excludes most of the TDCJ institutions both diverge rather significantly from the expected gender composition of the US population. The official estimate including all TDCJ facilities is around 58% female and 42% male, while the Census Tracts estimate is around 54% female and 46% male (see Figure 2.2). The overall US population is roughly 51% female and 49% male. There is no reason to think that the city's non-institutionalized population diverges from this since the figure for the "city" Census Tracts is still influenced by the presence of the TDCJ units, which all except Hughes exclusively house female inmates.

#### ▼ TABLE 2.1 POPULATION GROWTH 1950-2010 WITH 2017 ESTIMATE

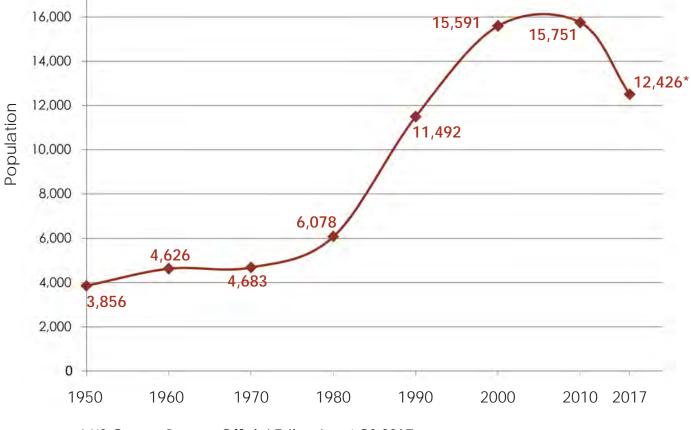
Source: U.S. Census Bureau, American Community Survey Benchmark Planning

Population
3,856
4,626
4,683
6,078
11,492
15,591
15,751
12,426*

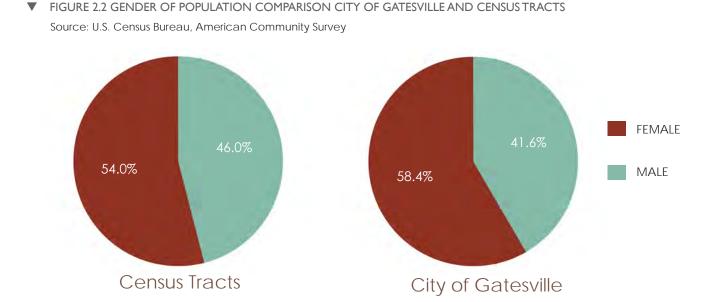
#### \* US Census Bureau Official Estimate - ACS 2017

▼ FIGURE 2.1 POPULATION GROWTH 1950-2010 WITH 2016 ESTIMATE

Source: U.S. Census Bureau, American Community Survey Benchmark Planning



\* US Census Bureau Official Estimate - ACS 2017



The age distribution of the city's population is similarly affected by the presence of the TDCJ institutions. As Table 2.2 shows, there is a significant bulge in the city's population aged between 25 and 54 years of age, when compared to the other age groups. The population pyramids shown in Figures 2.3 and 2.4 on the following page demonstrate the contrast between the age distribution of the city and the distribution when most TDCJ facilities are excluded by using the Census tract geography.

	20	00	20	10
Under 5	452	2.9%	573	3.6%
5 to 14	1,052	6.7%	1,167	7.4%
15 to 24	1,933	12.4%	1,806	11.5%
25 to 34	4,167	26.7%	3,491	22.1%
35 to 44	4,242	27.2%	3,507	22.3%
45 to 54	1,799	11.5%	2,808	17.8%
55 to 64	738	4.8%	1,219	7.7%
65 to 74	525	3.4%	632	4.1%
75 to 84	437	2.8%	373	2.4%
85 and over	246	1.6%	175	1.1%

TABLE 2.2 CITY OF GATESVILLE AGE DISTRIBUTION - 2000 AND 2010 Source: U.S. Census Bureau, American Community Survey for the City of Gatesville ▼ FIGURE 2.3 POPULATION PYRAMID OF RELATIVE SIZE OF AGE GROUPS IN GATESVILLE 2010 Source: U.S. Census Bureau, 2010 Census

85 +
80 to 84
75 to 79
70 to 74
65 to 69
60 to 64
55 to 59
50 to 54
45 to 49
40 to 44
35 to 39
30 to 34
25 to 29
20 to 24
15 to 19
10 to 14
5 to 9
Under 5

▼ FIGURE 2.4 POPULATION PYRAMID OF RELATIVE SIZE OF AGE GROUPS IN CENSUS TRACTS 2010 Source: U.S. Census Bureau, 2010 Census

85 +	
80 to 84	
75 to 79	
70 to 74	
65 to 69	
60 to 64	
55 to 59	
50 to 54	
45 to 49	
40 to 44	
35 to 39	
30 to 34	
25 to 29	
20 to 24	
15 to 19	
10 to 14	
5 to 9	
Under 5	

The population pyramids further reinforce the statistics presented in the age distribution table and demonstrate how much divergence there is between the age distribution of the population in the city as a whole (Figure 2.3) when compared to the Census tract geography (Figure 2.4).

In the United States, the age groups represented in the population pyramids each generally account for between 6 and 7 percent of the total population for the age groups under 65 years of age. For the age groups over the age of 65, the share of population steadily decreases from around 5% to less than 0.1% for persons over the age of 95 (which are grouped into the 85+ age group in our statistics). The city's population diverges from this significantly, particularly with regard to the large bulge seen in the middle of the pyramid. The distribution of the population in the Census tract geography corresponds more closely with the more even distribution seen at the national level.

Figure 2.5 compares the age distribution of city residents with the age distribution of the population of Coryell County and the State of Texas. Again, this demonstrates the significant

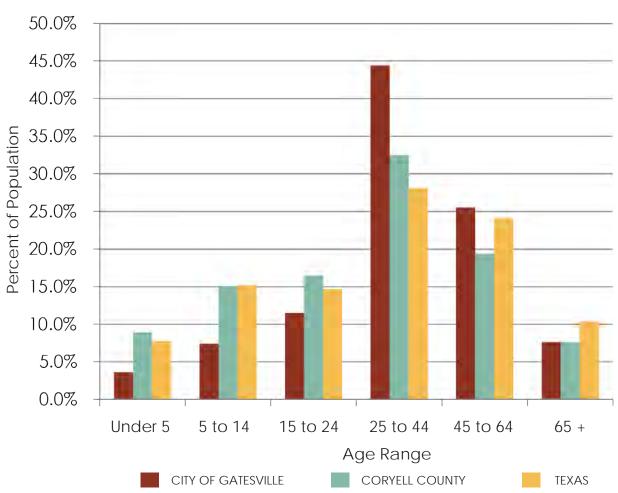


FIGURE 2.5 CONSOLIDATED AGE GROUP COMPARISON USING 2010 POPULATION COUNTS Source: U.S. Census Bureau, American Community Survey bulge in population in the middle of the population pyramid. The significant number of residents in those age groups appear to also influence the county's age distribution as well.

### HOUSEHOLD AND FAMILY CHARACTERISTICS

The Census divides housing counts into two main categories: households and family households. Household counts tend to provide a more holistic view as they refer to all occupied households whether it be one person living alone or a family. Family households separates out only those households which have more than one related persons living together.

Between 2000 and 2010 the number of households in the City of Gatesville increased by nearly 12%, while family households increased by just under 9% during this period. As the total number of households and family households increased, so did their average size (number of occupants). While the average size of both households and families were somewhat smaller than the average sizes observed in 2010 for the State of Texas, they corresponded very closely with the average household and family sizes seen in the US as a whole.

Between 2000 and 2010, the number of households with a child under the age of 18 present and the number of households headed by a resident over the age of 65 both increased. Despite the increase in their absolute number, both of these categories of households represented a smaller share of the total number of households in the City in 2010 as compared to 2000. This indicates that, over this period, the composition of households in the City was trending towards a larger share of working-aged adults living together without young children present, but also likely a larger number of adult children returning to live at home due to the financial crises of the latter part of the decade.

	2000	2010	2000-2010 Change
Total Households	2,640	2,955	11.9%
Average Household Size	2.46	2.51	2.0%
Family Households	1,753	1,908	8.8%
Average Family Size	3.04	3.14	3.3%
Households with Children under 18	960	1,070	11.5%
Householder 65 years and over	800	847	5.9%

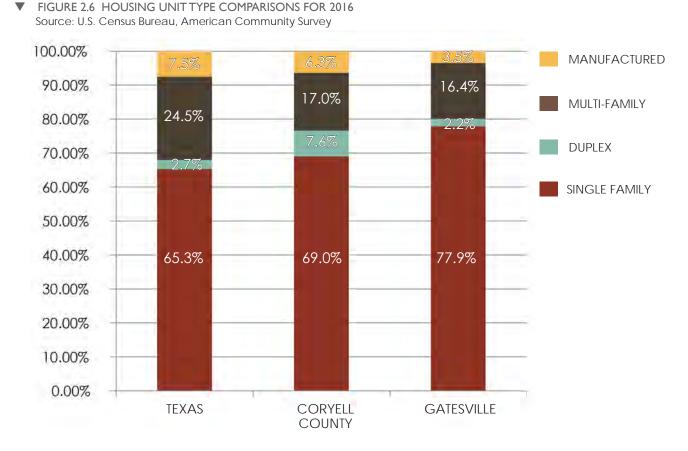
TABLE 2.3 HOUSEHOLD AND FAMILY CHARACTERISTICS - 2000 AND 2010 Source: U.S. Census Bureau, American Community Survey

## 2.3 HOUSING PROFILE

### HOUSING STOCK: COMPOSITION AND AGE

Between 2000 and 2010 the total number of dwelling units in the City of Gatesville increased from 2,963 to 3,303, which corresponds to an increase of just over 10%. The most recent American Community Survey data from 2017 show that the total number of units has essentially remained flat since the 2010 Census. While we know that the development of residential housing units has occurred during this period, the increase has not been enough to trigger the ACS data sampling methodology to show an increase in the official estimate of the number of dwelling units.

The chart in Figure 2.6 shows the distribution of the city's housing stock by dwelling type. Nearly 80% of the housing stock in the city is made up of single-family dwellings, which is significantly higher than the share of this housing type seen in both Coryell County as well as the State of Texas as a whole. The city's housing stock comprised of duplex (two unit) dwellings is much smaller than in the county, but very similar to the state as a whole. Interestingly, the city has a much smaller share of manufactured homes (mobile homes)





than either Coryell County or the state. Perhaps even more interesting is that Gatesville has a smaller share of multi-family dwellings in its housing stock than the state, but a nearly equivalent share as Coryell County. While a large share of single-family dwellings and a smaller share of each of the other housing types is generally viewed in a favorable light by most residents, the lack of diversity in the overall housing supply can lead to unintended consequences related to attracting younger members of the workforce as well as ensuring a sufficient supply of suitable housing for older residents interested in down-sizing and remaining in the community.

When compared to Coryell County or the state as a whole, Gatesville's housing stock is much older on average, with over 35% of the city's dwelling units having been constructed before 1959. This means that more than 1 out of 3 dwellings in the city is 60 years old or older, as compared to around 13% in Coryell County and 16% in Texas as a whole. Gatesville also has a much smaller share of homes built since 2000 than the state or county, with just over 10% of the city's dwellings constructed since 2000, as compared to more than twice that share that is observed in Coryell County and the state as a whole. The prevalence of older homes in the city likely has a direct influence on the share of single-family dwellings in the overall housing stock.

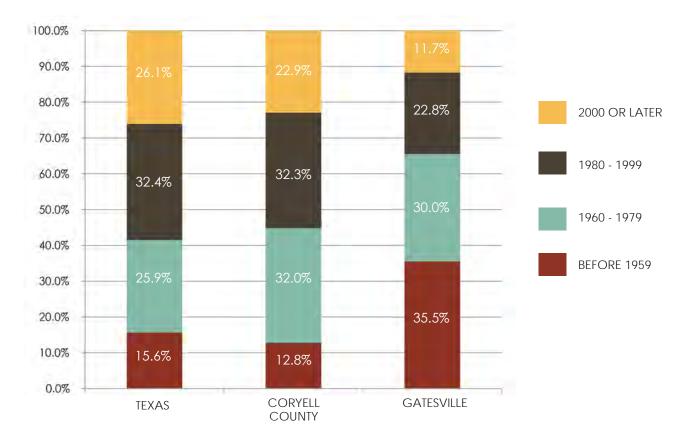
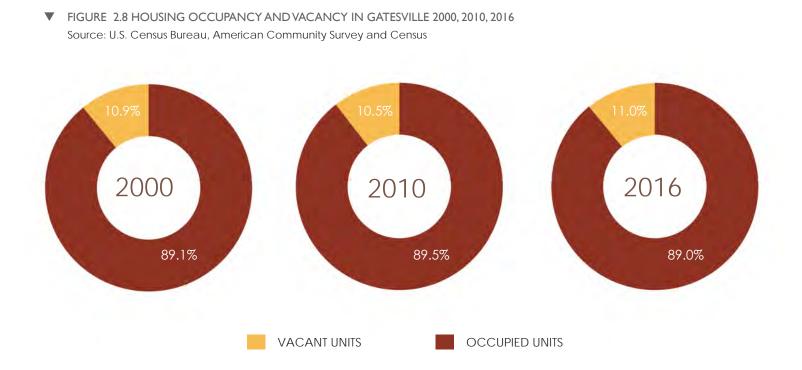


FIGURE 2.7 AGE OF HOUSING STOCK COMPARISONS
 Source: U.S. Census Bureau, American Community Survey

### HOUSING OCCUPANCY AND TENURE

Since 2000, the rate of occupancy of Gatesville's housing stock has remained very consistent, with around 89% of dwellings occupied and 11% vacant. The rates of occupancy and vacancy are consistent with both the national and state rates, and generally point toward a fairly healthy housing stock that is neither underbuilt nor overbuilt.



Of the occupied housing units in Gatesville, just over 56% are occupied by owners, while the remaining 44% are occupied by renters (see Figure 2.9). This rate of owner versus renter occupancy is consistent with Coryell County's ownership and renter occupancy rates. Both the city and county, however, have significantly lower owner occupancy rates than the state as a whole, where 62% of homes are owner occupied, and the US as a whole, where nearly 64% of homes are owner occupied.

### HOUSING VALUE

The median value of a residential dwelling in Gatesville was \$82,500 in 2016. This was significantly lower than both Coryell County (\$103,400) and Texas as a whole (\$142,700). While this indicates that Gatesville is a relatively affordable location for prospective buyers to purchase a home, the lack of price parity with Coryell County and the significantly lower median value as compared to the state may be cause for some concern. This concern is

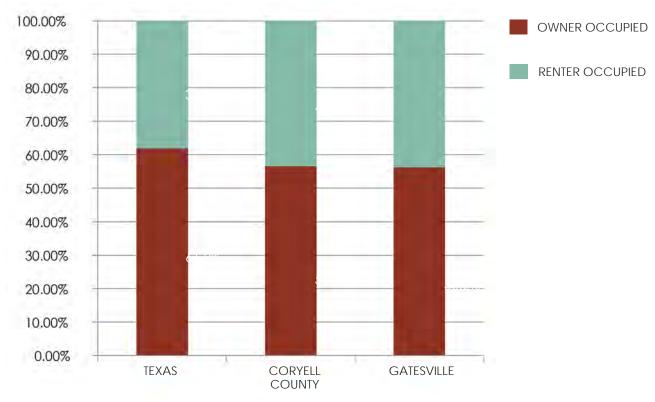
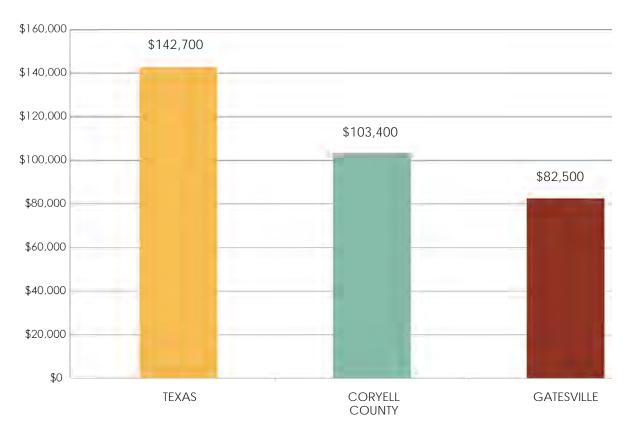


FIGURE 2.9 RENTER AND OWNER OCCUPIED HOUSING COMPARISON Source: U.S. Census Bureau, American Community Survey

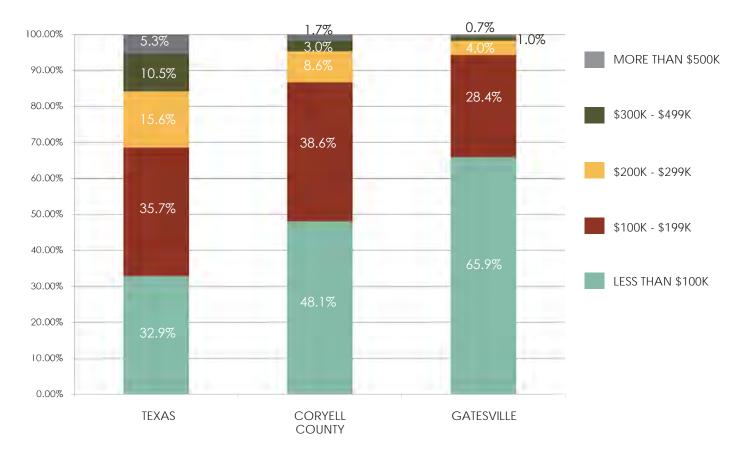
 FIGURE 2.10 MEDIAN HOMEVALUE COMPARISON - 2016 Source: U.S. Census Bureau, American Community Survey



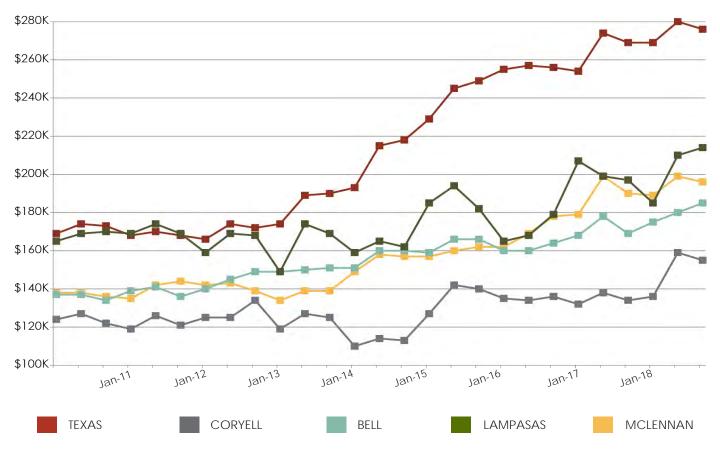
due, in part, to the relative low rate of growth in the housing stock found in the underlying data coupled with vacancy rates that are on par with state and national vacancy rates. The age of the housing stock in Gatesville is certainly a contributing factor, but overall, there are indications that there is both a lack of investment and a lack of demand that have combined to keep housing values relatively depressed.

Looking more closely at the housing values, Figure 2.11 shows the distribution of housing values for the city, the county and the state. The overwhelming majority of housing in Gatesville (nearly two-thirds) have values of less than \$100,000, while under 6% of the housing stock has a value of greater than \$200,000. In Coryell County as a whole, less than 50% of the housing stock has a value of under \$100,000 and less than one-third of the state's housing stock have a value of less than \$100,000. While maintaining a large supply of relatively affordable housing can be desirable for a community, the lack of options for buyers looking for larger / newer homes with higher values can impact a community's ability to recruit and retain the type of workforce that it desires if it cannot adequately accommodate their housing needs.

FIGURE 2.11 HOUSING VALUE DISTRIBUTION - 2016 Source: U.S. Census Bureau, American Community Survey







Additional data from Zillow, shown in Figure 2.12 above, demonstrates the level and relative change in the median listing price for homes in Coryell County (information is not available for Gatesville specifically) in relationship to surrounding counties as well as Texas as a whole. The data shows that while there was a fairly narrow spread between median listing prices (around \$40,000 between Coryell and the state) in 2010-11, the gap is now over \$110,000 between Coryell County and the state. The data also shows that while median listing prices have increased fairly consistently following the end of the recession, the gap has widened between Coryell County and its neighbors as well. Again, while the relative affordability of housing is a generally positive community feature, a widening gap between the county (and by default the City of Gatesville) and its neighbors may indicate an underlying structural economic issue that has made Coryell County a less attractive / valuable housing market compared to its neighbors.

### **RENTAL AFFORDABILITY**

According to American Community Survey data from 2017, the median monthly rental rate in Gatesville was \$704, which was lower than the median rent in Coryell County was \$928

and the median rent in Texas was \$952. Based on housing values, this is not surprising, but, again, is potentially reflective of a lack of supply of higher-end or more recently constructed homes available for rent. The positive side of this is that, according to data from the National Low Income Housing Coalition (see Table 2.4 below) renters in Gatesville making the estimated mean wage for renters in the county were likely able to afford to rent a 2 bedroom home on a single source of income. As the table below indicates, renters in neighboring McLennan and Lampasas Counties (or in Texas a s a whole) would not necessarily have access to similarly affordable housing, while renters in Bell County would be slightly more likely to be able to afford the rent of a similar home as their counterparts in Coryell County.

#### ▼ TABLE 2.4 RENTAL AFFORDABILITY - 2018

Source: National Low Income Housing Coalition - Out of Reach 2018

Geography	Estimated Hourly Mean Renter Wage (MRW) (2018)	Monthly Rent Affordable at Mean Wage	Median Monthly Rent (2BR Dwelling)
Texas	\$18.20	\$946	\$1,005
Coryell	\$15.25	\$793	\$771
Bell	\$15.56	\$809	\$771
Lampasas	\$10.75	\$559	\$697
McLennan	\$13.53	\$704	\$836

# 2.4 ECONOMIC PROFILE

### **INCOME AND POVERTY**

According to recent American Community Survey sample data, both the median household income and the per capita income of Gatesville residents has been declining since the 2010 Census. In conjunction with the decline in income, there has been a steep increase in the poverty rate of Gatesville residents, with a 50% increase in the rate since 2010. While Texas as a whole has seen a small drop in household income, per capita income has increased and the state's poverty rate has seen a slight decline.

TABLE 2.5 MEDIAN HOUSEHOLD INCOME, PER CAPITA INCOME, POVERTY AND UNEMPLOYMENT CHARACTERISTICS Source: U.S. Census Bureau, American Community Survey

	Median	Median Household Income	
	2010	2016	Change
acts	\$51,483	\$44,253	-14%
itesville	\$41,276	\$37,984	-8%
	\$58,142	\$54,727	-6%

	Per Capita Income		
	2010	2016	Change
Census Tracts	\$22,050	\$20,807	-5.6%
City of Gatesville	\$16,567	\$10,988	-33.7%
Texas	\$24,870	\$27,828	11.9%

	Poverty Rate		
	2010	2016	Change
Census Tracts	9.8%	14.9%	52.0%
City of Gatesville	12.4%	19.0%	53.2%
Texas	16.8%	16.7%	-0.6%

While it is unclear the extent to which the presence of the large incarcerated population (some of whom, it is assumed, earn some small level of wage income for work in the correctional facilities) contributes to the income reported to the Census Bureau. When looking at the data form the Census tract geography, there has been a more pronounced change in household income as compared to the city limits proper. Interestingly, the data is showing a more pronounced drop in per capita income in the city limits as compared to the Census tract geography. Presumably the income of inmates would not be classified as "household income" but it is still unclear whether this is taken into account when estimates are made of per capita income. In any case, a decrease in either household or per capita income is a potentially worrying sign, especially when accompanied by such a large percentage increase in the poverty rate.

### EDUCATIONAL ATTAINMENT

Data related to the educational attainment of the population is one of several good indicators of the types of employment opportunities and the earning potential of a community's residents. In Gatesville, the comparison between the educational attainment of the population within the city limits and within Census tract geography reveal that the presence of the institutionalized population within the city limits has a direct effect on the "official" education levels of the population. One of the negative aspects of this is that when employers seek to expand, they may pass Gatesville by since the "official" figures indicate a lower educational level for the workforce than is actually present in the community. In order to counteract this, the city will need to actively correct misconceptions when recruiting economic opportunities.

Figure 2.13 demonstrates the disparity between the two geographies, including showing that more than 25% of the city's workforce age population has not graduated from high school and fewer than 8% have a bachelors degree or higher degree of graduate education. This is compared to the Census tract geography, which indicates that less than 18% of the population is shown to not have graduated from high school and around 15% have a bachelors degree or higher degree or graduate education. Although these may not be the most significant disparities between a workforce's stated and real educational levels, they are probably great enough to influence certain economic decisions related to locating businesses or industries that require a more highly skilled / educated labor force.

When compared to the state as a whole, the most notable difference is that while the (more accurate) Census tract geography for Gatesville has a similar share of residents without a high school education, the state's workforce is comprised of a much larger share of

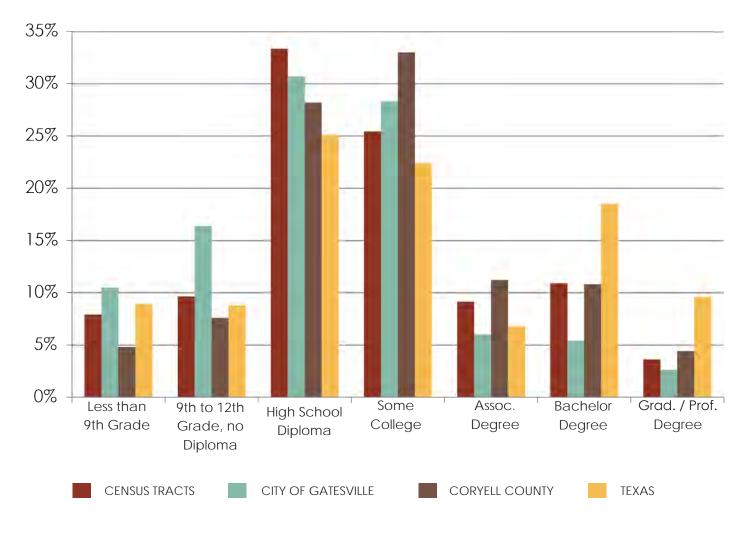


 FIGURE 2.13 HIGHEST DEGREE OF EDUCATIONAL ATTAINMENT, POPULATION 25 AND OLDER IN 2016 Source: U.S.. Census Bureau, American Community Survey

residents with a bachelors degree or graduate professional degree. The absence of large businesses and industries that require higher education is certainly a contributing factor in this statistical difference, but it is also an indicator of the future prospects of the community to attract and/or retain businesses that require advanced education.

### LABOR FORCE AND EMPLOYMENT

Like many of the metrics used to describe Gatesville's demographic and economic situation, the rate of participation in the labor force is greatly influenced by the choice of geography. When isolated to the municipal limits, Gatesville is estimated to have a labor force participation rate of just under 32%, which would put it at a level that is significantly lower than the state and national rates. The more accurate Census tract data, although lower in recent estimates, has been more closely in line with the prevailing rates seen in Coryell County and in the state as a whole. While a national downward trend in the share of

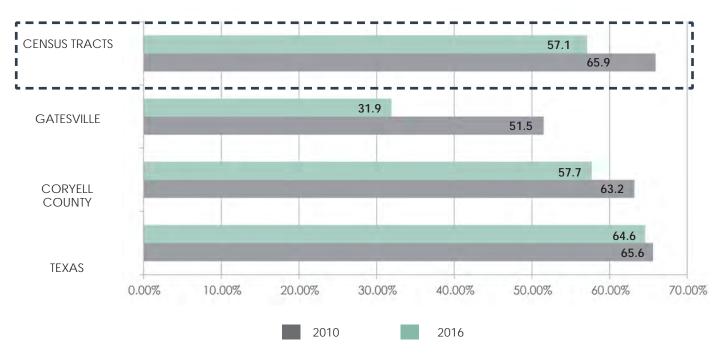


FIGURE 2.14 LABOR FORCE PARTICIPATION RATE COMPARISONS 2010, 2016 Source: U.S. Census Bureau Decennial Census and American Community Survey

the population participating in the labor force has been underway for the last decade, due to an aging population - among other reasons, the apparently sharp drop in participation in both the Gatesville Census tract geography and in Coryell County as a whole, has been much sharper in recent years that what has been observed at the state level. While a specific reason is not clear for the locally significant drop in labor force participation, it may

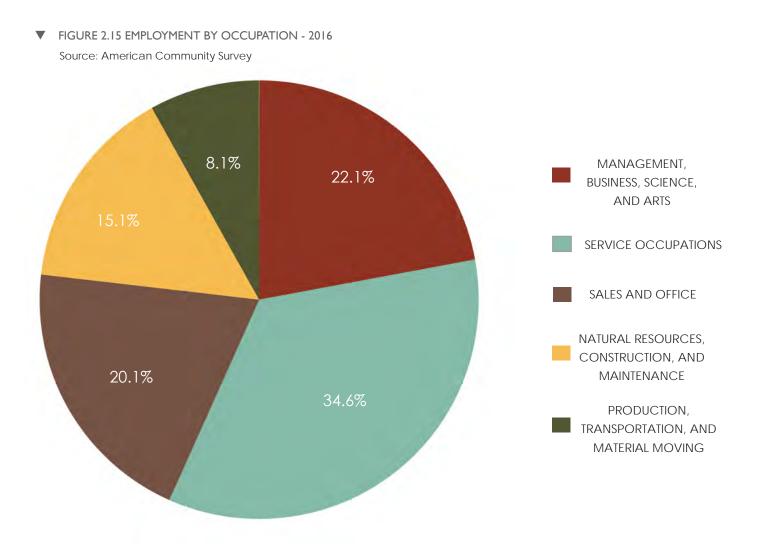
FIGURE 2.6 UNEMPLOYMENT RATE COMPARISONS 2010, 2016
 Source: U.S. Census Bureau Decennial Census and American Community Survey

	Unemployment Rate	
	2010	2016
Census Tracts	9.0%	5.5%
City of Gatesville	7.5%	8.1%
Coryell County	8.3%	9.2%
Texas	7.0%	6.4%

be a cause for concern if those who have dropped out in recent years do not go back into the workforce, or are not either willing or capable of reentering the pool of available labor. The apparent decline in labor force participation rates at the Census tract geography level have had the apparent effect of helping to decrease the unemployment rate. The combination of residents leaving the workforce and improving economic conditions between 2010 and 2016 cut the unemployment rate from 9% to 5.5%. Interestingly, a similar decline in the labor force participation rate in Coryell County as a whole was actually accompanied by an increase in the unemployment rate. The state as a whole saw a much smaller decease in labor force participation rates, but also saw a smaller decrease in unemployment in its overall labor force.

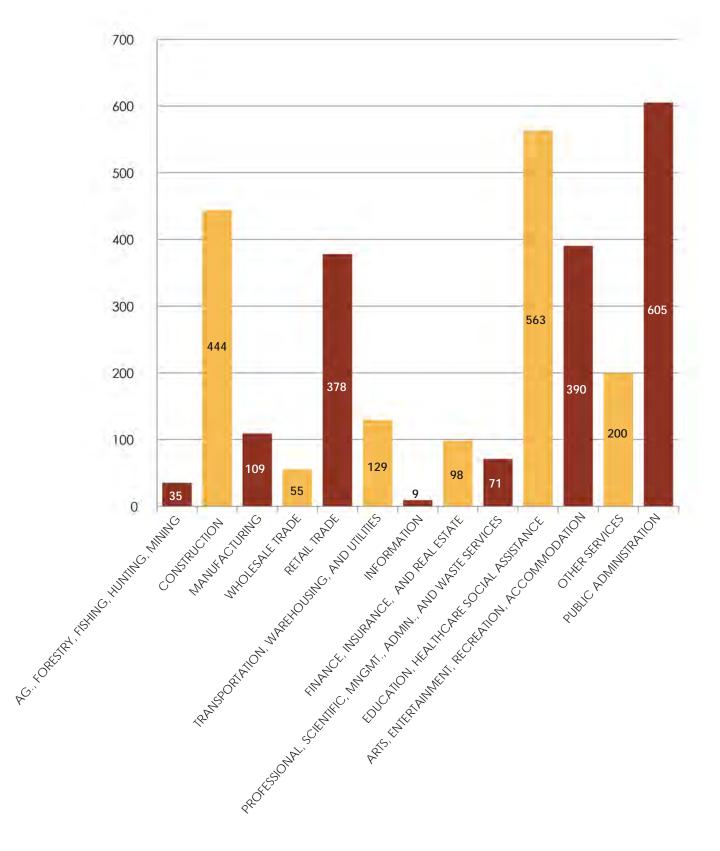
### EMPLOYMENT BY OCCUPATION AND INDUSTRY

The types of occupations held by workers in Gatesville are tied somewhat to the industries that they are employed in, but a wide range of occupations can exist within any specific industry. For example, a manufacturer could employ workers in management jobs, production jobs, and sales jobs. It should be noted that this data reflects the occupations and industry sectors that residents are employed in, and not the jobs or industries that are physically located in the community.



▼ FIGURE 2.16 EMPLOYMENT BY INDUSTRY - 2016

Source: American Community Survey



The greatest share (over 1/3) of employed workers in Gatesville hold service occupations, while the smallest share (under 10%) hold occupations related to production, transportation, and material moving. The distribution of occupations is reflected in the per capita income of the city's residents, with service jobs tending to pay lower wages than other occupational classes. Workers in Gatesville are employed heavily in the public administration and education / healthcare industry, with over 1,100 Gatesville residents employed by those economic sectors. Another 1,200+ Gatesville residents hold jobs in the construction, retail, and entertainment / recreation / accommodation sectors. Taken together, these five sectors employ the overwhelming majority of workers who reside in Gatesville.

### ECONOMIC SPECIALIZATION

An employment "location quotient" is a statistical measure of the degree of economic specialization that is found in a community as compared, in this case, to the nation as a whole. Although the data is only available at the county level, it does provide some insight into Gatesville's economic situation. Location quotients that are below 1.0 indicate that the selected region has fewer employees in the particular industry than would be found if the industry's jobs were distributed evenly across the country, while location quotients above 1.0 indicate a greater number of jobs than would be expected to be found in a particular industry sector.

Table 2.6 on the following page contains private sector employment location quotients for Coryell County. This data indicates that the county has a disproportionately large share of private sector jobs in the retail and real estate sectors, with 1.4 and 1.26 times the number of jobs, respectively, that would be expected to be found. Service related industry sectors, such as food services and accommodations, also employ a larger share of the population than the theoretical norm for employment levels.

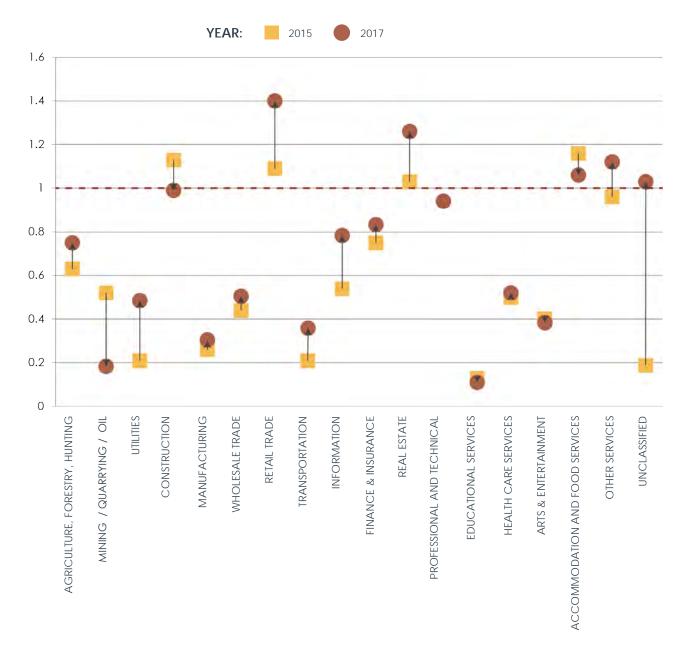
Notable private industry sectors with location quotients in Coryell County that are below the norm (less than 1.0) include manufacturing (0.3), transportation and warehousing (0.36) and healthcare / social assistance (0.52). These employment sectors are important for communities such as Coryell County since they often are a high demand source of ready employment with relatively high wages compared to the required level of education. The absence of jobs in these sectors (along with the relatively high proportion of lower wage retail / service jobs) indicates that there may be fewer private sector opportunities for economic advancement in the county than one would hope to find.

The high location quotients in the retail and real estate sectors appear to be fairly recent

TABLE 2.6 ANNUAL AVERAGE EMPLOYMENT LOCATION QUOTIENTS (PRIVATE) - CORYELL COUNTY 2017 Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

NAICS Industry Code	Description	Annual Employment Location Quotient
11	Agriculture, Forestry, Fishing, Hunting	0.75
21	Mining, Quarrying, Oil, and Gas Extraction	0.19
22	Utilities	0.48
23	Construction	0.99
31-33	Manufacturing	0.3
42	Wholesale Trade	0.5
44-45	Retail Trade	1.4
48-49	Transportation and Warehousing	0.36
51	Information	0.78
52	Finance and Insurance	0.83
53	Real Estate and Rental and Leasing	1.26
54	Professional and Technical Services	0.94
55	Management of Companies and Enterprises	N/A
56	Administrative and Waste Services	N/A
61	Educational Services	0.11
62	Health Care and Social Assistance	0.52
71	Arts, Entertainment, and Recreation	0.39
72	Accommodation and Food Services	1.06
81	Other Services, except Public Administration	1.12
99	Unclassified	1.03

 FIGURE 2.17 CHANGE IN LOCATION QUOTIENT (PRIVATE) BY INDUSTRY - CORYELL COUNTY 2015-2017 Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages



phenomena, with the retail LQ jumping from less than 1.1 to 1.46 and real estate jumping from right around 1.0 to 1.26 between 2015 and 2017 (see Figure 2.17). As the chart shows, most of the other classified industry sectors experienced little to no change during this period. Other sectors that saw large increases in their LQ include the information and utilities sectors, which, although still well below 1.0, saw a jump in their LQs similar to the retail and

real estate sectors. Only one sector (mining / quarrying / oil) saw a major decrease in its LQ during this period, going from over 0.5 to just under 0.2.

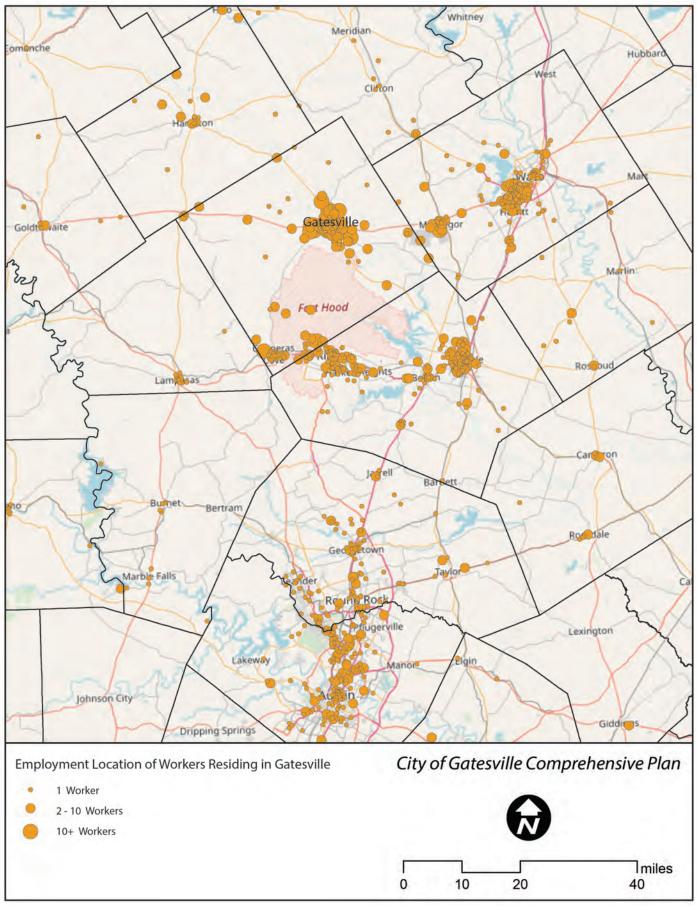
Looking specifically at Gatesville through the lens of the major employers in the community, we see that economic activity is focused heavily on public, rather than private industry sectors. TDCJ has more employees in its Gatesville prison facilities than the next 10 largest employers in the city combined. The education (Gatesville ISD) and healthcare (Coryell Memorial, UTMB, and Hillside) sectors employ over 1,100 people in Gatesville. The largest private employer in Gatesville is Wal-Mart, with almost 250 employees. Other notable private employers include United Nations Bank, TTG and Laerdal.

 TABLE 2.7 MAJOR EMPLOYERS IN GATESVILLE Source: City of Gatesville

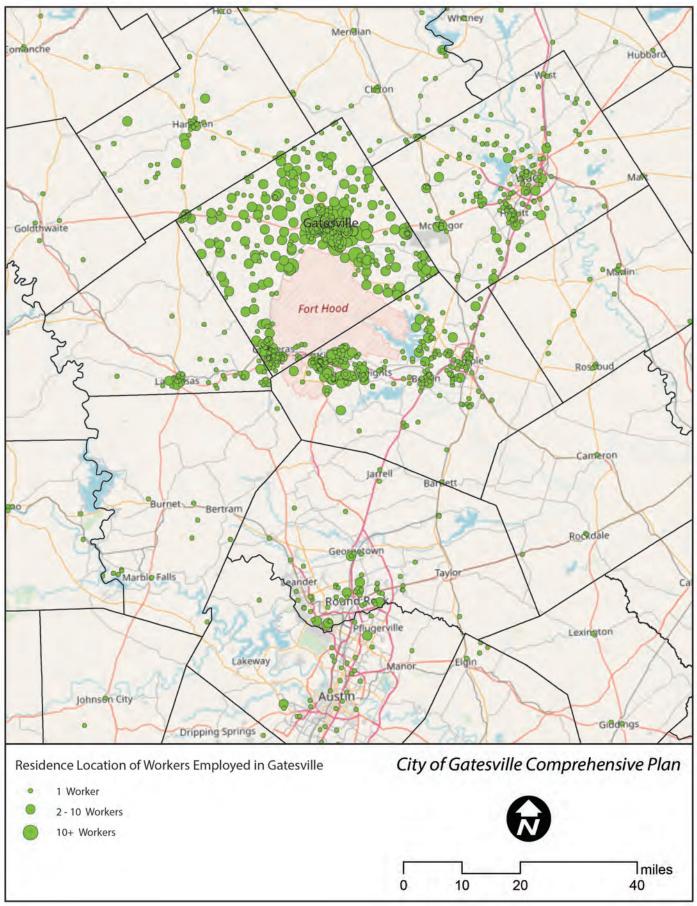
MAJOR EMPLOYERS IN THE CITY OF GATESVILLE (2017)				
Employer	Industry	Number of Employees		
Texas Department of Criminal Justice	State Prisons	2,497		
Gatesville Independent School District	Public Education	423		
Coryell Memorial Hospital	Healthcare	395		
Wal-Mart	Retail	240		
UTMB	Healthcare	238		
Coryell County	Local Government	192		
TTG	Construction	180		
United National Bank	Banking	145		
MATES (TX ARNG)	Military	125		
Hillside Medical Lodge	Healthcare	108		
Laerdal	Manufacturing	106		

#### **EMPLOYMENT DISTRIBUTION**

Map 2.2 shows the place of employment of workers who reside in Gatesville. Although there is a significant correlation between residing and working in the city, there are four other significant clusters of job locations that Gatesville residents commute to for work. These are Waco, Temple, Killeen, and the I-35 corridor in the Austin-Round Rock metro area. The residence location of employees who work in Gatesville is much more tightly clustered within, and in areas close to, Coryell County (see Map 2.3). This means that residents of Gatesville tend to travel greater distances (likely for higher paying jobs) than employees who work in Gatesville.



Map 2.2: Employment Location of Workers Residing in Gatesville



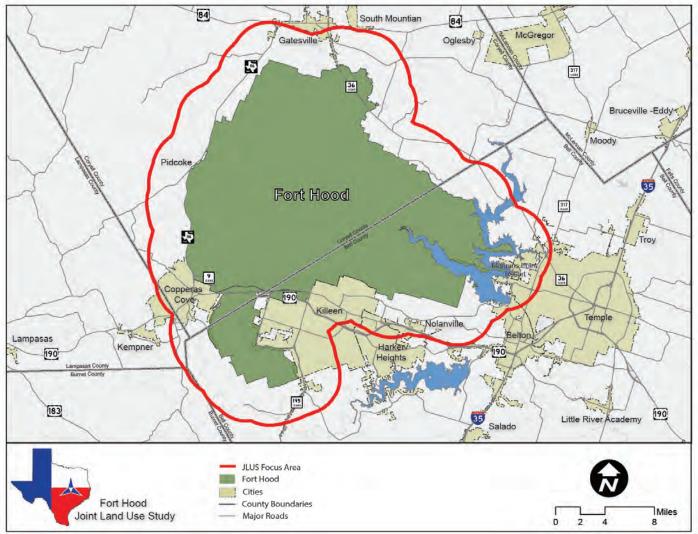
Map 2.3: Residence Location of Workers Employed in Gatesville

# 2.5 FORT HOOD

### INTRODUCTION

Fort Hood, which is situated just south of Gatesville, is the largest active-duty installation in the United States; one of three enduring US Army installations (the others being Fort Bragg and Joint Base Lewis McChord (Fort Lewis)); and a force structure and infrastructure priority for the Department of Defense and Headquarters, Department of the Army. Fort Hood is the largest employer in the State of Texas, with over 55,000 direct jobs and an additional 150,000 indirect jobs associated with the installation (Texas Comptroller 2018). The installation also contributed \$24.6 billion in GDP to the Texas economy in 2017, per the most recent economic impact study prepared by the Texas Comptroller of Public Accounts.

While Gatesville is not a primary residence location for Soldiers assigned to Fort Hood, the community has deep ties to the installation and is significantly influenced by its presence. The ties between the installation and the city include significant cultural ties - with many



Map 2.4: Fort Hood Regional Overview (from 2016 Joint Land Use Study)

local families displaced from the land that Fort Hood now occupies, operational ties with Gatesville providing utility service to North Fort Hood, and economic ties related to the Reservists that train at North Fort Hood and patronize local businesses. Fort Hood also creates off-post impacts related to training activities that can affect public safety and create nuisance concerns if incompatible land uses are established in proximity to certain training activities that take place both on and off-post (discussed further in Chapter 6).

#### **HISTORICAL CONTEXT**

In the earliest days of World War II, the United States Army needed wide-open space to organize a Tank Destroyer Testing and Training Center, and in 1942 chose 108,000 acres near Killeen, Texas to establish Camp Hood. Almost immediately, the Army expanded Camp Hood's mission to include a replacement and basic training center at North Camp Hood near Gatesville. As many as 100,000 Soldiers trained simultaneously at Camp Hood during the war.

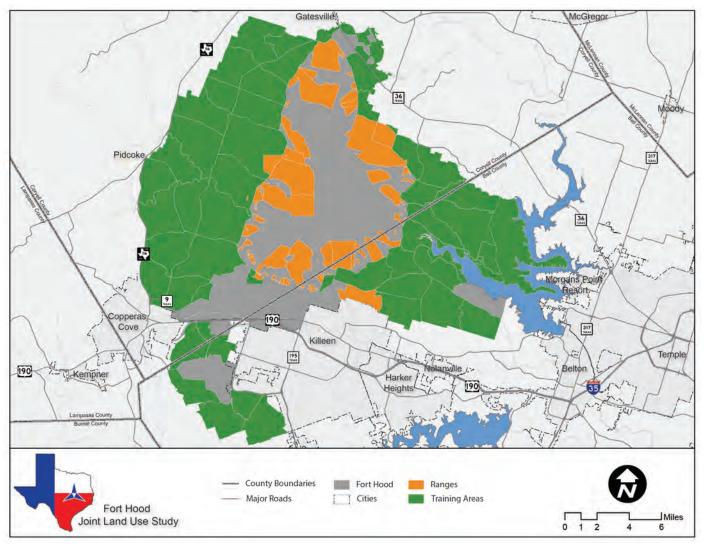
In 1950, Camp Hood became a permanent installation and was renamed Fort Hood. In 1953, the post expanded to 207,557 acres, nearly doubling in size, and in the same year the Air Force turned over control of Killeen Base/Robert Gray Air Force Base to the Army. Fort Hood's current boundaries have remained essentially the same since this 1953 expansion.

#### FORT HOOD TODAY

Today, Fort Hood is home to the III US Armored Corps Headquarters; the 1st Cavalry Division (consisting of a Headquarters, three Armored Brigade Combat Teams (ABCTs), Division Artillery, Combat Aviation Brigade, and Sustainment Brigade); the 3rd Cavalry Regiment; 1st Army-Division West (consisting of a Headquarters, the 120th Infantry Brigade, and 166th Aviation Brigade which train mobilized Reserve Component forces at North Ft Hood); seven III Corps Separate Brigades (Medical, Signal, Engineer, Civil Affairs, Air Defense, Military Police, Chemical); the 13th Sustainment Command (Expeditionary); the Army's Operational Test Command, and the United States Air Force (USAF) 3rd Air Support Operations Group – which is the largest contingent of Airmen assigned to an installation other than an Air Force base.

#### TRAINING, TESTING AND POWER PROJECTION ASSETS

Fort Hood encompasses 218,823 acres (342 square miles), with 87 live-fire ranges and maneuver training areas comprising 196,791 total acres – a land area capable of supporting brigade-sized maneuvers. The installation also hosts the largest concentration of armored and mechanized combat capabilities in the United States Army, with three Armored

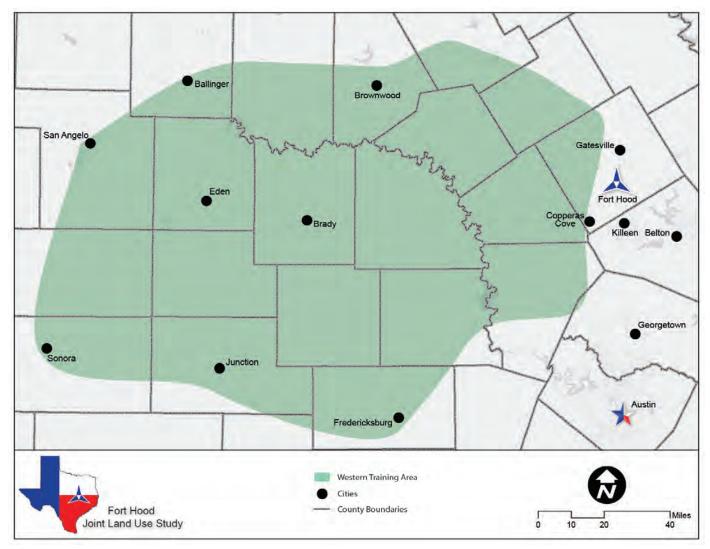


Map 2.5: Fort Hood Ranges and Training Areas (from 2016 Joint Land Use Study)

Brigade Combat Teams (ABCTs) and one Stryker Brigade Combat Team (SBCT) assigned – currently the only Army installation with four assigned BCTs. During simultaneous operations in Iraq and Afghanistan, Fort Hood's assigned strength surged to nearly 54,000 Soldiers and demonstrated its significant training and power projection capabilities.

Through cooperative agreements with ranchers and landowners, Fort Hood has training access to over 15,000 square miles of airspace in the Western Training Area (WTA) which extends over 150 miles to the west of the installation. American and NATO forces routinely deploy rotary and fixed wing aircraft, as well as unmanned aerial systems (UAS), to the WTA and are able to train at doctrinal depths and distances.

Until 2015, the 21st Cavalry Aviation Brigade conducted AH-64 Apache transition unit training at Fort Hood and in the WTA for all aviation units in the Army, as well as numerous allied nations who have purchased the Apache helicopter. Units leveraged this critical training



Map 2.6: Fort Hood Western Training Areas (from 2016 Joint Land Use Study)

space extensively, and today it continues to provide critical capability for realistic training for both AH-64 transition units and combined arms live fire exercises employing a myriad of UAS platforms. Other aviation training assets at Fort Hood include Hood Army Airfield, which is home to the 1st Cavalry Division's Combat Aviation Brigade, and the Longhorn and Shorthorn airstrips, which accommodate rotary wing and UAS training activities at North Fort Hood.

Fort Hood is one of two Army installations that support pre and post-mobilization of Reserve Component units from across the United States. Since September 2001, nearly 125,000 Army National Guard and Reserve Soldiers have trained at North Fort Hood prior to deploying for operational missions. An enduring mission, plans are in place for continued modernization and growth at North Fort Hood to accommodate future mobilization requirements to meet the needs of the demands of the Army. Fort Hood's railroad operations complex is equipped with 12 loading spurs (capable of staging 600 cars and loading 240 cars per day) and is only a one-day transit time to the Gulf Coast ports of Beaumont and Corpus Christi. The Aerial Port of Embarkation (APoE) at Robert Gray Army Airfield (RGAAF) shares a 10,000-foot instrumented runway with the K-FHRA and consists of parking space for 11 wide-body aircraft, a 900-Soldier passenger terminal and modern crash-fire-rescue facilities.

One of the Army's largest Mission Command Training Complexes (MCTC) is located at Fort Hood, and it was recently expanded with a new \$52 million Mission Training Command (MTC) facility.

Carl R. Darnall Army Medical Center (CRDAMC) was completed and opened in April 2016 and provides over 1 million square feet of space to provide full medical support and care for active duty and retired Soldiers and families across the central Texas region.

### **FUTURE MISSIONS**

Prior to 2009, Fort Hood was the only Army installation with two assigned Heavy Divisions – the 1st Cavalry Division and the 4th Infantry Division. As a result of Base Realignment and Closure Commission (BRAC) recommendations in 2005, the 4th Infantry Division relocated to Fort Carson, Colorado and the 3rd Armored Cavalry Regiment (now the 3rd Cavalry Regiment) relocated from Fort Carson to Ft Hood. These moves provided Fort Hood the facilities to accommodate a surge of up to an additional 15,000 Soldiers, including another heavy or light infantry brigade, an additional combat aviation brigade, combat support and combat service support enablers, and a division headquarters.

In addition to the capacity of the installation to meet basing requirements for potential future changes in the size or location of the force, Fort Hood is continually evaluating its capacity to meet additional training, testing and power projection missions. Recent examples include the relocation of an Air Defense Artillery brigade from Fort Bliss to Fort Hood and the ongoing growth of the installation's UAS mission. Looking further into the future, Fort Hood has developed plans for the addition of a second runway at Robert Gray Army Airfield, which could theoretically lead to the basing of an Air Force wing at the expanded airfield. Fort Hood is also currently exploring opportunities to expand its intermodal (truck/ rail) capabilities in support of its power projection mission through a potential partnership with local governments and economic development entities in the region.

Regardless of the specific missions that Fort Hood will be tasked to fulfill in the future, change is inevitable, as the region has experienced first-hand through nearly 80 years of transformation of Fort Hood from an isolated training base into the premier military asset that it is today. With changes in missions, weapons systems, training doctrine, force strength, and the types of units assigned to the installation there will be changes in the nature and extent of land use compatibility concerns. While this document, and the recently completed JLUS, provide insight into current conditions, it will be important for Fort Hood and its host communities to work together to address emerging compatible growth and encroachment issues as these inevitable changes occur.

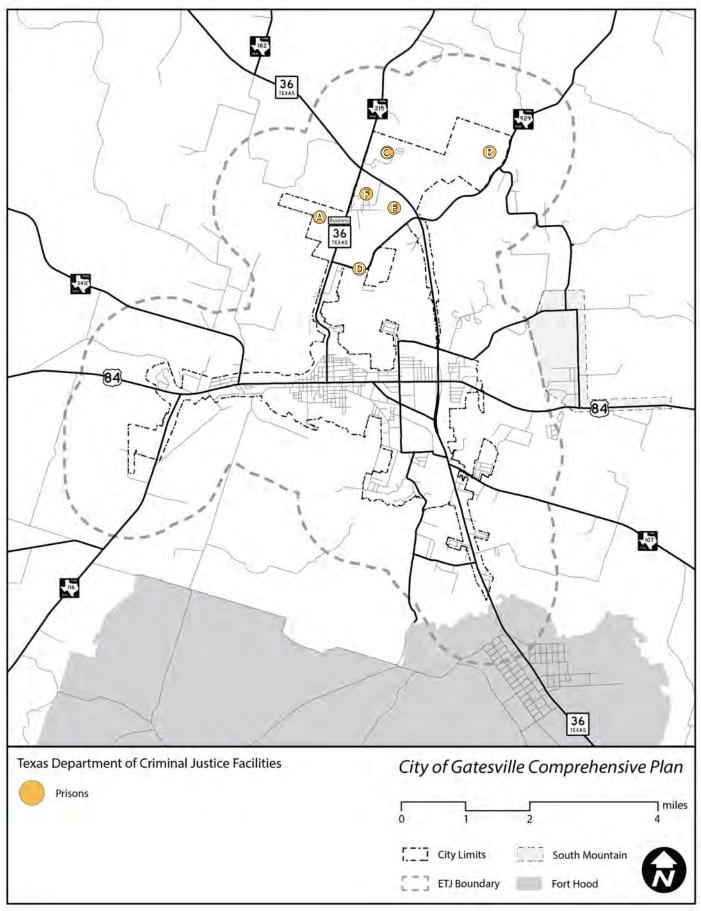
## 2.6 TEXAS DEPARTMENT OF CRIMINAL JUSTICE

From an institutional standpoint, the TDCJ has a similar, if not greater, set of ties to the City of Gatesville. The TDCJ operates six prisons in Gatesville that house over 8,000 (primarily adult female) prisoners and employ around 2,500 guards and other prison workers. Like Fort Hood, TDCJ significantly influences the city from economic, cultural, operational and land use perspectives. As noted in the overview at the beginning of the chapter, the current TDCJ operations grew from a juvenile training school established in 1887, which closed in the late 1970s - paving the way for the establishment of the current facilities in the 1980s and 1990s.

Occupying the majority of the northern portion of the city, the TDCJ facilities bring both economic benefits as well as land use impediments to the community. Balancing the positive and negative aspects of the prisons is key to the city's future given the outsized role that TDCJ plays in the community.

#### TDCJ FACILITIES MAP KEY

Map ID	Name	Incarcerated Population (Feb. 2017)
A	Christina Melton Crain Unit	1,901
B	Alfred D. Hughes Unit Prison	2,984
С	Mountain View Unit	628
D	Linda Woodman State Jail	823
Ξ	Dr. Lane Murray Unit	1,318
F	TDCJ Hilltop Unit	488
	TOTAL INCARCERATED POPULATION	8,142



Map 2.7: Texas Department of Criminal Justice Facilities



# **CHAPTER 3: PUBLIC SERVICES AND FACILITIES**

## **3.1 INTRODUCTION**

The residents, businesses and industrial establishments in Gatesville enjoy a wide range of services that are provided by the City, County, ISD and other public agencies. The presence and quality of these services are a critical component of maintaining a high quality of life for residents and ensuring a strong local economy.

## **3.2 PUBLIC SAFETY**

### LAW ENFORCEMENT

The City of Gatesville provides law enforcement and police protection services to its residents via the City of Gatesville Police Department. The department consists of 21 full-time police officers (and are authorized 6 additional reserve police officers) who are supported by a team of non-sworn dispatchers, animal control personnel, and code enforcement officials. The department is structured with five divisions: patrol, investigations, dispatch, animal control, and code enforcement. Patrol officers work a staggered 10 hour shift schedule, with two patrol officers typically on duty at any given time.

The department's dispatch division serves as the Public Safety Answering Point for 911 emergency calls for the northern half of the county, and is responsible for receiving, transferring and dispatching all 911 calls in that area. In addition to their police dispatch duties, the division also serves as the primary dispatch agency for both the Gatesville Fire Department and Coryell Health's EMS services. From the time of dispatch to arrival, the patrol division has consistently maintained an average response time of under 3 minutes for the highest priority calls and just over 3 minutes for lower priority calls.

▼ TABLE 3.1 GATESVILLE POLICE DEPARTMENT AVERAGE RESPONSE TIMES Source: City of Gatesville

GATESVILLE POLICE DEPARTMENT AVERAGE RESPONSE TIMES (MIN.)										
Call Priority	2018	2017	2016	2015	2014	2013	2012			
Very High Priority	2:43	2:42	2:51	2:42	2:55	2:56	2:37			
High Priority	3:46	3:01	2:58	2:51	3:47	4:06	2:35			
Medium Priority	3:09	3:11	3:12	3:16	3:08	4:20	3:05			
Low Priority	3:03	2:55	3:35	3:26	3:31	3:47	3:31			

The Gatesville Police Department currently maintains a fleet of 22 vehicles to carry out its patrol, investigative, animal control, and code enforcement missions. The current fleet consists of a wide range of sedans, SUVs and pickup trucks, of varying ages. The department operates out of the police department headquarters building, which is located across the street from Gatesville City Hall. The building that currently houses the department was originally built in 1960 as a utility company office. The headquarters is now functionally obsolete and the city is currently studying options for constructing a replacement headquarters in a new location.

#### TABLE 3.2 GATESVILLE POLICE DEPARTMENT FLEET INVENTORY Source: City of Gatesville

GATESVILLE POLICE DEPARTMENT FLEET INVENTORY						
Vehicle Type	Year	Number				
Ford Utility Interceptor	2020	2				
Chevrolet Tahoe	2019	2				
Ford Utility Interceptor	2019	1				
Ford F-250	2019	1				
Ford Utility Interceptor	2018	2				
Ford Utility Interceptor	2017	4				
Chevrolet Tahoe	2015	1				
Chevrolet Silverado	2015	1				
Chevrolet Caprice	2014	1				
Chevrolet Tahoe	2014	4				
Ford F-150	2011	1*				
Chevrolet Silverado	2008	1				
Chevrolet Trailblazer	2002	1*				

\* Scheduled for replacement in FY 2020

As Table 3.3 demonstrates, the department's annual call volume has been steadily increasing in recent years, with the monthly response volume going from an average of around 700 calls for service per month in 2012 to over 1,100 per month in 2018. Despite this 56% increase in annual call voluem since 2012, there has fortunately not been a corresponding increase in the total number of major crimes reported annually in the city,

which have risen only 15% over the same time period. The number of major crimes actually peaked at 287 in 2014 when there was a large spike in the number of larcenies reported in the city. Since 2014, the total number of major crimes has not come close to approaching that peak. It is also worthy of note that the overwhelming majority of "major crimes" (Part I UCR Crime Reports and Part A NIBR Crime Reports) that occur in Gatesville are property crimes (larceny, vehicle theft, etc.) rather than violent crime.

▼ TABLE 3.3 GATESVILLE POLICE DEPARTMENT ANNUAL CALL VOLUME 2012 - 2018

Source: City of Gatesville

GATESVILLE POLICE DEPARTMENT ANNUAL CALL VOLUME							
	2018	2017	2016	2015	2014	2013	2012
Annual Service Calls	13,291	11,613	11,284	10,975	9,659	8,172	8,492
Monthly Average	1,108	968	940	915	805	681	708
Daily Average	36.4	31.7	30.9	30.1	26.5	22.4	23.3

#### ▼ TABLE 3.4 CITY OF GATEVILLE - ANNUAL INCIDENCE OF MAJOR CRIMES REPORTED 2012 - 2018

Source: City of Gatesville

ANNUAL INCIDENCE OF MAJOR CRIMES							
Incident	2018	2017	2016	2015	2014	2013	2012
Murder	0	0	1	0	0	0	0
Rape	9	7	12	9	6	4	3
Robbery	1	1	1	3	1	3	2
Aggravated Assault	13	15	11	12	8	15	12
Burglary	61	39	32	31	67	39	46
Arson	0	0	0	0	0	1	0
Larceny	135	155	119	137	194	109	132
Motor Vehicle Theft	12	15	18	12	11	13	5
TOTAL MAJOR CRIMES	232	232	194	204	287	184	200
Violent Crimes	23	23	25	24	15	22	17
Property Crimes	209	209	169	180	272	162	183

### FIRE PROTECTION

The Gatesville Volunteer Fire Department provides fire protection services within the City of Gatesville, as well as areas outside of the city in a fire district that covers approximately 287 square miles. The department is currently structured so that it relies exclusively on volunteers to perform all of its duties. As the largest and most capable department in northern Coryell County, the GVFD maintains automatic aid agreements with each of the other rural VFDs in the county, and is essentially the de facto fire response agency for a significant portion of the county, particularly during the workweek when most rural stations are unmanned. In addition to its automatic aid agreements, the department also has mutual aid agreements in place with 6 other agencies, including Copperas Cove, McGregor and Fort Hood.

At the current time, the department operates out of a single station, which is located at 109 South 23rd Street. The volunteer roster has averaged around 33 members in recent years, and typically 8 volunteers will man the station during the day and 15 overnight during the week and 8 to 12 volunteers will man the station on weekends. Dispatch is provided by the Gatesville Police Department's PSAP, and current response times average around 8-10 minutes from dispatch within the city limits.

#### ▼ TABLE 3.5 GVFD INCIDENT RESPONSES FROM 2007-17

Source: City of Gatesville

GATESVILLE FIRE DEPARTMENT INCIDENT RESPONSES (2007-17)				
Incident	Number	Percent		
Fire	1,646	24.5%		
Overpressure Rupture, Explosion, Overheat (no fire)	5	0.1%		
Rescue and Emergency Medical Services	2,039	30.4%		
Hazardous Condition (no fire)	658	9.8%		
Service Call	483	7.2%		
Good Intent Call	1,604	23.9%		
False Alarm / False Call	224	3.3%		
Severe Weather / Natural Disaster	48	0.7%		
Special Incident Type	2	0.1%		
TOTAL INCIDENTS	6,709	100%		

Between 2007 and 2017, the department responded to around 670 calls for service each year, with rescue / EMS assistance calls accounting for just over 30% of all calls and fire responses accounting for just under 25% of the department's responses. Of the over 1,600 fire calls that the department responded to over this period, over 65% were grass / brush/ forest fires, while only 18% were structure fires. Given the rural nature and landscape of the district and response area, however, this would not be out of the ordinary.

▼ TABLE 3.6 GVFD FIRE RESPONSE TYPES 2007-17

Source: City of Gatesville

GATESVILLE FIRE DEPARTMENT FIRE RESPONSE TYPES (2007-17)				
Incident	Number	Percent		
Structure / Building / Interior Fire	299	18.2%		
Motor Vehicle Fire	129	7.9%		
Aircraft / Watercraft / RV / Off Road Vehicle Fire	39	2.3%		
Grass / Brush / Forest Fire	1,076	65.5%		
Other Outdoor Fires	99	6.0%		

The department is fairly well equipped with apparatus to meet the wide variety of responses that it must be prepared to encounter throughout its large district, which spans everything from urban downtown "main street" development patterns to ranches and rangeland and everything in-between. The response district includes large state prisons as well as both military and civilian airfields, a hospital, rivers and creeks that often flood, and high-speed rural highways that carry heavy volumes of truck traffic.

To meet the challenges of the types of responses that it must be prepared for, the department maintains a large inventory of apparatus for a department of its size. Major equipment (see Table 3.7) includes an aerial (ladder truck), two engines, two tenders, a rescue truck and three brush trucks. The department also maintains two boats, along with other smaller vehicles for specialized firefighting tasks. In the immediate future, the department has identified major capital needs, including upgrades to its rescue truck, the acquisition of new bunker gear, communications upgrades, station improvements, and new training facilities.

▼ TABLE 3.7 GVFD APPARATUS

Source: City of Gatesville

GATESVILLE FIRE DEPARTMENT APPARATUS				
Designation	Year	Description		
Aerial 1	2000	100 Foot Aerial Platform		
Engine 2	2010	1,250 GPM Pump and 750 Gal. Tank		
Engine 3	2000	1,250 GPM Pump and 750 Gal. Tank		
Tender 1	2008	500 GPM Pump and 3,500 Gal. Tank		
Tender 2	2018	750 GPM Pump and 3,500 Gal. Tank		
Rescue 1	2002	Rescue Equipment (no pump or tank)		
Brush 3*	1999	125 GPM Pump and 500 Gal. Tank		
Brush 4	2012	300 GPM Pump and 500 Gal. Tank		
Brush 5	2011	300 GPM Pump and 500 Gal. Tank		
C1	2017	Chief Officer Pickup		
C2	2010	Chief Officer Pickup		
C3	2014	Training Pickup		
C4	2005	Training Pickup		
Mobile Command	2000	Mobile Command Post on Motorhome Chassis		
Transport Truck	2011	Freightliner Haul Truck and Trailer		
Bulldozer	2015	Caterpillar D5 Bulldozer		
Rescue Boat	2008	Zodiac Rescue Boat		
Rescue Boat	2018	G3 16 Foot Flat Bottom Rescue Boat		
Public Education	2010	Public Education Training Trailer		

\* Scheduled for replacement in FY 2020

In addition to its ongoing capital investment needs, the department will likely begin to experience additional strains on its volunteers to maintain adequate staffing and response levels to meet the needs of its large district. Nationally, most volunteer fire departments in rural communities have begun to experience more difficulty in both attracting new members and retaining members given the heavy time commitment needed for training and the fact that many volunteers often travel a long distance from their rural communities

to work in larger urban areas. As the majority of the northern portion of Coryell County relies heavily on the GVFD for fire protection, this is not an issue that is confined to the Gatesville city limits, or even the GVFD primary fire response district. Moving forward, it will be critical to monitor department personnel resources and ensure that adequate staffing is maintained to ensure the safety of the community.

#### **EMERGENCY MEDICAL SERVICES**

Coryell Health EMS is the primary response agency for emergency medical services in Gatesville, as well as the majority of the remainder of Coryell County. Coryell Health EMS maintains a fleet of 6 ambulances that are available to respond within their district on a 24/7 basis. As noted in the previous section, the GVFD also provides emergency medical response to assist EMS in their district. The agency is equipped with mobile ICU capability, and can provide basic through advanced life support and critical care transport.

### **3.3 PUBLIC WORKS AND UTILITIES**

### STREET MAINTENANCE

The City of Gatesville maintains approximately 61 centerline miles of streets within the city limits. These include virtually all residential streets, as well as a number of streets within the business district that are not designated as US Highways, State Highways or Farm to Market Roads, which are all maintained by TXDOT. Maintenance services include pothole repair and patching, resurfacing and reconstruction of streets, snow and ice removal, coordination with utility repair and construction, sidewalk repair and maintenance, storm drainage, the repair and replacement of traffic control and street name signs on city system streets, and street lighting.

### SANITATION

The City of Gatesville provides solid waste collection services to customers within the city limits through a contract with a private waste management company. Currently, residential solid waste and yard debris is collected twice weekly, with the city divided into two residential collection zones. The contractor also collects solid waste from commercial establishments in the city through individual arrangements with each business with options for either standard collection or dumpster service. All solid waste is currently taken by the contractor to the landfill in Temple. The city operates its own recycling program, with a drop-off location at the city utility yard. Following collection by the city, the materials are

transported by the city to North Fort Hood for recycling. Bulk items are collected once per week by the city's contractor, and residents are also permitted to drop them off at the city utility yard twice per month.

#### WATER AND SEWER UTILITIES

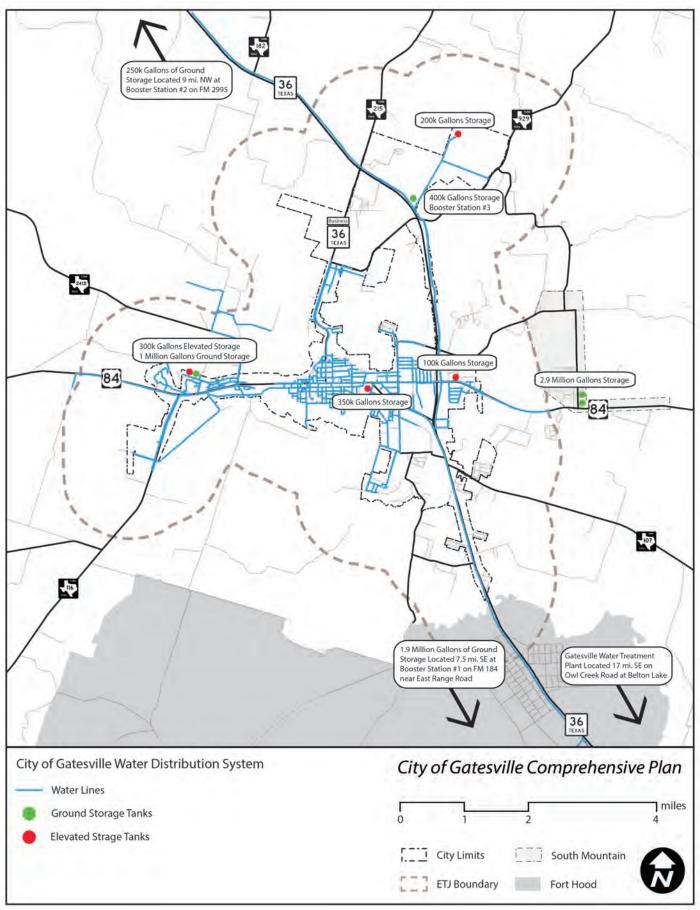
The City of Gatesville operates its own water production and distribution system as well as a wastewater collection and treatment system. Both systems primarily serve customers within the city limits, although the city does provide treated water as a wholesaler to several large customers and provides wastewater treatment services to the US Army facilities at North Fort Hood.

The Gatesville water system (see Map 3.1) draws raw water from Belton Lake and treats it at its 13 million gallon per day capacity treatment plant on Owl Creek Road near the Coryell/ Bell County line. Water is transported via pipeline from the treatment plant to the city's water storage and distribution system via a 30 inch transmission line.

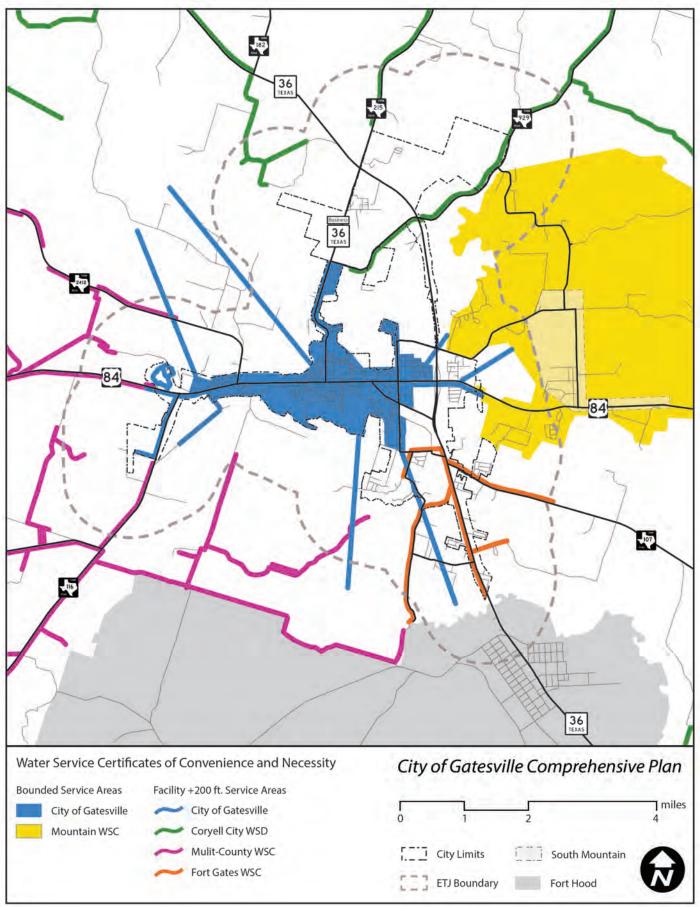
The city maintains a significant amount of ground and elevated storage capacity in its network, with 11 tanks that provide 7.4 million gallons of storage capacity. In addition, the TDCJ and Fort Hood also maintain almost 2 million gallons of additional storage capacity on their internal systems. The water transmission system is comprised primarily of reinforced concrete and PVC pipes, which have an average age of around 30 years.

Annualized customer demand on the system is around 5.5 million gallons per day, with around 6.4 million gallons of demand on a typical summer day and a much lower 4.8 million gallons of demand on a typical winter day. Based on these past usage statistics, the treatment plant is currently running at around 50% capacity, and the city's water storage capacity is sufficient to hold more than a full day of demand. Based on permitting rules, the city would be required to plan for treatment capacity expansion when it reaches 10.4 million gallons per day of use. This translates into around 4-5 million gallons per day of spare customer capacity.

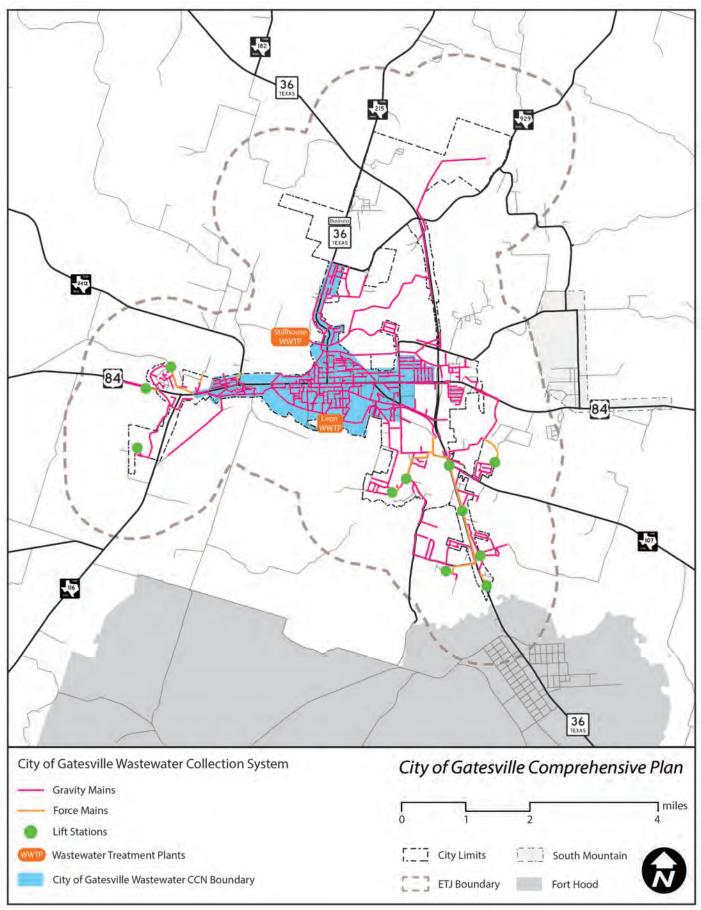
Gatesville's permitted water service area is dictated by its Certificate of Convenience and Necessity. The city's CoC (see Map 3.2) consists of both a bounded area that corresponds to the extent of the water system at the time the CoC was obtained, as well as a "facility + 200 foot" service area that extends linearly from the bounded area. Surrounding the city are the Mountain WSC to the east, the Coryell City WSD to the north, the Multi-County WSC to the west and the Fort Gates WSC to the south. With the exception of the Fort Gates WSC, none of the other water systems provide retail service within the city limits.



Map 3.1: City of Gatesville Water Distribution System



Map 3.2: Water Service Certificates of Convenience and Necessity





#### PUBLIC SERVICES AND FACILITIES

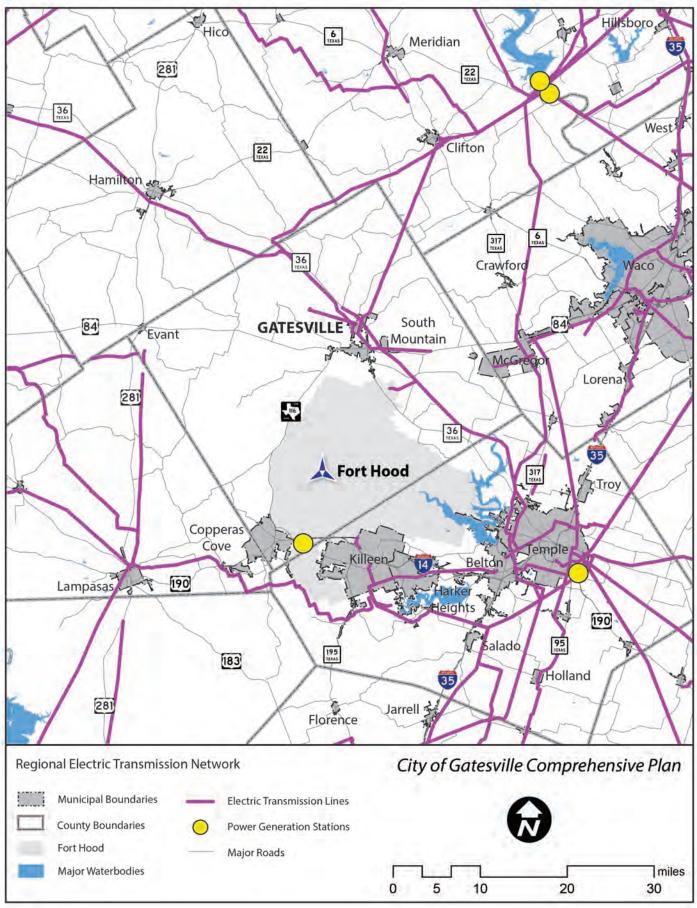
Gatesville's municipal wastewater system, like its water system, is primarily focused on customers within the city limits, although it does also serve the US Army facilities at North Fort Hood (see Map 3.3). The system includes two wastewater treatment facilities: the Leon Wastewater Treatment Plant, which has a 1.5 million gallon per day capacity and the Stillhouse Wastewater Treatment Plant, which currently has a 2.2 million gallon per day capacity, which will be expanded to 2.7 million gallons per day by FY 2021.

The Stillhouse WWTP primarily serves areas north of Stillhouse Branch, as well as the SH 36 corridor north of Osage Road. This includes the TDCJ facilities, which is the city's largest wastewater customer. All flows into the Stillhouse WWTP are by gravity, with no lift stations on the portion of the system that drains to the WWTP. The Leon WWTP serves the remainder of the city's sewer service area, with a primarily gravity drained system through the core of the city. West of the Leon River, lift stations are required to serve the area around FM 116, while a series of lift stations also serve the SH 36 corridor and residential areas south of the SH 36 / Main Street intersection in the southeastern portion of the city.

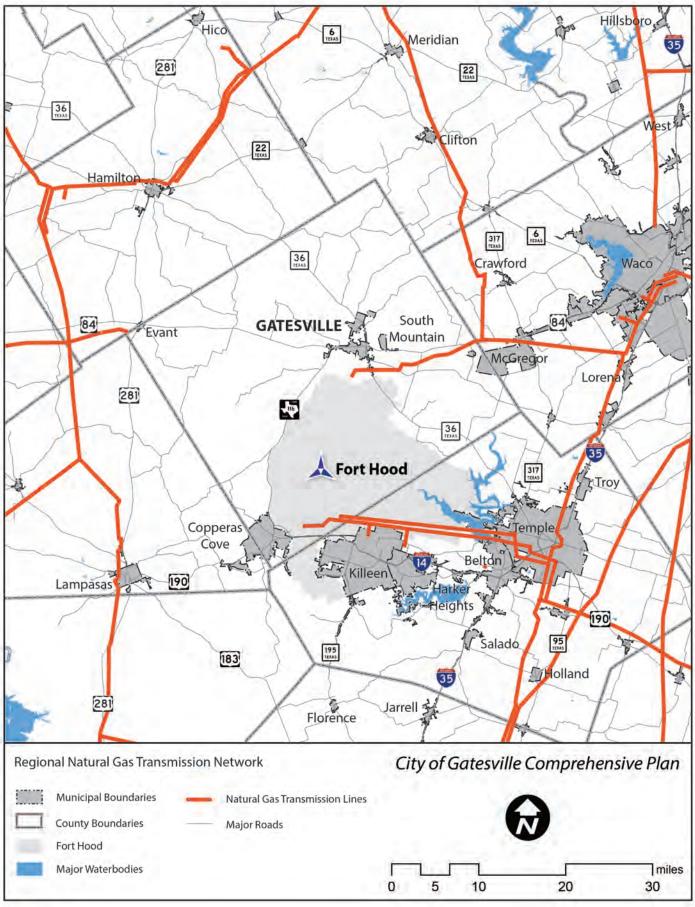
Based on observation of historical flow data, both of the city's wastewater treatment plants are at the point where the design of capacity expansions is either prudent or required by their operating permits, and the planning process for the expansion of the Stillhouse plant is underway. Based on topography and planned growth patterns, it appears that an opportunity may exist to consolidate the city's WWTPs into a single location further downstream along the Leon River close to North Fort Hood. This would likely permit the elimination of most lift stations in the city. Combined, the elimination of the city's complex network of lift stations and force mains along with the strategic consolidation of wastewater treatment operations could provide long-term cost savings to the city.

### **ENERGY UTILITIES**

The City of Gatesville is located within the electric service territory of Texas New Mexico Power, which is the Transmission Distribution Utility (wholesale provider) in the local deregulated retail electric market. Portions of the city are also served by the Hamilton County Electric Cooperative, and some of the city's major water infrastructure (raw water intake, treatment plant, and booster station) located outside of the city are served by Oncor and the Heart of Texas Electric Cooperative. Map 3.4 shows that Gatesville is at the junction of major regional electric transmission lines, which gives it access to strong energy resources for economic and industrial development. Gatesville, also has the benefit of having access to piped natural gas for both residential and commercial / industrial customers through Atmos Energy, which has a major gas transmission line that serves the city and North Fort Hood (see Map 3.5).



Map 3.4: Regional Electric Transmission Network



Map 3.5: Regional Natural Gas Transmission Network

### **TELECOMMUNICATIONS**

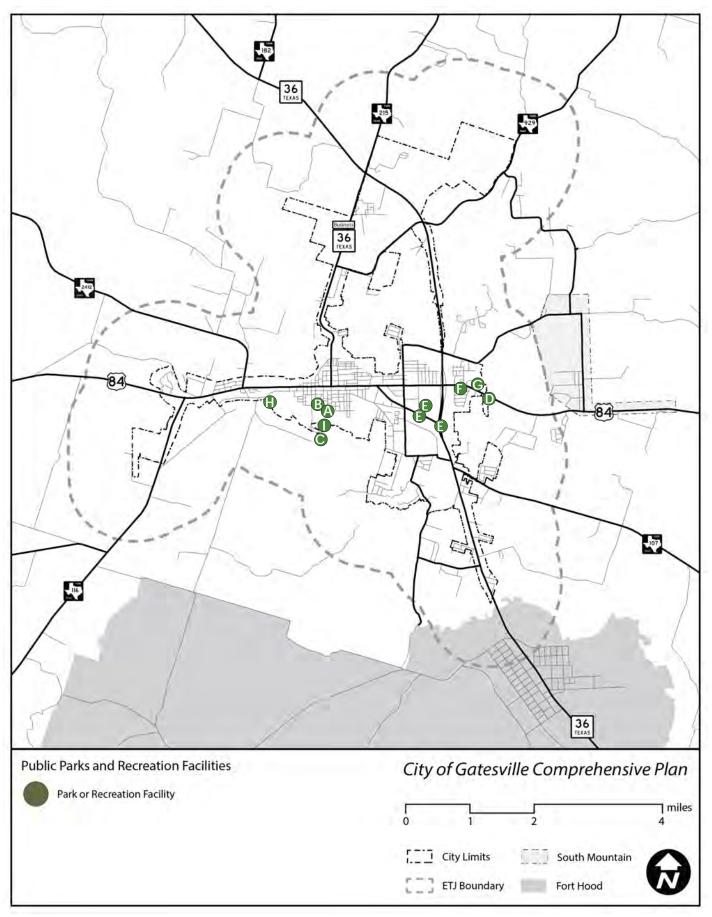
At the present time, access to high speed and high capacity telecommunications infrastructure in Gatesville is very limited and very expensive. While cable based internet is available in the city, the speed of the service (generally 6-10 mbs) is not commensurate with its price or the needs of the business community. Although DSL connections are widely available throughout the city as well, the speeds associated with that type of service are even less compatible with the needs of either households or businesses. While the Gatesville ISD and some other major customers have been able to gain access to higher speed infrastructure, it has come at a great cost and does not directly benefit the community as a whole. A fiber connection to the main telecom backbone that runs along the I-35 corridor does currently reach as far west as North Fort Hood, but there are legislative, financial and business operations (number of potential customers) related obstacles to extending it into the city. Since municipalities in Texas are currently prohibited from competing in the internet market, any city sponsored solution to the issue will need to focus on partnerships. Finding such a solution to improve telecommunications access in support of both economic development and improving residents' quality of life will be critical to the city's future.

### **3.4 PARKS AND RECREATION**

### **PARK FACILITIES**

The City of Gatesville provides a wide range of parks and recreational facilities for its residents use and enjoyment. As the only true provider of facilities for organized recreation in the area, the city's facilities also serve a large number of residents from outside the city. The city's robust facility offerings include both indoor and outdoor swimming pools, a splash park, a skate park, a large baseball facility, a riding arena, a fitness center, and several general purpose / passive parks. In addition to the city's parks, the Gatesville ISD also has a number of recreation facilities co-located with its schools, including several playgrounds for elementary aged children in addition to structured athletic facilities.

The city's parks and recreation facilities are clustered in two locations, with Faunt Le Roy and Raby parks anchoring the area just south of downtown Gatesville in the "core" of the city, while the Gatesville Civic Center complex and its associated facilities anchors the eastern portion of the city. All of the Gatesville ISD recreation faculties are clustered approximately mid-way between the two primary parks and recreation "hubs" in Gatesville. Areas west of the Leon River are not proximate to any parks, other than the small park (known as Brown Park) that is located on the eastern approach to the old Leon River Bridge. Similarly, areas along the SH 36 corridor south of Main Street also tend to be more distant from parks and recreation facilities, although the private Gatesville Country Club is located in this area.





### PARKS AND RECREATION FACILITIES

Map ID	Name
А	Raby Park
В	City Pool
С	Faunt Le Roy Park
D	City Sports Complex (formerly Lions Club Park)
Е	Gatesville ISD
F	Gatesville Fitness Center
G	Gatesville Riding Club Arena
Н	Brown Park
I	Gatesville Hiking and Biking Trail

Overall, the city does maintain a fairly robust mix of park facilities for the community, although much of this infrastructure, particularly those located in the older core of the city are aging and in need of refurbishment. Of particular note in this category are the Gatesville City Splash Park, which replaced the city's original swimming pool that was built by the Works Progress Administration (WPA) as part of Raby Park, and Faunt Le Roy Park, which has been exposed to multiple significant flood events in recent years.

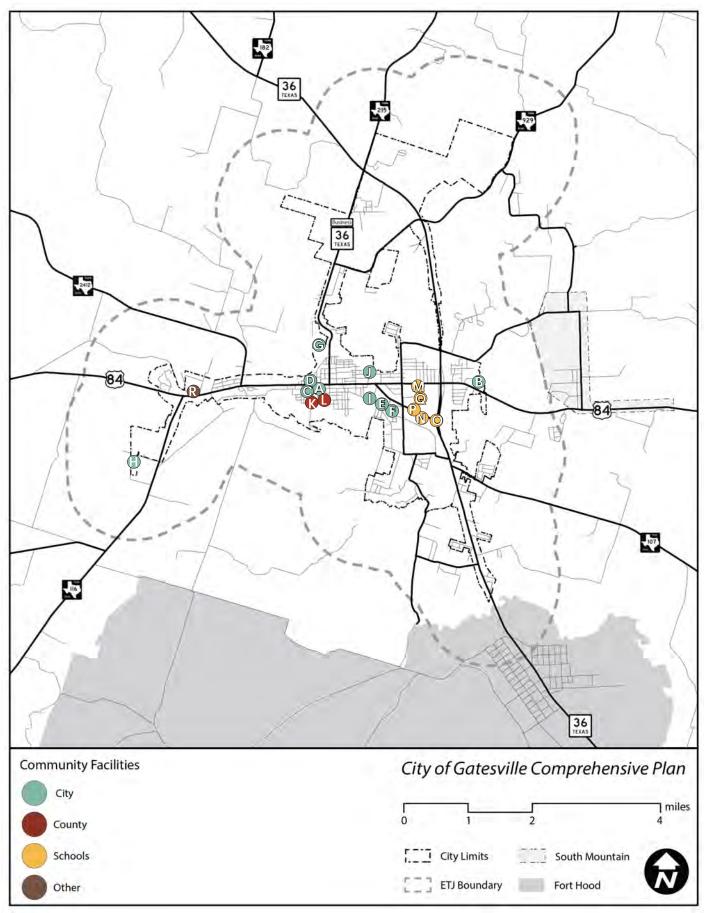
### **RECREATION PROGRAMS**

The city's recreational program offerings are focused primarily on organized youth athletics and adult (including senior adult) fitness classes. The City Sports Complex (formerly Lions Club Park) is home to the city's very popular youth baseball and softball leagues. The city's Recreation Department also hosts youth volleyball, flag football, and soccer leagues, as well as adult softball leagues. The Gatesville Fitness Center offers a wide range of adult group fitness classes (aerobics, yoga, etc.) and several youth and adult aquatics classes at the indoor pool.

## **3.5 OTHER COMMUNITY SERVICES AND FACILITIES**

### CORYELL HEALTH

Originally established in the early 1940s near downtown Gatesville as the Coryell Memorial Hospital, Coryell Health has been in its current location on Memorial Drive since 1977. This full-service medical facility includes 25 patient beds and its emergency department is designated as a Level IV Trauma Center. In addition to its core hospital function, Coryell Health also operates residential skilled nursing facilities on its campus that provide longterm care rehabilitation, and independent living options. In addition to the excellent medical services provided by Coryell Health, the region as a whole has significant medical resources, with major hospitals in Killeen (including Darnall Army Medical Center on Fort Hood), Temple and Waco, which are easily accessible from Gatesville.





### **COMMUNITY FACILITIES**

Map ID	Name		
City of Gatesville			
А	City Hall/ Gatesville City Auditorium		
В	Gatesville Civic Center		
С	Gatesville Public Library		
D	Gatesville Police Department		
E	Gatesville Public Works Department		
F	Gatesville Fire Department		
G	Gatesville Animal Control		
Н	Gatesville Municipal Airport		
I	Gatesville City Cemetery		
J	Restland Cemetery		
	Coryell County		
K	Coryell County Sheriffs Office/ Jail		
L	Coryell County Courthouse		
Gates	sville Independent School District		
М	Gatesville Elementary		
N	Gatesville Primary School		
0	Gatesville Intermediate School		
Р	Gatesville Junior High School		
Q	Gatesville High School		
	Other		
R	Coryell Health		

### GATESVILLE INDEPENDENT SCHOOL DISTRICT

The Gatesville Independent School District is the public education agency that serves the City of Gatesville as well as a large area of unincorporated Coryell County that stretches across nearly 500 square miles of central and northern Coryell County and extends to the borders of Bell, Lampasas and Bosque County. The district operates five public schools, all of which are located in Gatesville. The schools are clustered in a campus setting with all but one of the four located together between Main Street and US 84, and the remaining school located just across US 84 from the others.

Currently, the district serves a student population of around 2,750 students. The 2017 report from the Texas Education Agency assigned a "B" to the district (based on an A-F school grading scale), and indicated that the school's performance had increased fairly significantly between the two most recent reporting period, although the "B" grade remained unchanged. Of significant note in the report were that the district scored an

#### PUBLIC SERVICES AND FACILITIES

89 out of 100 possible points on student achievement and 92 out of 100 points in the school progress assessment category. The district's student outcomes are very positive, particularly given that the nearly 53% of the district's student population is economically disadvantaged. Despite this, the district's student achievement measures were extremely high in the graduation rate category (95 out of 100 points reflecting a nearly 99% five-year graduation rate) and the college, career and military readiness category (98 out of 100 points reflecting a 91% readiness rate). These strong performance grades indicate that the district is providing high quality educational services to the community, which should help to both attract and retain young families in the region.

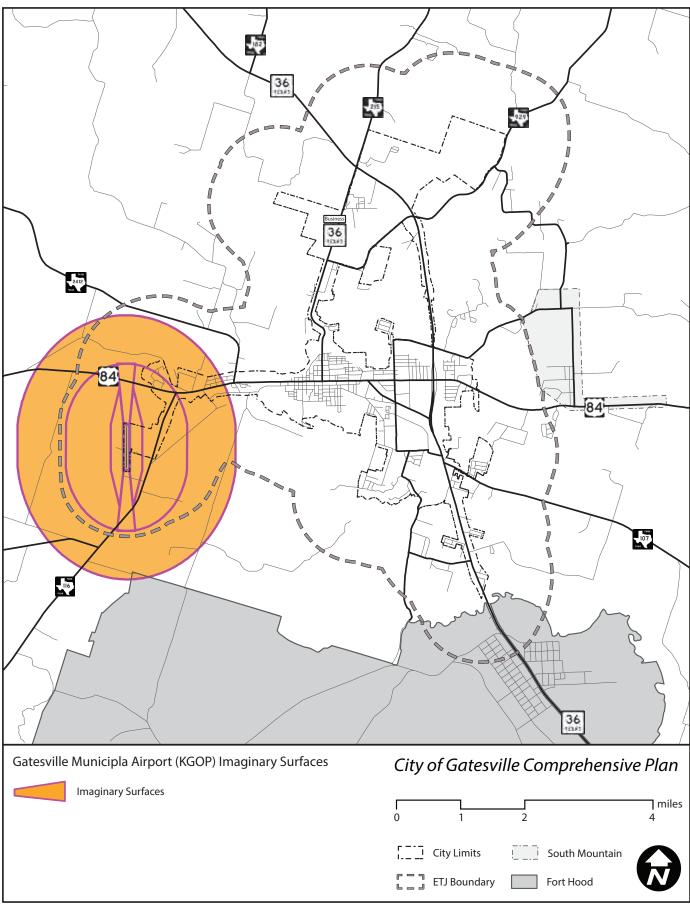
#### GATESVILLE PUBLIC LIBRARY

The Gatesville Public Library is located in downtown Gatesville, across the street from City Hall. Operated as a city department, the library is a cherished part of the community, particularly for children and families, as it provides a wide range of programming and services for the community. The library currently has around 40,000 volumes in its collection, and it is a member of the TexShare and Texas Group Catalog programs, which essentially provide the community access to an unlimited selection of material through digital platforms and interlibrary loans. The library also offers free internet access for its patrons, as well as video conferencing capabilities. The investment that the city has made in the library have been critical to its success, and continuing those investments will help to ensure that the library retains its ability to serve as a vital asset for the community.

### GATESVILLE MUNICIPAL AIRPORT

The Gatesville Municipal Airport is located between FM 116 and US 84 on the west side of the city. Known also by its FAA designation of KGOP, the airport features a 3,400 foot runway with non-precision visual flight rules (VFR) approaches. The airport primarily serves local general aviation, with around 25 operations per week. 10 aircraft are currently based at the airport. Although the airport is unattended outside of normal business hours, it does provide 24 hour access to aviation fuel. Services at the airport also include major airframe and power plant repair, as well as bottled and bulk oxygen. While the airport's runway is not sufficient in length for operating private jet aircraft, it can accommodate a wide variety of other corporate and private aircraft, which is critical for providing quick access to local industries.

Protecting the viability of the airport will be critical to its future success, this includes protecting both the airspace around the airport as well as ensuring that the development patterns around the airport are conducive to the aviation environment and do not create



Map 3.8: Gatesville Municipal Airport

any unnecessary risks. From an airspace protection perspective, the airport is surrounded by what are termed "imaginary surfaces" as codified in Part 77 of the Code of Federal Regulations. Within this area, the developers of tall structures are required to submit them to the FAA for a determination as to whether they might pose a hazard to aerial navigation (see Map 3.8). With regard to the compatibility of uses in the area around the airport, the city has the ability, through its zoning regulations, to assign districts and restrict uses in a manner that ensures that potentially incompatible development, such as churches, schools, and residences, are not built in areas that might pose an undue safety hazard to their occupants in the event of an aviation incident.

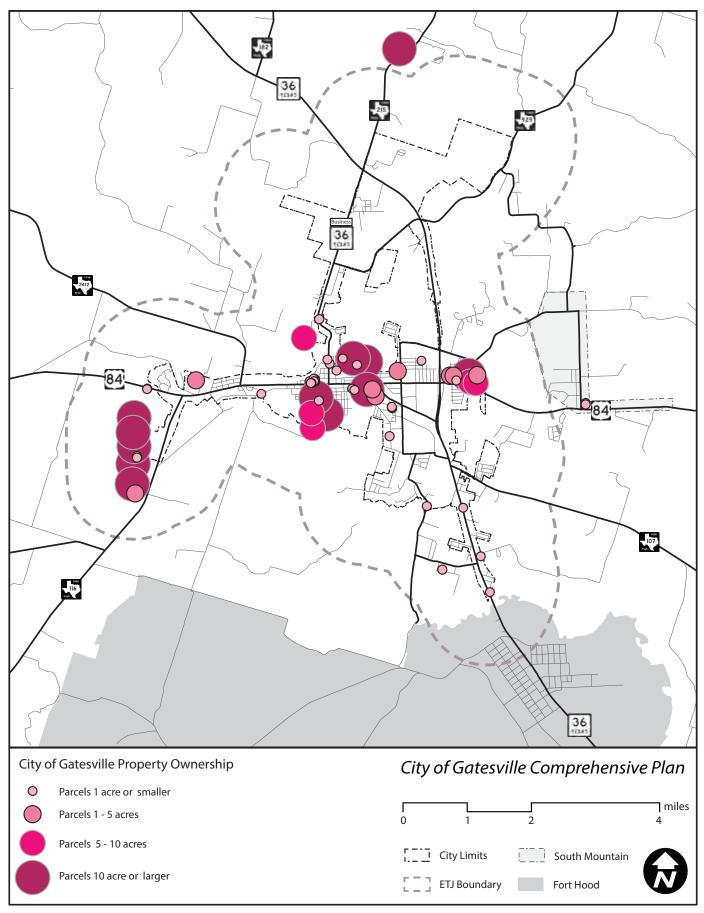
### **OTHER CITY FACILITIES**

Other facilities owned and operated by the City of Gatesville that are not discussed elsewhere in this section include the Gatesville City Hall and Auditorium, the Gatesville Civic Center, the Public Works facility, an Animal Control facility, and two public cemeteries. The building housing the city hall and auditorium functions as the seat of government and houses the majority of the city's administrative and customer service operations, as well as the municipal court and city council chambers. Dating from the late 1930s, City Hall is now functionally obsolete, with significant unmet needs for information technology capabilities, as well as security and safety improvements.

It is anticipated that many of the current administrative functions could be moved to a joint public safety and municipal administration building that the city is currently contemplating to replace city hall and the police headquarters. This, in turn, would allow for potential upgrades to the current building, which would still house the city auditorium, which serves as the primary artistic performance venue in the community.

The Gatesville Civic Center provides critical capacity for the city to host large events and attract tourism dollars to the community. With a 7,000 square foot ballroom, the Civic Center can host gatherings of up to 500 seated guests. The facility also includes a smaller 50 person classroom style meeting facility and a covered barn with seating for up to 100 spectators.

The City of Gatesville is a major landowner within the city limits. Map 3.9 on the following page shows the distribution of the city's land resources, including all of the previously mentioned facilities in the city. By virtue of having such significant land resources under its control, the city should have the flexibility to meet most of it needs for providing public facilities to carry out its mission of serving the community.







# **CHAPTER 4: ENVIRONMENT**

## 4.1 INTRODUCTION

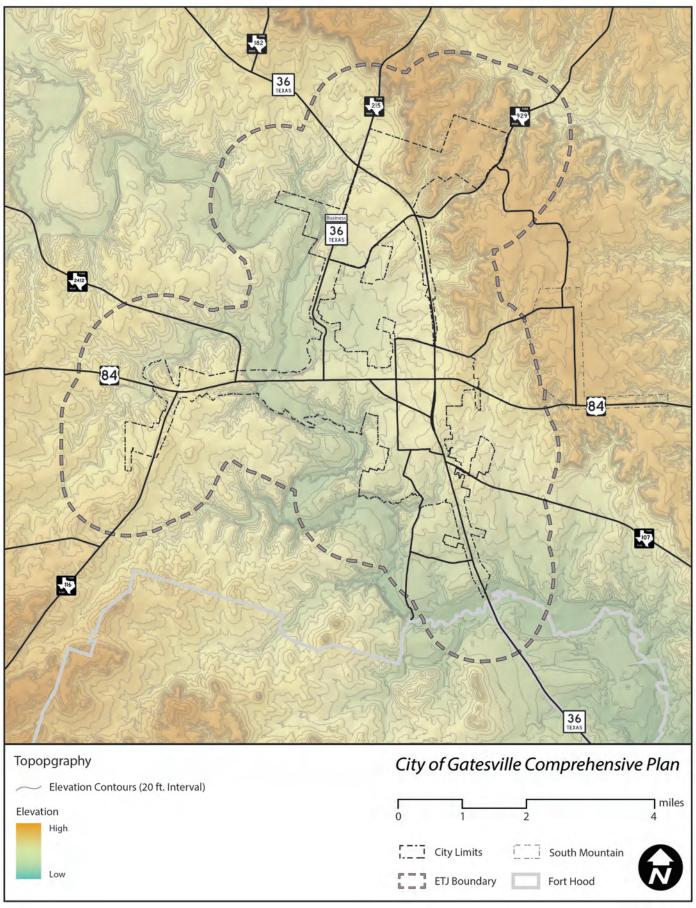
The growth and development of the City of Gatesville, including the type, location, and nature of development, has been greatly influenced by the natural environment. Factors such as topography, the presence of flood hazards, and the suitability of soil have shaped where urban development has occurred. The quality of the environmental resources present within and around the city contribute to the quality of life of the city's residents, and provide both direct and indirect benefits to the local economy, particularly with regard to the agricultural sector. These opportunities and benefits extend to the development of additional outdoor recreational options, both locally and regionally, with the Leon River, for instance, providing an opportunity to develop a regional greenway trail connection and/or paddle trail connecting the city to Belton Lake and Temple.

Natural hazards, manifested primarily in flood prone areas in the city, are important to take into account as plans are made for development and infrastructure that may be incompatible with the degree of hazard presented in these areas. Untreated stormwater runoff, accidental spills of hazardous substances and industrial discharges that impair surface waters can lead to restrictions on development and increase the cost of treating water for domestic consumption. And, as a final example, failure to maintain reasonable levels of airborne pollutants can impose restrictions on transportation funding and industrial development throughout an entire region.

Moving forward, it will be important for the City of Gatesville to be mindful of both the opportunities and constraints associated with the features that compose the natural environment in and around the city. Through proper planning, the city can harness the beneficial aspects of its environment to promote the quality of life of its residents and mitigate the negative impacts of natural hazards on its residents, businesses and critical infrastructure.

### 4.2 TOPOGRAPHY

The topography of the city and immediate environs (see Map 4.1) is characterized by a combination of gently rolling hills and relatively flat expanses. A significant exception to this are the relatively dramatic slopes that are formed along the edges of the deep valley that the Leon River has cut through the western and southern portions of the city where there is up to 100 feet of difference in elevation between the low river bottom-lands and the high



Map 4.1: Topography

ground above. The main portion of the City of Gatesville was established on the high, flat ground along the northern / eastern bank of the Leon River, generally protecting the core of the city from the flooding hazards posed by the river. For much of its history, the deep scour carved out by the Leon River has served as somewhat of a natural barrier to growth to the west of Gatesville due to access limitations imposed by the topography and high cost of extending utilities to greatly expand utility services on the opposite side of the river from the core of the city.

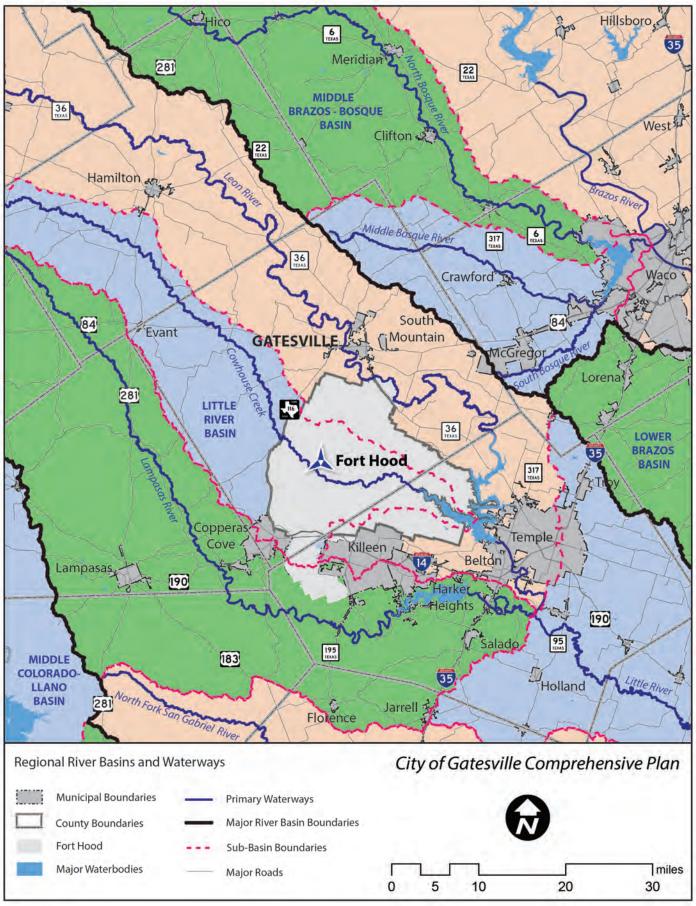
Moving east from the Leon River through the center of the city, US Highway 84 follows a ridge line that gently slopes to the north and south while increasing in elevation toward the east. The terrain is relatively flat due north of the core of the city where TDCJ has established the State Prison Complex. Another broad plain is situated southeast of the city and east of State Highway 36. Due east of Gatesville a rocky escarpment rises to a plateau that sits 100-150 feet above the city and forms a natural barrier to growth to the east and northeast.

Altogether, the topography of the city and surrounding area is generally conducive to urban development, and sufficient land resources of flat, high, developable land are available to accommodate the city's growth needs for the foreseeable future.

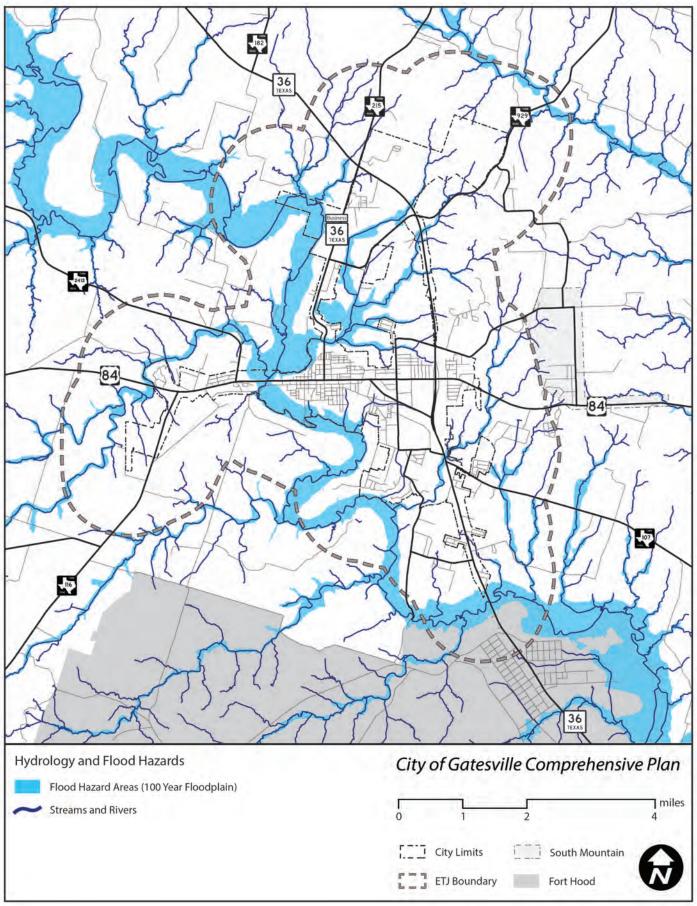
## 4.3 HYDROLOGY

Gatesville is situated in the Leon River sub-basin in the upper reaches of the Little River Basin (see Map 4.2). The Leon River flows 185 miles from its headwaters northwest of Gatesville in Eastland County to its confluence with the Lampassas River in Bell County where it forms the Little River. The Little River is part of the larger Brazos River Watershed, which drains portions of central and west Texas, as well as a small portion of southeastern New Mexico. The Brazos ultimately flows into the Gulf of Mexico at Freeport southwest of Houston. Between Gatesville and its confluence with the Lampassas River, the Leon River is impounded to form Belton Lake, which is managed by the US Army Corps of Engineers for flood control, recreation, and drinking water supply (including Gatesville's source for raw water).

Locally, the Leon River flows from the northwest to the southeast through Gatesville and its ETJ, forming a fairly significant barrier between the core of the city and the portions of the city and ETJ located west of the river, with the US 84 bridge being the only significant crossing of the river in the area north of Fort Hood. Locally important drainages include Stillhouse Branch, which drains the portion of the city and ETJ north of downtown Gatesville, and Dodd Branch, which drains the area on the west side of the city flowing east from the Gatesville Municipal Airport to the Leon River. Both Stillhouse Branch and Dodd Branch







Map 4.3: Hydrology and Flood Hazards

ENVIRONMENT

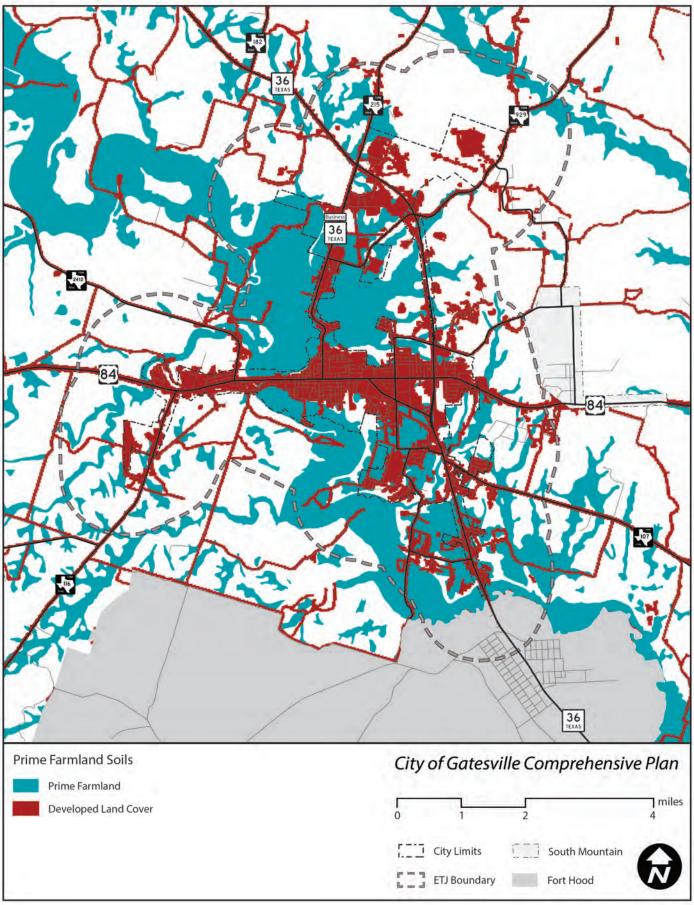
enter into the Leon River just north of US 84. The remaining drainages in the city tend to be small tributaries that flow into these primary streams or into the Leon River itself.

The Leon River, Stillhouse Branch and Dodd Brach each have associated flood hazards, in the form of areas with a 1% or greater chance of annual flooding (see Map 4.3). The floodplains associated with Dodd Branch tend to be more narrow given the rather confined nature of its course and limited drainage area, while Stillhouse Branch and the Leon River each have much broader associated floodplains due to their flow volumes and lack of immediate confinement of their courses. The widest floodplain in the area is located around the confluence of the two major local streams with the Leon River just north of US 84. As evidenced by recent flood events, the hazards associated with flooding in the area, especially the Leon River, can have significant impacts on life and property, and should be strongly considered as plans for development and public infrastructure are developed and implemented.

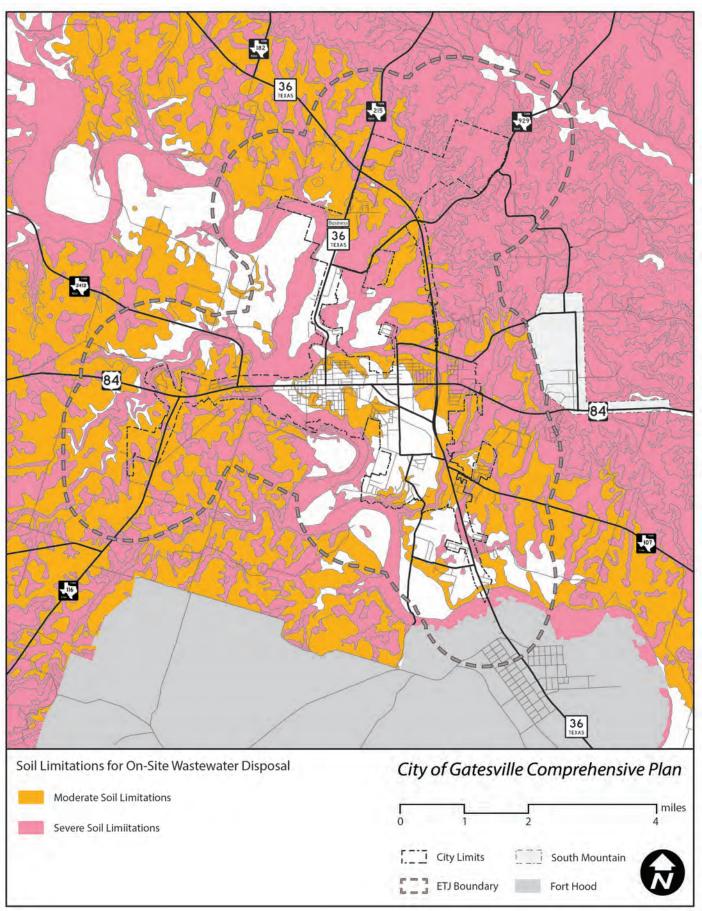
## 4.4 SOILS

The composition of the soils in the area within and around Gatesville were reviewed through the Natural Resources Conservation Services Soil Survey for Coryell County to determine the presence and extent of any significant soil attributes that could influence future land use or development decisions. Among all of the soil properties that were reviewed, there were two that stood out. The first of these, as depicted in Map 4,4, is the location, distribution and relative coverage of soils identified as prime farmland soils in the study area. As the map shows, these highly productive farmland soils are generally located along river bottom areas and associated floodplains, along with those relatively flat areas located immediately north and south of the core of Gatesville on the west side of Highway 36. Prime farmland soils located outside of floodplains tend to also be good areas for development. The presence of the state prison complex on prime farmland soils on the north side of the city has likely hindered much of the additional private development potential in that area, but the area with prime farmland soils south of US 84 is a likely candidate for ongoing conversion from agricultural lands to urban development.

The second factor that stood out in the review of the soil data was the significant amount of soil in the area that had severe limitations for onsite wastewater disposal systems (septic tanks). While the broad delineation of a particular type of soil as being severely limited for the siting and operation of an onsite wastewater disposal system does not mean that it is impossible to use such a system, it does mean that municipal sewer would likely be necessary to facilitate residential development at a density of greater than 1 dwelling unit



Map 4.4: Prime Farmland Soils





per acre, and could likely preclude the operation of higher capacity septic systems for nonresidential development. Map 4.5 on the preceding page details the location and extent of the soils that are either moderately (orange) or severely (pink) limited in their capacity to adequately accommodate onsite wastewater systems. Those soils without limitations tend to correspond closely with the prime farmland soils - much of which is found along the course of the Leon River and may be subject to flooding hazards. The extent of soils with properties that limit onsite wastewater disposal in the area around Gatesville indicates that most, if not all, future development with suburban density or greater will require municipal sewer service to be extended.

### 4.5 THREATENED, ENDANGERED & INVASIVE SPECIES

At the present time, the Golden Cheeked Warbler (*Dendroica chrysoparia*) is the only listed endangered species that is endemic to the area around Gatesville. This bird species nests only in Central Texas in mixed Ashe-juniper (colloquially "cedar") and oak woodlands in ravines and canyons. While commonly associated with nesting in mature Ashe-juniper stands, the dense upland stands of these trees that have emerged in Central Texas do not actually provide habitat for this species since it lacks the necessary hardwood component. Development in areas that contain proper Golden Cheeked Warbler habitat should be undertaken carefully and in coordination with the US Fish and Wildlife Service.

The Black-capped Vireo is a species of bird that is endemic to the Gatesville area which was recently delisted as an endangered species due to successful recovery efforts throughout Texas and Oklahoma. The grassland / rangeland habitats around Gatesville serve as an important habitat for this species when low woody shrubs that provide nesting places are not eliminated from clearing or over grazing. While no longer endangered, this species is said to serve as a bellwether for overall ecosystem health - with the presence of the bird generally indicating good habitat for a range of other species, including deer and quail.

Native populations of freshwater mussel species are found throughout Central Texas. These mollusks are an important indicator of water quality within their habitats, and also serve a role in filtering pollutants. While no species are currently listed as threatened or endangered, efforts (unsuccessful to date) have been made over the past decade to list certain species. Biological studies are ongoing to determine whether protection is warranted for freshwater mussels in the region, and it is not yet known whether one or more species that are endemic to Gatesville's waterways may eventually be listed. If a listing action does occur, this could lead to development constraints, particularly related to stormwater runoff.

The primary invasive species of concern to Gatesville is the Zebra mussel. This invasive freshwater mussel is found in both the Leon River and Belton Lake. The primary consequence of the presence of these prolific mussels are their tendency to interfere with water supplies. With its main domestic raw water intake located on Belton Lake, Gatesville will likely have to deal with the consequences of the presence of these invasive mussels over the long term.

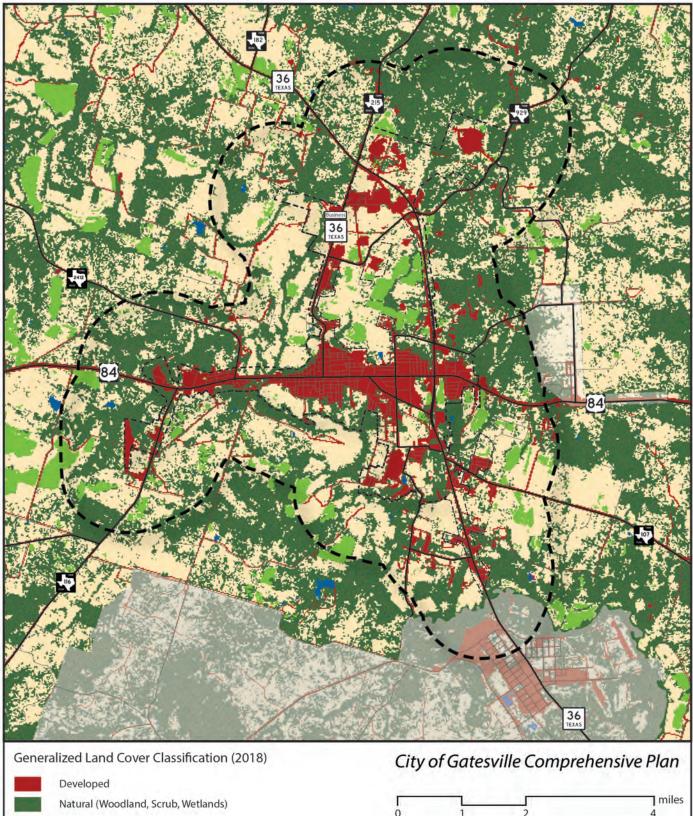
## 4.6 AIR AND WATER QUALITY

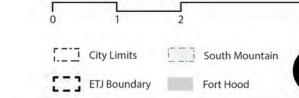
The entire length of the Leon River from Belton Lake to the confluence with Plum Creek north of Gatesville has been designated as an "impaired water" by the Texas Commission on Environmental Quality based on the requirements of the Clean Water Act. The impairment specified as the reason for listing on the 303(d) list is excessive bacterial contamination. No point source is identified, but this is likely due to a combination of urban stormwater runoff, livestock grazing in riparian areas, and other non point sources of pollution.

There are three regional air quality monitors (Temple, Killeen and Waco) that are used by the EPA to determine compliance with the Clean Air Act. To avoid being designated as a "nonattainment area" and become subject to more stringent point source discharge permitting standards and the potential loss of federal transportation funding, 8-hour average ozone levels are required to stay under 71 parts per billion. Over the last three years, the average 8-hour ozone concentration has been 64 (Waco), 68 (Temple) and 69 (Killeen) in the region that includes Gatesville. While the city itself would only be a minor contributor to regional ozone levels, the region's proximity to the non-attainment score could directly affect the city if the entire region were identified as violating the ozone standards.

## 4.7 LAND COVER

The general nature of the type of land cover found across the landscape in and around Gatesville is shown in Map 4.6. Dense urban land cover, consisting of impervious surfaces and urban open space sits at the heart of the city spreading north and south along the US 84 corridor from Highway36 to the Leon River. Outside of this developed core, grassy range and pasture lands are found in most flat areas, including the bottom-land areas with well drained soils. Mixed broad leaf forest / shrub lands tend to dominate riparian areas along waterways as well as along protected slops. Upland areas tend to be mixed forests consisting of either Ashe-juniper dominating over live oak species or vice versa depending on the age of the forest and exposure to fire. As the map shows, there is relatively little land being cultivated for crop production in the area, with most agricultural land tending to be used for grazing livestock, or perhaps hay production.





Map 4.6: Generalized Land Cover

Range / Pasture Cultivated

Water







# **CHAPTER 5: TRANSPORTATION**

## **5.1 INTRODUCTION**

The strength of a city's transportation network is inextricably tied to its economic success, and directly influences the quality of life of its residents. The capacity and connectivity of the transportation network also has a significant degree of influence on land use. Cities with deficient networks, whether resulting from a lack of connectivity, safety issues, congestion, or inadequate provisions for modes of transportation other than motor vehicles, are less likely to attract the types of development interest that can bring jobs and new residents to a community. Conversely, a city with a network that moves people and goods efficiently to, through and around the community will generally see improved prospects for attracting desired growth.

This chapter of the plan explores the current condition of Gatesville's transportation network, including an overview of the vehicular transportation network, alternative modes of transportation, regional connections and freight mobility. Recommendations for improvements to the transportation network are then provided, including recommendations for new facilities, improvements to existing facilities and policy recommendations, as appropriate. These recommendations are directly tied to, and support, the city's future land use plan, as set forth in Chapter 6.

## **5.2 EXISTING CONDITIONS**

#### NETWORK OVERVIEW

Gatesville's transportation network is built around a backbone of highways that connect the city to the Interstate highway network and regional employment centers. These same highways connect surrounding rural areas to the jobs, services, industries, and commercial enterprises that make Gatesville the economic hub of northern Coryell County and beyond. Although Gatesville's origins are rooted in the railroad that made it a center for processing agricultural commodities, this connection to the national rail network no longer exists; leaving trucks and the highways that carry them as the primary means for local businesses, industries, and agricultural producers to reach outside markets.

While Gatesville's transportation network is fairly efficient, it is also decidedly "omni-modal" in its design, with vehicular traffic holding the primary focus of the planners and engineers that designed and constructed the city's current network. This leaves relatively few options for local residents to safely and efficiently move around the city without owning

#### TRANSPORTATION

a car, which can be a major impediment for the mobility of children, the elderly, and economically disadvantaged residents. This is mostly a reflection of the vintage of most of the city's transportation infrastructure - with major improvements to main roads made at a time when alternative modes of transportation were typically an afterthought. By taking purposeful steps to expand transportation alternatives that can serve all residents, the city will help to increase not only physical mobility, but economic and social mobility as well.

#### **HIGHWAY AND STREET NETWORK**

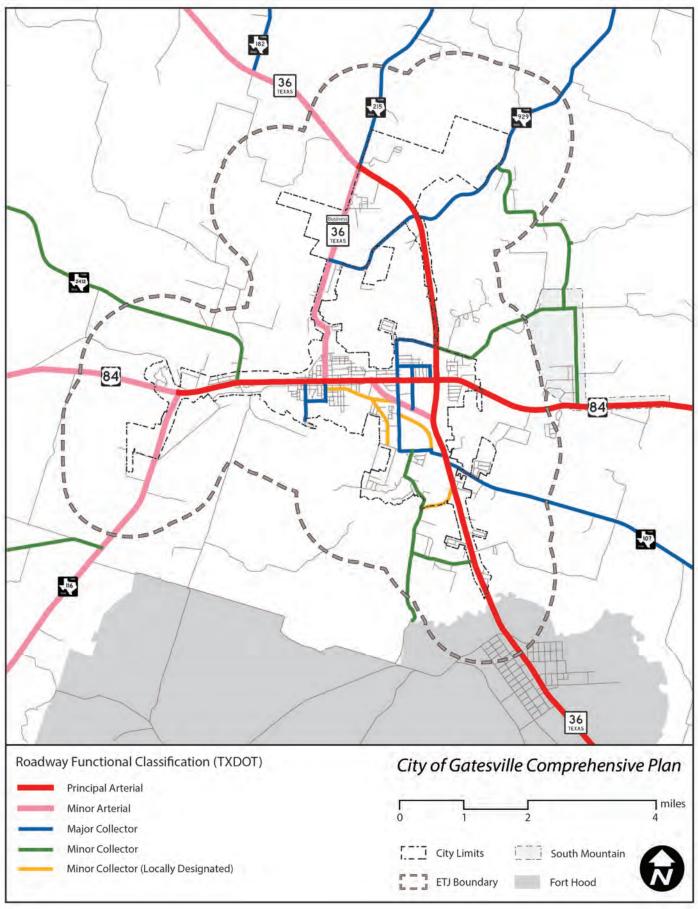
Gatesville is served by a backbone of two principal arterial highways that carry the majority of traffic through the city and connect it to the region. US Highway 84 provides a direct connection to Waco, while State Highway 36 provides a direct connection from Gatesville to Temple. Both of these highways connect the city to the busy I-35 corridor that connects the Dallas Metroplex to Austin, San Antonio and Mexico to the south. Both highways also connect to the I-20 corridor in west Texas at Abilene.

These primary highway routes through the city are supplemented with Business Route SH 36, which was previously the main route of SH 36 through the city. Today, SH 36 Business provides connectivity between US 84 and SH 36, including providing a significant share of the access to the TDCJ prison complex, which is Gatesville's primary employer. A second minor arterial, FM 116, connects Gatesville to the Interstate 14 corridor on the south side of Fort Hood.

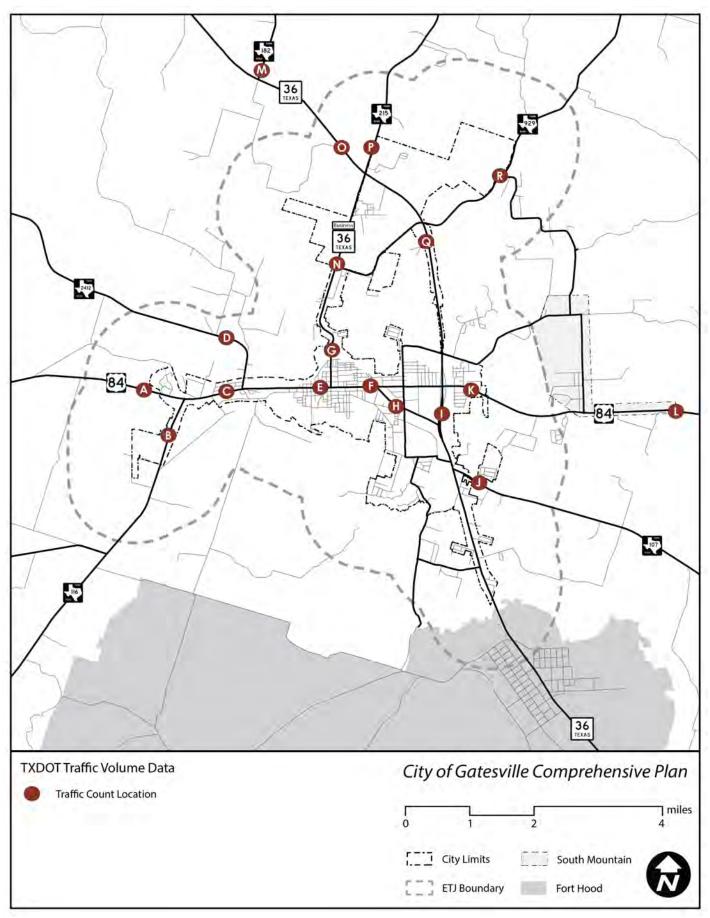
These arterial highways are, in turn, supported by a series of collector roads that funnel traffic from rural areas to the regional highway network via farm to market highways. In the city, the collector street network brings traffic from neighborhoods onto the main network and helps to distribute traffic in a manner that seeks to limit congestion. A map detailing the functional classification of the roadway network is shown on the map in Figure 5.1 (note that roads shown on the map that are not designated as either an arterial or collector are, by default, a "local" road from a functional perspective) The definitions, as generally set forth by the US Federal Highway Administration for each of the classifications are as follows:

#### PRINCIPAL ARTERIAL

These roadways serve major centers of metropolitan areas and can provide a high degree of mobility through rural areas. Unlike access-controlled roadways, abutting land uses can be served directly. Forms of access for principal arterial roadways include driveways to specific parcels and at-grade intersections with other roadways.









Map ID	Road Name	2008	2012	2016	2008-2016 Change
A	US 84 / West Main St	3,500	3,400	4,551	30.1%
В	FM 116	5,000	5,100	6,365	27.3%
С	US 84-West Main St	11,000	11,000	13,122	19.3%
D	N Levita Rd	1,200	900	1,210	0.8%
E	US 84-East Main St	16,200	14,300	16,657	2.8%
F	US 84-East Main St	19,500	17,200	18,615	(4.5%)
G	Lutterloh Ave.	4,500	4,600	4,790	6.4%
Н	Main St. / SH 36 Bus.	9,300	9,400	9,896	6.4%
	TX 36	7,900	8,600	9,598	21.5%
J	FM 107	3,100	3,300	3,453	11.4%
К	US 84 / East Main St	8,200	10,600	9,580	16.8%
L	US 84	4,600	4,700	7,201	56.5%
M	FM 182	420	490	749	78.3%
N	State School Rd.	2,600	2,600	2,819	8.4%
0	TX 36	3,700	3,700	5,595	51.2%
Р	FM 215	810	820	1,349	66.5%
Q	TX 36	6,100	6,400	7,093	16.3%
R	FM 929	1,800	1,900	2,056	14.2%

# Table 5.1: TXDOT Traffic Volume

### MINOR ARTERIALS

Minor arterials provide service for trips of moderate length, serve geographic areas that are smaller than their higher arterial counterparts, and offer connectivity to the higher arterial system. In urban settings, minor arterials interconnect and augment the higher arterial system, provide intra-community continuity, and may carry local bus routes. In rural settings, minor arterials are identified and spaced at intervals consistent with population density so that all development areas are within a reasonable distance of a higher level arterial. Further, in rural areas, minor arterials are typically designed to provide relatively high overall travel speeds with minimum interference to through movement.

### MAJOR AND MINOR COLLECTORS

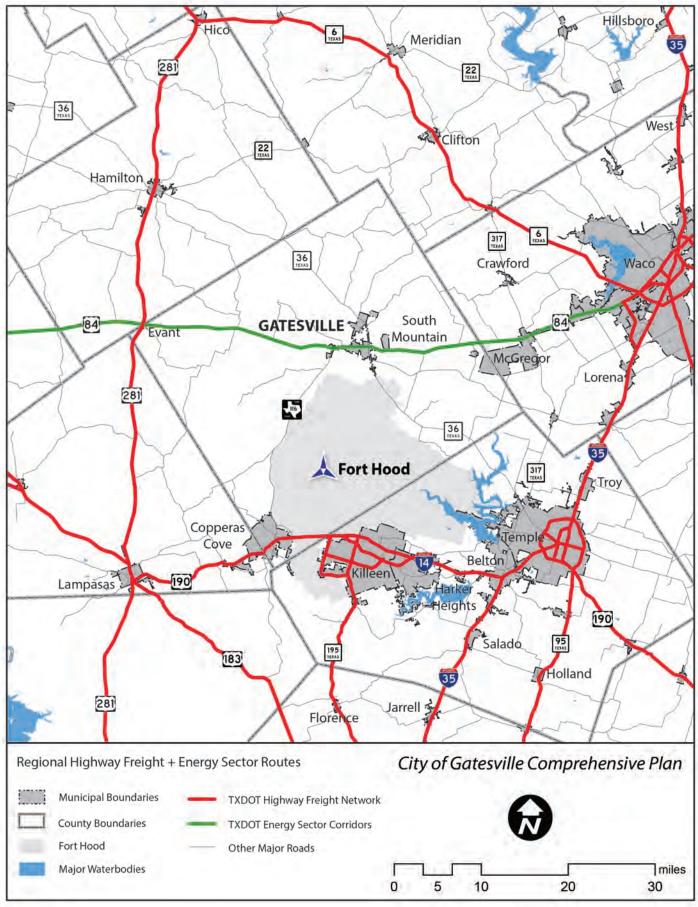
Collectors serve a critical role in the roadway network by gathering traffic from local roads and funneling them to the arterial network. In rural settings, collectors generally serve primarily intra-county travel and constitute those routes on which predominant travel distances are shorter than arterial routes. Generally, major collectors are longer in length, have lower connecting driveway densities, have higher speed limits, are spaced at greater intervals, have higher and average traffic volumes, and may have more travel lanes than minor collectors.

The traffic volume data shown on Map 5.2 and in the corresponding Table 5.1 show the significant increase in volume that the city's roadway network experienced between 2008 and 2016. With increases of over 25% on FM 116, it can be inferred that there has been a major shift in travel between Gatesville and areas south and west of Fort Hood. Traffic volume increase on the west side of the city on US 84 have been observed as well, with 30% more traffic west of FM 116 and almost 20% more east of FM 116. Some large portion of the overall volume increase is also likely tied to the volume of truck traffic moving east and west through the city to service oil and natural gas fields in west Texas. These increases in volume have been fairly uniform on US 84 on both sides of the city, although volumes passing through downtown Gatesville have remained rather stable. Similar volume increases were observed on the SH 36 corridor, with a 15-20% increase in volume through the city, and over a 50% increase north of the intersection with SH 36 Business near the TDCJ prison complex.

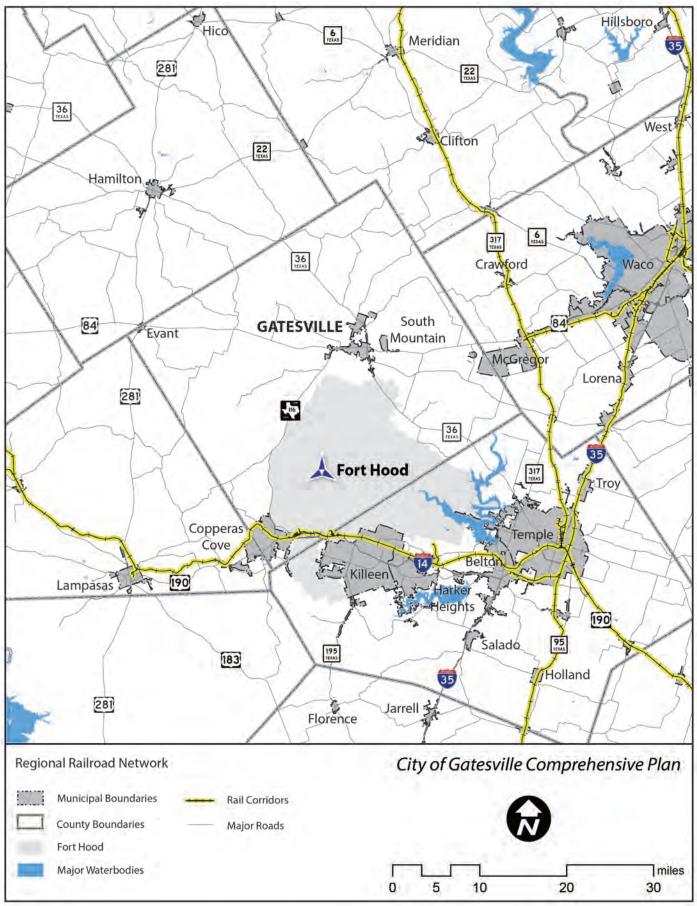
# FREIGHT MOBILITY

Gatesville's future economic prospects are grounded, in part, by the ability of the city to attract employers to the city that will be dependent on accessing the regional and national freight mobility networks. Map 5.3 on the following page shows that Gatesville is positioned midway between two major TXDOT designated freight mobility routes, with the I-35 corridor to the east and the US 281 corridor to the west. US 84, which is not itself designated as a TXDOT freight route connects these two major freight corridors through Gatesville. Although US 84 is not a designated freight route, it has been designated by TXDOT as an "Energy Sector" route based on the amount of truck traffic that uses the highway to connect to the oil and natural gas fields in west Texas. If possible, the city should seek an additional designation of this route as a dual route to maximize its visibility to potential economic development prospects.

As noted in the introduction, Gatesville was once served by rail access to the national rail network. Although there is no longer direct service to the city, Map 5.4 shows the close proximity of major BNSF rail routes that follow the I-35 corridor east of the city and run east-west along the south side of Fort Hood. With a major rail hub in Temple, and a large number of rail-served industries along the main corridor, the primary opportunity for Gatesville related to rail freight would be the general proximity of access to the north-south BNSF line for industries that needed close, but not direct, access to the national rail freight network. An emerging opportunity that is under study would see the construction of an intermodal yard in the Killeen / Copperas Cove area, which could eventually provide new industrial development opportunities for Gatesville on the FM 116 corridor.



Map 5.3: TXDOT Freight Mobility Routes



Map 5.4: Regional Railroad Network

## PEDESTRIAN AND BICYCLE NETWORK

Given the vintage of the city's overall transportation network, the timing of major periods of development, and the general focus of the network on moving vehicular traffic, there have been few, if any, major investments made to provide infrastructure for non-motorized modes of transportation. Pedestrian facilities are found most prominently on roads in the core commercial area of downtown Gatesville, as well as on a limited number of older residential streets. Some of US 84 has sidewalks along commercial frontages, with these facilities being more common closer to the historic core of the city. East of downtown they have been installed along some commercial road frontages and not others and are virtually nonexistent east of SH 36 Business. West of downtown on US 84, sidewalks have been installed to the Leon River Bridge, but not across it. West of the river, the sidewalks on US 84 pick up again around Scenic Drive and are present on at least one side of the highway to its intersection with FM 116. The general lack of continuous connectivity to and through commercial and employment areas of the city place a general burden on lower wage workers, residents with disabilities, and others who may not have access to a car, but would benefit from having safe pedestrian access to these areas.

As noted previously, most neighborhoods in Gatesville are not served by sidewalks. The primary exception to this is the neighborhood located just east of Gatesville Elementary School, which appears to have the greatest density of sidewalks in the city and the greatest number of individual residences with direct access to the pedestrian network. In addition to the lack of connections to residential areas, there is a general lack of connectivity to and between major civic and institutional uses in the city. Notable among these are the city's consolidated school campus, which has some limited sidewalk connectivity along US 84, but lacks both internal and external connections along other frontages and access-ways. City parks located close to the core of the city have generally better pedestrian access than the Civic Center and Sports Complex, although all suffer from a lack of connectivity to more than a limited number of directly connected residential areas. Improving pedestrian connectivity and access for these important community assets will significantly improve the quality of life for the city's residents.

Facilities for bicycling, such as on-street designated bicycle lanes, shared use paths and similar features are not currently a part of the city's transportation network. Significant opportunities exist, however, to develop shared use facilities along the many potential greenway corridors that lie along the city's floodplains. Similar opportunities exist for shared

use paths along the city's major arterials and collector streets.

# **5.3 TRANSPORTATION IMPROVEMENTS**

A series of potential transportation improvements are detailed on Map 5.5 on the following page. These proposed improvements are intended to provide support to the city's future land use vision by providing alternative routes that divert pass-through traffic, improving connectivity between major highway corridors and opening new land for development in consistency with the Future Land Use Map. The routes shown on the map are not surveyed or meant to imply a specific location, but rather show the desired connectivity or area of improvement that is contemplated. These routes and improvements are described in more detail below.

### SEGMENT A

This potential route is intended to provide relief for connections between US 84 and SH 36. This route also would provide a segment of a longer connection that would form a potential northern bypass of the city via segments B, C and D. If constructed, there is an opportunity to eliminate the current interchange and overpass north to the new location and eliminate the freeway style interchange at this major urban intersection.

#### SEGMENT B

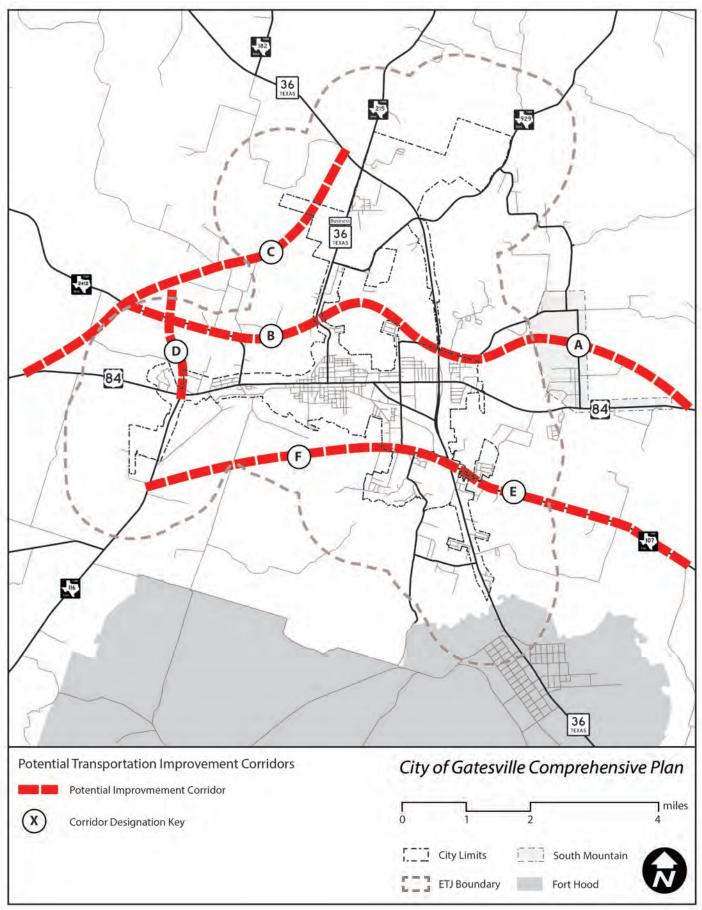
This route would be dependent on the construction of Segment A, as well as either C and / or D. This route provides east-west connectivity for a potential northern bypass of the city, and provides connections to both a potential extension of FM 116 (Segment D) as well as the US 84 / SH 36 connector (Segment C).

#### SEGMENT C

Segment C provides a potential connection between SH 36 north of the city and US 84 west of FM 116. As a standalone project, Segment C provides an opportunity to relieve traffic that currently uses US 84 and Lutterloh Avenue to reach the TDCJ complex and SH 36 north of the city. When combined with segments A and B, this would form part of the western leg of a northern bypass of the city as well, although its utility as a standalone project would remain without the other segments.

#### SEGMENT D

The extension of FM 116 north to FM 2412, as well as potentially segments B and C, would



Map 5.5: Transportation Improvements

provide opportunities to open land in this area for new development, as well as provide a direct connection to a future northern bypass and the US 84 / SH 36 connector, thereby relieving FM 116 traffic that currently utilizes US 84 and SH 36 Business to access points to the north and east of the city.

### SEGMENT E

The route of Segment E follows FM 107 along its current route to FM 1829, which connects back to US 84 approximately 6 miles east of the city. The designation of this segment is primarily intended to indicate an upgrade of the existing roadway as either a standalone route to provide access to the potential FM 107 industrial development area shown on the Future Land Use Map, or to serve as a potential segment of a southern bypass of the city in concert with Segment F, or both.

### SEGMENT F

This final route was conceived to serve as either a standalone connection between FM 116 and SH 36 or as a companion to Segment E, if improvements are constructed, to serve as a southern bypass of US 84 to relieve traffic congestions through the city. While this project could likely stand alone, providing a connection to an improved FM 107 would allow for greater traffic relief for vehicles that are traveling to points west and south of Fort Hood through Gatesville.

# **5.4 TRANSPORTATION POLICY**

As a companion to the major highway improvements discussed in the previous section, the analysis of the current conditions of the local transportation network merit recommendation of several new policies to enhance future investments in the transportation network and improve the functionality of the system for all modes of transportation. The proposed policy recommendations are as follows:

### TRAFFIC IMPACT ANALYSIS

The city should amend its development ordinances to require traffic impact analyses for new major subdivisions that generate more than 1,000 vehicle trips per day and all other development that generates more than 100 peak hour trips. The identified improvements should then be a mandated condition for development.

### COMMERCIAL CONNECTIVITY

The city should review its current development policies related to requirements for interconnections between adjoining commercial developments on major roadways to ensure that opportunities to provide connections between major developments are taken advantage of to reduce turning traffic and congestion on these major corridors.

#### **RIGHT-OF WAY RESERVATION**

The city should review its development ordinances to require the reservation of right-of-way for major transportation improvement projects when development plans are submitted. This will help to ensure that opportunities for major connectivity and functional improvements are not lost or made financially infeasible due to development activity that does not take city plans into account.

#### PEDESTRIAN FACILITIES

The city should seek funding to construct pedestrian facilities along all arterial and collector roads in the city, as well as within 1/2 mile of all schools, parks and major pedestrian traffic generators. The city has also recently adopted a new subdivision ordinance that requires the installation of sidewalks on all new roads developed as part of the subdivision, regardless of location.

#### **REGIONAL PLANNING**

The city should explore opportunities to join one of the Metropolitan Planning Organizations following the realignment process that will occur following the 2020 Census. This would provide the city with access to additional funding for planning studies, design work, as well as a potentially better position in competition for regionally allocated transportation improvement funds for priority projects.



# CHAPTER 6: LAND USE 6.1 INTRODUCTION

# HISTORICAL CONTEXT

At the turn of the 20th Century, the Sanborn Map Company's survey of the City of Gatesville documented a bustling community of 2,200 residents centered on an "urban" area between Bridge Street and Saunders Street, extending from roughly 5th Street in the west to Lutterloh Avenue in the east. Mercantile buildings built with brick and stone surrounded the Coryell County Courthouse, while livery stables, wagon and lumber yards filled the surrounding blocks. At the time, the community boasted a public school, five hotels, public water works and an electric generating plant. As a market hub on the railroad, Gatesville had attracted significant industrial development by this time. In addition to the lumber yards, the city and surrounding area were home to a number of cotton gins, cotton oil presses and roller mills that served the region's agricultural economy. Residential neighborhoods spread east and west of downtown Gatesville along both sides of Main Street, with at least six churches serving as focal points for their neighborhoods.

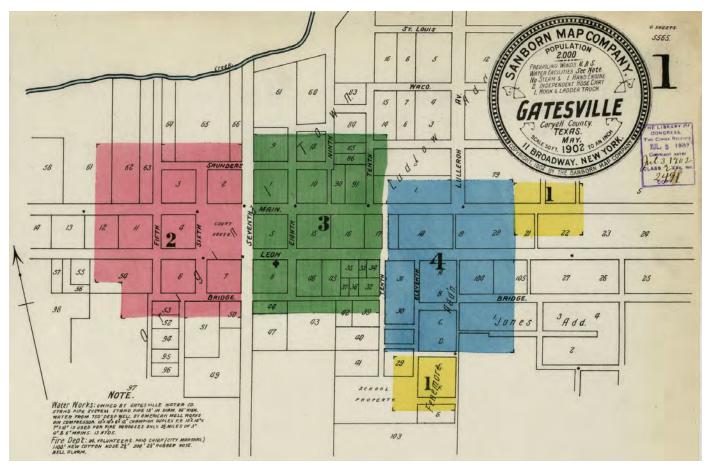


Figure 6.1: 1902 Sanborn Fire Insurance Map Key of Gatesville

LAND USE

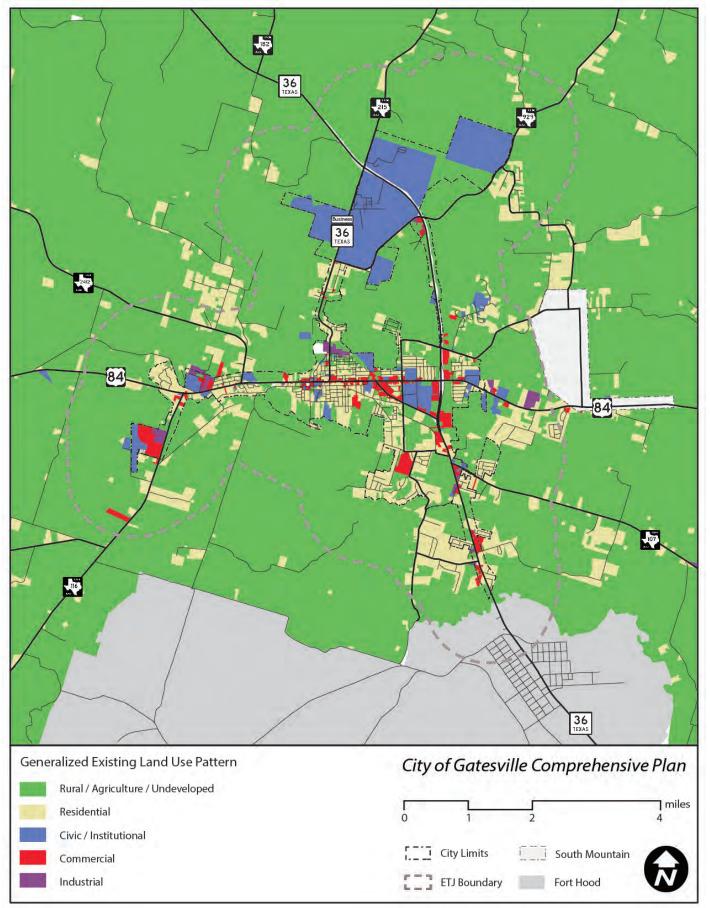
Over time, the grid street network that laid the original foundation for the growth of the city grew eastward to the railroad, with residential neighborhoods being established both north and south of Main Street, which eventually became US Highway 84. Commercial development spread eastward from downtown as well, with auto-centric strip commercial development supplanting the old commercial core of the city. With the opening of the new State Highway 36 route on the east side of the city, commercial development then moved further eastward to take advantage of the changes in traffic patterns and the new land that was opened for development with the rerouting of the primary route of SH 36.

# **EXISTING CONDITIONS**

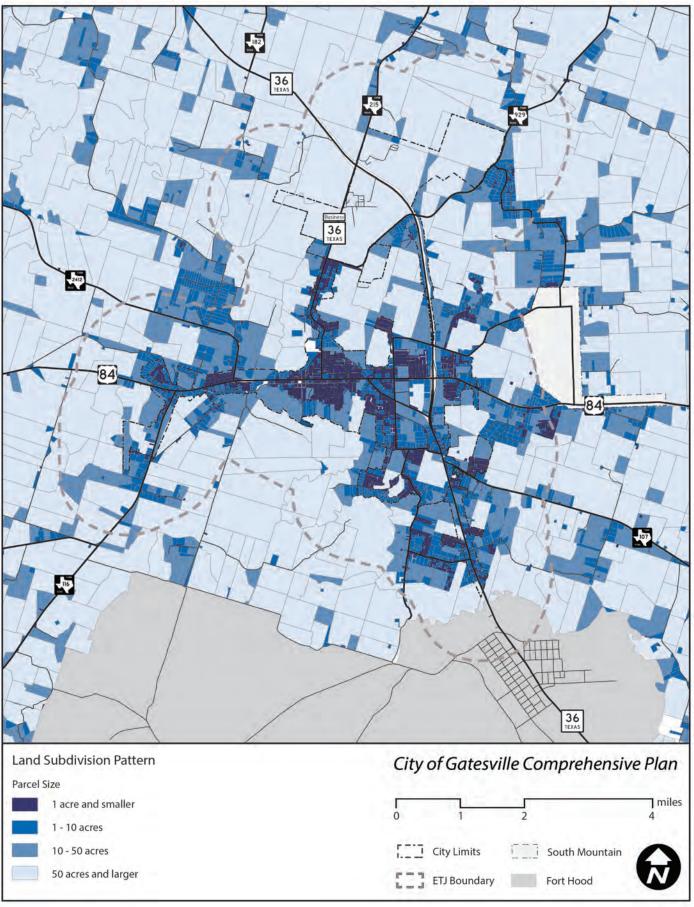
Although the city limits stretch west of the Leon River, there has been relatively little development in this area, with the Coryell Memorial Hospital, several industrial establishments and the Gatesville Municipal Airport, along with two small residential neighborhoods being the primary uses on the US 84 and FM 116 corridors on the west side of the city. Growth to the east on US 84 has been confined primarily to the area around State Highway 36, with the city limits ending around the Gatesville Civic Center. East of the city limits, the Town of South Mountain and rougher topography limit opportunities for much more growth east of the city on the highway corridor.

Suburban density residential development extends south of the city, primarily on the west side of State Highway 36, encompassing the area between the river and the highway. The city limits stretch south along SH 36 almost to the Leon River and North Fort Hood, encompassing the corporate limits of the former Town of Fort Gates, which was subsumed into Gatesville in a large annexation. While the city limits of Gatesville stretch over four miles north of the US 84 corridor and the core urbanized area of the city, the northern part of the city is primarily occupied with Texas Department of Criminal Justice facilities. Exceptions to this include some commercial development along SH 36, as well as a small developed residential area on Business Route SH 36 / State School Road north of Stillhouse Branch near the TDCJ campus.

The overwhelming majority of the land within the corporate limits is currently developed or is subject to some underlying constraint that would impair its development. In order to realize any significant level of growth in the future, the city and potential developers will have to look outside of the current city limits for new opportunities. As Maps 6.1 and 6.2 demonstrate, there is a significant amount of undeveloped land within the city's ETJ and beyond. The following section lays out a plan for the city's future growth based on the availability of undeveloped land, infrastructure requirements, natural constraints and the need to grow in a manner that is compatible with both the city's current development pattern as well as avoiding areas of encroachment concern related to Fort Hood.



Map 6.1: Generalized Existing Land Use Pattern





# 6.2 FUTURE LAND USE

# **OVERVIEW**

This section of the Comprehensive Plan establishes a vision for the future growth and development of the City of Gatesville. This development vision, when combined with associated plans for transportation and utility infrastructure, public facilities, and services to support them form the basic growth policy for the city; giving guidance to the City Council, Planning and Zoning Commission, city staff, property owners, developers and the community as a whole about how and where the city is anticipated to grow and the types of investments that will be needed to support that growth vision.

As an aspirational planning guide, the Comprehensive Plan is intended to inform the adoption and amendment of development regulations and policies, such as the City's Zoning and Subdivision Ordinances. The plan, and future land use map, however do not specifically constitute a legal definition of zoning regulations or the specific boundaries of zoning districts. Rather, the plan helps to guide the City Council and the Planning and Zoning Commission as they implement the development vision through the city's regulatory framework. Following the adoption of the Comprehensive Plan, it is recommended, and expected, that development regulations will be updated to make them as consistent as possible with the plan, including proactively amending the zoning map, where appropriate, to better conform to the development vision. As a long term vision, not every area of potential change would be appropriate to implement immediately, especially if infrastructure investments are needed to support it.

Over time, as the Planning and Zoning Commission and City Council review development proposals, capital improvement plans, and annexation requests, it is expected that they will consult the plan, and the Future Land Use Map in particular, to determine whether the proposal is consistent with the land use vision. While the plan does not bind any specific legislative action, such as a rezoning or annexation, if the Council one day finds that it is making a large number of decisions that are contrary to, or inconsistent with, the plan, then that indicates that it is likely time to undertake a review of the plan and adjust it as necessary to ensure that it is fulfilling its intended purpose.

# LAND USE CLASSIFICATION

For the purpose of creating the Future Land Use Map and establishing the city's development vision, a set of eight land use classifications were developed. Like the map itself, these land use classifications are not intended to equate to zoning regulations, but rather guide the

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city as it reviews its ordinances as it begins the process of implementing the Comprehensive Plan. The following pages of the plan provide additional information and background on each of the land use classifications used on the map. Included on each page are a short description of the classification, an aerial photo depicting the general visual context, a land use component chart that depicts the relative proportion of general land use types, a chart showing the type and relative importance of different modes of transportation, and a development context chart that indicates the intensity / density of development. The eight future land use classifications that were used to develop the map, in order of general intensity, are:

- Conservation
- Rural / Agricultural
- Suburban Residential
- Urban Residential
- Civic / Institutional
- Commercial
- Industrial
- State Prison Complex

Map 6.3, shows the application of the eight land use classifications within the City of Gatesville and its ETJ, as well as surrounding areas that are within the city's sphere of influence. In developing the map, a number of factors were considered when assigning the specific land uses and forming the overall future growth and development framework for the city. Among the primary factors in the development of the map were access to both existing and planned transportation and utility infrastructure, the availability of land that is suitable for development in terms of parcel sizes and natural / environmental constraints, the character of the area - including compatibility with established neighborhoods, compatibility between uses of different intensities (such as between residential and industrial areas), opportunities for economic development, and compatibility with the military training mission at Fort Hood (discussed in more detail in Section 6.3).

# CONSERVATION

The Conservation land use classification is intended for application to areas where natural hazards and environmental constraints make development difficult. These areas would remain virtually undeveloped, with the exception of passive recreation uses, such as greenways, as well as limited public utility infrastructure where required.



# LAND USE



# TRANSPORTATION

#### Low Priority Mode



 Off-street trails, greenways and bicycle routes connect neighborhoods with commercial and civic centers



Virtually no development permitted within conservation areas, with the exception of parks and necessary public infrastructure

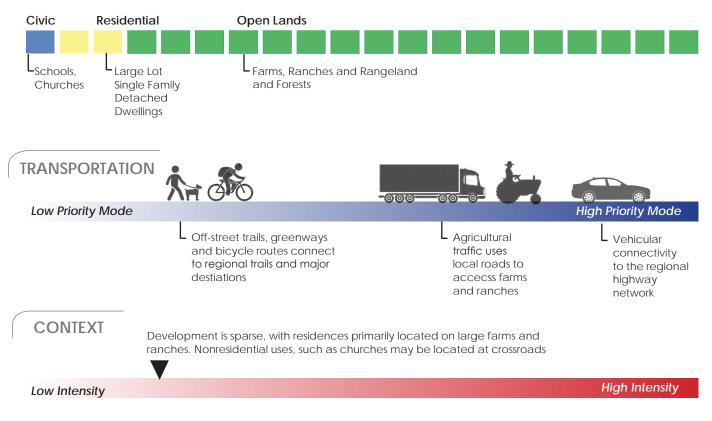


**High Intensity** 

# **RURAL / AGRICULTURAL**

The Rural / Agricultural land use classification is intended for application to areas outside of the city that are generally in use for ranching, farming, and related resource extraction activities. Lands to which it is applied are generally expected to remain in agricultural production, with limited and widely scattered development activity that does not require public utilities.

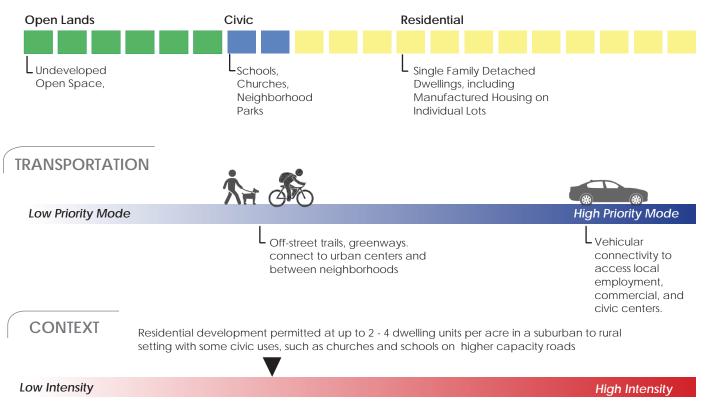




# SUBURBAN RESIDENTIAL

The Suburban Residential land use classification is intended to facilitate the development of new neighborhoods at low to moderate densities (2-4 dwelling units per acre) within areas that have public utility service and access to adequate transportation infrastructure. It is also intended to preserve and protect the character of existing suburban neighborhoods from encroachment by incompatible development.

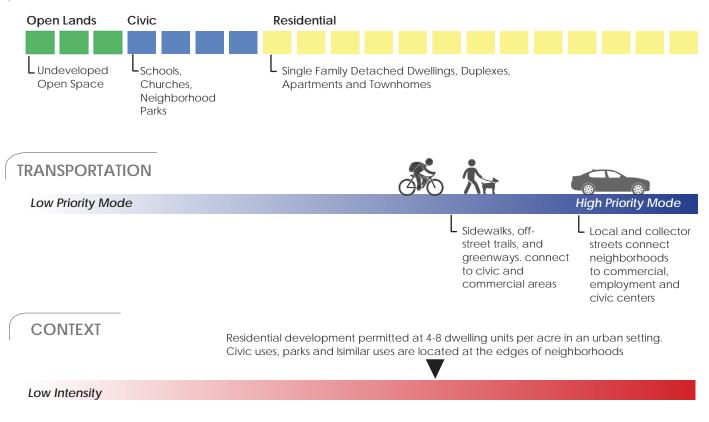




# **URBAN RESIDENTIAL**

The Urban Residential land use classification is intended for application to moderate to high density (4-8 dwelling units per acre) neighborhoods in the core of the city where existing land use patterns, transportation infrastructure, and services are available to support development at this density. It is also intended to help facilitate high-quality development and redevelopment activity within the city's core, including a mixture of single and multi-family dwellings and other compatible uses.



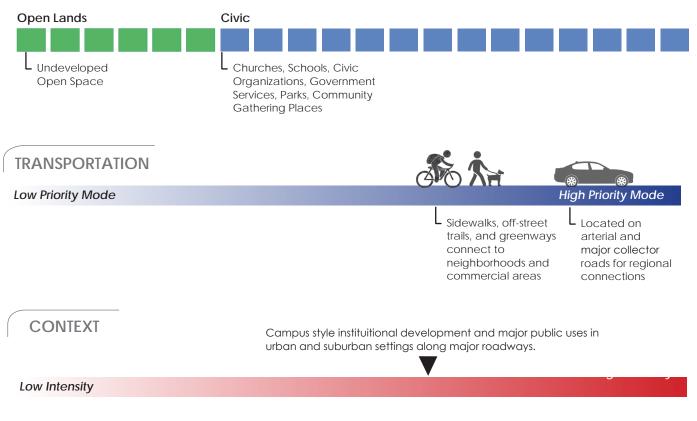


# **CIVIC / INSTITUTIONAL**

The Civic / Institutional land use classification is intended to be applied to areas of the city that host large public and civic uses, such as major parks, schools, medical facilities and related uses. This land use classification is intended to both preserve and protect these important community assets, while also facilitating their growth and redevelopment as expansion and reinvestment takes place in these critical community assets. These areas are typically served by public utilities and have access to major transportation infrastructure.



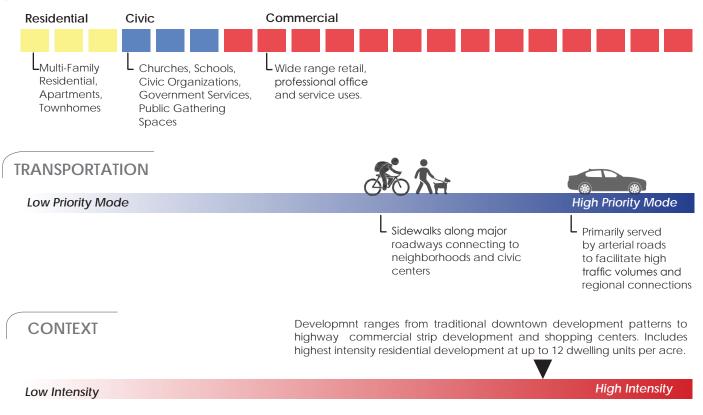




# COMMERCIAL

The Commercial land use classification is intended for application along major transportation corridors that have traffic volumes to support intensive commercial development patterns hosting retail, professional office and service uses that cater to both local and regional markets. These areas also host the highest intensity residential uses at densities of up to 12 dwelling units per acre. Public utilities and adequate transportation infrastructure are present.

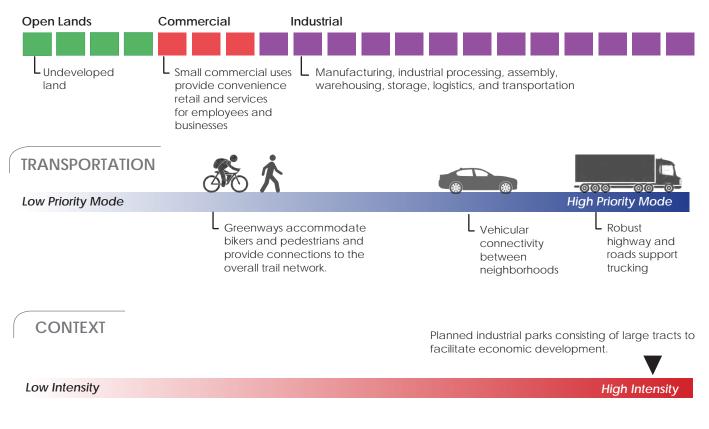




# INDUSTRIAL

The Industrial land use classification is intended to promote the development and sustainment of major employment generators in the manufacturing, processing, assembly, and logistics sectors. These areas are served by major public utilities and have access to the regional highway network. They are typically located in areas that limit potential incompatibility with lower intensity development, such as residential areas, schools and other uses that may be impacted by industrial operations or heavy truck traffic.





#### LAND USE

# **STATE PRISON COMPLEX**

The Texas Department of Criminal Justice prison complex on the north side of Gatesville is perhaps the most significant land use (other than Fort Hood) in the city and its immediate environs. This future land use classification is intended for application to the TDCJ prison complex to facilitate the ongoing use of these facilities for their intended purpose and recognize the significant impacts that their presence has on neighboring properties, the city and the region as a whole.





 Access to the regional highway network to facilitatate large numbers of employees commuting to work.

 CONTEXT
 The prison complex is developed in a campus style with individual units separated from each other on large tracts of land.

 Low Intensity
 High Intensity

## FUTURE LAND USE MAP

The resulting Future Land Use Map blends together the different land use classifications into a rational development plan that takes advantage of current and future opportunities for growth while balancing these against the constraints that exist. The following describes in more detail the underlying thought process behind the application of the specific land use classifications to the map.

### CONSERVATION

The Conservation land use classification was used primarily to identify land that, due to environmental constraints and natural hazards, would be difficult to develop. As these areas typically follow floodplains, their preservation as natural areas and open space provide benefits to the entire community by helping to protect water quality, allowing floodwaters to spill over banks in areas free of obstructions, and present opportunities for the development of greenway trails.

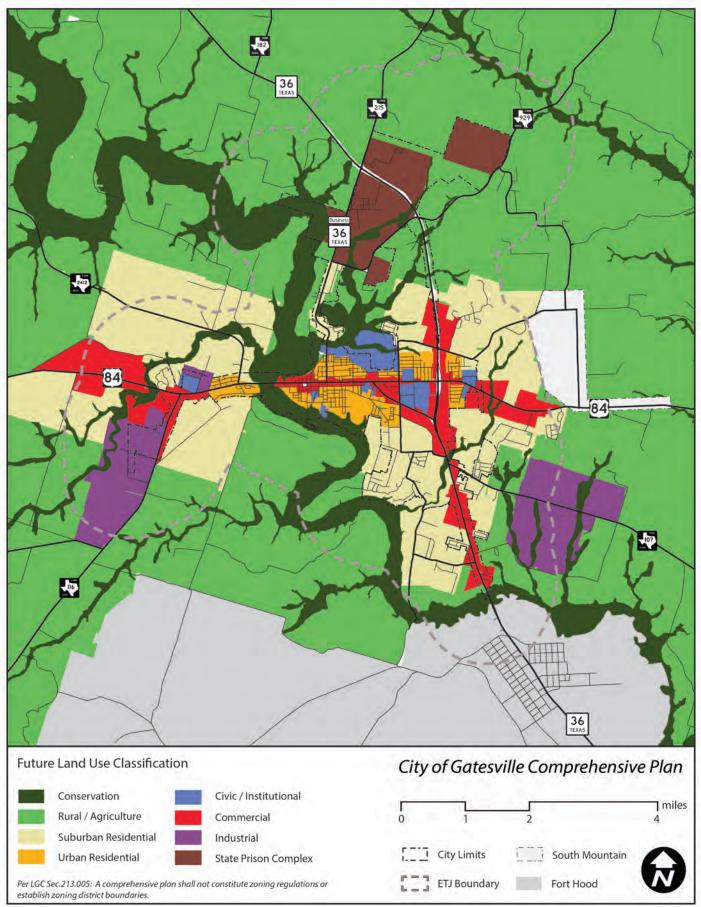
### RURAL / AGRICULTURAL

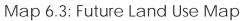
The Rural / Agricultural land use classification was applied to areas that the city does not anticipate demand for development due to a lack of either existing or planned infrastructure, the potential for land use compatibility issues, and to preserve and protect the significant ranching and farming economy of the area from encroachment by urban development. Areas close to the city that have this designation also serve as a long-term land bank for future growth, if needed, and if future infrastructure plans are developed to improve access to transportation and utility infrastructure.

### URBAN AND SUBURBAN RESIDENTIAL

Within the city limits, the Urban Residential classification was applied primarily to existing neighborhoods located along the US 84 corridor as well as the small amount of undeveloped land adjacent to these existing neighborhoods in the core of the city. Neighborhoods that were developed in a less dense manner, including those between the Leon River and SH 36 in the southern part of the city and elsewhere within the ETJ were designated as Suburban Residential. This was also used as the primary classification to designate areas for the development of new neighborhoods to accommodate demand for new housing and population growth over time.

New suburban density residential development areas are shown on both sides of the SH 36 corridor, with infill development of smaller subdivisions contemplated in the area south of US 84 and west of SH 36 - taking advantage of the existing neighborhood development





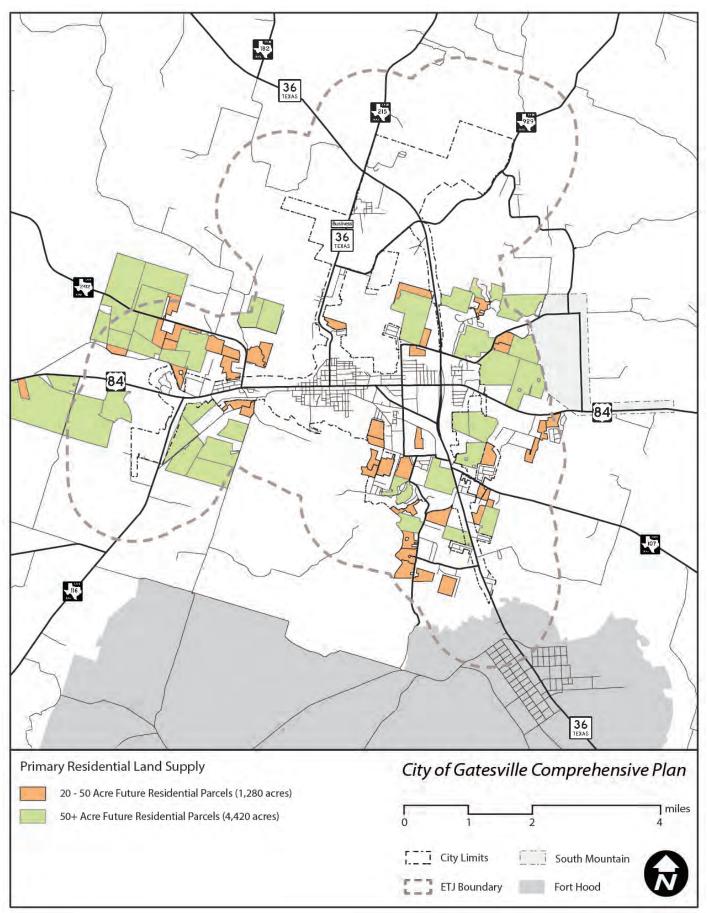
pattern in this area. North of US 84, a small residential development area south of the TDCJ campus is shown on the west side of SH 36. The northeastern quadrant of US 84 / SH 36 is shown as a Suburban Residential development area as well, but it is anticipated that due to challenges related to topography in this area, that development will be on the lower end of the density scale.

In order to accommodate potential development demand generated by the improvement of FM 116 and associated growth on the southern end of the highway, a significant amount of land has been designated with the Suburban Residential classification on the west side of the Leon River, centered on the intersection of FM 116 and US 84. This area provides significant opportunities for new growth, but major residential development activity in this area will likely come with significant infrastructure costs. Planning for the necessary improvements will need to be done deliberately, while reactive or unplanned investments for residential growth in this area are discouraged.

Map 6.4 on the following page details the primary residential land supply that is available under the development vision that is established on the Future Land Use Map. Parcels over 20 acres in size with an Urban or Suburban land use classification are identified on the map, as they form the likely backbone of the city's future growth. Altogether, these parcels encompass nearly 7,000 acres of land, including over 4,400 acres of land in parcels that are 50 acres or larger in size. It is certainly not anticipated that even a significant minority of this land will be developed in the foreseeable future, given the sheer amount of land available. Given the realities and unpredictability of the market, however, it was determined that designation of this amount of land would be prudent to ensure sufficient opportunities for rational growth.

### CIVIC / INSTITUTIONAL

As the seat of Coryell County government and primary city in the northern part of the county, Gatesville hosts a significant number of major civic and institutional uses. Among these are the Coryell Memorial Hospital, the Gatesville Civic Center, the Gatesville Independent School District campus, as well as a number of parks and recreational facilities. Ensuring that these uses, which contribute significantly to the quality of life of residents of the city and the wider region are both preserved and allowed to expand and redevelop as necessary is critical to the city's success. In addition to the designation of existing facilities and uses, the Future Land Use Map also identifies other areas of opportunity, that, if desired could be developed as additional parks, recreational facilities, and other necessary uses that can benefit the entire community.



Map 6.4: Primary Residential Land Supply

### COMMERCIAL

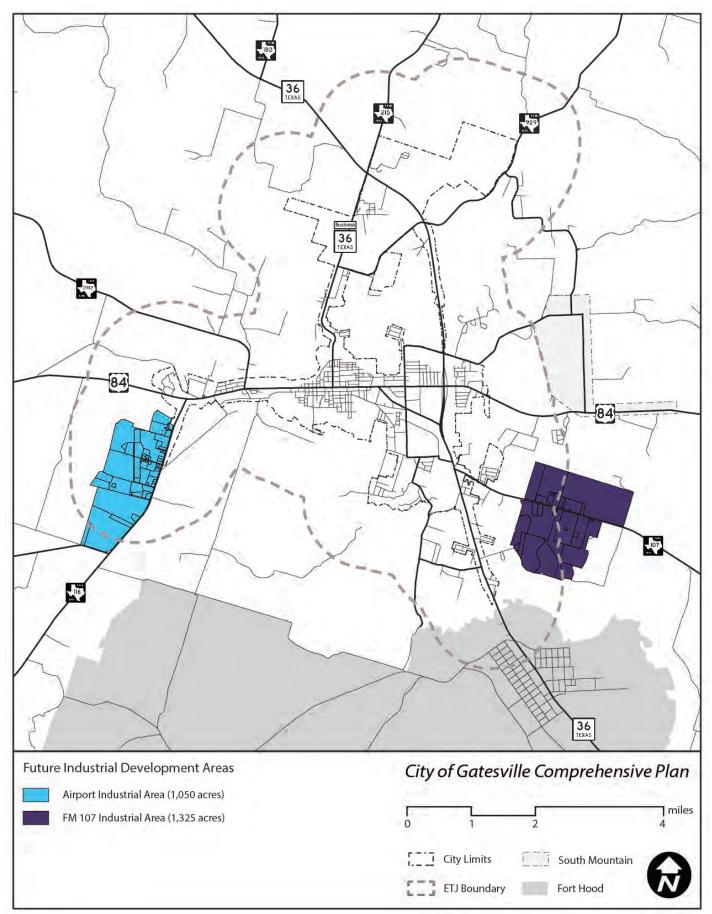
Areas designated with the Commercial land use classification span a wide range of functional development styles, ranging from the city's historic downtown, to the legacy of commercial strip development that grew along US 84, to more recently developed highway commercial areas along the SH 36 corridor. As a regional center of commerce for northern Coryell County and beyond, Gatesville is home to a significant amount of commercial development for a city of its size. The Commercial land use designation was primarily applied along existing commercial development corridors, including both developed and undeveloped land to accommodate future growth. Of particular note, the Future Land Use Map designates areas along SH 36 north of the US 84 interchange for commercial development, as well as a large area on US 84 west of the city, which is intended to serve the residential growth area that is centered on US 84 and FM 116. The latter area is not recommended for major commercial development until such time that the residential component of that area begins to develop.

### INDUSTRIAL

The preservation of existing industrial development and identification of potential growth areas for locating new industries is a critical component of the city's long term economic health. Given the unique nature and needs of industrial development, along with the potential compatibility issues with lower intensity land uses, it is important that these areas be sited properly and protected from encroachment. In addition to existing industrial areas in the city, the Industrial classification has been expanded around the airport, extending south along FM 116 to protect this critical asset and enhance compatible growth for both the airport and Fort Hood. A large area on both sides of FM 107 east of SH 36 has also been designated for industrial development to take advantage of the significant land resources and access to transportation infrastructure. In total, there are nearly 2,400 acres of land designated for industrial use (see Map 6.5) between the two primary development areas. In both areas, it is recommended that the city work with willing landowners to proactively prepare plans to attract well-planned industrial development.

#### STATE PRISON COMPLEX

The TDCJ facilities on the north side of Gatesville have been designated with this land use classification to ensure that the discrete boundaries of the prison complex are taken into account as infrastructure and development plans are prepared in the future. Given the nature of the land use, it is both a major asset to the city given the employment that it generates, but also a major constraint on development north of the core of the city. From a land use perspective, it is important for the city to ensure that the surrounding area remain compatible with the ongoing operation of the complex.





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# 6.3 MILITARY LAND USE COMPATIBILITY

This section of the plan details the locally relevant types and spatial extent of areas of encroachment concern related to military training activities at Fort Hood that the City of Gatesville should consider as it develops and implements policies related to infrastructure, development, and other matters that influence land use compatibility. Based on the most recent data, the primary encroachment concerns in Gatesville and its environs are urban growth in general proximity to the installation boundary, low level aircraft flight areas, and noise from large caliber weapons training. The maps in this section detail the location and extent of these areas of encroachment concern. While these maps are based on the best and most recent information available, there is no guarantee that the impacts of military training that could lead to land use compatibility challenges will not be experienced in areas outside of those defined on the maps.

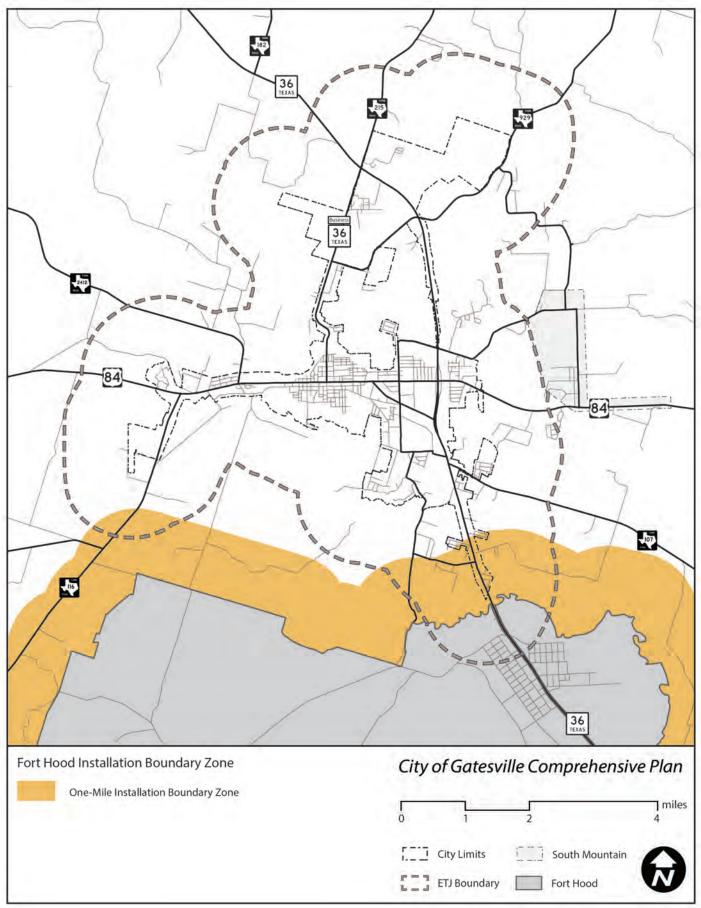
The Joint Land Use Study (JLUS) and follow-on research conducted during the JLUS implementation process relied on data and reports provided by Fort Hood to define areas of encroachment concern in the civilian communities around the installation. Due to the ongoing evolution of Fort Hood's mission, training requirements and operational tempo, there are differences in the data presented in the JLUS and the information later used in the implementation process. This is particularly true with regard to noise contours, which Fort Hood recently updated (2017 Fort Hood Installation Compatible Use Zone Study). This reinforces the necessity of maintaining constant vigilance to ensure that future changes to areas of encroachment concern are incorporated into the plan when it is updated.

This section also includes additional information regarding potential future encroachment concerns, a discussion of the tools that can be used to address encroachment concerns, and recommendations that the City Council can consider implementing in support of the Joint Land Use Study.

# CURRENT ENCROACHMENT CONCERNS

# INSTALLATION BOUNDARY ZONE

Urban development, while not inherently incompatible with military training, can pose encroachment challenges when located in close proximity to the external boundary of Fort Hood. This is particularly true for areas that are adjacent (or in close proximity) to maneuver training areas, firing ranges, aviation facilities, and similar training and operational infrastructure. Proximity to military training can bring exposure to noise, dust, smoke, and other types of impacts. These can be incompatible with urban development, particularly



Map 6.6: Fort Hood Installation Boundary Zone

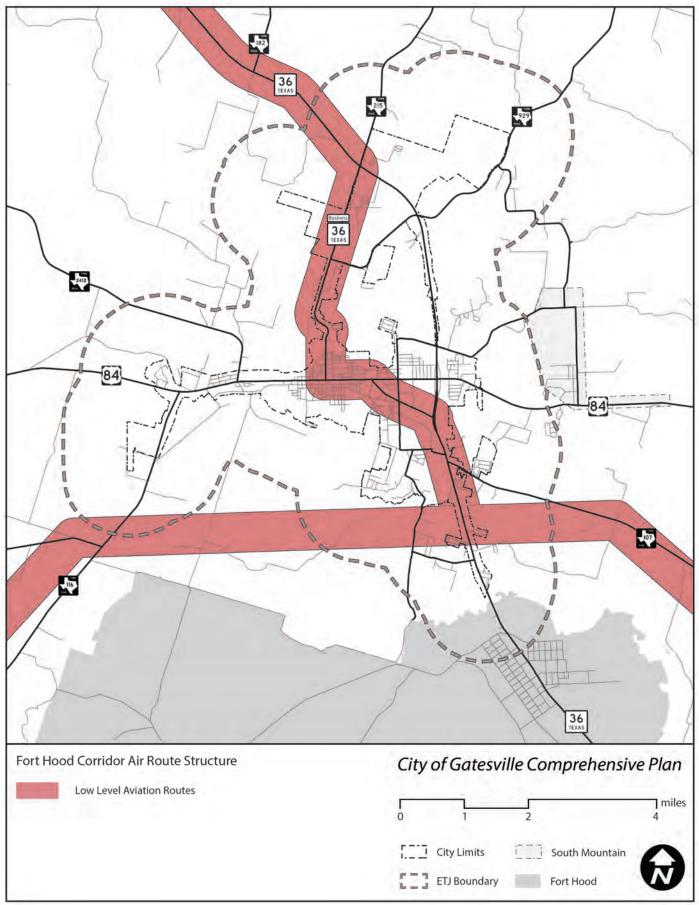
in residential areas. Urban development in proximity to military training infrastructure brings concentrations of population, night lighting, traffic congestion, tall structures (such as wireless communications towers), and similar components of civilian communities into areas that were formerly used for farming, ranching and similar uses that are more compatible with military training.

When urban development encroaches into these areas, it can constrain the ability of the installation to conduct training in the manner, and to the extent, necessary to meet military requirements. Therefore, close coordination with Fort Hood is encouraged to ensure that the garrison is aware of pending decisions related to land subdivision activity, infrastructure improvements, and similar actions or plans that could potentially lead to incompatible growth patterns around the installation.

As the map in Map 6.6 shows, the Fort Hood Installation Boundary Zone passes through a portion of the City's western ETJ on FM 116 south of the Gatesville Municipal Airport. The Installation Boundary Zone also passes through the southern corporate limits and ETJ area along Highway 36 near North Fort Hood. In order to help mitigate any potential encroachment concerns related to the proximity of these areas to military training activities, the city should work to ensure that developers and future purchasers of property near the installation are aware of the potential for exposure to the effects of military training activity, including low level aircraft overflight, noise, smoke, dust and related impacts. As discussed previously, the city should also coordinate with Fort Hood regarding subdivision activity and infrastructure plans in these areas that are adjacent to the installation and encourage developers to work cooperatively with the garrison to address any issues that might arise.

# LOW LEVEL FLIGHT CORRIDORS

Fort Hood is the home to a significant amount of rotary wing (helicopter) aviation training activity, including by the 1st Cavalry Division's Combat Aviation Brigade, as well as Reserve Component and allied aviation units which regularly train on and around the installation. To facilitate the movement of aviation traffic to, from, and around the installation, Fort Hood has established low level flight corridors (known as the Corridor Air Route Structure), with flight altitudes ranging from 500 – 1,000 feet above ground level. Within these aviation corridors, frequent aircraft overflights can be expected during both day and nighttime hours. While these routes were established to generally avoid urbanized areas, growth in the region over the years has led to portions of these routes now being located over areas that have become urban in character.





The primary encroachment concerns related to these low level flight corridors are tall structures and certain land uses that may pose a hazard to aerial navigation when located within, or in close proximity to, the corridor. Examples of potentially incompatible tall structures include wireless telecommunications towers, elevated water storage towers, broadcast antennas, high voltage electric transmission lines, and similar features. Even when these structures do not penetrate the "floor", or lower altitude limit, of a flight corridor, their location in the route can require modifications to the flight altitude, or the route itself, to ensure a safe separation distance between the aircraft and a potential hazard. Examples of potentially incompatible land uses within, or in close proximity to, these areas include any use which generates significant emissions of smoke, steam, dust, or other obscurants, uses which produce glare or significant night lighting, heavy emissions of electromagnetic radiation, and uses which attract large concentrations of birds, such as landfills and open pit mines that collect water.

A secondary concern within these low level flight corridors is aviation noise exposure, particularly related to residential areas and other noise sensitive uses. While the frequency of traffic within these routes is not sufficient to generate noise contours using the Army's standard noise modeling software, the latest Fort Hood Installation Compatible Use Zone Study (2017) did include supplemental information regarding the potential for annoyance (and hence the potential for noise complaints) due to low level aircraft flight activity. Within these corridors, certain rotary wing aircraft (particularly CH-47s) can generate peak noise levels of over 90 decibels (approximately the level of exposure from operating a lawn mower or food blender) directly underneath its flight path when flying at 500 feet. Although this does not rise to the level of a significant encroachment concern, given the relative frequency of operations and variations in the absolute flight paths of each aircraft, the city should nonetheless be aware of the potential for noise sensitive land uses to generate noise complaints to Fort Hood when new / additional development occurs under these corridors.

As Map 6.7 on the preceding page shows, routes in Fort Hood's Corridor Air Route Structure cross the city and its ETJ, generally following the route of Highway 36 and Highway 36 Business along a north-south route through the core of Gatesville. A second route crosses the southern part of the city and ETJ - connecting FM 107 and FM 116. Protecting the integrity and viability of these flight corridors by ensuring that development activity does not pose a hazard to aerial navigation is critical to the sustainment of Fort Hood's significant aviation training mission. While the city can regulate tall structures and other potentially incompatible uses within the corporate limits, it lacks this authority in its ETJ. The city can, however, help to protect this vital airspace by serving in a coordinating role and passing along knowledge of potentially incompatible development outside of the corporate limits

to Fort Hood if it is made aware of proposals for tall structures or other development activity within or near these corridors. The city can also help to protect the airspace by ensuring that property owners and prospective developers are aware of the presence of the flight corridors, and by encouraging them to voluntarily work with Fort Hood to ensure that their development proposals are compatible with the need to maintain a safe low altitude aerial navigation environment around the installation.

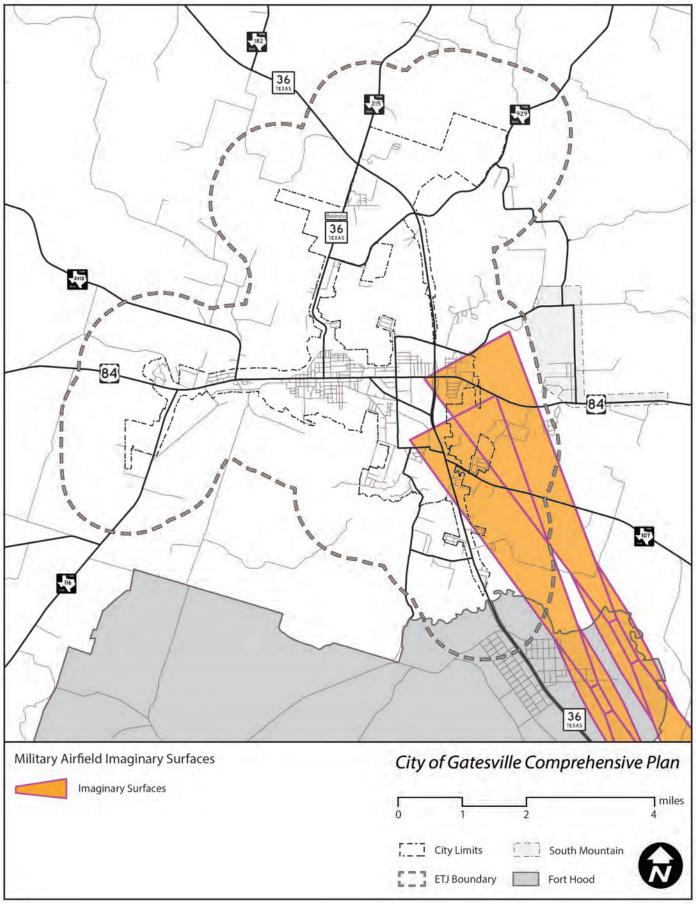
# AIRFIELD IMAGINARY SURFACES

Airports, including military airfields, such as Robert Gray Army Airfield, Hood Army Airfield, and Longhorn and Shorthorn landing strips on Fort Hood, are surrounded by "Imaginary Surfaces" established under Part 77 of Title 14 of the Code of Federal Regulations (14 CFR Part 77.21) to limit encroachments into airspace where tall structures could pose obstructions, and thus hazards, to aerial navigation. The surfaces, as defined by Part 77, establish minimum clear heights that coincide with flight patterns around the airfields with which they are associated. Although the FAA is tasked with reviewing tall structures to evaluate whether they penetrate the established imaginary surfaces and create a hazard to aerial navigation, the FAA does not have any land use regulatory authority, which is vested in state and local governments. Therefore, the protection of these critical airspace assets is the responsibility, if accepted, of the local governments over which the imaginary surfaces are located.

Map 6.8 on the following page shows the location of the rotary wing approach and departure surfaces for Longhorn and Shorthorn landing strips at North Fort Hood. These surfaces extend from the airfield into the eastern and southeastern portions of Gatesville and its ETJ. Tall structures within these area could potentially pose a threat to aircraft operating at the two North Fort Hood airstrips. As with the low level flight corridors, the city has the ability to regulate tall structures within the imaginary surfaces, and can play an important coordinating role when it learns about the potential development of tall structures in its ETJ or in other areas near the city that fall within the surfaces.

# WEAPONS TRAINING NOISE

Weapons training activity on Fort Hood generates noise that extends off-post at levels that may be incompatible with noise sensitive land uses, such as residential neighborhoods, churches and schools. Encroachment into these areas by incompatible urban growth can have a constraining effect on military training if the installation receives an excessive number of noise complaints. This could, in turn, reduce opportunities for expanding Fort Hood's mission and even require shifts in how training is conducted if the degree of encroachment is perceived to be too great.

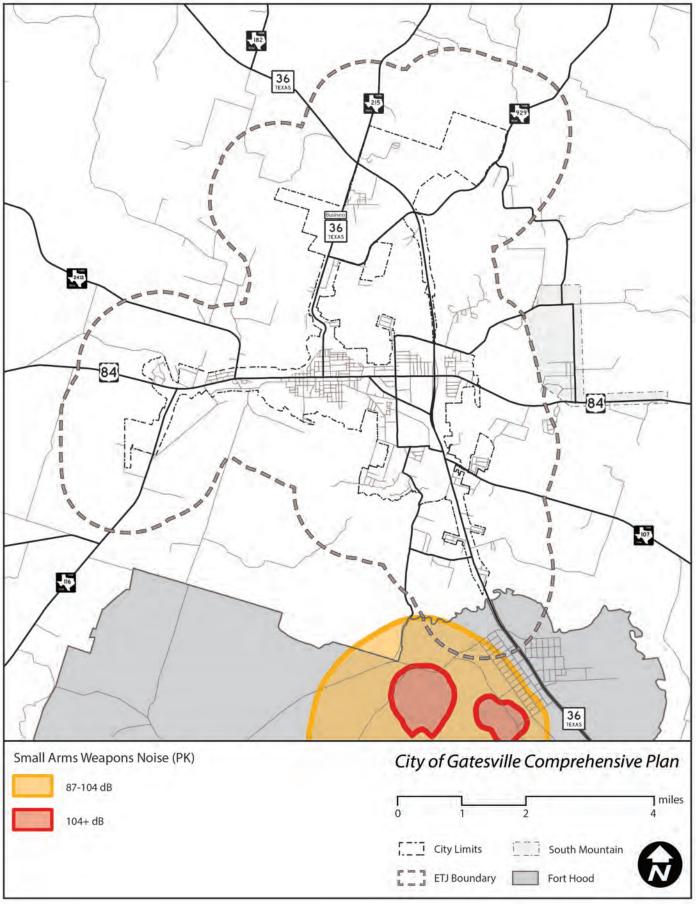


Map 6.8: Longhorn AAF and Shorthorn AAF Imaginary Surfaces

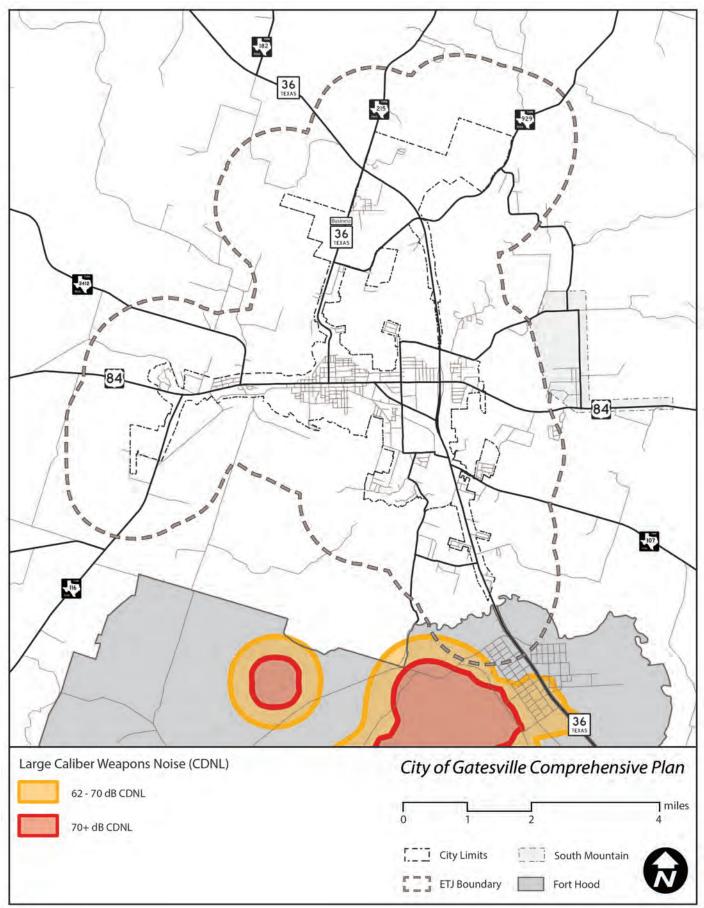
Weapons training activities at Fort Hood are classified by the size of weapons being fired, with large caliber weapons (20mm and larger) noise identified separately from small caliber (under 20mm) noise. The 2017 Fort Hood ICUZ provides two different measurements of noise generated by large caliber weapons training. The first measurement, known as a "CDNL" measurement, demonstrates the annual average noise level, while the second measurement, known as "PKx," demonstrates the maximum extent of a single noise event (such as the firing of an artillery piece or a tank's main gun), with "x" being the probability that any single event will extend beyond the defined area. Noise measurements for small caliber weapons are expressed as a simple peak decibel level (PK), with models generating noise contours associated with the firing points on small arms ranges and within training areas where non-fixed firing point weapons training is conducted.

The compatibility guidance for each type of noise measurement is different as well. With regard to the large caliber annual average CDNL measurement, it is generally recommended that noise sensitive land uses not encroach into 62+ decibel (dB) CDNL noise contours, while much greater compatibility concerns exist within 70+ dB CDNL noise contours. The peak small arms noise level compatibility guidance is similar to the large caliber CDNL guidance in terms of recommended uses, but with compatibility concerns emerging at the 87 decibel level, and becoming more serious where they exceed 104 decibels. The PK noise compatibility guidance for large caliber weapons, on the other hand, defines the complaint risk associated with single noise events, with noise sensitive land uses within the 115 dB PK15 contour having a "moderate" risk of generating noise complaints, and noise sensitive land uses within the 130+ dB PK15 contour having a "high" risk of generating noise complaints.

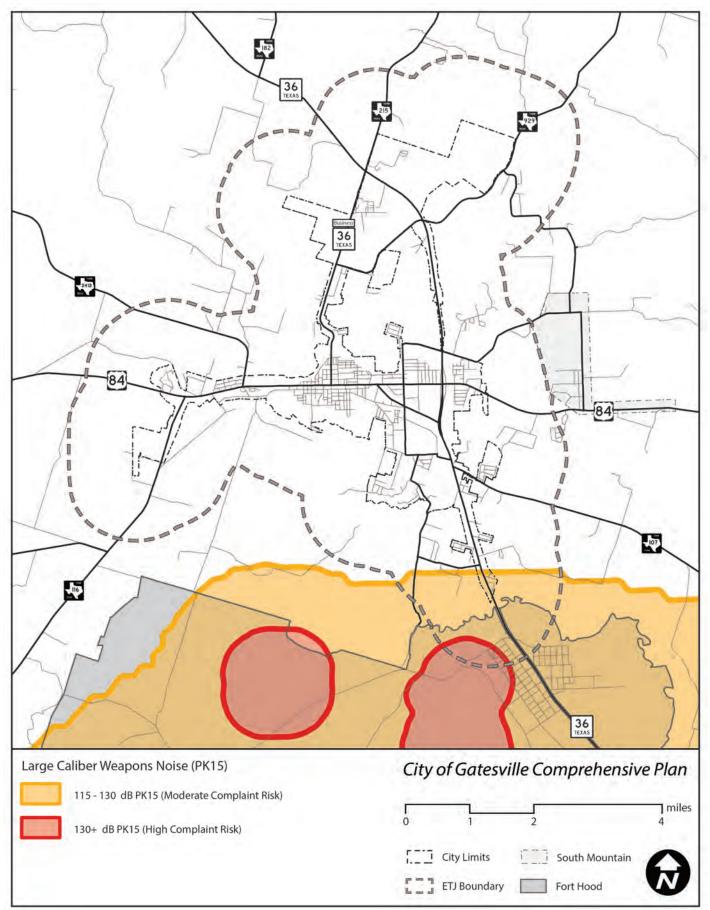
At the time the 2017 ICUZ study was conducted, only the large caliber PK 115 single event noise contour fell within the city or its ETJ (see Map 6.11). Small arms training noise exceeding 87 decibels (see Map 6.9) and annual average large caliber noise levels exceeding 62 dB (see Map 6.10) are found in close proximity to the city and its ETJ, but are primarily contained within the installation boundary. Noise from weapons training activity on Fort Hood is a generally accepted feature of life for residents of the region, with perceptible noise, particularly from artillery and demolitions training, often heard and felt well beyond the defined noise contours. While mitigation measures to lessen the potential for noise complaints in these potentially affected areas are somewhat limited, there are strategies that the city and its regional partners can implement to lessen the potential for the installation to receive complaints from incompatible uses that have encroached into areas with high noise potential.



Map 6.9: Small Arms Range Noise Contours (2017 IONMP)



Map 6.10: Annual Average Large Caliber Weapons Noise Contours (2017 IONMP)



Map 6.11: Peak Single Event Large Caliber Weapons Noise Contours (2017 IONMP)

The first, and perhaps most obvious approach, is to limit future encroachment by potentially incompatible uses into undeveloped areas that have exposure to high noise levels, Within existing developed areas, the city should also focus on a strategy to ensure that the public is aware of the potential for exposure to high noise levels in those areas that fall within (and even outside of) the defined noise contours. This can be accomplished through a number of means, including working with Fort Hood to provide notice of times when large caliber weapons training activity that exceeds normal levels is going to occur, ensuring that the development community and potential purchasers of real estate are aware of high noise potential in these areas, and working with Fort Hood and CTCOG to develop and distribute materials that provide information to the public about noise compatibility concerns.

Beyond supporting public awareness initiatives, the city should also consider requiring plat notifications about military training impacts. Finally, the city should work closely with Fort Hood and its regional partners to ensure that it has access to the most current data related to noise impacts so that it can provide accurate information to the public, the development community, and to potential purchasers of real estate in areas where high noise potential could lead to future compatibility issues

# **EMERGING / FUTURE ENCROACHMENT CONCERNS**

In addition to the current areas of encroachment concern that were identified during the JLUS, and further refined during the JLUS implementation process, there are a number of additional encroachment concerns that should be taken into consideration by the city. Among these emerging and future compatibility concerns that could cause compatibility concerns in Gatesville:

- Potential growth in the size and/or composition of the force structure stationed at Fort Hood.
- Changes in weapons systems, training locations, firing points/ranges, or doctrine that increases the level of noise exposure or expands its footprint.
- Changes in aircraft operations that increase military aircraft overflights over the city, or change the locations where low level overflights occur.
- An increase in the number, type and autonomous operational capabilities of Unmanned Aerial Systems at Fort Hood.

While none of the previously mentioned scenarios is guaranteed to occur, the city should take these matters into account and be prepared to respond to changes as they occur.

## FORCE STRUCTURE CHANGES

Changes to the force structure at Fort Hood could alter the areas of encroachment concern by introducing new types of training activity, additional aviation assets, requiring the utilization of maneuver training areas and ranges that are not heavily used at the present time, or by requiring more nighttime training activity. While it is an open question as to the nature of future changes in force structure, such change is inevitable, as past changes have shown us. For instance, Fort Hood once hosted two full combat divisions, and has the capacity to do so again in the future if required by the Army or a future BRAC process. This could lead to significant changes in the way that available training space is utilized, including essentially doubling the training requirements for maneuver training areas, ranges, and aviation training activity. Closely working with Fort Hood and the regional partners to maintain situational awareness about potential training and force structure changes will help the city to be prepared to respond and shape its plans and policies to meet any emerging challenges.

### **AVIATION OPERATIONS**

Changes to the Corridor Air Route Structure, the addition of new aviation units, or improvements to the North Fort Hood airstrips could pose new compatibility challenges for Gatesville and the surrounding area. Changes to the low level flight corridors could shift where aircraft overflights occur, thereby shifting where additional attention would need to be paid to ensure that tall structures or other potential hazards to aerial navigation did not cause any safety concerns. The addition of new aviation units to Fort Hood could lead to an overall increase in the amount of aviation training, and therefore the number of overflights that could occur. Improvements to the Longhorn and Shorthorn airstrips could increase the frequency of their use and/or lead to the stationing of active component aviation units at North Fort Hood. Given the uncertainty of the future, as well as the inevitability of change, it will be important for the city to work with Fort Hood and its regional partners to maintain vigilance regarding such changes.

### **UNMANNED AERIAL SYSTEMS**

In recent years, Fort Hood has seen a significant increase in the use of Unmanned Aerial Systems (commonly referred to as "drones"). It is expected that as the technology matures, that the Army will become even more reliant on these systems and they will be deployed to operational units on a greater basis. Even at the point of significant maturity of the systems,

there will likely still be operational restrictions on where UAS overflight are permitted to occur outside of restricted airspace, given the military's sensitivity to the potential for accidents involving these remotely piloted (and likely soon to be autonomous) systems in civilian areas.

The ability of these systems to be used in training in the same manner that they will be used on the battlefield is critical, though, to their viability as a tool in the Army's arsenal and to ensure readiness on the units that will be tasked with taking them to war. Therefore, it is critical that the conditions exist for them to be able to access as much of the aviation training airspace as possible, particularly the low level flight corridors and other special use airspace off of the post. It is also critical that they have sufficient maneuver area around the airfields where they are based.

The primary limiting factor with respect to off-post areas where these systems might be permitted to operate in the future is the degree and density of urban growth around the installation and its airfields. If urban growth exceeds certain limits, UAS overflights could be restricted or prohibited, potentially leading to greater competition for increasingly crowded training airspace. As new systems are fielded, or new UAS operating units are gained by Fort Hood, it will be critical for the City of Gatesville to closely monitor and work with Fort Hood to ensure that it retains viable access to airspace that is free from encroachment from dense urban development so that UAS operations are not unreasonably constrained.

# MILITARY LAND USE COMPATIBILITY TOOLS

The following is a summary of the tools that are available for the City of Gatesville to consider utilizing as it moves forward with its regional partners to plan for and address compatible growth and encroachment issues around Fort Hood.

# **REGIONAL LAND USE COMPATIBILITY EFFORTS**

As a region, the communities that partnered together to prepare the 2016 JLUS have begun to implement many of the recommended strategies contained in the study report. Chief among these early actions was the establishment of an agreement between Fort Hood and the Central Texas Council of Governments to cooperate on regional land use compatibility matters, with CTCOG taking the lead role in coordination between the civilian communities and Fort Hood. The Joint Use Agreement (JUA), as it is termed, provides for a coordination mechanism that will allow local governments to submit land use related matters to Fort Hood for review and comment when proposed action could affect land use compatibility or otherwise pose and encroachment challenge. Examples of issues that local governments may request comments from Fort Hood on include zoning map amendments in areas of encroachment concern, proposals for tall structures, and similar matters.

The JUA is an outgrowth of the JLUS implementation process, which identified the establishment of this type of formal land use coordination protocol as a critical component of ensuring ongoing cooperation between Fort Hood and its civilian partners. As the process matures, CTCOG will be working with each local government in the region to establish formal coordination mechanisms in support of the regional coordination protocol. The JUA also establishes a number of other regional coordination responsibilities for CTCOG, with which it will need assistance from its local government partners to fulfill. Among these are:

- The establishment, administration and ongoing maintenance of a regional GIS database focused on compatible growth and encroachment awareness related data.
- Promoting the awareness of compatible growth issues in the communities in the region through public outreach programs and materials.
- Assisting local governments with updating plans and policies to promote compatible growth and mitigate encroachment around Fort Hood.
- Serving as a conduit for disseminating information between Fort Hood and local governments (and the reverse).
- Seeking the involvement of technical experts from Fort Hood, as needed, to assist and provide advice to local governments on the development of plans and policies related to compatible growth.

As a party to the JUA, Fort Hood has also agreed to undertake a number of measures to assist local governments in the region with planning for compatible growth, with CTCOG serving as the primary conduit for coordinating these actions. Among Fort Hood's ongoing responsibilities are:

- Providing analysis and input on land use matters that are submitted to it through the CTCOG.
- Providing data, reports, and studies to CTCOG to share with local governments related to Fort Hood's mission and training activities, including areas of encroachment concern and associated military training impacts.

- Inviting potentially affected local governments to participate in and comment on internal planning projects, as appropriate.
- Participate in local government planning processes, when invited.
- Provide command briefings to the CTCOG Executive Committee on a regular basis to ensure that elected officials are informed about what is occurring at Fort Hood.
- Assisting CTCOG with the development and distribution of promotional materials related to compatible growth issues.

While these are not exhaustive lists of the actions that are being taken by CTCOG and Fort Hood to support local governments in the region with compatible growth efforts, it shows the depth of the commitment that has been formally agreed to by these entities to move forward with the implementation of the JLUS. With these significant support tools at hand, it will still be the responsibility, and option, of each local government to take advantage of the support being offered and move forward with their own implementation efforts at the local level.

In addition to the JUA, it should be noted that the JLUS implementation process is carrying forward with standing Policy and Technical committees, and a JLUS project manager embedded with CTCOG. Each local government in the region has been invited and is encouraged to continue their participation in these committees that are guiding the regional implementation efforts. In the future, it is likely that an update to the JLUS will be prepared, although no nomination is currently pending. It will be critical for all local governments in the region to continue their participation through future regional planning efforts.

Other organizations at the regional and state level are also working to support military land use compatibility as part of their missions. Among the organizations that local governments may seek to support, join or participate with include:

- Heart of Texas Defense Alliance (HOTDA)
- Cen-Tex Sustainable Communities Partnership
- Texas Military Preparedness Commission (TMPC)
- Texas Mayors of Military Communities (TMMC)

# LOCAL GOVERNMENT PLANNING

Perhaps the most effective tool for local governments to use to support the ongoing compatible growth of the region around Fort Hood is the authority granted to local governments to adopt comprehensive plans (Texas LGC Chapter 213), and other related plans to guide the growth and development of their communities (note that no similar authority to adopt such plans exists for counties, but they may still maintain studies and reports related to related matters, such as the JLUS). By incorporating data related to compatible growth and areas of encroachment concern into their local comprehensive plans, infrastructure plans, annexation plans and similar documents, municipal governments can set conditions in which incompatible urban development is less likely to occur around Fort Hood.

Municipalities also have the authority to set standards for the consistency of their land use ordinances with the adopted comprehensive plan, which, if compatible growth strategies are included, can serve as an additional backstop to the likelihood of incompatible urban development occurring. In order to ensure that the most relevant information is included in local planning documents, coordination with the regional partners and Fort Hood should be an ongoing task for each local government in the region. As new information becomes available, plans should be updated to reflect changing circumstances. Ultimately, each governing board will then need to take action to ensure that, where necessary and desired, that the local compatible growth strategy is incorporated further into land use regulations, capital improvement plans, and other implementation mechanisms.

# ZONING

Municipal governments in Texas are authorized by statute (Texas LGC Chapter 211) to adopt and implement zoning ordinances to regulate growth in their communities. The zoning statutes provide significant authority for municipalities to regulate the location, type and character of development within their communities (note that zoning authority, with certain exceptions, does not extend to a city's ETJ). This authority is generally sufficient for the regulation of land uses in a manner that is consistent with compatible growth issues present in a community.

Zoning regulations adopted to address military land use compatibility issues are most often implemented as "overlay districts" which are supplementary districts that impose additional restrictions than those associated with the underlying general use district (such as a commercial or industrial district). Specific examples of military land use compatibility issues that are frequently addressed through the use of overlay zones are:

- Aircraft accident potential zones (APZs), in which zoning restricts the types of uses and density of development in these areas.
- Airport imaginary surface areas, in which zoning restricts the height of structures and prohibits certain land uses that can interfere with aerial navigation.
- Noise attenuation districts, which restrict certain noise sensitive land uses and/ or impose construction standards to achieve certain levels of interior noise level reduction.
- Coordination districts, which are often used to define an area in which statutes require the notification and coordination with a military installation on plans, ordinances, and development proposals. In the case of Texas, such a district could be used to establish the (not well defined) mandatory coordination area established by Section 397.005 of the Texas LGC.
- Military lighting districts, in which there are additional regulations governing the installation and operation of outdoor lighting fixtures that interfere with military training activities.

This is only a representative sample of some of the ways in which overlay districts can be utilized to implement policy recommendations regarding land use compatibility in a city's comprehensive plan. This versatile tool can be modified to fit most circumstances, provided that they meet other statutory and constitutional requirements.

Another way that cities can implement compatible growth recommendations through its zoning power is through the application of general use districts that are more compatible with the nature of the external training impacts. Examples of this can include applying industrial zoning districts in areas that are subject to high noise levels, where single family residences would not be compatible. Another example would be the application of a very low density residential zoning district to an area where there are general encroachment concerns, such as in an area adjacent to a maneuver training area, and thereby limiting the number of potential residential dwellings that can be constructed in such areas, if no other alternative exists to preserve some economically viable use of the land.

In addition to the general statutory zoning authority that municipalities have, the Airport Zoning Act (Texas LGC Section 241) also authorizes additional zoning authority for cities and counties to regulate land use around airports. The statute further authorizes the creation of joint airport zoning boards (JAZBs) to administer adopted regulations when two or more units of local government desire to act jointly.

## **REGULATION OF SUBDIVISIONS**

Both counties and municipalities are authorized by statute (Texas LGC Sections 232 and 212, respectively) to regulate the subdivision of land within their jurisdictions (including the authority of cities to regulate subdivisions in their ETJs). While subdivision regulatory authority is generally not as strong of a tool to promote compatible growth as zoning is, there are certain regulatory and coordination mechanisms that can be built into a subdivision ordinance that can help to ensure public awareness about the presence of military training and preserve the ability of military aviation operations to continue.

Among these tools are requirements for the local government to provide notice to a military installation of a proposed subdivision in an area of encroachment concern, and the transmission of comments or concerns regarding the proposed development to the subdivider, if the installation chooses to provide such. Subdivision ordinances often require a number of notices to be provided on the final plat before it is approved and recorded. In keeping with this practice, military communities can choose to require a plat notification regarding the presence of military training impacts to help ensure that buyers within the subdivision are made aware of potential compatibility issues. With regard to military aviation training and facilities, subdividers can also be required to grant "avigation" easements that release the operators of aircraft from any nuisance or potential hazard that the continuation of operations above or in the vicinity of the subdivision might create after it is developed. While there is no general statutory authority to deny the approval of a subdivision that meets all of the standards set out by an adopted ordinance, measures such as those described above can help to dissuade landowners from developing in areas where encroachment concerns exist, and ensure that buyers within the subdivision are made aware, to the extent possible about the presence of compatible use issues prior to investing in a property.

#### MUNICIPAL BUILDING CODES

Municipalities are authorized by Section 214 of the Texas Local Government Code to adopt and enforce regulations for the construction of buildings within their jurisdictions. There are also statutory provisions for local governments to adopt modifications to the building codes for application in their jurisdiction. The most applicable potential modification that a city near a military installation might consider is the adoption of building standards that require interior noise level reduction in certain areas of high noise potential, such as in low level flight routes, or within airfield noise contours. The use of such construction standards can only be applied to new buildings, and so existing noise sensitive uses in inadequately soundproofed structures

# MILITARY LAND USE COMPATIBILITY RECOMMENDATIONS

The following is a detailed list of recommendations for the Gatesville City Council to consider implementing both at the local level, and in concert with its regional partners to promote compatible growth in the city and its environs. While not all of the recommended strategies may be immediately implementable, and not all may be "ripe" for implementation given the realities of governing at the local level, their inclusion in the Comprehensive Plan will help to ensure that they can be considered for implementation at a future date if the need or desire emerges for their use.

The majority of the recommendations contained in this section have similar counterparts in the comprehensive plan supplements provided to the other communities in the region, with some variation due to local needs or conditions, including the recognition of the significant difference in the amount of influence that cities have over land use matters, as compared to counties. Like the JLUS recommendations, which helped to inspire the development of the recommendations for local governments, these are divided into the categories of: Coordination, Planning for Compatible Growth, and Regulations to Support Compatible Growth.

# COORDINATION

- 1. Continue to engage in regional efforts to enhance the compatibility of future growth and development around Fort Hood, including the participation of local government staff and elected officials on the JLUS Policy and Technical Committees.
- 2. Actively participate in future updates to the Joint Land Use Study and other regional plans related to compatible growth around Fort Hood.
- 3. Adopt standard operating procedures for the transmission of land use and development proposals within areas of encroachment concern for review and comment by Fort Hood, per the Joint Use Agreement.
- 4. Where discretionary decisions are permitted with regard to land use and development proposals within areas of encroachment concern, incorporate input received from Fort Hood regarding land use compatibility into the decision-making process.
- 5. Participate in planning processes initiated by Fort Hood, as requested by the garrison.

- 6. Share plans, data, and other relevant information with Fort Hood and regional partners.
- 7. Assist in regional efforts to enhance public awareness about compatible growth issues, including providing access to the current (and future) Joint Land Use Study document on the local government website.
- 8. Assist in the promotion of public notifications by Fort Hood regarding training activities that exceed the level or type of typical training activities on the installation.
- 9. Establish formal protocols for the transmission of community complaints related to noise, aircraft overflight and similar training activity to Fort Hood.
- 10. Work with the Central Texas Council of Governments to establish protocols that ensure timely updates of data are transferred for use in the regional GIS database.
- 11. Support regional efforts to secure legislative authorization to provide local governments in the region, and throughout the state, with the tools to support compatible growth in areas of encroachment concern.
- 12. Continue to work with Fort Hood to identify opportunities to establish partnerships that provide mutual benefit to the community and installation.
- 13. Support ongoing regional efforts to secure funding for infrastructure projects that enhance the military value of Fort Hood through the Defense Economic Adjustment Assistance Grant program.
- 14. Coordinate infrastructure improvement projects with Fort Hood (such as road improvements, utility upgrades, and stormwater improvements) to ensure that potential external impacts and future plans are taken into account in the design and implementation of the projects.

# PLANNING FOR COMPATIBLE GROWTH

- 1. Incorporate compatible growth factors into the development of infrastructure plans to ensure that utilities and transportation infrastructure do not increase the likelihood of encroachment by incompatible land uses into areas of encroachment concern.
- 2. Invite relevant Fort Hood garrison staff to participate and provide input on technical

matters related to compatible growth in the process of the development of infrastructure plans.

- 3. Work with Fort Hood and regional partners to incorporate updates related to areas of encroachment concern into local plans and ordinances as new/updated information becomes available.
- 4. Extend assistance to other local government agencies, such as school systems, to assist them with siting facilities and developing long range plans that take compatible growth and encroachment concerns into consideration.

# **REGULATIONS TO SUPPORT COMPATIBLE GROWTH**

- 1. Adopt and implement land use and development regulations to address potentially incompatible development in areas of encroachment concern and update the extent of these regulations as areas of encroachment concern change.
- 2. Adopt and enforce regulations associated with the siting of small cell wireless facilities within rights-of-way under local government control that includes a discretionary review criteria that the facility may be denied a permit if it poses a hazard to aerial navigation.
- 3. Adopt and implement land use compatibility regulations that prohibit the establishment of tall structures or other land uses that pose a hazard to aerial navigation within low level flight corridors.
- 4. Adopt and implement land use compatibility regulations that prohibit the establishment of tall structures or other land uses that pose a hazard to aerial navigation within the imaginary surface areas associated with Longhorn and Shorthorn Airstrips.
- 5. Amend the subdivision ordinance to require the inclusion of a statement on final subdivision plats that references the potential for land within the subdivision to be subject to impacts from military training and operational activity.
- 6. Amend the subdivision ordinance to require the dedication of avigation easements in the vicinity of low level flight corridors and within imaginary surface areas.
- 7. Adopt and implement regulations for formal coordination and notification of land use and development proposals that may have an impact on military training and operations

within defined areas of encroachment concern, including any area within one mile of the installation boundary, regardless of the presence of a defined encroachment concern.

8. Review current outdoor lighting regulations, and amend as necessary to incorporate standards that are designed to reduce the amount of background lighting for the purpose of helping to sustain nighttime training activities on Fort Hood and eliminate potential glare hazards for nighttime aviation operations.



# CHAPTER 7: IMPLEMENTATION 7.1 OVERVIEW

Moving forward from the adoption of the plan, there are a number of steps that the city will need to take to ensure that it can fulfill its future vision. This section of the plan establishes those major steps and sets forth a set of strategies, based on the guiding principles, that will help the community to achieve its vision, While the responsibility for implementing the plan ultimately lies with the City Council, there are a number of individuals and organizations, both within and outside the structure of the city government, that the Council will rely on to ensure that the strategies laid out in the plan are followed through to implementation.

As a first step, it is recommended that the City Manager work with the Council to develop a plan to begin implementation by identifying responsible parties, necessary resources, and specific time frames to implement the "short-term" strategies as outlined in section 7.3. As the plan moves forward, it will be necessary to periodically assess progress toward implementation, and adjust as necessary. The strategies should also be periodically assessed to ensure that they remain relevant as conditions change. In order to ensure that the plan, as a whole, remains relevant, the city should conduct a full update of the Comprehensive Plan every five years following its initial adoption.

# 7.2 VISION AND GUIDING PRINCIPLES

The foundation of the future of the City of Gatesville is set forth in the vision statement adopted as part of the Comprehensive Plan. The adopted vision will help focus the community and its leaders on the core mission of the city, and serve as a barometer with which to guide future actions. Supporting the vision are a set of guiding principles that are intended to direct the implementation of the plan through strategic actions and policy recommendations.

Each action that the city takes, whether it is the adoption of an annual budget, a capital improvement plan, a policy or an ordinance, should be assessed in the context of the vision and guiding principles. This assessment will help to ensure that the city and its leaders remain focused on the core mission and are working toward fulfilling the plan's goals. When an action, or an accumulation of actions, diverge from the vision and guiding principles, it should be taken as a sign that this plan needs to be reassessed and refined to ensure that the new direction envisioned by the city is properly expressed in the Comprehensive Plan.

# VISION

"The City of Gatesville commits to providing a high quality of life for all its citizens while building on its unique character. Working collaboratively, we will foster pride, develop a vibrant economy, thoughtfully plan for the future, and preserve our small town feel."

# **GUIDING PRINCIPLES**

**INVESTMENT:** The City of Gatesville will invest its resources in a manner that ensures that its municipal infrastructure, programs, and human resources meet both current needs and prepare the city for growth.

**RENEWAL:** The City of Gatesville will embrace and facilitate the positive renewal of the community through compatible growth, redevelopment, and expansion of economic opportunity.

**BALANCE:** The City of Gatesville will become a community that is well-balanced in all respects, including demographically and economically, as well as in its approach to growth and the environment.

**GROWTH:** The City of Gatesville will grow in an orderly and efficient manner that strengthens the local economy while preserving Gatesville's unique physical character that reinforces shared pride and responsibility.

# 7.3 IMPLEMENTATION STRATEGIES

The following implementation strategies were developed based on the findings and information contained in the plan, including input received from the community. Each strategy is associated with a specific guiding principle that supports the overall plan vision. The tables on the following pages include recommended time frames for implementation, with short-term recommendations strategies recommended for implementation within 1-3 years, medium-term within 3-5 years and long-term within 5-10 years.

#### IMPLEMENTATION

GUIDING PRINCIPLE: INVESTMENT				
#	Strategy	Time Frame		
I-1	Annually review, revise and adopt a capital improvement plan as part of the city's budget to ensure that both municipal infrastructure and major departmental equipment needs are identified, planned for and funded each fiscal year	Short		
I-2	Prepare periodic assessments of municipal infrastructure to utilize in updates to the city's capital improvement plan.	Medium		
I-3	Utilize regular, recurring, sources of funding (i.e. water and sewer user fees) to finance anticipated infrastructure maintenance and capital investment needs.	Short		
I-4	Analyze water and sewer rates on a biennial basis to ensure that sufficient revenue is being generated to meet operational and maintenance requirements and sufficiently fund necessary capital improvements.	Short		
I-5	Systematically assess the condition and needs of community facilities and utility and transportation infrastructure in order to prioritize effective and efficient maintenance and/or expansion program(s) to ensure a quality system of service delivery.	Short		
I-6	Provide modern and efficient facilities for all municipal departments and their operations which are also designed to accommodate future growth	Long		
I-7	Prepare assessments of the staffing and technology needs of all city departments to ensure that funding is adequate to fulfill their missions in an efficient manner.	Short		
I-8	Seek partnerships with community groups, educational institutions, governmental agencies and commercial ventures to leverage planned investments by outside groups that support the city's infrastructure needs.	Medium		
I-9	Work with community partners, including the Gatesville ISD, the Coryell Memorial Healthcare System, Coryell County, and local businesses and industries to develop and implement a plan to extend high-speed broadband internet service to the city.	Short		
I-10	Identify underutilized community assets, such as the Leon River, and explore opportunities for making strategic investments that leverage these assets for economic development and other public benefits.	Long		
I-11	Explore opportunities for the development of an industrial / business park in conjunction with economic development interests or other outside partners to ensure that the city is well positioned to attract investment and job growth.	Long		

GUIDING PRINCIPLE: RENEWAL				
#	Strategy	Time Frame		
R-1	Streamline development regulations and procedures to eliminate unreasonable barriers to growth and reinvestment in the city.	Short		
R-2	Identify underutilized opportunity sites in the city that can help to catalyze positive change through their redevelopment or repurposing, and utilize economic incentives to help facilitate their reuse.	Medium		
R-3	Proactively enforce minimum housing regulations and nuisance codes in neighborhoods to eliminate blight, enhance the value of residential properties, and encourage private reinvestment in the city's housing stock.	Short		
R-4	Support residential development activity, including both the construction of new subdivisions and the rehabilitation of the existing housing stock in the city, through incentive programs and a favorable regulatory environment.	Medium		
R-5	Partner with TXDOT to plan for and implement improvements to the US Highway 84 and SH 36 corridors, with a goal of developing a safe, unified, functional, and aesthetically appealing highway transportation network in the city.	Long		
R-6	Develop plans for the establishment of a safe and efficient pedestrian and bicycle route network in the city that connects neighborhoods to schools, parks, commercial districts, and employment centers.	Medium		
R-7	Preserve and protect Gatesville's historic structures, sites and other cultural resources to enhance the connection between the city's past and present.	Long		
R-8	Develop and implement design regulations for the historic portions of the city to ensure that the aesthetic quality of the city's downtown and core neighborhoods are positively impacted by redevelopment activity.	Long		
R-9	Develop and implement a branding initiative for the city that reinforces a shared community identity.	Long		
R-10	Identify a location in close proximity to downtown Gatesville for the development of a formal public gathering space to host community events.	Long		
R-11	Partner with private development interests to construct new market rate housing on vacant properties owned by the city to help spur reinvestment in the city's core neighborhoods and improve the availability of high quality housing options.	Medium		

#### IMPLEMENTATION

GUIDING PRINCIPLE: BALANCE				
#	Strategy	Time Frame		
B-1	Support the development of a mix of housing types throughout the city that meets the needs of a population that is diverse in terms of age, family structure and income.	Short		
B-2	Develop and implement a marketing plan aimed at diversifying the mix of new residents who are attracted to move to Gatesville, with a goal of increasing the population of young families and professionals, including a special emphasis on attracting former residents to return to Gatesville to raise families, start businesses and pursue their professional careers	Long		
В-3	Adopt policies and incentives to encourage downtown business growth in sectors that will contribute to its vibrancy, with a particular focus on extending the period of activity into the evening and weekends.	Medium		
B-4	Support and sponsor community events that appeal to a wide range of demographic groups including students, young professionals, families, and retirees.	Short		
B-5	Continue to direct resources towards parks and recreation facilities and programs that fulfill the needs of residents of all ages and abilities.	Short		
В-6	Collaborate with economic development interests to identify and recruit businesses and industries in economic sectors that will ensure that the local economy and workforce is sufficiently diversified to withstand market downturns and respond to changing economic trends.	Medium		
B-7	Develop a "green infrastructure" plan that assesses the conditions of the city's natural assets, with a particular focus on issues related to stormwater runoff.	Medium		
B-8	Continue to support the community's rural agrarian and ranching culture and associated economic activity through the unique services, regulatory environment and infrastructure investments that are necessary for it to thrive as an integral part of the city.	Short		

GUIDING PRINCIPLE: GROWTH				
#	Strategy	Time Frame		
G-1	Review and revise the city's land use and development ordinances to ensure that the regulatory environment is aligned with the city's goals for facilitating high quality growth.	Short		
G-2	Prepare a long range plan for the city's water and sewer systems, including the extent and timing of improvements. Ensure that the utility plan is consistent with land use and transportation plans and other infrastructure planning documents, including the city's Capital Improvement Plan.	Medium		
G-3	Adopt and enforce utility connection policies that are firm in their requirement for annexation prior to receiving utility services from the city.	Short		
G-4	Prepare and implement an annexation plan with the goal of incorporating all "donut holes" and immediately adjacent developed neighborhoods and commercial areas into the city, with a priority focus on areas that are connected to municipal utility services.	Long		
G-5	Develop and utilize a range of business recruitment, expansion and retention incentives to help spur economic development and assist with the financing of necessary infrastructure improvements to facilitate growth.	Medium		
G-6	Utilize impact fees, as authorized in Section 395 of the Texas Local Government Code, to help mitigate development related impacts to municipal infrastructure associated with new development and limit any negative financial impacts on the city.	Medium		
G-7	Adopt and implement zoning and subdivision regulations that enhance the compatibility of future growth in Gatesville with military training and operations at Fort Hood, and coordinate with Fort Hood when zoning changes or development plans are proposed in areas of encroachment concern.	Short		
G-8	Coordinate with Fort Hood when the city prepares plans for growth inducing infrastructure, such as utility and transportation projects, to ensure that any potential encroachment concerns are identified and mitigated, to the extent possible.	Short		
G-9	Work with economic development interests to identify and preserve sites that are suitable for industrial development to ensure that sufficient land is available in the city to accommodate large-scale job creation opportunities.	Long		