

DOWNTOWN REVITALIZATION



SEALY, TEXAS



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Executive Summary

Introduction

The City of Sealy has a rich history, tracing its roots back to Stephen F. Austin's introduction of the original Texas families and the Gulf, Colorado and Santa Fe Railroad. Because of the railroad, Sealy became a center of commercial activity for the area. It attracted many settlers who sought work from the rail, as well as ranchers and farmers who utilized it to sell their goods. The history of Sealy is very evident as it can be viewed in the historic downtown situated along the railroad. Sealy was not incorporated until 1949, but has experienced a steady population growth rate over the decades, from 1,942 in 1950, to 6,428 in 2009.

Economic and Market Analysis

Economic analyses were conducted for the City of Sealy to identify strong and important industries for the city. The results of these analyses were used to identify possible businesses that could be attracted to the downtown area. The results showed that the City of Sealy has three basic industries: retail trade, manufacturing, and wholesale trade. These industries bring money in from outside the city, as well as from within. It was found that if Sealy could attract 5 additional basic jobs to its downtown area, then this would generate 30 jobs. It was also discovered that the wholesale and retail trade sectors were very strong in Sealy and continue to draw money into the local economy. Efforts to expand these industries would be very promising for future economic growth. For the manufacturing sector, it was observed that the industrial mix was not very favorable. However, the sector constitutes a stable base within Sealy's economy. The sectors of entertainment, recreation, food and accommodation services are growing rapidly, and additional economic incentives could be employed to attract related businesses into the city.

A market analysis provides detailed information about the potential market area for a certain business as well as probable demand, and helps to identify the trade area of a business. The potential success of a business is determined by calculating the potential demand and the available supply in dollar amounts and by contrasting these values. Particular businesses were identified according to analysis for Downtown Sealy, conversations with business owners and residents, as well as the citizen forum conducted for the comprehensive plan, and a market analysis was conducted for each. Results indicated that specialty restaurants, a bakery, deli, bar, and a specialty theatre were identified to have a market in Sealy, whereas general restaurants, a meat market, a bed and breakfast and a multiplex movie theater had no potential market in Sealy.

Current Conditions

Revitalization efforts in Downtown Sealy are based on the evaluation of current conditions within downtown and the suggestion of design and policy interventions that can improve its growth. Existing problems within downtown were determined from Sealy's Comprehensive Plans, discussions with the city staff, and visual observations during field visits. Involvement of the community is essential in order to get a perspective that can lead to appropriate measures in future planning. Thus, local voices from businesses in the district were indispensable for formulating design alternatives. Due to the small scale of

downtown and the limited number of businesses, informal discussions with business owners were conducted directly in order to receive local opinions. The results from these interactions indicated that their desired vision is for Downtown Sealy to become an active destination with a variety of restaurants and other shops, and to see improvements in sidewalks and landscaping without spoiling the area's historic feel. However, there are issues needing attention. Some of the major issues related to traffic were the existence of an unsafe environment for pedestrians and vehicles due to the roundabout at the intersection of Main Street and Fowlkes Street, as well as median parking and congestion during lunch time due to closing of the railway crossing for an extended period of time. Vacancies in downtown were also seen as a problem. Business owners felt that this was partly because the downtown ordinances require a high investment in repairs and maintenance of old buildings, and partly because of relatively low taxes that allow owners to leave their buildings vacant.

In regard to current design conditions, it was found that there is both a lack of unique design and aesthetic continuity downtown. With the exception of Main Street and part of Fowlkes Street, there is a deficiency of visually appealing elements of streetscape and landscaping. Many of the sidewalks downtown are non-continuous and propose possible issues for those with disabilities. There are only a few signs, and most streets have no way-finding signs at the intersections. Downtown Sealy has very few building facades that reflect traditional Texan architecture and are aesthetically appealing. Most others do not have unique architectural styles and are in poor physical condition. Thus, there is an overall need to renovate most of the facades including the addition of a variety of colors and materials, the enhancement of architectural elements, and the provision of design guidelines to improve the quality of buildings in the future. Other downtown concerns include traffic congestion, traffic safety, the improvement of pedestrian facilities, and parking. These were frequently mentioned by citizens and business owners as problems that need to be solved for the future.

Design Recommendations

This study has taken into consideration the above mentioned issues facing Downtown Sealy and has made recommendations that possess the potential of making it a destination location. These recommendations include alternatives for the streetscape, facade, and transportation aspects mentioned. One of the most important aspects of the revitalization process is the improvement of streetscapes. The plan for enhancing the streetscape features includes the design and integration of elements such as sidewalks, benches, lighting, trees, planters, other landscape elements, signs, gateways, and landmarks, among others. In short, it includes all the enhancement of fundamentals that would lead to a memorable walk on the street. The streetscape recommendations for Downtown Sealy reflect existing conditions and provide for the enhancements of elements-- specifically sidewalks and crosswalks, signs, gateways and landmarks, street furniture, lighting, and plant and landscape design.

For the improvement of downtown architectural elements and facades, recommendations have been made to update the existing Downtown District ordinance to allow for more

character and a greater sense of place. The recommended guidelines allow for more flexibility in promoting unique character, but are more restrictive in promoting aesthetic unity within downtown. They are also realistic enough for businesses to comply.

Two alternative transportation designs have been proposed regarding roundabouts, as well as pedestrian and shared spaces downtown. The roundabout scenario suggests two roundabouts in downtown Sealy, one at the intersection of Highway 36 and Main Street, the other at the intersection of Main Street and Fowlkes Street. The pedestrian and shared space scenario is characterized by low speeds on Main Street and proposes several pedestrian spaces designed as bulb-outs on both sides of the street. These spaces serve as gathering areas equipped with benches and landscaping, and also serve as traffic calming measures. Additionally, this scenario proposes to turn the intersection of Main Street and Fowlkes Street into a shared space to simultaneously accommodate all modes of transportation. Street and intersection redesigns for these two scenarios have been proposed. The main goals in all designs are to make the streets more pedestrian-friendly, and to create a pleasant environment for people to live, work and play. This is done by traffic calming measures, a network of wide and connected sidewalks throughout downtown, landscaping measures and more. In addition to the accommodation of vehicular traffic and pedestrians, a bicycle network through downtown is proposed. This consists of bike lanes throughout the area, as well as additional bicycle facilities such as bike racks and signage. Finally, the transportation design includes a section on public transit. Currently, the area is served by one transit provider through a loop bus route. A redesign of this route is suggested in order to better meet the needs of business owners and residents in Sealy. Additionally, in order to attract people to downtown, the existing bus transfer point should relocate from Wal-Mart to downtown, where a proposed bus terminal will facilitate transfers.

Implementation

The Implementation chapter of this plan serves two main purposes: 1) to prioritize and schedule policy and design recommendations identified in previous chapters, and 2) to identify sources of internal and external funding in order to facilitate those recommendations as well as to promote a more vibrant and active downtown. Prioritization has been made for those recommendations that are expected to have an immediate benefit, with a low cost-to-benefit ratio (otherwise known as the 'low hanging fruit'). New funding sources have been evaluated for their feasibility (such as a downtown TIRZ or PID), opportunities to improve existing funding sources have been explored, and grants and other forms of external funding have been sought. Listed below are three examples of funding sources that could be implemented in Downtown Sealy:

- A Tax Increment Reinvestment Zone (TIRZ) represents an opportunity to utilize tax revenues from long-term growth in the present as leverage for the acquisition of bonds to fund improvements to downtown.
- Extra services or improvements desired by downtown residents and property owners can be funded through the establishment of a Public Improvement District

(PID). A tax increment averaging from \$212 to \$638 for downtown property owners would generate from \$17,500 to \$52,300 in revenue, annually.

- A Neighborhood Empowerment Zones (NEZ) can be utilized to encourage development in areas such as downtown Sealy. To attract development that might occur elsewhere in the city, a NEZ can provide tax abatements and waive costs associated with development and construction (such as permit and inspection fees, replatting fees, etc).

It has been determined that the current incentives offered by the City of Sealy are not fully utilized by its residents. Various improvements including increasing Business Grant awards and tweaking qualification guidelines for Tax Abatement should be adjusted to better reflect the needs of the community. Various grants and low-interest loan opportunities for the City of Sealy have also been included within this section. The funding opportunities listed in the implementation section are in place to help stimulate and support economic development throughout the downtown. The funding is to be used specifically for the downtown district in order to provide improvements and repairs to the existing conditions (including traffic calming measures), promoting the area both aesthetically and operationally. In addition to grants, other fundraising opportunities that draw the attention of residents to the downtown have been explored including an adopt-a-tree program, the dedication of park benches, picnic tables, litter containers, trees, flower baskets, or sign programs, and the creation of a downtown t-shirt. Drawing both residents and those from outside of Sealy into downtown is an important step in the revitalization efforts of the district, and therefore, the development of a marketing and event program for Downtown is recommended. Some of the proposed measures include relocating the Fantasy of Lights Festival and 4th of July fireworks to Downtown, holding bicycling events, establishing a regularly held, monthly event such as a First Friday or a First Saturday, considering hosting a Polka Festival in Downtown, creating a downtown brochure, creating a free fare zone for public transit within the downtown area, and holding resident competitions for public involvement such as beautification efforts.

In summary, it is recommended that Downtown Sealy be redesigned so that it is able to promote its historic character, create a vibrant atmosphere for leisure activities, and attract unique businesses to help downtown grow in spite of the current threat of development on the highway corridor. With the recommendations mentioned above, and listed in greater detail in the sections to follow, there is great potential for Downtown Sealy to become a quaint and unique destination of choice.

Chapter 1: State of the City

1. Introduction

History

The City of Sealy prides itself as being home to a portion of the 300 original Texan families. In 1824, 22,000 acres along the Brazos River were acquired from a Mexican land grant and used to found Stephen F. Austin's colonial capital, San Felipe de Austin (Austin County). Sealy can trace its roots to the Gulf, Colorado and Santa Fe Railroad, which obtained 11,635 acres of the original 22,000 from the San Felipe de Austin Town Corporation in 1875 to help run a line from Galveston to Brenham. The railroad set up a town near Bullinger's Creek where railroad yards and a roundhouse were built. The railroad served as the major employer for the area, and with employment came first the Germans and later Czech settlers who were involved in ranching and farming. The railroad served as a convenient channel to export the local goods and produce from the farms. In 1879, Sealy was founded and named after George Sealy, a banker for the Gulf, Colorado and Santa Fe Railways. Not long after, Sealy became the center of commercial activity for the area, attracting many residents and two more rail lines, the Missouri, Kansas, and Texas, and the Can Belt Railroad. At the turn of the century, Sealy faced many hardships including the 1899 Brazos River Flood, the 1900 Hurricane that struck the Texas Gulf Coast, and the movement of the Gulf, Colorado and Santa Fe Railroad's division headquarters out of Sealy and north to Bellville. However, Sealy was able to rebound with the introduction of the Haynes Mattress Factory, the Engelking Brothers Broom Factory, the Sealy National Bank, and was finally incorporated as a city on August 16, 1949 (City of Sealy and Austin County).



George Sealy



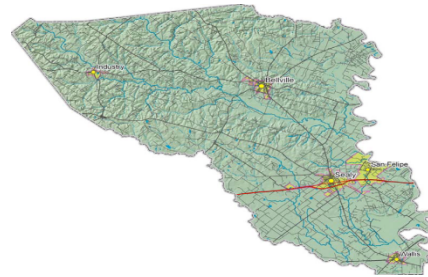
Railroad in early Sealy

Location and Size

The City of Sealy is located in the southeastern part of Texas and is the largest city in Austin County at 10.7 square miles (City of Sealy, 2009). Sealy is situated on Interstate 10, connecting Houston to San Antonio, and on State Highway 36. The estimated population for 2009 was 6,428 people which is an 16.18% increase from 2000 (Claritas, 2009). The downtown area of Sealy is comprised of 8 blocks.



Austin County in Red



Austin County, Sealy Highlighted in yellow in southeastern part of county

2. Demographics

A historical and current-situation analysis of the demographic setting in Sealy and surrounding areas was performed in order to direct the development of this plan. Buxton and Claritas have served as consultants for Sealy who have comprehensively presented the demographic situation in reports for the years 2006 and 2009, respectively; therefore, it is unnecessary to reproduce a comprehensive demographic setting. Instead, this report presents the basic situation for each aspect of Sealy's demographics and then presents historical and comparative trends found in the historical and current-situation analysis. Not all trends are presented, only those applicable to understanding the dynamic demographics of a city situated in Sealy's geographic location.

General Population

The estimated population of Sealy in 2009 is 6,428. Sealy's population has maintained a steady growth, averaging an approximate 3.9 percent a year increase over the last 60 years. Below is a graph showing the historic population of Sealy.

Year	Population
1950	1,942
1960	2,328
1970	2,685
1980	3,862
1990	4,835
2000	5,248
2009 Est.	6,428

Table 2. 1 Historical Population of Sealy, Texas

Table 2.2 presents Sealy's population changes between 2000 and 2009 compared to the population of Austin County and the state of Texas. It can be noted that Sealy as the largest city in Austin County constitutes around 25% of the county's population. Analysis of the

population growth over the last 59 years indicates that Sealy’s average annual growth of 3.9% is slightly higher than Texas, which has sustained an average annual growth rate of 3.4%. Meanwhile, Austin County has grown annually by 1.4% over the last 59 years as seen below.

Year	Sealy	Austin County	Texas
1990	4,835	19,832	16,986,510
2000	5,248	23,590	20,851,820
2009 Est.	6,428	26,439	23,367,534

Table 2. 2 Comparison of Sealy, Austin County and Texas’ Populations.

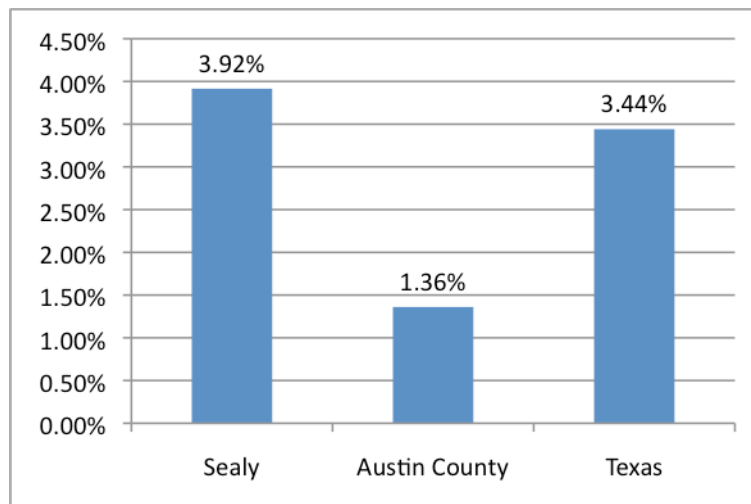


Figure 2.1 Historic comparison of population growth 1950-2009.

Age

Comparison of the median population age is below. This comparison reveals that Sealy’s median population age is slightly higher than Texas, and that Austin County’s median age is slightly higher than Sealy’s.

	Sealy	Austin County	Texas
Median Age	34	37	32

Table 2.3 Median Age Comparison.

The age distribution within Sealy is shown graphically below in blue in Figure 2.2. The red line represents a typical age distribution for reference. This graphic reveals that Sealy typically has a smaller younger population (under 25 years old) than usual. This may be due to the lack of industry to retain youth within the city.

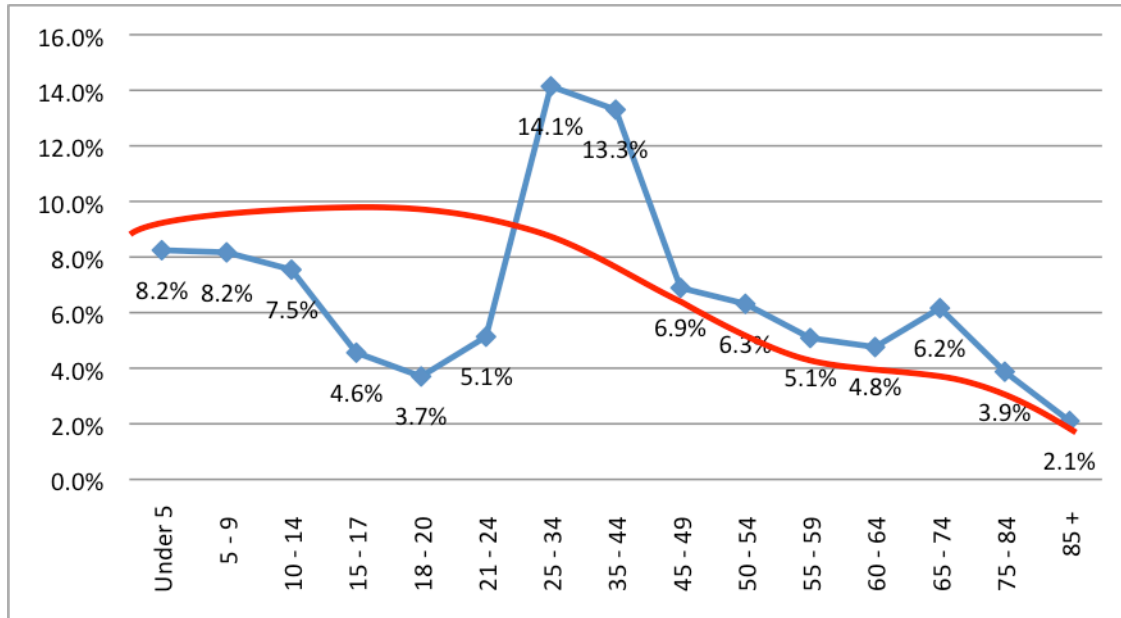


Figure 2.2 Sealy's Age Distribution in 2009.

Analysis of age distribution between 1990 and 2006 reveals that the biggest age cohorts in Sealy are between the ages of 35 and 50 years old, while ages 15-19 and 80+ are decreasing the most.

Gender

Sex distribution in Sealy is unremarkable when compared with the surrounding areas. Compared with Austin County and the state of Texas, the distributions remain nearly 50/50. Sealy does show a slightly higher percentage of females (~1% on average), but this is not significant. The distribution is presented below in Table 2.4.

Year	Sealy		Austin County		Texas	
	Male	Female	Male	Female	Male	Female
1990	49.43%	50.57%	48.31%	51.69%	49.23%	50.77%
2000	47.58%	52.42%	49.17%	50.83%	49.57%	50.43%
2006 Est.	48.40%	51.60%	49.55%	50.45%	50.00%	50.00%

Table 2.4 Sex Distribution Comparison Chart.

Race

In comparing the following racial groups, White, Black, American Indian and Eskimo, Asian or Pacific Islander, and Other and Two or more races, it is evident that the predominant racial group in Sealy is White, as seen in Table 2.5 below. This trend can also be seen in Austin County and the state of Texas.

	White	Black	American Indian, Eskimo	Asian or Pacific Islander	Other; Two or more
1990	3,415	696	0	13	424
2000	3,696	681	26	11	817

2009	4,603	654	28	33	1,109
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Table 2.5 Sealy's Racial Distribution Chart, 1990-2009

Also to be noted from the table above is that the Black population is decreasing and the American Indian and Eskimo population remains relatively stagnant, while the Asian or Pacific Islander and Other and Two or More population are increasing. Combining this chart with the graph below, it is evident that the population of Sealy is becoming somewhat more diverse as the rate of Asians and other groups begin to grow, as well as the Hispanic population found within Sealy. As seen in Figure 2.3, the same trend regarding those of Hispanic origin increasing can be found not only in Sealy, but in Austin County and Texas as well. Sealy is experiencing about the same percentage as the general state of Texas, whereas Austin County is somewhat less diverse. Because of the increase of diversity found within the population of Sealy, the city will need to accommodate for such changes. Applications of this trend include possible ethnic grocery stores and restaurants, as well as the need for the integration of the Spanish language into population warnings and disseminations in the case of emergencies.

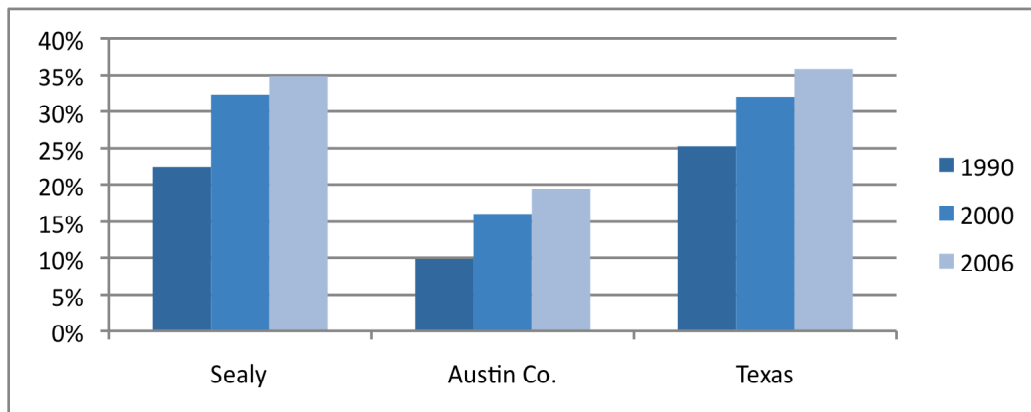


Figure 2.3 Percentage of Population that is of Hispanic Origin in Sealy, Austin County and Texas, 1990-2006

It was also found in Sealy that since 2000, English was spoken by only 69% of population. In 2009, that figure increased to 74%. Spanish spoken in the home in 2000 was 28% and in 2009 is 23%. One explanation for this phenomena could be that as those of Hispanic origin become more integrated in American society and begin to have children, they are less likely to speak Spanish and more apt to speak English. This not only equips them to be able to communicate with other English speakers, but also helps their children learn English more quickly to better prepare them for what they will hear at school.

Marital Status

Currently in Sealy, fifty-five percent of the population fifteen years and older is married. Twenty-three percent has never married, and fifteen percent is divorced or separated. The average distribution of marital status is listed below.

Status	Percent
Never married	25%
Married	54%
Separated	3%
Widowed	9%
Divorced	9%
Never married	25%

Table 2.6 Average marital distribution 1990-2009.

Comparing Sealy’s relationship statistics to Austin County and Texas indicates little difference, within a few percentage points, signifying that Sealy’s marital breakdown is relatively identical to the surrounding area. Observing the historic relationship distribution reveals that, historically, Sealy had fewer divorces and separated couples than Austin County and Texas. Within the last nineteen years, the separated and divorced population has been growing in Sealy and now matches that of Austin County and Texas.

Educational Attainment

The number of Bachelor’s degrees attained in Sealy increased steadily from 1990 to 2009 by 1.4%, and Associate’s degrees rose by less than 1% from 2000 to 2009. However, the educational attainment achieved by other sectors of the community decreased between 2000 and 2009. Students with an educational attainment below 9th grade demonstrate the most dramatic drop between 1990 and 2000. However, this decrease can be attributed to the decrease in young school-aged children during this time period. Again, this can be further observed in high school students between 2000 to 2009, where the next most significant decrease is seen at 2.3%, as shown in Table 2.7.

	1990-2000	2000-2009
Less than 9th grade	-10.91%	2.61%
9th to 12th grade, no diploma	-0.03%	-2.31%
High school graduate (GRE)	2.42%	-1.62%
Some college, no degree	7.55%	-0.79%
Associate degree	-0.07%	0.68%
Bachelor's degree	1.41%	1.42%
Graduate or professional degree	-0.36%	0.02%

Table 2.7 Educational Attainment

These trends can be further illustrated by the percent of the educated population’s education attainment for 1990, 2000, and 2009 as shown in Figure 2.4.

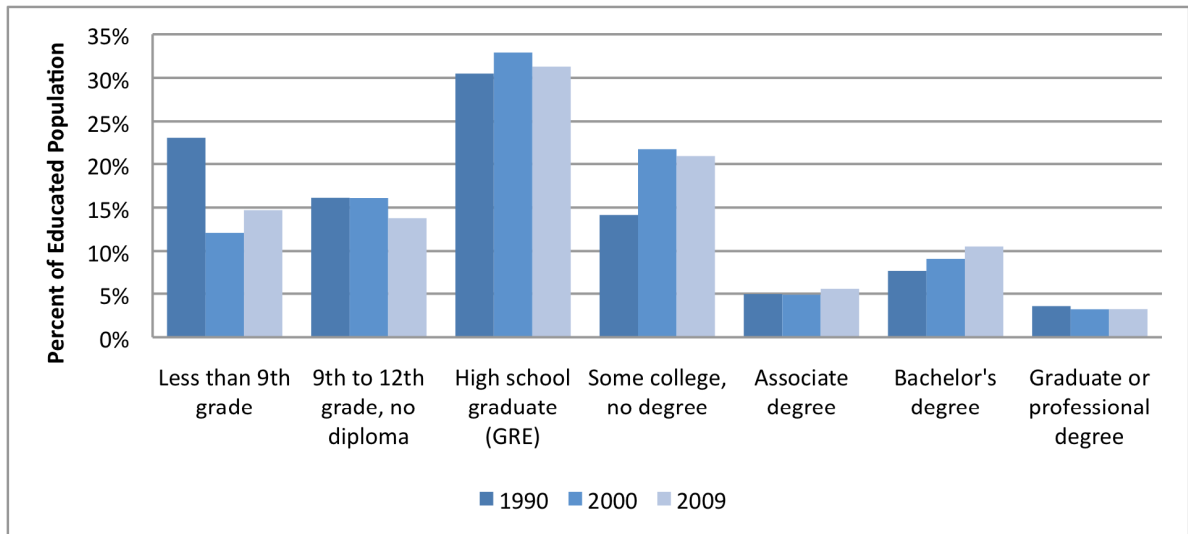


Figure 2.4 Educational Attainment

Income

As can be seen in Figure 2.5, in 2000, Sealy had a much greater percentage of households earning less than \$25,000 than both Austin County and the state of Texas. Additionally, over 35% of the Sealy population is represented in this group. It is notable that Sealy also had a greater percentage of households earning between \$50,000 and \$74,000 than Austin County or Texas; however, as the household income increased over \$75,000, the percentage of Sealy households was much less than either the county or state level.

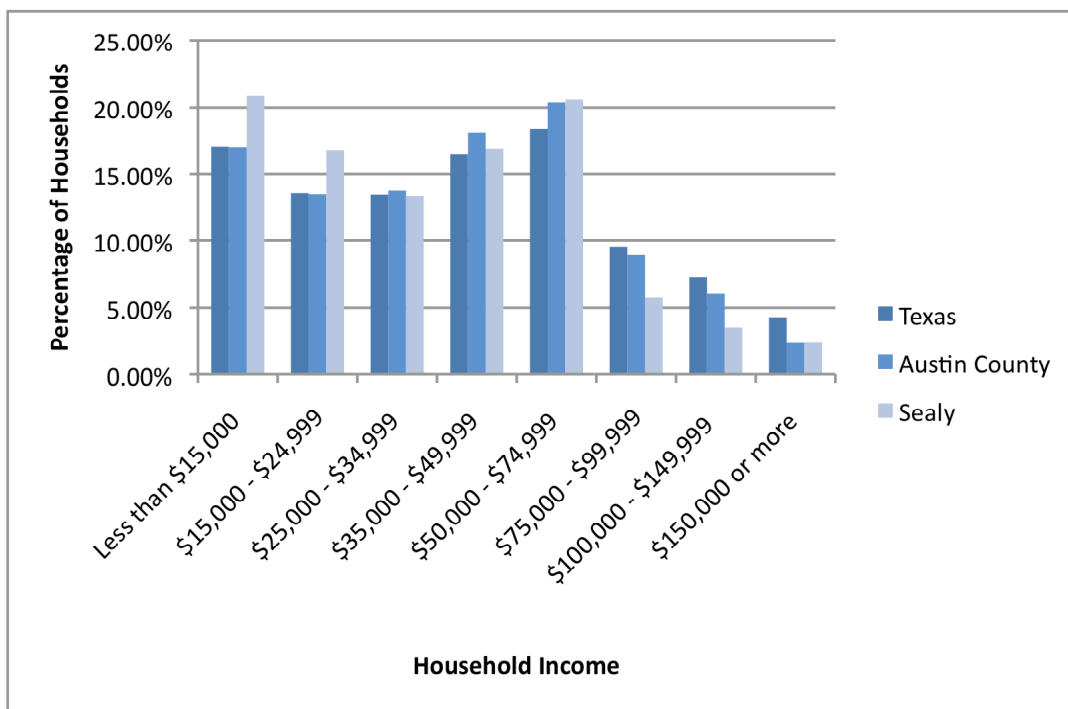


Figure 2.5 Regional Comparison of Income for 2000

Median Household Income for Sealy more than doubled between 1989 and 2009, as shown in Table 2.8. If inflation is accounted for at an average of 3% annually, this would still represent almost a 7% increase every year in median income.

Median Household Income in 1989	\$22,543
Median Household Income in 1999	\$34,277
Median Household Income in 2009 (Est.)	\$47,038

Table 2.8 Median Household Income for Sealy from 1989-2009

When compared to the state and county, Sealy had similar trends of an increase in median household income from 1989 to 1999, although slightly lower than both the state and county as can be seen in Figure 2.6.

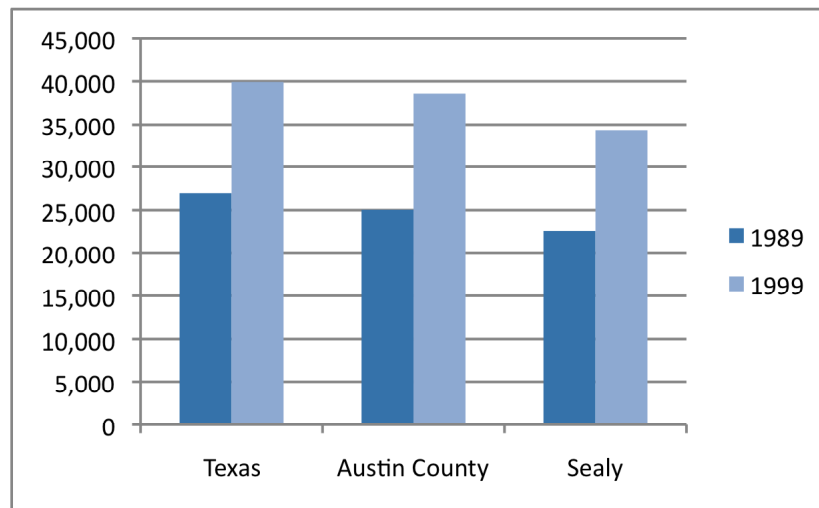


Figure 2.6 Median Household Income

Household Data

Knowing the current housing situation and understanding trends within the City of Sealy can help better prepare for future housing needs. Currently, the total number of households within Sealy stands at 2,309 for 2009. As seen from the chart below, this number has been steadily rising over the past 20 years and is expected to continue to rise as more people move into Sealy.

1990	1,751
2000	1,882
2006	2,082
2009	2,309
2014 est.	2,496

Table 2.9 Total Number of Households in Sealy, 1990-2014

The implications this has for the City is that a greater variety of housing types should be implemented in order to suit the needs of the growing population. Combining the total number of households with the prospective ages of the population, it can be suggested that

a more diverse combination of housing types should be available for the residents. Sealy seems to be either attracting new households or maintaining what is considered a “traditional” household as the numbers continue to increase, whereas Austin County and the state of Texas have seen a decrease in the number of households it contains.

When considering the year each housing structure was built in Sealy, it is evident that the majority of the houses were built prior to the 1990’s, as 73% were built before this time, and 36% prior to the 1970’s, with the median year built as 1979.¹ As stated in the Sealy Comprehensive Plan, the implications of older housing could mean a possible increase in the number of homes deemed historic properties within the next few decades, as well as the threat of houses becoming decrepit. This could therefore lead to difficulties in selling older homes based on the fact that they are more expensive and take time to maintain.

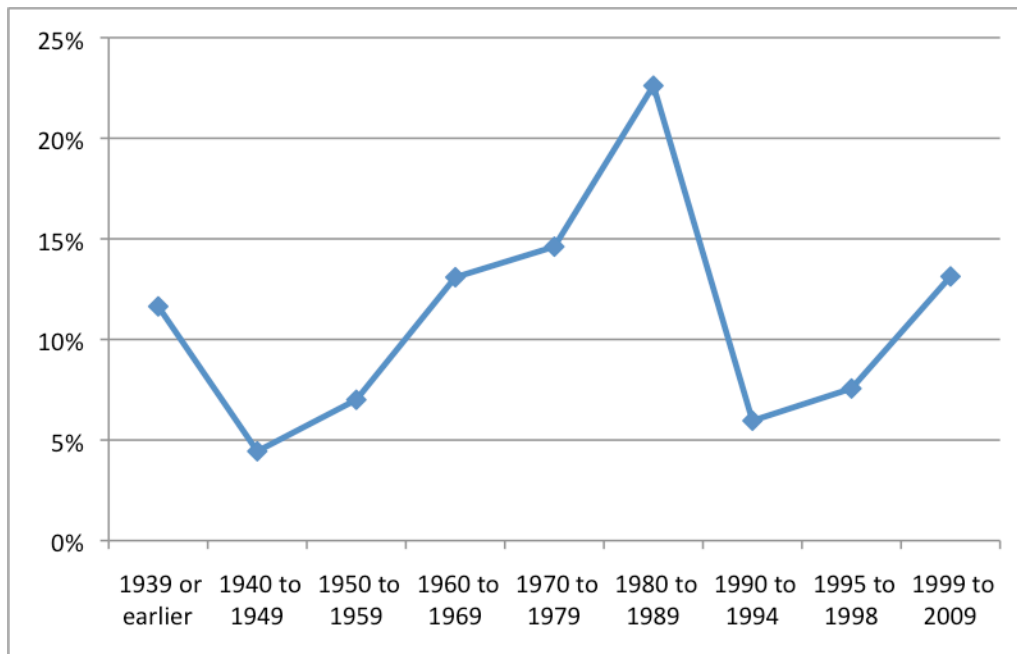


Figure 2.7 Percentage of Houses in Sealy by Year Built, 1939-2009

The average household size in Sealy is situated at 2.76 people per household.² There has been an insignificant increase in size from 2000 at 2.75 people per household. This number is slightly higher than Austin County’s 2.67 people per household, but lower than the state of Texas’ average of 2.92 people per household (Sealy Comprehensive Plan). Knowing average household size can help explain what types of housing would be best suited for the residents of Sealy, as well as to help explain population density within a given area of the city.

Of the occupied housing within the city of Sealy, currently 70% are occupied by the structure’s owner, whereas 30% are rented, as can be seen from Figure 2.8. Since 1990, the

¹“Community Profile Update 2009.” City of Sealy. 2009.

² *Ibid.*

amount of owner-occupied housing has increased, whereas the amount of those who rent has decreased. Knowing this trend can further help plan for housing needs in the future.

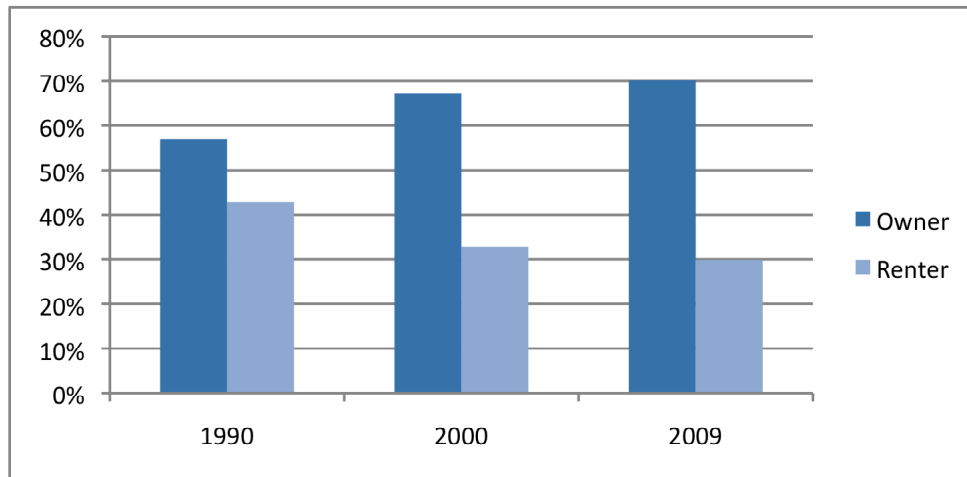


Figure 2.8 Tenure of Occupied Housing in Sealy, 1990-2009

Transportation

Currently in Sealy, approximately ninety-four percent of the working population travels to work by car. Two percent works at home and most of the remaining working population walks to work. The 2009 breakdown of transportation modes is below.

Means of Transport	% of Population
Drove alone	80.4%
Carpooled	13.6%
Public trans:	0.3%
Motorcycle	0.0%
Bicycle	0.1%
Walked	2.6%
Other means	0.8%
Worked at home	2.2%

Table 2.10 2009 Means of Transportation to Work in Sealy.

In 2000, 3.7% of Sealy’s working population walked to work. Currently, approximately 2.6% walk to work. Comparing this to Austin County (1.6%) and Texas (1.9%) reveals that Sealy has a larger percentage of the population walking to work than surrounding areas. This may be a result of both the size of the city as well as an indication of income levels in the city center. Currently in Sealy, less than half of a percent of the population bicycles or uses public transportation to get to work. This trend is also found in Austin County, but Texas as a whole has a significantly larger portion of the population using public transportation (2%).

Another trend worth noting is the fact that, historically, the majority of workers in Sealy have had shorter commutes compared to Austin County and especially compared to Texas. This is most probably due to the physical size of Sealy. However, this point is also offset by the fact that, historically, the second largest percentage of Sealy's workers travel more than 45 minutes to work each day, most likely to nearby Houston. This trend can be seen in the following graph from the 2000 Census.

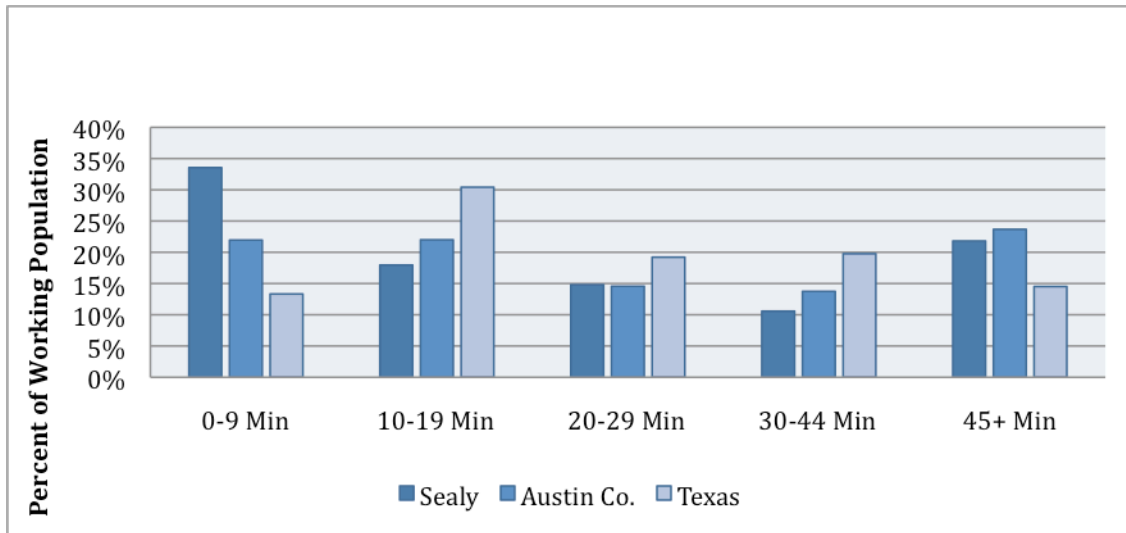


Figure 2.9 Travel Times to Work in the Year 2000.

Looking at this using the current 2009 situation in the following graph shows that the trend changes with the second largest portion of the working population traveling between 15 and 29 minutes to work each day. This is probably due to the growing employment opportunities in Katy, Texas.

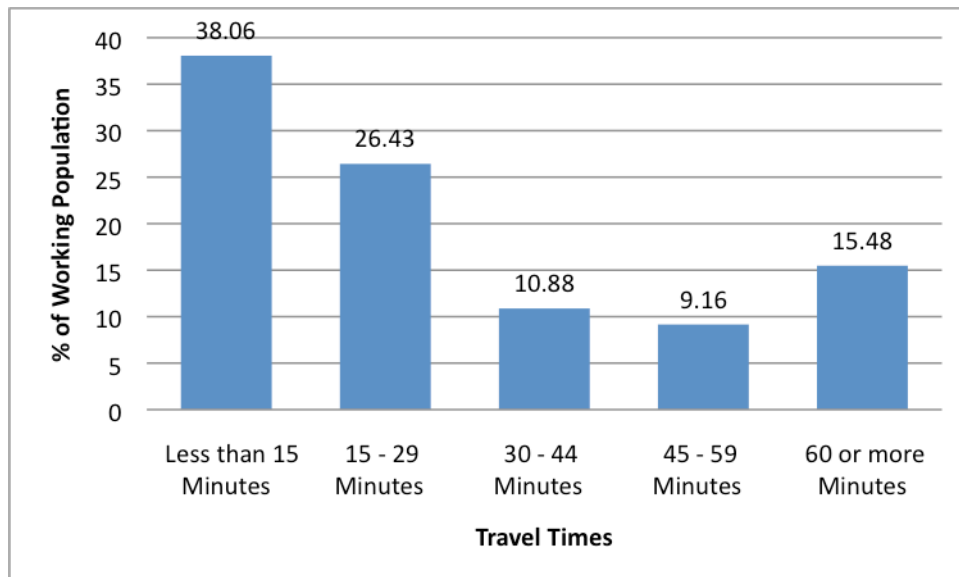


Figure 2.10 Travel Times to Work in the Year 2009 for Sealy Residents.

3. Economy

Work Force

Of the total number of people in the labor force in Sealy, Table 3.1 shows that the unemployment rate rose in Sealy from 1990 to 2000 while it fell in both Austin County and the state of Texas over the same time period. Additionally, Sealy had a higher unemployment rate than both the state and county in 1990 and 2000.

Employed	1990	2000
Texas	92.89%	93.94%
Austin County	94.87%	95.59%
Sealy	92.51%	92.25%
Unemployed		
Texas	7.11%	6.06%
Austin County	5.13%	4.41%
Sealy	7.49%	7.75%

Table 3.1 Employment Status from 1990 to 2009.

As seen in Table 3.2, the number of women in the labor force increased by almost 5% from 1990 to 2000, which is a higher increase than either the state or county.

Males in Work Force	1990	2000
Texas	55.98%	54.98%
Austin County	57.65%	56.95%
Sealy	59.72%	55.76%
Females in Work Force		
Texas	44.02%	45.02%
Austin County	42.35%	43.05%
Sealy	40.28%	44.24%

Table 3.2 Employment Status by Sex from 1990 to 2000.

Additionally, more Sealy residents were working for state and local government in 2009 than in 1990, while less people were For-Profit Private and Self-Employed workers. This has potentially negative implications for the economy of Sealy.

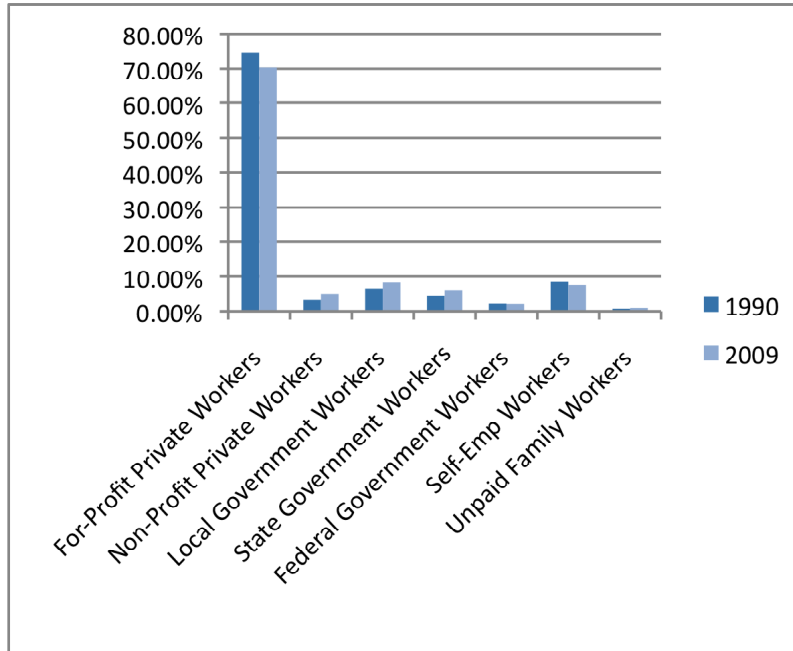


Figure 3.1 Class of Worker for Sealy between 1990 and 2009.

A comparison of the percentage of class of worker in Sealy to Austin County and Texas can be done using Table 3.3. Sealy had a lower percentage of private for profit workers than the state of Texas in 2000, but more than Austin County. While Sealy had an increase of non-profit workers from 1990 to 2000, the percentage of non-profit workers in Sealy was still less than both the state and the county. It is also notable that Sealy had a greater percentage of both state and local workers in 2000 than the state, but not Austin County.

	Texas 1990	Austin County 1990	Sealy 1990	Texas 2000	Austin County 2000	Sealy 2000
Private for profit wage and salary workers	71.25%	67.10%	74.75%	72.30%	68.16%	71.33%
Private not-for-profit wage and salary workers	5.47%	5.19%	3.16%	5.70%	5.43%	5.30%
Local government workers	6.51%	6.33%	6.49%	6.59%	8.14%	7.78%
State government workers	5.30%	6.69%	4.24%	5.43%	6.18%	5.80%
Federal government workers	3.35%	1.83%	2.14%	2.57%	1.34%	2.47%
Self-employed workers	7.59%	11.59%	8.47%	7.08%	9.98%	6.02%
Unpaid family workers	0.52%	1.27%	0.75%	0.34%	0.76%	1.30%

Table 3.3 Percentage of Class of Worker for Sealy, Austin County and Texas in 1990 and 2000

Moreover, a higher percentage of people who lived in Sealy worked outside Sealy in 2000 than in 1990, with 33.64% working outside Sealy in 1990 and 38.52% in 2000, as shown in Figure 3.2. This can be evidence of an economic decline, not enough places for people in Sealy to work, or that more people who already had jobs in other places moved to Sealy, so Sealy is attracting people to live.

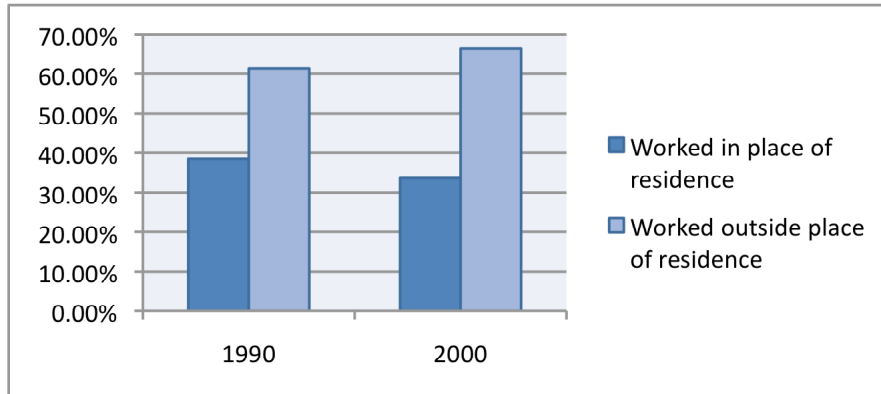


Figure 3.2 Place of Work for Sealy Residents.

Employment

In 2006, the total number of employees in Sealy was 2499, which are distributed to the following employment sectors as shown in Table 3.4. It can be noted that the majority of employees can be found in the sector of administrative support.

Employment Sector	Number of Employees	Percentage
Administrative Support	315	12.61%
Architecture	30	1.20%
Arts	8	0.32%
Building and Grounds Cleaning	108	4.32%
Business Operations	13	0.52%
Computer and Mathematics	28	1.12%
Construction and Extraction	171	6.84%
Education, Training, Library	123	4.92%
Farming	22	0.88%
Financial Specialists	23	0.92%
Health Care	115	4.60%
Installation	88	3.52%
Legal	17	0.68%
Life	0	0.00%
Management	210	8.40%
Production	271	10.84%
Sales	369	14.77%
Services	588	23.53%
Total	2499	100.00%

Table 3.4 Employment per Employment Sector in Sealy in 2006. Source: Buxton Report

The employment breakdown of Sealy with a comparison to the state of Texas is presented in Table 3.5. This breakdown considers the NAICS industry classifications, and it can be noted that the major industries are retail trade, which constitutes 19% of the employees, manufacturing with 17%, and educational, health and social services with 16% of the employees. Compared to the state of Texas, these major industries of Sealy are relatively strong, whereas other industries such as professional, scientific, management, administrative, and waste management services constitute for much less employment in Sealy than in the entire state.

Jobs by Industry Type	Sealy		Texas	
	Count	Share	Count	Share
Agriculture, forestry, fishing and hunting, and mining	51	2%	247697	3%
Construction	188	8%	743606	8%
Manufacturing	387	17%	1093752	12%
Wholesale trade	112	5%	362928	4%
Retail trade	432	19%	1108004	12%
Transportation and warehousing, and utilities	157	7%	535568	6%
Information	30	1%	283256	3%
Finance, insurance, real estate, and rental and leasing	110	5%	630133	7%
Professional, scientific, management, administrative, and waste management services	61	3%	878726	10%
Educational, health and social services	362	16%	1779801	19%
Arts, entertainment, recreation, accommodation and food services	191	9%	673016	7%
Other services (except public administration)	73	3%	480785	5%
Public administration	71	3%	417100	5%
Total	2225	100%	9234372	100%

Table 3.5 Employment per industry in Sealy and Texas in 2000

Economic Development in Sealy is overseen and supported by the Sealy Economic Development Corporation (EDC). Their mission is to encourage business growth, to create and retain employment opportunities, in order to improve the quality of life in Sealy. The Sealy EDC was created by Sealy voters in 1997 under Section 4B of the Development Corporation Act of 1979. This decision established an additional .5% sales tax dedicated for economic development (primarily intended for manufacturing and industrial development) to provide for opportunities to improve the quality of live in the community.

Main Industries and Major Employers

Historically, the major employers of Sealy have been cattlemen and railroad workers, as the city was founded by the railroad at a place where German and Czech farmers and ranchers had settled. Today, the main industries in Sealy are retail trade, manufacturing, education, health and social services. Retail trade constitutes 20% of the employment by residents, followed by manufacturing with 18% as shown in Figure 3.3.

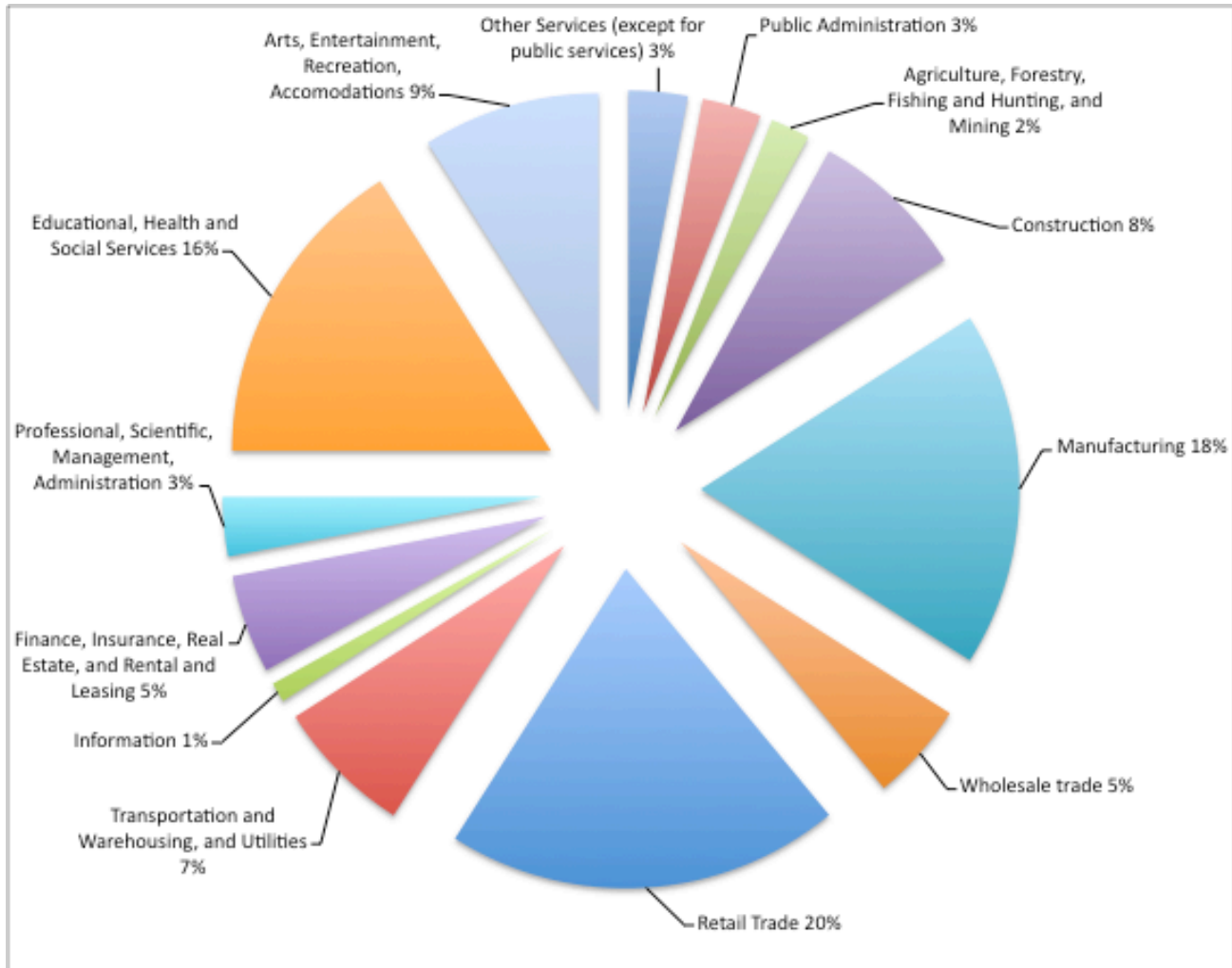


Figure 3.3 Employment of Sealy residents by industry type 2000

A few major employers dominate the employment base in Sealy. The highest portion of employees in Sealy can be accounted towards the company BAE Systems. BAE Systems is a global company that creates and distributes advanced defense, security and aerospace systems used by air, land and naval forces. Out of the approximately 105,000 employees of BAE Systems, 2,500 people work in Sealy. The factory in Sealy is concerned with the manufacturing of military vehicles for FMTV-Operation.

Following BAE Systems, the second largest employer in Sealy is Wal-Mart. Wal-Mart has located a regional distribution center within the city limits where 740 employees are working. Furthermore, Wal-Mart operates a Super Center, which constitutes the fourth largest employer of the city with 300 employees.

Sealy is home to several schools as well as a campus of Blinn College. The city houses elementary, intermediate, junior high and high schools with a total enrollment of 2,603 students. Table 3.6 provides a breakdown of students to school grades. It can be observed that the majority of students are below the 3rd grade or in High School. Sealy is also the home of a Blinn College Campus with 280 enrolled students in October 2009. The breakdown of Blinn College students into age groups is given by Table 3.7, where the vast majority of students is in the age group of 17-25 years. Overall, the Sealy Independent School District is the third largest employer of the city with 375 employees.

School Grade	Number of Students	Percentage
PreK – 3	836	32%
4 - 5	441	16.9%
6 – 8	577	22.2%
9 - 12	749	28.9%
Total	2,603	100%

Table 3.6 Sealy school enrollment per grade as of 09/2009

Age Group	Number of Students	Percentage
17 – 25	263	94%
28 – 40	14	5%
50 – 60	3	1%
Total	280	100%

Table 3.7 Sealy Blinn College enrollment per age as of 10/2009

Other major employers in Sealy are the International Paper Company with 99 employees, Gulf States Toyota with 89 employees, ACME Brick Company with 80 employees and Rincker Materials with 45 employees. The distribution of the city’s major employers is given by Figure 3.4.

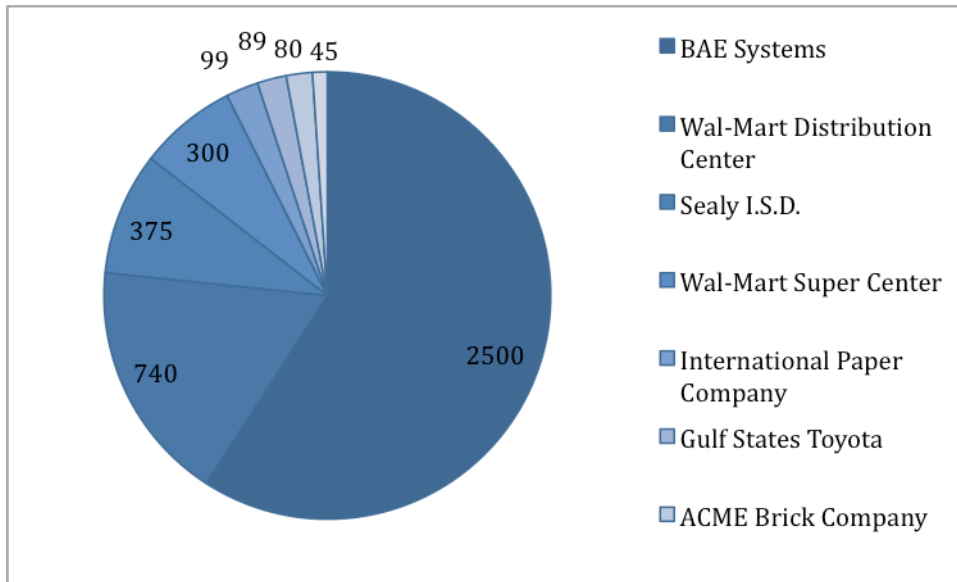


Figure 3.4 Major employers in Sealy 2006

Overall, it can be stated that Sealy has a large manufacturing industry mainly producing the following: military vehicles, corrugated boxes, flanges, bricks, and concrete products. The location of the major employers within the city is given by Figure 3.5. It can be noted that none of the major employers are located in or near the downtown area. The major employers that are located most closely to the downtown area constitute schools within the Sealy Independent School District.

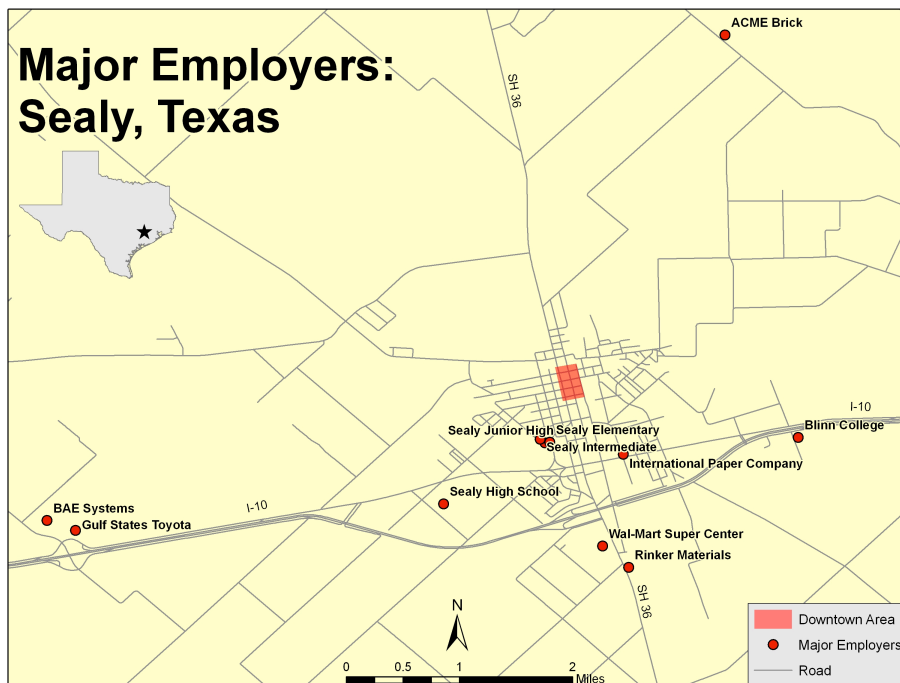


Figure 3.5 Location of Major employers in Sealy, TX

4. Land Use

Current Land Use Patterns

Sealy, being a historic town, always had its own identity and a community character. In spite of being close to other metropolitan cities, it has not lost its distinct character like many suburban towns. The growth of population and economy, as described in earlier sections, influence the current and future land use patterns of Sealy. It is a challenge for the city to shape the growth for future orderly development competent with the character of the community.

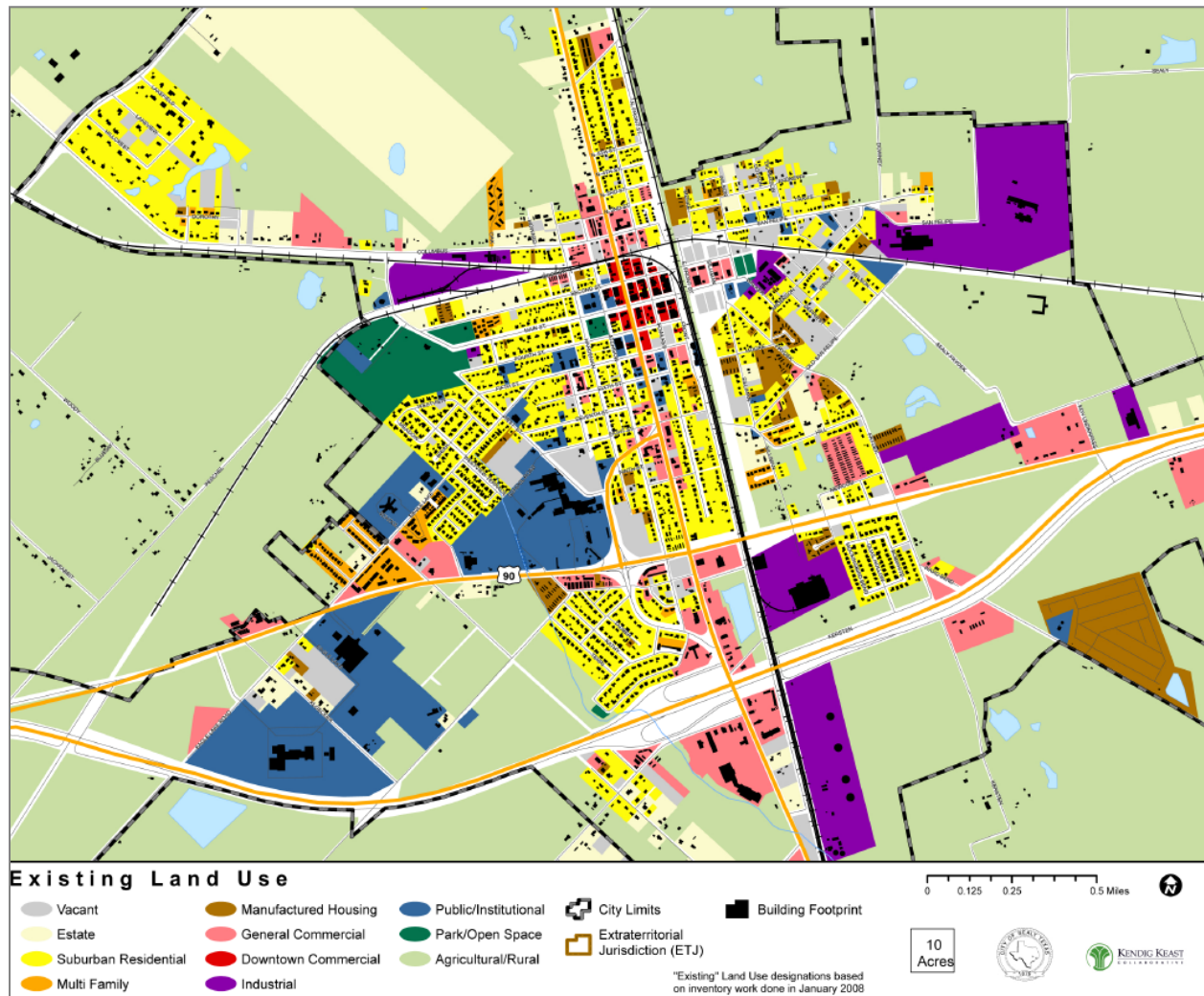


Figure 4.1 Existing Land Use (Area within the city limits and under Extra Territorial Jurisdiction (ETJ))

Figure 4.1 exhibits the how different land uses are distributed across the town. The following Figure 4.2 gives the breakup of the total land acreage of Sealy (10,673 acres) including the area under ETJ.

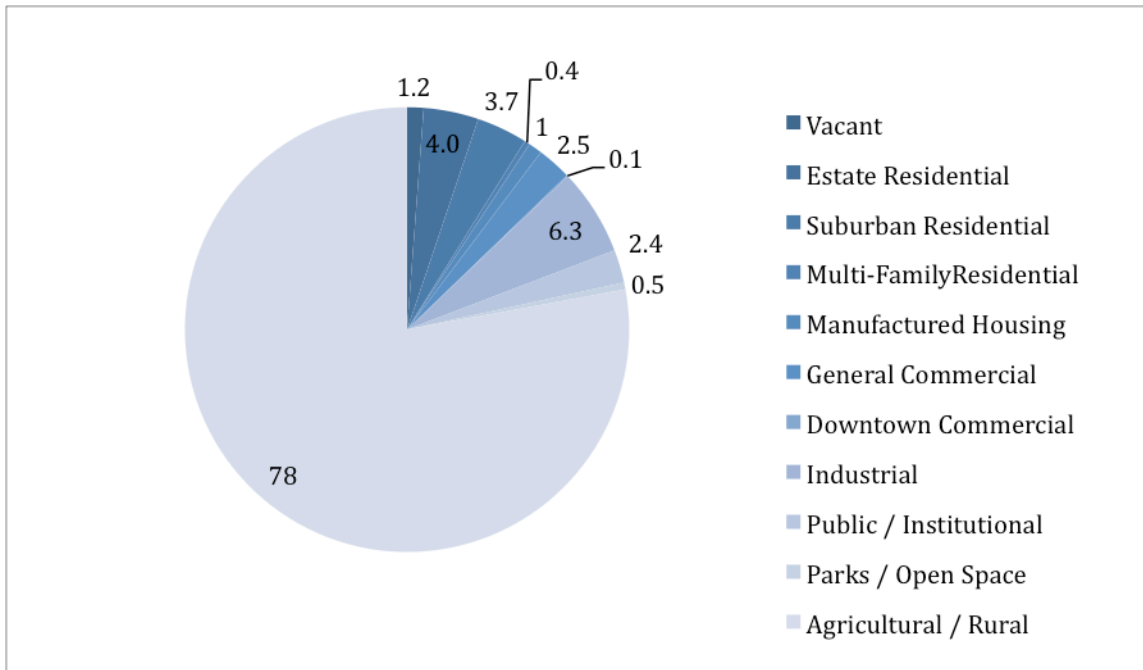


Figure 4.2 Breakdown of Land Use

According to Figure 4.2, the prime land use in and around Sealy is agricultural/rural. It should also be noted that the second largest land use is industrial, which supports the economic trends of the town. The following are land use concerns of the city.

- Most of the 2.5% of General Commercial development of the city's land use is concentrated on major corridors and at the I-10 gateway; Downtown Commercial land uses contributes only 0.1% of the General Commercial development.
- 1.2% of land is vacant, and the downtown area has many such vacant land parcels. With the current scenario of land development patterns, Sealy would be facing challenges to restrict development along the highways thereby preserving its small town character. Also, the city should try attracting more economic activities to downtown to make it the real heart of Sealy.

Environmental Conditions

Sealy has many quality environmental resources and agricultural lands owing to its rural character due to which maintaining a high quality natural environment is of vital importance to the city. The city provides and maintains a number of parks, including Sealy Business and Professional Women's Park, Abe and Irene Levine Family Park, Joe Scranton Jr. Park and Mark Frederick Park for the general public.

Climatic Facts

Sealy receives forty-two inches of rain per year and the United States average is thirty-seven. Sealy receives zero inches of snow and the average city in the US receives 25 inches. The number of days with any measurable precipitation is seventy-seven. On average there are 206 sunny days per year in Sealy. The July high is around ninety-five degrees. The January low is fort-three degrees. The comfort index, which is based on humidity during

the hot months, is a twenty-three out of 100, where 100 is the most comfortable. The average comfort index for the US is forty-four.

Climate	Sealy, TX	United States
Rainfall (in.)	41.7	36.6
Snowfall (in.)	0.3	25.2
Precipitation Days	77	101
Sunny Days	206	205
Comfort Index (higher=better)	23	44
UV Index	5.8	4.3
Elevation ft.	198	1,062

Table 4.1 Climatic Indicators of Sealy and the United States **Source:** <http://www.bestplaces.net/city/Sealy-Texas.aspx#>

Environmental Risks

Sealy-area historical tornado activity is slightly above Texas state average and it is 136% greater than the overall U.S. average. It was hit by category 3 tornados in 1950 and 1965 respectively causing a few casualties and heavy financial damages.³

Health Index Facts

Air quality in Sealy, TX is 66 on a scale to 100 (higher is better). This is based on ozone alert days and number of pollutants in the air, as reported by the EPA. Water quality in Sealy, TX is 60 on a scale to 100 (higher is better). The EPA has a complex method of measuring watershed quality using 15 indicators. Superfund index is 100 on a scale to 100 (higher is better). This is based upon the number and impact of EPA Superfund pollution sites in the county, including spending on the cleanup efforts.⁴

Health	Sealy, TX	United States
Air Quality (100=best)	66	48
Water Quality (100=best)	60	55
Superfund Sites (100=best)	100	71

Table 4.2 Health Index Factors

5. Government/Planning

Downtown District Regulations

The purpose of this section is to summarize the Sealy downtown regulations as currently stated. Downtown regulations are listed in chapters 28 and 29 of the Sealy Code of Ordinances, and additional requirements concerning building maintenance and utilities are found in Chapter 14.

³ **Source:** <http://www.city-data.com/city/Sealy-Texas.html#ixzz0QGdmObRB>

⁴ **Source:** <http://www.bestplaces.net/city/Sealy-Texas.aspx#>

Design Standards

Table 5.1 below provides a condensed summary of regulations as expressed in Chapters 28 and 29 of the Sealy Code of Ordinances. In the event of conflict between Chapter 28 and 29 concerning downtown design standards, the provisions of Chapter 29, which adhere solely to the downtown district, shall apply.

Site Regulations	
Area	Minimum lot area of 2,500 sq. feet Minimum width of 25 feet, 35 feet for corner lots Minimum depth of 100 feet
Height	Not to exceed 35 feet
Setbacks	0 feet front and side yard setback requirement 20 feet rear yard
Screening	All outside storage, industrial activities, off-street loading areas, refuse storage areas, dumpsters, HVAC (air conditioning and heating equipment). Screening wall must match materials as primary building on lot
Parking	
Off-street	All businesses shall be 1 space for 800 ft ² of building area. Applies to all new construction and additions to existing buildings.
On-Street	No off-site parking shall be designated for use by more than 1 business. 1 parking space credit for 22' of development frontage less 5' reserve on either side of driveways and 10' reserve on street intersections.
Sign Regulations	
Area	Signs in/on/within 3 feet of a window may not exceed 30 percent of total window area of any one floor of a building – including paper, plastic, neon, or painted
Composition	No moving parts, not movable No internal illumination Hanging from the drop flags of awnings is permitted
Height	Permanent banners are prohibited. Temporary banners not to exceed 10 days
Architectural Elements	
Façade	

	New construction <u>must</u> have front and side façades constructed of wood, brick, masonry, stone, stucco, or glass.
	Architectural metal accents may be used, copper or bronze
	<u>No metal buildings shall be allowed</u>
Accessory Structures	
	Walls and other structures on the same site must be constructed of same or similar materials as primary building on lot
Public Space	
	Sidewalk furniture and landscape planters are encouraged (not required)
	<u>No outside displays of store merchandise allowed</u>

Table 5.1 Summary of Downtown Development Standards

Downtown Property Taxes, at a Glance

The eight city blocks that compose Sealy’s Downtown District (DD) contain approximately 13.1 acres of taxable land. The total appraised value for land and improvements in 2008 is \$8,714,779; which in turn provided tax revenues of approximately \$176,989 for the City of Sealy, Sealy ISD, Austin County, and other local taxing entities that year. A breakdown of revenues may be found in Table 5.2, below.

Taxing Entity	Tax Rate (per \$100)	Amount Levied
Austin County		
(G01)	0.34990	\$30,493
City of Sealy (C03)	0.30129	\$26,257
Sealy ISD (S03)	1.22000	\$106,320
Farm/Market Road		
(R01)	0.07100	\$6,188
Austin County		
ESD#2 (F02)	0.03000	\$2,615
Spc Road & Bridge		
(R02)	0.05870	\$5,116
Total	2.03089	\$176,989

Table 5.2 2008 Tax Rates for Downtown District in Sealy

Sealy’s overall tax rate for downtown properties is approximately 21% lower than the 2007 statewide average of 2.57 for Texas⁵. Overall, property tax rates for properties in the DD are competitive with or below the rates of surrounding counties, cities, and school districts, as shown in Figure 5.1.

⁵ According to a New York Times article released in April 10, 2007

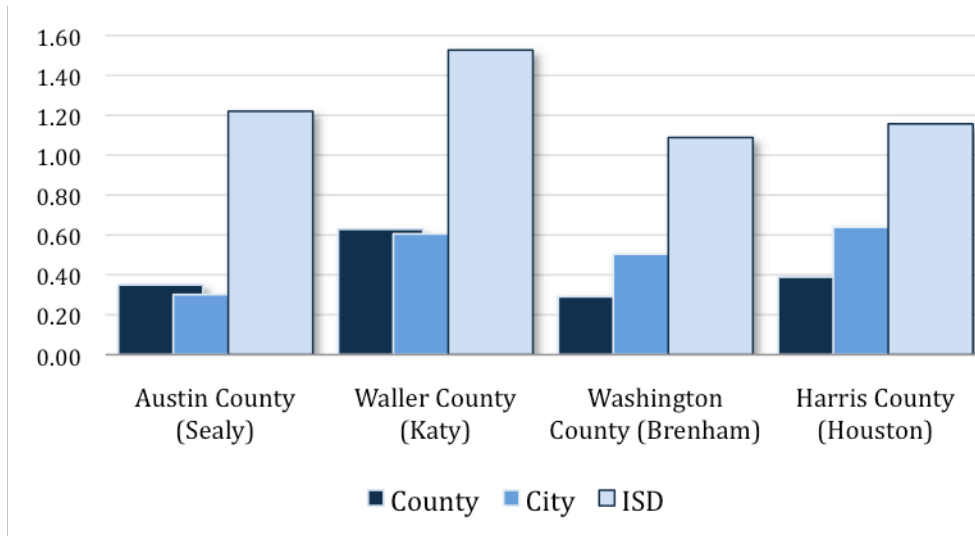


Figure 5.1 Sealy Regional Tax Rates, 2008

Likely as a result of the relatively affordable property tax rates in the community, there exists only one tax delinquent out of the 52 property owners in downtown; possessing a \$2,464 delinquency from the 2008 tax year. The combination of low taxes and high renovation costs may be a cause for the high vacancy rate.

Ownership

As seen in Figure 5.2, out of 82 individual parcels located in downtown, 61 are owned locally (owner resides in Sealy), 19 are owned by an owner that resides in the Houston region (not in Sealy), and 2 parcels are under out-of-state ownership (which include the only tax delinquent property in downtown).



Figure 5.2 Downtown Sealy, Property Ownership

Vacant Property

As of October 2009, 31 parcels in the downtown district, or approximately 40% of all parcels, have either unoccupied buildings or no improvements on them. 17 of those parcels (representing approximately 2.94 acres) are vacant land with no improvements (including two surface parking lots). 13 parcels contain approximately 33,300 sq. ft. of vacant commercial improvements (out of a total of 168,000 sq. ft.); and 1 parcel contains a 1,900 sq. ft. vacant residence. Of the 31 vacant parcels in Sealy, 22 are locally owned, 7 are regionally owned, and just 1 is owned out-of-state.



Figure 5.3 Downtown Sealy, Property Use and Vacancy

Land Use

Land use in downtown Sealy is largely dominated by commercial uses; including office and retail uses, restaurants, barbershops and salons, day care facilities, law enforcement facilities, banks, and churches. Approximately 1.5 acres are residential or mixed-use. Looking at the map of land use in Figure 5.3, there does not appear to be a predominant clustering of vacancies; however it is noted that a number of large, vacant parcels are located between Fourth and Fifth Streets at the south end of the downtown district. Proximity to the railroad tracks might explain vacancies along Front Street and toward the north end of the district. Table 5.3 presents a summary table of land use in Downtown Sealy.

Land Use	Land Acreage	Land Value	Building Sq. Ft.	Building Value
Commercial	8.417	\$960,756	199,905	\$6,114,545
Residential	1.327	\$69,960	15,948	\$586,589
Unimproved	3.372	\$362,851	-	\$34,534*
Total	13.116	\$1,393,567	215,853	\$6,735,688**

* Includes storage facility and surface parking lots
 ** Does not include appraised value of porches, awnings, and accessory structures
 Table 5.3 Downtown Sealy, Land Use Summary Table

When viewing the price of land per acre spatially, as shown in Figure 5.4 below, it is evident that proximity to the railroad tracks has had an effect on the appraised value of land in downtown Sealy.



Figure 5.4 Downtown Sealy, Property Value (\$ per Acre)

Property Values

The average 2009 appraised value for all land in the Sealy downtown district is \$106,250/acre; and the average 2009 appraised value for commercial buildings in the district is \$28.97/sq. ft. Residences average \$36.78/sq. ft. Meanwhile, vacant land in downtown Sealy averages \$103,324/acre in 2009; and vacant commercial buildings are appraised at an average of \$31.30/sq. ft.

Chapter 2: Economic Analysis

1. Economic Analysis

Understanding the economic conditions of a city is crucial when planning for new development. Economic conditions change over time and thus have to be analyzed carefully before recommending new development. Economic development is one of the key factors that can augment or shrink the boundaries of a city. Hence, it is necessary to look into the local economic development pattern of a city over a certain number of years to understand changes and current conditions.

Over the last few years, Sealy has become a major economic hub at the intersection of I-10 and Highway 36, attracting various businesses into the city. In order to get an idea about strong local industries and recommendations for further economic development, it is necessary to conduct an economic analysis of the region. Local economies differ according to the various types of activities they undertake. The economic structure of the region depends on the kind of industry that is dominant; to understand that, it is necessary to take a closer look at the distribution of economic activity by industry.

Sealy is home to several manufacturing and industrial facilities, which produce and distribute corrugated boxes, military vehicles, flanges, bricks and concrete products. So, the ongoing economic development in terms of manufacturing is quite favorable and should support a flourishing economy in the future.

In order to understand the basis of this flourishing economy, we need to determine the strengths and the weaknesses of the city's local economy. For this purpose, we conduct a location quotient and shift share analysis to identify the economic base of Sealy. These analyses are based upon the North American Industry Classification System (NAICS) for data that has been acquired after the year 2000, and upon the Standard Industrial Classification (SIC)⁶ for data that has been acquired before the year 2000. We are thus using the following industries to run location quotients and shift-share analysis, in order to identify Sealy's economic base:

- Agriculture, Forestry, Fisheries and Mining
- Construction
- Manufacturing
- Wholesale Trade
- Retail Trade
- Transportation and Public Utilities
- Finance, Insurance, and Real Estate
- Entertainment and Recreation Services

⁶ "Industrial structure encompasses the whole range of economic activity, provision of services as well as production of manufactured goods. The Federal Government's SIC coding system exhaustively categorizes economic activity based on a firm's primary product or service. This makes it possible to express industrial structure in terms of the share of total activity that falls into each of the various SIC code categories. The resulting profile of the local economy can be used to identify local industry specializations." (McLean, 1992, p.67).

- Health Services
- Educational Services
- Other Professional and Related Services
- Public Administration

Location Quotient

“Location quotient analysis indicates which industries have a comparatively larger (or smaller) presence in the local economy.”⁷ Location quotients (LQ) are computed for separate industries. A location quotient is basically a ratio of the percentage of employment in a particular industry in the local economy to the percentage of employment in the same industry to a reference economy. In the case of Sealy, we chose the state of Texas as the reference economy, because it is the next higher economy operating under certain similar conditions. We use employment data and in particular the number of employees of a certain industry in Sealy to compute location quotients for an industry *i*, using the following formula:

$$LQ_i = (e_i/e)/(E_i/E)$$

Where:

e_i = local employment in industry *i*
 e = total local employment
 E_i = state employment in industry *i*
 E = total state employment.

Location quotients tell us which industries are the strength of the economy and which ones are subordinate industries. If an industry has a location quotient of 1.0, this means that the share of employment in this local industry is identical to the share of employment in the same industry statewide. If the location quotient of an industry is greater than 1.0, this means that the share of employment of this local industry exceeds the share of employment in the same industry statewide. On the other hand, if the location quotient of an industry is less than 1.0, this means that the local share of employment is less than the statewide share of employment.⁸ In practice and for purposes of economic development, industries with a location quotient greater than 1.25 indicate basic industries, where the local demand is exceeded and the industry is exporting. Industries with a location quotient of less than 0.75 are on the other hand considered as non-basic industries that do not meet local demand. Industries that have a location quotient between 0.75 and 1.25 meet local demand and are thus only circulating money through the local economy, as opposed to drawing in money from outside the area to support the economy.

The location quotient analysis is limited in a sense that it only takes data from one point in time into consideration, but does not give an opportunity for comparing it over time. Thus,

⁷ McLean, M. (1992). *Understanding your economy : using analysis to guide local strategic planning*. Chicago, Ill.: Planners Press, American Planning Association. P. 62

⁸ McLean, M. (1992). *Understanding your economy : using analysis to guide local strategic planning*. Chicago, Ill.: Planners Press, American Planning Association. P. 62

we conduct our analysis with the census data of 1990 and of 2000. Another problem is that the census data is collected only once every ten years, which means that “current” data is not actually up-to-date. We thus conduct an additional analysis for the current data of 2009 where we derive the number of employees from the number of establishments for an industry by assuming the ratio between employees and establishments stayed the same as in 2000.

Table 1.1 below shows the employment, employment share and the location quotients for the major industries in the Sealy region for the year 1990. Location quotients are calculated for the first level of SIC industries. It shows that there are seven basic industries (agriculture, forestry and fisheries, construction, manufacturing of durable and non-durable goods, communication and other public utilities, retail trade, and finance, insurance and real estate). Out of these, three industries have LQ’s higher than 1.25 and were thus particularly strong industries in 1990, the highest LQ being 2.29 for agriculture, forestry and fisheries. These industries are highlighted in light blue in Table 1.1.

Jobs by Industry Type	Sealy		Texas		Location Quotient	Economic Base
	Count	Share	Count	Share		
Agriculture, forestry, and fisheries	119	6%	212,402	3%	2.29	Basic
Mining	10	1%	164,571	2%	0.25	Non-Basic
Construction	177	9%	514,102	7%	1.41	Basic
Manufacturing, nondurable goods	183	10%	458,733	6%	1.63	Basic
Manufacturing, durable goods	215	12%	643,205	8%	1.37	Basic
Transportation	70	4%	350,773	5%	0.82	Non-Basic
Communications and other public utilities	62	3%	229,542	3%	1.11	Basic
Wholesale trade	65	3%	375,869	5%	0.71	Non-Basic
Retail trade	366	20%	1,331,344	17%	1.13	Basic
Finance, insurance, and real estate	132	7%	521,461	7%	1.04	Basic
Business and repair services	58	3%	423,022	6%	0.56	Non-Basic
Personal services	49	3%	259,118	3%	0.77	Non-Basic
Entertainment and recreation services	8	0%	90,071	1%	0.36	Non-Basic
Health services	114	6%	559,051	7%	0.83	Non-Basic
Educational services	132	7%	678,689	9%	0.80	Non-Basic
Other professional and related services	58	3%	477,467	6%	0.50	Non-Basic
Public administration	47	3%	344,859	5%	0.56	Non-Basic
Total	1,865	100%	7,634,279	100%		

Table 1.1 Location Quotient Analysis for Sealy with employment data 1990

Furthermore, it can be noted that there are six industries with a location quotient of less than 0.75, which means that they can be categorized as non-basic industries. These

industries are highlighted in light red in Table 1.1 (mining, wholesale trade, business and repair services, entertainment and recreation services, other professional and related services - these include automotive repair, electronics repair, beauty salons, funeral services, laundry services, pet care, advocacy groups and religious organizations, etc. - and public administration).

Table 1.2 shows the location quotient analysis for 2000. We can note a significant difference in the importance of certain industries for the local economy as compared to 1990. It should also be noted that the industry classification system changed from the SIC to NAICS system between the two censuses of 1990 and 2000, so some of the changes in the location quotients can be attributed to that. In 2000, Sealy has six basic industries out of which manufacturing, wholesale and retail trade are particularly strong with location quotients exceeding 1.25. Transportation, warehousing and utilities and arts, recreation, accommodation, and food services have joined the basic industries. Rising economic development and the introduction of new businesses have given a boost to the arts, recreation, accommodation and food services industry to change from a non-basic industry to a basic industry. This can in part be attributed to the fact that in 2000, accommodation and food services were added in this category.

Jobs by Industry Type	Sealy		Texas		Location Quotient	Economic Base
	Count	Share	Count	Share		
Agriculture, forestry, fishing and hunting, and mining	51	2%	247,697	3%	0.85	Non-Basic
Construction	188	8%	743,606	8%	1.05	Basic
Manufacturing	387	17%	1,093,752	12%	1.47	Basic
Wholesale trade	112	5%	362,928	4%	1.28	Basic
Retail trade	432	19%	1,108,004	12%	1.62	Basic
Transportation and warehousing, and utilities	157	7%	535,568	6%	1.22	Basic
Information	30	1%	283,256	3%	0.44	Non-Basic
Finance, insurance, real estate, and rental and leasing	110	5%	630,133	7%	0.72	Non-Basic
Professional, scientific, management, administrative, and waste management services	61	3%	878,726	10%	0.29	Non-Basic
Educational, health and social services	362	16%	1,779,801	19%	0.84	Non-Basic
Arts, entertainment, recreation, accommodation and food services	191	9%	673,016	7%	1.18	Basic
Other services (except public administration)	73	3%	480,785	5%	0.63	Non-Basic
Public administration	71	3%	417,100	5%	0.71	Non-Basic
Total	2,225	100%	9,234,372	100%		

Table 1.2 Location Quotient Analysis for Sealy with employment data 2000

Establishments by Industry Type	Sealy		Texas		Location Quotient	Economic Base
	Count	Share	Count	Share		
Agriculture, forestry, fishing and hunting, and mining	3	1.15%	8,139	1.56%	0.73	Non-Basic
Construction	27	10.31%	42,246	8.10%	1.27	Basic
Manufacturing	21	8.02%	21,045	4.04%	1.99	Basic
Wholesale trade	10	3.82%	32,075	6.15%	0.62	Non-Basic
Retail trade	46	17.56%	78,111	14.98%	1.17	Basic
Transportation and warehousing, and utilities	12	4.58%	18,141	3.48%	1.32	Basic
Information	4	1.53%	9,702	1.86%	0.82	Non-Basic
Finance, insurance, real estate, and rental and leasing	34	12.98%	64,382	12.35%	1.05	Basic
Professional, scientific, management, administrative, and waste management services	35	13.36%	88,196	16.91%	0.79	Non-Basic
Educational services	1	0.38%	5,326	1.02%	0.37	Non-Basic
Health care and social assistance	13	4.96%	54,991	10.55%	0.47	Non-Basic
Arts, entertainment, recreation, accommodation and food services	33	12.60%	49,528	9.50%	1.33	Basic
Other services (except public administration)	23	8.78%	49,526	9.50%	0.92	Non-Basic
Total	262	100.00%	521,408	100.00%		

Table 1.3 Location Quotient Analysis for Sealy with employment establishment data 2007

Considering the changes from 1990 to 2000 significant differences in the location quotients can be observed. The location quotients for most of the industries in Sealy increased during this time period. The most significant increase is in Arts, Recreation, Accommodation and Food Services industry from 1990 to 2000. The most stable industry during this time period is manufacturing, which constitutes a basic industry in both years with a location quotient well beyond 1.25. However, in some of the industries location quotients decreased, such as Agriculture, Forestry, Fisheries, and Mining; Finance, Insurance and Real Estate; and Construction, causing the first two industries to change their status from basic to non-basic industries. The change for the agriculture industry can in part be attributed to the fact that mining was a separate industry in 1990, where it was non-basic in nature. Figure 1.1 illustrates the above-described changes.

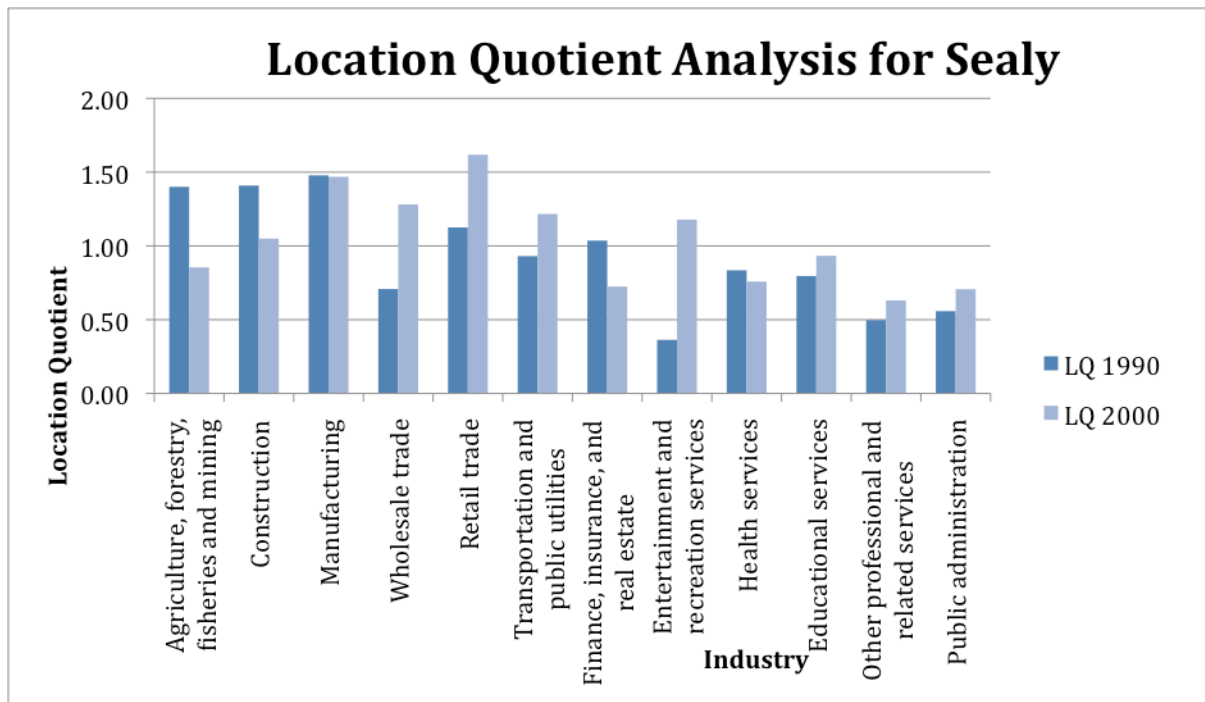


Figure 1.1: Changes in Location Quotients between 1990 and 2000

Figure 1.1 shows that the wholesale and retail trade sectors form economic opportunities for Sealy. These industries exceed the local demand and are opportunities to capture demand from a larger area outside the city. Additionally, the manufacturing sector constitutes a stable base for Sealy's economy, because although it declined slightly from 1990 to 2000, this sector is still one of the strongest in the city's economy.

Unfortunately, we were not able to find more current data on the number of employees per industry than established by the census data of 2000. Table 1.3 therefore shows a location quotient analysis based upon the number of establishments providing employment in 2007. Since this analysis is based upon different data, it yields different results. However, it can still be observed that manufacturing is one of the strongest industries in Sealy. This trend has not changed much. The manufacturing sector is recognized as very important to the city, and efforts should be undertaken to support the prospering of this industry sector.

Shift-Share Analysis

A shift-share analysis is a method of analyzing differences between growth in a local economy and growth in a reference economy.⁹ As reference economy we again choose the Texas statewide economy in analogy to the location quotient analysis. With this method it is possible to identify the effects of local influences on growth that arise from effects occurring industry-wide or at the state level. The shift-share analysis helps to observe

⁹ McLean, M. (1992). *Understanding your economy : using analysis to guide local strategic planning*. Chicago, Ill.: Planners Press, American Planning Association. P. 67

changes in the local effect across industries that indicate strengths and weaknesses of the local economy. Furthermore, this method provides for an analysis of the contribution of an area's underlying industrial structure or "industrial mix" to the local overall economy growth." ¹⁰

The shift-share analysis is always conducted for a time period and is done by dividing the changes in local employment into three components: a "national share" (NS) which gives an idea about the trends occurring in the statewide economy for a particular industry; the "industrial mix" (IM) which reflects industry specific factors and a "local factor" (LF) which scrutinizes the local influences on the overall performance of an industry.

We conducted the shift share analysis using census data from 1990 and 2000 on employment. Table 1.4 below shows the results of this analysis and separately indicates the above mentioned three components, i.e. state share, industrial mix and local factors.

	State Share (SS)	Industrial Mix (IM)	Local Factors (LF)	Total Local Employment Shift
Agriculture, forestry, fisheries and mining	27.04	-71.28	-33.76	-78.00
Construction	37.10	41.92	-68.02	11.00
Manufacturing	83.42	-86.37	-8.04	-11.00
Wholesale trade	13.62	-15.86	49.24	47.00
Retail trade	76.71	-138.11	127.40	66.00
Transportation and public utilities	27.67	-37.84	35.18	25.00
Finance, insurance, and real estate	27.67	-0.16	-49.51	-22.00
Entertainment and recreation services	1.68	50.10	131.22	183.00
Health services	23.89	47.35	-19.24	52.00
Educational services	27.67	9.81	26.52	64.00
Other professional and related services	34.58	34.17	-69.75	-1.00
Public administration	9.85	-0.01	14.15	24.00
Total	390.89	-166.29	135.39	360.00

Table 1.4 Shift Share Analysis for Sealy between 1990 and 2000 based on jobs by industry type

The shift share analysis between 1990 and 2000 shows that for most industries, the major share of the changes in employment is not due to the state factors, but can be attributed to the local factors. This is most obvious for the sectors of Entertainment and Recreation

¹⁰ McLean, M. (1992). *Understanding your economy : using analysis to guide local strategic planning*. Chicago, Ill.: Planners Press, American Planning Association. P. 67

Services, Retail Trade and, in the other direction, Construction, and Other Professional and Related Services. The state share shows the smallest change, but the local factors show an extensive change, as seen in the LQ analysis too. The LQ analysis does not tell much about the composition of the changes, whereas the Shift-Share analysis indicates what factors attribute to the changes (in this case the local factors however, for the manufacturing sector, the local factors are negligible).

For the sector of retail trade, it can be noted that the industry's employment decreased over the considered time period statewide, whereas the sector grew in Sealy. This positive indicator shows that this local industry is doing very well compared to the industry as a whole. The construction sector on the other hand has been growing statewide and increased the industrial share, however, the local factors reveal that the growth of this industry in Sealy is not as big as the statewide growth would suggest.

As a conclusion, the shift-share analysis reveals several noticeable facts about the economy of Sealy and reinforces the results from the location quotient analysis by providing more details to it. It can be concluded that the sectors of wholesale and retail trade are very strong in Sealy and continue to draw money into the local economy. This means that efforts to support these industries to grow seem to be very promising for future economic growth. For the manufacturing sector it can be observed that the industrial mix is not very favorable, however, because of the high state share and only a slightly negative local factor, the industry constitutes a stable base within Sealy's economy. The sectors of entertainment, recreation, food and accommodation services are growing rapidly and further economic incentives can be encouraged to attract further businesses into the city.

Economic Base

As described above in the location quotient and shift-share analyses, it is necessary to understand the city's economy in order to determine which businesses might be working successfully in the downtown area of Sealy. The economic base analysis is based upon the location quotient analysis, and determines whether or not an industry is a basic or a non-basic industry and what effect the growth of a particular industry has on the overall economy. Basic industries are considered to exceed the local demand and additionally serve markets outside of the community. These exporting sectors are particularly important to a city's economy, as they draw money into the city. Non-basic industries on the other hand serve the local markets and basically circulate money within the local economy. These industries usually depend heavily on the basic industries to exist and are often generated by them.

The location quotient analysis is based upon the formula described in the last section. This formula is used to determine whether or not an industry belongs to the basic sector. The location quotient is thus calculated based upon employment data. However, there is another question that arises within economic analyses, which is the question of how many employees are necessary to an industry to become a basic one. Charles Tiebout proposes to answer this question by a variation of the above formula:

$$LQ_i = 1.0 = (x_i / e) / (E_i / E)$$

Where: x_i = necessary local employment in industry i
 e = total local employment
 E_i = state employment in industry i
 E = total state employment.

This formula can be used to determine the number of employees that are necessary for an industry to meet the local demand, i.e. have a location quotient of 1.0. Solving the above formula for x_i reveals that industry i requires x non-basic employees in order to become a basic industry.

Table 1.5 presents the economic base analysis using 2000 census data on employment and the above calculated location quotients.

Industry	Jobs in Texas	Jobs in Sealy	Location Quotient	Expected Non-Basic Employees (if LQ = 1.0)	Current Basic Employees
Agriculture, forestry, fishing and hunting, and mining	247,697	51	0.85	60	-
Construction	743,606	188	1.05	179	9
Manufacturing	1,093,752	387	1.47	264	123
Wholesale trade	362,928	112	1.28	87	25
Retail trade	1,108,004	432	1.62	267	165
Transportation and warehousing, and utilities	535,568	157	1.22	129	28
Information	283,256	30	0.44	68	-
Finance, insurance, real estate, and rental and leasing	630,133	110	0.72	152	-
Professional, scientific, management, administrative, and waste management services	878,726	61	0.29	212	-
Educational, health and social services	1,779,801	362	0.84	429	-
Arts, entertainment, recreation, accommodation and food services	673,016	191	1.18	162	29
Other services (except public administration)	480,785	73	0.63	116	-
Public administration	417,100	71	0.71	100	-
Total	9,234,372	2,225			379

Table 1.5 Economic Base Analysis for 2000 employment data

Analogous to the location quotient analysis, it can be noted that basic industries (with a location quotient greater than 1.0) have a certain share of basic employees, whereas in the non-basic industries the number of necessary employees for the industry does not exceed the number of actual employees in order to obtain a location quotient of 1.0. The strongest and the weakest industries of Sealy in 2000 are highlighted in Table 1.2.

Following Tiebout's formula, the second to last column of Table 1.5 shows the number of employees that are necessary for an industry to obtain a location quotient of 1.0. Based upon this, the number of basic employees is calculated in the last column. In the case of Sealy, it can be observed that out of the 2,225 employees within the city, 379 employees (which constitutes about 17% of the jobs within Sealy) are basic employees, meaning that they produce goods and services that serve demands outside the city's boundaries.

In order to project the future growth of a local economy it is possible to calculate a multiplier rate based upon base employment. Each basic job generates a certain amount of non-basic jobs, which is conveyed by the multiplier. The local employment multiplier is calculated in the following way:

$$\text{Employment Multiplier} = \text{Total Employment} / \text{Total Base Employment}$$

In the case of Sealy the employment multiplier is 5.87 for 2000. Similar to the location quotients, the multiplier is calculated based upon data for a certain year and is thus limited to approximate projections. Its interpretation is that if Sealy can attract 5 additional basic jobs to its downtown area, then this would generate 30 jobs out of which 5 would be basic and 25 would be non-basic.

Central Place

The Central Place Theory attempts to explain the distribution patterns, size, and number of cities and towns within a region¹¹. Walter Christaller, who was a German economic geographer, developed the central place theory. The main theme of Christaller's theory was the idea of a functional interdependence between a town and the surrounding rural area¹². Christaller found that the central place chiefly exists to supply goods and services to the surrounding population¹². The central place theory states there are five sizes of communities these include the following¹³:

1. Hamlet (2,000-5,000)
2. Village (5,000-20,000)

¹¹ Briney, A. (2009). *Central Place Theory*. Retrieved 2009 18-October from About.com: <http://geography.about.com/od/urbaneconomicgeography/a/centralplace.htm>

¹² King, L. J. (1984). *Central Place Theory*. Beverly Hills, California, United States: Sage Publications.

¹³ City of Cuero Site Analysis and Redevelopment.

3. Town (20,000-100,000)
4. City (100,000-1,000,000)
5. Regional Capital (1,000,000 +)

Each type of community serves a specific purpose. The hamlet contains the most basic of businesses with low-order goods. As communities get larger the order of goods also gets higher. The regional capital contains the highest-order of goods, which would include the most specialized products and services. In order to examine the distribution of central places and their function, a Central Place Analysis was conducted for Sealy, TX.

Methodology

A Central Place Analysis was conducted to help understand the local economy and surrounding market of Sealy. The analysis was conducted on the region surrounding Sealy. The analysis included an area with the regional capital, Houston. The population and size of the surrounding towns helps clarify Sealy's purpose within the region. As seen in the map below, Sealy is considered a village. Sealy is surrounded by hamlets, so it can be assumed that Sealy serves these surrounding communities with higher order goods. As you get closer to the Houston Metropolitan area more towns and cities begin to appear. As seen on Figure 1.2 below, Thiessen polygons were created and placed around each community as a way to display each community's sphere of influence. These polygons are based on a straight line distances and do not account for the size of community or transportation times. These polygons are a useful way to understand the distances between communities. As can be expected, Sealy has a greater influence to the west. It can be assumed that the hamlets to the west of Sealy, depend on Sealy for certain goods and services. Figure 1.3 excludes hamlet size places. As can be seen, Sealy serves a large area to the west with the higher order goods of a village.

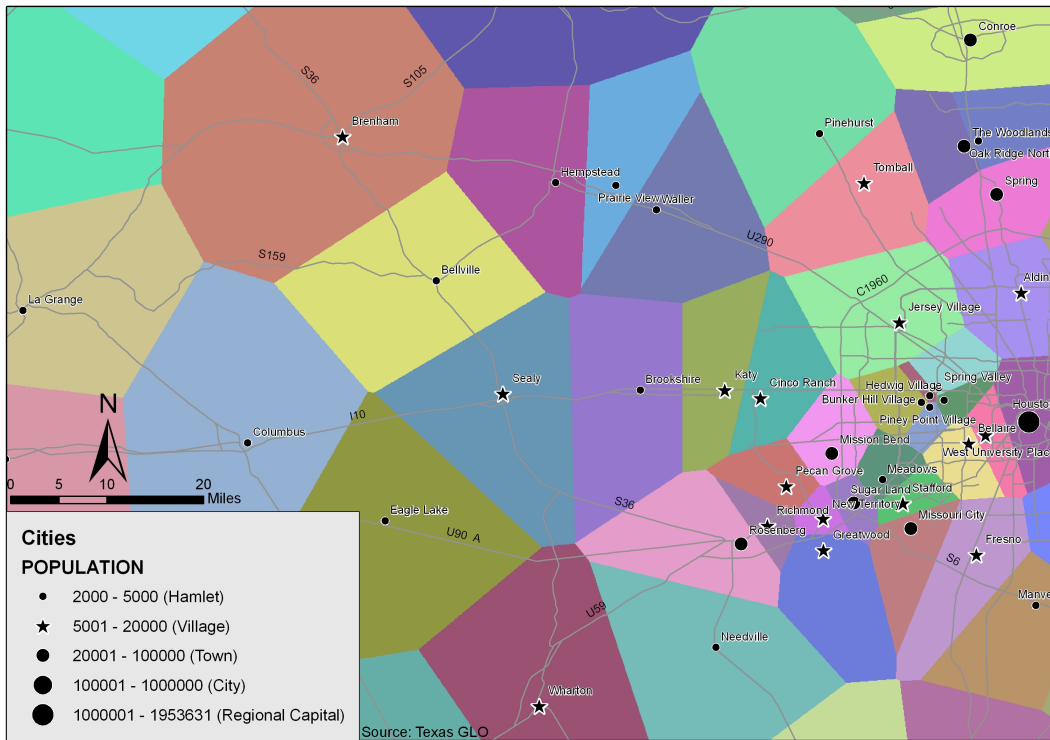


Figure 1.2 Central Place Analysis With Five Sizes of Cities

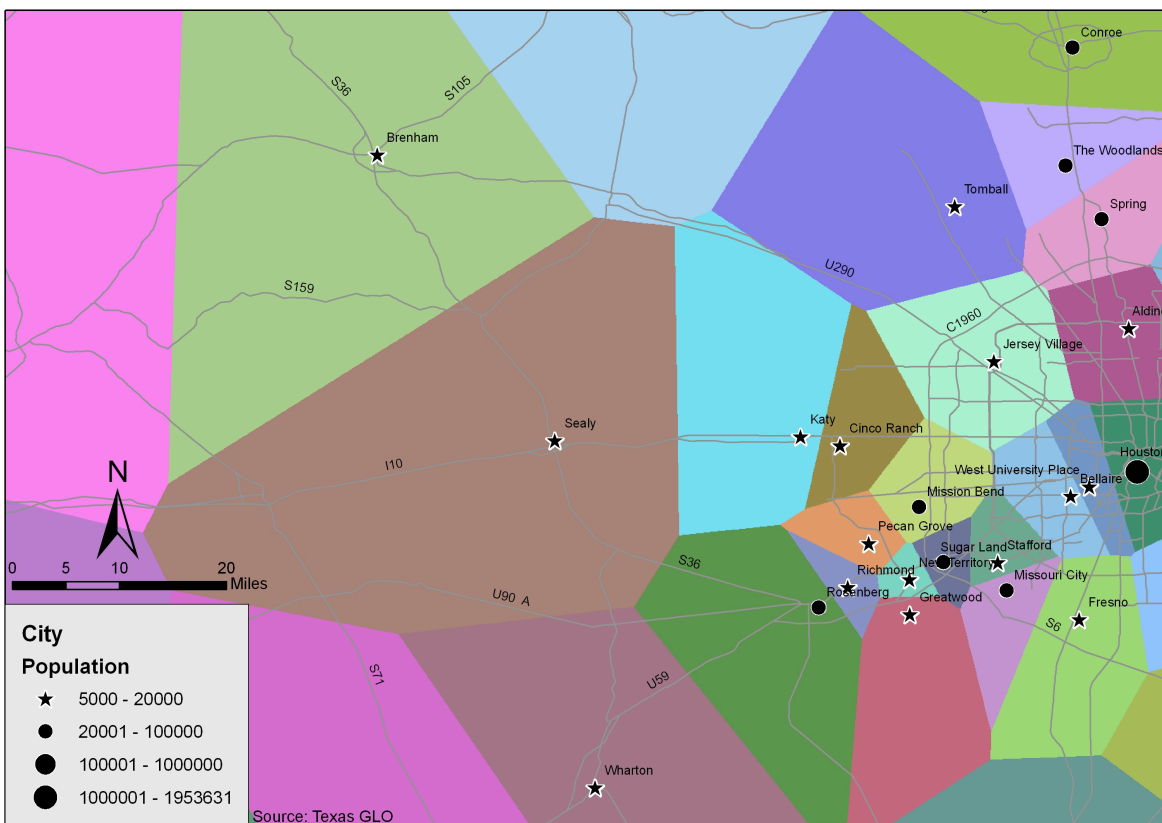


Figure 1.3 Central Place Analysis Excluding Hamlets

Types of Businesses in a Village

According to the Central Place Theory, hamlets and villages contain mainly low-order goods. For more specialized goods and services (high-order) residence must travel to a town, city, or regional capital. According to the Central Place Theory, Sealy's "village" status indicates it should have particular types of businesses. These include the following:

- Newspaper stalls
- Small Grocery stores/Market
- Bakeries
- Post Offices
- Convenience stores
- Gas stations
- Hairdresser
- Nail Salon
- Sandwich Shops
- Coffee Shop/Café
- Auto Mechanic shops
- Banks
- Fast-food restaurants
- Video/Movie Rental store
- Photo store
- Pharmacy
- Small restaurant
- Pub/Bar
- Florist/Gift Shop
- Liquor store
- Bait shop
- Deli

Based on the list¹⁴ of businesses a village should have, certain businesses missing or underserved in the downtown area were identified. These included the following: bakery, deli, and a pub/bar.

¹⁴ City of Cuero Site Analysis and Redevelopment Report, PLAN 663, TAMU, 2009.

Recommendations

After conducting the central place analysis and doing a general survey of business in the area it was found that Sealy is underserved by particular industries. Communication with city officials in addition to the central place analysis indicated that in the downtown area there could be demand for a meat market as well as a deli, bakery, or a bar.

According to the central place analysis, these are business that could have the potential to thrive in downtown. There are currently no bakeries or delis downtown. As the downtown begins to revitalize and attract more visitors and residents, demand for these goods will increase significantly.

The central place analysis also indicates a bar or pub is appropriate for Sealy. There are currently two bars within Sealy but neither is located in the downtown area. The mayor expressed interest and also discussed a bar/pub that used to exist in Downtown Sealy. He mentioned this was a local gathering point. A bar/pub in the downtown area could be viable.

The next step should be to conduct a market analysis on these industries to determine if they are viable possibilities for downtown Sealy based on demand and supply for different industries.

2. Market Analysis

Based upon the findings of the economic analyses and the central place analysis as well as the outcome of the citizen forum as part of the creation of Sealy's comprehensive plan, we identified several individual businesses for which we conducted market analyses in order to see if they could successfully operate in Sealy, and to determine which businesses are most suitable.

A market analysis comprises assessment of the market scenario, the needs of the target population, and the competition involved in various businesses. It helps in understanding the existing pattern of economic development in a community as well as the course it may take in the future. A market analysis provides detailed information about the potential market area for a certain business, and potential demand. It helps to identify the trade area of a business. The potential success of a business is determined by calculating the potential demand and the available supply in dollar amounts and by contrasting these values.

We conducted market analyses for the following businesses:

- Restaurant
- Bakery, Deli, Meat Market
- Bar, Pub, Dance-Hall
- Bed and Breakfast
- Bike Store, Pet Store

- Movie Theater

The bakery, deli, meat market, and bar have been identified as potentially viable businesses by the central place analysis, since Sealy belongs to the category of a village with a potential market area for the abovementioned businesses. The restaurant and movie theater have been selected for market analysis by the citizen forum discussed in the comprehensive plan. Finally, the decision to conduct a market analysis on a bar, pub, dance-hall, bed and breakfast, bike store and pet store is based upon feedback from Sealy citizens as well as our own observations.

The comprehensive plan furthermore lists other businesses that Sealy citizens would be in favor of attracting to the city, but we decided not to conduct a market analysis for those for the following reasons. The city plans on developing a mixed-use area along Interstate 10, where office and multi-family apartments are envisioned to open. A fitness facility has just recently opened in Sealy, which captures all local demand. And finally, a variety of health facilities including a hospital are located within Sealy and its environs that capture the local demand.

Restaurant

The population of Austin County is 26,439 according to the 2006 estimate and the amount of money people are capable of spending on food away from home is \$47,656,200, so if we consider that every person spends a certain amount of money on the food away from home, then each person would spend about \$1802 annually. The per capita income in Austin County is \$21,312, which means that an average person would be able to spend about 8.45% of their annual income on food away from home. Similarly, the per capita income in Sealy is \$18,705 and the population is 5,851 according to the 2006 estimate. The amount of money that people are capable of spending on food away from home is \$9,591,090, so each person can spend about \$1639 annually, which is about 8.75% of the annual per capita income. These tentative statistics show that people in Sealy are capable of spending a considerable amount of money on food away from home.

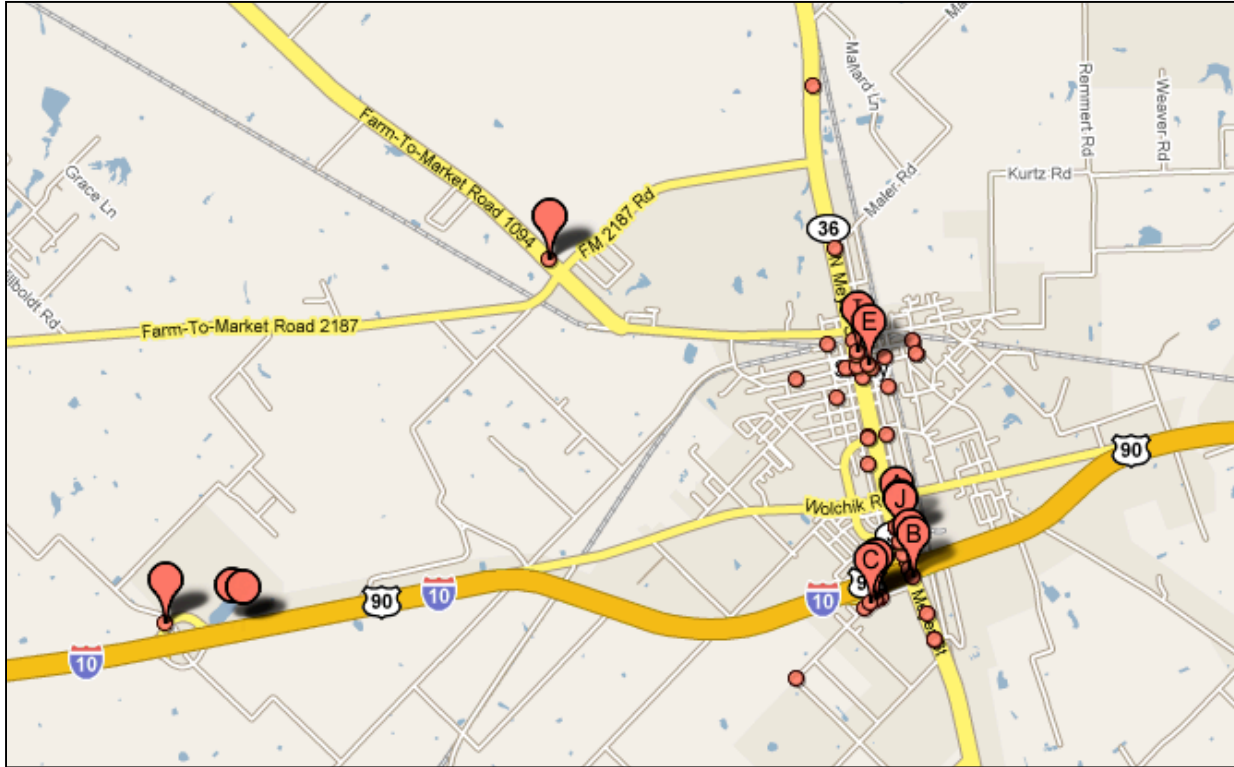


Figure 2.1 Location of Restaurants in the Sealy region

There are about 30 restaurants in Sealy, a considerable number of which are Mexican restaurants. The others are national or regional chains like Subway, McDonalds, etc. As per the Buxton report the amount of money that people are capable of spending on food away from home is \$9,591,090 per year and as per ULI's Dollars and Cents of Shopping Centers 2008, the median sales per sq. ft of GLA¹⁵ for a restaurant that does not serve liquor is \$199.47. This means that there is a demand of 48082.86 sq. ft of restaurant space in Sealy. Utilizing sales per square foot data from the ULI's Dollars and Cents of Shopping Centers 2008, it was determined that the median GLA sq. ft of a restaurant that does not serve liquor is 2400. So if these standards are considered then right now there is 69600 sq. ft (2400 X 29) of restaurant space (assuming that all the restaurants do not serve liquor). This means that there is no additional demand for restaurants in the Sealy region, since the supply is already more than the demand.

However, the Sealy downtown region would benefit if there are some good restaurants in that region. The area in and around the downtown is a hub of various businesses, shops and offices like a law office, a bank and the city office as well. So, the people working in these areas are bound to spend money on lunch or breakfast. The businesses in downtown would attract a considerable amount of population in the downtown region. Good businesses and good restaurants are contingent in nature; the masses can be enticed to do businesses in an area that is characterized by good food and interesting restaurant spaces. Also, the downtown region experiences through traffic due to I-10 that makes the presence

¹⁵ Gross Leasable Area - Total floor area of a building, usually measured from its outside walls

of good restaurants even more desirable. I-10 makes Sealy an important passageway for big businesses and chain restaurants. This leaves the market for unique restaurants to places like downtown which has building spaces that can be adapted to such a use. Since the economic activity in Sealy is bound to lead to the growth of the town, Sealy has capacity to support a market that is bigger than a village level one, which would include these types of businesses.

At present, there are **four** restaurants in the downtown region: Los Amigos, Annie's Deli and Garden Restaurant, All Star Pizza and Mesquite Grill. None of these restaurants has an outdoor seating arrangement. The downtown can greatly benefit by extending the seating space of the existing restaurants and by launching one or two new restaurants in some of the vacant space. There can be some specialty sit-down restaurants like a tea room (e.g. Maddens' or Gardens in Bryan) or a German/Czech restaurant (building on the history of the town). These kinds of places can be points of interests not only for the locals, but also for the people passing through the city. Also, there is no ice cream parlor in the downtown region; the nearest Dairy Queen is along Highway 90.

Bakery, Deli, Meat Market

People in Sealy are capable of spending around \$12,124,960 on food at home, out of which \$1,195,060 would be on bakery products and \$2,696,650 on meat and poultry products, which is about 9.8% and 22.2% of the entire amount respectively.

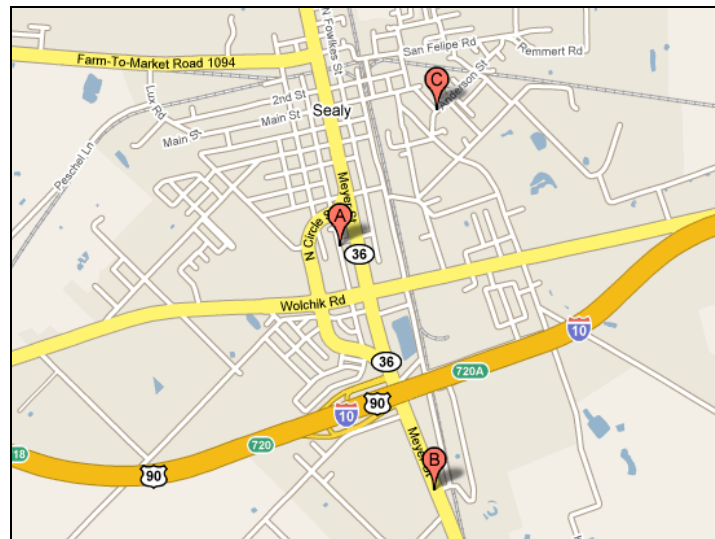


Figure 2.2 Location of Bakeries in the Sealy region

There are **three** bakeries in Sealy, none of which are downtown. Downtown can benefit greatly even with a single bakery, since the nearest one is now across the railroad track.

There are **three** delis and **nine** grocery stores in Sealy, out of which one of the delis is in the downtown region. According to the surveys conducted, there are three grocery stores in the downtown region. The people in the downtown and nearby regions are dissatisfied with them, since they do not receive fresh produces from all of them. Only one grocery store provides a variety of fresh fruits, vegetables and other food products, while the other two stores lack variety in the food products.

There are **three** existing meat markets in the downtown region, in spite of which the people mentioned a need for more meat markets. This might be due to the fact that the owners of all these stores are Hispanics and their signs are all in Spanish. So, if they would go for signs in English and offer a wider variety of meat, these meat markets could probably meet the demand.

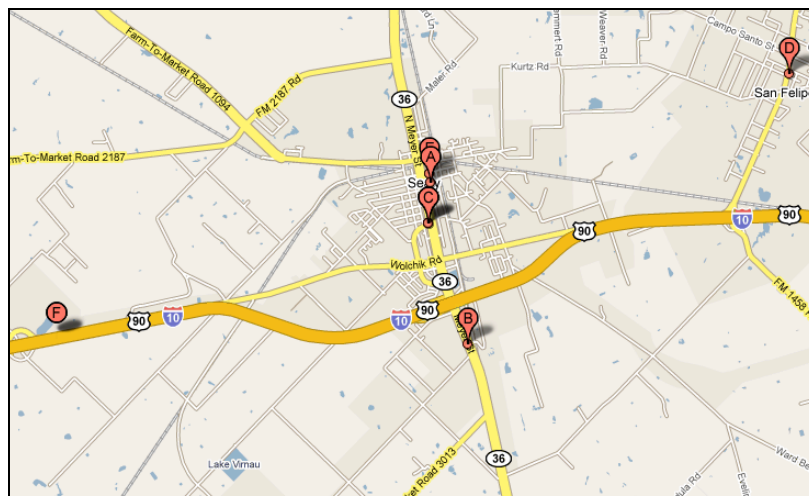


Figure 2.3 Location of Grocery Stores in the Sealy

Bar, Pub, Dance Hall

As a result of the central place analysis and conversations with residents, a local bar was found to be lacking in downtown Sealy. The central place analysis identified Sealy as being a village, and this indicates a bar is an appropriate business. Sealy has a rich German and Czech history, and this presents the opportunity to locate a unique German / Czech bar in the downtown area. The possibility of locating a dance hall in Sealy was also researched. These businesses have the potential to attract a younger population to Sealy. City officials indicated the desire to attract people in the 20 to 30 year range.

Potential Market Area

The market area for a local bar is typically ten miles. Bars are meant to serve people in the community and areas just outside the community. Figure 2.4 displays the local bars in the area. As seen there are only two bars within the city of Sealy, and neither are located in the downtown area.

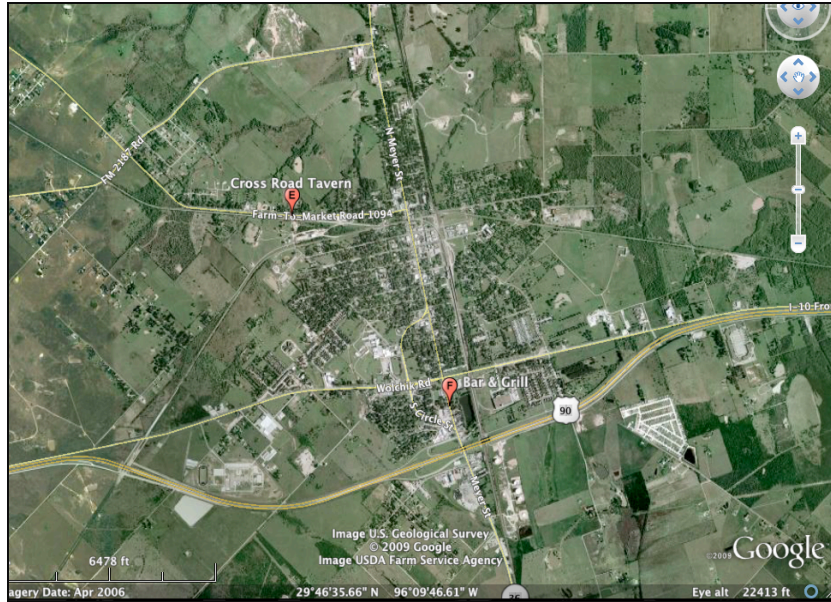


Figure 2.4 Locations of existing bars near Sealy

The market area for a local bar is displayed in Figure 2.5. It can be seen that there are only two bars within the ten-mile market area.

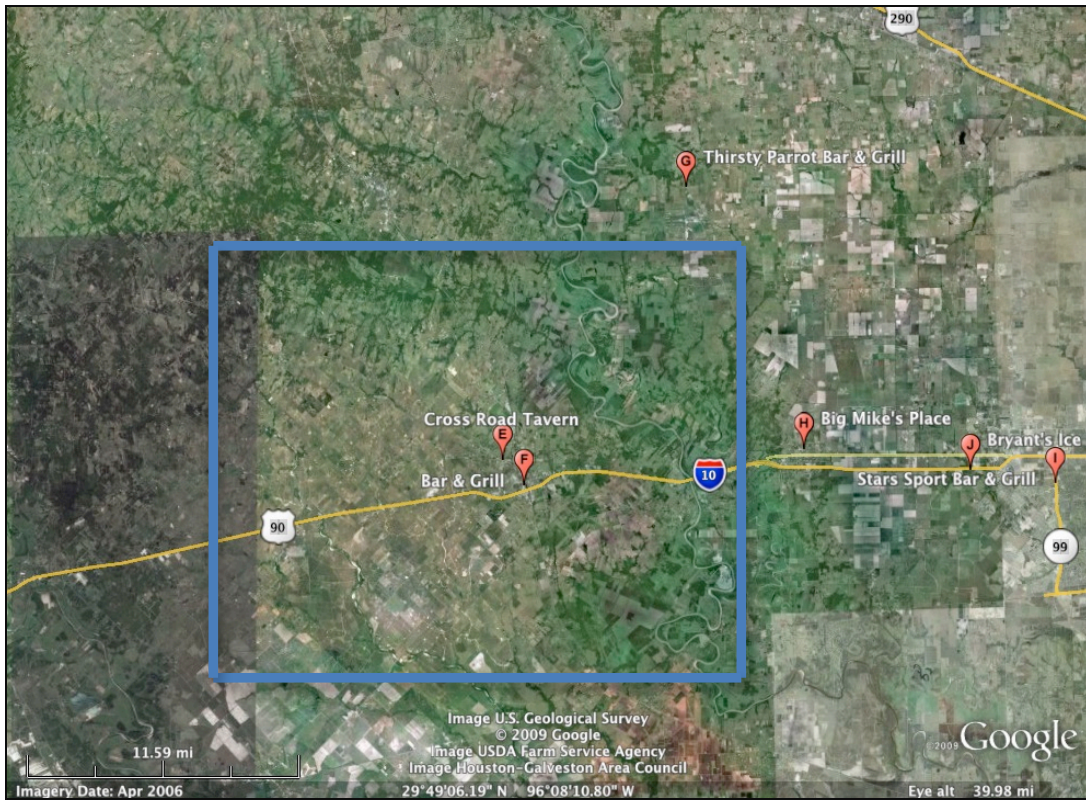


Figure 2.5 Market Area for Local Bar in Sealy

Demand and Supply for a Bar in Downtown Sealy

The supply and demand for a bar in Downtown Sealy was calculated based on data provided by a retail study conducted by the Buxton Small City ID Program for the demand, and using the Urban Land Institute’s (ULI) book Dollars and Cents of Shopping Centers 2008.

The demand for alcohol outside of the home is shown in Table 2.1. The market area for a local bar is 10 miles as seen in the above figure, so the 15-minute drive figure below (\$2,047,570) is appropriate for our use.

	Potential amount to spend on alcohol outside the home
Within Sealy	669,850
Within Austin County	3,504,140
Within 15 minutes drive	2,047,570
Within 30 miles	60,774,520

Table 2.1 Demand for alcohol outside the home according to Buxton’s Small City ID Program 2007

The supply needed to fund a local bar is provided in the ULI report. The ULI report states there should be \$308.18 per square foot to keep the local bar in business. Currently there are 2 bars in Sealy; if it is assumed both bars are an average of 2000 square feet the demand already used for bars is \$1,232,720. The remaining demand for a bar is equal to \$814,850. This would be equal to a bar that is 2644 square feet.

Recommendations

Based on the market analysis it would be appropriate to have a bar located in Downtown Sealy. The calculations present demand for at least a 2644 square foot bar. Another consideration for a bar in Downtown Sealy would be to give the bar a theme. This could be German/Czech style. This would increase the market area for the bar substantially. The nearest German bars to Sealy are just outside of Houston, Rudi Lechner’s and Old Heidelberg. To the west the nearest German/Czech bar is Sengelmann Hall in Schulenburg, TX, which is about 45 miles. A German/Czech style bar would be a nice addition to the Downtown especially with the Polka festival in Downtown. This style of bar could also be a restaurant with German/Czech cuisine. This could provide a venue for extra activities or a nice gathering place.

Another possibility for the downtown bar would be a dance floor. Few dance halls exist near Sealy. Swiss Alp Dance Hall Garten and Grill and Sengelmann Hall are the nearest to the west. Sengelmann is about 45 miles and Swiss Alp is about 50 minutes to the west. Dance Halls to the east include Red River Dance Hall and the Tumbleweed Texas Dance Hall, both just to the north of Houston. With the nearest dance halls no closer than 40 miles away, Downtown Sealy could be a potential location. An example of a bar/dance hall in a historic downtown area is the Cantina Cadillac in the Fort Worth Stockyards. The Cantina Cadillac is a western style bar with a medium size dance floor. This bar attracts people of varying ages and provides a nice gathering place.

Movie Theater

One of the outcomes of the citizen forum conducted during the phase of comprehensive planning efforts for Sealy was that citizens would like to see a movie theater locating within the city. Citizens mentioned the need for this business in order to improve the quality of life.

City officials and residents furthermore expressed the need to attract businesses to Sealy that address the young population. Right now, there are very few entertainment opportunities in and around Sealy, which means that the young people have to go to Katy to find entertainment. Additionally, the city wants to provide more activities that appeal to the young generation, since population statistics indicate a decrease in the age class between 20 and 30.

Potential market area

The first step in order to determine whether or not a movie theater could operate successfully is to define the potential market area. Figure 2.6 shows the area around Sealy and the locations of existing movie theaters.

It can be observed that the closest movie theaters to Sealy are located within 30 miles of the city in Katy and Rosenberg. Within this distance, Katy offers three movie theater, such as the Alamo Drafthouse Cinema - Mason, AMC Katy Mills 20, Cinemark Katy TX, which are all large multiplex theaters. Additionally, there is a multiplex Cinemark Theater in



Figure 2.6 Locations of existing movie theaters around Sealy

Rosenberg.

Within a distance of 40 miles from Sealy, several other movie theaters can be found. These are located in Brenham, Cyprress, Houston, Stafford, Sugar Land, and Tomball, and are in addition to the ones mentioned above in Katy and Rosenberg. All these theaters are large multi-screen movie theaters with an average of 12 screens per theater.

In addition to the large multiplex movie theaters, some small and alternative theater can be found in the area. The nearest small theaters to Sealy are located in Hempstead, Waller, Wharton, El Campo, Hallettsville, Schulenburg, and Round Top. The theater in Waller, Showboat Drive In, is a drive in movie theater with two screens, each serving 400 cars, which is only open on the weekends. All other theaters are small theaters with one to three screens some of which have shows only on special dates and charge between \$5 and \$6.50. The Plaza Theatre in Waller is a community theatre, which has performances and concerts as well as special events and classic films and charges \$10 per admission. The Round Top Festival Institute is a multi-purpose institute serving several other purposes than merely showing films. Dates, times and admission prices of shows vary.

According to the above information of the location of existing movie theaters around Sealy and the central place theory, the potential market area for a movie theater in Sealy can be located according to Figure 2.7.

General information on the business of movie theaters

According to studies of ERA – Economic Research Associates and First Research, in the U.S.

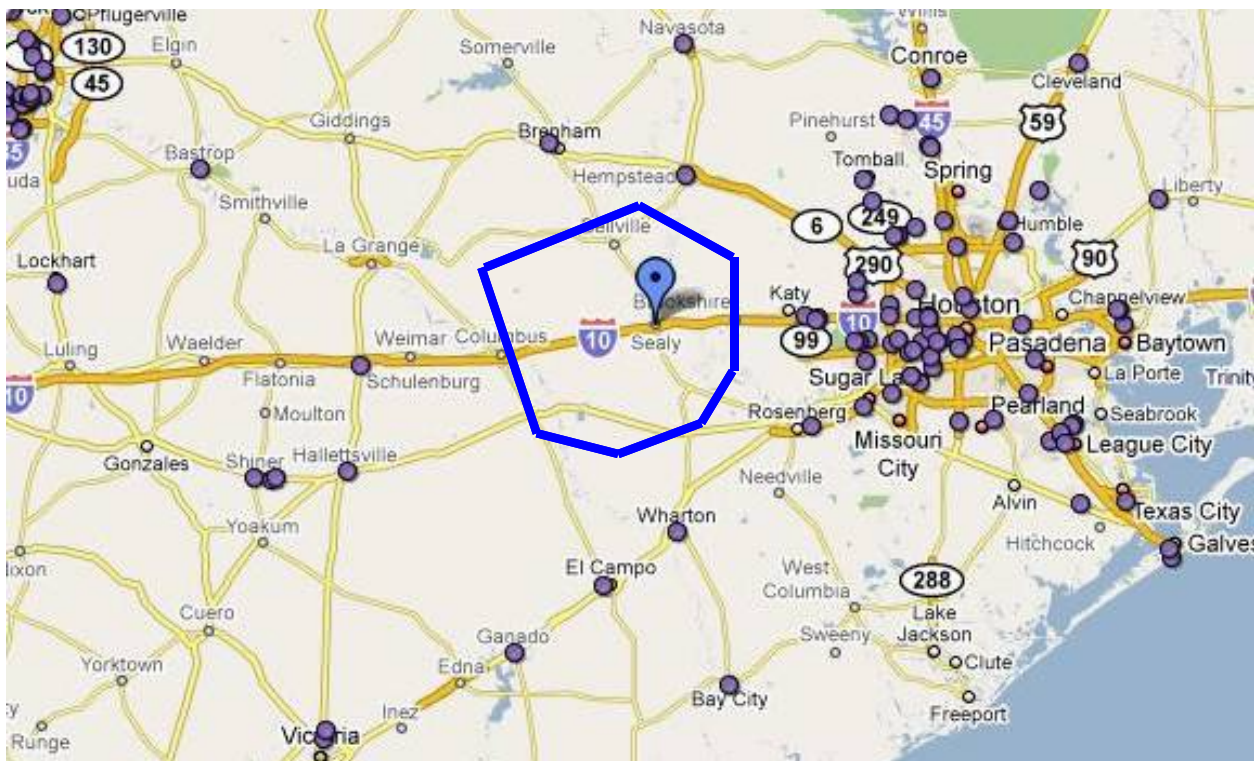


Figure 2.7 Potential Market Area of a movie theater in Sealy

movie industry there are more than 2,000 companies, including Regal Entertainment, AMC Entertainment, and Cinemark. The market for movie theaters is highly concentrated, which means that the 50 largest firms own 50% of the nation's theaters and generate about 85% of the revenues. However, the typical American movie theater company is quite small, operates one theater with less than 20 employees and average annual revenue below \$700,000. Small companies often specialize in a particular type of movies, or address a certain audience, and have average annual revenue per worker of \$80,000. Revenues are mainly generated through the sales of tickets, food and beverages. About 70% of an average indoor theater's revenues come from ticket sales; the sale of food and beverages usually account for about 25% of the revenues and only approximately 1% of the revenues is generated through on-screen advertisements.

Demand and Supply for a movie theater in Sealy

In order to determine the viability of a business, we have to figure out the potential demand in the defined market area as a dollar amount as well as the dollar amount that is necessary to successfully support the business.

The demand for a movie theater is significantly determined by the personal income and leisure time that people are willing to spent on entertainment. The estimated median household income in Sealy in 2009 is \$47,037 and the city's estimated per capita income is \$18,705. The Buxton' Small City ID Program has conducted a retail study for Sealy in 2007. According to this study, the potential that people in Sealy could spend on admission fees for entertainment is \$117,370 per year. The potential amount of money that people within 15 minutes drive from Sealy would spend for the same purpose is \$357,250. Table 2 illustrates an overview of this potential amount on the demand side.

	Potential amount to spend on admission fees for entertainment
Within Sealy	\$117,370
Within Austin County	\$592,280
Within 15 minutes drive	\$357,250
Within 30 miles	\$10,981,950

Table 2.2 Potential amount to spend for admission fees for entertainment around Sealy according to Buxton's Small City ID Program 2007

As for the supply side, we need to figure out the amount of money that is necessary to successfully operate a movie theater. According to market studies conducted by the Economic Research Associates, a successful large multiplex movie theater needs to have an average of 50,000 visits annually per screen. However, since Sealy is a small city but the largest city in Austin County and the nearest multiplex theaters are located in Katy and Rosenberg, there is not enough demand to establish a large multiplex movie theater. A small movie theater with one to three screens (such as those in some of the surrounding communities) is more appropriate to the size of the city, its population and location.

This means that the indicated number of 50,000 necessary visits per screen per year is overestimated. However, for a conservative analysis (and because this is the closest

number available), we will use it. Assuming an average price of \$6 per admission, which is the average amount of admission fees for small movie theaters around Sealy, this would indicate necessary revenues of \$300,000 annually.

Recommendations

As a result of the analysis above, we can now compare an annual demand of \$357,250 to an annual supply of \$300,000, which indicates the demand potential for slightly more than one movie screen. Since the analysis was conducted by using conservative numbers, it can be stated that within the potential market area around Sealy, there is demand for a small movie theater with one or two screens.

In order to make this movie theater viable, the conducting of a market segmentation analysis is recommended. For example, Sealy has a large share of children between 5 and 14, which account for 15.8% of the city's population. Showing kids movies, which would also provide a family entertainment opportunity, could attract this population segment. Furthermore, Sealy is home of a Blinn College Campus with a school enrollment of 94% of students that fall within the age group of 17-25. According to the city's comprehensive plan, there is a demand to provide activities in order to attract this share of the population to stay in the city. These different market segments could be served by a specialty movie theater. Some examples can be found in surrounding communities where the theater opens only on the weekends, has special dates for shows, or includes concerts, foreign movies, and other events.

A possible site to locate the small theater in the downtown area of Sealy is the property of the former police station. Meanwhile, until a theater opens in Sealy, the city could show movies on weekends in the park or in the existing community center. The idea of an open air theater can also be further developed by showing kids movies in the newly proposed kids community center across the railroad tracks.

Bed and Breakfast

The optimal location for a bed and breakfast is near a place of interest that attracts overnight visitors. If the revitalization of downtown makes Sealy the destination the city hopes for, then a bed and breakfast downtown would be an appropriate business idea to investigate. A bed and breakfast does not currently exist in Sealy and the nearest bed and breakfasts are located 11 miles away Northwest in Cat Spring and Northeast in Brookshire, as shown in Figure 2.8.

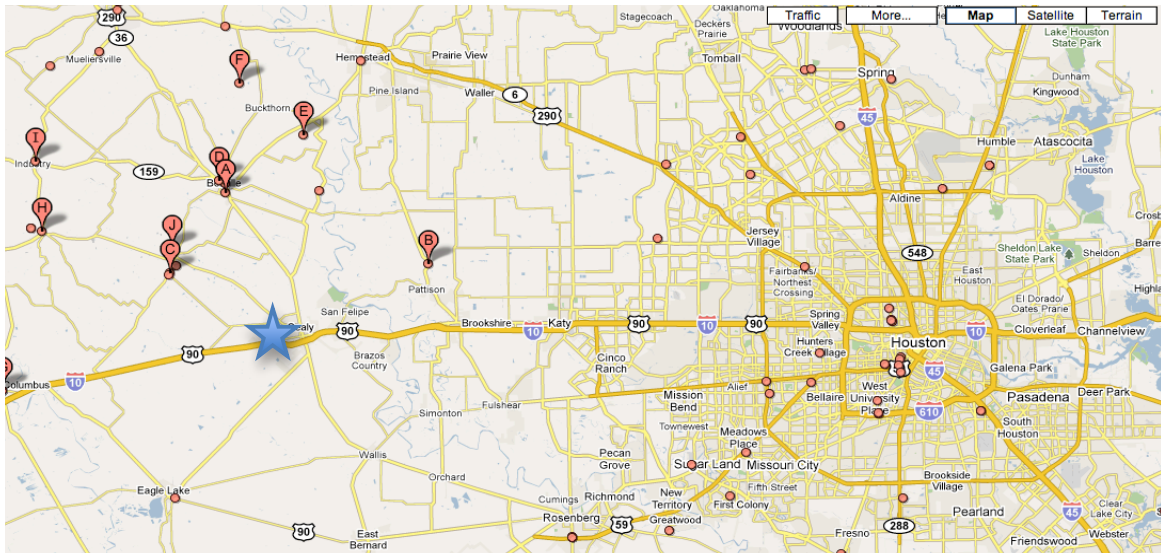


Figure 2.8 Location of Bed and Breakfasts near Sealy

Sealy is at an advantage to some local competitors of bed and breakfasts because of its location near Interstate 10. Because these competitors are not located on a major interstate, they do not capture the same volume of traffic as Sealy. However, Sealy has already capitalized on this factor by building many places for lodging. Competitors for a bed and breakfast include several hotels and motels in the area including Super 8, Holiday Inn Express and Stephen F. Austin Hotel. The location of these lodging businesses can be seen in Figure 2.9. At least three of these businesses are within a mile of downtown Sealy.

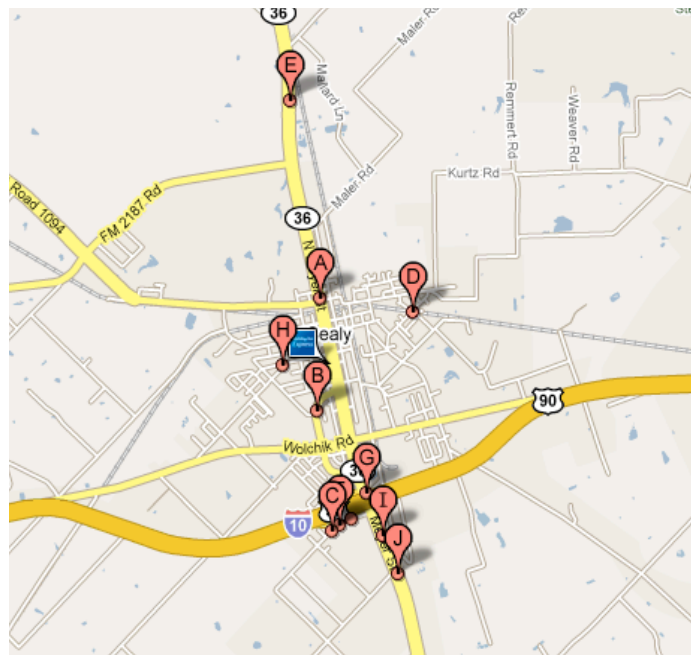


Figure 2.9 Locations of places of lodging in Sealy

A bed and breakfast would need to be able to attract customers away from these potentially less expensive overnight lodging places in order to be a viable business option.

Potential Market Area

The central place theory was used to determine the potential market area for a bed and breakfast in Sealy, as illustrated in Figure 2.10. To the South of Sealy, there are not any bed or breakfasts for approximately 20 miles. One is located in Eagle Lake to the Southwest and the other closest one is located in Rosenberg to the Southeast.

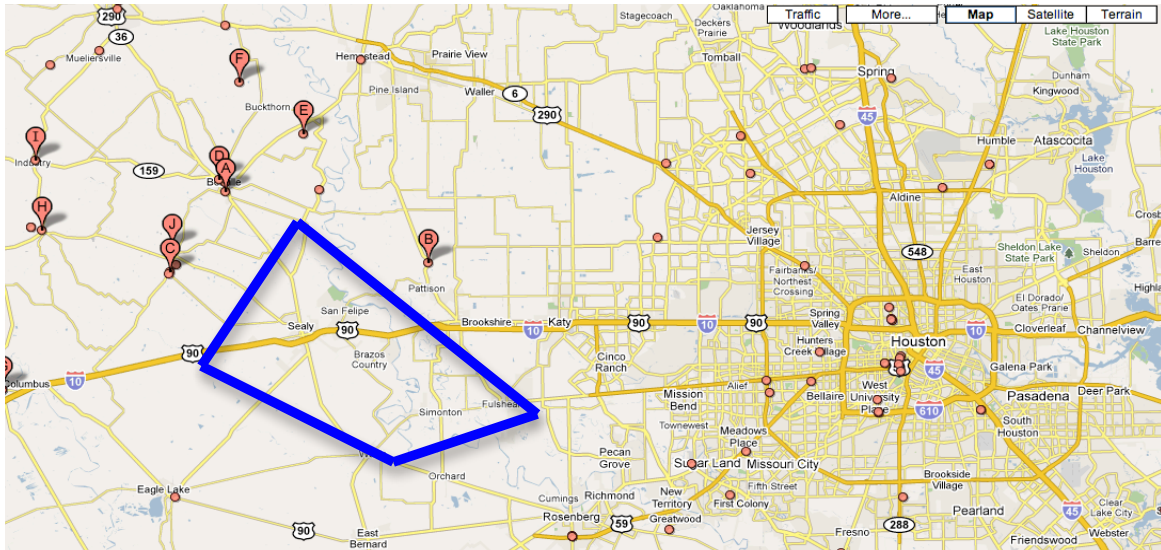


Figure 2.10 Potential Market Area of a Bed and Breakfast in Sealy

Recommendation

Sealy should not consider building a bed and breakfast as one of the businesses that sparks revitalization in downtown. The downtown will need to already be an attraction before the bed and breakfast will be able to attract enough business for it to operate.

Specialty Store: Pet Store and Bicycle Shop

There are many specialty stores that might be appropriate for downtown Sealy. This section of the market analysis explores two options: a pet store and a bicycle store.

Pet Store

Sealy currently has one pet grooming shop located less than a mile from downtown. According to online searches, Happy Tails is a pet grooming and boarding shop that provides pet cleaning and sitting services and also a limited selection of pet supplies such as brushes and collars. Happy Tails is not a pet store that sells pets, pet supplies or pet food. The grooming shop is the only pet related store for approximately 19 miles of Sealy, with the closest store located in Katy, Texas, as shown in Figure 2.11. The next closest store is 25 miles west in Columbus, TX.

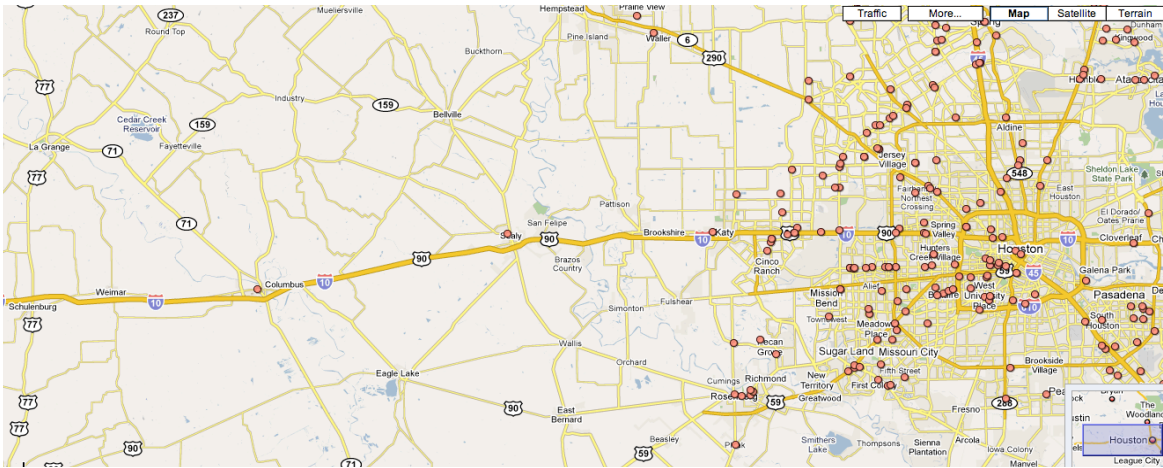


Figure 2.11 Pet Stores in and around Sealy, Texas

The potential market area, as determined by the central place theory, for a pet store in Sealy is shown in Figure 2.12. This area extends approximately 20 miles north and south of Sealy.

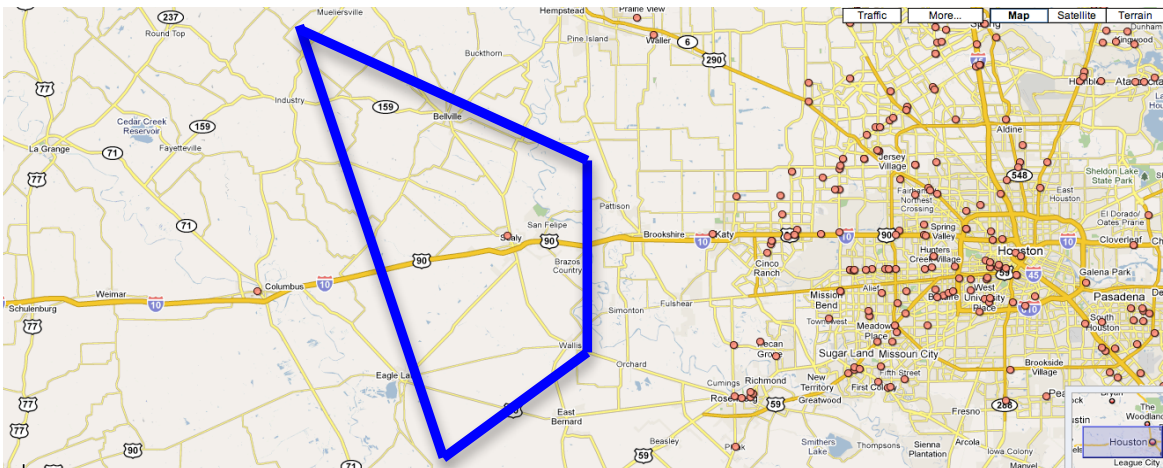


Figure 2.12 Potential Market Area of a pet store in Sealy

Demand and Supply for a pet store in Sealy

According to the 2008 ULI Dollars and Cents of Shopping Centers manual, the median sales per square foot for a pet shop in a neighborhood shopping center in the US is \$100.59. The median square footage for an independent store is 1,500 square feet. Therefore, the supply needed to run a pet shop is equal to \$150,885. As can be seen in Table 3, Sealy has \$515,780 available to spend on pet food alone and an additional \$68,770 on supplies and services.

	Pet Food	Pet Supplies & Medicine	Pet Services
Within Sealy	\$515,780	\$57,430	\$11,340

Within Austin County	\$3,056,410	\$336,070	\$63,930
Within 15 minutes drive	\$1,671,740	\$187,530	\$37,400
Within 30 miles	\$42,132,120	\$5,364,020	\$1,300,650

Table 2.3 Aggregate Demand available for Pets by Area according to Buxton's Small City ID Program 2007

Sealy has one pet store currently, so the remaining \$433,665 could be used to open a pet shop downtown. As mentioned, the nearest pet shops are 20 and 25 miles away, over a 15 minute drive, so Sealy will be able to include the demand available for people within a 15 minute drive. This demand is a combined available amount to spend on pets of \$1,896,670, which far exceeds the cost of \$150,885 to operate the pet store.

Recommendation

Because the demand far exceeds the necessary supply, it can be recommended that a pet shop could be supported as one of the specialty shops in Downtown Sealy.

Bicycle Shop

City officials reported that bicyclists travel to Sealy from Houston on the weekend, park their cars and train in the hill country, using Sealy as a home base. Depending on the number of bicyclists that travel to Sealy (a reliable study would be needed), an untapped market may be available to Sealy. A bicycle shop in downtown would be a place to capture revenue from a group already traveling to the city. Additionally, riders will inevitably get flat tires or need repairs to their bicycles during their training. A shop in Sealy would be very convenient for these needs. A shop in Sealy might even create demand within the city for residents who might want to start training for races now that a bike shop is available. The area is clearly a good training area since Houston residents drive there already.

The nearest bicycle shop to Sealy is approximately 24 miles northwest in Industry, Texas and 24 miles east in Katy. As can be seen in Figure 13, Sealy does not currently have a shop and the area outside of Houston does not have many shops at all.

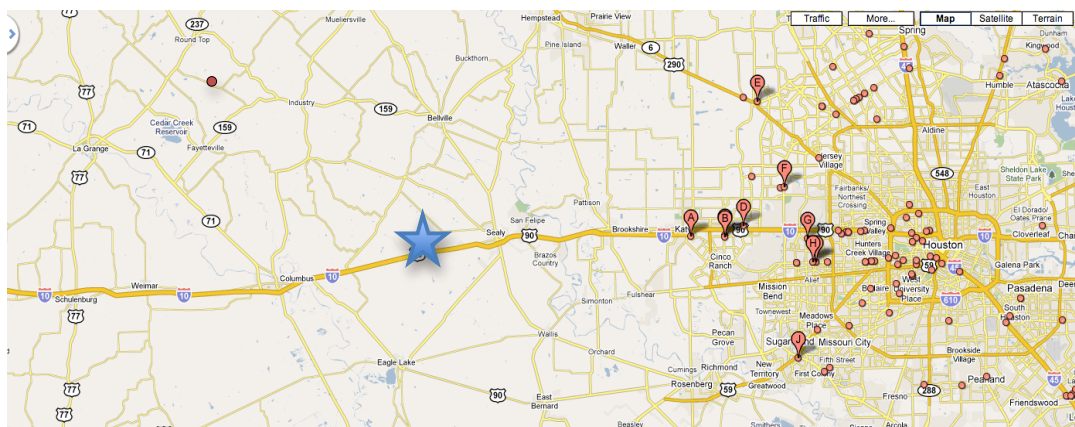


Figure 2.13 Location of bicycle shops in relations to Sealy

The market area for a bicycle shop, as can be seen in Figure 14, is very large and expands in all directions. This area includes all within a 15 minute drive of Sealy and many within a 30 minute drive from the West, North and South.

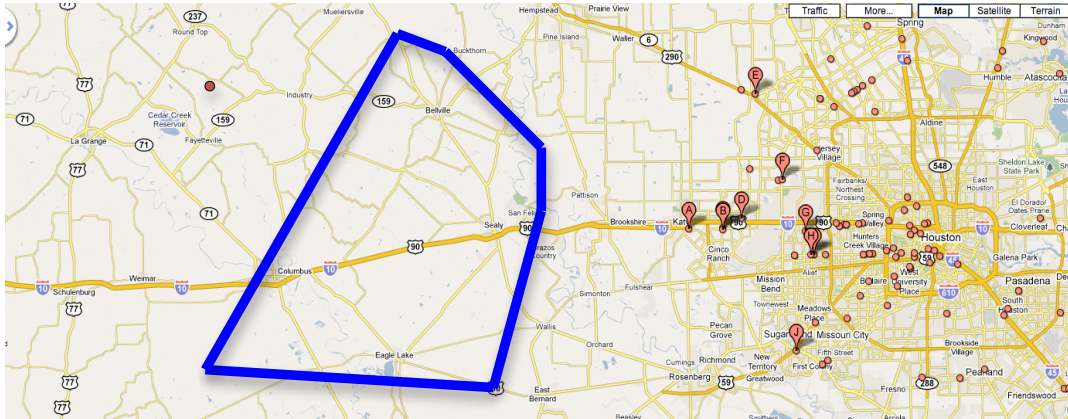


Figure 2.14 Market Area for bicycle shop in Sealy

Demand and Supply for a bicycle shop in Sealy

According to the 2008 ULI Dollars and Cents of Shopping Centers manual, the median sales per square foot for a bicycle shop in a neighborhood shopping center in the US is \$199.45. The median square footage for an Independent store is 1,400 square feet. The supply needed to run a bicycle shop is equal to approximately \$279,230. As determined by the market area, people within a 15 minute drive are included in the demand for a bicycle shop and many within a 30 minute drive. As seen in Table 2.4, the demand within 30 miles is almost \$7.5 million dollars. Since it is known that bicyclists travel to Sealy, the demand should be able to support the operating costs of a bicycle shop.

	Bicycles
Within Sealy	\$70,450
Within Austin County	\$334,230
Within 15 minutes drive	\$210,090
Within 30 miles	\$7,406,050

Table 2.4 Aggregate Demand available for Bicycles by Area according to Buxton's Small City ID Program 2007

Recommendation

Sealy should definitely consider opening a bicycle shop in downtown. Because of the nearby market and also out of town demand for the hobby, this type of shop might be able to aide in the revitalization efforts of downtown.

Conclusions

The results of these market analyses were that specialty restaurants, a bakery, deli, bar, a specialty theatre, and certain specialty shops were identified to have a market in Sealy, whereas general restaurants, a meat market, a bed and breakfast and a multiplex movie theater have no market in Sealy. The market for a restaurant and bar, in particular,

presents a good opportunity for Sealy to open a unique venue such as a Czech or German themed business. Like much of Texas, Sealy has a large Czech/German population, and this kind of distinctive business is what may cause Sealy to become a destination for those around and possibly even outside of the area. A specialty theatre might show foreign, classic or children's films that would be a fun weekend activity for all ages. Additionally, because Sealy is on the route of one of the major bicycle events in the state, opening a bike store could cater to bicyclists that are already stopping in the city to train for the event and also might ignite interest for those in the area, encouraging them to pick up the hobby. Certainly, the supply and demand is present to explore some of these business ideas, some of which were promoted by Sealy residents, and doing so will aid in shaping the future of Sealy.

Chapter 3: Current Design Conditions

1. Current Situation of Downtown Sealy

Wayfinding signs

Another aspect of Sealy that needs to be addressed is the lack of wayfinding signs in the downtown area. Specifically for the streets being discussed there are no signs to direct you to certain areas or destinations. Additionally, the street signs that accompany them are almost invisible. These conditions can lead to pedestrians feeling lost even in such a small area. More prominent signs would not only help indicate areas and destinations for travel, but also would allow the pedestrian to feel a sense of location.

2nd St, Main St, & 4th St

On Main Street, the part between the intersection with Main Street and Fowlkes Street and Meyer Street has the best streetscape, landscape and sidewalk in downtown Sealy. On the right side of the street there are some street trees to separate the sidewalk from on street parking and some chairs have been provided for pedestrian. There is also a historic corner located at this intersection. All these elements create a good landscape and sidewalk condition for Main Street, shown in Figures 1.1, 1.2, and 1.3 below.



Figure 1.1 Landscaping



Figure 1.2 Parking



Figure 1.3 Historic Corner

After that intersection, both sides of Main Street are mainly made up of commercial buildings. The landowners decorated the fronts of their buildings, using items such as blossom and pillars. Some of the buildings have custom decorations, while others do not. The inconsistent decorations make the streetscape and landscape of this part of Main Street does not look as good as the part of Main Street before the intersection. The condition of the sidewalk in this part is still good, wide and continuous, shown in Figure 1.4.

Comparing with Main Street, the situations of Second Street and Fourth Street are much worse. There is almost no decoration along the streets. The sidewalks are non-continuous, and even fractured in places.

On Second Street, the part between the police station and Meyer Street has no sidewalk or landscaping, only a section of grass is located there. (Figure 1.5)



Figure 1.4 Sidewalk Conditions

Passing Fowlkes Street, this part of Second Street only has a short sidewalk. Overall, the whole condition of Second Street is not good: non-continuous sidewalks, bad streetscapes and poor landscaping.



Figure 1.5 Second Street

Fourth Street is similar to Second Street. There is no sidewalk on either side of the street. At the intersection of Fourth Street and Fowlkes Street, a grocery store and a vacant lot are located on each side of the street, as shown in Figure 1.6. Along this part of the street there

is a parking lot and a grassy lot. This condition continues to the other part of Fourth Street. Most of the uses in this part of the street are residential. Some off-street parking spaces are located along both sides of the street. The street trees make the landscaping of this street a little better.



Figure 1.6 Lack of sidewalks on Fowlkes and Fourth

Summary

Except Main Street and the major part of Fowlkes Street, other streets in downtown Sealy have poor streetscape and landscaping. Most sidewalks on other streets are non-continuous. Only a few signs are located in downtown Sealy, and most streets have no way-finding signs at the intersections.

2. Current Transportation Conditions

Downtown Sealy includes seven streets. Boundary streets that divide the downtown from the rest of city include Meyer Street on the west side of downtown, Front Street on the east side of downtown, and Fifth Street on the south side of downtown. Streets going through downtown Sealy include Second Street, Main Street, Fourth Street, and Fowlkes Street. Current streets in downtown play various roles in terms of functional class, supporting traffic flow as well as non-motor mode activities. In the following part of this section each street's current conditions will be discussed and presented. Below are the current built environment conditions of each street in downtown Sealy.

Meyer Street/Hwy 36

Meyer Street is the west boundary of downtown Sealy.

Functional class:	Major Arterial
Width of right-of-way:	Four traffic lanes, one left turn lane
Sidewalks:	Yes
Bike lane:	None



Figure 2.1 Meyer Street/Highway 36

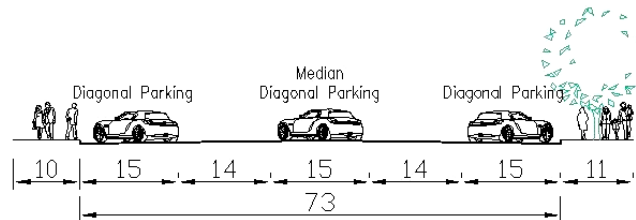
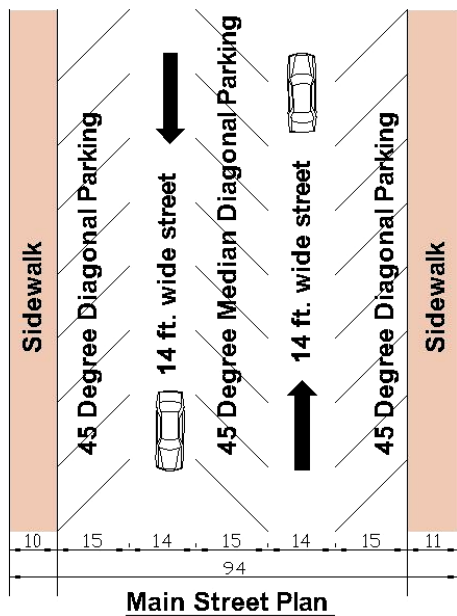
Possible problems

Since Meyer Street is a major arterial as well as Highway 36, it should support a high volume of traffic. The street has not been well equipped with facilities for pedestrians or bicyclists. The right-of-way is relatively wide to walk across, and it is not well signalized at the intersection of Meyer Street and Main Street so that walking is a relatively serious problem. Therefore, the street has potential safety and convenience issues especially for non-auto modes of travel.

Main Street

Main Street goes through downtown Sealy. It is one of the primary streets in the area in terms of traffic and parking, and a big portion of business activities take place on both sides of the street. The street also functions as a gateway street for downtown Sealy. Therefore, Main Street is the most important street in the downtown area.

Functional class:	Minor arterial
Width of right-of-way:	73 feet, two way
On-Street Parking:	Both side 45 degree diagonal parking, median 45 degree diagonal parking (marked)
Sidewalk:	Approximately 10 feet both side
Bike lane:	No designated bike lane



Possible problems

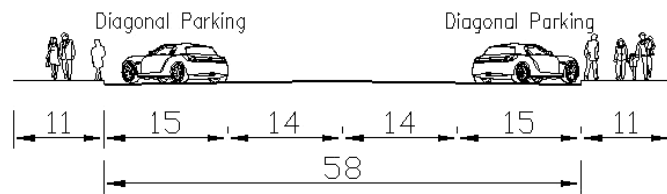
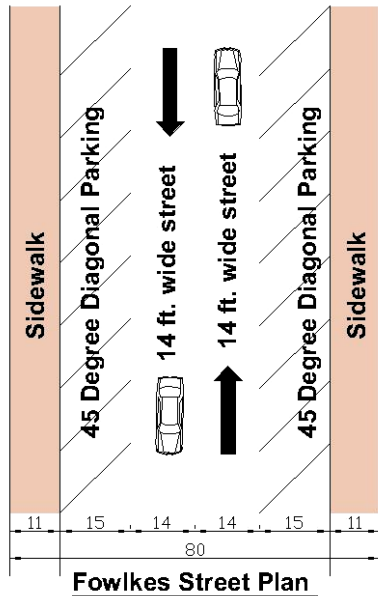
Since Main Street is a *Minor Arterial* connecting relatively high traffic between west and east downtown, it requires a multi-modal co-existing environment that supports vehicle, bike, and pedestrian activities. Yet one of the possible problem with vehicle traffic is median parking. Median parking might ruin traffic flow on the street, especially at peak hours. The street right-of-way is one of the inconvenient factors for pedestrian crossing, and relatively narrow sidewalks are restricting various activities in downtown. Also, lack of streetscape features can be a problem from an aesthetic view point.

Fowlkes Street

Fowlkes Street is the only street that goes through downtown Sealy in a north-south direction. A large proportion of business and public uses are along the both sides of the street. Like Main Street, Fowlkes Street is another primary street on which major activities

take place. Comparing to Main Street, Fowlkes potentially could be a more pedestrian and activities oriented street.

Functional class:	Local Street
Width of right-of-way:	58 feet, two way
On-Street Parking:	Both side 45 degree diagonal parking (marked)
Sidewalks:	11 feet both sides
Bike lane:	No designated bike lane



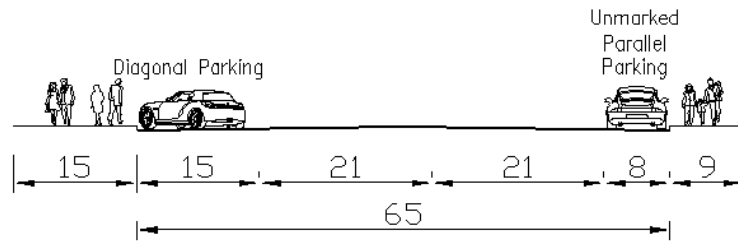
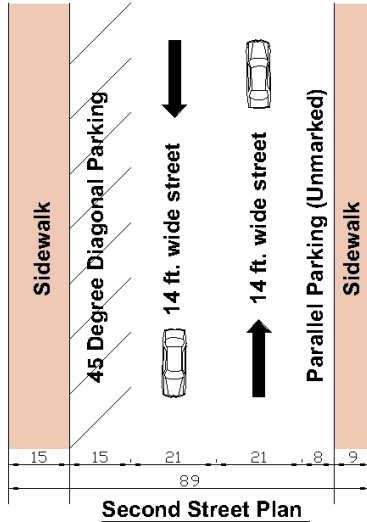
Possible problems

Relatively wide street and narrow sidewalks potentially are inconvenient for pedestrians and activities. Appropriately designed streetscapes are necessary to shape a premium downtown area.

Second Street

Second Street is another critical street, like Main Street, that connects the west and east sides of downtown, so the functional role is quite important in terms of vehicle traffic. Also, some public uses, like Police Station and Fire Station, are located on both sides of Second Street, so that a big portion of potential activities happens there.

Functional class:	Local Street
Width of right-of-way:	65 feet, two way
On-Street Parking:	Designated 45 deg. diagonal parking on one side (marked)
	Designated parallel parking on other side (unmarked)
Sidewalks:	15 feet on one side and 9 feet on other side
Bike lane:	No designated bike lane



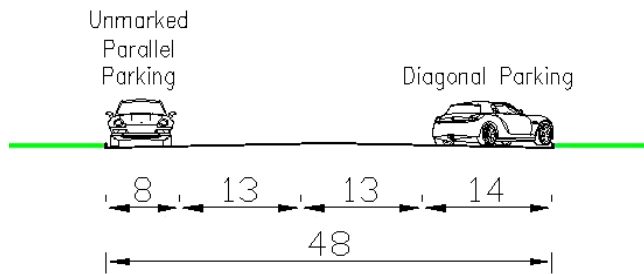
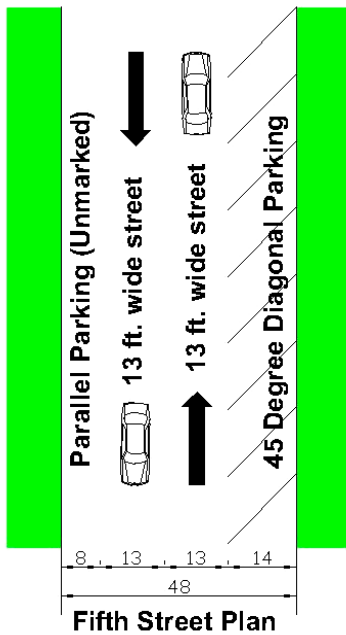
Possible problems

Functionally Second Street is designed as a local street, but it also plays a connecting role between west and east downtown. Therefore, it is necessary to have a multi-modal environment that supports vehicles, bikes, and pedestrians. The relatively wide street right-of-way is one of the inconvenient factors for pedestrian crossing, and relatively narrow sidewalks (even absent in some segments of street) also restrict activities.

Fifth Street

This street marks the southern boundary of the historic downtown. It runs parallel to Main Street and connects Meyer Street in the west and Front Street in the east. There are very few business/commercial activities on either side of the street. Due to this, the traffic volume is also relatively low and has no on-street parking. On both the sides of this street, there are mainly green areas and a few residential units. This street demonstrates substantial amount of potential for pedestrians and bicyclists.

Functional class:	Local Street
Width of right-of-way:	48 feet, two way
On-Street Parking: (marked)	Designated 45 deg. diagonal parking on one side Designated parallel parking on other side (unmarked)
Sidewalks:	No sidewalks
Bike lane:	No bike lanes



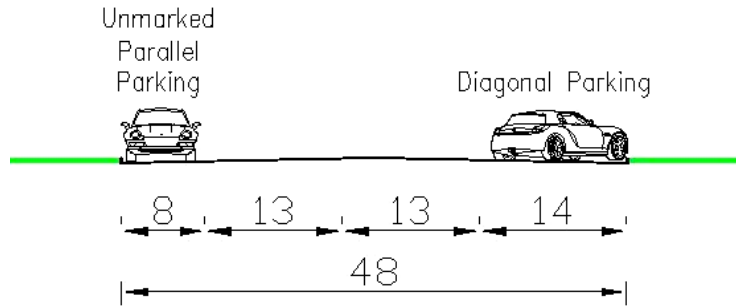
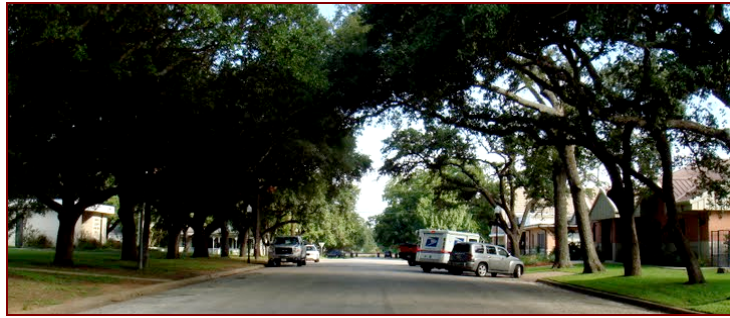
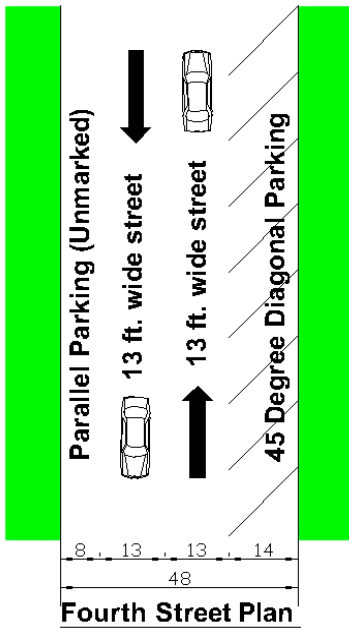
Possible Problems

There are no buffers present to segregate the street and the parks. Absence of buffer zones (like sidewalks, hedges, raised green strip, etc) between the street and the parks can be a serious safety issue for the people, mainly children, while attempting to cross the street. According to transportation planning and design, streets and parks should be separated to enhance safety of people.

Fourth Street

This is an immediate parallel street to Main Street. Like Fifth Street, this street also connects Main Street and Front Street to the west and east respectively. The vehicular traffic, even on this street, is relatively low. Other activities present along the street are a few Residential units, parks and off-street parking lots and vacant lots.

Functional class:	Local Street
Width of right-of-way:	48 feet, two ways
On-street Parking: (marked)	Designated 45 deg. diagonal parking on one side Designated parallel parking on other side (unmarked)
Sidewalks:	No sidewalks
Bike lane:	No bike lanes



Front Street

This street is the east side boundary of the historic downtown of Sealy. It runs north-south and is parallel to Meyer Street/Highway-36 and Fowlkes Street. On one side of it is the road rail, a commercial/business strip is on the other side. Other activities along the street are small cottage industries, a few residential units, green areas and vacant lots.

There is also a green buffer band which segregates the rail road from the Front Street. The vehicular traffic is greater than Fourth or Fifth Street.

Functional class:

Width of right-of-way:

On-street Parking:
(marked)

Sidewalks:

Bike lane:

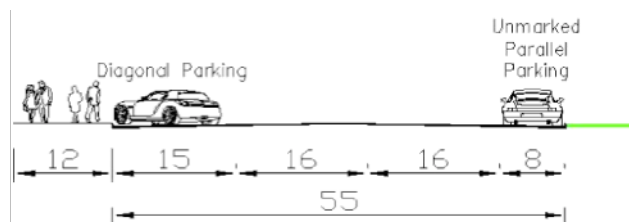
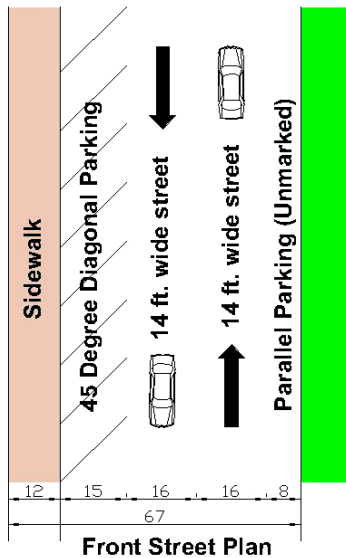
Local Street

55 feet, two ways

Designated 45 deg. diagonal parking on one side
Designated parallel parking on other side (unmarked)

12 feet sidewalk on one side

No bike lanes



Possible Problems

There is every possibility of vehicles speeding, since it is a long straight 55' wide street with no sidewalks, no bike lanes, no median and no crosswalks. This is one of the major concerns toward pedestrians and bicyclists. On-street parking, Sidewalks and bike trails with pedestrian crossings should be present on one side of the street, at least, to encourage walkability and traffic calming.

Current activities on Main Street & Fowlkes Street

This section is going to present elements of shaping the built environment of downtown Sealy, as well as activities taking place on the street and sidewalks. It will also discuss the relationship of buildings from a pedestrian friendly perspective.

1. Buildings

Buildings in downtown Sealy, especially on Main Street and Fowlkes Street are placed close to the street so that the whole environment is at a walkable scale and activities and pedestrians could easily walk in and out of both buildings and streets.





2. Sidewalks

The typical sidewalk on Main Street and Fowlkes Street is approximately 12' wide under the awnings of buildings. This type of walking space is a unique feature, particularly in small city downtown district like Sealy. These walkable spaces not only provide shelter to the walkers but also segregate people from vehicular traffic, thus creating safe pedestrian friendly environment.



3. Space for activities

Pedestrian friendly streets not only provide safe and convenient walking spaces for people, but also can provide spaces for activities. Sealy's downtown has some of elements for activities and recreation, for example: 1) benches in a small stretch of sidewalk on the Main Street, and 2) activity space at one corner of the Main and Fowlkes Street intersection. These spaces or equipment are easy to use and quite reachable from the streets.

4. Low speed traffic

From a pedestrian friendly design perspective, slower traffic speeds are preferred. In downtown Sealy, some of the factors that are good for reducing traffic speed and enhancing walking quality are found. The two existing factors that help reduce the speed of the vehicles are diagonal parking and street width.

Conclusion

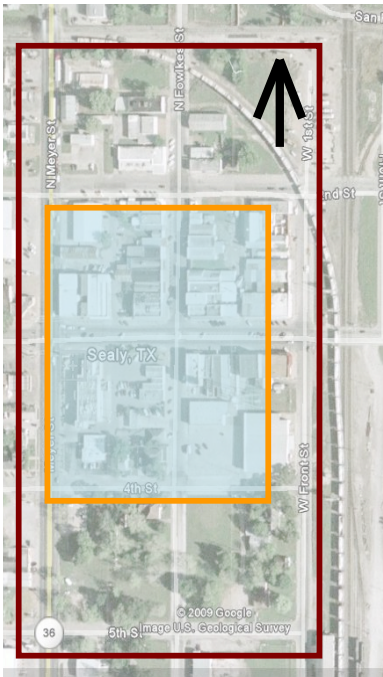
The design of buildings in downtown creates a unique character. As the sidewalks run along the length of the buildings they connect their facades to the streets. In turn they become spaces for various types of activities that are transitional in nature. The human scale of the streets compliments the pedestrian-supportive built environment exhibiting an intimate building-to-street relationship. In addition to this, designated 'open spaces' are also important elements contributing to the liveliness of the downtown where a number of congregational activities take place.

Therefore as a means of revitalization and to attract more businesses into Downtown Sealy, development should be supportive of low speed traffic. As the spaces become more informal in nature, they will encourage bike and pedestrian traffic.

In other words the key focus should be to design and consequently create a downtown environment that supports multimodal traffic in a pedestrian friendly and safe manner with the aim of promoting the businesses.

3. Current Façade Conditions

In order to achieve a better design for a community, it is very important to look into the design and appearance of the buildings. It is essential to use the good design of visible building facades to create/reinforce neighborhood identity and a richer pedestrian environment. Also where possible, features should be incorporated into the building facade that add visual interest to the environment. Compatibility between buildings, streets, and neighborhoods through architectural elements can add character to the entire community.



Downtown Sealy

A comprehensive study of the facades of the streets in Downtown Sealy was done to examine the existing conditions so that improvements could be proposed to revitalize the entire area. The existing condition of the facades of each street is illustrated in the report. The streets studied were:

- Main Street
- First Street
- Second Street
- Fourth Street
- Fifth Street
- Meyer Street
- Fowlkes Street
- Front Street



Meyer Street

A segment of Highway 36 changes to 'Meyer Street' in Sealy. So basically, the buildings on Meyer Streets are facing Highway 36. Hence, the building facades on Meyer Street act as the face of the downtown to the thousands of vehicles passing along Highway 36/Meyer Street everyday. Thus, it becomes essential for the façade on this street to be attractive, to make passers by stop and come downtown.

As we can see in the figure below, on the northern side of Main Street none of the façades of the buildings are either attractive or architecturally well designed. The buildings have uses like warehouse, commercial strip, and a donut shop. The buildings lack consistency in scale, design and use

of materials. There are blank walls in the buildings, which is not a very good urban design quality. There could be a denser development, with buildings built closer to Meyer Street, using various architectural styles and elements to make it more attractive and welcoming.

Meyer Street- North of Main Street



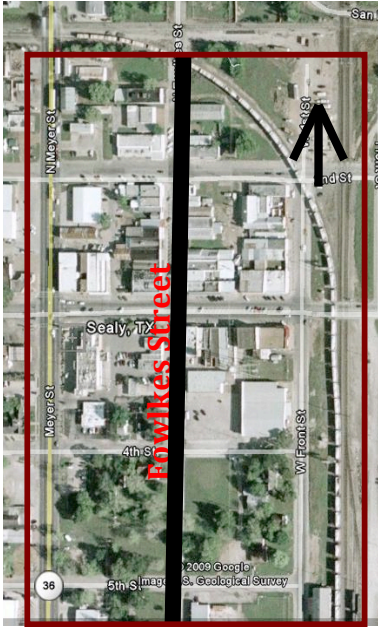
On the southern side, there is a bank that seems to be newly constructed and looks fairly attractive due to its massing and use of different materials. The same is true for the health center and dental center adjacent to it. Although they are well designed in their own aspects, these buildings fail to impart the feeling of a downtown. The buildings are not built at a high-density level and have more of a commercial or residential district look rather than that of a historic downtown.

Meyer Street – South of Main Street



Fowlkes Street

Location of Fowlkes Street



Fowlkes Street is one of the major streets in the downtown and runs north-south as shown in the map. Towards the northern side of Main Street, there are a few small shops in a corner building with a brick façade. This is one of the buildings with an attractive façade in the downtown. Also there is a mattress store and a retail store on the same street. Both have very unattractive façades. The big parking lot in front of the retail store faces the street instead of the building itself, which is atypical for any traditional downtown character. There is plenty of vacant land on this side. There are a few buildings which are nice but have more of a residential character. If we could bring more buildings adjacent to the street, then it could become a part of downtown. Right now, with open spaces and small houses, it does not at all seem like a part of downtown.



Fowlkes Street- South of Main Street

On the northern part of Fowlkes street there are few major retail shops in the downtown. There is a variety in the façade design and the materials used. Although not very attractive in its present condition, revitalizing these existing facades could create an interesting variety and character to the street. Since the buildings are adjacent to the street this segment does make itself a prominent part of downtown. Further north, there is a police department and fire department which need remodeling. The building adjacent to the fire department, at the end of Fowlkes street, is in very shabby condition and in need of major retrofitting.

Fowlkes Street – North of Main Street



First Street

Location of First Street



First Street runs North-South and is right next to the railroad track. There are buildings only on one side of the street, and they are of random character. The building that houses the Mexican restaurant is quite unique, and the colors and materials used in the façade impart a “Traditional Texan” character. The same is true for the buildings adjacent to it. However, the awnings used need to blend better with the character of the buildings and several of the buildings could use improvements.

Main Street



Not consistent architecture style:

On Main Street, there are several good examples of historical architecture. Stores like Annie's Deli & Garden Cafe (shown in Figure 3) are lively and vivid, and seem to be doing good business. However, there are some dull-looking buildings (such as No. 4 in the picture below) adjacent to the well-kept historic architecture. They are obsolete and faded in appearance, and are in conflict with the graceful historic style in downtown.

Figure 3.2 Location of Main Street



Figure 3.3 The north side view of Main Street

The No.6 structure above, named “Texas Title” with the remodeled facades reflects outstanding historic character. It has preserved the historical design character and elements of the downtown. However, this construction style is spoilt by the pink and blue building beside it. This situation prompts our suggesting the formation of the ‘Downtown Design Review Committee’ to recreate a better material and color palette using regulation, in order to enhance the consistence of facades.

Poor condition of buildings

Besides the disharmony in style, on Main Street, there are also some buildings in poor condition (example N. 5 in the pictures above), with decaying roofs, worn out awnings and faded colors. From the outside, we can hardly tell whether they are in business or not, they are too quiet to attract business. It seems like abandoned construction, which not only blemishes the aesthetics of the whole downtown, but also affects the efficiency of land use.



Figure 3.4 The south side view of Main Street

Mix of business

The east side of Main Street has a mix of businesses including a bank, flower shop and grocery shop. The buildings’ facades adhere more to the modern building style.

Historic corner

At the intersection of Main Street and Fowlkes Street, there is a corner with a nice artistic mural, bench and canopy. Although it has a lot of potential to serve as a meeting place for people to get together and have some leisure time, it is not well designed enough to attract visitors. This is a great place that is in need of further improvement and promotion to preserve the historical Texan character, while at the same time providing a comfortable corner to sit. This corner should be designed as a unified part of the intersection of Fowlkes Street and Main Street. We can modify or change the benches; put up elegant pavilions; put planters and trees around the benches; and promote the historical mural. The goal is to preserve the current historical feature and at the same time to provide the comfort and seating space to people visiting downtown.

Second Street



We can tell from the No.1 picture below that the sidewalks on Second Street are not kept in good condition, and they stop at random locations. In the corner, there is the police station. There are three problems:

- The main color of the walls is pink, which does not portray the character of a police station;
- The garage for police cars opens to the street;
- The pillars of the open-air garage are not well-proportioned

Figure 3.9 Location of Second Street

On Second Street, there are some out-of-service factories and abandoned houses for sale (see No.5 in the picture below). Their old and dirty facades spoil the unified historic style in downtown Sealy. This is a negative feature for achieving downtown aesthetic improvement.



Figure 3.10 Second Street

Fourth Street



On Fourth Street, the public facilities are in good shape, as picture No. 3 below shows, but the residential buildings are all old and in need of repair (No. 2&4). The surrounding environment is bad, with ugly and dirty trash cans. There are two healthcare facilities: Texas Home Health, and Dental Center.

Figure 3.11 Location of Fourth Street



Figure 3.12 Fourth Street

Fifth Street



Figure 3.13 Location of Fifth Street

On Fifth Street, there is a Mexican Restaurant adjacent to an old plant (No. 1&2 in the pictures below). The surroundings are not attractive for serving customers. It is also not healthy for local people to live near a factory. Perhaps this factory can be reused adaptively as a historic museum in the future.



Figure 3.14 Fifth Street

Although Downtown Sealy have a few building facades that reflect the traditional Texan architecture, most of the others are not in a very good architectural style or physical condition. Thus, there is an overall need of major renovation of most of the facades: add varieties of colors and materials; enhance with architectural elements; and provide design guidelines to the business owners.

Chapter 4: Public Input

Public Input on Downtown Sealy

Revitalization of Downtown Sealy is about evaluating the current condition of the downtown and suggesting design and policy interventions that can improve the growth of the downtown. Existing problems with the downtown were realized from the comprehensive plans of Sealy, discussions with the city staff, and through visual observations during field visits. Various issues such as lack of walkability, insufficient parking, traffic congestion, vacancies, lack of cultural and historic atmosphere, building aesthetics, etc were identified as some of the major issues. These problems not only affect the growth of existing businesses but also inhibit attracting more businesses to the downtown. Involvement of the community is essential in order to get perspective that can lead to appropriate future planning. Thus, even though we already had a general idea about what was needed to build up a livable downtown, local voices from businesses in downtown were indispensable for formulating design alternatives.

Reaching the Businesses

Due to the small scale of downtown and limited number of businesses, the public input team decided that informal discussions with businesses might be an efficient way to get local opinion. Several options were available to have conversations with the current businesses: email, post mail, phone call, public meeting or personal interview. In order to get more details and get an overall picture without resorting to a formal survey, the team interacted with the business owners and/or the shopkeepers and sought their views on downtown Sealy.

Conversations with Businesses

Overview

Eight students were divided into four groups and the discussions with the businesses were covered in approximately four hours. In addition to businesses along Main Street, Fowlkes Street, and Front Street, businesses outside the downtown area along both sides of Highway 36 (two blocks on both sides of Main Street) were included. One of the groups also visited to the rail road museum and jail, but they were closed.

Responses of the Businesses in the Downtown Area

1. Traffic Problems:

- **Congestion:** The opinions about traffic problems were mixed, but most people said that there is no problem. A few people said that traffic gets backed up when the train stops at the crossing for a long time. Also, traffic volume increases during the lunch hour, but as per our observation it does not really cause congestion. The businesses reported that traffic in downtown had increased over the last several years, and a lot of vehicles pass through downtown rather than making it a destination.
- **Safety:** The most severe safety issue regarding traffic downtown is at the intersection of Main Street and Fowlkes Street. This problem is caused not only because of lack of traffic signs and lights but also because the water fountain at the intersection does not serve its function as a roundabout. People get confused at the

roundabout and a few accidents have occurred at this intersection from time to time. Many people avoid going through downtown because of this condition. Some even said that they do not allow their children to drive on this route going through downtown due to safety issues.

- **Parking:** Like traffic congestion, people gave mixed responses about parking. Most did not complain about insufficient parking in downtown, but it depended upon the type of business. For example, stores like antique shops would not require many parking spaces for a long time, while a restaurant or a grocery store would need more parking spaces for a longer period of time. Many people said that there is enough parking in the downtown but not much in front of the shops.

However, there were some instances where people wanting to locate to downtown did not open up the businesses thinking that there is insufficient parking at the store front. For example, the owner of the warehouse along the railroad had tried to convert the warehouse into a restaurant but he could not do so due to stringent parking requirements that demanded more parking near the warehouse. Since there was not enough room for parking, he was trying to buy more land along the railroad tracks just for parking.

The median parking was criticized the most by the business owners as the main cause of traffic congestion. This parking was seen as dangerous because it had the potential of causing accidents involving the cars leaving the median parking and cars passing down the street.

Almost all the people working downtown drove to their businesses. People living within five minutes of walking distance were also not inclined to walk. It seems that people lack a tradition of walking within the downtown. This could be due to the lack of a walkable environment and/or the habit of dependence on vehicles. We felt that parking was more of a perceived problem rather than an actual one and the proposed design should take this observation in account in order to bring change to downtown.

2. Vacancy:

Even though the vacancy issue is severe in downtown, many people were unaware of the reasons behind it. However, several reasons were repeatedly given by some owners. One of the reasons given was that many buildings in the downtown are old and require major improvements, but the building codes and city ordinances are too strict to allow them to be upgraded at a reasonable cost. The businesses were also not aware of any grants or incentives from the city for building improvements. People were not happy because in order to change anything in or on the building, they need to apply for a permit with the city. For example, they are required to get permission for plumbing or roofing and only the city approved agencies can do that work. All of this procedure becomes cumbersome and costly to run businesses in downtown.

Other owners did not want to invest their money in renovations because they did not want to pay more taxes. They are not anxious to sell the properties either and since they keep the asking prices higher. Reasons like this left many of the downtown properties/buildings vacant.

3. Type of businesses wanted in downtown:

- Food place: A lot of people considered a food place as the first option to bring into the downtown. Currently, there are some restaurants which are popular in downtown Sealy, such as Annie's Deli and Mesquite Grill. During lunch time, people working in downtown and other places go to these businesses for lunch. However, people desired more choices and varieties of restaurants. For example, I Hop, a 24 hours open deli, and a steak house. Also, people wanted a place for relaxing, chatting and gathering such as bars, coffee shops and café/bakeries. They also hope restaurants will provide outside sitting space.
- Fitness center/gym: This was a popular demand among the people of working age (above 30). There is one fitness center currently located at the outlet mall. A person wanted to locate a fitness center in downtown but the owner of one of the properties did not agree to sell. The Home Health Center was a fitness center for ten years but it went out of business. However, people working downtown were willing to go to a fitness center or gym for exercises, yoga or swimming during the lunch hour since they do not want to waste time in driving up to the outlet mall gym.
- Activity center or theater: People reported having nothing to do in the downtown in their spare time. They usually go to Houston or Katy on the weekends for entertainment. People with children wanted to see more places for kids and teenagers to go. A small movie theater, an art theater, bowling alley, video game place were the most in demand. Also, some women really wished to have some outside sport activities for kids like a skate park, basketball or a soccer field, since they usually spend their free time taking kids out to such activities.
- Shops: people also wanted to have more places for shopping in downtown. They mentioned book stores, more small retail shops, more antique shops and boutiques. In the opinion of some people, there are enough grocery stores and they do not wish to have more of those.
- Museum: Currently there is one museum across the railroad track, which is out of the downtown area but still within walking distance. Business owners and people working in downtown hardly knew about its existence perhaps because it has remained close for a long time and it has not been well publicized.

4. Views on Aesthetics:

- Landscape: Surprisingly, there were not many opinions about the lack of landscaping downtown. Most people believed that the current situation can be improved, but not many could explain how it should be done. Some of them wanted more flowers, trees, and green spaces, like downtown Brenham.
- Lighting: There is a need for improved and lighting in downtown especially for the businesses that are open after dark.
- Façade: Most of the people thought building façades needed to be improved, but they could not figure out any specific ways to improve them. Many of them liked the

brick façades, giving a historic look to the buildings.

- Sidewalks: Some of the businesses have received complaints that the existing sidewalks are dangerous for the elderly and people with mobility impairments. Also, the elevation and narrowness of sidewalks make them less walkable for others, too.

5. Events/activities: Most of the people complained about a lack of activities held downtown:

- The only event currently held downtown is the 4th of July fireworks.
- There used to be a “Fantasy of Lights” event in the downtown, but it was moved to the park nearby. Since the park is quite close to downtown, people still go downtown to eat and shop during this event. Some business owners said festival time is the busiest time of the year. Nevertheless, many people want to see it come back to downtown.

6. Historic theme:

Most of the people were aware of Sealy’s long history. Some of the business owners are proud of Sealy’s ties to the original Texas Sealy Mattress and the railroad. However, they do not really know how to maintain and promote the town’s history. Most of the people felt that the downtown looks pretty old and a lot of things need to be fixed. Some people suggested buildings should be repainted, but should be treated differently according their distinct features.

7. Other concerns:

- Ethnicity: Hispanic population has contributed significantly to the economy of downtown Sealy with many profit generating businesses such as food and meat stores. They attract a lot of Hispanic customers ultimately increasing the customer base of the whole downtown. However, it was observed that some of the shops had signs in Spanish only. If the Hispanic businesses try to put up signs in both Spanish and English then they can not only make more profit but can also help downtown to grow with diverse customer base.
- Train Concern: One complaint about the train was that it blows its horn constantly. Some people said that the train causes the traffic congestion. Also, the railroad track is an obvious boundary to define the downtown district. People in downtown area usually did not know what is beyond the rail line; for instance, they did not know there that was a railroad museum across the track. However, some people regard the train as a major characteristic of downtown Sealy and they like it.

Responses of the Businesses across Meyer/Highway 36

Surprisingly people working just across downtown were found to be much less connected with downtown. Some of them visited downtown, but only for groceries and haircuts. Some of them did not know what businesses have opened up in the downtown recently. They complained about a lack of proper advertisement of the businesses, which keeps them from knowing what is going on downtown. Most of them went to I-10 for food, a gym, and other shopping. However, they would prefer to visit downtown and save time and fuel if such options become available in the downtown.

S.W.O.T Analysis

Strengths:

- 1) Many business owners have operated their businesses in Downtown Sealy for a long time and do not desire to move
- 2) Business owners native to Sealy are willing to support the revitalization of downtown
- 3) Most owners are satisfied with their current business due to stable customer bases
- 4) Customer base is not limited to Sealy but includes patrons from neighboring towns

Weaknesses:

- 1) Strict rules and city ordinances exist regarding buildings and signs
- 2) Unsafe condition of traffic and potential site of accidents at the intersection of Main Street and Fowlkes Street
- 3) Median parking
- 4) Lack of diversity for food place and shopping
- 5) Lack of pedestrian friendly environment

Opportunities:

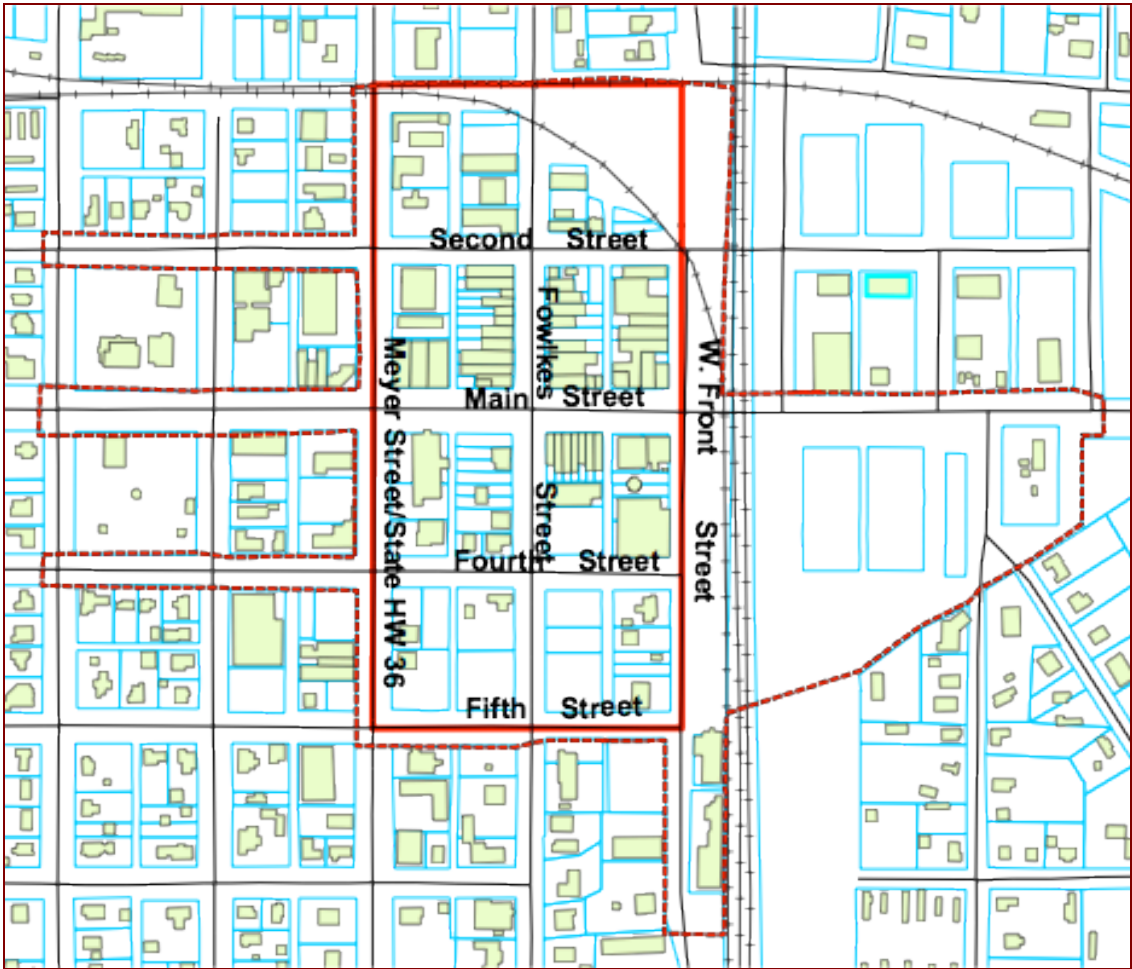
- 1) Advantage of locating businesses within short distance of other downtown businesses and residential areas
- 2) Wal-mart and other large businesses are a threat to new small businesses and therefore an opportunity for downtown to attract them
- 3) Potential to develop as a historic downtown with a unique character
- 4) People are willing to have events and activities in downtown

Threats:

- 1) Wal-Mart extracts a lot of consuming capability
- 2) Upcoming new economic development district on I-10
- 3) Several buildings are vacant
- 4) Needed maintenance and renovation

Chapter 5: Design Recommendations

Proposed Design Boundaries



This report proposes the boundaries of the downtown be expanded as shown in the figure above. The following design recommendations are based on these proposed boundaries.

1. Sidewalks

Sidewalks hold a lot of importance in today’s urban setting. Some of the benefits of sidewalks according to the Windsor Building & Development Department Engineering & Corporate Projects Department (Sidewalk Information Pamphlet, 2006) are as follows:

- **Accessibility** - Sidewalks provide increased mobility for everyone, especially for people with disabilities.
- **Health** - Sidewalks promote an active lifestyle and decrease the use of automobiles. With fewer toxic automobile emissions in the air, the potential for sickness from pollution is reduced.
- **Traffic Congestion** - More pedestrians mean fewer cars on the roadway. Fewer cars mean less traffic congestion, saving time and increasing safety for motorists.
- **Reduced Car Operating Costs** - As gasoline and insurance prices increase, automobile use will become progressively more expensive. Sidewalk use does not have an ongoing gasoline or insurance cost.
- **Environment** - Use of sidewalks promotes a cleaner, colorful sky because of the reduction of automotive exhaust particles circulating in the air.
- **Equality** - All taxpayers contribute to the roads, regardless of whether they drive. Similarly, all taxpayers contribute to sidewalks.

Thus, downtown Sealy should also improve the condition and design of the sidewalks for the benefit of the people working, living in, and visiting downtown, and to enhance its overall look. The following issues have been identified with the current sidewalks, and recommendations for improvement follow.

Uneven Height/Unlevel Surfaces

Current Condition

The sidewalks along most of the downtown streets are not at a uniform level as seen in Figure 1.1. As observed from the picture below, this not only causes an unappealing streetscape but also provides poor access to shops and businesses. The uneven levels can disturb the flow of pedestrians and can be hazardous.



Figure 1.1 Uneven sidewalks

Recommendations

The height of the sidewalks should be uniform along all streets throughout downtown. The recommended height of the sidewalk is as close to six inches as possible. Ramps should be constructed to the current sill level of doors.

Elevation Changes Unfriendly to Elderly and Disabled

Current Condition

In addition to the level differences in sidewalks as mentioned above, the overall height of the sidewalks in some parts is too high to be easily accessible to elderly or disabled people (See Figure 1.2 below). Lack of adequate ramps along the streets makes it more difficult for people with mobility problems.



Figure 1.2 Example of tall sidewalks in Sealy

Recommendations

Properly designed curb ramps should be constructed for the people with mobility impairments. Following are some of the recommendations for the curb ramps as per the US Department of Transportation, Federal Highway Administration.

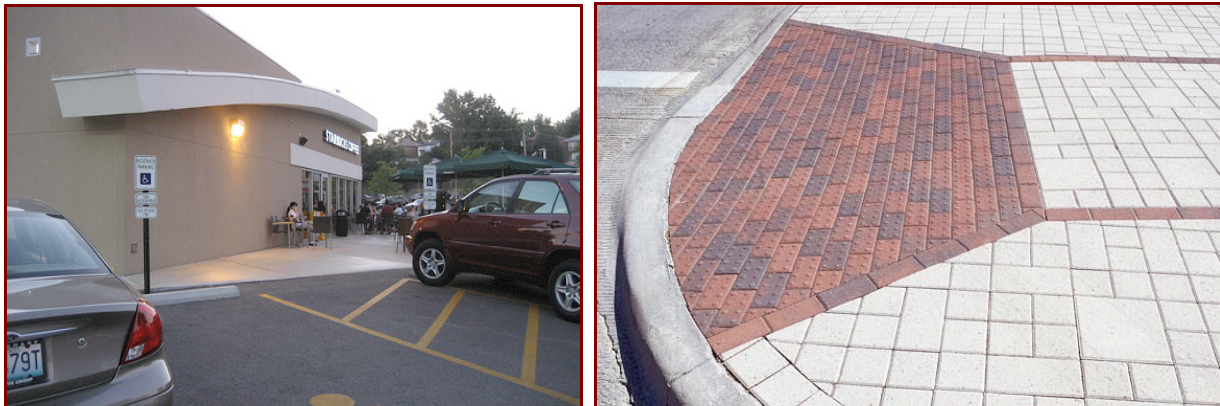


Figure 1.3 ADA Compliant sidewalks

- Provide a level maneuvering area or landing at the top of the curb ramp.
- Clearly identify the boundary between the bottom of the curb ramp and the street by providing detectable warning pavers consisting raised truncated domes with a diameter of 0.9", a height of normal 0.2" and center to center spacing of normal 2.35" (Americans with Disabilities Act Accessibility Guidelines (ADAAG)) for the people with vision impairment as shown in Figure 1.3.
- Design ramp grades that are diagonal to the curb.
- Place the curb ramp within the marked crosswalk area.
- Avoid changes of grade that exceed 11 percent over a two foot interval.
- Design the ramps that do not require turning or maneuvering on the ramp surface.
- Provide a curb ramp grade that can be easily distinguished from surrounding terrain; otherwise, use detectable warning pavers as shown in Figure 1.4.
- Design the ramp with a grade of 7.1 ± 1.2 percent.
- Design the ramp and gutter with a cross slope of 2.0 percent.

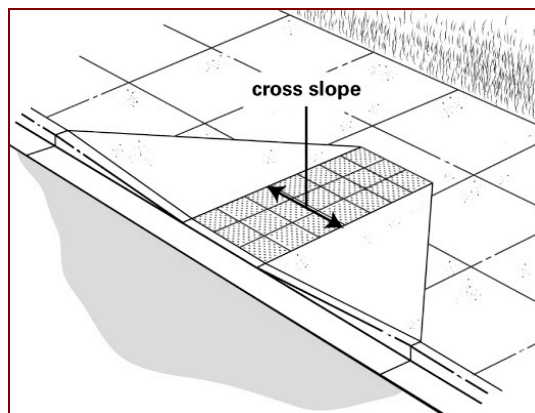


Figure 1.4 Detectable Warning Pavers

Here, cross slope of the curb ramp is perpendicular to the running slope. Unlike the running slope, which runs along the ramp, the cross slope is measured *across* the ramp. The arrow in the illustration in the figure besides, aligned perpendicular to the ramp run and parallel to the curb, shows where to measure the cross slope. (Disability Business Technical Assistance Centers, Department of Rehabilitation Medicine at the University of Washington)

- Provide adequate drainage to prevent the accumulation of water or debris. Transitions from ramps to gutter and streets should be flush and free of level changes.
- Align the curb ramp with the crosswalk, so there is a straight path of travel from the top of the ramp to the center of the roadway to the curb ramp on the other side.
- Provide clearly defined edges or transitions on both sides of the ramp to contrast with the sidewalk.

Deteriorating Sidewalk Surface

Current Condition

As exhibited in the pictures below, sidewalks in downtown have been damaged due to wear and tear and there are numerous patches of broken surfaces. This can cause inconvenience and even injury to people while walking.



Recommendations

The material chosen for sidewalks should be strong enough to withstand normal wear and tear for a longer period. This partly depends on the construction method and quality of material. Over and above caution during construction, regular maintenance should take place by the city.

Inconsistent Material and Design of Sidewalks

Current Condition

The material of the sidewalk surface is inconsistent not only among streets but also on a single street. The difference in material and look distorts the aesthetic appeal.

Recommendations

There should be consistency in the material used for the sidewalk surfaces on all the streets. Minor differences between two streets should be allowed provided it is compatible to the whole look of the downtown. The following pictures shown in Figure 1.5 are examples of options of sidewalk textures that could be adopted.

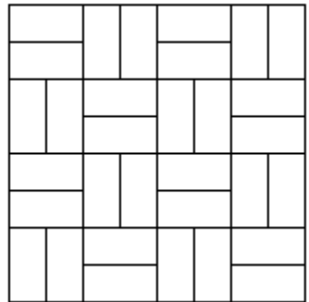
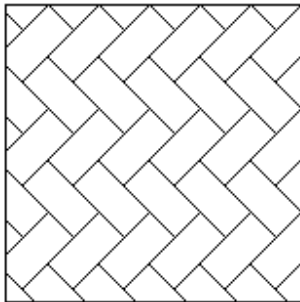
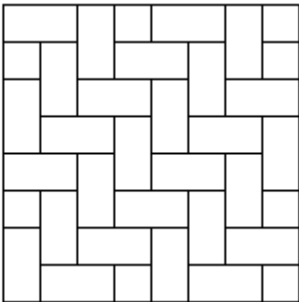
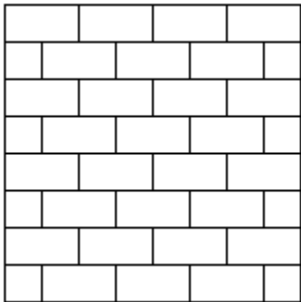


Figure 1.5 Examples of Consistent Patterns

Poor Drainage Along Sidewalks

Current Condition

Absence of proper drainage leads to unhygienic conditions. Accumulation of water, especially during rain storms creates problems in the downtown as shown in Figure 1.6.



Figure 1.6 Drainage along sidewalks in Sealy

Recommendations

A better drainage system should be designed to avoid problems due to accumulation of water. Figure 1.7 shows two examples of a drainage design that can serve the purpose of draining, as well be merged into the look of the sidewalks.



Figure 1.7 Drainage design examples that are incorporated into the sidewalk design

Figure 1.8 illustrates the cross-section of a brick slot which incorporates the drainage design into the sidewalk design.¹⁶

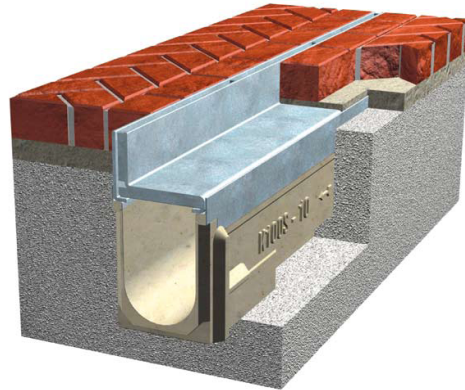


Figure 1.8 Cross-section of a brick slot

Discontinuity of Sidewalks Along Some Streets

Current Condition

Sidewalks are discontinuous on some streets. For example, Fourth Street has no sidewalks on either side, while Front Street has discontinuous sidewalks on one side of the street and the railroad line on the other side. Absence of sidewalks can be dangerous, and can discourage people from walking within downtown.



Figure 1.9 Fourth Street without sidewalks on both sides of the road

Recommendations

No Street in the downtown should be left without sidewalks on both sides. Front Street could be an exception on the railroad side, if no development occurs to which the sidewalks can lead.

¹⁶ Technical Handbook and Product Catalog, KlassikDrain

Design Regulations

Current Condition

Unfortunately the current regulations of Sealy and the downtown district do not address design standards for sidewalks. There is no mention of maximum height, minimum width, or sidewalk materials. City code also fails to address design requirements for the disabled. The current conditions can lead to injuries to people using the sidewalks, and potential lawsuits. Problems of these sorts may also decrease the number of customers visiting and new businesses downtown.

Recommendations

The downtown district regulations should have a section on sidewalk design standards, including minimum and maximum dimensions, grade, ADA requirements, approved materials and textures, etc. In addition to these standards, there could be a section dealing with the overall space utilization of sidewalks. This section can divide the sidewalks into zones along the width such that different uses and activities can be designated to certain zones on the sidewalks. Following is an example of sidewalk design standards and a visual shown in Figure 1.10.¹⁷

Example: *Sidewalks shall be at least 84" wide measured from the face of curb to the building façade, shall include a pedestrian zone and a streetscape zone, and may include a storefront zone.*



Figure 1.10 Illustration of sidewalk design standards

¹⁷ From Street and Roadside Design Standards, Land Development Code, Louisville, KY, 2006.

I. Pedestrian zone. *The pedestrian zone is that portion of the sidewalk that is maintained free of any obstructions to allow for the passage of pedestrians. The pedestrian zone shall be at least 48 inches wide and shall not be shared with the streetscape or storefront zones. If the width of the pedestrian zone is less than five feet wide for more than 50 linear feet, passing spaces must be provided at intervals of no less than 200 feet apart and must provide an area of at least five feet by five feet to allow two wheelchairs to pass each other.*

II. Streetscape Zone – *That portion of the sidewalk located between the curb line and the Pedestrian Zone in which the following elements are located, following authorization by the Public Works Department:*

- *Street trees/grates, planting strips, raised planters*
- *Street light standards*
- *Street signs/pedestrian way finding signs*
- *Transit stops*
- *Media boxes*
- *Postal/freight collection boxes*
- *Parking meters*
- *Utility boxes/public phones/ fire protection*
- *Seating (with/without tables)*
- *Trash receptacles*
- *Public art/water feature*
- *Bike racks*

The Streetscape Zone shall be at least 48" wide when trees are included.

III. Storefront Zone – *That portion of the sidewalk located between the pedestrian zone and the building facade in which the following elements are permitted, following authorization by the Public Works Department:*

- *Seating (with/without tables)*
- *Bollards*
- *Recessed lighting for the building facade*
- *Bike racks*
- *Valet or hostess station/canopies*
- *Temporary sale/display of merchandise*
- *Moveable sandwich boards*
- *Postal/freight collection boxes*
- *Planters*

2. Crosswalks and Crosswalk Signs

Crosswalks are also extremely important in creating a pedestrian friendly environment. They should be well designed to ensure the safety of people from vehicular traffic flow.



Figure 2.1 Existing crosswalk in Sealy

Current Conditions

Downtown Sealy is located along Highway 36 that has a high traffic volume creating unsafe conditions for pedestrians and bicyclists. The intersection of Main Street and Meyer/Highway 36 and of Main Street and Fowlkes Street, shown in Figure 2.1, are difficult for pedestrians to cross because of the absence of any pedestrian crosswalk. All of this can again be a disincentive against people walking downtown.

Recommendations

The current style of painting (parallel) is not only ineffective in stopping vehicular flow, but also not visually striking. It is very important to design the crosswalk in such a way that it creates a pedestrian friendly image of the downtown, and enhances the historic look as well.

Crosswalk Design

- **Option 1 - Painted:** This option can be quick and easy to implement, and with low initial cost. There are further alternatives within this option. One is the traditional painted design as shown in Figure 2.2:



Figure 2.2 Traditional painted crosswalks

The other option can still be simple, easier to construct and maintain than paved crosswalks, but it would be more useful in enhancing a pedestrian friendly atmosphere. Figures 2.3 and 2.4 show examples of this option.



Figure 2.3 Painted bricks and other designs for crosswalks



Figure 2.4 Other designs for painted crosswalks

- **Option 2 - Paved:** This type of crosswalk can be made up of bricks or concrete pavers. It takes longer to build compared to the painted option and the initial cost of this type of crosswalk is higher, but it can give a distinct look to the downtown. It will also add to the historic character of downtown, along with making it more walkable.



Figure 2.5 Brick crosswalk pavers



Figure 2.6 Zig-zag paved crosswalk design

Crosswalk Signs

Crosswalk signs at the intersections, along with stop signs for vehicles, are necessary. The signs will alert drivers to slow down or stop, which will ensure the safety of pedestrians. Figures 2.7 shows examples of such signs:



Figure 2.7 Examples of several crosswalk signs

In summary, the current vehicle- dominated image of downtown needs to be changed by introducing better sidewalk and crosswalk design that can promote walkability in Downtown Sealy.

3. Wayfinding Signs

Wayfinding signs are important to any urban space. They help orient visitors and provide ease of travel for pedestrians and even drivers.

Pedestrian Oriented Signs

Current situation

Only a few signs locate in downtown Sealy and most streets have no wayfinding signs at the intersections as shown in Figure 3.1.



Figure 3.1 Streets in Sealy with no wayfinding signs

Currently, there are some sign regulations for the downtown district summarized below:

“1. The collective area of all window signs posted in, upon, or within three feet of any window surface may not exceed 30 percent of the total window area of any one floor of a building, or 30 percent of the front window area of any individual occupant of a building. For purposes of this section, “window signs” shall mean any paper, plastic, neon, or painted display affixed to the inside or outside of the window surface;

2. Signs shall not contain moving parts, nor shall a sign itself move;

3. Signs may not be electrically lit from within;

4. Signs may be allowed along the drop flaps of awnings; and

5. Permanent banners are prohibited. Temporary banners may be used for a period not exceeding ten days; provided, however, temporary banners may not be used more than 30 days within any one calendar year.”

Sealy also has some sign regulations and design guidelines for the city. However, it gives some exemptions for certain types of signs. One example is “any sign erected or required to be erected by any governmental entity or public utility to give information, directions or warnings to the general public, regardless of the sign’s location on public or private property.” Wayfinding signs just belong to this category. So wayfinding sign is exempt from the city’s regulations.

Recommendations

The new wayfinding signs could look like Figure 3.2 below:



Figure 3.2 New wayfinding sign

Locations

Wayfinding signs should be located at every corner in downtown area and along Highway 36, shown by the dots in Figure 3.3.



Figure 3.3. Locations for wayfinding signs shown by green dots

Alternative Sign Options:

- Scenario 1: Signs would only show the direction and the name of the street. (Figure 3.4 below) This type of sign is intended for the streets with just a few buildings and do not include much information other than street names.
- Scenario 2: Signs would show maps of the downtown area and your current location. They may also add some information about the important buildings or businesses on each street. An example of this is shown in Figure 3.5 below. This type of sign can be used for the major streets that have important buildings and activities.



Figure 3.4 Direction and name on sign



Figure 3.5 Important businesses shown on a sign

Types of design:

1. Historic type-uses wood as material. (Example in Figure 3.6 and 3.7)



Figure 3.6 Wooden sign



Figure 3.7 Historic wooden signs

2. Modern type use of metal material. (Example in Figure 3.8)



Figure 3.8 Metal signs

4. Gateways

Existing Conditions

As mentioned earlier, a pleasing aesthetic appearance would give an impression of a vibrant, well-developed community. The visual quality of Sealy would further reinforce business opportunities. The presence of well-developed roadways, good streetscape, landmarks and gateways to mark the points of importance will enhance the aesthetic appearance of the community. The presence of I-10 brings a significant number of people through Sealy. Thus it would be very beneficial to have the entrances and exits to Sealy

well marked to advertise downtown Sealy. In the downtown district, Gateways could prove very beneficial in demarcating the area and augmenting the character of the region. Figure 4.1 shows optimal locations for gateways to downtown.

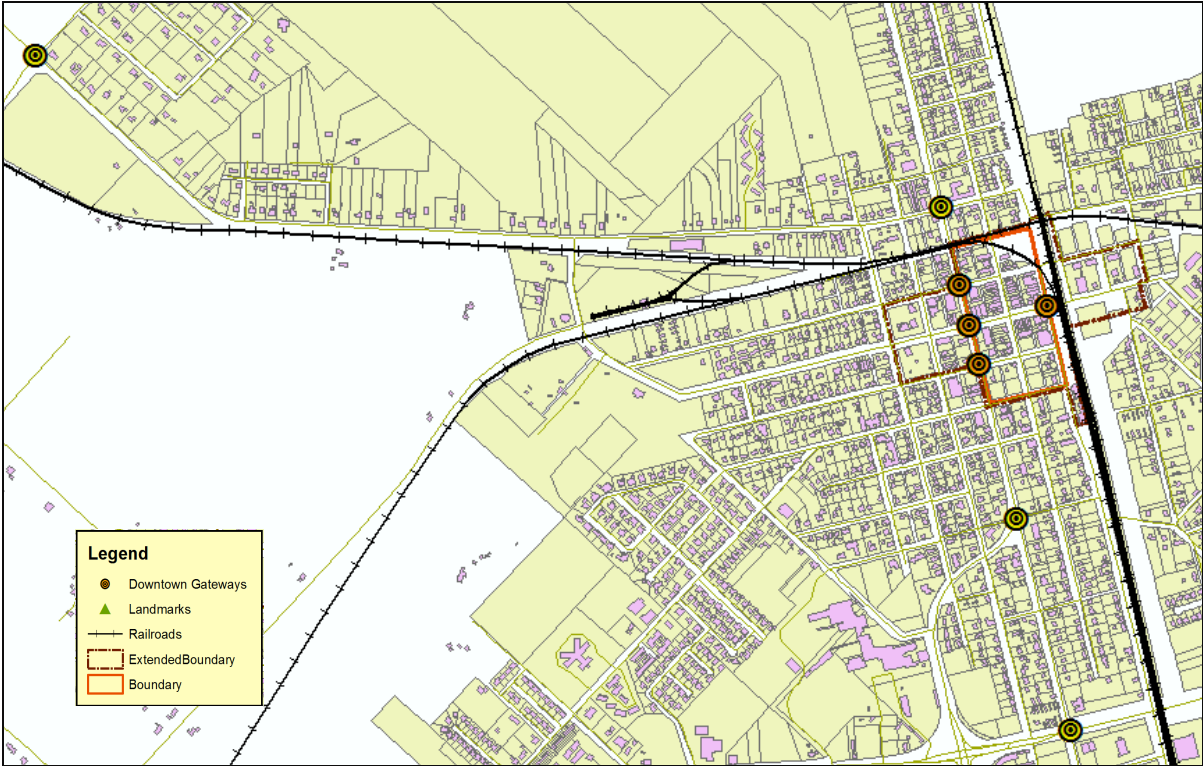


Figure 4.1 Gateway locations for Downtown

Recommendations

The comprehensive plan gives four important locations with respect to gateways:

- Downtown Gateways
- I-10 and Hwy 90 Gateways
- Reserved location at 1094 and 2187
- Along Hwy 36, both north and south

These are shown in Figure 4.2.

The comprehensive plan also mentions the integration of gateway design with other important elements like lighting, signage, street furniture, trees, landscaping, etc.

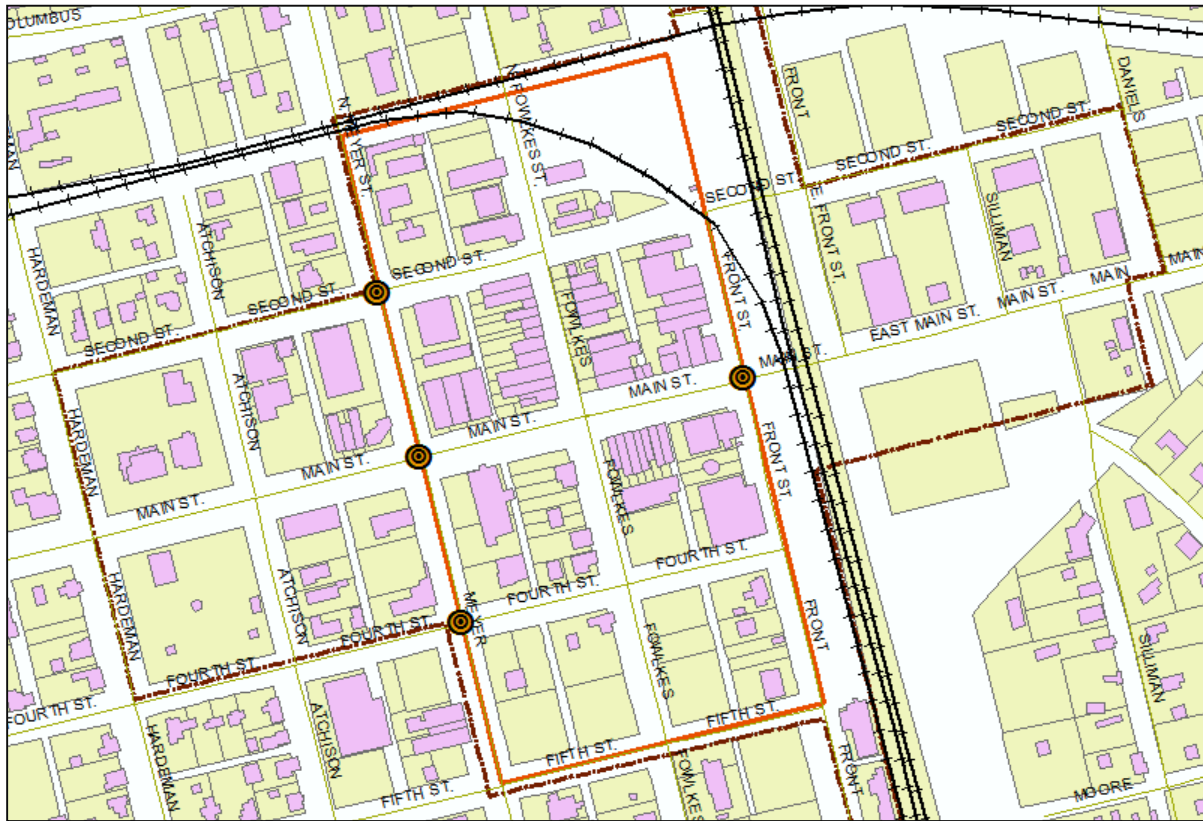


Figure 4.2 Four locations identified in the Comprehensive Plan

Two recommended styles have been selected, historic and modern. The Sealy region is marked by a distinct historic presence, but new businesses might prefer a modern look.

Historic style:

- Would enhance the historic character of the city.
- If the other street enhancements incorporate the historic style in harmony with the gateways, downtown would be distinctly recognized for this character.
- Tourism might increase due to the quality of historic character of the downtown district.
- The citizens would be more drawn to the activities of the downtown as well, since the district would reflect the historic nature of Sealy.
- Historic styled downtowns in the adjoining region have been very successful (Katy, Bellville).
- The example below shows the integration of a historic theme for two elements, gateways and signs:



Figure 4.3 Historic style gateways

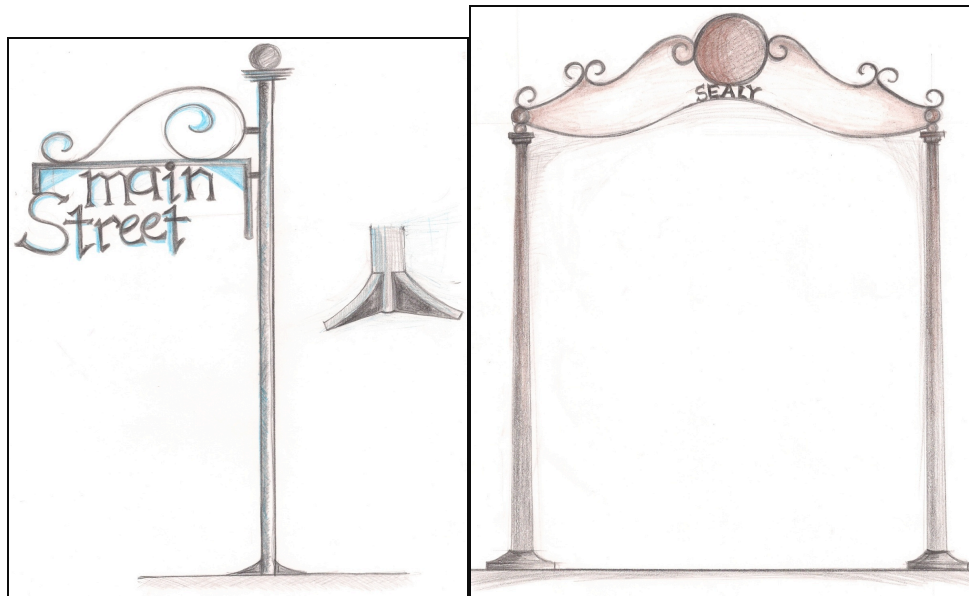


Figure 4.4 Sign and Gateway

Modern Style:

- Modern styled gateways would symbolize the emerging economic development in Sealy.
- They would be in harmony with the rest of the new development in the town. In the downtown region, these can be amalgamated with historic structures to create a pleasing aesthetic balance between the two styles
- Modern gateways can be expressed in symbolic form that serves the purpose of a gateway as well as a landmark. The following images are examples of such symbolic gateways.
- They can also be expressed in other modern forms with the use of different materials and design concepts as shown.

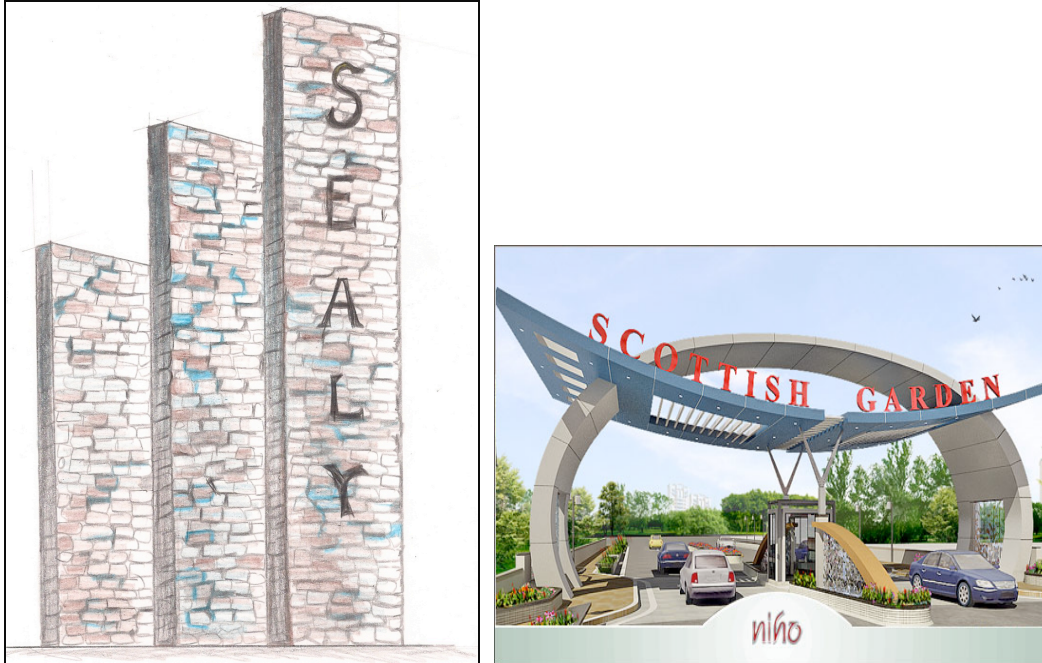


Figure 4.5 Examples of modern gateways

Sealy has many distinct features and characteristics. If these are incorporated with the above mentioned architectural styles, the character of Sealy would be better defined. Some of these significant features are:

- The city is the home of the legendary Sealy mattress
- The birth of the city is manifested in the emergence of the railroad
- Since, it is an old Texan city; it conveys the feel of a Texan cowboy-like appearance

Based on these characteristics, the following themes can be applied to the gateway designs:

- Railroad
- Mattress Spring
- Texas Cowboy

Railroad:

The development of the railroad in Sealy assisted in the development of the city. Therefore, the railroad is historically important for the city.

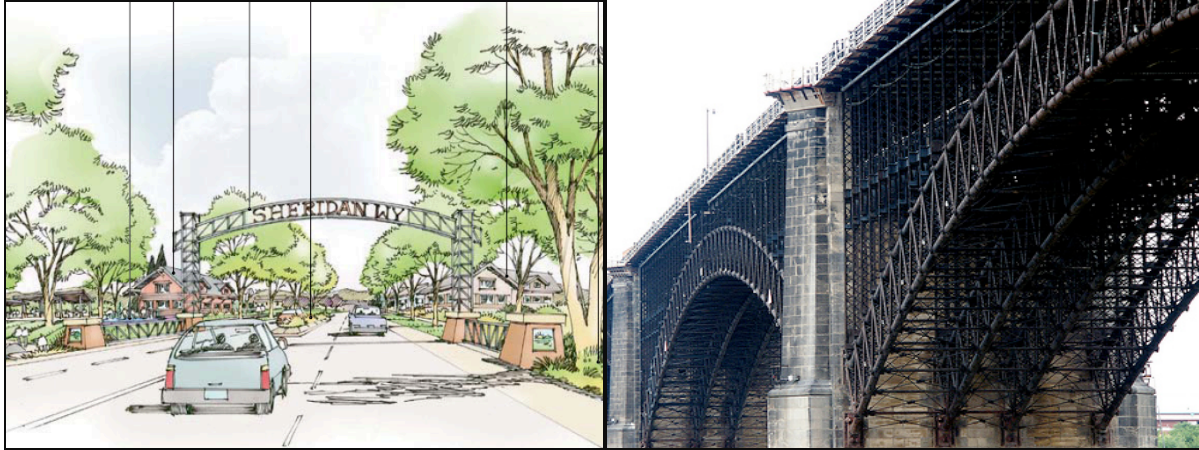


Figure 4.6 Railroad gateways

Mattress Spring:

This theme may not be applied directly, but some of the elements in the gateway can symbolically represent a spring.



Figure 4.7 Spring related

Texas Cowboy:

This theme can be represented by the use of materials like wood or metal with minimalist designs.



Figure 4.8 Western type gateway



Figure 4.9 Conceptual Drawing of Potential Gateway

5. Landmarks

Landmarks are features that both beautify the city, and serve as way finding elements and points of interest. A landmark can be anything recognizable; a monument, a building or a structure.

Existing Conditions

Sealy's downtown has a number of landmarks as shown in Figures 5.1 and 5.2, but they are either insignificant or in need of repair and enhancement. Some of these landmarks often go unnoticed since they do not stand out in the streetscape.



Figure 5.1 Existing Landmarks in Sealy



Figure 5.2 Other landmarks in Sealy

Some of the landmarks need refurbishment and improvement.

Recommendations

If some of the existing streetscape elements are improved by making them aesthetically appealing and attractive, then they could serve as landmarks. Figure 5.3 below specifies the locations of these locations:

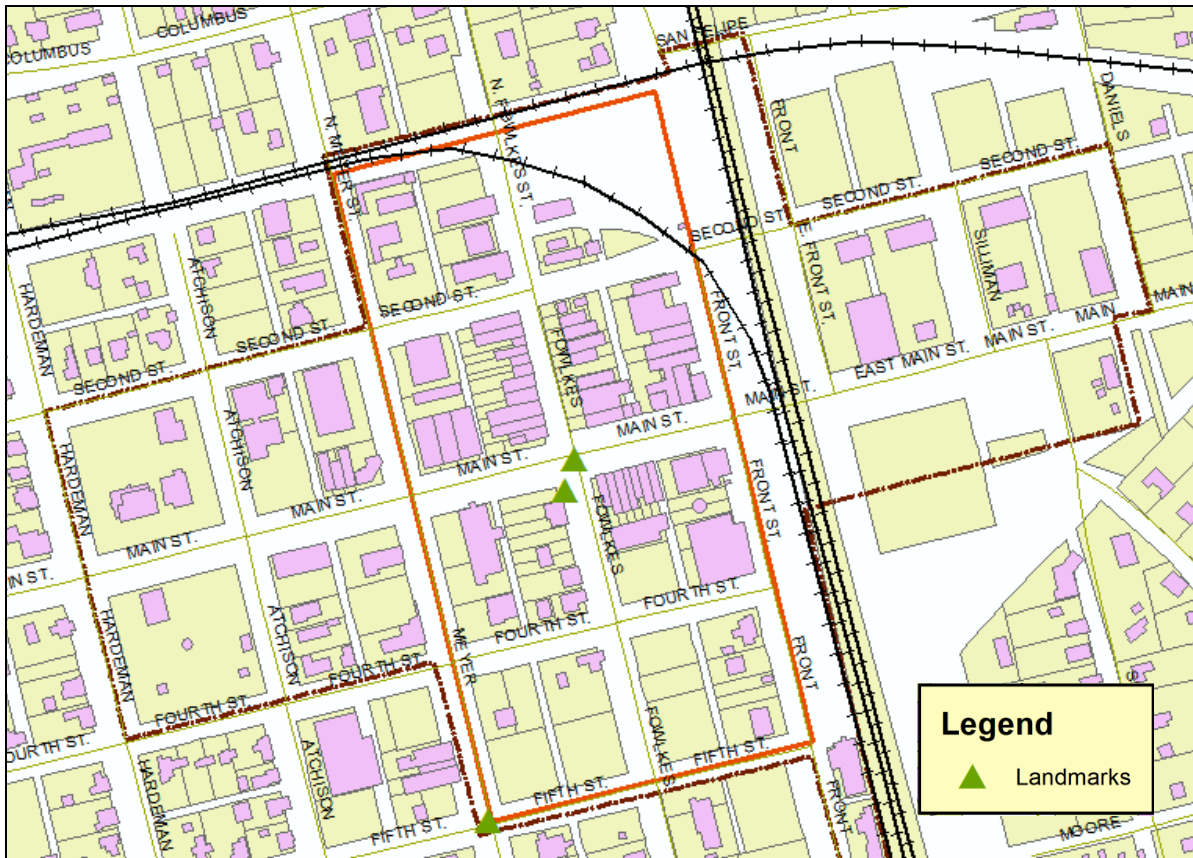


Figure 5.3 Proposed Positions for Landmarks in Sealy

One of the most significant places for a quality landmark would be the intersection of Main Street and Fowlkes Street, where there is an existing water fountain along with a Flag Pole. This landmark could be redesigned by placing a bigger fountain in place of the existing one. Examples of possible fountains are shown in Figure 5.4.

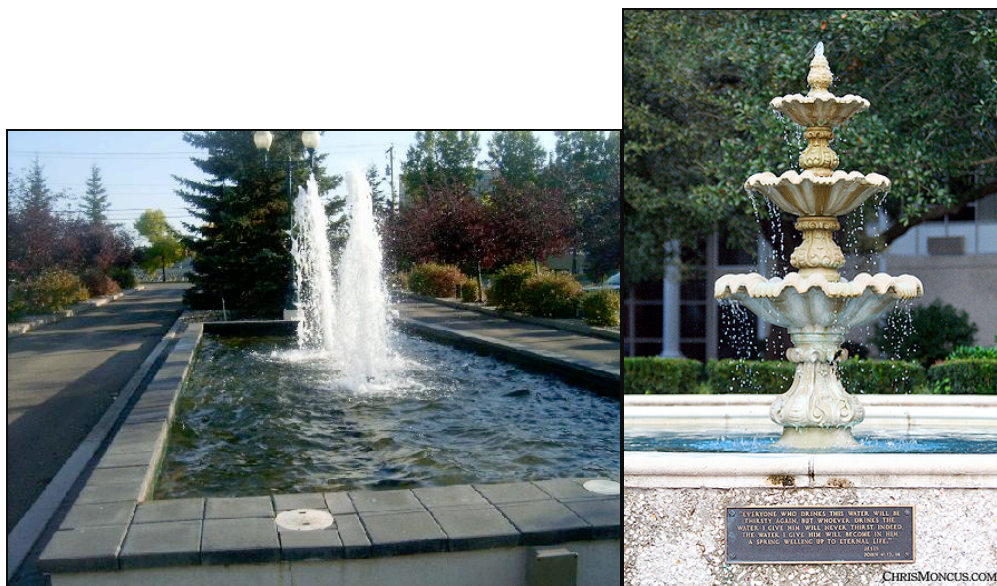


Figure 5.4 Possible fountain options: Modern on left, Historic style on right

Another option would be statues of historically significant characters either from the city, county or the state like the examples shown in Figure 5.5.



Figure 5.5 Statues of Stephen F. Austin and a railroad worker

Plazas or other large seating spaces can also be considered as replacement landmarks as shown below in Figure 5.6.



Figure 5.6 Plazas

Sculptures and structures can also serve as quality landmarks like the examples shown in Figure 5.7.



Figure 5.7 Sculptures as Landmarks

Sealy Landmarks

A landmark to announce ones arrival in Sealy should be visible from I-10. The water tank in Sealy is visible from a long distance. Updating and maintaining the water tower, as well as lighting it at night might serve well as a long-distance landmark. A possible update is shown in Figure 5.8 below.



Figure 5.8 Example of a possible update to water tower for long-range landmark

6. Street Furniture

Street furniture is important to downtown areas because it provides the necessary amenities pedestrians need. Street furniture includes benches, trash receptacles, and bike racks. Street furniture is important to the vitality of downtown street life, which has a direct effect on the overall health of the downtown. The following sections discuss the existing conditions of street furniture in Sealy, and recommendations for enhancing these conditions are presented.

Benches

Existing Conditions

Some City-owned street benches are located in downtown Sealy as shown in Figure 6.1. These benches are sparsely located around downtown and many are in need of repair. Their styles match, but in their current state, they are lacking aesthetic appeal.

Regulations

The current regulations (Section 29-10 of the City Code of Ordinances) allow for business owners or property owners to place permanent street furniture on the sidewalk outside of their business. These regulations are meant to help businesses to draw in customers are attract people by providing seating.



Figure 6.1 Existing Benches in Downtown

Recommendations

Install a series of new benches throughout downtown. Bench styles should be consistent and the style of benches should follow the desired theme of downtown. Downtown will be better characterized and defined by the consistent style of street benches. Benches should be located on sidewalks adjacent to commercial and civic uses, within 40 to 60 feet of all intersection crosswalks, and should typically face the street. Additional benches should be located in plaza areas. The map below shows proper bench spacing and placement.

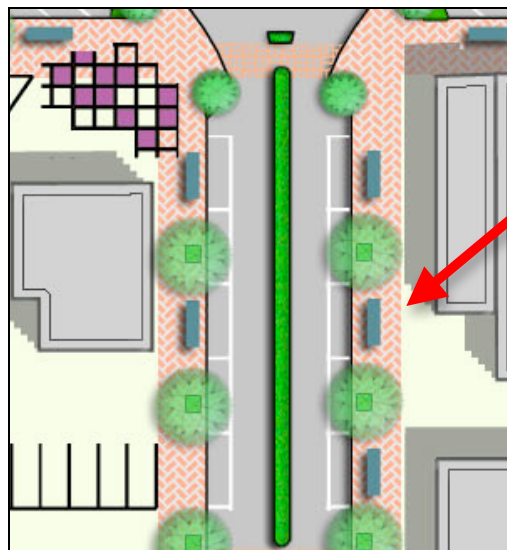
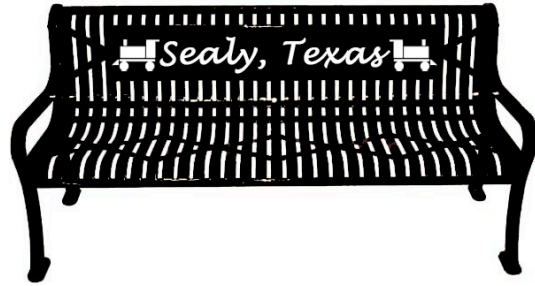


Figure 6.2 Suggested placement of Benches

Possible Styles



Trash Receptacles

Existing Conditions

Currently there are several trash receptacles around downtown. These look similar to the picture below. These receptacles are functional, but not aesthetically appealing. The current spacing is appropriate for the amount of pedestrian traffic currently generated.



Figure 6.3 Existing trash receptacle in Sealy

Recommendations

It is recommended the city continue with a consistent style of trash receptacles throughout downtown. The style of the trash receptacle should follow the desired theme of downtown. The pictures below illustrate possible styles. The city should continue to locate trash receptacles as currently configured, along all downtown streets adjacent to commercial and civic uses. Additional trash receptacles should be located in plaza areas in order to accommodate the needs of more pedestrians. Figure 6.4 below shows proper trash receptacle spacing and placement.

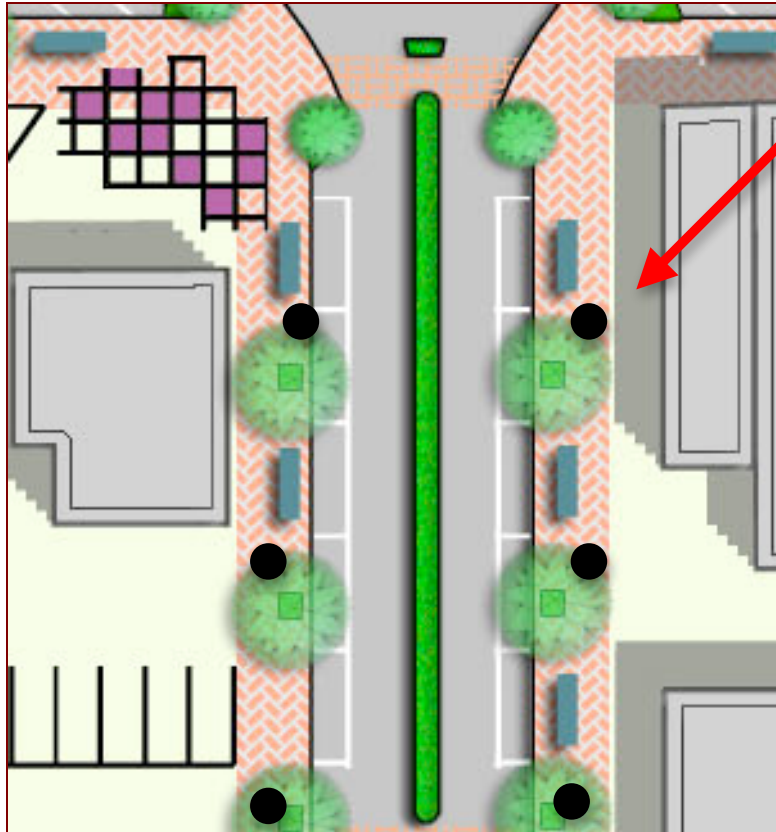


Figure 6.4 Proposed locations of trash receptacles

Possible Styles



Bicycle Racks

Existing Conditions

Bicycle racks are missing from downtown Sealy, there are currently no regulations requiring them. Bicycles currently must be chained to existing structures such as sign posts outside of businesses. The lack of bicycle facilities is uninviting for cyclists to ride downtown.

Recommendations

Install multiple bike racks in and around the downtown area. The style of the bicycle rack should be consistent with other street furniture. Racks should be located on each block face in order to serve the business that front the block. Additional racks should be placed in plaza areas. The map below shows proper bike rack placement.

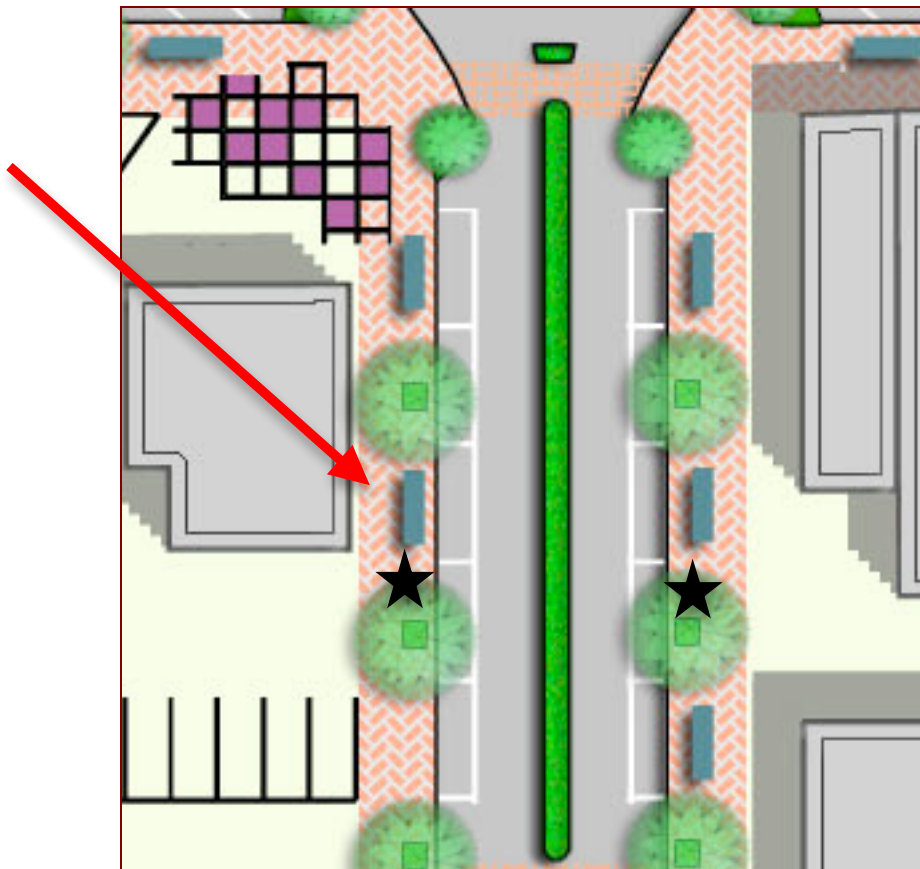


Figure 6.5 Suggested bicycle rack locations

Possible Styles



Pedestrian-Scale Lighting

Current Situation

Downtown Sealy has pedestrian grade lighting that is not regularly spaced throughout the downtown area. Currently lighting specifically for pedestrians is mainly focused on Main Street. There is no regular spacing of pedestrian lighting, and it is only provided at the intersections of Main & Meyers, Main & Fowlkes, Main & N Fowlkes, and Main Street & W Front Street. Additionally, there is not enough pedestrian scale lighting along 2nd Street, 4th Street, and 5th Street. Furthermore, all lighting for vehicular traffic is attached to utility poles throughout the downtown area, which is not aesthetically pleasing.

Recommendations

Pedestrian-scaled streetlights should be installed along all downtown streets at regularly spaced intervals not to exceed 90 feet. The spacing should only be altered to accommodate existing driveways and alleyways. This is illustrated in the image below.



Figure 6.6 Pedestrian-scaled lamp spacing

The lighting for vehicular traffic should not be attached to utility poles rather, on their own poles. This will allow for a more consistent and clean look throughout the downtown area. The styles of pedestrian lighting that can be installed are illustrated in the figures below.



Railroad themed lighting:

This is an example in which the lighting is tied to other elements in the downtown area. No additional banners or metal works are attached to the lighting.



Cowboy themed lighting:

This is an example in which metalwork and western themed banners are attached to the pedestrian lights throughout the downtown area.



Modern themed lighting:

This is a style of pedestrian lighting where the lights have a newer, more modern look. Fabric banners could be attached highlighting different characteristics of Sealy.

7. Planting/Landscape

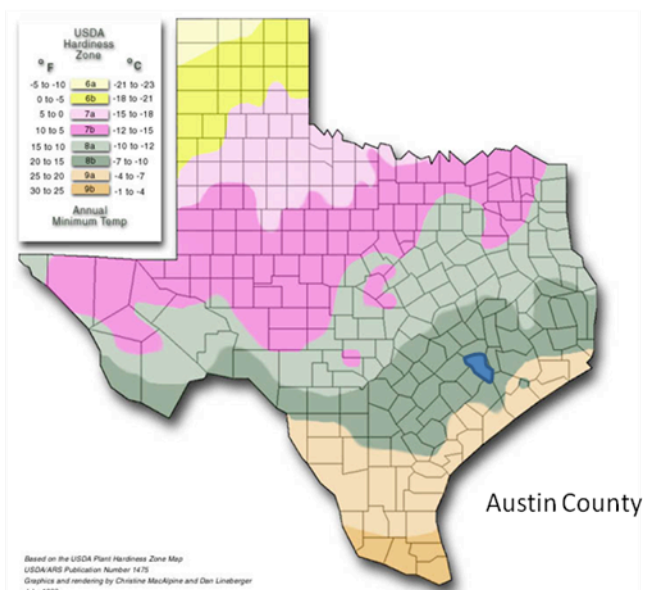
Existing Conditions

A current list of permitted vegetation was once maintained by the city, but is no longer utilized.

Recommendation

It is recommended that only native or approved ornamentals be planted within the city limits. Sealy, TX is located within Zone 8b, as provided by the USDA Plant Hardiness Zone Map as shown in the neighboring image. Plants that are not native to this region or

invasive, and are used solely for ornamental purposes are encouraged as potted plants which may be moved inside during times of exceedingly cold or hot temperatures.



Plants located in the Zone 8b region are characteristically drought tolerant and heat resistant. The following plant recommendations were selected based on these regional restrictions. Recommended vegetation has been submitted to, and approved by, the Austin County Extension Agent, Philip W. Shackelford.¹⁸

Figure 7.1 USDA Plant Hardiness Zone Map

Source: <http://horticulture.tamu.edu/ornamentals/hardiness.html>

Recommended	Currently Existing
SHADE TREES	
Chinese Elm	
Drake Elm	
Laurel Oak	
Live Oak	X
Pecan	

¹⁸ Philip W. Shackelford County Extension Agent - Ag/NR Austin County

Recommended	Currently Existing
Red Oak	
Water Oak	X
ORNAMENTAL TREES	
Bradford Pear	
Burford Holly	X
Crape Myrtle	X
Oleander	X
Photinia Tree	
Redbud	
Redtip Photinia	
Riverbirch	
Savannah Holly	
Southern Magnolia	
Wax Myrtle	
Waxleaf Ligustrum	X
SHRUBS FOR MASS PLANTINGS	
Azaleas	
Compact Nandina	
Creeping Juniper	X
Dwarf Burford Holly	
Dwarf Chinese Holly	
Dwarf Crepe Myrtle	X
Dwarf Mexican Petunia	X
Dwarf Pittosporum	
Grandma's Yellow Rose	
Green Pittosporum	
Knock Out Rose	
Indian Hawthorn	X
Mexican Brush Sage	
'Nana' Dwarf Youpon Holly	X
Pfitzer Juniper	
Parson Juniper	
Tam Juniper	
Variegated Pittosporum	X

Recommended	Currently Existing
GROUNDCOVER PLANTINGS	
Asian Jasmine	
Boxwood	X
Carolina Jessamine	
Firebush	
Gold Star Esperanza	
Honeysuckle	
Liriope	X
Monkey Grass	X
New Gold Lantana	
Trailing Lantana	
Pink Ruella	

Table 7.1: Recommended and currently existing vegetation as observed in the Sealy Downtown District.

8. Facades

The City of Sealy has rich history and culture; its traces are reflected in the architectural style of the buildings in downtown. However, the physical condition of some of these buildings seems to be deteriorating and some are in need of renovation or could be improved. If certain guidelines are followed in maintaining the aging buildings and guiding infill construction, the building facades of the downtown would be greatly enhanced. These improvements will further improve the downtown environment more vibrant and attractive to new businesses.

Changes to structures in the downtown district have occurred over time and there is concern that these changes might negatively impact historic elements and the overall character of downtown. Preservation of the original storefronts and facades will preserve the unique, historic character of downtown. Any building renovation or alteration, no matter what the future plan is, should retain overall design integrity of the historic structure and should be done in harmony with the overall character of downtown. It should protect the original features and materials and respect the traditional design elements. The current situation regarding building façades was studied extensively and recommendations to change the existing standards and guidelines are presented. The changes are intended to provide flexible solutions to the existing problems and to make downtown Sealy a better place for citizens, businesses, and visitors. Our analysis and recommendations are presented below.

Design Principles

Height and Mass of Buildings

Existing Conditions

The only existing regulation with regard building size is found in Sec. 29-6. Height regulations and states: *The height of buildings and structures shall not exceed three stories or 35 feet.*

Recommendations

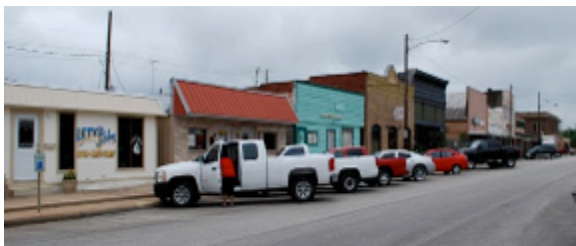
Currently, no buildings in Sealy have the same apparent inconsistency of mass as the example below, however to keep such inconsistencies from happening, Sealy should keep adopt the following recommendation for new construction and renovation:

- Strive for visual interest in building forms, for example variation in building heights
- Maintain appropriate building height proportions between neighboring buildings
- Consider the effect of building height on shadows and viewsheds

One recommendation, which is often found in other cities, is to place larger buildings on the corners of prominent street intersections as shown in the following examples.



An example of a building constructed with too large of a mass to the building next to it, making an aesthetically unappealing site.



Example in Sealy where buildings are smaller towards the corner of the intersection causing it to be less pronounced.



An example of larger buildings being located on the corner (on the left) adding to the prominence of the intersection.



Another example of larger buildings being located on the corner (on the left) in a thriving downtown.

Scale of the Built Environment

Existing Conditions

Existing buildings in downtown Sealy are already built to a human scale.

Recommendations

Sealy should maintain this human scale in the built environment as it helps maintain the historic character. Large “box” stores should not be allowed in the downtown area. For example, the Best Buy store, as illustrated below, has an enormous building footprint and oversized façade and signage which is intended for highway traffic, not pedestrian traffic. Instead, Sealy should strive to build structures similar to the image below. The walkway in this photo is built only tall enough to have people pass underneath and has a welcoming feel. Several strategies can be used to build at human scale, these are listed below:

- Small scale buildings
- Proportionally-sized building components
- Standard size bricks and siding
- Uniform building components
- Standard Window sizes

Currently, many of these strategies are evident in existing structures found in downtown Sealy; and this should be continued for new construction and renovation.



A covered walkway built to human scale with the roof close to the average height of a person using it



Example of structure built out of human scale

Building Elevations

Existing Conditions

Many buildings in Sealy have inconsistent elevations compared to their neighbors along the sidewalk. As a result, the sidewalks are not level or ADA compliant. Examples of this phenomenon are shown in the top two photos below.

Recommendations

First floor elevations should be constructed no lower than grade level and no higher than 2 feet above grade for all new construction. Sealy should strive to maintain a consistent grade for all first floor elevations on each block. Some examples of this from other downtowns is shown in the photos below. They show how this level base floors make a storefront block more walkable and provides a well-maintained look.

Sealy has several vacant lots between buildings where this design principle can be implemented as shown below. Also, as mentioned in the streetscape portion of this report, the sidewalks should also try to maintain this consistent grade.



Examples of consistent grade for buildings in historic downtowns, (Charleston, South Carolina above and Marshall, Illinois below)



Vacant sites in downtown Sealy located between two buildings constructed at different grade.

Façade Widths

Existing Conditions

Sealy currently maintains a rhythm in its façade width in many locations around downtown. However, as shown in the photographs below, certain architectural elements exist that detract from this rhythm.

Recommendations

Sealy should maintain an approximately 25 foot façade width “rhythm” in its downtown. This does not mean, however, that all buildings have to be 25 feet wide. There are many ways to create the rhythm as suggested below.

The design rhythm can be carried out using the following options every 25 feet:

- Columns
- Pilasters

- Changing material
- Patterns
- Building setbacks
- Façade portions

The façade rhythm makes for an aesthetically interesting downtown area. See examples below.



Examples of changing façade patterns (approximately 25 foot in width) in downtown areas creating a rhythm (top two photos)



Example in Sealy of how color is used to maintain a façade “rhythm.”



Example in Sealy where columns make it difficult to differentiate buildings.

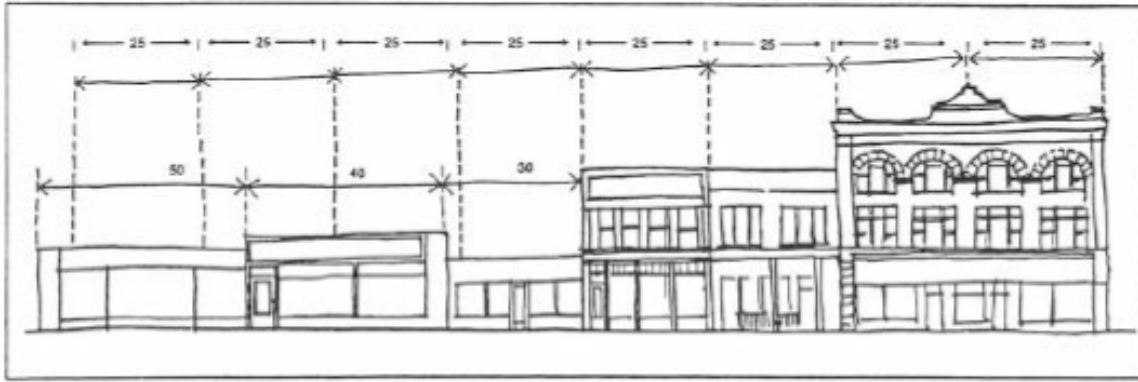


Illustration of varying ways to maintain rhythm

Storefront design

Existing Conditions

The existing ordinance has no incentives to promote quality storefronts in the downtown area. As a result, many storefronts in downtown Sealy are weathered and poorly maintained. From the outside, it is often hard for visitors to discern business types and sometimes whether the businesses are still open. Architectural styles show a lack of consistency with each other. Colors, materials, window size and shape, entrance designs, and columns and awnings would benefit from unified standards intended to improve harmony and preserve the historical architectural style in the facades.

Recommendations

The basic design should maintain the original large windows with thin framing members, the historical recessed entrance styles, and use colors and materials consistent or complimentary with their neighbors.

- Use of materials with no relationship to the original building should be prohibited
- Keep the original storefront materials where possible and replicate them if needed in order to achieve create uniformity in the overall storefront appearances



Examples of Existing Storefronts

Proposed Storefront Alternatives

Historical		
Modern		

Alignment of Architectural Features

Existing Conditions

The existing ordinances have no regulation or incentives for consistency with neighboring buildings. The heights and widths of buildings are therefore not always consistent with the rest of the block. The heights of the first and second floors as well as window opening consistency between buildings are not regulated. There are also areas with empty space between buildings which can be improved.

Recommendations

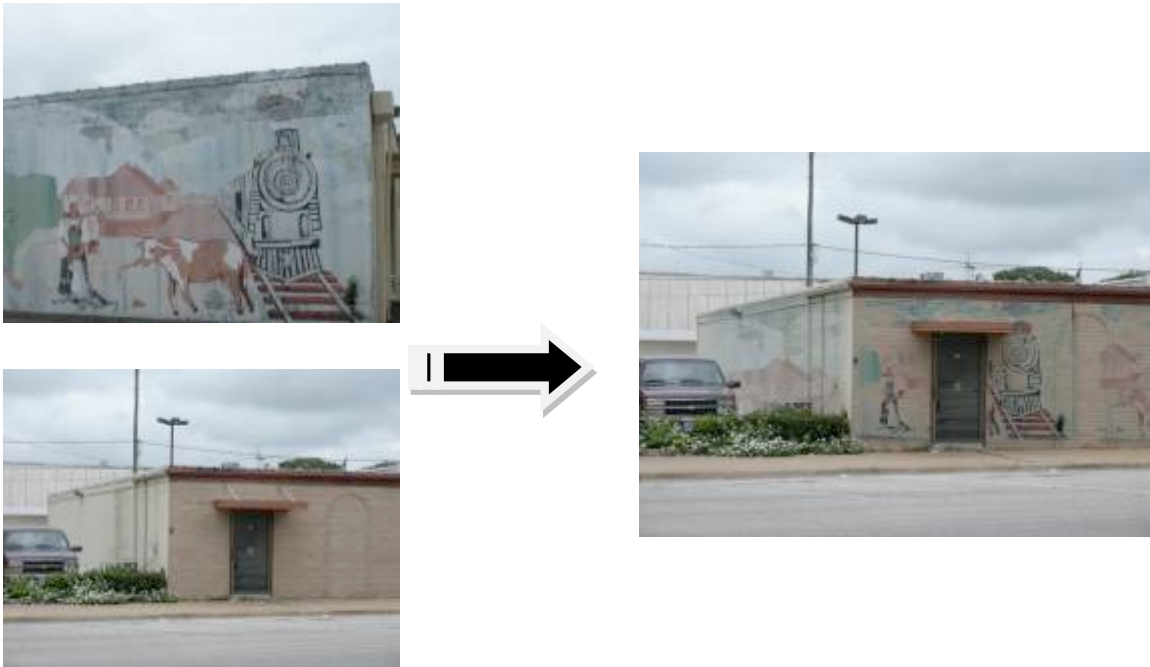
- Rebuild or maintain the historic alignment of architectural features with adjacent buildings maintain keep visual continuity.
- The heights of new buildings shall conform to the average height of buildings on the block street face.
- The width of new structures should fill the entire empty space between buildings.
- Façade details such as window openings and entries shall maintain the same proportional patterns of neighboring structures.

- An infill building and façade should use materials which compliment adjacent façades. New buildings should not be prominent against the others but be well-suited with the general area
- Use historic photographs of Sealy to assist in determining original design, materials, and signage used on downtown buildings.

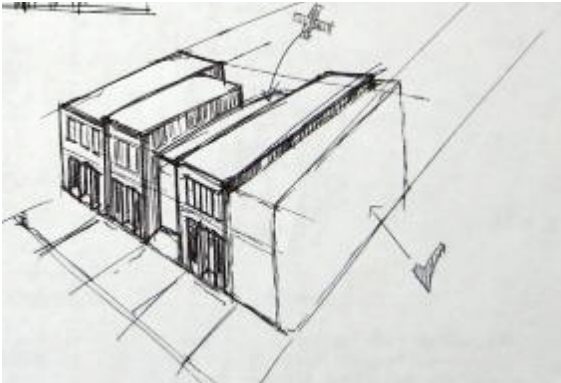


Examples of Existing Architecture Style

Example: option of using old images in new building facades



Example of the Infill Structures



Frontline of infill buildings cannot extrude or intrude the original frontline of the neighborhood.



The height of infill buildings should be consistent with the environment.

Traditional Design Elements

Existing Regulations

Sec. 29-11 (c) states that contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant historical or architectural elements. It also should not be discouraged if such design is compatible with the size, color, material, and character of the existing and adjacent structures. Sec. 29-11 (d), states that wherever possible, additions or alterations to existing buildings or structures shall be performed in such a manner that if such additions or alterations were to be removed in the future, the essential form and integrity of the building, structure, object, or site would not be impaired.

Recommendations

Consistent traditional façade features allow for patterns and visual alignments that enhance the overall character of the downtown. As mentioned before, these features should be aligned with others on the block in both height and dimension. These features include:

- Kick plate below the front windows
- First floor display windows
- Vertical window patterns and shapes; window sills on second floor
- Angled entrances and recessed central entrances
- Transom and parapet caps or cornices



Example of inconsistent design elements in Sealy.



Example of consistent design elements. Vertical windows aligned on 2nd floor with similar patterns and shape, and aligned cornices.



Example in Sealy of consistent façade features: building heights, canopies, and storefront windows aligned at similar height.

Existing Conditions

Where construction is proposed on a vacant lot or land within the downtown district, every reasonable effort shall be made to protect and preserve architectural resources affected by, or adjacent to, any new construction. New construction should be similar in size, scale, and design to the structures adjacent to such lot or land (Sealy Downtown District Ordinance).

Recommendations

Visual continuity through the use of design elements such as those mentioned above as well as proportion, scale, setback, and materials that are of a similar color and texture should be encouraged.

First Story Windows

Existing Regulations

There are no regulations regarding windows in the current ordinance.

Recommendations

- For non-residential use on the first floor, storefront windows shall be evenly distributed at pedestrian level across the length of the facade
- The first floor of any downtown commercial building should be primarily transparent; 50%- 75% of a ground floor façade facing a public street shall be made of transparent materials
- Windows shall be required along the sides of buildings which are visible from roadways or parking areas
- Use windows similar the original windows



Example of proportioned storefront windows that are evenly distributed in Sealy.



Example of unproportioned storefront windows in Sealy that are not evenly distributed nor are they transparent.



Example in Sealy of windows along side of structure that are visible from roadways and have adjacent parking.

Second Story Windows

Existing Conditions

There are currently no existing regulations regarding second story windows. This leaves them vulnerable to being closed off or designed inappropriately for the downtown area.

Recommendations

Add a section to require the re-opening or revealing of existing second story windows upon redevelopment of old structures. Require that new developments include second story windows which

- match the surrounding window lines and styles;
- compose of at least 25%-40% of the upper story façade;
- are not mirrored glass or darkly tinted.



Examples of second story window preservation and uniformity

Clerestory Windows

Existing Conditions

Clerestory windows are inherent to historic downtown design and should be preserved. There are currently no regulations regarding clerestory windows in the downtown district. This leaves them vulnerable to being closed off or covered.

Recommendations

Add a definition of clerestory windows as “clear glass windows or clerestory features within the upper part of the display window and above doors”. Require that existing clearstory windows be preserved and maintained. Require that any new construction provide clerestory windows in harmony and aligned with the surrounding building facades.



Examples of Clerestory Windows

Provide Awnings for Visual Depth and Shade

Existing Conditions

Current regulations do not include control or encouragement of awnings.

Recommendations

- Awnings should be designed to fit the storefront opening and to emphasize the building's proportions
- Awnings should not obscure or damage important architectural details
- There shall be minimum clearance of 8 feet between the lowest point of projection of the awning and sidewalk or public right-of-way immediately below
- All awnings, canopies and projecting overhangs shall be affixed or fastened to buildings by supports in such a manner as to not to be dangerous or harmful to the users of the sidewalks or streets
- No awning, canopy or projecting overhang shall be used for a support for any sign or advertising
- Retractable awnings erected over doors and windows may extend over sidewalk except for alleyways
- Colors used for the awnings should complement the entire building facade color scheme and may be used in combination with complimentary stripes
- Different colored awnings should be encouraged for adjacent businesses, to help in differentiating the businesses and tenants

Alternatives For Awnings:

Traditional Theme

- Fabric awnings are encouraged. Metal awnings or canopies that are similar in form to fabric awnings may be appropriate when designed as an integral part of the building façade

Modern Theme

- Glass or metal awnings may be appropriate to achieve a modern look
- The awnings should complement the building character and color and blend with the existing feel of the street block



Examples of Variety of Awnings used in storefronts in a Californian Town



Examples of Modern Awnings made up of Steel and Glass.

Sign Regulations

Existing Conditions

Sealy's current ordinance currently prohibits internally lit signs. Section 29-8, (c) – "Signs may not be electrically lit from within". This makes store finding difficult at night and removes some typical downtown character.

Recommendations

Allow signs with internally illuminated individual letters. Regulations should be changed to: "Signs may not be electrically lit from within or lit by reverse channel lettering; however, this form of illumination is acceptable when only the letters themselves, not the background, are lit."



Example of Reverse Channel Lettering



Example of internally lit lettering

Free Standing Signs

Existing Conditions

Section 80-13. K. "Only one free standing sign may be permitted per individual free standing establishment." This has led to free standing signs being placed in front of existing downtown buildings and awnings. These block pedestrian traffic and are not in harmony with the rest of the downtown signage.

Recommendations

Add Section 29-8. (f). "Permanent, free standing signs are prohibited in the Downtown District." City or grant funding can be used to assist downtown property owners in removal and replacement of existing permanent free standing signs.



Recommended Prohibited Signage



Ideal Signage

Murals

Existing Conditions:

Current regulations do not control or have provisions for murals. Murals can be creative and help add a sense of place to downtown. Sealy currently has one mural in downtown at the intersection of Main and Fowlkes, however more could be placed on the sides of

buildings where there are currently no architectural features including on the sides of the second stories next to first story buildings.

Recommendations:

Add regulation to permit mural. Example: “Murals painted on a wall surface may be permitted upon approval by the Review Board to ensure: A) The artwork complements the design of the building in color, shape, and location on the building and B) Material is durable and resistant to graffiti and weather. If the mural contains advertising, it qualifies as a sign and should be reviewed by the Review Board.” Offer incentives and grants to encourage the creation of murals. Perform design competitions for local artists and feature photos of businesses in local newspapers.



Historic/Texas Example



Railroad Example



Modern Example

Sign Style













Existing Conditions:

There are no existing regulations regarding sign style in Sealy. There is currently no guidance or direction for sign types in the city. Coming up with a theme will help maintain consistency and create a sense of place.

Recommendations

Choose a specific design style such as, Texas/Historic, Railroad and Modern, and offer suggested types/materials similar to those below:

Style Alternatives

	Historic/Texas	Railroad	Spring/Modern
Canopy Signs			
Projection Signs			
Awning Signs			
Sign ex.			

“Other” Sign Types

Existing Conditions

Section 80-14. “Prohibited Sign Types”, lists a series of signs which are prohibited which prevents creatively tasteful signage from being implemented downtown.

Recommendations

Create provisions to allow the Design Review Board to consider signs utilizing materials, sizes or lighting which are currently prohibited given that they are creative and appropriate for Sealy’s downtown.



Example of Large Creative Sign



Example of Large Creative Sign

Service Station Signs

Existing Conditions

There is currently no regulation on service station signs in the downtown area. Service station signs are often oriented for vehicular traffic along larger roads. Having sign provisions for service stations in downtown is therefore appropriate to adapt these signs to the downtown district.

Recommendations:

Create restrictions on sign size and location to:

- encourage ground mounted monument signs as opposed to canopy mounted or elevated signs
- prevent the business identity from being the dominant architectural feature of the service station
- avoid repetitive signage
- apply same window signage standards as other buildings.



Examples of Service Station Signage



Quality Signage

Existing conditions

There are currently no incentives or assistance to promote quality signage in the downtown district.

Recommendations

Offer financial assistance and incentives. Provide assistance with grants for façade improvement, and feature photos of businesses in local newspapers. Consider creating an annual award for the best looking business sign or facade.

Sign Approval Process

Existing Conditions

Currently, the Building Official has approval authority for signage. Section 80-30. A. states: “Except as provided in Subsection B of this Section no person may erect install place alter repair or relocate any sign without first obtaining a sign permit from the **Building Official**. Each application for a sign permit must be accompanied by the appropriate fee established by City Council and by such drawings descriptions and specifications as are reasonably determined by the Building Official to be necessary for proper review of the Application”.

Recommendations

Grant this power to the Design Review Board and change the ordinance to read; “Except as provided in Subsection B of this Section no person may erect install place alter repair or relocate any sign without first obtaining approval from the Design Review Board. Each application for a sign permit must be accompanied by the appropriate fee established by City Council and by such drawings descriptions and specifications as are reasonably determined by the Design Review Board to be necessary for proper review of the Application”.

Second Story Window Signs

Existing Conditions

There are currently no regulations regarding second story window signs in the Downtown district. Section 29-8. (a) states: “The collective area of all window signs posted in, upon, or within three feet (3’) of any window surface may not exceed thirty percent (30%) of the total window area of any one floor of a building, or thirty percent (30%) of the front window area of any individual occupant of a building. For purposes of this Section,

“window signs” shall mean any paper, plastic, neon, or painted display affixed to the inside or outside of the window surface”

Recommendations

Add: “**No signs are permitted on any windows above the first story.**” to the above regulation. Windows on the second story would be oriented towards vehicular traffic and therefore quite obvious and conspicuous. Requiring window signs to be restricted only to the first story windows will preserve quality building facades and prevent the second stories from becoming advertisement centers.

Select Building Colors Appropriate to the Area’s Historic Character

Existing Situation

Nothing is specifically mentioned in the Downtown Ordinance regarding the selection of color schemes for the buildings. A color palette is provided that has very limited and restrictive selection of colors.

Recommendations

- Select a color scheme that will visually link the building to its past as well as its neighbors
- Consider colors that are compatible with the building’s predominant materials
- Consider the building as a whole as well as details that need emphasis
- In general, use a single color on similar elements such as window frames to show that they are all part of the same façade (*examples in the figures below*)
- Reserve brighter colors for small accents to emphasize entrances and highlight special ornamentation
- No two adjacent buildings should be painted the same shade of color
- If the applicant wishes to use a color not on the palette, a sample should be included with the application.

Alternative Themes

Traditional Theme

- Softer muted colors establish a uniform background as well as a historic look.
- Adopt a color palette similar to the traditional themed pallet found in the Appendix which is provided by the ‘National Trust for Historic Preservation’

Modern Theme

Primary colors - red, blue and yellow are preferred for the Modern theme and may be used in combination with other colors (*as shown in the images below*)

- The buildings could be painted uniformly with one color or could use different primary colors (*as shown in images below*).



Examples of a variety of colors, creating aesthetic and uniform building facades



Examples of Buildings that are painted with Primary Colors



Example Color Palette for Modern Theme

Materials

Existing Downtown district Regulations

Sec. 29-10, (a) states that new developments or construction within the downtown district must have front and side façades constructed of wood, brick, masonry, stone, stucco, or glass. Architectural metal accents, such as copper or bronze, may be used to accent structural elements. No metal buildings shall be permitted, unless such structures are faced with wood, brick, masonry, or stucco.

Recommendations

General Allowed Materials:

Brick is the most prevalent material utilized on building façades in downtown Sealy, and should be considered as the primary choice for building façade material. The following represents a list of materials that are predominantly found in downtown Sealy, as well as other materials that are appropriate for use in restoration and remodeling of existing buildings and for new construction:

Primary Façade

- Brick
- Stone
- Stucco (including mural and public art walls)
- Wood (lap siding or other finished lumber should be applied in a traditional pattern, i.e. horizontal and not vertical)
- Glass curtain wall system (that is not opaque or mirrored)

Accent and Trim

- Any of the recommended primary materials listed above
- Pre-cast masonry (for trim, cornice, or parapet cap only)
- EIFS (Exterior Insulated Finishing System)
- Ceramic tile
- terra cotta
- Decorative stamped or pressed metal paneling

General Prohibited Materials:

The following list contains a description of materials that are uncharacteristic and unsympathetic with the existing architecture found in downtown Sealy, and shall not be allowed for use in new construction or in the alteration or remodeling of existing buildings:

Primary Façade, Accent, and Trim

- CMU (Concrete Masonry Units), such as cinder blocks and precast concrete paneling
- Oversized brick and mortar at a scale not found on other downtown buildings
- Unfinished, painted or stained composite wood, such as plywood
- Wood siding or paneling in a diagonal or vertical pattern
- Imitation wood, composite, vinyl, or aluminum siding
- Metal finishes, such as corrugated, embossed, expanded, or standing seam metal

- Mirrored, metalized, reflective, or opaque glass, glass block
- Highly textured and coarse stucco
- EIFS (Exterior Insulated Finishing System)

Texan/Historic Theme - Materials List:

Following a rustic Texan/Historic theme, the following is a list of allowed and disallowed materials for Downtown Sealy:

Allowed Primary Materials

- Brick
- Stone
- Wood, including horizontal lap siding and shake shingle siding
- Glass storefronts

Allowed Trim Materials

- Any of the primary materials listed above
- Pre-cast masonry
- Ceramic tile, terra cotta
- Decorative pressed metal paneling
- Copper or bronze architectural accents

Prohibited Materials

- Same as the 'General' list of disallowed
- No painted brick, except for murals
- Metal panels (individual or curtain wall)
- Concrete with an architectural level finish, or unfinished concrete
- Cement composite board
- Glass curtain wall (as a material composing more than 50% of the façade)

Modern Theme – Alternative Materials List:

Following a modern theme, new construction in downtown Sealy would follow the following list of guidelines for façade materials:

Allowed Primary Materials

In addition to those materials listed in the 'General' section:

- Metal panels (individual or curtain wall)
- Concrete – with an architectural level finish
- Cement composite board
- Glass curtain wall

Prohibited Primary Materials

- Same as 'General' list of materials, as well as:
- Decorative pressed metal paneling
- Ceramic tile, terra cotta

Facades are an integral part of the downtown experience. Application of the recommendations and guidelines mentioned above is likely to help improve the overall look and feel of downtown. It will create a more appealing and lively environment in downtown Sealy. The improvements will help current businesses grow, as well as attract new businesses to downtown. It is city's responsibility to

provide ‘incentives’ to the business owners in order to encourage them and make them more enthusiastic about making changes in their building facades.

9. Transportation

Introduction

Traffic congestion, traffic safety, the improvement of pedestrian facilities, and parking issues are frequently mentioned by citizens and business owners in Sealy as problems of the downtown area that have to be solved in the future.

In this section of the report, based on current observations such as traffic counts and parking assessment, we suggest and discuss a transportation concept and street redesign for downtown Sealy. Based on the goals & objectives, scope & limitations of the project, we came up with a methodology that clearly illustrates the observations, analysis, process and outcome of the project.

Process of Transportation Planning

The process of transportation planning in Downtown Sealy aims to bring more activities and people to the area. Figure 9.1 provides a visual of this process.

This requires more pedestrian facilities and a more alternative-transportation- friendly environment. In order to achieve this goal, traffic-calming measures need to be considered.

In order to make the concept simple and understandable, it is divided into three components:

- Activities and Pedestrian Movement
- Vehicular Movement and Parking
- Traffic Calming

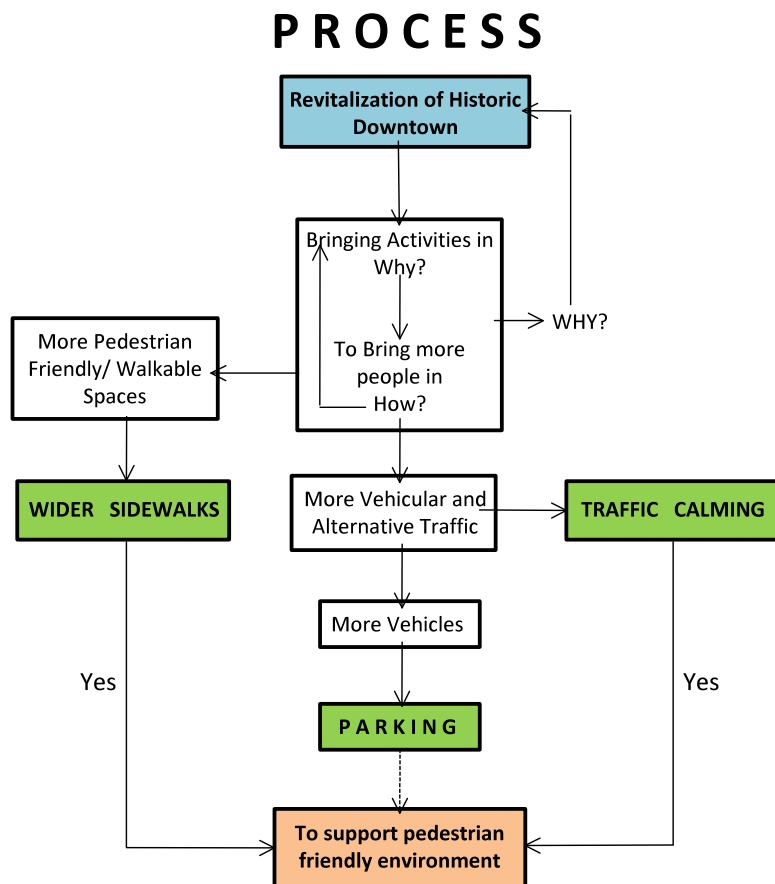


Figure 9.1 Process of transportation planning in Downtown Sealy

In the transportation planning process, all three components play an important role in supporting a pedestrian friendly environment. Figure 9.2 provides a visual of this process. This built environment subsequently plays an important role in allowing pedestrian activity in the existing, as well as newly attracted activities, for example, business, commercial, official and recreational activities. It also plays a key role in establishing an efficient, free-flowing and safe transportation network (vehicular, pedestrian and bicycle). These components and their roles are briefly discussed below.

Activities and Pedestrian Movement:

One of the most important steps in "Revitalizing a Historic Downtown" is bringing in new activities (business, commercial, official and recreational), which would in turn attract more people and result in the resurrection of the downtown. Since the size of the downtown is relatively small and can be easily covered by a quarter-mile walk in any direction, it would be more effective to walk than

drive. However, currently people generally drive to destinations in downtown. Thus, before bringing in the activities, there is an apparent need to make the downtown more pedestrian and bike friendly.

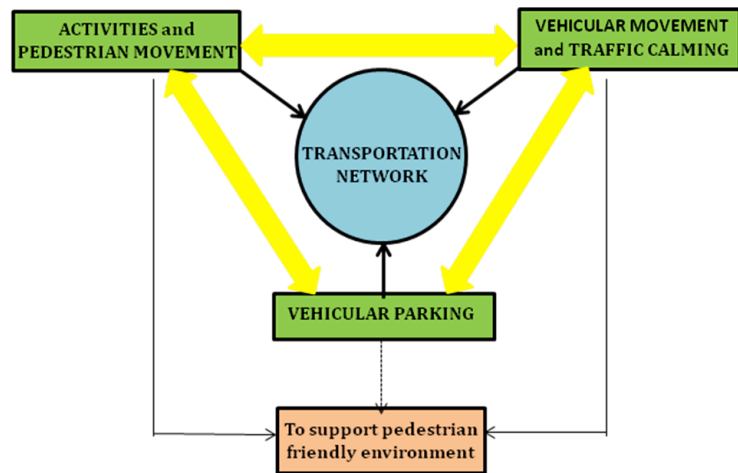


Figure 9.2 Relationship in the transportation network

Widening of sidewalks, designated bike lanes, green buffers, trees, furniture and fixtures, signals and pedestrian oriented crossings would significantly encourage walkability and bikeability. Even a small intervention in the street design could bring about remarkable changes.

Vehicular Parking

The projected increase in the number of people would also increase the number of incoming and outgoing vehicles in the downtown. This will add to the need for parking spaces in downtown. This increase parking needs can be solved by providing alternative parking solutions.

The selection of the parking design alternative for each street depends on space availability vs. number of required space required. The Figure 9.3 and 9.4 are illustrative examples of this concept.

Options	Space Requirement	Number of Parking Spaces Required	Parking Style
1.	Less	More	Diagonal
2.	More	Less	Parallel
3.	Least	Most	Straight
4.	Depends	Depends	Mixed

Figure 9.3 Parking Alternatives

REQUIRED MINIMUM PARKING LOT DIMENSIONS (IN FEET)

	Minimum Parking Space Width	Minimum Drive Aisle Width	Minimum Parking Space Length
Parking Pattern	A	B	C
0 degree (parallel parking)	8	12 (one way) 24 (two way)	23
30 degree	9.5*	12 (one way)	18
45 degree	9.5*	12 (one way)	18
60 degree	9.5*	15 (one way)	18
90 degree	9.5*	24 (two way)	18

	Minimum Width of One Tier Width - Exterior Tier	Minimum Width of One Tier Width - Interior Tier
Parking Pattern	D	E
0 degree (parallel parking)	NA	NA
30 degree	17.25	12.75
45 degree	19.5	15.75
60 degree	20.5	17.75
90 degree	18	18

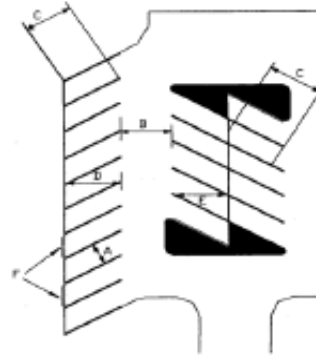


Figure 9.4 Parking space dimensions, source: AASHTO guidelines

Vehicular Movement and Traffic Calming

In order to encourage pedestrian traffic, vehicular traffic needs to be calmed and slowed using transportation design. This includes providing medians, installation of traffic and pedestrian signals, installation of safe pedestrian crossings and regulation of vehicular speeds. These design solutions will each assist with traffic calming and together, will produce a pedestrian friendly environment.

Transportation Network:

The following images show one specific location in downtown as it is today and what it could be with these changes imposed.



Before



After

Parking

Current conditions indicate that almost all streets in the downtown area have designated parking spaces. Most designated and marked on-street parking is designed as 45 degree diagonal parking. The existing off-street parking lots belong to the grocery store and the bank and can thus not be considered as public parking.

On almost all every street, where the parking is not marked, parallel on-street parking is allowed. Figure 9.5 shows existing parking in Downtown Sealy where non-designated on-street parking spaces have been calculated according to block length and existing parking space dimensions.

A parking count was initiated around 10:30 a.m. on a typical Thursday. Occupied parking spaces from the count are listed below.

Main Street:

- Diagonal Parking on both sides of the street: 55 (3 handicapped)
- Diagonal Parking in the middle of the street: 33
- Occupied: 39

Front Street:

- Diagonal Parking:

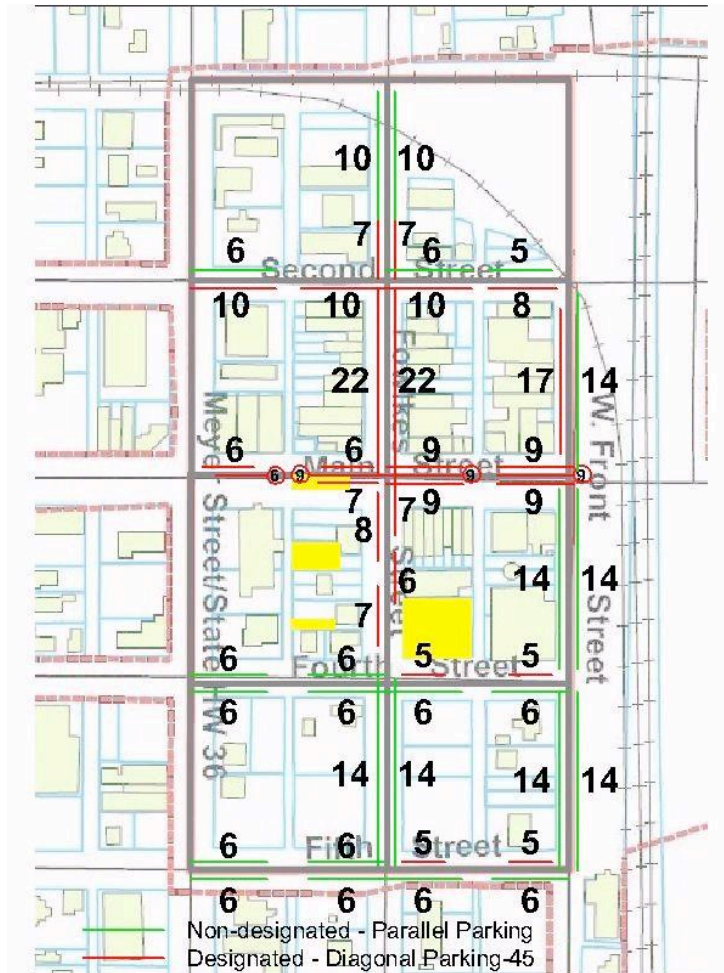


Figure 9.5 Existing Parking in Downtown Sealy



Figure 9.6 Parked cars at unusual places

- 17 (between Second and Main Street)
- Occupied: 6, 4 cars parked on the street, 3 cars parked in “no parking at any time” and 3 cars parked between the rail road tracks as shown in Figure 9.6.

Second Street:

- Diagonal Parking: 38 (1 handicapped)
- Occupied: 10

Fowlkes Street:

- Diagonal Parking: 85 (2 handicapped)
- Occupied: 19, and 1 car parked on the street

Fourth Street:

- Diagonal Parking: 11
- Parallel Parking: 4
- Occupied: 6, and 2 cars parked on the street

Fifth Street:

- Diagonal Parking: 10
- Occupied: 0, but 6 cars parked on the street

Table 9.1 provides a summary of the existing parking in downtown Sealy.

Options	Street	Number of Parking Spaces	Parking Style (On-Street)	
			Designated - Diagonal Parking	Non-designated - Parallel Parking
1.	Main Street	55	55	0
2.	Fowlkes Street	106	86	20
3.	Second Street	55	38	17
4.	Fourth Street	46	10	36
5.	Fifth Street	46	10	36
6.	W. Front Street	87	17	70
7.	Parking Lots	NA	NA	NA
8.	Total	395	216	179

Table 9.1 Existing Parking in Downtown Sealy

Parking Requirements According to the Sealy Downtown Ordinance

Parking requirements were calculated based on the Sealy Downtown Ordinance and the number and type of businesses found downtown. According to Chapter 28 of the ordinance, the following parking requirements apply:

CITY CODE, City of SEALY, TEXAS: Codified through Ordinance No. 2009-02, enacted March 11, 2009

Chapter 28: DEVELOPMENT RULES, REGULATIONS AND STANDARDS

ARTICLE VIII: DOWNTOWN DISTRICT

(d) Parking spaces and standards.

(1) Minimum required parking spaces.

a. *Off-street parking.* The parking requirements for all businesses shall be one space for each 800 square feet of building area. This parking requirement shall apply to all new construction and additions to existing buildings.

b. *Off-site parking.* Use of off-site parking shall be permitted to satisfy the off-street parking requirements of this article if said off-site parking is within the downtown district or blocks adjacent thereto. Provided further, no off-site parking space shall be designated for use by more than one business for the purposes of satisfying such requirements.

c. *On-street parking.* One parking space credit shall be allowed for every 22 feet of development frontage less five feet reserve on either side of driveways and ten feet reserve on street intersections.

According to these regulations and according to existing land uses in downtown Sealy, the number of required parking spaces was computed. First, the required off-street parking spaces were computed and then credits for on-street parking, as stated by the ordinance, were subtracted. Tables 9.2 and 9.3 show the results of these calculations. Table 9.2 lists the square footage of business and residential buildings as well as the required off-street parking spaces for each. The bank and the grocery store are considered separately in the calculations since they are the two only businesses in downtown Sealy, which have off-street parking lots. Table 9.3 shows the on-street parking credit that has to be subtracted from the off-street parking requirements.

Land-Use	Total Area in sq.ft.	Sec. 28-80: Parking Standards for Downtown District	Parking space requirement based on existing businesses
Business	132,248	one space for every 800 square feet of building area	166
Single-family residential	15,948 square feet occupied by residential uses including 3 units (4,800 square feet) of mixed-use buildings (total residential: 9 units)	2 to 3 parking spaces per unit (single-family residential and duplexes respectively) according to Sealy subdivision ordinances	18 to 27
[Including 20,633 square feet occupied by grocery uses + Citizens State Bank (22,010 sq.ft.)] Total			184 to 193 parking spaces
[Excluding 20,633 square feet occupied by grocery uses + Citizens State Bank (22,010 sq.ft.)] Total			130 to 139 parking spaces

Table 9.2: Required Off-Street Parking for Downtown Sealy

Development Frontage (Including 20,633 square feet occupied by grocery uses + Citizens State Bank (22,010 sq.ft.))	Total - 2574 sq.ft.	One parking space credit is given every 22 feet of development frontage	117 parking spaces
Development Frontage (Excluding 20,633 square feet occupied by grocery uses + Citizens State Bank (22,010 sq.ft.))	Total - 1841 sq.ft.	One parking space credit shall be allowed for every 22 feet of development frontage	84 parking spaces

Table 9.3 On-Street Parking credit for Downtown Sealy

The result of the parking assessment is illustrated in Table 9.4.

	Required Off-Street Parking	On-Street Parking Credit	Total required Off-Street Parking
Downtown businesses including 20,633 square feet occupied by grocery uses + Citizens State Bank (22,010 sq.ft.)	193	117	76
Downtown businesses excluding 20,633 square feet occupied by grocery uses + Citizens State Bank (22,010 sq.ft.)	139	84	55

Table 9.4 Results of Parking Assessment for Downtown Sealy

Table 5 shows the computed results of the parking assessment which shows that the number of required off-street parking spaces for all businesses in downtown Sealy is 55 parking spaces. It is 76 parking spaces if the bank and grocery store are included in the calculations. These numbers are relatively low and indicate that since there are well over 120 existing parking spaces counted as credits for businesses; parking should not represent a major concern in downtown. The current regulations for parking require businesses to provide additional off-street parking. This is problematic and discouraging for new business in downtown as there is not enough space in downtown to provide new, dedicated parking spaces,

while at the same time there are more than enough spaces available. In conversations with downtown business owners, this problem was discussed and a revision of the parking regulations and requirements was discussed often. We recommend change the regulation regarding how business owners calculate their parking allowing required parking to be either provided for from the mix of existing parking or by newly developed off-street parking where possible. Additionally, if businesses decide to provide off-street parking, these parking spaces should be shared between multiple businesses.

Parking in Proposed Design Alternatives

According to the assessment of existing parking spaces in downtown Sealy, there are currently 395 on-street parking spaces available in the area. Figure 9.7 shows the maximum number of parking spaces that could be provided in the downtown area according to the street design that is proposed in the next sections. The total number of possible (parallel) on-street parking spaces is 635. If parallel parking is converted into diagonal parking, the number of parking spaces in downtown Sealy could be increased by an additional 240 spaces.



Figure 9.7: Maximum Proposed Parking in Downtown Sealy

Figures 9.8 and 9.9 below show the different possible configurations of on-street parking spaces and how they can be combined. The illustrations include the most common alignment of parking spaces, i.e. parallel parking, 45 degree diagonal parking and 60 degree diagonal parking. These three designs can be compared as each being a ratio. For example, parallel parking spaces (0 degree angle) : diagonal Parking spaces (45 degree angle) : diagonal Parking spaces (60 degree angle) have the ratios 2 : 3 : 4 respectively. This means, if the number of parallel parking spaces within a distance of 'x' feet is 2, then the number of diagonal parking spaces for 45

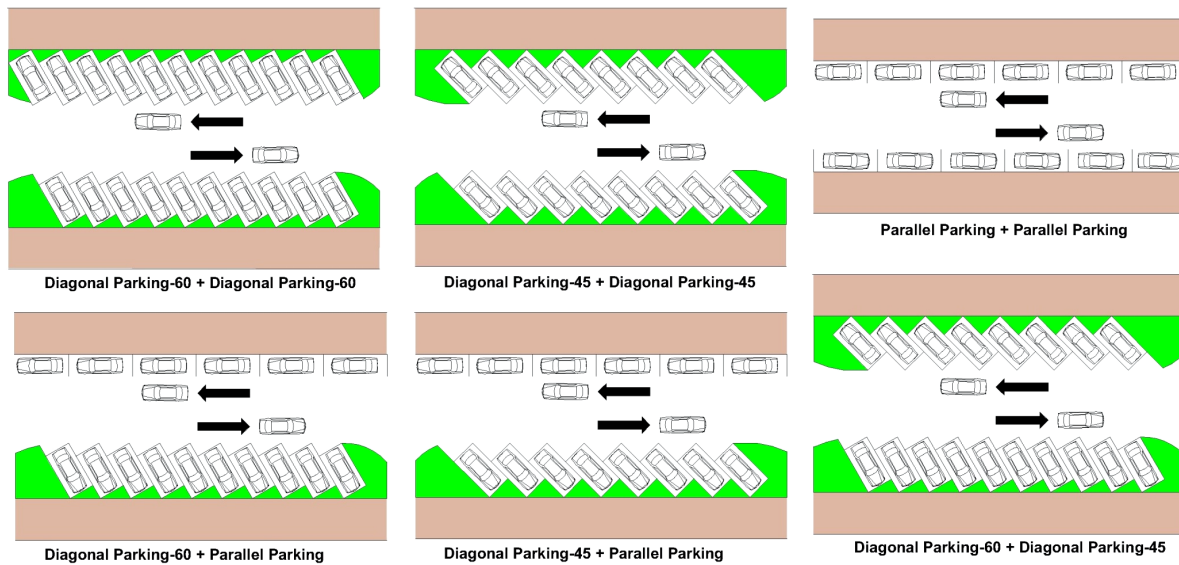


Figure 9.8 Illustration of different alignments of on-street parking

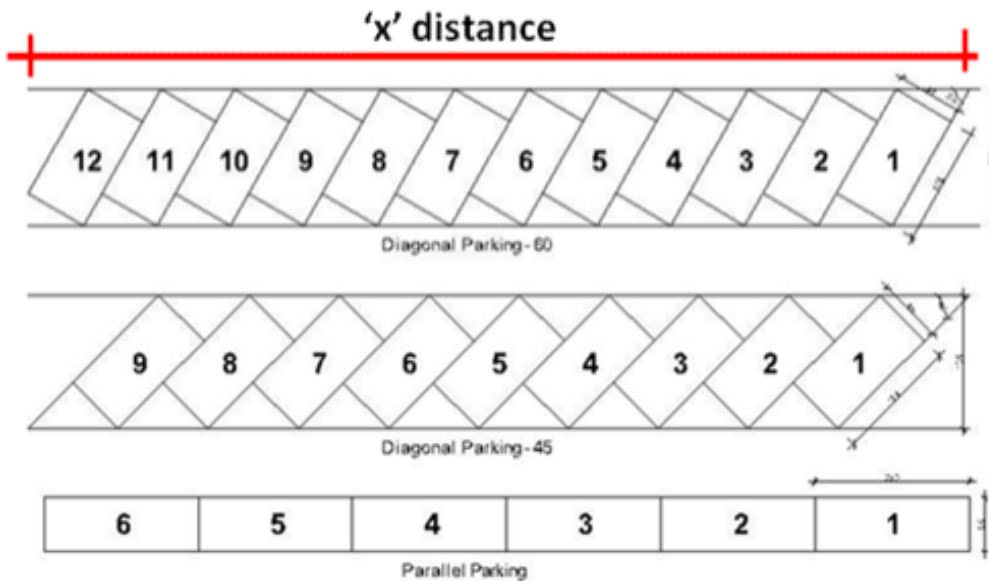


Figure 9.9 Different alignments of on-street parking

Traffic Count

The Texas Department of Transportation's website provides traffic count data on state highways. Figure 9.10 provides an overview of traffic count data collected by TxDOT. The traffic count for Highway 36 is of most interest for the downtown area. Reported traffic volumes represent the annual average daily traffic (AADT). The reported values for Highway 36, both north of the downtown area and north of Second Street was 12,100 vehicles per day in 2008. At the intersection of Hwy 36 and Seventh Street, the AADT was 13,600 vehicles. Since TXDOT's traffic counts do not consider traffic through downtown, we conducted a traffic count on Main Street on a typical Thursday morning. It was done in two shifts, one between 10:50 and

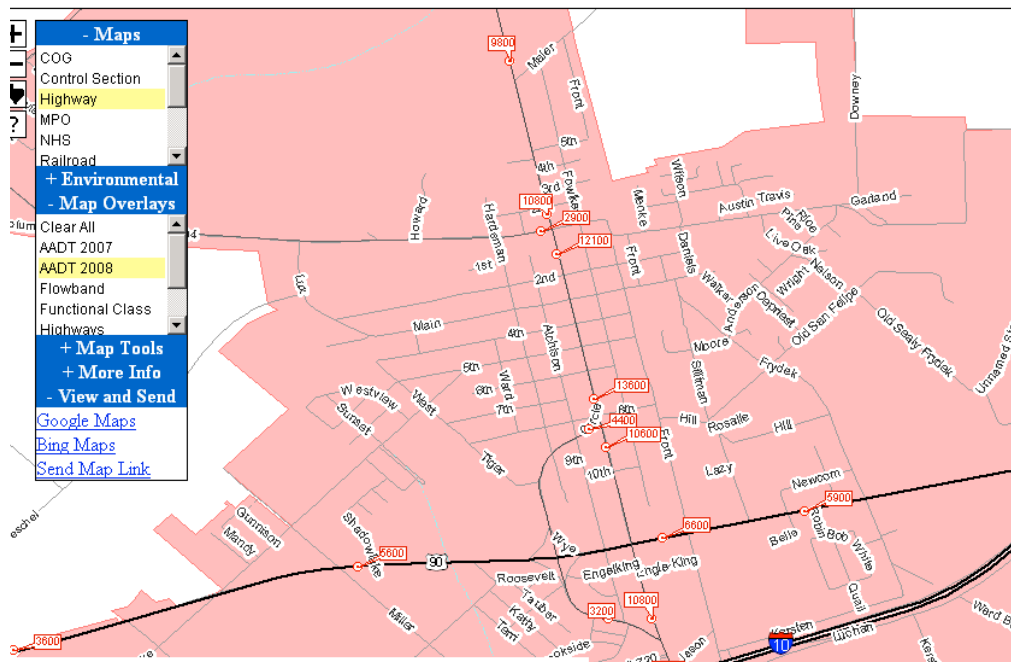


Figure 9.10 Traffic Count by TxDOT for Sealy

11:20 a.m. and one between 12:00 and 12:40 p.m. The data we collected in this traffic count gives a snapshot of the traffic on Main Street. We chose a weekday in the morning and around lunchtime, because this is the busiest time according to Sealy residents and business owners. The count was conducted at two intersections: Main Street with Fowlkes Street, and Main Street with Front Street. We considered the volumes turning in each direction, as illustrated by Figure 9.11. The collected traffic volumes are shown in Tables 9.5 and 9.6. The collected data confirms the business owner's impression that lunch is the busiest part of the day. Around lunch time, the traffic is much heavier than in the morning. We also observed that the heaviest volumes occurred between 12:00 and 12:20pm. Before and after that time, there were a lot fewer cars passing the intersections. Another major observation was that the most vehicles were counted in directions 1 and 7, which means that most vehicles are traversing the downtown area. These measures are consistent throughout both periods of measurements and at both locations.

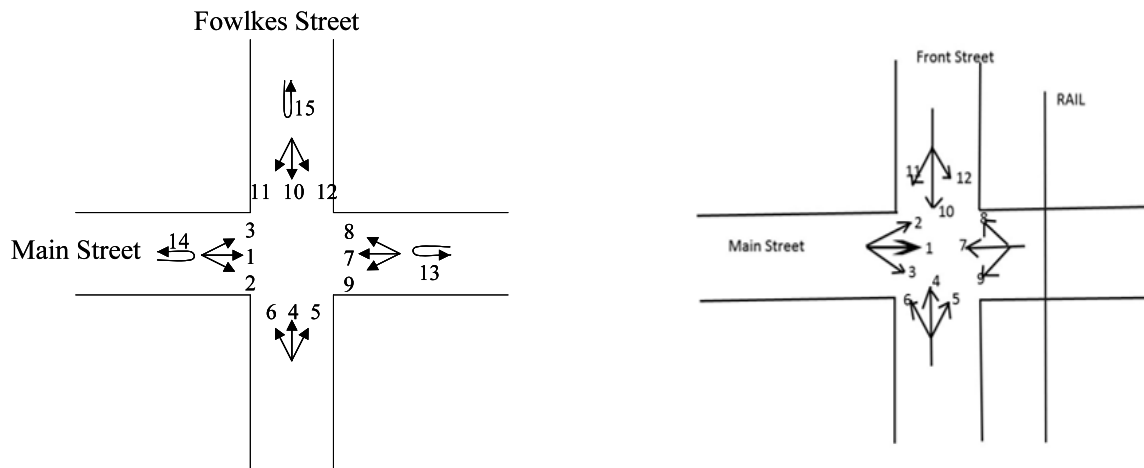


Figure 9.11 Considered directions in the Traffic Count on Main St – Fowlkes St and Main St – Front St

Time	10:50 am to 11:20 am														
Directions	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Number of Vehicles	30	5	5	7	5	7	27	9	3	5	3	5	1	1	0
Time	12:00 pm to 12:40 pm														
Directions	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Number of Vehicles	63	12	14	12	9	6	58	13	9	12	11	6	1	0	2

Table 9.5 Traffic Count - Intersection Main Street – Fowlkes Street

Time	10:50 am to 11:25 am											
Directions	1	2	3	4	5	6	7	8	9	10	11	12
Number of Vehicles	30	6	5	4	5	4	25	4	5	6	5	4
Time	12:10 pm to 12:40 pm											
Directions	1	2	3	4	5	6	7	8	9	10	11	12
Number of Vehicles	65	10	24	9	27	4	67	11	24	20	15	11

Table 9.6 Traffic Count - Intersection Main Street – Front Street

It was also observed that traffic volumes along Main Street are relatively low, even in the peak hour. Observed traffic volumes thus do not correspond with the functional classification of Main Street as an arterial as provided by the Thoroughfare Plan of Sealy. We thus recommend that Main Street should be reclassified according to its original function as a street providing access to adjacent businesses as opposed to providing mobility.

Additional observations that we made during the traffic count also provide valuable information about the traffic situation in downtown Sealy:

- There was no congestion caused by approaching trains. Two trains were observed during the counts and they caused a delay of 4 and 8 minutes respectively. This resulted in not more than two cars in line waiting to cross the tracks. These observations do not support the impressions of business owners and residents that perceive congestion caused by the railroad.
- We saw one public transit bus operated by Colorado Valley Transit.
- We counted five people on bicycles traversing the intersection on Main Street and Fowlkes Street. Two bicyclists visited the Sealy Superette.
- There are no stop signs along Main Street, which causes vehicles to cross the downtown area at higher than appropriate speeds for the environment.
- Only one truck was observed in the downtown area, all other vehicles were passenger cars, light trucks, SUVs and other smaller vehicles.
- At any time, there were always more than 20 parking spots available at each intersection.
- Several drivers not use the water feature properly as a roundabout. This means they turned left in front of the water feature rather than going around it and by doing this create severe safety problems. This occurred multiple times during our visits.
- There is a lack of pedestrian and bicyclist awareness in downtown Sealy. For example, we witnessed people using their vehicles to travel between stores at opposite sides of an intersection even though the walking distance is less than one minute between them. We also witnessed drivers who got upset when they had to stop for pedestrians who were crossing the street on crosswalks.

Transportation Alternatives

For overall transportation design, the following sections present two different alternatives:

1. Roundabout Scenario
2. Shared Space Scenario.

The major differences between the two alternatives are the design of the intersections of Highway 36 and Main Street as well as Main Street and Fowlkes Street. Both alternatives propose a pedestrian-friendly design and a pedestrian plaza/gathering space in the center of downtown. The current gathering space at the corner of Main Street and Fowlkes in front of the mural is proposed to be enhanced by additional features and incorporated into a larger pedestrian environment in Alternative 2.

Currently, the speed limit on Highway 36 is 30mph in the section of the highway that passes by downtown. This speed limit seems to be appropriate for a highway traversing the city and we propose to keep it. However vehicles tend to travel at higher speeds further supporting the need to design the street to calm traffic. The following transportation alternatives do this by providing sidewalks, pedestrian

crosswalks, a landscaped median, and landscaped buffers between vehicle lanes. We propose that the speed limit throughout the rest of the downtown area be lowered to 20mph in order to emphasize the pedestrian-friendly environment. All streets and intersections that are proposed in the following scenarios are designed in accordance with this speed limit.

Alternative 1 – Roundabout Scenario

The roundabout scenario incorporates two roundabouts into the downtown area. This design alternative maintains all current vehicular traffic flow throughout the downtown area. The main purpose of this scenario is to slow down traffic passing by and entering the downtown area, as well as to provide for possible locations of landmarks and gateways into downtown.

The locations of the two suggested roundabouts are the intersections of Highway 36 with Main Street, and Fowlkes Street with Main Street. Figures 9.12 and 9.13 below provide a conceptual overview of this scenario. It can be noted that all intersections include pedestrian crossings to provide a safe and comfortable environment for pedestrians. All intersections along Highway 36, except the intersection with the roundabouts, are signalized intersections that need to be equipped with pedestrian signals.

The intersection of Highway 36 and Main Street includes a two-lane roundabout which is a suggested location for a landmark at the entrance to downtown (discussed later in this document). A landscaped roundabout with a landmark achieves increased attention and provides a gateway to downtown.

The roundabout at the intersection of Main Street and Fowlkes Street is a smaller one, which basically enhances the existing water feature. By enlarging the existing water feature and turning the intersection into an actual roundabout, the traffic confusion that was observed during our traffic count will be reduced and thus contributed to a safer environment. The safety aspect can be more enhanced by replacing the usual yield signs for traffic entering the roundabout from all directions with stop signs. In order to emphasize the pedestrian-friendly environment in downtown, we also suggest a pavement change at the entrances to the roundabouts as well as a possible small grade change to increase the driver's attention and slow down traffic.

Both roundabouts provide for a smoother traffic flow and do not impact the level of service that can be currently observed in the downtown area. Vehicles are allowed to pass and turn in every possible direction, which preserves the current situation in downtown.