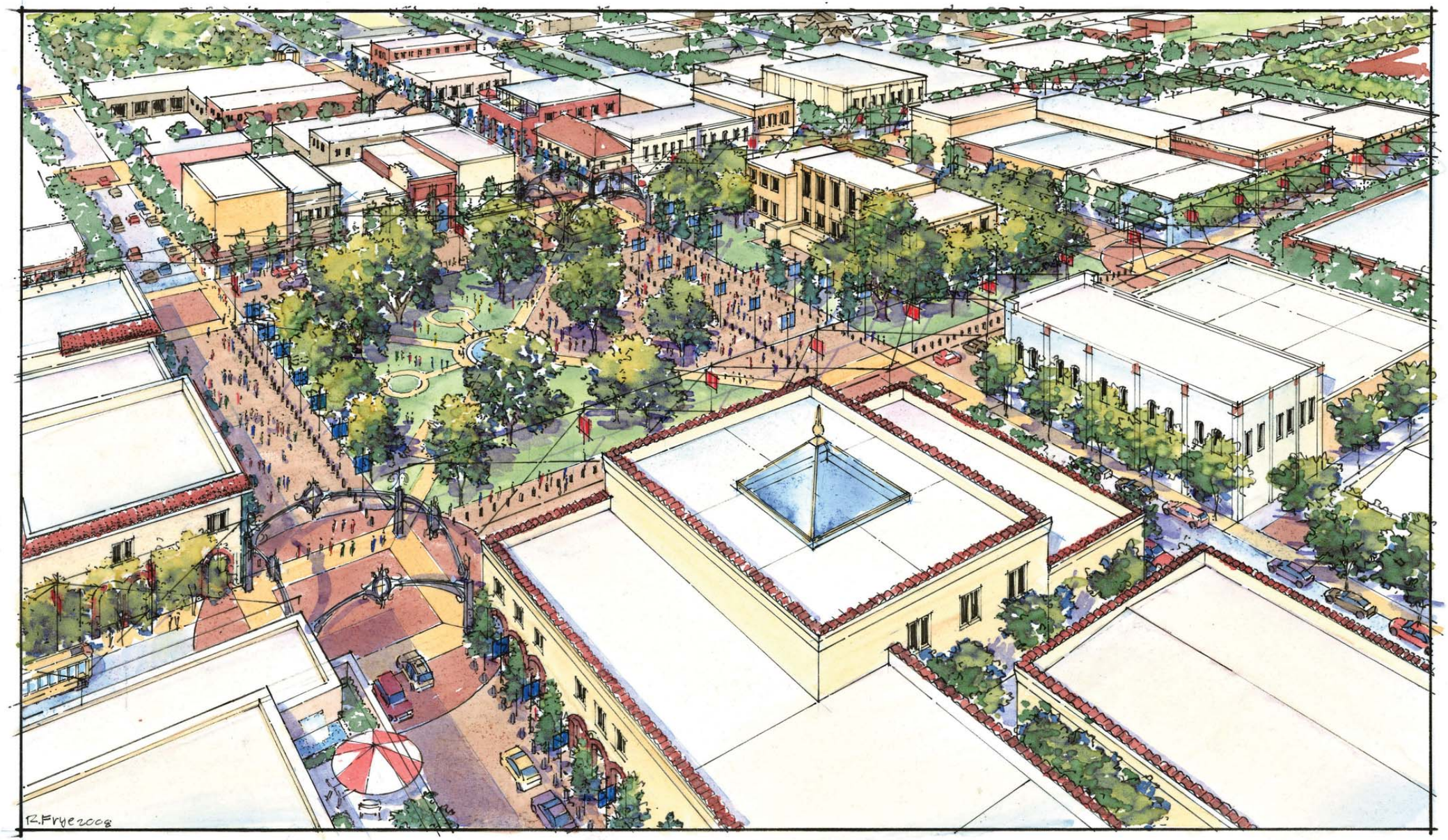

MESA THE SEGUIN COMPREHENSIVE MASTER PLAN

The Seguin Comprehensive Master Plan

prepared by

MESA Design Group
Dallas, TX

October 2008

acknowledgements

The creation and adoption of successful public plans results from the inputs, involvement, and dedication of a wide range of community leaders.

The Seguin Comprehensive Master Plan is the result of the commitment of Seguin elected officials, staff, and community members to positive growth and change in the community. The following individuals were instrumental in the construction of this Plan.

Betty Ann Matthies	Mayor
Tomas V. Castellon, Jr.	City Council
Manuel E. Cevallos	City Council
H. A. “Dan” Daniels	City Council
Mary Louise Gonzales	City Council
Don Keil	City Council
Bob Pees	City Council
Ramon Salazar, Jr.	City Council
Stephen Tschoepe	City Council
Douglas Faseler	City Manager
Ross Fischer	City Attorney
Thalia Stautzenberger	City Secretary
Michael Barrow	Planning and Zoning Commission
Isabel Cabello-Start	Planning and Zoning Commission
Paul Castillo	Planning and Zoning Commission
Atlee Fritz	Chairman, Planning and Zoning Commission
Barbara Gilmore	Planning and Zoning Commission
Tomas Hernandez	Recorder, Planning and Zoning Commission
Eve Hiner	Vice Chairman, Planning and Zoning Commission
Louis Parker	Planning and Zoning Commission
Robert W. Roach	Planning and Zoning Commission
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Tally Neal	Freeway Facilitator
Sandra Moline	Geronimo Creek Facilitator
Stan Ledbetter	Agriculture Facilitator
Leroy Alves	Randolph Facilitator
Vickie Delarosa	Guadalupe Facilitator
Don Richey	Lake Placid Facilitator

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executive summary

executive summary

This Plan Report represents a detailed account of all components that were developed in the creation of the Seguin Comprehensive Master Plan. These components are organized by the major project phases, and include Assessments, the Planning Framework, Plan Elements, and Implementation Strategies. A description of the Planning Process was also included in this Plan Report.

Planning Process. Over the past two years, MESA has worked with the City of Seguin to develop a Comprehensive Master Plan to guide future growth and development. Elements of this Plan grew out of extensive public inputs, in the form of public workshops and focus group meetings, as well as assessments of the existing community context. Through the planning process, a Facilitator Group was also identified, with the intent of establishing this group not only as facilitators during the planning process, but as future facilitators of plan implementation as well.

Assessments. Prior to the development of the Elements of the Comprehensive Master Plan, the Consultant Team conducted various assessments of the physical, economic, and cultural context in which the City of Seguin has grown. These assessments addressed Natural Systems, Physical Systems, Economic Conditions, and a Form Analysis of the City. For each of these components, particular planning issues (opportunities and constraints) were identified. Through these assessments, the Consultant Team was able to identify existing conditions to which the Comprehensive Master Plan must speak. The inputs provided by the Consultant Team were presented in Workshop #1 to the general public for comment and feedback.

Planning Framework. Once the assessments were completed and community feedback was gathered at Workshop #2, community inputs were translated into Goal Statements that could inform the Plan. These goal statements were then compared back to the planning issues identified by the Consultant Team to determine Strategic Community Goals. The Planning Framework was developed as a physical manifestation of those Strategic Community Goals, with key themes portrayed as graphic elements, creating a general form for subsequent Plan Components. The Planning Framework identified Responsive Zones, Transitions, Connectivity, and Centers of Activity as key elements that the Comprehensive Plan must establish. The Planning Framework was presented in Workshop #2 to the general public for comment and feedback and was subsequently endorsed.

Plan Elements. The Planning Framework provided a backdrop for the creation of the elements of the Comprehensive Master Plan. The six plan elements developed include: the Future Land Use Plan, the Public Open Space Plan, the Thoroughfare Plan, the Infrastructure Plan, the Housing Plan, and the Public Facilities Plan. Each of these plan elements is intended to serve as a tool to guide future decisions made in the City of Seguin.

- The *Future Land Use Plan* was created as a series of Land Use Districts that are mixed use by nature, where acceptable uses, density ranges, and general character and intent are identified for each District. This Plan is intended to direct future zoning decisions made in the City of Seguin, rather than replace the Zoning Ordinance.
- The *Public Open Space Plan* defined the various public open spaces, including parks, greenways, and designated natural areas, and then identified processes recommended for the creation of those open spaces.
- The *Thoroughfare Plan* was designed to create a legible system for mobility, relieve congestion by enhancing east-to-west movement, and identify possible phasing of public transit.
- The *Infrastructure Plan* illustrates the City's ability to provide service at certain milestones of community growth.
- The *Housing Plan* identified initiatives that would assist in defining improvements to the various neighborhoods of Seguin.
- The *Facilities Plan* provides a recommendation regarding the number and proximate location of future police and fire facilities to adequately service the community in the future.

Implementation. To ensure implementation of the Plan Elements created for the City, strategies were developed regarding key elements related to growth and economic development. These include Downtown Revitalization, Urban Design, and Recommendations for Plan Implementation. Because Downtown represents not only the historic town core, but future economic opportunity, a strategy for Downtown Revitalization was created to address physical and programmatic initiatives to enhance opportunities for positive growth and redevelopment. Recommendations for Urban Design Guidelines were then identified to provide direction for the formulation of specific guidelines in the future, including guidelines for the public and private realm. Finally, Recommendations for Plan Implementation were made, identifying a sequence of actions that would facilitate the effective implementation of the concepts and elements developed in this Comprehensive Master Plan.

part one: the planning process

1.1 the planning process

The Seguin Comprehensive Master Plan has been formulated within an extensive and inclusive process of public participation.

Public Participation is essential in the formulation of a Comprehensive Plan that has life beyond its adoption. Over the upcoming years, local leadership must emerge that will preserve the vision articulated by the plan, looking to it first and foremost in the shaping of public policy. The Engagement Strategy is the process through which public input for the plan will be gathered and by which local leadership will be defined.

The Planning Process employed in Seguin requires five critical forms of communication between the Consultant Group and the Community:

1. Leadership by the Facilitator Group
2. Inputs from Focus Groups
3. Direction from the Community at Large
4. Review and direction from City Staff
5. Approval from City Council

1. Leadership by the Facilitator Group.

One of the factors that ensures successful implementation of a comprehensive plan is community support. To maximize public involvement and community ownership, the Facilitator Group was appointed to work with the Planning Team in review and presentation of plan elements during the public process. The Planning Team engaged the Facilitator Group as community leaders of the planning process, and this Group led all breakout groups at public workshops. This Group is intended to ultimately serve as the Long Range Planning Committee, advocating the Comprehensive Plan.

2. Inputs from Focus Groups.

To ensure that a full range of public/stakeholder input was acquired, MESA hosted Focus Group Sessions with stakeholders in the community. The stakeholders consisted of those community members who either were not sufficiently represented at Workshop #1, or who typically do not engage in the other public workshops. Information acquired at these Sessions was presented at Workshop #2, along with the Planning Framework. Focus Group Sessions were held for each of the following stakeholder groups:

- Economic Development: Clustered property and business owners in sensitive areas of growth and change, as well as builders and developers actively engaged in the City of Seguin.

- Environmental Preservation: Community members were invited to attend a session to discuss key ecological zones in Seguin, as well as particularly sensitive areas that would be of concern during the development of the Plan Elements.
- Texas Lutheran University: Students, staff, and faculty members were invited to participate in this Focus Group, to provide inputs regarding impact on TLU of future growth and development.

3. Direction from the Community at Large.

A. Public Workshop #1 (Analysis)

Once the Assessments (Phase One) were completed, the Planning Team conducted Public Workshop #1. This workshop involved two phases: Consultant Presentation of Findings and Community Input of Issues. In the first portion, representatives from the Planning Team summarized the results of the various assessments conducted prior to the Workshop. In the second portion, participants reviewed and commented on information disclosed via breakout groups.

In the course of this first workshop, community goals and objectives were formulated. These goals and objectives were used as guides for all other aspects of the plan. Breakout discussion groups were the means by which participants gave input concerning future goals and objectives for the city. This community input then became the basis for the goals and objectives, upon which all planning components were built.

B. Public Workshop #2 (Envisioning)

Following a "pre-meeting" with the Facilitator Group, the Planning Team conducted a second Workshop that was open to the general public in the City of Seguin. This Workshop was led by the Planning Team, but breakout groups were again led by the Facilitator Group. In this session, a summary of the strategic goals generated in Workshop #1 and the Planning Framework were presented. The purpose of Public Workshop #2 was the acquisition of public input regarding the Planning Framework and Strategic Goals, refinement of the Planning Framework, and establishment of a consensus on the recommended direction of future planning components.

C. Public Workshop #3 (Putting it all together)

Following a "pre-meeting" with the Facilitator Group, the Planning Team conducted Public Workshop #3. In this workshop, the individual Plan Elements were presented by both the Consultant Team and the Facilitator Group. During this workshop, public input and feedback regarding the Plan Elements was acquired. Like Workshops #1 and #2, members of the Facilitator Group led breakout sessions.

4. Review and Direction from City Staff.

Throughout the Planning Process, City Staff has facilitated and directed the activities of the Consultant Team. Through close collaboration regarding content, communication, and public engagement, the Staff has provided necessary leadership in the creation of the Seguin Comprehensive Plan.

5. Adoption by City Council.

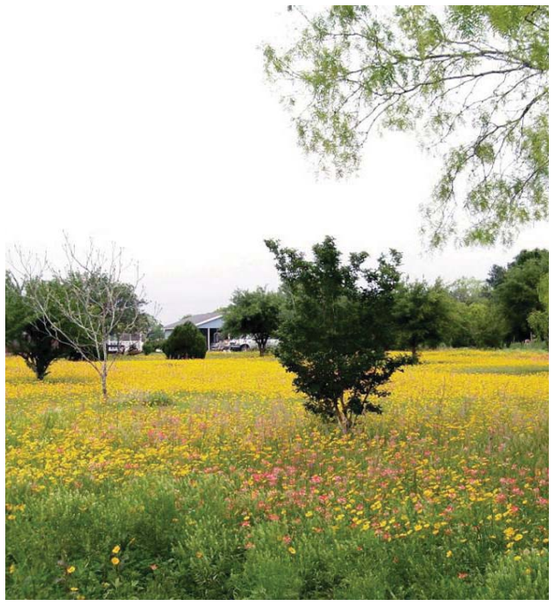
Upon completion of all tasks described in the planning process, MESA prepared and delivered a presentation to the Seguin Planning and Zoning Commission. This meeting was conducted as a work session, walking through the draft plan report, to ensure opportunity for the Commission to validate whether the Plan Report was consistent with the Strategic Goals identified by the community through the planning process. The Planning and Zoning Commission unanimously approved the Comprehensive Master Plan for adoption.

At the subsequent City Council meeting, MESA presented the Comprehensive Plan to the Council for consideration for adoption. Upon deliberation, Council adopted the Comprehensive Master Plan as produced.

part two: assessment

2.1 natural systems assessment

All cities lie within a natural system that is unique to that particular place. This system is complex, with multiple interdependent factors that contribute to the health and stability of that system.



INTRODUCTION

As man is dependent upon natural resources for survival, the identification of the natural system in which we live, and the means by which we affect that system, is an important element in preservation of quality of life. Before we can assess current environmental conditions found within the City of Seguin, an analysis and identification of what that natural environment is, apart from human impact, will serve as a critical informative tool. Defining the ecological context of an area helps us identify critical components of the natural system, boundaries and patterns of spatial distribution, and attributes that may be critically affected by future growth and development. This ecological context contains an analysis of the soils of the Seguin area, the surface and groundwater systems in the region, and the vegetation that characterizes the area. Collectively, these features define the ecological zones for the area containing the City of Seguin.

As cities grow within their ecological context, there will be interactions between the built and natural systems. The rivers, lakes, and aquifers serve as water supply for the community. Designated land uses impact soil fertility and erosion of the land. Air quality is altered due to increased production and population growth. These are a few of the means by which the built system can impact the natural systems found within a community. Identifying specific environmental conditions that have been affected by growth and development of the City of Seguin aids in determination of future development constraints. In this way, a systems approach, including water, soil, and vegetation, is taken to understand the natural conditions and constraints in Seguin.

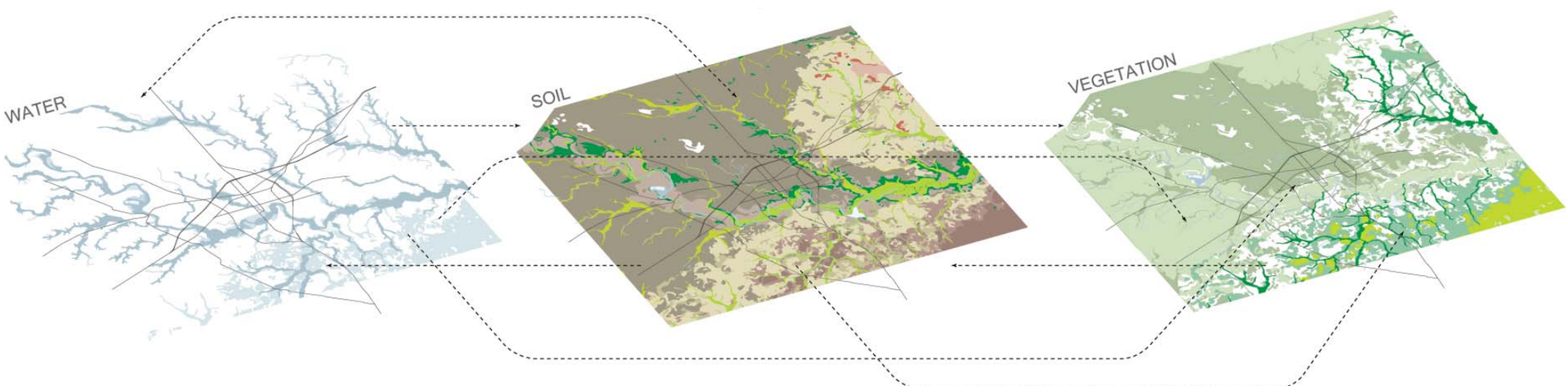
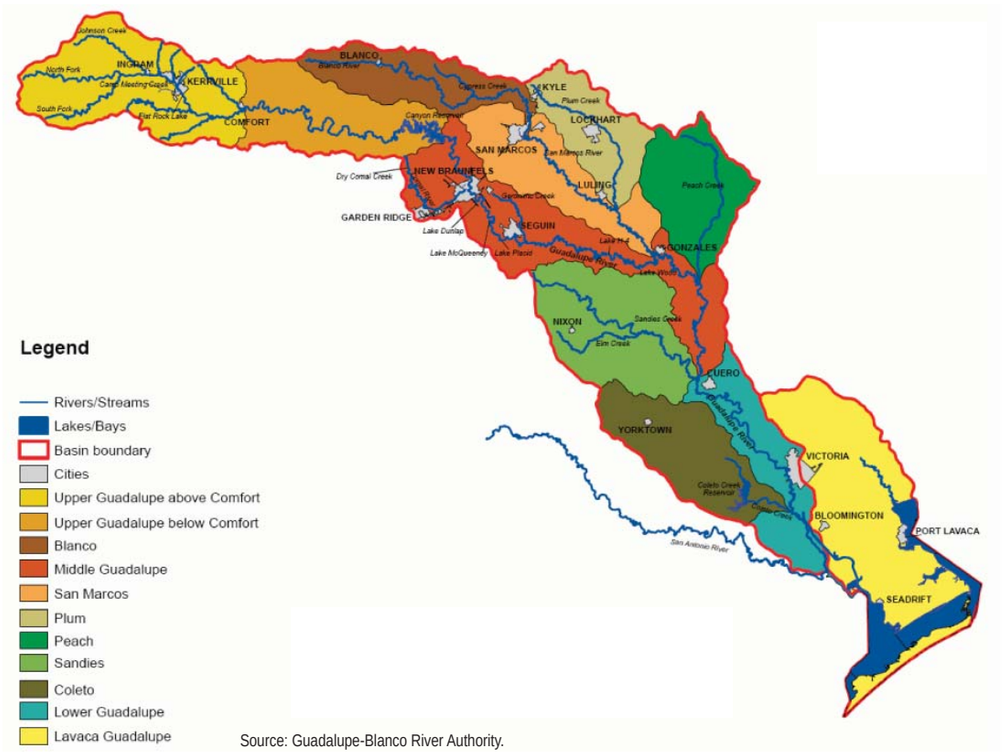


Figure 1. A Systems Approach.

ECOLOGICAL CONTEXT: THE NATURAL FOUNDATION UPON WHICH SEGUIN IS BUILT

Ecology incorporates all living and non-living components that are characteristic of a place, as well as their various interactions. There is an interdependency of these components that makes each ecological system unique. Non-living components, such as soil, water, and climate, determine to a large extent what living components will be found within an area. Living components, namely vegetation and wildlife, form a network of interdependency through which resources are cycled. Collectively, these elements make up the ecology of a place.

Seguin is found at an ecological crossroads of the natural system. The geology of the area indicates a transition along the edge of the Carrizo-Wilcox aquifer. This boundary runs Southwest to Northeast, along the southern portion of the City. At this edge, a distinctive transition in non-living elements can be observed. The sub-surface water table is bound (the aquifer lies south of this line), and soil types transition from clay-based to sand-based. The general topography of the area also changes along this line. South of this boundary, the elevation of the land begins to vary, and hills can be seen. North of this line, the land is relatively flat, with only occasional variation in elevation. Patterns were observed and outlined for soil types, water, and vegetation, which collectively mark the general ecological zones found within the Seguin area.



Source: Guadalupe-Blanco River Authority.

Figure 2. Guadalupe River Watersheds Basin.

Soil

The soils of Seguin can be grouped into three general categories: clay-based soils (typically fertile, good for farmland), sand-based soils (greater sub-surface water content, oaks grow well here), and bottomland soils (deposited by surface water action). Understanding these soil types is important for many reasons. Soil formations influence many forces and activities within an area, such as patterns of water movement, erosion, and fertility of the land.

Clay-based soils (which include the blackland prairie soil found in the northern part of the Seguin area) are typically fertile, and good for farmland, as they are generally nutrient-rich. They do not, however, filter water very well. Clay pans frequently form impervious barriers to water infiltration. Because of this, subsurface water stores are generally lower in clay soils than they are in sand soils.

Sand-based soils are associated with the southern portion of the Seguin area. Sand soils filter water much better than clay soils, which helps to explain the increased subsurface water content that is found in the area south of the Guadalupe River. They do not, however, possess the same nutrient content (and thus fertility) that characterizes clay soils.

Bottomland soils are deposited and affected by moving surface water. They are typically found in and around river and stream beds. As land is eroded upstream, those sediments are deposited downstream. Changing conditions in the waterways impact the soil depositions in their path. Because of the alluvial/depositional nature of soils along waterways, they are different from the soils found in surrounding areas, namely in their erosive nature, fertility, and moisture content.

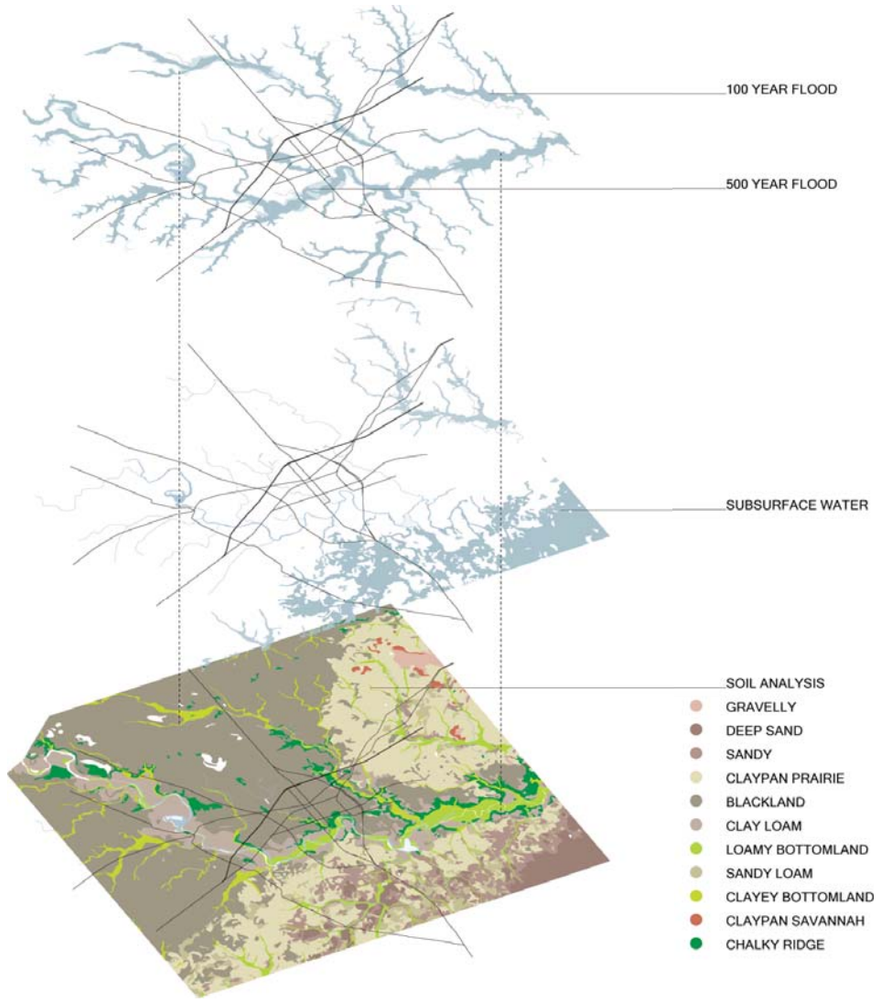


Figure 3. Seguin Soil Composite.

Water

Seguin falls within two different water districts. Because of its location within the Guadalupe River basin, its surface water is monitored by the Guadalupe-Blanco River Authority. It is part of the Middle Guadalupe River sub-watershed, which stretches from New Braunfels southward into Gonzales County, encompassing 2160 square miles of land. The Middle Guadalupe sub-watershed is a component of the larger Guadalupe River Watershed, which begins in Kerr County, continues to the Gulf of Mexico, and serves as a drainage basin for many counties in Central and South Central Texas. The Guadalupe River Basin contains fertile soil, with tributaries and intermittent streams providing corridors for wildlife movement, and areas of increased soil moisture content that positively impact local vegetation.

Seguin also sits above a portion of the Carrizo-Wilcox aquifer, which is regulated and monitored locally by the Guadalupe County Groundwater Conservation District. There is a geologic seam that runs southwest to northeast through the Seguin area. This seam marks the terminal edge of the Carrizo-Wilcox aquifer, separating the natural fabric of the area into two primary zones, with the aquifer lying south of the line. This seam manifests itself in several ways. The sub-surface water table follows the aquifer (south of the seam), and intersects the Guadalupe River just south of downtown. Where the Guadalupe River intersects this sub-surface water table, there is a change in the direction of flow of the River itself, as it responds to the change in geologic conditions. This can be observed in the directional change of flow of the Guadalupe River from a Southeastern to an Eastern direction just south of the downtown area. The river adjusts just east of the Glen Cove area, seeing a slightly more southeastern direction of flow. Interestingly, the River does not resume its original southeastern directional pattern until it has broken past the aquifer south of Gonzales.

The hydrologic intersection of surface and subsurface components expresses itself in an interesting way. Springs are common within areas of aquifer outcroppings, as surface and subsurface water tables intersect. This is just what we see in the City of Seguin, noting Walnut Spring in particular. Again, community growth and development almost always alters the natural landscape, and, therefore, historic accounts of natural conditions are often more informative of the native ecology of a place than current analysis. By looking at the historical significance of Walnut Spring in this area, the presence of such springs is better understood.

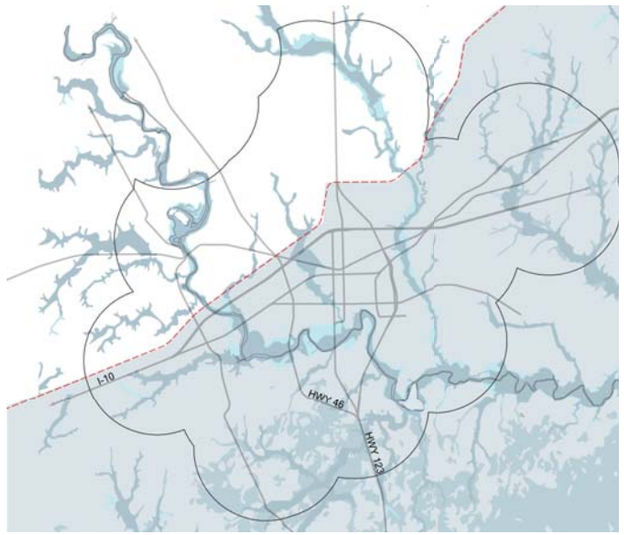


Figure 4. Carrizo-Wilcox Seam.

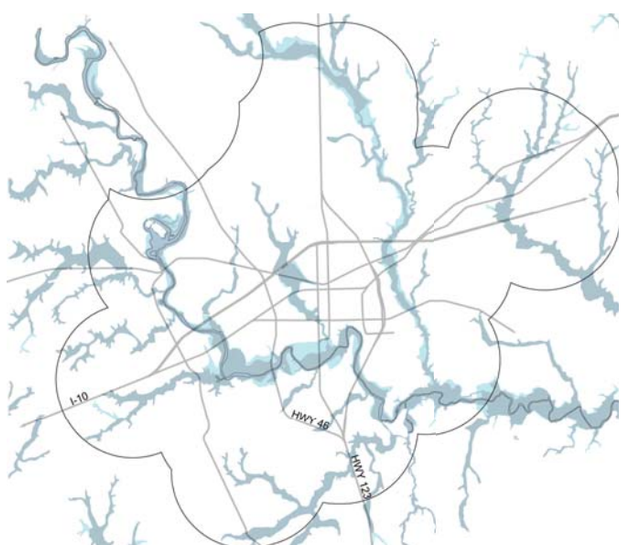


Figure 5. 100 and 500 Year Flood Plains.

Vegetation

In general, the land falling within the City of Seguin can be classified as either Prairie or Oak Woods. The prairie areas fall north of the Carrizo-Wilcox Seam, and extend up into the farmland north of the current City limit. The Oak Woods lie south of the geologic seam.

Seguin lies within the Middle Guadalupe Watershed, which is characterized by the following distribution of vegetative cover:

Pasture/Hay	25.5%
Evergreen Forest	18.0%
Deciduous Forest	15.5%
Grass/Herbaceous	15.1%
Shrubland	12.0%
Row Crops	8.1%

In its natural state, this prairie land would be characterized by a mixture of tall grasses, such as Big and Little Bluestem, Yellow Indiangrass, and Switchgrass. Prairies are very difficult habitats to restore, as they depend upon resident wildlife for maintenance of ground conditions necessary for their perpetuation. Historically, animals such as prairie dogs and bison aided in aeration of the soil, in seed dispersion, and in nutrient deposition.

The alteration of these prairies for agricultural use alters the soil conditions. The majority of Blackland Prairie in Texas has been converted into farmland, due to the richness of the soils, and their conduciveness to monoculture grass/grain growth. This conversion of the mosaic grass landscape into one of uniform monoculture (ie: corn crops) clearly transforms the habitat, as wildlife is forced to relocate, and soils conditions are altered. Nutrient depletion and erosion are two of the most significant alterations that occur. Prior to conversion for agricultural use, these prairie lands would have hosted a broad range of grasses, forbs, and occasional tree groves, providing food and shelter to resident wildlife, maintaining a balanced, symbiotic relationship. Consistent with trends throughout the State, there is little Prairie habitat left intact in the Seguin area.

South of the geologic seam running through the City lie the Oak Woods. This area is characterized by several stands of oaks, such as the Blackjack Oak, the Bluejack Oak, the Post Oak, and the Live Oak (the Live Oak also occurs in the Prairie areas, but only in close proximity to the Guadalupe floodplain). Trees are the habitat component providing the strongest visual distinction between the Prairie and Oak Wood habitats. In addition to these trees, however, grasses such as Silver Bluestem, Yellow Indiangrass, and Little Bluestem can also be found in the Oak Woods areas.

The distribution of vegetation within the Seguin area follows another trend. In addition to the contrast created at the geologic seam, vegetation also changes depending upon proximity to the riparian corridors (river and stream beds) found in the area. Live Oak, Yaupon, and Silver Bluestem are found almost exclusively within riparian corridors, while distributions of Post Oaks and Big Bluestem do not follow surface water flow. This indicates that there are more than two general habitat zones within the City of Seguin, as variation within the Prairie and variation within the Oak Woods can be observed, based upon proximity to the floodplain associated with the Guadalupe River. This is consistent with the observed trends in soil distribution, as the general soil types found in the area are clay-based (northern area), sand-based (southern area), and bottomland (along river and stream channels). The interface of the surface water conveyance system (river and streams) with other external conditions creates four ecological zones in the Seguin area.

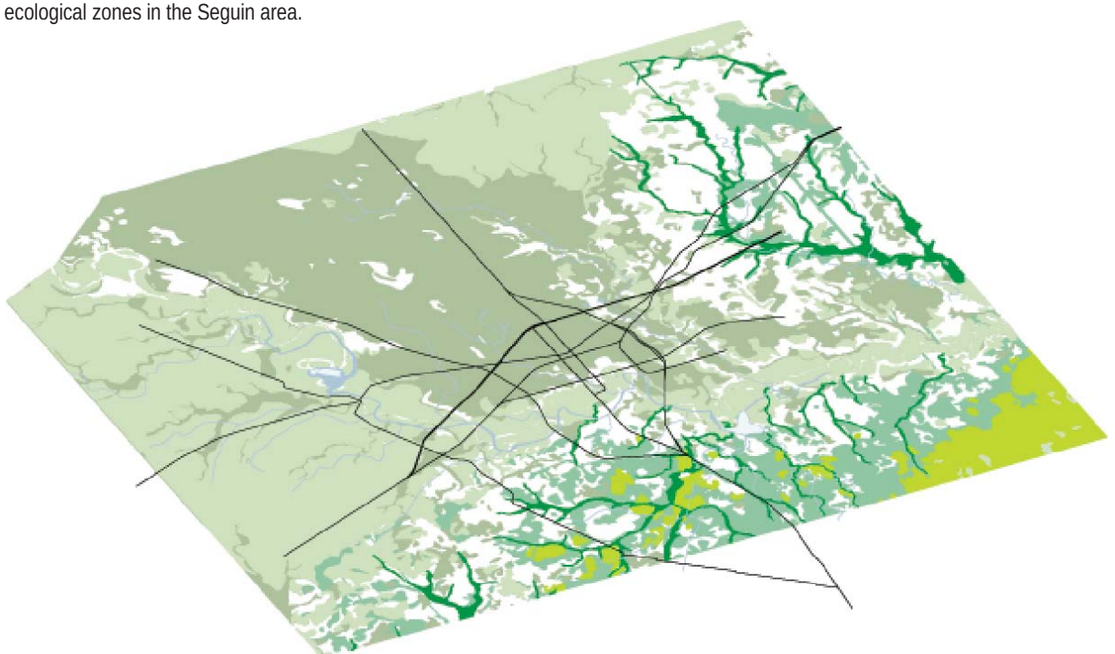
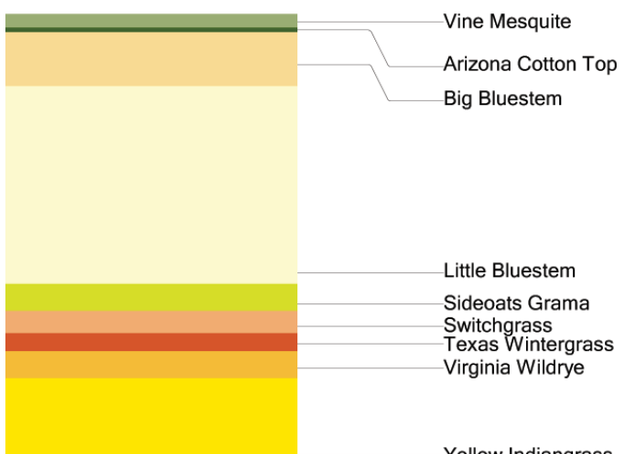


Figure 6. Seguin Vegetation Composite.

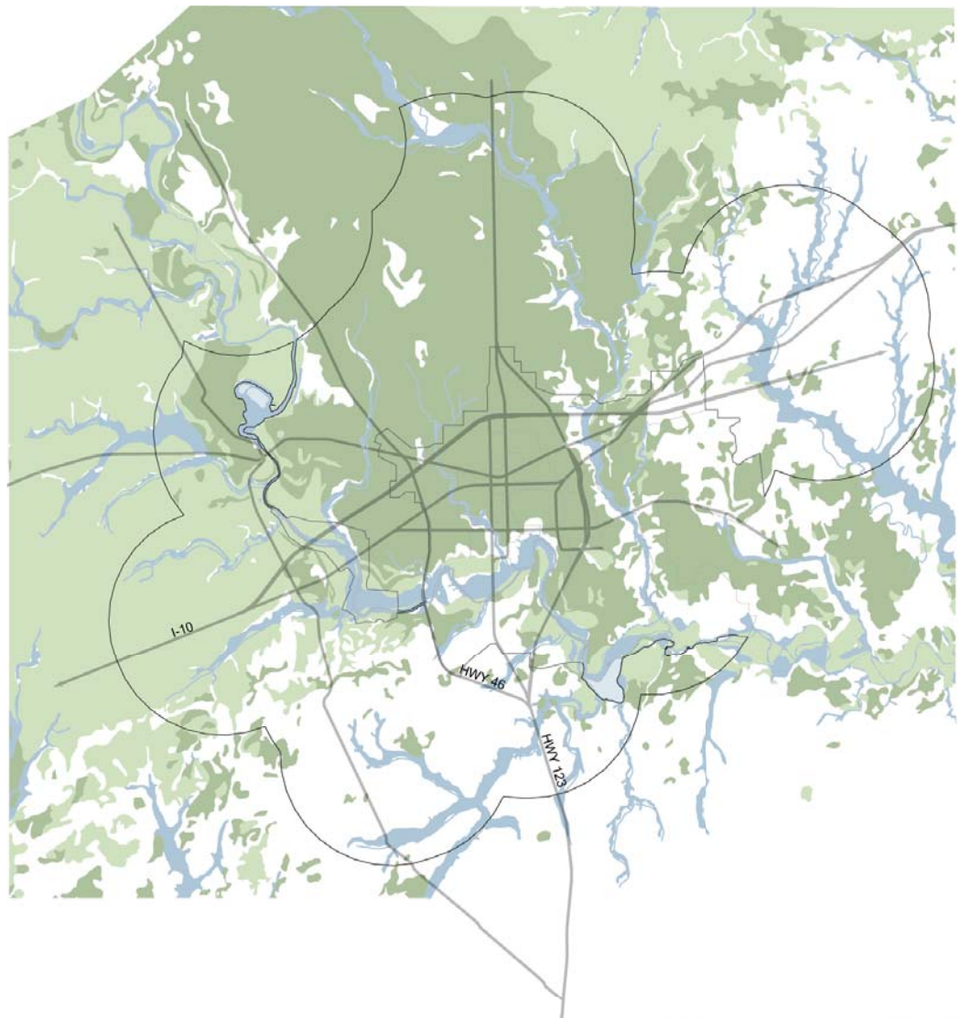
SEGUIN ECOLOGICAL ZONES

The relationship of living and non-living components within a natural system will determine the habitat zones of that system. Seguin lies along the transition from Texas Blackland Prairie to Oak Woodlands. Due to the influence of the Guadalupe River basin, a further division can be noted, as the basin is a significant riverine or riparian area. These factors indicate that there are actually four distinct habitat zones in the Seguin area: The Prairie Zone, the Prairie Riparian Zone, the Oak Woods Zone and the Oak Woods Riparian Zone.

Prairie Zone. The Prairie Zone has relatively uniform topography and is not characterized by a sub-surface water table. The soil types of this area are clay-based and nutrient-rich. Prairies are generally complex grassland communities, whose root systems aid in the infiltration of water and in soil stabilization. The dense grass coverage houses a variety of animal life. Trees occur occasionally in mottes (clusters), but prairies are generally open grassland expanses. Common vegetation expected in the Seguin Prairie Zone are listed below.



PRAIRIE

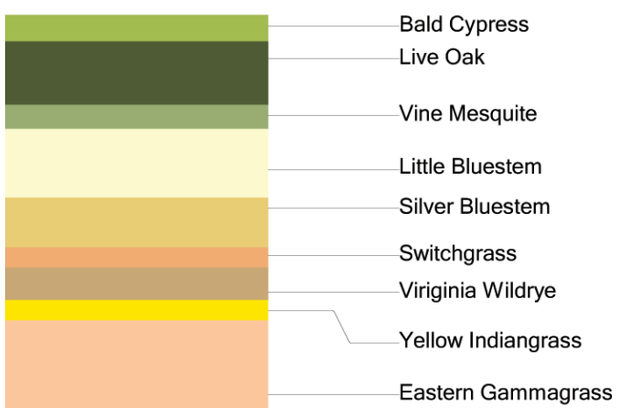



YELLOW INDIAN GRASS

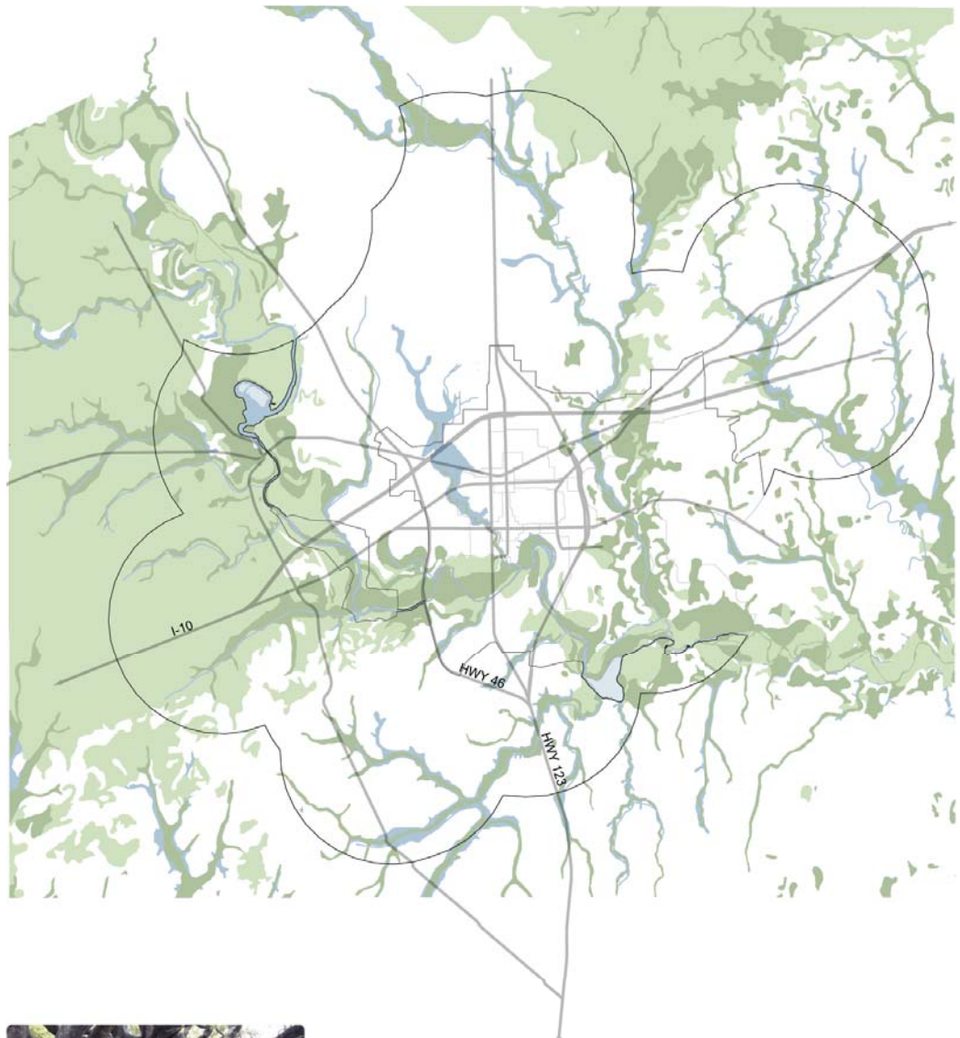

BIG BLUESTEM


SWITCHGRASS

Prairie Riparian Zone. As the Guadalupe River cuts through the Blackland Prairie, it forms a riparian zone. The term riparian refers typically to the banks of a river or stream, and these areas are ecologically diverse. The Prairie Riparian Zone of the Seguin area contains Tinn Clay (bottomland) soils, which are constantly affected by the action of surface water collection and flow, namely the behavior of the Guadalupe River and its tributaries. These areas are subject not only to normal surface water movement, but also to flooding at various frequencies, depending on elevation and seasonal weather patterns. The Seguin Prairie Riparian Zone follows the 500 year FEMA floodplain boundary fairly closely. Riparian zones are ecologically diverse areas. Many animals depend upon these zones as corridors for movement and for food and water supply. In prairie areas, riparian corridors provide tree coverage that is relatively uncommon away from the water's edge. These trees also provide stability in the face of the hydrologic actions mentioned above, protecting the soil from erosion. Typical vegetation to be expected in this area are shown below.

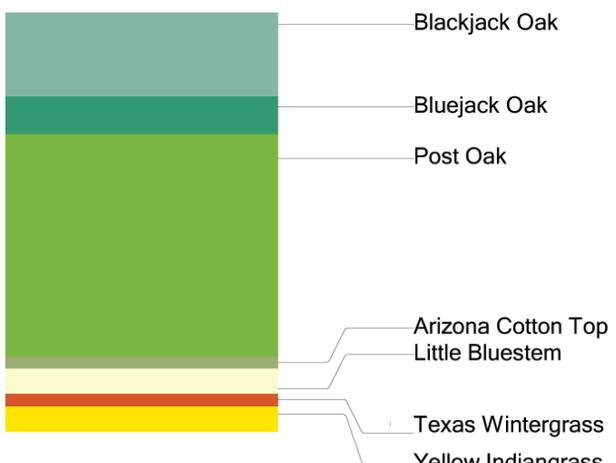


PRAIRIE RIPARIAN

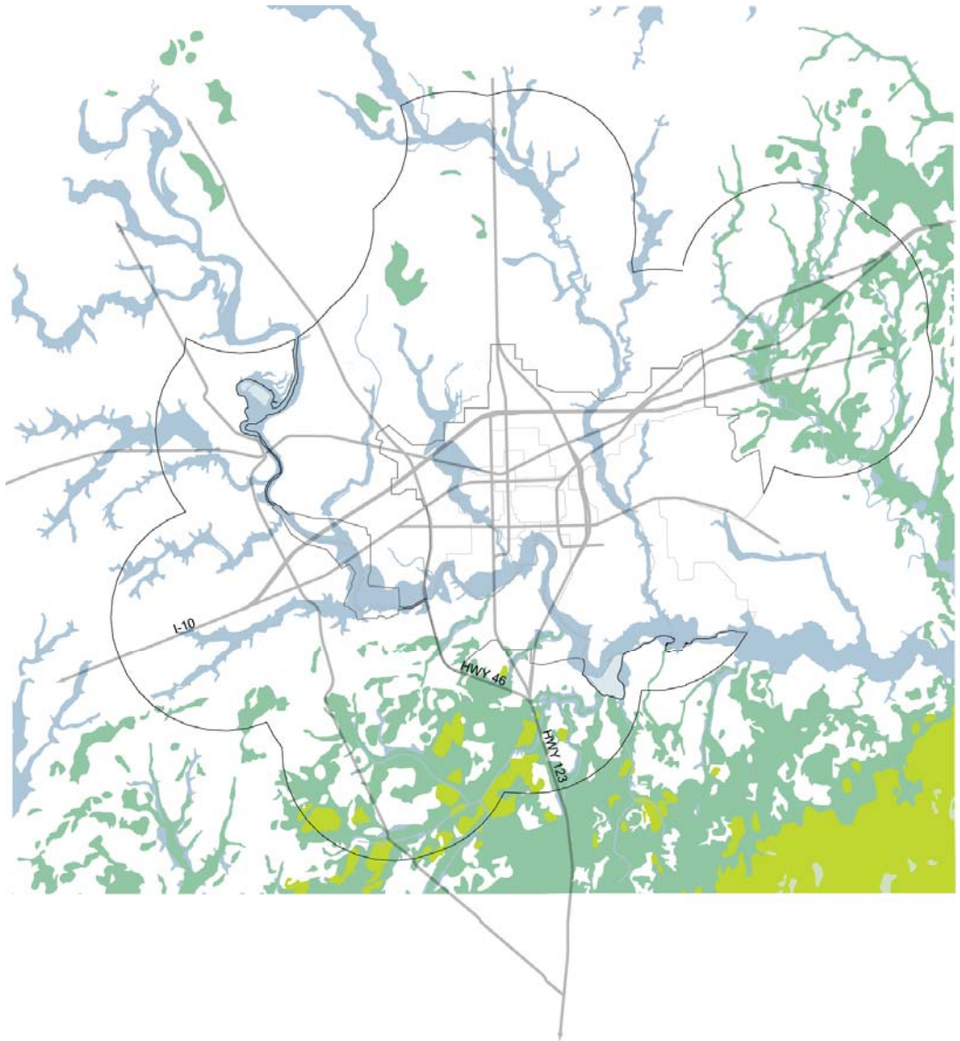


LIVE OAK

Oak Woods Zone. The Seguin Oak Woods are characterized by sandy soils, and the topography shows a higher level of variability. As sand filters water more effectively than clay, these soils contain higher sub-surface moisture content, in which oak trees tend to fare well. The tree coverage found in the Oak Woods area provides many environmental benefits, such as atmospheric carbon sequestration. Trees take in carbon dioxide from the air (unwanted) and release oxygen (wanted), purifying the air and ultimately restoring carbon stores in the soil. Typical vegetation in the Oak Woods includes the following:

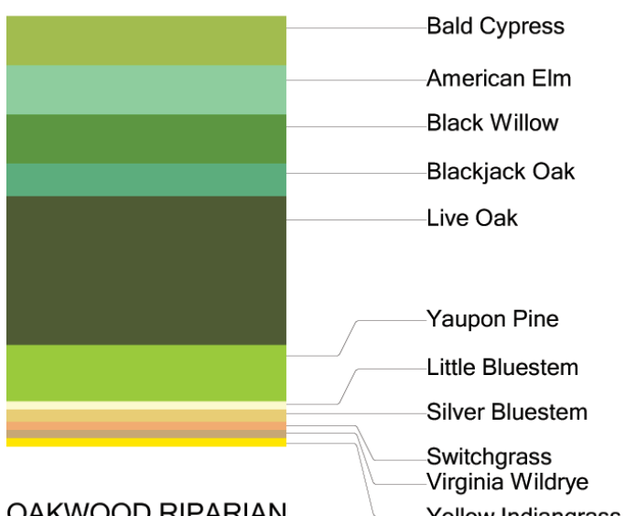


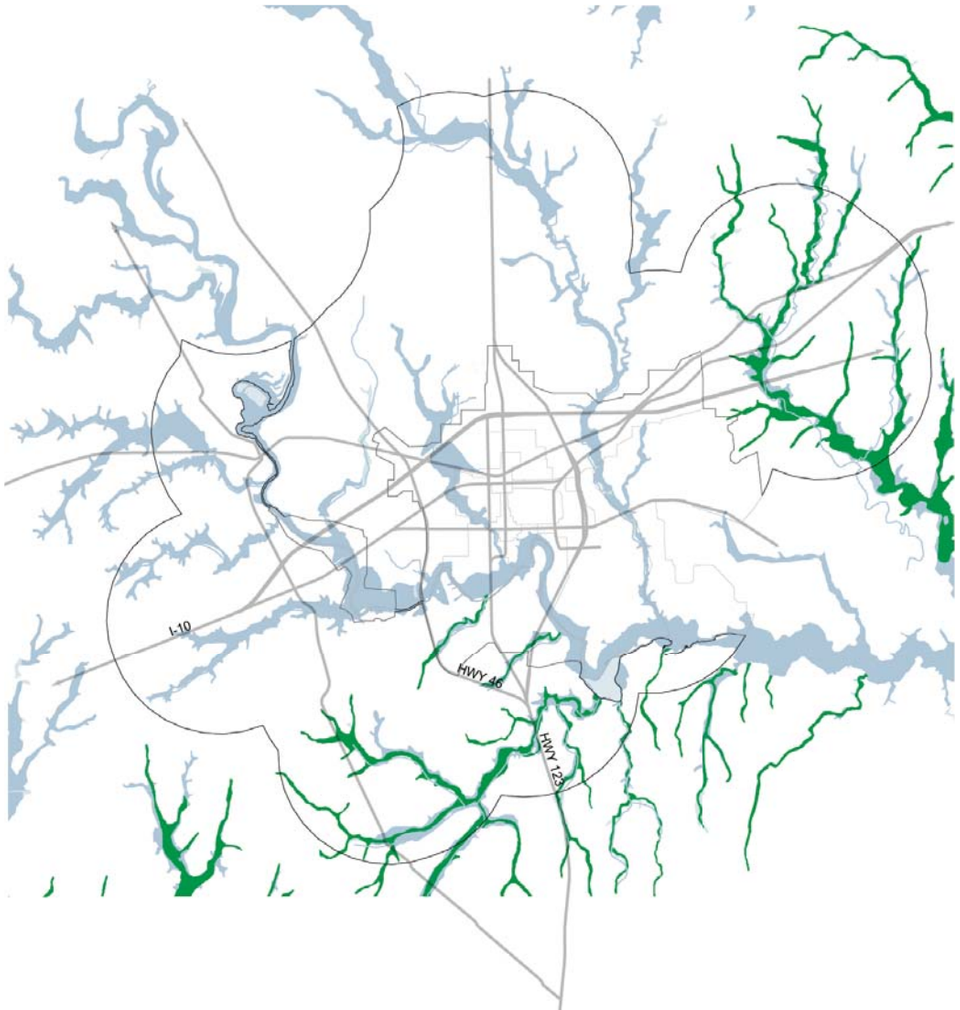
OAK WOOD



POST OAK

Oak Woods Riparian Zone. The Oak Woods Riparian Zone contains sandy bottomland soils. Like the soils found in the Prairie Riparian Zone, these soils are affected by the Guadalupe River and its tributaries. They are primarily sand-based, but are shaped by deposits and erosion due to surface water movement. They maintain a character that differs from the soils found in the Oak Woods, due to the influence of surface water movement within the Guadalupe River Basin. The river and stream banks of this zone provide stability in the face of water erosion, as well as a source of food and water for wildlife. The presence of the Guadalupe River creates a variation in vegetation from the surrounding area. The following are typically found in this zone:



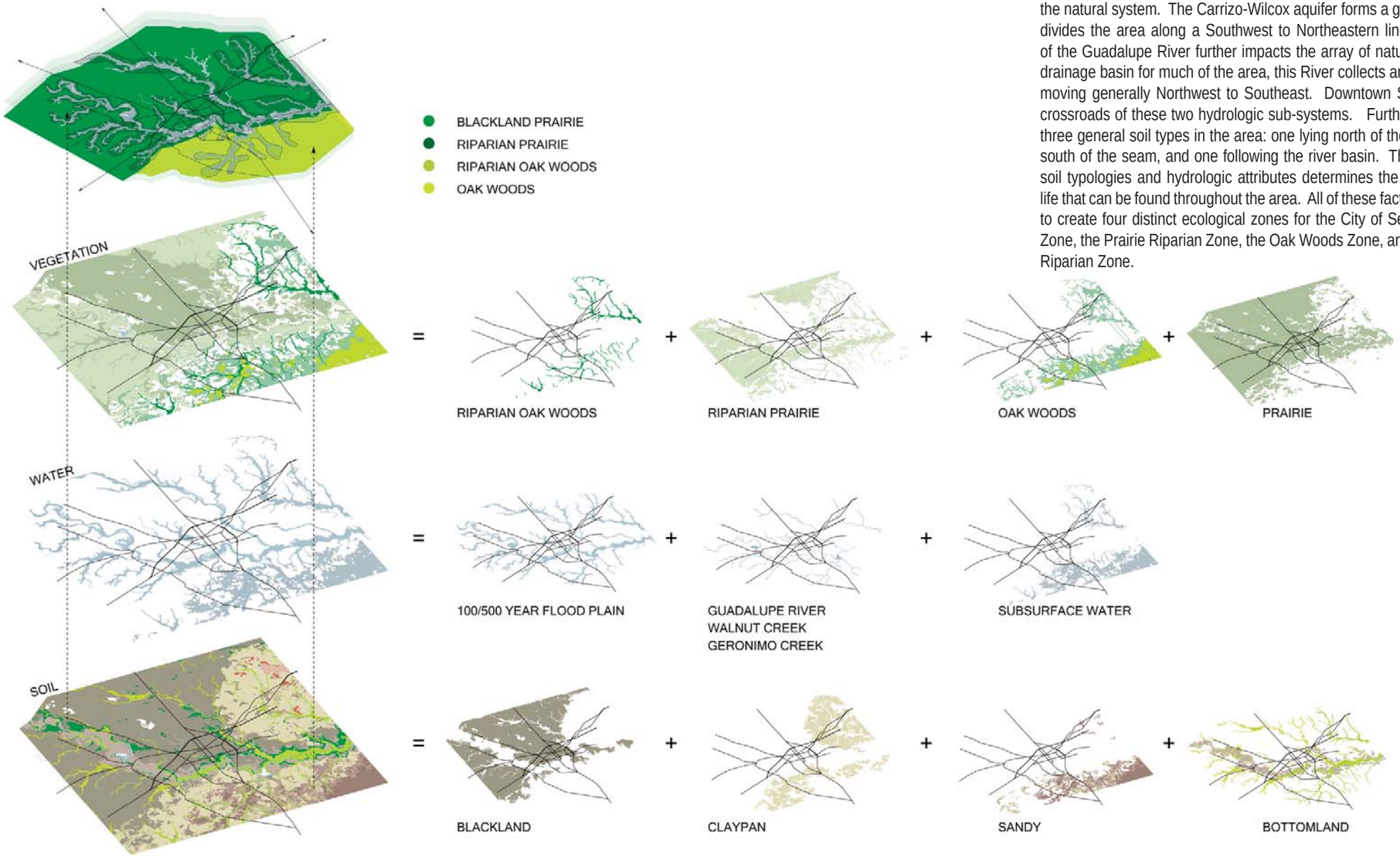



BLACK WILLOW


AMERICAN ELM

Ecological Context: A Summary

Seguin sits at an ecological crossroads of many different components of the natural system. The Carrizo-Wilcox aquifer forms a geologic seam that divides the area along a Southwest to Northeastern line. The presence of the Guadalupe River further impacts the array of natural spaces. As a drainage basin for much of the area, this River collects and conveys water, moving generally Northwest to Southeast. Downtown Seguin sits at the crossroads of these two hydrologic sub-systems. Furthermore, there are three general soil types in the area: one lying north of the seam, one lying south of the seam, and one following the river basin. The combination of soil typologies and hydrologic attributes determines the plant and animal life that can be found throughout the area. All of these factors work together to create four distinct ecological zones for the City of Seguin: The Prairie Zone, the Prairie Riparian Zone, the Oak Woods Zone, and the Oak Woods Riparian Zone.



ENVIRONMENTAL ASSESSMENT: THE IMPACT OF THE BUILT SYSTEM UPON THE NATURAL SYSTEM

Introduction

The growth of the built environment has a definitive impact on the natural system of a place. As basic factors such as land, air, and water are altered, the living components of the system are affected as well, meaning that changes in environmental quality have a direct impact on the quality of life for a community. For the Seguin area, soil, air quality, and surface water management were analyzed to determine the impact to date of the built system upon the natural system described in the previous section.

Soil

Over 750,000 acres of the land in Guadalupe County is used for agricultural purposes, while only about 500 acres are dedicated to conservation efforts. This impacts the landscape of the area in two ways: the removal of the stabilizing effect of native plant communities and the impact of land management practices associated with agricultural use.

In the native ecological context described above, complex plant communities aid in the absorption of surface water, in soil stabilization, and in nutrient cycling. Furthermore, the absence of these plant communities exposes soils to erosive factors, such as surface water flow.

Surface water movement brings about soil erosion in the absence of stable vegetative communities.

THEREFORE preserve stable vegetative communities to prevent soil erosion.

The large proportion of agricultural land indicates that the majority of the native habitat of the County has been altered from its natural state. In agricultural areas, monocultures and crop treatments have altered not only the vegetation in these areas, but also the soil conditions.

Soil composition has been altered through agricultural pressure.

THEREFORE enhance soil conditions through introduction of Best Management Practices in agricultural areas.

County	Land Area	Percent in Agricultural Use	Land in Agricultural Use	Harvested Cropland	Total Woodland	Total Pastureland	Conservation Reserve/ Wetlands
Caldwell	349,304	75.9%	265,269	36,392	25,330	216,410	87
Calhoun	327,911	65.1%	213,390	57,528	4,547	138,963	n/a
Comal	359,358	51.0%	183,241	13,185	21,743	162,342	1,566
DeWitt	581,939	96.2%	560,093	41,346	33,118	499,693	172
Gonzales	n/a	n/a	n/a	54,368	56,977	635,800	821
Guadalupe	455,171	76.4%	347,763	82,748	27,348	244,807	437
Hays	433,878	68.8%	298,493	25,758	19,376	260,771	n/a
Kendall	423,998	76.7%	325,412	12,881	18,492	298,136	14
Refugio	n/a	n/a	n/a	79,344	8,303	460,426	1,128
Victoria	564,855	81.1%	458,111	95,644	15,077	336,277	1,655

Source: GovStats, 1997 Figures. All Land Area in Acres.

Figure 7. Guadalupe County Agricultural Land Use.

Air

Guadalupe County, along with many surrounding counties (such as Bexar, Hays, and Travis), is near non-attainment for ozone levels. There is an ozone monitoring station in the City of Seguin, with 1 hour and 8 hour values recorded daily. As the San Antonio Metropolitan Area continues to grow, this issue will become more difficult to correct. Because the San Antonio Metropolitan Area created an Early Action Plan, it was given three years to decrease its air pollution levels. This three year period expired in December of 2007. Although Guadalupe County is anticipated to meet thresholds of air quality attainment at this time (achieving a rating of less than 82ppb for 2007), EPA standards will most likely become more stringent in the future.

As EPA standards become more stringent, it will be increasingly difficult to reach attainment levels for air quality in the face of urban growth.

THEREFORE minimize negative impact of urban growth on air quality.

It is important to remember that air is not limited by political bounds. This means that regional activity will impact local air quality. Activity in the San Antonio area will have a strong impact on air quality in Seguin, as will growth and change along the I-35 Corridor.

Air quality in Seguin is affected by regional activity, including that found in surrounding cities such as San Antonio.

THEREFORE address air quality issues in Seguin in a manner consistent with activity in surrounding areas, such as San Antonio.

Furthermore, the Texas Commission on Environmental Quality monitors air pollution produced at six point sources in Guadalupe County. These are the local sources of many air pollutants, such as NOx (Nitrous Oxide) and VOCs (Volatile Organic Compounds). Although point sources of air pollution are regulated federally, the levels they produce must also be accounted for locally.

Local point sources contribute a range of air pollutants, which decrease air quality.

THEREFORE minimize negative impact of local point sources of air pollution.

As Seguin grows, air quality issues such as ozone levels and point sources of air pollution must be addressed, as air quality impacts overall community quality of life. As plans are developed for community growth and development, measures should be considered that assist in the improvement of air quality for Seguin.

Vehicular traffic patterns will affect air quality for Seguin.

THEREFORE develop transportation plans for Seguin that reduce vehicular trips, and therefore diminish the negative impacts on air quality.

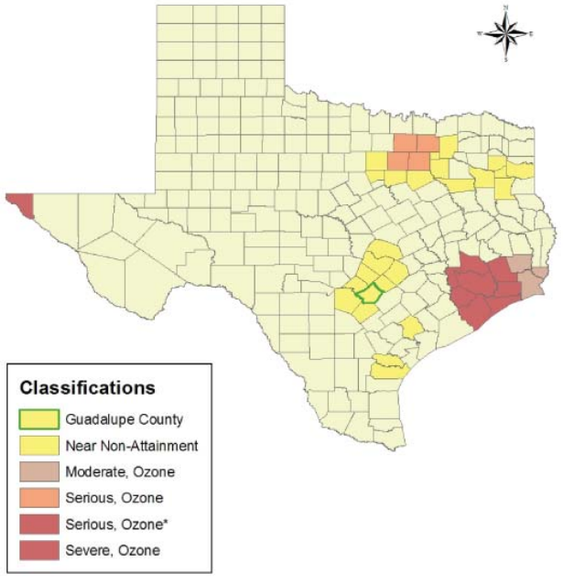
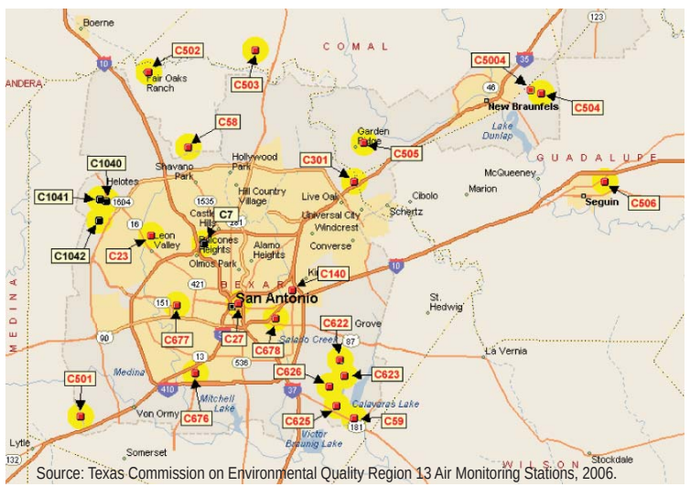


Figure 9. Texas Air Quality Concerns by County.



Source: Texas Commission on Environmental Quality Region 13 Air Monitoring Stations, 2006.

Figure 8. Seguin Air Quality Points of Concern.

WATER

One of the most visible and pronounced interfaces of the natural system and the built system is the role of the Guadalupe River in growth and development in the City of Seguin. As Seguin grows, that relationship will continue to exert a strong presence in the life of the City. Urbanization (the expansion of the city/community fabric and all associated effects) impacts the hydrologic system in two general ways: it impacts water quality and it impacts water quantity.

Water Quality. The most recent studies conducted of water quality throughout the Guadalupe River Basin (published by the Guadalupe-Blanco River Authority in 2007) indicate that the segment of the Guadalupe River extending throughout the Seguin area does not exhibit any significant water quality concerns. This study includes Lake McQueeney and Lake Placid, and is classified as segment 1804 of the Guadalupe River. Of all factors assessed, not a single test indicated a significant level of concern for the Guadalupe River at the time of this assessment. However, it has been noted that exotics (non-native species, such as hygrophila and loriicarids) have been introduced into the Guadalupe for the purpose of algae control. Although this does not have a significant effect on current water quality, it could be detrimental in the future. Recreational pressures also have an impact on water quality, as well as development pressure upstream.

As recreation and development pressures increase upstream along the Guadalupe, the quality of surface water in the Seguin area will be affected.

THEREFORE establish and enforce standards for development and recreational use along the Guadalupe River.

Geronimo Creek (Guadalupe River segment 1804A) has been designated as an area for concern, as recent tests indicate significant levels of nitrates, as well as higher bacteria counts than should be expected. This designation is for the entire creek system, from its beginnings north of Seguin to the point of confluence with the Guadalupe River. There is at this time no declared source for these increases in nutrient levels.

Geronimo Creek is an area of concern for water quality, due to nutrient and bacteria levels.

THEREFORE establish and enforce standards of land use to protect and preserve water quality in Geronimo Creek.

As growth continues along the I-35 corridor, it is reaching continuously down Highway 46 toward Seguin. This is creating a strip of development extending downward from New Braunfels, east of the Guadalupe River, and west of Geronimo Creek. This has a direct effect on the surface water system. The surface water collection system is altered, and exposed soils create increased sedimentation in the watershed drainage system.

Water Quantity. Because of its location in the Guadalupe River Basin, Seguin is subject to frequent flooding. These floods shape the culture of the area, and are a significant factor of both the natural and built system. Besides their physical impact on the City, they have a sobering financial impact, and also affect quality of life of the citizens who live and work in the City.

Although flooding is a natural phenomena, floods can be magnified by the impact of land use practices, urbanization, and development. Floods in the Seguin area are normally swells in the Guadalupe River, and are generally caused by:

- Regional storms or prolonged periods of precipitation (upstream conditions, especially in June, July, and September)
- Increase in impervious surfaces (urbanization)
- Impact of tropical storms (Texas Coast)
- Dam failures (Canyon, McQueeney, Placid)

Flooding in the Seguin area typically results from seasonal storms, leading to increased water volume in the system.

THEREFORE create land use designations that acknowledge flood behavior characteristic of the Guadalupe River Basin.

THEREFORE improve stormwater management policies and practices in Seguin.

Currently, the rivers, lakes, and streams of the Seguin area flood due to water catchment, rather than a backing-up of the system. This means that, as development pressures continue upstream, the ability of the Guadalupe River to convey flood waters according to current patterns will become very difficult. Flood incidents will most likely be increased by effects of future development, due to increased pressures on river and stream channels.

Floods are natural phenomena, but are magnified by urbanization.

THEREFORE incorporate principles of retention, detention, and infiltration into plans, so as to preserve and enhance the conveyance of surface water in Seguin.

As urbanization occurs, the amount of impervious surface in the area is increased. Impervious surfaces prevent the absorption of water, and increase the amount of surface water run-off. This puts abnormal amounts of pressure upon river and stream channels that must carry the excess water volume, altering channel attributes and increasing sedimentation.

Increases in impervious surface, due to an expansion of the built environment, will place increased pressure on the Guadalupe River basin, which serves as a catchment for surface runoff.

THEREFORE designate areas of catchment and infiltration throughout Seguin that will diminish pressure on the Guadalupe River from increased impervious surfaces.

ENVIRONMENTAL ASSESSMENT: A SUMMARY OF CONCERNS ADDRESSED

SOIL QUALITY

- *Surface water movement brings about soil erosion in the absence of stable vegetative communities.* ***THEREFORE preserve stable vegetative communities to prevent soil erosion.***

- *Soil composition has been altered through agricultural and development pressure.* ***THEREFORE enhance soil conditions through introduction of Best Management Practices in agricultural areas.***

AIR QUALITY

- *As EPA standards become more stringent, it will be increasingly difficult to reach attainment levels for air quality in the face of urban growth.* ***THEREFORE minimize negative impact of urban growth on air quality.***

- *Air quality in Seguin is affected by regional activity, including that found in surrounding cities such as San Antonio.* ***THEREFORE address air quality issues in Seguin in a manner consistent with activity in surrounding areas, such as San Antonio.***

- *Local point sources contribute a range of air pollutants which decrease air quality.* ***THEREFORE minimize negative impact of local point sources of air pollution.***

- *Vehicular traffic patterns will affect air quality for Seguin.* ***THEREFORE develop transportation plans for Seguin that reduce vehicular trips, and therefore diminish the negative impacts on air quality.***

WATER QUALITY

- *As recreation and development pressures increase upstream, the quality of surface water in the Seguin area will be adversely affected.* ***THEREFORE establish and enforce standards for development and recreational use along the Guadalupe River.***

- *Geronimo Creek is an area of concern for water quality, due to nutrient and bacteria levels.* ***THEREFORE establish and enforce standards of land use that will protect and preserve water quality in Geronimo Creek.***

WATER QUANTITY

- *Flooding in the Seguin area typically results from seasonal storms, leading to increased water volume in the system.* ***THEREFORE create land use designations that acknowledge flood behavior characteristic of the Guadalupe River Basin. THEREFORE improve stormwater management policies and practices in Seguin.***

- *Floods are natural phenomena, but are magnified by urbanization.* ***THEREFORE incorporate principles of retention, detention, and infiltration into plans, so as to preserve and enhance the conveyance of surface water in Seguin.***

- *Increases in impervious surface, due to an expansion of the built environment, will place increased pressure on the Guadalupe River basin, which serves as a catchment for surface runoff.* ***THEREFORE designate areas of catchment and infiltration throughout Seguin that will diminish pressure on the Guadalupe River from increased impervious surfaces.***

2.2 physical systems assessment

The physical systems that support the City of Seguin include water, sewer, and drainage services, and must be adequate to serve future development needs.

The Comprehensive Plan should seek to accommodate future development regarding infrastructure needs in order to best serve the growth of the City. In order to understand these needs, the current physical systems must be understood. The following section examines Seguin's current water, sewer, and drainage service provision. The City of Seguin most recently updated its impact fees for water and sewer in 2005. The water portion was updated again in 2007 due to the Schertz/Seguin Water Supply Corporation beginning to charge its own impact fee. The capacity analysis, land use plan, and population projections were not changed in the revision.

The capacity analysis for all sewer and water infrastructure is based on a living unit equivalent (LUE). The LUE is a derivative measurement intended to establish a common measurement unit for all types of land uses. An LUE is equivalent to the amount of demand typically produced by a single-family residence using a ¾" water meter. Demand is directly calculated by population and translated into LUEs. Thus, an LUE is not a unit usage statistic per se, but rather a translation of such statistics into a common denominator. It is standard practice to use a LUE as a measurement in capacity analysis for impact fee studies and comprehensive plans.

Service areas are controlled and monitored by the Texas Commission on Environmental Quality (T.C.E.Q.). Cities have Certificates of Convenience and Necessity (CCN) that define their service areas and that are issued by the T.C.E.Q. A CCN authorizes a utility to provide water or sewer utility service to a specific area and obligates the utility to provide continuous and adequate service to every customer who requests service in that area. The relative capacities for future growth of various infrastructure components for water are based on the projected population within the existing CCN only. This is because the City is completely surrounded by other entities and legally cannot serve areas without consent from those entities (Figure 1). Thus, even though the population in 2017 is projected to be 34,000 people, the City may only be providing water service to 30,000. The relative capacities for future growth of various infrastructure components for sewer are based on the projected population as a whole for the entire City. This is because the City has additional area in which to acquire CCN within the E.T.J. (Figure 2). Thus, it is assumed that the population in 2017 will be 34,000 people and the City will provide sewer service for 34,000 people.

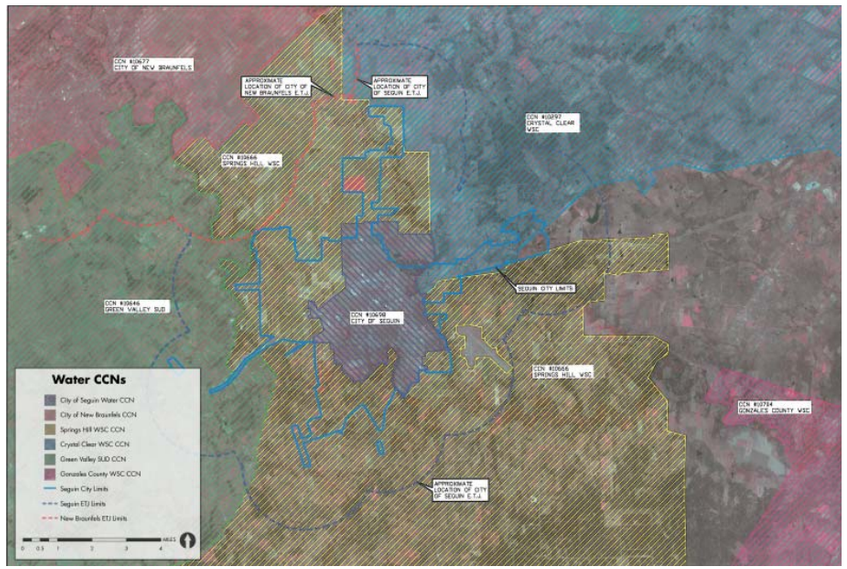


Figure 1. Seguin Area Water Certificates of Convenience and Necessity.

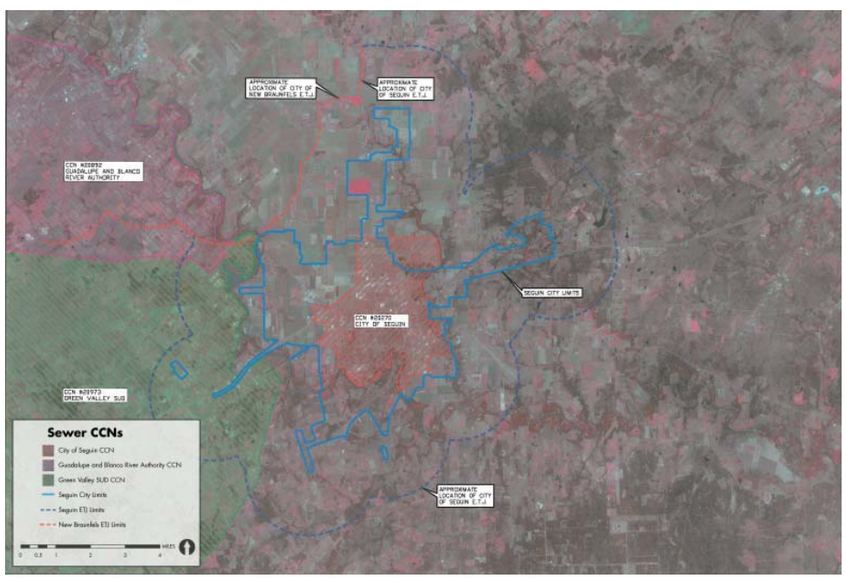


Figure 2. Seguin Area Sewer Certificates of Convenience and Necessity.

WATER

The City currently purchases treated groundwater from the Schertz/ Seguin Water Supply Corporation. By contract, the City is entitled to 50% of the groundwater from the wells and treated groundwater from the Nixon Water Treatment Plant. The City provides potable groundwater to residents within its current CCN. In addition to the groundwater, the City also has water rights from the Guadalupe Blanco River Authority (G.B.R.A.) to use the Guadalupe River for a source of surface water supply.

The population data used herein is based on the established populations previously set forth in this Plan. The City has 7,716 various sized water meters in service at this time. Based on the various water meter sizes (meters larger than ¾" will count for more than one LUE) and the total number of each, the total LUEs used for comparison was 9,151. The conversion factors (LUEs per meter) are a standard from the American Water Works Association (AWWA). These are based on continuous duty maximum flow rate in gallons per minute derived from AWWA C700-C703. Figure 3 lists the number of each type of water meter in Seguin and illustrates how the total number of LUEs (9,151) was obtained.

Water Supply

The Schertz/Seguin W.S.C. currently has eight wells in service capable of producing approximately 13.824 million gallons per day (MGD). Per the agreement between Seguin and Schertz, only half of this production is available to the City of Seguin at any given time. Thus, for engineering purposes, this study will assume 6.912 MGD existing supply available for Seguin. In addition to the groundwater, the City also has water rights from the Guadalupe Blanco River Authority (G.B.R.A.) to use the Guadalupe River for a source of surface water supply. The City is allowed to use 7,000 acre feet a year from the River (6.249 MGD). The City also purchases 1,000 acre feet per year from G.B.R.A., bringing the total water available from the Guadalupe River to 7.142 MGD. Based on data provided by City personnel, the average groundwater usage per LUE is 412 gallons per day. The peak groundwater usage per LUE is 696 gallons per day.

METER SIZE	LUEs per Meter	Number of Meters	Number of LUEs
5/8"	0.667	0	0
3/4"	1	7,251	7,251
1"	1.667	171	285
1-1/4,1-1/2	3.333	87	290
2"	5.333	163	869
3"	10.667	24	256
4"	16.667	12	200
6"	33.333	8	267
Total		**7,716**	**9,151**

2008 Population per LUE: 2.84

Figure 3. Seguin Living Unit Equivalent (LUE) Calculation Table.

T.C.E.Q. requires a minimum ground water capacity of 0.6 gallons per minute (gpm) per LUE. Based on the City's total number of LUEs of 9,151, the City would need 7.906 MGD of water supply. The City currently has 6.912 MGD available for groundwater. However, since the City also has an additional 7.142 MGD (8,000 acre feet) of surface water available, it is in compliance with T.C.E.Q. requirements. The existing capacities and actual usages are shown in Figure 4 . The City only serves Tyson Foods and the Rio Nogales Power Plant with surface water.

Water Treatment

The Schertz/Seguin W.S.C. currently has one groundwater treatment plant, the Nixon Water Treatment Plant. This plant is expected to treat all of the existing water wells and proposed future water wells to meet the 20,000 acre feet per year limit in Gonzales County. The treatment plant has a capacity of approximately 17.28 MGD. Per the agreement between Seguin and Schertz, only half of this treatment capacity is available to the City of Seguin at any given time. Thus, for engineering purposes, this study will assume 8.64 MGD existing supply available for Seguin. The average and peak quantities treated by the groundwater plant is equal to the water supply from the groundwater plant described above.

In addition to the Nixon Water Treatment Plant, the City also has a surface water treatment plant located within the City on the Guadalupe River that has a capacity of 11.60 MGD. The plant is referred to as the Starcke Park Water Treatment Plant. The City has the means to blend treated groundwater and surface water in the distribution system to meet peak demands and special purposes throughout the year. To date, the City has rarely had to use this means to meet water demands. Less than 10% of the time during the summer months has the City had to blend water in order to meet demand. The City has determined that residential customers should be served with groundwater in lieu of surface water or blending. The Starcke Park water plant currently treats water only for use by Tyson Foods and the Rio Nogales Power Plant. The average water treated for these industrial users is 3.63 MGD. The peak water treated for them is 5.03 MGD.

T.C.E.Q. requires a minimum treatment capacity of 0.6 gpm per LUE. With 9,151 LUEs currently, the City would need 7.906 MGD of treatment capacity. The City currently has 8.64 MGD treatment capacity at the Nixon Water Treatment Plant. In addition, the City also has 11.60 MGD of treatment capacity at the Starcke Park Water Treatment Plant. The existing capacities and actual usages are shown in Figure 5.

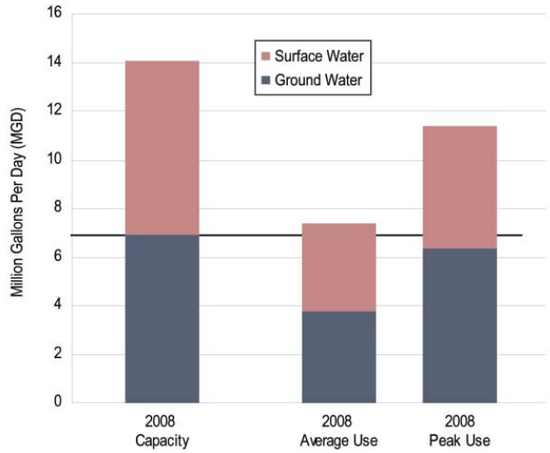


Figure 4. Seguin 2008 Water Availability and Use.

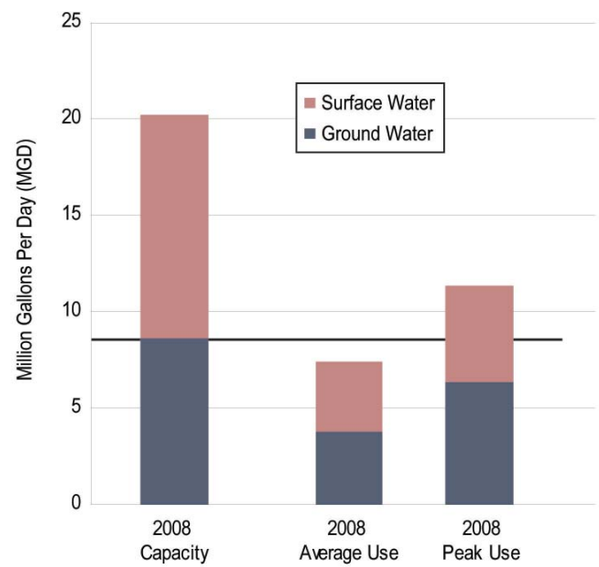


Figure 5. Seguin 2008 Water Treatment Capacity and Use.

Pumping Capacity

The Schertz/Seguin W.S.C. pumps potable water from the Nixon water treatment plant to the City of Seguin. The City then pumps the water into the distribution system and to the various elevated tanks throughout town. The City has an existing high service pumping capacity of 14.40 MGD. This is based on the pumping capacity at the Starcke Park water treatment plant. Currently, the Starcke Park water treatment plant has four 2,500 gpm high service pumps. These pumps do not currently pump surface water to the distribution system, but they can be operated this way. They are only used to distribute groundwater received from the Schertz/Seguin W.S.C. The Starcke Park plant has an additional four 2,000 gpm high service pumps to pump surface water to Tyson Foods and Rio Nogales Power Plant. The pumping capacity at the Nixon Water Treatment Plant was not included in the total pumping capacity shown in Table 6. The Schertz/Seguin W.S.C. control these pumps. The Nixon plant has four 3,000 gpm high service pumps and a high service pumping capacity of 17.28 MGD.

T.C.E.Q. requires that the City provide capacity for 2 gpm per LUE or 1,000 gpm total pumping capacity with one pump out of service and the ability to meet peak hourly demands. Based on the current LUEs (9,151), a capacity of 26.35 MGD would be needed to meet the first criteria, which the City cannot currently meet. However, the City can currently meet the second criteria, as the estimated peak hourly demand is 6.37 MGD and the City has 10.80 MGD pumping capacity (3 – 2,500 gpm pumps), with one pump out of service.

It should also be noted that the City has one additional high service pump station located along the SH 123 Bypass. This pump station delivers water from the Lucille elevated tank to the Continental elevated tank. The pump station has three 500 gpm high service pumps. This pump station was not included in the total capacity since it currently serves a small portion of City and a small elevated tank. If the elevated tank is upsized at a future date, then the pump station would need expanding as well.

Ground Storage

The City has three main ground storage reservoirs. The total existing ground storage capacity is 3.14 million gallons (MG). At the Starcke Park water treatment plant there is a 3.0 MG ground storage tank. The high service pump station previously mentioned that pumps water from the Lucille elevated tank to the Continental elevated tank has two 70,000 gallon ground storage tanks. The ground storage capacity at the Nixon water treatment plant, which is a 2.0 MG tank, was not included in the overall capacity.

Engineering standard practice is to have 100 gallons per LUE for ground storage capacity. Based on the existing LUEs (9,151), 0.9151 MG of ground storage is required, which is easily met by the City's existing 3.14 MG ground storage capacity.

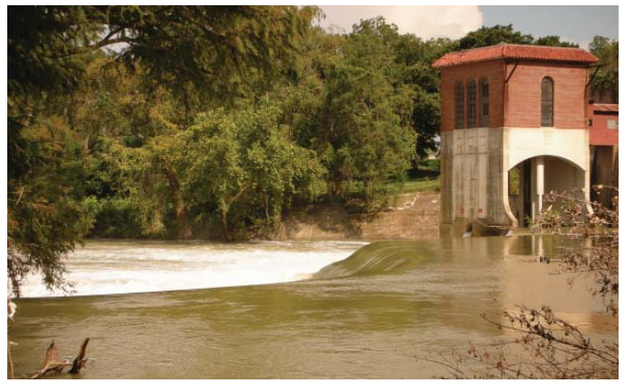
Elevated Storage

The City has four elevated tanks located throughout the City. The Lucille and Kingsbury tanks have a capacity of 1.0 MG each. The Ireland tank has a capacity of 0.5 MG and the Continental tank has a capacity of 0.15 MG. The City has a total existing elevated storage capacity of 2.65 MG.

T.C.E.Q. requires 100 gallons per LUE for elevated storage capacity. Based on the existing LUEs of 9,151, 0.9151 MG of elevated storage is required. This is easily met by the City's existing 2.65 MG elevated storage capacity.

Distribution System

The City has an extensive distribution system consisting of water main sizes ranging from 2" to 24". Engineering standard practice is to have 1.5 gallons per minute per LUE for distribution system capacity. The 30" and 42" transmission mains from the Schertz/Seguin W.S.C. have not been included in the City's distribution system capacity because they are not used for distribution purposes. Based on the existing LUEs (9,151), 19.766 MGD of capacity is required (or 2,160 gallons per LUE). The City has an existing distribution system capacity of 22.066 MGD. However, this capacity does not necessarily mean the City has an excess of capacity. Some areas within the City and the outlying areas are deficient or have no distribution at all. In addition, existing pressure in some areas may not be adequate for fire protection.



SEWER

Wastewater is a significant and influential infrastructure system because the cost of a wastewater system is most affected by the capability of the wastewater to flow by gravity. Therefore, the need to secure right-of-ways along low elevations (along creeks, drainage ditches, etc.) is critical to implementation of a gravity system. The City of Seguin is divided into four primary watersheds that will provide the framework upon which a future wastewater system will be planned. These watersheds are:

- The Little Mill Creek Basin: This basin flows north to south west out of City limits, into the Guadalupe River.
- The Walnut Branch Basin: This basin flows north to south from the northwest part of the City through the center part, into the Guadalupe River.
- The Geronimo Creek Basin: This basin flows north to south east along the eastern portion of the City limits, into the Guadalupe River. The Geronimo Creek basin extends north up to IH-35 in New Braunfels.
- The Area South of the Guadalupe River: This basin flows south to north towards the Guadalupe River.

The City of Seguin currently owns and operates the collection system and treatment plants within the Walnut Branch and Geronimo Creek basins. The City owns and operates the collection system while the Guadalupe Blanco River Authority (G.B.R.A.) owns and operates the treatment plant for the area south of the Guadalupe River. Currently little or no sewer service is provided to the Little Mill Creek basin. The portion which is served, is pumped back to the Walnut Branch basin collection system.

As previously stated and shown in Figure 2, the City of Seguin has a limited CCN for sewer. However, unlike the water CCN, no entity has claimed large tracts of sewer CCN surrounding the City. The City currently services areas outside of its existing CCN by means of gravity mains, lift stations, and force mains. The City is allowed to service these areas because no one has claimed this area. However, if an entity did claim these areas, the existing LUEs would be continued to be served by the City, but all new LUEs would be served first by that entity. In other words, if this were to occur any additional capacity in the existing system in these areas would go unutilized.

Based on the actual number of sewer service connections (6,361) and a similar conversion as shown in Figure 4, the City has 7,544 LUEs for sewer.

Wastewater Treatment

The City of Seguin currently operates two wastewater treatment plants. The Geronimo Creek treatment plant and the Walnut Branch treatment plant are located north of the Guadalupe River. The G.B.R.A. Springs Hill wastewater treatment plant is located south of the River. Although the City owns or operates the collection system and lift stations south of the River, it does not own and operate the wastewater treatment plant. The permitted flow is set by the T.C.E.Q. for all the treatment plants. The capacity of the treatment plants is based on the design average flow per day. The overall capacity and the average flow for 3 consecutive months at each of the three plants are shown in Figure 6. Historically the flow rate split between the two wastewater treatment plants is 65% to Walnut Branch and 35% to Geronimo Creek.

Of the 6,361 total sewer connections for the City, 421 connections (499 LUEs) are from the system south of the River. It is important to keep these connections and flows separate since they will affect the future capital improvements differently. Thus average flows divided by the current LUEs gives an average flow of 504 gallons per day per LUE for the system north of the River and 301 gallons per day per LUE for the system south of the River. The reason for the difference in flows between the two systems is because the majority of the connections south of the River are residential. Engineering standards assume 3 people per household and/or LUE. T.C.E.Q. design standards stipulate 100 gallons per day per person and/or LUE. The system north of the River has more commercial and industrial users that contribute to a higher average flow. Currently, a large portion of the 504 gallons per day per LUE for the north system can be attributed to industrial users such as Tyson Foods and Rio Nogales Power Plant.

Wastewater Treatment Facilities	2008 Capacity Available	2008 Average Flow	Number of Sewer Connections	Number of LUEs	Average Flow/LUE
North of Guadalupe River			5940	7045	504 gallons/day/LUE
Geronimo Creek WWTP	2.31 MGD	1.35 MGD			
Walnut Branch WWTP	4.90 MGD	2.20 MGD			
South of Guadalupe River			421	499	301 gallons/day/LUE
Spring Hill WWTP	0.30 MGD	0.15 MGD			
City of Seguin Total	7.51 MGD		6361	7544	

Figure 6. Seguin Wastewater Treatment Facilities.

Lift Stations

The City currently operates numerous sewer lift stations (19 at the time of this Plan). Lift stations are constructed to serve areas that cannot gravity flow sewage to the wastewater treatment plants. Fourteen of these lift stations are located north the River and are as follows:

- Unity (620 gpm)
- Glen Cove (120 gpm)
- Crossroads (400 gpm)
- Nolan Street (100 gpm)
- Water Plant (120 gpm)
- Wave Pool (120 gpm)
- Friesenhahn Road (300 gpm)
- Continental (120 gpm)
- Chisolm Trail (300 gpm)
- Burges Street (150 gpm)
- Jim Barnes (600 gpm)
- Jud's (300 gpm)
- Navarro (475 gpm)
- Mill Creek (300 gpm)

Five of the lift stations are located south of the Guadalupe River and are as follows:

- Sutherland Springs (120 gpm)
- River Oak Drive (120 gpm)
- Nagel Street (100 gpm)
- Guadalupe Drive (100 gpm)
- Country Club (120 gpm)

It is estimated that the total pumping capacity of the existing lift stations is 6.60 MGD.

Lift stations are designed to carry peak wastewater flows. Assuming that 504 and 301 gallons per day per LUE are the average flow (as determined in Figure 6), a factor of 3 is applied to get the peak flow. The estimated peak flow is 1,512 gallons per day per LUE north of the River. This makes the estimated demand on the north lift stations 10.652 MGD. The estimated peak flow is 903 gallons per day per LUE south of the River. This makes the estimated demand on the south lift stations 0.451 MGD. Currently, the demand on the north lift stations is greater than the capacity of the lift stations (Figure 7). This may require further study by the City. However, peak flows are a conservative measure calculated to determine the worst case scenario, not day to day operating. In addition, each of the lift stations is equipped with two pumps that can operate together to meet the peak flows if necessary. The pumping capacities listed above for each lift station are based on only one pump in service, a design standard. In addition, the 10.652 MGD is representative if all flow was going to lift stations and then being pumped to the wastewater treatment plants. Both the Walnut Branch and Geronimo Creek WWTPs are fed by large gravity lines that are not fed by lift stations. Thus, not all of the peak flow is passing through a lift station.

Collection System

The City has an extensive collection system consisting of gravity sanitary sewer main sizes ranging from 6" to 24". The collection system is designed based on peak flow rates. In previous sections, a peak flow rate was determined for the systems north and south of the River. For this section, the flow rate determined for the north system will be utilized. The current peak demand is 1,512 gallons per day per LUE. This requires a capacity of approximately 11.41 MGD. The City of Seguin has a current collection system capacity of 12.69 MGD. However, this capacity does not necessarily mean the City has an excess of capacity. Some areas within the City and the outlying areas are deficient or have no collection system at all.

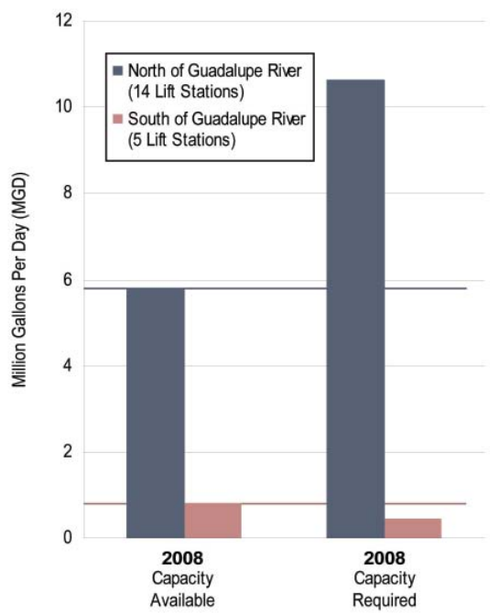


Figure 7. Seguin Lift Station Capacity.

DRAINAGE

The City has not conducted a drainage system analysis. The overall topography of the City is generally flat and gently slopes to each of the major basins or directly to the Guadalupe River. The City currently has ordinances that require all new development to detain post-development runoff to pre-development runoff rates for the 2, 10, 25, 50 and 100 year storm events. The City ordinances must be met by any development within the City's E.T.J. Storm sewer systems for new developments are required to be designed to carry the 100 year storm events. Most of the City's existing infrastructure (storm sewer) is designed to carry storm events less than the 10 year. All state (TxDOT) systems are designed to carry a minimal storm event of 25 years.

Two large drainage basins encompass the majority of the existing City limits. As discussed in the sewer section, there are four large drainage basins that encompass the City's E.T.J. and proposed land use plan. Walnut Branch runs along the west side of the City and converges with the Guadalupe River near the Walnut Branch wastewater treatment plant. It extends north of the City to Lake McQueeney. Walnut Branch has been improved throughout the years between New Braunfels Street and the River. It varies between a manmade earthen channel, concrete lined channel, and natural earthen channel. The City is currently in the process of designing flood control detention ponds north of New Braunfels Street and IH-10. These ponds are being designed to keep the 100 year flood event within the banks of the existing Walnut Branch channel south of New Braunfels Street. In addition, the ponds will reduce the 100 year floodplain within portions of the City. Walnut Branch is an intermittent stream from the Police Station north to Lake McQueeney. However, south of the Police Station to the Guadalupe River constant water flows in it due to underground springs.

Another major drainage area is Geronimo Creek. Geronimo Creek runs along the east side of the City limits. Geronimo Creek is a natural creek that has not been improved. It extends from the City of New Braunfels to the Guadalupe River. Many areas along the creek are prone to flooding and this will worsen as future development occurs upstream. The City cannot enforce detention requirements or preventive measures outside of its E.T.J. Since Geronimo Creek has such a large watershed, continued development within Guadalupe County and from IH-35 to Seguin will cause a larger burden. Some areas of the floodplain have risen by seven feet in the last twenty years. Unchecked development will cause flooding to existing homes and businesses, not to mention creating areas that will not be developable in the future. Currently, Guadalupe County is in the process of beginning a watershed study of Geronimo Creek and its affect on the City and surrounding areas.

Another drainage area is Little Mill Creek. Little Mill Creek runs along the west side of the City just outside the City limits. Little Mill Creek is a natural creek that has not been improved. It extends from the north end of the City to the Guadalupe River. Little Mill Creek is an intermittent stream throughout its entire length. Many areas along the creek are prone to flooding during large rain events. Little Mill Creek watershed extends beyond the City E.T.J., and the City of Seguin cannot enforce detention requirements or preventive measures outside of its E.T.J. Unchecked development will cause flooding to existing homes and businesses, not to mention creating areas that will not be developable in the future.

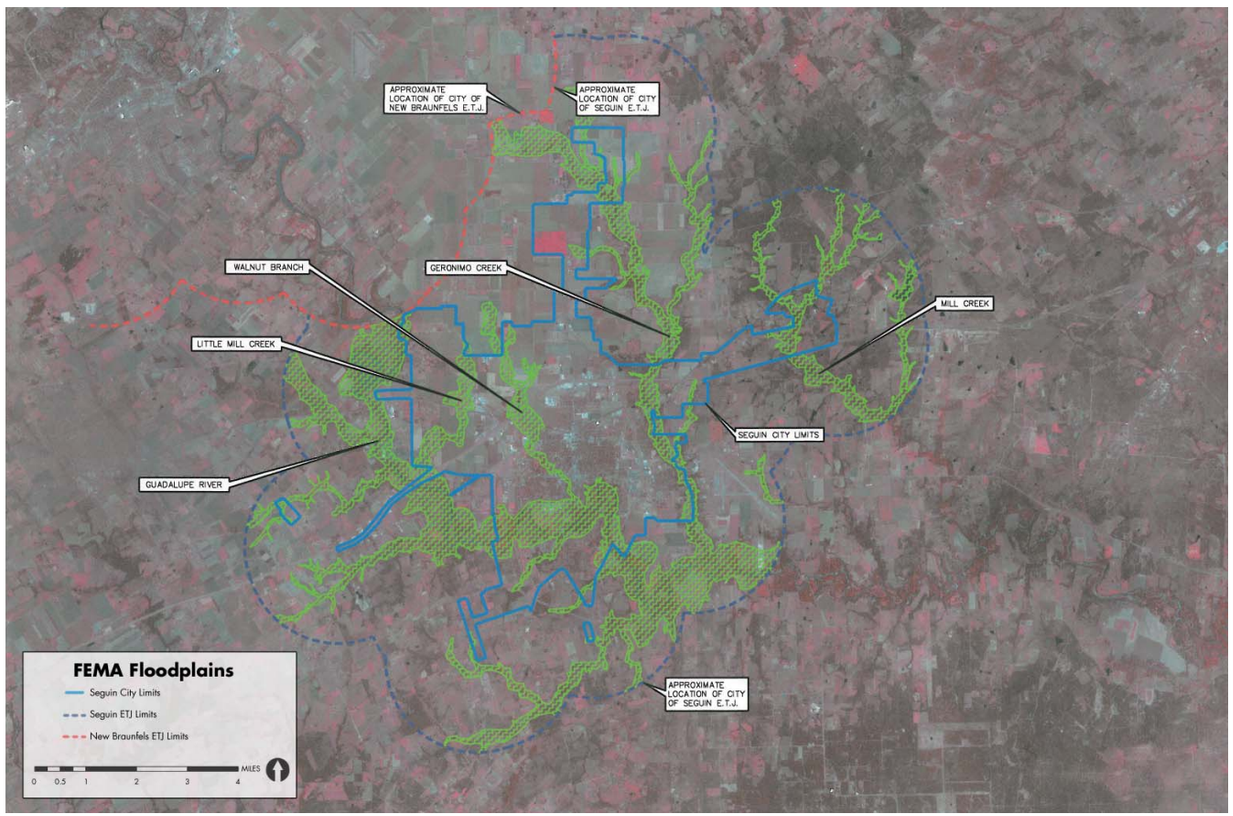


Figure 8. Seguin Area FEMA Floodplains.

2.3 city area form assessment

The heart and soul of Seguin lies in its close association with the personalities that founded Texas and in its beginning as both a County Seat and a City sustained by the agrairian economy that the fertile landscape afforded.

The heart and soul of Seguin lies in its close association with the personalities that founded Texas, as well as its history of regional political significance. The landscape afforded a fertile landscape that encouraged Seguin's agrarian economy, and Seguin held added significance as County Seat for Guadalupe County. This began a history of distinction that set Seguin on a different (and more urban) path than its neighboring rural townships.

Selection of Seguin as the Governmental Seat for a newly created Guadalupe County occurred for the same reasons that Seguin would, from that moment forward, draw attention as a place to gather traffic, people, and products from the surrounding landscape. A certain amount of commercial enterprise could also be supported by the traffic demand incurred by this jurisdictional function.

Seguin's landscape lies in the "Texan" Ecological Province, encompassing two important vegetative regions within the State. These regions are the Texas Blackland Prairie and the East Central Texas Oak Woods. The confluence of these two regions at Seguin provided a rich agricultural resource that offered fertile soil and thick forest. Therefore, crops and timber became early economic underpinnings of a new and growing City. The early town plan, which is described below, provided designation for both of these agricultural activities.

Seguin sits on a blackland bluff overlooking the Guadalupe River floodplain at a point where flat land (associated with blackland soils) breaks into more steeply sloped land (associated with more acidic soils), and where water might be quickly lifted up to supply a spring (such as Walnut Spring). Seguin's site offered the new settlement certain benefits in its location not easily found in this open land. It provided:

- A defensible exposure with the river protecting almost three sides of the original settlement
- A source of fresh water (from Walnut Spring) and a source of industrial water (from the Guadalupe River)
- The availability of farm land to the north (for food and economic development) and the availability of timber land to the south (for construction and economic development)
- Connectivity to other frontier towns and settlements via the cattle trail and stage coach road that also made use of Walnut Spring

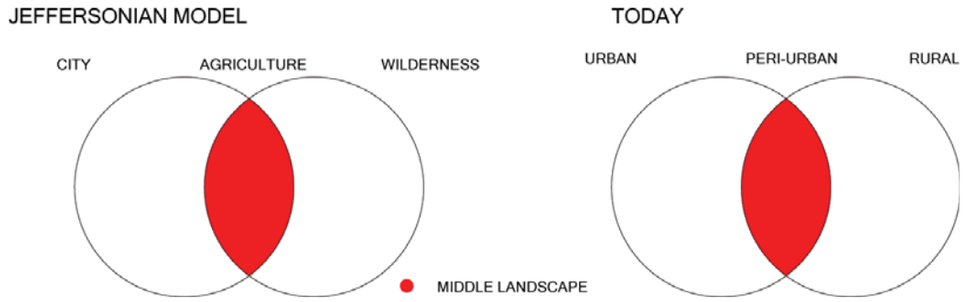


Figure 1. Models of Land Development.

The founders of Seguin acquired this specific site not only for its many attributes, but also for its unique beauty, which is referenced by the visitors and settlers who made their way to Walnut Spring. These comments are well documented in the writings and notes of those first 33 shareholders in the Corporation that established Seguin's original town plan.

The era of Seguin's founding was also the era of a more general westward expansion by European immigrants flowing from the eastern United States. Many of these settlers came to Texas following the opening of Mexican Territory to general settlement (1822). The visions of land and a better life that inspired families to endure the trials of frontier settlement consumed the consciousness of a young nation, giving rise to many visionaries and utopian thinkers in pursuit of the ideal city. Some of these experiments found their way into the mid-west (places such as New Harmony by Robert

Owen and Oneida or Amana), while others became the frontier model for settlers trying to civilize a hostile land (such as the Plat of Zion imposed by early Mormons in Utah and along the Virgin River Valley of Nevada). Therefore, it is not surprising that the first settlement of Seguin (then called Walnut Springs) was accompanied by a visionary plan that set in place a template for the city's future and provides background by which the planning issues of today can be understood.

However, early in its history, downtown's place as a hub within the patterns of local and regional movement was weakened by a shifting of traffic to newer corridors which passed outside the core instead of through it. As the City matured and grew, traffic densities were continually shifted to newer throughways, which moved increasingly further from the core area. Each new major throughway precipitated a wave of commercial investment and residential growth, which would collectively constitute the form of the City at that time. Every time that traffic and infrastructure shifted, the dominance of Seguin's central core was challenged. The City Form, which was once highly legible, became harder to comprehend. This is the greatest issue facing the City at this moment in its history, as these trends, should they continue, will further convolute the form of the city. The City's present form reflects these conflicts that assault and weaken its historic center.

The positioning of Seguin's early plan (hereafter called the Ranger Plat), the natural features of its environs, and the intervention of major throughways that attracted growth during various historic periods defines a constellation of experientially meaningful and cognitively strong sub-districts that comprise the physical form of the City. Each district possesses a different set of physical characteristics, is challenged by different physical issues, and is experiencing different trends of change. Therefore, these Form Districts are appropriate planning areas that can facilitate comprehension of the issues to be addressed by the Comprehensive Plan, articulation of the planning goals, and allocation of the planning recommendations. Each of these districts is unique for the following reasons:

- *Each presents its own challenges of enhancement and enrichment*
- *Each must find its own connection to the historic and future city*
- *Each possesses its own challenges to future growth*
- *Each has its own identity and spatial character*
- *Each has its own economic characteristics*
- *Each is in a state of transition unique to itself*

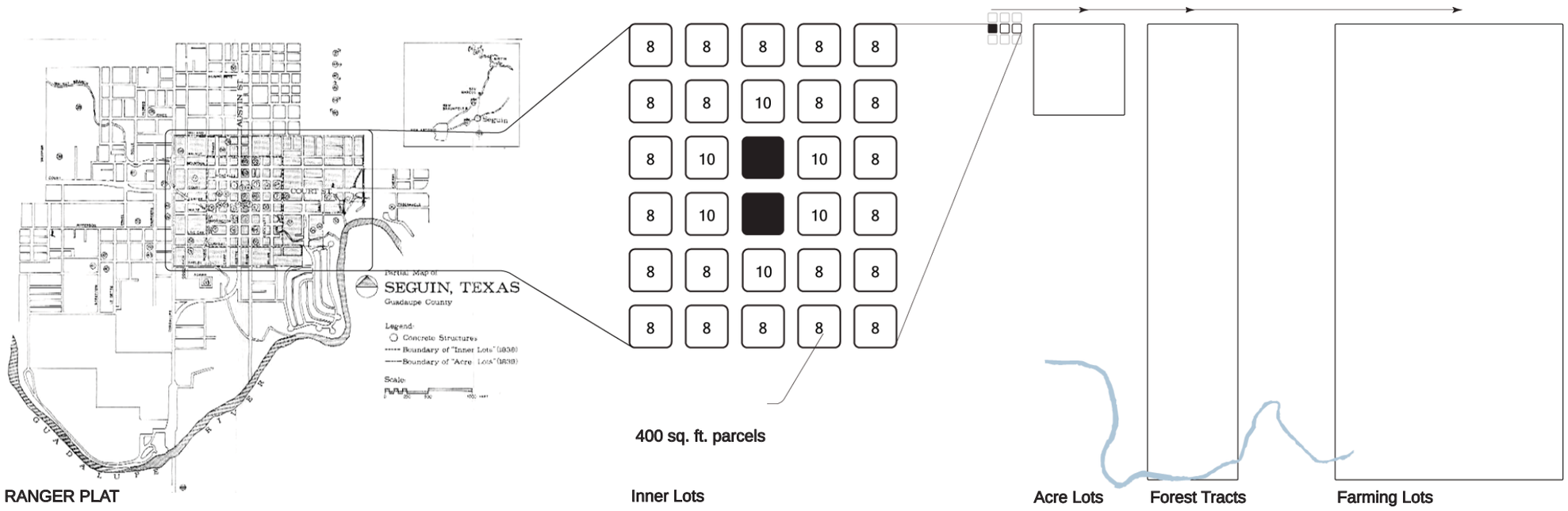


Figure 2. Seguin's Early City Plan, known as the Ranger Plat.

Within the City limits and the Extra-Territorial Jurisdiction (ETJ) of Seguin, there are 17 experientially identified districts, which are named as follows:

1. **The Town Center District**: This is generally the area of the original Ranger Plat and the corridors of earliest growth along Court Street and Austin Street.

2. **The Transitional District**: Bounded by highway commercial development on three sides and the historic City core on the fourth, this district is where residential development of different historical periods comes together in a diverse fabric of housing type and age.

3. **The Timber Lots District**: This district lies south of the historic City core and encompasses those early Ranger Plat tracts called the Timber Lots. It has a distinctive setting and physical fabric due to its age and proximity to the Guadalupe River.

4. **The Walnut Creek District North**: This district encompasses the area of the early Ranger Camp (west of Austin Street and north of Court Street).
5. **The Walnut Creek District South**: This district covers a large, mostly residential area between Court Street, Walnut Creek, and the Guadalupe River. It includes many historic residential structures and a rolling topography. The uniformity of Seguin's grid seen north of Court Street is challenged by the topography of this area. Consequently, the internal street layout here has many discontinuities and disruptions.

6. **The Station District**: This is a largely non-residential district that encompasses the old railroad freight station (west of Austin Street) and the old passenger station site (east of Austin Street). Much of the City's older industrial fabric lies within this zone, which is bisected by the railroad track and Business 90 (Kingsbury Street).

7. **The University District**: This is a district of emerging importance to the future of Seguin because it contains an active and growing University (Texas Lutheran University). Bounded roughly by Court Street, Highway 46, Business 90, and portions of Walnut Creek, this area includes the University and the residential fringes that adjoin it.

8. **The Highway Commercial District**: The term Highway Commercial District describes an area on both sides of Business 90, the Highway 123 Bypass, and Court Street (east of downtown). This zone is filled with commercial development oriented to and capturing the value created by the vehicular volumes traveling these corridors. Large plate buildings and expansive parking areas are typical of the development pattern evident.

9. **The Jefferson District**: This district lies west of the Walnut Creek South District and east of Highway 46. It is a transitional residential area containing both newer and older homes laid out on straight streets that make a loosely defined grid with varying cell sizes. Development along the streets is more uniformly related to the street (uniform set back and orientation). This creates a differentiation between the Jefferson District and the districts closer to the City core, which exhibit more incremental qualities of residential development.

10. **The River Bend District**: This district lies on both the north and south sides of the Guadalupe River as it passes through Seguin. Here, verdant river banks have attracted the development of luxury homes laid out along winding streets that respond to the dramatic topography of this area.

11. **The North Seguin District**: This is a district that lies generally to the north of the Station District and is part of Seguin's early suburbanization. Here, long blocks with uniformly arranged houses fronting them depart from the historic square grid and show a development pattern more common in city suburbs.

12. **The Freeway District**: This district lies on the north and south sides of Interstate 10 from its intersection with Highway 46 to its intersection with the Highway 123 Bypass. This district will ultimately grow to include the intersection of IH-10 and the proposed SH 130. This district has a regional scale that visually conveys its connection with the regional reach of the interstate system.

13. **The Geronimo Creek District**: This district lies east of the Highway 123 Bypass, west of Geronimo Creek, north of the Guadalupe River, and south of Business 90. Here the influence of Geronimo Creek nurtures a rich landscape set in rolling topography that has attracted higher income housing but is segmented by the influence of existing highways over development patterns.

14. **The Agricultural District**: A vast and largely undeveloped area lying north of IH-10 and flanking both sides of the highways to New Braunfels and San Marcos. This is an area where future development pressure is beginning to emerge, driven by growth in neighboring Cities. It is important to monitor how this development will mesh with the growth of Seguin.

15. **The Randolph District**: This is an area west of the Randolph Air Force Auxiliary Base and east of Geronimo Creek. Future eastward expansion of local residential development is limited by the presence of the base air strip. This presents a land use challenge for this district and poses conflicts with residential development within the Geronimo Creek District.

16. **The Guadalupe District**: This is another vast area of largely undeveloped land to the west of the Guadalupe River and divided by the westward extension of FM 78 and IH-10 and the southern extension of FM 725. The power of the Interstate and other corridors crossing the area to influence and regionalize development could potentially conflict with local development.

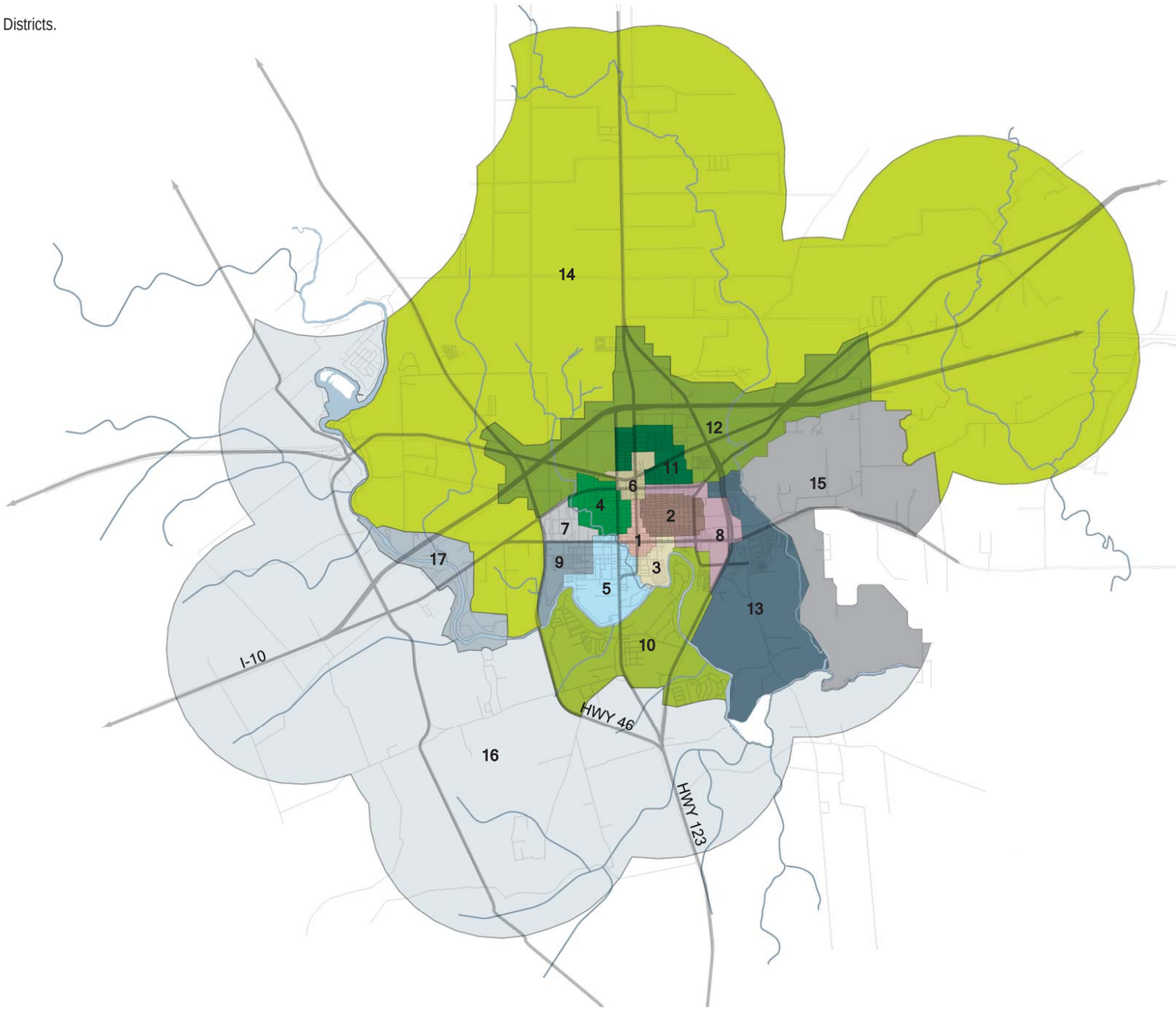
17. **The Lake Placid District**: This district circumscribes a residential community that has grown up around Lake Placid. Many of the homes are second homes and the area is spatially isolated from other growth areas of Seguin.

The following text presents each of these 17 Form Districts and discusses the particular aspects of form that make it unique. In addition, the planning issues that will shape and influence the formulation of Seguin's Comprehensive Plan are presented. These issues are summarized by issue statements (written in bold type) presented at appropriate points throughout the text. These statements express the form analysis in terms that can be addressed by the Comprehensive Plan Document.

Figure 3. Seguin's 17 Form Districts.

Figure 4. Map of Seguin's 17 Form Districts.

- 1. Town Center
- 2. Transitional
- 3. Timber Lot
- 4. Walnut Creek North
- 5. Walnut Creek South
- 6. Station
- 7. University
- 8. Highway Commercial
- 9. Jefferson
- 10. Riverbend
- 11. North Seguin
- 12. Freeway
- 13. Geronimo Creek
- 14. Agriculture
- 15. Randolph
- 16. Guadalupe
- 17. Lake Placid



DISTRICT 1: THE TOWN CENTER DISTRICT

Seguin's Town Center Distric is distinctive with its courthouse set off the public square rather than on the square. Known as the Open Plaza Prototype, this form is found in only seven of the 92 Texas County Seats, including the City of New Braunfels. The Shelbyville Prototype, which is the form of Town Center with the Courthouse sitting on the Square, is found in 62% of Texas County Seats, such as the Williamson County Square found in Georgetown, Texas. This unique relationship is evidence that a particularly visionary plan (The Ranger Plat) was proposed at Seguin's outset. The Ranger Plat is also interesting because it encompassed more than the town center, it addresses the town economy. The Ranger Plat is, in many ways, a closed system, a vision of a **complete** community, a vision of a complete settlement. A detailed description of the Ranger Plat is presented in Under the Live Oak Tree, a history of Seguin by John Gesick, Jr. According to Mr. Gesick:

> "The town of Walnut Springs [Seguin] was organized into four sections. As one drives about town today he can easily pick out each section's characteristics…The four sections of the town were the central or inner lots, the acre lots, timber lots, and farming lots.
>
> In the inner lots, there were 56 blocks, each two hundred feet wide. The center two blocks, as indicated earlier, were retained for public use. Each of the remaining 54 blocks were divided into building lots with each block being further divided into 8 lots. The only exception to this was the six blocks surrounding the two inner blocks. Each of those six blocks was divided into 10 lots.
>
> The second section, the acre lots, surrounded the central 56 blocks. These were named acre lots so that if people wanted to garden or keep some livestock or poultry then they would have enough land. To the south of the acre lots was the third section. It was called the timber lots. Each of these lots had 5 acres and the lots fronted the Guadalupe River.
>
> The fourth section was to the north of the acre lots, called the farming lots. These lots were twelve acres in size and ran as far north as present day IH-10, and east of Guadalupe Street… Their roads, already mentioned, were well laid out, being required to be 70 feet wide and running north-south and east-west."

The above described pattern of concentric private functions about a central public function (oriented due north/south and east/west) bears a striking resemblance to other early 19th century town visions. The most apparent comparison is to the popular utopian notion that public functions reside within residential functions which reside within agricultural functions. This plan form pushes animals and farm activities to the perimeter of a closely associated residential core. In this way, the core of the town nurtured collective social activities and civic affairs. Therefore, the Ranger Plat implies an attempt to orchestrate human relationships and establish a community ideal amid the beautiful setting at Walnut Springs. The Ranger Plat establishes a relationship with the "wilderness" (an untamed and often hostile frontier) that is distinctly Jeffersonian… namely the separation of city from wilderness by an intervening "middle landscape" (a space controlled by yeoman farmers).

Enclosure of the public center and further enclosure of the residential core established by the Ranger Plat created a rigid plan form (grid) that would not accommodate change, however inevitable that change may be. Placement of the most ornamented Courthouse entry on Centre Street, opposite the public square (at Market Street) suggests that Market or Centre Street was originally envisioned as the primary east/west corridor. This would parallel the relationship between major movement corridors and the open plaza of other Cities like New Braunfels (where San Antonio Strasse is the major circulation corridor through town) Similarly, location of a major hotel along River Street suggests that River Street was originally envisioned as the primary north/south corridor. However, early in Seguin's history, Court Street became the primary east/west thoroughfare. Location of the Train Station west of Austin Street and operation of a mule drawn trolley between the station and downtown (along the Austin Street right of way) eventually made Austin Street the primary north/south thoroughfare. As a result, the center of town slightly shifted from the intersection of Center, River, and Market to Austin and Court early in Seguin's history. This is the beginning of a pattern of continual shifting that defines the form of Seguin and increasingly depreciates the economic power and functional importance of the City center.

Therefore, the Plan for Seguin must re-establish the functional and economic importance of Seguin's historic center by restoring its prominence within the pattern of traffic movement and development.

Therefore, create a commercial core that gathers the incoming traffic.

Therefore, establish points of entry into the core area that are part of the normal movement pattern.

As Austin and Court Street gathered greater traffic density and established greater prominence in Seguin's patterns of movement, development began to cleave to the edges of their respective right of ways and in doing so, move the city pattern from its original concentric and concentrated form to an increasingly more lineated and dissipated form. These lineal reaches of commercial development stretched ever further east and west along Court Street and north along Austin Street (toward the train station). As development populated the pathways leading into downtown Seguin, the once dramatic sense of arrival became increasingly vague until it was uncertain as to where downtown began and ended. This loss of clear physical expression contributed to a loss of center and made the town ripe for increasing competition from peripheral arterials and arterial intersections. The benefits of aggregation which once gave prominence to a tightly clustered central city were lost to spatial dissipation of a limited commercial demand along bypass corridors that ended up competing with downtown.

Therefore, the Plan for Seguin must give greater physical definition to downtown within the existing movement pattern and encourage aggregation of commercial investment within the core city.

The lineal development patterns extending out of Seguin's downtown lay generally to the east and north of the City core due to the physical limitations imposed by Walnut Creek (west) and the Guadalupe River (south). This north/east trend was facilitated by the train station (north) and the nearby town of Gonzales, which made intervening road frontage more valuable. The dominance of these corridors is clear in the nature of buildings fronting them. Along Austin Street a line of larger, more stylish homes emerged (these depict various periods of the Victorian era and present a stately/opulent façade to the street) which evidenced the City's rising wealthy class. The types of uses attracted to Austin Street were large homes, entertainment, schools, institutions, and employment. The types of uses attracted to Court Street were governmental and retail. The early prominence of Austin and Court Streets over Market and River Streets mark the beginning of an on-going pattern of separating the City core from the major circulation corridors upon which it was built. Even though the main thoroughfares only shifted one block to the north, the impact would be to weaken the relationship between Seguin's City core and incoming roadways that served it. As other major roads (such as Highways 90, 46, and the Highway 123 Bypass) moved the incoming traffic (and the attractions to investment that it offers) further away from the City core, downtown became progressively weaker (a place of retreating investment).

Therefore, the traffic movement must engage the Town Center District and a hub of its organization so that there is a stronger connection between this place of historic investment and the emerging places of current investment.

As Austin and Court Street became more important, each began to support a building scale that is generally larger than buildings around the Square. More consistently two stories and having a wider street frontage, buildings fronting Austin and Court Streets became some of the most important buildings in the growing City. The 1924 Sanborn Map clearly shows the growing importance of Austin and Court Streets. The density of (and continuity of) frontage along Austin and Court Streets is significantly greater than that along Market or River Streets. However, the close proximity to the Courthouse and Square maintained a general connection between newer growth and the historic core that preserved the City form and identity. It was only when investment later moved to other streets more distant from the core that the City's clear concentration about its historic center began to dissipate.

Therefore, Austin and Court Streets must be reconnected to the major movement pathways of local and regional traffic so that the central importance of the historic City core is restored and maintained.

Outside the area of the original 56 (200 feet by 200 feet) blocks, the distance between streets tends to be greater (making larger blocks). The notable exception to this is the distance between Austin and River Streets which maintains the 200 feet separation beyond the 56 block area and up to the Railroad Station (Business 90). Consequently, there is a clear spatial relationship between Austin and River Streets that is unique but that relationship is not confirmed by any particular street function. The original town plan shows Austin and River Streets continuing north as equal out-bound thoroughfares. However, for reasons presented earlier, Austin Street gained dominance over River Street, making River Street less relevant to local movement and obscuring the simple symmetry of the Ranger Plat. Houses located on the short blocks between Austin and River Street have double frontage with some houses oriented to Austin and others oriented to River. The result is a confused fabric of front yard, back yard, residential, and commercial all mixed in a narrow space between two closely associated streets. The equal function of these two streets strengthens the importance of Seguin's open plaza as a place of arrival and the importance of both River and Austin Streets as approaches to this destination. Loss of that equal

function weakens both the sense of approach and the sense of destination. Both of these attributes are important to a viable City center.

Therefore, strengthen the destination qualities of Seguin's Town Center District by restoring the shared approach functions of River and Austin Streets and restoring the importance of Seguin's open Plaza as a place of arrival.

Therefore, establishing approach identities that will invite movement toward the Town Center District.

By establishing a "middle Landscape" between the City and the Guadalupe River (the Timber Lots), Seguin removed its "City" from any association with the Guadalupe River and made no real effort to be a River City (as did other Cities along significant Rivers such as Orange, Texas, along the Sabine). In a time when downtown Seguin gathered regional and local traffic to support its central viability, the River and associated unpredictable flooding were threats to maintenance of a predictable market place. The destination significance of downtown Seguin lay in its function as a circulation hub. However, today the hub function has been replaced by more convenient bypass streets and highways. Consequently, connection to the River has gained new importance to re-establishing the destination significance of Seguin's downtown area.

Revitalizing the downtown core as an investment environment necessitates that a new destination significance for this historic area be envisioned. Spending within the core area is a function of the duration of downtown visits. The longer the visit, the more a visitor will spend. Visitor spending is particularly influential (in terms of the investment it will attract) when the duration of a visitor stay is extended to over-night. Currently, traffic moves by (not through) the Town Center District on Court Street but does not spend significant time within the core area to precipitate spending.

Therefore, strengthen the destination qualities of theTown Center District by creating an appropriate link with the Guadalupe River and establishing other destination attributes that will support downtown visits, downtown stays, and downtown spending.

The loss of hub significance to downtown left the City core with little relevance as a destination except for its continued importance as a County Seat and place of Civic Government. However, recent exportation of civic functions to Highway 46 begins a process of further erosion of downtown's remaining destination significance. Future public facilities (as needed to serve the growing City) represents a significant public investment that could greatly strengthen the historic City center.

Therefore, preserve and strengthen the governmental importance of the Town Center District by expansion of these facilities within the downtown area.

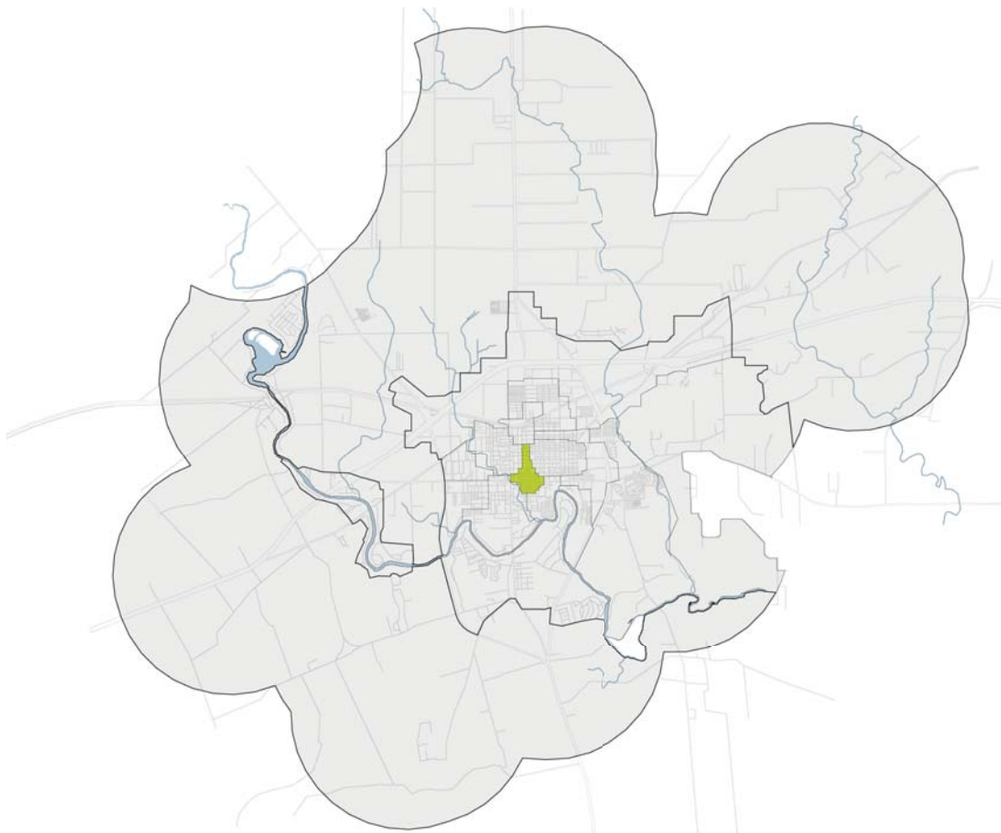


Figure 5. The Town Center District.

DISTRICT 2: THE TRANSITIONAL DISTRICT

The area north of Court Street and east of the Austin/River Street spine is a relatively dense zone that reflects the fading influence of Seguin's historic City center. Portions of this district adjacent to the core contain older homes and portions of this district adjacent to emerging commercial centers (along Business Highway 123, Business 90, and eastern Court Street) contain newer homes. Between is diverse residential fabric of varying age and physical condition as the district makes a transition between the older city and the emerging city. Unlike the historic core which grew in conformance to an orderly plan (continuous street frontage and similar building orientation), the Transitional District has grown in defiance of the grid-like street pattern that traverses it. Varied building orientation, irregular street frontage, divergent spatial relationships within the block, and differing building style/age/condition all contribute to an overall sense of chaos within the built fabric. Consequently, the transition accomplished through the fabric of this district is not one that speaks to planned City growth but to the economic struggle that exists between the older and newer City. This makes the Transitional District a barrier between the Older and Newer City that further contributes to the isolation of Seguin's historic core.

Therefore, the tendency of the Transitional District to be a barrier between Seguin's historic core and areas of newer development and investment must be transformed into a link between them that will mitigate the growing isolation of downtown.

The built fabric of the Transitional District appears incremental and unplanned because the ordering influence of the area's relatively uniform grid has had no influence on development and has no vertical expression within the physical fabric. Yard planting extends to the edge of the street but does not express the lineal nature of the street. Instead it expresses the plant design preferences of the lot owner. As a result, there is no recognition of the public domain in the landscape arrangement. Street lights and curbs are noticeably absent, thereby further reducing any articulation of the street infrastructure and creating a street plane that is very close to the level of the lot plane. Consequently, visual differentiation of the ground plane between public and private is difficult and the power of the street to order the fabric of this district is weakened. Finally, the street is not uniformly recognized by building placement within the lot. Setbacks and building orientation within a block vary widely. There is no common frontage. As a result the ordering influence of the street is overwhelmed and the identity of this area's fabric is largely conveyed by highly diversified development within the block. The jump from the highly organized core to the disorganized fabric of the Transitional District contributes to the isolation of downtown and disconnects the larger city.

Therefore, the public domain within the Transitional District must be given greater visual clarity/definition that links older and newer areas of Seguin across the physical fabric of this district and creates a greater visual identity for this area.

The visual randomness of the Transitional District is most dramatically conveyed by the randomness of the lotting pattern within block cells of its street grid. In the original town plan, blocks within the grid were uniformly subdivided into lots (typically 8 lots) sharing a common rear lot line and street orientation. However, within the Transitional District, no such uniformity can be found. The number of lots within the block cell is varied as well as the street orientation and rear lot relationships. This creates a randomly defined edge of spatially separated buildings defining an un-built center that often functions like a common rear yard space. A frequent lack of yard fencing results in a typical openness to this central block space that dramatizes randomness in what is built. If the blocks were developed in the manner of a typical subdivision, the use of block space would have been more efficient and more uniform. Consequently, one can speculate that this area was not built in the typical manner but grew organically instead, orderly as if under the rule of a plan or speculative enterprise. The Transitional District is unplanned and is the result of growth initiatives at various points of time led by individuals or groups of individuals acting in their own interest rather than a larger civic interest. The result of such growth is an area of uncertain form, identity, and general value. This presents a challenge to any residential growth of Seguin's historic core because it does not provide for an area of historic housing stock contiguous with the City's Historic Center that can accommodate needed residential reinvestment.

Therefore, the Transitional District must be addressed with program initiatives that will facilitate more orderly redevelopment and more general stabilization.

The clear randomness found in lotting patterns is echoed by a clear randomness in the age, style, maintenance, and value of the built housing stock. Large and small houses can coexist within the same block cell with different street frontage and different levels of maintenance and upkeep. The pattern of what is built suggests that the block cell was at one time owned by one individual who later sold off tracts (or otherwise transferred building rights) within their ownership without the guidance of oversight by ordinance or central authority. As a result, it is common to find a larger older home within the block surrounded by smaller homes built at a later date. The older home often manifests a tradition of style and/or design (typically Victorian) with the newer home(s) being more anonymous and generic. This means that the Transitional District contains a certain amount of historic fabric.

Therefore, the remaining Historic Fabric of the Transitional District should be preserved as part of any initiative to revitalize this area.

While a general grid of streets suggest some form to the public domain within the Transitional Zone, this grid is riddled with discontinuities that limit the number of streets extending from one side to the other. These through streets are operationally more important than streets that do not go "through"

but this importance is not visually conveyed. All streets within the Transitional District are uniformly sized and share the visual qualities described above. This makes location within the district difficult to comprehend and hinders any clear sense of place needed for this district to become a neighborhood. A more clearly stated visual hierarchy within the internal street system would help create a sense of order and comprehensibility needed in this area.

Therefore, a greater sense of order and identity within the Transitional District must be conveyed by a clearer articulation of the public street system and hierarchical movement patterns within it.

The edge definition of the Transitional District is clearly expressed by the dramatic change of land use at Business Highway 123, Business 90, and Court Street. The sudden change from residential to commercial is jarring. This makes the district's edges hostile to (rather than reinforcing of) its identity. The result is to understand that this district exists behind (and separate from) commercial development along the major streets that bound its edge. This separation (and isolation) is reinforced by a lack of entry that allows movement through the peripheral commercial boundary without becoming fully engaged in it. When edges have no intentional points of entry, the edges become boundaries meant to separate rather than engage the adjacent urban fabric. The result is a series of physical disconnects that afflicts this area and many parts of Seguin. Without such connection, the City fabric fragments into autonomous pieces that begin to function independently rather than jointly (in the manner of a more unified City).

Therefore, the dramatic separation between the Transitional District and its commercial edges must be mitigated by clear points of entry that define portals and begin to link separated elements of the City fabric.

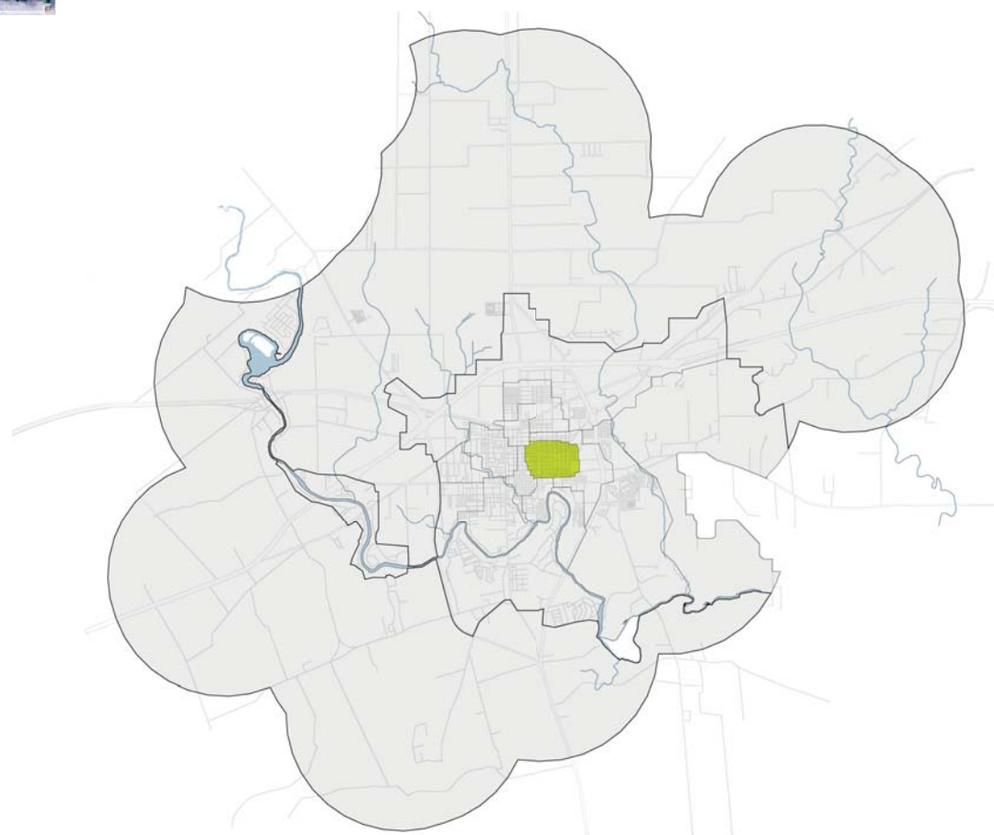


Figure 6. The Transitional District.

DISTRICT 3: THE TIMBER LOTS DISTRICT

The area south and southeast of the Historic Town Center, east of Austin Street, and north of the Guadalupe River is a mostly residential zone of older homes set in a rolling landscape that is significantly different than flatter land to the north. Historically land in this area was referred to as the "Timber Lots", a term that describes its original relationship (as a source of timber for early Seguin) to the Town Center. The timber resource contained within the Timber Lots grew as a result of the River's influence, suitable soil conditions, and a nurturing topography that supported a diverse riparian forest.

The early use of this area for timber production rather than more intense settlement established a significant (and lasting) separation between the Guadalupe and downtown Seguin that led to growth of a core City area separated from and independent from the River corridor. As timber use ceased and the Timber Lot District began to develop, the rolling river topography prevented any southern extension (toward the Guadalupe) of the core's regular/uniform grid. Consequently, the Timber Lot District developed its own unique street and building pattern and in so doing became both an identifiable zone and an established barrier between any southern connections of the Historic Core to the Guadalupe River.

Earlier in this analysis the Transitional District was described as developing independent of the Historic Core and thereby contributing to isolation of the downtown as well as disconnection between component elements of the larger City. Similarly, development of the Timber Lots District in a form and pattern independent of the Historic Core further contains the core City in an unresponsive physical fabric. Consequently, approaches to the downtown area must traverse these barrier communities.

Therefore, future public and private development within the Timber Lot District must reflect some aspect of the form and character of Seguin's Historic Core that will link the district and the City and thereby establish a connection between the City and the River rather than just the District and the River.

River Street extends southward out of the Historic Downtown into the Timber Lots District as if it would come to the River itself. Instead it gets lost in an irregular physical fabric and street pattern and never fulfills the connection its name suggests. This dramatizes the extent to which the Timber Lot District, it its current state, separates downtown from any meaningful connection with the Guadalupe. Like the Transitional District, the Timber Lot District contains a mixed and varied physical fabric of houses in varying condition, occupying varying orientations within the block, built at different points in time under varied stylistic notions, and manifesting diverse levels of maintenance. Visual consolidation of the Timber Lot District into a comprehensible zone/community/neighborhood is hindered by these broad differences within its physical fabric. Without such consolidation, the Timber Lot District cannot become a true component of the City that embraces the River. Its current state is like the flood plain…unresolved…a fragment fringe that dissipates toward the River rather than embraces it. In its fragmented condition, the Timber Lots District only separates the City from its River, not connects it.

Therefore, fragmentation of the Timber Lots District must be visually consolidated so that it can function as a true sub-district of the City that links City and River.

The unresolved residential fabric of the Timber Lots District is echoed in the generally unresolved state of the public fabric (namely streets). The term unresolved here suggests that articulation of the public domain (which includes the street pavement) lacks vertical expression/visual reinforcement. Such articulation is necessary to "contain" the lots within a public infrastructure. Such visual definition is the condition of the city while lack of such definition is more characteristic of the country. To bring the rural relationship of street to property into the City and express it within a street pattern that is orthogonally arranged (right angles and short blocks) suggests that there is insufficient public infrastructure to support development. This affects property value and the public image of an area that should realize the benefits of its association with both downtown and a verdant river. No such value has been realized here and the image of this district is unclear.

Therefore, plans for the Timber Lots District should pose design initiatives that will strengthen the expression of public fabric (street) and bring greater shared identity to this area.

In part, the unresolved state of The Timber Lots District reflects a generally unplanned clash between what is natural and what is built. Rolling topography and well defined drainage ways do not provide the best ground plane upon which to place an orthogonal street pattern. The result is a street pattern riddled with discontinuities that challenge any sense of orientation or identity. As one travels through this district, they encounter sharp right angle turns that leave one type of street setting and embrace another. A street may terminate at the side yard of a lot (typically a lot where the demarcation between what is "within" and what is "without" the property line is not clearly understood), then force a turn onto an intersecting street that flows to the front yard of another lot (at which point, the traveler is provided with an option to turn right or left with out fully understanding where either choice will take him/her). Within this type of confusing movement pattern the built fabric shifts and changes (age, style, level of maintenance) further contributing to a lack of comprehensible form and further reflecting the extent to which the river landscape refuses to submit to an urbanized development pattern. There needs to be greater reciprocity between how this area is built and the landscape in which it resides. Failure to do so denies the presence of the River and isolates the present day Timber Lots District from the River association that inspired its original purpose and name.

Therefore, plans for the Timber Lots District should allow greater visual expression of the distinctive natural setting in the treatment of streetscape and other public areas.

Finally, the Timber Lots District is an historic part of Seguin that has been associated with the City since its beginning. There are several large, beautiful, and historically important homes within this area that provide an historic context as important as the area's natural context. Historic homes tend to cluster closer to downtown and as one moves away from downtown (towards the River) the housing stock tends to be newer and constructed without regard for elements of style/design that would have made them compatible to (harmonious with) the pre-existing historic fabric. Continuity is an important dimension of stability and stability is necessary for historic areas to realize reinvestment. The lack of continuity within the fabric of the Timber Lots District reinforces an image of instability and transition that discourages reinvestment and/or the restoration of older historic homes. Successfully revitalized historic City/Town Centers in Texas have active (active meaning that reinvestment is occurring) residential historic districts about their perimeter. Blocks within the Timber Lots District are sparsely developed which means that the opportunity to realize greater continuity within this area still exists. However, appropriate development of existing vacant parcels and/or redevelopment of existing built parcels will require some level of public support to overcome the aspects of instability currently visible.

Therefore, programs and design initiatives are needed to bring greater visual continuity and greater historic sensitivity to new development and/or redevelopment of this area.

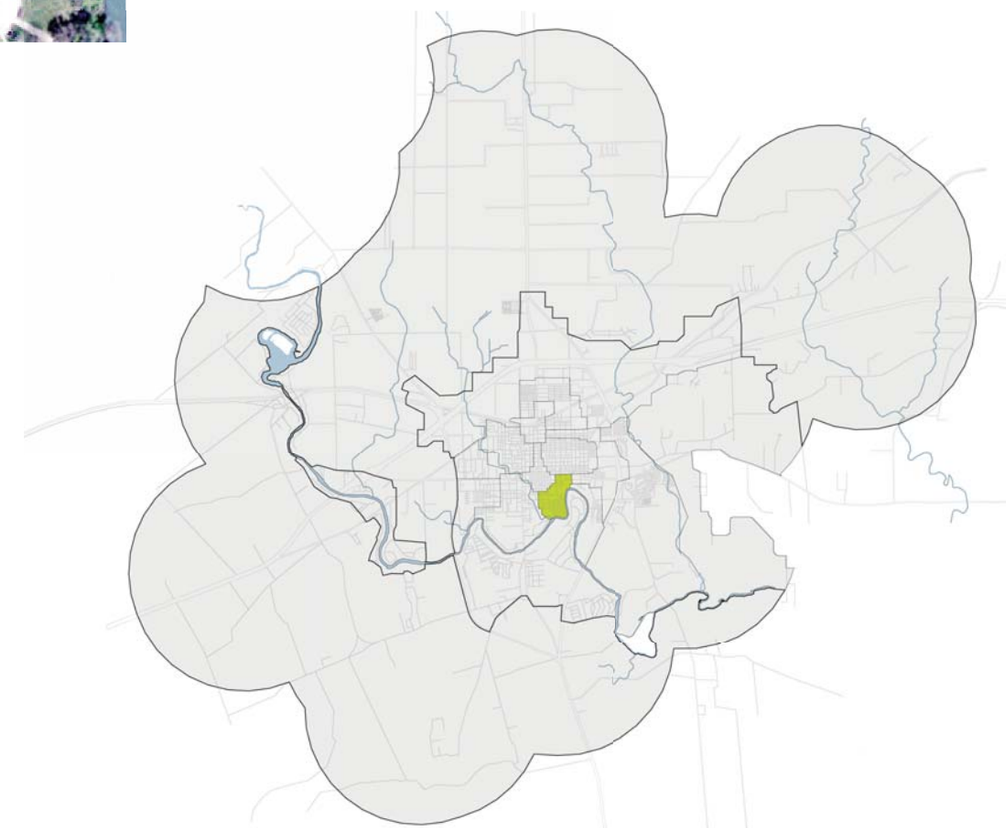


Figure 7. The Timber Lots District.

DISTRICT 4 AND 5: WALNUT CREEK DISTRICTS, NORTH AND SOUTH

As Walnut Creek extends north from its intersection with the Guadalupe River, it passes through a largely residential area that lies generally west of Seguin's downtown core. Consequently Walnut Creek divides this area into two parts (north of the Creek and South of the Creek). Central to both areas is the creek itself and the open spaces it creates. The presence of the creek challenges the orthogonal street layout that typifies this area, causing the right angle street geometries to break down at the creek edge. This gives the creek a strong presence in the Creek District and creates a focal element of identity and orientation. However, the presence of the creek is only realized as it opposes the grid. Where the grid is in control, the creek and the benefits of identity it affords are invisible. Walnut Creek is a fundamental structural element of the City of Seguin that should be echoed throughout those areas that hosts its presence. Denial of the creek disengages the flanking areas from a meaningful structural interconnection that ties districts of the City together upon a common armature.

If districts of the City cannot be linked through shared natural features then other means of interconnection must bring them together in a shared identity/function that make the collection of such districts a place. The original plan of Seguin sought to make this necessary interconnection by assigning interrelated purpose to the blocks (public, private, farming, and timber arrayed within a grid). As Seguin has given its commercial uses over to each new bypassing street and highway (Highway 90, the Highway 123 Bypass, Highway 46 and IH-10) it has become more difficult to retain those former interdependencies that held Seguin together in a comprehensible form about its core downtown. The Walnut Creek district displays the sequential disassociation of Seguin's fabric that afflicts much of the older City area (areas of the City that have not grown from their strong relationship to the River). Consequently, the Walnut Creek District embodies many of the same characteristics found in the Transitional District and is in many ways a transitional area that defines that zone lying between the old core and newer zones of development. Unfortunately, this is not a function or purpose that creates stability or encourages reinvestment.

Therefore, a plan for Seguin must re-establish the structural/functional interrelationships between areas of the City lost as the pattern of focal points and corridors (that once held them together) shifted.

Within the Transitional District, blocks are generally square, and in the Walnut Creek Districts, lots are generally rectangular. This benefits the internal fabric because it promotes more continuous street frontage and a clearer definition of a shared public domain. However, the central axis of these blocks shift orientation. Generally east of Gonzales Street, the axis orientation is north to south and west of Gonzales it is east to west, while south of the creek, it runs in both directions. The result is a general sense of incremental growth and unplanned development. A shift in block orientation is accompanied by frequent discontinuities in the street pattern. Many streets that should align across major arterials (such as Gonzales Street) do not and consequently create a jarring break in the internal continuity of this area. The grid is broken by the creek, the grid is broken by the major arterials, and the orientation of cells within the grid shifts. Consequently, the internal fabric of the Walnut Creek District is fragmented by everything that crosses it. The Walnut Creek District must come together as a true "district" so that a coherent vision for its future can be envisioned.

Therefore, internal disruptions within the Walnut Creek District must be mitigated through initiatives that establish greater internal continuity and give greater clarity to those elements of the area that traverse its fabric without disruption.

Internal definition must be accompanied by external definitions that give form to the edges and points of entry into the Walnut Creek District. A potential for strong edge definition lies in Business 90, commercial frontage of Austin Street, the University, and the Guadalupe River. However, the Walnut Creek District does not derive any internal form from its association with these potential edges. The district fabric separates itself from the University by a large unused open space that is disconnected from the street (held behind private lots that front the street). Likewise, the fabric of the district separates itself from the River by coming up to Starcke Park but not embracing this coming together with any public component of the district's fabric (street). As a result, the park is a separation, not a connection. The Walnut Creek District flows to and blends with the fabric of Austin Street, making this edge ambiguous and formless. Finally, the fabric of the Walnut Creek District addresses Business 90 as if it were an internal street, not a bounding street (houses front the highway right of way). This varied relationship to corridors that should provide a strong edge is part of the overall fragmentation that characterizes this part of Seguin.

Therefore, edges of the Walnut Creek District must be solidified and points of entry more clearly articulated within the fabric of this area.

Internal discontinuities and weak edges create an area of the City that has no internal hierarchy. This type of internal structure is important to establishing a cognitive structure upon which we create our sense of "place". Internal hierarchies include streets that are more important than others (and that importance is celebrated) and places that are more focal than others. Movement along and arrival upon are key distinctions that give form to our comprehension of district. The Walnut Creek has many internal opportunities to create this structure and in so doing give greater identity to an area becoming lost to the incremental growth that afflicts it. Certainly streets like Guadalupe and Court Street can be visually celebrated as major internal corridors and Walnut Creek (as well as the open spaces it presents) can be more powerfully connected to the public elements of this area's fabric. With primary internal destinations and connections established, lesser connections can be made until an internal network evolves and a greater sense of place is created.

Therefore, an internal hierarchy of corridors and focal points must be established within the Walnut Creek District so that a coherent and identifiable form will emerge.

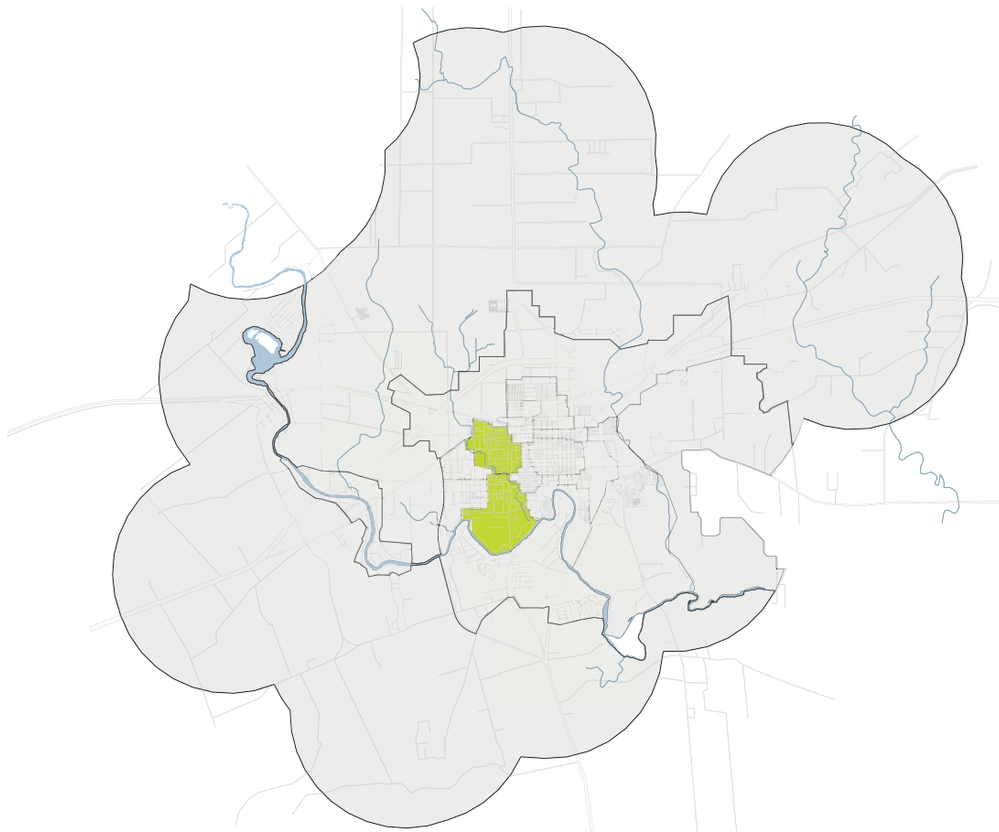


Figure 8. The Walnut Creek Districts, North and South.

DISTRICT 6: THE STATION DISTRICT

By the early 20th century, Austin Street had fully emerged as a major commercial spine for Seguin. The activity of Austin was celebrated with a mule drawn trolley that ran from the train station (at the intersection of Austin and the Railroad Track) to Market Square (at Austin and Market Streets). Responding to the railroad's importance as a link to larger markets and responding to increasing traffic volumes along Austin Street, commercial and industrial buildings began to emerge along Austin's right of way. The 1924 Sanborn Map clearly shows the physical power of Austin as a commercial spine and the clustering of commercial/industrial buildings about the train stations. This clustering defines an area referred to herein as the Station District.

Moving north along Austin Street, arrival at the Station District is physically announced by the sudden presence of commercial buildings set close to the street and forming a continuous "street wall". South of this portal, buildings vary in their relation to and distance from the street, thereby making the beginning of the Station District more noticeable. However, the continuity of building façade is only momentary. Once into the district area, visual clarity is quickly lost to a diversity of building type/style/age/condition/and relation to the street. Like areas of Seguin previously discussed, a diverse internal fabric hinders the power of the Station District to be viewed as a coherent and definable zone of stability. At one time the station and its surrounding zone terminated the activity and thrust of Austin Street, making it a type of satellite to an active downtown core. Today, the activity and thrust of Austin Street extends well beyond the Station District, making it a zone one passes through (rather than comes to). Consequently, the once terminal district that identified itself through its economic importance and linkage to the railroad now must identify itself through the strength if its physical fabric. However, that physical fabric is riddled with partially used buildings, vacant lots and other types of spatial dispersion that hinders the comprehension of the district and promotes ambiguity relative to the area's sense of being a district. Any revitalization of the Station District beyond its frontage on Austin Street will require a more clearly stated identity and sense of place.

Therefore, plans for the Station District must identify a focus of activity that will bring the district together and justify this cluster of nonresidential uses in a residential area. Such plans must also pose design initiatives that will create greater physical continuity.

A large part of an area's perception as a "place" lies in the clarity of its edge definition. The Station District confronts adjacent residential zones without a clearly formed edge…simply a sudden jump in land use. This lack of edge definition further weakens the Station District and prevents it from emerging as a true sub-component of the City. Instead it becomes another transitional zone adjacent to the City core…a transition zone that must be passed through as one approaches the core along Austin Street… a transition zone that further isolates the central city from newer development along IH-10. In order for the Station District to be a positive part of the experiences that approach Seguin's downtown, it must be established as a definable district through which one travels. In this way it becomes a landmark, a reference point, and a functioning element in the pattern of elements that comprise one's cognitive map to the City.

Therefore, the Station District must be given greater physical definition through clearer identification of its edges and establishment of portals and landmarks within the district that will provide needed elements of cognitive structure.

When the stations were operational, the Station District had a focusing purpose that established its relationship to the rest of the City. It was a functioning element of a viable hub. Today, the freight station is a feed store and the old passenger station has been redeveloped. As a result, the district has lost that focusing function that gave it a meaning by which activities within the district were brought into a functioning relationship with the rest of the City. Areas adjacent to the Station District were likewise brought into a functional relationship to the rest of the City. Without the operational presence of the railroad, the important focus the station provided is absent and the district disengages from the city fabric. Consequently the district becomes a disruption to the areas/zones that embrace it. Losing a connection with the railroad weakened the Station District's previous form-giving influence on surrounding residential areas that grew up in its presence. Without that relationship, the Station District and its adjacent residential areas lose the structural "underpinnings" that held them together in a relationship unique to the City. A central focus for this area must once again be found so that the Station District and the areas that embraces it can "reconnect" and re-link the City's now disrupted structure that once nurtured Seguin's town core.

Therefore, plans for the Station District must restore a central purpose that will define the area's relation to the downtown core and its relation to neighboring residential areas.

When an operational Station was present, the Station District comprised an historic setting of buildings and activities. Today, only remnants of the historic fabric remain and these surviving pieces are visually overwhelmed by newer industrial construction (representing varied levels of capital investment). Even a vestige of earlier railroad spurs are visible in the street pavement testifying to the extent to which land use within the district and

the railroad were connected. Newer development tends to be larger than historic development, making the emerging scale of the district increasingly incompatible with adjacent residential areas. This growing incompatibility between district and adjacent uses further fragments and disrupts the fabric of Seguin. The freight station itself has been converted to a feed store with no visual remembrance that it was a station or that it was once the operational heart of this area. Any future for the Station District that is compatible with surrounding residential and business areas lies in its historic identity. Protection of this historic fabric and celebration of the station function that gave it form is an important part of realizing a purpose and future for this area that can more positively influence surrounding residential areas.

Therefore, measures must be taken to recognize, protect, restore, and revitalize the historic fabric of the Station District.

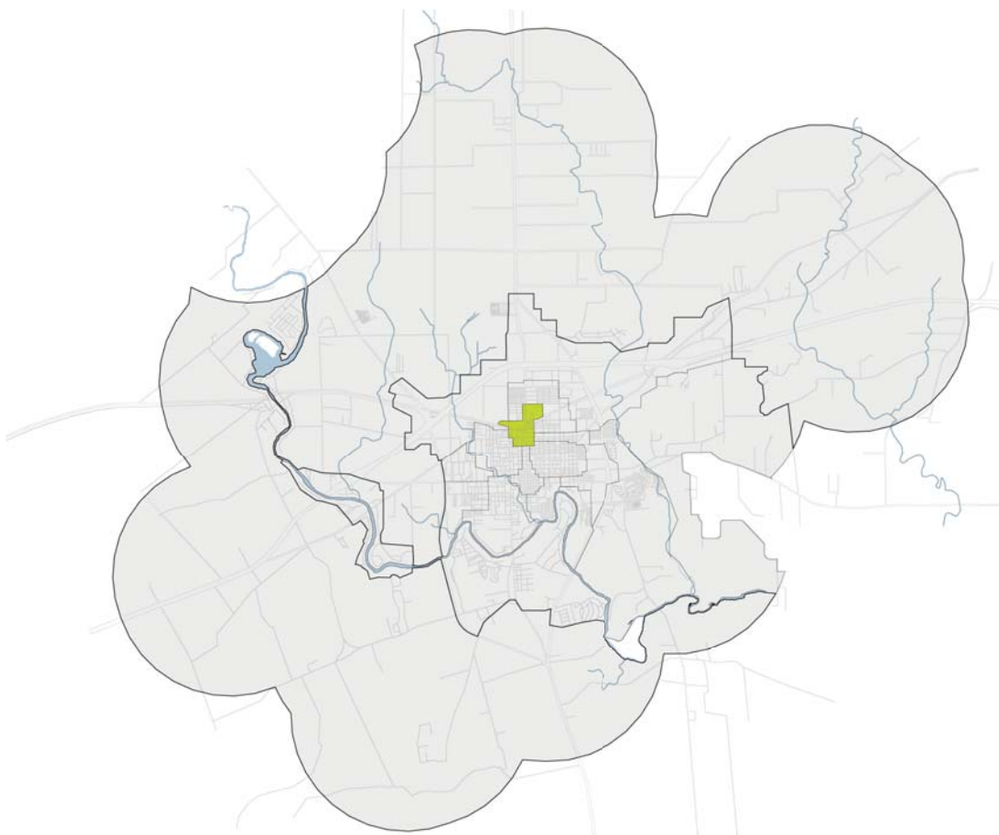


Figure 9. The Station District.

DISTRICT 7: UNIVERSITY DISTRICT

Texas Lutheran University sits in the center of a well defined area that is bounded by major streets and open space. IH-10 defines the northern edge, Court Street defines the southern, an expansive portion of Walnut Creek Flood Plain defines the east, and un-built rural land defines the west. Within this tightly bounded district are various autonomous sub-components. These include:

- The University whose campus plan tends to isolate the school.
- The residential area located between the Campus and Walnut Creek whose separation from the University and separation from the other residential areas of Seguin (due to the barrier created by Walnut Creek) creates an enclave unique to this district.
- The public facilities area that lies west of Highway 46 and contains Seguin's new police and courts building. Without connection to the University or other public facilities of the City, this sub-zone remains isolated.

The University District comes together as an identifiable area because of the clarity of its physical definition and the strong symbolic importance of the central University campus. However, once in the district there is some confusion as to how it is structured and how it connects with the rest of the City.

The University sits on a large campus with generous spaces between its buildings. The edges of the campus have deep setbacks, which spatially remove the University from any clear connection with its surroundings. In addition, the campus has no clear major entry or ceremonial space that serves as a link between the school and its host community. In many ways the University's plan tends to cloister school activities. This limits the University's power to function as a form giving element for the City. University facilities are huddled together in the middle of a generous campus that sets a perimeter of open space between the physical school and the University's functioning heart. Street/drive connections with Highway 46, Court Street and Business 90 do not align with city streets, making the sense of separation more apparent. As a result, the City around the University has grown without much recognition of the University itself and consequently, not benefiting from the presence of this great academic resource as an image maker and form giver for Seguin.

Therefore, future plans for the University District must establish greater connectivity between the Texas Lutheran University and the adjoining City fabric.

Texas Lutheran University is connected to Highway 46 via a divided drive that by virtue of its scale (width) is viewed as the primary entrance. However, once within the campus fabric, the divided drive does not come to a traditional monumental building or monumental space. As a result, the connection does not serve in a way that provides linkage between the school and the City. Opposite the drive (west side of Highway 46) the City has not responded to the school's presence with stores or activities serving the needs of students. Similarly, the retail along Court Street is traditional highway retail showing little to no dependence on student patronage. As the City fabric approaches the fabric of a University it is typical for it to contain residential and non-residential uses that provide off-campus living/ shopping services and thereby hosting the student population that is now counted among its citizens.

Therefore, the major portal entrances to Texas Lutheran University need to be visually identified as such and reinforced by city residential and retail uses that serve the student population.

Texas Lutheran's current curriculum emphasis on Fine Arts does not speak directly to Seguin's need for more technically based skills in its workforce. It is important that the University and the City work together so that Seguin can begin to offer potential incoming industries (with higher wage capability) a higher skilled labor pool.

Therefore, the curriculum focus of the University and the employment needs of the City should be brought together in a joint initiative to facilitate economic development and attract higher wage employment potential.

East of Texas Lutheran University is a residential zone that like the University facility is isolated from the larger urban fabric of Seguin. Houses fronting Vaughn Avenue face the large open flood plain of Walnut Creek and houses fronting Prexy Drive face the back side of the University, thereby limiting any connection with Seguin to the east or west. Commercial development of Court Street limits connection to the south and lack of development north of San Antonio Street (as well as extending portions of Walnut Creek) limit any meaningful northward connection. This residential area, lying within the shadow of the University and adjacent to Walnut Creek, holds much promise for bringing both the school and the housing clusters into the sphere of downtown Seguin. Current plans are now underway to study the enhancement of Walnut Creek as an activity and pedestrian spine that runs to and through the downtown area.

Therefore, Plans for the future enhancement of Walnut Creek should address its potential to link heretofore isolated areas of Seguin to its downtown core.

Like many of Seguin's near downtown neighborhoods, this University residential area is fragmented by encroachments and discontinuities that amplify its isolated condition. Continuous residential frontage facing

the Walnut Creek Floodplain quickly dissipates as the residential areas extend westward. As a result, residential frontage facing Texas Lutheran is partially complete, being disrupted and punctuated with non-residential uses and parking. Long blocks running north and south have limited east to west connection except those connections that serve the functional needs of the campus. This makes the residential fabric subordinate to the University and largely encroached upon by the University with a jarring and disruptive edge providing a fragile separation. As Texas Lutheran reaches to Walnut Creek and Walnut Creek reaches to Texas Lutheran, it could provide a focusing public space/connection that defines and gives form to the residential area caught between. In this redefinition, the edge where University and residential fabrics comes together needs to find a purpose that serves both interfaces. Again, a public space is best suited for such an interface, a space that will serve both school and domestic needs.

Therefore, the residential area lying between the University and Walnut Creek must acquire a definition that gives it a sense of place, a connection to the University, and a connection to the larger fabric of Seguin.

At the present, Highway 46 is largely undeveloped except for Texas Lutheran University and a new Civic Police and Courts facility. Both are significant public/institutional investments in this corridor which has no structural relationship to Seguin's historic or current patterns of growth. Yet, there is an institutional claim to this highway that merits its recognition as a major destination. Like much of Seguin, dispersed pockets of commercial development and dispersed pockets of public investment reflect a City whose center (and the power of that center) is under constant challenge and facing continued erosion.

Therefore, a Walnut Creek link between downtown and the University District must define a strong connection that brings the City's public/institutional centers together. In addition, more linkages along Court Street must be considered and implemented.

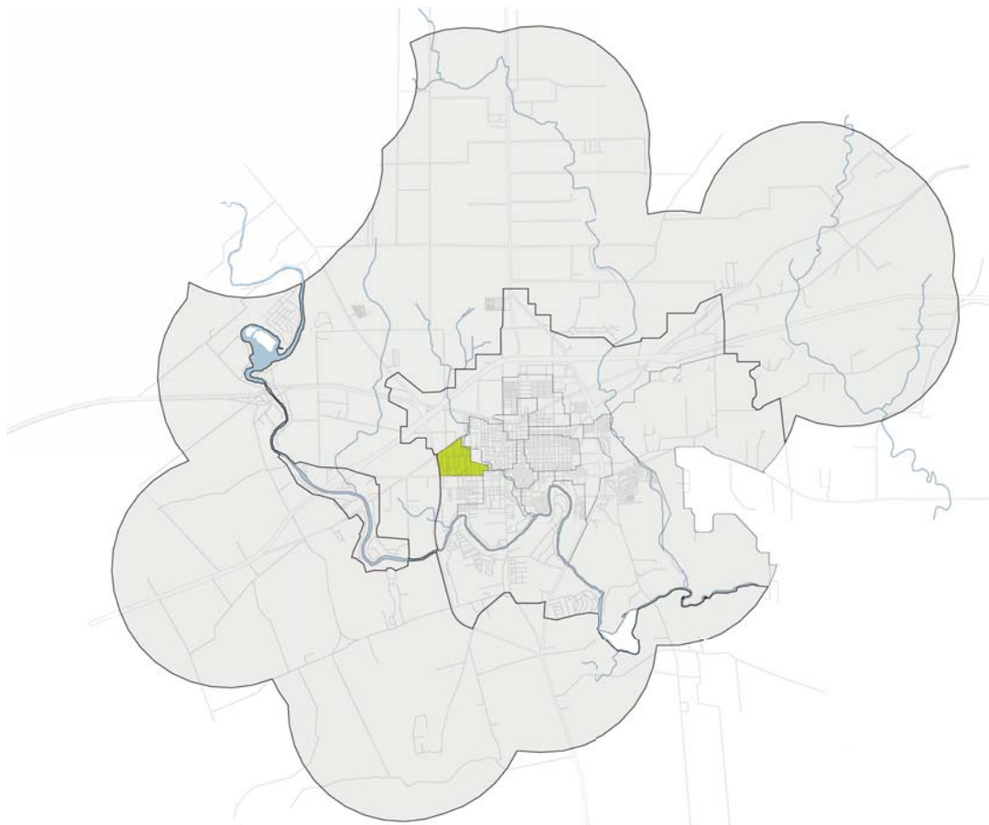


Figure 10. The University District.

DISTRICT 8: THE HIGHWAY COMMERCIAL DISTRICT

A large portion of Seguin's retail services have migrated to Highway 90 (Kingsbury Street), Highway 123 Bypass, and the eastern portion of Court Street (Alternate 90). All of these streets are TX DOT roads that conform to highway design standards, and the retail land uses that have grown up along these roadways assumes a typical highway form. Typical highway form means large plate structures set far from the street right of way with a foreground of parking, taking up that front yard space. The retail square footage now residing within the Highway Commercial District poses a strong challenge to Seguin's downtown core. Vacant space within the downtown core suggests that the downtown area cannot compete. However, the new suburban form of retail in Seguin is missing the form elements that give the street the distinctive and pedestrian friendly qualities that make it a City. Downtown can only maintain a retail density if it finds connection with the emerging retail areas and also finds a retail specialization that makes it a compliment to, rather than a competitor with, emerging highway retail areas.

Therefore, the spatial separation of downtown from the Highway Commercial District must be overcome so that the downtown area can supplement the limited retail form present in these highway areas.

Therefore, development design guidelines and public streetscape improvements must be employed to bring the Highway Commercial District together as a visually coherent and pedestrian friendly place that reflects the environmental heritage unique to Seguin.

Therefore, continued attraction of the City's retail to State TX DOT Highways will mean a loss of cityscape that has made Seguin unique and that must be mitigated by a Streetscape Urban Design Program.

Attraction of retail uses to Highway 90, Highway 123 Bypass, and Court Street (as well the emergence of major retail along IH-10) is changing the nature of Seguin's retail fabric. Local serving retail (originally found in downtown) has given way to regional retail that derives a large portion of its patronage from the density of traffic traveling **by** Seguin on these highways and freeway. Specialty retail has largely vanished and "demand" oriented retail has become dominant. Demand retail means supplies and necessities like gas stations, fast food, building supplies, groceries, etc. Downtown Seguin once hosted a local department store that in its day was a center of fashion and new products for the City. Now the Wal-Mart or Dollar Store attracts those buyers to highway, auto oriented retail centers. Detachment from the street, the scale of the plate, the ubiquitous branding, and growing dependence upon highway traffic reflect a dissipation of the City's economic energy. Spatial dispersion (in the form of highway fronted strip centers) means that individual retail outlets operate independently, thereby requiring a bigger plate facility with more products. In the older urban form, retail outlets had the benefit of aggregation (much like a mall) which nurtured the growth and patronage of more specialized retail uses surviving in the traffic generated by a larger anchor. Continued strip development of retail will further weaken the environment in which more specialized retail uses can survive. The loss of retail aggregation has led to narrowing of the City's retail diversity.

Therefore, further retail development within the Highway Commercial District and along IH-10 must create nodal clusters (that will support more retail diversification and specialization) rather than strip frontage.

Now that retail land uses have gravitated to the frontage of Seguin's highways, these same retail areas become major entries to the City's residential areas. As retail frontage becomes more lineal (strip form) and highway fronted, it acts as a barrier between, rather than an entrance to, or an edge of, residential areas lying behind. Ribbons of regional, highway oriented retail strips begin to divide the City and dissipate its sense of place, comprehensible form, and connection with its own heritage. This increasing dissipation of fabric is one of the biggest future challenges facing Seguin as the economic attraction of IH-10 grows and proposed SH 130 begins to exert its economic presence.

Therefore, the tendency of growing retail frontage to isolate portions of Seguin's residential fabric must be mitigated by the recognition of retail entries in the design of these highway retail centers, creation of commercial/ residential transitions that respect the residential interface, and the emergence of a generally more nodal development pattern in nonresidential land use.

As retail development along Highway 90, Highway 123 Bypass, and Alternate 90 becomes more lineal and regional highway traffic increases, management of traffic into and out of retail strips becomes more difficult. The current/emerging retail form and the street maneuvers required to enter or exit retail development is possible on streets that currently function under capacity. However, as regional and local traffic increase (for example traffic generated by SH 130), ingress/egress, location of median cuts, and internal retail circulation will become more of an issue. Greater traffic will also bring with it the occurrence of larger plate retail venues (like Target, Marshalls, etc.). Contemporary "larger plate" retail development typically brings an entourage of pad and/or smaller retail tenants with it. These pad and/or smaller retail establishments will be in competition with (or actually be) current major tenants in Seguin's Highway Commercial District.

Consequently, some present highway retail could relocate to newer space, closer to the hosting large plate or go out of business due to severe competition. This of course would precipitate vacancy outside the downtown core and make vacancies a more prevalent condition within Seguin. As retail becomes more ubiquitous and highway dependent, the potential for strip competition and vacancies in outmoded centers becomes

higher. The beginning of this trend is usually first seen in the franchise food establishments. Throughout Texas, aging highways are lined with vacant stand-alone chicken or burger places as larger, newer, and more anchor focused centers attract franchise food patrons. Finally, the increased lot/parcel depth possible along newer freeways and highways is more appealing to newer large plate retail centers, leaving existing centers (on shallower lots/parcels that back up to preexisting residential land uses) unable to compete spatially.

Therefore, an overall retail strategy is needed for Seguin that seeks to diversify the City's retail fabric. This strategy must understand emerging retail trends and the tendency of newer highway retail to precipitate vacancies in older highway retail.

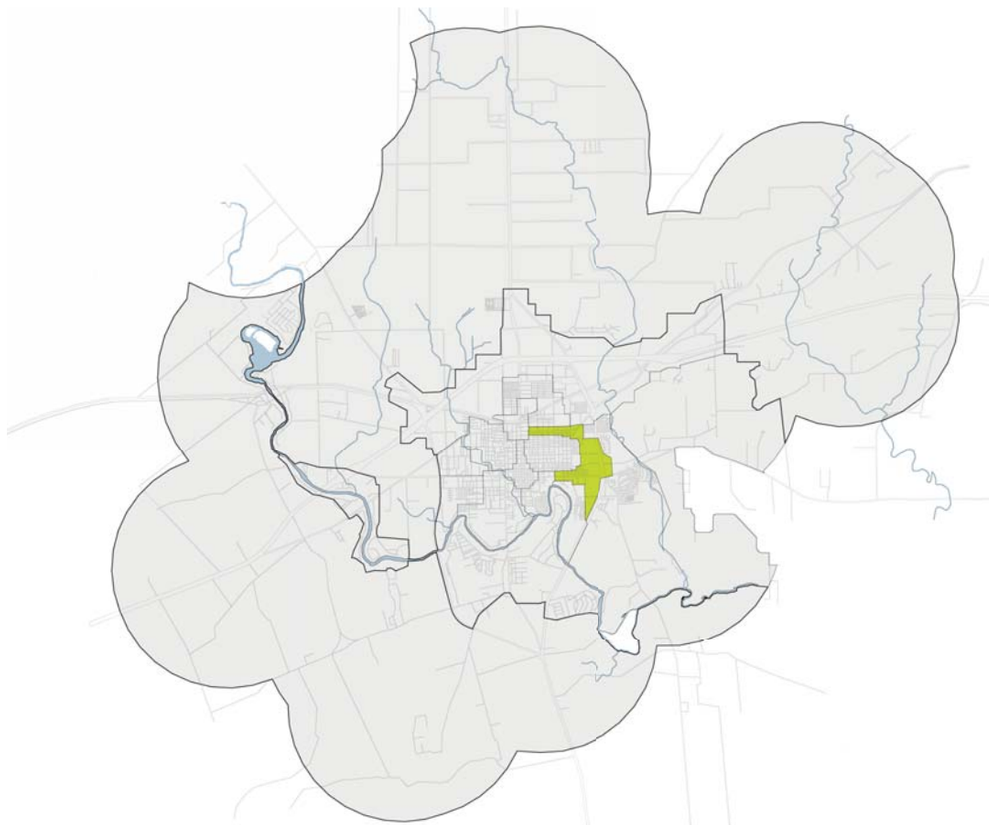


Figure 11. The Highway Commercial District.

DISTRICT 9: THE JEFFERSON DISTRICT

The Jefferson District lies north and south of the western segment of Jefferson Avenue and is bounded by Court Street, the Guadalupe River, Highway 46, and Moore Street. This area becomes its own district apart from Walnut Creek South because the block orientation west of Moore Street is square and/or east to west, while the block orientation west of Moore (within the Jefferson District) is north to south. This shift in orientation creates a dramatic change in district character. The randomness of the Walnut Creek District is replaced with a more uniform and orderly block frontage. This suggests a common developer and/or builder working under a development plan. The houses also have greater architectural commonality and are alley served. The blocks are longer than other nearby City districts, making even small scale repetition more visually significant. Consequently, there is a more prevalent physical/spatial fabric in the residential portion of this district. However, the residential area is only a small piece. Much of the Jefferson District is undeveloped (open) or sparse River-related lots. Existing uniform residential land use is a remnant of a development period influenced by an active City core. Future residential development may well be driven by the River's presence. This will lead to greater diversity within the Jefferson District and greater fragmentation of Seguin.

Therefore, the tendency of City fronted/River fronted districts (like the Jefferson District) to evolve with divergent and separate development patterns must be mitigated with a more coherent street organization that unites the City's many development conditions.

With the exception of Jefferson Street, there are no major streets within the Jefferson District. Jefferson Street is consistent in scale, edge definition, and all other visual characteristics with other district streets. As a result, there is no street hierarchy and the overall street pattern is without coherent form. Each street conforms to its own condition. Where the River is present, the street is meandering, long, and circuitous. Where the older City grid is present, the street is straight and expressed in more uniform blocks. Where the landscape is open (more rural) the streets are long, straight, and laid out with typical rural efficiency. In addition, the public domain is weakly defined. Multiple curb conditions, no curb conditions, lack of street planting, sparse street lighting, etc., make the divergent residential image a dominant visual aspect of this area. Continuation of divergent spatial organization established by a weak and incremental street domain will contribute to greater internal conflicts within the Jefferson area.

Therefore, the public street domain must become more uniform, strongly expressed, and organized with greater hierarchy so that it can have a more ordering effect on the appearance of and continuity of development.

Jefferson Avenue is the strongest link to neighboring residential areas, but Jefferson Avenue itself does not serve as a destination. Instead it quickly comes to a dead end at Guadalupe Street. As a result, residential portions of the Jefferson District, like many other residential areas of Seguin, are isolated. Streets to the north are not continuous across Court Street and only Jefferson Street is continuous to the east. This is a prevalent condition that afflicts many older areas of Seguin and it makes movement within the City fabric difficult.

Therefore, greater continuity within the older street system needs to be established so those near City areas are not so segmented.

A significant component of the Jefferson District is Starcke Park (the ball field complex and the golf course). This is a major city attraction that should bring the Jefferson District some measure of amenity. However, the park's relationship to surrounding residential areas is defensive. Defensive means that service functions, storage buildings, and parking are located along the interface with Seguin's residential fabric. As a result, the park separates itself from the City and the City separates itself from the park. This is another aspect of functional segmentation and was seen earlier in the University District (as it touched the flood plain of Walnut Creek). Pedestrian movement from point of origin (typically residential areas) to destinations (typically parks and schools) is hindered when these land use types are situated so that trails cannot make the desired connections. The park is also one of the few places where the public has access to the River. At present that access can only be acquired by car. Current plans to create a broad pedestrian connection along Walnut Creek will do a great deal to change this current condition. This initiative should be expanded into a City wide trail system (both on street and off street) that will begin to link/integrate separated City functions.

Therefore, a City wide trail system is needed that will link separated City functions (residences, parks, schools, etc.) and extend the work being done along Walnut Creek.

There are some significant undeveloped tracts within the Jefferson District that could dramatically enhance this area. The most significant of these borders Highway 46 and the River. These undeveloped areas are important "value generators" for the future of this area. The Jefferson District's position adjacent to a major public amenity (Starcke Park) and its adjacency to the River are value generators that should benefit the general value of the whole area. However, the value of the River is being "captured" by private lots and thereby being held back from the more general district.

Value generators such as the park and the River must find their way into the pervasive public domain (trails, streets, smaller parks, and other open spaces) so that the value generator can have the greatest benefit to the City. Once a value generated is captured, it is effectively denied further influence on other valuations. This is why commercial development of a highway or a freeway tends to "strip" out, as the value created by the highway or freeway is captured by the parcels with direct frontage. The land behind the strip often experiences a depreciation in value because the value of location (relationship to the highway) has been captured.

Therefore, the value benefits of having a close relationship to the Guadalupe River and Starcke Park must be brought to properties throughout the Jefferson Area by extending the connection between these value creators and various public domains (including trails, streets, and other open spaces).

It is important that development of this area not contribute to the segmentation of its fabric. It is also important that future development not become an internally defined project, with one linkage to Highway 46 (or other form of gated entry). Further development of this type will only further fragment the district and greatly hinder any potential to create inter-connections within the fabric of Seguin (in general) and this area (specifically). Further fragmentation also results in further discontinuities within the area's/City's street system. If the major highways become the only "through" streets that make connection to desired destinations, then ultimately (at some future time) traffic becomes a dramatic problem that will affect Seguin's quality of life.

Therefore, future development within the Jefferson District must make connection to the existing street system and facilitate greater connection of other streets to major arterials.

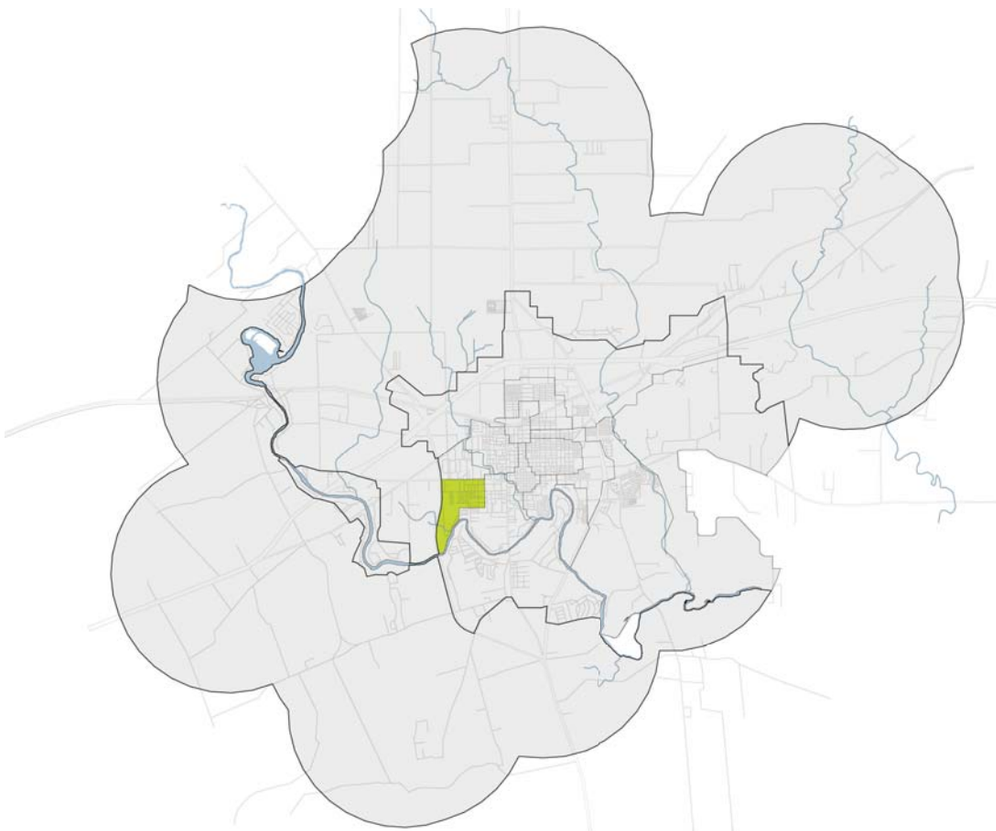


Figure 12. The Jefferson District.

DISTRICT 10: THE RIVER BEND DISTRICT

Of all the sub-districts in Seguin (described herein), the River Bend District is perhaps the most clearly defined because of its strong association with the Guadalupe River. The River is not always a boundary; here, it is sometimes an internal focus and yet the River is the defining element. Boundaries beyond the River are unclear (for the most part) and uncertain. To understand why this occurs, one must view the River as a "value generator" which has (and does) drive development within this area. The River drives development because it is the value establishing feature that underwrites the cost of that development. As a result development reaches to, and is organized by, the River. As development, so driven, fills the open land, it creates a "closed" form. Closed meaning that it does not:

- Integrate elements of the larger community (e.g. streets, value gradients, etc.)
- Connect traffic movement between those parts of Seguin north and south of the area
- Accommodate the overall form of the City by not becoming a barrier between parts of the city
- Facilitate future growth by creating potential for extensions of its assets to other areas

The greatest asset (the River) also holds the greatest potential to nurture a growth pattern that bifurcates Seguin. What the River recognizes naturally, it seems to be precipitating physically and socially. As the Guadalupe passes below Seguin's downtown core, it marks a change in soil type, a change in vegetation, and a dramatic change in topographic relief. Interestingly, development along the River now establishes a change in street orientation, a change in street alignment pattern, a change in architecture, a change in housing type, and a change in socio-economic distribution. In all these ways, the River is being defined as an island of change within the broader development of Seguin. As such it becomes more and more of a barrier and a bisector of the City. The value potential of the River and its association is not defining a value gradient, meaning a pattern of value within the City that stretches over a broad area. Instead, the River defines a narrow value corridor that once captured by private lot development is not available to the rest of the City. Even public development adjacent to the River has followed this pattern. Holding itself close to the River, it has not been extended into larger surrounding neighborhoods but has (instead) isolated itself from surrounding neighborhoods (see description in the Jefferson District text). This thereby prevents larger appreciation of its value creation potential.

Therefore, larger plans for Seguin must seek to extend the value influence of the River beyond its immediate frontage by placing more of the River's presence in a public domain that reaches over the City.

Within the River Bend District streets follow the general River geometry but do not come close to its bank. Road and River are separated by an intervening strip of private land divided into lots for residential development. The River is thereby privatized and largely hidden from the public domain. Without a River association, the road network is formless because only the River (now invisible) could explain its rambling geometry. Lack of cognitive clarity in the street equates to lack of a sense of neighborhood within the area. The visual message of this area is "**stay out"** not "come in". There is no celebration of the City as a larger place to be; there is only the River and the segment of it that a particular lot controls.

Often roads which follow rivers are celebrated as parkways (e.g. Turtle Creek Boulevard in Dallas). The value created by the river is thereby amplified by the traffic that moves along it and such areas become prime development zones for mixed use housing and retail projects. The River roads in Seguin are limited in size, capacity, and design distinction. These roads are exclusively for the access/egress needs of individual River front lots. Also the River roads do not provide internal connectivity within the larger Seguin street system. Instead, they branch off a collector as long cul-de-sacs or circuitous loop road. This creates operational problems as well as form problems. Emergency access can be easily disrupted by traffic or a traffic accident within the labyrinth like road system. Future sewer service and other such services will be complicated by the inability to loop or create mains that feed other orderly road extensions.

Therefore, the emerging form of the River Bend District must not ultimately be one that isolates itself from the rest of the City. The plan must bring greater connectivity to this area and provide a public street network that includes the River collectors as part of the overall system that will support additional development.

The Riverscape is an important part of the natural setting of Seguin and an important part of its heritage as well as identity. Development of the River is changing that Riverscape, as the flood plain and the riparian corridor it supports are being "suburbanized" with turf and decorative/ornamental vegetation. With greater magnitude over time, the Riverscape will be transformed. Development within the River Bend District has started to realize the power of the River and its attendant natural systems. Houses set on piers and more naturalized landscape development of the open space is becoming more prevalent.

Therefore, future development of the River front must preserve both the hydrologic capacity of the corridor and the natural environment it supports.

Development of the River corridor is at present fairly mixed. Mixed in this case means a variety of house styles, size, cost, and site orientation that characterizes the built fabric of this district. The visual impact of such built diversity is to amplify the extent of privatization of the River edge and the extent to which the street system in place is meant to serve the individual lot owners. However, this diversity is not unique to the River Bend District and has been discussed as characteristic of many near city/older sub-districts of Seguin. Here, as in other districts, the lack of recognition of the street via normal continuities that characterize urban and suburban development (e.g. site orientation, common size and price point) prevents visual cohesion necessary to make this area a true district. The street becomes privatized by lack of street recognition (e.g. street landscaping, site orientation, curb, etc.), and the area becomes a collection of River oriented houses rather

than a district. This condition is mitigated by the power of the River, the presence of which transcends all else and provides the identity and visual fabric needed to define this as the River Bend District.

Therefore, the autonomous development of individual lots that fragments the River Bend District must be addressed by a more powerfully articulated streetscape and a more visible public continuity that expresses thematic characteristics of the larger City fabric.

Growth patterns of the River Bend District are as varied as the lot development (described above). Streets paralleling the River follow the geometry of the River. However, streets extending away from the River have no collective structure or organization. There is no apparent street hierarchy (collectors/arterials) and no common aspects of street orientation. A lack of structure will greatly hinder future growth options because it will be difficult to serve the traffic needs of such growth and because internal relationships that assign value are missing. Value is generally a function of "location" (or relative place). Without structure (place relationships), value is less certain. This will mean that the only real value determinant is placed with the River. Either a property is a River property or it is not. As a result, it will be hard to extend the tax base that the River frontage represents once that River frontage is gone. The River Bend District is one of the more active development areas within the City. Development of the district includes such projects as the Quails Gate Subdivision (200+ units), the Tor Village Subdivision (200+ units), the Nolte Farms (100-200 units), the Sky Valley Subdivision (100-200 units), and the Trost Subdivision (1-50 units). District amenities, such as the Chaparral Country Club, will enhance value, but are separated from the River. These types of amenities could have extended the River's economic benefits if they were connected to the River.

Therefore, future growth in the River Bend District must be anticipated and provision made within improvement of the streets and other infrastructure to anticipate that growth and thereby enhance its potential value.

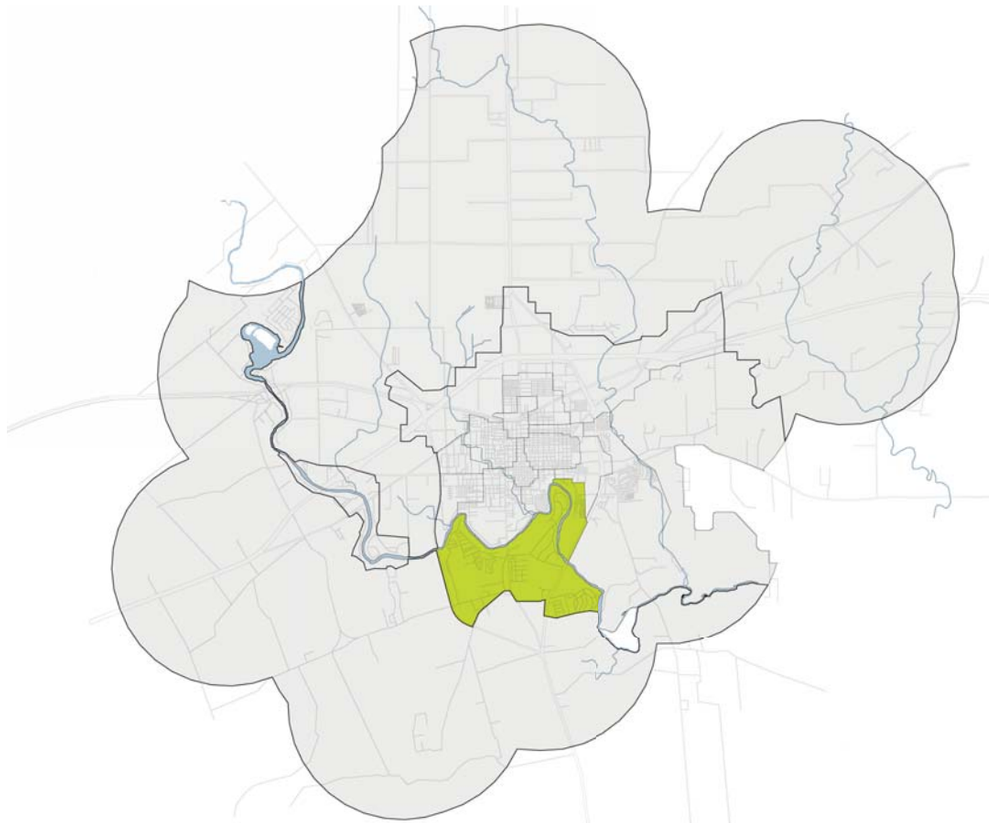


Figure 13. The River Bend District.

DISTRICT 11: THE NORTH SEGUIN DISTRICT

The North Seguin District is an area lying generally south of IH-10, north of Business 90, and east of Highway 46, with the railroad track cutting through its southern edge. This area includes mostly residential development caught between the industrialized Station District and the commercialized freeway corridor. Housing patterns here are more uniform with continuity in the street frontage and a clearer articulation of the street itself. At present, the residential portions of this district are protected by undeveloped land against the freeway frontage and areas of undeveloped land toward the railroad track. However, further development to the north or south (the only space available for expansion) will bring the residential fabric into contact with pre-existing non-residential development.

Therefore, the future adjacency of residential and non-residential development within the North Seguin District should be anticipated and measures put in place to make that adjacency livable.

The intensity of non-residential development outside the district makes it more likely that non-residential development will occur on undeveloped parcels within the district. If this should happen, the existing residential component of the North Seguin District will be dramatically isolated and the issue of land use transition becomes important. Land use transition suggests that the most appropriate development forms to occur between potentially conflicting land uses is a land use that embodies aspects of each (such as higher density housing or mixed use housing). In this way the conflicting uses can blend in a manner more suitable to living and thereby enhance the general quality of life.

Therefore, the appropriateness of land use transitions between residential and non-residential development should be considered for future development of undeveloped land within the North Seguin District.

It is important to note that much of the housing in this district is government housing. The design uniformity of these units and their regular spacing is more consistent than other areas of the City and suggests the public nature of housing development. Increasing isolation of this district will mean increasing isolation of these public housing projects and creation of a "project" area spatially disconnected from the larger City. This will result in disconnecting a specific segment of the City's population. It will become increasingly important to connect this district both physically and socially to the larger City by overcoming its growing isolation and encouraging mixed income (public and private) housing development.

Therefore, future development of the North Seguin District must seek to mix housing types (public and private), income of residents, and make stronger physical connections to other areas of Seguin.

There is a segment of the North Seguin District that lies south of the railroad track and north of Business 90. This area is more directly connected to areas south of Business 90 because internal streets extend south over the Highway and into the Transitional District. However, the intervention of strip retail development along the Business 90 and contiguous retail development creates a barrier that defines an edge. Within the edge (north of Business 90), residential patterns change from the small block and incremental infill of the Transitional District to longer blocks with more uniform housing (more typical of other areas within the North Seguin District). Consequently, the railroad track is not an edge but an intrusion that creates small fragmented residential pockets ringed by commercial development and railroad track. This fragmentation reflects the unplanned imposition of infrastructure and commercial development at the cost of residential continuity within the City.

Therefore, plans for the North Seguin District must link and reconnect its fragmented residential pockets.

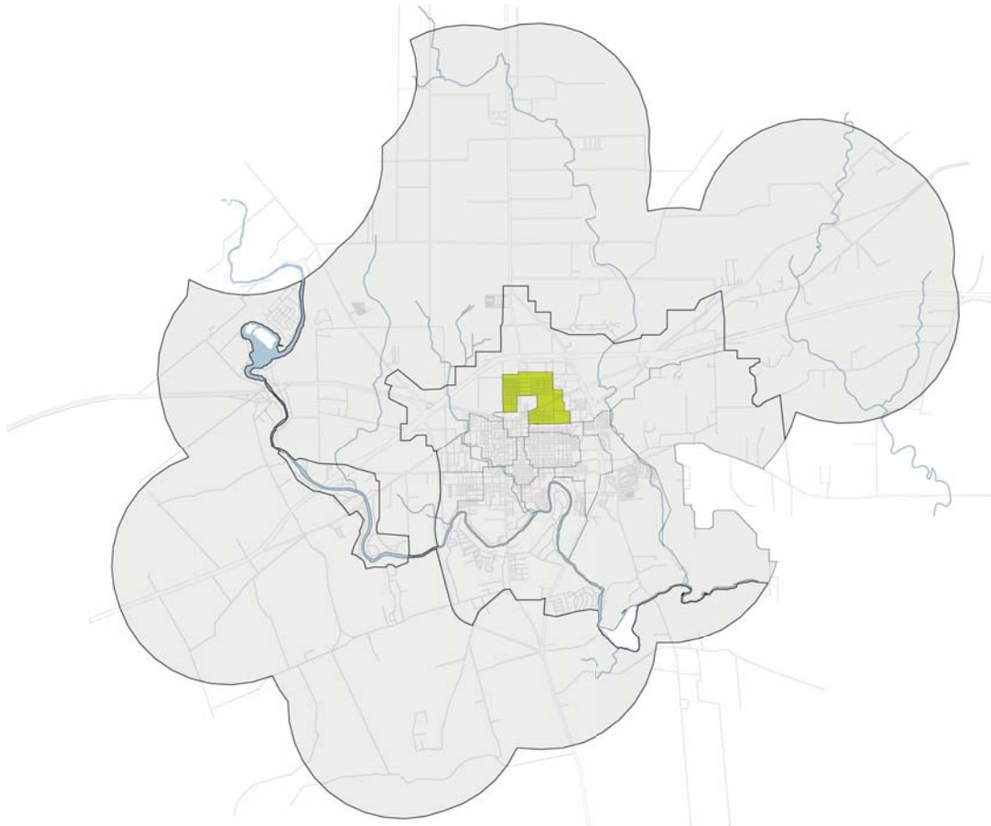


Figure 14. The North Seguin District.

DISTRICT 12: THE FREEWAY DISTRICT

The Freeway District is a broad zone that extends north and south of the east/west alignment of Interstate 10. Currently, this corridor is attracting a significant amount of development activity and speculation. The centers of this activity are at the intersection of IH-10 and Highway 46 and IH-10 and the Highway 123 Bypass, with some development between these two intersections along the south right of way of IH-10. Highway and freeway intersections are natural points of value concentration that attracts development. These concentrations of value should lead to a concentration of development so that the benefits of aggregation can be realized. These benefits include greater commercial diversity and specialization of retail activities. However, when these natural nodes are challenged by strip development (continuous development of the freeway frontage along service roads), the formation of those beneficial development concentrations is weakened. The creation of centers of commercial activity rather than strips allows streets and highways emanating from the core area to exchange value between the centers so connected. When that value is captured by strips, the centers (especially older centers) are weakened and older centers (such a downtown) lose in the competition.

Therefore, development within the Freeway District should reinforce nodal patterns that will bring the benefits of aggregation to commercial centers.

At the present time, a service road exists between the IH-10/Highway 123 Bypass and IH-10/Austin Road intersection. Typical of most frontage road conditions, commercial development has been attracted to the service road right of way. As mentioned earlier, this dissipates the power of the major interchange intersections to form strong nodes and leads to a corridor that begins to economically dominate the City. As residential development continues, it will push the operational budget of the City ever higher as the City endeavors to serve that population. The ad-valorem tax base represented by that residential development generally runs from 40% to 55% of the tax base needed to meet general fund requirements. Therefore, non-residential development must fill in the gap (bringing enough ad-valorem tax base to support 85% to 95% of the general fund requirement (the balance being supplied by various fees, fines and City finances). If Seguin were to develop 58% of its combined City Limit and ETJ area, the residential ad valorem tax base would only provide about 51% of the needed tax revenue. Therefore, the non-residential tax base would have to account for up to 45% of this needed revenue. The 100% development of IH-10 frontage within Seguin's ETJ limits (approximately 9 miles) would barely meet this requirement. This means that dependence on the economic power of the freeway corridor by itself will not serve the tax base needs of a future population that exceeded approximately 58% of the City Limit and ETJ combined land area combined. Furthermore, as the economic power of the freeway grows, it challenges and truncates the ability of other parts of Seguin to experience commercial growth.

Therefore, a balanced growth strategy and land use plan is needed to prevent freeway corridors from dominating the commercial patterns of the City.

As the Freeway is currently developing, it provides little opportunity for proper transition to residential areas that will be developed north and south of the freeway as Seguin grows. This relationship is often confrontational with service roads and local streets clashing and land use changes (commercial to residential) being made at the back side (most utilitarian side) of commercial development. Many cities require a wall at this line but walls have proven to be defensive in nature and offer the residential area little benefit. Because so much of Seguin is now undeveloped, plans can be made to anticipate this juxtaposition of land uses and design measures put in place to make the transition one that enriches both the commercial center and the abutting neighborhood.

Therefore, plans and initiatives should be set in place to anticipate future adjacency of residential and non-residential land uses along the freeway corridor.

When the now authorized SH 130 Bypass makes its connection with IH-10, a major nodal intersection will be formed and the traffic densities on IH-10 will be significantly increased. This will make the corridor more attractive for investment. The SH 130 Bypass/IH-10 connection will further disengage relationships between the City and the freeway. Everything about the corridor will be oriented to "through" movement and show less and less identity of place specific to Seguin. Many cities with a similar problem, such as Garland, Texas, are impacting the visual appearance of the freeway corridor with iconic monuments that celebrate the corridor's movement across their City. Monuments have attracted more nodal business concentrations. Streets that connect to the freeway at icon points become major approaches to the host city and more attractive to commercial investment that serves both freeway and local patrons. Seguin has several important connections to the freeway that will support strong nodes at major gateways to the city.

Therefore, increased regionalization of IH-10 should be mitigated by establishing Seguin Gateways at key nodal intersections that announce major approaches to the City core and express Seguin's identity within the freeway corridor.

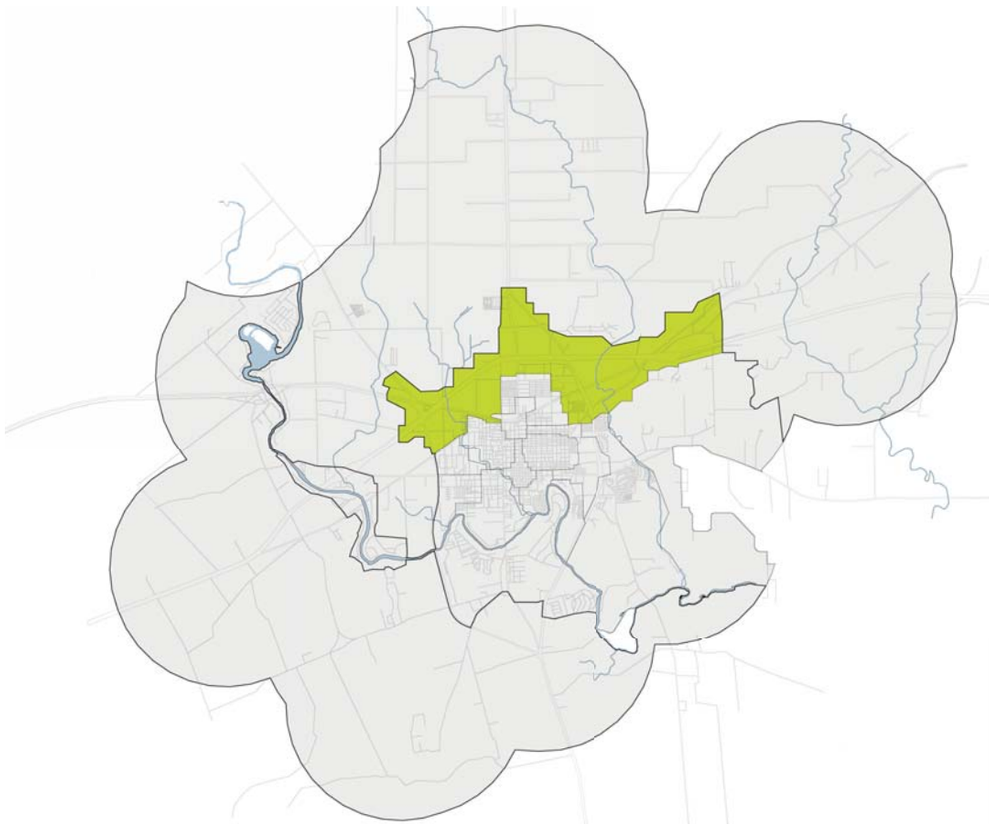


Figure 15. The Freeway District.

DISTRICT 13: THE GERONIMO CREEK DISTRICT

The Geronimo Creek District is a large area bounded by Geronimo Creek (east), the Guadalupe River (south), Highway 123 Bypass (west), and Business 90 (north). It is an area of contrast to much of Seguin due to its rolling (to steep) topography, heavy tree cover, and the existence of several exclusive neighborhoods. This area is also largely undeveloped. As a result, much of the ultimate character of this area is yet to be determined. However, it is clear that the Geronimo Creek District is becoming established in its emerging pattern of large lot development, hosting large homes set amid the rolling topography and umbrageous tree canopy characteristic of this area. At present, such residential areas are arrayed south of the east extension of Court Street or east of the Highway 123 Bypass. As a result, the through streets are becoming the arterials that ultimately organize residential developments and establish the interrelationships between them. Court Street is not a local collector; it is an approachway into downtown and an arterial connector that takes traffic out of and into the City. Dependence upon it as the major district street does not provide an organizing structure that reinforces the district form or identity. The same is true for the Highway 123 Bypass.

Using regional serving streets as the major arterial connectors to residential developments within an identifiable district means that projects become associated with the road way (e.g. the Highway 123 Bypass) and not the inherent character of the area in which they reside. One has to enter residential development east of the Highway 123 Bypass by penetrating the commercial development fronting the Highway 123 Bypass. The highway image defines the residential image. When the highway images differ, the residential images differ even though they share the same district association. This is another form of fragmentation. Areas of new development should be served by "area specific" arterials that reflect the identity and character of the area they serve. In this way residential developments are tied together with common associations that make them collectively a community. Continued dependence on the highway system as the arterial and collector system will force ever greater traffic concentration at highway intersections (e.g. Highway 90 and Court Street). There must be a system of collectors and arterials that reflect transportation planning for future development needs.

Therefore, future residential development of the Geronimo Creek District must be anticipated by a thoroughfare plan that sets the template for local serving arterials that reflect the District's distinctive character.

The more regional importance of Court Street (Alternate 90) as it extends east of the Highway 123 Bypass will naturally attract non-residential land uses or higher density residential uses. If such development arises in response to Court Street, it will also tend to express the lineal form of Court Street and not reflect the character of the Geronimo Creek District. Lineal expression of corridor has already happened along the Highway 123 Bypass. If this should happen along Court Street, then Court Street will become an intrusion within the district and a barrier that divides its residents. Such division (should it occur) will physically express socio-economic differences as well as further fragment the City fabric.

Therefore, future development of Court Street must reinforce the district land use patterns and bring areas north and south of Court Street together.

As the waterways of Seguin become increasingly privatized, the City's rich landscape of Walnut Creek and Geronimo Creek are two waterways that are important to the City's storm water management system and important corridors for public use. Just as measures are now being taken to develop Walnut Creek as a public corridor, similar measures should be taken to assure that Geronimo Creek will be available for public access when the residential population reaches that stage where such access is desired. Moving more of the natural drainage system into the public domain ultimately preserves the City's capability to accommodate its future storm water management needs. Most future development will be to the north and northwest of Business 90 because of the proximity of New Braunfels/San Marcos/Austin, Interstate 10, flatter land, and future SH 130. This means that most future development will be in the upper reaches of the Walnut Creek and Geronimo Creek watershed (up stream of current development). This will place greater burden on present development down stream. As a result, every measure should be taken now to assure that there is sufficient down stream capacity to accommodate future up stream development.

Therefore, future development within the Geronimo Creek District should anticipate upstream development within the Geronimo Creek watershed and make adequate provision for preservation of downstream waterways.

The growing density of non-residential development along the Highway 123 Bypass creates a greater need for the proper transition between these non-residential land uses and future residential land uses that will be developed within the district. At present, there is no transition. There is only an abrupt change from commercial to residential. Such relationships are not the result of an anticipated adjacency. The juxtaposition of land uses can be opportunity for proper transitions that will enrich both residential and commercial activity. Transitional uses like mixed residential/commercial or higher density residential can blend the environments of opposing land uses and there by make a more connected fabric. Also open spaces or public facilities offer transition that can benefit the environments of both living and shopping. Spaces and activities that enrich the quality of life are often those that combine residential and commercial activities with recognition of a local identity.

Therefore, future residential development within the Geronimo Creek District and commercial development within the Highway Commercial District should be directed by guidelines that address proper land use transition between commercial and residential activities.

The special natural features and distinctive residential development of the Geronimo Creek District creates a powerful internal identity that establishes this district. However, entry to the district, and movement within it, are not clearly understood. The change from highway to local road is abrupt and

occurs without visual introduction. Comprehension of Seguin (all of Seguin) as a place requires recognition of its internal components. However, the Geronimo Creek District (like the other districts discussed herein) is not clearly articulated within the City fabric. Elements of recognition are needed for recognition to take place. These elements of recognition include edges, portals, landmarks, nodes, and other such elements of cognitive structure.

Therefore, future residential and commercial within and around the Geronimo Creek District should be guided by guidelines, principles, policies, and regulations that establish portals, edges, landmarks, nodes, and other cognitive elements of structure that define a district/ neighborhood.

Like the riverscape of the Guadalupe River, there is a distinctive creekscape of Geronimo Creek. Large trees growing in the deep alluvial soils of the creek bottom protect a ground plane of understory and ground cover plants that are indigenous to the creek corridor. As residential development moves to the creek edge, it domesticates much of this natural vegetative environment. Loss of the creek environment is essentially a loss of the creek (except for its basic transport function). This is also true of those portions of the Geronimo Creek District that front the Guadalupe River.

Therefore, future development within the Geronimo Creek or Guadalupe River corridor should respect and preserve the native "creekscape" and "riverscape".

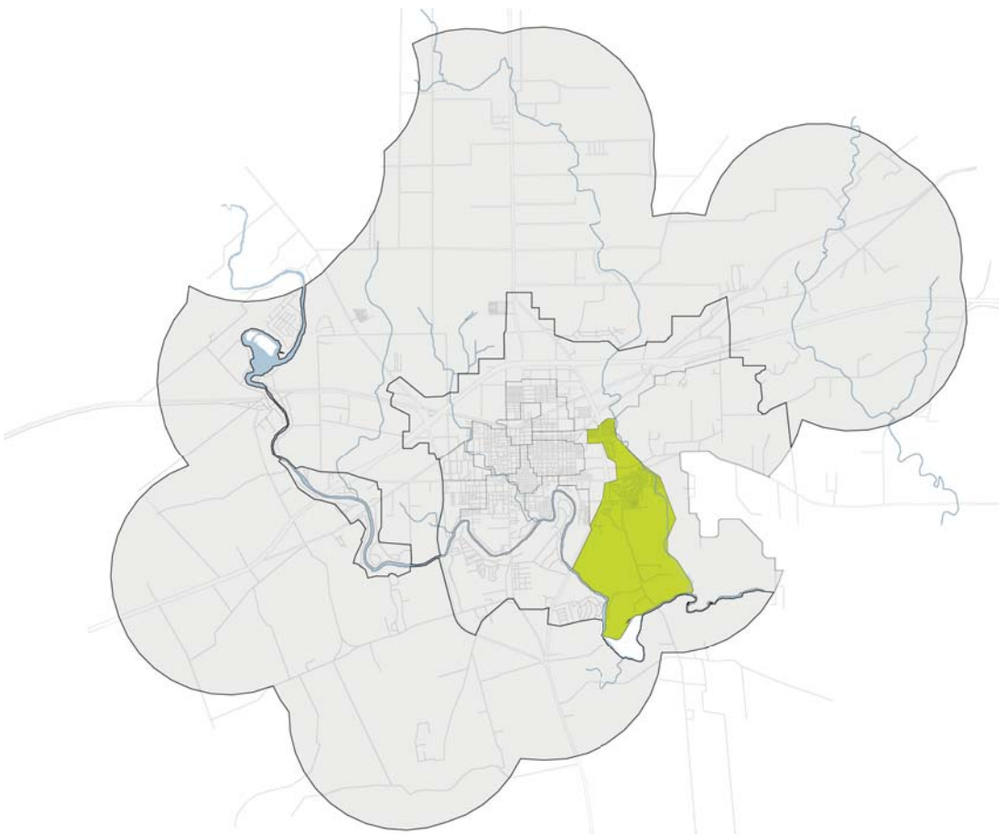


Figure 16. The Geronimo Creek District.

DISTRICT 14: THE AGRICULTURAL DISTRICT

The Agricultural District is that vast area of largely undeveloped land about the perimeter of the current City Limit but still within the area of Seguin's Extra Territorial Jurisdiction. It's the area of Seguin that will be the first to realize the effects of "regionalization". Regionalization means external influences generated by growth in neighboring communities/cities (e.g. Austin, New Braunfels, etc.) are beginning to manifest in the development of Seguin. As a result, Seguin is seeing increasing new development within the Agricultural District. New development includes such new residential communities as Mill Creek Crossing Subdivision Phase I (200+ units), Falcon Meadow Subdivision Unit 1 (200+ units), Rob Roy Estates (100-200 units), Northern Trails (50-100 units), and Huber Air Park. This development approaches Seguin driven by larger growth to the north and northeast. Consequently, it reflects a form and pattern related to the regional roads that serve it (e.g. Highway 46, Highway 123) and the regional influences that drive it. Because these regionally driven developments are extending from north to south (toward IH-10) they are conceived without reference to Seguin and thereby, place future burdens on Seguin's own development/ growth policies. When southward moving developments do converge with the outward (northward) moving City of Seguin, the confluence could bring completion to the City form or once again contribute to fragmentation of the overall City fabric. Inward bound development can have the same effect as outward moving bypass highways and continue to compete with the orderly growth of the host City.

Certainly, this new growth will generate the need for retail and ultimately employment uses intended to serve the growing population. The City of Seguin must have a vision for the land use distribution and thoroughfare pattern for these growing fringes that will mesh with a vision for the core City at some point in the future.

Therefore, continued growth within the outward reaches of the Agricultural District must conform to a larger vision for the current city limits and its ETJ area so the ultimate confluence of outer growth and near City growth can make a coherent urban form.

At present, there is a growing trend to place and facilitate industrial development within the western portions of the Agricultural District (specifically south of and along Highway 46). As such development increases, it poses a barrier to higher end residential development moving down Highway 46 toward Seguin. Placement of future industrial uses to the east, southeast, northeast, and north essentially opposes regionally driven development coming into the City. It is conceivable that nearby cities (New Braunfels, San Marcos, and Seguin) will merge (in terms of their residential fringes). For Seguin itself to capture a share of this higher income housing market, it must not separate itself from the regional dynamics that drive it.

Therefore, future non-residential/industrial development within the Agricultural District must not place barriers in the path of other beneficial residential development that is regionally driven.

At present, much of the growth in the Agricultural District is toward New Braunfels. However, that trend may change when the SH 130 Bypass begins to assert its influence in the north western part of this district. The first effects of the Bypass will be to attract non-residential development (large retail or industrial land uses). This will place tension on existing designated areas for such land uses. The challenge to Seguin will be to prevent an oversupply of non-residential designated land that will dissipate the true demand for such land within the City. When the land is over supplied relative to demand it has the effect of:

- Causing competition within the limited demand available and spatially dispersing that demand.
- Depreciating the value of non-residential designated land or inviting great volatility in value determination.

Where IH-10 currently intersects with highways, significant retail development has occurred. When IH-10 intersects with another major freeway, the impact will be significant and it will compete with the non-residential land already designated. Dispersion of industrial development affects Seguin's ability to attract higher wage employers. Such industrial relocations are attracted to industrial communities and cities that offer a quality of life to the industry's employees. When the employment fabric is dispersed, it fails to establish an industrial community and the continued fragmentation of the City depreciates the quality of life attributes it offers.

Therefore, the Agricultural District must be envisioned through a growth management strategy that will seek to aggregate employment and retail land uses and thereby make shopping areas and employment districts part of the City fabric.

Future growth of the Agricultural District will be dominated by the economic power of IH-10 and the future SH 130 Bypass. This means that commercial land uses are increasingly dominated by regional retail venues serving the

needs of pass through traffic, and residential land uses are increasingly dominated by regionally driven residential development serving the outward expansion of neighboring growth centers. Greater economic power at the edge of Seguin operated independently of the City competes with the City itself. In addition, the freeway ultimately emerges as a barrier that separates existing City development (south of IH-10) from new development (north of IH-10). In this way it becomes like the River and traps the existing fragmented fabric of Seguin between two powerful corridors that attract higher income development.

Therefore, a growth management strategy is needed for the Agricultural District that addresses the tendency of IH-10 and the future SH 130 Bypass to ultimately bisect the City fabric, dividing new from old, large from small, higher income from lower income, and regional from local.

All the meaningful roadways that penetrate the Agricultural District (Highway 46 and Highway 123) from the north are approachways into Seguin's historic core. These Approachways provide opportunity to express the core throughout areas of new and emerging development. Proper monumentation and portal placement, as well as thematic streetscape, can begin to articulate a movement system that recognizes the City's center and thereby places new development in some relationship to it. Conceptions and nodes that are linked along those connections begin to create linkage and arrival associations that are meaningful to one's experience of place.

Therefore, highways leading to downtown and traversing the Agricultural District should be viewed as part of a Streetscape Design Plan that allows the City center to express itself throughout areas of new growth.

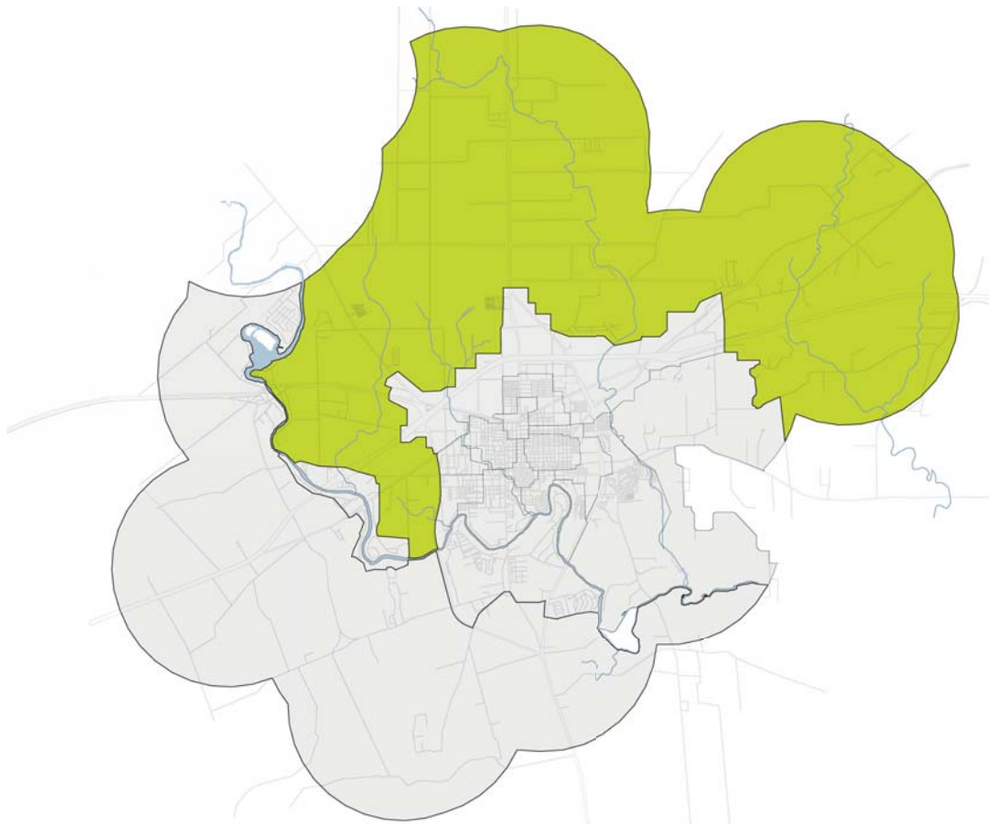


Figure 17. The Agricultural District.

DISTRICT 15: THE RANDOLPH DISTRICT

The Randolph District is that portion of Seguin lying east of Geronimo Creek and west of the Randolph Air Force Auxiliary Base. The presence of the air base very close to Geronimo Creek establishes it as a barrier to further eastward expansion of residential development (east of the Highway 123 Bypass and Court Street). The major runway aligns northwest to southeast and thereby imposes a flight path over potential future residential development northeast of Geronimo Creek. Given the extreme length of the runway, it is likely that large aircraft are using this facility and the noise generated within this flight path would be a great deterrent to future residential development. As a result, the presence of the Randolph Air Force limits residential development toward the east and southeast. Such a limitation makes residential development to the northeast, north, and northwest more important to the City in terms of having higher income residential areas to serve future wage and job growth. However (as mentioned in the discussion of the Agricultural District), Seguin has adopted a policy of moving its industrial land uses in that same north/northwest direction. If residential development is limited to the east and southeast, then the land use plan for Seguin and its ETJ must consider appropriate non-residential uses for these areas east of Geronimo Creek.

Therefore, a Land Use Plan for the Randolph District must consider the limiting effect of the present Randolph Air Force Auxiliary Base on future residential development in this area and consider appropriate non-residential uses east of Geronimo Creek.

The Randolph air strip is very long (in excess of 12,000 feet) and capable of accommodating aircraft that the present Geronimo Field and New Braunfels Airport can not. Aircraft capability is an important aspect of public infrastructure that few smaller cities can hope to offer and Randolph Air Force Auxiliary Field presents an unusual opportunity should the U.S. Government ever consider decommissioning this facility. It is important that Seguin be in communication with federal representatives regarding potential decommissioning of Randolph Auxiliary and future plans for the Randolph District provide for making the most of this opportunity should it become available.

Therefore, future plans for the Randolph Air Force Auxiliary should consider the potential that the Randolph airstrip could be decommissioned and this facility become available to the economic development initiatives of the City of Seguin.

Without a connection to the air facility and with a limitation of the acceptability of future residential development, the Randolph District is outside existing generators for non-residential development. Major highways (Highway 90 to the north and the Highway 123 Bypass to the west) are separated from the Randolph District by an intervening zone of residential development. Consequently, the Randolph District is without the kind of value generators that would support non-residential land uses. Without external connection, there is nothing to pull development to the Randolph District unless the City develops links from Highway 90 to the Highway 123 Bypass that traverse this district and bring sufficient connection to support development.

Therefore, thoroughfare plans for southeast Seguin must consider the Randolph District and its need to be connected to the primary movement corridors of the City.

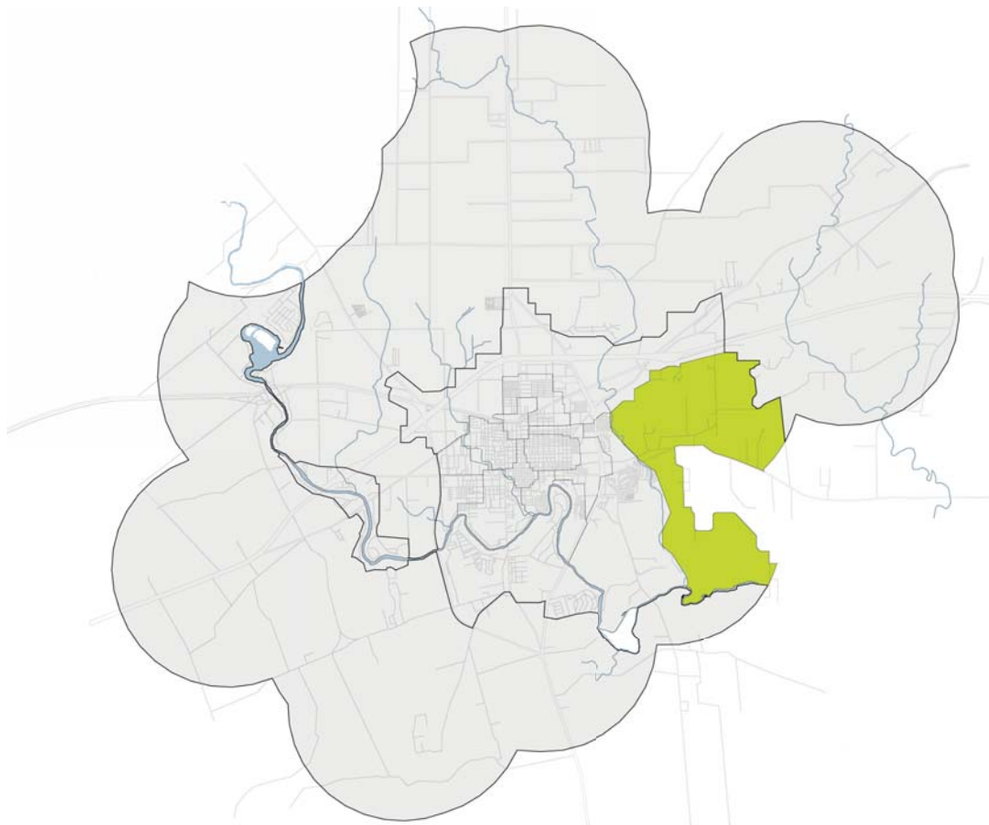


Figure 18. The Randolph District.

DISTRICT 16: THE GUADALUPE DISTRICT

The Guadalupe District is an expansive area that lies generally to the south and southeast of the Lake Placid District and abuts the south edge of the Guadalupe River. It is bisected by Interstate 10 and includes the point where IH-10 and Highway 90 converge. IH-10 is the primary connector to San Antonio but Seguin is still far from the outward push of this major metropolitan area. Consequently, commercial development along IH-10 is now occurring where Highway 46 from New Braunfels intersects with it (within the Agricultural District). However, as San Antonio expands its urban reach it will precipitate further commercial development along IH-10 within the Guadalupe District, meaning that IH-10 will have a powerful influence on the future of this area. In addition, residential development of the Guadalupe District will also likely start in the vicinity of IH-10 because other parts of this district are underserved with primary road access. This will amplify the power of the interstate over the future form of the Guadalupe District. Such dependence on a single value generator (IH-10) may not compliment or enhance the larger development of Seguin. If future development driven by the interstate is inconsistent with development of the City then the Guadalupe District will contribute to the continued fragmentation of Seguin. The City must anticipate development of the Guadalupe District as it envisions development of the overall City and prescribe proper placement of thoroughfares and other public facilities that will lead to a more balanced and complimentary growth.

Therefore, future plans for the Guadalupe District must look beyond the emerging influence of the IH-10 corridor and prescribe land uses, thoroughfares, and public facilities that will balance development and integrate district growth with the rest of Seguin.

It is possible that FM 725 will emerge as a major collector corridor for the Guadalupe District. Currently it connects with New Braunfels and functions as an alternate route to IH-10. Continued growth toward New Braunfels could increase activity on this alternate route and attract commercial development to the IH-10/FM 725 intersection or the FM 725/FM 78 intersection. These intersections provide opportunity for nodal development that could justify areas of higher residential density. FM 725 between the two potential nodes will be an important entrance into areas of the Guadalupe District further south. Because development out of New Braunfels is now taking place, FM 725 becomes an important entry into the Guadalupe District. However, current policies that push industrial development in this direction and close to the river destroy FM 725 as an entrance to Seguin. Additionally, these policies place residential development of the Guadalupe District behind intervening industrial uses, which are strung out along FM 725 with no cohesive sense of industrial community or park in place.

The City of Seguin is currently on a path of placing industrial zoning in areas that are currently experiencing residential growth and will likely continue to see increasing residential development as New Braunfels, Austin, and San Antonio expand. The current pattern of industrial development constitutes industrial encroachment on this important future residential area. The same land characteristics that make the area well suited for larger residential development (flat land and good road access) also make it convenient for industrial development. However, a balanced land use plan must prevail that will prevent conflicts between these two incompatible land uses.

Therefore, future plans for the Guadalupe District must realize the emerging importance of FM 725 as an entrance to the district and set initiatives in place that will transform its industrial image into one that is more supportive of future balanced development.

Within the Guadalupe District there are still undeveloped portions of the Guadalupe River front. Herein lies a special opportunity to allow this important City asset to be more influential on the public domain and spread its potential to attract development over an area larger than the River front itself. The key to this will be a thoroughfare plan that places collectors and arterials in relation to development of the River so that such development is connected to the local street network.

Therefore, plans for the Guadalupe District should seize opportunities to bring the Guadalupe River into the public domain and encourage development plans that spread the value potential of the river over a wider area.

It is conceivable that the Guadalupe District could be divided into four development zones. These zones are divided by FM 78, IH-10, and the southern extension of FM 725 south of IH-10. The zones contain different relationships to the River and different topographic settings. Consequently development within each zone should be guided by principals that preserve these natural features and promote their ultimate interconnection as the City grows.

Therefore, future development management of the Guadalupe District should establish a planning framework that recognizes the varied landscape and varied development conditions present within this area and promote development guidelines designed to maximize these distinctions as well as integrate overall growth.

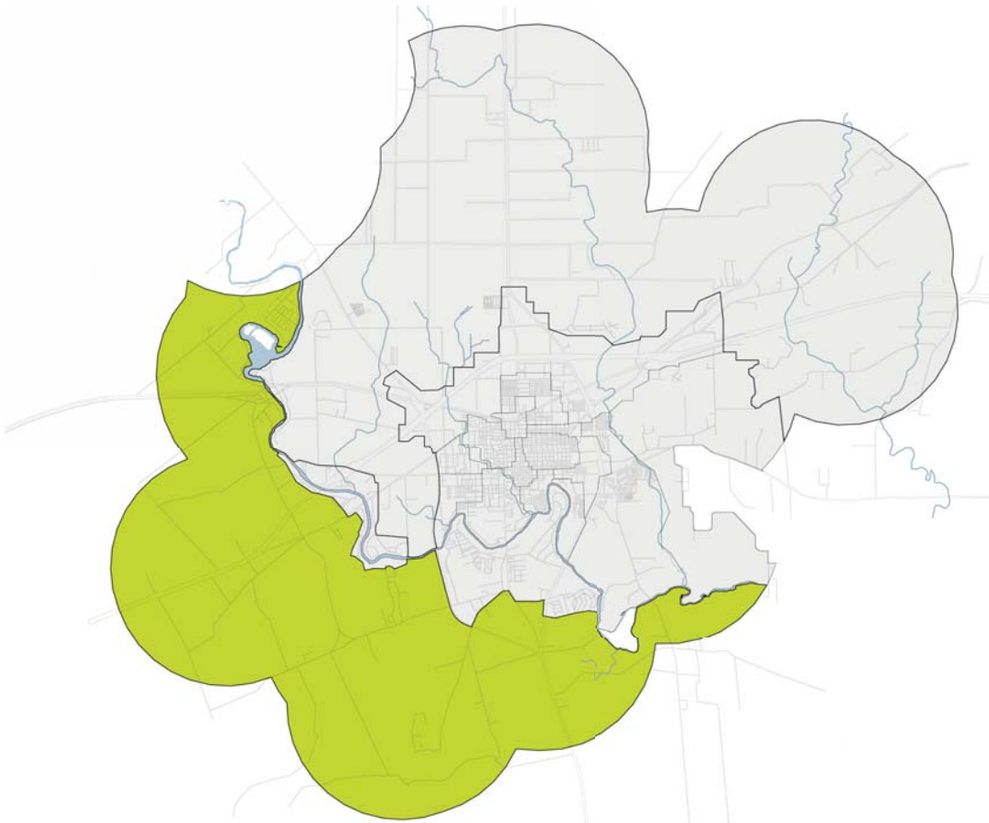


Figure 19. The Guadalupe District.

DISTRICT 17: THE LAKE PLACID DISTRICT

The Lake Placid District is a relatively small pocket of development along that section of the Guadalupe River (north and south) known as Lake Placid. The quiet River frontage attracted a cluster of second home buyers who are physically separated from the City core and closely tied to the River. The physical isolation of this area has contributed to its introverted and cloistered form. However, development reaching west along Court Street, Business 90, and even IH-10 is breaking down that isolation and engulfing the Lake Placid area. Some portions of the Lake Placid District are caught between Highway 90 and IH-10. The Lake Placid community can accommodate the presence of these normally intrusive corridors because land in the vicinity of Lake Placid is largely undeveloped. However, as freeway and highway development consumes the now vacant land, Lake Placid residents will find themselves in conflict with this expanding growth. This district has many of the qualities discussed earlier regarding the River Bend District. The focus of issues confronting both districts is that from their origins as River centered/River related developments, it will be difficult for the growing City to internalize their introverted forms. Streets serving River front lots are not sufficient to carry City traffic or allow future residential development in this area to grow from the River related roads. Instead, future residential development in this area will be separate and apart from the River. The challenge to future growth is the extent to which development that meets without connection only further isolates the Lake Placid Area.

Therefore, the confluence of City development moving west along Court Street and Business 90 and the existing River focused development of Lake Placid must be addressed in a Thoroughfare and Land Use Plan that allows the Lake Placid Area to be an integrated part of Seguin without losing the benefits of its secluded condition.

Early development of the River edge means that high water levels set without anticipation of future development within the watershed will prove inadequate as time goes forward. Flooding is already a problem and houses are being lifted to higher floor elevations or built on stilts to remain out of present day flood waters. It is important that development within the entire watershed be managed relative to flooding and that measures are taken (such as on-site detention) to assure water elevations are not dramatically increased as a result of the significant amount of downstream development at this time. Current residents of the Lake Placid District and the River Bend District will be greatly influenced by City policies on this matter.

Therefore, development within the Lake Placid District and development within the Guadalupe flood plain must be considered together so that the flood implications of watershed development are understood and accounted for by City policy.

Streets serving Lake fronting lots create long blocks (in many cases over a mile between intersections) that present operational problems for assuring emergency services. Access to mid-block homes could be easily hindered or prevented by parked cars, an accident, or flooding. Streets serving River front lots are actually long cul-de-sacs accessed from Highway 90, which means that a local residential street is accessed directly from a regional arterial. When the regional highway traverses open and undeveloped land, this structure of residential access roads is acceptable. However, when Highway 90 attracts more development, this structure will be detrimental to the identity and value of Lake Placid lots. As long as the main entry to the Lake Placid District is attained from Highway 90, it will not find its place in the residential fabric of Seguin.

Therefore, future development in the Lake Placid area must establish pathways of connection to the Lake fronting lots that link to locally serving collectors and arterials and improve the operation of district access/ egress.

Like the River Bend District, the value potential of Lake Placid for an area of development rather than a spine of development has been largely lost because the value established by the lake has been fully captured by Lake fronting lots. However, some small flood plain areas still exists and these can be carefully incorporated into a larger network of open spaces that will allow the River associated benefits to be spread over a larger area and provide some public access to the River itself.

Therefore, a system of public open spaces must be envisioned for the Lake Placid District that will spread the value creation potential of the Lake to a larger development area and provide public access to the River.

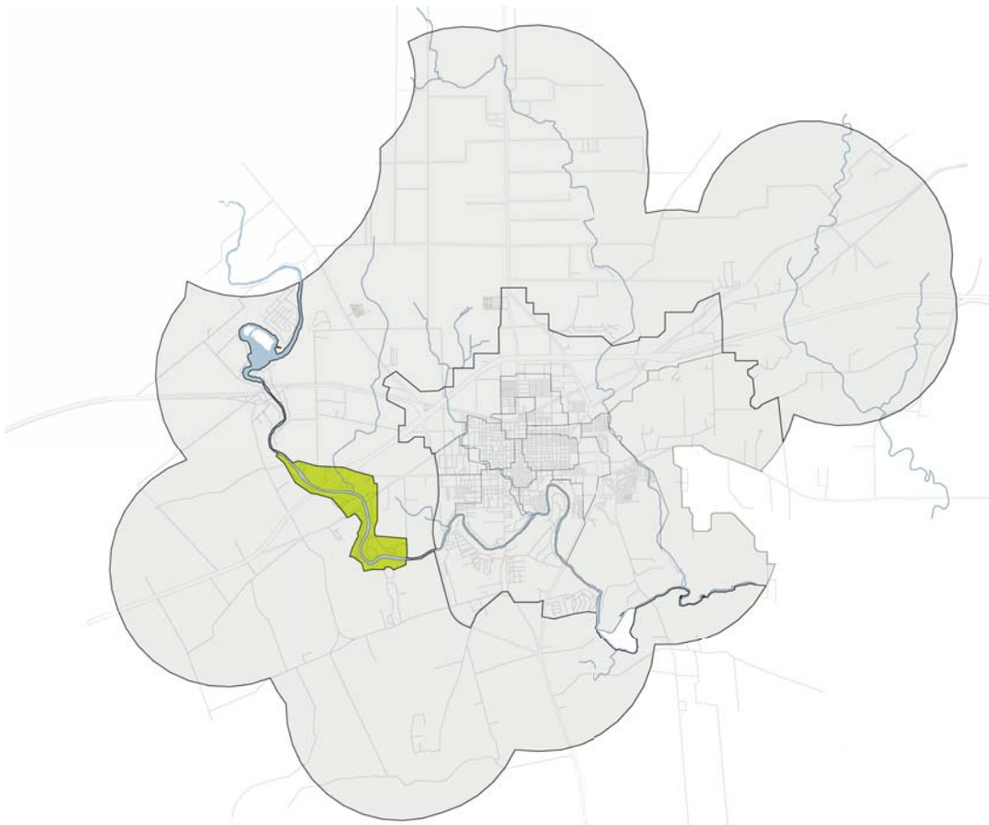


Figure 20. The Lake Placid District.

CONCLUSION

The above described Form Districts comprise the land area of the City Limit and Seguin's Extra Territorial Jurisdiction. The complex landscape of Seguin's unique setting has defined 17 districts with varied development conditions and future challenges. Each of these areas will be affected by growth energy from within and growth energy from without the City that is now driving development near downtown and away from downtown. The story of Seguin is the story of how it has dealt with the confluence of development pressures set upon it. Each bypass, the attraction of the Guadalupe River, and recently the pressures of growth in neighboring Cities has pulled and tugged at Seguin's distribution of development land uses. By understanding the process of change and the diverse development conditions that are now present, it is hoped that specific actions can be recommended that will unite Seguin about its historic core as a coherent and vibrant City.

2.4 economic assessment

Understanding the key economic drivers for any city, county, or region can be a complicated process. The economic development process itself seems to most observers as somewhat chaotic. There is, indeed, a certain determinism to the development process, but it is also not completely predictable.

Understanding the key economic drivers for any city, county, or region can be a complicated process. The economic development process itself seems to most observers to be somewhat chaotic. There is, indeed, a certain determinism to the development process, but it is also not completely predictable. That is, when one looks back at how a city has evolved, one can clearly see the pattern. Yet, when one tries to predict where or how the city should move into the future, the picture is often not so clear. Quoting Paul Krugman:

"The process seems to work mainly as follows: Start with a region that has a particular industrial base, itself the product of a long historical evolution. If the environment were unchanging, that industrial base would tend to persist; but things do change. Most important, probably, is the rise of new technologies that make old advantages irrelevant but offer new opportunities. However, the past is not completely irrelevant: the special characteristics of regions, the consequences of their old industrial mix, determine which new industries find them congenial soil. Machine shops set up to serve textile mills can turn to the production of components for aircraft engines."

However, we can identify three major factors which will help us understand how the future may unfold. These factors were first identified by Alfred Marshall. They are:

1. The ability of the firm to share specialized inputs easily found at the location. (Place)
2. There may be advantages to both workers and firms that result from the extent and diversity of the local labor market. (Purpose)
3. There may be advantages to firms because of their connections with other firms. The connections are often referred to as knowledge spillovers that occur because of the location. (Proximity)

Every community tells a story about itself, with particular focus on how it relates to the three factors we presented above. However, that story may or may not be represented by the economic data that is available. There is a wide array of data available at the state, Metropolitan Statistical Area (MSA), county, city, zip code, and census block level. However, data has little or no meaning unless it is put into some type of context. We can rework the three factors above into a framework that helps us understand the city or region's economic base. Figure 1 is the context we are using to put meaning to the data that we collected for the City of Seguin and Guadalupe County, Texas. Notice there are three interlocked circles. Each circle represents a major concept that we believe to be crucial for a fuller understanding of the economic structure of any area of interest. The circles are interconnected, and no one circle is more important than another.

Purpose deals with the underlying reason the region exists in an economic context. In the simplest of terms it is the answer to the following question: "What is it that we can produce better and cheaper than other regions and sell for a profit?" Purpose changes over time; but without a purpose, the region will decline economically.

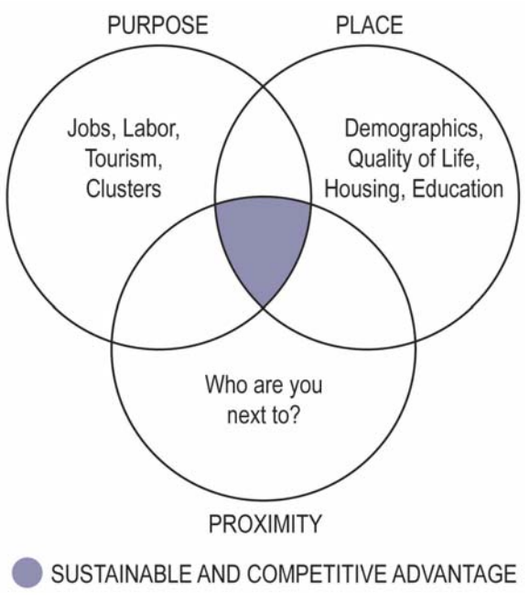


Figure 1. Purpose, Place, and Proximity Framework.

Place encompasses many issues, but for our purposes, it deals with the characteristics of location in the broadest sense. This ranges from median age to educational attainment to a host of descriptive demographic variables. It is, in fact, the answer to a simple question: "Why would any industry stay at any given location?"

Proximity addresses the issues associated with the region's location within the broader economic and geographic landscape. "What are the influences brought to bear on the city or county by its proximity to other economic regions?"

Collectively we refer to these concepts as the "three P's." These three forces work together to create two major sources of sustainable and competitive advantage. Competitive advantage refers to the relative ability of the city or region to produce higher quality goods and services at a lower price than other regions and ultimately sell them for a profit. There are two sources of such advantage:

- From within, by using the people, places, and businesses located within the region.
- Exporting the productive activities of local residents and business to the rest of the world.

But attaining a competitive advantage without being able to maintain it is not an effective strategy. We believe there are four keys to sustaining a competitive advantage once obtained. These keys are:

- A higher quality workforce
- Superior public infrastructure
- Better public services
- Linking development with neighborhood needs

DEMOGRAPHICS

We begin our study of Guadalupe County and the City of Seguin with a general demographic profile. We classify the county using three demographic profiles obtained from ESRI Demographics. These profiles relate the county to national demographic profiles and give us one way to classify county residents relative to national characteristics. There are three dominate profiles for the county:

Midland Crowd. Profile Description: Median age is 36 years and family size is 3.1. Median household income is $47,000, which is below national levels. This group often lives in rural areas. They are big do-it-yourselfers who enjoy fishing and hunting as well as country music. This is the largest market segment nationally.

Southwestern Families. Profile Description: This group includes families who are the bedrock of the Hispanic culture in Texas. Median home values are $50,700 and over 60% own their home. This group is young, with a median age of 28, and the median household income is $28,500. The presence of children in the home dictates many household choices.

Midlife Junction. Profile Description: These are residents phasing out of their child rearing years. Their median age is 40.5 and median household income is $43,600. A third of these families receive Social Security benefits and live quiet settled lives.

Overall, the median age in the City of Seguin is 37.6, based on our estimates, which is similar to the national median age of 36.4 (as of 2005). We have also calculated near term forecasts for population change for both Seguin and Guadalupe County. Our forecasts are obtained by weighting the population growth from 1990 to 2000 with the population growth from 2000 to 2004, which is 10.8% for Guadalupe County. We expect City and County population trends to be very similar.

As shown in Figures 2 and 3, we expect 2015 populations of just above 30,000 for Seguin and approximately 120,000 (with a margin of error from 96,000 to 143,000) for Guadalupe County. This is a slightly stronger growth pattern than we have witnessed during the first five years of this millennium. The big uncertainty in our near term population projections is the impact of any undercounted groups. To the extent that the County and City are destinations for large numbers of undocumented workers, then our population projections would be understated. It should also be noted that these projections are based upon past trends continuing under some very modest growth assumptions. We have not taken into consideration any aggressive development plans the city or county may implement.

Median family income is a commonly used reference, and Figure 4 compares Guadalupe County to both Texas and the United States, based on 2005 data. Guadalupe County is close to the Texas median family income. In Seguin, we estimate that 57% of the population earns less than $50,000 annually, the median price of a home is $106,000, and the cost of living is 25% less than the national average.

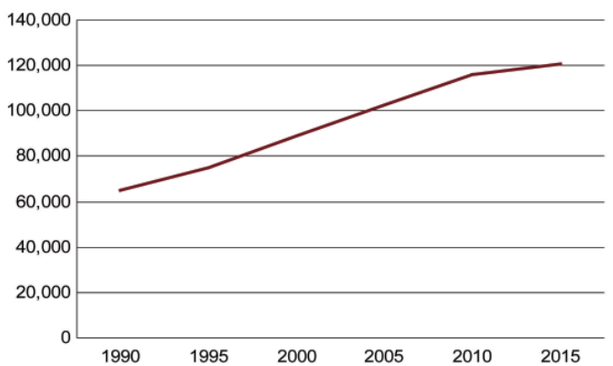


Figure 2. Guadalupe County Population Trends, 1990-2015.

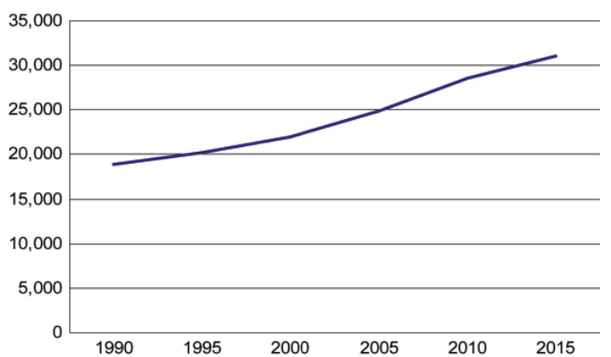


Figure 3. Seguin City Population Trends, 1990-2015.

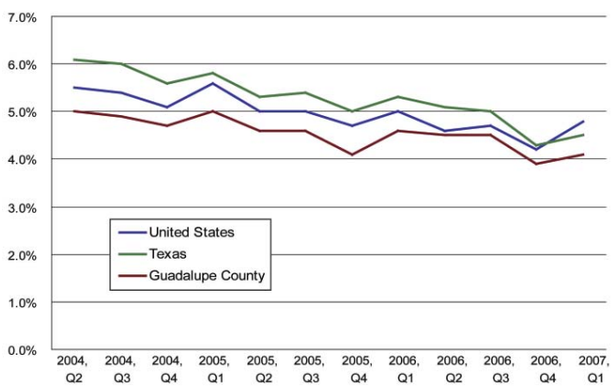
United States	$58,000
Texas	$52,900
Guadalupe County	$51,500

Source: Housing and Urban Development

Figure 4. Median Family Income 2005 (estimated).

Figure 5 compares the unemployment rate in Guadalupe County to rates for Texas and for the entire United States from the second quarter of 2004 to the first quarter of 2007. The County rates have consistently been at or below State and national rates. However, it appears that job growth in Guadalupe County has not been as vigorous as in two adjacent counties (Figure 6).

Therefore, the Guadalupe County median income is almost at state levels and unemployment rates are at or below state levels. However, Guadalupe County job growth has lagged behind that of adjacent counties, and in 2000, 13,399 people (or 15% of the entire population) from Guadalupe County commuted to work in Bexar County. This suggests that more and/or better paying employment may be available outside of Guadalupe County.



Source: Bureau of Labor Statistics. Rates are not seasonally adjusted.

Figure 5. Unemployment Rates, 2004-2007.

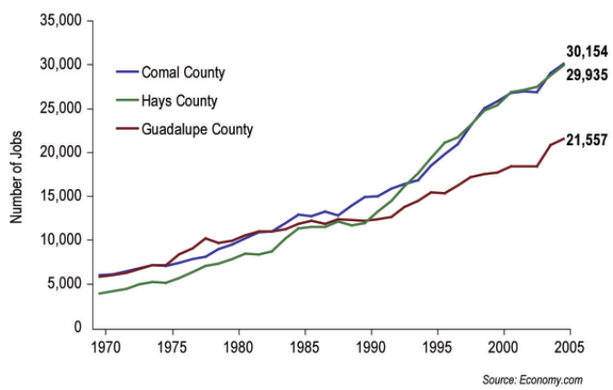


Figure 6. Job Growth by County, 1970-2005.

PROXIMITY

Simply put, proximity refers to where and next to whom the city or region is located. This proximity matters since we must consider the issue of the "magnitudes" or "gravity" of place and thus proximity to place. Despite globalization, it is the case that interregional trade still primarily occurs between regions that are in close proximity to each other. One city or region located within easy driving distance of another larger dominating city or region could easily be swamped by the shear size or gravity of the larger city or region. When considering proximity to Guadalupe County, one naturally considers the role of San Antonio, Austin and the IH-35 corridor. While Seguin is closer to San Antonio, the impact of Austin and Mexico (via the IH-35 corridor) will be significant.

Figures 7 and 8 detail the major regional and local employment clusters of San Antonio, while Figures 9 and 10 do the same for Austin.

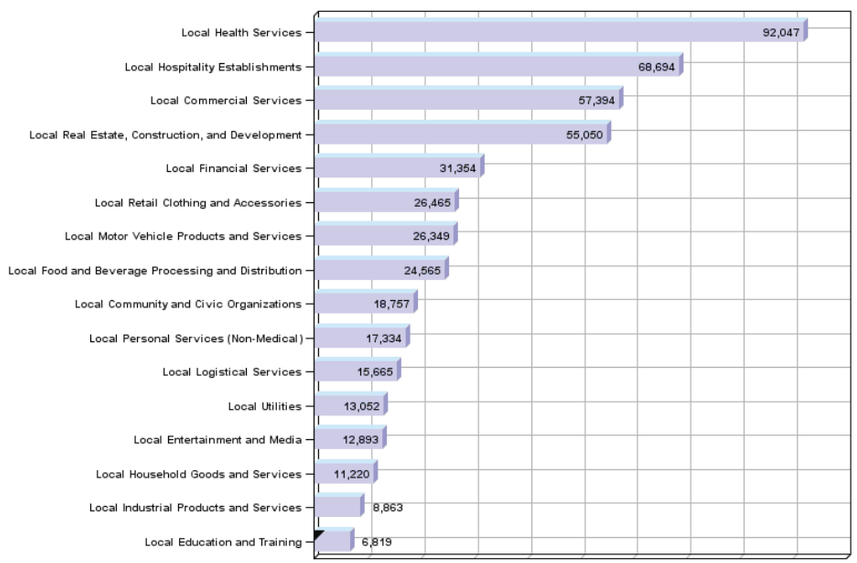


Figure 7. San Antonio Local Clusters. Health Services dominate the San Antonio local employment clusters. The Hospitality Establishments cluster is second, following by Commercial Services and the Real Estate, Construction, and Development cluster.

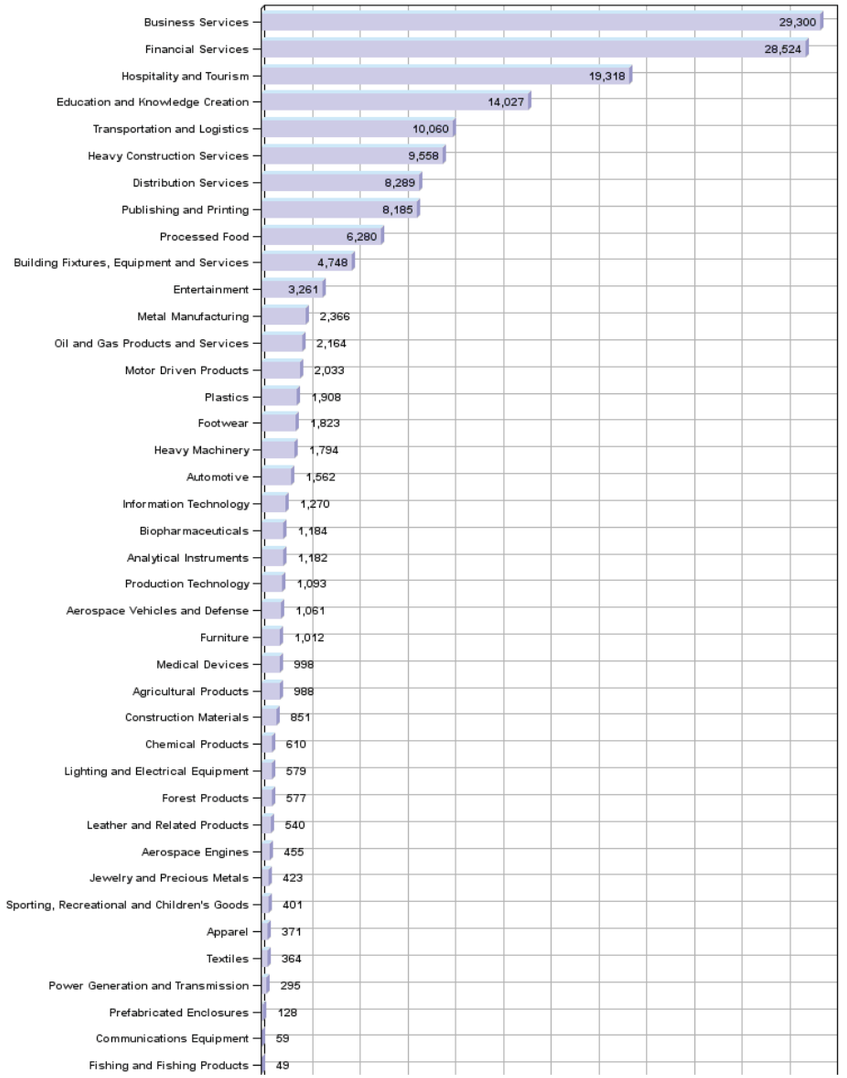


Figure 8. San Antonio Employment Clusters 2004. Out of the many categories of employment clusters, the most significant by far in San Antonio are Business Services and Financial Services, more distantly followed by the Hospitality and Tourism cluster, Education and Knowledge Creation, and the Transportation and Logistics cluster.

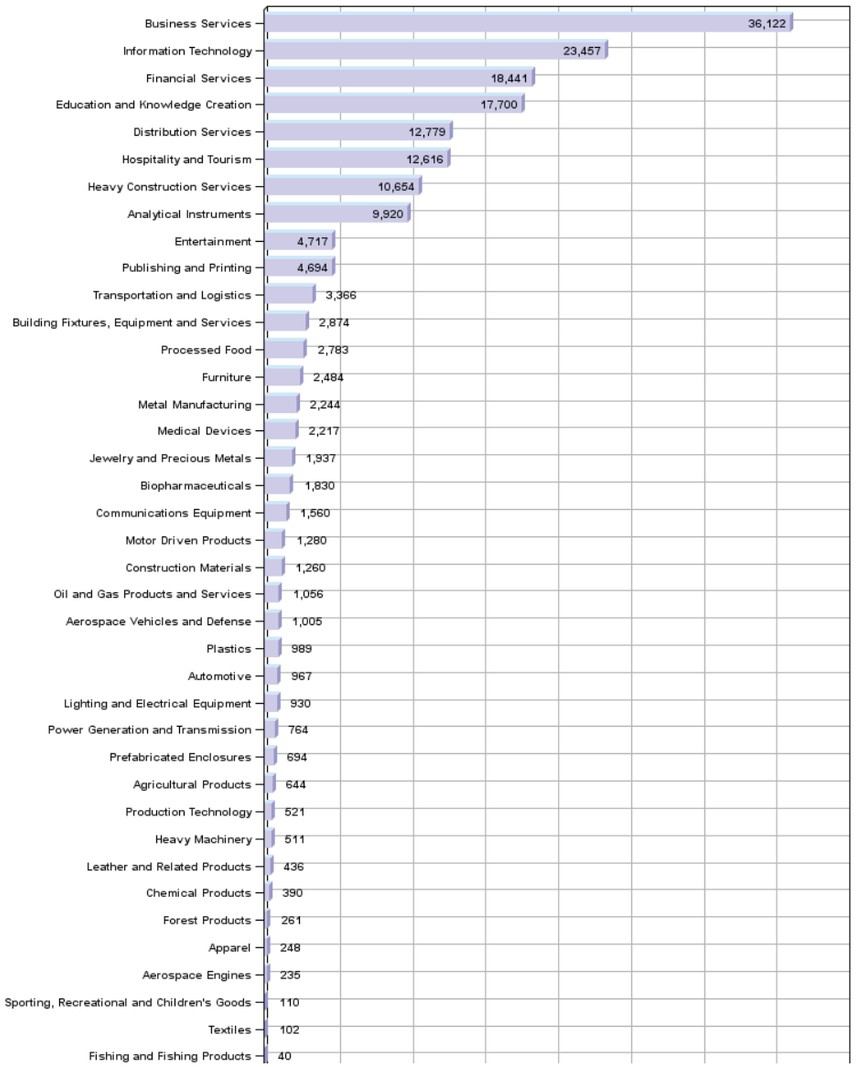


Figure 9. Austin Employment Clusters. Similar to San Antonio, Austin's most prevalent employment sector is Business Services. Information Technology is second, establishing a divergence from San Antonio's pattern. These top two categories are followed by Financial Services and the Education and Knowledge Creation cluster, both of which are also in the top four in San Antonio.

When making meaningful comparisons of employment patterns, we need to consider three types of clusters or groups of employment and or firms. The first group is referred to as "traded clusters." For traded clusters there is a significant portion of the output of these firms shipped beyond the borders of the city or region. Next we consider what are referred to as "local clusters." Local clusters sell the majority of their output within the city or region. Finally, we consider what are called "resource clusters." Such firms are located in a region because of natural resource considerations. Oil refineries are the example that comes to mind. We will only examine the traded and local clusters for San Antonio and Austin.

While both cities are dominated by employment in Business Services, Austin's second largest cluster is Information Services while San Antonio's is Financial Services. Local clusters of Hospitality, Health and Commercial dominate both San Antonio and Austin.

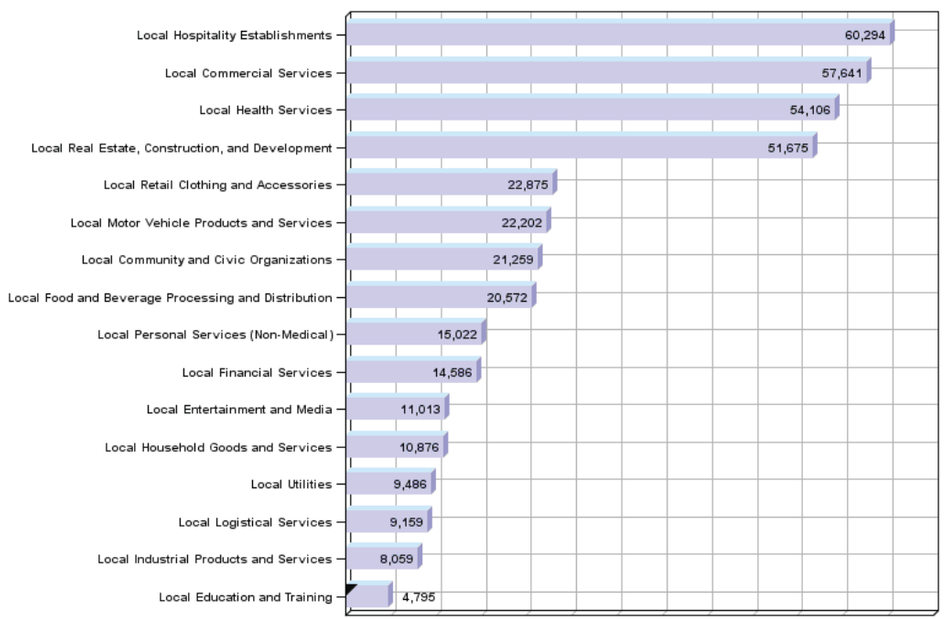


Figure 10. Austin Local Clusters. The top four local employment clusters in Austin dominate the other sectors, and consist of Hospitality Establishments, Commercial Services, Health Services, and the Real Estate, Construction and Development cluster. These are the same as the top four local clusters in San Antonio, although in a different order.

Finally, Figures 11 and 12 look at local job creation in both San Antonio and Austin.

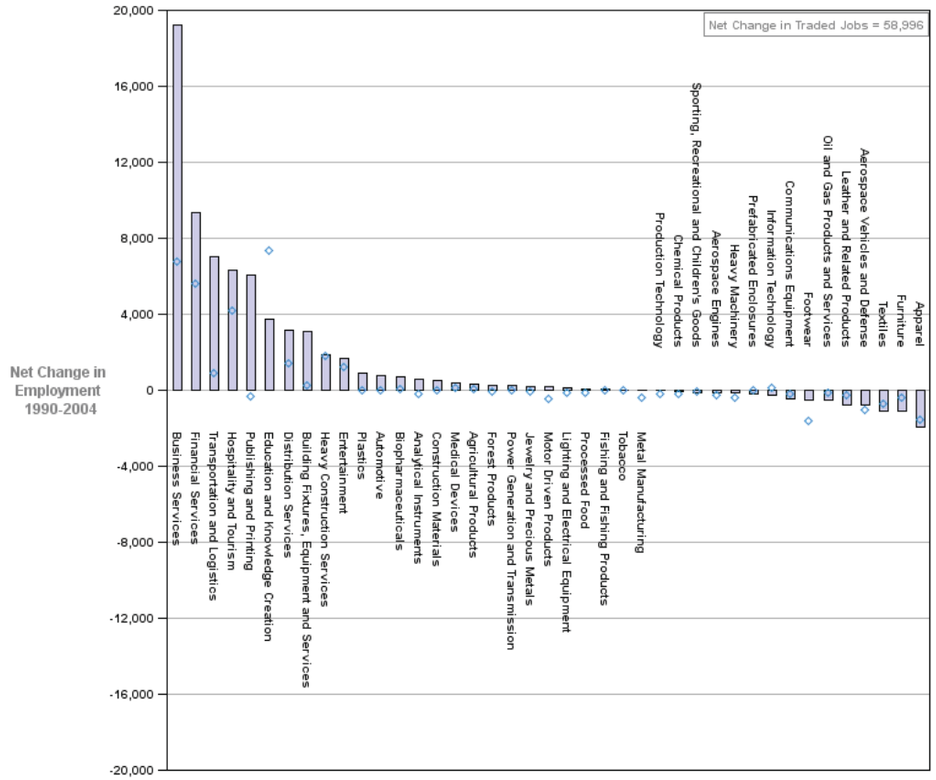


Figure 11. San Antonio Job Clusters. Business Services saw the largest net positive change in employment from 1990 to 2004 in San Antonio, as would be expected since it is currently the largest employment sector in the region. This growth area is followed by the Financial Services industry and the Transportation and Logistics industry.

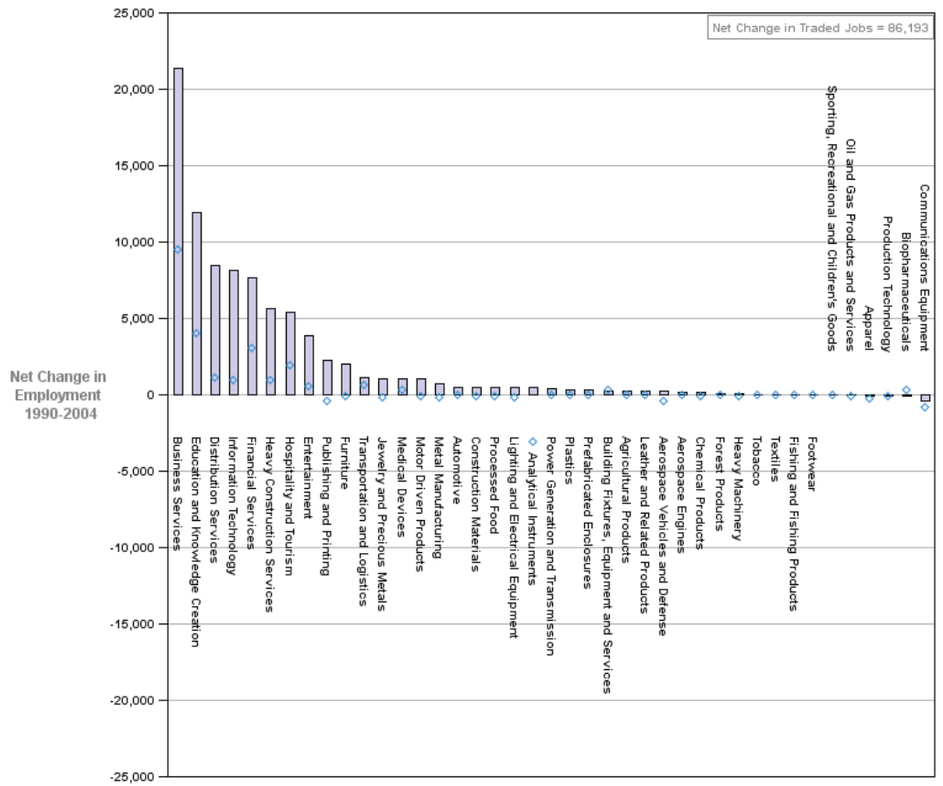


Figure 12. Austin Job Clusters. Business Services is the clear leader for net positive employment change from 1990 to 2004 in Austin, followed by the Education and Knowledge Creation industry. Distribution Services, Information Technology, and Financial Services follow closely, almost tied for third place in net positive employment growth.

Both cities have strengths which could support Guadalupe County and the City of Seguin. Caution should be taken based on the fact that San Antonio and Austin are enough different in economic form to make thoughtful consideration of their basic economic form important. Certainly, however, what stands out is the role of Business Services as a major job creator in both cities.

There is a troubling reality for both the County and the City as they ponder the significance of these two major urban areas in fairly close proximity to them. Recent labor market research by the Federal Reserve Bank of St. Louis suggests that growing wage differentials within industry categories is primarily driven by skill based technology change (SBTC). What these researchers discovered is that jobs which require a college education and regular use of computers are more highly paid than other jobs, even within the same industry. This is a cautionary tale since simply attracting a new industry may not bring higher paying jobs associated with that industry. While Guadalupe County does have a University, educational attainment of the workforce is problematic, as discussed in the section on Demographics, suggesting that SBTC type jobs may not be easily attracted to the area.

Finally, we believe the basic structure of the San Antonio economy is undergoing a fundamental shift. The city has long been able to weather national economic downturns due to a heavy concentration in government and military clusters. These stable employment patterns allowed economic stability. Given, however, the significant closings and movements of military bases, we fully expect that San Antonio has lost a significant portion of its prior insulation. We expect to see the San Antonio economy buffeted by national and state business cycles in the future. Thus it might be said that if San Antonio catches a cold, Guadalupe County may get the flu.

Therefore, Guadalupe County and the City of Seguin are located within "reasonable" proximity to two major metropolitan statistical areas: San Antonio and Austin. San Antonio and Austin exhibit similarities in both their traded and local clusters; however, there is enough difference to warrant thoughtful consideration of the linkages. While both cities are dominated by Business Services, Austin reflects a distinct Information Services and Knowledge Creation structure while San Antonio reflects a Hospitality and Logistics structure. Significant job creation in San Antonio within the categories of Business Services, Financial Services and Transportation and Logistics represent real opportunities for the county and city. Planners should also prepare for the reality that the San Antonio economy is no longer as protected from national and state business cycles as it once was.

PLACE

Place refers to the economic, demographic, and quality of life forces that are currently at work within a community or region. Recall from the Demographic section that we expect 2015 populations of just over 30,000 for the City of Seguin and approximately 120,000 (with a margin of error from 96,000 to 143,000) for Guadalupe County. Additionally, the median age of the city is 37.6 by our estimates, and over 57% of the population earns less than $50,000 annually. The median price of a home is around $106,000 and the cost of living is 25% below national levels. Representation of geographical, or place-based, data are shown in the following Figures.

Figure 13 details the geographical distribution of income per capita. Note that the areas bounded by IH-10, US 90 and SH 123 Business mark the lowest per capita income areas. In Figure 14, clusters of business establishments in Seguin are shown. It should be noted that given the current establishment count, development plans which fragment the ability of firms to cluster may well reduce the expected economic benefit of such firms. Finally, the geographical distribution of average household income is of interest. Figure 15 shows the results. It is clear that the highest income households are located to the north of the downtown core of Seguin.

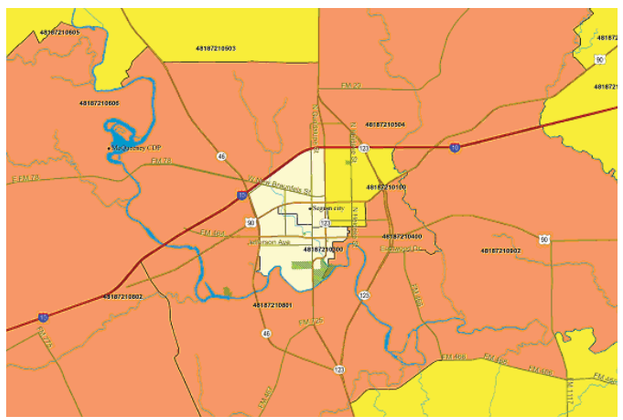


Figure 13. Seguin Geographical Distribution of Income Per Capita. The white area represents per capita incomes below $11,875; the yellow $11,875 to $18,750; and the light orange $18,750 to $29,500.

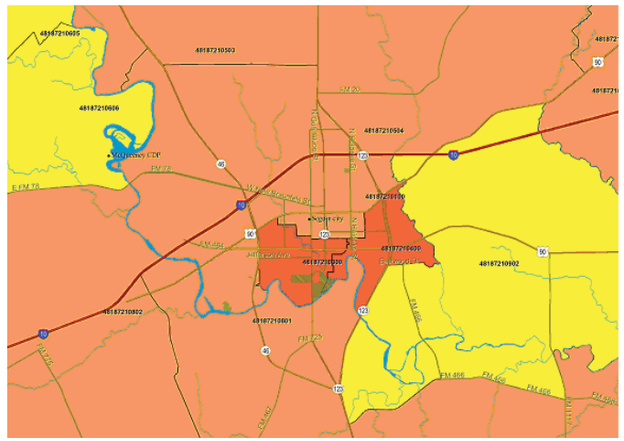


Figure 14. Seguin Clusters of Business Establishments. Tthe bright orange color represents 195 to 510 business establishments, which is the highest concentration category in Seguin.

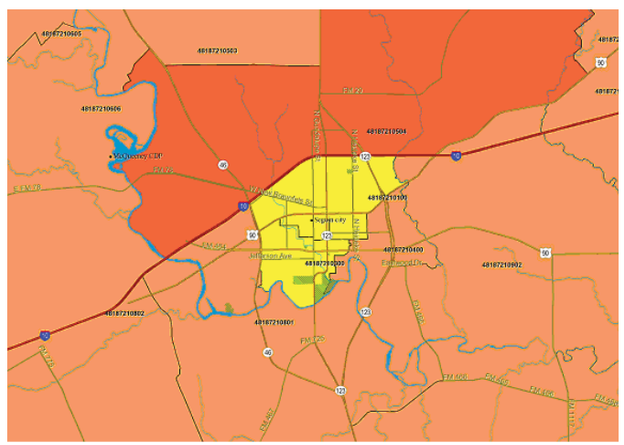


Figure 15. Seguin Geographical Distribution of Average Household Income. The yellow color represents average household income of $29,000 to $46,000, the light brown represents incomes between $46,000 and $69,000, and the bright orange represents incomes between $69,000 and $107,500.

Retail trade at the local and city level is crucial. For example, spending by all consumers at the national level accounts for 70% of the Gross Domestic Product (GDP) - the value of all final goods and services produced within one year. Retail sales play a similar role at the city or regional level. Figure 16 details some very interesting information about County spending patterns. There is no single variable we can examine to give us a complete picture of local retail trade patterns. We have chosen to present what is referred to as the "pull factor." The pull factor attempts to measure the extent to which a defined area is able to "pull" in retail sales. This is accomplished by comparing the region in question to a benchmark. In this case we have compared retail spending in Guadalupe to what that spending would have been had the County residents spent at statewide benchmarks. If the pull factor exceeds a value of 1.0, the implication is that the County is pulling in sales from surrounding areas. Looking at Figure 16, it is immediately apparent that over a long period of time the County has ranged between pull factors as low as 0.7 to as high as 0.85. At no time has the County reached a pull factor greater than 1.0. In recent years we estimate the pull factor has been rising but current levels are still below peaks reached in 1970.

Next we examined the distribution of retail trade establishments within the City of Seguin. The most prevalent retail establishments in Seguin are gasoline stations, with a total of 20 such establishments. The next most common categories are general merchandise stores; supermarkets; nurseries and garden stores; automotive stores; and furniture stores, with seven to eight establishments in each of these categories.

Figure 17 represents the relationship between Guadalupe County population and employment. This relationship has little meaning unless used to compare to other locations. We have offered Bexar, Dallas and Travis Counties for the sake of comparison. It is obvious that the Guadalupe County employment/population ratio is significantly smaller than that of our base counties, and it also seems to have been falling since 2000. This would suggest that the County is attracting more residents than it can employ.

Figure 18 attempts to shed light on possible causes. It compares the rate of change in employment to the rate of change in population. A value of one would suggest both are growing at the same rate. Again it appears that since the value of our ratio is less than 1.0, we can assume that population has been growing at a faster rate than employment. Additionally, since 2000, it seems the disparity in growth between population and employment is even more significant, as our ratio is falling. However, this trend appears to be improving since 2005.

Therefore, Guadalupe County and the City of Seguin have seen modest population growth trends in the recent past. Our current estimates are that these trends are likely to continue with a slight increase. While Guadalupe County median income levels are near state wide norms, the area seems to be losing retail sales to outlying areas. The County has maintained a "pull factor" of less than 1.0 for a rather long period, suggesting this loss in sales is not recent. The County is able to attract population but it has not been able to create jobs at the same rate as population growth. There seems an income spread between residents who commute to Bexar County and lower paid residents working in Guadalupe County. Finally, the ability of firms to cluster with each other provides benefits to them and their consumers. Roadway changes which dissipate this clustering ability could negatively impact city economic growth.

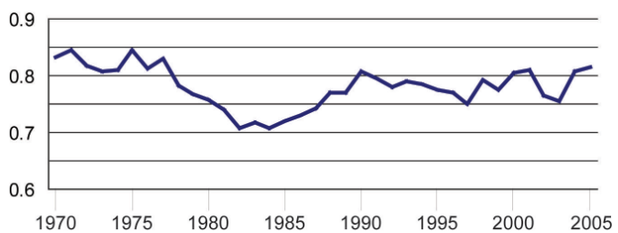


Figure 16. Guadalupe County Retail Pull Factor.

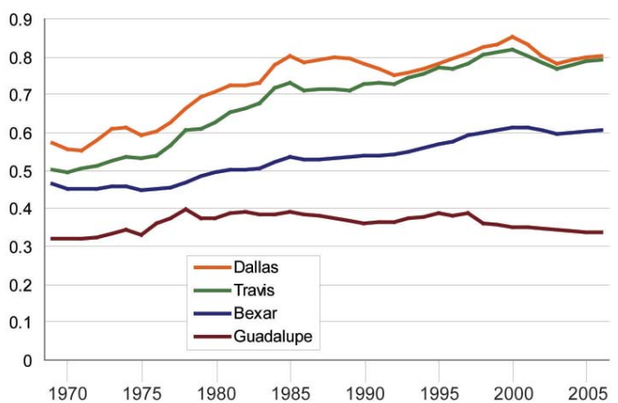


Figure 17. County Employment to Population Ratios.

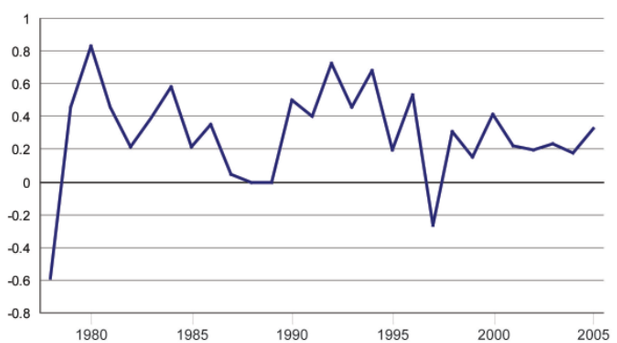


Figure 18. Guadalupe County Change in Employment to Population Ratio.

PURPOSE

The purpose of a city or region can be identified by looking at the clusters of firms and employment within that community or region. We have used the method referred to as location coefficients (LQ) to identify such clusters. Thus, a location coefficient of greater than 1.0 (based on a benchmark, which is in this case the state of Texas) would indicate a concentration of employment or establishments greater than the State, while a LQ of lower than 1.0 indicates a concentration less than the State benchmark. A LQ greater than 2.0 is often an indicator of that cluster being what we call a "traded" cluster. This matters since another way to think of the purpose of a city or region is to be able to export goods and services and import money. We begin our study by looking only at the number of establishments within the city.

After examining the distribution of establishments within the City of Seguin, it is clear that retail uses dominate, with a total of 19% of all business establishments being in the retail category. The major sub-sectors within the retail category are gasoline stations, vehicles/repair, clothing and accessories, general merchandise stores, and miscellaneous retail. The other significant business establishments include the health sector, representing 14% of total establishments, accommodation (9%) and manufacturing (6%). When we examine employment within the City of Seguin, however, a slightly different picture emerges. Manufacturing dominates the local economy with 22% of all employment. The largest categories within the manufacturing sector are business printing (11%), plastics (13%), metal (13%) and miscellaneous (15%). Education accounts for 21% of employment and retail accounts for just 13% of all employment.

We may now turn our attention to the location coefficients we have generated for Guadalupe County. Figure 19 below shows our calculations. Location coefficients are a way to compare local employment with a larger area; in our case, the state of Texas. Thus we simply calculate local employment in a given sector as a fraction of state employment in that same sector. When this number is greater than one, the local area has more employment in this sector than the state. The obvious question now is what does this mean. We assume that if the local sector employs more workers than the same sector at the state, then there can only be one explanation: that sector is a traded sector. Put another way, the sector exports its goods and services out of the city or county and imports money. This is often called a "basic" sector. We will refer to these sectors as "traded" outside the city or region.

Two observations are most apparent regarding the county:

1. Manufacturing accounts for almost 25% and trade, transportation, and utilities 24% of employment. When combined with leisure and hospitality (13%), just over 61% of total employment in the county is within these three sectors.

2. The location coefficient for manufacturing (2.2) dominates, and only two other categories have LQ's greater than 1.0: Construction (1.51) and Leisure and Hospitality (1.12).

This warrants further analysis. When we examine in more detail the LQ's for the manufacturing sector, some very interesting facts emerge. In Seguin, Machine Shops and Wood and Kitchen Counter Top Manufacturers dominate the manufacturing sector, which is significant as we would expect these sectors to offer lower than average wages.

When we look at Guadalupe County a different picture emerges. There are 11 out of 98 manufacturing firms that employ more than 100 workers. These firms are clustered in the food, fabric mills, wood, and rubber industries. Most of these categories are dominated by single firms. Thus at both the City and the County level, clusters are neither deep nor broad. It is often the case that local areas attempt to broaden their economic base by attempting to diversify across a number of sectors. However, this type of strategy often leads to the results we have seen for both the City and the County, which is little clustering of firms and the prevalence of low skilled jobs. If firms are able to cluster, it may allow for the attraction of higher skilled, as well as higher paid, jobs to support the "deepening" of that cluster.

Industry	Bexar County	Guadalupe County
Natural Resources and Mining	0.18	0.43
Construction	0.92	1.51
Manufacturing	0.58	2.20
Trade, Transportation, and Utilities	0.86	0.96
Information	1.26	0.31
Financial Activities	1.37	0.56
Professional and Business Services	1.14	0.57
Education and Health Services	1.20	0.71
Leisure and Hospitality	1.25	1.12
Other Services	1.07	0.92
Unclassified	0.63	0.66
Total, All Industries	1.00	1.00

Source: Quarterly Census of Employment and Wages Data.

Industry	Texas State	Bexar County	Guadalupe County
Natural Resources and Mining	3.00%	0.53%	1.28%
Construction	7.35%	6.78%	11.06%
Manufacturing	11.24%	6.53%	24.74%
Trade, Transportation, and Utilities	24.68%	21.10%	23.67%
Information	2.70%	3.41%	0.83%
Financial Activities	7.52%	10.30%	4.22%
Professional and Business Services	14.92%	17.06%	8.46%
Education and Health Services	13.54%	16.24%	9.61%
Leisure and Hospitality	11.43%	14.28%	12.86%
Other Services	3.38%	3.61%	3.13%
Unclassified	0.23%	0.15%	0.15%
Total, All Industries	100%	100%	100%

Source: Quarterly Census of Employment and Wages Data.

Figure 19. Guadalupe County Location Quotients.

Finally we examine the performance of county sectors relative to the same sectors at the state level. We employ a technique referred to as shift-share analysis. Employment growth can be divided into three component parts. The share component estimates how much growth would have occurred in local industry if those sectors had grown at the national or state rate. This component captures the region's share of national or state growth. The next effect is the mix component. This component captures growth that occurred as a result of the region's particular industry mix of positive or negative growth. The third effect, the competitive component, considers advantages or disadvantages for employment growth of local industry when compared to either the state or the nation. When all three effects are combined, we are able to account for employment growth within a region. We will examine these three effects for the manufacturing and retail sectors of Guadalupe County. Figure 20 shows the results for manufacturing. The mix effect or the unique local industrial composition typically accounts for about 50% of the change in employment over long periods of time. As we look at the employment changes in Guadalupe County we notice immediately that the mix effect is regularly negative. That is, the particular mix of manufacturers in the County is experiencing less growth when compared to the rest of the state. The share effect has been regularly positive and the competitive effect oscillates but has mainly led to positive employment growth.

The retail sector details another picture (Figure 21). The share and mix effects have tended to produce positive employment growth in this sector, while a very erratic competitive effect has produced both positive and negative employment effects.

Therefore, our analysis indicates Guadalupe County is dominated by Manufacturing, which accounts for almost 25% of employment. Trade, Transportation, and Utilities account for an additional 24%. When combined with Leisure and Hospitality (13%), these three sectors account for just over 61% of total employment in the County. Manufacturing clusters within both the City and the County are not deep, due to the fact that often what is termed a cluster is actually a single firm employing a large number of workers. Eleven of 98 firms in the county employ over 100 workers. Employment growth in manufacturing has regularly suffered a negative "mix" effect, meaning that manufacturing at the County level has not shown positive growth when the state growth rate has been positive. Retail trade has suffered a very erratic competitive effect, at times growing faster and at other times slower than State retail employment.

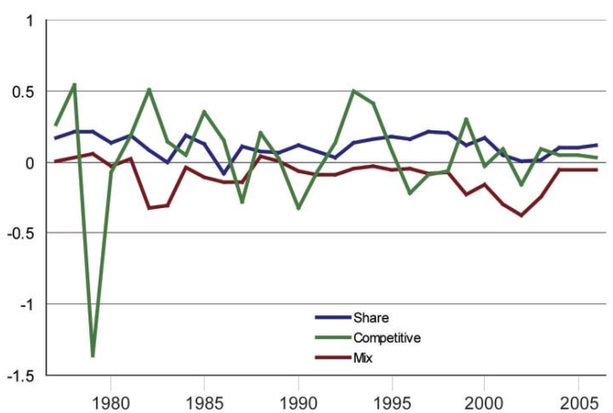


Figure 20. Guadalupe County Manufacturing Shift Share.

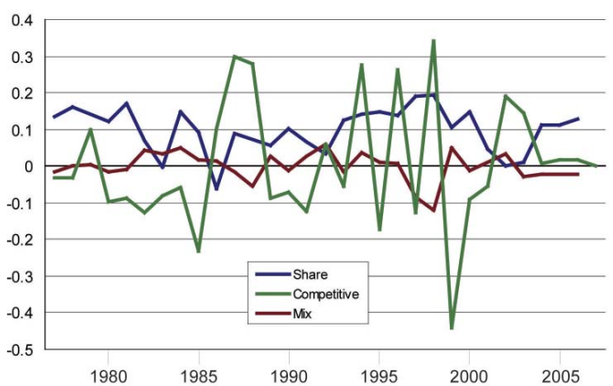


Figure 21. Guadalupe County Retail Shift Share.

SUMMARY AND CONCLUSIONS

- The cost of living and quality of life within both the City of Seguin and Guadalupe County are major assets.
- The major employment clusters of Business and Financial Services have a strong foundation in both San Antonio and Austin. Both Seguin and Guadalupe County could benefit from this proximity.
- However, the San Antonio economy will no longer be recession proof.
- There may be a growing wage disparity between those who work in Seguin and Guadalupe County and those who commute to Bexar County for work.
- There are no significantly “deep” manufacturing clusters in Seguin or Guadalupe County.
- Retail “pull factors” suggest leakage of retail spending from Guadalupe County.
- Aggregation and clustering of business establishments may be risked if new road construction allows for dissipation of these clusters.
- Target recommendations from previously conducted market studies have merit. However, care must be taken to ensure that deepening of existing employment clusters and the attraction of high wage jobs become a key decision variable. Attraction of lower wage jobs will only exacerbate the disparity between those who live and work in the County and those who only live in the County but commute to work elsewhere.

WHAT CAN SEGUIN DO NEXT?

The question we now must answer is: Given the economic base analysis we have just presented, what are some of the near term strategies that Seguin could pursue to enhance its ability to better control its own economic future? Recall that within the place/purpose/proximity framework we considered three main factors:

- The ability of the firm to share specialized inputs easily found at the location. (Place)
- There may be advantages to both workers and firms that result from the extent and diversity of the local labor market. (Purpose)
- There may be advantages to firms because of their connections with other firms. The connections are often referred to as knowledge spillovers that occur because of the location. (Proximity)

Using these three concepts as our guide, Seguin should strive to attract new firms as well as ensure those already in place continue to thrive. (Information about the site selection process and locational strategies of firms is included in Appendix B in order to assist Seguin in this process.)

The following are economic issues that should be resolved in light of this assessment:

- The need for a core urban area
- The role of the small entrepreneur
- Improve educational skills to attract high wage jobs in traded clusters rather than grow traded total share
- Enhance local capacity for technology
- Access to local markets
- Connectivity and aggregation
- Public spaces
- Small steps within a big picture

2.5 workshop 1 summary

The Seguin Comprehensive Plan process has included three Open Public Workshops. Workshop 1 focused on Goals and Objectives.

WORKSHOP #1: GOALS AND OBJECTIVES

Workshop #1 is unique because it uses the Consultant Team Assessments (Form Analysis, Natural Systems Analysis, Economic Analysis, and Physical Systems Analysis) as a starting point of discussion. Prior to the first workshop session, the Consultant Planning Team executed an extensive assessment phase which included a Form Analysis, an Economic Analysis, a Natural Systems Analysis, and a Physical Systems Analysis. During the workshop, the session was divided into three parts:

- Disclosure of the various assessments made by the Consultant Team and the Planning Issues such assessments revealed.
- Discussion of the Assessments and Planning Issues in smaller break-out groups.
- Summation of the break-out group discussions before the entire assembly of public participants.

DISCLOSURE

In the first portion of the workshop session (called **Disclosure**), the Consultant Team presented the findings of their assessments and, in so doing, established the data-base for subsequent discussion of local planning issues arising from the Resources, Assets, Liabilities, Constraints, and other conditions documented in the Assessment Phase. In order to facilitate discussion focused on a broad range of local and specific planning issues, the larger participating body was voluntarily divided into smaller discussion groups (each group facilitated by a citizen member of a core Facilitator Group). Discussion groups were organized according to natural subdivisions of the community created by recognizable natural features/ conditions, which serve to give cognitive recognition to a particular part of town. These corresponded to the Form Districts presented by the Consultant Team. Organization of groups by such distinction allowed very specific discussion of the planning issues regarding a particular part of town with which the participant had familiarity and (due to their selection of that area) a degree of passion. The geographic areas of Seguin used to organize the small discussion groups arose out of the Form Analysis and are as follows:

1. The Town Center District: This is generally the area of the original Ranger Plat and the corridors of earliest growth along Court Street and Austin Street.

2. The Transitional District: Bounded by highway commercial development on three sides and the historic City core on the fourth, this district is where residential development of different historical periods comes together in a diverse fabric of housing type and age.

3. The Timber Lot District: This district lies south of the historic City core and encompasses those early Ranger Plat tracts called the Timber Lots. It has a distinctive setting and physical fabric due to its age and proximity to the Guadalupe River.

4. The Walnut Creek District North: This district encompasses the area of the early Ranger Camp (west of Austin Street and north of Court Street).

5. The Walnut Creek District South: This district covers a large, and mostly residential, area between Court Street, Walnut Creek, and the Guadalupe River. It includes many historic residential structures and a rolling topography. The uniformity of Seguin's grid seen north of Court Street is challenged by the topography of this area. Consequently, the internal street layout here has many discontinuities and disruptions.

6. The Station District: This is a largely non-residential district that encompasses the old railroad freight station (west of Austin Street) and the old passenger station site (east of Austin Street). Much of the City's older industrial fabric lies within this zone, which is bisected by the railroad track and Business 90 (Kingsbury Street).

7. The University District: This is a district of emerging importance to the future of Seguin because it contains an active and growing University (Texas Lutheran University). Bounded roughly by Court Street, Highway 46, Business 90, and portions of Walnut Creek, this area includes the University and the residential fringes that adjoin it.

8. The Highway Commercial District: The term Highway Commercial District describes an area on both sides of Business 90, the Highway 123 By-pass, and Court Street (east of downtown). This zone is filled with commercial development oriented to and capturing the value created by the vehicular volumes traveling these corridors. Large plate buildings and expansive parking areas are typical of the development pattern evident.

9. The Jefferson District: This district lies west of the Walnut Creek South district and Highway 46. It is a transitional residential area containing both newer and older homes laid out on straight streets that make a loosely defined grid with varying cells. Development along the streets is more uniformly related to the street (uniform set back and orientation) which is different than the more incremental qualities of residential districts closer to the City core.

10. The River Bend District: This district lies on both the north and south sides of the Guadalupe River as it passes through Seguin. Here, verdant river banks have attracted the development of luxury homes laid out along winding streets that respond to the dramatic topography of this area.

11. The North Seguin District: This is a district that lies generally to the north of the Station District and is part of Seguin's early suburbanization. Here, long blocks with uniformly arranged houses fronting them depart from the historic square grid and show a development pattern more common in typical city suburbs.

12. The Freeway District: This district lies on the north and south sides of Interstate 10 from its intersection with Highway 46 to its intersection with the Highway 123 By-pass. This district will ultimatly grow to include the intersection of IH-10 and the proposed SH 130. This district has a regional scale that visually conveys its connection with the regional reach of the interstate system.

13. The Geronimo Creek District: This district lies east of the Highway 123 By-pass, west of Geronimo Creek, north of the Guadalupe River, and south of Business 90. Here the influence of Geronimo Creek nurtures a rich landscape set in rolling topography that has attracted higher income housing but is segmented by the influence of existing highways over development patterns.

14. The Agricultural District: A vast and largely undeveloped area lying north of IH-10 and flanking both sides of the highways to New Braunfels and San Marcos. This is an area where future development pressure is beginning to emerge, driven by growth in neighboring Cities. It is important to monitor how this development will mesh with the growth of Seguin.

15. The Randolph District: This is an area west of the Randolph Air Force Auxiliary Base and east of Geronimo Creek. Future eastward expansion of local residential development is limited by the presence of the base air strip. This presents a land use challenge for this district and poses conflicts with residential development within the Geronimo Creek District.

16. The Guadalupe District: This is another vast area of largely undeveloped land to the west of the Guadalupe River and divided by the westward extension of FM 78 and IH-10 and the southern extension of FM 725. The power of the Interstate and other corridors crossing the area to influence and regionalize development could potentially conflict with local development.

17. The Lake Placid District: This district circumscribes a residential community that has grown up around Lake Placid. Many of the homes are second homes and the area is spatially isolated from other growth areas of Seguin.

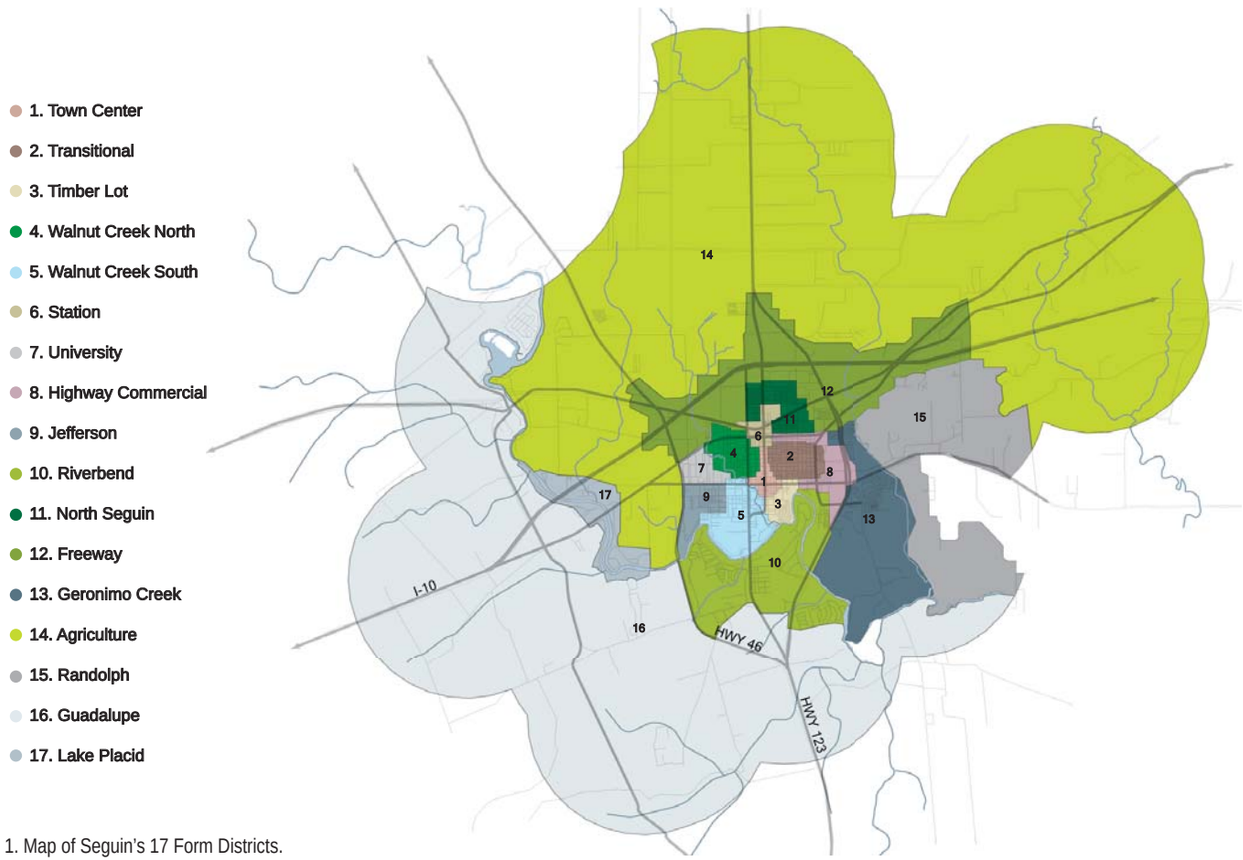


Figure 1. Map of Seguin's 17 Form Districts.

DISCUSSION

The second portion of the workshop session (called **Discussion**) started with the convening of small discussion groups (described above). Within the context of these small discussion groups, participants were given opportunities to confirm, debate, and/or augment observations made and comment upon their significance to the developing community. Members of the Core Facilitator Team, acting as discussion facilitators, took detailed notes on "flip charts" so that all parties in the discussion could see the points of concern, interest, and direction. Upon conclusion of the discussion session, a participant was selected by consensus of the group to present a summary of the discussion and issues.

SUMMATION

The third portion of the workshop session (called Summation) started with the re-assembly of all workshop participants as a single body. In this session, the presenter selected by consensus from each small discussion group (as described above) presented the information previously documented on flip charts and added further description to the dialogue accompanying each point. In this presentation, members of the larger participating body were given opportunity to ask questions, challenge points made, and otherwise add to the discussion of a particular zone.

Upon conclusion of the Summation portion of Workshop #1, a comprehensive list of discussion points had been established for each sector of the city, which addressed the planning issues confronting that area in specific detail. This list of discussion group statements provides the basis for establishing planning goals and objectives and will be discussed in greater detail in Section 3 of this Comprehensive Plan Document.

2.6 focus groups summary

The Seguin Comprehensive Plan process has included three focus group sessions, which were held after Workshop #1 for community members to address issues raised in the Workshop.

ISSUE-ORIENTED FOCUS GROUPS

Following Workshop #1, three focus group sessions were held for community members, based on the three issues that arose out of that Workshop. Texas Lutheran University is a significant component in the culture and the urban landscape of the City of Seguin. Therefore, faculty, staff, students, and other stakeholders were encouraged to attend a University Focus Group to discuss the ways in which the Seguin Comprehensive Plan could and should speak to the needs of the University.

During Workshop #1, a considerable number of comments arose regarding the natural systems present in Seguin. Regular flooding, alteration of the natural landscape, and changes in air quality counts throughout the San Antonio Metropolitan Area were among some of the concerns raised. Due to the impact of these systems on the future of the City, as well as the amount of concern raised during Workshop #1, a Conservation Focus Group was conducted to address these issues.

Seguin is located within 15 miles of the IH-35 Corridor, and is a commuter city within the Greater San Antonio Area. As such, development pressures, especially north of the City, are expected to increase in the future. As such development both informs and reacts to plans adopted by the City, a Development Focus Group was created to address issues related to economic development. The needs of Downtown, the presence and role of SH 130, and general development trends in the Seguin Area were addressed in this meeting.

THE UNIVERSITY FOCUS GROUP

Texas Lutheran University (TLU) serves as a destination within the City of Seguin, a landmark of community identification, and a transition into the central area of the City. Furthermore, the student body, faculty, and staff that access TLU comprise a significant percentage of the Seguin community. As Seguin continues to grow in the future, the needs of those University stakeholders must be accommodated. Participants in the University Focus Group consisted of students and faculty members. The University Focus Group meeting was to gather input from the community regarding current conditions within the University District.

Key issues that were addressed in the University Focus Group meeting included linkages with the rest of the City; retail, entertainment, and commercial opportunities that service college students; suitable/affordable housing for staff/students; congestion along Court Street; and the lack of non-residential development in the Western portions of the City.

THE CONSERVATION FOCUS GROUP

Due to the number of issues raised in Workshop #1 concerning the environment and the need for conservation practices in the City of Seguin, the Consultant Team hosted a Conservation Focus Group meeting. A range of community members attended this meeting.

The Conservation Focus Group meeting was divided into two segments:

1. An in-depth coverage of materials presented in Workshop #1 that pertained to conservation.
2. A discussion centering on the felt needs of the community, with respect to the role of the natural system in community life.

Workshop #1 Review. The purpose of the Comprehensive Plan was presented, and it was explained that the Comprehensive Plan was concerned primarily with establishing a vision for the future form of Seguin,

taking into consideration the assessments of current conditions and community goals. The Natural Systems Assessment was then reviewed, but content was covered in greater detail in the focus group than it was in Workshop #1, due to time allowances and questions from the participants. The presentation of the Natural Systems Assessment was organized into two sections: Ecological Context and Environmental Assessment. The Ecological Zones, determined by the various interactions of land, water, and vegetation, consist of the Blackland Prairie Zone, the Riparian Prairie Zone, the Oak Woods Zone, and the Riparian Oak Woods Zone. The second portion of the Natural Systems Assessment focused on the Environmental Assessment of Seguin, consisting of observations related to the impact of growth and development on the natural system. Trends related to changes in land use, impact on water quality and quantity, and air quality status for the San Antonio area were discussed.

Issues Raised by the Community. Following the review of the Natural Systems Assessment, an in depth discussion was held, which focused on issues raised in the Workshop #1 breakout groups. There were four general issues:

1. The presence and power of surface water movement in Seguin. The Guadalupe River system is one of the most significant physical elements in the City. Accessibility to the River, and to Geronimo Creek, was discussed, as well as conditions of riparian corridors in the Seguin Area. Flooding was a significant topic of discussion as well.
2. The impact of land development on environmental quality. Trends in development were examined, and impacts of these changes on air quality, water quality and quantity, and energy consumption were discussed. Alternative modes of transportation, specifically for those in Seguin who do not have a car, were discussed as well.
3. The need for habitat preservation in Seguin. A large aerial photograph of the City and Extraterritorial Jurisdiction was produced during this meeting, and community members were encouraged to identify specific areas that they felt should be preserved. Native wildlife and native plants were also discussed.
4. The function and future of the Seguin Outdoor Learning Center. The current and future role of the Seguin Outdoor Learning Center was discussed in this Focus Group Meeting. Of particular concern to participants was accessibility for those who do not drive, destruction of portions of the site for infrastructure improvements, and costs for entry and use.

THE DEVELOPMENT FOCUS GROUP

During the Development Focus Group meeting, a review of the Form Districts from Workshop #1 was presented. Because future economic development will necessarily interact with and build upon current patterns and trends, an understanding of the fabric of the City of Seguin today is important. Following the review of the Form Districts, a discussion was held regarding key issues related to economic development.

The relationship of the City of Seguin to SH 130 was a considerable concern for workshop participants. Although the alignment of this highway is yet to be determined, it is expected to impact the City in a number of ways. Concern was raised as to land use and land development along freeway frontages, as well as traffic impact upon the City. The importance of land use at the intersection of SH 130 and IH-10 was raised by several participants.

Another related issue raised in this meeting was a concern with effective traffic movement in Seguin, namely accessibility and connectivity. Use of the railroad right-of-way, establishment of meaningful East-West connectors, and portals along IH-10 were among the inputs given by participants.

The general economic condition of Seguin was another major topic at the Development Focus Group meeting. It was expressed that increased employment opportunities were needed, which included vertical growth (introduce higher wage positions) in the job market, rather than simply horizontal growth (more low wage jobs). A concern for physical improvements downtown that would increase its vibrancy was expressed. Finally, regulations and code enforcement for enhancement of existing properties was also a concern voiced in this Focus Group meeting.

SUMMARY

Together, these three Focus Group meetings provided the Consultant Team, City Staff, and Community an opportunity to look more closely at the relationship between the City and Texas Lutheran University, the conservation issues that must be understood when drafting the Comprehensive Plan, and the relationship between City plans and economic development.

part three: the planning framework

3.1 a base for the planning framework

In the course of Seguin's lengthy public participation process, guiding Planning Objectives were established and verified. These statements became the building blocks of the plan visions fashioned for consideration by the various workshops and work sessions.

During Workshop #1, Goal Statements were taken directly from the notes and flip charts produced by community members. All the documentation material was reviewed so that a coherent set of "parallel" goal statements could be derived for the formation of a Planning Framework for the Seguin Comprehensive Plan. In review of the documented material a method of goal/objective identification was employed called the TRIO method. The term TRIO stands for the following analytical investigations:

- **"T"** stands for themes: Themes are statements repeated among numerous groups and are therefore shared concerns of the citizens of Seguin.
- **"R"** stands for Repeat: Repeats are statements made more than once within a discussion group and/or among a smaller number of groups. Repeats indicate shared concerns or concerns that are pervasive throughout a group's dialogue.
- **"I"** stands for Input Indicators: Input Indicators are statements about input conditions used to describe a greater and more significant outcome. For example, statements about pedestrian convenience, connection, and safety are part of a larger concern for a pedestrian system composed of trails and improved sidewalks.
- **"O"** stands for Output Indicators: Output Indicators are generally broad statements about a result that stems from a shared desire for actions or conditions leading to that result. For example, statements about beautiful streets are the results of other statements about streetscape enhancement programs, improved signage, repair of curbs and sidewalks, etc.

When crafting the wording of Community Goals (as identified through the TRIO method), attention was paid to maintaining a uniform Level of Generality (keeping statements comparable), and the extent to which goals were Mutually Exclusive (did not constitute redundant overlaps). Based on the results of this process, the resulting Community Goals can be grouped according to these thematic elements:

- Infrastructure
- Drainage
- Open Spaces
- Thoroughfares
- Beautification
- Land Use
- Town Core
- Mobility
- Historic Preservation
- Neighborhoods
- Code Enforcement
- Cultural and Social Strategies
- Facilities
- District-Specific Goals

The Community Goals established and confirmed by the public participants in the planning process are identified by thematic element. They are numbered, and those Goals ranked as most strategic are bolded.

Workshop One Community Goal Statements

Infrastructure:

1. Establish plans, policies, regulations, procedures, and initiatives that will repair old infrastructure, and enforce, anticipate, coordinate, and guide infrastructure plans for future development.
2. Create annexation policies and procedures that are coordinated with the City's capability to provide infrastructural needs for the annexed area.
3. Improve and expand a modern sewage system that will eliminate current odors, septic dependency, and untreated waste.
4. Consolidate public water service under the City of Seguin as a single provider.
5. Improve/enhance emergency services in older residential areas and in newer areas that anticipate future growth and development.
6. Improve and repair the streetscape (roads, curbs, sidewalks, and other features) in older neighborhoods to improve pedestrian mobility, neighborhood appearance, and visual continuity.
7. Increase the area of public domain in older neighborhood areas with narrow rights of way so that sidewalks and other street enhancements can be provided/extended where needed.
8. ***Establish programs and initiatives for street enhancements that will strengthen the identity and visual character of older neighborhood areas.***
9. Improve, repair, expand, and enhance existing infrastructure to support redevelopment activities within the City core.
10. Establish plans and policies by which future development can be coordinated, connected, and served with roads, City infrastructure, and services that are provided in an orderly sequence that anticipates future demand.

Drainage:

11. Establish and implement drainage practices (such as stormwater management in streets and other public rights of way) which anticipate potential development, preserve the natural drainage corridors, and protect down stream conditions.
12. Establish an on-going program of drainage improvements in older neighborhoods that will contribute to and enhance a City wide drainage system.
13. Establish proper high water levels that anticipate realistic City growth and its effect on the present flood elevations and on development policies, regulations, and/or standards related to it.
14. Establish guidelines, standards, and initiatives that will enhance the design and appearance of detention ponds so that they are

more natural in form, hydrologic character, dam/weir treatment, and landscape.

15. ***Regulate, improve, enhance, and facilitate drainage through combined natural and physical systems that will control increased run off generated by new development, prevent increased flooding events, better protect existing flood prone areas (such as Glen Cove, Chaparral, Treasure Island, and Elm Wood) and preserve/restore natural drainage ways in existing and future developed areas.***

Open Spaces:

16. Establish a City wide plan for open space acquisition that will create a city-wide system of greenbelts, comprised of public and private parks (including golf courses) and natural areas by which future development can be influenced, drainage can be facilitated, and the visual presence of the River is expanded within the fabric of Seguin.
17. Establish conservation zones in older and/or River- (or Creek-) associated neighborhoods that protect remaining natural assets and existing green spaces, provide needed open spaces, and define areas open to development.
18. Establish policies, regulations, and/or procedures that will preserve, protect, restore, and extend the Guadalupe riverscape, including dams, waterways, and other scenic areas.

19. Preserve mature trees in older neighborhoods as a distinguishing element of those neighborhoods.
20. Build a linear park and establish green belts, conservation areas, and pedestrian connections along the City's creek ways (such as Walnut Creek and Geronomio Creek), portions of the river edge, and other natural corridors.
21. Incorporate landscaped retention ponds into the designated open space network of the land use plan that will enhance the park environment, help control flooding, meet detention needs of nearby developed areas, and add greater beauty to the City.
22. ***Establish programs and intiatives that will increase environmental awareness and promote conservation, preservation, and protection of the natural environment.***
23. ***Establish plans, policies, and procedures that will preserve, protect, and enhance Seguin's floodplains as natural areas with distinctive habitats.***
24. ***Establish plans, policies, and procedures that will preserve pre-development conditions along surface waterways as growth and development occurs.***
25. ***Establish cooperative plans and programs that will make the Outdoor Learning Center a part of a Seguin environmental awareness initiative, and will also make it more accessible to the Citizens of Seguin, as well as educational organizations and institutions.***
26. ***Improve vehicular and non-vehicular connections to the Outdoor Learning Center.***
27. ***Establish policies, plans, and procedures that balance preservation of the natural system with the economic and social needs of the City.***
28. ***Establish an Open Space network that preserves and enhances ecological buffer zones and riparian communities, improves air and water quality, and provides flood protection.***
29. ***Incorporate land use tools, such as conservation easements, buffers, and development guidelines/ standards, into growth plans for Seguin, to provide more green space in newly developing areas.***
30. ***Establish a Parks and Open Space system for Seguin that provides both active and passive open areas, offering various forms of recreations, environmental protection, and neighborhood beautification.***
31. ***Establish policies, plans, and procedures for the restoration of Seguin's native landscapes (including prairies and woodlands) and biodiversity, and protect the natural and man-made habitats that host native bird species.***
32. Establish strategic public access to, and pedestrian connections to, the Lake, River, Creek ways, and other natural assets of the City, such as the Guadalupe River and Geronimo Creek, that are identifiable to the public.

Thoroughfares:

33. ***Create a system of thoroughfares that allows cross-town movement where needed to relieve existing congestion and accommodate growth.***
34. ***Establish plans, policies, and intiatives for various modes of movement in Seguin, including pedestrian and bicycle traffic, that are also ADA accessible.***
35. ***Establish plans, policies, initiatives, and improvements that enhance convenient access to desired destinations, preserve low traffic volumes on neighborhood streets, improve service and***

design character, and anticipate the impacts of future development.

36. Incorporate traffic control, traffic management, and traffic-calming measures that will reduce vehicular speeds through residential areas and on major streets, as well as increase pedestrian safety in future street improvements and enhancements.
37. Preserve the prominence of Court Street and Austin Street and incorporate their connection to City wide/regional flow patterns into any circulation plans for the downtown core.
38. Develop a thoroughfare plan that includes State roadways, addresses their potential impact on traffic movement within the City, and encourages a working relationship between the City of Seguin and TxDOT.
39. ***Introduce new vehicular routes through and around the City that recognize the prominence and importance of the City core and avoid the continued historic pattern of bypassing the downtown area.***
40. ***Establish policies, plans, and procedures that reduce railroad noise encroachment on residential/ commercial areas.***
41. Establish plans, policies, and improvements that recognize the potential impacts of SH 130.

Beautification:

42. Establish a monumentation and signage program for Seguin that will visually define its presence along Interstate 10 and the major entrances into the City.
43. Establish an on-going beautification program for the City that will continually identify and advance projects that enhance the image of the City and its quality of life, including landscaping and other visual enhancements for the public domain.
44. Establish city programs and public/private initiatives that will promote the beautification, code compliance, maintenance, and repair of private properties.
45. ***Preserve and enhance unique historical, natural, and cultural features in ways that increase people's understanding, influence City form, and contribute to the preservation of cultural identity.***
46. ***Improve/repair streets and curbs and provide other streetscape enhancements that will make the street space more attractive, distinctive, and identifying for older neighborhood areas.***
47. Establish public initiatives and establish private standards and guidelines for development along the Interstate and highways leading into the City that will establish a distinctive visual identity for Seguin and create a legibility within the thoroughfare network.
48. Establish policies, programs, and initiatives that will promote and stimulate the physical improvement and beautification of public housing.
49. Establish landscape standards, guidelines, policies, programs, and regulations that will encourage greater enhancement and maintenance of the front yard space in older neighborhoods.
50. Express the presence of Seguin's downtown within the freeway corridor through landmark monumentation, signage, and locating a Visitor Center or Central Visitor's Bureau off of IH-10.
51. Beautify and visually enrich the overall streetscape to indicate approach, arrival, and entrance to downtown, as well as establish a visual identity that expresses downtown as a destination, creating landmarks, way finders, monuments, and other enhancements.
52. Initiate programs, initiatives, regulations, and improvements that are part of an on-going strategy of neighborhood beautification within older neighborhood areas that will stabilize neighborhood areas, enhance the value of neighborhood homes, and create a distinct visual aesthetic/image of the neighborhood area.
53. ***Establish a Citywide public and way finding signage program which will coordinate sign use, placement, design, and relationship to development***

so that routes to important destinations are clearly identified, points of entry to the City clearly expressed, and a City identity is created within the sign system.

54. Establish visually clear, strong, culturally meaningful, and unique entries to the City that will express its presence within the system of regional highways and freeways that cross the Cityscape.
55. Establish plans, strategies, policies and design approaches which identify the key land related aspects of Seguin's agricultural heritage that should be reflected in all aspects of City growth and development.
56. Create standards, guidelines, policies, and plans that promote forms of residential development that enforce visual themes of the district and/or of the City and reinforce the City's distinctive identity.
57. ***Improve the treatment of public and private signage throughout the City so that aesthetic quality, legibility, minimal encroachment on natural and residential environments, and a recognizable City image/identity are attained.***
58. Establish an on-going plan and program for the beautification of downtown Seguin.

Land Use:

59. Develop future land use, thoroughfare, infrastructure, and natural systems plans that anticipate future growth.
60. Promote proper land uses and land use mixes for freeway areas that will compliment and reinforce other commercial areas within the City, particularly the Downtown area.
61. Define locations for future industrial activity that are not detrimental to other designated land uses (such as residential, retail, and commercial) or to the natural assets of the City of Seguin.
62. ***Promote balanced residential and non-residential growth that provides neighborhood retail services within walking distance of neighborhood areas in Seguin, reducing vehicular trips associated with the spatial separation of residential areas and necessary retail services, creating land use patterns with a sense of place, and constituting coordinated (rather than random and scattered) development patterns.***
63. Preserve and enhance the distinctive qualities that make residential areas special/unique.

64. Establish policies, regulations, and/or procedures concerning the environmental impacts of proposed public and/or private development.
65. Establish policies, regulations, guidelines, standards, procedures, and initiatives that will coordinate and guide the public and private aspects of development within a target area so that a more unified, coherent, and environmentally responsive City fabric results.
66. Encourage nodal development patterns in retail land use areas.
67. ***Assure that City plans, programs, and initiatives acknowledge short term development/trends, as well as long term visions.***
68. ***Increase the area within which Seguin's lake and river resources generate value, attract investment, and support development.***
69. ***Establish plans, programs, and policies that accommodate regional growth initiatives and regional planning efforts.***
70. ***Establish policies, plans, and procedures that will create orderly growth patterns with clearly identifiable districts, centers, and neighborhoods.***
71. Establish regulations and policies that preserve agricultural exemptions until a property is developed.
72. Establish policies, programs, and initiatives that will promote a balance of retail/commercial development throughout the City from older to newer areas.
73. Establish growth management policies, procedures, programs, and initiatives that will anticipate the future impact of SH-130 and make its potential to attract development a positive asset for overall growth in Seguin.
74. ***Establish landscape and smart growth ordinances, policies, and standards that will preserve and enhance Seguin's natural systems, visual identity, and property values.***
75. Establish programs and initiatives that will promote a balanced mix of residential land uses, including apartment/multi-family residential.
76. Create residential options that serve a wide range of demographic groups (including elderly), and encourage a balance of income distribution and affordable housing.
77. ***Establish land use/development policies, plans, and standards that will set proper land use relationships and transitions, create necessary land use buffers (especially to the noxious aspects of city and industrial facilities), mitigate commercial encroachment into neighborhood areas (including traffic, noise, activity, and light), improve neighborhood access to retail activities, and enhance neighborhood definition/identity/value.***
78. Establish policies, programs, and initiatives that promote and guide the distribution of affordable housing in such a way that living options are available to a broader range of the City's Citizens and the relationships of living to work, shopping, and recreation are more equally available to all.
79. Establish policies and regulations that provide for the acquisition of land for parks, schools, open space, natural protection, and public facilities as the City is developed.
80. ***Formulate plans, policies, strategies, improvements, and initiatives that provide proper transitions to, integration with, and buffers/screens for adjacent residential areas and neighborhoods.***
81. Establish a Land Use Plan for the growing areas of Seguin (such as the Agricultural District) that expresses the City's agricultural heritage as a form giver for future growth.
82. Promote a balanced land use pattern/plan in which non-residential development is provided to the extent that such land uses serve the working, shopping, recreational, and cultural needs of the future City.
83. Create regulatory standards and guidelines for development planning, lot clustering, and lot size/density distribution that maintains the proper waterway-lot relationship in which the natural environment of waterways, and public access to them, are preserved.

Town Core:

84. Enhance and restore downtown's relationship to the general flow of traffic in Seguin so that traffic densities which support development investment once again hub within the core area.
85. Initiate strategies, programs, incentives, improvements, and initiatives that will encourage business growth and reinvestment in the downtown area, and revitalize the downtown area as an active commercial center for Seguin.
86. Initiate policies, programs, improvements, and initiatives that recognize the public perception of downtown's prominence, promote retail and business land uses in downtown, maximize its potential as a destination, stabilize trends of vacancy/deterioration, and stimulate economic revitalization.
87. As future commercial nodes form within Seguin, initiate plans to establish functional connections between them and the downtown core so that a satellite relationship is established between the core and other areas of growth and development.

88. Establish plans, strategies, and programs that will attract downtown visits, downtown stays, and downtown spending.
89. Initiate programs, policies, and procedures that will preserve the distinctive qualities of downtown, as well as its historic significance.
90. Establish programs, plans, and policies that will improve parking provisions in the downtown area.

Mobility:

91. Enhance convenience, safety, availability, and comfort of bike and pedestrian connections in Seguin.
92. Create pedestrian areas in downtown and other areas of Seguin that increase and encourage pedestrian activity by enhancing safety, convenience, and environment.
93. Create a City sidewalk and trail system that enhances pedestrian mobility, increases pedestrian safety, contributes to further enjoyment of the City, beautifies the street appearance, and provides needed connections between point of trip origin and destination (such as schools, parks, employment, and retail centers).
94. Provide more convenient vehicular and pedestrian connections to major recreational facilities.
95. Create non-vehicular connections to downtown that will restore the historic relationship between the City center and its surrounding neighborhood areas.
96. Improve vehicular and pedestrian movement at school locations in older neighborhood areas that will protect drivers/pedestrians/students, facilitate mobility/access/egress, and beautify the school areas in general.

Historic Preservation:

97. Establish criteria, guidelines, standards, and a program of historic preservation, restoration, redevelopment, and/or adaptive reuse for Seguin's many historically/architecturally/culturally significant structures, neighborhoods, and commercial areas.

Neighborhoods:

98. Develop standards and procedures for the establishment of Homeowner's Associations within various Seguin neighborhoods.
99. Establish greater inter- and intra-neighborhood communication that will cultivate a true sense of community in Seguin's neighborhoods and identifiable districts.
100. Establish cooperative programs between the City and Neighborhood organizations that will facilitate neighborhood maintenance, repair, property condition, promotion of public health, and protection of the community image/aesthetic.

Code Enforcement:

101. Enforce codes and other regulations related to building and property maintenance.
102. Establish landscape standards and guidelines for nonresidential development and public improvements that will enhance project/city appearance to the street, serve the needs of employees/citizens/customers, mitigate environmental effluents, contribute to air quality, and extend a thematic characteristic distinctive to Seguin.
103. Establish standards and initiate public improvements that reduce and mitigate train noise within the City.
104. Develop standards, guidelines, programs, policies, initiatives, and design approaches that will create a more uniform and attractive appearance for streets and the street space/street front.
105. Establish programs, policies, and strategies that will improve neighborhood security, protect residents, and enforce laws (specifically those related to lake/river activities).
106. Establish improvement/design plans, policies, and regulations that create a night form for Seguin by coordinating light use, protecting dark sky, limiting light encroachment, defining areas and/or corridors of importance, enhancing security, and facilitating way finding.
107. Develop pollution control measures for industrial, service, and agricultural uses that will purify run off, conserve air quality, and abate other noxious encroachments (such as noise and odor) upon neighboring/adjacent developed areas (residential and non-residential).
108. Establish policies, regulations, guidelines, and standards that regulate impervious coverage and provide for its impact on storm water run off and drainage plans, policies, improvements, initiatives.
109. Establish design standards and guidelines for public improvements and public/private development that will promote aesthetic excellence and quality development/construction throughout areas of new growth and/or redevelopment.
110. Initiate zoning regulations and a program of code enforcement for buildings, sites, vehicles, and parking that establishes standards and guidelines for property maintenance and repair, property condition, promotion of public health, and protection of community image.

Cultural and Social Strategies:

111. Establish programs, initiatives, and improvements that will attract higher wage-paying employment opportunities for the present and future citizens of Seguin.
112. Establish procedures and provide opportunities for greater communication between City Council, City Staff, and the Citizens of Seguin.
113. Improve quality of, facilities for, and opportunities for general and vocational education within the City.

114. ***Establish policies, plans, and procedures that recognize and provide opportunities for the under-represented citizens of Seguin.***
115. ***Establish policies, plans, and initiatives that build upon existing organizational structures within Seguin, such as civic, religious, educational, and social institutions.***
116. Initiate a program of localized vocational training that can prepare the existing labor force for higher wage employment opportunities, and make use of older schools (such as the Sue Smith School) and/or other vacated neighborhood based facilities.

Facilities/Programmatic:

117. Enhance and improve the City's library services by expanding facilities in locations that maximize opportunities for meeting citizen needs.
118. Enhance accessibility to, and visibility of, law enforcement services in inner city and near city areas of Seguin
119. Maximize the presence of the City Library in its present location as a major neighborhood service, quality of life feature and maximize opportunities inherent in the library site to create a neighborhood park.

SPECIAL OBJECTIVES FOR EACH DISTRICT

The Randolph District:

120. Use the airport potential for freight forwarding and other benefits of its length as well as the locational advantages of the Randolph District to attract new industry, commercial uses, and other employment.
121. Establish residential uses within the Randolph District that do not conflict with the airport patterns and support employment concentration.
122. Establish roadway connections between the Randolph District and the SH-130 corridor as well as Interstate 10 that will enhance the district's development potential.
123. ***Establish plans, programs, and policies that will allow for potential combination of railroad service and air service for the Randolph District.***
124. ***Establish policies, regulations, and/or procedures (as well as promote building/landscape practices) that enhance air quality.***

Riverbend District:

125. Improve emergency access/egress to and within the River Bend District.
126. Develop a thoroughfare plan that will improve the level of service at the intersection of Sutherland Springs Road/Business 123, Tor Drive/Business 123, and Tor Drive/Bypass 123.
127. Coordinate patterns of recommended land use and zoning with patterns of traffic movement in the River Bend District.

Guadalupe District:

128. Preserve, protect, and enhance the rural character of the Guadalupe District.
129. Regulate residential density to preserve the open land qualities associated with the Guadalupe District's rural character and promote low densities where appropriate.
130. Encourage and promote residential development within the Guadalupe District.

North Seguin District:

131. ***Establish programs, policies, regulations, and strategies (as well as initiate public improvements) that will reinforce the importance of Austin Street as a major approachway into the City core as well as enhance visual character, improve drainage and revitalize its frontage.***

Freeway District:

132. Promote additional appropriate retail development and regional land uses along the Freeway that will attract better retail options, reinforce retail clusters in other areas of the City, and establish nodal development patterns along the freeway corridor.
133. ***Establish land use and thoroughfare plans and policies that will discourage the emergence of IH-10 as a divider of Seguin's City fabric according to location, income distinction, age of development, size of development with reference to the freeway corridor, and its regional character.***
134. ***Recognize economic importance and traffic significance of IH-10, SH 130, and Highway 123 and maximize their potential to influence growth of the City in plans for the Freeway District.***

Transitional District:

135. Whenever possible, designate and/or acquire existing green spaces as public park space (including the area around the library).
136. ***Preserve the relationship between residential zones and retail land uses where retail land uses provide a residential district edge (in the Transitional District and other older neighborhoods) and enhance the retail residential relationship/proximity with connections and other features that improve the convenience and accessibility.***

Agricultural District:

137. Establish plans, policies, standards, and design guidelines which will regulate land use/development along SH 130 so that corridor growth compliments and economically supports balanced land use

growth of the overall City as well as creates a visual quality that enhances and identifies Seguin.

138. Promote a balanced land use pattern in which agricultural activities/land are preserved, encouraged, and integrated with other residential and non-residential land uses characteristic of a growing City.
139. Promote balanced residential and non-residential growth with a general dominance of lower density residential uses in newer growth areas.

Geronimo Creek District:

140. Establish plans, policies, and improvements that recognize the potential impacts of SH 130.

141. Enhance and protect public facilities (such as the Seguin Outdoor Learning Center) from intrusions (such as sewer lines) that would detract from public use of the facility or depreciate the value/integrity of its aesthetic/natural assets.
142. Designate acceptable recreational uses for City creek ways (such as Geronimo Creek) and the River that serve neighborhood needs, increase public access to the Creek, respect residential proximities, and enhance the City's quality of life.
143. Establish plans, policies, designs, and initiatives that provide convenient access to SH 130 and anticipate the impact of traffic volumes imposed by SH 130 on the Highway Commercial District so that convenient access/egress to/from the Highway Commercial development is enhanced/maintained.

Jefferson District:

144. Stabilize the residential fabric and initiate programs and strategies to promote a broad range of income families residing within the Jefferson District.
145. Create a range of residential forms and living options in the Jefferson District, including garden homes and condominiums.
146. Establish programs and initiatives that will improve, repair, and enhance roadways, curbs, and sidewalks within the Jefferson District.

147. Extend key roadways within the Jefferson District and other older neighborhoods to make connections with City wide and/or regional highways (or IH-10) that allow more convenient traffic movement and make a better link between isolated neighborhoods and the City.

148. Preserve the current green space in the Jefferson District and initiate programs, initiatives, and strategies that will transform them into neighborhood assets and/or parks that serve neighborhood needs.
149. Initiate programs, procedures, standards, guidelines, policies, and other strategies that promote preservation, restoration, reconstruction, and adaptive reuse of historic, architectural, and/or cultural landmarks/structures within the Jefferson District (such as the Moore House and Johnson Street House).

Lake Placid District:

150. Preserve the rural qualities of the Lake Placid District and the unique attributes of its remote nature.
151. Maintain the identifying relationship between lake and lower density residential land uses.
152. Establish programs, regulations, plans, policies, and procedures that will create a relationship between future industrial/commercial development near the Guadalupe District that provides transitions, buffers, and separations necessary to preserve the rural residential qualities of the district.
153. Establish policies, practices, design guidelines, design standards, and regulations that will mitigate and abate noise on and around Lake Placid.
154. Establish programs, policies, regulations, and initiatives that will preserve, protect, and restore the native riverscape, natural corridors, natural areas, and other natural assets of the Lake Placid District.
155. Expand the Lake Placid District to include Lake Dunlap and Meadow Lake.

Station District:

156. Establish design standards, guidelines, regulations, and policies that will create a distinctive visual aesthetic and identity for the Station District.
157. Establish programs and initiatives that will stimulate infill development and adaptive reuse of existing buildings within the Station District and promote the area's economic revitalization.

158. Create a special identity for the Station District and restore an historic relationship to the City core through restoration of a trolley or other public conveyance connection between the Station area and downtown.

159. Establish a program that identifies the historic, architectural, and cultural landmarks of the Station District and promotes preservation, restoration, redevelopment/replacement of lost monuments/ features, and adaptive reuse.
160. Establish programs and initiatives that will improve, repair, and enhance roadways, curbs, and sidewalks within the Station District.

161. Initiate programs and other measures to provide public transportation within the City.

162. Provide and enhance pedestrian ways that will encourage pedestrian use and enhance pedestrian access to the Station District.
163. Establish an on-going program of drainage improvements in the Station District and other older neighborhoods that will contribute to and enhance a City wide drainage system.
164. Establish design initiatives and public improvements that will give a distinctive identity to the Station District and enhance its significance as a visual portal to the older and more historic areas of the City.
165. Promote land use and establish design initiatives, improvements, programs, standards, guidelines, and policies that contribute to the Station District's significance as a destination that compliments and contributes to the revitalization of Seguin's downtown core.

Timber Lots District:

166. Preserve, beautify, and maintain the historic Cemetery as a major asset and identifying landmark of the Timber Lots District and increase linkages between it and the downtown core.

167. Establish programs and initiatives that will improve, repair, and enhance roadways, curbs, and sidewalks within the Timber Lots District.
168. Provide roadways and traffic management strategies that relieve rising traffic congestion, resolve system traffic constraints (such as the bottleneck at Court Street and Bauer Street) improve the level of service available at key intersections, provide a more legible vehicular circulation system, and establish greater linkage between neighborhood areas and the City core.
169. Initiate strategies, policies, improvements, plans, and initiatives that will promote development of vacant parcels (such as Glen Cove) for public or private use that will enhance older neighborhoods (such as the Timber Lots District) and stimulate further infill of the neighborhood fabric.
170. Provide pedestrian trails and linkages that connect the Timber Lots District to other pedestrian trails, parks (such as Starcke Park), natural corridors (such as Walnut Creek and the Guadalupe River), and the downtown core.

Town Core District:

171. Establish policies, programs, improvements, incentives, and initiatives that will further enhance downtown's potential to attract specialized retail venues and residential living.
172. Establish policies, procedures, standards, and guidelines that recognize the historic nature of the downtown area when City regulations are applied.
173. Establish programs, physical improvements, design enhancements, and initiatives that attract downtown visits, downtown stays, and downtown spending.
174. Establish aesthetic/maintenance standards and guidelines for public improvements/facilities and the inclusion of art within the public improvements/facilities as they occur throughout various areas of the City.
175. Initiate policies, programs, incentives, guidelines, standards, regulations, and initiatives that promote the restoration, preservation, reconstruction, and adaptive reuse of historic, architectural, and cultural landmarks (such as the Texas Theater), within the downtown area.

176. Develop a plan that coordinates civic/art institution operations with times of downtown activity and general downtown revitalization initiatives.
177. Re-establish the role/significance of this district as the core and commercial hub of the City.
178. Preserve, expand, and enhance the presence of local and county government presence in downtown and downtown's significance as a host for festivals and other public events.
179. Create visually strong connections between Walnut Branch Creek and the downtown area that can bring the emerging importance of the improved Creek as a pedestrian and activity corridor into the City core.
180. Utilize current signature visual elements, public spaces, and unique places within the downtown area as a basis for downtown revitalization strategies.
181. Maintain presence of government/cultural institutions and facilities in the downtown area and the relationship between centers of activity and centers of government in future expansion or improvement of these facilities.
182. Initiate programs, policies, improvements, incentives, and initiatives that promote retail and entertainment development/expansion within the downtown area.
183. Develop financial incentives for property improvements and other forms of reinvestment/investment within the downtown area.

University District:

184. Initiate policies, programs, improvements, initiatives, strategies, and/or incentives to generate retail development adjacent to Texas Lutheran University that will serve the growing student population, enhance the University's campus life, create a stronger link between the university and the City, and give greater significance to the campus location.
185. Increase and enhance pedestrian and bike connections between the University and other destinations in the City of Seguin.
186. Establish plans, policies, and programs that will increase provision of services that meet the needs of University students.
187. Establish cooperative relationships with TLU that will facilitate creation of destination assets within the campus, and establish positive opportunities for exchange with the City.
188. Establish portals/approachways that recognize the University as a significant visual feature for the City.
189. Establish policies, plans, and procedures that encourage a wider variety of housing options for University students.
190. Establish policies, programs, and procedures that will provide professional opportunities in Seguin for TLU students and graduates.
191. Establish policies, plans, and procedures that will define/enhance the relationship between TLU and the City of Seguin.
192. Establish plans, policies, and procedures that will enhance vehicular mobility in and around the TLU campus.
193. Improve the City's internet/WiFi services and availability to the University.
194. Establish a pedestrian connection between the Texas Lutheran University and Walnut Creek that will enhance the connection between the University and the rest of the City, provide a pedestrian connection to the downtown core, provide greater pedestrian comfort and interest, and allow University students to more actively participate in City life.

195. ***Establish a public transit program that will provide linkages between the University and the City fabric that will facilitate citizen use of the University facility and student access to key destinations within Seguin.***
196. Create portals, landmarks, and monuments associated with definition of entrance to the University and definition of its campus area that will give greater visual expression to the university presence, make circulation to and within the campus more legible, and give greater visual identity to the University District.
197. Establish policies, plans, procedures, guidelines, standards, and regulations that create an integration of land uses around the University and the residential neighborhoods that abut the University so that an isolated University commercial zone does not emerge.
198. Create a strong partnership between the University and the City of Seguin that will bring the educational resources of the University into future plans of the City and allow the City to provide employment, internship, community service, and educational opportunities to University students.

Walnut Creek District, North:

199. Establish programs and initiatives that will improve, repair, and enhance roadways (such as West New Braunfels Street), curbs, and sidewalks within the Walnut Creek District, North.
200. Initiate programs, procedures, standards, guidelines, policies, and other strategies that promote preservation, restoration, reconstruction, and adaptive reuse of historic, architectural, and/or cultural landmarks/structures within the district.
201. Establish parks in older neighborhoods where the opportunity to use existing open space or property (such as the Hoerman property) can be used to serve neighborhood park or cultural preservation needs.

Walnut Creek District, South:

202. Remove barriers between the residential fabric of the Walnut Creek District South and adjacent park facilities.
203. Relocate the park structures, more heavily used park facilities, and important recreation areas of Starcke Park so they will be out of the flood plain.
204. Restore important park facilities that remain in demand and enhance community life (such as the swimming pool at Starcke Park)
205. Relocate existing community (replaced "recreational") features (such as the Rodeo Arena) where the relocation enhances the facility activity, enhances access to/use of the facility, provides opportunity for creation of additional facilities/recreational opportunities, and/or protects residential areas.
206. ***Establish programs, policies, standards, guidelines, improvement initiatives that provide/enhance City street lighting at intersections (such as Jefferson Avenue and Saunders Street) and create a system of distinctive/identifiable/coherent street signage.***

The large number of objective statements generated by Public Workshop participants reflects the physical complexity of the City and the many planning conditions that were addressed in the 17 discussion groups. However, certain Objective Statements, if implemented, will have greater effect on resolution of various planning issues (earlier described in the Assessment Section of this report). These goal statements are called Strategic Goals, where strategic implies that certain goals are more closely associated with resolution of planning issues confronting the City. Determination of (and identification of) the most Strategic Goals is presented in the Planning Framework section of this Comprehensive Plan.

3.2 constructing the planning framework

The Planning Framework is the “central piece” of the Comprehensive Plan, because it is the clearest representation of Seguin’s community vision.

THE PLANNING FRAMEWORK

The Planning Framework functions as a consensus document to guide the creation of all subsequent plan components. As such, it provides a graphic representation of the physical patterns and forms of a future Seguin that are expressed in the Community Goals and Objectives.

It is important to comprehend the Planning Framework as a document whose sole measure of success is the extent to which it physically depicts the spirit and intent of the Community Objectives. Therefore, it is not in and of itself a policy document, but rather a basis of agreement upon which the particular policy documents of the Comprehensive Plan will be fundamentally (but not completely) based. Being distinguished by its purpose (to physically reflect the spirit and intent of the planning objectives), it is not mired in the issues of equity, which so often accompany the formulation of a Land Use Plan. Its advantage is that it gives structure to the dialogue and helps keep the decision process (by which the policy documents are adopted) focused on the will of the community. In addition, its level of freedom from equity constraints (typically put upon the individual plan components, such as Land Use or Thoroughfare, which are conceived without the benefit of such a vision oriented process phase) allows greater expression with regard to form and patterns of growth that best serve the needs of the City. In other words, the opportunity for greater vision is more apparent. To better understand this opportunity and the use of the Planning Framework, the following text is subdivided into a discussion of each phase employed in the creation of the Planning Framework. These phases include:

- Definition of thematic elements the Plan must address
- Matrix Analysis of Community Goals and Consultant Recommendations
- Identification of Strategic Community Goals
- Construction of the Planning Framework

Definition of Thematic Elements of the Comprehensive Plan

Once Community Goals were gathered, they were organized by thematic elements. Organizing the Goals in this manner assists in the assignment of relationship to Consultant Recommendations, since Consultant Recommendations are gathered according to the various assessments conducted (natural systems, economic conditions, physical form, etc.). The thematic elements by which the Community Goals were organized include:

- Drainage and Infrastructure
- Open Spaces
- Thoroughfares
- Mobility
- Beautification
- Land Use
- Downtown
- Historic Preservation
- Neighborhoods
- Code/Enforcement
- Cultural and Social Strategies
- Facilities

Matrix Analysis of Community Goals and Consultant Observations

During the initial phase of Comprehensive Plan construction, the Consultant Team undertook a series of assessments, which documented and analyzed the Physical Form, Economy, Physical Systems, and Natural Systems of Seguin as they exist today. In the course of this assessment, a number of Consultant Recommendations were noted. Consultant Recommendations were presented as action statements addressing conflicts, opportunities, liabilities, constraints, assets, emerging trends/patterns, and other such conditions. These action statements were augmented in the course of discussion during Workshop #1 and a final list of Consultant Observations was then verified. In essence, the Consultant Observations discovered by the Consultant Team provide the basis of discussion that leads to articulation of Community Goal Statements. Therefore, Public Workshop #1 produced a verified set of Community Goal Statements. However, it is the connection between objective and issue that reveals the intent behind the objective statement. Each objective stated depicts a result that maximizes current or future opportunities/assets/patterns, preserves current elements of value, and/or resolves current or future conflicts/constraints/conditions/patterns.

To make a connection between Consultant Recommendations and Community Goals, an analytical device is needed which will permit the systematic evaluation of the relationship between them. This analytical process is called the Matrix Analysis. It establishes one of three relationships between the goals and the issue statements. The three relationships are:

Complementary (+1). Complementary means that execution of a particular Consultant Recommendation would advance implementation of a particular Community Objective. It also means that implementation of a Community Objective will advance accomplishing the actions prescribed by a particular Consultant Recommendation. In other words, the relationship is mutually reinforcing.

Compatible (0). Compatible means that execution of a particular Consultant Recommendation has no influence on a particular Community Objective. It also means that implementation of a Community Objective has no influence on accomplishing an action prescribed by an issue statement. In other words, the relationship is neutral.

Conflicting (-1). Conflicting means that execution of a particular Consultant Recommendation would hinder/prevent implementation of a Community Objective. It also means that implementation of a Community Objective would hinder/prevent accomplishing a Consultant Recommendation.

The relationships between Community Objectives and Consultant Recommendations are presented in the “Matrix Analysis” that follows. Here, complementary relationships are given a positive one (+1), compatible relationships are given a zero (0), and conflicting relationships are given a negative one (-1). By assigning these values, Strategic Goals were identified, which in turn were used in the creation of the Planning Framework.

Identification of Strategic Community Goals

To determine the Strategic Goals for the Comprehensive Plan, all Community Goals were scored using the previous matrix analysis. Those Goals with the highest scores were selected as the Strategic Goals for the Comprehensive Plan. Some of the Community Goals were universal in application, while others were district specific. The Strategic Goals for the Comprehensive Plan are identified here.

City-Wide Objectives

1. Establish programs and initiatives for street enhancements that will strengthen the identity and visual character of older neighborhood areas.
2. Regulate, improve, enhance, and facilitate drainage through combined natural and physical systems that will control increased run off generated by new development, prevent increased flooding events, better protect existing flood prone areas (such as Glen Cove, Chaparral, Treasure Island, and Elm Wood) and preserve/restore natural drainage ways in existing and future developed areas.
3. Establish policies, plans, and procedures that balance preservation of the natural system with the economic and social needs of the City.
4. Preserve the prominence of Court Street and Austin Street and incorporate their connection to City wide/regional flow patterns into any circulation plans for the downtown core.
5. Establish plans, policies, initiatives, and improvements that enhance convenient access to desired destinations, preserve low traffic volumes on neighborhood streets, improve service and design character, and anticipate the impacts of future development.
6. Introduce new vehicular routes through and around the City that recognize the prominence and importance of the City core and avoid the continued historic pattern of bypassing the downtown area.
7. Preserve and enhance unique historical, natural, and cultural features in ways that increase people's understanding, influence city form, and contribute to the preservation of cultural identity.
8. Establish a Citywide public and way finding signage program which will coordinate sign use, placement, design, and relationship to development so that routes to important destinations are clearly identified, points of entry to the City clearly expressed, and a City identity is created within the sign system.
9. Improve/repair streets and curbs and provide other streetscape enhancements that will make the street space more attractive, distinctive, and identifying for older neighborhood areas.

Figure 1. Snapshot of Matrix of Planning Issues and Objectives.

CONSULTANT RECOMMENDATION

Community Goals	The Plan for Seguin must re-establish **the functional and economic importance of Seguin's historic center** by restoring its prominence within the **pattern of traffic movement and development**	Create a **commercial core that gathers the incoming traffic**	Establish **points of entry into the core** area that are **part of the normal movement pattern**	The Plan for Seguin must give **greater physical definition to downtown** within the existing movement pattern and **encourage aggregation of commercial investment within the core**	The **traffic movement must engage the City Center** and a hub of its organization so that there is a **stronger connection between this place** of historic investment **and the emerging places of current investment.**	**Austin and Court Streets must be reconnected to the major movement pathways of local and regional traffic** so that the **central importance of the historic City Core** is restored and maintained.	Strengthen the **destination qualities of Seguin's City Center** by restoring the approach functions of **River and Austin Streets** and restoring the **open Plaza as a place of arrival.**	Establish **approach identities** that will invite	Strengthen the **destination qua** **with the Guadalupe Ri** downtown visits	
General Community Goals										
INFRASTRUCTURE										
Establish plans, policies, regulations, procedures, and initiatives that will repair old infrastructure, and enforce, anticipate, coordinate, and guide infrastructure plans for future development.	0	0	0	1	0	1	0	0	0	
Create annexation policies and procedures that are coordinated with the City's capability to provide infrastructural needs for annexed area.	0	0	0	0	0	0	0	0	0	
Improve and expand a modern sewage system that will eliminate current odors, septic dependency, and untreated waste.	0	0	0	0	0	0	0	0	0	
Consolidate public water service under the City of Seguin as a single provider.	0	0	0	0	0	0	0	0	0	
Improve/enhance emergency services in older residential areas and in newer areas that anticipate future growth and development.	0	0	0	1	0	0	0	0	0	
Improve, and repair the streetscape (roads, curbs, sidewalks, and other features) in older neighborhoods that will improve pedestrian mobility and improve both neighborhood appearance and visual continuity.	1	0	0	1	0	1	1	1	1	
Increase the area of public domain in older neighborhood areas with narrow right of way so that side walks and other street enhancements can be provided/extended where needed.	0	0	0	1	1	0	1	1	0	
Establish programs and initiatives for street enhancements that will strengthen the identity and visual character of older neighborhood areas.	1	0	1	1	1	1	1	1	1	
Improve, repair, expand, and enhance existing infrastructure to support redevelopment activities within the City core.	1	1	0	1	1	1	1	1	1	
Establish plans and policies by which future development can be coordinated, connected, and served with roads, City infrastructure, and services that are provided in an orderly sequence that anticipates future demand.	0	0	1	0	0	0	0	0	0	
DRAINAGE										
Establish and implement drainage practices (such as stormwater management in streets and other public Rights of Way) which anticipate potential development, preserve the natural drainage corridors, and protect down stream conditions.	0	0	0	0	0	0	0	0	0	
Establish an on-going program of drainage improvements in older neighborhoods that will contribute to and enhance a city wide drainage system.	0	0	0	0	0	0	0	0	1	
Establish proper high water levels that anticipate realistic City growth and its effect on the present flood elevations and on development policies, regulations, and/ or standards related to it.	0	0	0	0	0	0	0	0	1	
Establish guidelines, standards, and initiatives that will enhance the design and appearance of detention ponds so that they are more natural in form, hydrologic character, dam/ weir treatment, and landscape.	0	0	1	0	0	0	0	0	0	

10. Improve the treatment of public and private signage throughout the City so that aesthetic quality, legibility, minimal encroachment on natural and residential environments, and a recognizable City image/identity are attained.
11. Establish policies, plans, and procedures that will create orderly growth patterns with clearly identifiable districts, centers, and neighborhoods.
12. Establish policies, regulations, guidelines, standards, procedures, and initiatives that will coordinate and guide the public and private aspects of development within a target area so that a more unified, coherent, and environmentally responsive City fabric results.
13. Establish landscape and smart growth ordinances, policies, and standards that will preserve and enhance Seguin's natural systems, visual identity, and property values.
14. Establish land use/development policies, plans, and standards that will set proper land use relationships and transitions, create necessary land use buffers (especially to the noxious aspects of city and industrial facilities), mitigate commercial encroachment into neighborhood areas (including traffic, noise, activity, and light), improve neighborhood access to retail activities, and enhance neighborhood definition/identity/value.
15. Assure that City plans, programs, and initiatives acknowledge short term development/trends, as well as long term visions.
16. Formulate plans, policies, strategies, improvements, and initiatives that provide proper transitions to, integration with, and buffers/screens for adjacent residential areas and neighborhoods.
17. Create a City sidewalk and trail system that enhances pedestrian mobility, increases pedestrian safety, contributes to further enjoyment of the City, beautifies the street appearance, and provides needed connections between point of trip origin and destination (such as schools, parks, employment, and retail centers).
18. Create non-vehicular connections to downtown that will restore the historic relationship between the City center and its surrounding neighborhood areas.
19. Establish landscape standards and guidelines for nonresidential development and public improvements that will enhance project/city appearance to the street, serve the needs of employees/citizens/customers, mitigate environmental effluents, contribute to air quality, and extend a thematic characteristic distinctive to Seguin.
20. Establish plans, programs, and policies that accommodate regional growth initiatives and regional planning efforts.
21. Assure that City plans, programs, and initiatives acknowledge short term development/trends, as well as long term visions.
22. Develop standards, guidelines, programs, policies, initiatives, and design approaches that will create a more uniform and attractive appearance for streets and the street space/street front.
23. Establish improvement/design plans, policies, and regulations that create a night form for Seguin by coordinating light use, protecting dark sky, limiting light encroachment, defining areas and or corridors of importance, enhancing security, and facilitating way finding.

Area-Specific Objectives

24. Establish policies, regulations, and/or procedures (as well as promote building/landscape practices) that enhance air quality.
25. Establish programs, policies, regulations, and strategies (as well as initiate public improvements) that will reinforce the importance of Austin Street as a major approachway into the City core as well as enhance visual character, improve drainage, and revitalize its frontage.
26. Establish land use and thoroughfare plans and policies that will discourage the emergence of IH-30 as a divider of Seguin's City fabric according to location, income distinction, age of development, and size of development with reference to the freeway corridor and its regional character.
27. Recognize economic importance and traffic significance of IH-10, SH 130, and Highway 123 and maximize their potential to influence growth of the City in plans for the Freeway District.
28. Preserve the relationship between residential zones and retail land uses where retail land uses provide a residential district edge (in the Transitional District and other older neighborhoods) and enhance the retail residential relationship/proximity with connections and other features that improve the convenience and accessibility.
29. Establish plans, policies, standards, and design guidelines which will regulate land use/development along SH 130 so that corridor growth compliments and economically supports balanced land use growth of the overall City as well as creates a visual quality that enhances and identifies Seguin.
30. Establish plans, policies, and improvements that recognize the potential impacts of SH 130.
31. Extend key roadways within the Jefferson District and other older neighborhoods to make connections with City wide and/or regional highways (or IH-10) that allow more convenient traffic movement and make a better link between isolated neighborhoods and the City.
32. Create a special identity for the Station District and restore an historic relationship to the City core through restoration of a trolley or other public conveyance connection between the Station area and downtown.
33. Initiate programs and other measures to provide public transportation within the City.
34. Provide roadways and traffic management strategies that relieve rising traffic congestion, resolve system traffic constraints (such as the bottleneck at Court Street and Bauer Street) improve the level of service available at key intersections, provide a more legible vehicular circulation system, and establish greater linkage between neighborhood areas and the City core.
35. Provide pedestrian trails and linkages that connect the Timber Lots District to other pedestrian trails, parks (such as Starcke Park), natural corridors (such as Walnut Creek and the Guadalupe River), and the downtown core.
36. Re-establish the role/significance of the Town Core District as the core and commercial hub of the City.
37. Increase and enhance pedestrian and bike connections between the University and other destinations in the City of Seguin.
38. Establish a public transit program that will provide linkages between the University and the City fabric that will facilitate citizen use of the University facility and student access to key destinations within Seguin.
39. Establish a pedestrian connection between the Texas Lutheran University and Walnut Creek that will enhance the connection between the University and the rest of the City, provide a pedestrian connection to the downtown core, provide greater pedestrian comfort and interest, and allow University students to more actively participate in City life.
40. Establish programs, policies, standards, guidelines, improvement initiatives that provide/enhance City street lighting at intersections (such as Jefferson Avenue and Saunders Street) and create a system of distinctive/identifiable/coherent street signage.

Construction of the Planning Framework

As stated earlier, the Planning Framework is the centerpiece of Seguin's Comprehensive Plan because it is a physical representation of the Community Objectives identified through the public participatory process. Where Community Objectives address a particular geographic location in Seguin, a "bubble" is created which encompasses that section, and a number is assigned, representing the corresponding objective. The result is a simple assignment of goal numbers to geographic sections of the Town. This leads to the formation of a graphic document that defines a pattern and form for Seguin, giving insight into future directions for the City.

The Planning Framework utilizes meaningful symbology to illustrate thematic elements. The major thematic categories under the elements of the Planning Framework are Responsive Zones, Transitions, Centers of Activity, and Connectivity.

Responsive Zones. Collectively, these zones define the fabric of the City of Seguin. They are oriented around a primary element to which each zone responds. Responsive Zones include:

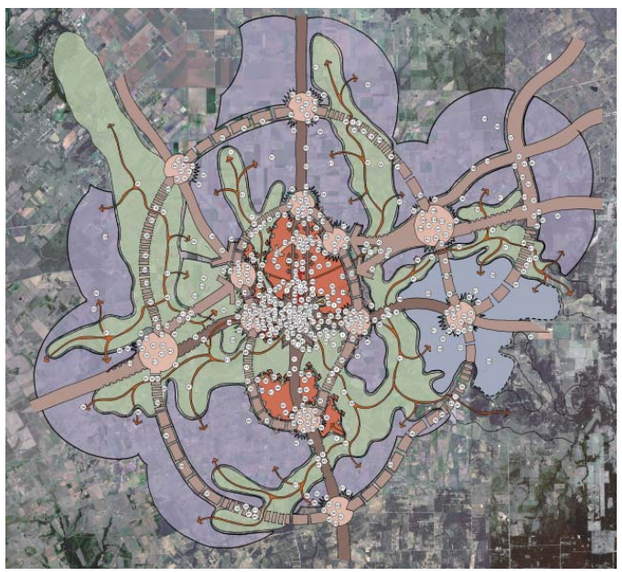


Figure 2. Seguin Planning Framework, illustrating Planning Goals.

- River and Open Space (natural system components of the Seguin landscape)
- Inner City (the more urbanized area of the City)
- Randolph Air Base (the area surrounding the Auxiliary Air Force Base)
- Growth Zones (areas that are generally agricultural or undeveloped)

Transitions. Another thematic element that is consistently emphasized in the Strategic Community Goals is the notion of land use transitions. As this is intended to be clearly expressed in the subsequent plan components, it is conveyed in the Planning Framework by the following two categories of Transitions:

- Land Use Transitions (transitional use of space)
- Transitional Elements (physical elements that function as transitions)

Centers of Activity. The Strategic Community Goals speak about aggregation and orderly patterns of development. Therefore, Centers of Activity are indicated in the Planning Framework as two separate types:

- Center City (the downtown area)
- Nodal Centers (major intersections where future aggregation may occur)

Connectivity. The final category of thematic elements that was identified in the Planning Framework is Connectivity. Elements that speak to Connectivity include:

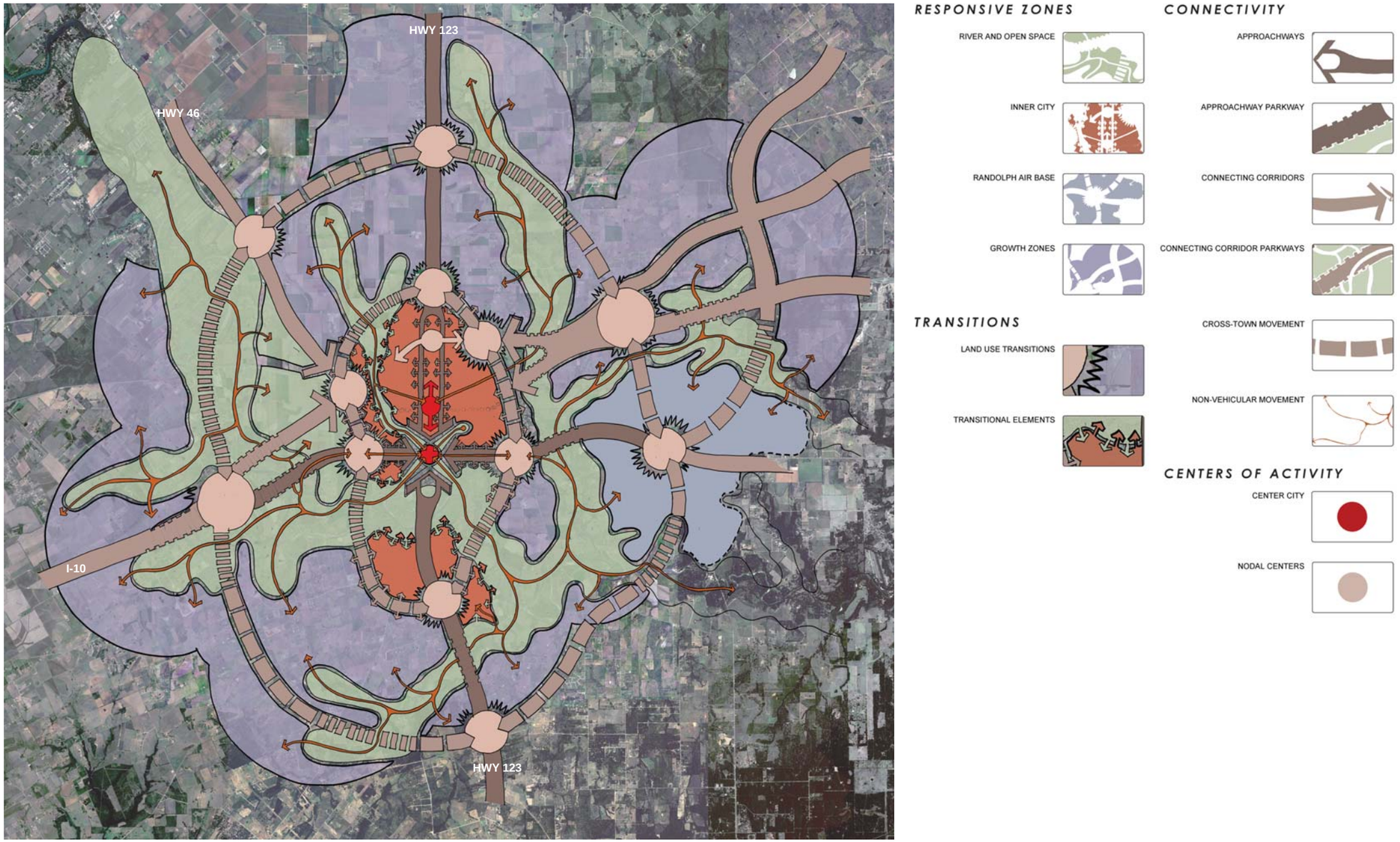
- Approachways (those thoroughfares that signify approach to key portions of the City)
- Approachway Parkways (approachways that acknowledge the natural system)
- Connecting Corridors (major thoroughfares that service the City)
- Connecting Corridor Parkways (connecting corridors that acknowledge the natural system)
- Cross Town Movement (circular patterns of movement to alleviate east-west congestion)
- Non-vehicular Movement (provision of traffic routes for pedestrians, bicycles, etc.)

Verification

The reason for the continuing influence of the Planning Framework over the subsequent plan components is the simple fact that once objectives of the community are given physical expression, they tend to galvanize support and they take on a recognizable 'form' that abstract text can not always attain. As the plan components are reconsidered for future possible revision, it is important to refer back to this Planning Framework document to further test the extent to which any proposed revision moves the future of the City away from the vision imposed by the residents and property owners of Seguin as they fashioned their Planning Framework.

The final test of the Planning Framework was conducted in Workshop #2. At this workshop, participants in the planning process were given opportunity to discuss the Planning Framework, and the extent to which it accurately reflects the objectives articulated by the community. The Planning Framework documented in this chapter (and shown below) is the basis for most of what is recommended in the Comprehensive Plan. The Planning Framework stands apart from the plan components because its test of success is the extent to which it expresses the objectives of the community. Once verified by the community, the Planning Framework becomes a document which tests the success of the policy instruments that flow from it. Therefore, the measure of success for the Comprehensive Plan components is the extent to which they respectfully (and collectively) accomplish the intricate functional and legal purposes imposed by growth and existing conditions while at the same time expressing the spirit and intent of the community's Planning Framework document. In addition, the Planning Framework will remain a test of other programs, actions, procedures, policies, and regulations promulgated by the City of Seguin due to the Plan's unique ability to give physical expression to the objectives set by Seguin residents and landowners. At the conclusion of Workshop #2, the Planning Framework was accepted by the workshop attendants as an accurate depiction of Strategic Community Goals and Objectives.

Figure 3. Seguin Planning Framework.



3.3 workshop 2 summary

The Seguin Comprehensive Plan process has included three Public Workshops open to the public. Workshop #2 focused on the Planning Framework and Visioning Process.

In the three workshop sequence employed in the construction of the Seguin Comprehensive Plan, Workshop #2 is key to the creation of the planning vision. Like the other workshops in this process, Workshop #2 was open to the public, and attended by many members of the Seguin community. This workshop centered around five key presentation elements:

- Review of Workshop #1
- Focus Groups Inputs
- Matrix Analysis of Community Goals
- Determination of the Planning Framework
- Consensus for the Planning Framework

REVIEW OF WORKSHOP #1

At the beginning of Workshop #2, a review of materials presented at the previous workshop was presented. This included a summation of materials pertaining to the various assessments conducted (urban form, physical systems, natural systems, and economic), as well as information about the community inputs that were ultimately incorporated as Community Goal Statements. It is important to note that all Community Goal Statements arose from the inputs received in Workshop #1, and that these Goal Statements were used to formulate the Planning Framework, based on the process presented at Workshop #2.

FOCUS GROUP INPUTS

Following Workshop #1, focus groups were constructed to address particular community groups that were under-represented at Workshop #1. The three focus groups were organized around the following issues:

- Environmental Conservation
- Economic Development
- Texas Lutheran University

The inputs gathered at each focus group meeting were compiled and analyzed along with the community inputs gathered in Workshop #1. Together, these inputs formulated the Community Goal Statements used to construct the Planning Framework for Seguin.

MATRIX ANALYSIS OF COMMUNITY GOALS

The Community Goal Statements that grew out of the Workshop #1 and Focus Group inputs were then converted to Community Goal Statements utilizing the TRIO method (themes, repeats, input indicators, and output indicators). The Community Goal Statements were then organized according to thematic planning elements. Additionally, district-specific goals were separated out from general community goals. This aided in analysis of the Goal Statements, and in determination of the issues raised most frequently in Workshop #1 (such as land use, beautification, or downtown revitalization).

These Community Goal Statements were compared to the Consultant Recommendations that grew out of the Assessments presented in Workshop #1. A matrix analysis of the compatibility of the Community Goals and Consultant Observations was then conducted to determine which Community Goals were the most strategic in regard to the creation of a Comprehensive Plan for Seguin. This Matrix Analysis was presented in Workshop #2, along with the highest scoring Community Goal Statements, which were termed "Strategic Community Goals." This Matrix Analysis is represented in Figure 1.

CONSULTANT RECOMMENDATIONS

Community Goals	The Plan for Seguin must re-establish the functional and economic importance of Seguin's historic center by restoring its prominence within the pattern of traffic movement and development.	Create a commercial core that gathers the incoming traffic.	Establish points of entry into the core areas that will be part of the normal movement pattern	The Plan for Seguin must give greater physical definition to downtown within the core	The traffic movement must engage the City Center and a hub of its organization so that there is a stronger connection between this place of historic investment and the emerging	Austin and Court Streets must be reconnected to the rigid movement pathways of local and regional traffic so that the central importance of the historic City Core is restored and maintained.	Strengthen the destination qualities of Seguin's City Center by restoring the unique approach functions of River and Austin Streets and restoring the importance of Seguin's open Plaza as a place of arrival.	Establish approach identities that will invite movement toward the Town Center	Strengthen the destination qualities of Seguin's City Center by creating an appropriate link with the Guadalupe River and establishing clear destination attributes that will support	Preserve and strengthen the governmental importance of the Historic City Center by	The tendency of the Transitional District to be a barrier between Seguin's historic core and newer	The public domain within the Transitional District must be given greater visual clarity	The transitional zone must be addressed with program initiatives that will facilitate more orderly	The emphasis on Historic Fabric of the Transitional District should be preserved as part of	A greater sense of color and identity within the Transitional District must be conveyed by a	The dramatic separation between the Transitional District and its commercial edges must be mitigated by clear articulation of the public street system and hierarchical movement patterns within	False fronts and private development within the Transitional District must be conveyed by a	Fragmentation of the Transitional District must be conveyed by a	Parks
General Community Goals																			
INFRASTRUCTURE																			
Establish plans, policies, regulations, procedures, and initiatives that will repair old infrastructure, and enforce, anticipate, coordinate, and guide infrastructure plans for future development.	0	0	0	1	0	1	0	0	0	0	0	1	0	1	1	0	0	1	1
Create annexation policies and procedures that are coordinated with the City's capability to provide infrastructural needs for annexed area.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Improve and expand a modern sewage system that will eliminate current odors, septic dependency, and untreated waste.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consolidate public water service under the City of Seguin as a single provider.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Improve/enhance emergency services in older residential areas and in newer areas that anticipate future growth and development.	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Improve, and repair the streetscape (roads, curbs, sidewalks, and other features) in older neighborhoods that will improve pedestrian mobility and improve both neighborhood appearance and visual continuity.	1	0	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1
Increase the area of public domain in older neighborhood areas with narrow right of way so that side walks and other street enhancements can be provided/extended where needed.	0	0	0	1	1	0	1	1	0	0	1	1	1	-1	1	0	1	0	1
Establish programs and initiatives for street enhancements that will strengthen the identity and visual character of older neighborhood areas.	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
Improve, repair, expand, and enhance existing infrastructure to support redevelopment activities within the City core.	1	1	0	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0
Establish plans and policies by which future development can be coordinated, connected, and served with roads, City infrastructure, and services that are provided in an orderly sequence that anticipates future demand.	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
DRAINAGE																			
Establish and implement drainage practices (such as stormwater management in streets and other public Rights of Way) which anticipate potential development, preserve the natural drainage corridors, and protect down stream conditions.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Establish an on-going program of drainage improvements in older neighborhoods that will contribute to and enhance a city wide drainage system.	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0

Figure 1. Matrix Analysis of Community Goals and Consultant Observations.

BUILDING THE PLANNING FRAMEWORK

Using the Strategic Community Goals identified in the Matrix Analysis, the Consultant Team constructed a graphic element to illustrate the physical expression of the Strategic Community Goals. The Planning Framework was presented as a graphic sequence, illustrating the interrelationship of the key thematic elements that tie all the community goals together. These thematic elements directed the physical representation of community vision, thus establishing a Framework upon which subsequent plan elements would be built. The thematic elements that influenced the creation of the Planning Framework included:

- Recognition of the natural system, specifically the Guadalupe River (Figure 2)
- Definition of approachways that reinforce downtown (Figure 3)
- Enhancement of cross-town mobility (Figure 4)
- Establishment of orderly patterns of growth, including nodes and land use transitions (Figure 5)

The Planning Framework Graphic that was presented in Workshop #2 is the physical manifestation of the Strategic Community Goals. There are four categories of symbolic elements, identified in the legend accompanying the graphic (Figure 6).

Because the Planning Framework is intended to serve as a graphic illustration of the Strategic Community Goals for Seguin, spatially referencing those Goals to the Planning Framework ensures that the graphic and the Goals are mutually reinforcing. Figure 7 indicates how the Goals and the Planning Framework fit together, using numbered dots to indicate where a particular Goal was expressed in the construction of the Planning Framework.

Figure 2. Seguin Natural System.

Figure 3. Seguin Downtown Approachways.

Figure 4. Seguin Cross-town Mobility Enhancement.

Figure 5. Seguin Nodes and Land Use Transitions.

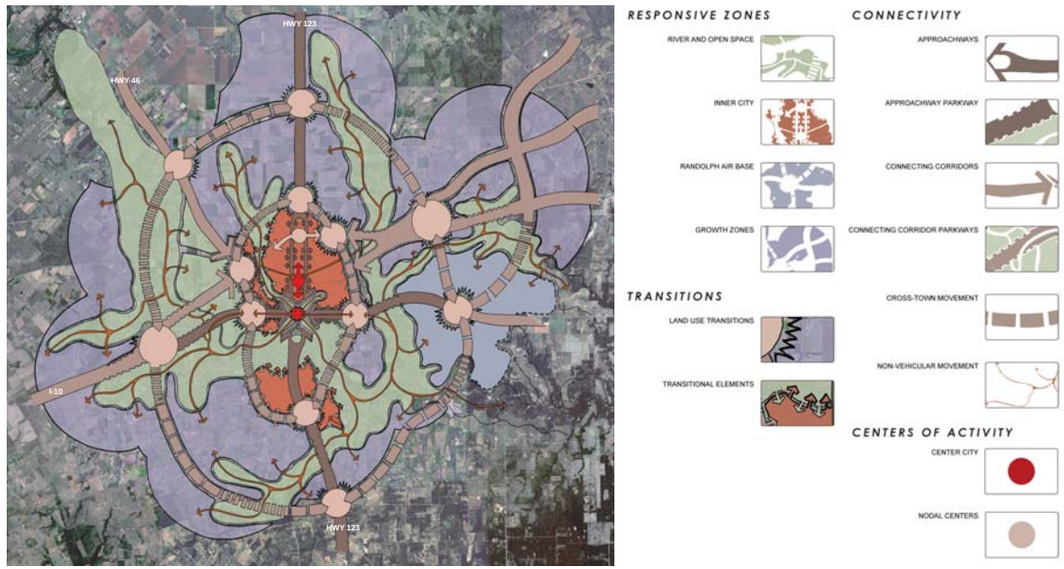


Figure 6. Seguin Planning Framework Graphic.

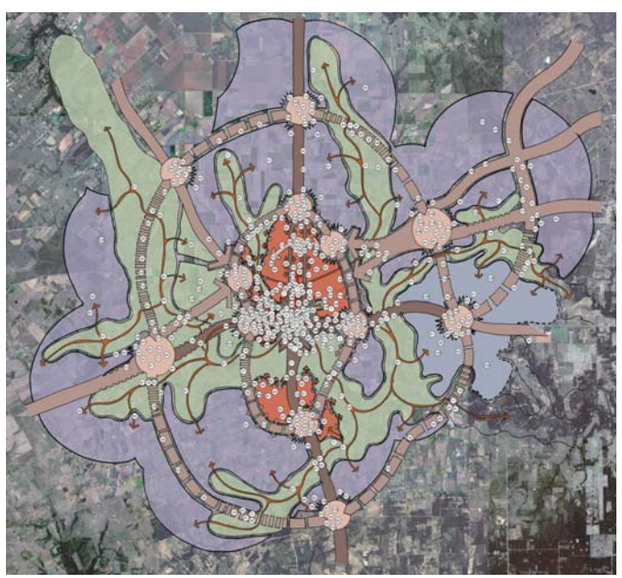


Figure 7. Seguin Planning Framework with Strategic Community Goals.

CONSENSUS FOR THE PLANNING FRAMEWORK

Following the presentation of the Planning Framework, the attendees of Workshop #2 gathered into break-out groups, based upon the 17 Form Districts identified in the first Workshop. In their respective break-out groups, attendees were given opportunity to examine the Strategic Community Goals and the Planning Framework. Facilitators were present in each break-out group to record comments and direct conversation. Participants in the break-out groups were also asked to generate vision statements regarding how the various Community Goals could be implemented, how such goals might be manifested, and what conditions would be like if these Goals were accomplished. Afterwards, all attendees gathered collectively to report findings of the break-out groups. The facilitators presented these findings on flip charts.

It is important to note that the Planning Framework is not a policy document. Its validity is measured by the extent to which it creates a faithful depiction of the Strategic Community Goals. The Planning Framework was confirmed by Workshop #2 attendees, and became the foundation of all subsequent components of the Comprehensive Plan. The Planning Framework therefore serves as the consensus document of record for the Seguin Comprehensive Plan.

part four: plan components

4.1 the future land use plan

The Future Land Use Plan was created in an attempt to restore a sense of order to the physical fabric of Seguin, while accommodating the patterns of use that have evolved over time.

The City of Seguin was first built upon the principles outlined in the Ranger Plan. The grid network of uniform blocks in the center city, surrounded by 1 acre development lots, 12 acre farm tracts to the north, and 5 acre ranch tracts to the south indicate a desire that existed among the original founders to establish a sense of order among the various uses of land within the City. Over time, however, land sales, zoning amendments, and new development have distorted the form and cognitive structure once so clear in the physical fabric of Seguin.

The Future Land Use Plan was created in an attempt to restore a sense of order to the physical fabric of Seguin, while accommodating the patterns of use that have evolved over time. Furthermore, since this plan was based on the vision physically represented in the Planning Framework, it is intended to provide direction regarding suitable land uses well into the future.

Upon completion of Workshop #2, the Planning Team began crafting the Future Land Use Plan for the City. The Planning Framework, which was presented in Workshop #2, served as the directive for the formation of the Future Land Use Plan. This Plan was created to speak to critical issues identified in Workshops #1 and #2, including:

- The accommodation of a projected rate of population growth that is greater than what has been experienced in recent history
- The enhancement of downtown Seguin as the economic and cultural core of the City
- The preservation of those components of the natural fabric that are culturally and/or environmentally significant
- The strategic establishment of nodal centers of activity
- The facilitation of effective watershed management
- The incorporation of appropriate land use transitions

THE RELATIONSHIP BETWEEN LAND USE PLANNING AND ZONING

Currently, land use decisions made by the City of Seguin are guided by its published zoning plan. This is a document that portrays the boundaries of zoning currently in place and thereby provides a view of the permitted land uses as they are arrayed within the city jurisdictional boundaries. The current zoning map depicts a landscape of maximum permitted uses and hides the mosaic of actual uses still permitted under various maximum classifications. This makes the holistic regulation of land use in conformance with a vision for the future very difficult to manage and document. The zoning plan is actually a zoning map and serves the function implied by its name: to map the boundaries of zoning currently in place.

If the zoning so mapped is not cumulative, then the zoning map tends to be reactionary, as it records decisions made by Council action on individual parcels. Because the document records actions taken, it is a map and not a plan. Rather, a land use plan should be prescriptive, serving as a guide.

A plan:

- Anticipates and informs actions
- Views the consequences of actions on a larger scale and in futuristic terms
- Anticipates an ultimate condition so that present actions serve the desired end
- Is initiated by the City and its general public for the purpose of defining a vision

All of these components of a plan are missing from a zoning map. By virtue of what it does and how it is accumulated, a zoning map:

- Is a record of action taken
- Considers consequences immediately present and generally in close proximity to the site
- Is initiated by a landowner/developer for the purpose of maximizing land use (highest economic use)
- Seeks to expand or change the present condition without view to limitation

The zoning map is the manifestation of how a City applies its zoning ordinance. It is required that such ordinances be applied uniformly within jurisdictional boundaries. For this reason unequal applications are prohibited under State enabling legislation. Such applications include contract zoning, and generally any zoning that can be proven capricious. The Land Use

Plan assures due deliberations, in light of public policy as they regard an individual zoning decision, to make uniform application more certain. The zoning map by its reactionary nature provides no such assurance, and zoning decisions that are not consistent with neighboring zoning already in place could be construed as arbitrary and capricious. This is a great challenge to zoning in areas where non-residential and residential uses are mixed. In such cases, a City's ability to change the status quo is more difficult.

The historical origins of zoning were to protect retailers in New York from encroachment by the neighboring (and growing) Garment District. Therefore, zoning is not meant to be visionary, but "protective". In contrast, a Land Use Plan is strictly meant to deal with vision and is not meant to be mired in the issues of protection to the extent that zoning is. However, many Cities are limited in their view of a Land Use Plan, seeing it as a version of the zoning record and/or as a zoning map for future (yet un-zoned) portions of the city. In this view of the Land Use Plan, adoption of the plan becomes focused on anticipating the land owner's/developer's response to (or likely impact on) market conditions. This is particularly true of the non-residential portions of the Land Use Plan which end up "stripping" the traffic corridors.

In its relationship to zoning, the Land Use Plan is intended to serve as a guide. The term guide means reference. The Land Use Plan's status as a record of publicly derived vision allows it to be a point of reference in the Council's deliberations regarding Zoning. Zoning is the action performed by an elected Council and Land Use is the input provided by citizens to facilitate the Council's deliberative proceedings. If the Land Use Plan is written in zoning terminology, the City Council will be limited in their current and future discretionary actions. Therefore, it is important that the status of the Land Use Plan as a guide be preserved by using terms/categories that do not replicate the zoning map. For this reason, the Seguin Land Use Plan is built upon a description of districts (e.g. the Transitional District), employing broad land use terms (e.g. employment-based Commercial)

It is important that interpretive applications of the Land Use Plan reside with the City's elected officials. This allows the elected officials to perform discretionary functions and City staff to perform ministerial functions. The distinction between discretionary and ministerial is important to the operations of a City, especially when it comes to matters of development. If the zoning map is (in effect) the functional land use map, then city staff is called upon to play two discretionary roles:

1. Make decisions regarding the lines of zoning change
2. Define future land use patterns

As a result, use of the zoning map is influenced by this discretionary role and both the application of zoning as well as the envisioning of land use is affected.

When the zoning map and the land use plan are not kept separate, the development process is also affected. The landowner/developer is uncertain as to risk associated with acquiring entitlement because there is no clear policy without a case by case interpretation. The process of interpretation opens the entitlement portion of a development process to an uncertain time frame and an uncertain outcome. Often, cities who try to manage their zoning decisions from a zoning map find themselves trapped in perpetuation of existing zoning because any variance constitutes incremental decision-making that is hard to defend from a "uniformity of application" perspective. Finding precedent in the existing zoning pattern to justify a current zoning decision is where the conflict between development and entitlement happens, often necessitating the involvement of attorneys. A City like Seguin, which has a broad mixture of zoning in a relatively small area, is particularly susceptible to this type of conflict situation. The question before the City Staff should be whether or not an action complies with the Comprehensive Plan, and a recommendation should be made in consideration of that question. It is then up to the Planning Commission and ultimately the City Council to approve that compliance or make an interpretation (based on the case) that allows some degree of variance from the Comprehensive Plan. The need to comply with the Comprehensive Plan also allows the Council to impose "conditions" that can assure that the intent of the Plan is accomplished. As a City fills in, these additional conditions become very important to preserving the quality of life.

In summary, the City of Seguin currently has a zoning map, but is lacking a Land Use Plan. One of the purposes of this comprehensive planning effort is to establish a Land Use Plan that guides future application of zoning and the zoning map. Without the two documents working side by side, the City of Seguin is nurturing a condition that leads to conflict, creates an environment of uncertainty, and requires city staff to function at levels of discretion not typical of their designated function.

ECONOMIC BUILD-OUT IMPLICATIONS OF THE TARGET POPULATION

Although it is impossible to pronounce the exact population of a city at any given point in the future, trend analysis and analogue comparisons serve as indicators of conditions that would most likely arise, should Seguin follow patterns of growth demonstrated in cities that have faced similar conditions in their growth history. Using an analogue comparison, it was estimated that, by the year 2047, it is possible for Seguin to reach a city population of 78,000 people. Not only will such growth impact residential housing needs, but it will also carry tax base and funding implications.

Currently, the property tax rate for the City of Seguin is $0.47 per $100 value. The current cost of governance (per capita, based upon the 2007 City budget and 2007 population estimates) in Seguin is approximately $650 per person. The cost of governance for a city is an indicator of level of service that a city can provide for its residents and property owners. As level of service increases, cost of governance (and, therefore, city budgets) increase as well. Figure 1 below compares the 2007 population, 2007 budget, and subsequent cost of governance in Seguin to several of the cities in the Seguin area.

City	2007 Population	2007 General Fund	2007 Cost of Governance	Property Tax Rate
Seguin	26,024	$16,919,197	$650.14	$0.4726
Boerne	8,707	$9,923,537	$1,139.72	$0.4422
New Braunfels	51,066	$42,077,956	$823.99	$0.4099
San Marcos	49,083	$34,546,855	$703.85	$0.5302
Mean Value*	**36,285**	**$28,849,449**	**$889**	**$0.4608**

*Excluding Seguin

Figure 1. Cost of Governance Comparison.

To accommodate increases in budget, a city must correspondingly increase its revenues. The three primary means for increasing municipal revenue are listed below, and displayed graphically in Figure 4.

1. **Fees, fines, and finance.** Although this measure will always provide a revenue stream for municipalities, as a city grows, this funding source becomes relatively marginalized, compared to the other two revenue streams mentioned here. Typically, fees, fines, and finance account for approximately 5 – 15% of a city's revenues.

2. **Increase property tax rate.** One way in which revenues can be increased is by increasing the property tax rate in a municipality. Although this option has potential to significantly increase revenues, the negative impacts associated with increasing taxes make this a problematic option.

3. **Increase the tax base by increasing the amount and types of taxable land.** A third option for increasing city revenues is increasing the city's non-residential tax base. Non-residential tax base increases are particularly helpful when it comes to funding the City budget because:

- Every $1.00 of residential tax received typically costs $1.33 to $1.50 to serve.
- Every $1.00 of non-residential tax received typically costs $0.33 to serve.

Because Seguin has successfully annexed a significant portion of surrounding land, there are several ways in which tomorrow's population could be distributed within the City. By considering average household size, average household value, and current market trends, the residential tax base for 78,000 people (the 2047 population) can be estimated. Figure 2 provides a relative indication of a residential tax base associated with a population of 78,000 people.

Build Out Population (projected)	78,000
Average Household Size (projected)	2.5
Number of Households (calculated)	31,200
Average Household Worth (projected)	$160,000
Total Taxable Residential Property (calculated)	$4,992,000,000
Property tax rate (current)	$0.47
Estimated Residential Ad Valorem Tax Revenues	**$23,592,192**

Figure 2. Calculation of Seguin's Residential Tax Base in 2047.

By assuming an improved level of service comparable with the cities indicated in Figure 1, the residential tax base determined in Figure 2, and an 8% estimate of revenues from fees, fines, and finance, an approximation of the necessary non-residential tax base can be determined (Figure 3). This is a critical value that must be understood before a land use plan can be created for the City. The distribution of residential and non-residential lands in the land use plan must be complementary, so that the City of tomorrow will be self-sustaining, enjoying a quality of life that perpetuates appropriate growth and city form.

Cost of Governance (Target Value)	$889
Build Out Population (projected)	78,000
Target General Fund (calculated)	$69,342,000
Revenues from Fees, Fines, and Finance (estimated at 8%)	$5,547,360
Estimated Residential Ad Valorem Tax Revenues	$23,592,192
Estimated Non-Residential Tax Revenue	**$40,202,448**

Figure 3. Calculation of Seguin's Necessary Non-Residential Tax Base in 2047.

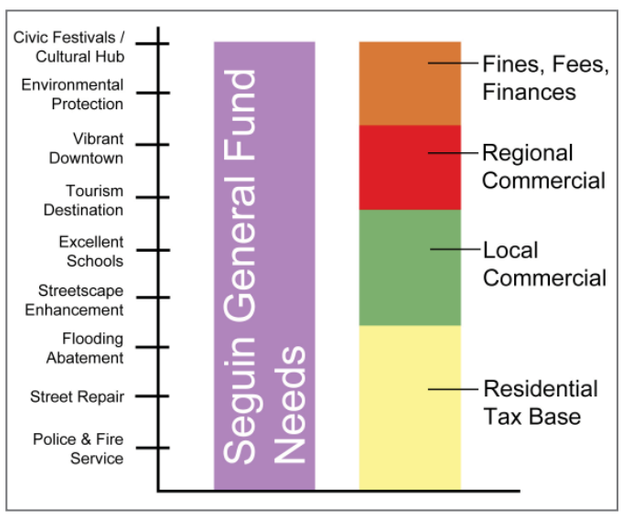


Figure 4. Municipal Revenue Sources.

LAND USE SUITABILITY MAPPING

Before a land use plan could be created, the Planning Team first conducted an assessment of the types of uses for which each area of Seguin was most suited. This process was a synthesis of qualifications based on:

Natural Components

- Proximity to waterways (Guadalupe River, Geronimo Creek, Walnut Creek)
- Extant ecological zones (Blackland Prairie, Oak Woods, Prairie Riparian, Oak Woods Riparian)
- Floodplain (500 year floodplain)

Connectivity Components

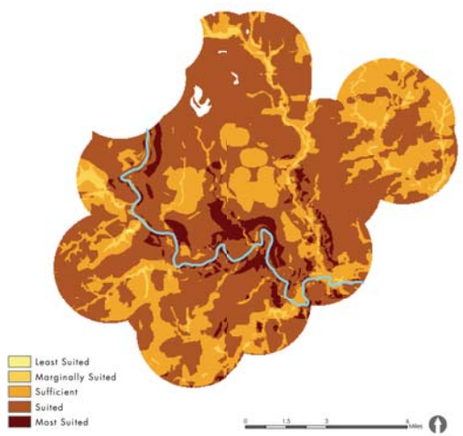
- Proximity to IH-10 and SH-130
- Proximity to other major roads (state highways, farm to market roads, U.S. highways, and major arterials)
- Proximity to proposed loop roads
- Proximity to major intersections
- Proximity to Downtown

Development Components

- Soil suitability for development
- Current undeveloped lands
- Current agricultural lands
- Current subdivision map

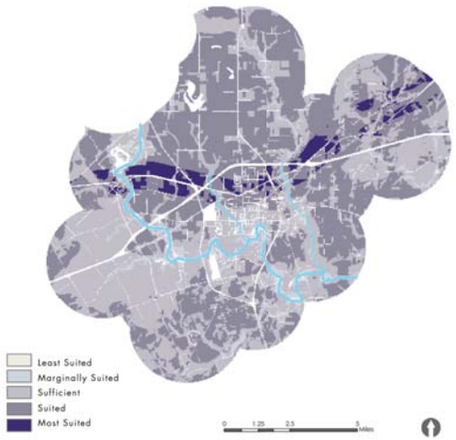
From these components, a suitability layer was created for each general category of land use that is associated with future land use and development. Those land uses that are associated with public services (ie: fire stations, schools, public works, etc.) were not addressed in the suitability map. The land use suitability layers created are included in the composite graphic shown in Figure 5, but are shown as individual layers in Figure 4.

Figure 5. Layers Used to Build the Land Use Suitability Map.



SINGLE FAMILY RESIDENTIAL

OPEN SPACE



INDUSTRIAL

AGRICULTURAL USE

RETAIL

OFFICE

MULTI FAMILY

The Land Use Suitability Map (Figure 5) serves as an indicator not of what WOULD go in each area, but, according to the physical attributes of place, what generally SHOULD go in each area. As indicated in this map, the interface of built and natural elements creates a very heterogeneous mixture of suitable uses in each area of town. This indicates that, rather than creating a Land Use Map composed of traditional zoning categories (since Land Use and Zoning serve different functions for the City), it would be more appropriate for the Land Use Plan to address the various combinations of uses that would be most fitting for the various areas within Seguin.

Once this map was produced, it was used in conjunction with Community Goals and the Planning Framework to create the Seguin Future Land Use Plan. The Suitability Map included here indicates which areas in the City of Seguin are most strongly suited for each land use category. This map was not the sole determinant of land use designations, but was used in conjunction with Community Goals, the Planning Framework, and the economic build-out implications of the target population of 78,000 (the projected 2047 population presented in Workshop #2).

The Land Use Suitability Map becomes a very helpful determinant in land use designations for the city. The heterogeneous distribution of land uses in most areas of the map indicates that the various traditional land use categories converge in a range of ways and at a range of scales. There are only select portions of the map that are uniformly suited for one particular use. This suggests that the creation of mixed use areas throughout the City would complement the suitability of the physical fabric as exhibited in this map. An added benefit of the Land Use Suitability Map is its ability to inform future zoning and policy decisions.

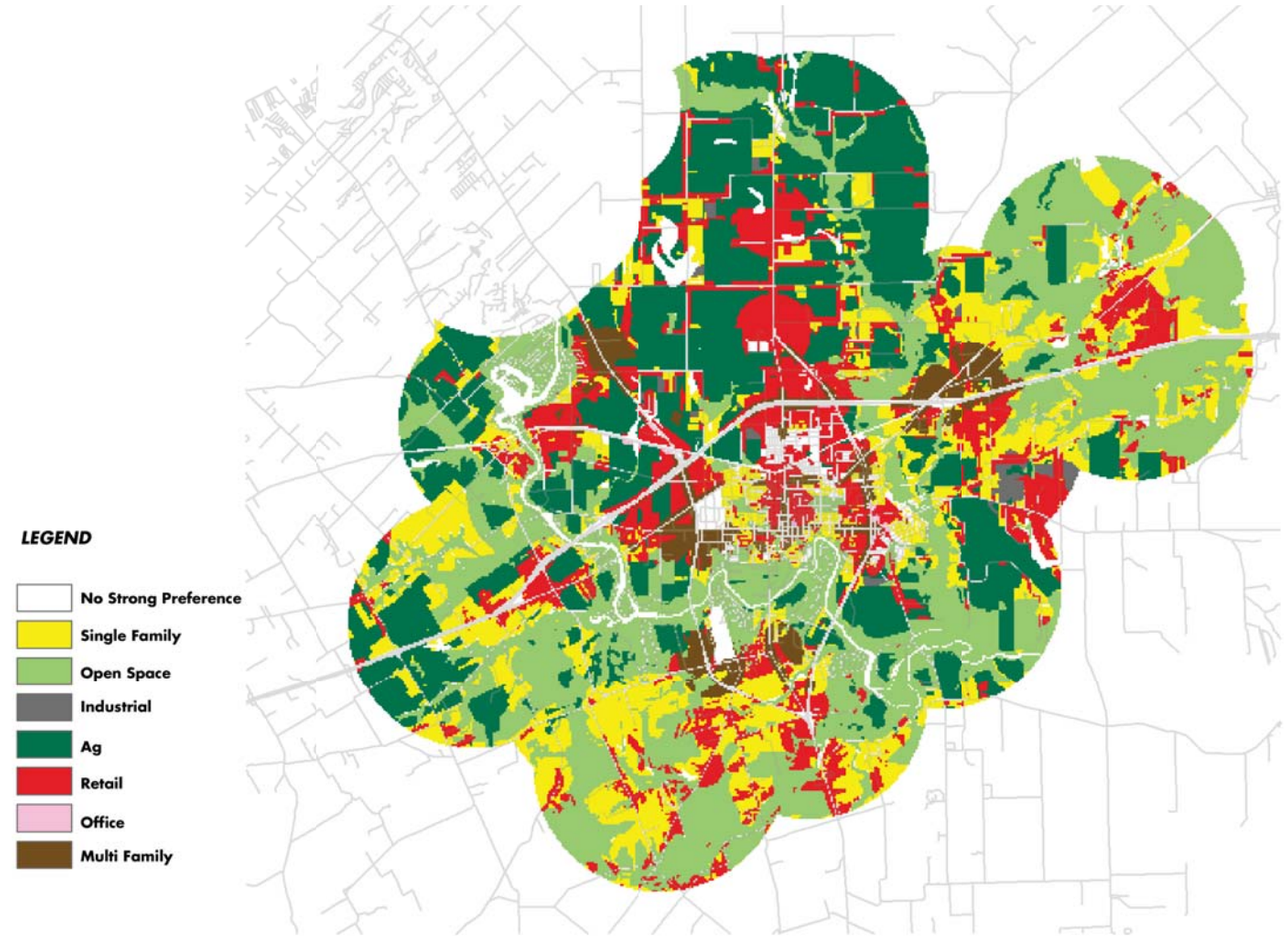


Figure 6. Composite Land Use Suitability Map.

USING DISTRICTS IN LAND USE PLANNING

The primary function of the Future Land Use Plan is to materialize community vision relating to land use, while providing a policy guide that will inform and direct future zoning actions. Therefore a structure needed to be introduced by which this could be achieved. Because the current built fabric of Seguin is an agglomeration of uses that have been established in a complex pattern throughout the City, the creation of a future land use plan that speaks to the zoning needs of the existing City is of primary importance. Conversely, directives for future growth in outer areas of the City are also needed. Recognizing the rights of current property owners while providing direction for future growth and use is most effectively achieved in such cases through the use of Land Use Districts.

Districts allow for a combination of related uses in one designated area, so that a general form is established, but flexibility within that form is created as well. They allow for a range of conditions within the context of development, including community form, level of integration, and distributions of density.

District designations are especially helpful when:

- Historic zoning practices have created significant variation in current uses
- Areas designated will not likely be developed in the immediate future
- A convergence of suitable or desirable uses occurs within the area of interest

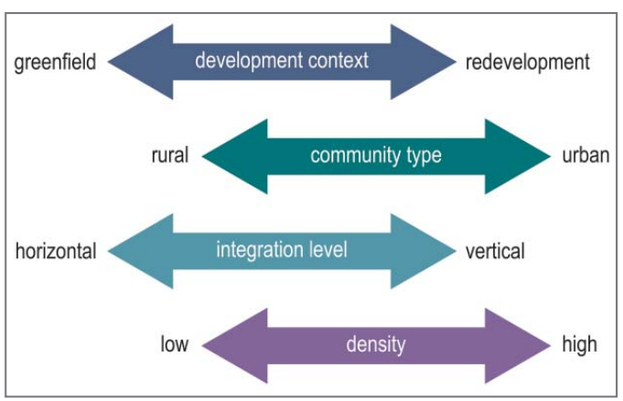


Figure 7. Development Trends.

In Seguin, all of the above conditions occur. Therefore, the Future Land Use Plan for the City of Seguin will consist of a series of land use districts.

There are 17 designated land use districts in the Future Land Use Plan. For each of these districts, declarations of intent, visual character, distribution of density, and designations of acceptable use will be provided. The following is a description of the elements identified for each district:

1. **Declaration of Intent.** The Districts of the Seguin Future Land Use Plan were created to embody a specific form and function. Many of the future decisions regarding land use, such as special district designations, zoning amendments, and development activity, are shaped by the policies set forth for each district. To ensure that the integrity of these districts is preserved through future changes, the intent (primary function) of each individual district has been stated. This statement of intent will guide future decisions regarding land use within the designated district. Although there may be a primary use for some of the districts, each district in the Future Land Use Plan is intended to function as a mixture of general land use categories.

2. **Description of Visual Character.** Just as the function of each district is described in the Declaration of Intent, the form of each district is described in the Description of Visual Character. The Visual Character of each district should reflect the function of that district. Elements of the Visual Character are determined by the overall intent of a particular district, and most closely related to elements of other districts in the same Land Use category.

3. **Distribution of Density.** Patterns of density, whether they be residential or commercial (in the form of Floor to Area ratios), reinforce the character of a community, as they determine not only the intensity of development/occupation, but also the intensity of the building fabric within the community landscape. In the Future Land Use Plan, appropriate density maximums are established within each district and an overall density gradient is created for the City. This ensures not only that the intensity of development is proportionate to the intent and character of an individual district, but that, within that district, patterns of land use work together to create a consistent and meaningful internal form. Densities within each district will be designated based on location (such as core, internal, or edge). This approach to density designation within each district will encourage the creation of transitional zones between districts, and aggregation of value and activity at the district core.

4. **Designation of Acceptable Uses.** In addition to the distribution of density, it is important to designate appropriate uses for that land. There is significant variety among commercial land uses (gas stations to manufacturing facilities to high end boutique clothing shops), and the land uses within each district should reinforce the character of that district. For this reason, each land use district identified in this Plan includes a chart indicating Designation of Acceptable Uses.

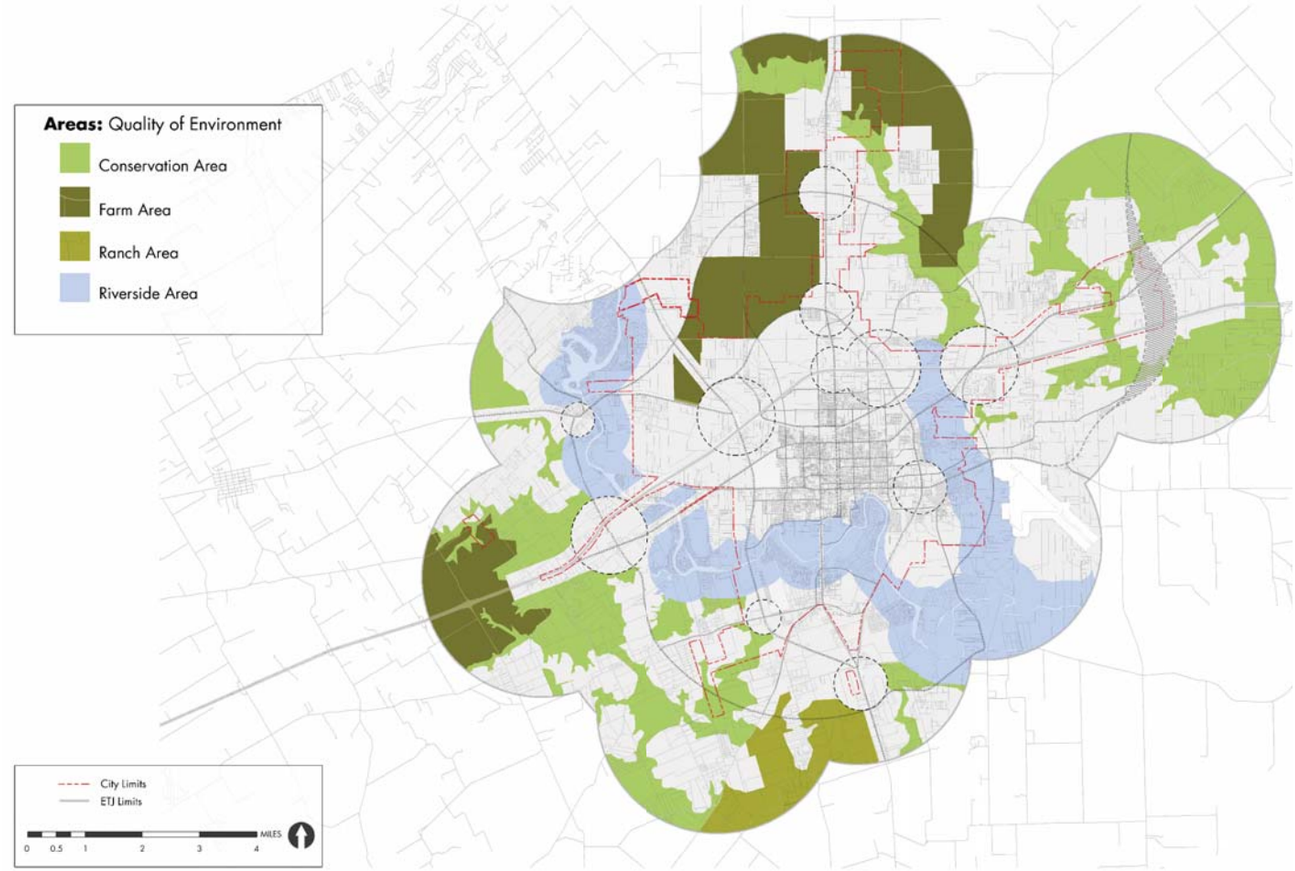
THE DISTRICTS OF THE FUTURE LAND USE PLAN

Each district of the Future Land Use Plan was created to manifest land use in a consistent, yet unique manner, fostering a clearly recognizable sense of place. This sense of place in turn reinforces the meaning, and therefore community, established within the various areas of the City of Seguin.

The land use districts of the Future Land Use Plan are grouped into four general categories. These categories provide definition for the primary formative element within each district. This formative element guides and directs decisions made regarding form, visual character, boundaries, density, acceptable uses, and distribution of those uses within the given district. The districts of the Future Land Use Plan are categorized as:

- AREAS: Intended to enhance the Quality of Experience
- COMMUNITIES: Intended to enhance the Quality of Life
- NODES: Intended to enhance the Quality of Urban Form
- CORRIDORS: Intended to enhance the Quality of Visual Experience

Figure 8. Map of the Areas of Seguin.



THE AREAS OF SEGUIN

The Areas of Seguin are comprised of districts that are shaped by the landscape within which they occur. In these districts, development and subsequent use shall respond to the prevailing landscape of the district. For this reason, the primary purpose of Areas is to enhance the quality of environment and protect its rich fabric of natural assets.

The districts characterized as Areas in Seguin are distinguished primarily by treatment of, and respect for, the ground plane, which is a reference boundary within which associated buildings and activities reside. The elements that serve as primary determinants of visual character in the Seguin Areas are: building orientation, site design/intervention, ground form, natural landscape, storm water management techniques, and resolution of the architectural elements with the ground form.

The Areas of Seguin include:

1. Farm Areas
2. Ranch Areas
3. Conservation Areas
4. Riverside Areas

1. FARM AREAS

Intent

Seguin sits at the edge of the Blackland Prairie. These areas provide fertile environments for agricultural practices, which is consistent with the current distribution of agricultural lands in the Seguin area. Because of the suitability and current use of these lands, agriculture is the dominant use in the Farm District. Complementary uses acceptable in this area include rural residential use, cluster residential development, and passive open spaces (such as greenbelts, habitat conservation zones, etc.). Other acceptable land uses should be expressed in a manner complementary to agricultural use.

Visual Character

In the Farm Areas, the predominant visual characteristic lies in the transparency of property definition. Property lines are not called out with definitive boundaries, but are rather marked by elements such as barbed wire fences and tree drift fence rows. The built elements are oriented to the attributes of the land (topography, tree coverage, hydrology), not to property lines or the street. Surface storm water management techniques should be employed in Farm Areas, and, therefore, the landscape should be such that surface sheet flow is accommodated and encouraged. Trees should be present, but thinned, rather than occurring in large drifts. The relationship of architectural elements to the ground form should be expressed through incorporation of devices such as bridges, steps, and retaining walls, rather than grading.

CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	< 0.5	< 0.1
Conditional	0.6 - 2	0.11 - 0.18
Restricted	2.1 - 4	0.19 - 0.25
Not Recommended	> 4	> 0.25

Figure 10. Within the Farm Areas of Seguin, the predominant forms expressed should be agricultural. Low density ranges should therefore be preserved. The classifications are defined as follows:

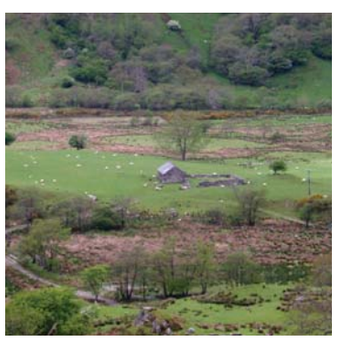
Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Farm Areas.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Farm Areas.

Figure 9. Farm Areas Key Map.



Zoning Category	Abbreviation	Use Qualification
Agricultural Ranch	A-R	As of Right
Residential Estate	RE	Subject to Review
Suburban Residential	SR	Subject to Review
Single Family Residential	R-1	Subject to Review
Zero Lot Line	ZL	Subject to Review
Duplex, Medium Density	DP-2	Subject to Review
Industrialized Housing	I-H	Subject to Review
Light Industrial	LI	Subject to Review
Public Use	P	As of Right
Retail	R	Subject to Review
Planned Unit Development	PUD	As of Right

Figure 11. The appropriate uses for Farm Areas from the current zoning designations in Seguin are detailed above.

2. RANCH AREAS

Intent

Seguin sits at the break between the Blackland Prairie and regions of the Oak Woods. Therefore, agricultural land with a steep and rolling profile is best suited for ranch use. However, these transitional areas are also attractive to residential development because of the natural assets, combined with relatively flat land and lower development costs. Preservation of Ranch land is often more difficult for this reason, but a minimum amount of such land should be retained for viable ranch use. Complementary uses acceptable in this area include rural residential use, cluster residential development, and passive open spaces (such as greenbelts, habitat conservation zones, etc.). Other acceptable land uses should be expressed in a manner complementary to agricultural use.

Visual Character

The visual character of Ranch Areas of Seguin is similar in many ways to that of the Farm Areas, in that the predominant visual characteristic lies in the transparency of property definition. Property lines should be marked by elements such as barbed wire fences and tree drift fence rows. The built elements are oriented to the attributes of the land (topography, tree coverage, hydrology), not to property lines or the street. Typically, ranches have more buildings as a normal part of their operations. Surface storm water management techniques should be employed in the Ranch Areas, and, therefore, the landscape should be such that surface sheet flow is accommodated and encouraged. The relationship of architectural elements to the ground form should be expressed through incorporation of devices such as bridges, steps, and retaining walls, rather than grading.

A major distinction between Farm and Ranch Areas lies in the different landscape expressions. In Ranch Areas, the tree coverage is more expansive, and often more dense. Stock ponds and other forms of water retention are also prevalent in Ranch Areas.

CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	< 0.5	< 0.1
Conditional	0.6 - 2	0.11 - 0.18
Restricted	2.1 - 4	0.19 - 0.25
Not Recommended	> 4	> 0.25

Figure 13. Within the Ranch Areas of Seguin, the predominant forms expressed should be agricultural. Low density ranges should therefore be preserved. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Ranch Areas.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Ranch Areas.

Figure 12. Ranch Areas Key Map.

Zoning Category	Abbreviation	Use Qualification
Agricultural Ranch	A-R	As of Right
Residential Estate	RE	As of Right
Suburban Residential	SR	As of Right
Single Family Residential	R-1	As of Right
Zero Lot Line	ZL	Subject to Review
Duplex, Medium Density	DP-2	Subject to Review
Industrialized Housing	I-H	Subject to Review
Light Industrial	LI	Subject to Review
Public Use	P	As of Right
Retail	R	Subject to Review
Planned Unit Development	PUD	As of Right

Figure 14. The appropriate uses for Ranch Areas from the current zoning designations in Seguin are detailed above.

3. CONSERVATION AREAS

Intent

The Conservation District is primarily a collection of lands that are strongly suited for habitat protection. These areas incorporate riparian zones and areas of significant tree coverage that are predominantly undeveloped. Throughout this district, conservation of the natural fabric is the dominant land use, with all other acceptable uses expressed in a manner complementary to that dominant use. Such complementary uses could include parks, trails, rural residential use, and cluster residential development.

Visual Character

In the Conservation Areas of Seguin, the ground plane—and the ground cover—should be undisturbed. There is a greater level of complexity in the landscape, which is oriented around plant communities rather than ornamental monocultures. The built elements in Conservation Areas respond to the natural landscape, rather than the street or property lines, therefore the architectural forms are neither rigid nor uniform. Surface storm water management should be considered a major design element in any anticipated development. The correlation between soil depth, soil hydration, and plant communities is distinctive for each watershed, and the correlation of water and plant form should be interpreted in site design. Therefore, structured solutions to water management should be avoided and surface management employed wherever possible. Surface management includes:

- Retention and detention ponds
- Bioswales
- Natural erosion protection
- Rain gardens
- Run-off metering to pre-development flows
- Wetland protection and creation
- Habitat protection, restoration, and creation.

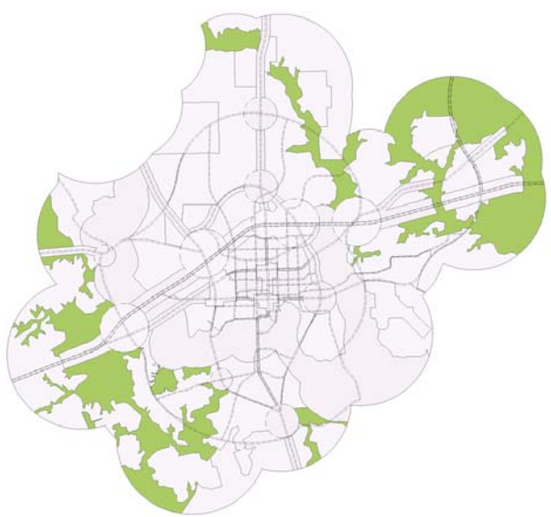


Figure 15. Conservation Areas Key Map.

CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	< 0.5	< 0.1
Conditional	0.6 - 2	0.11 - 0.18
Restricted	2.1 - 4	0.19 - 0.25
Not Recommended	> 4	> 0.25

Figure 16. Within the Conservation Areas of Seguin, the predominant forms expressed should be natural. Low density ranges should therefore be preserved. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Conservation Areas.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Conservation Areas.

Zoning Category	Abbreviation	Use Qualification
Agricultural Ranch	A-R	As of Right
Residential Estate	RE	Subject to Review
Suburban Residential	SR	Subject to Review
Single Family Residential	R-1	Subject to Review
Zero Lot Line	ZL	Subject to Review
Townhouse	TH-1	Subject to Review
Public Use	P	As of Right
Planned Unit Development	PUD	As of Right

Figure 17. The appropriate uses for Conservation Areas from the current zoning designations in Seguin are detailed above.

4. RIVERSIDE AREAS

Intent

The Guadalupe River is a critical determinant of the life and culture of the City of Seguin. As land development increases in the area, stresses incurred by this river system will be manifested in increased flood incidences and increased pollutant loads due to surface water runoff. Furthermore, as the population in Seguin grows, designation of appropriate uses adjacent to and in proximity to the River (as well as Walnut Creek and Geronimo Creek) will be important in preservation of the health of the river and the riparian corridor through which it flows. Also important is public access to the waterways within the City of Seguin. Therefore, the purpose of the Riverside Areas is to establish a zone where the River landscapes (and all of the River's features) dominate development.

The Riverside Area is comprised of lands that are adjacent to the Blue Ways of Seguin (the Guadalupe River and Geronimo Creek, as well as their respective floodplains). Because of the adjacency to a critical natural corridor, acceptable land uses should preserve access to and use of the Blue Ways.

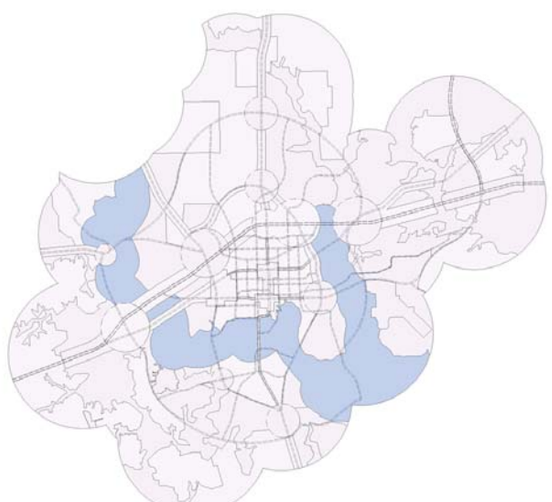
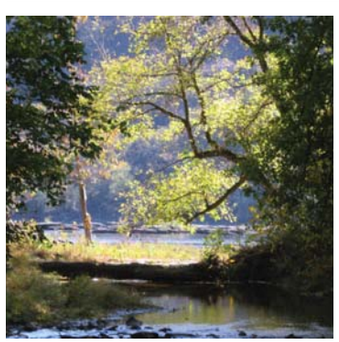
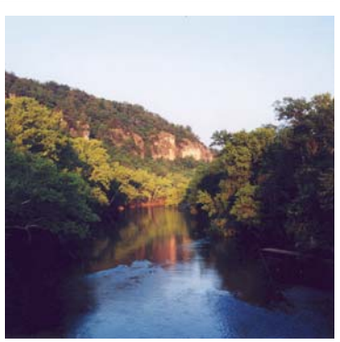


Figure 18. Riverside Areas Key Map.

Visual Character

The Riverside Area is a riverside zone within Seguin, and, as such, should visually express the influence of the Guadalupe River. The ground plane includes and is shaped by the floodplain, and is therefore sensitive to invasive actions. Because of the characteristic sheet flow of water in this Area, landscape plays a critical role in water management. The authentic riverbank should be preserved, and armoring of the bank is discouraged. The buildings within the Riverside Area should be reconciled to the ground plane; the ground plane should not be significantly altered to accommodate the buildings. Devices such as stilts and steps should be used to reconcile the architectural elements to floodplain elevations. Along the river and its tributaries, setbacks should be defined by a habitat assessment, and should undulate according to the natural conditions imposed by the river, allowing natural actions to continue to shape the banks.





CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	< 1	< 0.18
Conditional	1 - 3.5	0.18 - 0.2
Restricted	3.6 - 5	0.21 - 0.3
Not Recommended	> 5	> 0.3

Figure 19. Within the Riverside Areas of Seguin, the predominant forms expressed should be agricultural. Low density ranges should therefore be preserved. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Riverside Areas.

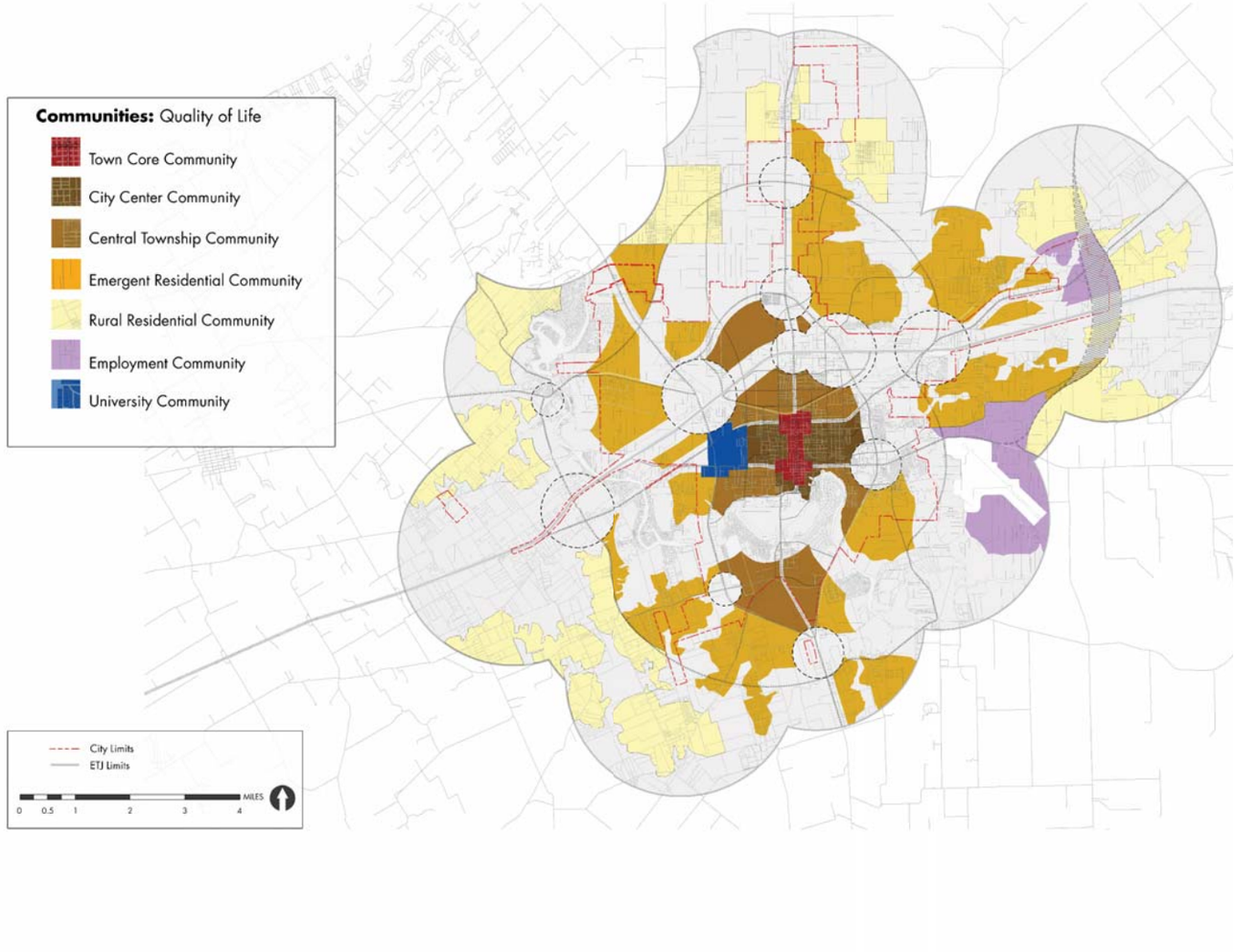
Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Riverside

Zoning Category	Abbreviation	Use Qualification
Agricultural Ranch	A-R	As of Right
Residential Estate	RE	As of Right
Suburban Residential	SR	As of Right
Single Family Residential	R-1	Subject to Review
Zero Lot Line	ZL	Subject to Review
Duplex, Low Density	DP-1	As of Right
Townhouse	TH-1	Subject to Review
Public Use	P	As of Right
Planned Unit Development	PUD	As of Right

Figure 20. The appropriate uses for Riverside Areas from the current zoning designations in Seguin are detailed above.

Figure 21. Map of the Communities of Seguin.



THE COMMUNITIES OF SEGUIN

The Communities of Seguin are comprised of those districts that are oriented around residential development. Although densities and distributions of acceptable uses may vary among them, collectively these districts make up the neighborhood fabric of the City of Seguin and most greatly affect Seguin's quality of life.

The Communities of Seguin are oriented according to an urban –suburban continuum. The elements that serve as primary determinants of visual character in the Seguin Communities are: street definition, spatial arrangement of the built fabric, articulation of the shared ground plane, and the interface between the built fabric and the common ground plane. For residential properties, this interface serves as a boundary between the public and private realms, often meant to discourage public use. For commercial properties, this interface serves as a space that invites public or common use.

The Communities of Seguin include:

1. Town Core Community
2. Center City Community
3. Central Township Community
4. Emergent Residential Community
5. Rural Residential Community
6. Employment Community
7. University Community

5. TOWN CORE COMMUNITY

Intent

The City of Seguin enjoys a downtown area that is rich in historic and cultural significance. Through the activities of the Main Street program, as well as the City's commitment to preservation and enhancement of public space, the downtown has become a culturally centralized anchor for Seguin. To encourage economic revitalization and strategic redevelopment, it is important to provide direction for appropriate land uses within this area, as well as designations of district boundaries that incorporate those areas that most significantly enhance the character and role of downtown in the life of the City. Because approach and point of arrival are critical to downtown identity, the Town Core District incorporates not only the historic downtown area in the city, but extends northward all the way to the railroad line.

The pattern in the Town Core is determined by the interplay between scale, architecture, and street. Acceptable uses include retail, office, institutional, conservation, and residential use. As downtown is intended to serve as the cultural and economic anchor for Seguin, residential uses in this district should be primarily multi-family. Some single family uses are appropriate, however, especially the historic homes found in the district.

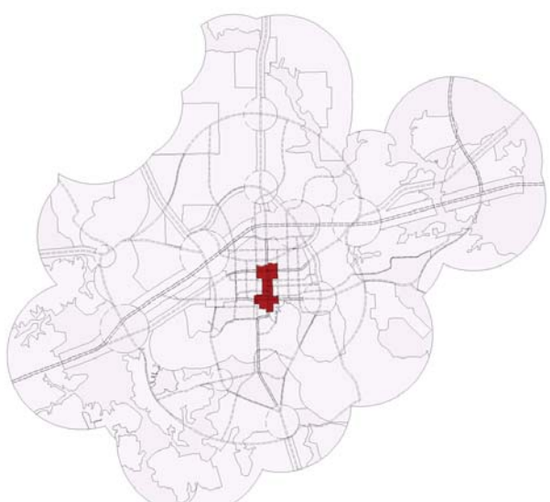
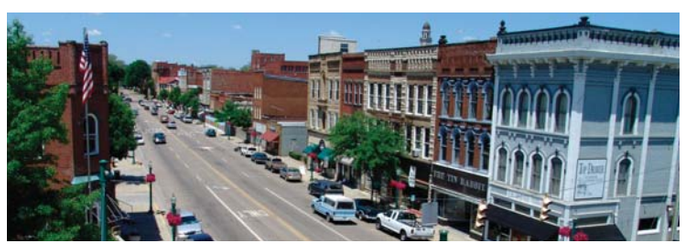


Figure 22. Town Core Community Key Map.

Visual Character

In the Town Core Community, there is a strong street definition of the built fabric, which serves as an indicator of the "urban-ness" of this district, and the streets are oriented in a grid format. The street fronts of buildings should form a characteristic street wall, with small variation in the articulation of the first floor. In the Town Core, the street definition is architectural, rather than spatial. This allows for a visual sweep of the ground plant, where the street wall creates a backdrop for vertical elements of distinction. In commercial centers, an architecture of wealth, consisting of Greek, Roman, and Neo-Classic structures, is often introduced. This is the architecture of commerce, and is therefore very appropriate for the Town Core. The interface between the private and public realms should not be defensive. Rather, the spaces separating the buildings from the ground plane should be inviting.

Except for the downtown square, common space should be directed space, creating channels of pedestrian and vehicular activity. Clear articulation of components, such as sidewalks and curbs strengthen this effect. Non-directed spaces should be incorporated at street corners, where provisions such as furniture and accessories encourage gathering. Lights and trees further enforce the lines of demarcation, and therefore regimented placement is needed. Finally, in the Town Core, all elements are subservient to the notion of centrality.



CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	> 25	3 - 4
Conditional	12 - 25	0.8 - 2.9
Restricted	8 - 11.9	0.5 - 0.7
Not Recommended	< 8	< 0.5

Figure 23. Within the Town Core Community of Seguin, the predominant forms expressed should be decidedly urban. High density ranges should therefore be encouraged. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Town Core Community.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Town Core Communities.

Zoning Category	Abbreviation	Use Qualification
Residential Estate	RE	If Historic
Townhouse	TH-1	Subject to Review
Multi-Family, High Density	MF-3	Subject to Review
Commercial	C	As of Right
Light Industrial	LI	As of Right
Office Professional	O-P	As of Right
Public Use	P	As of Right
Retail	R	As of Right
Downtown Historic District	DHD	As of Right
Planned Unit Development	PUD	As of Right

Figure 24. The appropriate uses for Town Core Communities from the current zoning designations in Seguin are detailed above.

6. CITY CENTER

Intent

Surrounding the City Center District is the historic residential fabric of the City of Seguin. Because development trends have varied widely over time in this area, current densities, styles, and neighborhood forms are quite different throughout the District. Because of the residential nature of this District, non-residential uses should be those appropriate within a neighborhood setting, and density levels should be consistent with those found in predominantly single-family residential areas. The intent of this district is to promote infill development that is compatible with the form, rhythms, and character that exists.

Visual Character

The urbanized form of the residential uses in the City Center Community calls for less uniformity in the street definition of the built fabric, while site orientation is regimented. This is due to the grid pattern characteristic of this district, which calls for rigid setbacks, side yards, and other attributes of the building envelope. Here, the street is defined by spatial rhythms of repetition, rather than architectural elements. The street space is directed for cars, but not necessarily for pedestrian movement. The residential character is appropriately accommodated through the preservation of front yards, though these are typically small. In this district, architectural devices, such as porches and stoops occupy the realm of public/private interface. This acts as a protective or defensive element to define activity in the private realm. There is not, however, complete privatization of residences in this district. Rather, these private spaces frequently serve as areas of collective or social community expression. They function as private spaces for community interchange.

CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	> 8	0.18 - 0.25
Conditional	4 - 7.9	0.15 - 0.17
Restricted	3 - 3.9	0.12 - 0.14
Not Recommended	< 3	<0.12

Figure 26. Within the City Center of Seguin, the predominant forms expressed should be urban, yet predominantly residential. Higher residential density ranges and lower non-residential density ranges are therefore established. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the City Center Communities.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for City Center Communities.

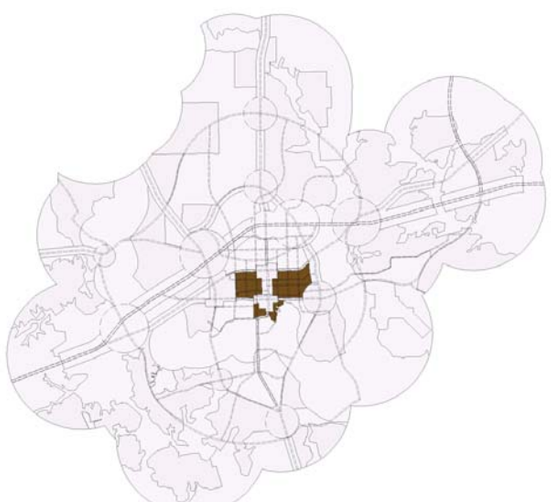


Figure 25. City Center Community Key Map.

Zoning Category	Abbreviation	Use Qualification
Residential Estate	RE	If Historic
Single Family Residential	R-1	Subject to Review
Duplex, Medium Density	DP-2	As of Right
Townhouse	TH-1	As of Right
Multi-Family, Medium Density	MF-2	As of Right
Multi-Family, High Density	MF-3	Subject to Review
Office Professional	O-P	Subject to Review
Public Use	P	As of Right
Retail	R	Subject to Review
Planned Unit Development	PUD	As of Right

Figure 27. The appropriate uses for City Center Communities from the current zoning designations in Seguin are detailed above.

7. CENTRAL TOWNSHIP COMMUNITY

Intent

Within the Inner Loop Road (proposed in the Future Thoroughfare Plan) there exists pockets of development that are not a part of the historic fabric of Seguin, but do serve as center city community areas. Such areas enjoy access to Core Approachways and a grid format within their neighborhood form. Development styles, scales, and densities may vary in these areas, while the uniformity of the grid, and proximity to downtown are still enjoyed. The intent of this district is to enhance quality of residential developments, see more resident and residential diversity, and maintain a higher density of single family fabric within a distinctive landscape.

Visual Character

In the Central Township Communities, the urban fabric is shaped by two competing factors: the presence of the natural environment and the presence of the street grid extending from the center of Seguin. When these two systems conflict, the natural factors (such as exaggerated topography or presence of waterways) subvert the expression of the grid. The street becomes less articulated, following topographic attributes rather than the grid pattern. Under these conditions, the accommodation of transitions is important, and development will tend to occur at a site basis. When the landscape is less tame, the area of interface between the common ground plane and the built elements is more defensive.

In the absence of the influence of such natural factors, the street definition is more marked. These areas display more suburban forms, as they are built on a project basis rather than a site basis. Variation occurs in floor plans, but elevations, lot sizes, and building envelope are fairly uniform. Repetitious architectural expressions reinforce the suburban nature here. There is directed vehicular and pedestrian space, with clear distinction between the public and private realms. There is an increased privatization of the front yard space, with a greater presence of ornamental accents.

Figure 28. Central Township Community Key Map.

CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	> 4	0.18 - 0.25
Conditional	3 - 4	0.15 - 0.17
Restricted	2 - 2.9	0.12 - 0.14
Not Recommended	< 2	< 0.12

Figure 29. Within the Central Township of Seguin, the predominant forms expressed should be neighborhood oriented. Medium residential density ranges and lower non-residential density ranges are therefore established. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Central Township Communities.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Central Township Communities.

Zoning Category	Abbreviation	Use Qualification
Residential Estate	RE	If Historic
Single Family Residential	R-1	As of Right
Zero Lot Line	ZL	As of Right
Manufactured Home Subdivision	MHS	Subject to Review
Manufactured Home Park	MHP	Subject to Review
Duplex, Low Density	DP-1	As of Right
Duplex, Medium Density	DP-2	As of Right
Townhouse	TH-1	As of Right
Industrialized Housing	I-H	Subject to Review
Commercial	C	Subject to Review
Office Professional	O-P	Subject to Review
Public Use	P	As of Right
Retail	R	As of Right
Planned Unit Development	PUD	As of Right

Figure 30. The appropriate uses for Central Township Communities from the current zoning designations in Seguin are detailed above.

8. EMERGENT RESIDENTIAL COMMUNITY

Intent

The Emergent Communities in Seguin are those areas that are outside of the center city and that break from the existing neighborhood and commercial forms common to Seguin. Residential use is predominant in this area, and a range of residential densities should therefore exist in these districts. All other acceptable uses should be expressed in a manner complementary to residential use. The intent of Emergent Residential Communities is to provide a place for a variety of standard residential development forms with more emphasis on envrionmental enrichment.

Visual Character

In the Emergent Residential Communities, a hierarchy of streets is observed, rather than a uniform grid. This is the most suburban of the urban-suburban continuum of communities in Seguin. Such suburban districts are built upon rural foundations, but display urban expressions. There is often a recognition of rural elements through such components. In the Emergent Residential Communities, there exists a rigid adherence to a uniform building envelope, and these rhythms dominate the street definition. The streets and pedestrian pathways are arrayed in a more organic pattern, with street hierarchies giving organization to clearly defined neighborhoods.

The interface of the buildings and the common ground plane is highly varied in this district, with areas of lower density typically maintaining a more privatized interface, while areas of higher density calling for a less privatized interface. Because the expression of wealth is often a priority in these communities (where a focus for housing is the price point), neighborhood entries serve as another form of transition from the common ground plane to the built fabric. Defensive gestures in the Emergent Residential Community should be appropriately accommodated; when the neighborhood entry is defensive in its posture, a less defensive association is found at the lot. Alternately, if little posturing exists at the neighborhood entry, a more defensive position should be permitted at the lot.

CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	> 4	0.18 - 0.25
Conditional	3 - 4	0.1 - 0.18
Restricted	2 - 2.9	0.05 - 0.09
Not Recommended	< 2	< 0.05

Figure 32. Within the Emergent Residential Communities of Seguin, the predominant form is suburban in nature. Medium residential density ranges and lower non-residential density ranges are therefore established. The classifications are defined as follows:

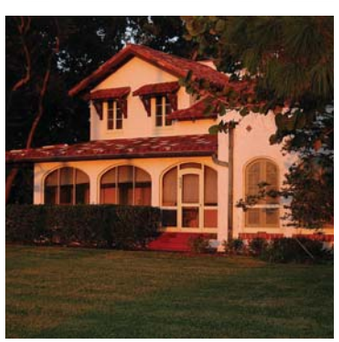
Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Emergent Residential Communities.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Emergent Residential Communities.

Figure 31. Emergent Residential Community Key Map.



Zoning Category	Abbreviation	Use Qualification
Suburban Residential	SR	As of Right
Single Family Residential	R-1	As of Right
Manufactured Home Subdivision	MHS	Subject to Review
Manufactured Home Park	MHP	Subject to Review
Duplex, Low Density	DP-1	As of Right
Duplex, Medium Density	DP-2	As of Right
Townhouse	TH-1	Subject to Review
Industrialized Housing	I-H	Subject to Review
Public Use	P	As of Right
Retail	R	Subject to Review
Planned Unit Development	PUD	As of Right

Figure 33. The appropriate uses for Emergent Residential Communities from the current zoning designations in Seguin are detailed above.

9. RURAL RESIDENTIAL COMMUNITY

Intent

Rural Communities are those that are found outside of the Outer Loop Road, and separated from the major roads of the cities. They are community oriented, and should maintain a low residential density. Other uses should be expressed in a manner complementary to residential use. The intent of Rural Residential Communities is to offer a distinctive low density lifestyle within Seguin that is appropriately placed in the more rural fringes.

Visual Character

The Rural Residential Communities of Seguin do not follow a grid pattern of street orientation. These are ex-urban communities where street hierarchies play a role in the determination of visual character. The building to street relationship is segmented and typically undefined in Rural Residential Communities, and the buildings enjoy an independence from the street. In these districts, the space adjacent to the street visually dominates the street, and the street submits to natural determinants. The built elements are arrayed defensively, and are typically defined by some form of enclosure, such as a fence or a gate. The ideas of neighborhood and community are dominated by the notion of autonomy and privacy. Open yards, transparent fences, out buildings, and long driveways are common in this area.

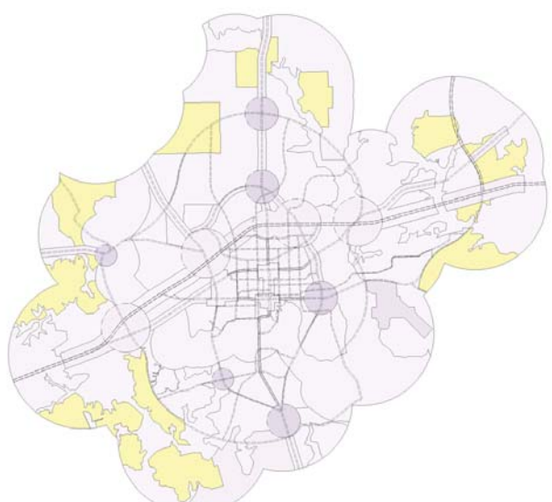
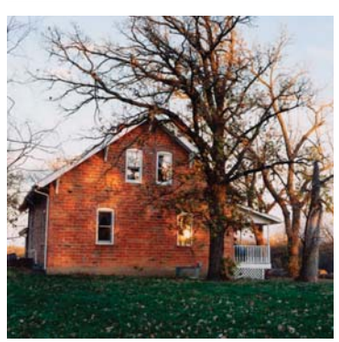


Figure 34. Rural Residential Community Key Map.



CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	< 1	0.18 - 0.25
Conditional	1 - 2	0.1 - 0.18
Restricted	2.1 - 4	0.05 - 0.09
Not Recommended	> 4	< 0.05

Figure 35. Within the Rural Residential Communities of Seguin, the predominant form is exurban in nature. Low residential and non-residential density ranges are therefore established. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Rural Residential Communities.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Rural Residential Communities.

Zoning Category	Abbreviation	Use Qualification
Agricultural Ranch	A-R	As of Right
Residential Estate	RE	As of Right
Suburban Residential	SR	Subject to Review
Public Use	P	As of Right
Retail	R	Subject to Review
Planned Unit Development	PUD	As of Right

Figure 36. The appropriate uses for Rural Residential Communities from the current zoning designations in Seguin are detailed above.

10. EMPLOYMENT COMMUNITY

Intent

Employment Communities present an opportunity to create communities that have many of the attributes of a residential community. Such distinctive places for development of new industry and work places is an important part of attracting these employment opportunities. The predominant institution in the Randolph Employment District is the Randolph Auxiliary Air Base. Although owned, used, and maintained as a federal air strip today, a more private use may be possible in the future. Regardless of particular use of the property itself, the land adjacent to the airport is suitable for industrial use due to this adjacent orientation. Because of community concern for conflict between industrial activity and community uses, it is recommended that future designations of industrial areas be concentrated within the Employment District. Other acceptable land uses should be expressed in a manner complementary to industrial use.

Visual Character

In the Employment District, development occurs at the site level rather than at a project level. Therefore, each individual site, though non-residential in use, maintains an orientation to the street that is similar to that of estate residential lots. There is a proprietary interface with the street, including corporate icons. The street definition is partially established by the architectural elements, and partially by the spaces in between them. Opportunities to express the identity of the individual sites/businesses should be encouraged in the Employment District.

The ground plane should be given a natural appearance, while enhancing the visual definition of the street space to indicate its directed nature. The pedestrian space does not necessarily function as a connector of destinations, but rather as an outlet for enjoyment for employees and others that access the private sites. The natural elements are typically reproductions, and, as such, should be civilized and passive in their orientation to the built elements. Such natural amenities are often incorporated as iconic elements in the landscape.

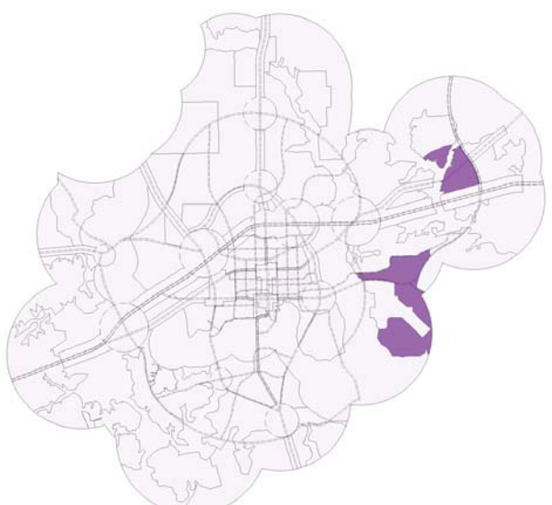


Figure 37. Employment Community Key Map.

CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	> 25	> 0.3
Conditional	12 - 25	0.25 - 0.29
Restricted	8 - 11.9	0.18 - 0.24
Not Recommended	< 8	< 0.18

Figure 38. Within the Employment Communities of Seguin, low non-residential densities and high residential density ranges are established. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Employment Communities.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Employment Communities.

Zoning Category	Abbreviation	Use Qualification
Manufactured Home Subdivision	MHS	Subject to Review
Manufactured Home Park	MHP	Subject to Review
Duplex, Medium Density	DP-2	As of Right
Townhouse	TH-1	As of Right
Multi-Family, Medium Density	MF-2	As of Right
Industrialized Housing	I-H	Subject to Review
Commercial	C	As of Right
Industrial	I	As of Right
Light Industrial	LI	As of Right
Office Professional	O-P	As of Right
Public Use	P	As of Right
Retail	R	As of Right
Planned Unit Development	PUD	As of Right

Figure 39. The appropriate uses for Employment Communities from the current zoning designations in Seguin are detailed above.

11. UNIVERSITY COMMUNITY

Intent

Central to the character of the University District is Texas Lutheran University. The community character of this area is determined by the university's influence on its surroundings. Because of this, uses that service college students, faculty, and visitors should be encouraged here, as well as housing mixes that are appropriate for a campus area. The residential density should be higher in this district than in surrounding districts, yet some single family designations are appropriate. Other acceptable land uses should be expressed in a manner complementary to university use. The intent of the University Community is to establish Seguin as a host City for TLU and thereby facilitate its growth and enhancement.

Visual Character

In the University Community, the campus dominates the visual character of the entire district. This influence is indirect, in that the university serves as an aggregator of activity, yet still arrayed as a cloister or internalized space. In this district, the ground plane functions as a transitional zone between the campus and the surrounding commercial and residential fabric. The street therefore mediates the relationship between the campus and the surrounding elements of the Community. On the commercial/residential side of the street, activity is invited, with minimal transition from the common ground plane to private buildings. Conversely, due to the cloistered nature of university campuses, the interface is more defensive on the university side of the street, characterized by significant building setbacks, orientation of entries, and the larger scale of landscape elements.

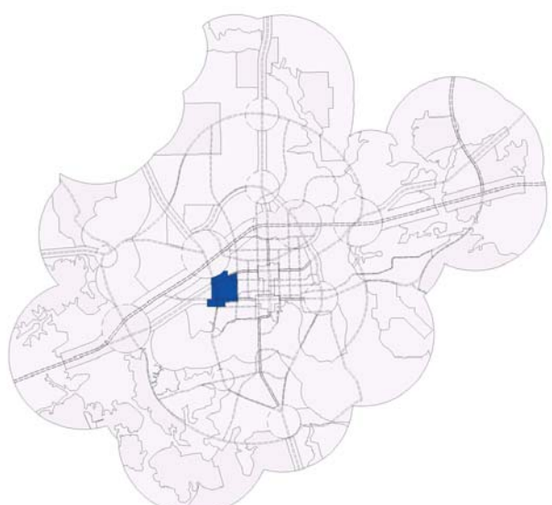


Figure 40. University Community Key Map.

CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	> 25	2 - 3
Conditional	12 - 25	1 - 1.9
Restricted	8 - 11.9	0.5 - 0.9
Not Recommended	< 8	< 0.5

Figure 41. Within the University Community of Seguin, medium density residential and higher density non-residential uses are encouraged. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the University Community.

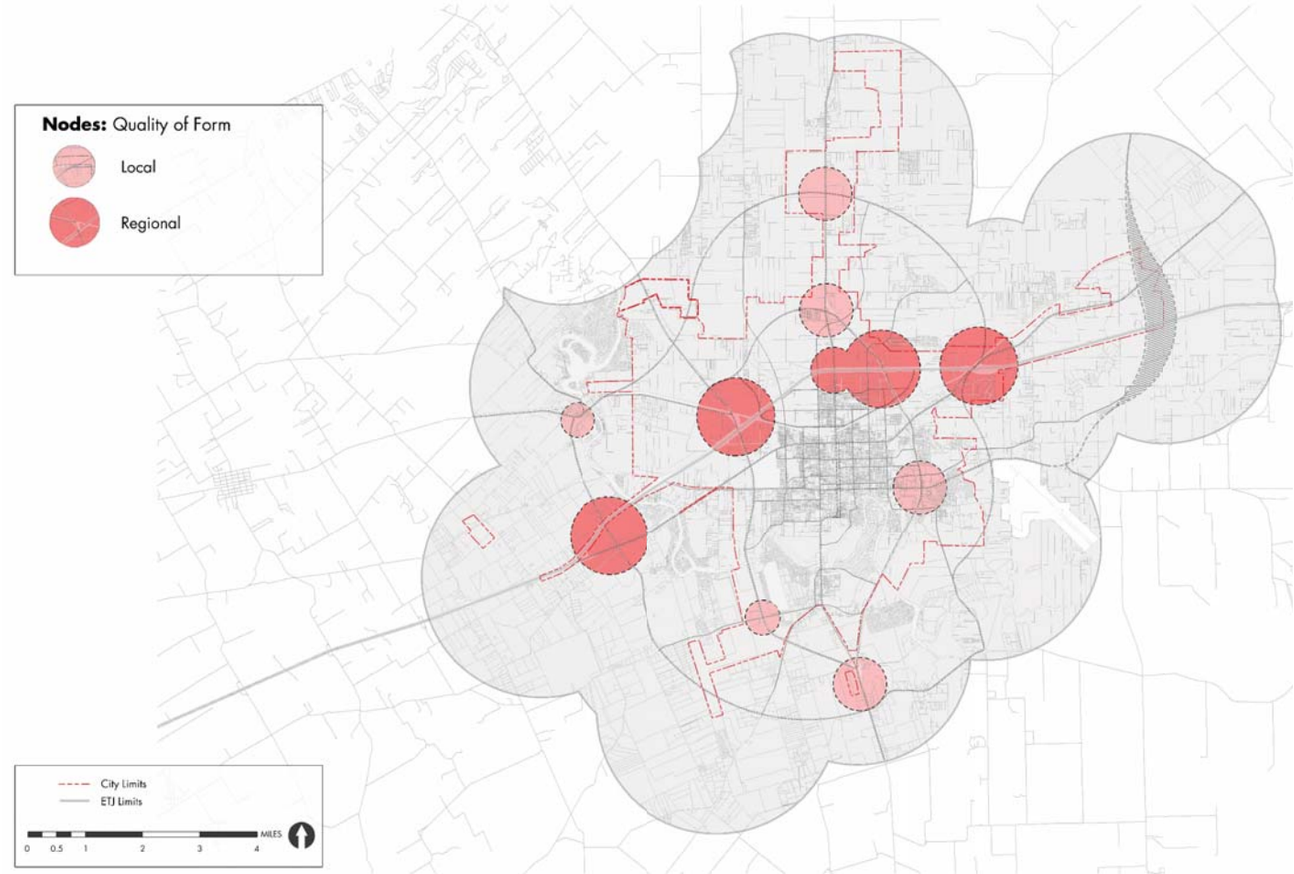
Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for University Communities.

Zoning Category	Abbreviation	Use Qualification
Duplex, Low Density	DP-1	As of Right
Duplex, Medium Density	DP-2	As of Right
Townhouse	TH-1	As of Right
Multi-Family, Medium Density	MF-2	As of Right
Multi-Family, High Density	MF-3	Subject to Review
Commercial	C	As of Right
Office Professional	O-P	As of Right
Public Use	P	As of Right
Retail	R	As of Right
Planned Unit Development	PUD	As of Right

Figure 42. The appropriate uses for University Communities from the current zoning designations in Seguin are detailed above.

Figure 43. Map of the Nodes of Seguin.



THE NODES OF SEGUIN

As the neighborhood fabric can be found primarily in the Communities of Seguin, commercial activity is the primary determinant of district form in the Nodes of Seguin. The areas designated as Nodes should include retail, office, tech/flex, and multi-family residential activity, and should occur at intersections of major highways within the thoroughfare system. These nodes should increase in development intensity proportionately as the City itself grows. By aggregating commercial development at critical areas within the City, a concentration of value is created, enhancing the appeal of these areas for desirable development. Encouraging such growth at the Nodes (rather than along the corridors) will also enhance the visual character of the City.

The Nodes of Seguin are made distinctive through the legibility of their visual character. This is achieved by the expression of density in the Nodes (horizontal and/or vertical), the nature of activity at the ground level, and the patterns of movement within the node.

The Nodes of Seguin include:

1. Local Commercial Nodes
2. Regional Commercial Nodes

12. LOCAL COMMERCIAL NODES

Intent

As Seguin grows in the future, and new pockets of residential communities arise, those communities must have adequate access to commercial services, such as grocery stores, clinics, and office space. Currently, the majority of such activity occurs on the eastern edge of the City, along State Highway 123. To maintain property distribution of such uses throughout Seguin, and to define and preserve the value of non-residential areas, such uses should be aggregated in commercial nodes. These nodes of commercial activity should include uses that primarily serve the local community. Some residential housing forms are appropriate in the area as well.

Visual Character

The visual character of Local Nodes in Seguin is defined by a horizontal expression of density considerations, such as shopping centers with anchor establishments. Common building envelopes are horizontally expressed. In these Nodes, there is a decrease in the consolidation of uses when moving outward from the hub of the node. The nature of activity at the ground plane facilitates safety and convenience, as functionality tends to be the strongest influence upon the visual character of Local Nodes. This strong influence of functionality upon the visual character of this district should be softened or enriched by design elements (such as landscape elements). Unlike Regional Nodes, the public and private circulation elements do not merge as readily; the public streets service site entries, rather than connect to them. In the Local Nodes, design enhancements should be defined to balance the oppressive tendency that functionality often imposes upon the visual character of these spaces.

CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	> 8	> 0.8
Conditional	6 - 8	0.3 - 0.8
Restricted	5 - 5.9	0.12 - 0.29
Not Recommended	< 5	< 0.12

Figure 45. Within the Local Commercial Nodes of Seguin, the predominant form is commercial in nature. Medium non-residential density ranges and higher residential density ranges are therefore established. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Local Commercial Nodes.

Restricted: Require Council Consideration. Formal recognition of conflict with *district character and intent is required.*

Not Recommended: Development plan is not appropriate for Local Commercial Nodes.

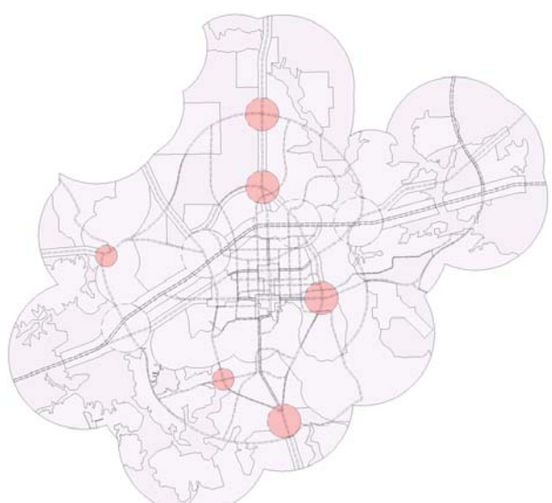


Figure 44. Local Commercial Nodes Key Map.

Zoning Category	Abbreviation	Use Qualification
Zero Lot Line	ZL	As of Right
Duplex, Medium Density	DP-2	As of Right
Townhouse	TH-1	As of Right
Multi-Family, Low Density	MF-1	As of Right
Multi-Family, Medium Density	MF-2	As of Right
Multi-Family, High Density	MF-3	As of Right
Commercial	C	As of Right
Office Professional	O-P	As of Right
Public Use	P	As of Right
Retail	R	As of Right
Planned Unit Development	PUD	As of Right
IH 10 Corridor Overlay District	IH 10	As of Right
State Hwy 46 Corridor Overlay District	SH 46	As of Right
State Hwy 123 Corridor Overlay District	SH 123	As of Right

Figure 46. The appropriate uses for Local Commercial Nodes from the current zoning designations in Seguin are detailed above.

13. REGIONAL COMMERCIAL NODES

Intent

It is important to create environments within the City of Seguin that encourage development at a regional scale. Aggregation of such development ensures preservation of land value and greater specialization of Land Use. Regional Nodes are critical to trip reduction, a much needed trend for Seguin's future. Therefore, establishing nodes of regional development are a key component of Seguin's Future Land Use Plan. Within this District, Regional Retail and Office uses should be found, as well as Regional and Community Multi-Family designations.

Visual Character

In Regional Nodes, the vertical expression of density is the predominant impact of the built elements on visual character. These vertical structures create legibility by defining a skyline. Buildings are allowed to host distinctive public, commercial, and social activity at the ground plane, as the ground plane is critical in the connection of the vertical elements with the horizontal elements within the node. First floor uses are generally retail or entertainment uses that enrich/fill the created pedestrian space. There is a high degree of public/private interdependency in the Regional Nodes.

The vehicular network in this district defines experiential orientation within the node, while pedestrian movement relies on the central hub of activity as an anchoring point. All movement within the node extends from a primary, central hub, and these movement systems are hierarchical in nature. In Regional Nodes, there is little separation or distinction between public and private systems of circulation. The private (and privatized) streets become a functioning part of the overall circulation pattern within Regional Nodes, with the street space blending into the fabric of private spaces within the ground plane.

CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	> 25	> 2.5
Conditional	15 - 25	1.2 - 2.5
Restricted	0.8 - 14.9	0.8 - 1.19
Not Recommended	< 8	< 0.8

Figure 48. Within the Regional Nodes of Seguin, the predominant form urban in nature. High residential and non-residential density ranges are therefore encouraged. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Regional Nodes.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Regional Nodes.

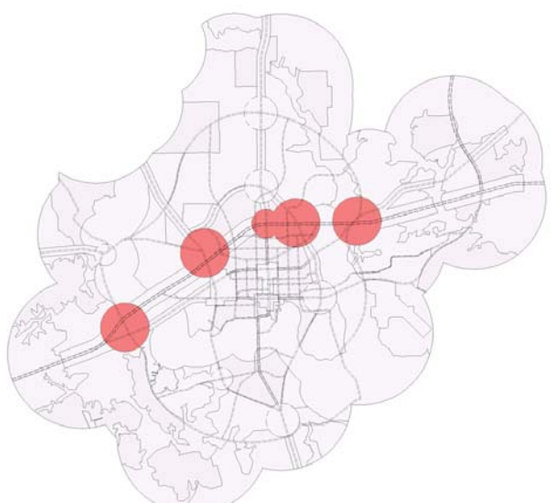


Figure 47. Regional Commercial Nodes Key Map.

Zoning Category	Abbreviation	Use Qualification
Zero Lot Line	ZL	As of Right
Townhouse	TH-1	As of Right
Multi-Family, Medium Density	MF-2	As of Right
Multi-Family, High Density	MF-3	As of Right
Commercial	C	As of Right
Office Professional	O-P	As of Right
Public Use	P	As of Right
Retail	R	As of Right
Planned Unit Development	PUD	As of Right
IH 10 Corridor Overlay District	IH 10	As of Right
State Hwy 46 Corridor Overlay District	SH 46	As of Right
State Hwy 123 Corridor Overlay District	SH 123	As of Right

Figure 49. The appropriate uses for Regional Commercial Nodes from the current zoning designations in Seguin are detailed above.

Figure 50. Map of the Corridors of Seguin.

THE CORRIDORS OF SEGUIN

The Corridors of Seguin are those districts that are characterized by their association to a major thoroughfare. This association is a significant determinant of suitable land use, but is also important in the creation of a distinctive urban form. Because of this, the land use distributions in the Corridors will be similar to that of the adjacent districts, yet they will maintain more specific design directives to provide a sense of approach to, transition through, or arrival at key locations within the City of Seguin. As Corridors pass through significant Areas of the City, specifications will be provided for the preservation of the desired landscape.

In the Corridors of Seguin, the defining visual attribute is context definition. This is achieved in urban corridors via street definition, and in rural corridors via presence and prevalence of the ground plane.

The Corridors of Seguin include:

1. Core Approachway
2. Town Approachway
3. Town Corridor
4. Portal Approachway

14. CORE APPROACHWAY

Intent

Because the approach to the Town Core is such a critical component in organizational form for the City, these corridors should be visually distinct from their surrounding fabric. Land use designations in this district should be primarily commercial, with appropriate single family and multifamily uses that complement adjacent non-residential activity. All uses and designations should signal and enhance the sense of approach and arrival to the Town Core.

Visual Character

The Core Approachway provides the conclusion to the Rural-Urban experiential sequence, terminating at the Town Core. In the Core Approachway, the influence of the ground plane gives way to the influence of street definition. Buildings reinforce the street with a strict orthagonal relationship and maintenance of unified setbacks and spacing. Thematic street enhancements intensify as they announce the forthcoming downtown destination while still remembering the rural setting where the sequence began. Therefore, urban elements such as banners and special signage is introduced in ever greater frequency as downtown approaches. The interface between the street and the buildings becomes more non-defensive, as uses are predominantly commercial. This commercial activity is celebrated through diverse signage. Landscaping, street lighting, and other elements assume a more uniform distribution, until arriving at the downtown plaza, where the street space and pedestrian space finally merge into a shared ground plane.

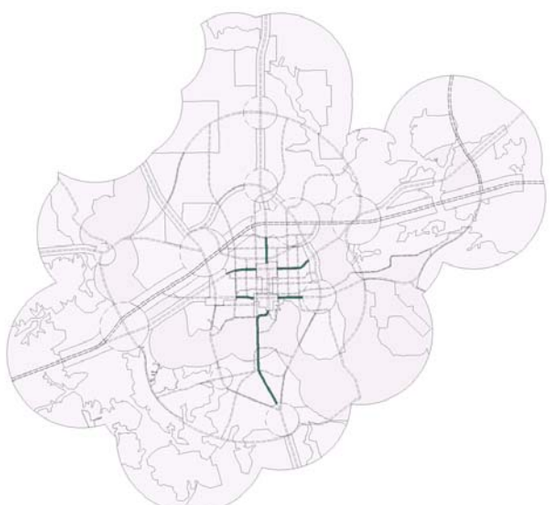
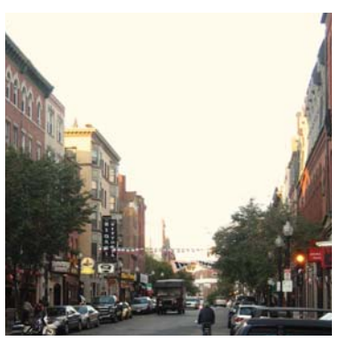


Figure 51. Core Approachway Key Map.



CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	20 - 25	0.5 - 1.2
Conditional	15 - 19	0.3 - 0.4
Restricted	12 - 14	0.25 - 0.29
Not Recommended	< 12	< 0.25

Figure 52. Within the Core Approachways of Seguin, the predominant form is urban in nature, though the non-residential uses should not compete with adjacent nodes or the Town Core. High residential density ranges and medium non-residential density ranges are therefore established. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Core Approachways.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Core Approachways.

Zoning Category	Abbreviation	Use Qualification
Residential Estate	RE	If Historic
Multi-Family, Medium Density	MF-2	As of Right
Multi-Family, High Density	MF-3	Subject to Review
Commercial	C	As of Right
Office Professional	O-P	As of Right
Public Use	P	As of Right
Retail	R	As of Right
Planned Unit Development	PUD	As of Right

Figure 53. The appropriate uses for Core Approachways from the current zoning designations in Seguin are detailed above.

15. TOWN APPROACHWAY

Intent

As highway traffic increases in the region, it becomes increasingly important to develop a cognitive form for the City along its major approachways. Although much of this area is unbuilt today, property along highways is generally the first to attract development. Because of this, land use designations in the Town Approachway districts should provide indication of approach into the City of Seguin, preserving the character of the adjacent landscape. They should also encourage appropriate development practices that reinforce the sequential intensification of the road (as it approaches downtown) but is also compatible with the land use districts being traversed. The primary land uses in this district include multi-family residential, agricultural, conservation areas, and rural single family residential.

Visual Character

The Town Approachways provide an introduction to the experiential sequence of rural to urban form that should characterize movement toward the Town Core (the most urban of city forms). The street definition is determined by the treatment of the ground plane between the built fabric and the street. The built fabric in this district has gained a stronger visual presence than that of the Portal Approachways, with individual buildings set in spacious environments. This visual introduction to urban elements must be present without overpowering the ground plane. In the Town Approachways, it is important that the street functions as a street, not as a highway. Therefore, incremental highway uses, such as truck stops, should not find expression in this environment.

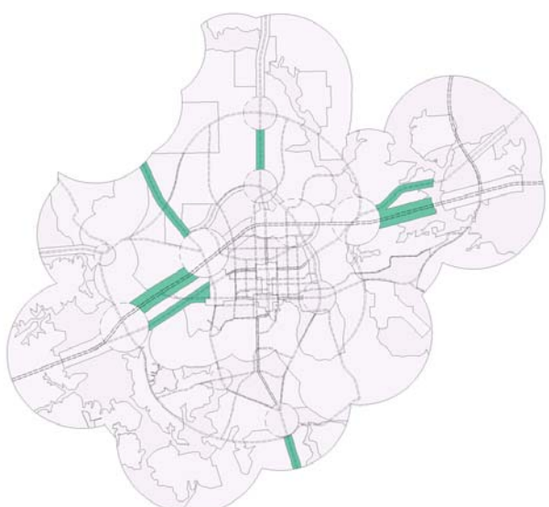
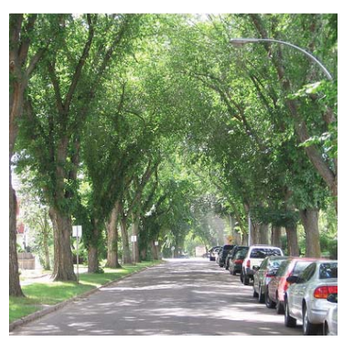


Figure 54. Town Approachway Key Map.



CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	< 5	0.2 - 0.3
Conditional	6 - 10	0.4 - 0.5
Restricted	11 - 12	0.6 - 1
Not Recommended	> 12	> 1

Figure 55. Within the Town Approachways of Seguin, the predominant form is suburban in nature. Medium residential density and low non-residential density ranges are established. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Town Approachways.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Town Approachways.

Zoning Category	Abbreviation	Use Qualification
Agricultural Ranch	A-R	As of Right
Suburban Residential	SR	As of Right
Single Family Residential	R-1	As of Right
Zero Lot Line	ZL	Subject to Review
Commercial	C	As of Right
Public Use	P	As of Right
Retail	R	As of Right
Planned Unit Development	PUD	As of Right
IH 10 Corridor Overlay District	IH 10	As of Right
State Hwy 46 Corridor Overlay District	SH 46	As of Right
State Hwy 123 Corridor Overlay District	SH 123	As of Right

Figure 56. The appropriate uses for Town Approachways from the current zoning designations in Seguin are detailed above.

16. TOWN CORRIDOR

Intent

Town corridors serve the purpose of recognizing the development potential of traffic volumes they host while also reinforcing the more intense aggregation of nodes. The contrast between corridors and nodes is what makes the nodes visible and what prevents strip development of the City's arterials. Town corridors also cross land use districts that are primary residential or natural. Therefore, aspects of preservation, transition, and buffer are also important.

Visual Character

In the Town Corridors, the centrality of the adjacent Nodes should be reinforced, and their energy should be preserved. This is achieved by maintaining an unconsolidated pattern of buildings, as opposed to strip commercial centers. This allows a greater expression of landscape, breaking up the architectural elements, and subduing the influence of architecture as a street-defining element. This reinforces the impact and influence of the Nodes. Additionally, backer roads, rather than frontage roads, should be incorporated as access points to sites in the Town Corridors. Backer Roads allow building to retain corridors visibility while deriving their access/ egress and parking capacity on sides of the building away from the corridor frontage. This placement of support functions will allow a more naturalized development of the corridor front and thereby afford greater recognition of the node. Landscape is essential and greater landscape should be required here.

CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	5 - 25	0.2 - 0.3
Conditional	3 - 4	0.4 - 0.5
Restricted	2 - 2.9	0.6 - 1
Not Recommended	< 2	> 1

Figure 58. Within the Town Corridors of Seguin, the urban form is governed by a mixture of high density residential and low density non-residential development. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Town Corridors.

Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Town Corridors.

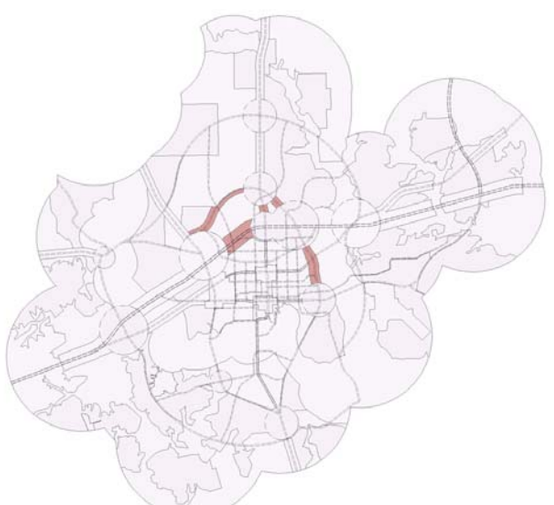
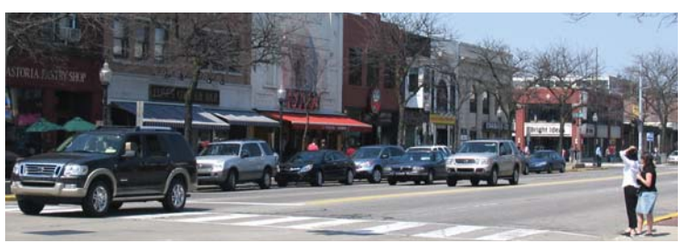
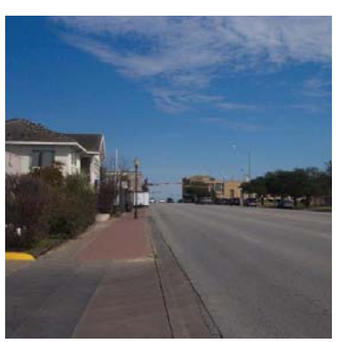
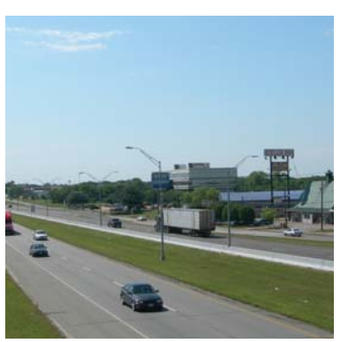


Figure 57. Town Corridor Key Map.







Zoning Category	Abbreviation	Use Qualification
Agricultural Ranch	A-R	As of Right
Suburban Residential	SR	As of Right
Single Family Residential	R-1	As of Right
Zero Lot Line	ZL	As of Right
Multi-Family, Low Density	MF-1	As of Right
Multi-Family, Medium Density	MF-2	As of Right
Multi-Family, High Density	MF-3	As of Right
Industrialized Housing	I-H	Subject to Review
Commercial	C	As of Right
Light Industrial	LI	Subject to Review
Office Professional	O-P	As of Right
Public Use	P	As of Right
Retail	R	As of Right
Planned Unit Development	PUD	As of Right
IH 10 Corridor Overlay District	IH 10	As of Right
State Hwy 46 Corridor Overlay District	SH 46	As of Right
State Hwy 123 Corridor Overlay District	SH 123	As of Right

Figure 59. The appropriate uses for Town Corridors from the current zoning designations in Seguin are detailed above.

17. PORTAL APPROACHWAY

Intent

Portal Approaches serve the purpose of creating a visual separation between the fabric of Seguin and regional contexts beyond Seguin that would detract from that fabric. Here the road in a rural (pre-development) setting is the desired image. Also Portal Approachways encourage greater aggregation of commercial land uses by suppressing strip forms of development. Finally, the Rural Approach is a spatial device that allows recognition of street conditions leading to the City and street conditions within the City (such as transitions between rural Farm to Market roads and wider divided roadways of Seguin). Such allows transition instead of abrupt confrontation.

Visual Character

Portal Approachways are intended to create a visual separation—a relief—from any adjacent contextual element that would define or influence the impression made at the entrance to Seguin. It is important therefore to remove the contextual elements from interface with the street within the Portal Approachways, establishing a pristine, landscape-dominant ground plane that cleanses the visual palate prior to entry to the City. Greater setbacks, shorter buildings, dramatic drifts of trees (instead of planted rows), transparent expression of property lines (e.g. barbed wire fences), and broad vistas are visual aspects of the Portal Approach. Monuments announcing entry to the City are located here and mean to be viewed in an open landscape.

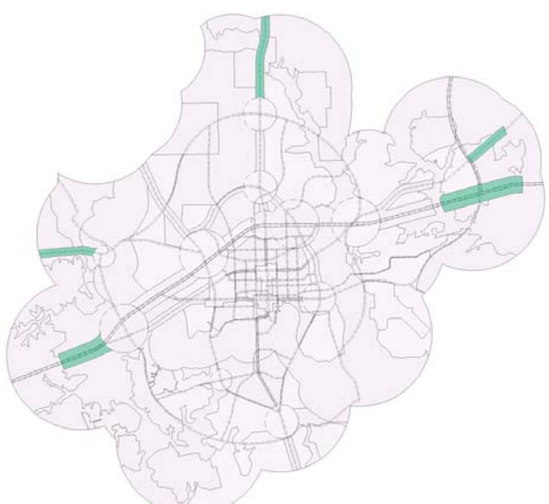
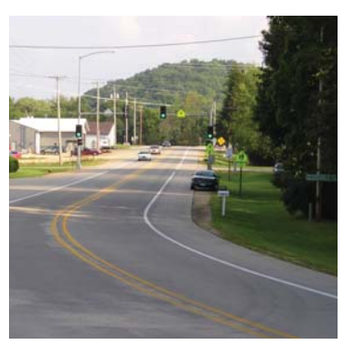


Figure 60. Portal Approachway Key Map.



CLASSIFICATION	DENSITY RANGE	
	Residential (dwelling unit/acre)	Non-Residential (Floor-Area Ratio)
Acceptable	< 3	0.2 - 0.3
Conditional	3.1 - 5	0.18 - 0.19
Restricted	5.1 - 6	0.16 - 0.17
Not Recommended	> 6	< 0.16

Figure 61. Within the Portal Approachways of Seguin, the predominant form is rural in nature. Lower residential and non-residential density ranges are therefore established. The classifications are defined as follows:

Acceptable: No added conditions required for approval.

Conditional: Require review by City Staff. Design improvements shall be made that will accomplish objectives of the Portal Approachways.

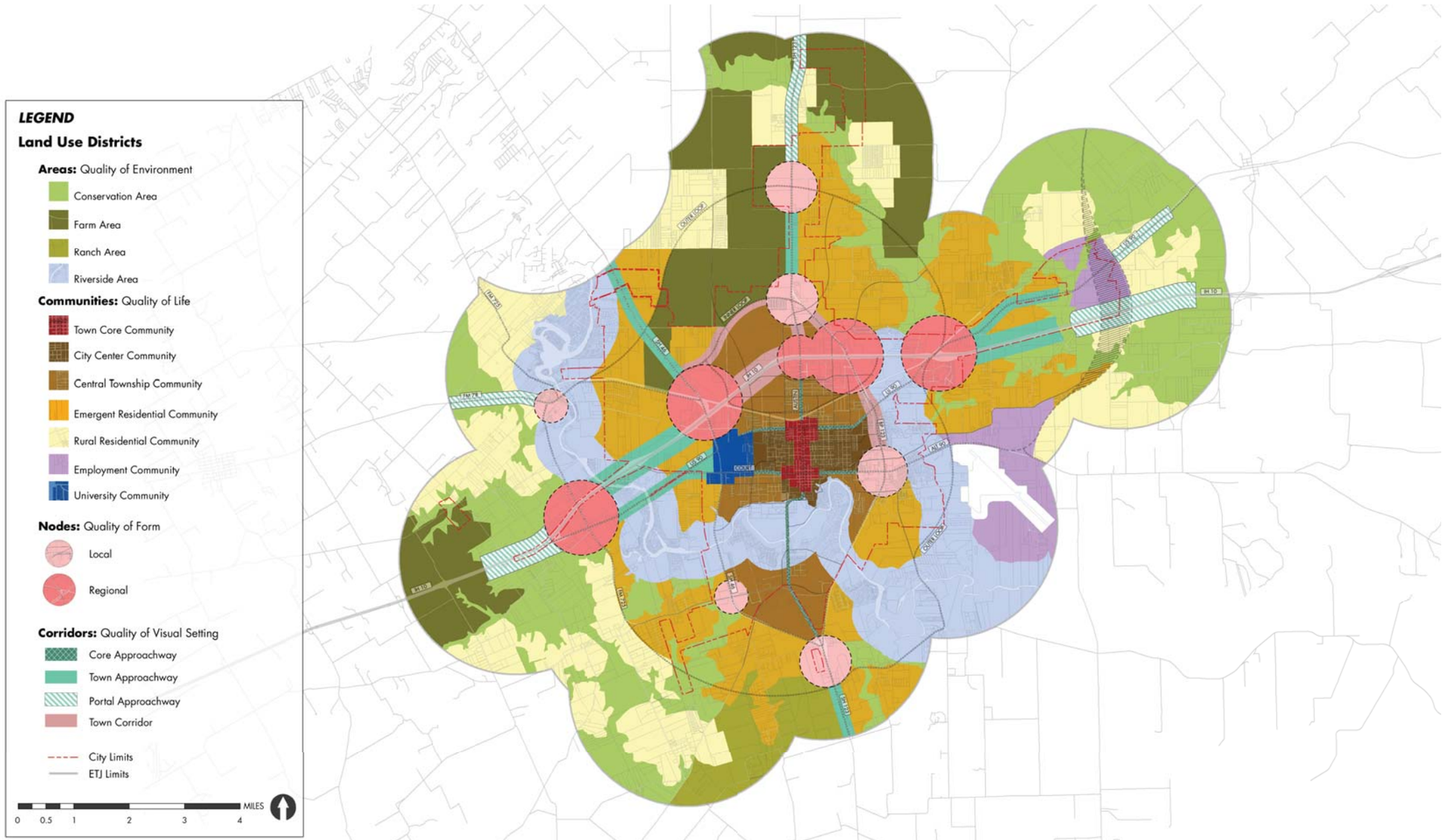
Restricted: Require Council Consideration. Formal recognition of conflict with district character and intent is required.

Not Recommended: Development plan is not appropriate for Portal Approachways.

Zoning Category	Abbreviation	Use Qualification
Agricultural Ranch	A-R	As of Right
Suburban Residential	SR	As of Right
Single Family Residential	R-1	As of Right
Zero Lot Line	ZL	Subject to Review
Public Use	P	As of Right
Planned Unit Development	PUD	As of Right
IH 10 Corridor Overlay District	IH 10	As of Right
State Hwy 46 Corridor Overlay District	SH 46	As of Right
State Hwy 123 Corridor Overlay District	SH 123	As of Right

Figure 62. The appropriate uses for Portal Approachways from the current zoning designations in Seguin are detailed above.

Figure 63. The Future Land Use Plan for Seguin.



4.2 the public open space plan

Open Spaces protect the quality of community *life* by preserving the quality of community *environment*.

Open Spaces serve as an integrated system in which meaningful public spaces form an interconnected network, preserving and enhancing both community life and the natural habitat. Open Spaces protect the quality of community ***life*** by preserving the quality of community ***environment***. The Public Open Space Plan for the City of Seguin seeks to create a network of open spaces in the City by defining those areas that:

- Currently serve as park and recreational areas within the community
- Are culturally and environmentally significant undeveloped areas
- Connect community members with the natural environment
- Preserve the riparian corridors and significant tree stands within the City
- Improve environmental quality for the City, through improved storm water management, absorption of air pollutants, and noise buffering
- Enhance quality of life for the residents of Seguin

The Public Open Space Plan addresses two issues relating to the expression of the natural environment within the City, and is therefore divided into two parts: The Standards for Public Open Spaces (Part I), and Policies for Public Open Spaces (Part II). It was developed in response to the Community Goals identified through the Public Planning Process. The particular Community Goals that were incorporated into the Open Space Plan are:

1. Regulate, improve, enhance, facilitate drainage through combined natural and physical systems that will control increased run off generated by new development, prevent increased flooding events, better protect existing flood prone areas (such as Glen Cove, Chaparral, Treasure Island, and Elm Wood) and preserve/restore natural drainage ways in existing and future developed areas.
2. Establish policies, plans, and procedures that balance preservation of the natural system with the economic and social needs of the City.
3. Preserve and enhance unique historical, natural, and cultural features in ways that increase people's understanding, influence city form, and contribute to the preservation of cultural identity.
4. Establish landscape and smart growth ordinances, policies, and standards that will preserve and enhance Seguin's natural systems, visual identity, and property values.
5. Establish policies, regulations, guidelines, standards, procedures, and initiatives that will coordinate and guide the public and private aspects of development within a target area so that a more unified, coherent, environmentally responsive city fabric results.
6. Establish policies, regulations, and/or procedures (as well as promote building/landscape practices) that enhance air quality.
7. Provide pedestrian trails and linkages that connect the Timber Lots District to other pedestrian trails, parks (such as Starcke Park), natural corridors (such as Walnut Creek and the Guadalupe River), and the downtown core.

As Seguin continues to grow, the Public Open Space Network will be developed proportionately over time. It is therefore important to establish directives for public spaces, such as park standards and appropriate inclusion of recreational facilities. Part One of the Seguin Public Open Space Plan was crafted to provide a framework to address those issues revolving around public open spaces that would service Seguin through the predicted growth.

EXISTING PUBLIC OPEN SPACE

Currently, the City of Seguin maintains a number of parks and recreational areas, accommodating a range of forms and functions. These spaces service a population of 26,000. As the population estimate associated with the Planning Horizon is 78,000 people, it is clear that a Plan is needed for the acquisition, creation, and maintenance of additional open spaces within Seguin. Figure 1 identifies existing public open spaces within the City.

FUTURE PUBLIC OPEN SPACE

To address the need for public open spaces that will arise as Seguin continues to grow, it is necessary to establish an integrated system consisting of spaces at various scales, accommodating a range of functions to benefit the future communities. The following is a list of the typologies that comprise the Public Open Space Network for the City of Seguin:

Type A: Parks and Recreational Areas

- Block Parks
- Neighborhood Parks
- Community Parks

Type B: Corridors

- Trails
- Greenways
- Blueways

Type C: Designated Natural Areas

These Public Open Spaces encourage interface of the community with the natural fabric. For each of the Public Open Spaces identified above, the general character and intent of that space will be identified. This will ensure that future development within Seguin is consistent with the intent established in the Comprehensive Planning Process, namely: (1) the provision of opportunities for public enjoyment of open spaces, and (2) the preservation of the natural resources that characterize Seguin and enhance the quality of life enjoyed throughout the City.

In addition to information regarding general character and intent, recommended standards will be provided for each of the Open Spaces in the Network. These will include recommended space requirements (based on population counts), directives for site selection, and standard associated amenities. General guidelines will also be established regarding public spaces adjacent to designated waterways within the City.

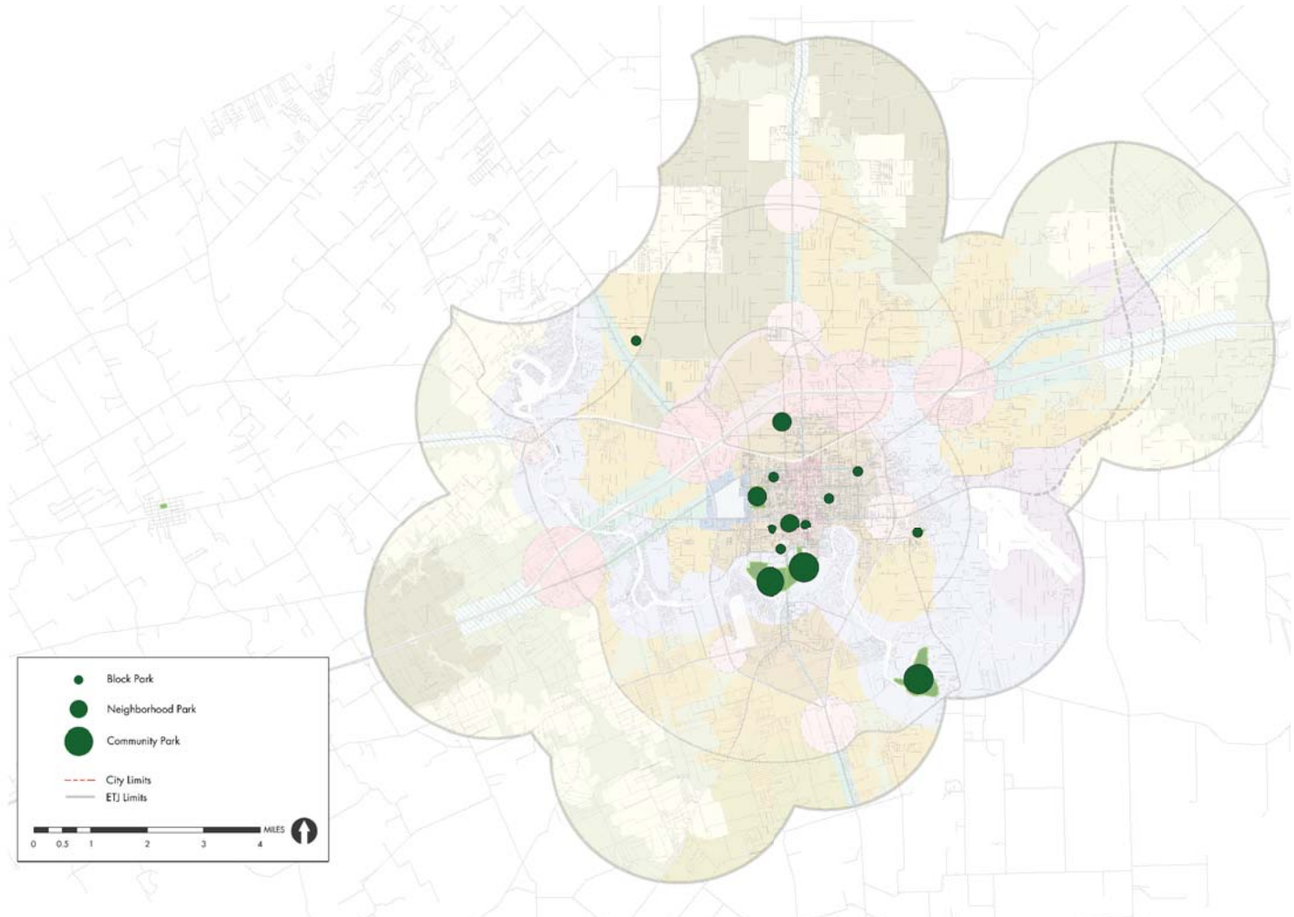


Figure 1. Existing Open Spaces.

DEFINING PUBLIC OPEN SPACES

Parks and greenways provide many benefits for communities, and can be incorporated at a variety of scales, in a variety of ways. They create a positive venue for community interface, connect people to the natural environment, provide spaces for recreational activity, and positively impact property value. Larger parks can also perform a destination function for communities, encouraging retail spending in surrounding areas. The following section of the Open Space Plan defines standards for three types of open spaces in Seguin: Parks, Corridors, and Designated Natural Areas.

TYPE A: PARKS

1. Block Parks

Block parks serve a concentrated or limited population, or a specific group within the community. These parks are ideal for incorporation into areas of higher residential density, mixed use, or non-residential use, where availability of land for open spaces is limited. Block parks should be located throughout the City, and, as they serve a variety of purposes, are suitable for incorporation in many of the Land Use Districts of Seguin.

Figure 2 identifies those districts in which Block Parks may be designated.

Park Standard:	0.3 acres per 1000 people
Service Area:	less than ¼ mile radius
Park Size:	1 acre maximum
Service Population:	less than 4,000 people

Recreational activity within block parks should be informal, due to limits of space. Sport facilities and other recreational complexes would not be appropriate at this scale. Rather, facilities should be provided that gather neighborhood residents and encourage community enjoyment of outdoor space. Acceptable recreational facilities in Block Parks include:

- Dog Park/Pet Play Area
- Picnic Station
- Playground

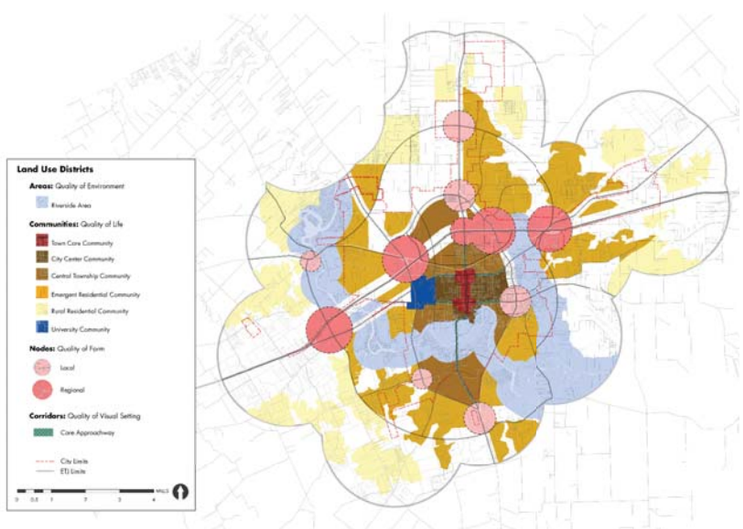


Figure 2. Appropriate Districts for Block Parks in Seguin.

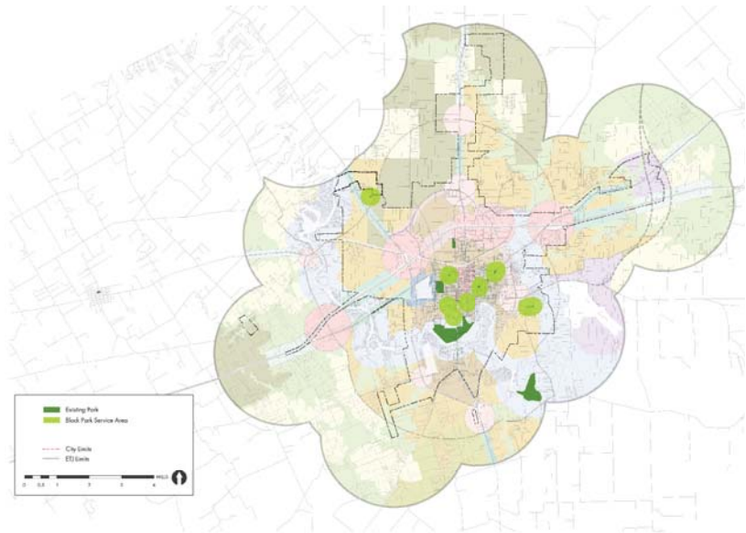


Figure 3. Service Area of Existing Block Parks.

2. Neighborhood Parks

Neighborhood Parks, as their name implies, are intended to serve specific neighborhoods within the City of Seguin. Neighborhood Parks should be located in those Land Use Districts that are designated as Communities in Seguin, as most residential neighborhoods are found within these districts. Neighborhood Parks should be easily accessible to the population that they serve, connecting with the surrounding fabric via bike and pedestrian pathways. Neighborhood Parks should be geographically centered within the designated area of service. It is appropriate for (and recommended that) some neighborhood parks to be developed as part of a school-park facility.

Figure 4 identifies those districts in which Neighborhood Parks may be designated.

Neighborhood Parks should provide relief from surrounding development through the expression of the natural landscape, but are also intended to provide space for recreational activity. Athletic fields, playgrounds, swimming pools, and other recreational areas are typically found within neighborhood parks.

Park Standard:	2 acres per 1000 people
Service Area:	¼ - ½ mile radius
Park Size:	15+ acres
Service Population:	less than 5,000 people

Recreational activity within Neighborhood Parks should be appropriate to space provided, but should provide opportunity for organized sports, open fields, pedestrian trails, and other such uses. Rather, facilities should be provided that gather neighborhood residents and encourage community enjoyment of outdoor space. Appropriate recreational facilities in Neighborhood Parks include:

- Baseball
- Basketball
- Canoe Launch
- Dog Park/Pet Play Area
- Football
- Picnic
- Playground
- Recreation Court
- Skate Park
- Soccer
- Softball
- Swimming
- Tennis
- Track
- Volleyball

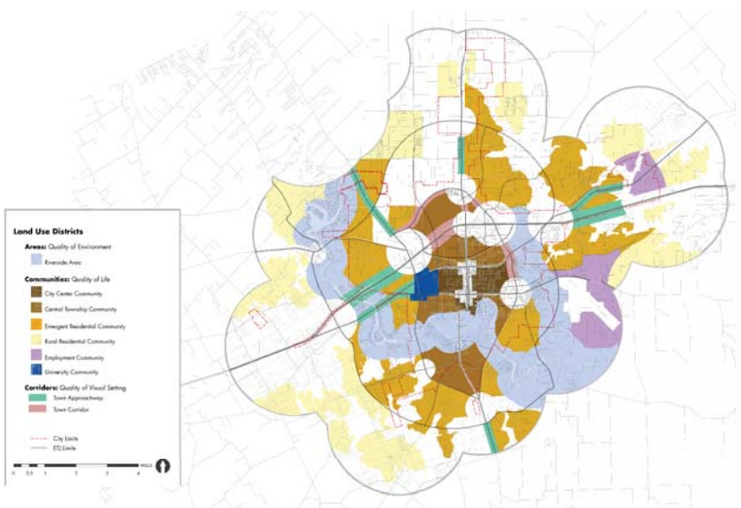


Figure 4. Appropriate Districts for Neighborhood Parks in Seguin.

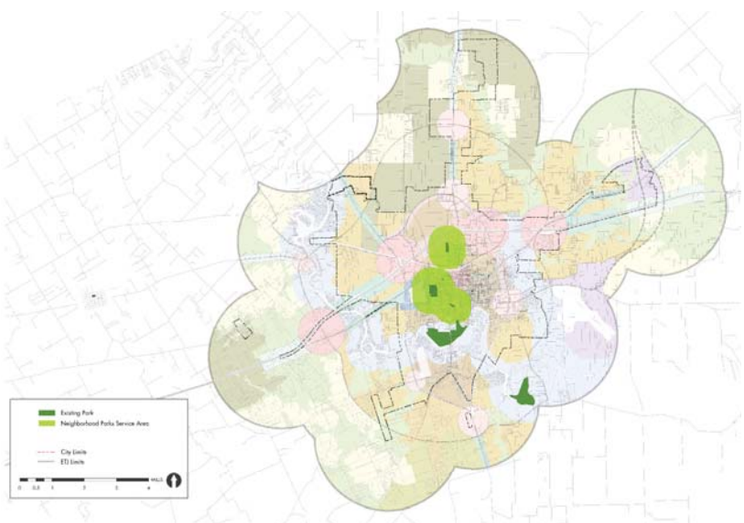


Figure 5. Service Area for Existing Neighborhood Parks.

3. Community Parks

Due to the concentration of Open Space afforded to Community Parks, they are intended to provide a range of services and opportunities to the City. Because of their space requirements, designation of future Community Parks is appropriate in those areas of Seguin that have yet to be developed, yet it is important to locate Community Parks so that they are accessible to the surrounding communities. They should be serviced by arterial and/or collector streets and be geographically centered within their designated area of service (either a defined cluster of neighborhoods or a particular Land Use District).

Figure 6 identifies those districts in which Neighborhood Parks may be designated.

Community Parks should provide areas for intense recreational activity, such as athletic complexes, larger swimming pools, and golf courses (where appropriate). They should also protect natural features within the City, creating relief from more intense development in surrounding areas. Greenways, Blueways, and buffers should be incorporated into the form and function of Community Parks, as natural features, such as water bodies and significant tree stands, are frequently found within Community Parks.

Park Standard:	7 acres per 1000 people
Service Area:	1 - 2 mile radius
Park Size:	25+ acres
Service Population:	greater than 5,000 people

Of the Park types designated for the City of Seguin, Community Parks provide the greatest opportunity for recreational use. This is due to the scale of these parks, and the larger service area within the City. The following are acceptable recreational facilities in Community Parks:

- Amphitheater
- Arena
- Baseball
- Basketball
- Boat Dock
- Boat Ramp
- Camping
- Canoe Launch
- Dog Park/Pet Play Area
- Driving Range
- Fishing Pier/ Cleaning Station
- Football
- Golf
- Marina
- Picnic
- Playground
- Recreation Court
- Skate Park
- Soccer
- Softball
- Swimming
- Tennis
- Track
- Volleyball
- Water Park Amenities
- Wildlife Viewing Station

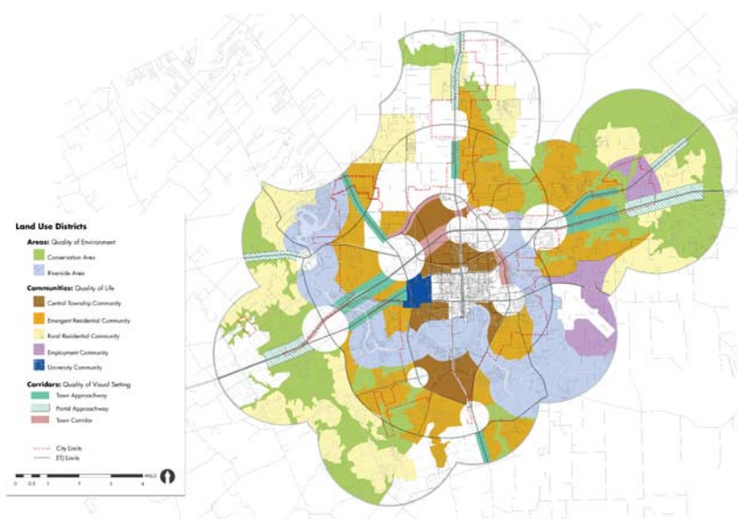


Figure 6. Appropriate Districts for Community Parks in Seguin.

Figure 7. Service Area for Existing Community Parks.

TYPE B: CORRIDORS

4. Trails

Trails are the non-vehicular connective fabric of a city. They join people to places, by linking points of origin (neighborhoods) with points of destination (such as parks, shopping areas, and employment centers). Sidewalk trails provide access to schools and libraries, and bicycle trails provide alternate forms of mobility for residents that do not drive.

Because trails are intended to establish a network of connective space and to enhance mobility within the community, they should link the various areas of activity within the City. Trails are to be incorporated into all of the Land Use Districts identified in the Future Land Use Plan, in a manner that is reflective of the intent of each District. There are several Trail Types identified for the City of Seguin. These include both segregated and shared use trails.

Segregated Trails:

- Sidewalk Trails
- Paved Pedestrian Trails
- Paved Bicycle Trails
- Unpaved Equestrian Trails
- Unpaved Mountain Bike Trails

Shared Use Trails:

- Paved Multi-Use Trails

Because the Land Use Districts of Seguin are oriented around form and functionality, it is important that the public spaces within each of these districts is consistent with that general intent. Figure 8 illustrates which trail types are suitable for each land use district.

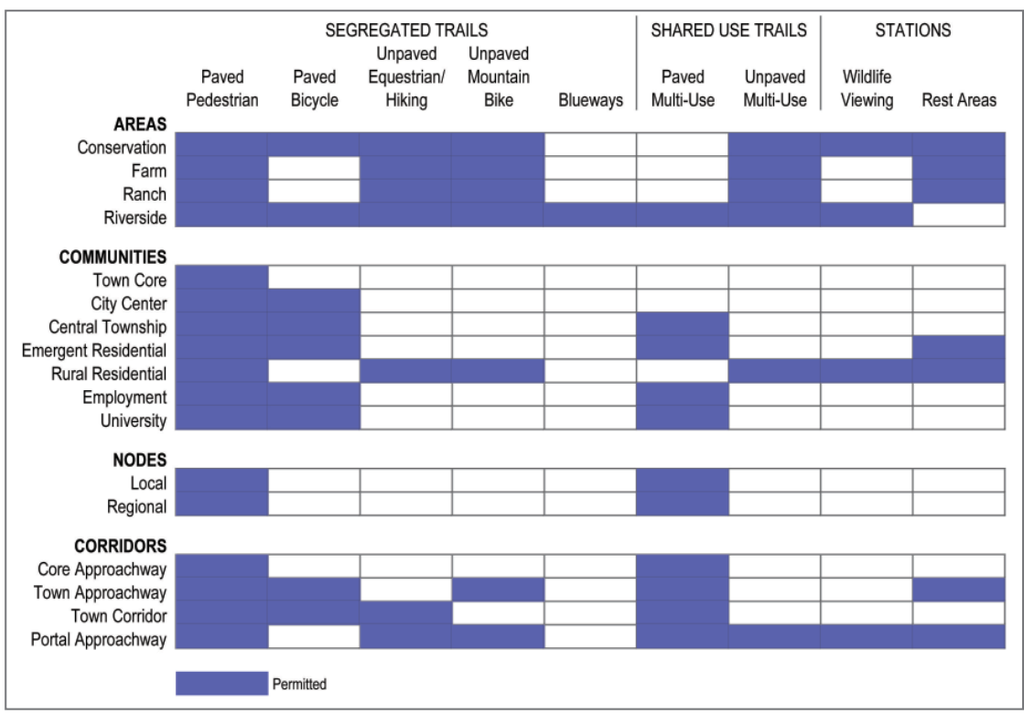


Figure 8. Trail Types by District in Seguin.

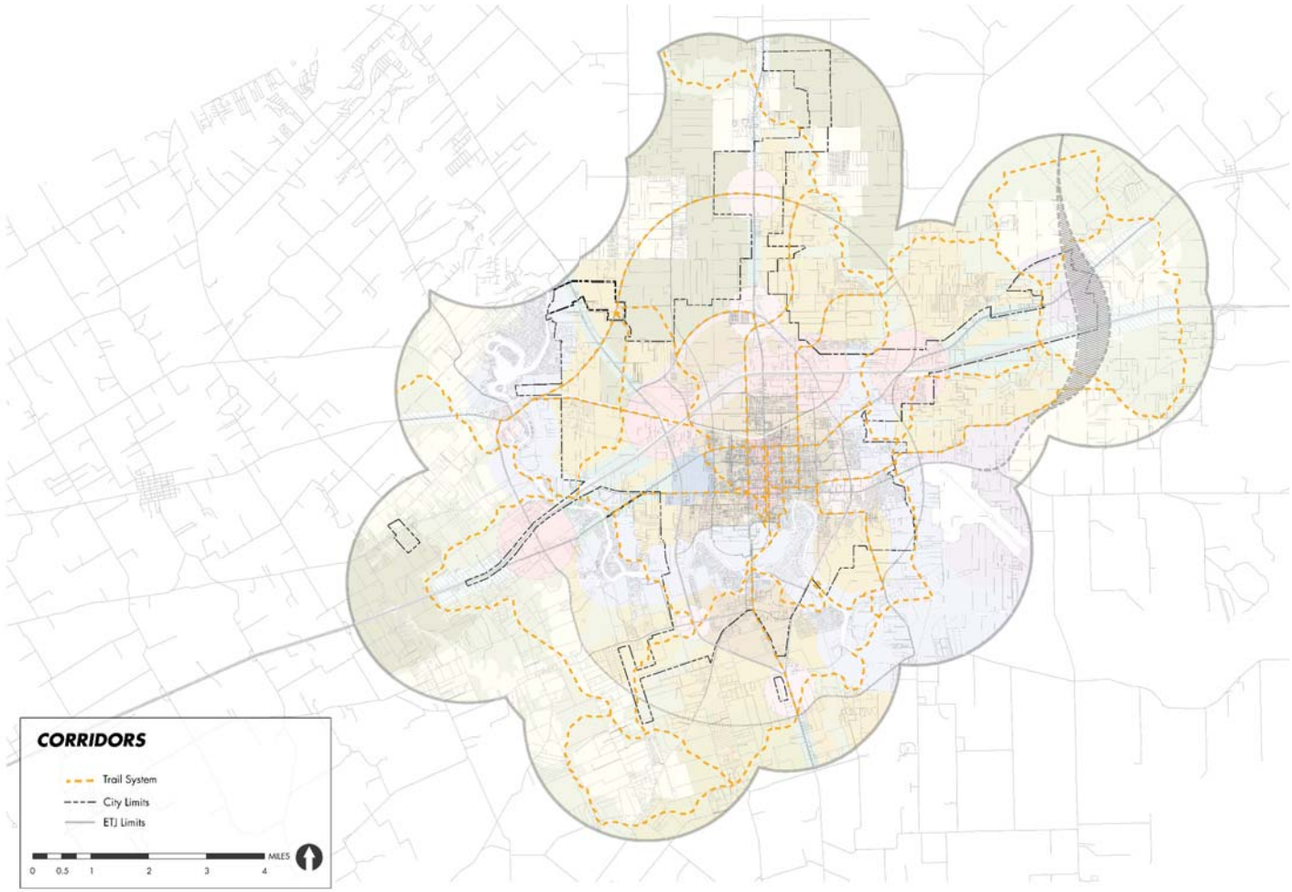


Figure 9. Recommended Trails in Seguin.

5. Blueways

Like the Trails of Seguin, the Blueways are intended to facilitate connectivity by linking the community with the surrounding environment. The Guadalupe River is an integral part of the history and culture of the Seguin community, but also of everyday life. Therefore, any network of connectivity in Seguin must be reconciled to the River and its environs.

A blueway is a portion of the Open Space Network that allows for movement along waterways, via approved water craft. Blueways function as a trail through the water, connecting various public open space lands. They are a means of encouraging public use and enjoyment of the waterways in areas with limited public access. Rather than large expanses of public space along the riverfront, Blueways require access at strategic points. This appropriation of the river and riverside land use accommodates private ownership, while increasing public accessibility and use. Because access points are necessary for the creation of Blueways, this system also serves as a guide for the locating future public parks (of various scales) along the Guadalupe River. Figure 10 identifies recommended locations for Blueways in the City of Seguin. Blueways should not be established in any intermittent creek, stream or waterway in Seguin.

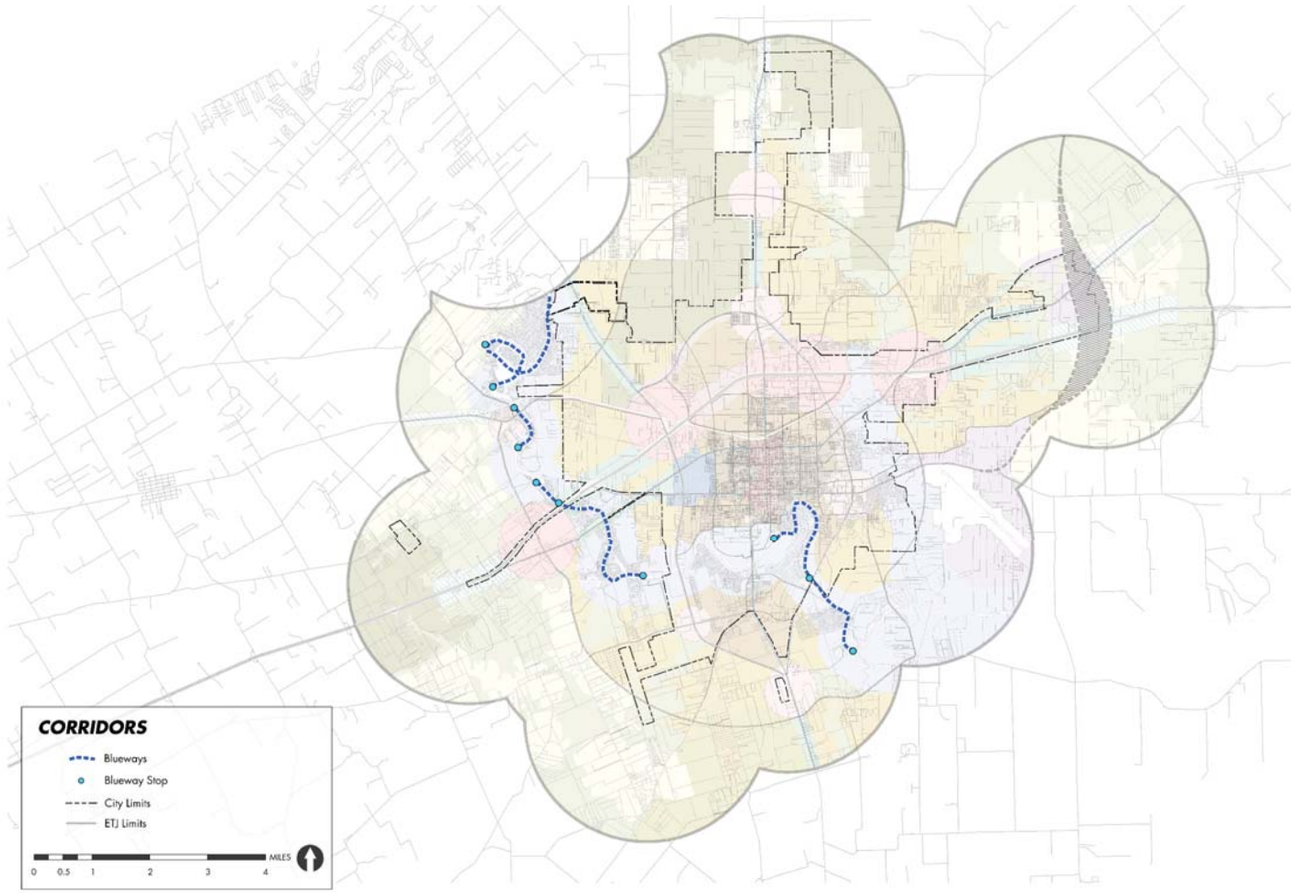


Figure 10. Recommended Blueways in Seguin.

6. Greenways

Along with other corridors, Greenways help to create a connective network within the City of Seguin. They connect people with the natural world, by connecting points of origin to points of destination, facilitating non-vehicular travel throughout the City.

Greenways are distinctive from other open spaces in that they accommodate passive community use and limited forms of activity (such as hiking and biking). Greenways provide meaningful corridors of natural space throughout the City, encouraging interface between people and the natural environment. Greenways are distinctive from Designated Natural Areas (Type C of the Open Space Plan), as Greenways maintain the dual functions of recreational space and habitat preservation, while Designated Natural Areas exist solely for preservation of natural habitat.

Greenways provide several benefits for the residents of Seguin. Their primary function is to tie pockets of parks and natural areas together to transform them into a network of open spaces for the City. Greenways are also effective as land use buffers, as they enhance the value of adjacent properties while providing transition between uses. They increase accessibility to green space, due to their flexible form and proximity to areas of urban use. They enhance pedestrian movement throughout the City. Finally, Greenways provide habitat corridors for wildlife within the urban fabric of Seguin.

When designating Greenways, existing public easements provide a range of opportunities. Utility and infrastructure easements throughout the City provide a type of network that is easily modified to accommodate trails and natural spaces. Rail lines and roadways that are not in operation can also be converted for greenspace use. Other locations well-suited for use as part of the Greenway system include lands adjacent to parks and designated natural areas and vacant/abandoned properties that could be targeted for ecological restoration. Figure 11 shows the recommended locations for Greenways in Seguin.

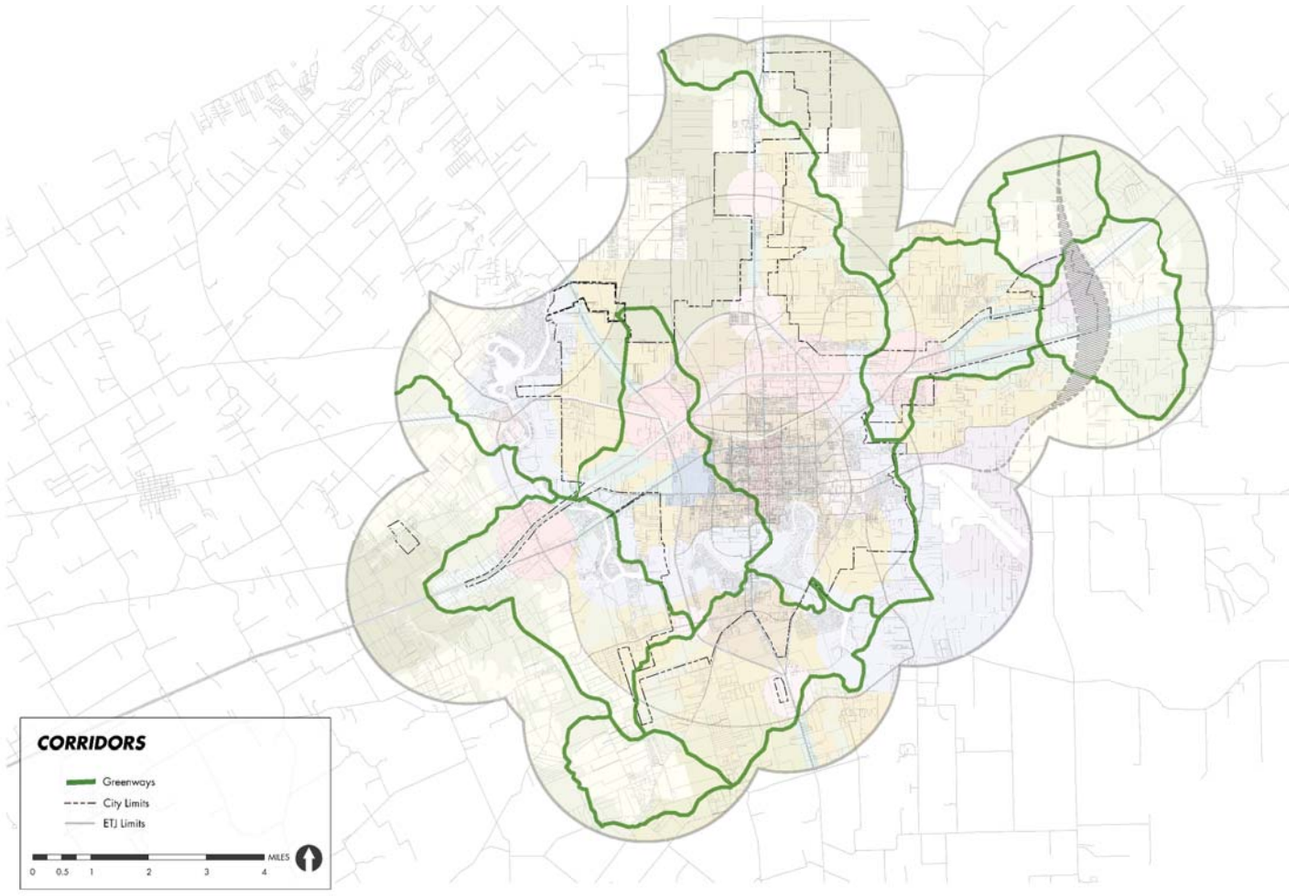


Figure 11. Recommended Greenways in Seguin.

Although Greenways are intended to connect pockets of Open Space within the City, these corridors should maintain sufficient widths to preserve the habitat within which they occur, as well as the experiential nature that Greenways should present to their users. Figure 12 shows the minimum widths recommended for Greenways in the City of Seguin.

Acceptable Uses within Greenways include:

- Segregated Trails
- Shared Use Trails
- Wildlife Viewing Stations
- Rest Areas

Figure 13 displays a transect of potential greenway uses in Seguin.

	Minimum Width (feet)		Minimum Width (feet)
AREAS		**NODES**	
Conservation	200	Local	-
Farm	200	Regional	-
Ranch	200		
Riverside	100	**CORRIDORS**	
		Core Approachway	60
COMMUNITIES		Town Approachway	200
Town Core	60	Town Corridor	200
City Center	60	Portal Approachway	200
Central Township	100		
Emergent Residential	200		
Rural Residential	200		
Employment	200		
University	100		

Figure 12. Greenway Minimum Widths.

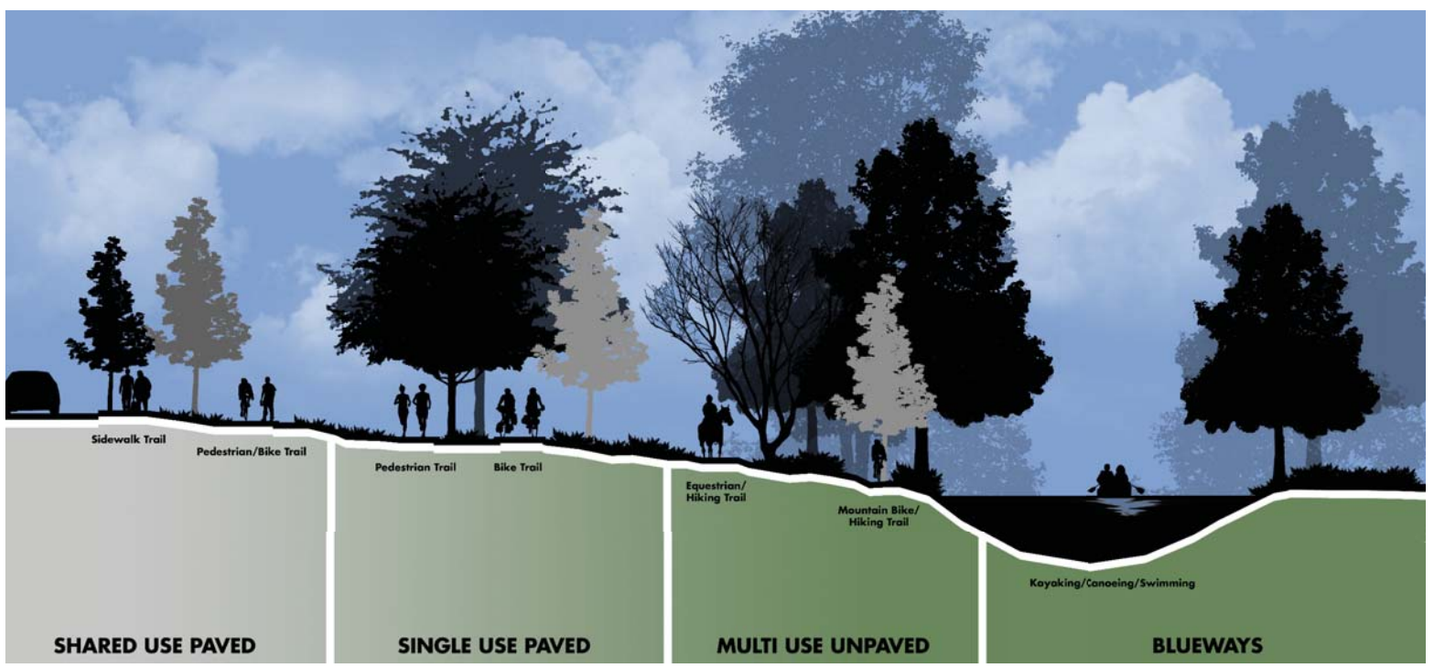


Figure 13. Transect of Greenway Uses.

TYPE C: DESIGNATED NATURAL AREAS

Most natural spaces found within a city are quickly sacrificed in response to the needs associated with urban growth and development. By creating Designated Natural Areas within the City of Seguin, the natural spaces that distinguish this community and reinforce its historic identity can be enjoyed and appreciated by current residents, and preserved for the enjoyment and appreciation of future generations. Such Designated Natural Areas will also enhance environmental quality, as these native ecological systems provide needed vegetative coverage for the City. This vegetative coverage protects and enhances air quality as well as stormwater management. Due to the expected increase in development within the City of Seguin, such Designated Natural Areas will help to preserve and enhance the ecological fabric unique to the City of Seguin.

Because such land must be purchased by the City over time, a plan was created that identifies several sites that are recommended for use as Designated Natural Areas. These are viable areas that not only preserve the natural habitat, but facilitate surface stormwater management at critical points along the Guadalupe river valley. These sites should be targeted and acquired separately, with the intention of purchasing the designated area in its entirety before considering addition of new lands in another recommended location on the map. This ensures that sufficient area is provided for viable habitat preservation, and that edge conditions (where development and natural areas interface) are kept to a minimum. To minimize edge effect and maximize internal space, Designated Natural Areas must retain a minimum width at any and all points of 1200 feet.

Finally, habitat preservation within Designated Natural Areas requires appropriate use of adjacent lands. Other Open Space uses (parks, trails, etc.) are acceptable adjacent uses, as are any existing land uses at the time of designation, agricultural lands, and residential estate lands (according to the designations in the current zoning code). Other uses may be acceptable upon approval by Council.

Figure 14 represents the sites in Seguin that are recommended for acquisition as Designated Natural Areas.

The Network of Public Open Spaces identified in this Plan is recommended for service of the population estimated for the Planning Horizon of 78,000 people identified in this report. It is comprised of three types of Open Spaces: Parks, Corridors, and Designated Natural Areas. Collectively, these forms comprise a network of lands where the Seguin community can enjoy interaction with the surrounding environment and access space for recreational activity, ensuring preservation of quality of life not only for the community today, but also for future generations. Figure 15 illustrates the network of the Seguin Open Space Plan in its entirety.

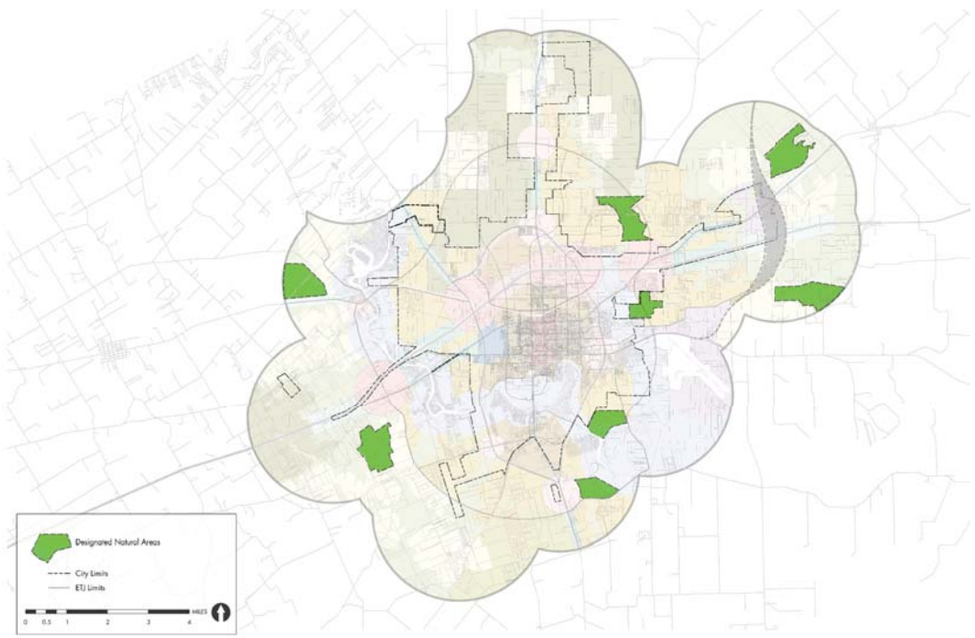
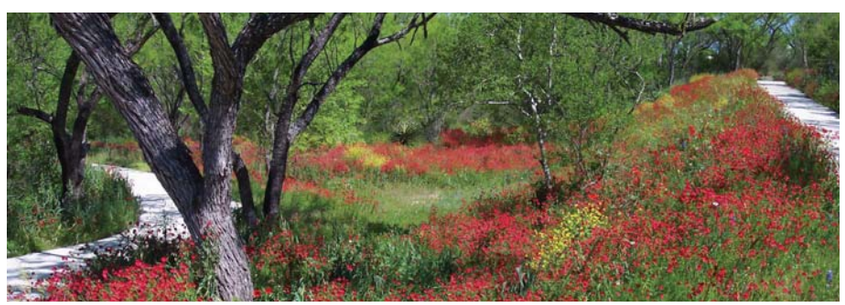
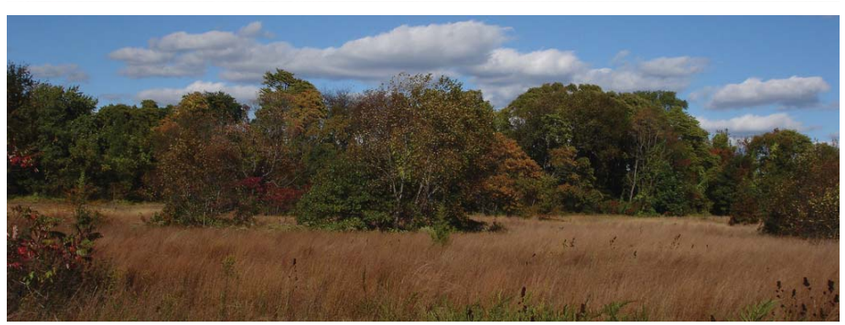


Figure 14. Recommended Designated Natural Areas in Seguin.





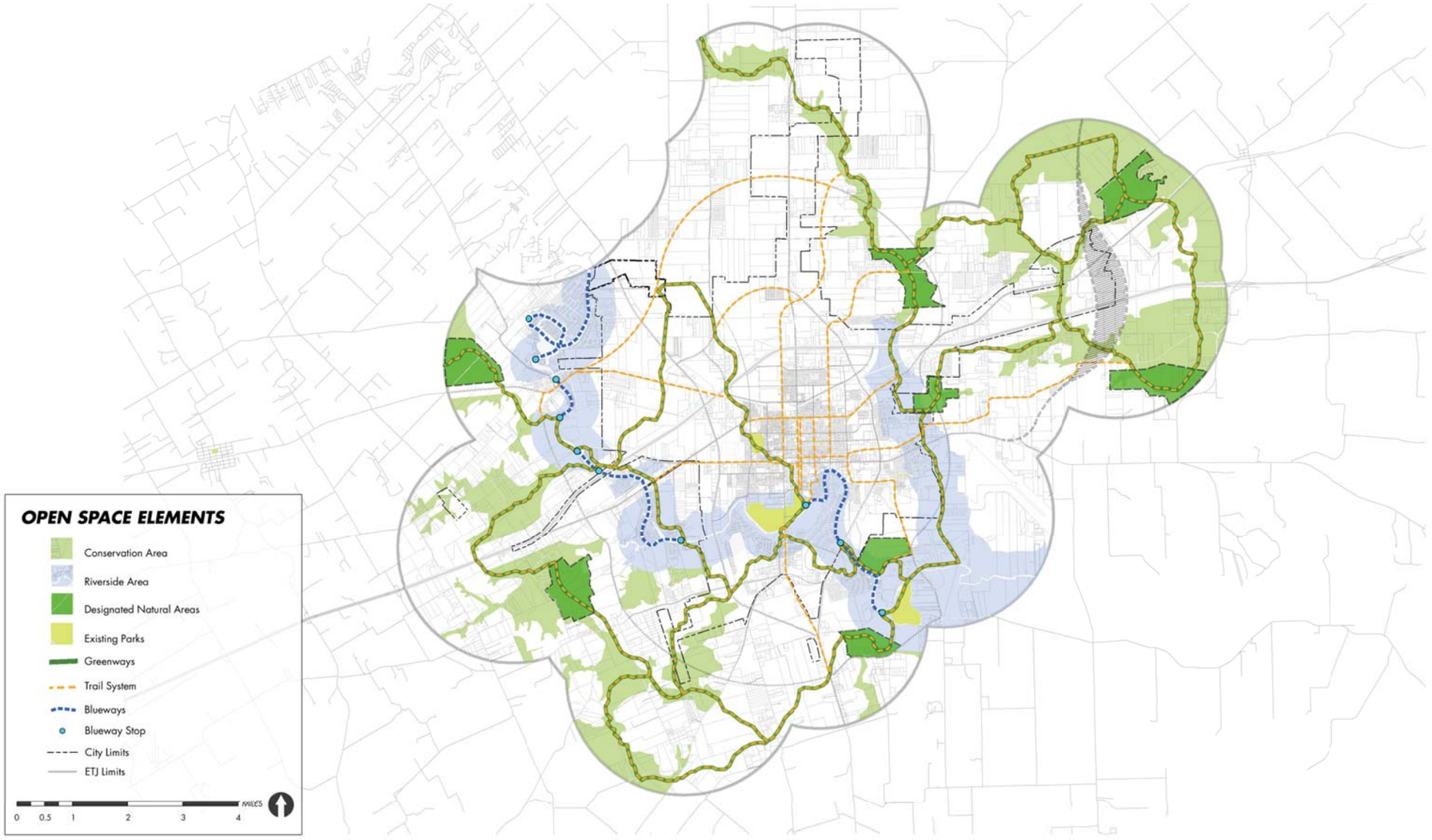


Figure 15. The Seguin Open Space Plan.

PART TWO: CREATING PUBLIC OPEN SPACES

The network of public open spaces as described in Part One of the Open Space Plan enhances community quality of life by providing opportunities for recreation, community connectivity, and interface with the natural world. The creation of such a network depends largely upon the City's ability to create these spaces. The creation of public open spaces requires three general types of actions: designation, funding, and management. Critical to the formulation of a healthy and viable open space network is the creation of procedures and policies that the City will use for the future designation of Public Open Space. Such designations typically involve the purchase of lands for public use, through the expenditure of public funds. It subsequently involves site management activity related to installation, maintenance, monitoring, and enforcement. By defining policies and precedents for designation, funding, and management, Seguin can actualize a plan for the creation of the Public Open Space Network as defined in Part One of the Open Space Plan. Therefore, Part Two of the Open Space Plan will target three critical areas for implementation: defining, funding, and managing the Open Space Network.

There are four key components regarding creation of a network of public open spaces that are addressed here. They include:

- Locating the elements of the Public Open Space Network
- Acquiring Public Open Spaces
- Managing Public Open Spaces
- Accessing the Public Open Space Network

LOCATING THE ELEMENTS OF THE PUBLIC OPEN SPACE NETWORK

To establish public open spaces in the City of Seguin, it is important to target specific areas that will form a coherent network, rather than isolated patches with limited ability to service the community/environment at large. Because of this, it is important to establish mechanisms for the designation of lands to be incorporated as part of the Public Open Space Network. The following are recommendations for locating Public Open Spaces in Seguin.

Criteria for locating Designated Natural Areas (DNAs):

- Designated Natural Areas shall be located at strategic catchment areas in the Guadalupe River Valley, to enhance surface stormwater management.
- Designated Natural Areas shall seek to preserve dense tree stands and critical habitat patches.
- Designated Natural Areas shall be located so as to envelope existing habitat patches in undeveloped areas within the Seguin ETJ.
- Designated Natural Areas shall be spatially configured so as to minimize edge conditions and increase internal protected space. (Minimize the ratio of edge to area).
- The Network of Open Spaces grows out of the collection of eight recommended sites for Designated Natural Areas indicated in the Seguin Open Space Plan. Therefore, selection of a location for any Designated Natural Area should align with one of those sites identified in this Open Space Plan.

Criteria for locating Greenways:

- Greenways shall create corridors of natural fabric throughout Seguin.
- Greenways shall serve as non-vehicular travel routes for Seguin.
- Greenways shall access Parks and DNAs.
- Greenways shall connect a point of origin to a point of destination, where at least one such point is another type of open space (a park, a DNA, or another greenway)
- Greenways shall service at least one of the land use districts classified as a "Community".
- Greenways shall establish routes for non-vehicular (pedestrian, bike, equestrian) movement throughout the City.
- Greenways may be created along existing utility easements, abandoned rail lines, and other abandoned public rights-of-way.

Criteria for locating Parks:

- Public transit shall service Neighborhood and Community Parks.
- Parks shall be located according to area of service recommendations presented in this Plan. Figure 16 indicates the service standards for each type of park.
- Park locations shall correspond to the primary intent and function of the land use districts of Seguin. Figure 17 identifies parks permitted for each district of the Land Use Plan.

	Service Guidelines			
Park Type	Standard	Area	Size	Population
Block	0.3 acres/1000 people	< 1/4 mile radius	< 1 acre	< 4,000 people
Neighborhood	2 acres/1000 people	1/4 - 1/2 mile radius	15+ acres	< 5,000 people
Community	7 acres/1000 people	1 - 2 mile radius	25+ acres	> 5,000 people

Figure 16. Park Service Standards.

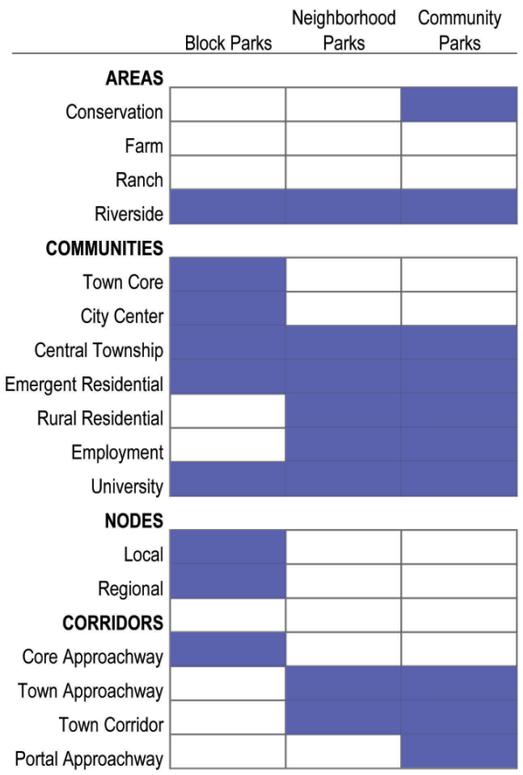


Figure 17. Recommended Parks by District in Seguin.

ACQUIRING PUBLIC OPEN SPACES

Funding is a critical component in the acquisition of land for public open space. Although there are current measures outlined for parkland dedication, there are other funding mechanisms recommended for acquisition of land for public open spaces. A discussion of current measures and means of expanding the funding strategy is included, as well as additional measures recommended to facilitate acquisition of lands for development of the Public Open Space Network.

Current Measures. Park Land Dedication Requirements. As future development plans are created within the City or within its Extraterritorial Jurisdiction, a percentage of land area within the development plan must be reserved as Open Space. At the developer's request, compensation may be made to the City Open Space Fund in lieu of designation of land within the particular property in question.

Expanding the Funding Strategy for Open Space. Because funding can quickly become a constraint to the development of a Network of Public Open Spaces, this Plan contains a list of several funding mechanisms that can be implemented in the designation of open spaces. A strategy for accessing these funds must capitalize on as many sources as possible. Some of these funding sources have been identified here, classified as Local, State, Federal, or Private sources (references for these sources can be found in Appendix C).

Local sources:

- Bond referendums
- Capital Improvement Plans
- Trust Funds
- Donations
- Adopt-A-Trail/Open Space Sponsorship
- Volunteer Programs
- Estate Donations

State sources:

- Water Management Funds

Federal sources:

- National Scenic Byways Program, Transportation Equity Act of the 21st Century (TEA-21)
- Congestion Mitigation and Air Quality Improvement (CMAQ) Program
- Community Development Block Grant Program (CDBG)
- Land and Water Conservation Fund (LWCF) Grants
- Conservation Reserve Program
- Watershed Protection and Flood Prevention (Small Watersheds) Grants
- Urban and Community Forestry Assistance Program
- Small Business Tree Planting Program
- Economic Development Grants for Public Works and Development of Facilities
- National Recreational Trails Program

Private Foundations and Corporations:

- World Wildlife Fund Innovative Grants Program

Preserving Targeted Natural Areas for Future Designation. Lands indicated as targets for creation of Designated Natural Areas in Seguin will be acquired gradually over time as funding becomes available to the City for purchase of these lands. Development pressures can often absorb such properties for urban uses, thereby hindering the ability to create a network of open spaces to be enjoyed by the Community. To preclude the loss of opportunity for purchase of such lands, policies should be developed by the City placing a moratorium upon all lands identified as Designated Natural Areas in this Public Open Space Plan. All permits relating to development of these properties should be delayed a minimum of 120 days, allowing the City the option to leverage funds and purchase for public use.

Equitably Distributing the Public Burden. There are geographically designated areas within the City of Seguin and its Extra-Territorial Jurisdiction that will be designated for public use. To prevent disproportionate burden of public interest in regard to public access to lands, an ordinance should be passed that amends the subdivision code, so as to permit density bonuses for all development activity within lands with restrictions due to habitat protection and conservation measures. It is recommended that, in such cases, average density levels be permitted across entire property areas, so that higher densities may be achieved in areas that are not environmentally sensitive, and those areas that are environmentally sensitive can be preserved from development. Such density bonuses would be separate and in addition to any park land dedication requirements in place for residential development.

Provisions for Creation of Open Spaces in Redevelopment Zones. In urbanized areas, there is an increased need for public open spaces (due to higher population densities), yet there is also a decreased amount of land available for use as open space (due to existing built fabric and higher land valuation). To provide increased open spaces in such areas, standards for redevelopment projects should be defined, so that park land dedication requirements apply to non-residential projects, in addition to residential projects. Such dedications should be based on leasable square footage, as this is directly correlated to employment counts. In other words, the amount of land that should be dedicated as public open space should be proportionate to the employment values of a non-residential project.

Finally, policies should be adopted in the form of ordinances that more consistently align with the Open Space Plan. Therefore, an ordinance should be developed that amends the parkland dedication policy, so that funds acquired by cash-in-lieu of parkland dedication may be used to create Corridors and Designated Natural Areas as well. That ordinance should define procedures regarding appropriation of those funds, so that equitable portions of those funds are appropriated to each category of Open Space (Park, Greenway, and DNA) defined for the City of Seguin.

MANAGING THE PUBLIC OPEN SPACE NETWORK

The current policies that pertain to management of public park lands should be amended so as to also direct the management of Greenways and Designated Natural Areas. To effectively manage the Open Space Network in its entirety, the following organizational structure should be defined as a modification of existing offices, rather than the creation of new offices. Therefore, the "Park" policy documents should be redefined/amended to "Parks and Open Space" policy documents, so that funding, creation, and management of the various components of the Open Space Network can be governed consistently and equitably. Core components that should be addressed include: authority/offices/appointments, definitions, funding/finance, procedures for dedication, management, and enforcement. This would call for amendments of all ordinances within the City Code that speak to Parks in Seguin.

Management of Designated Natural Areas. As habitat preservation is the primary objective in establishing DNAs in Seguin, establishing partnerships for the creation and management of these areas is often beneficial. There are many land trusts that manage conservation lands, via conservation easements, in Guadalupe County. Establishing conservation easements for the DNAs of Seguin ensures that they will perpetually serve the community as areas of habitat protection. Transfer of these properties to a designated land trust alleviates the burden of

management, while fulfilling the objective of preservation. The following is a list of Land Trusts that engage in conservation activities in Guadalupe County (references for these sources can be found in Appendix C).

Local Land Trusts Active in Habitat Conservation:
Cibolo Conservancy
Green Spaces Alliance of South Texas
Guadalupe-Blanco River Trust
The Nature Conservancy, Central Texas Chapter

Texas Land Trusts Active in Habitat Conservation:
American Farmland Trust
Conservation Fund
Ducks Unlimited, Inc.
Native Prairies Association of Texas
Texas Land Conservancy
The Nature Conservancy (Texas headquarters)
The Trust for Public Land (Austin)
Texas Parks and Wildlife Foundation

Nationwide Land Trusts Active in Habitat Conservation:
National Wild Turkey Federation
Quail Unlimited
Wildlife Land Trust, Humane Society

ACCESSING THE PUBLIC OPEN SPACE NETWORK

In order for the Open Space Network to be utilized and enjoyed by all, it is necessary to establish and maintain clear and convenient access to Open Spaces. The following are key elements of providing this accessibility:

- Points of access to all public open spaces shall be clearly marked.
- Parks shall be accessed by both vehicular (streets) and non-vehicular (trails) transportation routes.
- All Greenway segments shall contain at least one persistent trail type, to reinforce the primary function of Greenways: connectivity.
- All Trails shall be designed according to American Association of State Highway and Transportation Officials (AASHTO) standards.

4.3 the future thoroughfare plan

The Future Thoroughfare Plan is a key component of the vision expressed in the Planning Framework produced by resident and property owner participants in the Planning Process.

The recommended Future Thoroughfare Plan seeks to accommodate future trip demand (target year trip projections: 2047) in a City-wide thoroughfare system that:

- Pushes the downtown area collectors through to Interstate 10, Highway 123 By-pass, and Highway 46 (the highways that comprise the "Inner Loop" discussed below), in order to provide greater east/west and north/south movement capacity within the older, built parts of Seguin.
- Makes full use of the future State Highway 130.
- Creates a couplet using Austin Street and River Street to provide greater north/south movement capacity to and from the City core (increasing north/south capacity in the existing street system that serves the downtown core).
- Creates "relief points" in the overall system so that the 2047 road volumes between any two relief points do not exceed the planned road capacity.
- Creates an Inner Loop that provides needed relief points and provides cross connections within the older, built City. The Inner Loop also provides multiple points of connection for the constrained older grid and relieves the constraints and discontinuities in the existing City grid by circumscribing the grid and connecting its end points (the extended downtown area collectors discussed above).
- Creates an Outer Loop that provides needed relief points at regional highway intersections and provides cross town connections within the areas of newer growth.
- Increases overall road capacity in the built areas and new residential/ non-residential growth areas to accommodate 2047 traffic volumes.
- Create points of "nodal hubbing" about the city core that reinforce the centrality of the core, balance commercial land use, and energize new development.
- Makes full use of the proposed Highway 130 to attract development to downtown and the southern part of the City.
- Recognizes the City of Seguin in its form and configuration by relieving the growing constriction imposed by its existing City Grid.
- Gathers the capacity potential of separate State Highways and Interstate 10 and integrates them within a City-wide system that transforms bypasses into central corridors that reinforce local identity and local movement.

Accommodating Future Growth

As Seguin grows, the existing City grid will continue to experience greater congestion because of:

- Internal discontinuities
- The transference of internally generated and incoming traffic volumes to limited through streets (such as Highway 90)
- The lack of needed cross town movement
- Older and undersized streets (relative to emerging demand)
- Convergence of regional roadways onto a fewer number of through town corridors

A system with such restrictions will attain its capacity well before the City of Seguin fully develops. Therefore, the Future Thoroughfare Plan must seek to create a system that relieves this potential limitation and balances city flow through a series of connecting loops and continuity connections that create a system network. This lack of overall system, frequent discontinuities, and capacity restrictions will make future trip volumes (generated by the "build-out" population) flow into too few streets. Therefore, a coherent system becomes operationally impossible for the City of Seguin at a certain point in its development without dramatic changes to the existing street network. Resolution of this emerging impasse and transition to a larger

system with greater capacity that is less dependent on the Interstate and regional Highways becomes the greatest planning challenge facing Seguin as it prepares for future growth.

Traffic capacity is an essential element of the Thoroughfare Plan. The system is intended to have an overall operational capacity that can accommodate future trip volumes placed upon the Seguin System by both internally generated and externally generated trip demand. The Future Thoroughfare Plan is comprised of street classifications that when fully developed will provide overall capacity that allows the system to optimize as it transitions to function as a Hub and Spoke System. Capacities are associated with the street classifications contained in the Seguin Thoroughfare Plan (Figure 6). The magnitude of capacity for each road type is partially determined by the level of service at which that street operates. The Level of Service (LOS) is the ability of a signalized intersection to accommodate traffic. Level of service "C" is the most often recommended level of service for suburban communities. However, as a City grows and urbanizes, this level of service is extremely costly to maintain. Levels of Service are generally defined in the adjacent chart.

Accommodating future growth requires a thoroughfare system that contains sufficient lane capacity to move trip volumes generated by the assumed 2047 build out. Assumed land use build out in each of Seguin's 44 traffic cells establishes an anticipated 24 hour Average daily Trip Volume. The total trip volume in any cell can be reduced to reflect the extent to which public transit and mixed land use densities relieve necessary vehicular trips. Due to mixed use regional and local nodes (shown in the Land Use Plan) and public transit (shown on the Mobility Plan later in this section), average daily trip volumes associated with the 2047 build out were reduced between 30% and 50% depending on the level of transit service and the level of nodal clustering anticipated. The following Trip Volume Plan (Figure 3) shows the anticipated 2047 trip volumes allocated to roadways of the Seguin Thoroughfare System. Some of these trip volumes allow the construction of a narrower street section than will ultimately be needed when total build out is attained.

Figure 4 identifies the streets (not including the Core Area Streets discussed below) that are affected/extended/widened/realigned by the Future Thoroughfare Plan, while Figure 5 shows each of the system elements and the street width necessary at the 2047 build out and the more distant ultimate build out.

LEVELS OF SERVICE		
Level of Service	**Description**	**Stopped Delay per Vehicle at Intersection (seconds)**
A & B	Virtually no delays at intersection with smooth progression of traffic flow. Generally an operation without congestion, where all the vehicles clear the intersection in one signal cycle.	Less than 15 seconds
C	Slight to Moderate delays at intersection with satisfactory progression of the traffic flow. Occasional light to moderate congestion with occasional back-ups on streets at critical points in the thoroughfare system or critical approach lanes.	15.1 to 25.0 seconds
D	Forty percent probability of delays of one cycle or more at every intersection. No progression of traffic movement from the intersection with 90 percent probability of being stopped at every intersection experiencing "D" conditions. Significant congestion on critical approaches, but the intersection is functional. Vehicles required to wait more than one cycle during short peaks. No long standing lines formed.	25.1 to 40.0 seconds
E	Heavy condition. Delays of two or more cycles probable. No progression. 100 percent probability of stopping at intersections experiencing "E" conditions. Blockage of intersection may occur if the traffic signal does not provide for protected turning.	40.1 to 60.0 seconds
F	Unstable flow. Heavy congestion. Traffic moves in forced condition. Three or more cycles to pass through intersection. Total breakdown with stop and go operation.	More than 60.1 seconds

Figure 1. Levels of Service.

DAILY SERVICE VOLUME RANGES			
Roadway Type	Level of Service "C"	Level of Service "D"	Level of Service "E"
8-D (Arterial)	41,000 to 47,000	47,000 to 52,000	52,000 to 58,000
6-D (Arterial)	31,000 to 35,000	35,000 to 39,000	39,000 to 44,000
4-D (Collector)	21,000 to 23,000	23,000 to 26,000	26,000 to39,000
4-UD	17,000 to 18,000	18,000 to 21,000	21,000 to 23,000
2-UD	6,000 to 8,000	8,000 to 9,000	9,000 to 10,000

Figure 2. Daily Service Volume Ranges.

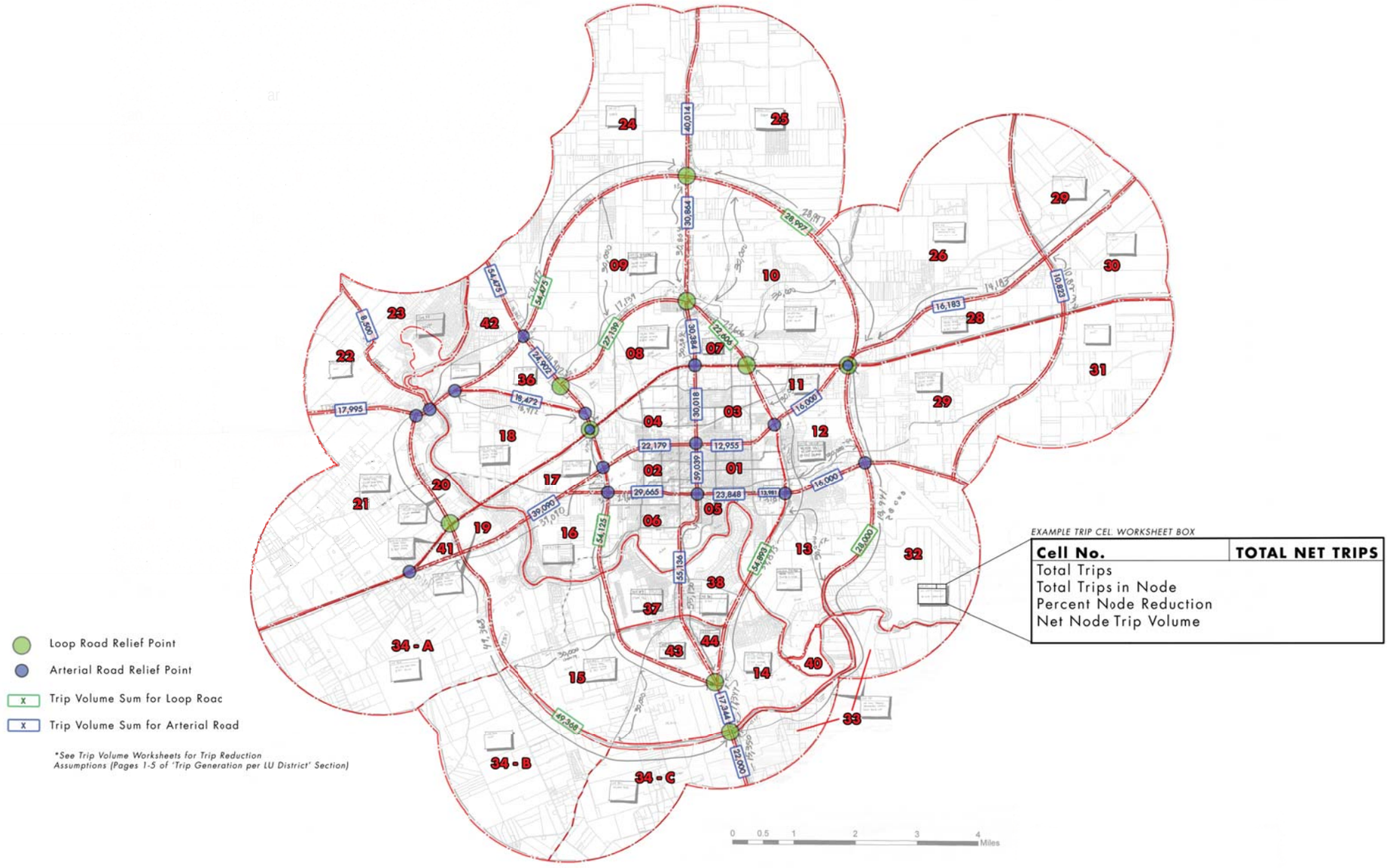


Figure 3. The Seguin Thoroughfare Trip Volume Plan.

Creating Legibility and a System Framework: A Hub and Spoke System

The creation of an operational system that preserves the qualities of Seguin's "small town feel" and which has the potential capacity to accommodate future growth without overburdening neighborhood streets is a challenge facing the future City. Therefore, a Future Thoroughfare Plan has been envisioned that will allow portions of the currently restricted/segmented pattern to evolve into a more fluid "Hub and Spoke" distribution and maintain the historic grid without overburdening its capabilities. The hub and spoke system is an old and commonly used system design in many cities. In a hub and spoke design the center of the system is linked to a peripheral loop by a network of radiating streets. This type of system will relieve emerging problems in older areas as well as other parts of the City. Independent loops gather traffic and allow that traffic to return to the City center via an increased number of radiating arterials, improved interstate interchanges, couplet streets, and the outward extension of central City streets (now hindered by discontinuities within the older grid). As a result, all out-lying parts of the future City are linked in a way that reinforces the City center. Consequently, the economic forces supported by these roadways converge rather than disperse and thereby create important nodal points within the system. Like major intersections along the beltway around many cities (including Dallas, Baltimore, and Washington, D.C.) these points concentrate economic energy and create nodal centers for future development. Without such value differentiations, commercial development will continue to gravitate to Interstate 10 and other regional corridors.

At a more regional level, the hub and spoke system links neighboring communities in a single pattern of inter-city movement. It was the hub and spoke system that forced Paul Revere's famous ride to pass through Lexington on his way to Concord. The hub and spoke system asserts that all routes of travel do not have to have the same level of desirability (the physical implication of the grid). It concentrates development so that desirable routes connect desirable places. The grid disperses development and maintains that desirable routes must also be dispersed. This design ignores the behavioral aspect of travel and gives the form of the City over to operational functions of the street design. By evolving to a hub and spoke system, Seguin will effectively expand its operational capacity (without overburdening the existing grid) by expanding the limited number of "pass through" highway routes and connecting them within a larger system that serves Seguin (and not just through movement). Also, Seguin will have concentrated land uses with destination significance so that desirable routes connect to desirable places.

There are three proposed loops and key proposed street extensions in the Future Thoroughfare Plan:

- **Loop One** (herein referred to as the **Inner Loop**) circumscribes the City Core and Older City Area on its north, south, east and western sides. This is an important conceptual cornerstone of the proposed Thoroughfare Plan because it provides relief points for older roadways carrying traffic to and from the City Core and Older City Area so that the length of roadway from core area relief points (at downtown throughways) to any loop road relief point (at the Inner Loop) is scaled to the potential trip demand it will likely serve in target year 2047. Because of its traffic gathering and cross movement function, portions of the Inner Loop (from SH 46 around the southern side of the City and then north along Highway 123, under Interstate 10, to a northerly connection with SH 46) should reserve enough right of way to accommodate future widening to a 6 lane-divided thoroughfare. The Inner Loop has two functions:

  - Establish a point of connection for improved continuities within the older city grid.
  - Provide cross town movement between regional highways, thereby integrating them within a coherent system.

- **Loop Two** (hereinafter referred to as the **Outer Loop**) connects distant areas of future northern and southern development (northern/southern sectors of Seguin, north of Interstate 10, and south of the Nolte Island Recreational Area) to Interstate 10, as well as connects radiating and improved highways that carry traffic to and away from the downtown core. The Outer Loop has two functions:

  - First, it supplements the limited capacity of the Inner Loop.
  - Second, it gathers traffic from northern growth areas (both residential and commercial) and offers a variety of operationally comfortable routes into the City core as well as access to Interstate 10. This outer loop also carries trip volumes generated by development to the north and south so that such volumes do not overload Seguin streets within the existing older areas.

  The total acreage of developable land in northern and southern Seguin represents a potential population that would easily overload existing local roadways if this population had to flow to currently isolated Highways or through older areas to reach Interstate 10 or the business center. Therefore, this second outer loop is essential to preserving the "small town" feel of Seguin and its quality of life.

- **Loop Three** (hereinafter referred to as the **Union Pacific Loop**) serves the most intensive growth areas north and south of Interstate 10 and the Inner Loop, inside the Outer Loop. Cross town movement will be most needed here in the short term (east/west movement from I-10 to the Inner Loop west of Highway 123) and in the long term due to the concentration of three major Regional Nodes. Trip volumes from these nodes will require that streets extending north of the Inner Loop have a cross connection between the Inner Loop and the Outer Loop. The Union Pacific Loop has two functions:

  - Serve regional nodes along Interstate 10 and local nodes along the Inner Loop.
  - Serve emergent residential areas north of Interstate 10 and inside the Outer Loop.

The key components of Seguin's Future Thoroughfare Hub and Spoke Plan, by phase as they relate the physical development of the City, are:

1. Creation of an Inner Loop that ties the radiating pattern of regional highways together and makes them spokes serving an inner rim within a hub and spoke system.

a. Initiative #1: Make a fluid connection between Highway 46 and Highway 123, south of the Guadalupe (at their current point of confluence on Business 123) so that a continuous flow from Highway 46 to Highway 123 can be accomplished (and vice versa).
b. Initiative #2: Reserve future right of way along Highway 46 so that the Inner Loop can be ultimately widened to 6 lanes with a thematic median and limited access road connections. Recommended right of way is 180 feet.
c. Initiative #3: Create a northerly (north of Interstate 10) connection between Highway 123 and Highway 46 (starting at the point where Highway 123 and Business 123 converge and extending to Highway 46 at a point in the proximity of Adobe Vista Street and Geronimo airport).
d. Initiative #4: Creation of a standard intersection at the meeting of Highway 123 and the Highway 123 Bypass (north of I-10).

2. Creation of an Outer Loop that ties the radiating pattern of regional highways together and makes them spokes serving an outer rim of a hub and spoke system.

a. Initiative #1: Make a fluid connection between FM 725 and Highway 123 (south of the downtown core) beginning at Leissner School Road and sweeping in a southeasterly direction to a point of intersection with Highway 123 at FM 477.
b. Initiative #2: Acquire the right of way along FM 725 to widen this future portion of the Outer Loop to a 6 lane rural parkway with variable median (minimum right of way is 180 feet).
c. Initiative #3: Extend the Outer Loop east of Highway 123 (to Interstate 10) along FM 477 to a point of intersection with Capote Road, then northward on Capote Road until crossing the Guadalupe River, then split off from Capote Road, creating a new road section that crosses Highway 90 Alternate at Auxiliary Airport Road, then continue to the intersection of Interstate 10 and Highway 90. Acquire the necessary right of way for future widening of this loop section to a 6 lane divided rural parkway (minimum 180 feet).
d. Initiative #4: Extend the Outer Loop north of Interstate 10 to an intersection with Highway 123 about ¼ mile south of County Road 120. Acquire the necessary right of way for future widening of this Loop section to a 6 lane divided rural parkway (minimum 180 feet).
e. Initiative #5: Extend the Outer Loop west of Highway 123, curving southward, intersecting State Highway 46 at County Road 104, then continue southwest and intersect FM 78 at Bridge Road, then continue southwest along FM 78 to a point of intersection with FM 725. Acquire the necessary right of way for future widening of this Loop section to a 6 lane divided rural parkway (minimum 180 feet).

3. Creation of limited access intersections with both the Loop Roads and the regional highways that radiate from and pass through the older center of Seguin.

a. Initiative #1: Create a controlled access road connection between the Outer Loop and Highway 123 (north of the Guadalupe River), Highway 46, Highway 78, Interstate 10, Highway 90, and Highway 123 (south of the Guadalupe River).
b. Initiative #2: Creation of controlled access road connections between the Inner Loop and Highway 123 (north of the Guadalupe River), Interstate 10, and Highway 123 (south of the Guadalupe River).

4. Create an east/west connection (future Union Pacific Loop) between I-10 (east of Highway 123) and the Inner Loop (west of Highway 123) that serves development north and south of Interstate 10 and the Inner Loop (inside the Outer Loop).

a. Create a portion of the Union Pacific Loop beginning at the Inner Loop (west of Highway 123) and continuing in a southeasterly direction and intersecting I-10 at Fleming Street.
b. Create a portion of the Union Pacific Loop along the north side of the Union Pacific Railroad right of way between Interstate 10 (at Fleming Street) and the existing Seideman Street.
c. Continue the portion of the Union Pacific Loop along Seideman Street as a 4 Lane undivided arterial, then continue along the north side of the Union Pacific Railroad right of way to the Inner Loop (east of Business 123)
d. Extend the portion of the Union Pacific Loop from the Inner Loop (east of Business 123) in a northeasterly direction to I-10 (east of Highway 123).
e. When future development requires an expansion of the thoroughfare system, continue the Union Pacific Loop north of Interstate 10 (along White Oak Street) making a connection with County Road 108 and then intersecting with Highway 123 (north of Interstate 10).
f. When future development requires an expansion of the thoroughfare system, continue the Union Pacific Loop west of Highway 123 (north of Interstate 10) along CR 108 to CR 105, then continuing west of CR 105 (as a new road) and turning south to a point of intersection with the Inner Loop at the point of beginning.

Accommodating Increased Vehicular Trips Outside the City Center

As Seguin grows existing streets will need to be extended and new streets will need to be added in order to accommodate the increased traffic volumes that future growth generates. The Future Thoroughfare Plan extends elements of the core system (discussed below) into areas beyond the Inner Loop in order to engage emergent growth zones with the overall thoroughfare system. These roadway extensions reinforce the hub and spoke system with secondary spokes that supplement the major arterial spokes comprised of regional highways. These secondary spokes have two primary functions:

- Connect the two loops so that primarily residential traffic can flow to employment centers and shopping districts located along the loop parkways as well as access regional highways leading away from the City.
- Allow flow from emergent residential areas directly into the City Core.

Key components of the Seguin Outer Loop Area Capacity Enhancement Plan are described below by type of improvement:

1. Extend Core Area north/south and east/west collectors beyond the Inner Loop.

a. Extend Hidalgo Street north across the Inner Loop to CR 105, connecting the City Core to the Outer Loop.
b. Extend Campbell/6th Street north to the Union Pacific Loop, and when future development requires, continue Campbell/6th north to the Inner Loop, creating a connecting between the City Core and Inner Loop.
c. Extend Gauadalupe Street north across Business 123 and the Inner Loop, connecting the City Core to the Outer Loop near CR 111.
d. Extend Heideke Street north across the Inner Loop, connecting the City Core to the Outer Loop (along CR 102A, CR 103, and FM 20)
e. Extend FM 725 from South Guadalupe Street (Business 123), across the Inner Loop connecting the central downtown corridor to the Outer Loop.
f. Extend FM 467 from South Guadalupe Street (Business 123), across the Inner Loop, connecting the central downtown corridor to the Outer Loop.

2. Extend Court Street east and north to the Employment Centers and SH 130 to facilitate access/egress to employment and enhance the economic environment of the downtown area with increased traffic centrality.

a. Extend Court Street east of Highway 123 and turn it north as a new road (forming a conventional intersection with the further westward extension of Court Street), making a connection with the SH 130 and Interstate 10 intersection.

3. Create an orderly relationship between the regional highways that radiate from the Seguin core area and the Loop Road components of the thoroughfare system.

a. Designate Highways 123, 46, and 90 as well as FM 78 between the Seguin ETJ Limits and the Outer Loop as a Rural Approach, generally treated as indicated in the following Roadway Transect.
b. Designate Highways 123, 46, and 90 as well as FM 78 between the Outer Loop and the Inner Loop as a Town Approach, generally treated as indicated in the following Roadway Transect.
c. Designate Business 123, Highway 90, and Business 90 between the Inner Loop and the Downtown Core as a Core Approach, generally treated as indicated in the following Roadway Transect.
d. Designate the Outer Loop as a Rural Parkway, generally treated as indicated in the following Roadway Transect.
e. Designate the Inner Loop as an Urban Parkway, generally treated as indicated in the following Roadway Transect, with the exception of the portion between Highway 46 and Highway 123 (north of I-10) which is to be designated as a Rural Parkway.
f. Designate the Austin Street/River Street Couplet as the Downtown Couplet as generally shown in the following Roadway Transect.

A Hierarchy of Streets: Defining the Thoroughfare Network System

In order to prepare the City of Seguin for future trip demands that will be placed upon its streets and roadways (from both internal and external growth), it is necessary establish a hierarchical pattern of movement that operates as a system (when completed) and is comprised of streets that have system related purposes/capacities/functions. The hierarchical system defines the role of each street within it and this role translates into specific design standards for that street (pavement section, lane widths, traffic management, right of way). The description of role and assignment of standards is called the Functional Classification and attributes of each classification should apply to all newly constructed streets within the City and to those built streets where conformance with the classification can reasonably be achieved.

The typical Functional Classification System consists of a range of streets with related purpose. A street purpose within the system will vary from those streets providing access to adjacent properties to those whose primary purpose is to provide broader mobility and operation. Access means movement to property(s) within the neighborhood (e.g. garage to street), while mobility refers to longer trips from local streets to more distant destinations (e.g. neighborhood to work). Therefore, some streets distribute access to many properties and others collect traffic for fluid conveyance to common destinations. Therefore local streets which perform well at providing access to many properties have the capability to accommodate slow, incremental, generally non-directed movement (the type of movement necessary for numerous, closely associated points of ingress/egress). Mobility Streets (typically arterials and collectors) permit higher travel speeds and more directed movement. With higher speeds and larger traffic volume/capacities, these streets function well for longer trips to common destinations but function poorly as local access streets. Thereby, the various streets function collectively (each according to its best capabilities) to make an overall system of movement. However, the higher traffic volumes on mobility streets also make them attractive for commercial development. As a result, many mobility streets throughout the country are plagued by “strip” commercial land uses which place access demand on the roadway and diminish its volume, speed, and capacity characteristics. When this occurs, various forms of access management become necessary. These include:

- Deceleration Lanes
- Turn Lanes
- Limited Curb Cuts
- Limited Median Cuts
- Forced Turn Lanes

Mobility Streets fall into three general classifications: Parkways, Arterials, and Collectors. Parkways are thematic roadways with controlled access that provide cross connection between Arterials. Arterials (Major Arterials and Arterials) carry longer trips and should form continuous links that carry traffic through sub-areas and to major points of destination or distribution. Collectors supplement the Arterial network and are intended to distribute traffic between the arterials and local access streets. As a result, they are not intended to carry trips for long distances but should have some level of continuity so that points of connection are well distributed over the arterial network.

Local Streets (sometimes called Neighborhood Streets) should be developed between collectors so that traffic is generally routed around and not through these areas. Local streets should have some level of continuity so that they are not burdened by bottlenecks and concentrated collection points due to long cul-de-sacs. However, these patterns of continuity should have a horizontal alignment that discourages “cut through” trips.

Couplets are a special street designation for two one-way streets (usually Arterials or Collectors) that work in combination as a single street. Opposing directional flows on each of the two streets create a shared street section that allows the individual lane capacity of the two streets to be combined.

In accordance with the above system element descriptions, the Thoroughfare System for Seguin will have Parkways (controlled access Major Arterial), Major Arterials, Arterials, Major Collectors, Collectors, the Austin/River Couplet, and Local Streets. Freeways and Highways are typically under the strict jurisdiction of other agencies (such as the Texas Department of Transportation). Interstate 10 and SH130 are examples of such corridors. However, each of these (and others) plays an important part in the overall operation of Seguin’s system. Therefore, right of way and improvement requirements are proposed that will have to be addressed through the appropriate jurisdiction.

Figure 8 describes the most important characteristic of each classification and its intended use. A thematic roadway plan, however, was developed as an overlay to provide continuity between the different functional classifications. The thematic elements are based on appropriate design characteristics for that roadway within the overall thoroughfare system. The seven thematic roadway types are indicated in Figure 3 (see Thematic Thoroughfare Types for Seguin on pages 154-155), with corresponding captions providing greater detail.

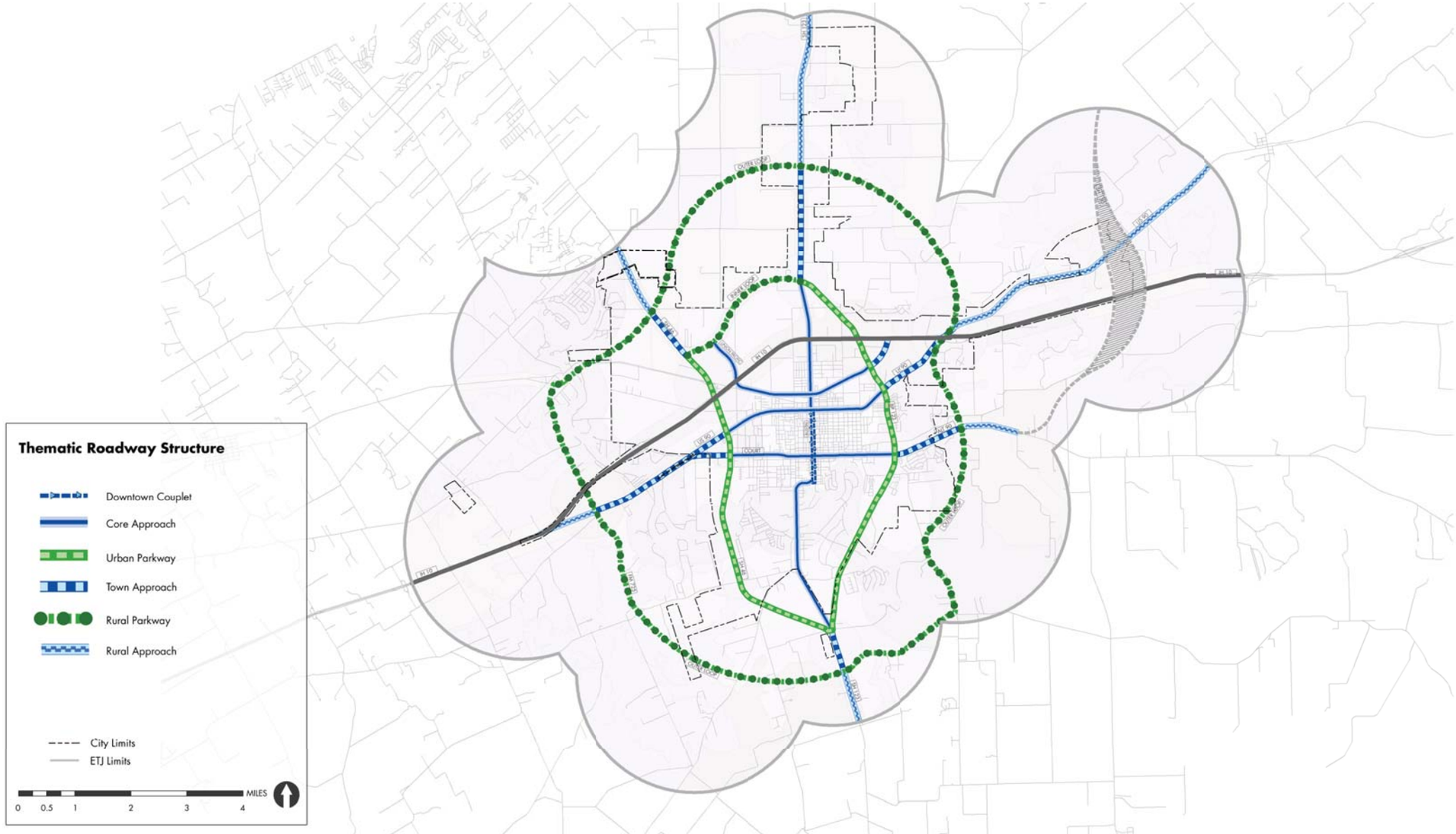
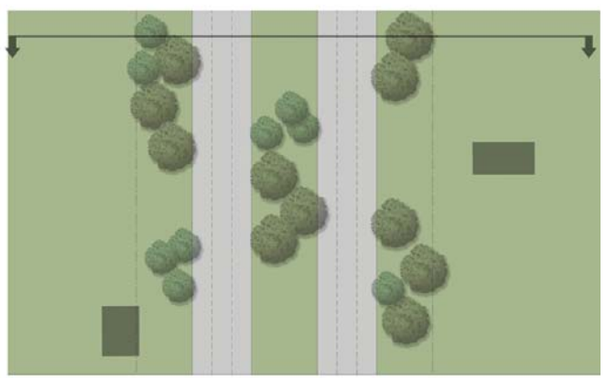


Figure 4. Thematic Roadways Plan.

Figure 5. Thematic Thoroughfare Types for Seguin.

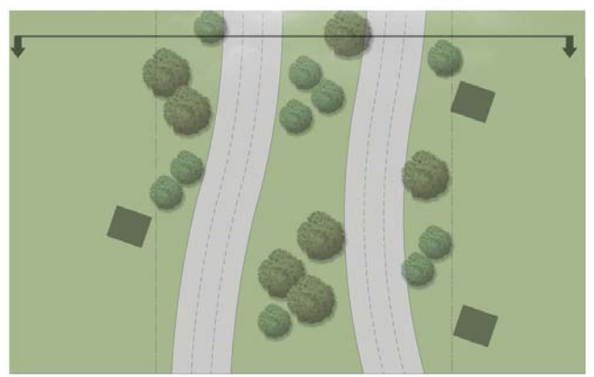
RURAL APPROACH



RURAL APPROACH

The streets designated as Rural Approach introduce Seguin as a distinct place of arrival by visually separating the city from the fringe context of adjacent activities. The Rural Approach seeks to convey a largely undeveloped condition with undisturbed land forms and drifted plant communities. Buildings are randomly placed, relative to the road. Fences are a rural, transparent variety, if present at all. Trees are naturally clustered and accompanied by understory growth, punctuating the agrarian landscape characteristic of the Seguin area. The road is a divided section, with a wide median, so that the pavement width apparent to any car is rural in scale. Natural tree drifts occasionally cross the road, so that the road does not define the landscape form. In Rural Approach Streets, no free-standing commercial signage is permitted within 200 feet of the right-of-way.

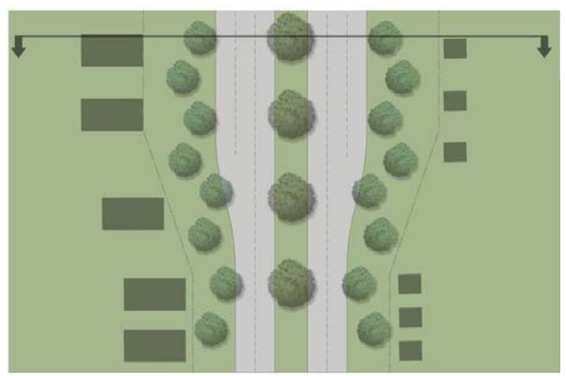
RURAL PARKWAY



RURAL PARKWAY

Parkways are intended to be experiential pathways. Therefore the dynamics of movement, encounters with landforms, and changes in corridor definition are important in effecting experience along these pathways. The Rural Parkway should have horizontal and vertical undulation that creates a wide and variable median. The divided lanes should not be parallel for any great distance, so that the landforms and natural landscape are more influential on the design and the driving experience. Trees should be planted in drifts, which can flow across the roadway, and should exhibit a degree of vertical complexity. Buildings should be sited without reference to the road, and the rolling ground plane should continue in the median. Distinctive natural features, such as a pond or significant tree stand, should be preserved to make the Rural Parkways unique. In Rural Parkways, no free-standing commercial signage is permitted within 200 feet of the right-of-way.

TOWN APPROACH

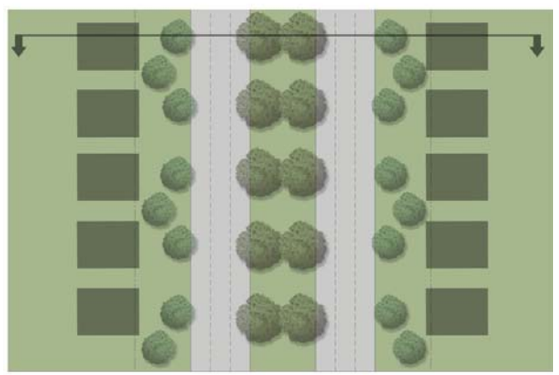


TOWN APPROACH

The Town Approach Streets initiate the visual sequence that ultimately terminates at the downtown square. The Town Approach Streets transition from the rural street character of the Rural Approach to the more urban character of the Core Approach. Within the Town Approach, drifted trees transition to a more organized geometry of offset pairs, and the landscaping in the median becomes a regular geometry of uniformly spaced trees in a linear formation. This announces the forthcoming urban condition, and responds to the introduction of a narrower median. Buildings begin to establish a more orthogonal relationship to the street, while landscaping is still generous between the buildings and the street. Interfacing site landscape has a more ornamental character. Street lighting is more closely spaced, using the thematic City light and luminaire standard.

Figure 5. Thematic Thoroughfare Types for Seguin (continued).

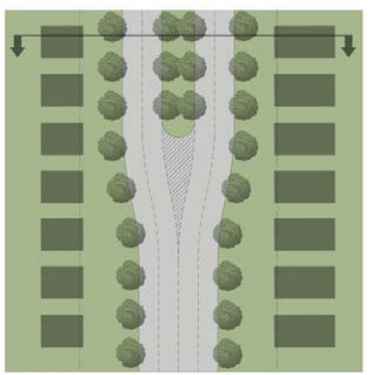
URBAN PARKWAY



URBAN PARKWAY

Urban parkways are the street type found along the Inner Loop. As a parkway, the road has an experiential function. Here, that function is urban identity. The distinct identity of this parkway is conveyed through organized geometries of regularly spaced, paired trees, and an orthogonal relationship of buildings to the street. Thematic urban parkway lighting standards, uniformly spaced and placed so that banner arms display banners to the street, are characteristic of Urban Parkways, as are distinctive exit signs and way-finding signs that identify key destinations by name.

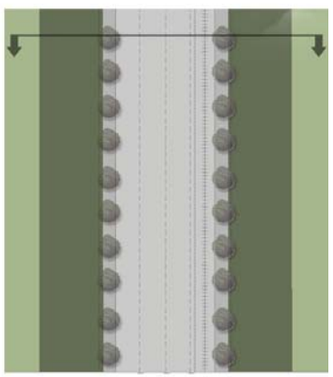
CORE APPROACH 6LN/4LN



CORE APPROACH 6LN/4LN

The Core Approach directs traffic to the point of arrival in Downtown Seguin. As such, the Core Approach visually culminates the approach sequence, transitioning from suburban to urban. Trees are placed in strict uniformity. Buildings have an orthogonal relationship to the street, with small to non-existent yard interface. Thematic lighting is more closely spaced, and equipped with banner arms. Directional and interpretive signage is brought to the street, along with information kiosks. Decorative sidewalks and crosswalks also characterize the Core Approach Streets.

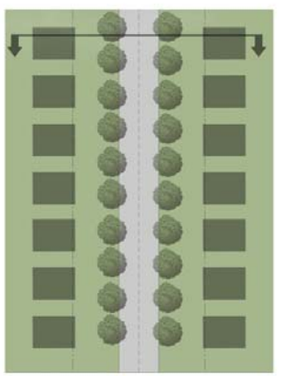
DOWNTOWN COUPLET



DOWNTOWN COUPLET

The Downtown Couplet is the combined function of River Street and Austin Street, functioning in a couplet configuration. The couplet is a variation of the Core Approach, so attributes of the Core Approach are evident here as well. Trees are uniformly placed, and buildings maintain a strict orthogonal relationship to the street. The yard interface is minimal if existent at all. Thematic lighting is closely spaced, and equipped with banner arms. Directional and interpretive signage is mounted to thematic standards, and informational kiosks, decorative sidewalks, and decorative crosswalks are also incorporated.

URBAN COLLECTOR



URBAN COLLECTOR

Urban Collectors are the general streets of downtown, and are distinguished by uniform/orderly tree placement. Buildings are arrayed in strict orthogonal relation to the street, with little to no yard interface. Closely spaced thematic lighting is found in the commercial areas, while intersection lighting alone is found in residential areas. Directional, informational, and interpretive signage is found within the street space of Urban Collectors.

Functional Classification and Planning Guidelines					
Classification	**Function**	**Intersection Spacing**	**Median Cut Spacing**	**Speed Limit**	**Comments**
Parkway	Primary long distance conveyance to limit the total number of “pass through” trips.	½ mile minimum	Emergency access only	55	Provide a pathway alternative for potential future development in Guadalupe County to access Interstate 10 without overburdening the existing streets.
Major Arterial	Moderate distance, inter-community traffic conveyance with greatest volume capacity. Land access should be concentrated to intersection locations as much as practical.	1200 feet minimum	600 feet minimum	45	The backbone of the street system that provides the major radial links to the above described parkway loop roads and Interstate 10.
Arterial	Moderate distance, inter-community traffic conveyance with intermediate volume capacity. Land access should be limited to a minimum spacing.	1000 feet	600 feet	40	Primary linkages between Major Arterials and to key destinations within the system
Major Collector	Collect and distribute traffic between local streets, collector streets, and the Arterial network as well as provide inter-neighborhood movement. Land access should be limited where possible.	600 feet minimum	600 feet minimum	35	Should not become over burdened by land access (where possible) and should not be used for the same long trip connections intended for arterials and major arterials.
Collector	Collect and distribute traffic between local streets and the Arterial network as well as provide inter-neighborhood movement. Land access is permitted but should be more limited than local streets. Should have sidewalk collectors.	600 feet minimum	600 feet minimum	35	Can be residential streets that collect traffic from several local streets within a single community.
Austin/River Couplet	Creation of a traffic pattern within the Historic core that increases ingress/egress capacity, allows on-street parking, and pedestrian use of the right of way edges.	Typical downtown block length	N/A	25	Key component to creating destination attributes within the Downtown Core.
Local Street	Land access and sidewalk movement.	250 feet	N/A	25	Cut through traffic should be discouraged through horizontal alignment design or other traffic calming devices.

Figure 6. Roadway Classifications.

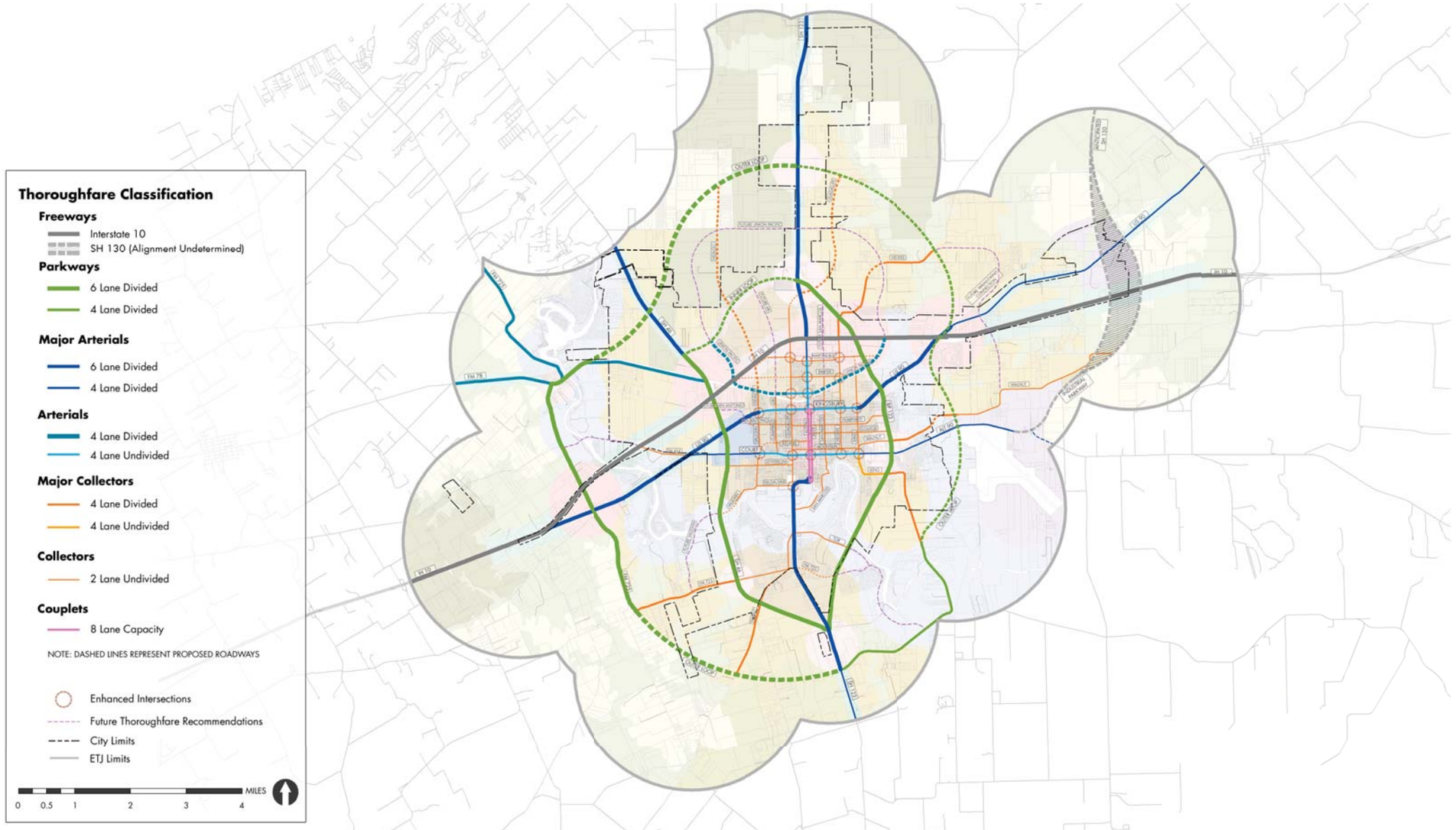


Figure 7. The Seguin Thoroughfare Plan.

Street Segments

1. The west Outer Loop from Highway 123 (north of I-10) to Highway 123 (south of I-10)
2. The east Outer Loop from Highway 123 (south of I-10) to Highway 123 (north of I-10)
3. The Inner Loop from its intersection with Highway 46 to its intersection with Business 123 (south of I-10) along Highway 123 to its intersection with Business 123 (north of I-10)
4. The Inner Loop from it intersection with Highway 123 (north of I-10) to its merger with Highway 46
5. The Union Pacific Loop from I-10 (east of Highway 123) to its merger with existing Seideman Street.
6. The Union Pacific Loop as it continues along existing Seideman Street
7. The Union Pacific Loop from existing Seideman Street to its intersection with the Inner Loop (west of Highway 123)
8. Highway 123 from the ETJ Limit to the Outer Loop (north of I-10)
9. Highway 123 from the Outer Loop to its intersection with the Inner Loop (north of I-10)
10. Business 123 from the Inner Loop to I-10 (north of I-10)
11. Business 123 from I-10 to Martindale Street (north of downtown)
12. Business 123 from Martindale Street to Kingsbury Street
13. Business 123/South Guadalupe Street from its merger with the Austin/River Couplet to its intersection with the Inner Loop (south of downtown)
14. Highway 123/South Guadalupe Street from the Inner Loop to its intersection with the Outer Loop (south of downtown)
15. Highway 123 south of the Outer Loop (south of downtown)
16. Highway 46 from the ETJ Limits to its intersection with the Outer Loop (north of downtown)
17. Highway 46 from the Outer Loop to its confluence with the Inner Loop (north of downtown)
18. Highway 90 from I-10 to its intersection with the Outer Loop (west of downtown)
19. Highway 90 from the Outer Loop to its intersection with the Inner Loop (west of downtown)
20. Highway 90 from the Inner Loop to its intersection with Vaughan Street
21. Highway 90 from Vaughan Street to North King Street
22. Highway 90 from North King to its intersection with the Inner Loop (east of downtown)
23. Highway 90 from the Inner Loop to its intersection with the Outer Loop (east of downtown)
24. Highway 90 from the Outer Loop to the ETJ Limits (east of downtown)
25. Court Street from its merger with Highway 90 to its intersection with the Inner Loop (west of downtown)
26. Court Street from the Inner Loop to its intersection with Vaughan Ave. (west of downtown)
27. Court Street from Vaughan Ave. to its intersection with North King Street
28. Court Street from North King Street to its intersection with the Inner Loop (east of downtown.
29. Court Street from the Inner Loop to its intersection with the Outer Loop (east of downtown)
30. Court Street and the Court Street extension from the Outer Loop to its intersection with the SH 130 Bypass
31. FM 78 from the ETJ Limits to its intersection with the Outer Loop
32. FM78 the Outer Loop to its intersection with the Inner Loop
33. FM 725 from the ETJ Limits to the Outer Loop
34. The extension of Hidalgo Street from its intersection with I-10 to its intersection with the Outer Loop (along CR 105)
35. The extension of Guadalupe Street from its intersection with I-10 (along CR 101) to its intersection with the Outer Loop
36. The extension of Heideke from its intersection with I-10 (along CR 102A & CR 103) to its merger with FM 20, to its intersection with the Outer Loop.
37. The extension of Walnut Street from its intersection with the Inner Loop to its intersection with SH 130 (along CR 204)
38. The extension of FM 464 from the intersection of Court Street and Highway 90 to its intersection with I-10
39. Extension of FM 725 from Business 123/S. Guadalupe (south of downtown) to the Inner Loop/SH 46
40. Extension of FM 725 from Inner Loop/SH 46 to the Outer Loop
41. Extension of FM 725 from Business 123/S. Guadalupe (south of downtown) to the Inner Loop/Highway 123 Bypass
42. Extension of FM 467 from Business 123/S. Guadalupe (south of downtown) to the Inner Loop/SH 46
43. Extension of FM 467 from the Inner Loop/SH 46 to the Outer Loop

Street Segment	Street Name	Road Classification	Recommended Right of Way Width	2047 Pavement Width	Buildout Pavement
1	Outer Loop	Parkway	180'	72'	72'
2	Outer Loop	Parkway	180'	48'	72'
3	Inner Loop	Parkway	180'	72'	72'
4	Inner Loop	Parkway	180'	48'	72'
5	Union Pacific	Arterial	120'	48'	48'
6	Union Pacific	Arterial	120'	48'	48'
7	Union Pacific	Arterial	120'	48'	48'
8	Highway 123	Major Arterial	180'	72'	72'
9	Highway 123	Major Arterial	180'	72'	96'
10	Business 123	Major Arterial	180'	72'	96'
11	Business 123	Major Arterial	120'	48'	72'
12	Business 123	Arterial	80'	44'	44'
13	Business 123	Major Arterial	180'	72'	72'
14	Business 123	Major Arterial	180'	72'	72'
15	Business 123	Major Arterial	120'	48'	72'
16	SH 46	Major Arterial	180'	72'	72'
17	SH 46	Major Arterial	180'	72'	72'
18	Highway 90	Major Arterial	180'	72'	72'
19	Highway 90	Major Arterial	180'	72'	72'
20	Highway 90	Major Arterial	180'	72'	72'
21	Highway 90	Arterial	80'	40'	40'
22	Highway 90	Major Arterial	180'	72'	72'
23	Highway 90	Major Arterial	180'	72	72'
24	Highway 90	Major Arterial	180'	48'	48'
25	Court St.	Major Arterial	120'	48'	48'
26	Court St.	Major Arterial	120'	48'	48'
27	Court St.	Arterial	80'	44'	44'
28	Court St.	Major Arterial	120'	48'	48'
29	Court St.	Major Arterial	120'	48'	48'
30	Court St.	Major Arterial	120'	48'	48'
31	FM 78	Arterial	180'	48'	48'
32	FM 78	Arterial	180'	48'	48'
33	FM 725	Arterial	180'	48'	48'
34	Hidalgo St.	Major Collector	120'	48'	48'
35	Guadalupe St.	Major Collector	120'	48'	72'
36	Heideke St.	Major Collector	120'	48'	72'
37	Walnut St.	Major Collector	120'	48'	72'
38	FM 464	Collector	120'	24'	48'
39	FM 725	Collector	120'	24'	48'
40	FM 725	Major Collector	120'	24'	48'
41	FM 725	Collector	120'	24'	48'
42	FM 467	Collector	120'	24'	48'
43	FM 467	Major Collector	120'	24'	48'

Figure 8. Thoroughfare Elements by Street Segment.

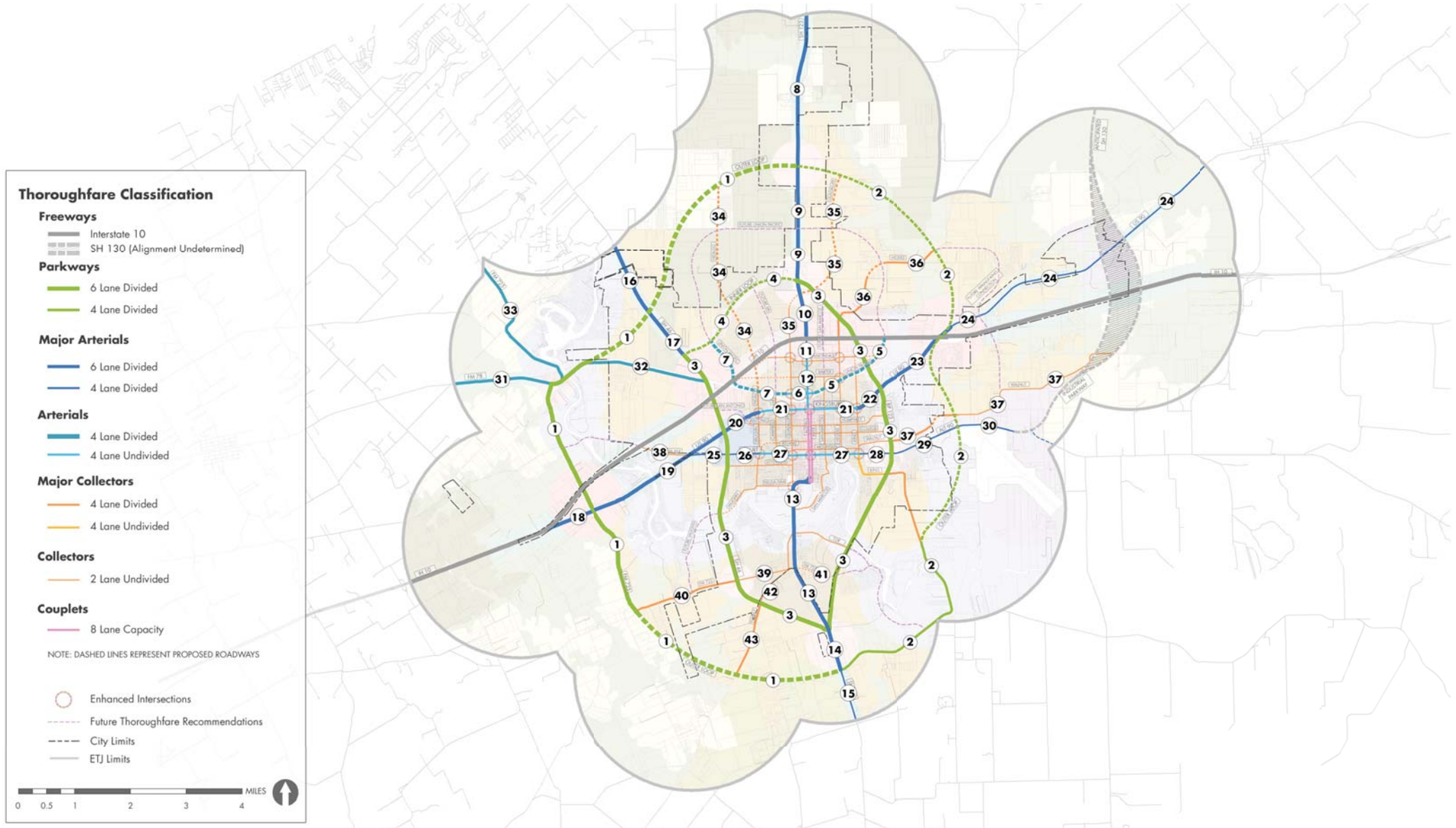


Figure 9. Map of Street Segments.

Accommodating Increased Vehicular Trips within the City Center

Existing grid discontinuities and limited right of way width has created a condition within the inner city and core city that is unable to accommodate increased traffic resulting from growth. Continued economic viability of the downtown area depends (in a large part) on the relationship between the central business area and the overall movement patterns of the City. Key to this relationship is the sustained central position of downtown in this system. In addition, increased residential growth within the core area (including the University) at a density higher than the present density, will generate more daily trips. As a result, increased traffic capacity is needed within the existing gridded street network. The greatest limitation to capacity is the large number of core area streets (east/west and north/south) that do not extend all the way from Highway 123 to Highway 46 or from Court Street to Interstate 10. Therefore, it will be necessary to connect streets that are currently off-set or complete streets that fail to make a complete connection, in order to achieve greater network continuity. Also, it will be necessary to relieve the incremental traffic controls that disrupt efficient movement. This would include location of stop signs at in-coming streets as well as coordination of signal lights. This will give priority to movement along designated connectors. Also included as a capacity increasing measure are key intersection improvements (e.g. designated turn lanes) that relieve congestion resulting from cars endeavoring to make right or left hand turns from a travel lane. Finally, the limited capacity of two streets can be combined to create greater capacity in a couplet configuration (where the two streets work together by carrying traffic in opposing directions between two points of confluence). Increased connectivity and operational efficiency will make more capacity available to the core area mobility system.

Key components of Seguin Core Area Capacity Enhancement Plan are described below by type of improvement:

1. Create a central movement spine that can accommodate increased traffic to and from a vibrant downtown core that uses Austin Street and River Street in a Couplet configuration.

a. Create merger improvements that will tie Austin and River Street together at Highway 90 (Kingsbury Street north of Court Street) and at W. Klein Street (south of Court Street).
b. Designate Austin Street as a southbound element of the Austin/River Street Couplet.
c. Designate River Street as a northbound element of the Austin River Street Couplet.

2. Create East/West Collectors that provide core area access to the Inner Loop and access to downtown via the Austin Street/River Street Couplet.

a. Designate Martindale as an east/west collector between Hidalgo Street and Union Pacific Loop (east of Highway 123)
b. Designate Baxter as a collector between the intersection of Union Pacific Loop and I-10 (west of I-10) and Union Pacific Loop (east of Highway 123)
c. Designate Kingsbury Highway as an east/west major arterial between Highway 46 and Vaughan/Hidalgo Street.
d. Designate Kingsbury Highway as an east/west arterial between Vaughan/Hidalgo Street and King Street.
e. Designate Kingsbury Highway as an east/west major arterial between King Street and Highway 123.
f. Connect E. Cedar Street, E. Humphries Street, and San Antonio Avenue as a designated east/west collector between Kingsbury Street (west of Vaughan/Hidalgo Street) and Highway 123.
g. Designate College Street as a collector between the Austin/River Couplet and Highway 123.
h. Extend Ireland Street along Dibrell and Medlin Streets to merge with Hidalgo Street and intersect with Court Street (west of SH 46)
i. Connect E. Walnut Street to Mountain Street as a designated east/west collector between Highway 123 and Guadalupe Street.
j. Designate Court Street as an east/west major arterial between SH 46 and Vaughan Street..
k. Designate Court Street as an east/west arterial between Vaughan Street and King St.
l. Designate Court Street as an east/west major arterial between King Street and Highway 123.
m. Designate Jefferson Street as a collector between Guadalupe Street and Highway 46.
n. Connect Nelda/Fair Street, Burges Street, and a new roadway extension from Burges to Highway 46 as a designated collector between South Guadalupe Street and Highway 46.

3. Create North/South Collectors that provide access to Court Street, Interstate 10, and the east/west collectors from points north and south of Court Street.

a. Connect the above described extension of Burges Street to Highway 46, Burges Street, and Vaughan Street as a designated north/south collector between Interstate 10 and Highway 46 (south of Jefferson Street).
b. Extend the Burges/Vaughan Street Collector south through Max Starcke Park along Boenig Street, and River Drive as a designated north/south collector between Court Street and South Guadalupe Street.
c. Connect 6th Street and Campbell Street as a designated north/south collector between Court Street and Kingsbury Street.
d. Extend Guadalupe Street north of Interstate 10 to make a connection with Business 123 as a designated north/south collector between the Guadalupe River and Highway 123 (north of Interstate 10).
e. Create a Couplet by combining the road capacity of Austin Street and River Street between Kingsbury Street and W. Klein Street. This couplet will function as an increased capacity portion of the Austin Street Throughway between the Inner and Outer Loops.
f. Designate San Marcos Street as a north/south collector between Baxter Street and Court Street, and extend San Marcos as a north/south collector between Court Street and Business 123 along Hampton Street, Klein Street, south River Street.
g. Designate Heideke Street as a north/south collector between Court Street and Interstate 10.
h. Designate the combined Eastwood Street/South King Street as a designated north/south collector between Kingsbury Street and Highway 123 (south of Court Street).

4. Intersection enhancement that will allow turning vehicles to exit the travel lane of key collectors.

a. Provide left turn lanes along the Martindale Collector at its intersection with Heideke Street, Austin Street, and Guadalupe Street.
b. Provide left turn lanes along the Baxter Collector at its intersection with Heideke Street and Austin Street.
c. Provide left turn lanes along the Kingsbury Street Collector at its intersection with the King/Eastwood Collector, Heideke Collector, Austin/River Couplet, and Guadalupe Collector.
d. Provide left turn lanes along the Court Street Collector at its intersection with the King/Eastwood Collector, Heideke Collector, Austin/River Couplet, and Guadalupe Collector.
e. Provide left turn lanes along the Burges/Vaughan Collector at its intersection with Court Street.

f. Provide left turn lanes along the Guadalupe Collector at its intersection with the Burges/Nelda/Fair Collector, the Court Street Collector, the Kingsbury Collector, and the Northern Loop.
g. Provide left turn lanes along the Austin Street Collector at its intersection with the Court Street Collector, the Kingsbury Collector, and the Northern Loop.
h. Provide left turn lanes along the Heideke Street Collector at its intersection with the Court Street Collector and the Kingsbury Collector.

5. Coordinated operation enhancements that will improve the efficiency of designated Collectors.

a. The Martindale Collector, the Baxter Collector, and the Jefferson Collector are secondary east/west collectors.
b. The Kingsbury Collector, the Cedar/Humphries/San Antonio Collector, the College Collector, the Ireland Collector, the Mountain/Walnut Collector, the Court Street Collector, and the Burges/Nelda/Fair Collector are primary east/west collectors.
c. The 6th Street/Campbell Street Collector, and the River/Hampton/San Marcos Collector are secondary north/south collectors.
d. The Burges/Vaughan Collector, the Guadalupe Street Collector, the Austin Street Collector, the Heideke Collector, and the King/Eastwood Collector are primary north/south collectors.
e. When a secondary collector intersects with a primary collector, the secondary collector shall yield to the primary flow.
f. When a secondary collector intersects another secondary collector, the north/south collector shall yield to the east/west flow.
g. When a primary collector meets a primary collector a traffic light shall regulate intersection flow with east/west movement along Kingsbury and Court being facilitated by synchronized traffic lights and north/south movement along Austin being facilitated by synchronized traffic lights.

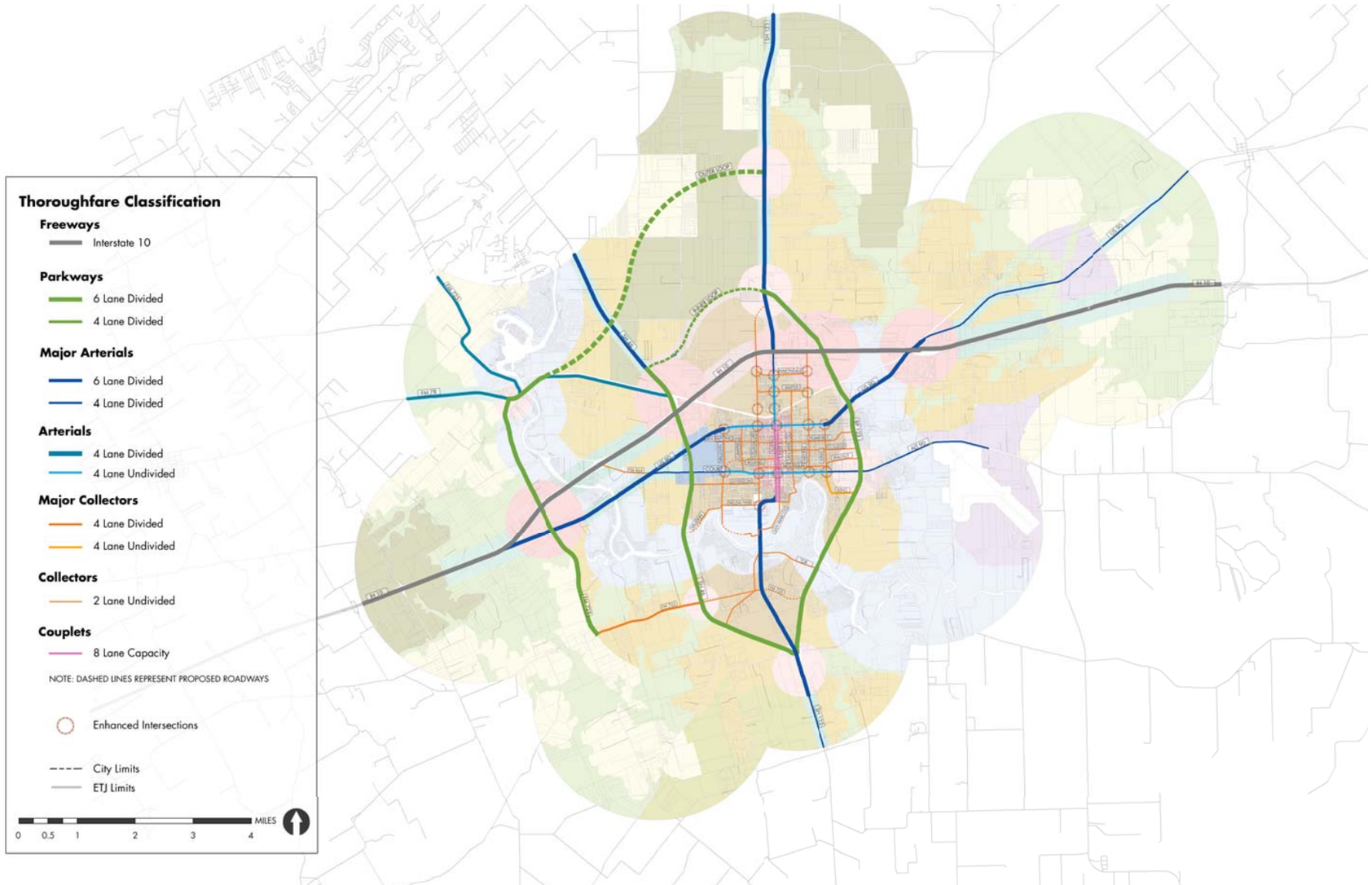


Figure 10. The Seguin Thoroughfare Plan - Phase 1. This initial phase of the Thoroughfare Plan designates existing major roadways according to their functional classification and targets specific improvements in the inner city area that will improve traffic flow and relieve congestion, including building new roadways and key intersection enhancements to complete a maneuverable grid. The northwest portions of the Outer and Inner Loop system should be constructed at this time to create relief points for major roadways leading into Seguin from the north and west, thus establishing the first components of the "Hub and Spoke" system.

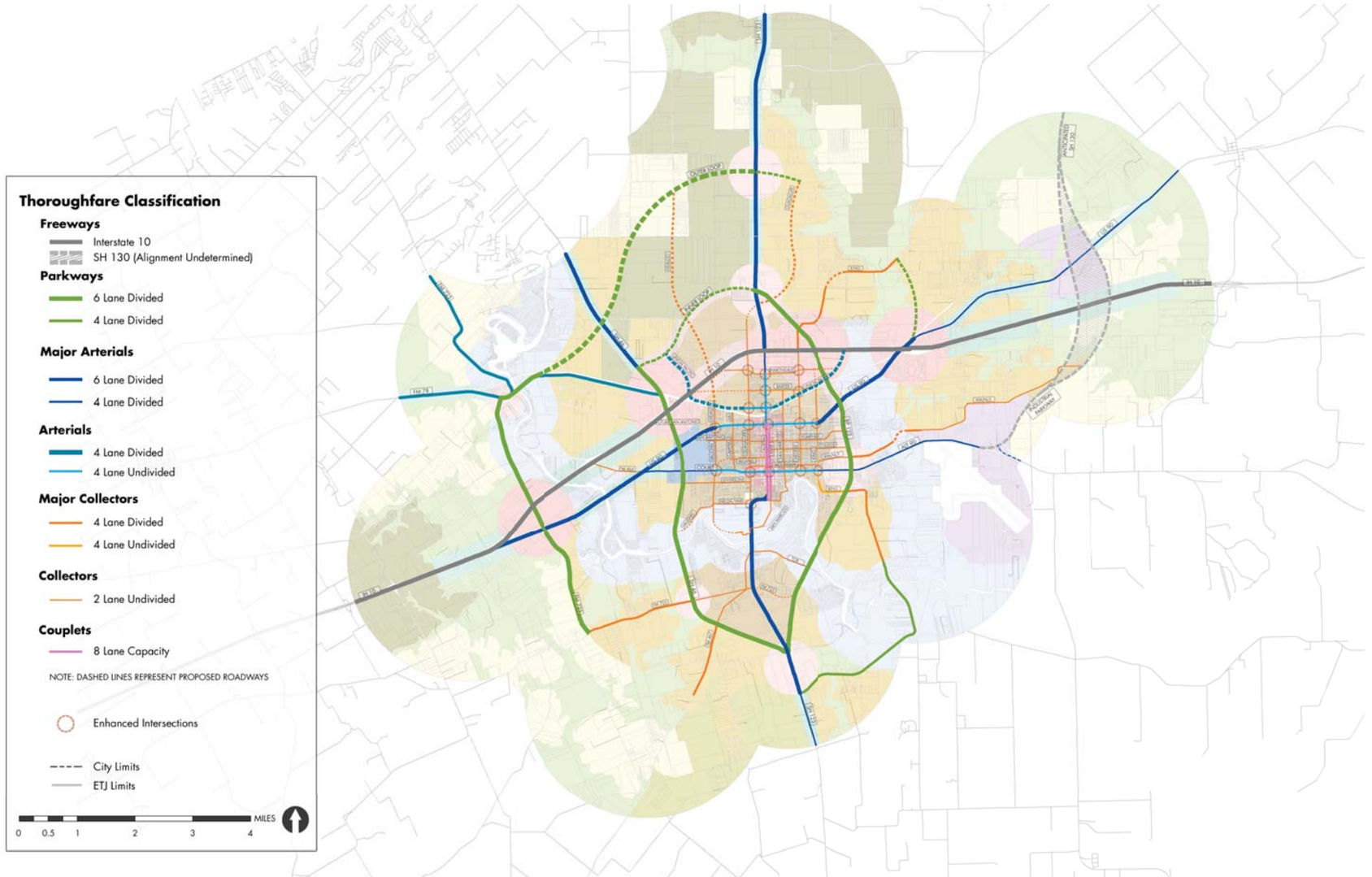


Figure 11. The Seguin Thoroughfare Plan - Phase 2. This second phase of the Thoroughfare Plan lays the foundation for future growth by completing portions of the Outer Loop and building Major Collectors that pass through emerging residential communities, which will serve as "spokes" to and from the inner city. The inner city grid system should be completed, as well as the initial portion of the Union Pacific Loop from I-10 (east of Highway 123) to the Inner Loop (west of Business 123).

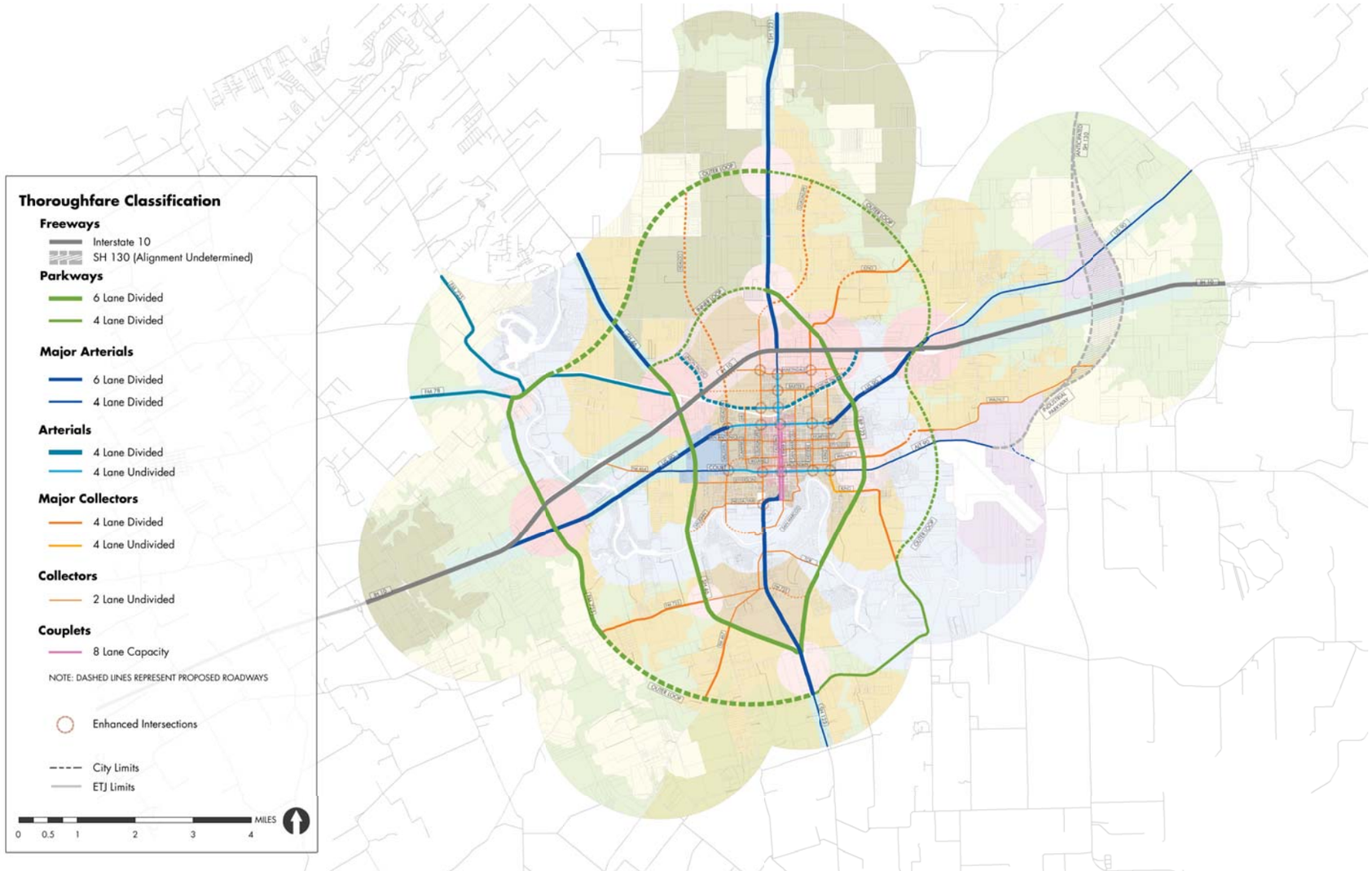


Figure 12. The Seguin Thoroughfare Plan - Phase 3. The third phase of the Thoroughfare Plan completes the "Hub and Spoke" system of Seguin by completing the final sections of the Outer Loop to serve the growing Emergent Residential Communities in the northeast and southwest, and to accommodate the increased traffic generated by Regional Nodes.

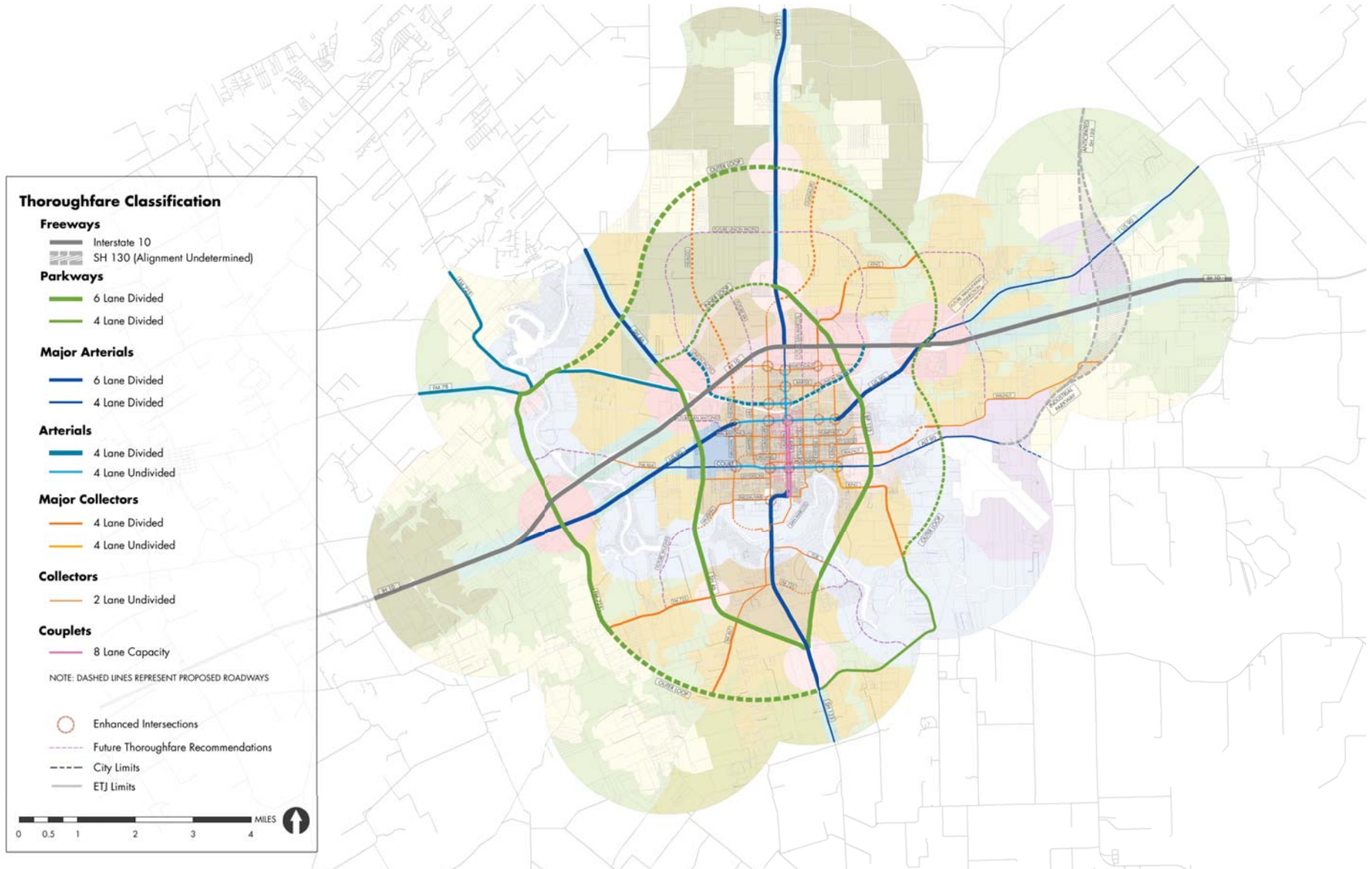


Figure 13. The Seguin Thoroughfare Plan - Phase 4. As Seguin continues to grow beyond the planning horizon of 2047, it is important to preserve the logical system that has been established in this Thoroughfare Plan by making recommendations for future roadway locations that coincide with the strategies and ideas put forth today. These roadways (indicated by the dashed purple line) are not included in the trip volume calculations and should be classified appropriately as development occurs.

Reducing Trips: Public Transit and Reintroducing the Trolley

As Seguin grows, attracts more core area visits, and realizes development of the downtown core, sufficient trip demand for inter connection among various activity nodes should evolve that could support a trolley type conveyance. The proposed trolley discussed below is the first phase of a multi-phased public transit strategy that will:

1. **Strengthen Downtown:** Reintroduction of the Trolley. In the early part of the 20th century, Seguin's downtown area was distinctly more urban than it is today. Holding commercial and circulation dominance over the form of the City, downtown was served by a Trolley that ran between Seguin's train station (near Austin Street and New Braunfels Street) and the central business district (downtown). This trolley symbolized and reinforced a vibrancy which could only be found at the heart of the City. As a first phase of Seguin's Public Transit Strategy, it is recommended that the trolley connection between the train station (now the Station District) and downtown be restored. This will serve as an economic development initiative to give downtown (and the Station District) an advantage of identity and thereby attract more visitor related spending venues (restaurants, entertainment, etc.). The trolley will also serve as a Vehicular Trip Reduction initiative to facilitate less trip volumes on already crowded downtown streets (as downtown develops). It is likely that the earlier train tracks that served the original trolley line remain beneath subsequent paving and street repair. If such is the case, these tracks can potentially be reused as the track width has remained constant for most of the 20th century (4 feet, 8 inches).

   The new trolley should be a restored historic trolley (available from many cities including the McKinney Ave Transit Authority in Dallas) that runs along a route between the Historic Train Station Area (the Station District) and Seguin's downtown, using Austin Street for the south bound leg and River Street for the north bound leg. This would reinforce the earlier recommended couplet function of Austin and River Streets and facilitate redevelopment of River Street for uses that supplement and serve both the Station District and downtown (e.g. Bed and Breakfast Houses, etc.).

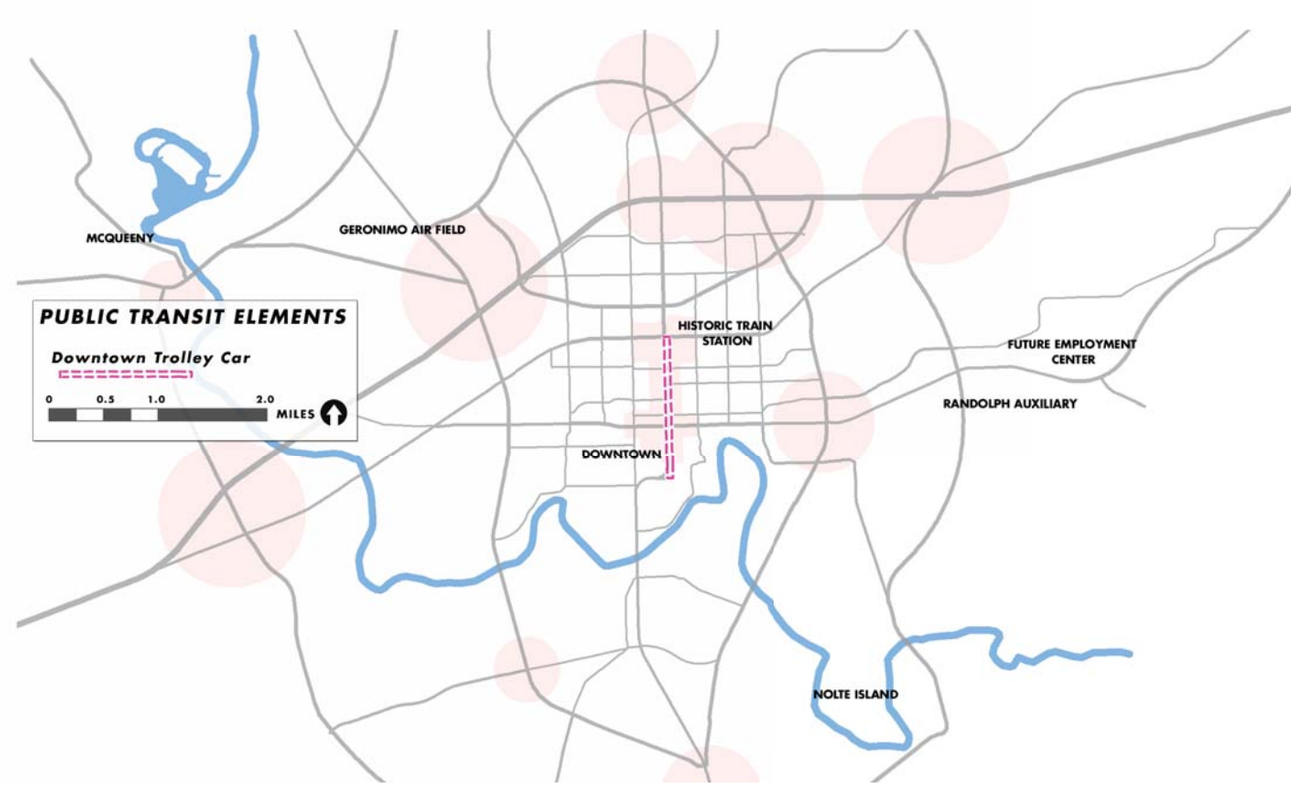


Figure 14. The Seguin Public Transit Plan - Phase 1. Reintroduce the trolley to downtown Seguin in a route that connects the Station District with downtown to encourage economic development.

2. Serve the Core: Facilitate Movement within the Older City. Growth of Seguin will also mean growth of the City's core area (including the Transition District, the Walnut Creek Districts, the Jefferson District, and the University District, as well as areas south of the River and inside the Inner Loop). Growth in these areas will have significant impact on already busy streets. Therefore an initial public transit plan is needed for this area. The proposed plan has four components:

a. A Western Bus Loop that starts at the Trolley Station (Station District), runs south through downtown to the intersection of Business 123 and the Inner Loop, then west and north along the Inner Loop to the intersection with Highway 90 (Kingsbury Street), then east along Highway 90 to its point of beginning at the Trolley Station.
b. An Eastern Bus Loop that starts at the Trolley Station (Station District), runs south through downtown to the intersection of Business 123 and the Inner Loop, then east and north along the Inner Loop to the intersection with Highway 90 (Kingsbury Street), then west along Highway 90 to its point of beginning at the Trolley Station.
c. A University/Downtown/Retail bus link along Court Street that runs from Texas Lutheran University to the local commercial node at Court Street and Highway 123, making a stop at the downtown Courthouse Plaza. This link could be a "Hop-a-Bus" type service that can make frequent stops within this busy corridor.
d. A Northeastern Bus Loop that starts at the Trolley Station (Station District), runs north to the intersection of Business 123 and the Inner Loop (north of I-10), then south along the Inner Loop (Highway 123) to the intersection with Highway 90 (Kingsbury Street), then west along Kingsbury Street to its point of beginning at the Trolley Station.

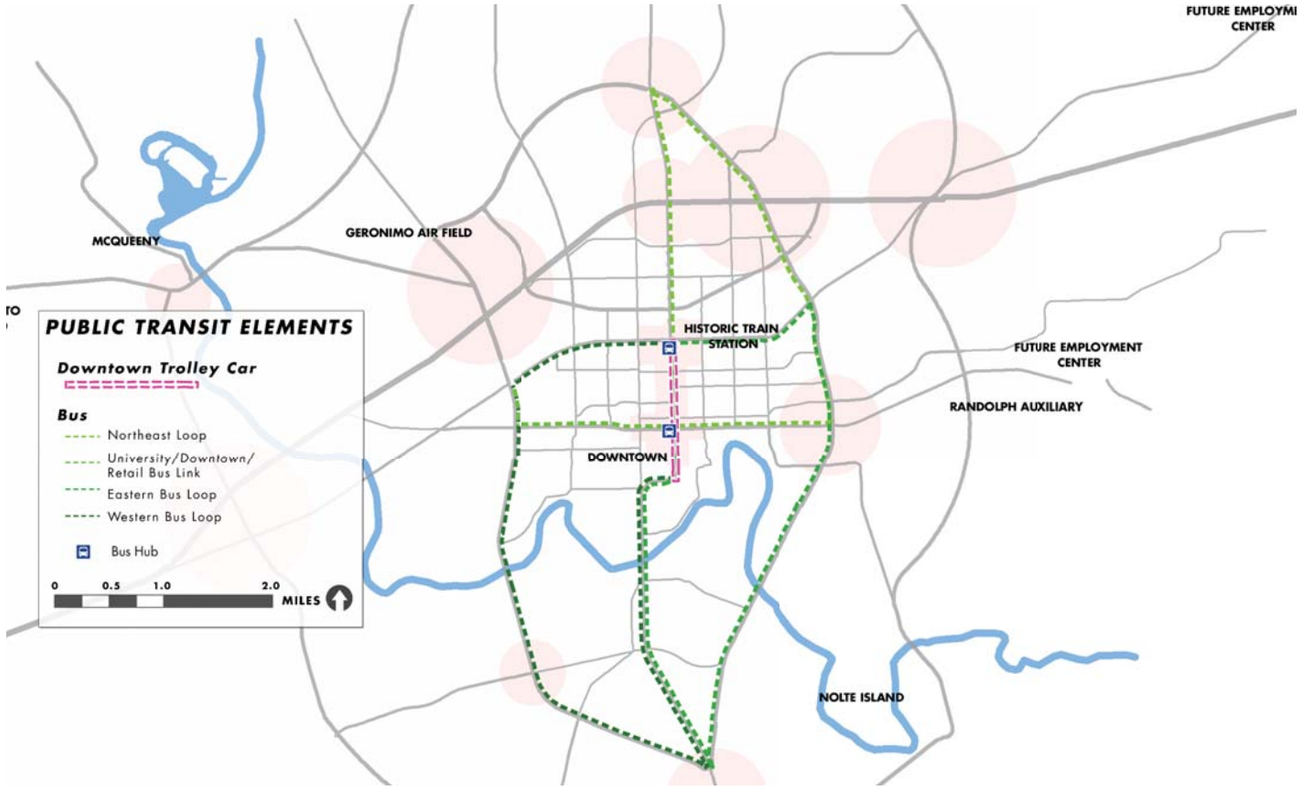


Figure 15. The Seguin Public Transit Plan - Phase 2. Establish four distinct bus loops to serve Seguin's core neighborhoods and alleviate traffic congestion in these neighborhoods and downtown.

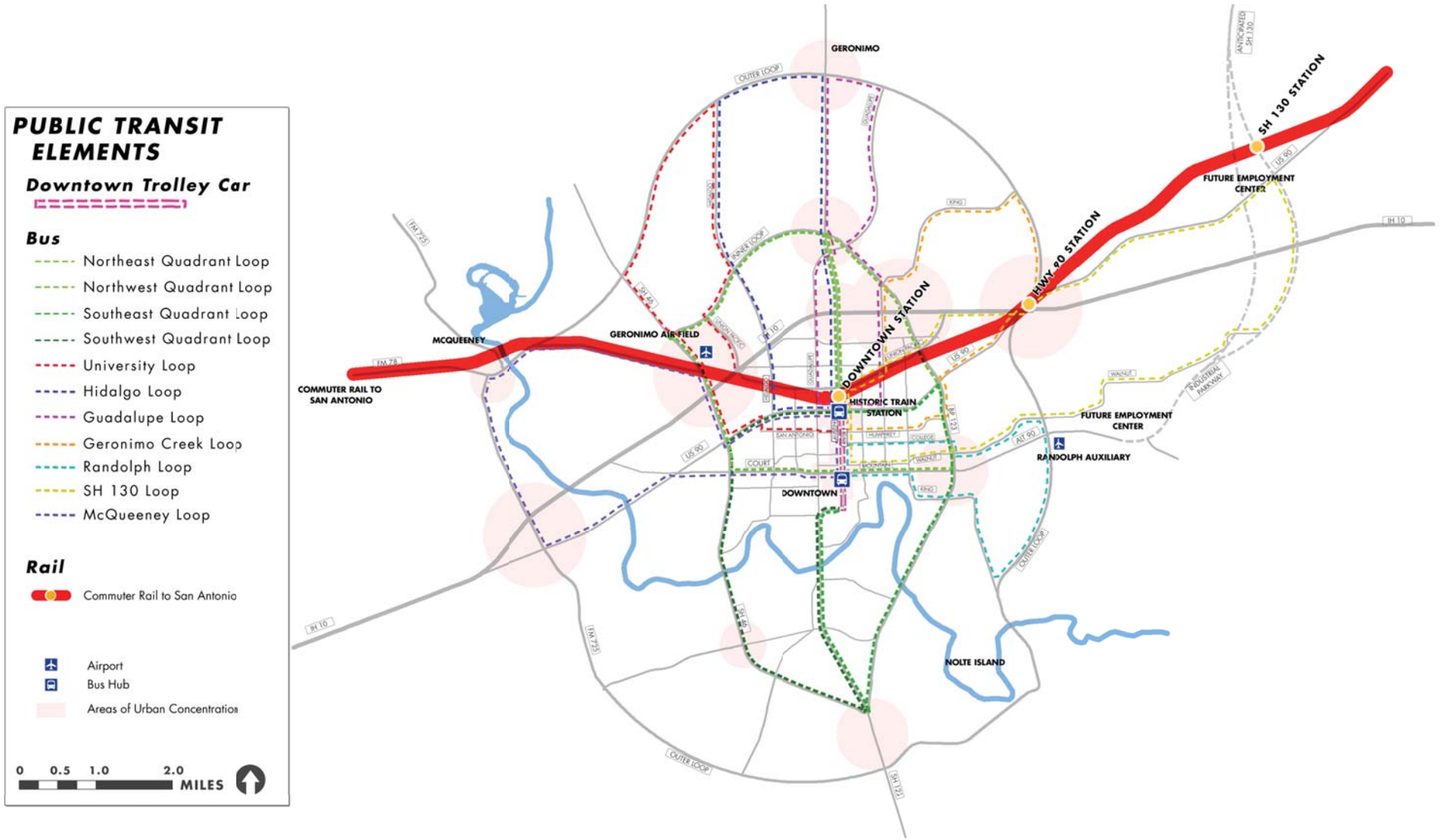


Figure 16. The Seguin Public Transit Plan - Phase 3. Expand the Phase 2 bus service to encompass outlying areas of new growth, and partner with surrounding communities to provide commuter rail service to regional nodes, employment centers, downtown, and other cities.

3. Serve the City: Facilitate Movement within Seguin (Intra-city) and to its neighbors (Inter-city). Street sizes recommended in the Seguin Future Thoroughfare Plan anticipate (and necessitate) "Vehicular Trip Reductions" derived from execution of a City-wide Public Transit initiative. The City-wide Public Transit initiative makes use of Commuter Rail, Bus service, and the downtown Trolley. In addition to the transit initiatives discussed above, the remaining Public Transit initiatives are as follows:

a. Provide expanded Bus Service through increased Bus Routes that serve areas of new growth north of Kingsbury Street and beyond the Inner Loop. The Phase III Public Transit Plan shows numerous bus routes serving portions of Seguin north of Kingsbury Street (all the way out to the Outer Loop including the SH 130 Employment Area as well as the major Regional nodes shown on the Land Use Plan), south of downtown (all the way out to the outer Loop), west of Highway 46 (all the way out to the Outer Loop), and east of Highway 123 (all the way out to the Outer Loop and including the Randolph Employment Area). Recommended Bus Routes are shown on Figure 16. More specifically, these Bus Routes include:

   i. Northerly Bus Service is comprised of a series of Bus Loops that start and return to the Trolley Station. Northerly Bus Loops include:

      1. The University Loop
      2. The Hidalgo Loop
      3. The Guadalupe Loop
      4. The Geronimo Creek Loop

   ii. Easterly Bus Service is comprised of a series of Bus Loops that start and return to either the Trolley Station or the Downtown Plaza. Easterly Bus Loops include:

      1. The Randolph Loop
      2. The SH 130 Loop
      3. The Northeast Quadrant Loop

   iii. Southerly Bus Service is comprised of a series of Bus Loops that start and return to the Downtown Plaza. Southerly Bus Loops include:

      1. The Southeast Quadrant Loop
      2. The Southwest Quadrant Loop

   iv. Westerly Bus Service is comprised of a series of Bus Loops that start and return to either the Trolley Station or the Downtown Plaza. Westerly Bus Loops include:

      1. The McQueeney Loop
      2. The Northwest Quadrant Loop

b. Provide Commuter Rail Service to neighboring Cities through shared use of the Southern Pacific Rail Line. The location of the Commuter Rail Line coincides with the location of major Regional Nodes, Employment centers, and the Business Core as shown on the Land Use Plan. This provides a unique opportunity to tie commuter rail directly to destinations able to most benefit from such service. Commuter service to Regional Nodes, Employment Centers, and the Business Core can be accomplished through three Commuter Rail Stations. These Stations are:

   i. Downtown Station located at historic Train Station/ Trolley Stop.
   ii. Highway 90 Station located at the intersection of the rail line, I-10, and the Outer Loop.
   iii. SH 130 Station located at the intersection of the rail line, SH130, and I-10.

Conclusion

The proposed Future Thoroughfare Plan for Seguin creates a local and overall system that protects the existing older road network. The Future Thoroughfare Plan accomplishes the following:

- Preserves the existing City form
- Preserves existing elements of the City system
- Improves current street continuity
- Provides cross town connection between major arterials
- Reinforces the importance of the Seguin City center
- Connects outlying areas of development with the overall City fabric
- Creation of a comprehensible legibility that aids orientation and identity
- Relieves the potential traffic burden on older local streets imposed by growth and development adjacent to the City
- Offers a phased approach to the future system

In the final analysis, Seguin's Future Thoroughfare Plan provides greater lane capacity and it combines elements of the existing thoroughfare framework with an overall system design for the future.

4.4 the infrastructure plan

Any long-range economic development strategy for Seguin must include a clear plan for the provision of water, wastewater, and drainage facilities.

Any long-range economic development strategy for Seguin must include a clear plan for the provision of water, wastewater, drainage, and electrical facilities. The current population of Seguin is 26,000 people. As stated previously in this Plan, the projected populations in 2017 and 2047 are 34,000 and 78,000 people, respectively. Despite the projected populations, the City of Seguin currently has very distinct service areas for water, wastewater, and electricity. These service areas are represented on Figures 1, 2, and 3. Thus, even as the population increases, the City of Seguin may not be providing infrastructure support to meet these increases.

Service areas are controlled and monitored by the Texas Commission on Environmental Quality (T.C.E.Q.). Cities have Certificates of Convenience and Necessity (CCN) that define their service areas and that are issued by the T.C.E.Q. A CCN authorizes a utility to provide water or sewer service to a specific area and obligates the utility to provide continuous and adequate service to every customer who requests service in that area. The relative capacities for future growth of various infrastructure components for water are based on the projected population within the existing CCN only. This is because the City is completely surrounded by other entities and legally cannot serve areas without consent from those entities (Figure 1). Thus, even though the population in 2017 is 34,000 people, the City may only be providing water service to 30,000. The relative capacities for future growth of various infrastructure components for sewer are based on the projected population as a whole for the entire City. This is because the City has additional area in which to acquire CCN within the E.T.J. (Figure 2). Thus, it is assumed that the population in 2017 is 34,000 people and the City is providing sewer service for 34,000 people.

The Comprehensive Plan and impact fee study should correlate between each other for future development and infrastructure needs in order to best serve the growth of the City. Both studies determine a land use plan that will help guide the future growth of the City. The City of Seguin most recently updated its impact fees for water and sewer in 2005. The water portion was updated again in 2007 due to the Schertz/Seguin Water Supply Corporation beginning to charge its own impact fee. The capacity analysis, land use plan, and population projections were not changed in the revision. The capacity analysis for all sewer and water infrastructure is based on a living unit equivalent (LUE). The LUE is a derivative measurement intended to establish a common measurement unit for all types of land uses. An LUE is equivalent to the amount of demand typically produced by a single-family residence using a ¾" water meter. Demand is directly calculated by population and translated into LUEs. Thus, an LUE is not a unit usage statistic per se, but rather a translation of such statistics into a common denominator. It is standard practice to use a LUE as a measurement in capacity analysis for impact fee studies and comprehensive plans.

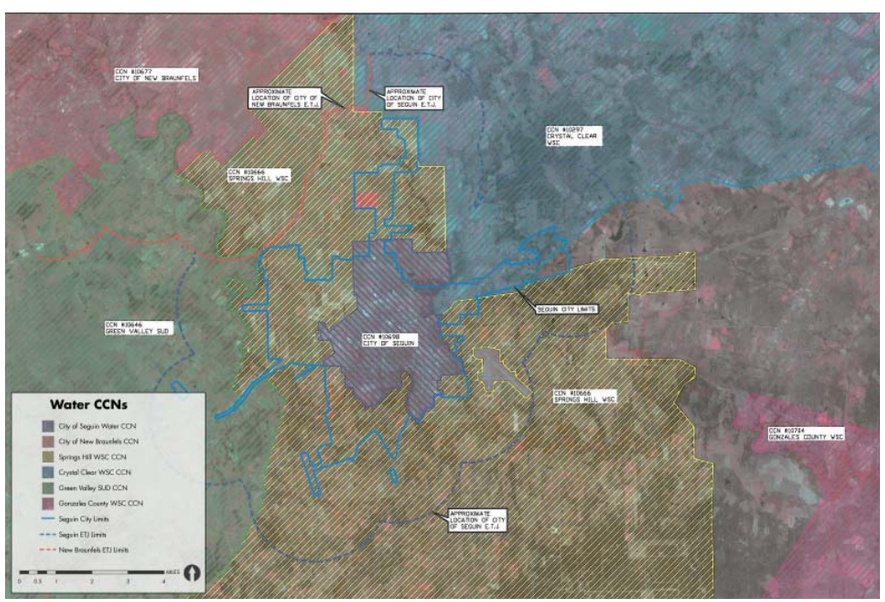


Figure 1. Seguin Area Water Certificates of Convenience and Necessity.

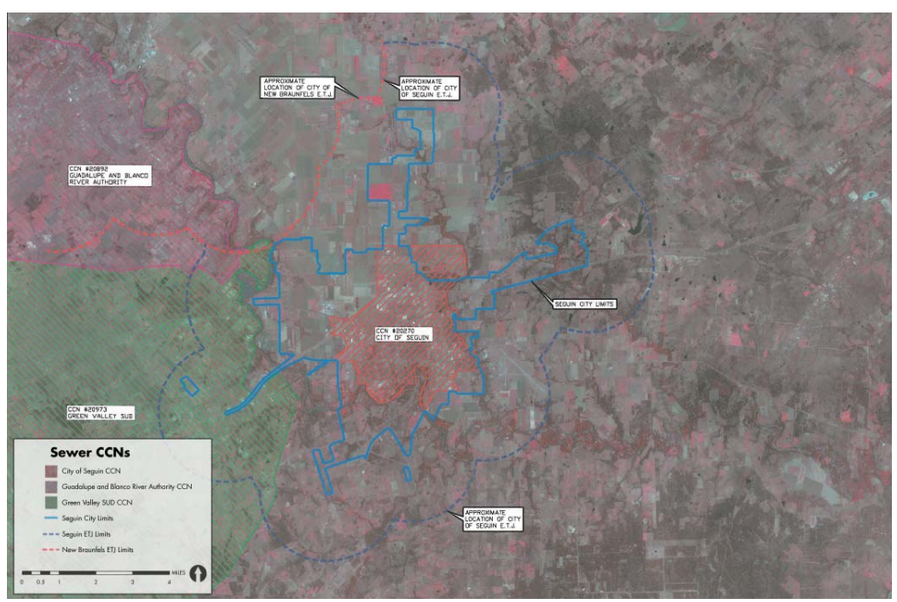


Figure 2. Seguin Area Sewer Certificates of Convenience and Necessity.

WATER

The water needs of Seguin will ultimately be supplied by Schertz/Seguin Water Supply Corporation, Spring Hill Water Supply Corporation, Green Valley Water Supply Corporation, and Crystal Clear Water Supply Corporation. The City currently purchases treated groundwater from the Schertz/ Seguin Water Supply Corporation. By contract, the City is entitled to 50% of the groundwater from the wells and treated groundwater from the Nixon Water Treatment Plant. The City provides potable groundwater to residents within its current CCN. In addition to the groundwater, the City also has water rights from the Guadalupe Blanco River Authority (G.B.R.A.) to use the Guadalupe River for a source of surface water supply. All current and future citizens of Seguin outside the City's current CCN will be supplied potable water from the other entities listed above. Each entity has a responsibility to provide adequate facilities to produce, transport, and treat a potable water supply per T.C.E.Q.

The population data used herein is based on the established populations previously set forth in this Plan. The City has 7,716 various sized water meters in service at this time. Based on the various water meter sizes (meters larger than ¾" will count for more than one LUE) and the total number of each, the total LUEs used for comparison was 9,151. The conversion factors (LUEs per meter) are a standard from the American Water Works Association (AWWA). These are based on continuous duty maximum flow rate in gallons per minute derived from AWWA C700-C703. Figure 4 lists the number of each type of water meter in Seguin and illustrates how the total number of LUEs (9,151) was obtained.

As previously discussed, the City of Seguin is limited to future water service growth within its current CCN area. Based on this existing area, conservative estimates were calculated to determine the future population per LUE for 2017 and 2047. Based on the land use plan, the population per LUE between today and 2017 is estimated to be 3.50 people per LUE. In addition, the population per LUE between 2017 and 2047 is estimated to be 10.00 people per LUE. This would correlate to 11,437 LUEs in 2017 and 15,837 LUEs in 2047 for the City. These LUE numbers are based on the City retaining its existing CCN area and not expanding it to service any additional area. In summation, as the City continues to grow, little or no water service will be provided to the additional citizens by the City because most of the growth will occur outside the existing CCN and will be served by other entities. Thus the total population per LUE would increase over time.

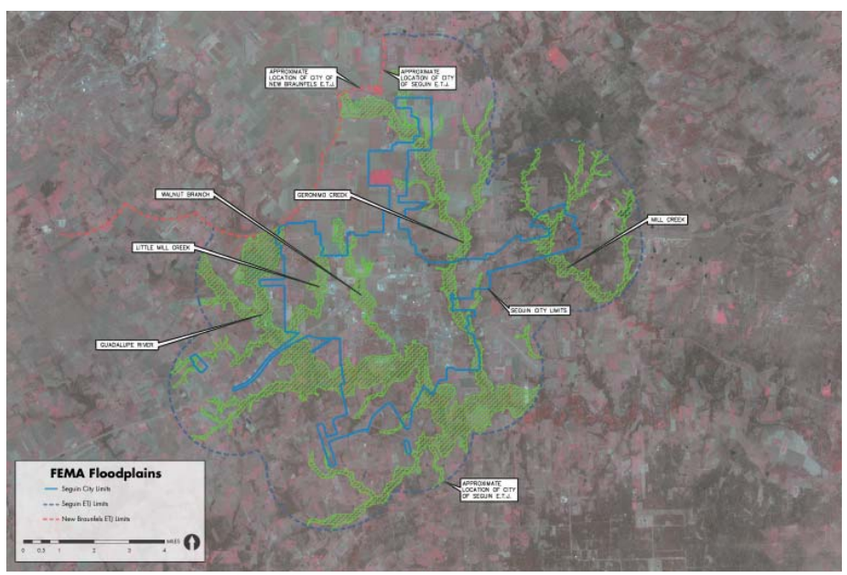


Figure 3. Seguin Area FEMA Floodplains.

METER SIZE	LUEs per Meter	Number of Meters	Number of LUEs
5/8"	0.667	0	0
3/4"	1	7,251	7,251
1"	1.667	171	285
1-1/4,1-1/2	3.333	87	290
2"	5.333	163	869
3"	10.667	24	256
4"	16.667	12	200
6"	33.333	8	267
Total		**7,716**	**9,151**

2008 Population per LUE: 2.84

Figure 4. Seguin Living Unit Equivalent (LUE) Calculation Table.

Water Supply

The Schertz/Seguin W.S.C. currently has eight wells in service capable of producing approximately 13.824 million gallons per day (MGD). Per the agreement between Seguin and Schertz, only half of this production is available to the City of Seguin at any given time. Thus, for engineering purposes, this study will assume 6.912 MGD existing supply available for Seguin. In addition to the groundwater, the City also has water rights from the Guadalupe Blanco River Authority (G.B.R.A.) to use the Guadalupe River for a source of surface water supply. The City is allowed to use 7,000 acre feet a year from the River (6.249 MGD). The City also purchases 1,000 acre feet per year from G.B.R.A., bringing the total water available from the Guadalupe River to 7.142 MGD. Based on data provided by City personnel, the average groundwater usage per LUE is 412 gallons per day. The peak groundwater usage per LUE is 696 gallons per day.

T.C.E.Q. requires a minimum ground water capacity of 0.6 gallons per minute (gpm) per LUE. Based on the City's total number of LUEs of 9,151, the City would need 7.906 MGD of water supply. The City currently has 6.912 MGD available for groundwater (Figure 5). However, since the City also has an additional 7.142 MGD (8,000 acre feet) of surface water available, it is in compliance with T.C.E.Q. requirements. The City only serves Tyson Foods and the Rio Nogales Power Plant with surface water.

For future growth, the Schertz/Seguin W.S.C. has secured rights to a total of 20,000 acre feet of groundwater rights in Gonzales County. This is equivalent to 17.854 MGD total and 8.927 MGD total for the City of Seguin.

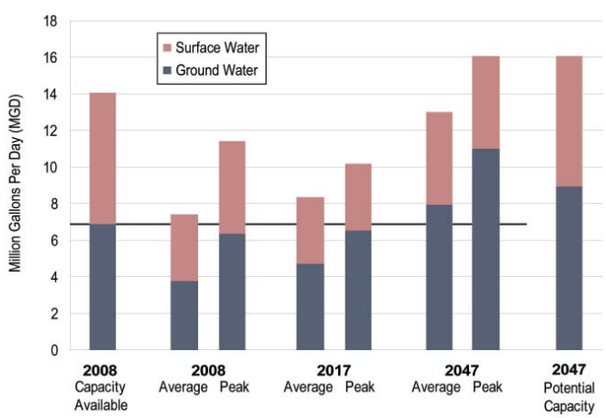


Figure 5. Seguin Current and Future Water Availability and Usage.

In addition, preliminary discussions have begun for water right purchases within Guadalupe County for 10,000 additional acre feet of groundwater supply. Schertz/Seguin W.S.C. has leased properties for future wells in Guadalupe County. They are applying to the County for permission to drill wells and utilize capacity of approximately 10,000 acre feet of water. The same water usage per LUE shown above is projected for the future LUEs. The future water usage for the surface water remains unchanged since the City still primarily only serves two establishments with surface water. The City also wishes to continue to serve primarily groundwater to its citizens. The 10,000 acre feet of water from Guadalupe County is also not represented in Figure 5 due to uncertainty of the volatile water rights in Central Texas. Based on this information the City will need to assist and/or encourage Schertz/Seguin W.S.C. in obtaining the additional 10,000 acre feet of groundwater rights and necessary infrastructure improvements to continue to provide groundwater to its service area in 2047.

Water Treatment

The Schertz/Seguin W.S.C. currently has one groundwater treatment plant. This plant is expected to treat all of the existing water wells and proposed future water wells to meet the 20,000 acre feet per year limit in Gonzales County. The treatment plant has a capacity of approximately 17.28 MGD. Per the agreement between Seguin and Schertz, only half of this treatment capacity is available to the City of Seguin at any given time. Thus, for engineering purposes, this study will assume 8.64 MGD existing supply available for Seguin. The average and peak quantities treated by the groundwater plant is equal to the water supply from the groundwater plant described above. The plant is referred to as the Nixon Water Treatment Plant.

In addition to the Nixon Water Treatment Plant, the City also has a surface water treatment plant located within the City on the Guadalupe River that has a capacity of 11.60 MGD. The plant is referred to as the Starcke Park Water Treatment Plant. The City has the means to blend treated groundwater and surface water in the distribution system to meet peak demands and special purposes throughout the year. To date, the City has rarely had to use this means to meet water demands. Less than 10% of the time during the summer months has the City had to blend water in order to meet demand. The City has determined that residential customers should be served with groundwater in lieu of surface water or blending. The Starcke Park water plant currently treats water only for use by Tyson Foods and the Rio Nogales Power Plant. The average water treated for these industrial users is 3.63 MGD. The peak water treated for them is 5.03 MGD.

T.C.E.Q. requires a minimum treatment capacity of 0.6 gpm per LUE. With 9,151 LUEs currently, the City would need 7.906 MGD of treatment capacity. The City currently has 8.64 MGD treatment capacity at the Nixon Water Treatment Plant. In addition, the City also has 11.60 MGD of treatment capacity at the Starcke Park Water Treatment Plant. The existing capacities and actual usages are shown in Figure 6.

The Schertz/Seguin W.S.C. has no capital improvements to increase the capacity of the existing Nixon treatment plant at this time. If water rights are acquired in Guadalupe County, an additional treatment plant will be constructed. The City of Seguin has no capital improvements to increase the capacity of the existing Starcke Park water treatment plant at this time. Based on future growth and the average and peak capacities required, the City of Seguin will possibly be deficient in meeting peak flows required by the groundwater treatment plant in 2047. However, these peaks will not be seen at the Nixon plant since the maximum amount of water available to the City from the wells will have already been exceeded. Thus, the new treatment plant will have to be constructed to meet this additional flow requirement.

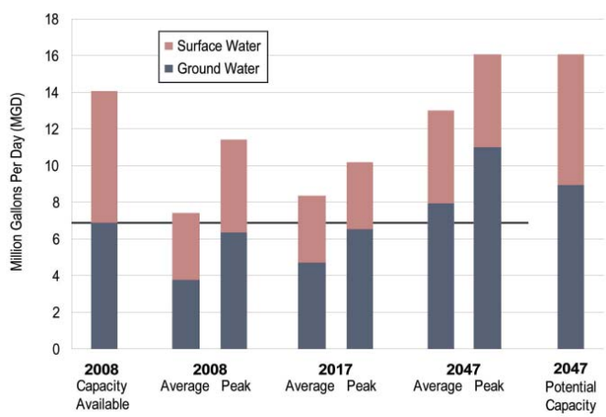


Figure 6. Seguin Current and Future Water Treatment Capacity and Usage.

Pumping Capacity

The Schertz/Seguin W.S.C. pumps potable water from the Nixon water treatment plant to the City of Seguin. The City then pumps the water into the distribution system and to the various elevated tanks throughout town. The City has an existing high service pumping capacity of 14.40 MGD. This is based on the pumping capacity at the Starcke Park water treatment plant. Currently, the Starcke Park water treatment plant has four 2,500 gpm high service pumps. These pumps do not currently pump surface water to the distribution system, but they can be operated this way. They are only used to distribute groundwater received from the Schertz/Seguin W.S.C. The Starcke Park plant has an additional four 2,000 gpm high service pumps to pump surface water to Tyson Foods and Rio Nogales Power Plant. The pumping capacity at the Nixon Water Treatment Plant was not included in the total pumping capacity shown in Figure 7. The Schertz/Seguin W.S.C. control these pumps. The Nixon plant has four 3,000 gpm high service pumps and a high service pumping capacity of 17.28 MGD.

T.C.E.Q. requires that the City provide capacity for 2 gpm per LUE or 1,000 gpm total pumping capacity with one pump out of service and the ability to meet peak hourly demands. Based on the current LUEs (9,151), a capacity of 26.35 MGD would be needed to meet the first criteria, which the City cannot currently meet. However, the City can currently meet the second criteria, as the estimated peak hourly demand is 6.37 MGD and the City has 10.80 MGD pumping capacity (3 – 2,500 gpm pumps), with one pump out of service.

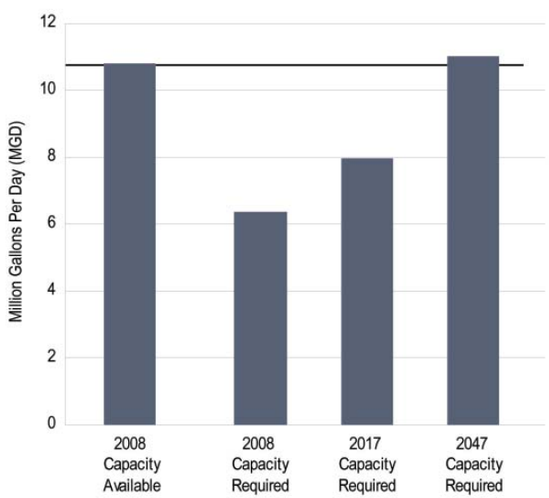


Figure 7. Seguin Current and Future Water Pumping Capacity and Usage.

It should also be noted that the City has one additional high service pump station located along SH 123 Bypass. This pump station delivers water from the Lucille elevated tank to the Continental elevated tank. The pump station has three 500 gpm high service pumps. This pump station was not included in the total capacity since it currently serves a small portion of City and a small elevated tank. If the elevated tank is upsized at a future date, then the pump station would need expanding as well.

The City of Seguin has no capital improvements planned to increase the capacity of the existing booster pumps for the groundwater and surface water systems at this time. If water rights are acquired in Guadalupe County, an additional treatment plant will be constructed and subsequent booster station by Schertz/Seguin W.S.C. Based on future growth and the peak capacities required, Seguin will possibly be deficient in meeting peak flows required in 2047. It should be noted that the City of Seguin does have plans to increase the size of the existing high service pumps located along S.H. 123 Bypass if and when a new elevated tank is constructed in this portion of town.

Ground Storage

The City has three main ground storage reservoirs. The total existing ground storage capacity is 3.14 million gallons (MG). At the Starcke Park water treatment plant there is a 3.0 MG ground storage tank. The high service pump station previously mentioned that pumps water from the Lucille elevated tank to the Continental elevated tank has two 70,000 gallon ground storage tanks. The ground storage capacity at the Nixon water treatment plant, which is a 2.0 MG tank, was not included in the overall capacity. Engineering standard practice is to have 100 gallons per LUE for ground storage capacity. Based on the existing LUEs (9,151), 0.9151 MG of ground storage is required, which is easily met by the City's existing 3.14 MG ground storage capacity.

Based on the future LUEs (11,437 LUEs in 2017 and 15,837 LUEs in 2047) and the engineering standard described above, the City should have sufficient capacity to serve the future population. For 2017, 1.1437 MG of ground storage is required, and for 2047, 1.5837 MG of ground storage is required. These requirements can be met by the City's currently existing ground storage capacity.

Despite having sufficient ground storage capacity for future populations, additional ground storage may be required in areas of specific development or to meet specific needs. An example would be if the City increased the high service pump station size along S.H. 123 Bypass, the existing Continental ground storage may be required to be increased for a functional system. The City has no immediate plans for capital improvement projects to construct new reservoirs or increasing the size of existing ground storage reservoirs.

Elevated Storage

The City has four elevated tanks located throughout the City. The Lucille and Kingsbury tanks have a capacity of 1.0 MG each. The Ireland tank has a capacity of 0.5 MG and the Continental tank has a capacity of 0.15 MG. The City has a total existing elevated storage capacity of 2.65 MG. T.C.E.Q. requires 100 gallons per LUE for elevated storage capacity. Based on the existing LUEs of 9,151, 0.9151 MG of elevated storage is required. This is easily met by the City's existing 2.65 MG elevated storage capacity.

Based on the future LUEs (11,437 LUEs in 2017 and 15,837 LUEs in 2047) and T.C.E.Q. requirements described above, the City should have sufficient capacity to serve the future population. For 2017, 1.1437 MG of elevated storage is required, and for 2047, 1.5837 MG of elevated storage is required.

Despite having sufficient elevated storage capacity for future populations, additional elevated storage may be required in areas of specific development or to meet specific needs. An example would be if the City had a large development near the extents of its service area and a certain pressure or quantity of water was required that could not be met by the existing system. The City has plans for capital improvement projects to construct a new elevated tank on C.H. Matthies Jr. to better service the western portion of the City. In addition, another new elevated tank is proposed to replace the existing Continental elevated tank to increase capacity in the north portion of the City.

Distribution System

The City has an extensive distribution system consisting of water main sizes ranging from 2" to 24". Engineering standard practice is to have 1.5 gallons per minute per LUE for distribution system capacity. The 30" and 42" transmission mains from the Schertz/Seguin W.S.C. have not been included in the City's distribution system capacity because they are not used for distribution purposes. Based on the existing LUEs (9,151), 19.766 MGD of capacity is required (or 2,160 gallons per LUE). The City has an existing distribution system capacity of 22.066 MGD. However, this capacity does not necessarily mean the City has an excess of capacity. Some areas within the City and the outlying areas are deficient or have no distribution at all. In addition, existing pressure in some areas may not be adequate for fire protection.

Based on the future LUEs (11,437 LUEs in 2017 and 15,837 LUEs in 2047) and engineering standards described above, the City will not have sufficient capacity to serve the future population (Figure 8). For 2017, 24.704 MG of capacity is required, and for 2047, 34.208 MG of capacity is required.

The City has plans for numerous capital improvement projects to construct additional distribution system lines to better service the City.

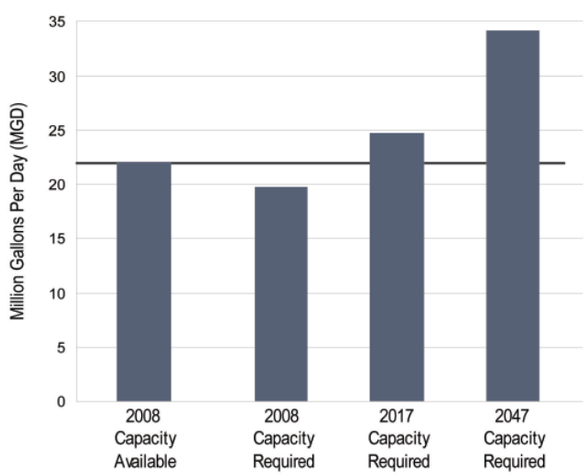


Figure 8. Seguin Current and Future Water Distribution Capacity and Usage.

Future Considerations

As shown in the above section, the City of Seguin has substantial water system infrastructure capacity to handle most of the projected growth. For elevated and ground storage capacities the City can serve populations up to the year 2047 and still meet State requirements. For water supply and treatment the City can serve populations up to 2047 for the average usage. For peak demands, the City will have to determine if Schertz/Seguin W.S.C. will obtain additional capacities or if the City must find its own, in order to continue to serve primarily groundwater to its citizens. The City has ample surface water rights and treatment capacity to serve the future demands if blending of the water is considered an option in the future. For pumping capacity, the City can meet estimated flows close to the year 2047. Regarding the distribution system, the City can meet existing needs, but will need to provide additional capacity to meet the needs of the future populations in 2017 and 2047.

A larger concern than being able to meet the infrastructure capacity requirements for its current service area and projected populations within this area is how to deter or enhance development based on the land use plan without having control of the utilities. The City's water service area is completely surrounded by other entities (Figure 1). As the City continues to grow and expand its city limits and population, developments will have to rely on other sources of water infrastructure capacities and capabilities. As the City has no control over the infrastructure provision to new development, the City is unable to entice future commercial/industrial users or deter unwanted development within future green space or open lands. The City should begin looking into ways to acquire additional CCN service area for its water system. CCN can be acquired through litigation, purchase, or transfer. The City should highlight key areas currently not within its CCN according to its land use plan. These areas may consist of nodes, green space, or residential areas.

The City currently has a Capital Improvements Project list for the next ten years. Figure 9 shows layouts and locations of the proposed projects.

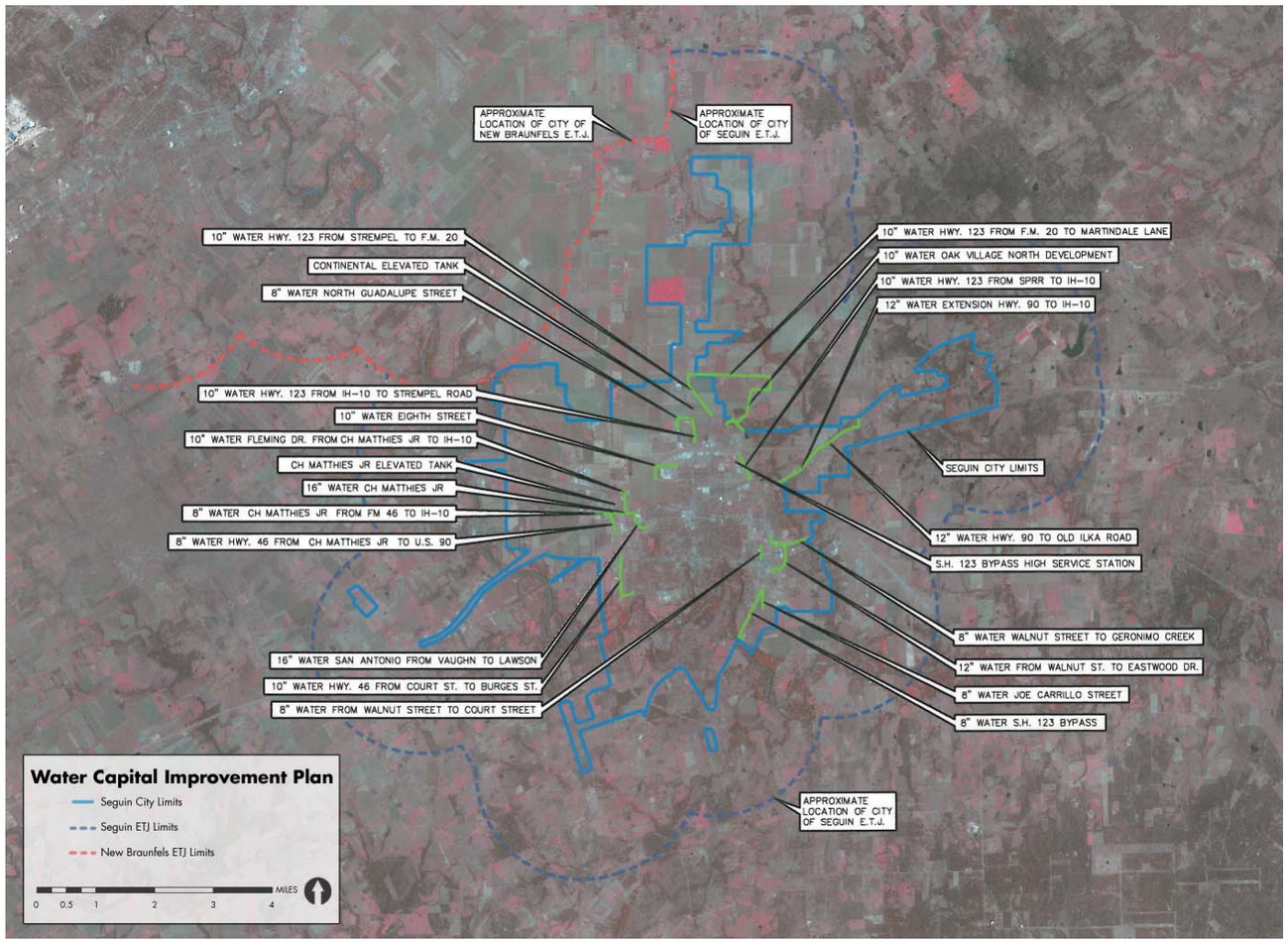


Figure 9. Seguin Area 10-Year Water Capital Improvement Plans.

SEWER

Wastewater is a significant and influential infrastructure system because the cost of a wastewater system is most affected by the capability of the wastewater to flow by gravity. Therefore, the need to secure right-of-ways along low elevations (along creeks, drainage ditches, etc.) is critical to implementation of a gravity system. The City of Seguin is divided into four primary watersheds that will provide the framework upon which a future wastewater system will be planned. These watersheds are:

1. The Little Mill Creek Basin: This basin flows north to south west out of City limits, into the Guadalupe River.
2. The Walnut Branch Basin: This basin flows north to south from the northwest part of the City through the center part, into the Guadalupe River.
3. The Geronimo Creek Basin: This basin flows north to south east along the eastern portion of the City limits, into the Guadalupe River. The Geronimo Creek basin extends north up to IH-35 in New Braunfels.
4. The Area South of the Guadalupe River: This basin flows south to north towards the Guadalupe River.

The City of Seguin currently owns and operates the collection system and treatment plants within the Walnut Branch and Geronimo Creek basins. The City owns and operates the collection system while the Guadalupe Blanco River Authority (G.B.R.A.) owns and operates the treatment plant for the area south of the Guadalupe River. Currently little or no sewer service is provided to the Little Mill Creek basin. The portion which is served, is pumped back to the Walnut Branch basin collection system.

As previously stated and shown in Figure 2, the City of Seguin has a limited CCN for sewer. However, unlike the water CCN, no entity has claimed large tracts of sewer CCN surrounding the City. The City currently services areas outside of its existing CCN by means of gravity mains, lift stations, and force mains. The City is allowed to service these areas because no one has claimed this area. However, if an entity did claim these areas, the existing LUEs would be continued to be served by the City, but all new LUEs would be served first by that entity. In other words, if this were to occur any additional capacity in the existing system in these areas would go unutilized.

All current and future citizens of Seguin outside the City's current CCN will have to be on septic systems unless the City extends collection systems to serve them. As noted above, the City can continue to expand its collection system outside its CCN boundary, but if it is claimed by another entity, the City will lose rights to add any additional LUEs to their system in that particular area. If the City chooses to expand its CCN they will be obliged to extend sewer to those residents that require it, which could require significant capital improvements.

The population used for the following calculations is based on the established populations previously set forth in this Plan. Based on the actual number of sewer service connections (6,361) and a similar conversion as shown in Figure 4, the City has 7,544 LUEs for sewer.

As previously discussed, the City of Seguin is not limited to future growth within its current sewer CCN area. Based on the existing and available areas, conservative estimates were calculated to determine the future population per LUE for 2017 and 2047. Based on the land use plan, the population per LUE between today and 2017 is estimated to be 3.50 people per LUE. In addition, the population per LUE between 2017 and 2047 is estimated to be 3.00 people per LUE. This would correlate to 9,830 LUEs in 2017 and 24,497 LUEs in 2047 for the City. These LUE numbers are based on the City retaining its existing CCN area and expanding it to service additional area.

Wastewater Treatment

The City of Seguin currently operates two wastewater treatment plants. The Geronimo Creek treatment plant and the Walnut Branch treatment plant are located north of the Guadalupe River. The G.B.R.A. Springs Hill wastewater treatment plant is located south of the River. Although the City owns or operates the collection system and lift stations south of the River, it does not own and operate the wastewater treatment plant. The permitted flow is set by the T.C.E.Q. for all the treatment plants. The capacity of the treatment plants is based on the design average flow per day. The overall capacity and the average flow for 3 consecutive months at each of the three plants are shown in Figure 10. Historically the flow rate split between the two wastewater treatment plants is 65% to Walnut Branch and 35% to Geronimo Creek. This flow split will be used for the remainder of the calculations within this section.

Of the 6,361 total sewer connections for the City, 421 connections (499 LUEs) are from the system south of the River. It is important to keep these connections and flows separate since they will affect the future capital improvements differently. Thus average flows divided by the current LUEs gives an average flow of 504 gallons per day per LUE for the system north of the River and 301 gallons per day per LUE for the system south of the River. The reason for the difference in flows between the two systems is because the majority of the connections south of the River are residential. Engineering standards assume 3 people per household and/or LUE. T.C.E.Q. design standards stipulate 100 gallons per day per person and/or LUE. The system north of the River has more commercial and industrial users that contribute to a higher average flow. Currently, a large portion of the 504 gallons per day per LUE for the north system can be attributed to industrial users such as Tyson Foods and Rio Nogales Power Plant. For conservative projections, this number was used for future demand, anticipating that additional industrial users will be established in the City.

Of the future LUEs (9,830 LUEs in 2017 and 24,497 LUEs in 2047) stated previously, 650 LUEs in 2017 and 1,620 LUEs in 2047 would be south of the River. Based on the average flow per LUE described above for each system, the City and G.B.R.A. will not have sufficient capacity to serve the future population (Figure 11). For 2017, north of the River (9,180 LUEs), 4.63 NG of capacity is required, and south of the River (650 LUEs), 0.20 MG of capacity is required. For 2047, north of the River (22,877 LUEs), 11.53 MG of capacity is required, and south of the River (1,620 LUEs), 0.49 MG of capacity is required.

Wastewater Treatment Facilities	2008 Capacity Available	2008 Average Flow	Number of Sewer Connections	Number of LUEs	Average Flow/LUE
North of Guadalupe River			5940	7045	504 gallons/day/LUE
Geronimo Creek WWTP	2.31 MGD	1.35 MGD			
Walnut Branch WWTP	4.90 MGD	2.20 MGD			
South of Guadalupe River			421	499	301 gallons/day/LUE
Spring Hill WWTP	0.30 MGD	0.15 MGD			
City of Seguin Total	7.51 MGD		6361	7544	

Figure 10. Seguin Wastewater Treatment Facilities.

The City has future plans for improvement projects to expand the existing treatment plants to better service the City and meet future flow rates. . The City should also consider purchasing the Springs Hill treatment plant from G.B.R.A. in the future to help dictate growth and development south of the Guadalupe River.

Lift Stations

The City currently operates numerous sewer lift stations (19 at the time of this Plan). Lift stations are constructed to serve areas that cannot gravity flow sewage to the wastewater treatment plants. Fourteen of these lift stations are located north the River and are as follows:

- Unity (620 gpm)
- Glen Cove (120 gpm)
- Crossroads (400 gpm)
- Nolan Street (100 gpm)
- Water Plant (120 gpm)
- Wave Pool (120 gpm)
- Friesenhahn Road (300 gpm)
- Continental (120 gpm)
- Chisolm Trail (300 gpm)
- Burges Street (150 gpm)
- Jim Barnes (600 gpm)
- Jud's (300 gpm)
- Navarro (475 gpm)
- Mill Creek (300 gpm)

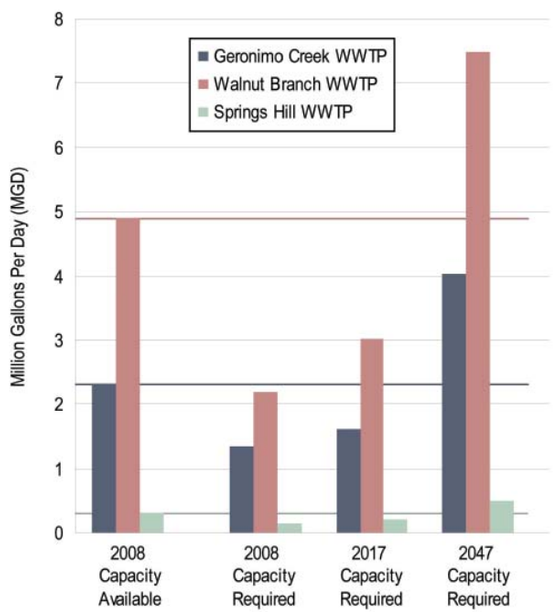


Figure 11. Seguin Current and Future Wastewater Capacity and Usage.

Five of the lift stations are located south of the Guadalupe River and are as follows:

- Sutherland Springs (120 gpm)
- River Oak Drive (120 gpm)
- Nagel Street (100 gpm)
- Guadalupe Drive (100 gpm)
- Country Club (120 gpm)

It is estimated that the total pumping capacity of the existing lift stations is 6.60 MGD.

Lift stations are designed to carry peak wastewater flows. Assuming that 504 and 301 gallons per day per LUE are the average flow (as determined in the previous section), a factor of 3 is applied to get the peak flow. The estimated peak flow is 1,512 gallons per day per LUE north of the River. This makes the estimated demand on the north lift stations 10.652 MGD. The estimated peak flow is 903 gallons per day per LUE south of the River. This makes the estimated demand on the south lift stations 0.451 MGD. Currently, the demand on the north lift stations is greater than the capacity of the lift stations (Figure 12). This may require further study by the City.

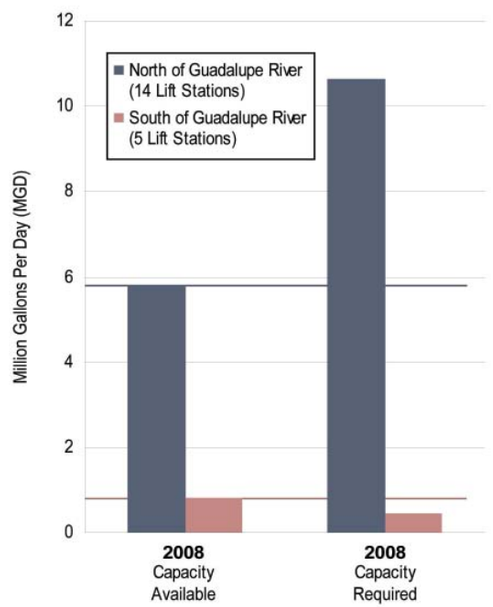


Figure 12. Seguin Current Lift System Capacity and Requirements.

However, peak flows are a conservative measure calculated to determine the worst case scenario, not day to day operating. In addition, each of the lift stations is equipped with two pumps that can operate together to meet the peak flows if necessary. The pumping capacities listed above for each lift station are based on only one pump in service, a design standard. In addition, the 10.652 MGD is representative if all flow was going to lift stations and then being pumped to the wastewater treatment plants. Both the Walnut Branch and Geronimo Creek WWTPs are fed by large gravity lines that are not fed by lift stations. Thus, not all of the peak flow is passing through a lift station.

Flows for the future LUEs were not compared to the existing lift stations since in practice, lift stations are installed to serve localized areas or cross between multiple drainage basins. As development occurs farther out from the collection system, the City should investigate the possibility to create larger regional lift stations in lieu of small localized lift stations. This would help manage and keep operations and maintenance costs to a minimum over time. This should be done at the time that future developments occur within the land use plan. The City should discuss the possibility with developers to oversize the local lift station to serve a greater area.

Collection System

The City has an extensive collection system consisting of gravity sanitary sewer main sizes ranging from 6" to 24". The collection system is designed based on peak flow rates. In previous sections, a peak flow rate was determined for the systems north and south of the River. For this section, the flow rate determined for the north system will be utilized. The current peak demand is 1,512 gallons per day per LUE. This requires a capacity of approximately 11.41 MGD. The City of Seguin has a current collection system capacity of 12.69 MGD. However, this capacity does not necessarily mean the City has an excess of capacity. Some areas within the City and the outlying areas are deficient or have no collection system at all.

Based on the future LUEs (9,830 LUEs in 2017 and 24,497 LUEs in 2047) and engineering standards described above, the City will not have sufficient capacity to serve the future population (Figure 13). For 2017, 14.86 MG of capacity is required and for 2047, 37.04 MG of capacity is required.

The City has plans for numerous capital improvement projects to construct additional collection system lines to better service the City. These are discussed further in the future considerations section.

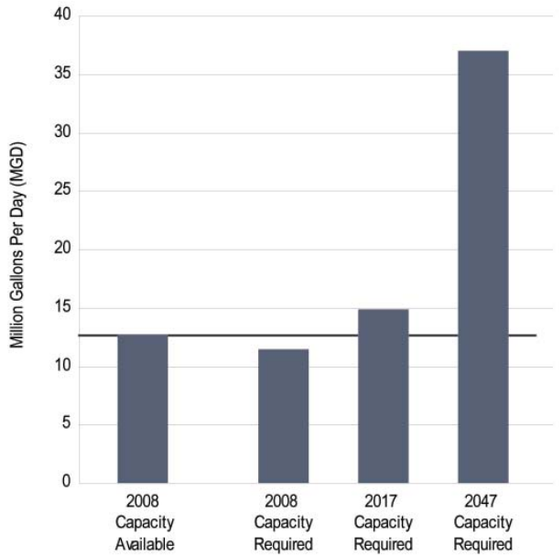


Figure 11. Seguin Current and Future Wastewater Capacity and Usage.

Future Considerations

As discussed above, the City of Seguin has substantial infrastructure capacity to handle most of the projected growth. For wastewater treatment capacities, the City can serve populations up to 2017 and still meet State permitted requirements. For lift station capacity the City will need future lift stations to serve localized areas. In addition, the City should work with developers to establish regional lift stations to minimize the number of future stations that are required. For the collection system, the City can meet existing needs, but will need to provide additional capacity to meet the needs of the future populations in 2017 and 2047.

There is a larger concern for the City than being able to meet the infrastructure capacity requirements for its current service area and projected populations within this area. If the City does not want to expand its current service area, it must consider how to deter or enhance development based on the land use plan without control of the utilities. Currently the City is serving a much larger area than its service area depicts (Figure 2). This is allowed since that area is not claimed by another entity and no one presently can offer sewer service. However, if another entity chose to obtain the areas not serviced, the City would lose its control on development through sewer service. As the City continues to grow and expand its city limits and population, developments may have to rely on other sources for sewer infrastructure capacities and capabilities if another entity creates a CCN around or near the City. The City having no control of the infrastructure needs of new development leaves them helpless in enticing future commercial/industrial users. It also leaves them helpless in deterring unwanted development within future green space or open lands. The City should begin looking into ways to acquire additional CCN service area for its sewer system. CCN can be acquired through litigation, purchase, or transferred. The City should highlight key areas currently not within its CCN according to its land use plan. These areas may consist of nodes, green space, or residential areas.

The City currently has a capital improvements project list for the next ten years. Figure 14 shows layouts and locations of the proposed projects.

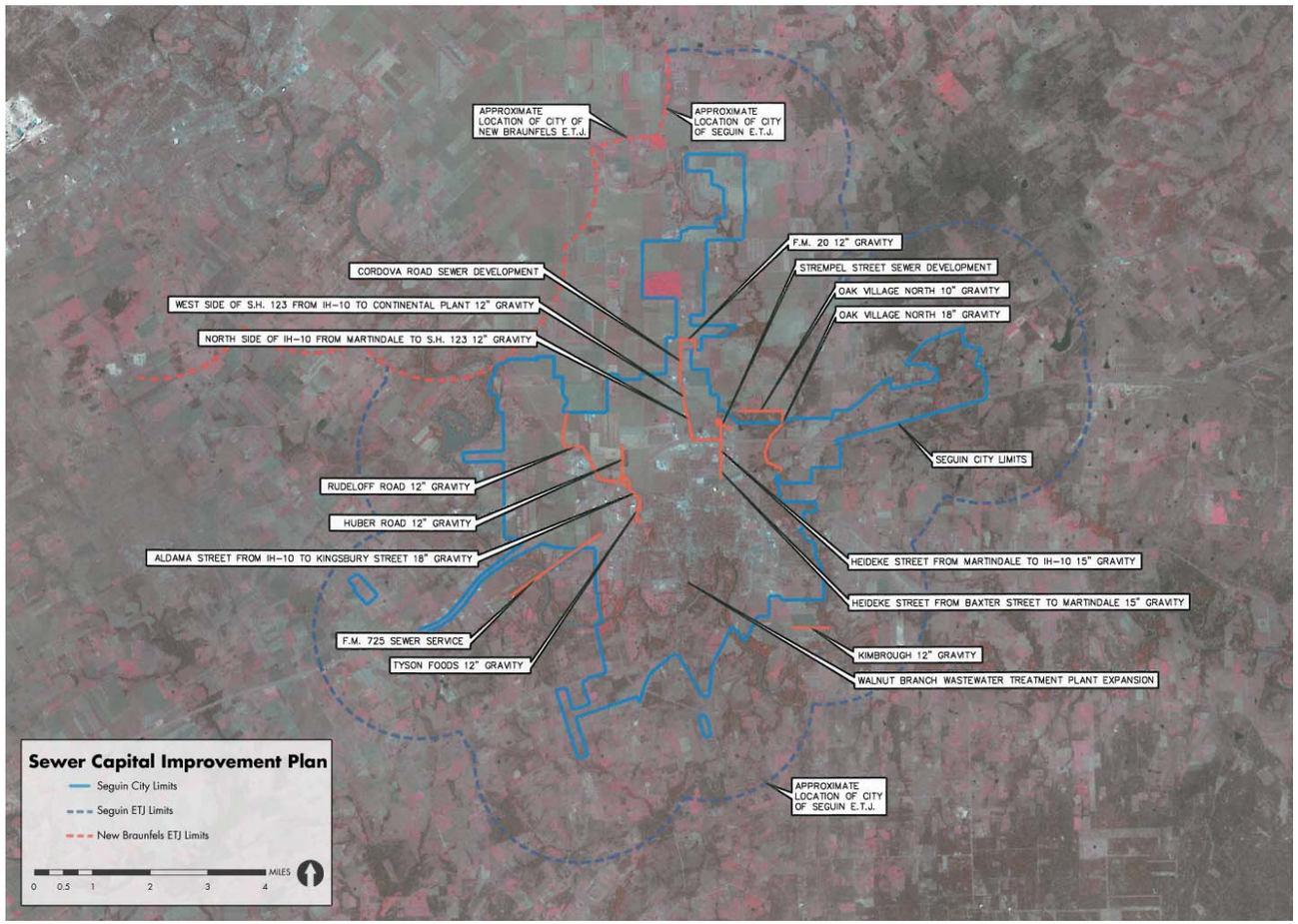


Figure 14. Seguin Area 10-Year Sewer Capital Improvement Plans.

DRAINAGE

The City has not conducted a drainage system analysis. The overall topography of the City is generally flat and gently slopes to each of the major basins or directly to the Guadalupe River. The City currently has ordinances that require all new development to detain post-development runoff to pre-development runoff rates for the 2, 10, 25, 50 and 100 year storm events. The City ordinances must be met by any development within the City's E.T.J. Storm sewer systems for new developments are required to be designed to carry the 100 year storm events. Most of the City's existing infrastructure (storm sewer) is designed to carry storm events less than the 10 year. All state (TxDOT) systems are designed to carry a minimal storm event of 25 years.

Two large drainage basins encompass the majority of the existing City limits. As discussed in the sewer section, there are four large drainage basins that encompass the City's E.T.J. and proposed land use plan. Walnut Branch runs along the west side of the City and converges with the Guadalupe River near the Walnut Branch wastewater treatment plant. It extends north of the City to Lake McQueeney. Walnut Branch has been improved throughout the years between New Braunfels Street and the River. It varies between a manmade earthen channel, concrete lined channel, and natural earthen channel. The City is currently in the process of designing flood control detention ponds north of New Braunfels Street and IH-10. These ponds are being designed to keep the 100 year flood event within the banks of the existing Walnut Branch channel south of New Braunfels Street. In addition, the ponds will reduce the 100 year floodplain within portions of the City. Walnut Branch is an intermittent stream from the Police Station north to Lake McQueeney. However, south of the Police Station to the Guadalupe River constant water flows in it due to underground springs.

Another major drainage area is Geronimo Creek. Geronimo Creek runs along the east side of the City limits. Geronimo Creek is a natural creek that has not been improved. It extends from the City of New Braunfels to the Guadalupe River. Many areas along the creek are prone to flooding and this will worsen as future development occurs upstream. The City cannot enforce detention requirements or preventive measures outside of its E.T.J. Since Geronimo Creek has such a large watershed, continued development within Guadalupe County and from IH-35 to Seguin will cause a larger burden. Some areas of the floodplain have risen by seven feet in the last twenty years. Unchecked development will cause flooding to existing homes and businesses, not to mention creating areas that will not be developable in the future. The City should begin to investigate measures to contain flood events within the existing channel banks to alleviate existing flooding and help to encourage future development. Currently, Guadalupe County is in the process of beginning a watershed study of Geronimo Creek and its affect on the City and surrounding areas.

Another drainage area is Little Mill Creek. Little Mill Creek runs along the west side of the City just outside the City limits. Little Mill Creek is a natural creek that has not been improved. It extends from the north end of the City to the Guadalupe River. Little Mill Creek is an intermittent stream throughout its entire length. Many areas along the creek are prone to flooding during large rain events. Little Mill Creek watershed extends beyond the City E.T.J., and the City of Seguin cannot enforce detention requirements or preventive measures outside of its E.T.J. Unchecked development will cause flooding to existing homes and businesses, not to mention creating areas that will not be developable in the future. The City should begin to investigate measures to contain flood events within the existing channel banks to alleviate existing flooding and help to encourage future development.

Future Considerations

The City has plans for improvement projects to better service the City's drainage areas and meet future drainage runoff rates. Figure 15 shows some of the proposed capital improvement projects for the next 10 years. Since the City of Seguin is considered a substantially developed city, it is difficult to design projects that will help solve drainage problems throughout the City. Most problems are localized to certain areas and require independent study and solutions to mitigate. The City may consider a drainage program in the future to accomplish these many projects or reserve funds annually to begin addressing the localized problems.

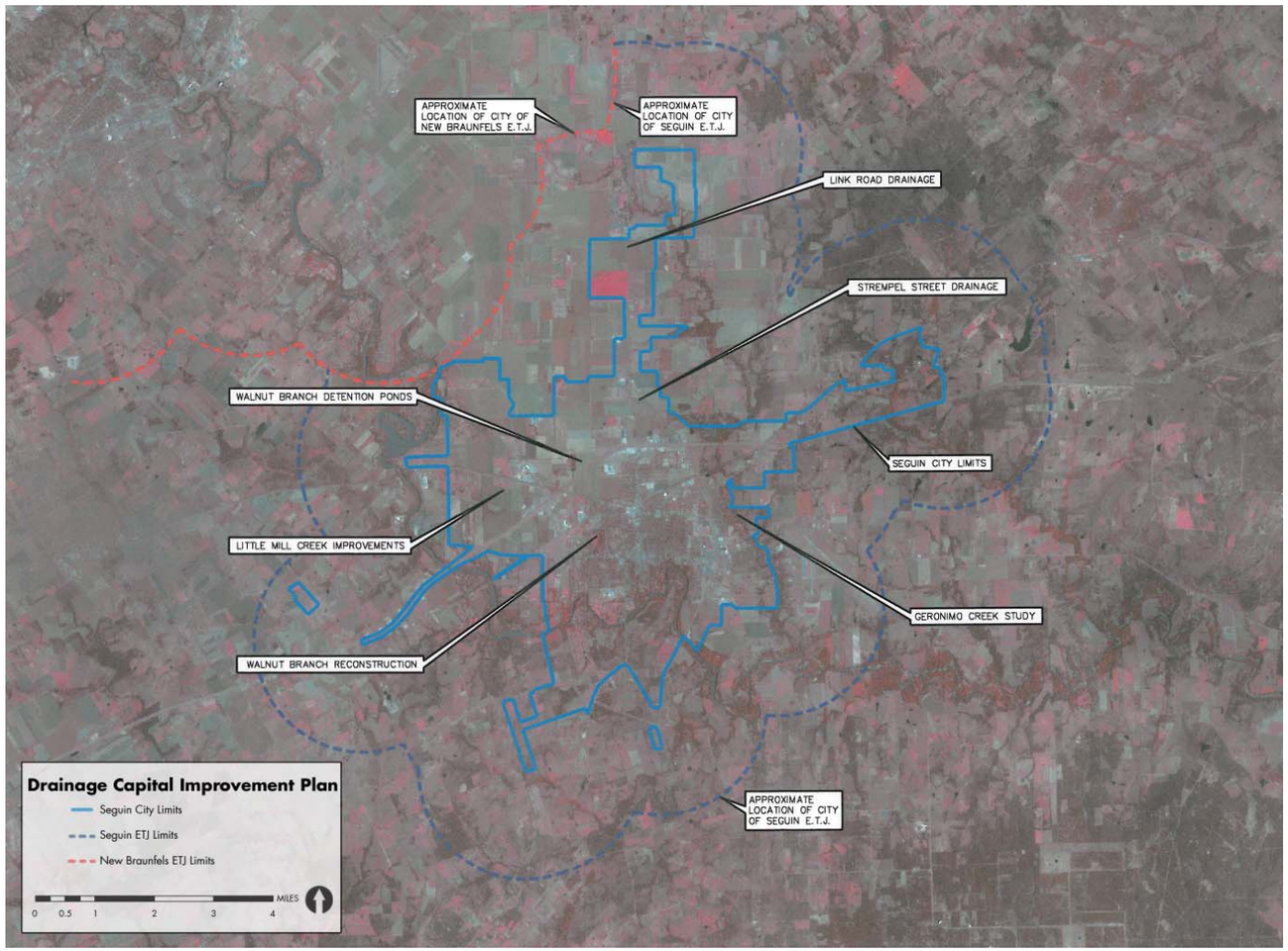


Figure 15. Seguin Area 10-Year Drainage Capital Improvement Plans.

4.5 the housing plan

The Seguin Housing Plan addresses quality of life issues related to housing or housing areas such as neighborhoods and communities.

Housing is one of the primary functions of a City. Most of the quality of life issues challenging the future of cities like Seguin address housing or housing areas such as neighborhoods and communities.

The primary housing issues that need to be addressed in Seguin are:

1. The shift in the nature of community from historically more urban, grid patterns to newer, more suburban, picturesque patterns. This will tend to cellularize the City into autonomous projects and thereby erode the cohesive small town quality that now distinguishes Seguin.

2. Fulfill required open space designations in older and newer neighborhoods.

3. Housing rehabilitation and infrastructure repair/improvement in older residential areas.

4. Neighborhood conservation in areas being inundated by traffic and non-residential development.

5. Dispersion of low to moderate income and public housing throughout the city instead of spatial isolation in specific geographic areas.

6. Increasing the housing options available to the present and future residents of Seguin.

7. Preservation of lower density single family housing in new growth areas of the City.

8. The transition of secondary home enclaves to primary home communities and the differing expectation of service and community infrastructure that such a transition imposes.

9. Housing encroachment upon important river and creek ways and the growing conflict between housing and flooding.

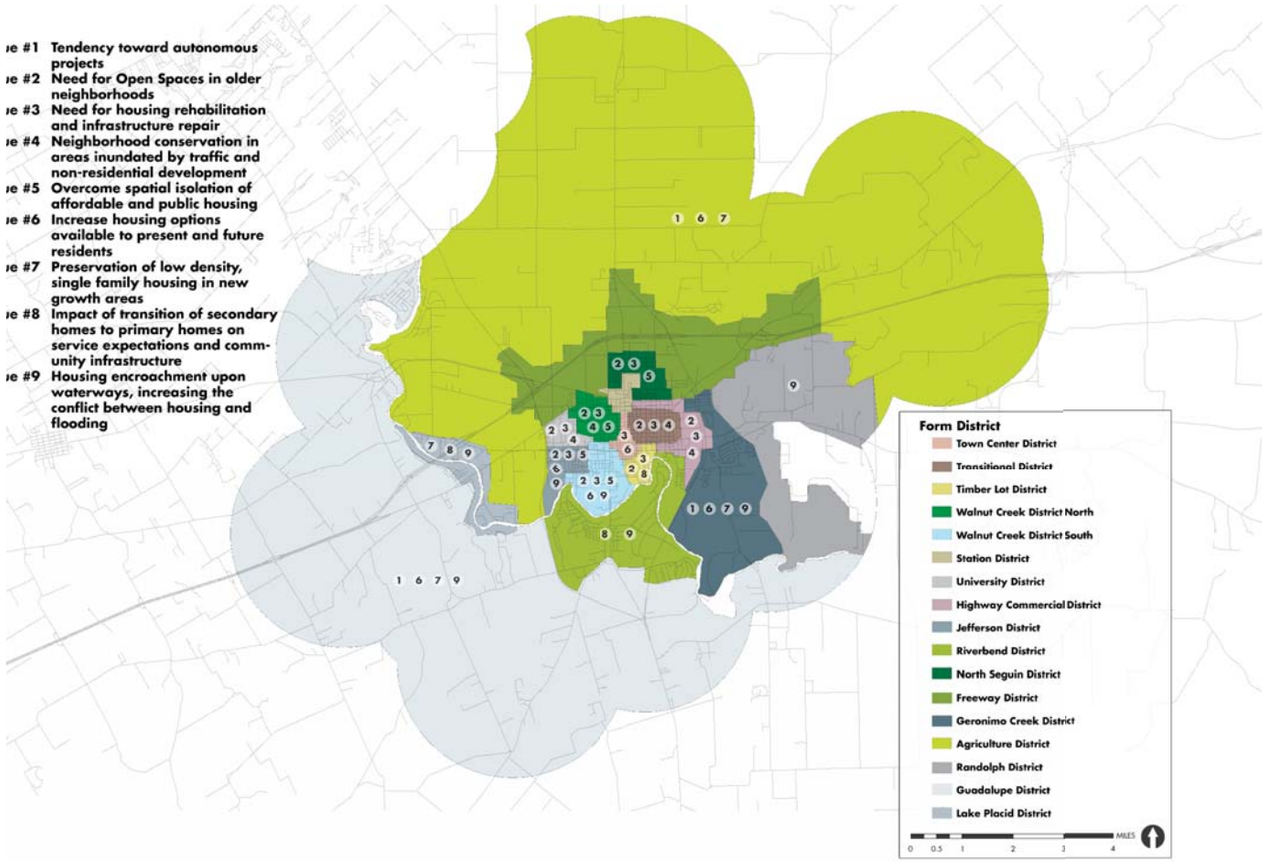


Figure 1. Seguin Housing Issues.

Based on the above specified issues, there are seven housing strategy initiatives that should be simultaneously executed to improve existing housing, enhance housing opportunities, and nurture better neighborhoods. These Housing Strategy Initiatives are:

1. Neighborhood Conservation. A Neighborhood Conservation Initiative is applicable to those generally older, identifiable housing districts that are recognized as a neighborhood and are facing an emerging threat to that identity. Neighborhood Conservation is a package of physical and programmatic applications intended to stabilize change, arrest intrusion, restore the physical fabric, and promote the preservation and perpetuation of distinctive visual qualities. Cities such as Dallas have a Neighborhood Conservation designation that places a conservation overlay upon the existing zoning classifications, establishes design guidelines and development standards, and creates a design review body that reviews development/redevelopment/new construction proposals.

2. Historic Preservation and Design Continuity. The Historic Preservation and Design Continuity Initiative is applicable to older and historically significant neighborhoods (as well as commercial areas) that are under present or emerging threat and merit preservation. Historic Preservation and Design Continuity is a package of physical and programmatic applications intended to restore/enhance the public domain and recognize the historic structures and districts of Seguin. This initiative can also regulate the design of repair/remodeling/reconstruction/reuse projects to preserve historically important architectural features and visual continuities.

3. Housing Rehabilitation and Maintenance. The Housing Rehabilitation and Maintenance Initiative is applicable to generally older neighborhoods where patterns of unit deterioration, lot neglect, and public domain aging are evident but local resident ownership is still dominant. The Housing Rehabilitation and Maintenance Initiative is a targeted set of physical and programmatic applications intended to facilitate individual home repair/maintenance, lot clean up, and code compliance as well as implement needed street and infrastructure repairs/improvements. The primary purpose of this initiative is to prevent some older housing areas from attaining a magnitude of disrepair/deterioration that establishes a pattern of transition/abandonment.

4. Transition Stabilization and Selective Redevelopment. The Transition Stabilization and Selective Redevelopment Initiative is applicable to generally older areas where the pattern of transition is well advanced. Indicators of such transition include structure vacancies, lot vacancies, absentee ownership, deteriorating maintenance, non-conforming use encroachment, and frequent code violations. The Transition Stabilization and Selective Redevelopment Initiative is a package of targeted physical and programmatic applications intended to enforce applicable codes and ordinances, provide assistance for maintenance and repair by local owners, facilitate lot assembly, and promote/facilitate lot redevelopment in conjunction with other equity creation programs (such as Habitat for Humanity).

5. Site Design Guidance. The Site Design Guidance Initiative is applicable to areas where individual lot development (rather than community/neighborhood project development) is pervasive. These areas include most of the Guadalupe River and Geronimo Creek frontage where individual lots are acquired/subdivided and individual custom homes are built for individual clients. Other areas include portions of Seguin and its ETJ where natural assets provide a special attraction for individualized construction. In such locations, the interest of the individual lot owner has a great deal of effect on the interest of the City with regard to flood control, preservation of natural features, and public access to limited recreational resources. Therefore, it is important that continued site development be guided by guidelines and standards that allow individual lot development in ways that protect natural assets and hydrologic function. The Site Design Guidance Initiative is a programmatic application that imposes specific site development guidelines and standards through a natural corridor/natural asset overlay.

6. Development Design Guidance. The Development Design Guidance Initiative is applicable where community, project, and neighborhood development is most active. These areas include all areas of new residential growth. In such areas it is important that the City of Seguin establish development practices that will protect the City's quality of life, move the growing fabric of the City toward a more holistic and integrated form, and establish neighborhoods that are more sustainable (environmentally and socially). Recognition of park set asides, roadway provision, school site allocation, street alignment design, appropriate monumentation, appropriate use of landscape materials, mixture of housing options, and natural feature/corridor preservation become important aspects of development design that should distinguish Seguin from neighboring cities. The Development Design Guidance Initiative is a programmatic application that sets development guidelines and standards implemented through zoning and subdivision ordinances.

7. Housing Quality Assurance. The technology of building construction is rapidly changing in the face of increased costs of labor and construction materials. Certain innovations have allowed housing providers to offer much greater levels of comfort and luxury to the entire housing market. However, some materials do not endure and their pervasive and/or inappropriate use contributes to a housing stock that will face problems of maintenance and deterioration in a few years. This of course imposes greater burden upon the City to remediate premature cycles of transition associated with building fabric deterioration. The Housing Quality Assurance Initiative is a programmatic application imposed upon all areas of the City where housing is being built, reconstructed, restored, remodeled, and/or repaired. Housing Quality guidelines and standards should be contained in a separate Housing Quality Ordinance that is implemented through the City's building permit process.

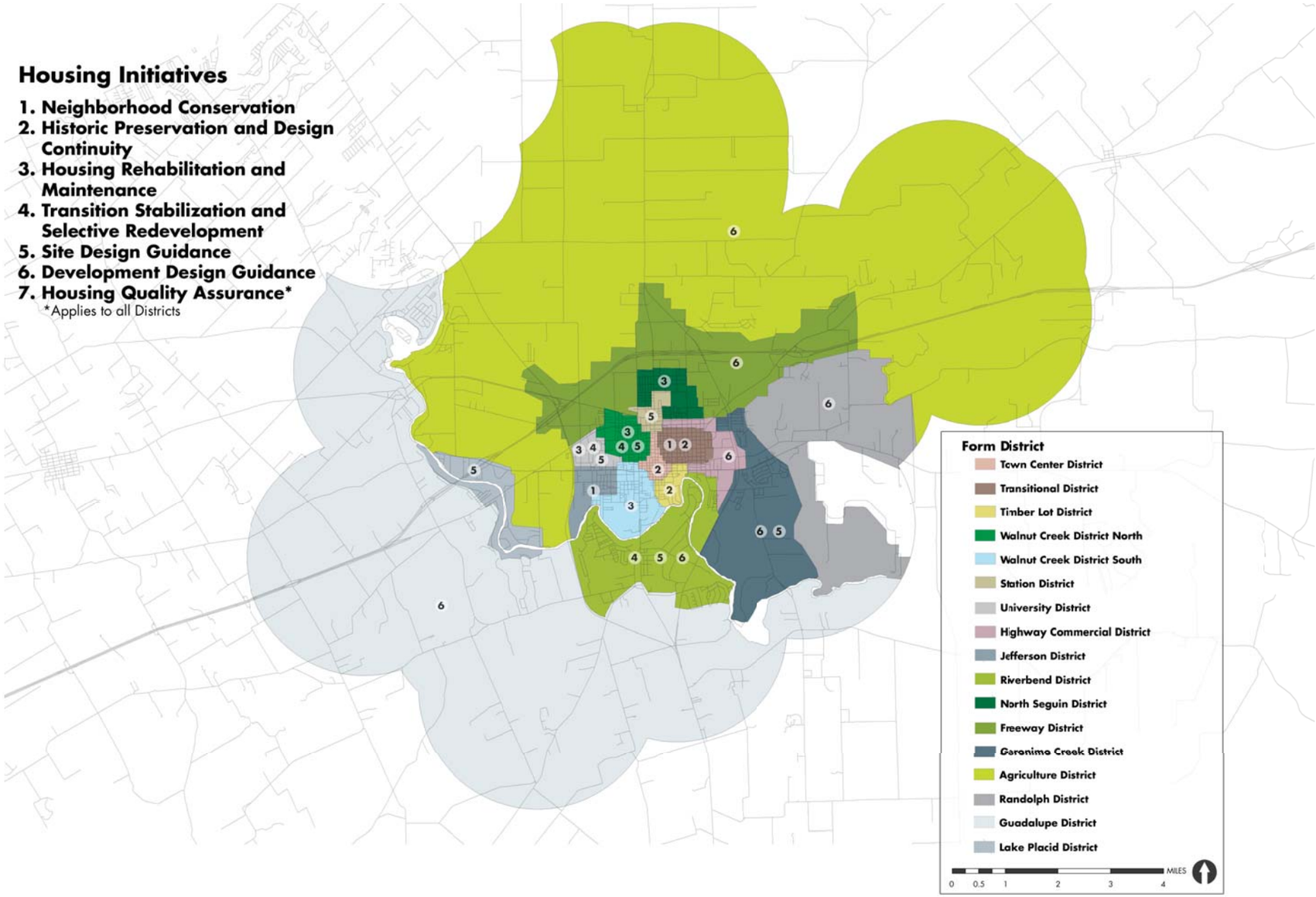


Figure 2. Seguin Housing Initiatives.

4.6 the public facilities plan

The Seguin Public Facilities Plan addresses services that are population driven, including emergency services and schools, in order to help Seguin be prepared to meet the needs of future residents.

Introduction

The Facilities Plan for Seguin addresses Emergency Services (Police and Fire) and Schools. However, a City's facilities can also include cultural centers and libraries. Emergency Services and Schools are population driven because they are sized and distributed to conform to a standard of performance measured by the people served (e.g. response time and classrooms per capita). Cultural Centers and Libraries are quality of life driven because they are sized and distributed as a function of the collection or the performance company they host. Responsibility for collections and performance companies are usually beyond the preview of City Government (especially in smaller Cities) and responsibility for such things typically falls to civic/cultural organizations and/or philanthropic individuals/institutions (such as the Stark family in Orange, Texas). For this reason, The Seguin Comprehensive Plan is concerned with facilities that are population driven.

Adequate provision of population driven facilities is a key feature influencing how a City is viewed as a potential host for relocating industry. It is also a growing concern of Seguin's citizenry as population growth will quickly stress current service capability and affect Seguin's image as a desirable place to live. Also, in-migrating population (coming from other population centers) will likely bring a higher expectation of service than current residents demand. Therefore, Seguin must view its provision of emergency services and schools in the light of national standards so that Seguin's level of service is consistent with other cities across the country.

A City's services must be uniformly allocated to all its residents and a city's ability to respond to emergencies equally available to all residents. Therefore, certain social/demographic characteristics of a community/ neighborhood may necessitate additional service support in order to provide equal availability and uniform allocation. The following description of Police, Fire, and Schools presets a plan intended to provide the desired equal availability and uniform allocation in conformance with national standards that will make Seguin competitive with other cities (nationally) when it comes to the provision of emergency services and schools.

Police and Fire Service

Recent events ranging from natural disasters to violent events have illustrated how important a City's police and fire protection can be. The standards by which these ordinary protections are provided influence the perception of a City's quality of life and the common realities of individual home and business owners. These common realities include insurance availability/rates as well as marketability/rentability of homes and rental units/space. In addition, revitalization initiatives recommended in this plan can be negatively affected if uncertainty about emergency services becomes established in the market place. These pragmatic associations with the provision of emergency services make them an important part of any economic development strategy. The Police and Fire Plan (Figure 1) illustrates the distribution of these facilities within the recommended 2047 build out and is more specifically described below.

Fire Service. Fire locations are based on response time as a function of distance from any potential emergency call. The need to get large equipment to any potential fire within a given time and the need to house and maintain large equipment in somewhat centralized stations means that fire stations must be decentralized and moved closer to the points of service (served within a specified time frame). National standards suggest that the desired response time is 5 minutes which equates to 1.5 miles on ordinary city roads. This distance can be somewhat extended when densities are particularly low meaning that travel would be easier and the number of probable fires reduced (as a result of fewer houses within the service area). This 1.5 miles (5 minutes response time) defines a "service area" and these services areas are the basic planning unit for projecting the future fire facility needs of Seguin.

The nature of Fire Department calls illustrates the reason that response time is such a critical factor in Fire Facility planning. According to the Fire Protection Association, the majority (58%) of Fire Department calls concern medical aid, as follows:

- Medical aid 58%
- Fires 9.4%
- False Alarms 10.4%
- Mutual Aid 3.8%
- Other 13.5%
- Other hazardous conditions 3.0%

The adjacent plan graphic shows fire service areas distributed over the future 2047 City. The red circles indicate existing fire stations and reveal that higher density and older areas of the city are well covered with more than one station able to respond to a fire within the standard response time (indicated by the overlap of red circles). Green circles indicate proposed staffed stations in lower density areas outside the historic city center. There are some areas here that will not fall within the response time distance from a station but the low density and large amount of conservation area or farm/ranch area identified in the land use plan would make more fire stations costly and this is an issue the City must address as these areas develop in the future. There are a total of ten City fire stations, between the existing and proposed stations, needed to provide adequate service protection.

The light green circles indicate existing volunteer fire stations which supplement the service of staffed stations and provide protection in lower density areas. This is not atypical. Among cities of 100,000 to 249,999 persons, it is common for at least one department to be all volunteer. There are currently two volunteer fire stations within the Seguin ETJ, which supplement the proposed ten City fire stations.

The number of fire stations recommended gives Seguin reasonable coverage and keeps the total number of fire fighters per 1000 population close to the national mean for the southern region cities having a population less than 99,999. The National Fire Protection Association (NFPA) survey of fire departments for the U.S. (1997) shows the mean number of career fire fighters per 1000 population for the western region of the United States is 0.86 per 1000, or about 67 fire fighters for Seguin's future population of 78,000. The average number of fire fighters per station is approximately five for each engine company and six for each ladder company. For the 12 recommended stations (including the volunteer stations), approximately 66 firefighters would be needed in Seguin.

Figure 1. Seguin Police and Fire Plan.

Police Service. "The FBI reports that in 1998, municipal police departments had an average of 2.4 sworn officers per 1000 population and an average of 3.1 law enforcement employees (sworn and civilian) per 1000 population" (Municipal Benchmarks Second Edition, Sage Publications, 2001). However, US Department of Justice breaks this down further for cities with a population ranging from 50,000 to 99,999. For these smaller cities the average number of sworn officers per 1000 population would be 1.8 or 140 sworn officers for Seguin in 2047 (projected population 78,000). Maintaining a standard number of sworn officers per 1000 population will give greater assurance that Seguin is protected at a level that:

- Does not expose the homes and businesses of Seguin to disproportionately high insurance costs.
- Enhances the view of Seguin to business and home buyers seeking to relocate to the City.
- Strengthens existing older neighborhoods and provides greater assurance of security.

National trends are for one main Police Facility to serve the entire city and support the required staff. In Seguin's case, such a facility should be centrally located near older neighborhoods, preferably within or near the downtown core.

Schools

Schools are the responsibility of our school board but the City plays a significant role in attaining school sites as the City develops. In addition, schools (including at the university level) play an important role in preparing the future population as a skilled work force. This can help attract higher wage jobs to the City, and other similar goals of the Comprehensive Plan can be met. Therefore, it is important that the Comprehensive Plan identify the likely number of schools that will be needed for the future population so that a fair distribution of this responsibility can be accomplished.

The school facilities plan is a chart (Figure 2) showing the recommended number of schools for the 2015 and 2047 populations. With the projected population of 30,000 in 2015, Seguin is close to meeting or currently exceeds the necessary schools. For this near future scenario, the City should focus its efforts on ensuring that the existing schools are adequately meeting students' needs and begin preparations for the construction of a new high school. However, with the population of 78,000 projected for 2047, Seguin will need to construct new schools at each educational level. Figure 3 is a plan showing the location of current schools within the Seguin ISD, which clearly demonstrates the geographical areas of the City that are currently lacking proximity to schools.

School Type	School Needed per Capita	Current Number of Schools	Schools Needed in 2015	Schools Needed in 2047
Elementary	1 school/ 5000 people	7	6	16
Middle	1 school/ 16,000 people	2	2	5
High	1 school/ 24,000 people	1	2	4

Figure 2. Seguin ISD Schools Plan.

Figure 3. Current Seguin ISD Schools Map.

4.7 workshop 3 summary

The Seguin Comprehensive Master Plan process has included three Open Public Workshops. Workshop #3 focused on the components of the Comprehensive Plan Document.

Workshop #3 was the last workshop in the formal Planning Process. The participants had an opportunity to view and comment on the plan components developed in response to goals, objectives, and vision statements from Workshops #1 and #2. The plan components presented in Workshop #3 included:

- The Land Use Plan
- The Open Space Plan
- The Thoroughfare Plan
- The Housing Plan
- The Infrastructure Plan
- The Facilities Plan

Unique to Workshop #3 was the role of the facilitators in the presentation. Prior to Workshop #1, facilitators were identified to lead breakout groups within the workshop format. These facilitators met separately with the Consultant Team and City Staff prior to each Workshop, to discuss methods of presentation and Workshop Format. In Workshop #3, rather than lead smaller breakout sessions, several members of the facilitator group assisted in presentation of the Plan Elements.

The third workshop began with a review of the planning process, and presentation of the visioning statements that emerged in Workshop #2. The ten Visioning Statements, which were expressed in response to a presentation of the Planning Framework, included:

1. In the City of Seguin, future development patterns should create an attractive and legible physical form for the City.
2. In the City of Seguin, connections and transitions between uses should be defined in the various areas of the City.
3. In the City of Seguin, a community structure which acknowledges and incorporates affordable housing should be established.
4. In the City of Seguin, a regulatory process, with elements such as a design review committee, should be defined that addresses form-related issues, defines preservation standards for historically significant elements in the City, and improves code enforcement.
5. In the City of Seguin, mobility should be enhanced through defined pedestrian trails, the reintroduction of public transportation, and the improvement of east-west traffic routes.
6. In the City of Seguin, visibility from the freeway should be improved by creating meaningful portals, as well as freeway entries and exits that acknowledge anchor attractors and are visually appealing in their design.
7. In the City of Seguin, the streetscape should be enhanced using defining elements such as lights, signage, public art, and monumentation.
8. In the City of Seguin, natural elements should be incorporated as physical transition areas, roadside enhancements, and mechanisms for storm water management throughout the City.
9. In the City of Seguin, park lands and open spaces should be utilized as a means of strengthening community solidarity.
10. In the City of Seguin, existing open spaces in undeveloped portions of Seguin should be preserved.

Following this review of the Planning Framework and the subsequently expressed Vision Statements, the individual plan components were presented in detail, illustrating their compatibility with the Planning Framework (the Planning Framework is the consensus document for the Comprehensive Plan, serving as the template for all of the individual plan components). Therefore, each individual plan component was compared to the Planning Framework during the presentation, so that participants can verify the intent of each component, and the symmetry of that component with the Community Goals, as gathered through the process of public participation utilized in the formulation of this Comprehensive Plan.

Breaks were incorporated at strategic points throughout the presentation, so as to provide participants the opportunity to review the plan graphics in greater detail. Four members of the consultant team were present to address individual questions at this time. This allowed participants in the planning process to challenge, question, and propose revisions to the plan documents as prepared by the Planning Team.

The presentation of the **Land Use Plan** focused on the creation of districts as a means of dealing with the complexities of Seguin's current and historic patterns of development. The Land Use Plan, which was designed utilizing land use districts rather than zoning nomenclature (land use and zoning fulfill separate functions for a City, and therefore must be distinct elements), consists of 17 districts. These districts, which reconcile future visioning with historic trends and current needs, include Areas, Communities, Nodes, and Corridors. The Land Use Plan also seeks to economically balance residential and non-residential uses to provide a sufficient tax base to support the quality of life and quality of service needed in the future. The proposed Land Use Plan was accepted by workshop participants.

The **Open Space Plan** presentation focused on the establishment of a network of public open spaces that consists of three core components: Parks, Corridors, and Designated Natural Areas. The three types of recommended parks were presented, with standards for each park type. Corridors were also classified, with a description of function of each type. Finally, Designated Natural Areas were identified for Seguin, along with a discussion of core elements of a preservation strategy for public lands. The proposed Open Space Plan was accepted by workshop participants.

The presentation of the **Thoroughfare Plan** centered upon the creation of a hub and spoke pattern of loops, intended to distribute the trip volumes associated with growth of the city by 2047. A general phasing strategy was also presented, addressing recommended improvements for the current thoroughfare system, those associated with the Planning Horizon, and those that would be necessary for the ultimate Build-Out scenario. Public transit was then addressed as a gradually phased element. Initial phases of developing a public transit system centered on the reintroduction of a trolley to connect the Historic Downtown District to the Station District. Recommended intersection enhancements in the central areas of the City were also presented. The proposed Thoroughfare Plan was accepted by workshop participants.

The **Housing Plan** was developed for Seguin, based on the original districts defined in the Form Assessment of the City. These form districts are defined in general by the neighborhood character of Seguin, and therefore speak well to housing. In the Housing Plan, a series of Housing Issues is identified, as well as a list of recommended Housing Initiatives to resolve these Issues. The proposed Housing Plan was accepted by workshop participants.

The **Infrastructure Plan** was developed based upon the Assessments conducted of existing capacities, and their ability to meet future needs of the City. Elements presented in this plan include: water, wastewater, and drainage. The proposed Infrastructure Plan was accepted by workshop participants.

The **Facilities Plan** was developed based on projections of growth in the Seguin area. The primary components of the Facilities Plan included police and fire facilities and schools. The Plan is a diagrammatic representation of the ability to service the Seguin area, based on existing facilities, and recommendations for inclusion of future facilities as the population grows. The proposed Facilities Plan was accepted by workshop participants.

Following presentation of all plan components, and breakout sessions for detailed review, a corporate question and answer period was held. Next steps were then discussed in the plan process, which included review and revisions, Council/Commission presentations, and final plan adoption.

part five: implementation

5.1 downtown revitalization

Seguin's Downtown should serve as the primary hub to which the rest of the City responds, as befitting Downtown's position as the point of confluence of transportation routes and the central element in urban revitalization.

Downtown sits at a crossroads- figuratively and literally speaking- in Seguin's urban condition. As the point of confluence of the major transportation routes of the City, and as the central element in the range of urban growth, downtown should serve as the primary hub to which the rest of the City responds, rather than a pocket lost within an ever-expanding urban fabric.

In order to attract investment and activity to Downtown Seguin, a revitalization strategy is needed that will address the physical and programmatic initiatives needed to position downtown for positive economic growth and redevelopment. The five principle initiatives that lead to a revitalized downtown include:

- Redefining the ground plane
- Facilitating connectivity
- Orienting the built fabric to downtown streets
- Enhancing the public realm
- Establishing a revitalization strategy

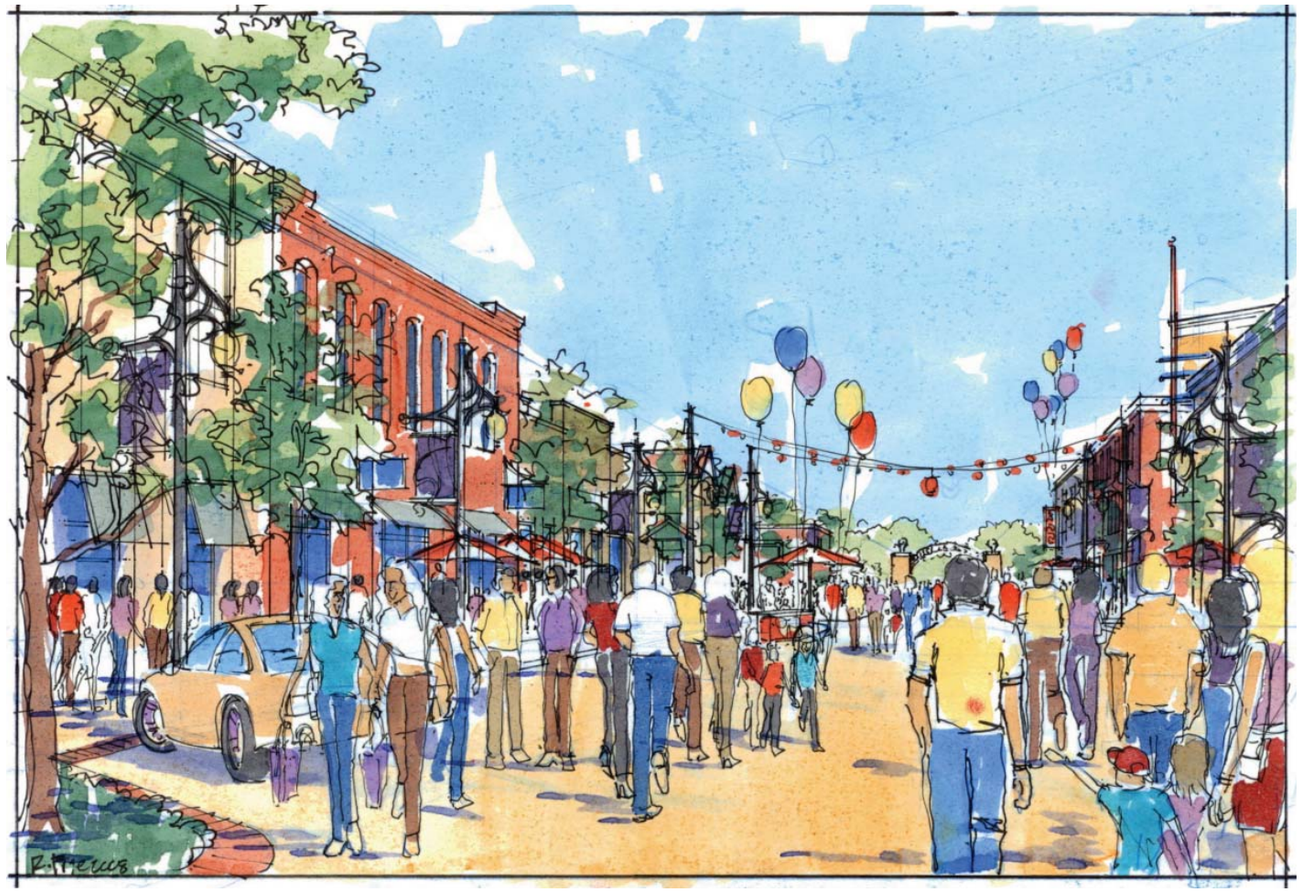


Figure 1. Creating a vibrant space that encourages downtown visits, downtown stays, and downtown spending.

Redefining the Ground Plane

A ground plane is a common reference surface upon which buildings, movement (vehicular and pedestrian), and human activities reside, and that has not been vertically subdivided by offsets that spatially separate these functions. Sidewalks, curbs, streets, parkways, etc. constitute normal demarcations of subdivision which separate these elements, creating isolated spatial envelopes with specialized functions. A common ground plane removes such subdivisions and brings these functions together in an urban context.

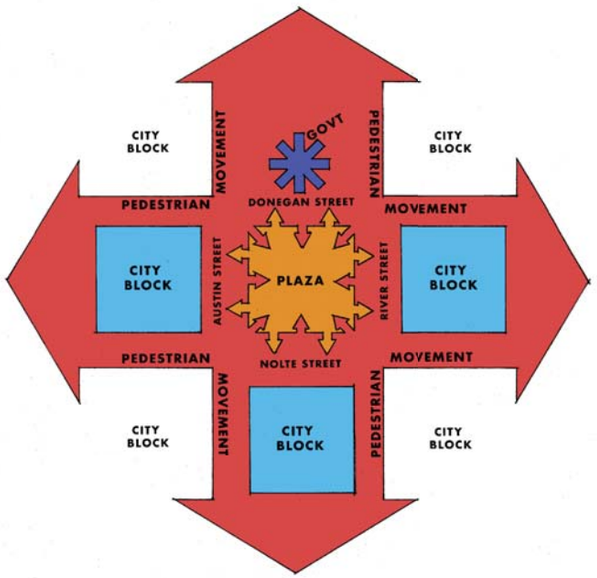


Figure 2.

Historic Condition

Early photographs of Texas squares and plazas show a rich and heavily used street where horses, cars, wagons, and people shared the street space. The street is not the directed space one sees today. In fact, the street as a defined corridor often did not exist. The ground plane passing from the building to the square had no offsets (curbs). Therefore, all activity in the downtown square shared a common ground plane. It is hard for a square not to become an island when hemmed in by directed streets. Restoration of square activity requires restoration of the shared ground plane that invites integration with adjacent activity.

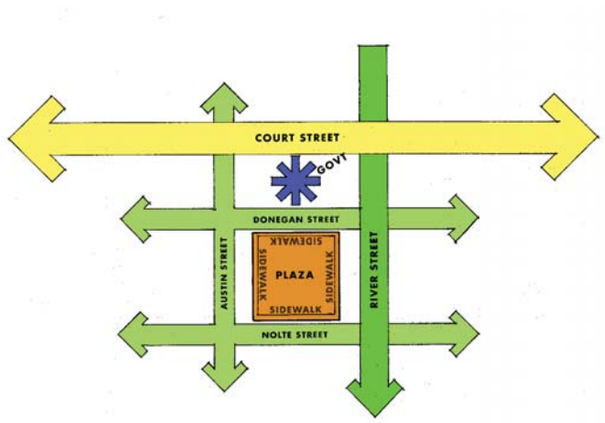


Figure 3.

Existing Condition

Present isolation of the downtown square is caused primarily by the reasons illustrated in this diagram. The plaza is rimmed by major streets (directed movement), sidewalks, and increased vertical expression of the streetscape (lights, trees, and curbs). These elements amplify the isolating effect of these barriers that are placed between the square and surrounding downtown activity.

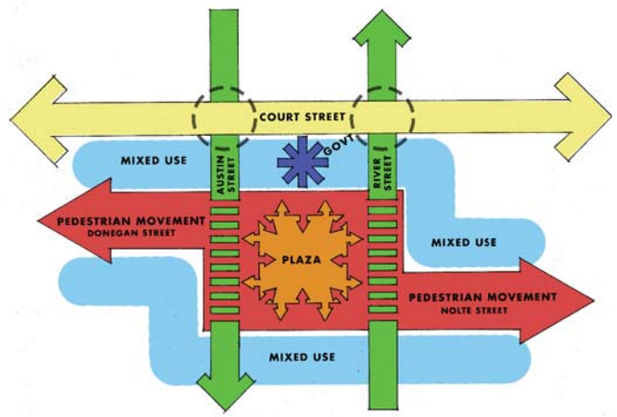


Figure 4.

Future Condition

Overcoming the current isolation of the square and nurturing more active use (reminiscent of an earlier time) will require return to a shared ground plane in the area around the square. This makes the square a hub of both pedestrian and vehicular movement. Pedestrian movement extends from Walnut Creek to the Guadalupe River, with connections to both elements by the corridors outlined in the Open Space Plan. Vehicular movement lies within the Austin/River couplet, and buildings fronting spaces with pedestrian activity would be a mix of predominantly retail, entertainment, and residential uses.

Facilitating Connectivity to Downtown

Key to any strategy encouraging reinvestment in the downtown core is restoration of the now lost relationship between local movement and the center of the city. A history of continuously expanding array of by-passes has shifted the major thoroughfares of the city away from the downtown area. Peripheral areas now attract commercial investment, pulling it away from downtown. In the Downtown Plan, there are three main connections between downtown and the major corridors of Seguin (Figure 5), which intersect at the center of the City. Using monumentation to direct movement along these three corridors will restore the hub significance of Seguin's central commercial area. The corridors are as follows:

- Business 90/Court Street, as it merges with IH-10 east of FM725. Traffic flow from IH-10 into downtown will be encouraged when Court Street makes a significant connection west of Highway 123 (see next major corridor identified here). Monumentation of this intersection, indicated by a red dashed circle, will identify it as a downtown link, as well as an eastward extension of Court Street, which will encourage an increase in its regional functionality.
- Business 123 extending from its intersection with IH-10 as it transitions into the Austin/River couplet, intersecting the downtown Square. Monumentation of the IH-10 intersection will identify Business 123 as a downtown link.
- The eastward extension of Court Street to SH-130 is a major connection that allows fluid flow from IH-10 directly into the downtown core. This extension connects to the SH-130/IH-10 intersection, bringing regional traffic (excluding trucks) directly into the downtown core. Monumentation of this intersection marks the end of SH-130 and the approach sequence to downtown Seguin.

Once downtown's significance as a hub is restored, it becomes a structured destination. A destination is a district, and entries to districts are meaningful places for portal monumentation. Portals are located at both the vehicular doorway and the pedestrian doorway to downtown. Vehicular and pedestrian monumentation are different in scale. The red circle in Figure 7 indicates vehicular portal monuments, while the yellow circles indicate pedestrian portal monuments. Vehicular monuments are reminiscent of the town portal monuments located along IH-10. The third type of entry to downtown is represented by yellow squares in Figure 7. These are intersections where enhanced crosswalks should be incorporated to signal transition into downtown Seguin.

Figure 5. Portals from IH-10 to Downtown Seguin.

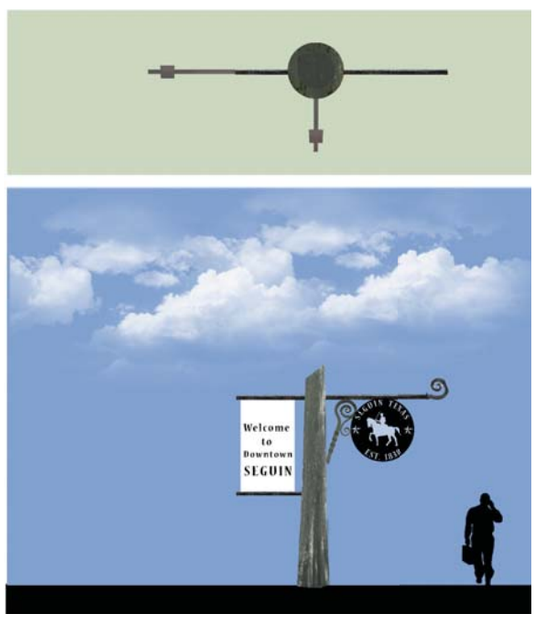


Figure 6. Portal Monumentation for Downtown Seguin.

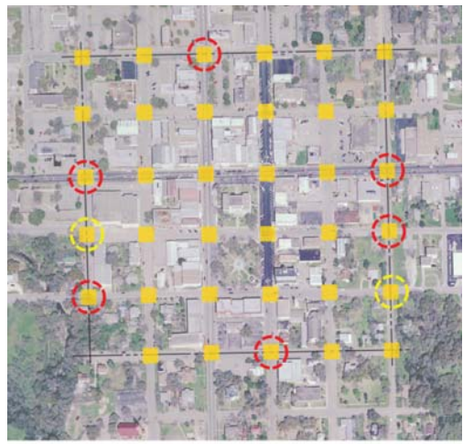


Figure 7. Downtown Seguin Portal Locations.

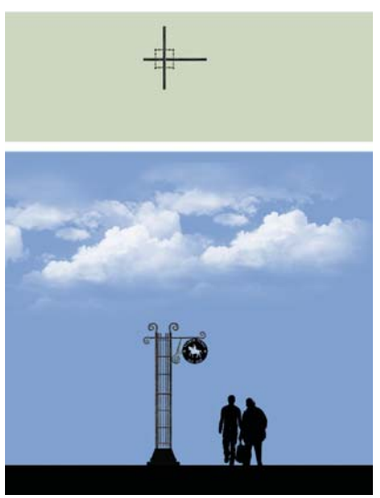


Figure 8. Downtown Signage for Seguin.

Figure 9. Special Event Signage for Seguin.

Orienting the Built Fabric to Downtown Streets

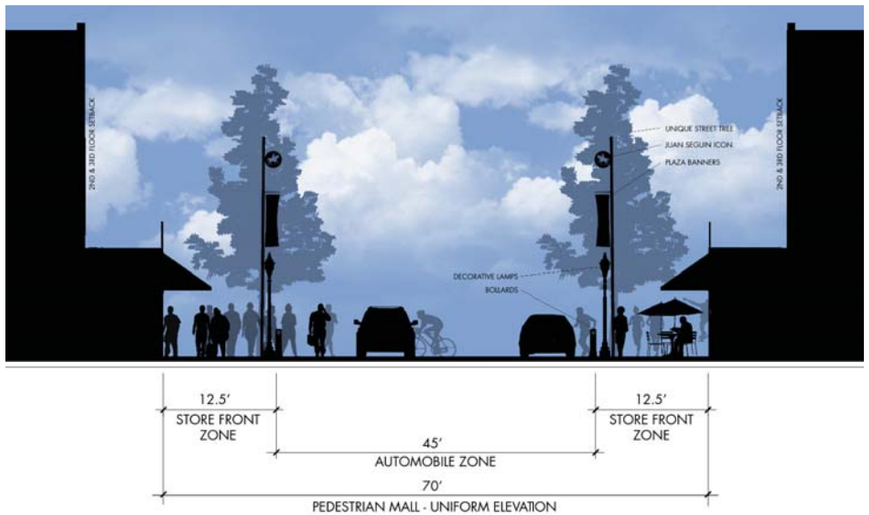


Figure 10.

Shared Ground Plane

Portions of Donegan Street (and Center Street), Nolte Street, and River Street that abut the Courthouse Square, terminating at Walnut Creek on the west and the Guadalupe River on the east, will be raised to the level of the plaza, making a grand traffic table, upon which the traffic lane is defined by bollards instead of curbs. Bollards make the sidewalks space appear wider and, when the area around the square is closed for events, the street, sidewalk, and plaza can become one ground space.

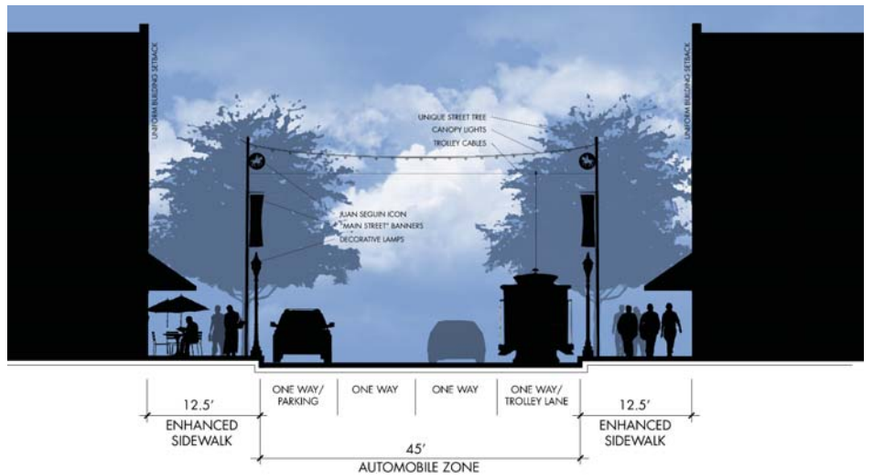


Figure 11.

Enhanced Pedestrian Zone

Those portions of Austin Street and River Street extending north and south of the square continue the enriched pedestrian treatment of the storefront zone of downtown. This zone continues as an enhanced sidewalk, allowing the street to perform a more directed function. The reintroduction of the trolley car along these streets further increases the amount of activity along these streets.

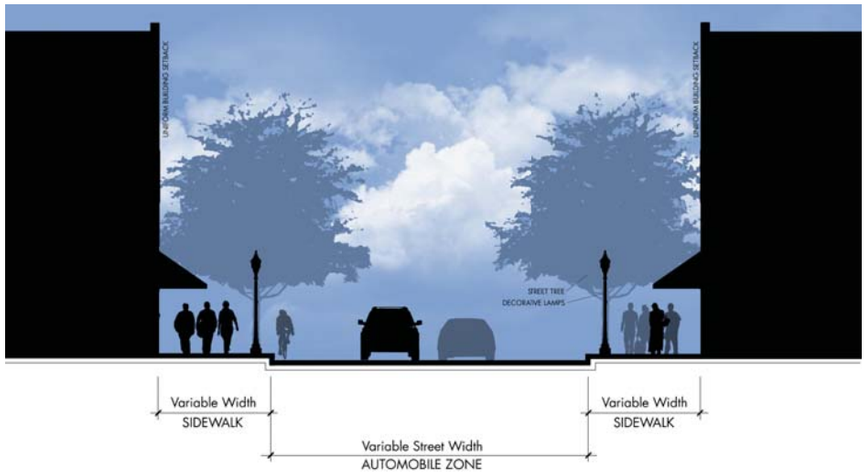


Figure 12.

Enhanced Downtown Streetscape

There are several streets located within the downtown district that are not extensions of the routes adjacent to the square, or are too distant from the square to maintain a strong association with the square. Elements of the plaza streets are used on these streets to establish an overarching and recognizable continuity downtown, indicating the presence of the central square throughout the district. Uniformity in street elements and adherence to streetscape guidelines reinforce the nature of the downtown environment.

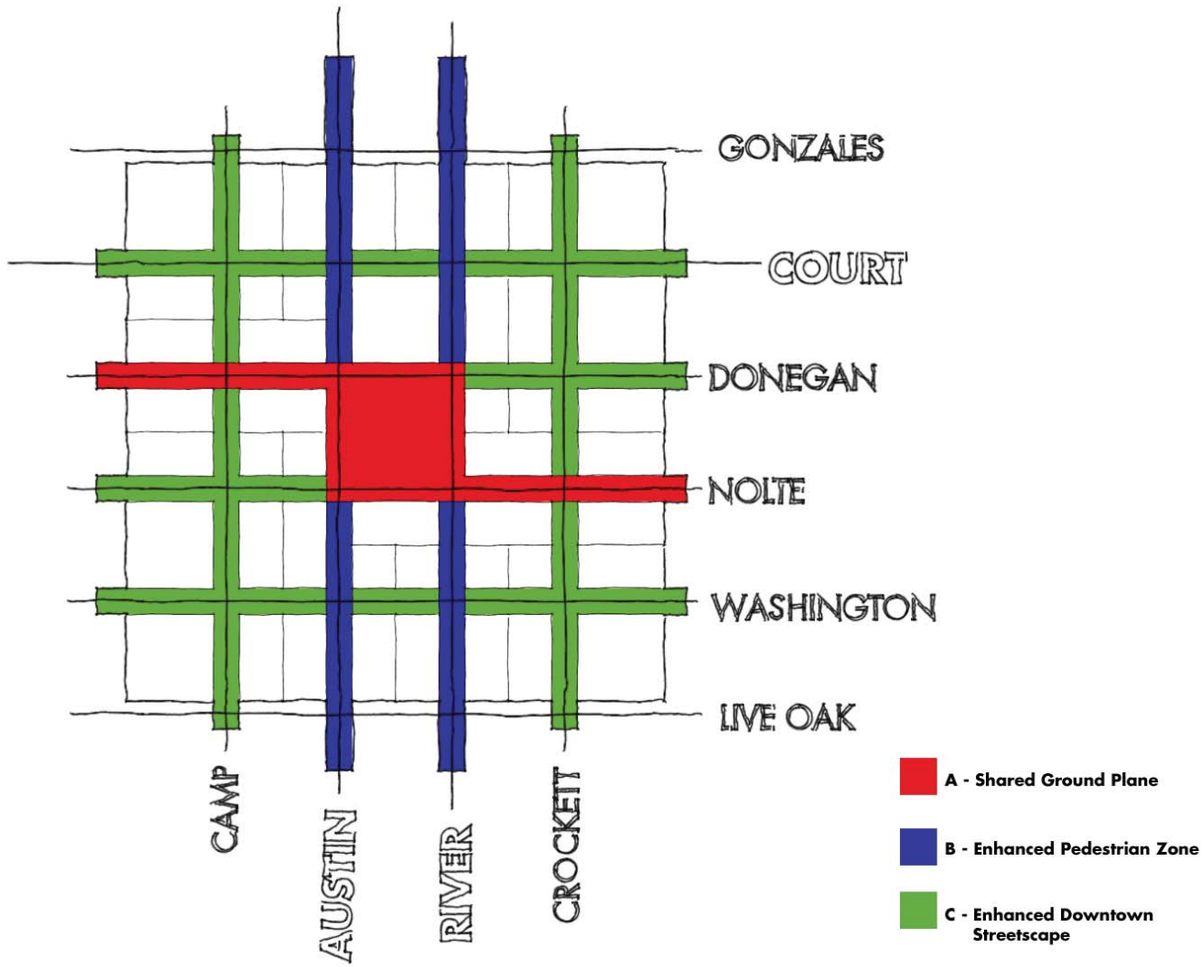


Figure 13. Downtown Seguin Streets.

Figure 13 illustrates those streets receiving a particular thematic and urban design treatment in downtown Seguin. Condition A (See Figure 10, Shared Ground Plane) is the most pedestrian enhanced streetscape. Condition B (See Figure 11, Enhanced Pedestrian Zone) creates a distinctive and enriched pedestrian environment at the store front. Condition C (See Figure 12, Enhanced Downtown Streetscape) establishes a thematic visual identity for the rest of the core area.

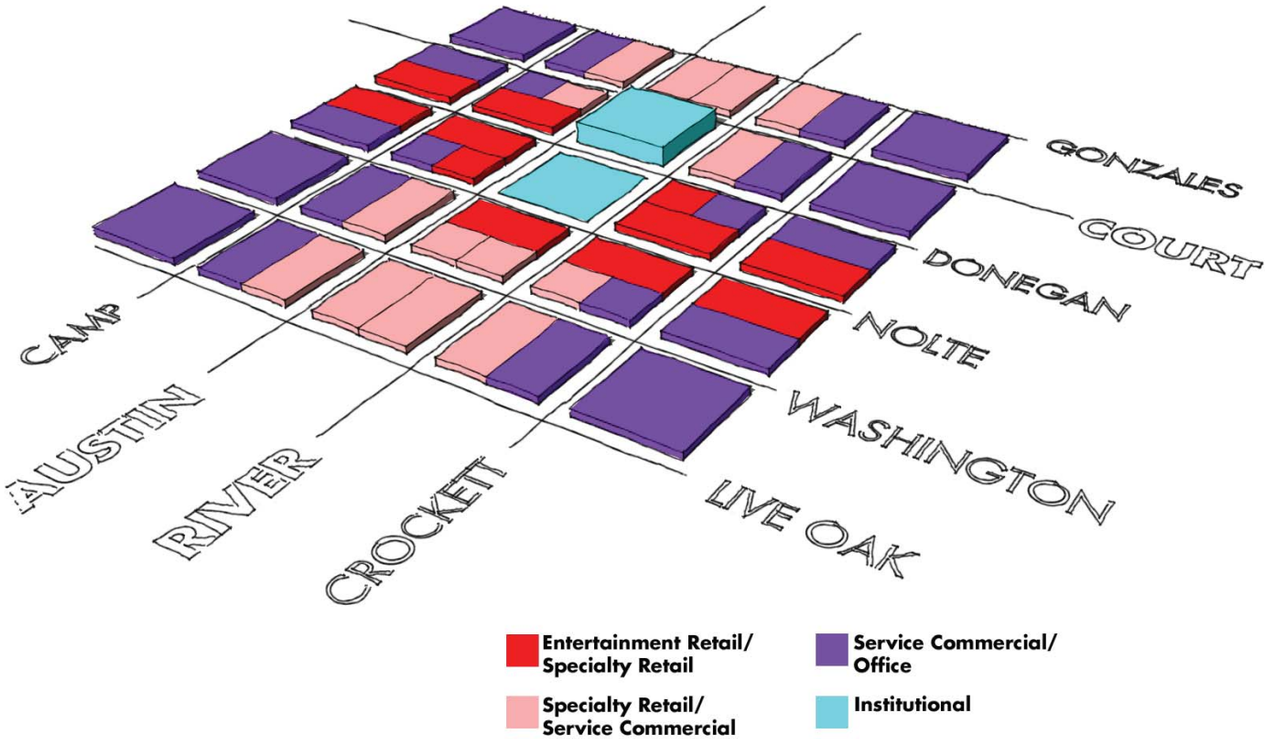


Figure 14.

The nature of the street function, as indicated by its design treatment, should influence the land uses that abut it. The land uses and street function should be complimentary. Therefore, entertainment retail and specialty retail should be located along streets demonstrating Condition A (see Figure 10, Shared Ground Plane). Specialty retail and service commercial should be located along streets demonstrating Condition B (see Figure 11, Enhanced Pedestrian Zone). Other permitted uses, such as commercial and office, should be located along streets demonstrating Condition C (see Figure 12, Enhanced Downtown Streetscape). Institutional uses should be focused on the town square, in a traditional Texas fashion.

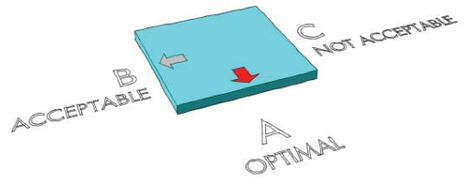


Figure 15. Institutional Fronting Standards.

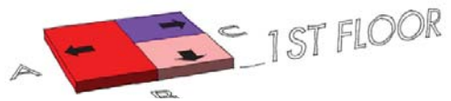


Figure 16. Vertical Zoning, One Story.

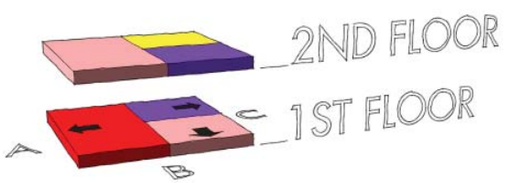


Figure 17. Vertical Zoning, Two Stories.

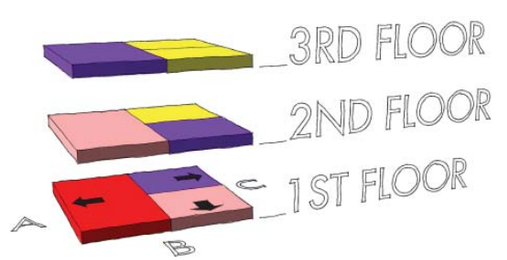


Figure 18. Vertical Zoning, Three Stories.

Figure 19. Downtown Future View.

For Downtown Seguin to succeed as an environment of vibrant commercial and entertainment uses, it must fulfill visitors' expectations as a place rich in visual and physical activity. Movement, information, light, variety, visual complexity, and beauty are all anticipated elements of the core. Movement is reinforced by the trolley, which has its roots in an era of emergent technology and a rapidly changing urban landscape. Banners and other kinetic elements convey movement. Information is conveyed through signs, banners, kiosks, etc. Light emanates from a generously lit public domain. Variety is appropriately expressed in architectural style, varied height, divergent land uses, mixed activities, and signage. Visual complexity is expressed by marquis signs, material textures, the juxtaposition of the structured elements and the landscape. Suspended light canopies and centenary wires, along with horizontal variations at the first floor, add to this visual complexity. Beauty is presented in the generous landscape, and artful, decorative street hardware maintains the continuity of street definition.

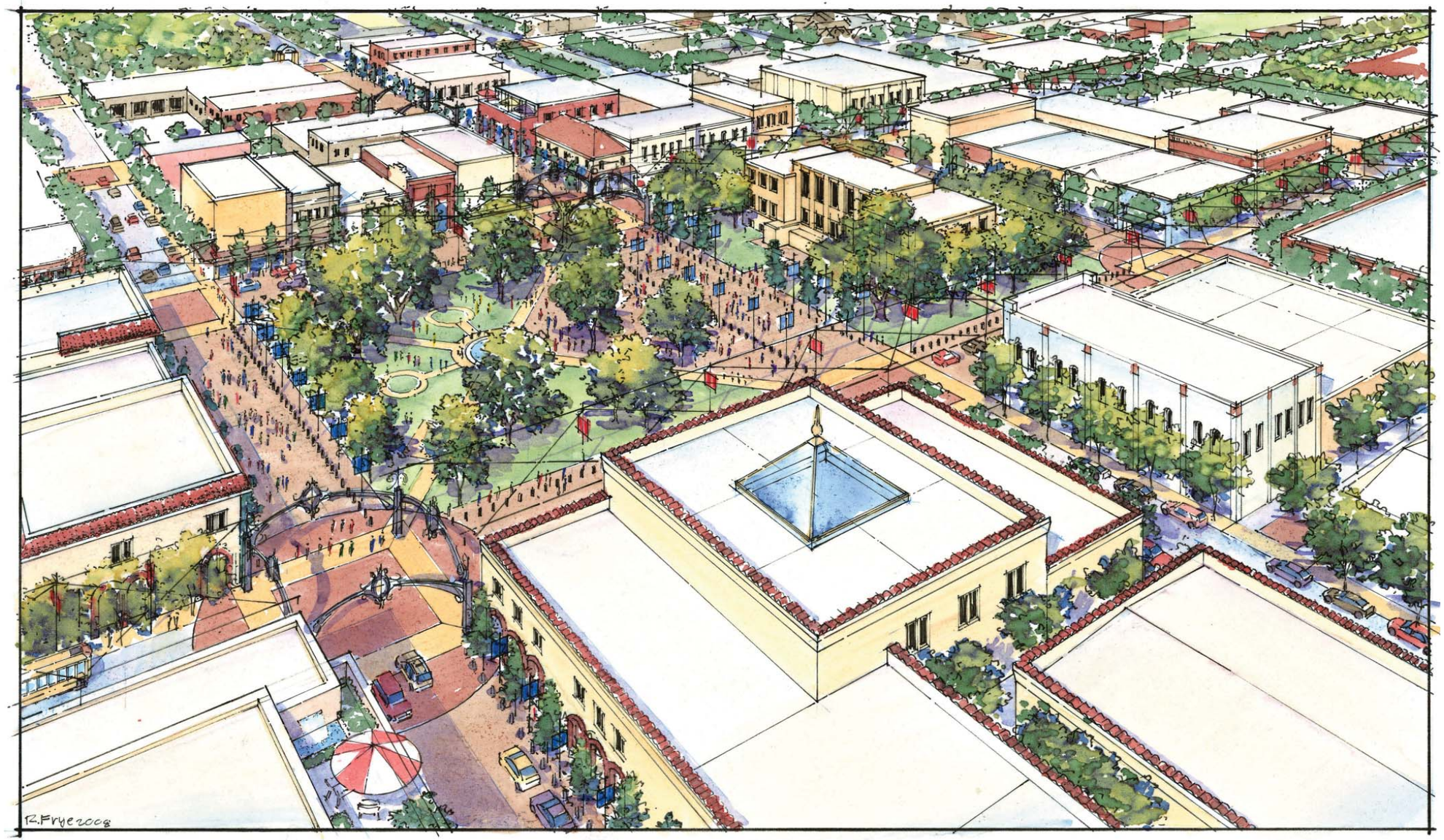
Figure 20. The intersection of Austin St. and Washington as it exists today.

Figure 21. Downtown Future Phase 1. Planting street trees is an investment that should be made early, along with sidewalk enhancements to facilitate comfortable pedestrian movement along streets targeted for redevelopment.

Figure 22. Downtown Future Phase 2. The City should seek to expand on inital public realm enhancements with the addition of thematic banners and icons, pavement improvements, and re-establishment of the trolley line. These improvements will begin to give distinction to downtown as a district and as an easily accessible destination.

Figure 23. Downtown Future Phase 3. As new development occurs, guidelines should be in place to preserve the character of the downtown district.

Figure 24. Aerial Perspective Rendering of Downtown Seguin.



A Strategy for Downtown Revitalization

Implementation of previously recommended actions that will revitalize Downtown Seguin requires an implementation strategy. Such a strategy will apply the tools of implementation (available to Seguin) through an organizational hierarchy whose related participants have assigned responsibilities that will be executed in a choreographed sequence. Therefore, the attributes of a strategy applied to implementation of the Downtown Revitalization Plan for Seguin are Roles, Relationships, Responsibilities, and Sequence. Additionally, potential district designations that could be useful to Seguin in the Downtown Revitalization activities will be examined. All of these attributes are explained and illustrated in greater detail on the following pages.

DISTRICTS

By creating District Designations for areas within Downtown Seguin, a policy framework can be established that is compatible within the City's larger municipal planning efforts. Special policy parameters, appropriate development activity, and funding mechanisms that are characteristic of special districts in the State of Texas are important considerations in district designations. In this report, eight special districts will be considered, with an included description of their opportunities and constraints. A comparative table of district application in Seguin and a recommendation regarding the most suitable district designations will be included in this section. The districts summarized here include:

- Targeted Planning Zones (Sub-area Plans)
- Design Overlay District
- Historic Districts
- Municipal Management District
- Tax Increment Finance District
- Capital Improvement District
- Public Improvement District
- Business Improvement District

Function	Due Process	Regulatory Control	Shared Governance	Targeted Public Funding	General Public Funding	Premium Funding
Description of Function	Provide public deliberation for the purpose of preventing capricious actions on part of council, while permitting specific actions within a targeted area	Target enforcement or regulatory oversight in a specified area	Establish governmental subdivisions for the purpose of executing specific tasks normally assigned to general governance	Redirect public revenues within a particular zone to a target area/set of targeted projects	Focus general revenues to targeted areas/targeted projects	Create revenue streams in addition to normal public sources
Districts	Land Use areas (entertainment, school, hospital, etc.)	Overlay Districts	Municipal Management Districts	Tax Increment Finance District	Capital Improvement District	Public Improvement District
	Target Planning Zones (Sub-area plan)	Planned Development Districts	Legislated Districts			Business Improvement District
		Historic Districts				
	Reinvestment Zones	Code Enforcement Districts				

Recommended for Downtown Seguin

Figure 25. Possible District Designations for Seguin.

TARGETED PLANNING ZONES (SUB-AREA PLAN)

General Description
Targeted Planning Zones are designated when a particular area required a greater level of detail than can be obtained through a City's Comprehensive Plan or when unique actions are necessary in the area. A Sub-area Plan would remain consistent with the City's Comprehensive Plan and would include tools and mechanisms tailored directly to the targeted area. By designating the area a Targeted Planning Zone, an additional level of public participation, review, and input can be incorporated into the design of the area. After the Targeted Planning Zone is developed, the plan is adopted, implemented, and overseen by the Planning Commission and the City Council. A Targeted Planning Zone could be eligible for Community Development Block Grant funds for activities related to the removal of blight and the provision of low-income housing in the zone.

Description of Functions
- Design review procedures
- Zoning regulations
- Streetscape element standards
- Character and design guidelines
- Development strategies
- Creation of incentives
- Public review and input

DESIGN OVERLAY DISTRICT

General Description
Design Overlay Districts do not change existing, underlying zoning categories, but rather provide requirements and incentives to preserve a defined district form or character and to encourage development of a certain quality. They provide guidance for private entities (developers, designers, and investors) as they embark upon projects in the designated district. It also provides standards for the visual form and appearance to which property owners and occupants must comply, in order to preserve the visual form and overall appearance within the District. Overlay Districts can also be established so as to provide effective land use planning and facilitate traffic flow. Guidelines typically articulated in a Design Overlay District would address such components as:

Typical Elements Defined and Regulated though the Design Overlay District
- Landscaping
- Architecture
- Lighting
- Signage
- Parking lots
- Transportation elements (trails, transit stops, intersections)

HISTORIC DISTRICTS

General Description
The creation of Historic Districts is a way to target the preservation of historic buildings, streets, features, and the fabric of an area. The National Parks Service maintains the National Register of Historic Places, which recognizes districts, sites, buildings, structures, and objects that are significant to American history, architecture, archeology, engineering, and culture. The process of obtaining National Register designation can be lengthy and requires extensive documentation of a site's merits.

The Texas Historical Commission administers the Certified Local Government (CLG) program, which provides support to cities in creating Historic Districts. In order to qualify as a CLG, a city must:
1. Enforce state or local legislation that protects historic properties
2. Establish a qualified review commission composed of professional and lay members
3. Maintain a system for surveying and inventorying historic properties
4. Provide for public participation in the historic preservation process, including recommending properties to the National Register of Historic Places.

Once certified, a CLG becomes eligible for grant funds to support:
- Training for local preservation commissions
- Completing or updating surveys of historic resources
- Producing historical walking or driving tour brochures, videos or other educational materials
- Preparing preservation plans
- Preparing National Register of Historic Places nominations

MUNICIPAL MANAGEMENT DISTRICT

General Description
Municipal Management Districts, also referred to as Downtown Management Districts, can be created within an existing commercial area to finance facilities, infrastructure, and services beyond those already provided by individual property owners, or by the municipality. Municipal Management Districts are created to supplement, not supplant, the municipal services in the designated district. A Municipal Management District actually functions under dual provisions of rights, powers, privileges, authority, and functions. It functions as both a conservation and reclamation district, and as a road and road utility district.

Qualified Projects for Municipal Management District Funding
Municipal Management Districts may enter into projects/provide services related to:

- Landscaping
- Streets/Sidewalks/Signage
- Marinas
- drainage improvements
- pedestrian malls
- solid waste/water/sewer/power facilities
- parks and plazas
- lakes, rivers, ponds, bayous
- recreation/scenic areas
- historic areas
- fountains/art
- off-street parking
- bus terminals, heliports, and mass transit systems
- demolition costs associated with designated improvements
- property acquisition in connection with an improvement project
- supplemental services for improvement projects (advertising, economic development, health and sanitation, security, etc.)
- administrative expenses incurred in district management

Funding options provided through Municipal Management Districts include:

- Self-imposed property taxes
- Special assessments
- Impact Fees
- Other charges to property owners

TAX INCREMENT FINANCE DISTRICT (TIF)

General Description
Tax Increment Finance Districts are useful primarily in the funding of structural and infrastructural improvements within a designated Reinvestment Zone.

Approved Appropriations of Funds
The governing body/board of directors may regulate/restrict the use of land by imposing conditions, restrictions, or covenants that run with the land.

The governing body/board of directors may use funds for project costs that benefit the reinvestment zone, including those relating to:

- buildings, schools, or other educational facilities owned by or on behalf of a school district, community college district, or other political subdivision of the state
- railroad or transit facilities
- affordable housing
- the remediation of conditions that contaminate public or private land or buildings
- the preservation of the facade of a private or public building
- the demolition of public or private buildings
- providing affordable housing or areas of public assembly in or out of the zone
- paying a neighborhood enterprise association for providing services or carrying out authorized projects in the zone
- activities that benefit the zone and stimulate business and commercial activity in the zone

CAPITAL IMPROVEMENT DISTRICT

General Description
The creation of a Capital Improvement District allows cities and counties to provide new public facilities and expand existing facilities in order to accommodate existing and anticipated growth. Funding for these Districts typically stems from capital improvement revenue funds, state and federal sources, grants, development exactions and impact fees, dedications of land, taxes, assessments, and charges. Physical, environmental, and topographical constraints must be considered when designating areas for the expansion of public facilities.

A Capital Improvement District's functions are as follows:

- Prioritize the new public facilities
- Estimate the cost of improvements or repairs
- Analyze the fiscal capacity of the city or county to finance and construct improvements
- Establish financial policies to provide for the funding of improvements
- Schedule the funding, prioritization, and construction of improvements to ensure that public facilities are provided when required based on needs identified in the Comprehensive Plan.

PUBLIC IMPROVEMENT DISTRICT (PID)

General Description

Public Improvement Districts offer cities and counties a means for improving their infrastructure to promote economic growth in a designated area, by levying and collecting special assessments on properties within the city or its ETJ. Public improvements typically funded through use of a PID include improvements in areas such as infrastructure, civic space, and business-related services.

Authorized Improvement Projects

- landscaping
- erection of fountains, distinctive lighting, and signs
- acquiring, constructing, improving, widening, narrowing, closing, or rerouting of sidewalks or of streets, any other roadways, or their rights-of-way
- construction or improvement of pedestrian malls
- acquisition and installation of pieces of art
- acquisition, construction, or improvement of libraries
- acquisition, construction, or improvement of off-street parking facilities
- acquisition, construction, improvement, or rerouting of mass transportation facilities
- acquisition, construction, or improvement of water, wastewater, or drainage facilities or improvements
- the establishment or improvement of parks
- acquisition, by purchase or otherwise, of real property in connection with an authorized improvement
- special supplemental services for improvement and promotion of the district, including services relating to advertising, promotion, health and sanitation, water and wastewater, public safety, security, business recruitment, development, recreation, and cultural enhancement
- payment of expenses incurred in the establishment, administration, and operation of the district

BUSINESS IMPROVEMENT DISTRICT (BID)

General Description

A Business Improvement District (BID) is an organizing and financing mechanism used by property owners and merchants to determine the future of their retail, commercial and industrial areas. The BID is based on state and local law, which permits property owners and merchants to band together to use the city's tax collection powers to assess properties, thereby creating a reliable, multi-year source of funds for economic development. These funds are collected by the city and returned in their entirety to the BID and are used for supplemental services (maintenance, sanitation, security, promotions and special events) and capital improvements (street furniture, trees, signage, special lighting) beyond those services and improvements provided by the municipal government. In essence, the program is one of self-help through self-assessment and business-led management. In the BID era, business leaders assume that by acting collectively they themselves can correct as many of the problems that affect their economic self-interest as they can afford. There are 1,200 BIDs in North America in central business districts and other commercial areas of all sizes, from tiny Hampton, Virginia, to Times Square in New York City.

BIDs typically serve 10 functions:

1. Maintenance. Collecting rubbish, removing litter and graffiti, washing sidewalks, shoveling snow, cutting grass, trimming trees, planting flowers in public places.
2. Security and hospitality. Hiring uniformed security and street "guides" or "ambassadors"; buying and installing electronic security equipment or special police equipment, staffing sidewalk tourism kiosks.
3. Consumer marketing. Producing festivals and events; coordinating sales promotions, producing maps and newsletters; launching image enhancement and advertising campaigns; erecting directional signage.
4. Business recruitment and retention. Conducting market research; producing data-oriented reports; offering financial incentives for new and expanding businesses; marketing to investors.
5. Public space regulation. Managing sidewalk vending, street performances, street furniture, code compliance.
6. Parking and transportation management. Managing the public parking system; maintaining transit shelters; operating ridesharing programs.
7. Urban design. Developing urban design guidelines; managing facade improvement programs.
8. Social services. Creating or aiding help-the-homeless, job training, and youth services programs.
9. Visioning. Developing a vision or strategic plan.
10. Capital improvements. Installing pedestrian-scale lighting and street furniture; planting and maintaining trees and flowers.

ROLES

Roles describe the purpose that each recommended district plays in the implementation strategy. The foundation of the Implementation Strategy is an identification of a set of recommended district designations that can co-exist within the same planning framework and can access many sources of potential funding. Funding is the prime agent that will enable needed physical changes to be made and is also the mechanism by which the public burden of implementation is equitably distributed among public and private participants in the implementation process. Finally, funding is the measure by which return to the implementation participants will be evaluated and decisions to proceed through the implementation process made.

A wide variety of funding mechanisms is recommended in this report in order to capture a broad base of funding opportunities for Seguin's Downtown Revitalization Plan. Using a constellation of compatible districts and organizations allows the City to target as many sources of revenue as possible. The following section provides an overview of these mechanisms and how they may be utilized.

Bonds. Many types of bonds are available for municipal use, and the most important in this redevelopment strategy are revenue and obligation bonds. Revenue bonds are so named because they are repaid by revenues generated by a specified entity associated with the purpose and use of the bond. Government agencies, funds that generate revenues and expenses, and some special districts run by a governmental board, such as Public Improvement Districts, can issue revenue bonds, and these types of bonds can be used for infrastructure and public improvement projects. Obligation bonds are generally repaid by levying property taxes, and they can be issued by most municipal entities. Obligation bonds are useful in special and/or taxing districts, in which the bond is repaid by taxes levied within the district.

Assessments. Assessments are a funding mechanism that collects funds based on the assessed value of properties within an area. A rate is set, such as $0.20 per $100 value, which is gathered from all properties in the specified district. The assessment funds can then be used for improvement projects within the district and are typically managed by the municipality and a Board of Directors for the district. Collecting dues from property owners is another method of raising funds for use in a particular district or area. Like assessment funds, dues are used for improvement projects and managed by the City and an advisory board.

Certified Local Government Grant. The Texas Historical Commission awards Certified Local Government Grants to qualifying cities and counties in order to assist with historic preservation efforts. These grants require a cash or in-kind service match from the city or county, and the grants are supplied through federal funds to the National Park Service Historic Preservation Fund. Funds from these grants may be used for personnel training, the creation of historic surveys and/or planning documents, the production of educational materials, and in preparing nominations to the National Register of Historic Places. Certified Local Government Grants are a useful way to support and target local historic preservation activities.

Community Development Block Grants. The U.S. Department of Housing and Urban Development (HUD) awards Community Development Block Grants (CDBG) to municipalities. The funds can be used for a variety of projects that benefit the health and welfare of the community, including the provision of affordable housing, the removal of blight, services for vulnerable populations, and the creation of employment opportunities. In order to receive CDBG funding, municipalities must develop a Consolidated Plan with goals for the funds and a mechanism for the inclusion of citizen participation. The following are eligible activities using CDBG funds:

- Acquisition of real property
- Relocation and demolition
- Rehabilitation of structures
- Construction of public facilities and improvements, including water, sewer, streets, neighborhood centers, and school building conversions
- Energy conservation and renewable energy resources

Tax Increment Revenue. Tax Increment Financing (TIF) is a mechanism by which a particular area or zone is designated as a redevelopment area. At the time of designation, a baseline property value is established and set for a specified period of time. Revenue from this base property tax continues to be paid to the appointed municipal fund, while the increase in property tax value (or tax increment) resulting from improvements/revitalization is collected in a separate fund. The municipality can then use the funds from the increment for redevelopment projects within the established TIF district. In this situation, tax revenue

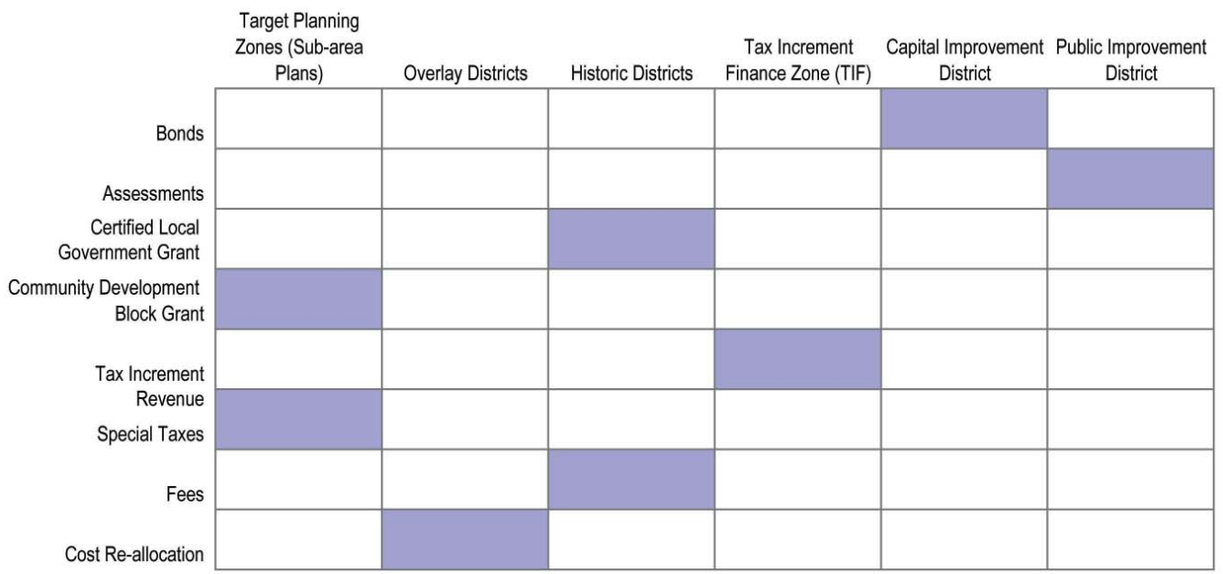


Figure 26. Funding Mechanisms Available to Seguin.

from a particular area is concentrated and reinvested back into that area, furthering redevelopment goals. Additionally, the tax increment funds can also be used to repay initial public investment in the TIF zone. This funding mechanism is particularly helpful when used as part of a public-private partnership. If a municipality makes an initial infrastructure investment that makes the area more appealing to private development, the revenue from the private development can be collected in the increment and used to repay the city's infrastructure investment.

Taxes and Fees. Special taxes, such as hotel tax and sales tax, can be collected in a designated area and used to fund development and revitalization activities in that area. Fees for special services could be collected and used to fund revitalization projects in the area where the services are provided. Examples of activities that would be eligible for this type of fee collection include the provision of wireless internet access throughout downtown Seguin, the implementation of trolley fares, and a usage charge for holding special events in the Downtown plaza and other Downtown spaces. Finally, cost reallocation is a mechanism by which private property owners would be responsible for the cost of complying with design regulations specified in particular districts.

RELATIONSHIPS

Relationships describe the interconnection of the internal and external organizational structures that act upon the implementation strategy. Acts (or actions) necessary to implementation include funding, implementation/ construction, and maintenance. Gathering/generating funds, expending funds to create value, and maintaining that value is a broad set of relationships that define the interconnecting relationships between those agencies, boards, commissions, committees, associations, and tasks forces associated within the implementation strategy. To make the collective body of organizations (such as those specified above) functional, it is necessary to set them in a hierarchical association which ultimately defines a community under the leadership of elected officials (the City Council). In this way the operations of the implementation strategy maintain public accountability and respect the rights of public due process and uniform/non-capricious application of laws/policies/procedures.

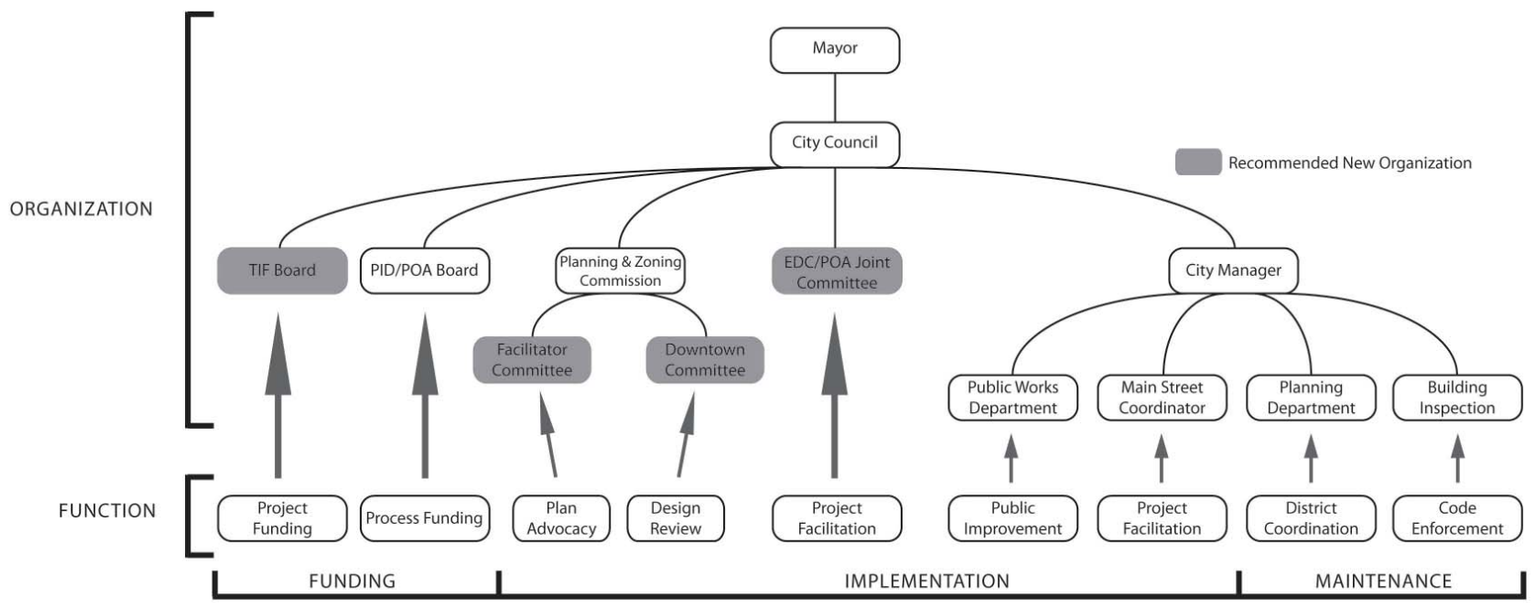


Figure 27. Organization Relationships in Seguin.

RESPONSIBILITIES

Responsibilities describe the actions required of each internal and external organizational structure within the implementation strategy. As described above, required actions generally include funding, implementation/ construction, and maintenance. Within this broad categorization are those actions that are highly discretionary and those actions that are ministerial (generally non-discretionary). Due to the array of agencies, boards, commissions, committees, associations, and tasks forces under the City Council (as described above), actions that are most discretionary need to be executed by those closest to public accountability. Agencies, boards, commissions, committees, associations, and tasks forces that are more distant from such accountability must have responsibilities that are more ministerial. A clear assignment of responsibilities within a hierarchical set of relationships protects the entire enterprise of plan implementation from failure to meet its public obligations and facilitates its capability to define financial exposure for private investment.

SEQUENCE

Sequence describes the order of related actions carried out by the internal and external organizational structures (agencies, boards, commissions, committees, associations, and tasks forces) executing their responsibilities within a hierarchical set of relationships. Certain actions must precede other actions and in so doing create the environment in which the following action can be most effective. Understanding sequence also defines time and allows time frame for implementation (an aspect of investment exposure) to be understood. A detailed sequence also reveals what actions are most important at this present time and thereby provides political urgency to the implementation strategy.

The following is a sequence of actions recommended for Downtown Revitalization in Seguin. These actions integrate both public and private actions, involving policy, regulatory, and form-based mechanisms. There are seven recommendations in total.

1. Adopt the Seguin Downtown Revitalization Plan
2. Create special districts
3. Create district committees and boards
4. Craft guidelines and pass ordinances that codify the guidelines
5. Begin detailed design work on the downtown design projects:
   a. Court Street extension to SH 130
   b. Creation of the Downtown Plaza Sub-District
   c. Pedestrian link between Downtown and the University districts
   d. Extend Walnut Creek improvements to the University area
   e. Restoration of the Downtown Trolley
6. Define a pilot project to prove the market for Downtown Seguin
7. Begin projects as money becomes available, starting with the Walnut Creek improvements extension and the Downtown Trolley

5.2 urban design elements

Urban Design Guidelines can preserve, enrich, and revitalize historic integrity and economic investment in the City of Seguin.

Urban Design Guidelines should be constructed for the City of Seguin that:

- *Preserve* the historic character and visual identity that must be restored, reconstructed, and perpetuated in Seguin.
- *Infill* the remaining vacant properties (and/or re-use existing properties), while perpetuating the historic character of the City.
- *Provide* spatial opportunities for pedestrian interchange not currently available within the rigidly defined street space.
- *Enrich* the street as a place for pedestrian comfort, beauty, and convenience.
- *Revitalize* investment interest in Seguin, to the extent that greater retail, service, and other commercial activity is present on the street. Such revitalization will require that public and private development bring to the historic streetscape those elements that the marketplace views as desirable.

URBAN DESIGN IN THE PUBLIC REALM

PORTALS

Portals serve as points of entry to an area of distinct identity. When a designated area lacks portals, it is difficult to establish a cognitive structure or have recognition. Portals are essential to the definition of entrance, which is essential to introducing sequence, which, finally, is essential to the experience of arrival and identity. For this reason, establishing portals at key locations (Figure 1) to signify entry to the City of Seguin is critical in the creation of City identity.

The portals to the City of Seguin should:

- Be located along the major freeways that approach the City, namely IH-10 and SH 130.
- Be located within the land use districts designated as "Portal Approachways."
- Be significantly scaled so as to be legible to vehicular traffic, yet proportionate to surrounding fabric.
- Symbolize thematic elements that make Seguin unique.

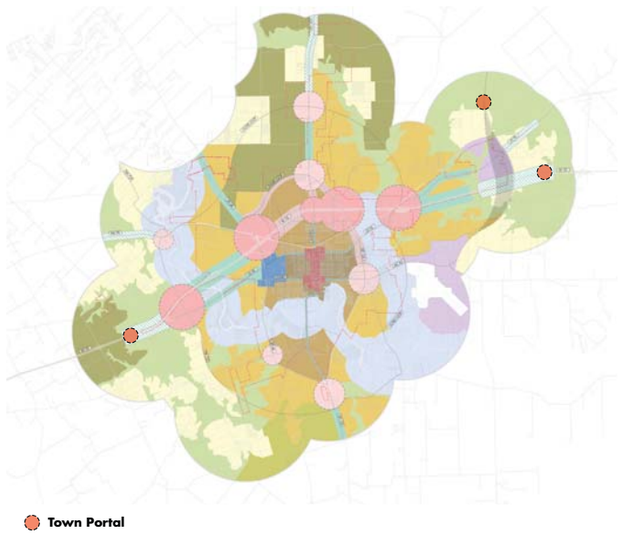


Figure 1. Appropriate Locations for Portals in Seguin.

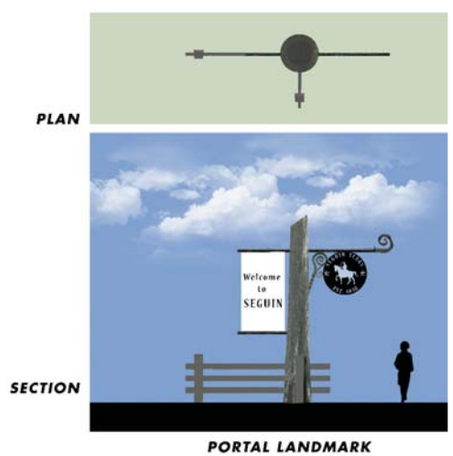


Figure 2. Possible Iconic Portal Monument for Seguin.

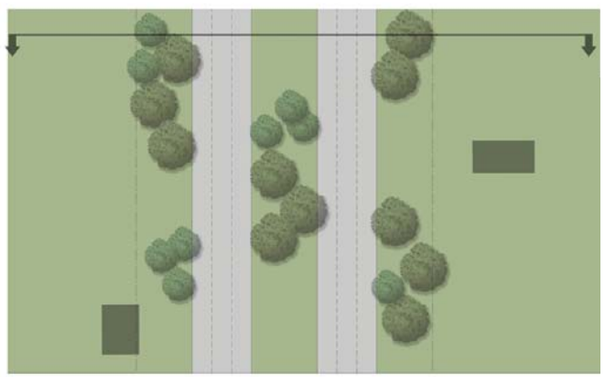
Figure 2 illustrates a possible iconic portal monument for the City of Seguin. It is constructed out of concrete, symbolizing the prevalent use of this material in earlier days. The Live Oak tree intertwined with a fence post depicts the interface of agriculture and the natural landscape, and the symbolic Juan Seguin on horseback serves as a unifying design feature to provide contiguity with other streetscaping elements throughout the City of Seguin.

STREETS

Definition of elements within the Public Realm aids in the visual continuity of urban form. Streets are among the most common elements within the public space, and therefore can significantly communicate a sense of city identity when organized into a hierarchical system. Transitions among street types aid in recognition of districts within the City, as well as approach, arrival, and function. The Streets of Seguin have been organized into a hierarchical system, based on orientation of the three major elements: the street space, the built fabric and the landscape. The interchange between these three elements is what creates the distinctive characteristics of each street type in the system. The seven thematic thoroughfare types are indicated in Figure 3 (following pages), with corresponding captions providing greater detail.

Figure 3. Thematic Thoroughfare Types for Seguin.

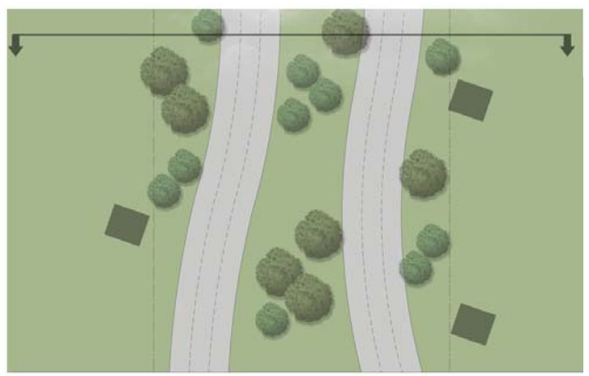
RURAL APPROACH



RURAL APPROACH

The streets designated as Rural Approach introduce Seguin as a distinct place of arrival by visually separating the city from the fringe context of adjacent activities. The Rural Approach seeks to convey a largely undeveloped condition with undisturbed land forms and drifted plant communities. Buildings are randomly placed, relative to the road. Fences are a rural, transparent variety, if present at all. Trees are naturally clustered and accompanied by understory growth, punctuating the agrarian landscape characteristic of the Seguin area. The road is a divided section, with a wide median, so that the pavement width apparent to any car is rural in scale. Natural tree drifts occasionally cross the road, so that the road does not define the landscape form. In Rural Approach Streets, no free-standing commercial signage is permitted within 200 feet of the right-of-way.

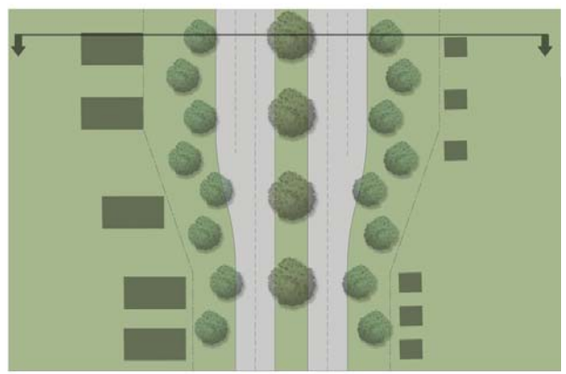
RURAL PARKWAY



RURAL PARKWAY

Parkways are intended to be experiential pathways. Therefore the dynamics of movement, encounters with landforms, and changes in corridor definition are important in effecting experience along these pathways. The Rural Parkway should have horizontal and vertical undulation that creates a wide and variable median. The divided lanes should not be parallel for any great distance, so that the landforms and natural landscape are more influential on the design and the driving experience. Trees should be planted in drifts, which can flow across the roadway, and should exhibit a degree of vertical complexity. Buildings should be sited without reference to the road, and the rolling ground plane should continue in the median. Distinctive natural features, such as a pond or significant tree stand, should be preserved to make the Rural Parkways unique. In Rural Parkways, no free-standing commercial signage is permitted within 200 feet of the right-of-way.

TOWN APPROACH

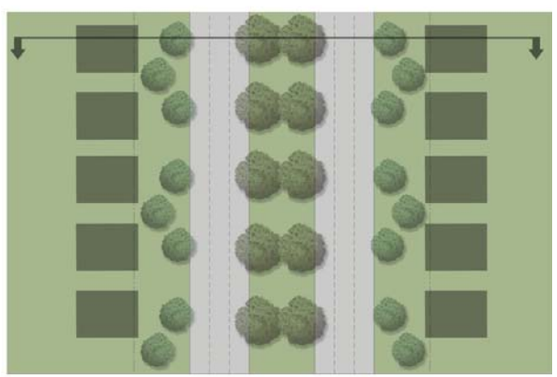


TOWN APPROACH

The Town Approach Streets initiate the visual sequence that ultimately terminates at the downtown square. The Town Approach Streets transition from the rural street character of the Rural Approach to the more urban character of the Core Approach. Within the Town Approach, drifted trees transition to a more organized geometry of offset pairs, and the landscaping in the median becomes a regular geometry of uniformly spaced trees in a linear formation. This announces the forthcoming urban condition, and responds to the introduction of a narrower median. Buildings begin to establish a more orthogonal relationship to the street, while landscaping is still generous between the buildings and the street. Interfacing site landscape has a more ornamental character. Street lighting is more closely spaced, using the thematic City light and luminaire standard.

Figure 3. Thematic Thoroughfare Types for Seguin (continued).

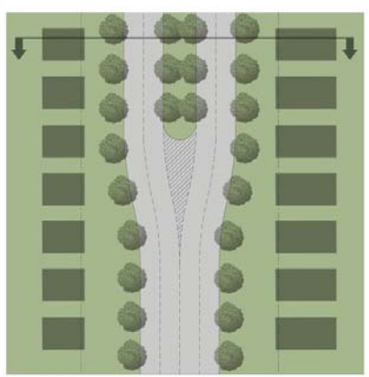
URBAN PARKWAY



URBAN PARKWAY

Urban parkways are the street type found along the Inner Loop. As a parkway, the road has an experiential function. Here, that function is urban identity. The distinct identity of this parkway is conveyed through organized geometries of regularly spaced, paired trees, and an orthogonal relationship of buildings to the street. Thematic urban parkway lighting standards, uniformly spaced and placed so that banner arms display banners to the street, are characteristic of Urban Parkways, as are distinctive exit signs and way-finding signs that identify key destinations by name.

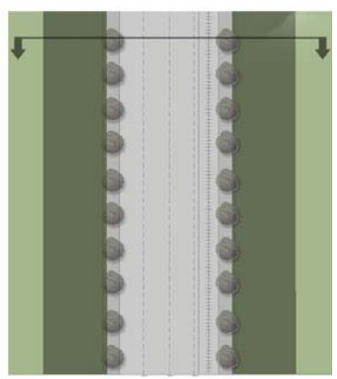
CORE APPROACH
6LN/4LN



CORE APPROACH
6LN/4LN

The Core Approach directs traffic to the point of arrival in Downtown Seguin. As such, the Core Approach visually culminates the approach sequence, transitioning from suburban to urban. Trees are placed in strict uniformity. Buildings have an orthogonal relationship to the street, with small to non-existent yard interface. Thematic lighting is more closely spaced, and equipped with banner arms. Directional and interpretive signage is brought to the street, along with information kiosks. Decorative sidewalks and crosswalks also characterize the Core Approach Streets.

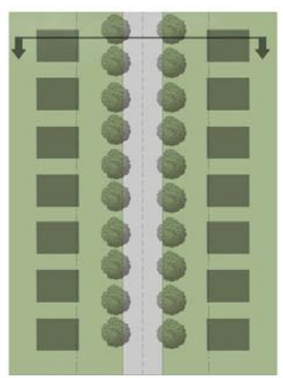
DOWNTOWN
COUPLET



DOWNTOWN
COUPLET

The Downtown Couplet is the combined function of River Street and Austin Street, functioning in a couplet configuration. The couplet is a variation of the Core Approach, so attributes of the Core Approach are evident here as well. Trees are uniformly placed, and buildings maintain a strict orthogonal relationship to the street. The yard interface is minimal if existent at all. Thematic lighting is closely spaced, and equipped with banner arms. Directional and interpretive signage is mounted to thematic standards, and informational kiosks, decorative sidewalks, and decorative crosswalks are also incorporated.

URBAN
COLLECTOR



URBAN
COLLECTOR

Urban Collectors are the general streets of downtown, and are distinguished by uniform/orderly tree placement. Buildings are arrayed in strict orthogonal relation to the street, with little to no yard interface. Closely spaced thematic lighting is found in the commercial areas, while intersection lighting alone is found in residential areas. Directional, informational, and interpretive signage is found within the street space of Urban Collectors.

ADDITIONAL ELEMENTS OF CONTIGUITY

Sidewalks. Sidewalks are the major pedestrian accommodation in Seguin, and also provide needed elements of continuity throughout the City. Two classes of sidewalks should be developed for the City of Seguin.

1. Signature sidewalks should be defined for the following parts of town:
   - Town Core District (including Downtown and the Station District)
   - University District
   - Retail area at the intersection of Court St. and Hwy 123
   - Centers of the Regional Nodes

2. Standard Sidewalks should be defined for the remaining areas of Seguin, including communities

Monumentation. Thematic elements for the City, such as Live Oak trees, Pecan trees, the Guadalupe River, and lime-crete, are all considered historically significant materials in Seguin. These elements are united in varied ways to establish the system of monumentation devised for the City of Seguin. The major monuments for the City can be classified as Portal Monuments (previously described) and Destination Monuments. Destination Monuments indicate arrival, are recommended for use in the University District, regional nodes, the Historic Downtown, the Station District, and other historic areas of significance.

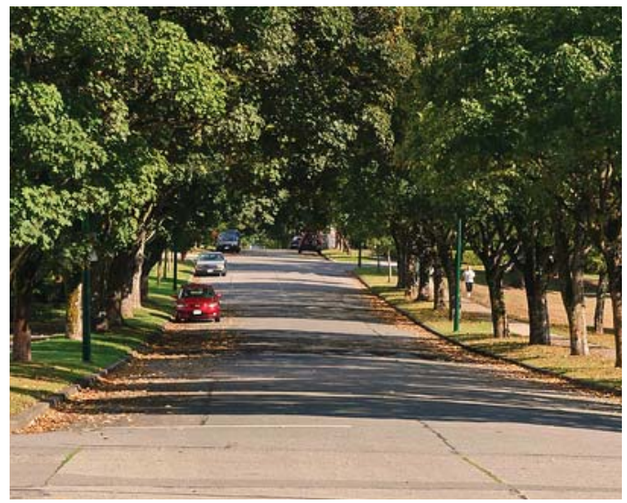
Signage. Public signage is a key element in establishing and sustaining a sense of continuity. There are three classifications of signage recommended for Seguin. These include Directional Signage (provides guidance for vehicular traffic), Interpretive Signage (provides guidance for pedestrian traffic), and kiosks (central area of information distribution).

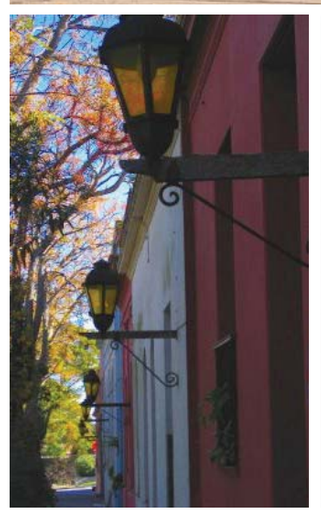
- Directional Signage. Directional signage is used to guide vehicular traffic, while permitting and encouraging business presence in the public realm. The system of directional signage developed for Seguin would consist of a consistent sign frame and sign height, with pole-mounted customized name plates. Such signage could be personalized by each business/business owner, while the overall sign would exhibit the Juan Seguin iconic element indicated in Figure 2.
- Interpretive Signage. Interpretive signage is used to guide pedestrian traffic within the Downtown and Historic Areas. They should maintain a consistent sign frame and sign height, and exhibit the Juan Seguin iconic element indicated in Figure 2.
- Kiosks. Kiosks should be employed in the major destination areas of the City, where densities and mixtures of uses are typically more intense, and a higher volume of people visit. These areas include the Historic Downtown, the University District, and the regional nodes. Kiosks could possess digital elements, or may incorporate the use of banners. Kiosks should exhibit the Juan Seguin iconic element indicated in Figure 2.

Landscaping. Landscaping is a critical element in the land use districts denoted as Corridors. The following is a recommendation for the incorporation of street trees that would create a sense of arrival/destination for Seguin:

- Town Approach-ways: Live Oak trees. Live Oaks are often used to line significant streets to create a distinctive sense of approach. The highways to which the Town Approachways are aligned should be lined with Live Oak trees, the organic form of which lends itself to drifts.
- Core Approach-ways: Cedar Elm trees. Cedar Elms create a distinct sense of approach when they are used along corridors in cities. The approach to downtown along Austin and Court Streets would be enhanced if lined with thematic Cedar Elm trees, the columnar leaf mass of which lends itself to more orderly placement.
- Other streets in Seguin: Chinese Pistachio trees. For continuity in treatment of the public realm throughout the City, it is recommended that Chinese Pistachios be used to line the remaining streets in the City of Seguin, so as to reinforce visual continuity, while differentiating between the various urban forms in the City. The potential heights of these trees and their hardiness will create an umbrageous street environment that nurtures social/neighborhood activity.

Lighting. Lighting in Seguin should provide visual character, sufficient light to accommodate public safety and enhance public use, and, where appropriate, provide an infrastructure for the incorporation of banners and other seasonal/ceremonial displays into the public realm.





URBAN DESIGN IN THE PRIVATE REALM

Just as guidelines can be used to reinforce urban form in the public realm, guidelines can also be created to encourage meaningful form in the private realm. The private realm consists of private property throughout the City. Providing guidelines that speak to the orientation of private structures to the public realm greatly enhances the character of the City. Because each land use district maintains a unique character, it will be important to create design guidelines that sufficiently preserve the character and intent of each of the Land Use Districts. The following is a brief description of the elements that should be addressed in the construction of urban design guidelines for the private realm.

Each of the design elements described in this section should be included in any guidelines that are prepared for the City of Seguin.

SITE DESIGN GUIDELINES

The placement and orientation of buildings in the private realm should be appropriate for the downtown area. Therefore, site orientation, in addition to architectural expression, should be clearly defined in terms appropriate for either residential or non-residential use.

Residential site design guidelines. Guidelines should be constructed that speak to form for residential properties, so that the expression of community identity can be carried through the various neighborhoods and residential areas of the City. Design elements to be addressed should concentrate on defining the relationship between the house and the street. This typically is expressed through site orientation (from land determined, or rural, to street determined, or urban), front yard elements (such as entry stairs/steps, fences, and retaining walls), and landscaping. The sequence of street to porch to door should also be visually comprehensible.

Non-residential site design guidelines. In contrast to residential spaces that are privately owned, private commercial spaces benefit from higher levels of traffic, and therefore should encourage pedestrian enjoyment of the space between the building and the street. Arcades and canopies are helpful in encouragement of public use along the street. In these areas, there should be no visual transition zone between public space and the building. Rather, the ground between the street and building should communicate pedestrian accessibility. Where commercial development establishes a community, site orientation and landscaping become important, as well as signage and monumentation. Also important are screens and buffers that conceal service/storage areas and make a transition to adjacent land uses.

ARCHITECTURAL DESIGN GUIDELINES

Guidelines that Create Continuity. Contrary to common perception, the notion of style does not provide a very clear indication of how or what should be built in any given area in a town. Style is a notion that is not easily defensible, relying strongly upon interpretation for validity. There are, however, certain specific elements of style that create a much more constructive dialogue regarding urban form

- Scale and Massing of Buildings. The massing, or volumetric shape of a building, greatly affects the scale of the building, thus underlying all other architectural features. Care should be afforded building massing, so that visual form is reinforced, while simultaneously encouraging responsible distribution of density (residential and non-residential) throughout Seguin. This should be strongly determined by location within a designated land use district.
- Void-to-Solid Ratio. The ratio of opening to solid wall is typically expressed as a void-to-solid ratio. This value, expressed as a maximum permitted ratio, should be distinctive for the various destinations throughout Seguin.

- Horizontal Elements. It is typical that the distribution of openings and decorative detail maintain a horizontal expression along building fronts, with decorative window heads and sills aligning horizontally.
- Materials. The primary purpose in defining building materials is to achieve visual continuity within the various districts of Seguin. Due to the different building systems that could be used throughout the City, it is recognized that the material type may vary from the otherwise required unit masonry. Therefore, material color, texture, and modulation are specifically important aspects of the material theme for the land use districts of Seguin. The continuity of materials requires an understanding of the material types that could be used on a range of building types, while also including standards for the use of these materials.
- Site Signage. Site Signs are limited to those that identify businesses. They give direction for on-site circulation, and provide information about activities/merchandise found on the site. Guidelines should be established for Seguin that address site signage (such as parking lot entrance signs, site premise signs, and monument signs).

Guidelines that Define Historic Identity. Although the notion of style per se is not recommended as a definitive guide to the determination of identity for the built fabric of Seguin, the elements of form and style identified here help to define the historic identity of the built fabric and enable the creation of visual continuity within the districts of the City. Guidelines should therefore be created that inform the following design elements in Seguin:

- Roof form. Roofs are a defining element for the structures that comprise the built fabric of the City. They should visually relate to the roof forms and slopes on other properties throughout their respective land use districts. The pitch of a roof is directly related to the roof type. Therefore, guidelines should be set not only for appropriate roof forms for each land use district, but also standards for roof pitch. Additional features associated with roofs, such as parapets, should also be addressed by private design guidelines, as these will be more consistent with form in some districts than in others.
- Entries. Recognition of building entry is an important element of order found in design. Architectural expression of entry includes architectural form, increased detail, expression of sequence, overhangs, projections, and indentations. Doors, door jambs, and proportion of openings are some of the particular items that should be addressed by private design guidelines—for both commercial and for residential properties—for Seguin.
- Store Frontage Treatment (retail/commercial). The design of storefronts along commercial streets greatly affects the scale and visual texture of the streetscape. Guidelines should be written that speak to historic storefronts in the Downtown area, as well as proportions, materials, and orientation of store frontage in new buildings.
- Canopies and Arcades (retail/commercial). The creation of semi-public space through the use of canopies and arcades is an important means by which the line of demarcation between private and public domain is blurred. This results in sidewalk space that has a greater relationship to building activities that front it.
- Articulation of Front Porches and Stoops. Stoops and front porches are traditional elements that give scale to the residential streetscape. They serve as elements of continuity in two ways. They create a transitional interface between the structure and the street, and, collectively, they define the rhythm of the street that they face. Front porches and stoops are most significant in establishing neighborhood character. It is the repetition of subordinate design element that creates an identifying motif (such as row house steps in Philadelphia).
- Windows. Window proportions and corresponding details, such as sills and heads, are also an element that should be addressed by design guidelines, as they are indicative of period buildings, and reinforce overall character for the districts in which they are found.
- Corners. Corners and other building edges are places where historic architecture placed more ornament to define style. Therefore, the articulation of corners, parapets, and other edges is an important aspect of historic responsiveness.

5.3 recommendations for plan implementation

The Seguin Comprehensive Plan will guide the City Staff, Council, other decision makers, and citizens as they direct and influence the physical growth and development of Seguin.

The Comprehensive Plan for Seguin is a long-range plan oriented around the ultimate build-out condition of the City. This means that the Comprehensive Plan addresses the build-out population, as well as the potential holding capacity of the city and its jurisdictional areas. Such a plan will guide the City Staff, Council, other decision makers, and citizens as they direct and influence the physical growth and development of Seguin by keeping the future vision ever before them. Establishing a picture of the future allows those using the plan document to stand in that future and look back on the City today to determine the extent to which current development patterns (both public and private) will facilitate or restrict accommodation of positive growth and development. Therefore, this Plan Report establishes a cohesive visionary plan, incorporating patterns of Land Use, Thoroughfares, and Open Space, as well as infrastructure, housing, facilities.

This Plan Report also recommends strategies of action required to implement the elements of vision contained in this document. The Plan is a management tool that will provide a valuable reference for use in the decision-making process of municipal governance. For this reason, the recommendations of this plan are built upon community-generated goals and objectives, rooting the vision plan in the aspirations and concerns of the people who will live and work in Seguin. As a result, this Plan becomes a "management tool" for addressing current and future growth, while initiating change that will move Seguin toward the quality of life desired by members of this community.

Upon adoption by the City Council, this Comprehensive Plan will become the official policy of the City of Seguin, guiding its decisions regarding development and capital expenditure. The Comprehensive Plan is a guide, and should not be construed as a rigid code. The Plan is an ever-evolving process that will, in time, necessitate another reassessment and update.

NEXT STEPS

In light of the Plan's reach over time and its relevance to the decision making processes of City governance, it is important that the City accomplish several "next steps" that will position the Plan to perform its purpose as policy and fulfill its potential as a vision. These "Next Steps" are:

1. Adopt the plan: Formal plan adoption by the City Council gives the community's expression of vision the status of City Policy. As such recommendations of the Plan become directives for the agencies, boards, committees, and commissions essential to plan implementation and growth management.

2. Establish the Long Range Planning Committee: Since the very start of the Public Planning Process, by which this Comprehensive Plan was formulated, a group of dedicated citizens (called the Facilitator Group) have facilitated the gathering of public support and provided needed "in process" inputs and directives to the consultants. Through their faithful participation in this Planning Process, the Facilitator Group has emerged as a citizen leadership team, whose understanding of the plan makes them uniquely qualified to serve on a Long-Range Planning Committee. The charge of this Committee (working under the City Planning Commission) is:

    a. Advocate for implementation of Plan recommendations
    b. Review progress toward such implementation
    c. Facilitate plan application
    d. Prepare progress and status reports at strategic intervals

3. Execute needed code revisions: The recommendations pertaining to land use and zoning within this Comprehensive Plan are intended to accommodate entitlements currently in place and be compatible with Seguin's existing Zoning Ordinance. However, accommodation and compatibility are interim ends until the City of Seguin can revise its development code and subdivision code (using Form-Based elements) to fully capture the design implications of the Land Use Districts and Open Space typologies recommended herein. The City of Seguin should embark upon such code revisions as soon as possible.

4. Implement programmatic recommendations: Parts of the plan make recommendation for the creation of certain districts, the improvement of certain services, and targeting certain programs. These recommendations (to the extent they can be implemented within the ordinary operations of the City) should be implemented shortly after Plan adoption.

5. Establish a process of Plan Performance Evaluation: Key to the sustained success of any plan is a periodic review of the Plan's consistency with and accomplishment of the Strategic Community Goals and the Vision Statements corresponding to the Planning Framework. When, over time, the plan loses its ability to speak to or achieve these Goals and Vision Statements, it must be revised and/or updated. Therefore, the city should establish a formal process of periodic plan review, which will be conducted by the Long Range Planning Committee, so that a formally documented Plan Review can be prepared at strategic milestones of City growth. This Plan Performance Evaluation should be tied to threshold events in the City's growth and development. Such events include:

    a. Development of at least 25% of the regional or local nodes
    b. Completion of the SH-130/ IH-10 connection
    c. Significant increases in zoning requests that vary from the proscribed intent and visual character of the Land Use Districts
    d. The beginning of reinvestment within the downtown core, especially large-scale private development projects.
    e. Any point where the plans of others (such as the School Board, the Hospital, the University, etc.) force a redirection of the recommendations of the Comprehensive Plan.
    f. Any point where implementation of Plan Recommendations are shown to work against accomplishment of the Strategic Community Goals or Vision Statements.

Despite the time frame within which these events may transpire, a formally documented Plan Performance Evaluation should be done at least every two years and presented to the Planning Commission for their review and consideration of recommended action to City Council.

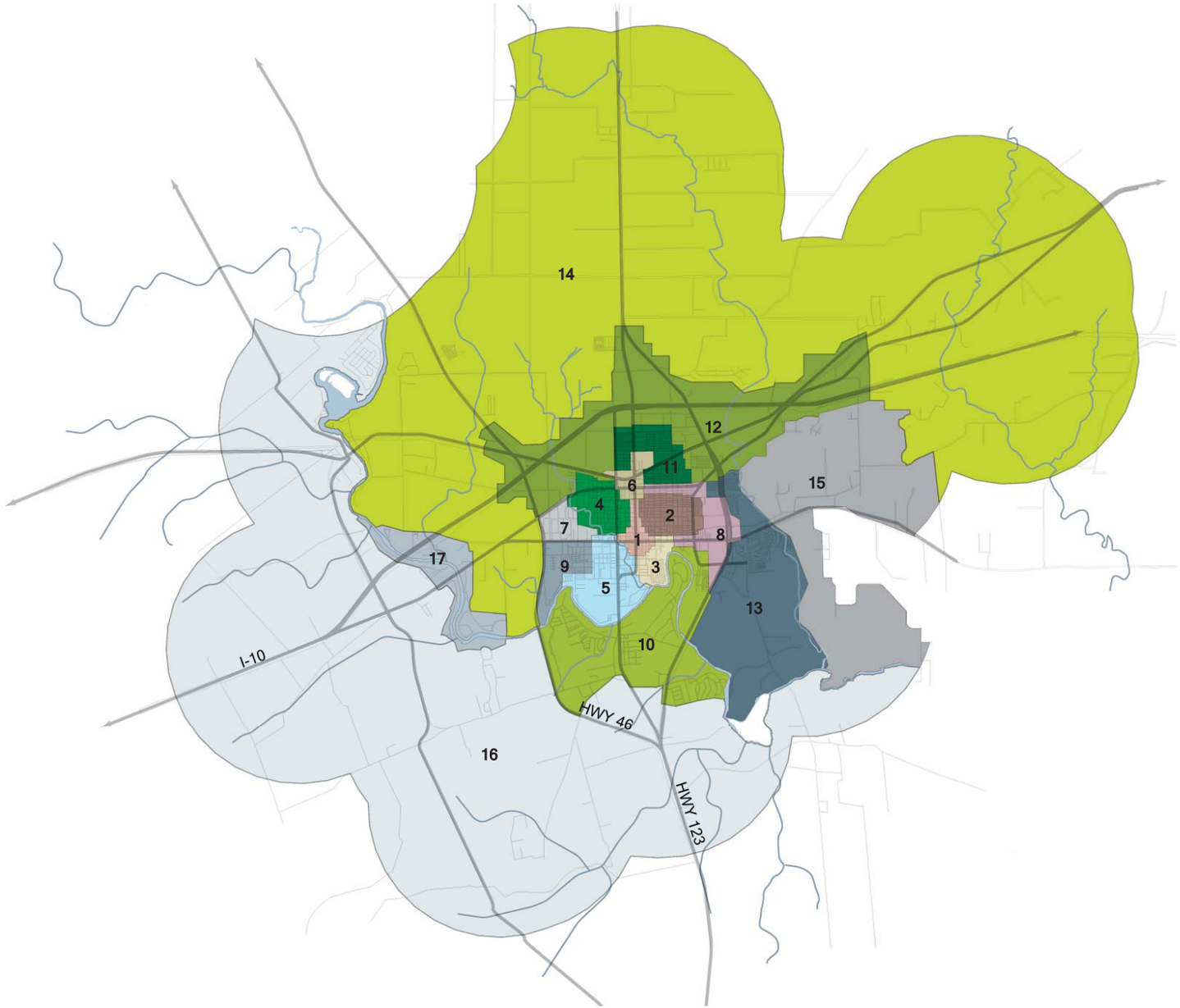
appendix a: maps and plan graphics

List of Appendix A Elements

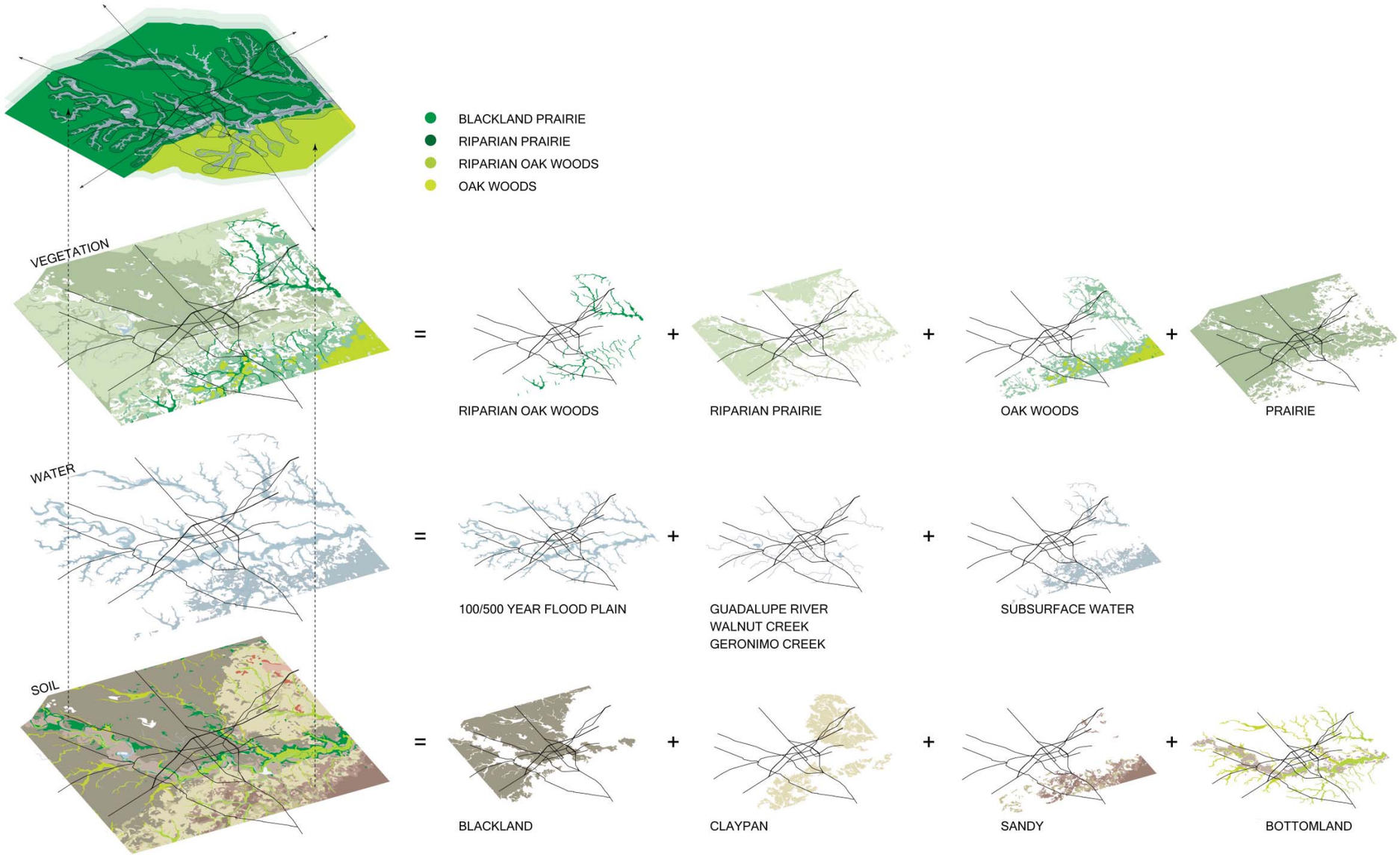
1. Seguin Form Districts Map

SEGUIN FORM DISTRICTS

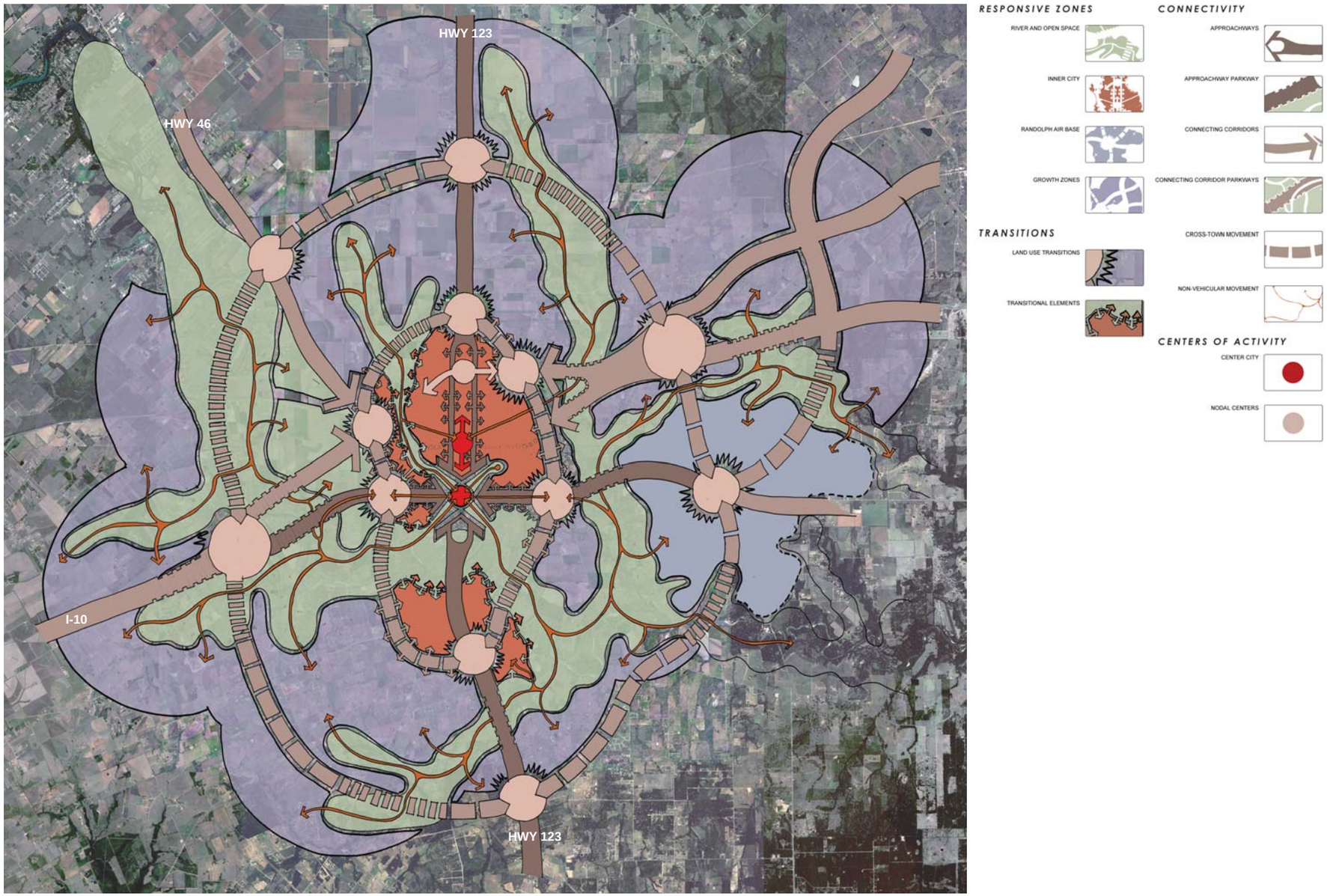
- 1. Town Center
- 2. Transitional
- 3. Timber Lot
- 4. Walnut Creek North
- 5. Walnut Creek South
- 6. Station
- 7. University
- 8. Highway Commercial
- 9. Jefferson
- 10. Riverbend
- 11. North Seguin
- 12. Freeway
- 13. Geronimo Creek
- 14. Agriculture
- 15. Randolph
- 16. Guadalupe
- 17. Lake Placid



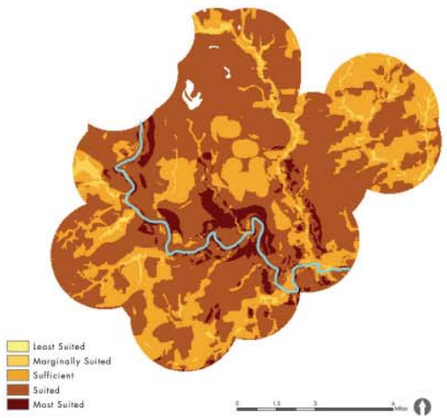
2. Natural Systems Composite



3. The Seguin Planning Framework

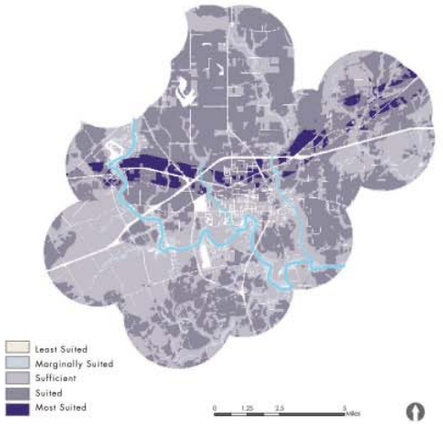


4. Land Use Suitability Layers

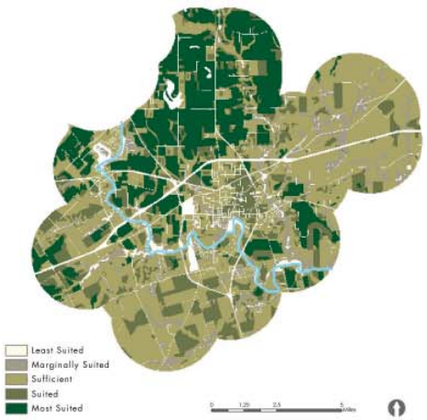


SINGLE FAMILY RESIDENTIAL

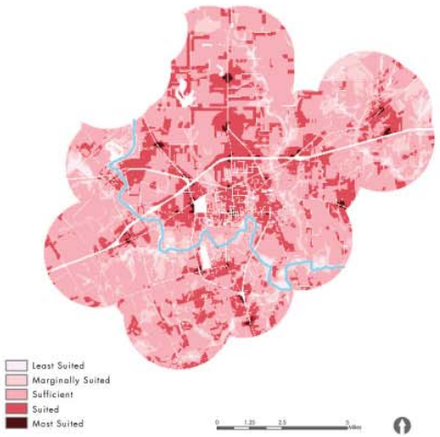
OPEN SPACE



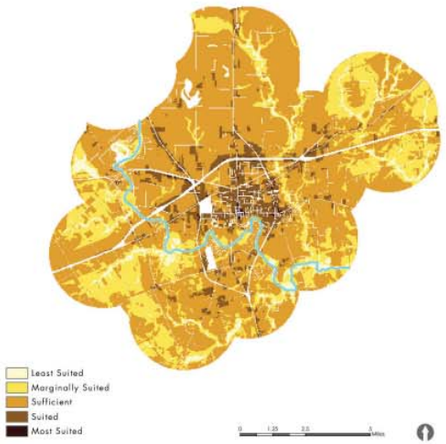
INDUSTRIAL



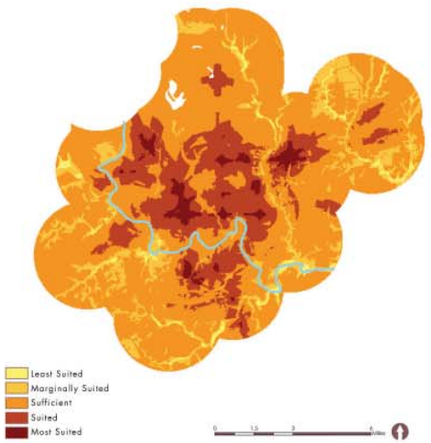
AGRICULTURAL USE



RETAIL

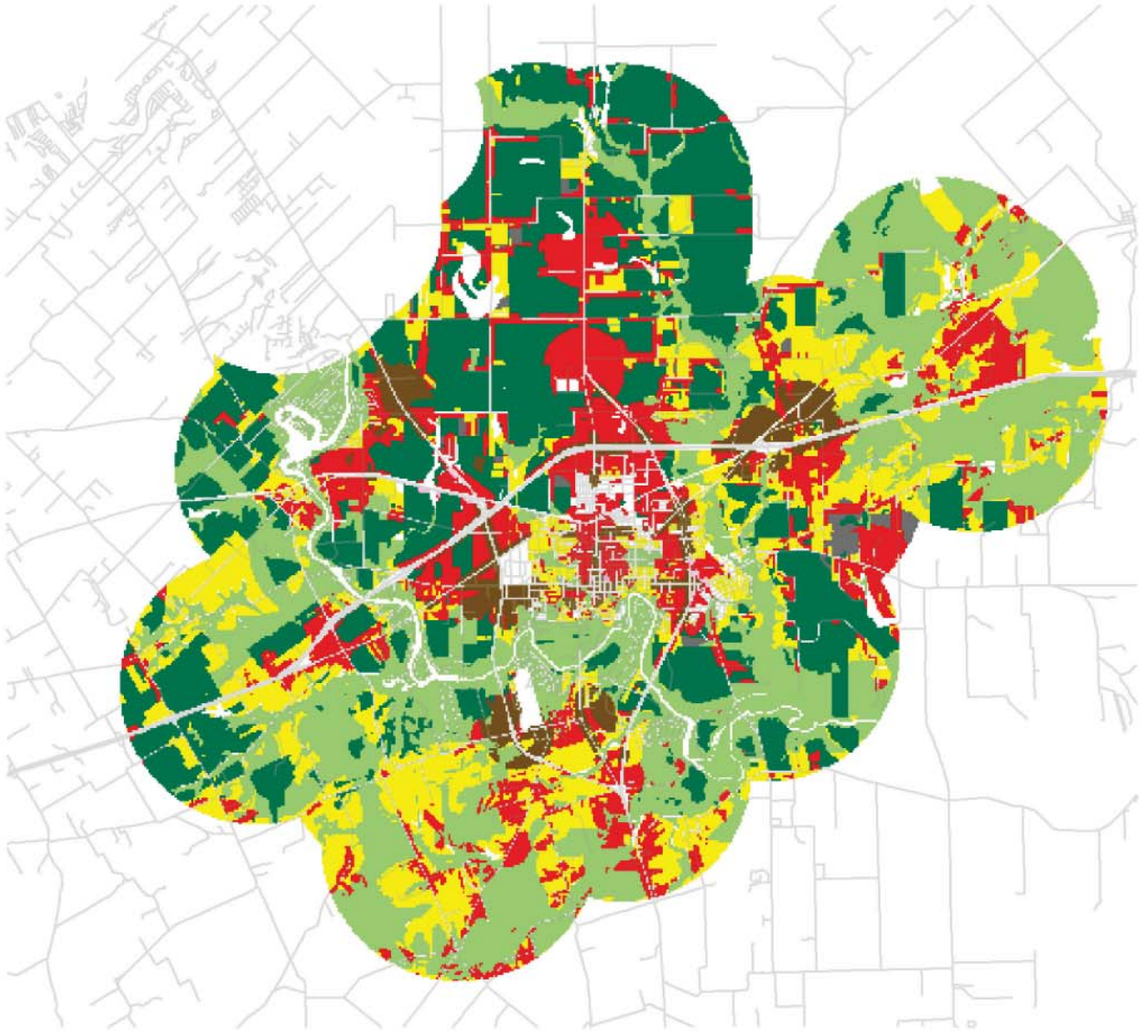


OFFICE

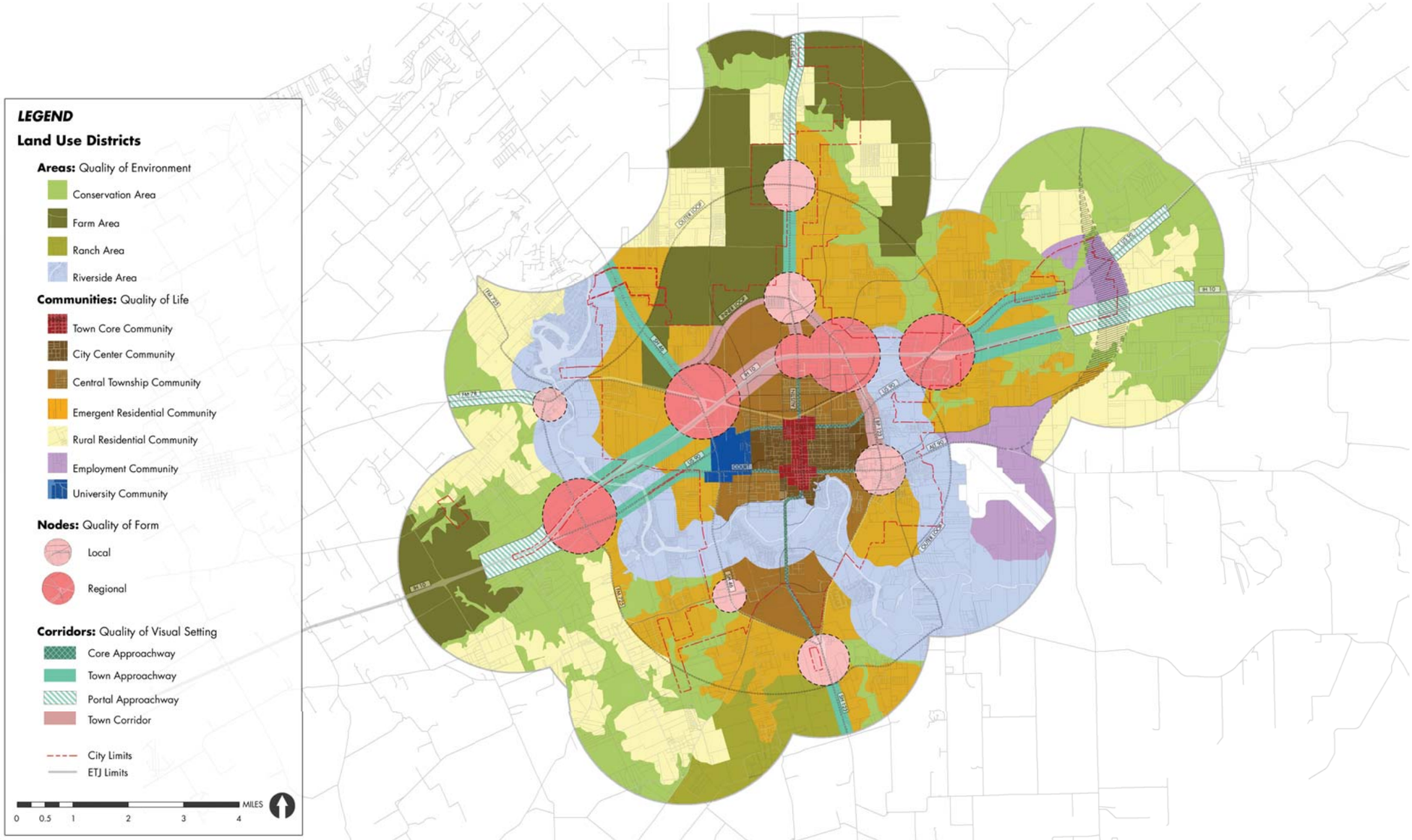


MULTI FAMILY

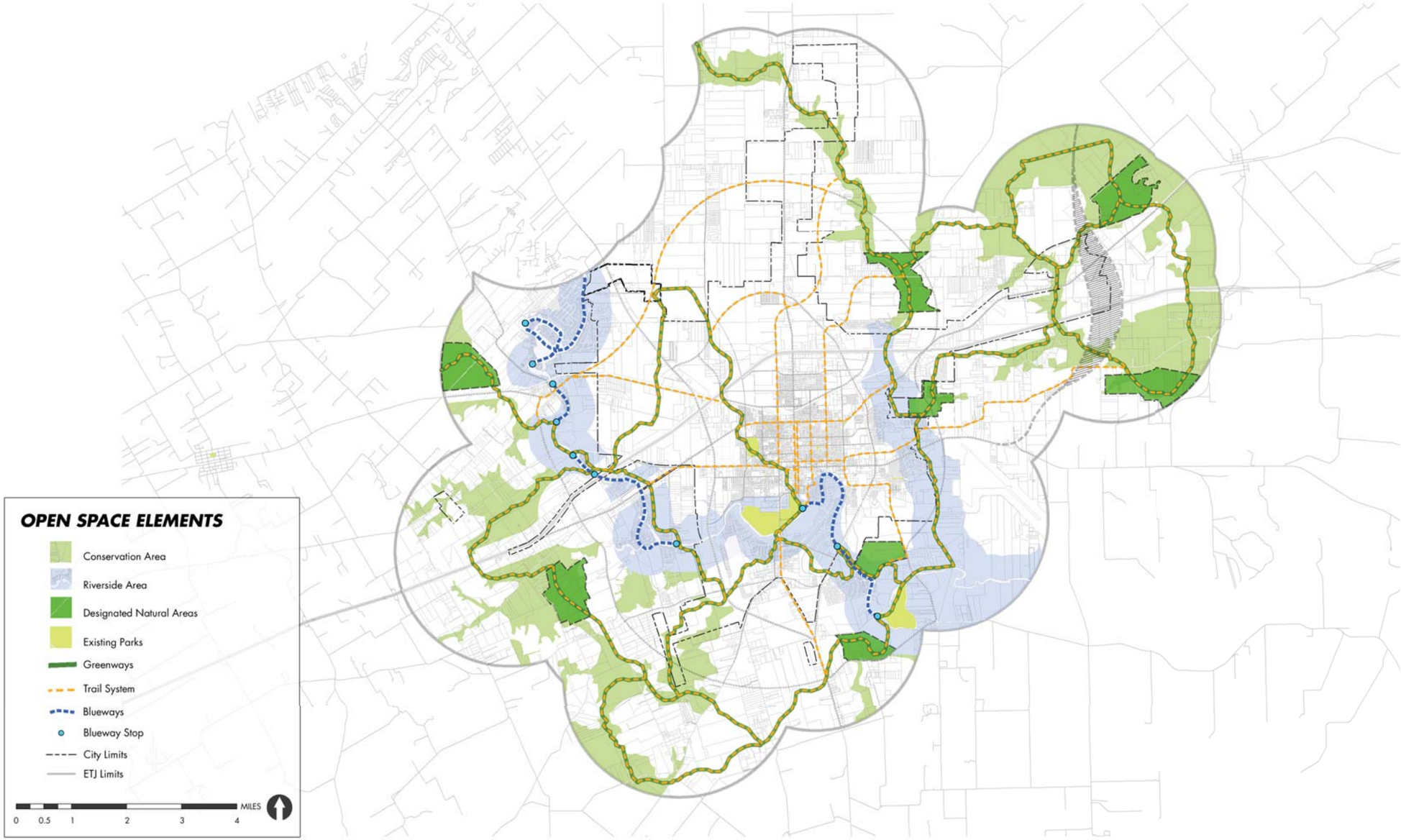
5. Land Use Suitability Composite



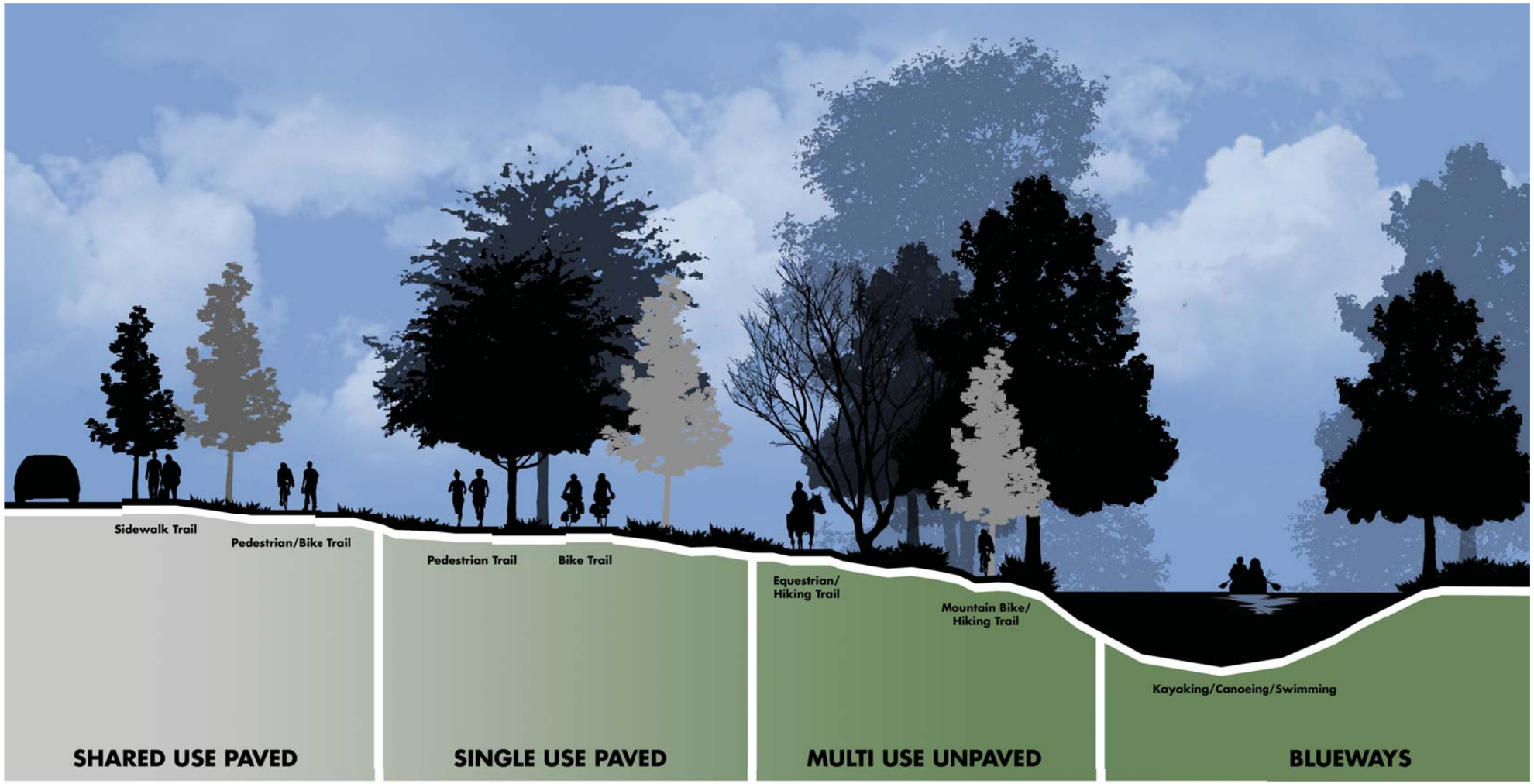
6. Land Use Plan



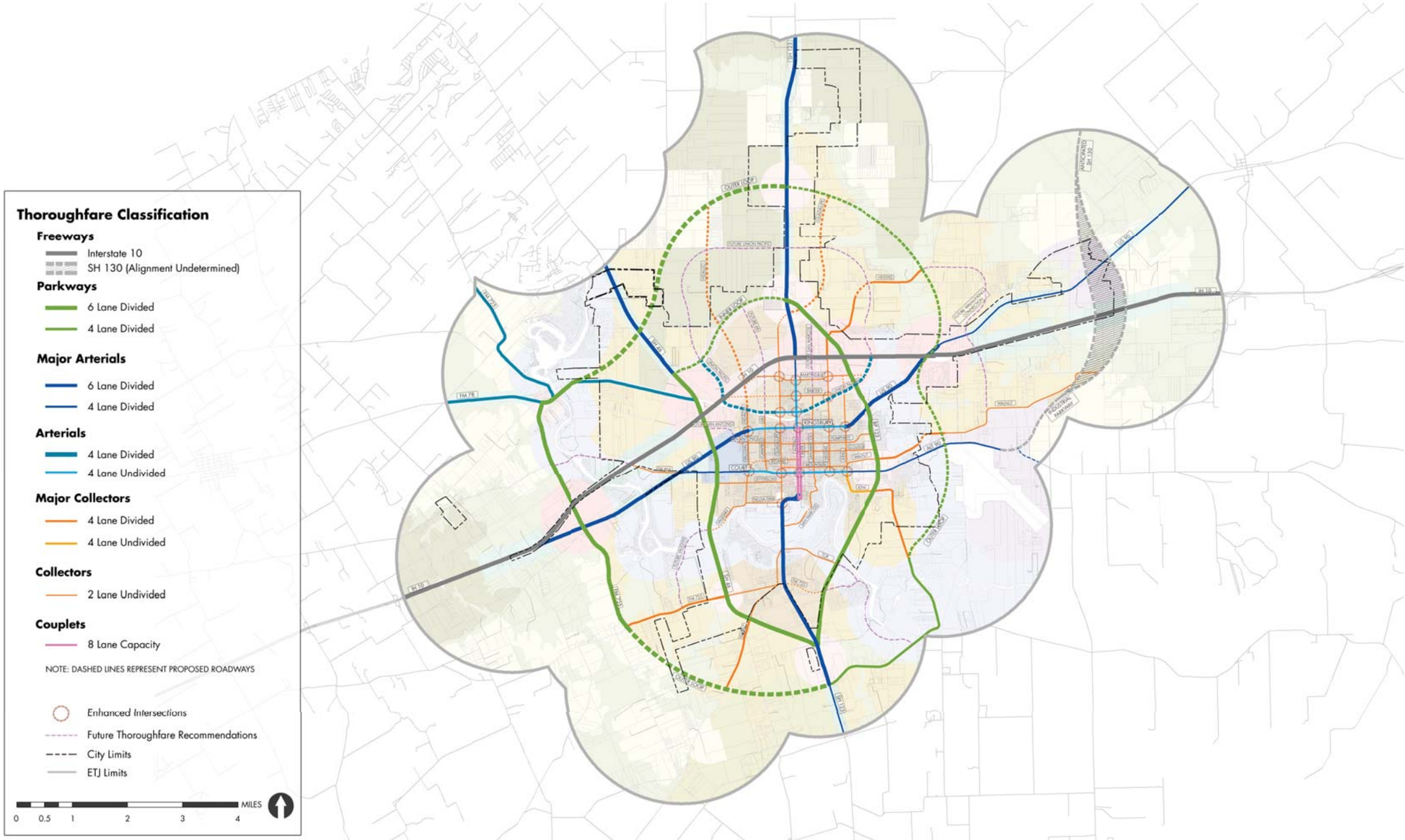
7. Open Space Plan



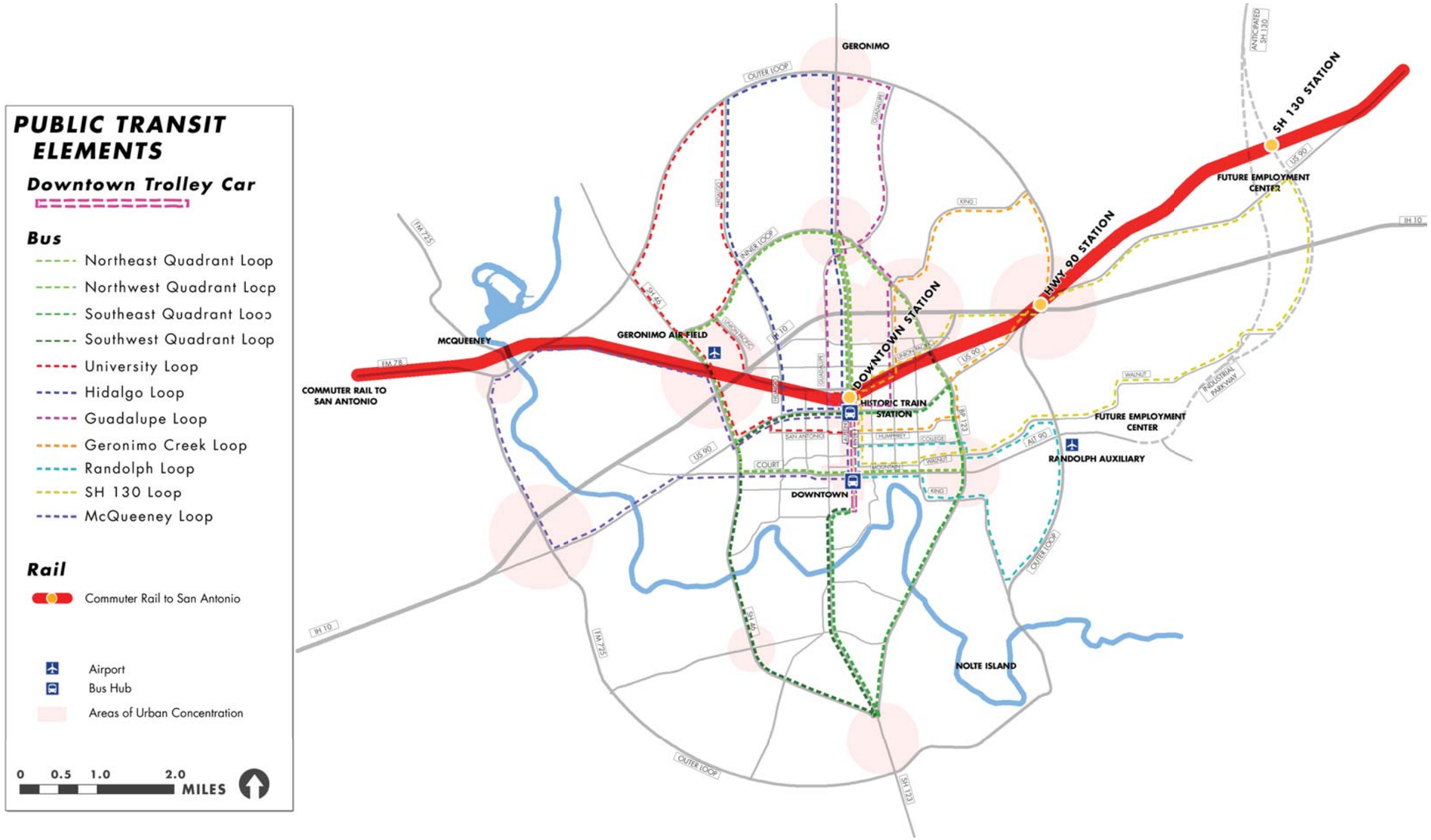
8. Trails Transect



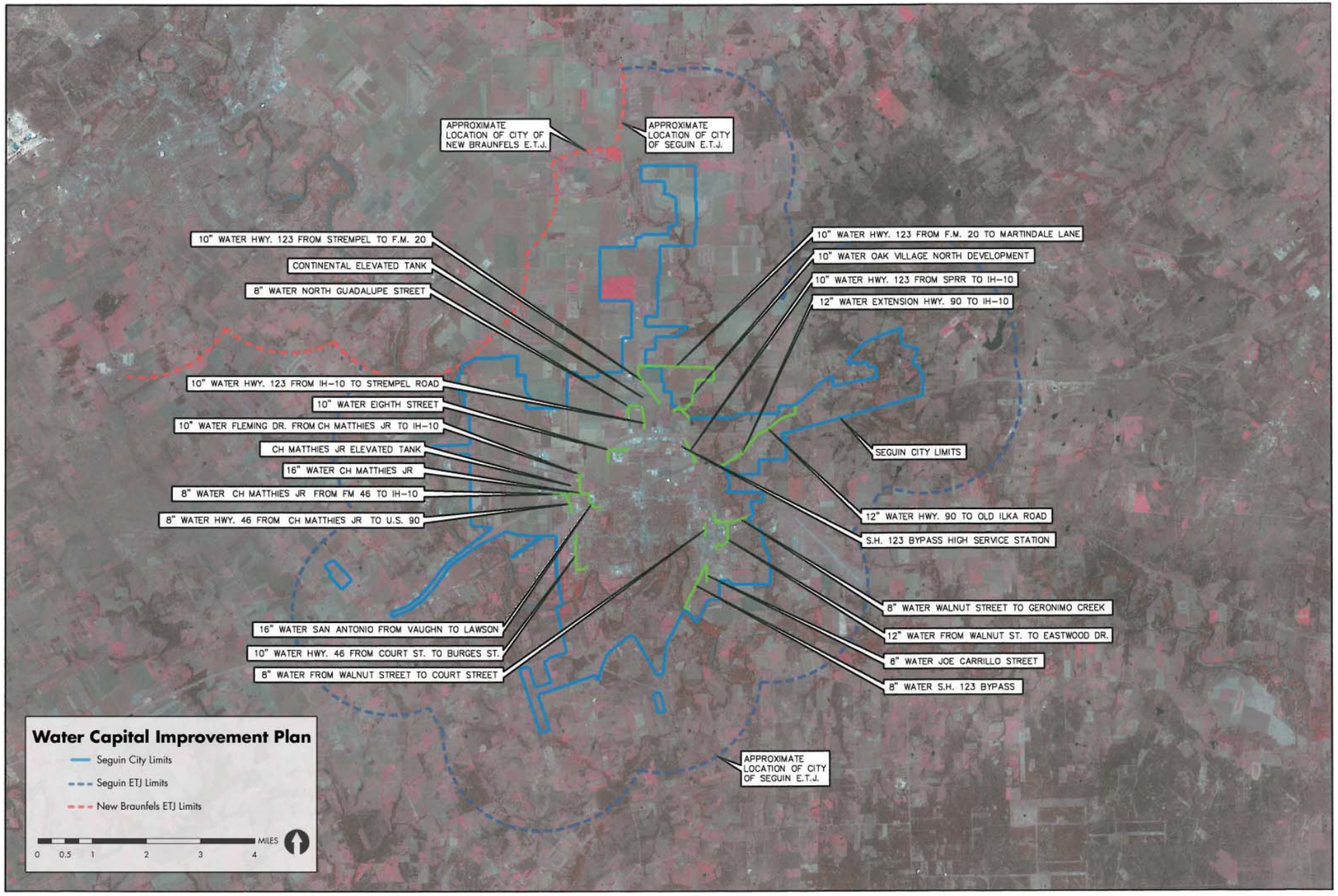
9. Thoroughfare Plan



10. Transit Plan

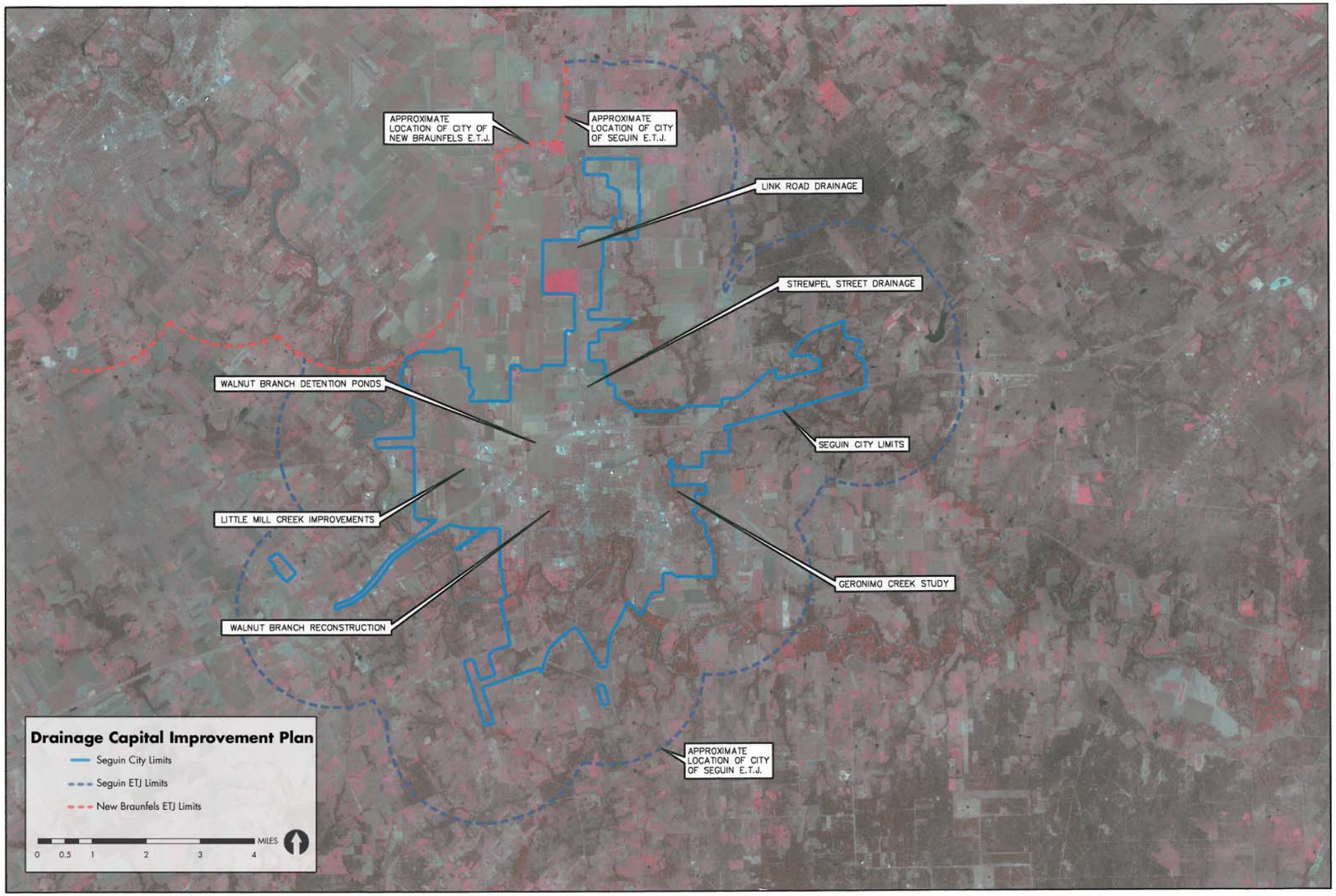


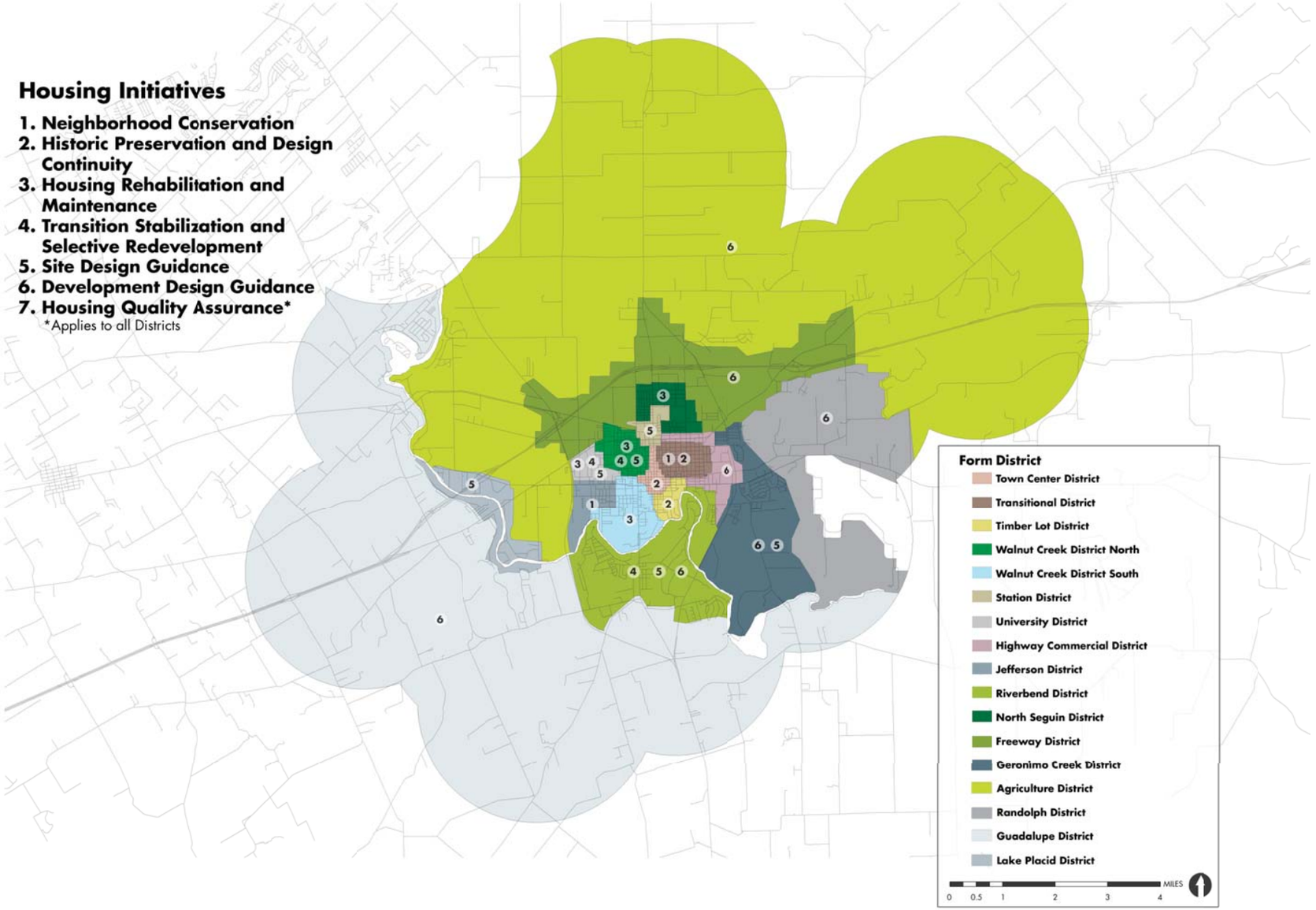
11. Infrastructure: Water Capital Improvement Plan



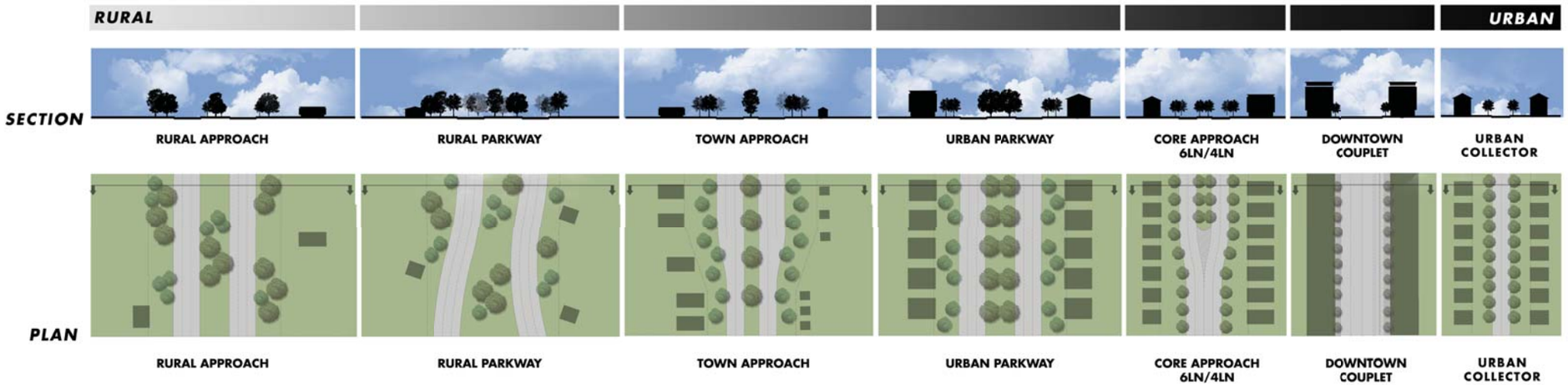
12. Infrastructure: Sewer Capital Improvement Plan

13. Infrastructure: Drainage Capital Improvement Plan

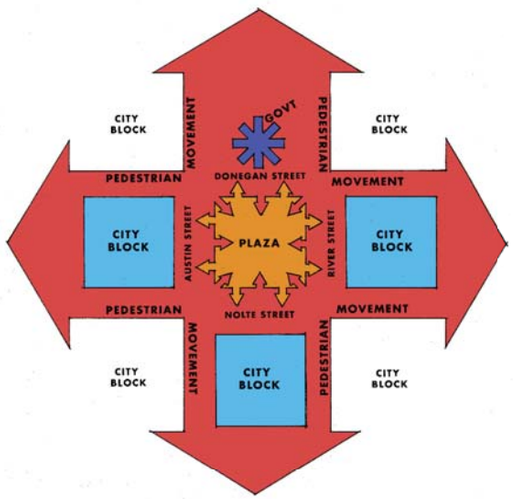



Housing Initiatives
1. Neighborhood Conservation
2. Historic Preservation and Design Continuity
3. Housing Rehabilitation and Maintenance
4. Transition Stabilization and Selective Redevelopment
5. Site Design Guidance
6. Development Design Guidance
7. Housing Quality Assurance*
*Applies to all Districts
Form District
Town Center District
Transitional District
Timber Lot District
Walnut Creek District North
Walnut Creek District South
Station District
University District
Highway Commercial District
Jefferson District
Riverbend District
North Seguin District
Freeway District
Geronimo Creek District
Agriculture District
Randolph District
Guadalupe District
Lake Placid District
MILES
0 0.5 1 2 3 4

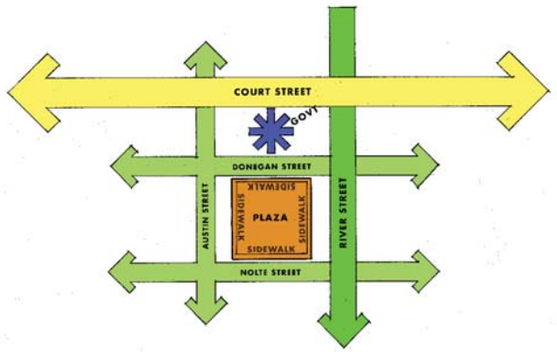
15. Street Hierarchy Transect



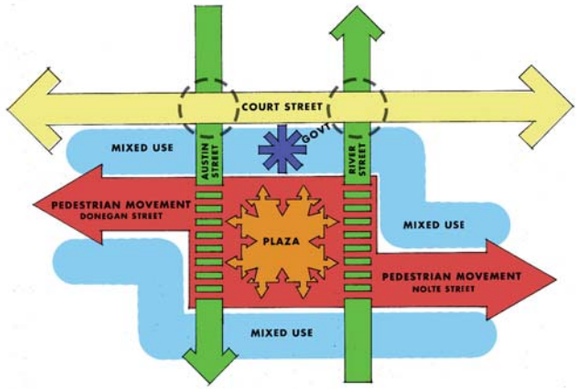
16. Downtown Plaza Concepts



Historic Condition

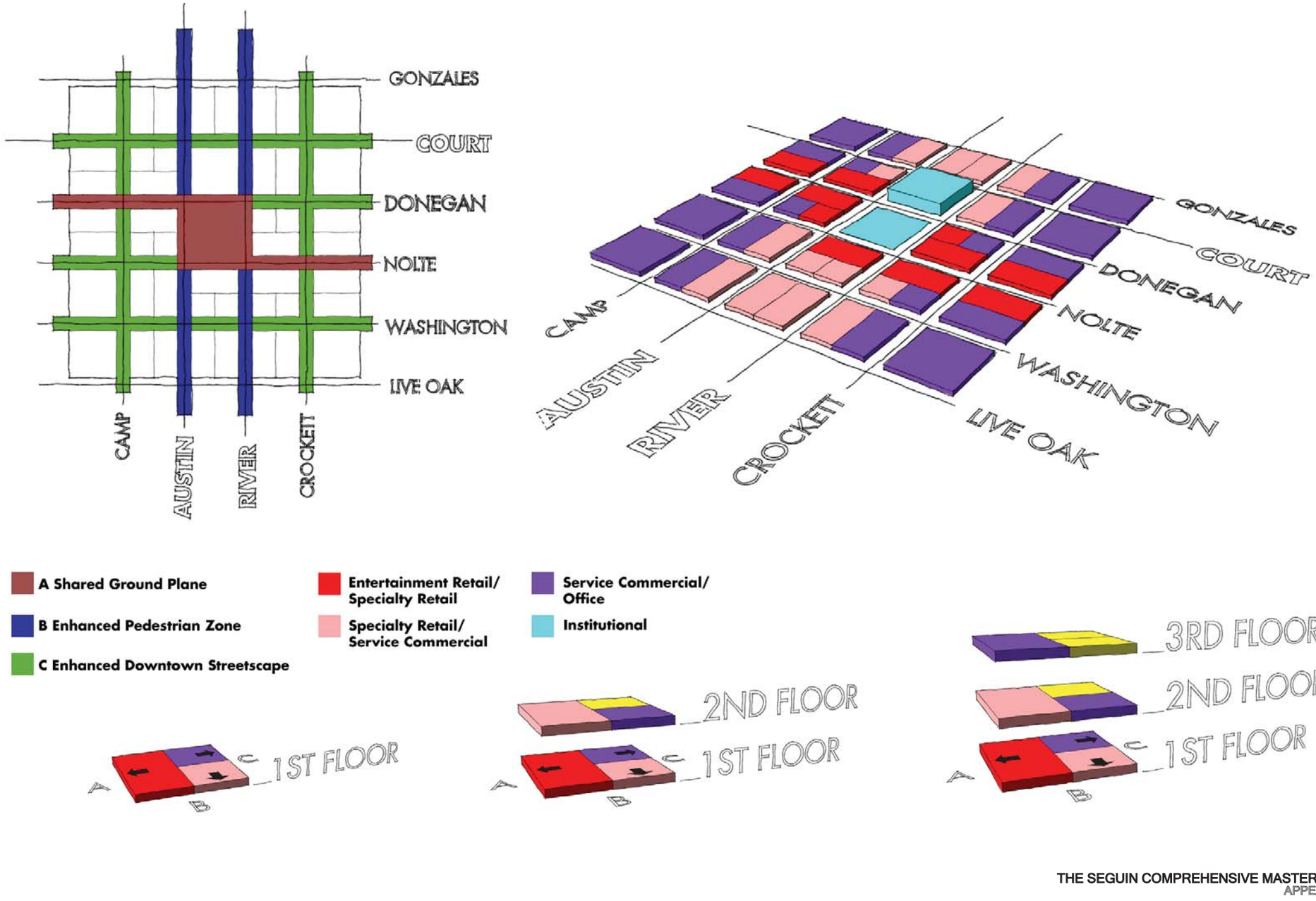


Existing Condition

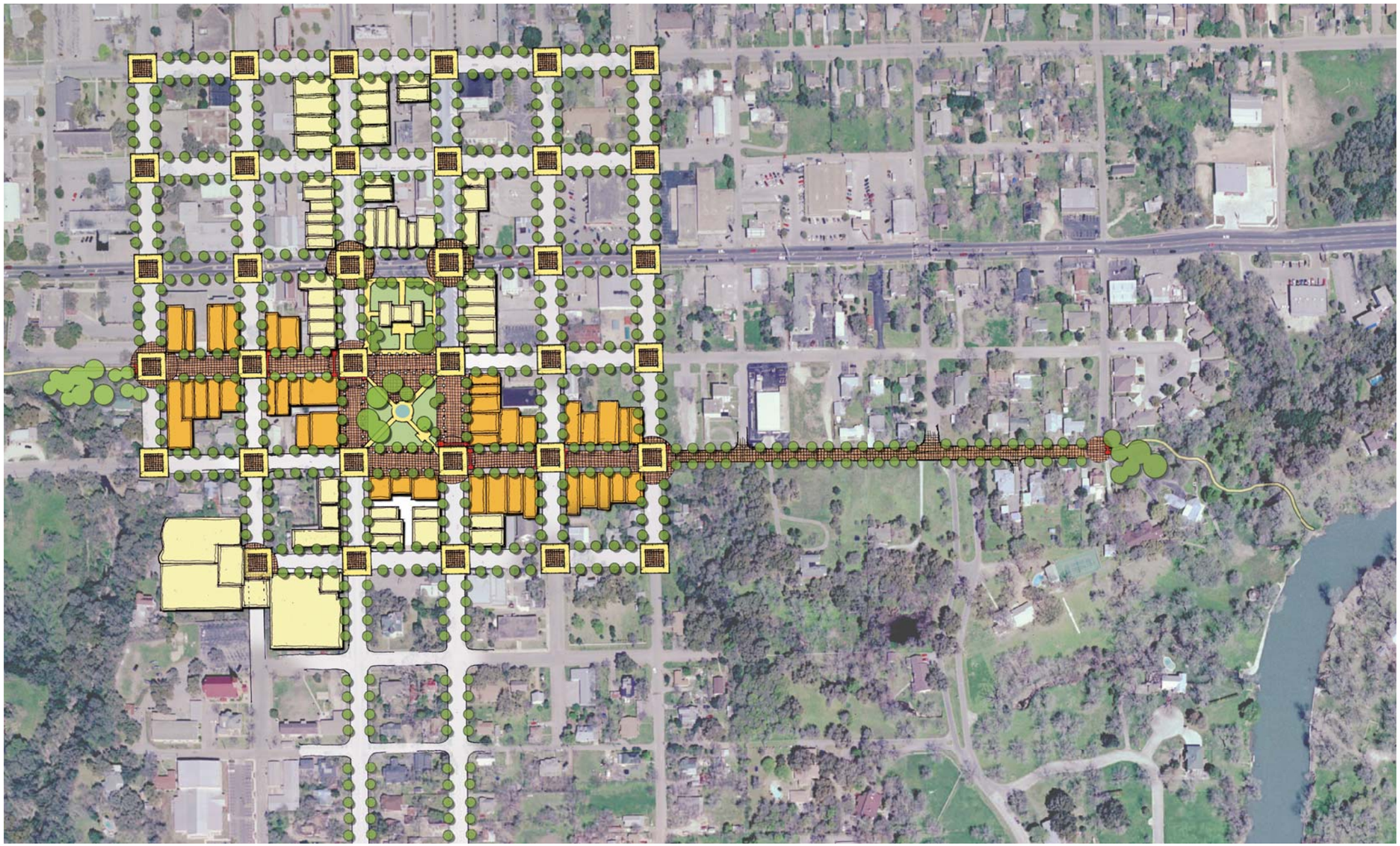


Desired Condition

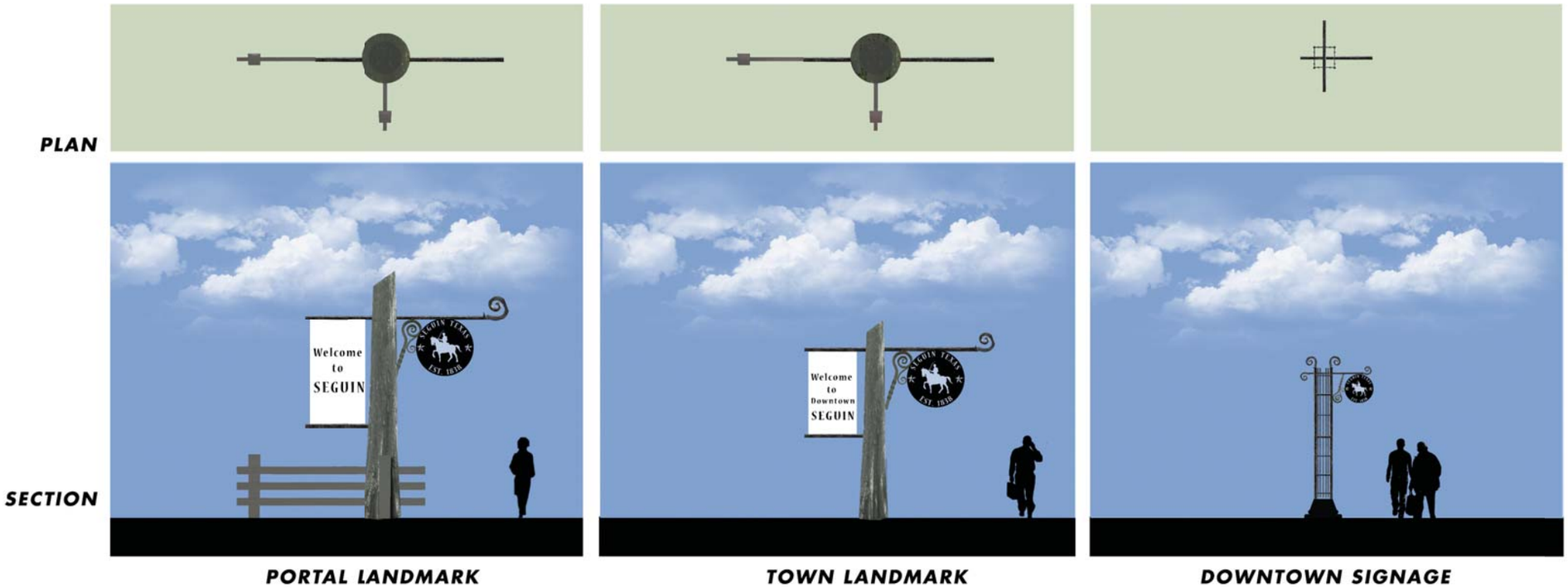
17. Horizontal and Vertical Land Uses for Downtown



18. Downtown Illustrative Plan



19. Seguin Portal Elevations

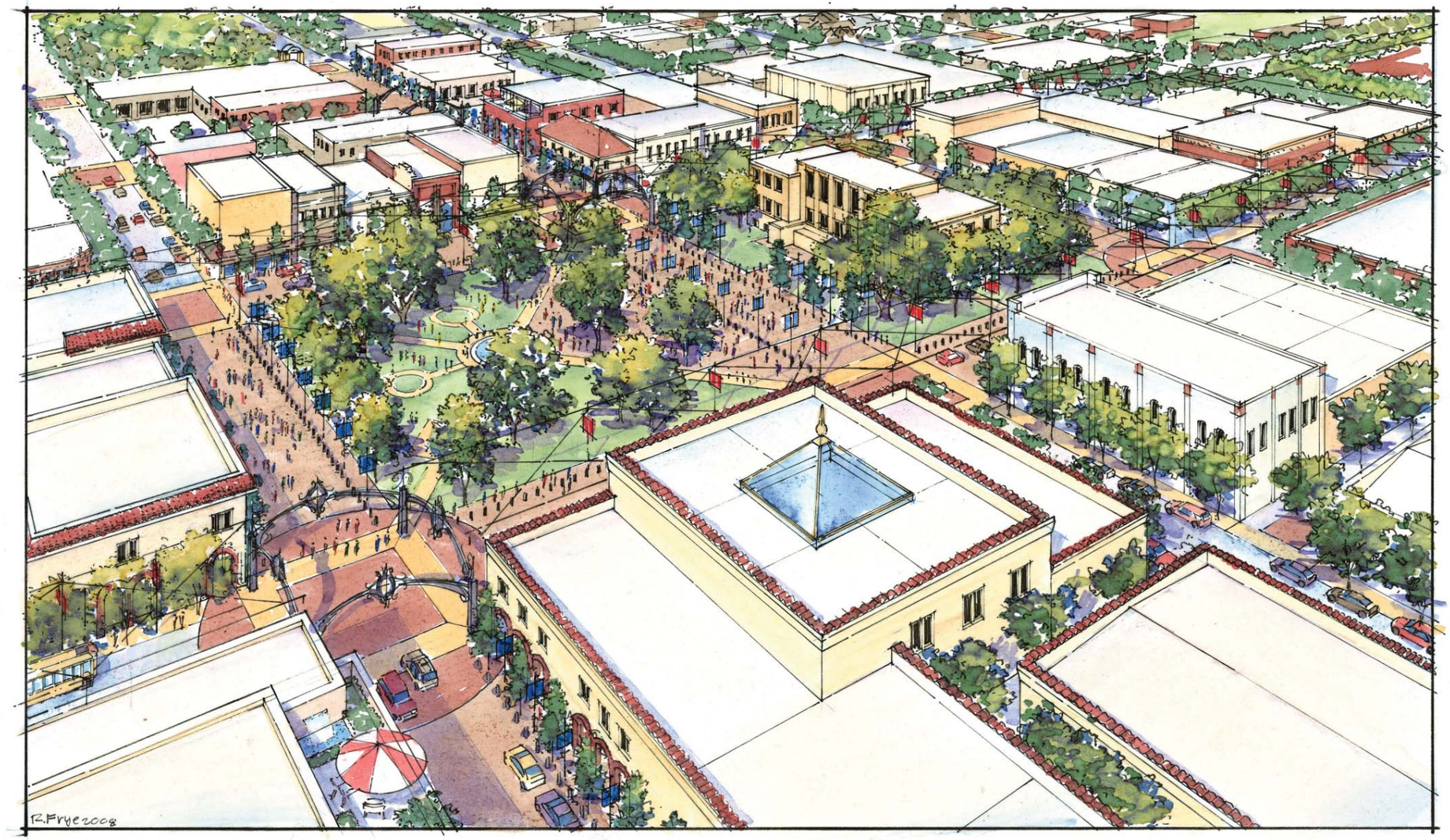


20. Downtown Existing View

21. Downtown Future View

22. Downtown Pedestrian Mall Rendering

23. Downtown Aerial Rendering



appendix b: supplement to economic assessment

b appendix: supplement to economic assessment

OVERVIEW OF THE SITE SELECTION PROCESS

The site selection process has changed dramatically over the past eight years due to the rapid expansion of the internet and email capabilities in most parts of the world. Along with technology comes the expectation of an immediate response to information requests and requests for proposals by industrial prospects and site location consultants.

Historical Perspective of the "Site Search"

For years, the telephone, fax and postal service were the primary link between site location consultants and industrial prospects to state and regional allies, realtors, brokers, and individual communities. The Request for Proposals (RFP) was sent via fax; then, proposals were assembled, and hard copies sent overnight up the ladder of protocol. Site visits were made to a limited number of cities – usually five to seven. Two or three of those cities made the cut for a second visit and detailed discussions. The first impression of the community was the proposal; and later, if chosen for a site visit, community leaders could promote the city's assets directly. This was a critical step in the process – do everything possible to make the short list of communities selected for a site visit.

"Site Search" in the Expanding World of Technology

In today's highly competitive environment, the process of identifying a manageable list of communities almost always begins with exhaustive internet research long before state, regional allies and communities know a search is underway. Consultants can sit in their "virtual office" anywhere in the world and develop spreadsheets comparing specific data on states, regions, and individual communities that meet identified project criteria.

The mantra, "Do everything possible to make the short list of communities", is still a critical step in the site selection process. However, that first impression has now moved from the "proposal stage" to the "electronic communications stage". Up to this point, the local economic developer's only input is to make sure the economic development organization and city have websites that are professional looking, provide relevant data, kept up to date, and easily found on the web. And, it must be easy for the visitor to navigate between the site's pages. The consultants, for the most part, are short on time and trying to respond to their clients as quickly as possible. If they can't find what they are looking for quickly, a community may be eliminated without ever knowing they were even being considered. Most companies continue to request anonymity until the short list of cites is selected.

When a list of cities meeting the project requirements is identified, "Requests for Information" or "Requests for Proposals" are sent via email. The RFI or RFP often includes a detailed, standardized form to be completed by the local EDC. In many cases, the request is sent to the state economic development office or regional allies; in some cases, communities are contacted directly. Hard copies are seldom requested at this stage in the process; rather, an electronic proposal is submitted, along with maps, plats, aerials and floor plans of buildings. This often shortens the amount of time allowed to respond. In some cases, a two day turnaround is required of the communities.

Questions to Consider in Evaluating Seguin's Web Sites

The economic development website should be designed with the end user in mind, ensuring that the site is designed to reach its target audience. Some important questions to consider:

1. Is the website easy to find on search engines?
2. Does the site have its own address to access directly?
3. Is the site easy to navigate?
4. Who is the target audience? Does the site contain information they need?
5. Is the data presented in an easy-to-read format? Can it be downloaded?
6. Do the Home Page "titles" for pages within the site make sense to someone who knows nothing about Seguin?
7. Does the site address the needs of business and industrial prospects that may be interested in moving to Seguin?
8. Does the site address the needs of local business owners and entrepreneurs interested in expanding their existing facilities?
9. Is the information kept current by an assigned person?
10. Is a positive visual image and impression of Seguin presented through the use of pictures, aerials, graphs, action shots, etc?

Summary of the 2005 MANUFACTURING LOCATION SURVEY (National Association of Manufacturers and Deloitte Consulting)

The National Association of Manufacturers (NAM) and Deloitte Consulting conducted its annual survey of the membership of NAM. In the 2005 Survey, over 220 manufacturers participated, including small, medium and large companies. There was a broad diversity of industries included in the survey; some companies having only U.S. operations, while others had both domestic and off-shore operations.

The purpose of including findings from the Survey in this report is to confirm general knowledge of site location factors and to look at trends in various industry groups. While some issues can be identified as probable factors considered for expansions/relocations, it is insightful to look at what CEOs, COOs, Presidents, and owners of companies say as they evaluate the importance of various factors in the site location process. The Survey results highlight the "ranking" of the factors from "Critical" to "Not Important".

General Findings

The 2005 Survey attempted to illuminate the factors that impact location selection by manufacturing companies. Findings based on the more than 220 respondents revealed:

- 63% plan to expand facilities in the next 3 years
- 70% of all expansions will be in the United States
- 95% of large manufacturers (those with over 500 employees) plan to expand both in the U.S. and internationally (50% domestic and 50% off-shore expansions)
- 35% plan to outsource production or utilize contract manufacturing in addition to expanding their own operations

Site Selection Objectives consistently cited by respondents were:

1. Cost reduction
2. Accessing markets
3. Improving productivity
4. Increasing top-line revenue

Domestic Site Location Factors

Location factors were ranked as "Critical, Very Important, Important and Not Important". For the purpose of looking at Seguin's "readiness" as a community to attract new industrial locations, responses by Survey participants as they relate to domestic site locations are highlighted below.

The top five location factors identified as "Critical" by respondents are as follows:

1. Access to Customers: 48%
2. Utility Reliability and Quality: 48%
3. Labor Relations and Union Activity: 32%
4. Ease of Doing Business: 30%
5. Available Land with all Services in Place: 29%

When evaluating domestic location factors identified as "Critical or Very Important", the ranking changed slightly, as shown:

1. Utility Reliability and Quality: 86%
2. Ease of Doing Business: 81%
3. Access to Customers: 79%
4. Available Land with all Utilities in Place: 73%
5. Ability to Hire Skilled Workers: 72%

What appears to be the most interesting data, as it relates to the Seguin Comprehensive Plan, are factors ranked as "Very Important or Important". These factors confirm and strengthen findings in the Comprehensive Plan that can be identified as strengths or weaknesses as they relate to business recruitment and expansion of local business and industry.

The top ten Site Location Factors identified as "Very Important or Important" were cited by 74% to 84% of the respondents and are as follows:

1. Cost of Living: 84%
2. Housing Availability and Quality: 84%
3. Healthcare: 81%
4. Access to Business Services: 80%
5. Quality of Education: 79%
6. Crime and Safety: 79%
7. Shipping Costs: 77%
8. Local Taxes (e.g. Property Taxes): 76%
9. Culture, Recreation and Entertainment: 74%
10. Roads: 74%

Upon closer examination, eight of the top ten factors are directly linked to Quality of Life issues. Those that might be more closely aligned to business are Access to Business Services and Shipping Costs.

Importance of Incentives as a Site Location Factor

Interestingly, incentives as a site location factor were not ranked as high as might be assumed, although they appear to be more important in domestic than foreign expansions. Incentives were ranked by respondents as follows:

- Critical: 8%
- Very Important: 29%
- Important: 39%
- Not Important: 24%

It should be noted, however, that while incentives are not listed among the most critical factors in the actual location decision, they are definitely seen as a benefit to facilitate startups and defray initial operating costs. The size of an incentive package often depends on offers made by other communities and states being considered. While incentives may not be considered critical, in the end, most companies expect to receive incentives at some level. A cost benefit analysis can guide Seguin in developing reasonable incentive packages that have a reasonable payback and can be justified to the local taxpayers.

appendix c: bibliography

c appendix: bibliography of selected sources

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