PLAN cleburne

The Cleburne Comprehensive Plan

A Vision for the Future. A Roadmap for Growth.

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A Vision for the Future. A Roadmap for Growth.

Adopted by the City of Cleburne, Texas

On _____, 2014

By Ordinance No. _____

Document prepared through collaboration with:

MOSAIC MESA + PLANNING GRESHAM SMITH AND PARTNERS

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And most importantly,

the residents of the great City of Cleburne

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ACRONYMS AND ABBREVIATIONS

Comprehensive plans address a very broad range of issues facing the City. In order to help the reader navigate the more technical sections of the plan, the following list of acronyms and abbreviations has been included. To further facilitate legibility, a glossary of terms can be found in Appendix D.

BNSF	Burlington Northern Santa Fe Railway
DART	Dallas Area Rapid Transit
ESRI	Environmental Systems Research Institute.
ETJ	Extraterritorial jurisdiction
GIS	Geographic Information Systems
LID	Low Impact Development
NCTCOG	North Central Texas Council of Governments.
P&Z	Planning and Zoning Commission
The T	Fort Worth Transportation Authority
TCEQ	Texas Commission on Environmental Quality
TDA	Targeted Development Area
TIF	Tax Increment Finance District.
TIRZ	Tax Increment Reinvestment Zone
TRE	The Trinity Railway Express
TWDB	Texas Water Development Board.
TxDOT	Texas Department of Transportation
USDOT	U.S. Department of Transportation

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EXECUTIVE SUMMARY

WHAT IS PLAN CLEBURNE?

Plan Cleburne is a long range, comprehensive plan for growth in the city. It has been built over a 12 month period of study, public meetings, design and technical review.

What is a Comprehensive Plan?

A comprehensive plan is a policy tool that guides municipal decision-making in all areas of public administration related to growth, development practices and public works and services. It is grounded in community input, adopted by City Council and implemented through the efforts of City Staff, City Council and the Planning and Zoning Commission. It is comprehensive in its inputs and implementation.

It is also comprehensive in its perspective and its scope. To effectively plan for growth, the City must look beyond its current borders and establish policies for the maximum build-out condition for the City. This means that the comprehensive plan must extend out and incorporate Cleburne's extraterritorial jurisdiction.

Although plans themselves are normally developed every 20-30 years, they are amended frequently and updated about once every five years or so. Because the plan must serve the community well into the future, it must by nature be future-oriented. Although there are parts of the plan that address current issues, the main objective is to provide a roadmap for the future.

This written plan ***document*** is the result of a year long planning ***process***. It contains policies strategies, maps, graphics and illustrations. The Plan has been adopted by City Council, and is therefore binding upon future community leaders that make decisions related to community life. This ensures that community vision is not lost in the political shuffle of elections and appointments.

Plan Cleburne is

Comprehensive…

In its inputs

The plan grew out of public inputs which were shaped into a community vision. This vision is an informed vision, which were based on inputs provided by a team of consultants related to infrastructure capacity, economic performance, development conditions and population projections.

In its perspective

Plan Cleburne establishes a vision for the City that will be implemented through many years to come. It anticipates city growth and creates mechanisms to guide that growth in forms that preserve community character and improve quality of life.

In its scope

Plan Cleburne addresses six aspects of the built environment of the City: land use, economic development, transportation, infrastructure, parks and open spaces and public facilities.

In its implementation

by a number of boards and departments, as well as actions taken by City Council. Successful implementation will also depend on participation of the private sector, and funding from new and diverse sources.

HOW TO USE THIS DOCUMENT

Plan Cleburne is intended to guide decisions related to a very broad range of issues impacting the City. The document is divided into three major chapters, with Appendices that include a glossary of terms and larger versions of key maps, graphics and supportive inputs included at the end. This document should serve as a reference to many members of the Cleburne community, including:

City Council—tool to guide decision-making regarding zoning applications, public improvement project prioritization, code amendments and revisions and city budget and taxation.

Planning and Zoning Commission—tool to guide decision-making regarding zoning applications and code amendments and revisions.

City Staff—departments should use Plan Cleburne as a guide to any department-specific strategic planning or master planning. All such plans should conform to the comprehensive plans. The priorities and the plan components of this document should be used as a reference for public works projects, economic development initiatives, land use planning and zoning, park improvements and public facilities planning.

Developers and land owners—persons seeking to begin new projects in Cleburne or to position property for new projects (via zoning application or other amendment to entitlements) should review the Future Land Use Plan and the Framework for Growth to verify whether or not their project conforms to the long range vision of the City. This will make the approval process less complicated, as all future projects will be expected to conform to this plan.

Residents and business owners—all members of the Cleburne community should familiarize themselves with this plan and participate in public meetings to ensure that it is being faithfully implemented.

Chapter 1 serves as a snapshot of Cleburne today, as well as a picture of what Cleburne could look like in the future with respect to population growth. The snapshot addresses infrastructure capacity and economic performance, as well as the physical conditions for development. The infrastructure capacity analysis should be used as a tool to guide long range planning for water supply, traffic management, sewer/wastewater services and storm water management

Population Growth

Many communities rely on external sources for population projections, and plan to manage whatever threshold of growth is determined that they should support. This often sets a ceiling on a community's growth potential. This plan does not do that. It is impossible to know what the population of a community will be in 20 years. Rather than build a plan based on regionally determined projections, Plan Cleburne takes into account the enormous economic impact of SH121 on communities in the Metroplex to define what Cleburne COULD be in years to come. This provides a more effective target for system capacity analysis, and allows for a more prescriptive approach to land use and development planning. Plan Cleburne sets a high, likely and conservative trend for growth for the future, which shows that the population could reach 60,000—80,000 in 20 years, and could reach approximately 100,000 by 2040. This of course would depend upon those mechanisms that the City puts in place to control guide the form of future growth and the type of projects it attracts.

City Form

Today, the majority of the Cleburne Community lives in an area surrounding Downtown,. With the exception of the Main Street corridor, a considerable amount of space lies between this city center area and the US67 bypass. With the arrival of the Chisolm Trail Parkway, care must be given to avoid the creation of a donut pattern of growth that jumps the undeveloped area south of the bypass to expand northwards along SH171 and the Parkway.

Economic Conditions

The Economic Conditions Assessment indicated that dominant and externally traded clusters were critical to healthy future growth in Cleburne. The largest sectors in terms of economic performance are retail and construction. Historical, agriculture was the dominant traded cluster, and this formed the foundation of economic exchange for the City. As Cleburne grows, consideration must be given to a replacement industry that would support the subsequent economic exchanges in Cleburne.

Cleburne is seeing a considerable level of retail leakage, particularly in terms of specialty retail. Capturing this should be a priority for economic development in the future.

Population growth must be considered also in terms of city revenue streams. Ad valorem revenues are impacted by the quality of the residential fabric of the city, as the residential tax base will not be able to meet financial needs associated with public services, should median home values not improve as the population grows. This is an important consideration in terms of land use and economic development.

Another value-related issue in Cleburne is one of land value. The perception from property owners of land value is not congruent with the markets perception of land value in Cleburne. This means that land use patterns need to be set to improve value distributions in the City, in order to justify a higher sales price. Should this not occur, it will be difficult to execute land transactions necessary to stimulate development.

Transportation

Transportation will, of course, increase as the population grows. The thoroughfares of Cleburne will need to accommodate over 200,000 trips per day to meet the population projections of the plan. This is nearly double the loads carried

today. New roadways are needed that will not only increase capacity but provide north-south alternatives and differentiate between the regional system (highways) and the local system (collector streets) of movement. Freight traffic is a negative for downtown, therefore alternative routes are needed to promote downtown revitalization while still accommodating the needs associated with regional industry.

As NCTCOG plans for future growth, regionally identified projects will provide greater connectivity between Cleburne and the DFW Metroplex. Loop 9 is a new project that will extend an east-west highway to the north of Cleburne. At some point in the future, a transit line (rail) will extend to Cleburne. A defined station plan would increase Cleburne's competitiveness for NCTCOG (federal) investment in transit planning and economic development downtown.

Infrastructure

Cleburne's water supply is a serious consideration in terms of population growth, as is its wastewater treatment capabilities. The City's systems are poised for expansion to the north, but expansion into the ETJ is a bit more challenging. As previous capacity analysis was based on TWDB projections (extrapolation of historic growth trend), it is recommended that the City re-evaluate its capacity for servicing residents, should Cleburne grow at the rate indicated in this plan. Regarding storm water management, more effective integration of creek ways, purchase of flood prone property and codification of Low Impact Development principles will improve water quality, drainage issues. Project or area-wide detention practices would also be beneficial.

Another infrastructure component that will need to be addressed as the City grows is solid waste. Right now the City does not have a curbside recycling service. This is becoming a standard service offered in communities in the U.S. and to attract higher price points in residential stock, the City should consider this addition.

Chapter 2 provides a composite list of community goals and priorities. These are helpful when weighing decisions related to city budget and project prioritization. They should also guide any strategic plans prepared for the City at large or for particular city departments.

Community Participation

The goals and community priorities grew out of a series of open public meetings. There was a town hall meeting that served as a project kick-off event when the process began. After opening remarks from city leadership, the consultant team gave an overview of planning process, what the plan would address, and an approximate timeline for plan construction. The project website, which ran the course of the project, was launched the night of the town hall meeting.

There were then held two workshops focusing on goals, priorities and creation of a framework for growth. The final open public meeting was a project open house, where the component of the plan were presented to the community for discussion and comment.

Goals

There are nine goals that emerged through the Visioning Process. These goals encompass a broad range of community priorities, which, in turn, shape the individual plan components defined in Chapter 3. The goals of Plan Cleburne, categorically defined, are:

INFRASTRUCTURE CAPACITY: Increase water supply and improve existing systems to support future population.

FREIGHT TRAFFIC MANAGEMENT: Provide alternate truck routes to alleviate truck traffic downtown.

RETAIL/COMMERCIAL SERVICES: Encourage retail development to provide more shopping and entertainment opportunities in Cleburne.

MEDIAN HOME VALUES: Create plans and policies that attract higher value residential development, to improve median home values in Cleburne.

HOUSING DIVERSIFICATION: Encourage diversification by providing higher density housing and affordable housing in appropriate locations.

RECREATION AND ENTERTAINMENT OPPORTUNITIES: Increase visitorship to Cleburne and use of public facilities through improvement of public parks and recreational facilities.

PRESERVATION OF CLEBURNE CHARACTER: Promote Cleburne's distinctive character by incorporating thematic elements into public spaces and, where appropriate, establishing land use patterns existing that preserve agriculturally-oriented uses.

WALKABILITY: Improve existing commercial corridors (i.e.: Henderson and Main St.) in terms of streetscaping and pedestrian amenity.

BETTER SCHOOLS: Ensure compatibility between the Comprehensive Plan and the CISD Master Plan, and coordinate facility expansion with the City to improve schools in Cleburne.

To give guidance to the translation of these goals into physical development parameters, the plan also includes a Framework for Growth. This is a diagram that illustrates the general form of growth that should be promoted in coming years. In this diagram, the waterways of the City form a basin to accommodate future development, providing for orderly expansion of city systems and promoting a diversification of housing and commercial opportunity.

SUMMARY OF CONTENT 3: PLAN COMPONENTS

Chapter 3 contains the particular guides and policies related to the six elements addressed by the plan

Economic Development

The economic development plan is organized into tactics that address diversification of the housing supply in the city, creation of nodes of commercial development opportunity, increase industrial productivity, manage traffic volumes and provide a purpose and approach to development of the TDA (Targeted Development Area) land use districts.

The "feel" of city is primarily determined by the mechanics of economic exchange that take place in that city. For this reason, the Economic Development Plan seeks to preserve the mechanics of the Cleburne economy, while identifying new foundational industries to modernize the underlying economic base. These foundational industries promote vertical expansion, more specialized employment opportunities (higher wages) and aggregation of industry that relies on common infrastructure components (i.e.: rail yards and power).

Future Land Use.

As Cleburne grows, a guide is needed for future development. The City will be dealing with issues regarding annexation, zoning, special district designation, public improvements and economic development incentives. Through all of this, the Future Land Use Plan is intended to serve as a guide for development form.

This plan component consists of four types of districts: Communities, Nodes, Corridors and Targeted Development Areas (TDAs). The Communities are those districts that will hold the majority of the neighborhoods of the City. These, like all districts of the Plan, are mixed use districts, yet they focus on community integration as a core determinant of form. The Nodes are opportunities for aggregation of non-residential activity, in the form of commercial centers. The corridors are areas of the City where roadway frontage or interface with streets is a development determinant. The TDAs are special districts that are created to address geographically specific concerns of the community (Downtown, Lakefront, Industrial uses).

Transportation

The Transportation Plan defines a system-wide conceptual design, consisting of street typologies that support the traffic and urban design priorities of the community. It provides alternative routes for freight traffic and indicates how future roadways should be considered for areas that anticipate future growth. This plan component explains the role of transit in increasing regional connectivity, and also speaks to increases in non-vehicular transportation methods (bike and pedestrian paths). Section views are provided for each street type.

Infrastructure

The Infrastructure Plan provides guidance to expansion of public utility systems based on the growth patterns of the Framework and the Future Land Use Plan. It focuses water and wastewater system expansion on the area between the two major drainage ways of the city., identifying techniques that can be used to improve performance of existing system components and expand the existing system to service new development. Additionally, water reuse and water conservation measures are recommended for increased performance of the existing system in terms of water supply. To improve drainage, a series of check dams are recommended for the Buffalo Creek. These dams are located in an area where retention can create water amenities to attract residential development. Finally, a brief discussion is given of the need for power to service manufacturing within the Industrial Development Area.

SUMMARY OF CONTENT 3: PLAN COMPONENTS

Parks and Open Spaces

The Parks and Open Spaces Plan shows how future population growth would impact park needs, based on the Level of Service standards set in the existing Cleburne Parks Master Plan. It shows which of the various park types would be needed once certain population thresholds are met. It also indicates which land use districts are most suited for those future parks. This will be helpful to the City when considering park facility planning, land acquisition and development decisions.

Public Services

The Public Services Plan indicates how future population growth and land use distributions will impact police and fire service in Cleburne. Realizing that a more complete Public Facilities Master Plan would be needed for site selection and facility planning, this plan component shows how Cleburne compares to other communities and to national standards, with respect to level of service and departmental budgeting.

ASSESSMENTS

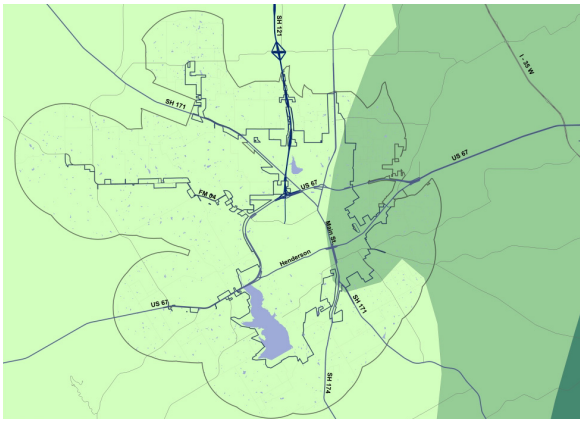
The Development Landscape

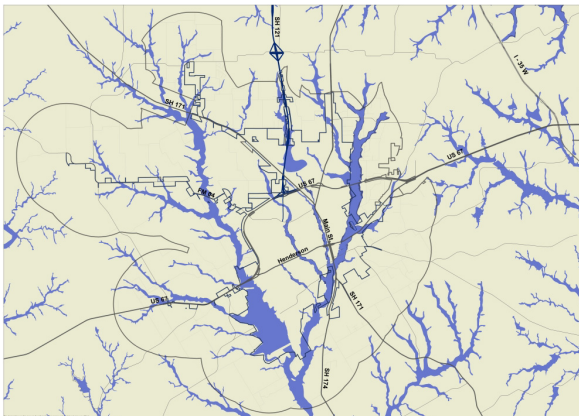
THE DEVELOPMENT LANDSCAPE

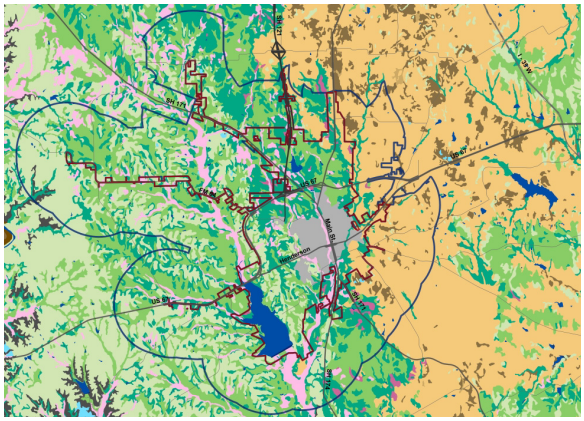
The following is a brief summary of the conditions in which future development will occur in Cleburne. As the comprehensive plan will provide growth policies for land within the corporate limits and also Cleburne's extraterritorial jurisdiction, the physical conditions analysis considered land area extending to the limits of the city's ETJ. Components considered include:

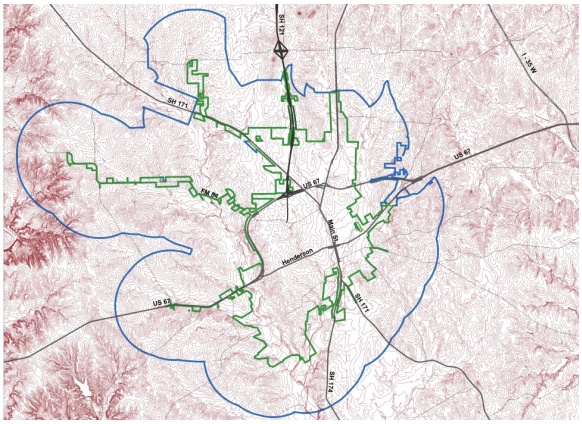
- ***The Land:*** Ecological context, soils and topography, surface water patterns, vegetation and tree cover, and sub-surface petroleum assets
- ***Existing Development Patterns:*** Current land use patterns, density distributions and ownership/ parcelization of land
- ***Infrastructure:*** Service areas for water, wastewater and power, as well as capacity and existing conditions of these systems.

The following pages illustrate the patterns and influences that physical conditions have on future settlement and development in Cleburne. Each of these systems will be used to define growth and development patterns for the future of the City.









THE DEVELOPMENT LANDSCAPE

The Land

Ecological Context and Habitat Characteristics

Cleburne sits along the convergence of the Grand Prairie and Eastern Cross Timbers ecoregions. The Grand Prairie is characterized by clay-based soil profiles, but underneath is hard limestone. This hard limestone does not weather as easily as the Blackland Prairie. Native vegetation in the Grand Prairie includes large expanses of tallgrass prairie in upland areas (grasses such as big bluestem, switchgrass and indiangrass characterize tallgrass prairies) and trees such as elms, pecans and hackberries in areas where the soil is deeper (such as those around rivers and streams).

The Cross Timbers is an ecoregion where prairie and woodlands converge. The soils are typically sandy, and the vegetation is dominated by oak trees. Shorter grasses, such as little bluestem and sideoats grama are common in the Crosstimbers area.

Because Cleburne sits at an ecological crossroads between prairie and woodland, the City has historically enjoyed agricultural productivity while also being able to attract settlement.

One challenge that can arise in communities with distinct ecoregions is bifurcation. Because the development patterns associated with prairie land is different than that associated with woodlands, there can often arise competing interests and/or economic productivity.

In Cleburne, the line of demarcation between the two ecoregions falls roughly along the Buffalo Creek Eastern drainage area, following it into downtown, then cuts east and southeastward just south of downtown (see Figure 1). The difference in development suitability of these two ecoregions must be considered while creating the comprehensive plan components, to ensure that highest, best and most appropriate uses are afforded each area of Cleburne.

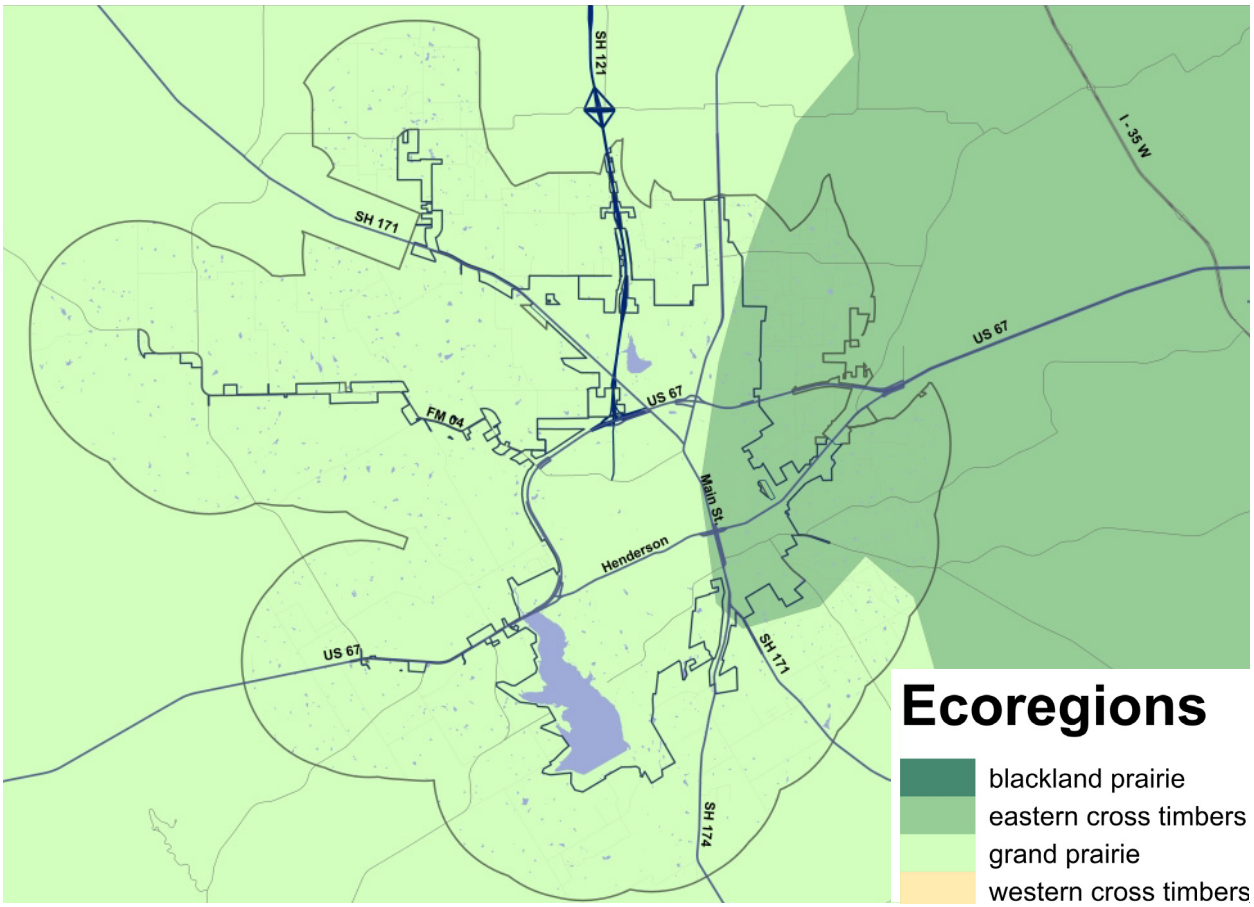


Figure 1. Ecoregions map.

THE DEVELOPMENT LANDSCAPE

Surface Water Patterns

Cleburne has always benefitted from access to surface water. The Nolan River and Buffalo Creekway converge south of Lake Cleburne, leaving elevated land in the triangle in between. Because this land is prairie land, the conditions are desirable for land development. There are, however several challenges that this network of waterways imposes on future development and on community form. The plan must seek to resolve these challenges and transform these waterways into amenties rather than barriers to community growth.

One of the challenges associated with this network of creekways is the difficulty of creating continuity in the city when development patterns are disrupted by floodplain. This can be observed in two areas of town in particular: the neighborhoods north of downtown and west of Main Street, and the east side of Cleburne.

In the northwest, the floodplain associated with the creekway has limited investment in residential property improvement (and overall property values), because of limited ability to build in the floodplain. Because the land is privately held, public improvements are not appropriate. Therefore this stretch of waterfront land is unable to benefit public or private interests, and simply sits as a barrier between the commercial corridor and the neighborhoods.

On the east side of town, the floodplain associated with the creekway is quite broad, limiting and actually disincentivizing development. It is particularly problematic for properties fronting Business 67, as such a long stretch of this roadway cuts through the creek's floodplain. To promote development on the eastern side of town, tightening up the floodplain on the eastern side of town will be important.

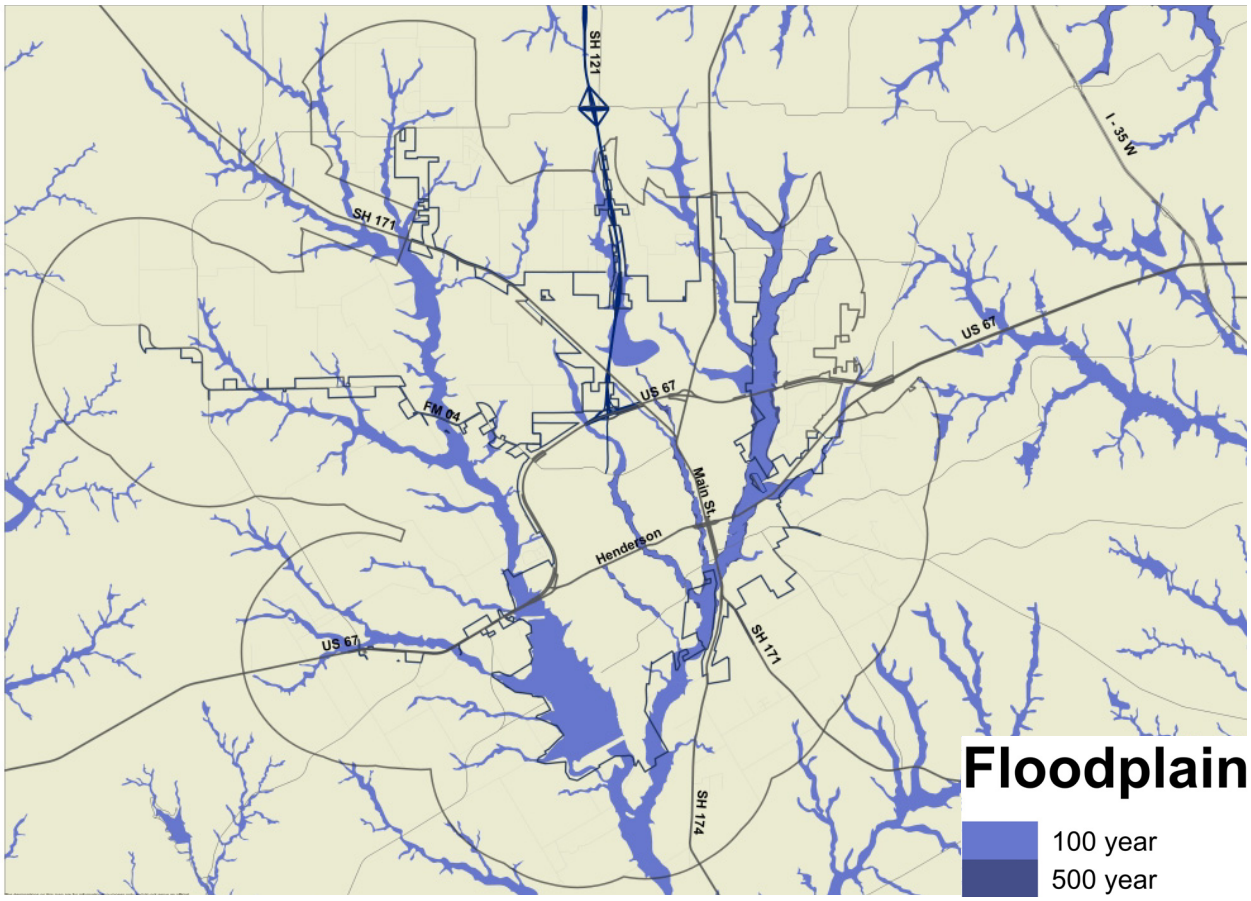


Figure 2. Floodplain map.

THE DEVELOPMENT LANDSCAPE

Cleburne's Soil Profile

Cleburne's soil profile aligns closely with the ecoregions of the City (see Figure 1), with clay type soils being found in the parts of the City that are considered prairie land, and the sand type soils found in the woodlands. The interface of soil types and surface waterways gives further differentiation, leading to the complex mosaic of soil types illustrated in Figure 3.

Soil profiles impact not only the types of vegetation that can grow in an area, but also development forms and construction costs associated with those forms. The cohesive qualities of clay-based soils are attractive not only for agricultural uses, but also for conventional building practices, such as production home projects and larger plate retail centers. Fewer trees, relatively minimal grading, and less investment in soil stabilization and site preparation translate into lower land-related costs for projects. Unfortunately, this low carrying cost often translates into entry level uses. This is why large tract entry level subdivisions are common sites in converted agricultural land and newly developing areas. This tendency must be averted so as to encourage more economically sustainable building practices in Cleburne in the future.

Land use and development policy must therefore be created that will encourage responsible development practices for these two major soil types. This would include policies related to surface water management, landscaping, site design and development, and building construction practices.

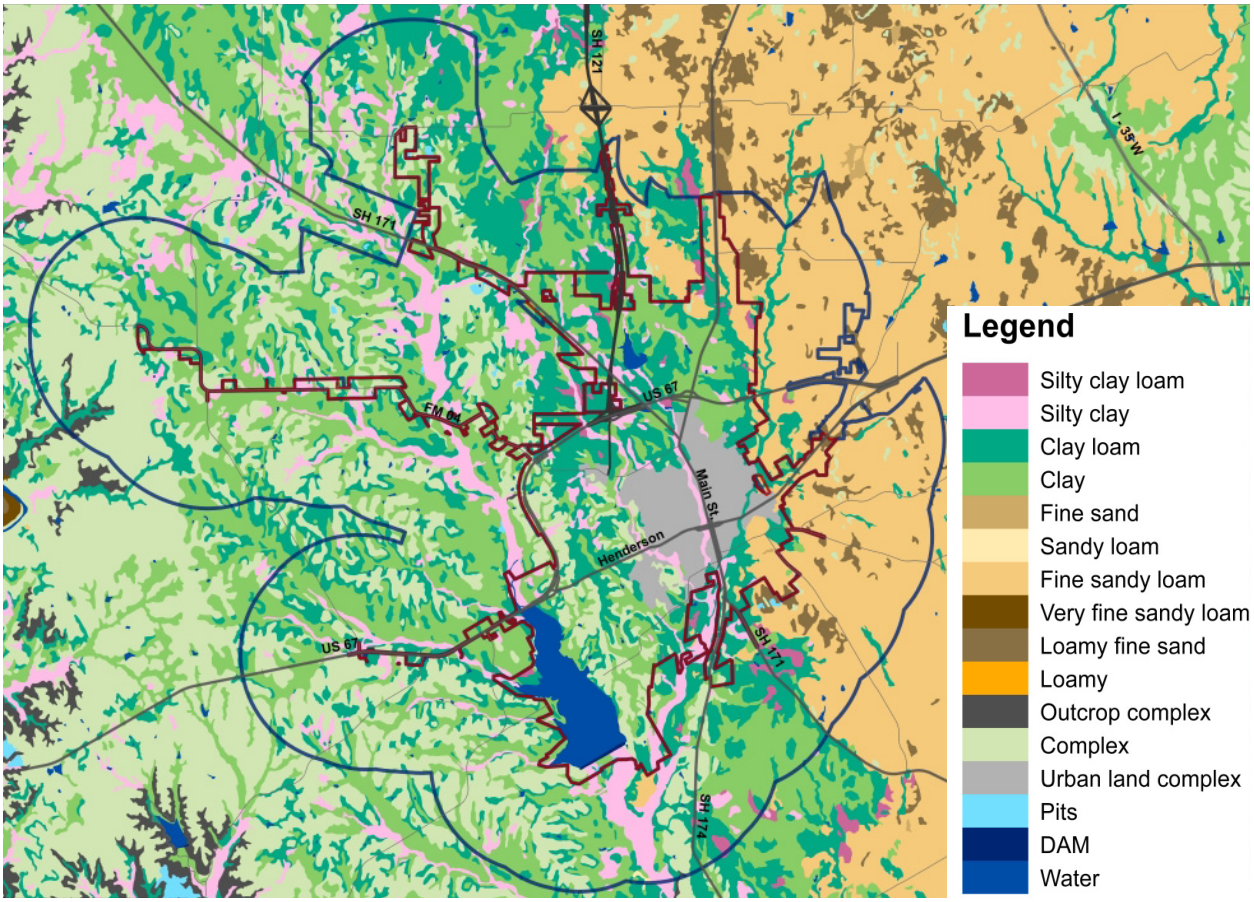


Figure 3. Soil Profile map.

THE DEVELOPMENT LANDSCAPE

Topography

There are several ways in which topography influences community growth and development. Here we will consider its influence on surface water flow patterns and site selection for development.

In areas that are characterized by a number of surface waterways (creeks, rivers, lakes, etc.), topography is a determinant of how water moves to get to those drainage channels. Land at higher elevations is not as impacted by flooding and heavy rains as land at lower elevations. Flat, low land, such as that found on the east side of Cleburne, encourages pooling and flooding. Flat land at higher elevations, such as that found in the industrial area of the City, is not at risk in the same way, because water is moving downward and away from this land, toward drainage channels.

Topography influences development patterns, as it is a determinant of construction costs, site design, building design and general site marketability. As such, it is a significant factor in site selection. This becomes important in the translation of the Vision into land use and economic development components, because certain types of products will be attracted to certain types of sites. Factors such as topography must therefore be considered in creation of the components of the comprehensive plan.

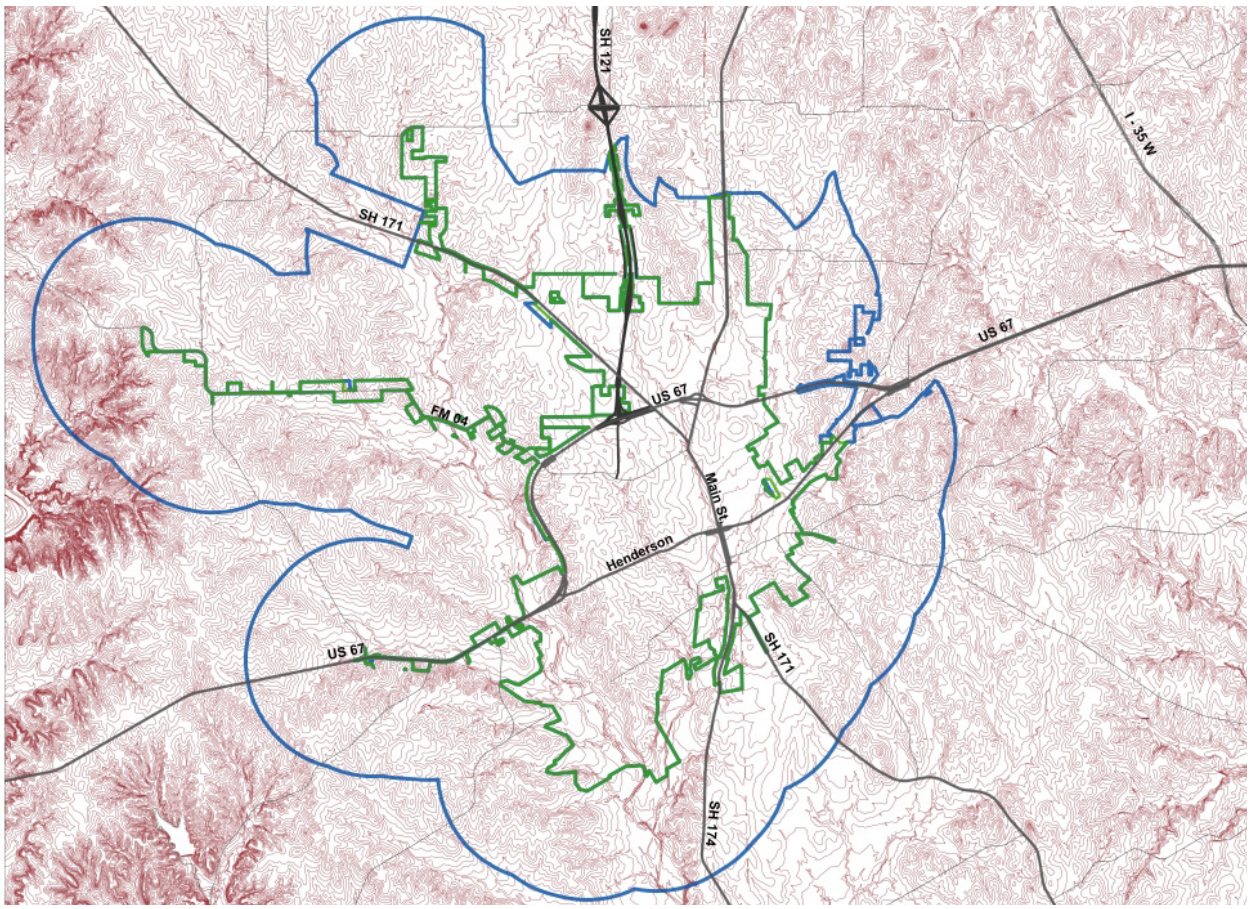


Figure 4. Topography map.

THE DEVELOPMENT LANDSCAPE

Sub-Surface Conditions

Perhaps the most significance impact the land has on growth patterns in Cleburne involves conditions below the surface. As drilling in the Barnet Shale continues, mineral rights, sites for exploration and development, distribution of well sites and the impact production has on neighboring uses all affect how land develops in and around Cleburne.

Figure 5 illustrates the density of wells in the Cleburne area. And not all of these wells are located outside of the City limits. These are wells currently identified within the corporate limits of the City of Cleburne. This means that subsurface conditions are impacting use and activity within the areas that people are living, working and socially engaging.

As Cleburne grows, care must be given to location of these wells, and also to the general terms included in leases as to treatment of surface rights. Creating land use districts without consideration of surface land rights will paint an unrealistic picture of future growth patterns. This is especially important in the area north and west of US67, where new development would normally extend. For this reason, the land use plan must acknowledge the location of existing wells, and create policies for reconciling surface use patterns with sub-surface access and activity.

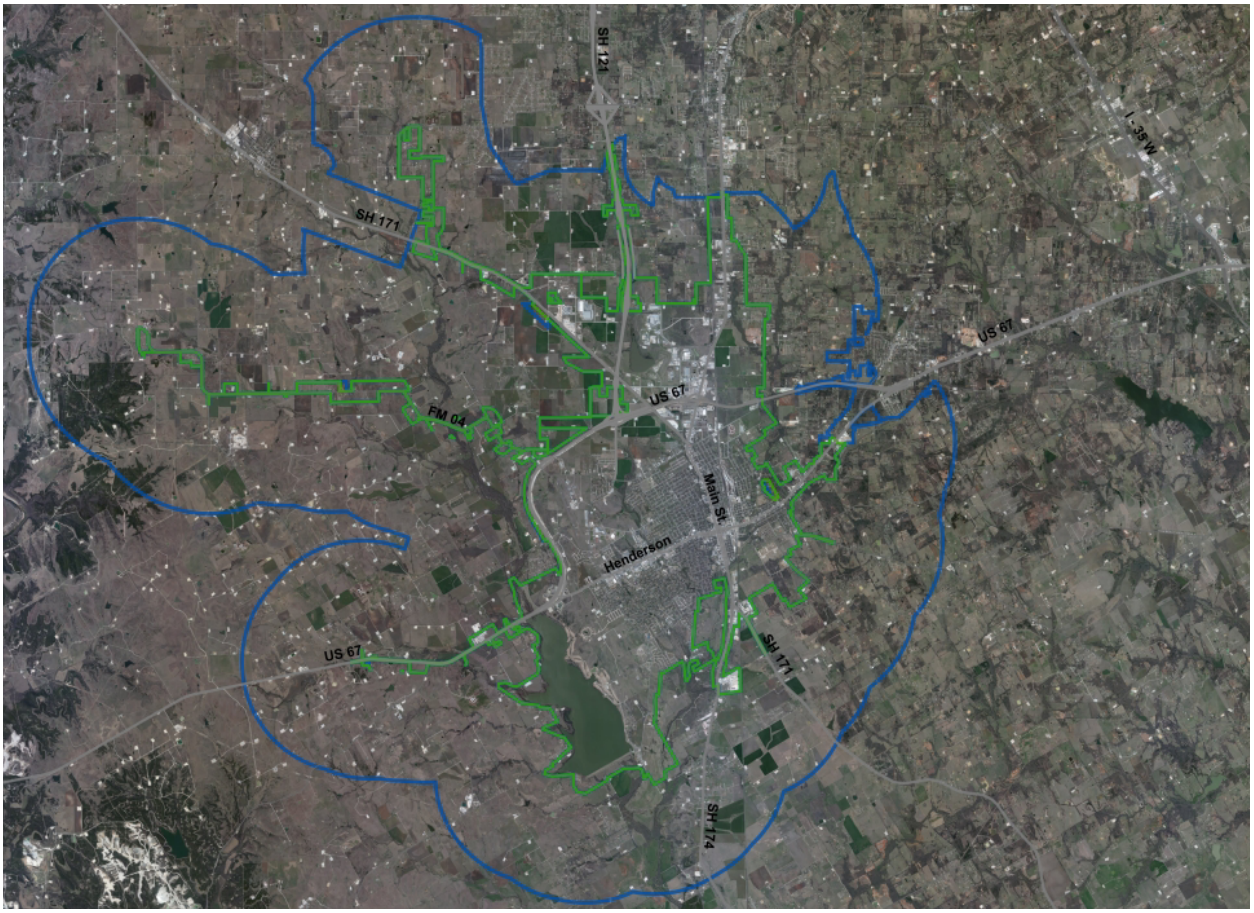


Figure 5. Well Density map.

THE DEVELOPMENT LANDSCAPE

Ownership and Parcelization

The plan for future growth must respond not only to the physical systems of the City, but to the development patterns as well. New growth in many ways will function as a response to land patterns that have already been defined for the City of Cleburne. Although natural systems are important in shaping future growth, there are aspects of land use and ownership that will be key determinants of development patterns in years to come.

The configuration of land parcels significantly impacts future land use. Larger sites are most suitable and desirable for project-scale development, with a mixture of uses and tenants, or will be subdivided for community development projects. Smaller sites will typically attract free-standing or infill uses, or uses that can support a higher price per square foot.

For these reasons, the parcelization of land in Cleburne must be considered when determining a preferred pattern of future growth. Figure 6 indicates current parcels of the Cleburne area, including land in the corporate limits and the extraterritorial jurisdiction.

As shown in this map, most of the land in the center of town has already been divided into small tracts for neighborhoods or freestanding commercial establishments. Most are less than 1 acre in size, and almost all, with the exception of some commercial sites along Henderson and a few industrial sites, are under 10 acres.

Moving outward from the center city area, a sharp differentiation can be seen. There is a fairly rigid line dividing the Cleburne area from northwest to southeast, with land east of this diagonal line being extensively subdivided and land west of the line being minimally subdivided. This "land line" should be seen as the true extent of DFW urbanization in the Cleburne area. Although little vertical development may be seen, the areas that are predominantly green in the map show a non-agricultural (urban) parcel pattern.

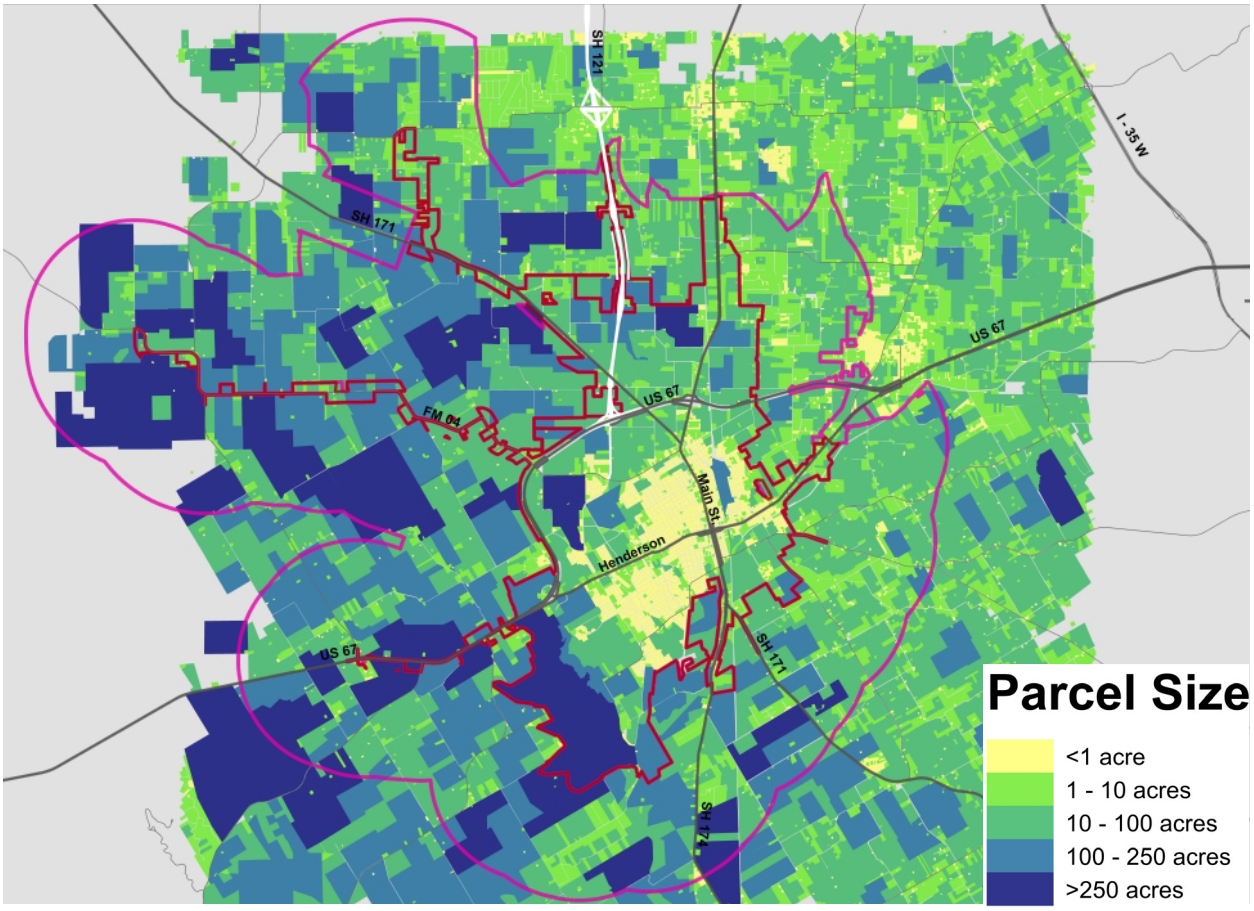


Figure 6. Parcel map.

THE DEVELOPMENT LANDSCAPE

The land west of this "land line" is the true rural edge to the DFW Metroplex. This land to the west is characterized by parcels larger than 100 acres, and many that are over 250 acres in size.

From a growth management perspective, treatment of these parcels will be critical in determining the quality and direction of future growth for the City. Because many tract home projects seek large parcels such as these, it will be important to define land use policies that encourage new residential development that will support the economic base of the city, while also providing rooftops for the growing population.

Existing Development

There are certain types of land use that are complementary and some that are conflicting. To avoid conflicts and promote complementary uses, it is also important to identify existing patterns of use and entitlement. These patterns are illustrated by current property zoning, shown in Figure 7.

Today Cleburne today operates off of a fairly concentric urban model, where downtown is served by two major commercial corridors (Main Street and Henderson), with most people living in a neighborhood adjacent to one of these streets. This single center model allows for the aggregation of single uses throughout town (an industrial area, a commercial area, residential areas, etc.). For this reason, the zoning map of Cleburne today shows consistent aggregation of categrories around the downtown.

In the future, when multiple economic centers emerge, this distribution pattern will evolve. New commercial areas will emerge. Differentiation in housing stock will require a different pattern of dispersal of residential areas. The City will annex new land to support changes in market interest. Land use districts must therefore be created that promote character and intent, rather than categorical uses.

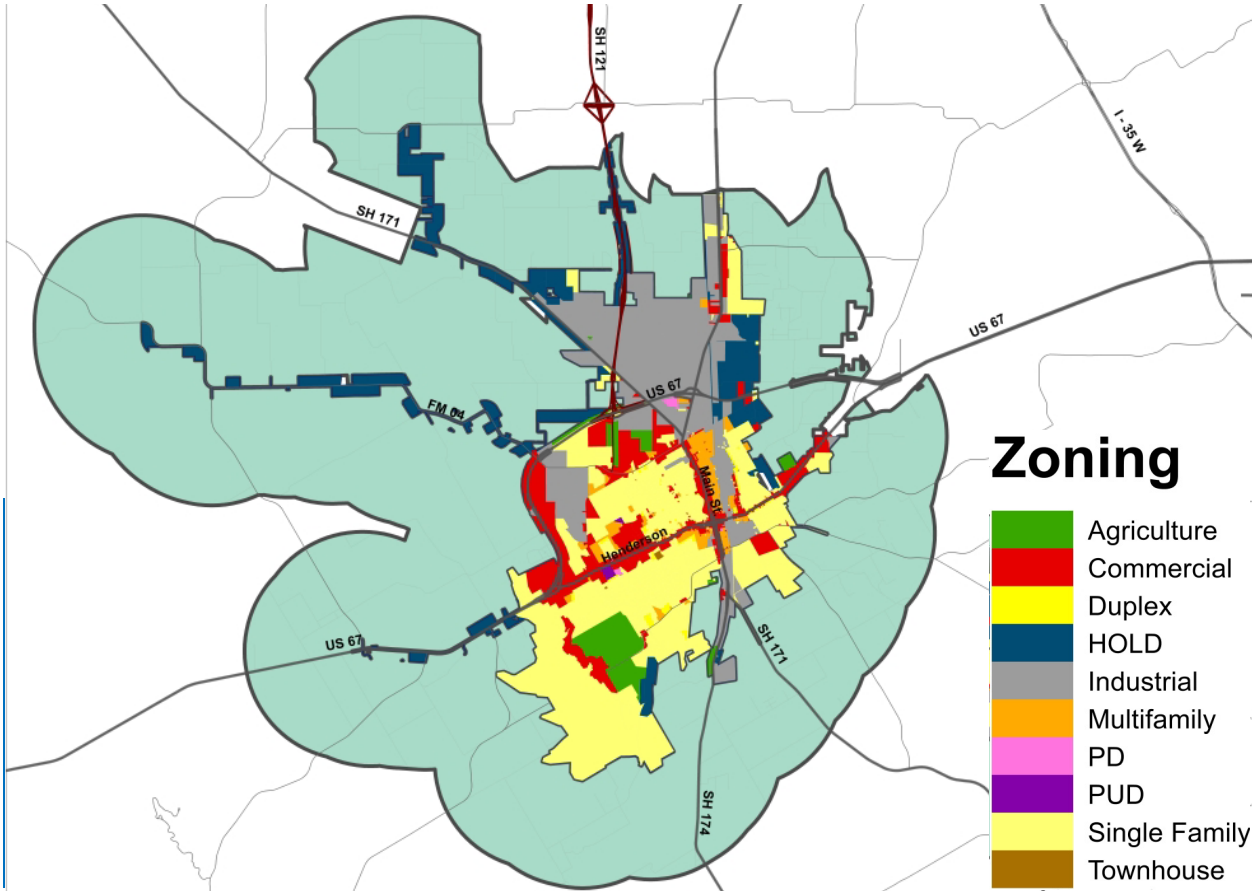


Figure 7. Zoning map.

Infrastructure Systems

INFRASTRUCTURE SYSTEMS

Introduction

An assessment of the infrastructure systems is presented below. GIS data provided by the City of Cleburne (City) as well as previous studies were reviewed as part of the assessment. High level comparisons were made for growth projections from this planning effort versus prior planning to gauge the impacts on future infrastructure needs.

As Figure 8 shows that 2030 population projections are larger by as much as 20,000 (based on corridor development) than previously projected.

The systems that were assessed—water, wastewater, stormwater, solid waste and energy—are discussed in general terms based on how they exist today.

Water

The City has a total of approximately 20.5 million gallons per day (MGD) in water rights, 11.8 MGD of which are immediately available. 5.14 MGD is from Lake Pat Cleburne, 4.73 MGD is from Lake Aquilla and additionally there are seven wells with a total capacity of 2 MGD. An additional 8.66 MGD is available from Lake Whitney but this location is not online as of 2013. A 31-mile pipeline (Barkman Pipeline) conveys raw water from Lake Aquilla to Lake Cleburne.

A reuse line from the SE Water Treatment Plant to Lake Pat Cleburne is planned for future construction. The line will discharge 3 MGD into the lake.

Prior studies indicated that the current contract with the Brazos River Authority, which covers the Lake Aquilla rights, expires in 2032. A new contract after that would be based on the adjusted decrease yield of Lake Aquilla. A prior report recommended that the supply in 2050 will be 75.5% less than the 2008 supply. Additionally, the Texas Commission of Environmental Quality (TCEQ) has placed regulations on the City with regards to total dissolved solids (TDS) that may limit the City's ability to use groundwater as future water supply.

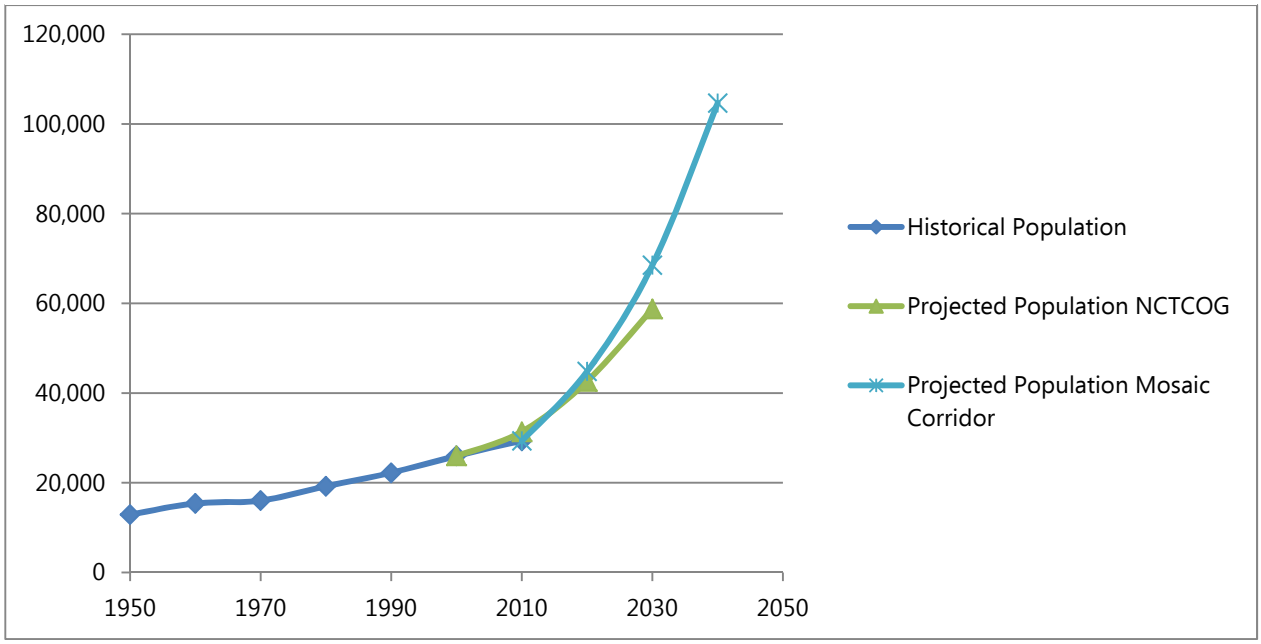


Figure 8. Population projection.

INFRASTRUCTURE SYSTEMS

Based on these prior projections, two major improvements were recommended in prior studies. One was to expand the Water Treatment Plant from 20 MGD to 25 MGD to provide capacity through 2028 and the other was to expand the Water Treatment Plant from 25 MGD to 30 MGD for beyond 2030.

The water system has two types of water users, Industrial/Commercial and Municipal/Domestic. It typically also has four operating conditions which include a maximum day demand, a peak hour demand, a night time storage tank filling demand and a maximum day demand with fire flows. The system consists of two pressure zones, the Upper Zone and the Lower Zone. It also includes a network of approximately 242 miles of distribution pipes. Table 3, from a prior study, includes actual 1997 demands and what were at that time 2005 and 2020 projections.

Currently (2013) the Water Treatment Plant is capable of treating 20 MGD. The current (2013) peak demand is approximately 13.5 MGD. In 2009, the City's average water consumption was 8.77 MGD and maximum consumption was 13.19 MGD. The City's average municipal water use was 187 gallons per capita per day (gpcd) in 2009, up from 175 gpcd in 1997.

Below are previous population and water demand projects by others.

Table 1. Population and Water Demand projections.

Year	Pop	Avg MGD	Max MGD	Peak Hour MGD
2010	30946	9.65	16.46	27.6
2015	34815	11.15	19.05	31.58
2020	38683	13.36	21.93	35.85
2030	48353	16.22	27.09	44.49

The arrival of the State Highway 121 toll road to Cleburne will likely promote industrial growth. This plan estimates the following industrial growth for the City which will result in increased industrial water demand.

Table 2. Industrial Water Demand Growth.

Year	Industrial Demand (SF)	% 5YR Growth
2010	1,978,050	
2015	2,472,562	25.00%
2020	3,041,251	23.00%
2025	3,649,502	20.00%
2030	4,306,412	18.00%
2035	4,995,438	16.00%
2040	5,794,708	16.00%

Table 3. Water Demand and Population projections, previous study.

			Ave. Day in MGD			Max. Day in MGD			Peak Ave. Day in MGD			Tank Filling		
Presssure Plane	Projected Population	Ave. Day per Cap. Domestic Demand (gpcd)	Domestic	Industrial	Total	Domestic	Industrial	Total	Domestic	Industrial	Total	Domestic	Industrial	Total
1997														
Lower	3,435	175	0.6	1.73	2.33	0.96	2.6	3.56	1.92	3.9	5.82	0.3	0.87	1.17
Upper	21,646	175	3.76	0.02	3.78	6.01	0.04	6.05	12.02	0.06	12.08	1.88	0.01	1.89
Total	24,900		4.36	1.75	6.11	6.97	2.64	9.61	13.94	3.96	17.9	2.18	0.88	3.06
2005														
Lower	4,965	175	0.87	2.41	3.28	1.39	3.61	5	2.78	5.42	8.2	0.43	1.2	1.64
Upper	23,503	175	4.11	0.02	4.14	6.58	0.04	6.62	13.16	0.06	13.22	2.06	0.01	2.07
Total	28,468		4.98	2.43	7.41	7.97	3.65	11.62	15.94	5.47	21.42	2.49	1.22	3.71
2020														
Lower	8,457	175	1.48	3.16	4.64	2.37	4.74	7.1	4.74	7.11	11.84	0.74	1.58	3.32
Upper	27,796	175	4.86	0.02	4.89	7.78	0.04	7.82	15.57	0.06	15.62	2.43	0.01	2.44
Total	36,253		6.34	3.18	9.53	10.15	4.77	14.92	20.3	7.16	27.46	3.17	1.59	4.76

INFRASTRUCTURE SYSTEMS

This plan's population projections (Corridor Projected Population) exceed prior projections. Below is a comparison of those along with extrapolated water demands. System expansion and increased capacity will be required.

Table 4. Updated Projections.

	2020	2030
Previous Population Projections	38683	48353
Avg MGD	13.36	16.22
Max MGD	21.93	27.09
Peak Hour MGD	35.85	44.49
Corridor Projected Population	44827	68496
Avg MGD	15.48	22.98
Max MGD	26.32	39.06
Peak Hour MGD	43.43	64.45

Figure 9 shows the existing water system for the City of Cleburne. It depicts the two current pressure zones, the upper pressure zone and the lower pressure zone. The lower zone has a more robust distribution network and may likely be able to support higher density growth within that area should redevelopment be proposed. The upper zone has a distribution network that will require expansion as new development occurs along the 121, 174 and 171 corridors. The more challenging area to serve new growth will be to the northwest, south of the 171 corridor within the ETJ. Municipal Utility Districts (MUDs) may have to be encouraged to accommodate water services for the demand of single family development that will likely occur in that area. Servicing the ETJ area to the southeast along the 171 corridor will also be challenging as there is no existing water infrastructure that lends itself for logical extension.

INFRASTRUCTURE SYSTEMS

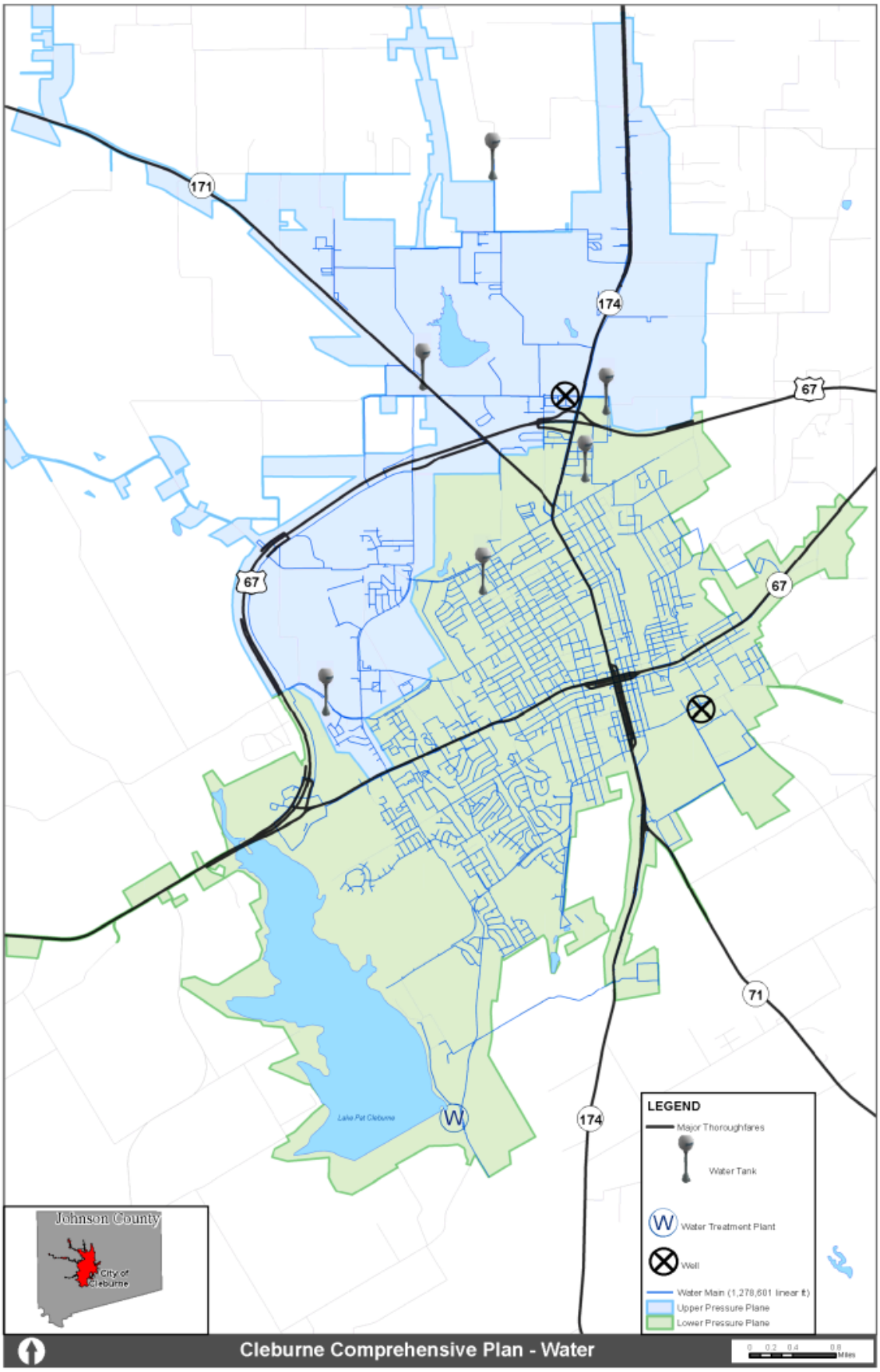


Figure 9. Existing Water System.

INFRASTRUCTURE SYSTEMS

Wastewater

The City's wastewater collection system includes one wastewater treatment plant with a capacity to treat 7.5 MGD, approximately 195 miles of collection pipes varying in size conveying wastewater from residential and commercial users to the wastewater treatment plant. The system also includes seven lift stations to pump gravity flow from the collection lines up into force mains (the system includes approximately 13 miles of force mains) where topography and/or pipe grades prevent gravity flow, and a reuse pipeline that returns approximately 2 million gallons a day of effluent from the wastewater treatment plant to industrial users. Additionally, sludge derived from the wastewater activated sludge treatment process is enhanced for beneficial use at land application sites. The remainder of the wastewater treatment effluent is permitted to be discharged into Buffalo Creek.

The wastewater system is regulated by the U.S. Environmental Protection Agency (EPA) and the TCEQ. The wastewater plant must meet the regulations set by the permits issued by EPA and TCEQ. When a plant operates at 75% of permitted volume for three months in a row, design for capacity expansion is required to be underway. When a plant operates for 90% of permitted volume for three months in a row, construction is required to be underway for capacity expansion. Currently, based on flow data recorded by the City, the annual average flow from the wastewater treatment plant is 3.5 MGD, or approximately 47% of plant capacity.

Wastewater flows are characterized into two categories, residential and commercial/industrial (industrial). Wastewater flows may vary based on time, discharge origin and weather. The industrial wastewater producers are subjected to the City's Industrial Pretreatment Program. Currently there are about 12 permitted users that must submit monthly reports to determine if they are meeting their permit requirements. Typically, industrial wastewater flows are estimated to be 80% of industrial water use. As previously shown, industrial growth is expected along with an increase in population which will drive water consumption up. Wastewater flows will increase proportional to increased water use, thus, system expansion and increased capacity will be required.

Map 2 illustrates the existing wastewater system. It is similar to the water distribution system in the way the collection system is laid out. The existing layout suggests it may be able to support higher density redevelopment at the core of the City. The wastewater system will face challenges in supporting growth to the northwest and to the southeast. Septic systems should be discouraged, and formation of MUDs should be encouraged as an alternative to sustain new growth if that growth outpaces the City's ability to expand its system.

INFRASTRUCTURE SYSTEMS

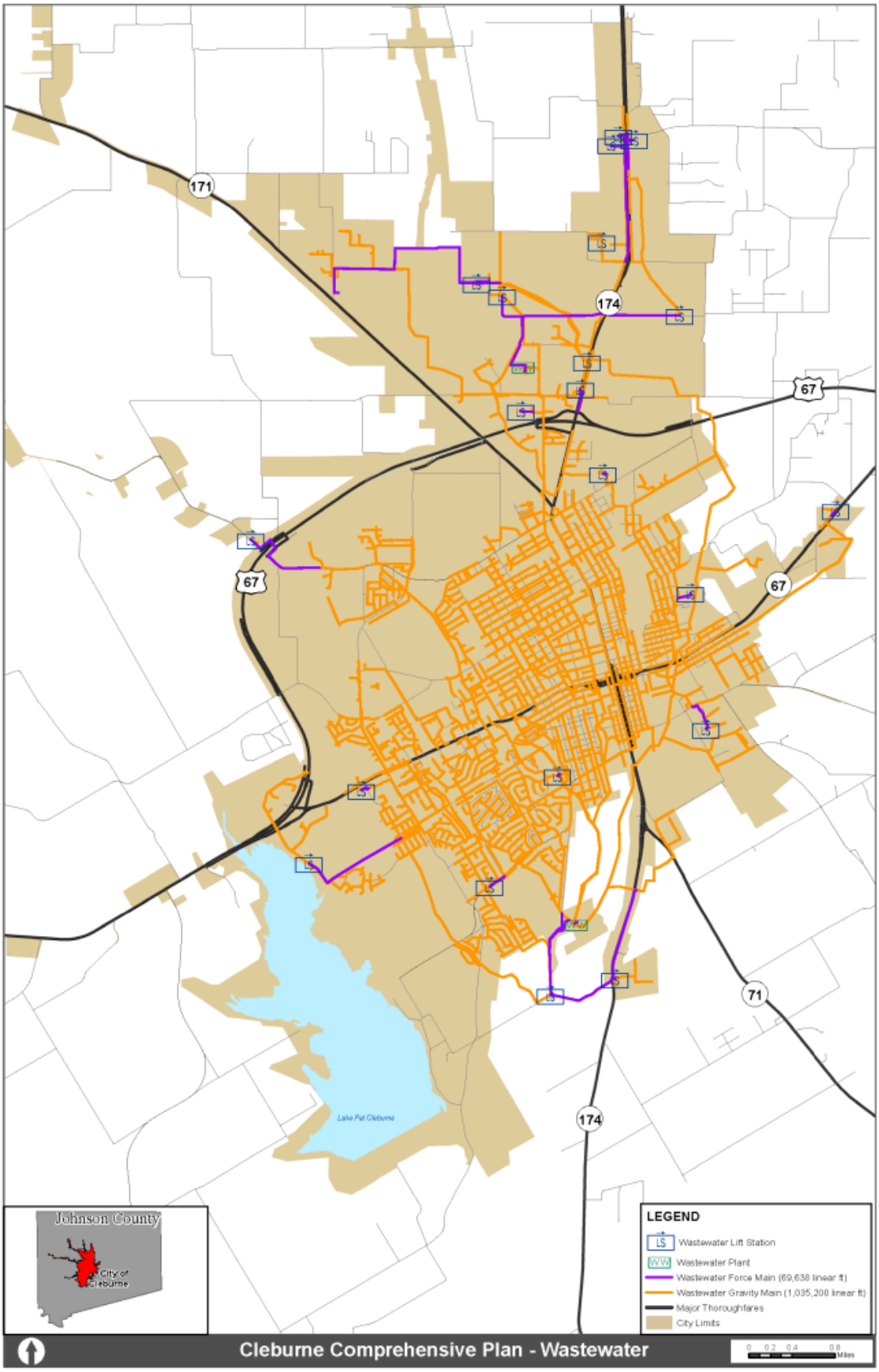


Figure 10. Existing Wastewater System.

INFRASTRUCTURE SYSTEMS

Stormwater

The City's stormwater drainage system includes about 14 miles of channels; approximately 13.5 miles of culverts; and roughly 35 miles of pipes in addition to the natural streams including Nolan River, Stone Lake Creek, McAnear Creek, West Buffalo Creek, East Buffalo Creek and its tributaries, and Lockett Branch. Prior assessments by others have identified projects to alleviate existing flooding in the City. Not all recommended projects have been implemented. There are several locations throughout the City that are currently overtopping at bridges and culverts, and some residences are in the floodplain. Additional development will further challenge the drainage system and will require storm drainage improvements.

The tabulation below lists some locations that will experience overtopping at the given return intervals.

Table 5. Stormwater Overtopping.

Reach	Description	Overtopping Return Interval
Lower East Buffalo	2nd St Bridge	100 yr
Lower East Buffalo	Hwy 67 Bridge	100 yr
Lower East Buffalo	Olive St Bridge	100 yr
Lockett Branch	Hwy 67 Culvert	100 yr
Lockett Branch	Malone St Culvert	100 yr
Lockett Branch	CR-137 Culvert	100 yr
Lockett Branch	Hwy 67 Culvert	100 yr
Lockett Branch	Old Betsy Rd Culvert	2 yr
Tributary	S. Brazos Ave Culvert	100 yr

Source: City of Cleburne Comprehensive Storm Water Management Plan, August 2007

A set of strategies are going to be required as part of a future stormwater management program. The strategy menu could include retention/detention ponds, purchasing of flood prone property and low-impact development (LID) techniques—such as bio-swales, permeable pavement, tree boxes, infiltration planters and rain gardens—to control and mitigate the capital cost of new drainage infrastructure and the maintenance of the system. New development as well as redevelopment

could also strive to integrate the creeks as amenities and connectors between neighborhood and/or districts.

Figure 11 displays the existing stormwater system and delineation of the flood plains (1% annual chance flood hazard). Whereas the water and wastewater systems challenges growth to the northwest and to the southeast, the stormwater system does not. However, note the difference in flood plain width between Buffalo Creek and East Buffalo Creek upstream of their confluence. Buffalo Creek's flood plain width is narrower due to the detention/retention pond located upstream of the Highway 67 bypass between Highway 174 and Highway 171. East Buffalo Creek's flood plain could similarly be narrowed with construction of a detention/retention pond on East Buffalo Creek upstream of the Highway 67 Bypass. If such strategy is employed, it could facilitate development and redevelopment on the east side of the City along East Buffalo Creek.

INFRASTRUCTURE SYSTEMS

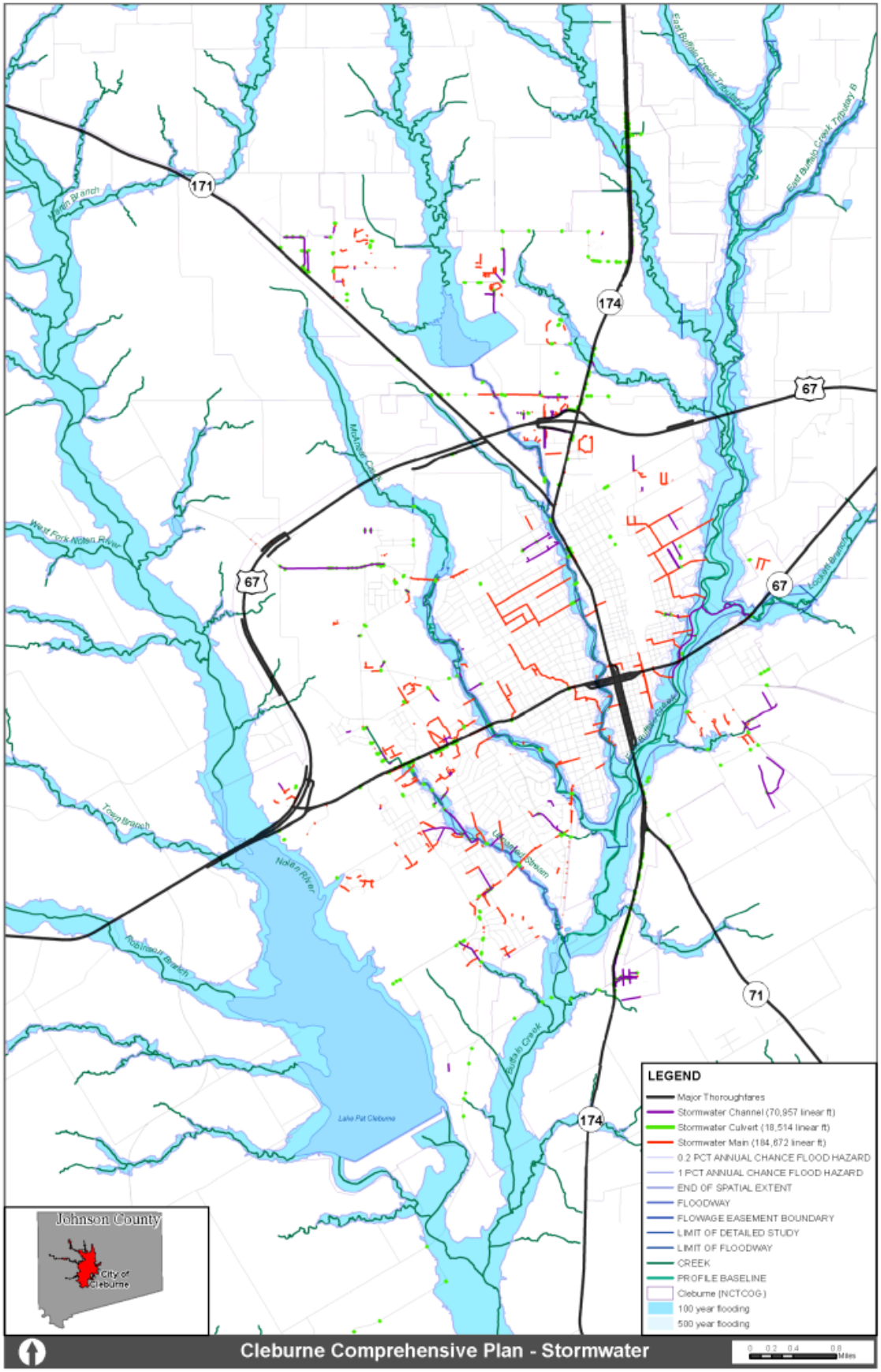


Figure 11. Existing Stormwater System.

INFRASTRUCTURE SYSTEMS

Solid Waste

The City has its own landfill, which is used for emergencies only. The majority of solid waste is processed at City's transfer station, where it is picked up and disposed of by Waste Management. Residential garbage is picked up weekly in automated 64- or 96-gallon carts. Bulk pickup occurs monthly and can be scheduled for any time for an additional fee. One dump per month is allowed at the transfer station, limited to 800 pounds, and additional weight is charged by the ton. Unlimited grass and leaves are accepted at the transfer station. Sorted recyclables are accepted at no charge at the transfer station and three locations throughout the city..

Commercial waste is collected in 96-gallon carts for Minor Commercial businesses (those producing less than one 96-gallon cart of waste) and Intermediate Commercial businesses (those producing more than one but less than two 96-gallon carts of waste). Commercial waste other than from Minor Commercial businesses or Intermediate Commercial businesses is collected in containers varying in sizes of 2 cubic yards to 8 cubic yards and a variety of roll off containers.

Solid waste is processed at the transfer station. Waste is stored for 24 hours on the average and 48 hours at a maximum. The storage capacity at the transfer station is 300 tons. The City currently produces an average of 50,000 tons per year, or 274 tons per 48 hour storage period. The table below shows a comparison of the year 2012 and projections for year 2030 assuming a linear increase in waste based on corridor population growth. The table shows stored tons for 24 hour and 48 hour periods. The comparison indicates the transfer station storage capacity may need to be expanded in the future in order to process increased volume.

Table 6. Stored Waste Tons, 24 and 48 hours.

Year	Pop	Avg Tons/Yr.	Avg Tons/24hrs	Avg Tons/48hrs
2012	29602	50,000	137	274
2030	68948	116,000	318	636

Strategies to decrease volume of solid waste going to the landfill may include curbside recycling and smaller trash carts to promote willingness to recycle. Picking up recycling more often than trash could also increase recycling rates and reduce

amount of trash needing to be collected. Furthermore, future waste management approaches and strategies could also include a combination of waste diversion practices in addition to recycling, such as source reduction, reuse and/or composting. A comprehensive waste management approach can help the City to reduce disposal costs, reduce the burden on landfills and realize long-term environmental, financial and social benefits.

Energy – Barnett Shale

There are approximately 277 gas wells permitted within the City of Cleburne of which approximately 248 have been drilled. A total of about 97 gas well pad sites are inventoried in the City' GIS data base. A single pad site can host multiple wells. Drilling and production activity has slowed down perhaps because natural gas price is trending low. Additionally, exploration and production resources have been reallocated to other parts of the state by most energy companies involved in the Barnett Shale Play. Namely, the Eagle Ford Shale Play, because it also yields crude and wet gas which are priced higher than Barnett Shale dry gas. It is likely that drilling, fracking and production will resume in the Barnett Shale Play in the future once natural gas price trends upward.

Conclusion

Population projections by this current planning effort indicate current physical systems capacity, in particular water and wastewater, will be outpaced sooner than previous planning efforts anticipated. State Highway 121 will attract new development and will influence new growth patterns which will require new infrastructure,

more so to the northwest part of the City and its ETJ. Additional water supplies will be required to accommodate new growth. Perhaps a regional approach to securing additional water supply should be taken. Additionally, strategic stormwater management will be key to facilitating new growth as most new growth will likely occur on the upstream part of the City and its ETJ. The stormwater management strategy should be focused on mitigating the impact to the areas downstream of new development as well as improving and controlling the water quality of surface water.

The City's recycling program should be enhanced to encourage and increase recycling volume. Minimization of waste generation should also be targeted by establishing waste generation goals. The City should remain guarded as shale exploration may increase upon return of favorable natural gas pricing for energy companies.

An overall resilient and adaptive approach should be taken as existing physical systems are enhanced and new physical systems are constructed in order to meet unpredictable circumstances. These circumstances may include climate change that may generate extreme swings in rainfall, frequency and intensity of tornadoes, and severity of droughts or flooding, among other things.

Transportation Systems

TRANSPORTATION SYSTEMS

Overview

Transportation is an essential element of the City of Cleburne. Not only does it help determine how long it takes to get to and from our daily activities such as work, school and errands, and how we'll get there, but it also plays a large role in shaping the layout and character of the community.

This section describes transportation conditions in the City of Cleburne, including its street network, off-road facilities, freight movement and transit. The information compiled here is based on readily available data from the City, North Central Texas Council of Government (NCTCOG) and other sources as well as from on-site observations.

Context

An assessment of transportation conditions in Cleburne requires an understanding of context, in terms of factors that will shape the City in the decades to come. Key contextual factors to be considered include:

Transportation and Land Use Connection

Transportation and land use are significantly interrelated, such that transportation decisions play a large role in determining land use and vice versa. For example, the location of a new expressway interchange will profoundly influence the development potential of surrounding properties. How near or far apart we build homes relative

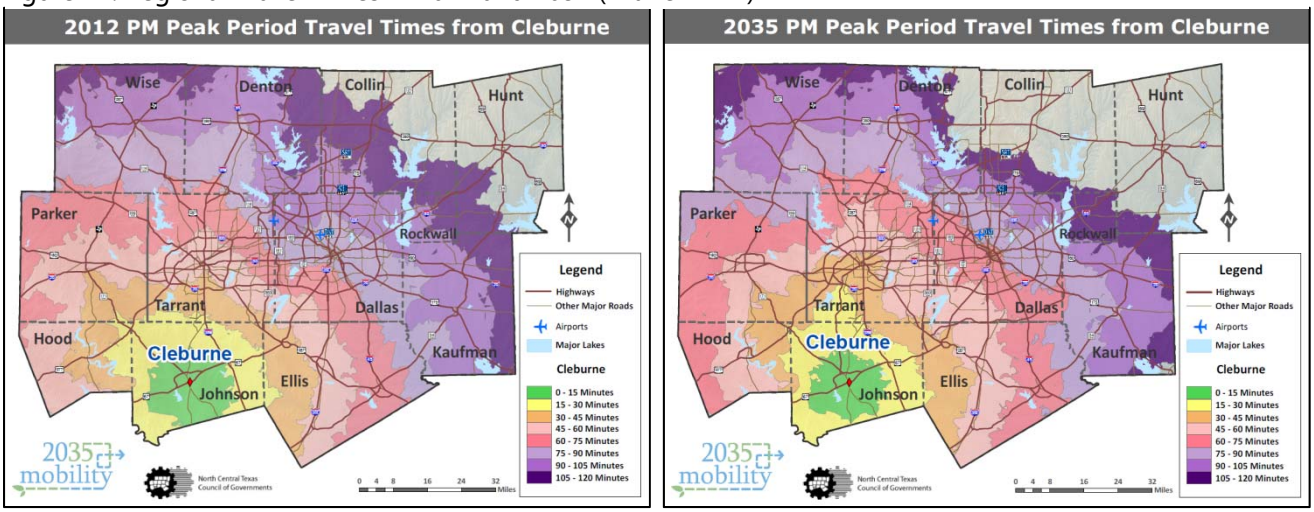
to schools, jobs and shopping will help determine how far we travel and the mode we take to get there.

The Comprehensive Plan must take into account the influence of transportation decisions on development and character of Cleburne. Likewise, the land use decisions must be made with a good understanding of their implications for transportation.

SH 121 Extension

Clearly, the extension of SH 121 south into Cleburne, slated for completion in 2014, will have an immediate and significant impact on Cleburne. It will be the most influential transportation project on the City since the completion of I-35W. SH 121 gives Cleburne direct, high-speed vehicular access to the rest of the region, which should directly influence its growth prospects.

Figure 12. Regional Travel Times in 2012 and 2034 (with SH 121)



TRANSPORTATION SYSTEMS

Growth

Recent population projections, in which Cleburne could grow to almost 100,000 residents by 2040, reflect the tremendous growth potential for the City. With growth comes related impacts on infrastructure and services.

In terms of transportation demand, Cleburne's population growth could generate upwards of 250,000 new trips for daily tasks such as work, school and errands. These are trips that must be accommodated on the City's streets, but could also occur through walking, bicycling and riding transit. Plans for Cleburne's future transportation system must take this new transportation demand into account.

The challenge for the Comprehensive Plan lies in developing a transportation system that accommodate these trips while maintaining a high quality of life for residents.

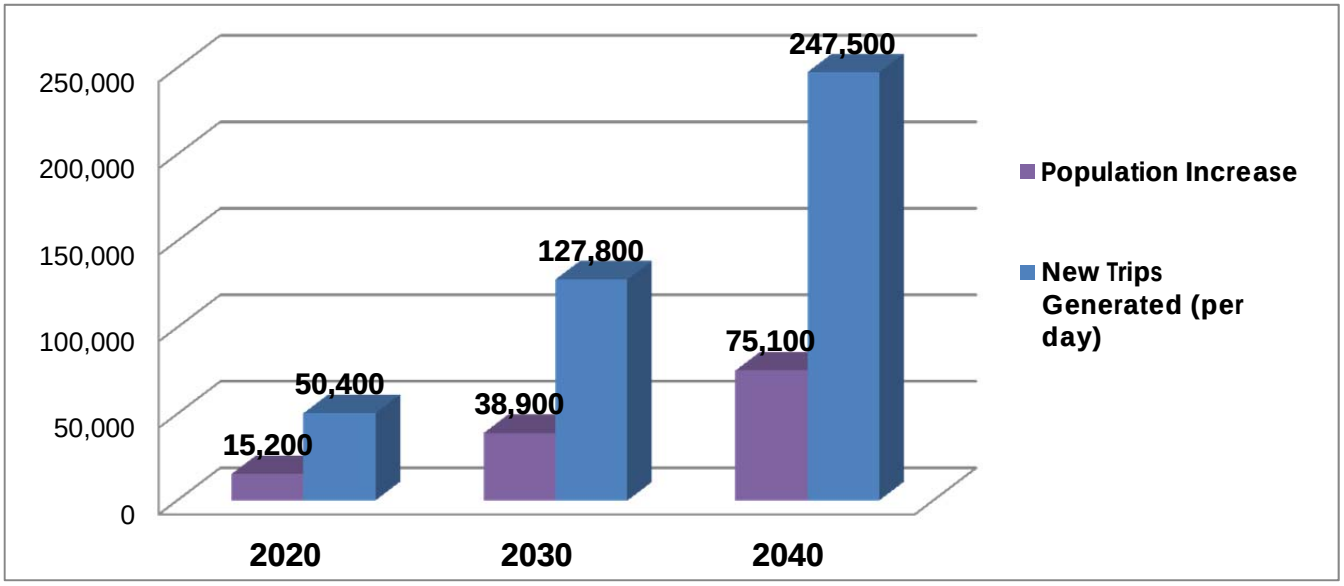


Figure 13. Population and Trip Generation Growth in Cleburne.

TRANSPORTATION SYSTEMS

Streets as Mobility Elements

Streets play an essential role in the mobility of Cleburne residents, businesses and visitors. Ranging from major arterials to neighborhood roads, streets vary in look and feel and serve a number of different mobility functions.

Moving Vehicles

As the traditional government, commercial and civic center of Johnson County, Cleburne's street network is framed upon a classic farm-to-market road system. SH 174 connects Cleburne north to Burleson and I-35W and south to Meridian. SH 171 connects to Hillsboro and I-35W to the south and Weatherford to the north.

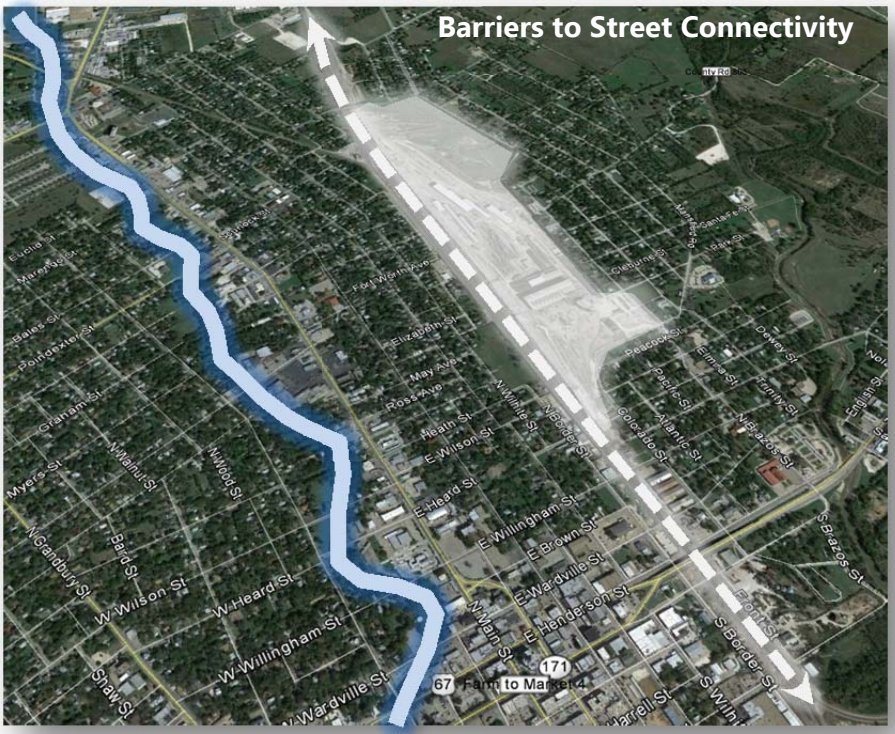
US 67 is the major east-west connection, connecting to I-35W and Midlothian. US 67 was realigned as a northern limited-access bypass around downtown Cleburne in 1998 and recently widened to four lanes between Henderson Street and SH 174/Main Street on the west side of the City. SH 121 will terminate at US 67 when completed.

Within Cleburne's central "core" – including downtown and surrounding neighborhoods – Henderson Street and Main Street/SH 174 form the east-west and north-south backbones, respectively. In downtown, Henderson Street combines with Chambers Street to form a one-way pair, while Main Street combines with Caddo Street to do the same.

A well-connected grid network of local and collector streets spans the entire downtown and surrounding core areas. Network grid street systems distribute traffic evenly, enable more direct trip-making and reduce the need for all vehicles to filter on to a few heavily traveled roadways.

Just east of downtown, a BNSF rail line runs parallel to Main Street. The rail line and associated large industrial uses just east of the tracks limit the amount of streets that can cross to just a few. An intermittent stream creates the same condition immediately west of Main Street. The net effect of these two features is that they effectively serve as a network barrier, limiting east-west traffic passing through Main Street to Henderson Street (via an overpass) and a handful of other streets.

Beyond the central core, more recent neighborhoods follow a more conventional network of curvilinear streets that lack network connectivity. Commercial development predominantly spans along arterial streets, including SH 174 to the north and Henderson Street to the west, in strip fashion. A limited network of two-lane streets connect provide access to a range of industrial uses in the north part of the city, primarily between SH 174 and SH 171. A sparse network of rural roads provides access to farms and homesteads/large lot subdivisions primarily in the Extraterritorial Jurisdiction(ETJ).



TRANSPORTATION SYSTEMS

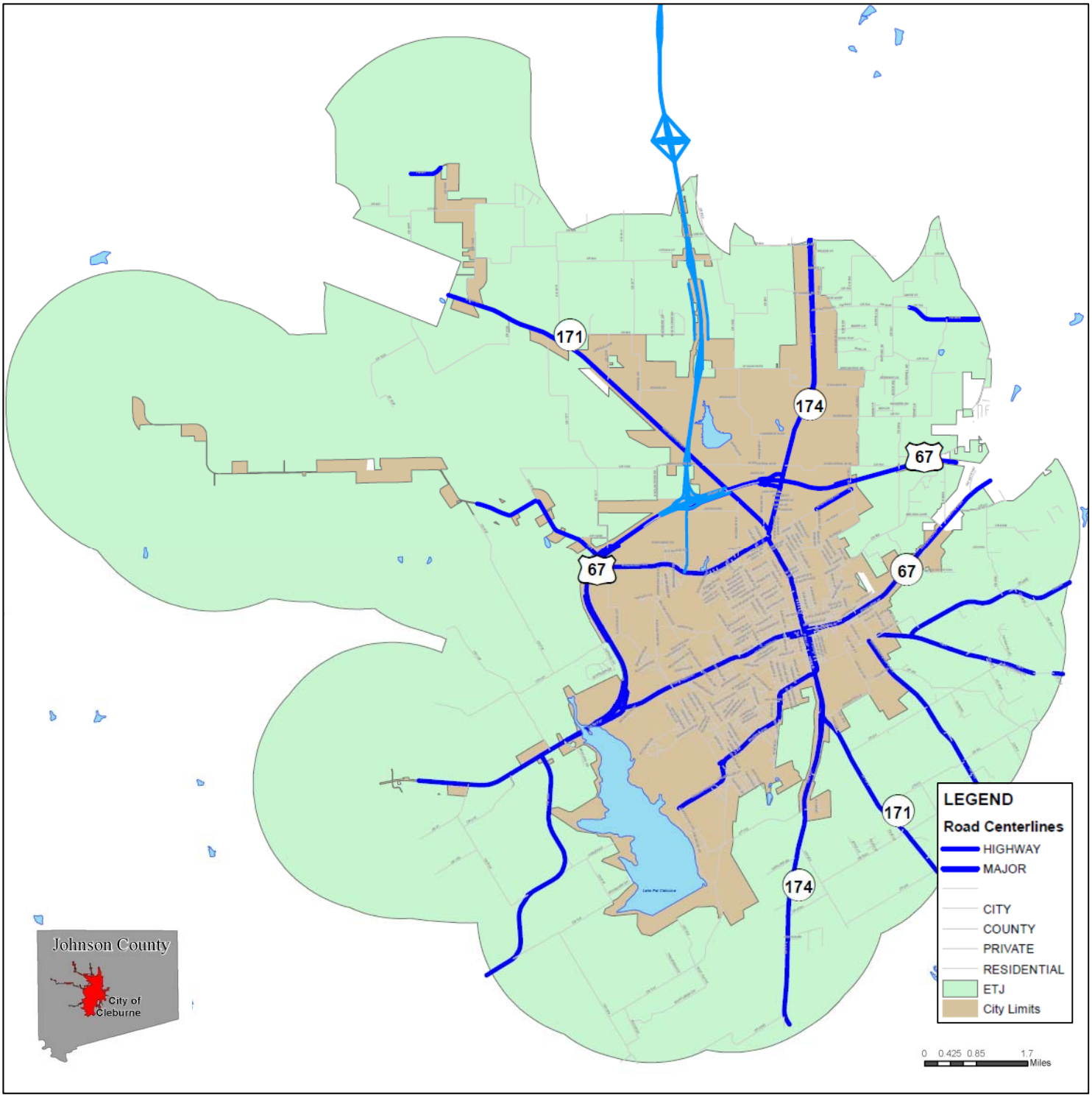


Figure 14. Existing Street Network.

TRANSPORTATION SYSTEMS

Traffic volumes reported in the 2008 Master Thoroughfare Plan indicate that most streets carried a relatively low volume of traffic in 2007: less than 14,000 vehicles per day. Some sections of Cleburne's major streets, including Henderson Street, Main Street and US 67, carried between 14,000 and 28,000 vehicles per day, while sections of Main Street north of downtown carried between 28,000 and 42,000 vehicles per day.

A level of service analysis (LOS), which takes into account traffic volumes and roadway capacity, indicates that Cleburne has capacity issues on several key road segments, including Main Street/SH 174 and SH 171 north of downtown. Other road segments, including Main Street and Henderson Street in downtown, US 67 east of SH 174 and SH 174 south of downtown experience borderline capacity issues. When a roadway's traffic volume exceeds its designed capacity, congestion and safety issues are more likely to occur.

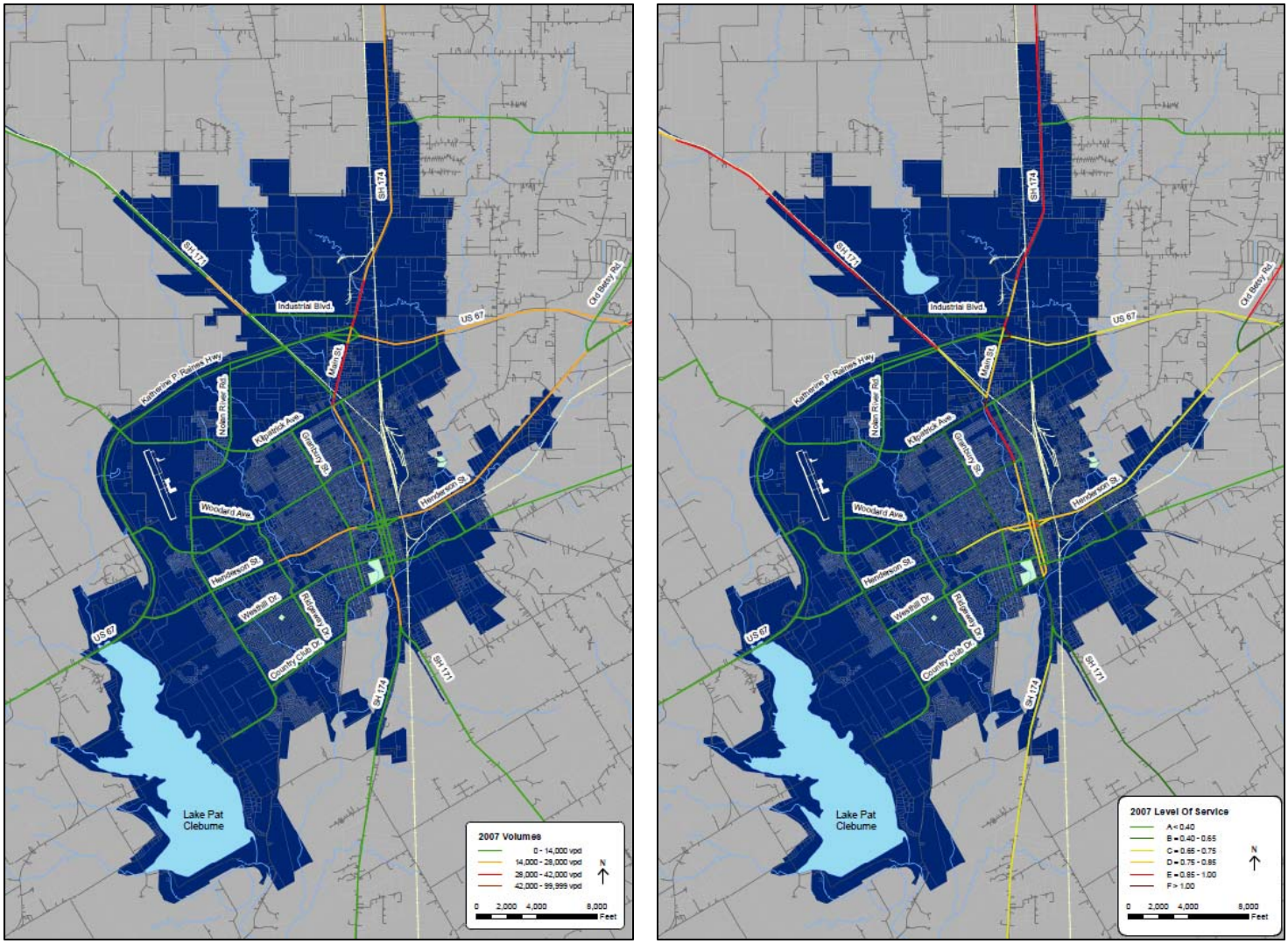


Figure 15. 2007 Traffic Volumes and Level of Service.

Source: Cleburne 2008 Master Thoroughfare Plan Update

TRANSPORTATION SYSTEMS

Traffic projections and an LOS analysis prepared for the Master Thoroughfare Plan indicate that the presence of SH 121 could have two major impacts on the Cleburne:

1. Traffic volumes on major north-south corridors north of US 67 – SH 174 and SH 171 – will experience a decline in traffic and capacity issues because of trips diverted from those facilities to SH 121.

2. Traffic and LOS impacts on SH 174/Main Street, south of US 67 (where SH 121 terminates), are significant.

It is important to note that traffic forecasts prepared for the Master Thoroughfare Plan are based on growth assumptions with less population growth than what is assumed in this Comprehensive Plan. Thus, the traffic impacts are likely understated.

Regardless of assumptions used in the traffic forecasts, there are several areas where traffic conditions will very likely need to be addressed in the future:

- **Main Street, from just south of downtown to US 67**: North of the City, there are a number of facilities that move traffic to and from Cleburne, including SH 174, SH 171 and (soon to be) SH 121. Traffic heading into the heart of Cleburne further south on SH 174 or SH 171 must all converge on Main Street, creating a significant bottleneck that inhibits vehicular movement and conflicts with the character of downtown.

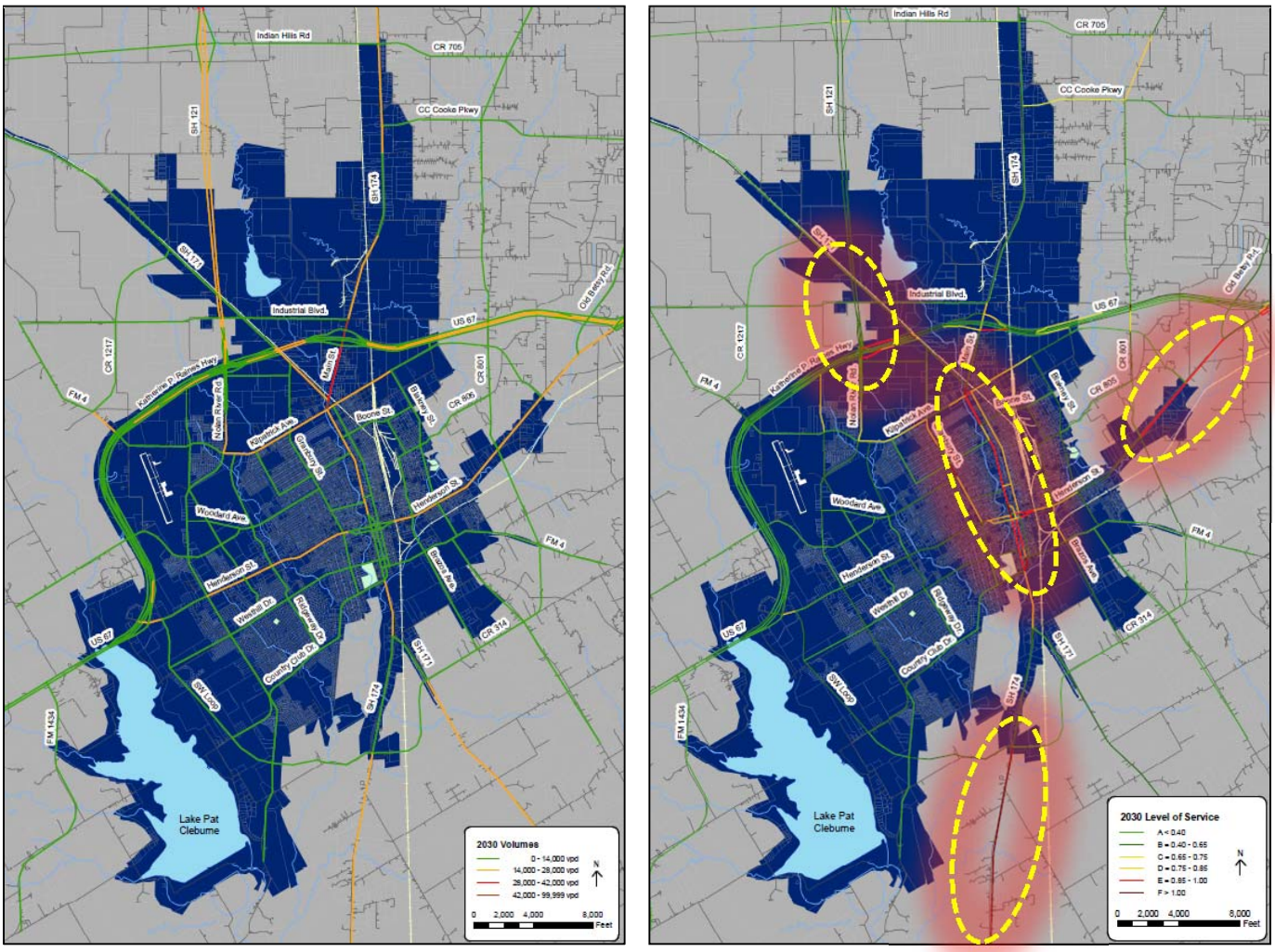


Figure 16. Year 2030 Traffic Volumes and Level of Service.

Source: Cleburne 2008 Master Thoroughfare Plan Update

- **SH 121 at Industrial/SH 171 and at US 67**: The completion of SH 121 is anticipated to spur a significant amount of economic activity in the areas surrounding SH 171/Industrial Boulevard and US 67. The Comprehensive Plan must lay the groundwork for sufficient access to SH 121 from these areas. This is a particular need for the property just south of US 67 and east of Nolan River Road, which currently lacks good access to SH 121 or other major facilities nearby (including US 67 and Main Street/SH 174/171).
- **SH 174 south of the City**: South of downtown Cleburne, SH 174 and SH 171 diverge again. While this results in more collective capacity than in downtown Cleburne, absolute traffic growth will results in capacity issues on SH 174.
- **Henderson Street east of downtown to US 67**: Similar to SH 174, Henderson Street is anticipated to experience capacity issues associated with increased tripmaking between Cleburne and I-35W.

TRANSPORTATION SYSTEMS

Moving Freight

Freight movement, specifically the transport of goods and other materials via truck, is a significant part of the economy in Cleburne and surrounding places. As a result, truck volumes are relatively high throughout the City, in some locations comprising more than one out of every four or five vehicles on the road.

The prevalence of truck traffic has two implications for Cleburne. First, the efficient movement of trucks is paramount to the local and regional economy. As traffic volumes and the potential for congestion increase in and around the City, the viability of efficient truck movement becomes threatened. Further, certain locations in Cleburne (downtown in particular) are not well-suited for truck traffic. These locations contain design elements – more narrow lanes, tight curb radii, closely spaced signals – that do not lend themselves to large vehicles.

Second, while the movement of truck traffic is good for economic activity in general, it is in direct conflict with the desire to create walkable, people-oriented places. These types of places require the design elements described above and are negatively impacted by high truck volumes.

Table 7. Existing (2012) Truck Volumes.

Road	Location	Traffic Count	Truck Percentage	Truck Volume
SH 174/Main Street	South of SH 171	9,300	11.5%	1,070
SH 174/Main Street	Between SH 171 and Second St.	16,100	11.8%	1,900
SH 174/Main Street	North of Henderson St.	18,100	11.6%	2,100
SH 174/Main Street	Between SH 171 and US 67	24,000	9.4%	2,260
SH 174/Main Street	North of US 67	25,000	9.3%	2,330
Henderson Street	Between US 67 and Ridgeway Drive	11,100	11.0%	1,220
Henderson Street	West of Chambers St.	16,500	21.1%	3,480
Henderson Street	East of Chambers St.	17,600	20.4%	3,590
Henderson Street	Between CR 2280 and US 67	9,600	29.1%	2,790
US 67	Between CR 1116 and Henderson Street	13,100	10.5%	1,380
US 67	Between SH 4 and SH 171	9,300	11.5%	1,070
US 67	Between SH 171 and SH 174	13,900	23.2%	3,220
US 67	Between SH 174 and Henderson Street	13,800	23.3%	3,220
US 67	Between Henderson St. and College Drive	21,000	18.7%	3,930
SH 171	South of SH 174	5,700	14.8%	840
SH 171	Between SH 174 and US 67	4,300	6.3%	270
SH 171	North of US 67	6,000	14.6%	880

Source: Texas Department of Transportation (http://www.dot.state.tx.us/apps/statewide_mapping/StatewidePlanningMap.html)

TRANSPORTATION SYSTEMS

Moving Pedestrians

Streets move pedestrians primarily through the presence of sidewalks and elements for street crossing (intersections/crosswalks, indications, etc.). Within downtown Cleburne, sidewalk access is relatively good. The downtown commercial district is supported by a network of sidewalks in the immediate vicinity of the square. Sidewalks and pedestrian walkways connect the Cleburne Intermodal Transportation Depot, downtown commercial district, East Henderson Street extending from the square, downtown area parking lots and the immediate surrounding residential neighborhood.

Sidewalks are present in some of the newer residential neighborhoods built in the last decade or so, but generally the sidewalk network is sparse beyond the downtown commercial district.

Cleburne's subdivision regulations (Section 154.084) require four foot wide sidewalks on "school access" streets and on streets in "commercial districts," but beyond that they are at the discretion of the Planning and Zoning Commission and developers. The Texas Department of Transportation (TxDOT) issued policy guidance ("Guidelines Emphasizing Bicycle and Pedestrian Accommodations") that requires the inclusion of sidewalks and a raised median (for mid-block crossing) on new road construction and reconstruction projects, where feasible.

Moving Cyclists

Streets move cyclists through dedicated bicycle lanes, wide outside shoulders and in general lanes mixed with motor vehicle traffic. There are no dedicated bicycle lanes in the City, although there are a handful of street sections in Cleburne that include wide outside shoulders. Additionally, there are a few street sections designated as bicycle routes, where traffic volumes and speeds allow operation in mixed traffic. Many of the major thoroughfares and parallel streets do not have facilities for cyclists and do not have the traffic or design characteristics that support mixed-traffic operation (this is particularly true for roads with heavy truck traffic).

The City has no official policy or design standards that support the accommodation of cyclists on streets. TxDOT policy guidance requires the inclusion of bicycle facilities (either a dedicated, marked lane or wide outside curb lane) on new road construction and reconstruction, where feasible.

TRANSPORTATION SYSTEMS

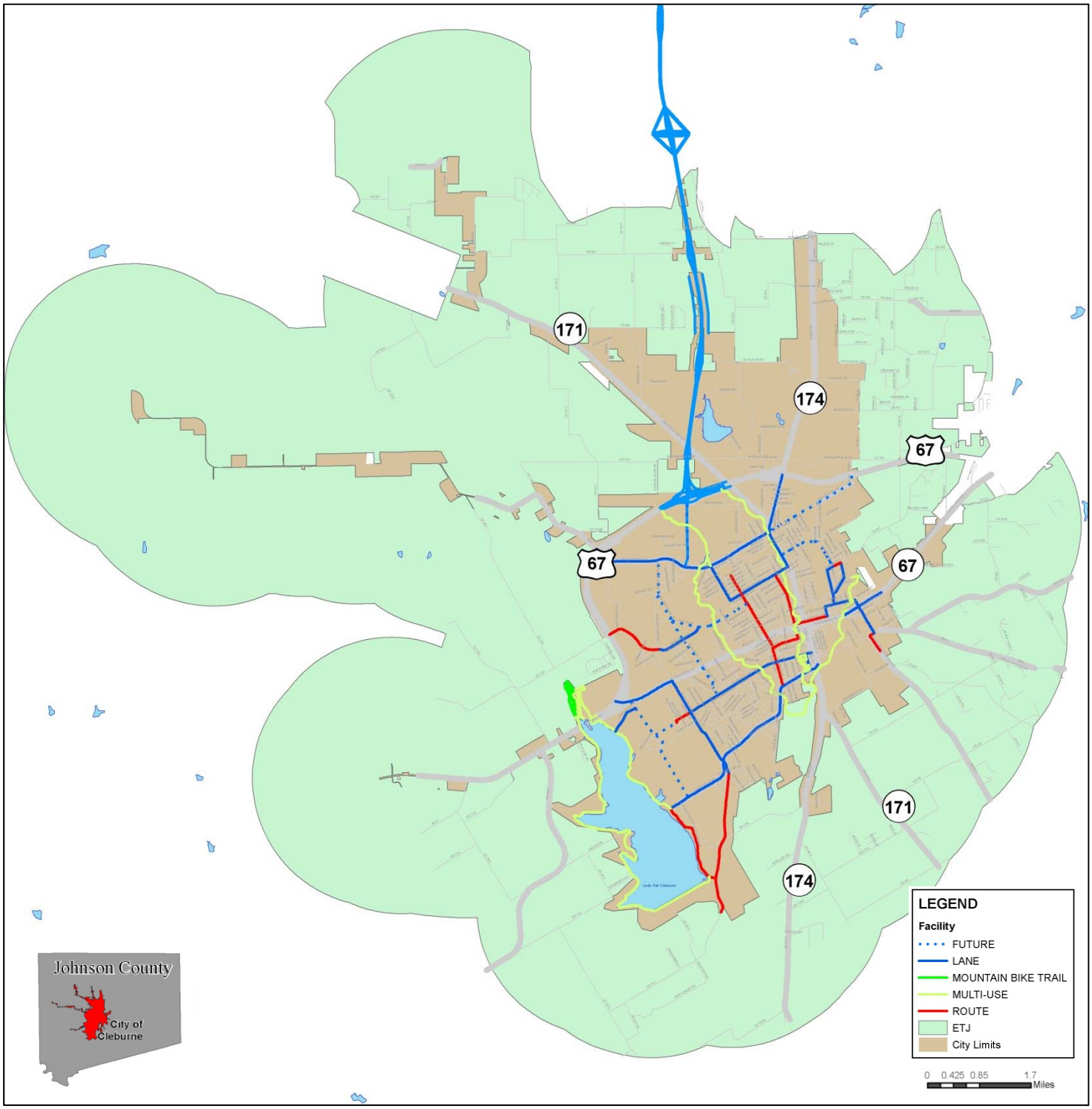


Figure 17. Bicycle and Trail Facilities.

TRANSPORTATION SYSTEMS

Off-Road Facilities

Off-road facilities include user-specific facilities (such as bike trails) and multi-use trails, which accommodate a range of users. Currently, all of the City's off-road facilities are located within its park system, including an unpaved bike trail at Buddy Stewart Park and various paved and unpaved walking trails among Cleburne's 15 local parks. A series of multi-use trails that run parallel to water features, including streams and Lake Pat Cleburne have been proposed.

Transit

Transit in Cleburne is provided through City/County Transportation (CleTran), which includes a county-wide demand response (door-to-door) service and commuter bus service into Fort Worth. Anyone is eligible for this service. CleTran demand response operates within the City of Cleburne Monday through Friday from 7 AM to 8 PM and Saturday from 9 AM to 5 PM and countywide Monday through Friday from 6 AM to 6 PM. Service may be scheduled up to seven days in advance; same-day scheduling is provided on a space-available basis. Fares are $3 each way within the City and $3 for each mile countywide. Monthly passes are available for $55.

The Interurban bus route begins in Cleburne at the Intermodal Transportation Depot and stops in Joshua, Burleson, the Veterans' Clinic in Fort Worth and ends at the Intermodal Station in downtown Fort Worth where transfer to bus service (via the T) and rail (via Trinity Railway express) is possible. Three trips per day are provided, departing Cleburne at 5:50 AM, 11:50 AM and 4:30 PM and returning at 9 AM, 1:20 PM and 7 PM. Fares are $3 for each stop ($9 maximum each way) or $50 for a monthly pass.

The Cleburne Regional Airport provides full-service Jet A – 24-hour self-serve 100LL and Jet A. There are no landing fees for use of the 5,700-foot by 100-foot runway. The airport is serviced by Enterprise Rental Car and access to limousine service is available.

The Texas Eagle, operated by Amtrak, currently has a station at the Cleburne Intermodal Transportation Depot.

The train departs twice daily: at 1 PM (en route to St. Louis and Chicago), 2:52 PM (San Antonio and Los Angeles).

Fort Worth Transportation Authority ("the T") has a regional vanpool program, in which participants pay a monthly fee for access to passenger van. Currently Cleburne does not participate in "the T" service area but supporting parking structures near the intersection of Nolan River Road and Kilpatrick Avenue provide the infrastructure to accommodate participation in the regional vanpool to access additional transit from downtown to Fort Worth as another regional transportation option.

Mobility 2035, the regional Long Range Transportation Plan developed by the North Central Texas Council of Government's (NCTCOG's), includes plans for a commuter rail line that will run on the BNSF line into the middle of Cleburne. Two stations are planned for the City: Cleburne Intermodal Transportation Depot and a North Cleburne Station near the SH 174 overpass. The rail line would also serve Joshua, Burleson and Crowley before terminating at the Fort Worth Intermodal Center, allowing transfer to the T and TRE. The project is identified as a funded improvement, but a specific implementation date has not been set.

Much like the SH 121 extension, a commuter rail line into Cleburne has the potential to significantly improve the City's regional accessibility. Initial estimates of demand prepared by NCTCOG indicate that commuter rail service to Cleburne will be feasible over the next two to three decades, although a more formal study will need to take place before funding is committed.

TRANSPORTATION SYSTEMS

Summary: Assets, Issues and Challenges

Transportation is an important element of the City of Cleburne's future. As such, the Comprehensive Plan should give due consideration to the City's transportation systems and characteristics as they evolve over time. To that end, this assessment yields several observations regarding transportation assets, issues and challenges:

- SH 121 will fundamentally change Cleburne's accessibility to the rest of the region and will be one of the City's most important assets.
- Significant growth means Cleburne could see an increase in as many as 150,000 trips per day by 2030. How to serve those trips represents a significant challenge for the City.
- Personal mobility is heavily dependent on the use and access to personal vehicles. Cleburne must decide to continue this pattern or provide a more robust set of transportation options for its citizens.
- Anticipated growth in traffic volumes creates several potential capacity issues at key points in the City that must be addressed.
- Cleburne must find a way to balance efficient movement of truck traffic with the character of its places.
- There is a major conflict between mobility and character within downtown Cleburne that will only become exacerbated over time. The City must find a way to accommodate traffic growth while maintaining the character of downtown and other places that it treasures.
- The extension of regional commuter rail into Cleburne represents a significant mobility and development opportunity. The City must decide if and how it wants to capitalize. This is especially true for downtown Cleburne, where transit has the opportunity to create foot traffic.

Economic Conditions

THE ECONOMIC SETTING OF CLEBURNE

The following text presents a detailed view of key economic indicators (and an explanation of those indicators) that collectively reveal the economic condition of Cleburne. There are four indicators presented:

- **Employment by NAICS Code within the 13 census tracts that comprise the Cleburne area**: Employment by NAICS Code is a key economic indicator in that such an analysis will reveal what industrial clusters dominate the Cleburne economy. Most often this information is gathered at the county level. However, preliminary investigation of county data indicated that the dominant industry was mining (NAICS 12). The dominance of mining was determined to be driven by the large number of oil/ gas wells in Johnson County . It was further determined that the large number of wells (now in the final stages of well production) was masking other important economic performance (or lack thereof) at the city level. As a result, employment data was gathered at the census tract level.

- **Household Income and Disposable Income within the 13 census tracts that comprise the Cleburne area**: Household income is a key feature of any community as it is essential to supporting investment in retail and/ or entertainment development. The relevant geographic distribution of household income is physically determined more than it is jurisdictionally determined. Most retailers look to household income within a 5 or 10 minute drive-time area. Therefore, household income was gathered for a 5 mile radius of downtown which closely matches the 10 min drive time window.

- **Retail Supply and demand within a 5 mile radius of the downtown area**: Retail supply and demand is an important indicator of the extent to which Cleburne is leaking or importing retail spending within its city area. The key area of interest here is the City of Cleburne because revenue of such activity translates into city collected sales tax and location of further retail investment within the city limits. Retail demand estimates the expected amount spent by consumers at retail establishments. Consumers are people living inside the normal service area of retail establishments. Therefore, if 100 people live within the normal service area of a retail establishment, it is expected that the retail demand is equal to the amount of money such population would spend on retail goods. Retail supply is a measure of how much is sold to consumers at a retail establishment. One is how much is expected to be spent (demand) and the other (supply) is how much is actually spent. Comparison of these two measures will reveal how much retail leakage or how much imported spending is actually taking place within the Cleburne economy.

- **Dominant Tapestry within the 13 census tracts that comprise the Cleburne area**: Tapestry is a view of market segments. There are 65 segments overall. The creation of segments is based on the theory that people with similar tastes, lifestyles, and behaviors, seek others with the same tastes, etc. According to ESRI: "The segmentation system combines the who of lifestyle demography with the where of local neighborhood geography". Because the tapestry information only has meaning when geographically applied, the view of demography tapestry considers these lifestyle traits by census tract, looking at the 13 census tracts that comprise the Cleburne area.

The map below illustrates the 13 census tracts that comprise the greater Cleburne area (called Area A on the data tables that follow). Note that the only census tracts considered are those which encroach into the 5 mile radius zone around Cleburne (indicated by the red circle). Blue Dots on the map indicate the 9 census tract focus area which mostly resides within the 5 mile radius zone and reflects the developed Cleburne as it exists today (called Area B on the tables that follow)

CENSUS TRACTS OF THE GREATER CLEBURNE AREA

= 5-mile ring

= Area "B"

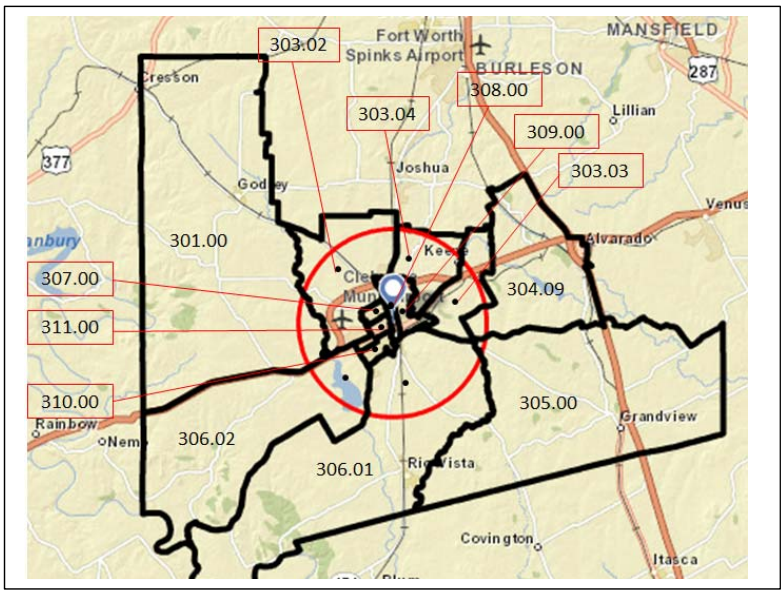


Figure 18. Cleburne Census Tracts.

THE ECONOMIC SETTING OF CLEBURNE

Employment by NAICS Code

The following tables present employment within the Cleburne area by census tract. For the purposes of a more precise analysis, two census tract clusters were selected as described above. The first is a larger area that covers most of southwest Johnson County and captures the mainly rural census tracts that encroach upon the Cleburne 5 mile radius zone and includes 13 census tracts (called Area A in the tables below and illustrated on the map above). The second area (Area B) is a smaller area that fits within the confines of the 5 mile radius zone and is more reflective of the developed portions of the city (indicated by the blue dots on the map above). There are 9 census tracts in this cluster. Below the tables, information presented in the tables is summarized in two pie charts (one chart for Area A and one for Area B).

SEE TABLES ON NEXT PAGE

TABLE 8: TOTAL EMPLOYMENT BY CENSUSTRACT AND NAICS SUPER CODE

NAICS CODE	CENSUS TRACT												
	304.09	303.02	303.03	303.04	301.00	306.01	306.02	305.00	309.00	308.00	307.00	310.00	311.00
11 Ag/ Forestry/ Fishing	30	11	4	2	47	14	46	87	2	15	0	0	14
12 Mining	54	44	2	5	365	2	238	4	0	16	0	15	4
22 Utilities	5	45	0	4	0	0	0	3	0	0	0	0	0
23 Construction	348	174	231	132	309	28	286	137	9	271	15	21	52
33 Manufacturing	179	920	123	30	53	123	79	135	81	76	22	14	54
42 Wholesale	180	136	10	46	95	3	101	36	31	201	1	17	22
45 Retail	170	658	43	183	51	27	90	112	49	704	16	569	27
48-49 Transportation/ Warehousing	43	38	135	46	25	37	72	77	4	67	9	86	5
51 Information	11	59	1	18	2	2	5	8	0	71	0	32	5
52 Finances/ Insurance	12	121	14	15	14	4	32	3	4	129	2	111	12
53 Real Estate	29	64	69	40	7	17	49	22	2	47	7	48	23
54 Professional/ Scientific/ Tech Services	86	118	22	75	90	37	70	93	7	241	10	80	43
55 Management of Companies and Enterprises	2	2	0	0	2	0	0	4	0	2	3	2	2
56 Administrative Support/ Waste management/ Remediation Services	175	106	49	75	105	50	187	153	16	87	37	84	105
61 Educational Services	0	331	199	93	255	145	271	104	0	9	70	6	270
62 Health care/ Social Assistance	19	1004	10	201	20	18	10	97	104	146	39	161	38
71 Arts/ Entertainment/ Recreation	8	11	1	13	4	0	9	3	7	16	2	3	1
72 Accommodation/ Food service	55	182	8	31	20	21	50	28	37	56	0	265	15
81 Other (excluding Public Administration	116	145	67	63	59	27	71	90	38	213	20	198	24
92 Public Administration	15	421	85	49	8	5	55	45	0	895	0	35	0

TABLE 9: EMPLOYMENT BY NAICS SUPER CODE FOR AREA "A" AND AREA "B"

NAICS CODE	CENSUS TRACT			
	Area A: 304.09,303.02,303.03,303.04,301.00,306.01, 306.02 305.00, 309.00,308.00,307.00,310.00,311.00		Area B: 303.02,303.03, 304.04, 306.01, 306.02, 309.00, 308.00, 307.00, 310.00,311.00	
11 Ag/ Forestry/ Fishing	272	1.4% of total	108	0.70% of total
12 Mining	749	3.8% of total	326	2.10% of total
22 Utilities	57	0.1% of total	49	0.31% of total
23 Construction	2013	10.2% of total	1219	7.90% of total
33 Manufacturing	1889	9.6% of total	1522	9.86% of total
42 Wholesale	879	4.5% of total	568	3.68% of total
45 Retail	2699	13.7% of total	2366	15.33% of total
48-49 Transportation/ Warehousing	644	3.3% of total	499	3.23% of total
51 Information	214	1.1 of total	193	1.25% of total
52 Finances/ Insurance	473	2.4% of total	444	2.87% of total
53 Real Estate	424	2.2% of total	366	2.37% of total
54 Professional/ Scientific/ Tech Services	972	5.0% of total	703	4.55% of total
55 Management of Companies and Enterprises	19	0.1% of total	11	0.07% of total
56 Administrative Support/ Waste management/ Remediation Services	1229	6.3% of total	796	5.15% of total
61 Educational Services	1753	8.9% of total	1399	9.06% of total
62 Health care/ Social Assistance	1867	9.5% of total	1731	11.21% of total
71 Arts/ Entertainment/ Recreation	78	0.4% of total	63	0.41% of total
72 Accommodation/ Food service	768	3.9% of total	665	4.03% of total
81 Other (excluding Public Administration	1131	5.8% of total	866	5.61% of total
92 Public Administration	1613	8.2% of total	1545	10.01% of total
Total	19,743.00	100% of total	15,434	100% of total

THE ECONOMIC SETTING OF CLEBURNE

Table "B" expresses the census tract employment as a percent of total employment so that any unusually large concentrations become easily noticeable. The largest sin- gle concentration (for both Areas "A" and "B") is retail at 13.7% in Area "A" and 15.3% in Area "B". However, 13 and 15 percent of total employment is not typically large and not large enough to constitute a base for further cluster formation. Other industrial sectors with higher concentrations of employment are health care, public administration, and manufacturing. With the exception of manufacturing and retail, the other dominant clusters are not "Goods Dependent" industries.

Goods Dependent Industries are businesses that rely on transportation to receive raw supplies and manufactured goods and to send their refined/ finished products to market. This group includes industries such as natural resources and mining, manufacturing, retail and whole sale trade, construction, and transportation/ warehousing. Service Industries are not as dependent on freight movement. This category includes industries such a government, education, health care, and other professional services. Goods Dependent industries are essential to the formation of externally traded clusters. Industrial clusters which conduct business with outside markets, export goods and import money. Without such transactions with markets beyond Cleburne, the City is forced to internally trade goods and services and thereby circulate money within the local economy. Industries which internally trade goods and services are called internally traded clusters.

While retail, the dominant industrial cluster of greater Cleburne, is a Goods Dependent industry, it does not export product from Cleburne and import capital. Instead, it tends to import products and export capital. This is particularly true of large box, traffic driven retailers along Bypass 67. There are certain benefits of employment and sales tax revenue but there is little opportunity for cluster formation that leads toward externally traded clusters.

The Pie Chart below displays the distribution of employment within the larger area "A" by NAICS Super Code. Note that the largest area of employment is Retail (2699 or13.7%) with other large areas of employment being:

- Health Care and Social Assistance (1867 or 9.5%)
- Manufacturing (1889 or 9.6%)
- Construction (2013 or 10%)
- Public Administration (1496 or 8.2%).

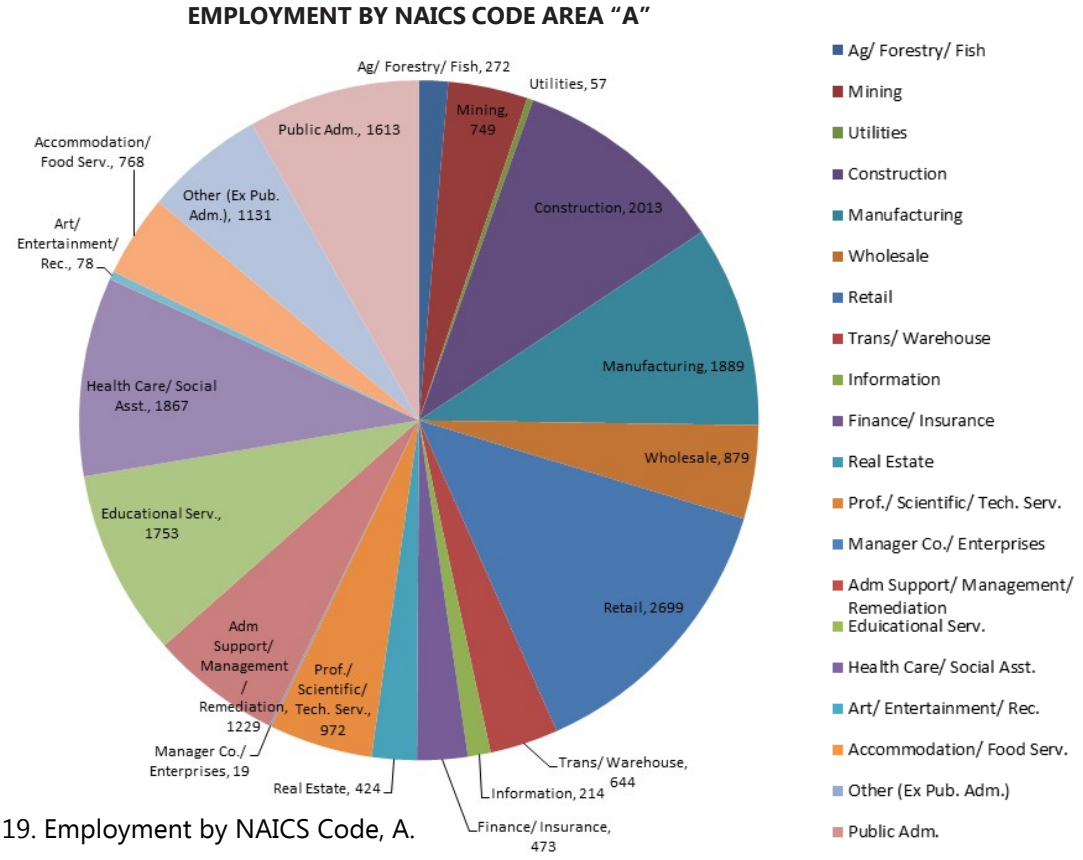


Figure 19. Employment by NAICS Code, A.

THE ECONOMIC SETTING OF CLEBURNE

While there are several large sectors (by comparison with other sectors), there are no really dominant sectors. Typically a dominant sector would be one that held about 19% to 24% of the total employment. Further, of the sectors that do contain the larger share of employment, only one of those is an externally traded sector (Manufacturing). This means that the City of Cleburne has little economic activity that imports capital to the City. Instead, the City of Cleburne's economy exports much of its capital or simply circulates capital within the local economy. Un- less this condition changes, it will be hard for Cleburne to economically establish/ retain its city identity amid future high velocity population growth.

Looking more closely at Cleburne (as depicted in the pie chart entitled Area B), there is little difference from the picture portrayed by Area A. However, Retail's share of the total employment is approaching significance at 15.3%. Later analysis will show that the concentration of employment in retail is largely driven by forces (patronage) out- side Cleburne and not by the population of Cleburne itself. Therefore, there is an effect of importing retail spending to support local employment and increase sales tax but there is little substantial benefit to the local economy because the spin off effects of retail industry and employment is slight. Unlike manufacturing where vertical and horizontal expansion of the basic cluster is possible, retail does not afford such opportunities. Therefore, it is difficult to build an economic development strategy leading to higher wage employment on retail alone. The wide diversity of industrial clusters with less than significant levels of employment concentration reflects Cleburne's history as a service and retail center to an agricultural economy. In this setting, the City was a center for Services which facilitated the exportation of agricultural goods for the importation of capital. Relatively remote in its rural setting, Cleburne was a nuclear economy, meaning that transactions for retail goods and services were locally supported.

Now, that the once vibrant agricultural cluster (basically a manufacturing cluster) is largely gone Cleburne is challenged to find other industrial underpinnings for its economy. However, Cleburne's past as a nuclear economy is shifting toward an integrated economy as stronger link- ages with the Dallas Fort Worth Metroplex hold Cleburne in the path of Metroplex urban expansion. As such expansion imposes itself upon the landscape of Cleburne, the city will import greater levels of spending within the city limits and host more human and life style resources attractive to corporate and industrial relocation.

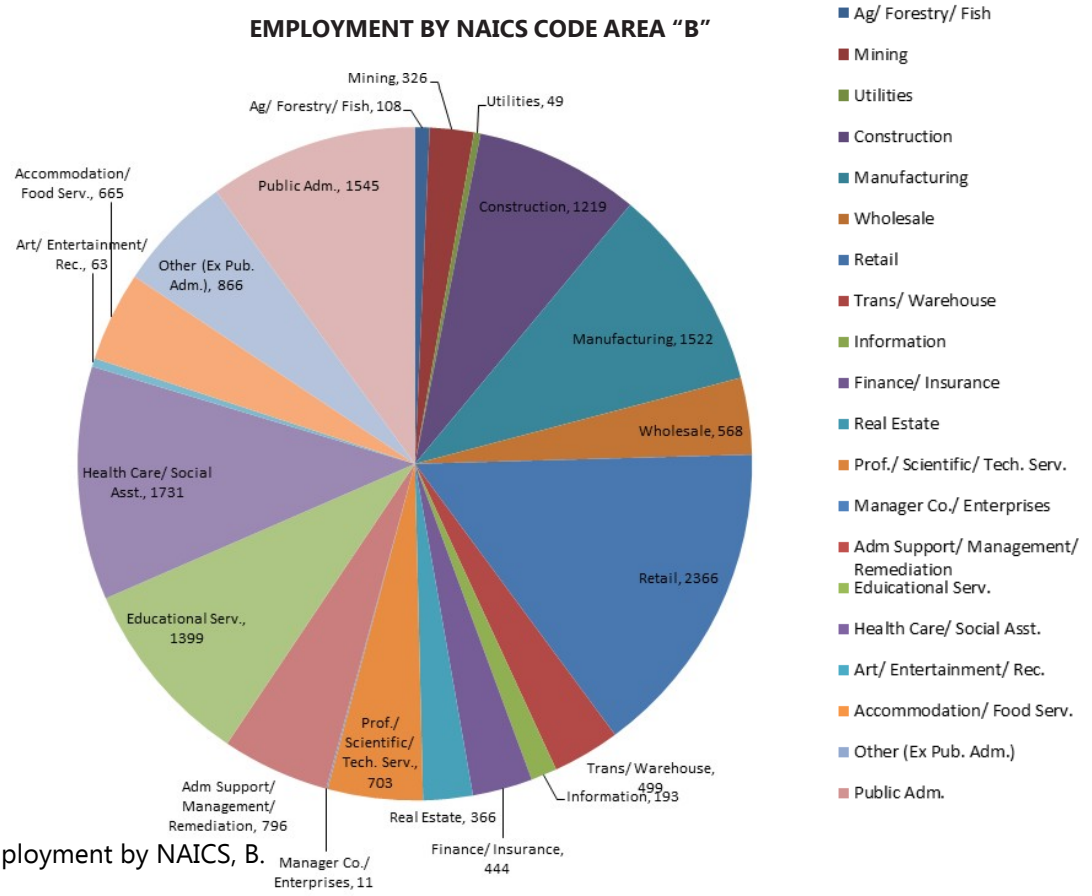


Figure 20. Employment by NAICS, B.

THE ECONOMIC SETTING OF CLEBURNE

Gunderson Southwest is among the larger industrial employers and currently operates out of the rail yards previously occupied by Burlington Northern Santa Fe. This is a significant company grossing in excess of $100 million per year. The line haul rail line that serves the Gunderson rail yard presents opportunity to consider the role of rail in future economic development. In order to nurture the formation of externally traded industrial clusters, Cleburne must offer some level of three key locational advantages attractive to industrial relocation. These are:

- Labor: A supply of qualified and reliable labor to serve industrial needs. Generally, the greater the value-add as a result of the industrial process, the greater the level of labor specialization required.
- Logistics: Proximity to efficient, convenient, and cost competitive transport of produced goods. In Texas, most manufactured goods are moved by truck (approximately 52%) with rail second (14%). Therefore, rail is a significant logistics asset with special attraction to those manufacturers requiring heavier inputs and producing heavier outputs.
- Energy: For manufacturing, reliable energy can be a very powerful location determinant. A 500 employee manufacturer using 100,000 kw will spend significantly more on energy that on labor.

Another significant employment sector that presents potential for growth is Healthcare (ranking second to retail at 11.2% of all employment). Located at the intersection of Henderson and Bypass 67, the Texan Harris Methodist Walls Regional Hospital is a major acute care hospital, employing nearly 400 people. This is less than a third of the 1731 health care employees, suggesting that the hospital and the nature of its services support healthcare employment outside the hospital facility (such as home healthcare services). Specialty hospitals can provide the basis for further expansion of the healthcare sector when other key elements are present to support such expansion:

- Other related health services that improve healthcare delivery and contain costs.
- A population of particular need for hospital services
- Doctors and other healthcare providers available to provide services.

Therefore: Cleburne is challenged by the present lack of significant employment concentrations in industrial sectors that can drive the formation of externally traded industrial clusters. Without sufficient internal assets to catalyze needed change, Cleburne will have to make well planned use of externally driven change now beginning to express itself along bypass 67 and further facilitated by the soon to open Chisholm Toll Way.

HOUSEHOLD INCOME

The pattern of Household Income within the 13 census tract area of greater Cleburne, presents a somewhat different economic story than typical averaged census information. The table below reveals that 6 of the 13 census tracts have median household incomes greater than or equal to the Texas State median ($48,295).

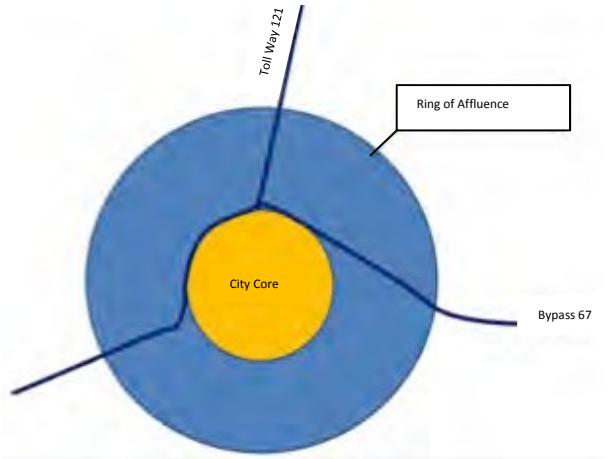
TABLE 10: PER CAPITA INCOME, HOUSEHOLD INCOME, AND AGE

NAICS CODE	CENSUS TRACT												
	304.09	303.02	303.03	303.04	301.00	306.01	306.02	305.00	309.00	308.00	307.00	310.00	311.00
2012 Per Capita Income (in US Dollars)	25,703	22,190	16,482	20,855	24,757	24,214	29,788	26,673	12,616	17,053	18,425	33,634	26,741
2012 Median Household Income (in US Dollars)	54,327	37,705	37,103	47,062	54,787	52,395	59,247	55,316	29,371	32,575	41,377	61,843	41,707
2012Median Age	42.6	33.3	32.1	37.4	39.1	38.9	41.9	41.6	27.9	29.9	32	44	36.5
2012 Total Population	6,556	5,355	4,189	5,548	4,289	7,258	2,142	7,028	3,184	4,587	4,344	4,694	5,341

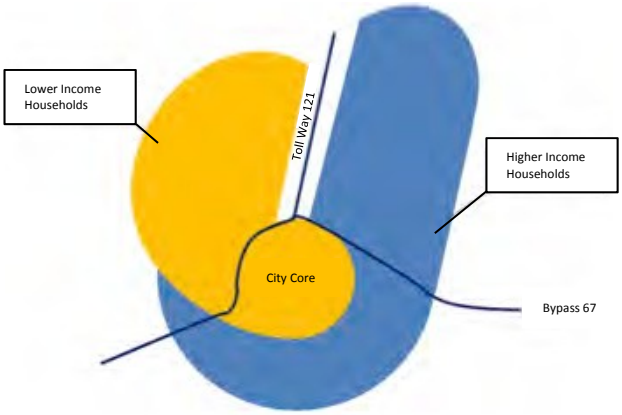
THE ECONOMIC SETTING OF CLEBURNE

According to the table above, the general trend of household income in Cleburne is uncertain relative to the State of Texas median household income of $48, 295. As stated in the introduction to this section, there are 6 census tracts within the greater Cleburne region that equal and/ or exceed the stated median. The above table illustrates the spatial impacts of household income distribution. Looking at the earlier map which locates the census tracts included in this analysis, the tracts in which household income exceeds or equals the state median are generally located north and northwest of Business 67. This means that the higher household incomes are arrayed around the southern, southeastern, and southwestern portion of greater Cleburne. Within the core area of Cleburne, census tract number 482511310.00 (bounded by Westhill, Nolan, FM 1718, and 174) is the highest of all tracts with a median household income of $61,843. However, all the other census tracts within the developed area of the city perform substantially below the state median.

The general cluster of census tracts with median household income below the state median are in the areas that will be most impacted by the completion of Toll Way 121 (the Chisholm Toll Way). This presents an interesting intersection of need and catalyst for change. However, the band of lower income households between the central portion of the city and new development along Bypass 67 imposes a barrier to realization of the economic benefit within Cleburne's core area. There are a number of ways to interpret the future impact of this lower income foreground between new development and the central city:



Scenario One: The benefits of new development and higher income could continue around the perimeter of Cleburne, centered on Bypass 67, thereby, completing the arc of higher household incomes described above and creating a ring of affluence around the less wealthy central area. This is a typical post urban flight form that left many American cities with an impoverished inner core and wealthier distant suburbs. However, this outcome in Cleburne would be imposed by in-migration, not out-migration.



Scenario Two: That the natural divide between flatter farm land to the west of 121 and hillier ranchland to the east of 121 will extend the lower income households north along the farm land areas, developed as entry level housing because of the substantially lower development costs and cheaper land prices. In this event, Toll Way 121 becomes a divide between income levels and potentially locks the City Center into an association with the lower income development.

Therefore: The Comprehensive Plan Update must consider these directions and make recommendations that will prevent isolation of the core or spatial bifurcations that reflect socio-economic differentiations.

THE ECONOMIC SETTING OF CLEBURNE

The following map illustrates the configuration of a 5 minute, 10 minute, and 15 minute drive time window for Cleburne (roughly approximating the 5 mile radius shown on the first map.

Looking at the 15 minute window (blue area), one can see that the area captures the higher household income census tracts. Because these census tracts lie to the south, southeast, and south west where there are no urban centers in close proximity, Cleburne becomes the most convenient shopping destination. For this reason, it is likely that the service area to the south is significantly larger than the service area to the north where shoppers have competing options including Burleson. One can view Cleburne as standing more at the northern edge of an area with few other urban options rather than at the southern edge of a rapidly urbanizing context. This view is significant and is likely the major attraction for retailers who have done an analysis such as this. In addition to the spatial distribution of higher income households, traffic counts also reinforce retail development.

FIVE, TEN, AND FIFTEEN MINUTE DRIVE TIME WINDOW CONFIGURATION, ESRI

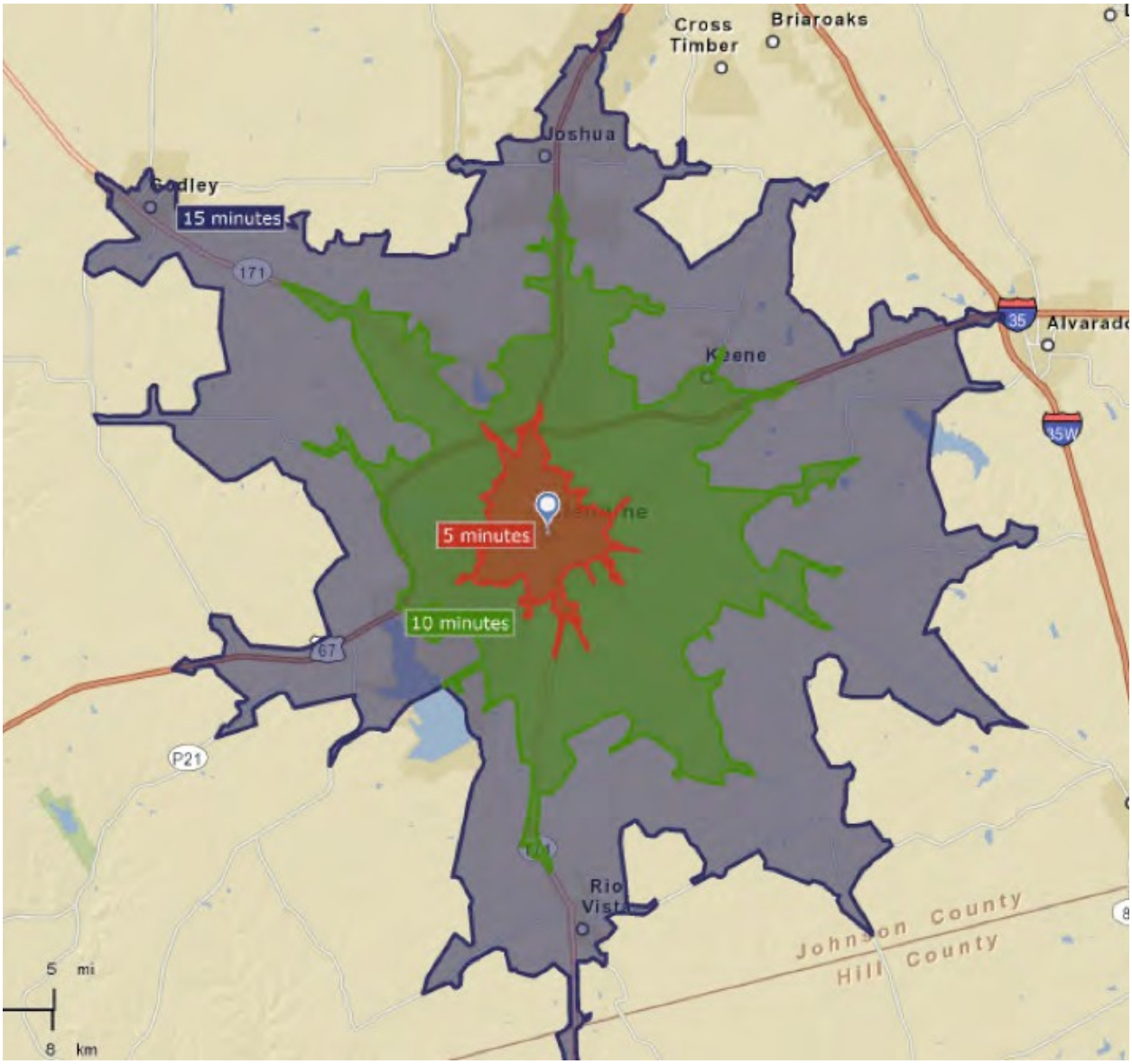


Figure 21. Cleburne Drive Time Windows.

THE ECONOMIC SETTING OF CLEBURNE

The following map displays the traffic counts along major Cleburne corridors. In this map, there are nearly as many cars moving north along 174 (22,000 vehicular trips) as there are moving west along Bypass 67 (24,000). This reflects the importance of retail located in Cleburne to the people living south of the City (also the area of higher household income). Also, note that at present downtown Cleburne sustains trip counts similar to Bypass 67. This accounts for the continued viability of downtown and affirms that Cleburne, at this moment in its history, is still more a nuclear economy than not and still serving as a regional center for the surrounding rural areas. However, this will rapidly change with the completion of Toll Way 121 and movement of Cleburne's economy to one that is regionally integrated will begin.

Note the large traffic count along Henderson, west of downtown. The 34,000 cars traveling west on 67 west of the Henderson intersection reflects a portion of the west bound movement along Henderson and likely most of the movement along Bypass 67(performing its bypass function effectively). This pattern means that the high traffic count along Henderson is mostly local, shopping traffic which does not continue west toward Glen Rose. Therefore, Henderson functions as a true Main Street for locals. Wal-Mart's location here is consistent with their local market location criteria.

Therefore: Cleburne must anticipate the effects of high volume southbound movement and the potential of Bypass 67 to assign those trips east and west instead of south to the downtown core.

TRAFFIC COUNTS, ESRI

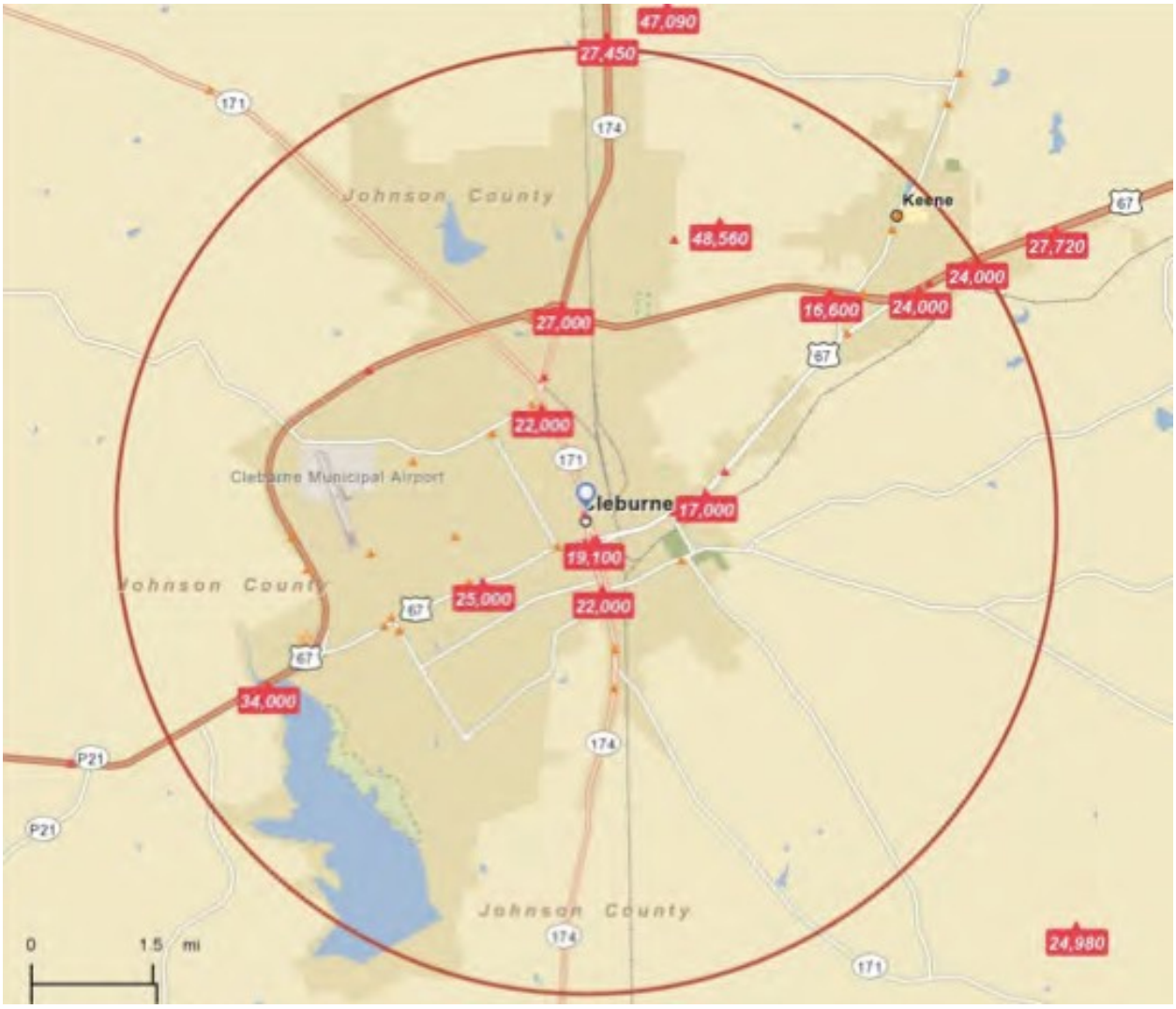


Figure 22. Cleburne Traffic Counts.

THE ECONOMIC SETTING OF CLEBURNE

RETAIL SUPPLY AND DEMAND

Looking at the most recent data available The Cleburne market (at present levels of disposable income) has the potential to support $226,812,065.00 in retail spending, including food and drink, and $195,614,105.00 in retail spending, excluding food and drink. This is called retail demand. However, retail sales to customers was actually $522,803,027.00, including food and drink, and $460,794,415.00, excluding food and drink. This is called retail supply. The significant difference between retail demand (the expected amount to be spent by retail customers at a retail establishments) and retail supply (sales to customers at retail establishments), called the retail gap, suggests that Cleburne imports spending for more than half of the retail transactions taking place. This comparison of data supports the characterization presented above wherein Cleburne is viewed as a regional center for a larger, mostly rural, area.

In the chart below, negative numbers represent imported spending (demand minus supply) as they reflects there is more supply than demand. A difference of -100% would suggest complete purchase by patrons from outside the community. A positive number identifies more demand than supply and a positive number of +100% would suggest complete leakage.

It is clear that all but one industry sector (Sporting Goods, Hobby, Books, and Music Stores) attracts imported spending and that there is little leakage. Sporting Goods, Books, and Music can be described as more specialty shopping. By contrast, Building Materials, Garden Equipment, and Supply Stores (Retail gap: -$30,976,668) import more than 60% of the total spending in this category and can be described as more typical of traffic driven big plates. Other traffic driven retailers that experience large imported spending numbers include:

- Food and Beverage Stores
  Retail Gap: -$63,573,370
- Motor Vehicles
  Retail Gap: -$55, 944,870
- Health and Personal Care Stores
  Retail Gap: - $6,627,208
- Gasoline Stations
  Retail gap: -$47,642,316

All these establishments are typical of traffic driven retailers and serve the more urgent needs of a regional market. As a result, being located in Cleburne, the urban center of a significant land area, is attractive. Further, location on major arterials (such as Bypass 67) would afford significant market advantage over other competitors. Health Care stands out and affirms the importance of Cleburne as a healthcare center of this region. This is an important feature of health care that gives strength to its future as an industrial cluster upon which a larger economic development strategy can be built.

The more specialty retailers, which can drive economic vibrancy in the downtown core, are the retail establishments experiencing weaker surplus or leakage. Leakage means that local patrons are going outside the community to do shopping. The chart below gives more clarity to this observation. Note that establishments with approximately 10%, or less, surplus or any level of leakage are:

- Book Periodical or Music Stores
- Furniture Stores
- Department Stores
- Direct Selling Establishments
- Drinking Places
- Beer, Wine, and Liquor Stores

LEAKAGE/SURPLUS FACTOR BY INDUSTRY SECTOR, ESRI

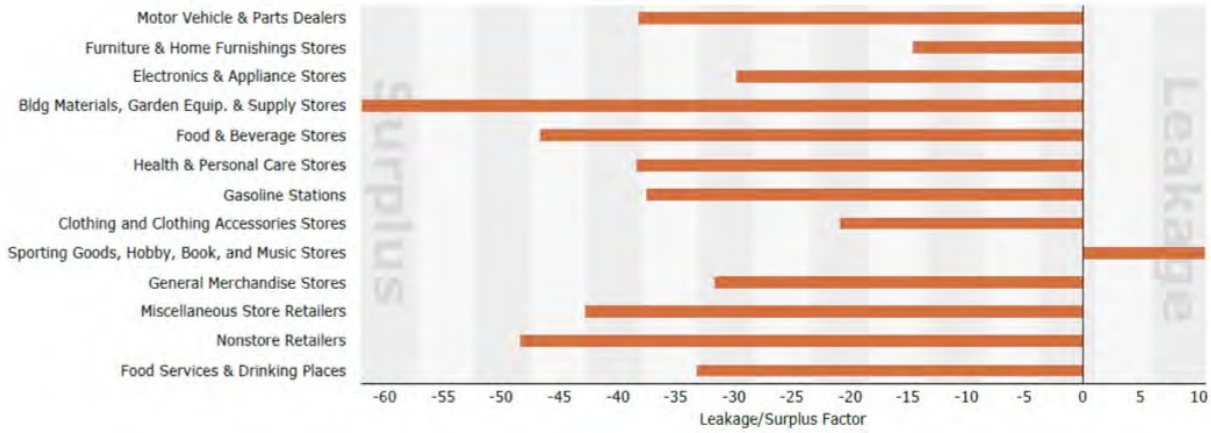


Figure 23. Cleburne Industry Leakage and Surplus.

THE ECONOMIC SETTING OF CLEBURNE

Establishments such as these are typically located in shopping environments supported by drive time demographic characteristics with high levels of disposable income. The chart below gives greater detail:

The patterns revealed by this chart show that special establishments are lower performers in terms of the percent of total sales attributable to imported spending. This chart indicates a general weakness in the specialty market place. Taking Jewelry, Luggage, and Leather Goods as an example category, there is only a total spending of $535,259.00. To understand the limitations this level of total spending imposes, consider that the average retail sales per square foot for such levels of specialization is in the $250 to $280 range. Using $250/ sf. as the level of spending necessary to support a square foot of specialty use, $535,259.00 would only support about 2,200 sf. of retail space. Demand potential (the demand supported by the local population) for the Jewelry, Luggage, leather Goods category is only $347,882.00 or close to 1,000 sf. Such a small establishment is not sustainable, making it absolutely necessary to import spending. The economic development question is whether a proper shopping environment can improve these numbers and divert patronage from other locations to Cleburne.

LEAKAGE/ SURPLUS FACTOR BY INDUSTRY GROUP FOR THE LARGER CLEBURNE AREA, ESRI

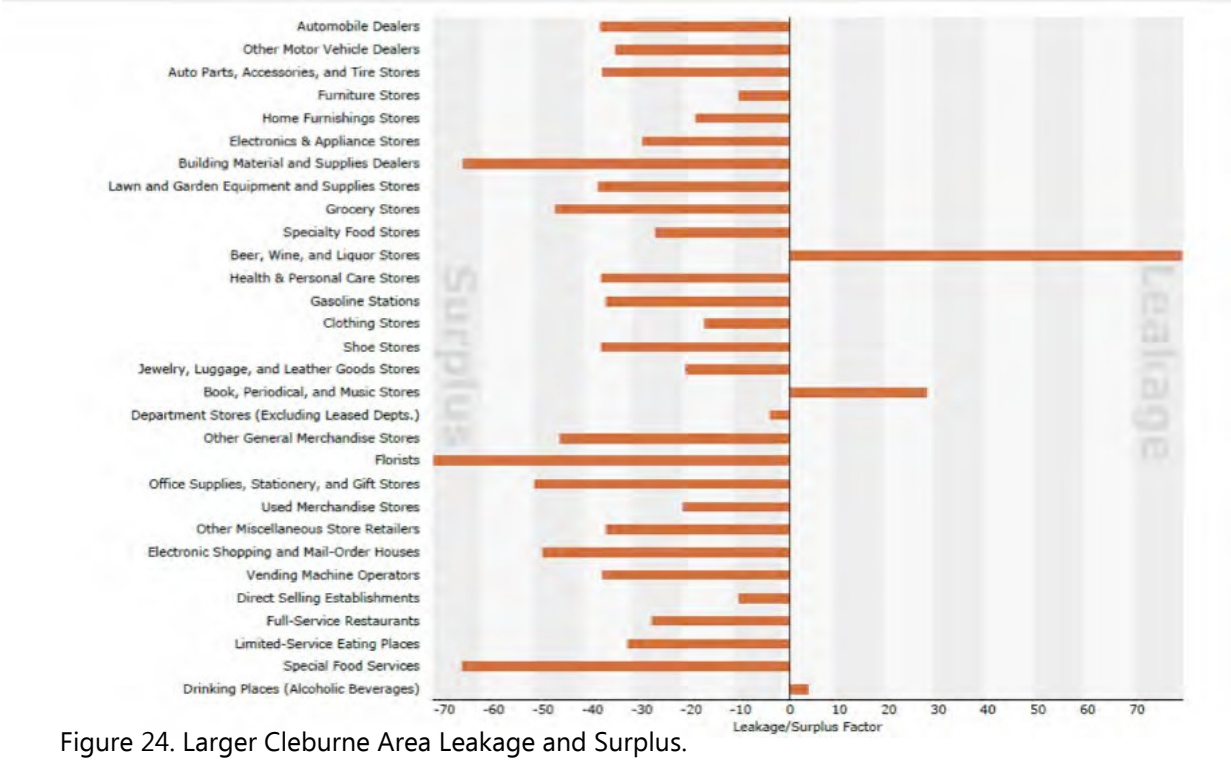


Figure 24. Larger Cleburne Area Leakage and Surplus.

THE ECONOMIC SETTING OF CLEBURNE

The chart below reproduces the previous table for an area that closely circumscribes downtown Cleburne. Note that the picture is very different and there is a much larger amount of leakage taking place. More specifically, the leakage illustrated is related to almost all the specialty categories and include:

- Clothing Stores
- Shoe Stores
- Jewelry, Luggage, and Leather Goods
- Book, Periodical, and Music
- Department Stores
- Office Supplies, Stationery, and Gift
- Used Merchandise
- Direct Selling Establishments

The one mile area addressed by this chart is the core of Cleburne downtown. Further, the retail leakage reflects both the level to which Bypass 67 is drawing business away from downtown and the extent to which Cleburne's retail patterns are being dominated by large traffic driven retail activities. While the larger retailers provide abundant sales tax revenue (due to the large volume of goods sold), they support a weak ad valorem base at best. Further, the larger retailers tend to flourish in strip development forms which are challenged to hold their land values over time while the specialty retailers flourish in more nodal forms that have longer lasting and appreciating ad valorem value potential.

THEREFORE: The Comprehensive Plan Update must harness the potential of increased imported spending as a result of the soon to open Toll Way connection and direct it toward transaction patterns that are more supportive of specialty retailers and downtown shopping. This relates to the earlier point about aggregation of lower in- come households. Aggregation patterns which separate downtown from imported spending potentials must be avoided.

DOMINANT TAPESTRY

ESRI has developed a valuable market segmentation analysis which gathers census and other data to identify settlement patterns among groups of people with similar life style characteristics. This analysis, called Tapestry Segment Analysis is now used by many retailers wishing to target their promotions and inventories. This analysis is useful for planning purposes because it reveals dominant life styles characteristics that are part of the current place identity, effect retail investment, and are subject to change by population inmigration as a result of encroaching urban expansion from Dallas/Fort Worth.

LEAKAGE/ SUPPLY FACTOR BY INDUSTRY GROUP WITHIN ONE MILEOF CITY HALL, ESRI

Figure 25. Leakage and Surplus near City Hall.

THE ECONOMIC SETTING OF CLEBURNE

There are 65 Tapestry Segments overall. The segments which dominate the Greater Cleburne area are:

• #12, Up and Coming Families: This is the second highest household growth market, comprised of a mix of Gen Xers and Baby Boomers with a median age of 32.6. This group mostly resides in the outskirts of modernized metropolitan markets (populations higher than 250,000) and is the first foothold of urban encroachment. The median household income of $69,522 demonstrates a level of affluence. Acquisition minded, drive SUV's, buy baby and children goods.

• #16, Enterprising Professionals: Young educated working professionals, median age 32.8, 43% of households are single and 43% are married, and households in this segment comprise approximately 2% of total US households. This group has a high median income ($63,837) and roughly half hold a bachelor's or graduate degree. Enterprising Professionals prefer to own their home.

• #17, Green Acres: Mostly married couples, this group is generally comprised of blue collar baby boomers with children between 6 and 17 years old. The me- dian age is 42, not ethnically diverse, with a median income of $60,461. This group prefers country living and comprises more than 3% of the us population.

• #19, Milk and Cookies: Upscale living on a family allowance, this group is comprised mostly of affluent married couples, have a median age of 34.1 years, and a median household income of $57,170. The Milk and Cookies Group prefers single family homes in suburban neighborhoods of cities, largely in the south, particularly Texas. A strong presence of this group would be a good indication of suburban encroachment.

• #26, Midland Crowd: This is the Tapestry's largest segment (approximately 4% of the US population) with a median age of 37.9 years. 62% are married households, median income is $47,544, and this group generally lives in housing developments in rural villages and towns. Home ownership is 80% , higher than the national rate of 64%.

• #29, Rustbelt Retirees: Mostly married couples with no children and a median age of 44.2 years but more than 1/3rd of the households are aged 65 or older. 84% of the housing is single family and three fourths were built before 1970. This group stays put and lives in the same house for many years. The median income is $46,909.

• #32, Rustbelt traditions: A large Tapestry segment (8.4 million nationally) with a median age of 35.9 years. Household income is $42,337. Half of the residents in this group work in white collar jobs, predominantly within the service industry. Residents generally live in modest single family homes. This group buys mostly familiar products and services.

• #33, Midlife Junction: The median age for this group is 37 years and nearly 20% are age 65 or older. Most are still working but a third of the households receive social security. The labor force participation rate of this group (61% is slightly below national average. 62% of these residents own their own home.

• #38, Industrious Urban Fringe: Multigenerational households are relatively common. The high proportion of children contributes to the relatively low median age of 29 years. Hispanics comprise 61.7 percent of the residents in these neighborhoods. More than one-fourth are foreign born. The median household income is $40,400. The large average household size of 3.45 lowers the discretionary income available compared to segments with similar income. Residents take advantage of job opportunities offered in nearby cities; most work in the manufacturing, construction, retail trade, and service industries. Industrious Urban Fringe households balance their budgets carefully. Mortgage payments take priority.

• #41, Crossroads: Crossroads neighborhoods are growing communities in small towns in the South and Midwest. This group has a younger median age of 33.6 years, nearly half are younger than 45, and 20% are Hispanic. Affordable housing in smaller communities provides opportunity for these younger families to own their home. Home ownership is 69%. Mindful of their expenses, Crossroads households budget for what they buy.

• #42, Southern Satellites: Found primarily in the rural south, Southern Satellites consist mostly of married couples. The median age of this group is 39.6 years (near the US median of 37.2). 87% of this group is white. The median household income is $37,185. The manufacturing and service industry sectors provide most of their employment. The primary housing type is newer single family dwellings although 30% live in mobile homes. These rural residents enjoy country life and spend money for magazines, clothes and gear related to their rural interests.

• #46, Rooted Rural: This segment is slightly older (median age 43.7 years), with 50% older than 55. Most are married households and more of them are empty nesters. Here is little ethnic diversity in this group. The median household income is $37,032 and one third of the households receive social security. 70% of the households are single family homes and 26% are mobile homes. There is a higher proportion of seasonal housing in this group which accounts for the higher vacancy rate. Rooted Rural residents are do-it-yourselfers. This group keeps busy with home improvement and remodeling projects.

• #50, Heartland Communities: This group is settled and close knit with a median age of 41.4 years. Approximately half of the residents have already retired, many in the same town where they have lived and worked all their lives. 9 in 10 residents are white. Heartland Communities neighborhoods are found in primarily small towns. This group invests time and money in their cherished homes and communities. They take pride in gardening skills, many own riding lawnmowers, and many take on home improvement projects.

• #52, Inner City Tenants: This multicultural market is younger than average, with a median age of 28.8 years. The household composition also reflects their youth. Household types are mixed; 34 percent are singles, 28 percent are married-couple families, 21 percent are single parents, and 10 percent share housing. The median household income is $30,873. Because few own their homes, most of their net worth comes from savings. With their busy lifestyle, Inner City Tenants residents frequently eat at fast-food restaurants and shop for groceries at nearby stores such as Albertson's. They prefer easy-to-prepare frozen and canned foods.

• #53, Home Town: This is a slightly younger market (median age 33.8 years). Many families encompass two generations who have lived and worked in the community (their children plan to do the same). The median household income is $29,688. Some portion of this group relies upon supplemental social security income and public assistance for support. Hometown residents may move from one house t another but they rarely cross the county line. 73% of the homes are single family dwellings and most of the housing was built before 1970. This group savors a quasi-country lifestyle by spending time outdoors. Internet access and cell phone use are less important than in other markets. This group shops at Wal-Mart and discount department stores.

• #57, Simple Living: This group is slightly older (median age 39.7 years). 20% are 65 or older and 12% are 75 or older. The median household income is $27,284 and nearly 40% of households collect social security. Most residents who are employed work in the healthcare, retail trade, manufacturing, educational services, and accommodation/ food services industry sectors. These neighborhoods are in urban outskirts or suburbs throughout the United States. 62% of the households were built before 1970. More than half of this group rents. The group's lifestyle reflects the age distribution; younger people seek entertainment while seniors pursue hobby interests. Simple living households spend wisely on a restricted budget.

• #59, Southwestern Families: These young families form the foundation of Hispanic life in the Southwest. Children are the center of these households with the average family size being 3.97 (the fourth larg- est across all tapestry segments). The median age is young at 29.2 years, ethnic diversity is high (83% are Hispanic), and the median household income is $26,058. This group carefully budgets their spending. Nearly 50% of residents 25 years and older have not graduated from high school. 72% of all households in this segment are in Texas. More than two thirds own their own home. This group frequently buys baby and children products. They buy clothes occasionally and shop for groceries at discount stores.

• #60, City Dimensions: Most of these residents are young, with a median age of 29.5 years. Nearly half are white and one fourth are black, making ethnic diversity high. The median household income is low at $26,283. Residents work primarily in the service, manufacturing, and retail trade industry sectors. More than half of the residents rent apartments in older multi-tenant buildings where the average gross rent is 17% below the US average. Residents seek jobs near their homes (commuting average to work = 22 minutes). This is a top market for buying and wearing sport team clothes. They also frequently buy baby and children products, gaming systems and television sets which fits their entertain at home life style.

THE ECONOMIC SETTING OF CLEBURNE

The map below displays how the above described 17 Tapestry Segments are distributes throughout the greater Cleburne area. The Map presents a complex community of diverse neighborhoods. Their spatial distribution affirms earlier observations made in the section discussing household income, namely that the lower household incomes are somewhat concentrated in the center and north western portions of the city. However, now we learn that certain neighborhood characteristics will influence future growth. Generally, the following observations can be made:

1. The core of the City is dominated by older households and retirees on tight budgets, older stable but generally lower income neighborhoods, and Hispanic lower income neighborhoods (#59,#50, #38, #33, #29, #32, #53, #60, #57, and #14). These neighborhoods are naturally resistant to transition due to the comfortable lifestyle rhythms that the status quo nurtures. Therefore, areas around the downtown core constitute a buffer between future center growth and edge growth. Preservation may be an important initiative.

2. Neighborhoods #16, #12, and #17 generally constitute more affluent households, although at different points in life. The close proximity of these three neighborhoods defines a generally affluent zone south of the downtown core. In this zone there is a healthy age mixture of households (#12), older Baby Boomers (#17), and younger professionals (#16). To any retailer, this is a viable market sector, however their diverse age and life styles dissipates their buying potential with the possible exception of dining and entertainment. This is likely the reason that some level of entertainment/ dining development in the downtown is finding patronage.

3. To the northwest of the City center and east (south of 67) are broad areas of younger people who gravitate to smaller communities because of the affordable

SPATIAL DISTRIBUTION OF TAPESTRY SEGMENTS, ESRI

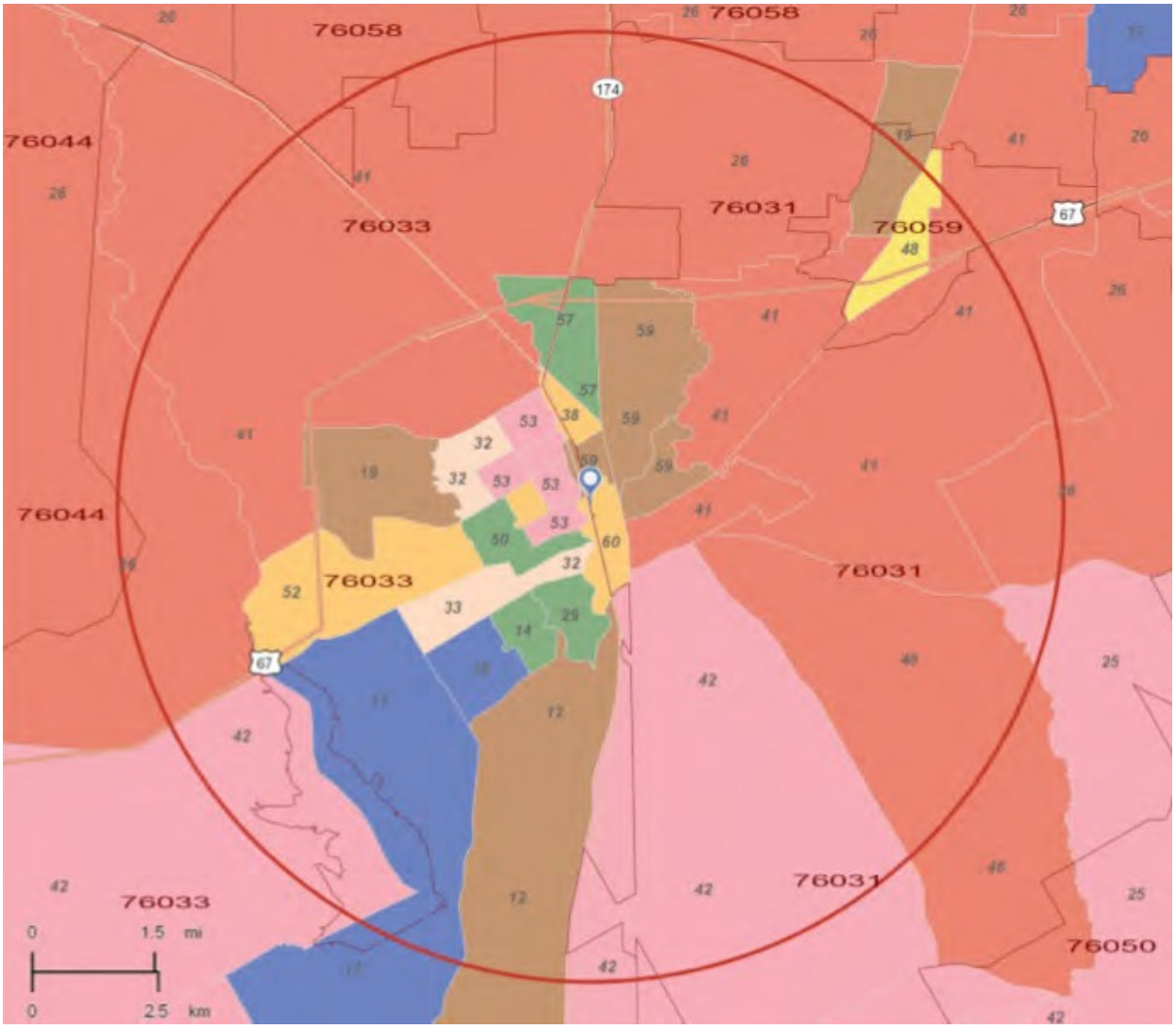


Figure 26. Cleburne Tapestry Segments. Colors are illustrative only. Numbers match tapestries on previous pages.

housing possibilities and lower cost of living (#41). Investigation of aerial maps reveals that these people live on small acreage or even have small farms. However, this presents a fragmented ownership situation or future development which can impede it advance because of the financial uncertainties associated with complicated land assembly. This tapestry segment covers a large portion of the land area most suitable for lower cost residential development.

4. Due north of the core zone and east of 174, is a neighborhood comprised of mostly married households with a household income at the state median. According to the Tapestry Segment description, "this group generally lives in housing developments in rural villages and towns". Location of this group here may indicate the first evidence of residential growth to the north. Typically the outward expansion of larger urban centers is led by rural seeking households who want to enjoy the rural life but do not want to be very far from more urbanized centers. The solid median household income enjoyed by this group suggests that they have not moved to the country for cost saving reasons. However, the median income also suggests that the housing developments these people live in will not be at higher price points.

Therefore: The Comprehensive Plan Update must anticipate the influence that establish neighborhood types will have or the progression of change as it flows into Cleburne from external growth.

CONCLUSION

The above text has set out numerous economic indicators that portray a city landscape facing issues associated with externally generated change as it encounters a relatively established and change resistant city fabric rooted (in form and pattern of economic transaction) in Cleburne's agricultural past. The large amount of imported spending that Cleburne now enjoys is more reflective of its continued importance as an urban center in a rural region. However, forth coming structural connections with the growing Metroplex will move Cleburne from the sluggish pace of its nuclear economy into a more robust integrated economy. In this redefinition, imported sales must be transformed from the traffic retailers that dominate today to more specialized retailers that enhance city life style and contribute to the revitalization of downtown. Also more specialized, nodal development will expand the value of the ad valorem tax base, making necessary debt funding of needed public improvements possible. Without such changes (and additional enhancements) that support higher residential price points, the current prevalence of lower price households will make the community ripe for entry level residential development. Key among the changes that support higher price points is the emergence of externally traded industrial clusters that will lead to vertical expansion and increased wage. Health care and rail service offer two avenues that should be considered in the economic development initiatives of this plan.

ECONOMIC COMPETITIVENESS

The following text examines Cleburne's economic competitiveness relative to future development and growth. The dimensions of competiveness are:

Element One: Proximities

Proximities is a broad term referring to things that Cleburne is close to locally and regionally. Often proximities are the key to establishing a locational advantage that certain types of investment seek. For example, close proximity to a sea port would be attractive for some levels of manufacturing. Also, close proximity to other high income communities would be a key consideration in the development of high income housing projects. Finally, close proximity to on-going research and development would be an important consideration for Bio-medical industries. Those cities whose location and setting afford a desirable set of proximities will have a competitive advantage over those cities which do not have such proximities.

Element Two: Spatial Opportunities

Spatial opportunities refers simply to a sufficient supply of the right type of land at a price appropriate for certain types of development. This is a key dimension of competitive because the recognition of land opportunities often precedes development by years. When land is recognized well before vertical development and investments are made to position that land for development, the term speculation is used as a description. Speculation is a necessary and inescapable part of the city development process . In fact, it is a component of the development industry which proves up value which is a key consideration in project financing. There is a relationship of sequential investments that comprise the development industry that include:

- The Land Basis Owner: the original owner, usually an agricultural user
- The Land Investor: a party that buys from the original basis owner as a long term investment to be used during the interim as a personal property or held for financial management purposes. Such properties are often within a manageable distance from the place of residence.
- The Land Speculator: a party that perceives change in the proximity of a property (such as a future lake, roadway, or other public or private improvement) and recognizes the emerging market for future development.
- The Land Developer: a party that recognizes the demand for building ready lots or tracts and subdivides the larger property held by a speculator by development of infrastructure which positions smaller land products for specific development.
- The Vertical Developer: a party that constructs a build to suit structure for sale or rent.
- The End User: a party that rents or purchases a building or space within a building.

Each of the above describes participants in the development industry is active at different times in a city's history and each requires a different spatial opportunity. Therefore, the competitiveness question is which of the above described parties is currently active and which would view Cleburne as the best place to make investment. Getting the right type of early land base participants engaged will more likely lead to the desired level of vertical investment.

Element Three: Financial Capacity and Financial Flows

This is an extremely important as aspect of competitiveness and considers many financial aspects. These aspects include:

- Strength of transactional mass: the size of Cleburne's economy and its diversity.
- Presence of financial services network as well as the breadth and depth of the financial cluster

Cities with a robust (or relatively robust) financial industry are likely to attract more investment in development seeking the support of such activity. For example, service industries (such as attorneys and other consultants) would find greater opportunity in such a context. As a general principal, the relative magnitude of financial industry transaction can be viewed as an indicator of greater financial health and such health is always more attractive. This was one of the secret strengths that built Dallas from a beginning that had few other real advantages.

Element Four: Base Financial Performance and Wages

Industrial cluster formation and wage trends are two indicators of financial performance. Where there are emerging industrial clusters, a city has the ability to move vertically or horizontally from that cluster as a means of economic expansion. Such expansion, into greater externally traded cluster formation, will cause wages to rise. Higher specialization in the formation generally means greater value added within the manufacturing process and greater value added leads to many other levels of economic performance for a community.

Element Five: Quality of Life Assets

Parks, schools, the arts, security, and beauty are all aspects of a place that define its quality of life. Where these assets coexist in great measure, they are very attractive as location decision determinants. National surveys reveal that quality of life is one of the primary relocation/ location determinants for businesses and industry. Therefore, cities which have a more enriched quality of life will find themselves in a better position to attract commercial/ industrial growth.

ECONOMIC COMPETITIVENESS

Element Six: Human Capital

Every industry requires a labor force in order to carry out their operations. Many businesses (more often those with the greatest value add potential) require a reliable supply of specialized/ qualifies labor. Therefore, cities which can bring a reliable and qualified labor force to the table will find themselves better able to support the most fundamental need of industry.

Each of the above described dimensions of competitiveness is important and their coexistence in a single place almost a necessity as many cities will perform well in one category. Therefore, it is the measure of each in combination with others (gathered in the same place) that make a city more competitive. The following takes each of the above defined dimensions of competitiveness and discusses its presence and power in Cleburne:

Element One: Proximities

When considering Cleburne's proximities, the first and perhaps the most meaningful proximity is its closeness to Fort Worth and the Dallas/ Fort Worth Metroplex. The map below illustrates Cleburne place within the general Dallas/ Fort Worth area. The purple dot indicates Cleburne's location. While close in distance, Cleburne has not realized much benefit because of its remoteness. Remoteness refers to the current lack of direct roadway connection. Cities like Waxahachie, located at the intersection of 35E and 287 have a stronger structural connection with the larger urban center. However, Cleburne's heretofore remoteness is about to change with the soon to open 121 Toll Way. The opening of this toll way will put Cleburne in a position relative to downtown Fort Worth that Frisco is in relative to downtown Dallas. For much of the 90's and early 2000's the Dallas North Toll Way ended at Frisco and the city's end-of-the-line position fueled its retail growth. The market for much of the retail was north, east, and west of Frisco and populations from those areas, desiring to travel to Dallas had to circulate through Frisco, making Frisco a hub of regional movement. This is a position that no longer exists because Frisco has moved from the end-of-the-line to just another city along the line. However, the years Frisco held its strategic end-of-line status allowed it to establish a vast consumer base which supports its current retail base.

Cleburne, as the end-of-line city for 121 Toll Way, will enjoy that a similar benefit as Frisco, with one important difference. Frisco also sits within the Preston Road Corridor which has long been the main street of high income growth for Dallas. Starting with Highland Park, then Preston Hollow, then Addison, then Willow Bend, then West Plano; Frisco continues the alignment. Now that Preston Road and the paralleling Dallas North Toll Way have moved beyond, other high income communities are added to the list, including Prosper and Celina. Therefore, it is not yet clear that Cleburne can, by its end-of-the-line status alone, attract high income development. Likely this will require additional dimensions of competitiveness.

Other proximities that benefit Cleburne include the relationship to Highway 67, which connects to Highway 281 and thereby is part of the main picturesque highway through central Texas (leading into the hill country). Most cities east of 35 W (such as Midlothian) are set in a more marginal landscape tied to south Dallas more than west Fort Worth. The locational view of Weatherford, Stephenville, Glen Rose, and Cleburne is different than Midlothian, Desoto, and Waxahachie. Cleburne, while close to Fort Worth, is not assimilated by Fort Worth nor its landscape

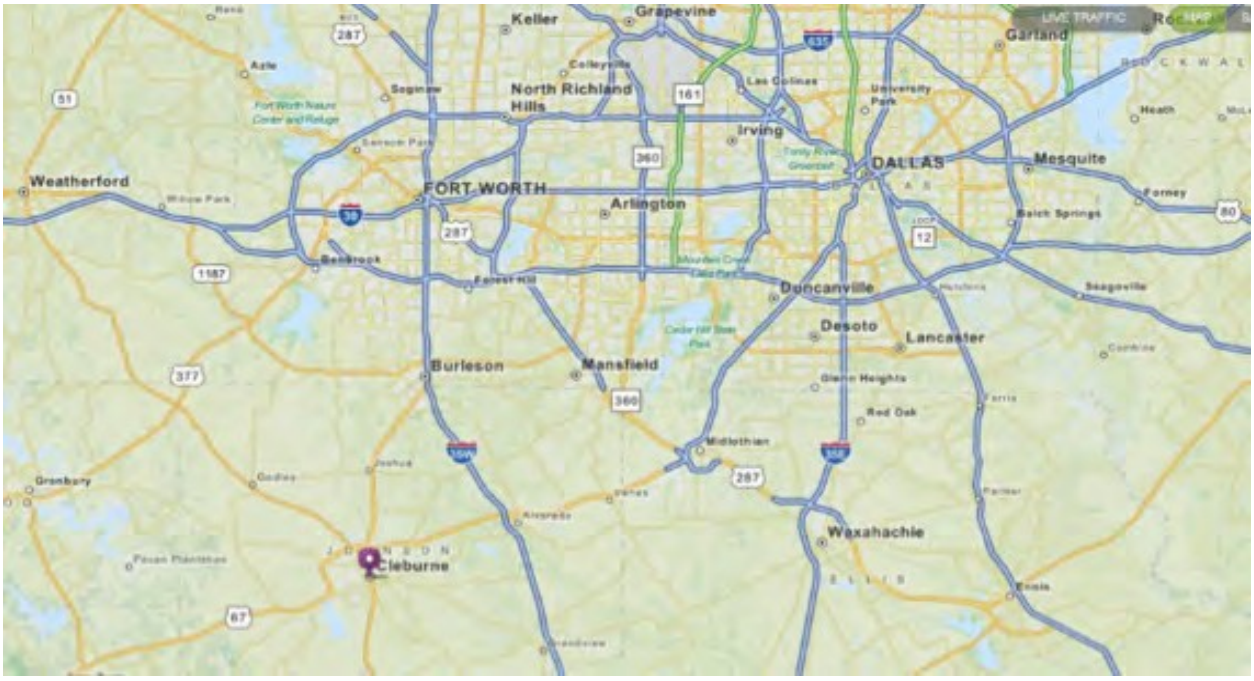


Figure 27. Geographic relationship of Cleburne to other cities of the DFW Metroplex.

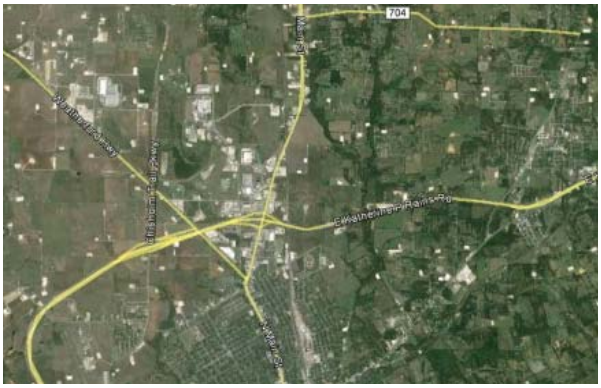
subordinated to the central energies of the urban center (subordination to central energies meaning ubiquitous retail, bedroom community, and industrial uses that primarily serve the urban center development…such as concrete). Cleburne, at this moment, is close to Fort Worth but still a nuclear city which defines a portal entry to the 281 corridor.

Cleburne has one final proximity that predicts success given its forthcoming position as an end-of-the-line city and that is the relationship to Lake Pat Cleburne. The earlier discussion of the spatial distribution of higher household incomes revealed that such incomes in the vicinity of Lake Pat Cleburne run higher than other parts of the City. Therefore, the lake sits in the higher income portions of the city, making it an attraction for more high income development.

Element Two: Spatial Opportunities

The context of Cleburne still reflects its historic position as a commercial center serving a rural hinterland. Therefore, while Cleburne has attained a somewhat urban density within its inner core it has a largely undeveloped larger context. However, this hinterland is not an undifferentiated plane and contains varied landscape conditions which are more and less adaptive for development. The following map of areas around Greater Cleburne illustrates how varied that ground plane is. The center of the image is Johnson County and Cleburne is roughly in the center of the county (with Lake Pat Cleburne located to the southwest of it). Note that division between geologic groups runs roughly in a north-to-south direction and that Cleburne sits on the geologic divide between Shale (the darker blue) and Sedimentary Rock (the lighter blue) with Alluvial Terrace (the yellow colors) to the west of that. It is also important to note that the alignment of the Chisholm Toll Way follows the general division between sedimentary (alluvial) formations and shale formations. This is also apparent in the accompanying aerial photograph, showing the Chisholm Toll Way alignment under construction. Topography in the darker blue zone (above) is more sloping and steeper than the lighter blue or yellow. The adjacent aerial photograph illustrates the impact of soil and topographic differences. To the right (east) of the Toll Way alignment, the landscape is darker green (indicating more abundant tree cover) and generally more complex (indicating more ridges, hills, and valleys). In this general area, land promontories have names such as Brushy Knob (near Joshua). On the other hand, the landscape to the left (west) of the Toll Way alignment is more agrarian (patchwork of agricultural fields and little tree cover) and generally flatter (nearly level). Consequently, land to the west of the Toll Way alignment is easier to develop and thereby more attractive for entry level production housing projects.

Toll Way 121 runs along the geologic divide much the same way the I-35 runs along the geologic divide in Kyle, Texas. In Kyle, dramatic residential growth over the past



8 years has flowed into the farm land (flatter) and stayed away from the ranch land (hillier), causing growth of the city to balloon on its west side and remain more stable on its east side. This division along I-35 is emerging as a socio-economic divide. Therefore, Cleburne can face similar outcomes without proper planning to avert the market's tendencies. Cleburne has a competitive advantage for entry level housing because of the abundant supply of agriculturally priced, flatter farm land west of the Chisholm Toll Way that is suddenly easily accessible as a result of the Toll Way connection with Fort Worth. However, the spatial opportunity represented by this convergence of road access and natural features may not enhance the economic future of the City. The rising costs of services to households at price points under $300,000, over the ad valorem revenue from such households will make the city more dependent on its non-residential tax base. Also, the city identity established by an early rush of entry level housing projects will make it very difficult to impossible to attract higher price point projects at a later date. The expectation of residential growth is best indicated by the location of Home Depot (west of Main Street at Bypass 66). Both Home Depot and Lowes are known to locate in growing areas with the expectation of making $30,000 from each new home. For this reason, Home Depot located in Kyle at the beginning of its growth as well as Greenville at the beginning of residential expansion into Hunt County.

ECONOMIC COMPETITIVENESS

Building permit data reveals a relatively sluggish residential construction market to date but that will certainly change with the opening of the Chisholm Toll Way. The Table and Charts below summarize current residential activity:

Table 11. Current Residential Activity, 1998 - 2011.

Date	Number of new homes constructed	Average Cost
1998	132	$74,500
1999	119	$87,700
2000	133	$103,000
2001	105	$104,500
2002	108	$96,500
2003	141	$104,400
2004	124	$110,200
2005	147	$103,500
2006	107	$113,300
2007	122	$137,000
2008	43	$132,700
2009	25	$122.100
2010	25	$113,000
2011	19	$109,700

The Chart below illustrates that Cleburne has consistently performed below the state average in terms of building permits issued per 10,000 residents. This is likely attributable to the city's heretofore remoteness and rural condition. However, future connection via the Toll Way will change this setting and entry level markets looking for opportunity will likely flow to the land supply of Cleburne. Residential growth to the north has been limited by the general industrialization northward (Alliance, the old industrial areas north of the Stock yards, and Carswell AFB) forcing residential growth to the south.

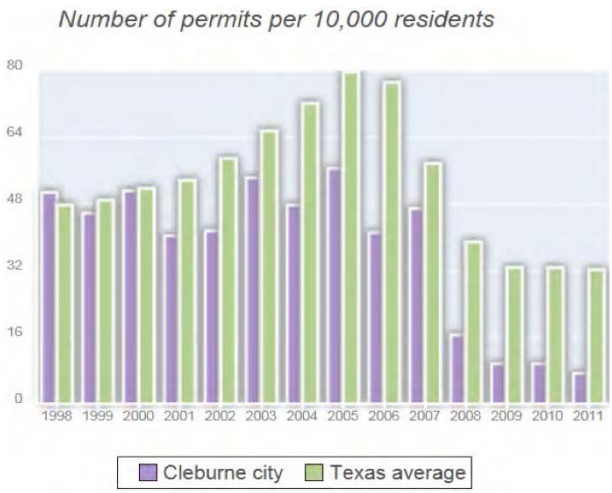


Figure 28. Building Permits per year, 1998-2011.

Southwest Fort Worth has generally gone to higher price points than entry level, leaving the land supply for such development more limited that Dallas. Residential land north of Fort Worth has typically been east of 35 W and gone to high price point residential communities (such as Lantana, Trophy Club, West Flower Mound, South Lake, Keller, and Colleyville).

With the build out of South lake, Colleyville, and most of Keller, the land supply for higher price point projects is now very limited. However, the custom home industry has also been somewhat decimated by the 2008 down turn. As the residential market returns (as it is now doing), it will take a couple of years for the custom industry to revive. In the meantime, the entry level production companies are well capitalized and ready to move forward. If Cleburne wants to invite the custom market, it will have to manage the production market in the near future. If the entry level production dominates this market area, it will not be possible to see growth of the custom market in Cleburne. The above tables illustrate that residential permits to date have been at the entry level price point. Fortunately the number of such homes is still small.

Another spatial opportunity is the amount of yet undeveloped land along Bypass 67. Commercial development to date, fronting the alignment of Bypass 67 demonstrates how attractive this location is to the traffic driven retail market. The aerial photograph to the left shows just how much undeveloped land lies along the bypass. In addition, the greater percentage of this available land is flatter farm land, easier to develop. Therefore, bourgeoning residential; growth north of Bypass 67 (west of Toll Way 121) will drive traffic driven retailers along Bypass 67. With lower disposable incomes to devote to specialty retail products, members of the tapestry segments most common to entry level production housing are a desired market for large box retailers in the home improvement, discount grocery, other urgent need commodities.

The combination of ample and suitable land area for production housing and ample and suitable land area for box retail development is a spatial advantage over neighboring communities who are located in more complex contexts.

Element Three: Financial Capacity and Financial Flows

Cleburne's history as a regional center for agriculture, positively positions the city in this competitive area. As a regional center, Cleburne (the County Seat of Johnson County) was host to the farm financial resources (such as banks and other farm credit agents), attorneys, land and title companies, and federal program offices. There are a number of major banks in Cleburne for a city of its size:

- First Financial Bank, National Association: Drive-In Branch, Cleburne Branch, at 403 North Main Street. Info updated 2006/11/03: Bank assets: $308.6 mil, Deposits: $278.3 mil, local headquarters, positive income, Commercial Lending Specialization, 7 total offices, Holding Company: First Financial Bankshares, Inc.

- Pinnacle Bank: Cleburne Branch at 224 W. Katherine P. Raines Drive, branch established on 2005/02/15; Cleburne Branch at 1403 West Henderson, branch established on 2000/05/17. Info updated 2009/03/03: Bank assets: $548.6 mil, Deposits: $460.0 mil, headquarters in Keene, TX, positive income, Commercial Lending Specialization, 13 total offices, Holding Company: Pinnacle Bancorp, Inc.

- Bank of America, National Association: Cleburne Branch at 1 North Main Street, branch established on 1934/01/20; Cleburne Motor Branch at 103 South Mill St, branch established on 1992/06/30. Info updated 2009/11/18: Bank assets: $1,451,969.3 mil, Deposits: $1,077,176.8 mil, headquarters in Charlotte, NC, positive income, 5,782 total offices, Holding Company: Bank Of America Corporation

- Compass Bank: Cleburne Branch at 1671 W Henderson St, branch established on 1955/08/15. Info updated 2011/02/24: Bank assets: $63,107.0 mil, Deposits: $46,232.4 mil, headquarters in Birmingham, AL, negative income in the last year, Commercial Lending Specialization, 720 total offices, Holding Company: Banco Bilbao Vizcaya Argentaria, S.A.

- Woodforest National Bank: Cleburne Wal-Mart Branch at 1616 W. Henderson, branch established on 2001/02/19. Info updated 2011/05/10: Bank assets: $3,488.9 mil, Deposits: $3,097.6 mil, headquarters in Houston, TX, positive income, Commercial Lending Specialization, 766 total offices, Holding Company: Woodforest Financial Group Employee Stock Ownership Plan (With 401(K) Provisions).

- Community Bank: Cleburne Branch at 104 North Nolan River Road, branch established on 1999/06/07. Info updated 2010/05/18: Bank assets: $525.1 mil, Deposits: $473.0 mil, headquarters in Fort Worth, TX, positive income, Commercial Lending Specialization, 10 total offices, Holding Company: Community Bankers, Inc.

- Grandview Bank: Cleburne Branch at 303 Colonial Drive, branch established on 1999/08/23. Info updated 2007/01/10: Bank assets: $110.3 mil, Deposits: $99.2 mil, headquarters in Grandview, TX, positive income, Commercial Lending Specialization, 3 total offices, Holding Company: Afin, Ltd.

- Colonial Savings, F.A.: Cleburne Branch at 110 N Main St, branch established on 2000/12/11. Info updated 2011/07/21: Bank assets: $921.1 mil, Deposits: $580.8 mil, headquarters in Fort Worth, TX, positive income, Mortgage Lending Specialization, 8 total offices

- OmniAmerican Bank: Cleburne at 1204 W. Henderson Road, branch established on 2006/04/06. Info updated 2011/07/21: Bank assets: $1,336.0 mil, Deposits: $818.7 mil, headquarters in Fort Worth, TX, positive income, Mortgage Lending Specialization, 15 total offices

Presently, Cleburne is an Enterprise Zone city (along with Alvarado and Burleson). According to the Johnson County Economic Development Commission, businesses located in these zones may be eligible for local and/or state benefits. State incentives can include a refund of state sales and use taxes, franchise tax reductions, and state administered program priority. Local benefits can include prop- erty tax abatement, regulatory relief, job training services, refund of local sales and use taxes, utility reductions, low- interest loans, and other individually negotiated benefits. The State of Texas offers a variety of programs designed to make capital more available for businesses seeking to expand or locate within enterprise zone areas. Available programs include:

- Texas Enterprise Zone Program: Businesses located in enterprise zones may be eligible for local and/or state benefits. To obtain state benefits, a business must be designated as an enterprise project. State incentives can include a refund of state sales and use taxes, franchise tax reductions, and stare administered program priority. Additional state benefits are available to qualified businesses designated as enterprise projects, which are nominated by communities or counties on a competitive basis.

- Texas Capital Fund: Funds may be used to acquire, construct, or rehabilitate real estate to support a for-profit or a non-profit entity willing to commit to creating or retaining jobs primarily for low or moderate income persons. Minimum and maximum awards are $50,000 and $750,000, respectively. Awards may not exceed 50 percent of the total project cost.

- Texas Leverage Fund: The Texas Leverage Fund (TLF) is an economic development bank that offers financing to communities that have passed the economic development sales tax. The Texas Leverage Fund may be used to provide financing to local businesses for

industry expansion or recruitment, industrial parks establishment, or certain community project financing. With the assistance of Bank One, Texas, the TLF was capitalized with $25 million in State of Texas taxable commercial paper.

- Industrial Revenue Bonds: The State of Texas Small Business Industrial Revenue Bond Program allows local industrial development corporations to issue tax-exempt bonds to finance land and depreciable property for manufacturing facilities. The maximum bond amount is $10,000,000 for tax-exempt issues, and the maturity of the bonds may extend to the lessor of 40 years or 120% of the depreciable life of the assets being financed. Eligible project costs include the acquisition by a business of an existing facility, acquisition of land, construction of new facilities, machinery tools, equipment, and a limited amount of the bond issuance costs.

- Texas Small Business Industrial Development Corporation: The Texas Small Business Industrial Development Corporation (TSBIDC) has developed the Texas Public Facilities Capital Access Program (TEXCAP) to promote economic development in the State of Texas and to assist eligible borrowers in financing eligible economic development projects. To be eligible, a borrower must be located within the State, within the power of an eligible borrower to finance and approved for financing by the Issuer, the Commission, Issuer's Bond counsel, Issuer's Counsel, and the Administrative Agent.

- Texas Capital Access Program: The program is designed to increase the availability of financing for businesses and non-profit organizations that face barriers in accessing capital. It encourages financial institutions to support businesses that do not meet the requirements of conventional loans, lack sufficient collateral to qualify for conventional financing, or do not meet other business requirements. Eligible borrowers can be any small business with less than 100 employees, a medium size business with employment more than 100 but fewer than 500, or a non-profit corporation. The proceeds may be used for working capital or the purchase, construction, or lease of capital assets.

When one considers neighboring communities (Joshua, Alvarado, Burleson, Godley, Glen Rose), Cleburne has considerable financial infrastructure in place to fund and support local economic development growth. Of the 9 banks listed, 6 specialize in commercial lending (Grandview, Community Bank, Wood Forest, Compass, Pinnacle, and First Financial). The table below illustrates that there are 171 financially centered institutions, firms, and businesses in Cleburne (7.7% of all businesses). This concentration reflects Cleburne's historic position as a financial center supporting an agricultural industry.

Table 12. Cleburne Financial Businesses.

FINANCIAL BUSINESSES WITHIN 5 MILES OF THE CLEBURNE DOWNTOWN				
	Businesses		Employees	
	Number	Percent	Number	Percent
Finance, Insurance, Real Estate Firms	171	7.7%	636	4.6%
Banks, Savings and Lending Institutions	30	1.3%	205	1.5%
Security brokers	11	0.5%	24	0.2%
Insurance Carriers and Agents	37	1.6%	134	1.0%
Real Estate, Holding, Other Investment Offices	94	4.2%	273	2.0%

The following table demonstrates Cleburne's GDP performance from 2002 to 2007 (time frames for which such data is available). Note that the total value of sales, shipments, receipts, revenue, or business done nearly doubled in 5 years (from $1,190,806,000 in 2002 to 1,906,298,000 in 2007). This time frame is important because it predates the 2008 down turn which has seriously affected trends that were in place prior to 2008. In that these trends were reflective of Cleburne's competitive advantage, it is determined that this data best reflects the performance of competitive characteristics than later trends which have been artificially truncated by global incidents.

Table 13. Cleburne GDP performance 2002 - 2007.

Value of Sales, Shipments, Receipts, Revenue, or Business Done	2007	2002
Manufacture	$698,874,000	$313,516,000
Wholesale	$242,847,000	$141,370,000
Retail Trade	$693,543,000	$507,317,000
Information	$26,663,000	$15,342,000
Real Estate and Rental	$42,143,000	$31,486,000
Professional and Scientific	$29,269,000	$12,409
Health	$139,220,000	$105,846,000
Arts, Fed, Tax	$2,501,000	$1,611,000
Accommodation	$54,084,000	$36,316,000
Other Services	$31,784,000	$25,593,000
Total GDP	$1,906,298,000	$1,190,806,000

ECONOMIC COMPETITIVENESS

Element Four: Base Financial Performance and Wages

The earlier analysis of employment by industrial sector revealed that Cleburne has no significant dominant industrial cluster at this time. Therefore, Cleburne cannot offer the economic advantages of further aggregation to industries horizontally or vertically associated with a significant industrial cluster formation within the city. The diversity of industrial sectors that comprise the economy of Cleburne individually employ small segments of the working population and they reflect an economy that is, for the most part internally traded. As a result, wages in Cleburne trend lower than the State and National averages. The median income in Cleburne is $26,954 while the median income statewide is $48,360 and nationally its $47,112. Cleburne's median income is almost half of the State median. The following Department of Labor Statistics Map shows Cleburne's average weekly wage in the second to lowest category. Under these conditions, it will be hard to conclude that base financial performance relative to industrial employment is particularly robust at this time.

There are numerous locational decisions that guide industrial investment in Cleburne. These decisions tie into three primary concerns of industrial production:

Lowering Cost: Cleburne's current remoteness makes it difficult to significantly lower cost. Cost savings usually require a reduction in the cost of production inputs. These inputs are labor, energy, materials (such as Midlothian's quarries), and transportation. With the possible exception of transportation, Cleburne is not in a position to bring significant cost savings to the table. However, transportation is something that Cleburne can plan for and thereby look to create a logistical advantage within the city. The current rail served industrial area, north of Bypass 67, along Main Street, can be greatly improved, made more efficient, and served with switching capability. Industrial use in Cleburne has not been approached as a land development project where logistic capabilities are built into the land design. Cleburne's proximity to the metroplex market, spatial opportunity to establish coherent industrial development, and track availability collectively has potential to create a locational advantage for

Chart 1. Average weekly wages by county in Texas, third quarter 2012

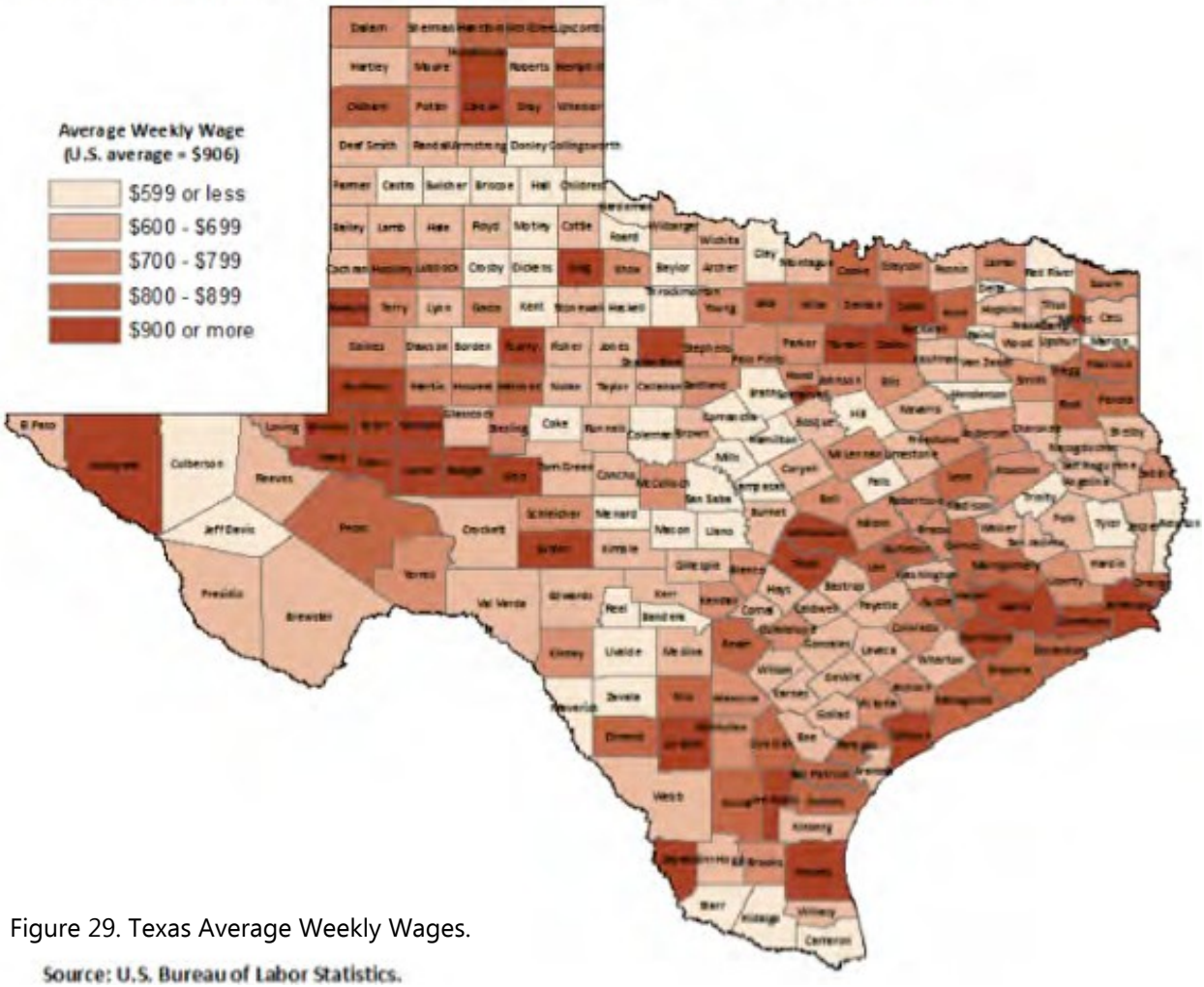


Figure 29. Texas Average Weekly Wages.

Source: U.S. Bureau of Labor Statistics.

the city. The Ellis County Rural Rail Transportation District has undertaken such an initiative called Railport Industrial Park. This industrial land development effort employs both BNSF and UP rail, offering competitive two carrier service to the 1,700 ac. business and industrial park. The close proximity of Railport requires that any rail served industrial strategy in Cleburne offer advantages not found in this competitor.

Increasing Productivity: Increased productivity is actually another means by which cost of production can be lowered. Increased productivity is the main objective of research and development and the availability of research and development is an important location consideration for many industries. 78% of all research and development investment, nationally, is made by industry. Therefore, competitive advantage could be acquired by establishing research and development capability in Cleburne. President Obama recently announced a program to place research and development facilities in selected locations across the US as an investment in our national attractiveness for industry/ manufacturing.

Increasing Market Share: Attainment of market share is a function of information dissemination to market targets and meeting the demand characteristics that such markets possess. Therefore, an infrastructure of information sharing and market research can further enhance Cleburne's desirability as location for industrial investment.

If Cleburne were able to tailor its strategy of lowering cost, increasing production and increasing market share to the needs of particular industries (such as higher value add manufacture) then current wage trends could be reversed and wages rise. Without rising wages, it will be difficult for Cleburne to artract the labor force necessary to support significant industrial investment.

Element Five: Quality of Life Assets

Relocation literature identifies Quality of Life as one of the major locational decision criteria of locating industrial/ commercial investment. In this area, Cleburne has a distinct competitive advantage. The numerous Quality of Life assets that Cleburne possesses include:

- Downtown: A rich architectural fabric and downtown which still serves as the commercial center for a large rural region. Therefore, downtown has many viable commercial, entertainment, and governmental services. Cleburne's downtown is stronger and more intact, by comparison, than neighboring cities.

- Rural Connection: Still an urban center within a largely rural region, many residents of Cleburne live on large acerage. Unlike many of its neighboring cities, the rural hinterlands of Cleburne are still active farm and ranch lands.

- Natural Beauty: Located in the valley of the Nolan River, river tributaries have form a rolling and dramatic landscape within the city. Both alkaline and acidic soils create a diversity of trees and other vegetation. The geologic setting of Cleburne is more diverse than its neighbors, giving Cleburne a distinctive natural beauty.

- Lake Proximity: Lake Pat Cleburne is an asset of the City, located along the Nolan River.

- Proximity to a major Urban Center: With the future opening of the Chisholm Trail Parkway, Cleburne will be unique among its neighbors with direct and unencumbered access to the Dallas/ Fort Worth metroplex.

- Affordable Cost of Living: Many people who now live in Cleburne do so because if its affordability (seeTapestry Segments portion of this report).

- Seven Colleges, Universities (e.g. TCU), and/ or Technical Train- ing Centers within 36 miles of the city: Educational opportunities closest to Cleburne reside in Fort Worth or Weatherford. The Chisholm Trail Parkway will make such educational resources more convenient.

All of the above assets are key quality of life attractions. Their true impact on the life of present and future residents is determined by the extent to which such assets are available to residents of the city through the public domain (trails, streets, parks, schools, institutions, transit, etc.) Therefore, the many quality of life assets that the City possesses must be tied together by the vision of the Comprehensive Plan and made available to everyday experience of residents and visitors. Other quality of life assets that must be further enhanced are:

- Schools in Cleburne:
  - Cleburne High School
    1570 students
  - Team School, Grades 9-12
  - Faith Temple Christian Academy
    10 students
  - Ad Wheat Middle School
    720 students
  - Smith Middle School
    820 students
  - Cooke Elementary
    818 students
  - Marti Elementary
    545 students
  - Coleman Elementary
    519 students

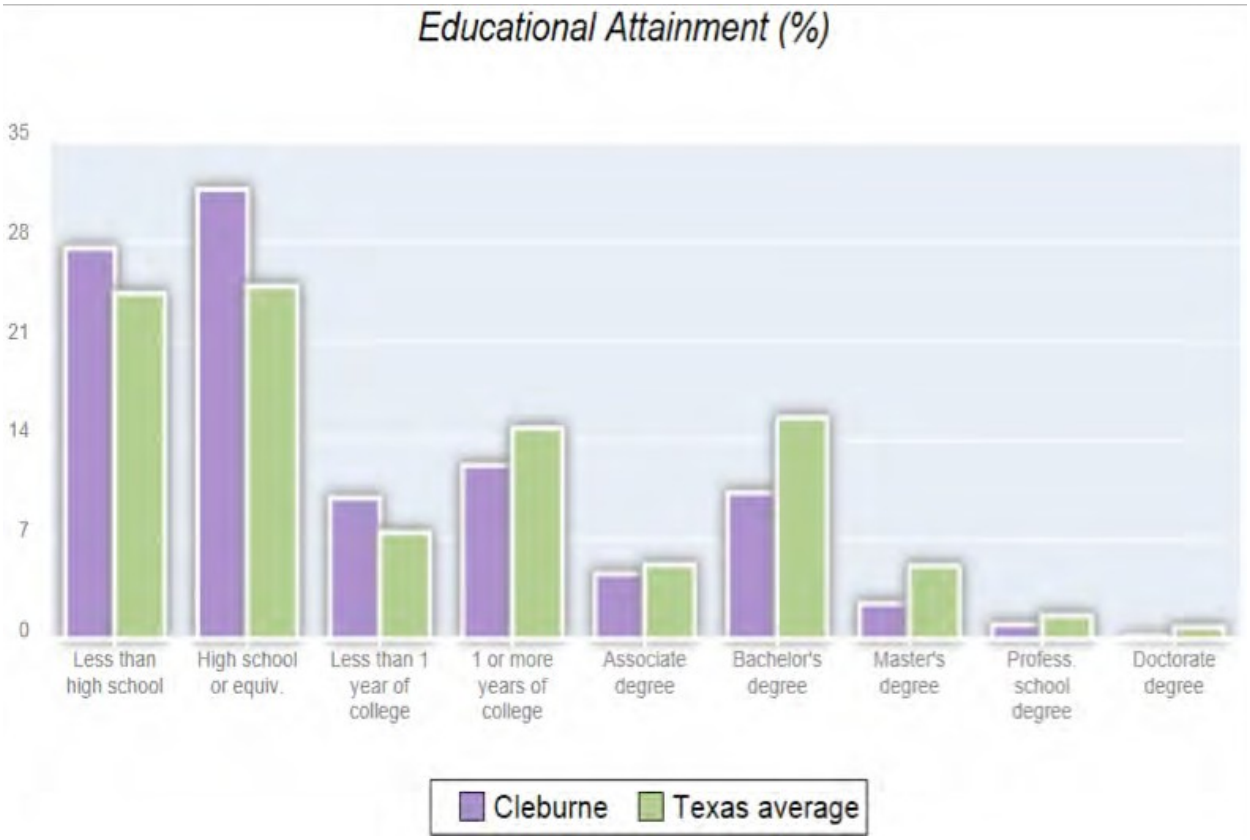
- Gerard Elementary
  467 students
- Irving Elementary
  340 students
- Adams Elementary
  297 students
- Cleburne Christian Academy
  49 students
- Cleburne Adventist Christian School
  22 students

Further planning for special skill schools, charter schools, etc. should be undertaken so that Cleburne has a variety of exceptional educational resources available to its residents.

- Parks: Passive and active parks
- Trails and mobility: The framework of waterways presents opportunity for trail connections. Also local mobility in the form of public transit and ultimately rail connection to the Metroplex.
- Culture and Art: Museums, integration of art into the daily experience.
- Civic Expression: Places for ceremonial, festive, seasonal, and commemorative activities

Element Six: Human capital

The following chart, from City data, summarizes educational attainment in Cleburne. Note that in the key areas of "1 or more years of college" to "Masters Degree", Cleburne falls below the State Average while above the State average for "less than high school" to "high school". These attainment statistics reveal a skilled labor deficit in Cleburne. Labor skill and availability is one of the key locational attractors for high value add manufacturing. Therefore, Cleburne must establish relationships with educational resources within and without the city as education/ training partners in developing the labor resources necessary to support industrial expansion.



Source: City Data

Figure 30. Educational attainment of Cleburne residents as percent of total population.

ECONOMIC COMPETITIVENESS

Summary of Competitiveness

The following table summarizes the general competitive position of Cleburne relative to other cities in Johnson County. A scale is used to measure relative competitiveness as follows:

- **+** = the dimension of competitiveness is present or greater than other cities
- **0** = The dimension of competitiveness is not greater than found in other cities
- **-** = the dimension of competitiveness is absent or less than other cities

In Johnson County, Cleburne hosts several competitive advantages and others are likely to improve as a result of forthcoming change (e.g. the Chisholm Trail Parkway). The Comprehensive Plan must seek to improve Cleburne's competitive position, which is strongest in the following areas:

- Proximities: The Metroplex connections made possible with the completion of the Chisholm Trail Parkway and Highway 67 give Cleburne a competitive dual (north and east) connection capacity. This accesses both the industrial southern areas and financially/culturally important central areas of the Metroplex. Also the potential for direct rail to Alliance and Railport via the UP and BNSF connections needs to be further explored.
- Spatial Opportuities: The places of emerging highest value (west of the Toll Way alignment and along Bypass 67 are as yet undeveloped, flat farmland, agriculturally priced land areas. Early development controls are needed to give direction to the forces of investment and speculation which are already active.
- Financial Capacity and Financial Flows: Cleburne's history as a business center for a vibrant agricultural area has nurtured the formation of a relatively strong financial infrastructure. This resource needs to be conscripted into the overall economic development strategy. Also, the city's status as an enterprise city presents the potential to combine public and private resources into a single strategy.
- Quality of Life Assets: Cleburne's heretofore remoteness has preserved its rural-ness in a naturally beautiful landscape. Care will need to be taken to make sure that these assets are preserved and presented to the daily experience of future residents through an enriched and expanded public domain.

Summary of Competitiveness

Table 14. Johnson County Competitiveness.

	Cleburne	Alvarado	Burleson	Godley	Joshua	Grandview
Proximities	+	0	+	-	0	-
Spatial Opportunities	+	0	-	0	0	0
Financial capacity and Financial Flows	+	0	0	0	0	0
Base Financial Performance and Wages	-	-	0	-	-	-
Quality of Life Assets	+	0	-	0	0	-
Human Capital	0	-	0	-	0	-

ECONOMIC COMPETITIVENESS

Conclusion

While Cleburne has many advantages over its neighboring and competing cities, the city needs to aggressively make progress in the areas of human capital, wage improvement, and formation of dominant industrial clusters. The latter two are linked to both infrastructure (resulting in locational advantage) and human capital through expansion/diversification/improvement of the educational system to target needed talents and expertise. Below is a summary of the competitive considerations:

Table 15. Indicators of competitiveness.

Category of Indicators	Examples of Corresponding Indicators
Proximities	• Physical connection • Distance • Synergistic relationships
Spatial Opportunities	• Land supply • Land location relative to value and opportunity • Location relative to other adjacency issues
Financial Capacity and Financial Flows	• Diversity, scale, and health of financial industry • Regional Market Integration • Corporate headquarters located
Base Financial Performance and Wages	• GDP growth rate • Median and average wages and wage trends
Quality of Life Assets	• Social (schools, network infrastructure, community identity) • Physical/ Natural (historic fabric, natural environment, rural-ness)
Human Capital	• Education • Skills • Work age populations

TAX GAP ANALYSIS

The Tax Gap analysis is an investigation into the sufficiency of Cleburne's ad valorem tax base to address future implementation of Comprehensive Plan recommendations. The following diagram illustrates how the Tax gap Analysis is approached. The purple bar represents the cost of city services and governance. These include better streets, public improvements, police and fire protection, and a host of things that improve a resident's quality of life. These services and governance items are typically contained in the City General Fund, making the General Fund a good measure of the level of service and improvement that a city is committed to sustain. Cleburne's 2012- 2013 General Fund is $32,092,710 or $1084 per capita (for the present 29,602 population). This is significantly higher than other cities in Texas and puts Cleburne above the state average General Fund per capita expenditure (ap- proximately $800/ capita). It should be a goal of every City to derive the majority of their revenue supporting the general Fund from a robust ad valorem tax base instead of being dependent on other funding sources such as oil/ gas royalties or sales tax revenues. These funding sources can prove to be unreliable as described by the City of Cleburne in reference to oil leases (2011 Financial Report): "The Mineral & Lease Royalty Fund continues to see reductions in revenues as a result of natural gas prices and decreased production. The actual fund balance for the fiscal year 2011 increased by $450,954 despite these reductions. This was due to decreased capital expenditures."

Ad Valorem revenues are particularly necessary for purposes of funding obligation bond issues, the main funding mechanism for capital improvements. As a principal, a city is well positioned to fund its future if it can establish that between 60% and 75% of its General Fund Requirements are supported by the available Ad Valorem tax base.

The column to the right (in the diagram below) illustrates how the ad valorem base is arrayed against general fund obligations. The blue portion of the column (at the bottom) represents revenues from City fines, various fees (such a permit fees), and finances (earning on various

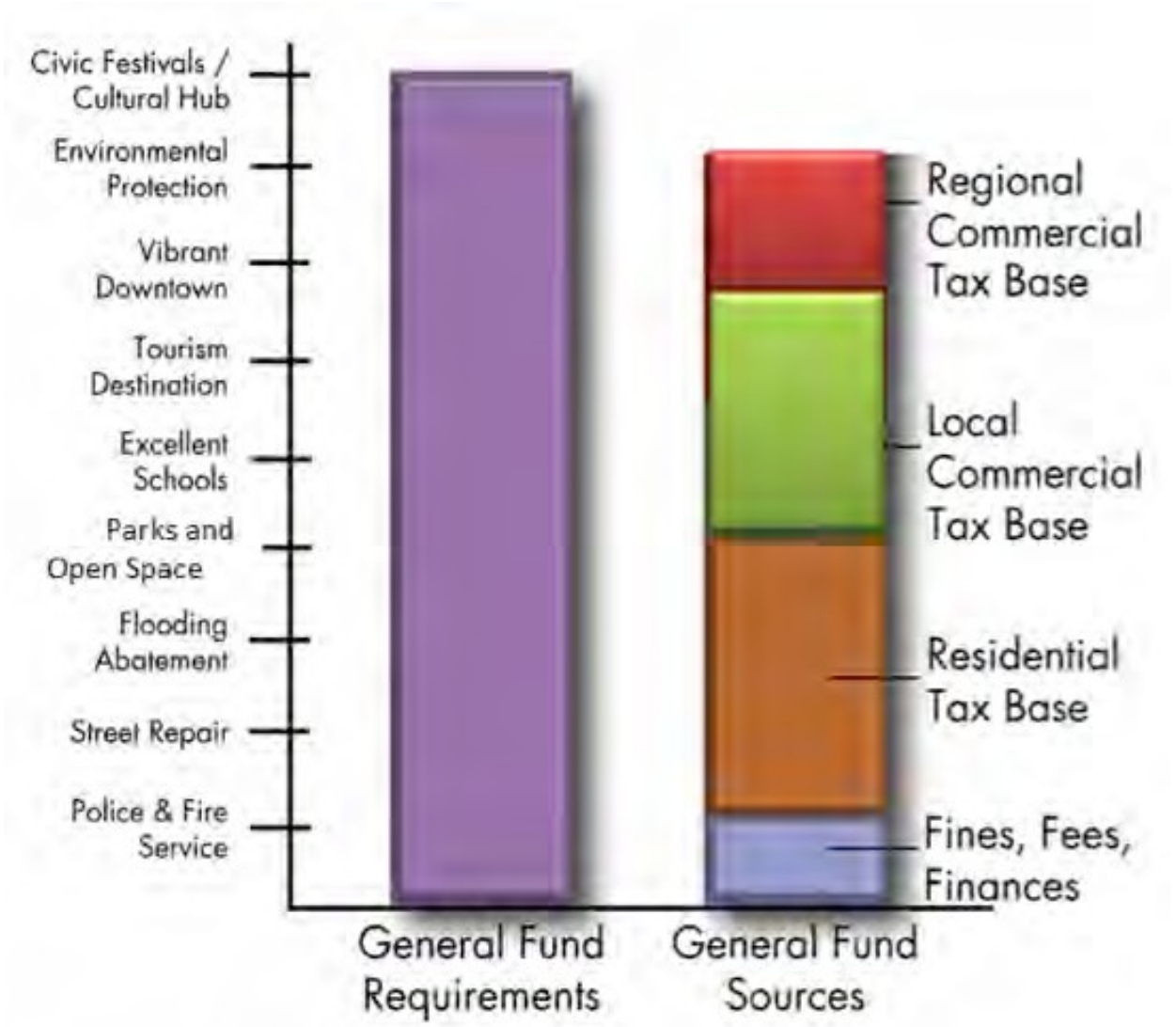


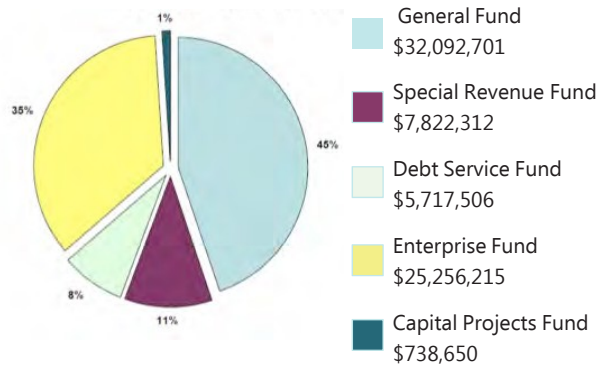
Figure 31. Components of the Tax Gap Analysis.

TAX GAP ANALYSIS

investments and assets). In Texas, this source of revenue represents about 15% to 20% of the general fund requirements. On top of that is the ad valorem revenue available from the residential tax base. In Texas, this will be in the vicinity of 20% to 25%. Because Cleburne's average home values are below the State average, residential property tax may fall short of this goal. The next layer of ad valorem tax revenues (the green segment of the column) represents non-residential Ad Valorem revenue from that portion of total non-residential development supported by the local population. In the economic assessment portion of this report, about half of Cleburne's total retail sales were from the greater Cleburne population. Therefore, it can be said that the local population would be able to support approximately half of the non-residential Ad Valorem need. The remainder of the column (the red segment) represents ad valorem revenue from non-residential construction that is supported by people and patrons from outside the city. The extent to which a city requires non-residential revenues that are not locally supported is the extent to which a city is "regionally dependent". Most cities in Texas are Regionally Dependent to some degree. Understanding the scale of this dependence is critical to development of the future land use plan, which must provide for appropriate development of the regional windows available to a city (freeway frontage, etc.).

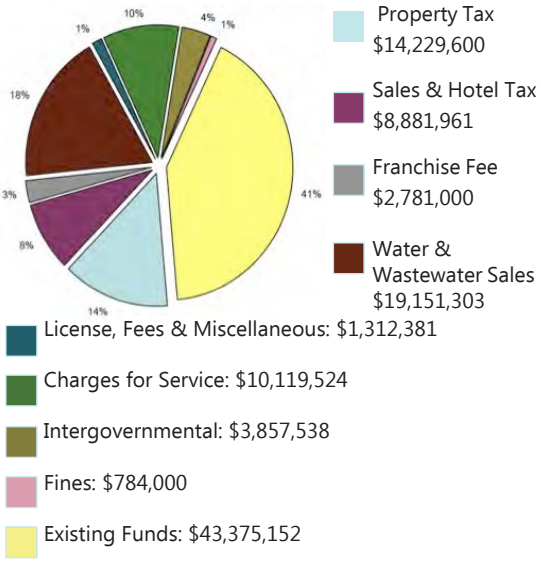
The pie chart below shows Cleburne's 2012-2013 budget and its General Fund commitments. Note that the General Fund allocation is $32,092,701 and represents 45% of total city expenditures.

Current Expenditures by Fund $71,627,384



The relationship between the fund amount and city revenues is illustrated in the pie chart below. In this diagram, property taxes (ad valorem tax) amounts to $14,229,600 or approximately 43% of the general fund requirements while Fees, Fines, and Finances (3F's) amounts to $4,878,181 or 15.2%. This means that the general fund is supported up to 58% by ad valorem and 3F's revenue. This is close to the above stated parameters. However when the population of Cleburne grows, maintaining these proportions will be a challenge. According to the population projections undertaken in the assessments portion of this plan process, the 2032 population of Cleburne, Texas could be 69,115 people (104,663 by 2040). Using the 2012 per capita cost of the general fund, the 2032 general fund would be $55,292,000 (nearly twice what it is today and $83,730,400 by 2040). The table below shows the population projections presented in the population assessment.

Current Revenue $104,493,259



Based on the above projected general fund requirements, revenues supporting the fund commitments in 2032 and 2040 are as follows:

Using Average Decennia Growth Rate as Base for Projection				
Year	2010	2020	2030	2040
Historic	29337	33214	37603	42572
Corridor Growth	29337	44827	68496	104663
Urban Expansion	29337	41269	58053	81664

Using Average Annual Growth Rate as Base for Projection						
Year	2012	2017	2022	2027	2032	2037
Historic	29602	31558	33554	35728	37943	40450
Corridor Growth	29602	37417	45232	57174	69115	87362
Urban Expansion	29602	35622	41641	50109	58577	70489

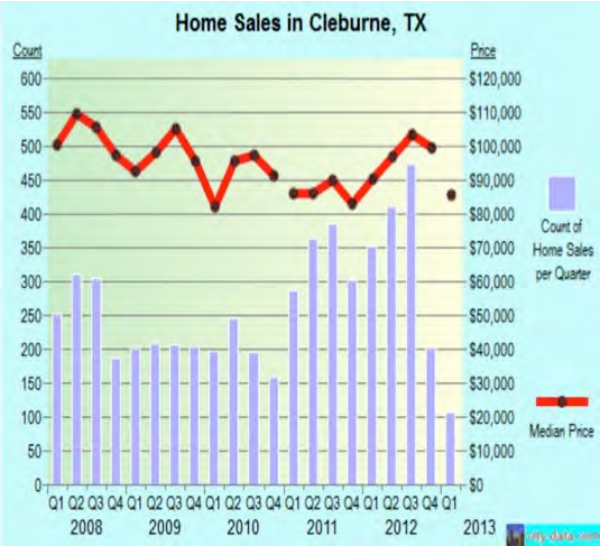
TAX GAP ANALYSIS

Fees, Fines, and Finances:

Using the current relationship of the 3F's to total General Fund obligation (15%), Cleburne should expect to generate $8,293,800 in 2032 and $12,559,560 in 2040. It is very likely that 3F's revenue will run higher than the current proportion due to the high level of housing/ building construction needed to serve the projected housing growth. Current residential permits per year run less than 150 permits (150 housing starts per year). However, construction of an additional 15,000 homes over the next 20 years will require a minimum of 750 housing starts per year. Using the current retail square feet per capita as a base for retail projection, Cleburne will require an additional 3.25 million sf. of retail development. At an average box size of 80,000 sf., that equates to 40 additional retail structures as well as the 15,000 homes.

Residential Ad Valorem Revenue:

The average home occupancy in Cleburne is 2.7 people per household. Therefore, a 2032 population of 69,115 would require 25,598 households and the 2040 population of 104,663 would require 38,764 households. Also the current average home value in Cleburne is approximately $107,082 as illustrated in the City Data graph below (this is lower than the state average of $125,800). Therefore, using $108,000 as an average residential unit value, the 2032 residential ad valorem tax base would be $2,764,584,000 and the 2040 residential ad valorem tax base would be $4,186,512,000. Using the 2012-2013 municipal tax rate devoted to support of the General Fund ($.62/ $100) the 2032 population would contribute $17,140,420 and the 2040 population would contribute $25,956,374. Therefore, the 2032 residential tax base would contribute 31% of the General Fund commitment and the 2040 population would contribute only 20.5% of the General Fund commitment.



Source: City Data

Note that the residential ad valorem contribution to the General Fund Commitment in 2013 is 43% and that such contribution drops to 31% in 2032 and drops further to 20.5% by 2040. This depreciating level of contribution illustrates the effect of continued dominance of entry level, lower price point residential construction. In addition, as the residential contribution portion of the total General Fund commitment drops, the city's dependence on non-residential development grows. By 2032, Cleburne has a significant need to establish a large non-residential ad valorem tax base.

Locally Supported Non-residential Ad Valorem Revenue:

The table below summarizes the average amount spent per household on consumer goods, service, and entertainment (total does not include Owned Dwelling, Rented Dwelling, or Owned Vacation Home). As a general expression of average household spending, it can be determined that the average Cleburne household spends approximately $20,882 on consumer goods, services, and entertainment. This means that the 2032 households would likely spend a total of $534,626,773 on consumer goods, services, and entertainment and the 2040 population would spend $809,605,134 on consumer goods, services, and entertainment.

SPENDING CATEGORY	AVERAGE AMOUNT SPENT/ HOUSEHOLD
Apparel and Services	$1,332.26
Computer	$215.45
Entertainment and Recreation	$2,959.48
Food	$7,505.78
Household Furniture and Equipment	$945.03
Transportation	$7,280.33
Health Products	$644.16
Total (not including dwelling, rental, vacation home, Travel, and Household Operations expenditures)	$20,882.49

Source: ESRI

These spending amounts can be converted into retail square footage that the future local population can support. Using a conversion coefficient of $220 of patron spending per sf. to support a variety of retail types, the 2032 population (spending at the above specified level of spending) could support 2,500,000 sf. of retail space. Using the same conversion, the 2040 population could support 3,700,000 sf. of retail space. The typical value of retail space is $120 per sf. making the taxable base of 2032 locally supported retail $300,000,000 and the 2040 locally supported retail $444,000,000. At the tax rate of $.62 per 100 dollars valuation, the 2032 locally supported retail would generate $1,900,000 and the 2040 locally

supported retail would generate $2,738,000 in ad valorem revenue.

In addition to locally supported retail, there is also locally supported commercial (employment) square footage. Currently, 46% of Cleburne's population is in the workforce. Assuming that this percentage is normal for Cleburne, in 2032 there would be 31,792 people in the workforce and in 2040 there would be 48,145 people in the workforce. Further, using an average employee ratio of one person per 500 sf., the amount of employment space supported by the 2032 population is 16 million sf. and the amount supported by the 2040 population is 24 million sf. At an average valuation of $100 per sf., the 2032 square footage would contribute $9,920,000 of ad valorem revenue to the general fund obligation and the 2040 square footage would contribute $14,900,000.

The table below shows how much the above specified 3F's, residential tax base, and locally supported non-residential base (both retail and employment) will contribute to the general fund obligations in 2032 and 2040.

Table 16. Future revenue sources.

Revenue Source	2035	2040
Fees, Fines, and Finances (3F's)	$8,293,800	$12,559,560
Residential Tax Base	$17,140,420	$25,956,374
Locally Supported Retail Tax Base	$1,900,000	$2,738,374
Locally Supported Employment Tax Base	$9,920,000	$14,900,000
A. Sub Total	$37,254,220	$56,153,934
B. 75% of Projected general Fund Supported by Above Revenue Sources	$41,469,000	$62,797,800
C. The Difference Between A &B = Regionally Supported Non-residential Tax base needed to fund General Fund Obligation	$4,214,780	$6,643,886

Source: ESRI

This table also illustrates the amount of revenue that will be needed to close the gap between locally generated and supported revenue sources (A) and 75% of the General Fund obligation (B). The difference (C) is the amount of regionally supported non-residential ad valorem revenue required to support the General Fund at the recommended 75% level of support. This level of support is recommended because it gives the city sufficient ad valorem depth to replace general fund allocations with sales tax revenues and thereby, redirecting the ad valorem revenues to secure debt funding obligations without making the city overly sales tax dependent.

TAX GAP ANALYSIS

Regionally Supported Non-residential Ad Valorem Revenue:

Data from the preceding table substantiates that additional ad valorem revenue from regionally supported non-residential sources is necessary to fund the anticipated 2032 or 2040 General Fund. In 2032 an additional $4,214,780 will be required and in 2040 an additional $6,643,886 will be required. This revenue can be converted into a required square footage by translating the ad valorem revenue into an ad valorem tax base (Revenue/.62 X 100) and dividing that tax base by an average per square foot valuation ($120/sf.). Using this conversion calculation, the amount of additional non-residential square footage needed to close the Tax Gap in 2032 is 5.6 million sf. and in 2040, it will be 8.9 million sf.

This amount of regionally supported square footage defines Cleburne's regional dependence. If the 2032 required square footage is developed at the present low Floor Area Ration level of typical big box development (.18:1 FAR) then 5.6 million sf. of building would require 714 acres of developable land which would require 3.7 miles of Bypass 67 frontage (both sides) at 800 foot parcel depth (typical parcel depth for box development). There are 4.7 miles of Bypass 67 frontage between its connection with Business 67 and the Airport. In addition, there is a significant amount of low FAR development in the vicinity of the Main Street/ Bypass 67 intersection that occupies about 1 mile of the Bypass 67 frontage (both sides). Therefore the available frontage is approximately 3.7 miles. The available land supply will suffice to 2032 but not be sufficient for 2040 unless Cleburne can pro- mote higher densities and more nodal development form over strip development form.

The Graphic below repeats the earlier explained Tax Gap graph with the contribution amounts shown. This graph illustrates the 2032 requirements.

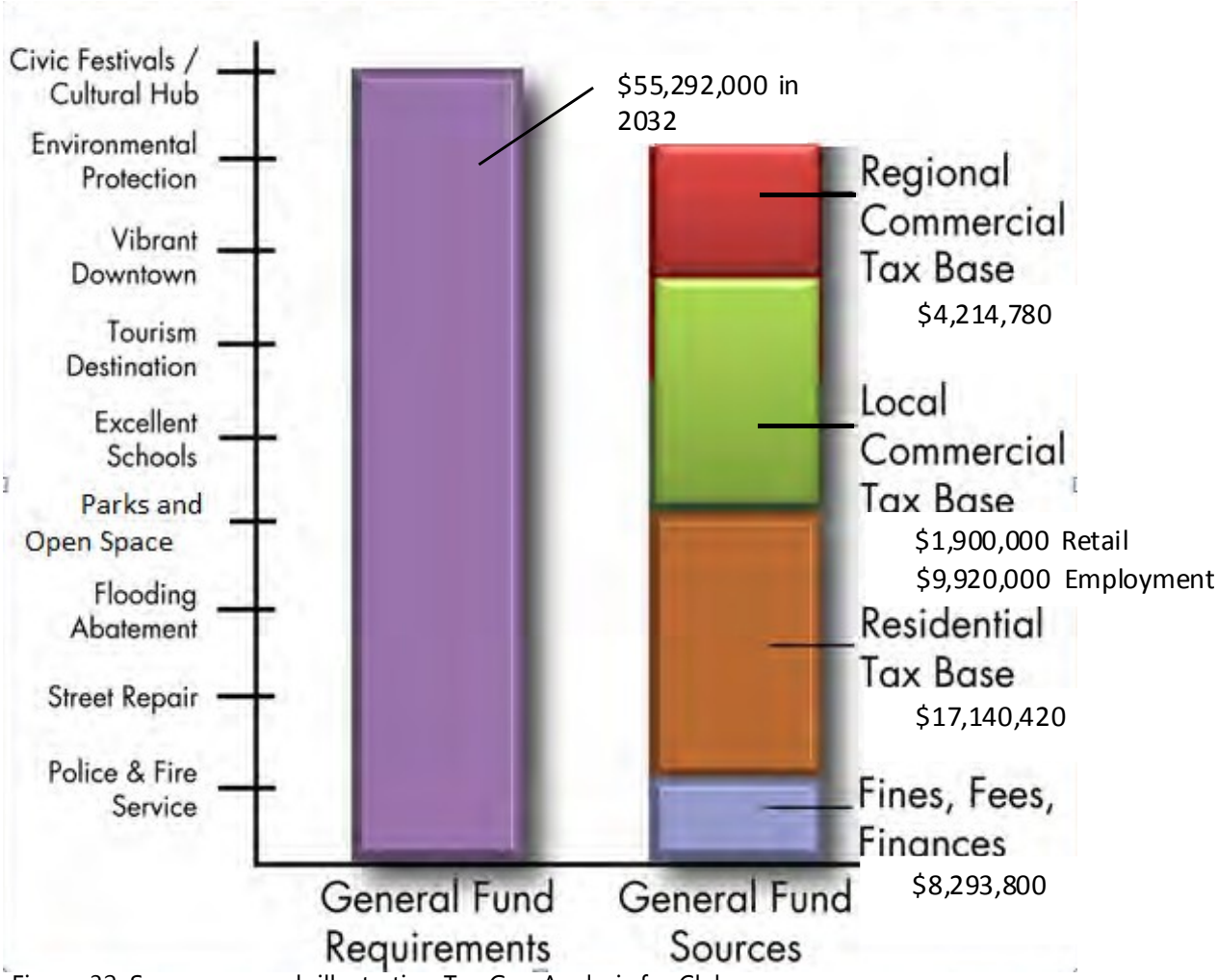


Figure 32. Summary graph illustrating Tax Gap Analysis for Cleburne.

Cleburne Tomorrow

REGIONAL CONTEXT FOR GROWTH

It is impossible to know what the exact population of a community will be in future years, as there are many factors that impact growth. It is, however, possible to establish policies that will encourage patterns that are consistent with community vision and preferences for quality of life. In this respect, capacity building is very important. The population projections conducted for the comprehensive plan focused on capacity building that could accommodate a build-out scenario in future years.

To effectively anticipate growth in Cleburne in future years, it will be important to understand the context in which that growth will happen. As Cleburne shifts from a rural context to an urban context, influences of the DFW Metroplex will become more pronounced. With the opening of the Chisholm Trail Parkway, Cleburne will become an outer tier growth city. Trends in urban expansion will therefore strongly impact future population shifts. The two major trends that influence growth in the DFW Metroplex are suburban expansion and transportation corridor development.

Suburban Expansion

The creation of the interstate system stimulated much of the growth in the metropolitan areas of the country, and Dallas-Fort Worth was no exception. I-35, I-30 and I-20 framed much of the growth observed in the 1960s, allowing first tier suburbs to benefit from the economic energy of the City of Dallas. During this time, cities such as Carrollton, Plano, Garland, Irving and Arlington were able to attract residential and commercial development, due to interstate access to the employment base of Dallas. During these decades, Dallas was a stronger growth stimulator than Fort Worth, as can be seen in the aggregation of growing suburbs around the Dallas core. Figure 33 illustrates growth trends during the 1960s.

In the 1970s, first tier suburbs continued to experience strong growth, but, with the exception of a few cities, the trend began shifting northward and concentrating in cities like Plano, Carrollton and Lewisville. This indicates that proximity and accessibility alone are not the drivers of growth. Community attributes and development policies provide necessary differentiation when it comes to attracting urban growth.

Figure 33. Suburban Expansion in the DFW Metroplex 1960s. This growth occurred primarily in the communities surrounding Dallas.

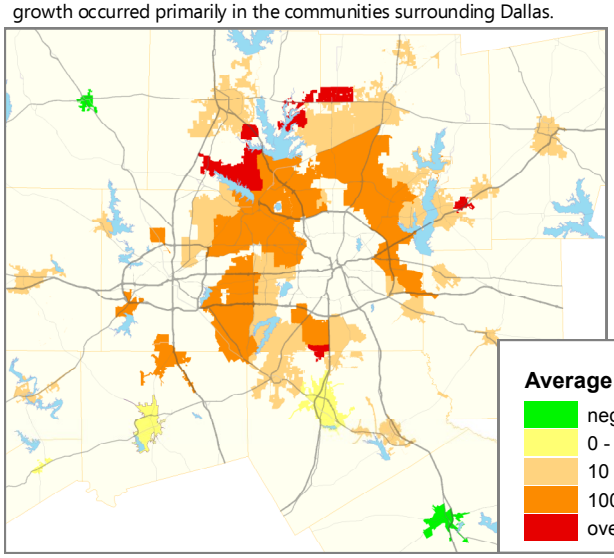
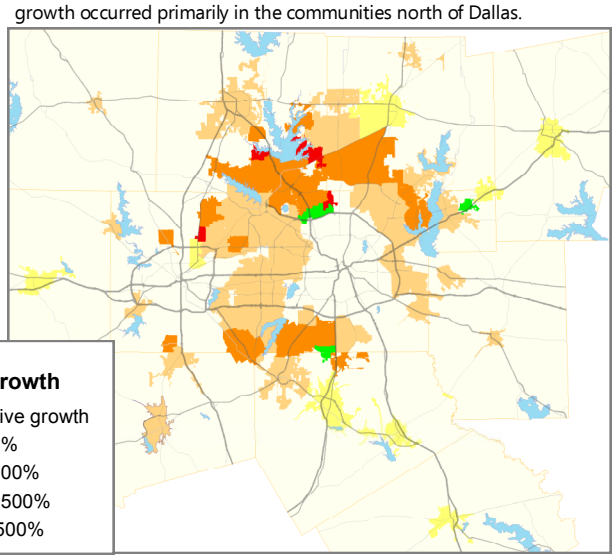


Figure 34. Suburban Expansion in the DFW Metroplex 1970s. This growth occurred primarily in the communities north of Dallas.



REGIONAL CONTEXT FOR GROWTH

Corridor Development

As the Metroplex continued to grow in population, the state highway system was expanded to accommodate this growth. In the 1980s, due to the traffic associated with the new DFW airport, State Highways 114 and 121 underwent significant improvement, attracting new residents to cities such as Grapevine, Hurst, Euless and Bedford. With only a few exceptions, the new growth seen in the 1980s was tightly aligned with these newly improved state highways, creating a pattern of corridor -oriented development. This trend is illustrated in Figure 35. The commercial development that we see today along 183 and 121 in the mid-cities area of the Metroplex is the result of that growth.

In the 1990s, the Dallas North Tollway (DNT) was the dominant development force in the Metroplex, attracting high density commercial growth and rapid residential development in second and third-tier suburban cities such as Frisco and Carrollton. As illustrated in Figure 36, the intersection of the DNT with SH121 positioned Frisco for absorption of much of this growth, as they put mechanisms in place to capitalize on their newly defined position in the Metroplex.

There are a few other cities that were still absorbing growth in the 1990s. These communities also benefitted from proximity to a growth corridor: SH114. SH114 allowed for residential expansion out of the employment and transportation hub created by DFW Airport the decade before. Cities such as Coppell, Flower Mound, Southlake and Grapevine saw strong growth in the 1990s due to their association with SH114 and their proximity to the DFW Airport.

In the 2000s, another corridor emerged as a determinant of growth in the Metroplex: SH121. Although the segment connecting the mid-cities had functioned as a growth corridor in the 1970s and 1980s, improvements to 121 segments reaching northward opened up the Metroplex to growth unlike any other corridor had since the creation of the interstates. This is for several reasons:

- SH121 bisects existing growth corridors, building off of proven market successes and currently growing cities
- SH121 connects a significant cross-section of the Metroplex, from Fort Worth to the northernmost reaches of Dallas-oriented growth (McKinney, Allen, Fairview, etc.)
- SH121 is privately owned and operated by NTTA
- SH121 does not concentrate commercial

Figure 35. Corridor Growth in the DFW Metroplex 1980s. This growth occurred primarily along the SH114 corridor, and in 2nd tier suburbs.

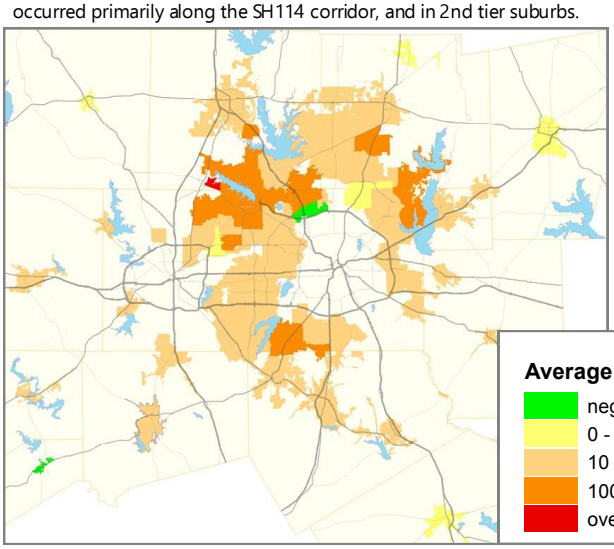
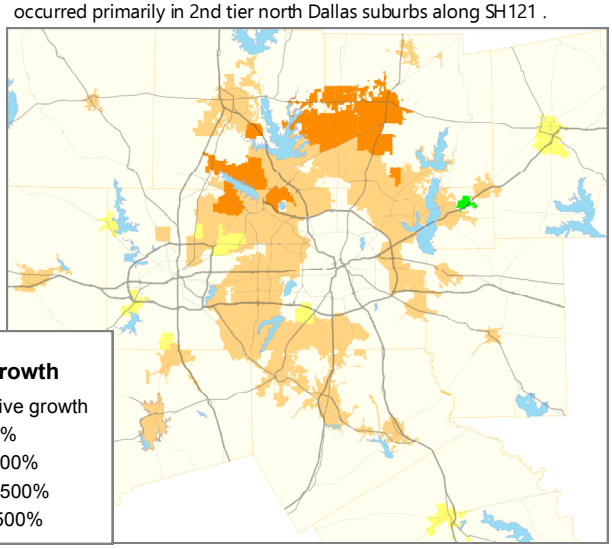


Figure 36. Corridor Growth in the DFW Metroplex 1990s. This growth occurred primarily in 2nd tier north Dallas suburbs along SH121 .



development along frontage roads, as this is, in general, a limited access highway. This means that surrounding communities experience deeper penetration of economic impact in their cities, stimulated not freeway-oriented development, but community-oriented development. The SH121 is allowed to connect people regionally, so that communities come "online" and are able to harness the benefits of regional growth.

The impact of northward expansion of the SH121 corridor can be seen in Figure 37. Cities that benefitted include: Lewisville, The Colony, Frisco, Allen and McKinney.

The other corridor that impacted growth in the 2000s is the North George Bush Tollway (NGBT), which is another NTTA project. These two corridors run in close proximity to each other, but serve two different traffic patterns. Whereas the 121 increases connectivity for the Metroplex at large (it includes connection to Ft Worth), the NGBT is an outer loop that connects Dallas suburbs. The cities that benefitted from creation of the NGBT include Plano, Garland, Sachse and Rowlett. Both the SH121 and the NGBT continue to drive growth in the current decade, as indicated in Figure 38.

Another corridor that has emerged as a driver of growth in this decade is the North Tarrant Express (the collective term for SH183, I-820 and I-35W). This is a significant project because it is the first since interstate creation that will stimulate Tarrant County-oriented growth, rather than Dallas or DFW Airport-oriented growth. Although construction is not yet complete, the impact of these improvements can be seen as far north as Keller and Haslet, and the City of Fort Worth is now seeing the highest level of population growth of all cities in the Metroplex (based on population counts, not percentages).

Fort Worth: the Game-Changer in Population Distribution in the DFW Metroplex

The emergence of Fort Worth as a growing municipality in the Metroplex is significant, as this is the first time in decades that it has been observed. By shifting distributions of population absorption to Tarrant County, and by creating corridors that allow for outward expansion from Fort Worth (rather than from Dallas or DFW Airport), the cities that surround Fort Worth will, for the first time, be positioned to attract urban growth and development interest. The two major corridors that will expand this Tarrant-oriented growth are the North Tarrant Express to the north, and the Chisholm Trail Parkway to the south.

Figure 37. Corridor Growth in the DFW Metroplex 2000s. This growth occurred primarily along the SH121 and NGBT corridors and SH287.

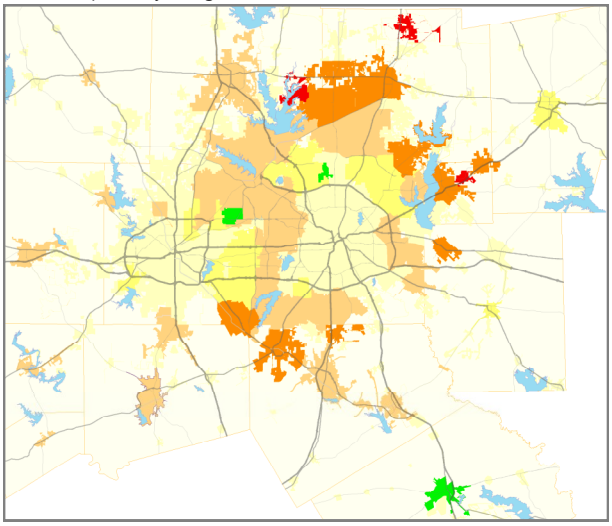
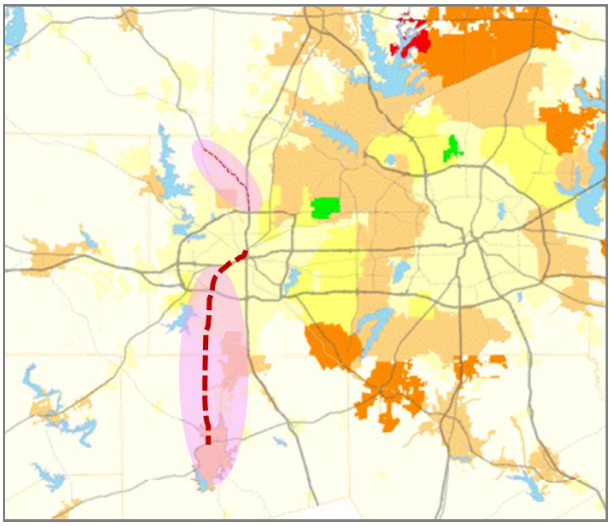


Figure 38. Corridor Growth in the DFW Metroplex 2010s: The impact of Fort Worth Growth on corridor expansion: north and south.



REGIONAL CONTEXT FOR GROWTH

The Chisholm Trail Parkway: A Growth Corridor for the Future

It is this latter corridor that will determine the growth potential of Cleburne in coming years. As SH114 brought opportunity to Grapevine, Southlake and Coppell, and as NGBT brought opportunity to Garland, Sachse and Rowlett, so the Chisholm Trail Parkway will bring opportunity to Cleburne.

The Chisholm Trail Parkway is an extension of the SH121, which is built, owned and operated by NTTA. Therefore, when considering impacts on this highway on future development opportunity, other communities in the Metroplex that have been impacted by 121 development can be considered. Those attributes of 121 development seen in other communities will also shape development in Cleburne. The Parkway will increase regional connectivity (tri-county system that bisects significant destinations and centers of employment in the Metroplex) and will also stimulate local development. One of the strongest contributions of the tollway, from an economic development perspective, is the fact that it does not concentrate new development right at the highway frontage. As a limited access system, it fosters a nodal development pattern and encourages a deeper distribution of economic impact within the community through which it passes. This translates into a greater – and longer term – economic benefit for Cleburne.

PROJECTING CLEBURNE POPULATION GROWTH

The Role of Projections in Comprehensive Planning

The comprehensive plan is intended to guide the decision-making processes associated with future city development. It is therefore important to make sure that the policies put in place will accommodate future demands on city systems and available land area. Population projections are therefore needed to ensure that the vision is cast in buildable terms – physically as well as economically.

The Relevance of Historic Growth Rates

In the past 50 years, Cleburne has grown at a rate of about 1.3% or 1.4% per year. This translates into an average decennial (10-year) growth rate of 13.9%. At this rate, Cleburne has not been competitive with other cities in the DFW Metroplex in terms of urban growth and the ability to attract development. When compared to the other cities of the DFW Metroplex, Cleburne ranks in the bottom third for decennial growth. When compared to the other county seats of the Metroplex, Cleburne also ranks in the bottom third in terms of growth rate.

This is not surprising, given that Cleburne has functioned as a rural county seat in the past, with most urban development going to cities that are more connected within the Metroplex. What is important to note, however, is the inapplicability of historic growth rates in terms of anticipating future rates. With the opening of the Chisholm Trail, and continued outward expansion of Fort-Worth oriented growth, Cleburne will no longer be isolated from the urban fabric of the Metroplex. It will be an edge community within that urban context.

Population Projections: Methodology

Because historic growth rates cannot be used to determine population projections for Cleburne, another method had to be determined. An analog method was therefore established for anticipation of future growth. There are several reasons why this method is advantageous for Cleburne:

Extensive database for monitoring growth trends. The DFW Metroplex is comprised of over 150 municipalities, including 15 county seats. This provides greater number of options when defining comparable cities.

Five decades of population data. Because the DFW population database goes back to 1960, data trends over time are not restricted only to heightened periods or specific decades of growth.

The correlation between corridor development and population growth. Multiple corridors can be used for considering corridor-related impacts on population growth, including NGBT, I-35, SH114, SH183 and other segments of SH121.

In the Analog Method, criteria were defined for cities that would serve as comparables for growth (much the same way that comparables can be used in real estate valuation). According to these criteria, average decennial growth rates were used to project future growth in Cleburne. The criteria set up for determining analogous cities were:

- Location in the DFW Metroplex
- Municipalities over 50 years old (data reaching back to 1960)
- Municipalities within 0.25 miles of SH121
- Dallas and Fort Worth were excluded because they are the two urban cores of the metropolitan statistical area

Using these criteria, an average decennial growth rate was determined for corridor-oriented municipal growth. The results are contained in Table 17.

Weighting the Impact of Corridor Growth

As discussed in the previous pages, corridor proximity alone is not the sole determinant of a city's success at harnessing regional growth. Other determinants come into play. To allow for these locational determinants, the Corridor Growth Rate for Cleburne was weighted against the county seats of the Metroplex. County seats were chosen because of their even distribution (one per county in the 15 county area of interest) and their relationship to Cleburne in terms of economic impact on surrounding communities. The growth rates for county seats in the DFW Metroplex are presented in Table 18.

The average decennial growth rate for county seats in the DFW Metroplex is **25.7%.** Cleburne's average decennial growth rate is **13.9%.** This means that since 1960, Cleburne has grown **54.1%** as fast as the other county seats of the Metroplex.

FUTURE GROWTH PROJECTIONS FOR CLEBURNE

Table 17. Decennial Growth Rate, 121 Corridor.

City	1960	1970	Percent Change 1960-1970	1980	Percent Change 1970-1980	1990	Percent Change 1980-1990	2000	Percent Change 1990-2000	2010	Percent Change 2000-2010	Avg 10yr Grwth Rate
Frisco	1,184	1,845	55.8%	3,499	89.6%	6,141	75.5%	33,714	449.0%	116,989	247.00%	183.4%
Allen	659	1,940	194.4%	8,314	328.6%	18,309	120.2%	43,554	137.9%	84,246	93.40%	174.9%
Plano	3,695	17,872	383.7%	72,331	304.7%	128,713	77.9%	222,030	72.5%	259,841	17.00%	171.2%
Coppell	666	1,728	159.5%	3,826	121.4%	16,881	341.2%	35,958	113.0%	38,659	7.50%	148.5%
Anna	639	736	15.2%	855	16.2%	904	5.7%	1,225	35.5%	8,249	573.40%	129.2%
Fairview	175	463	164.6%	893	92.9%	1,554	74.0%	2,644	70.1%	7,248	174.10%	115.1%
Carrollton	4,242	13,855	226.6%	40,595	193.0%	82,169	102.4%	109,576	33.4%	119,097	8.70%	112.8%
Bedford	2,706	10,049	271.4%	20,821	107.2%	43,762	110.2%	47,152	7.7%	46,979	-0.4%	99.3%
Lewisville	3,956	9,264	134.2%	24,273	162.0%	46,521	91.7%	77,737	67.1%	95,290	22.60%	95.5%
Euless	4,263	19,316	353.1%	24,002	24.3%	38,149	58.9%	46,005	20.6%	51,277	11.50%	93.7%
Grapevine	2,821	7,023	149.0%	11,801	68.0%	29,202	147.5%	42,059	44.0%	46,334	10.20%	83.7%
Colleyville	1,491	3,368	125.9%	6,700	98.9%	12,724	89.9%	19,636	54.3%	22,807	16.10%	77.0%
McKinney	13,763	15,193	10.4%	16,256	7.0%	21,283	30.9%	54,369	155.5%	131,117	141.20%	69.0%
N. Richland Hills	8,662	16,514	90.6%	30,592	85.2%	45,895	50.0%	55,635	21.2%	63,343	13.90%	52.2%
Hurst	10,165	27,215	167.7%	31,420	15.5%	33,574	6.9%	36,273	8.0%	37,337	2.90%	40.2%
Haltom City	23,133	28,127	21.6%	29,014	3.2%	32,856	13.2%	39,018	18.8%	42,409	8.70%	13.1%
Richland Hills	7,804	8,865	13.6%	7,977	-10.0%	7,978	0.0%	8,132	1.9%	7,801	-4.1%	0.3%

*Based on these numbers, the average decennial growth rate for municipalities in the 121 Corridor is **97.6%.***

Table 18. Growth Rate, NCTCOG county seats.

City	1960	1970	Percent Change 1960-1970	1980	Percent Change 1970-1980	1990	Percent Change 1980-1990	2000	Percent Change 1990-2000	2010	Percent Change 2000-2010	Avg Decenn. Growth Rate
Rockwall	2,166	3,121	44.1%	5,939	90.3%	10,486	76.6%	17,976	71.4%	37,490	108.60%	78.2%
McKinney	13,763	15,193	10.4%	16,256	7.0%	21,283	30.9%	54,369	155.5%	131,117	141.20%	69.0%
Denton	26,844	39,874	48.5%	48,063	20.5%	66,270	37.9%	80,537	21.5%	113,383	40.80%	33.9%
Granbury	2,227	2,473	11.0%	3,332	34.7%	4,045	21.4%	5,718	41.4%	7,978	39.50%	29.6%
Weatherford	9,759	11,750	20.4%	12,049	2.5%	14,804	22.9%	19,000	28.3%	25,250	32.90%	21.4%
Waxahachie	12,749	13,452	5.5%	14,624	8.7%	18,168	24.2%	21,426	17.9%	29,621	38.20%	18.9%
Stephenville	7,359	9,277	26.1%	11,881	28.1%	13,502	13.6%	14,921	10.5%	17,123	14.80%	18.6%
Kaufman	3,087	4,012	30.0%	4,658	16.1%	5,238	12.5%	6,490	23.9%	6,703	3.30%	17.1%
Cleburne	15,381	16,015	4.1%	19,218	20.0%	22,205	15.5%	26,005	17.1%	29,337	12.80%	13.9%
GlenRose	1,422	1,554	9.3%	2,075	33.5%	1,949	-6.1%	2,122	8.9%	2,444	15.20%	12.2%
Decatur	3,563	3,240	-9.1%	4,104	26.7%	4,252	3.6%	5,201	22.3%	6,042	16.20%	11.9%
Greenville	19,087	22,043	15.5%	22,161	0.5%	23,071	4.1%	24,117	4.5%	25,557	6.00%	6.1%
Corsicana	20,344	19,972	-1.8%	21,712	8.7%	22,911	5.5%	24,485	6.9%	23,770	-2.9%	3.3%

Based on these numbers, the average growth of NCTCOG county seats is 25.7%. Cleburne grows 54.1% as fast as the NCTCOG county seat average..

FUTURE GROWTH PROJECTIONS FOR CLEBURNE

Using the county seat comparison, the average 121 Corridor Growth Rate was weighted, assuming that Cleburne would perform 54.1% as well as the other cities of the corridor, giving Cleburne a projected decennial growth rate of **52.8%**. This ensures that the rate of growth anticipated for Cleburne is contextualized for Johnson County.

Based on this weighted rate, projections for growth in Cleburne, which are provided in Table 18, indicate that Cleburne could reach a population size of approximate 100,000 in the next 30 years, provided that growth and economic development measures are put in place to build upon corridor-oriented growth. Figure 39 shows how this growth rate compares with the projections generated by NCTCOG.

When establishing projected growth rates for the planning horizon, it is important to remember that these numbers will be used for capacity building purposes. In that sense, the larger the number, the more conservative the estimate, as this allows the City to create policies to manage a "highest growth pressure" scenario.

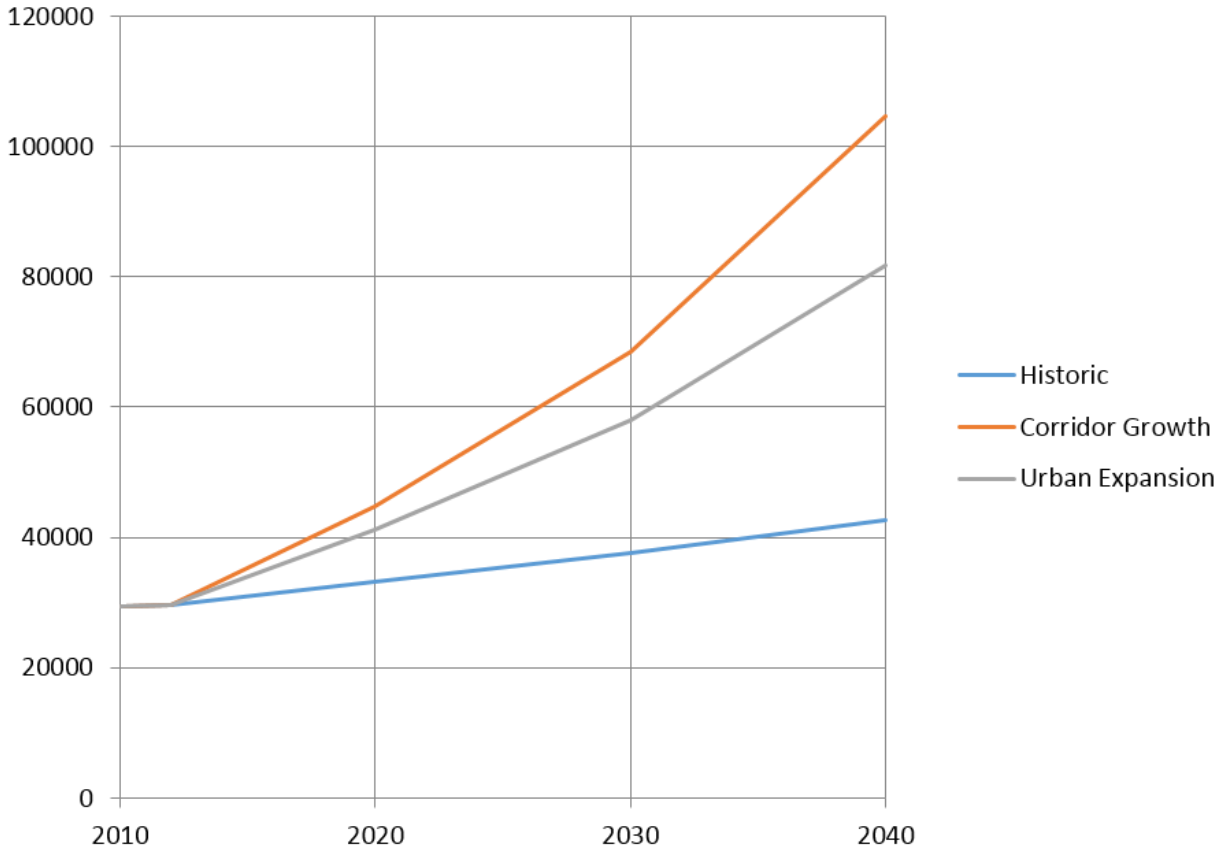


Figure 39. Cleburne Population Projection, indicating the range of possibility for the future.

FUTURE GROWTH PROJECTIONS FOR CLEBURNE

Challenges Associated with Corridor-Oriented Growth

The following are some of the challenges associated with corridor-oriented growth. Understanding that every city is unique, there are general trends in urban expansion that should be considered when defining the vision for Cleburne's future.

1. ***Absorption of corridor growth in a centralized model.*** Many communities that are opened to new growth end up shifting traffic patterns (and therefore development) away from the original city center. This leads to the creation of an "Old Town" and a "New Town." Often the Old Town can't compete with the New Town, and new development sets a pattern of always moving ever further away from the city center. The challenge for Cleburne will be to create a form for future growth that ties the new Chisholm Trail Corridor to the city center, stabilizing value patterns and promoting community cohesion.

2. ***Changes in Lifestyle and Environment.*** The growth that Cleburne is likely to experience in coming decades will have significant impact not only on urban form, but also on community life. As the City transitions from a nuclear rural economy to an edge city of an urban area, community demographics are also likely to shift. This will lead to new forms of residential and commercial development, location of new schools and a need for new public facilities. It will also impact tax rates for the community. The comprehensive plan is designed to ensure that community priorities in these areas are translated into policy measures.

3. ***Preservation of character and identity.*** New growth will bring with it new community expressions. This is often a good thing, but care must be given to preserve those community characteristics that are valued by Cleburne residents, while encouraging new characteristics that would enhance quality of life..

VISIONING

VISIONING

The Vision for Cleburne consists of long term community goals that focus on development forms and city functions, as well as a physical framework to guide growth in coming years.

Public Participation

The goals and framework grew out of a series of public meetings where all members of the Cleburne community were invited to participate. At each of these meetings, the consultant team would present findings, then participants would break out into groups to discuss and comment. The meetings consisted of a Town Hall meeting at the beginning of the planning process, two visioning workshops, where goal statements and a framework were developed, and a project open house where the Goals, Framework and Plan Components were presented and discussed.

Goal Statements

The Goals are statements that describe Cleburne's long range priorities regarding community identity and lifestyle preferences. They are directly related to the priorities that emerged from inputs at public meetings. The priorities are categorized according to the six components addressed by the comprehensive plan

Framework for Growth

The Framework for Growth is a diagram that illustrates basic principles to guide the physical components of the plan. It is built around four core components: growth zones, corridors, nodes and targeted development areas.

- **Growth zones.** The growth zones illustrate how and in which directions Cleburne should grow in future years. This creates a more efficient model for public services, maximizes land value and improves overall mobility in the City. It also helps to preserve the natural resources and agricultural heritage of the region.
- **Corridors.** There are six general corridor categories, based on traffic flow as well as the character and design of the street. Also considered in this designation is the type of development that each road should support.
- **Nodes.** The Nodes of the Growth Framework are intended for aggregation of non-residential uses, in order to promote higher commercial land values and stabilize those values over time. They also aggregate activity, which allows Cleburne to draw more regional and destination-oriented traffic.
- **Targeted Development Areas.** Certain areas of the City are targets for economic development, based on employment opportunity, underutilized amenity and community preferences. There are three such areas identified in the Framework for Growth.

Public Participation

PUBLIC PARTICIPATION

The City has taken care to involve the people of Cleburne in the planning process since it began in April of 2013. The method of involvement include a range of public meeting types, a website that ran the life of the project and flyers distributed city-wide, updating every resident on project status and opportunities for involvement. Throughout the process, the Cleburne community at large has been directly engaged with the consultant team to provide inputs and ask questions. This has ensured that the comprehensive plan reflects the vision of the people of Cleburne, rather than interest groups or community representatives. The process for public involvement consisted of a town hall meeting, 2 visioning workshops, a project open house and public hearings for plan adoption. With the exception of the public hearings held at City Hall, all public meetings were held at the Cleburne Conference Center. The Conference Center, which is of sufficient size for city-wide public events and is a well-known location in the community, provided a degree of continuity throughout the participation process.

TOWN HALL MEETING

On April 30, 2013, the City held a town hall meeting to kick off the beginning of the comprehensive planning process. After introductions of the consultant team and staff members that would be coordinating the process, a brief presentation was given to provide information about future workshops and opportunities for public involvement, an approximate timeline for production of the plan, and a description of what the plan would contain. The team was available afterwards to answer questions from participants. The project website, which has served as a source of information and a resource clearinghouse for the project, went live on the night of the Town Hall Meeting, and has run the course of the project. The anticipated date of the first visioning workshop was announced at the Town Hall Meeting.

WORKSHOP #1

The visioning process in comprehensive plan development is very important, as it leads to the goals and priorities that the plan will address. In Workshop #1, the consultant team provided a snapshot of the City of Cleburne with respect to market readiness for new development, population growth and demographics, current city form and capacity of city infrastructure systems (including streets). With the opening of the Chisolm Trail Parkway, Cleburne will experience a dramatic shift in locational attributes, moving from a rural hub to an ex-urban node. The snapshot of existing conditions and market potential is critical in order to understand what the opportunities and constraints are for future growth.

Following the presentation of consultant observations, workshop participants split up into breakout groups to discuss issues facing Cleburne today. The breakout groups were defined by sectors of the city, as indicated in Figure 40. Each group was given a set of questions for discussion, organized according to six key issues:

- Neighborhoods and Community Character
- Shopping and Entertainment
- Housing Values and Housing Options
- Traffic, Streets and Sidewalks
- Parks and Recreational Facilities
- Public Works and Public Services

PUBLIC PARTICIPATION

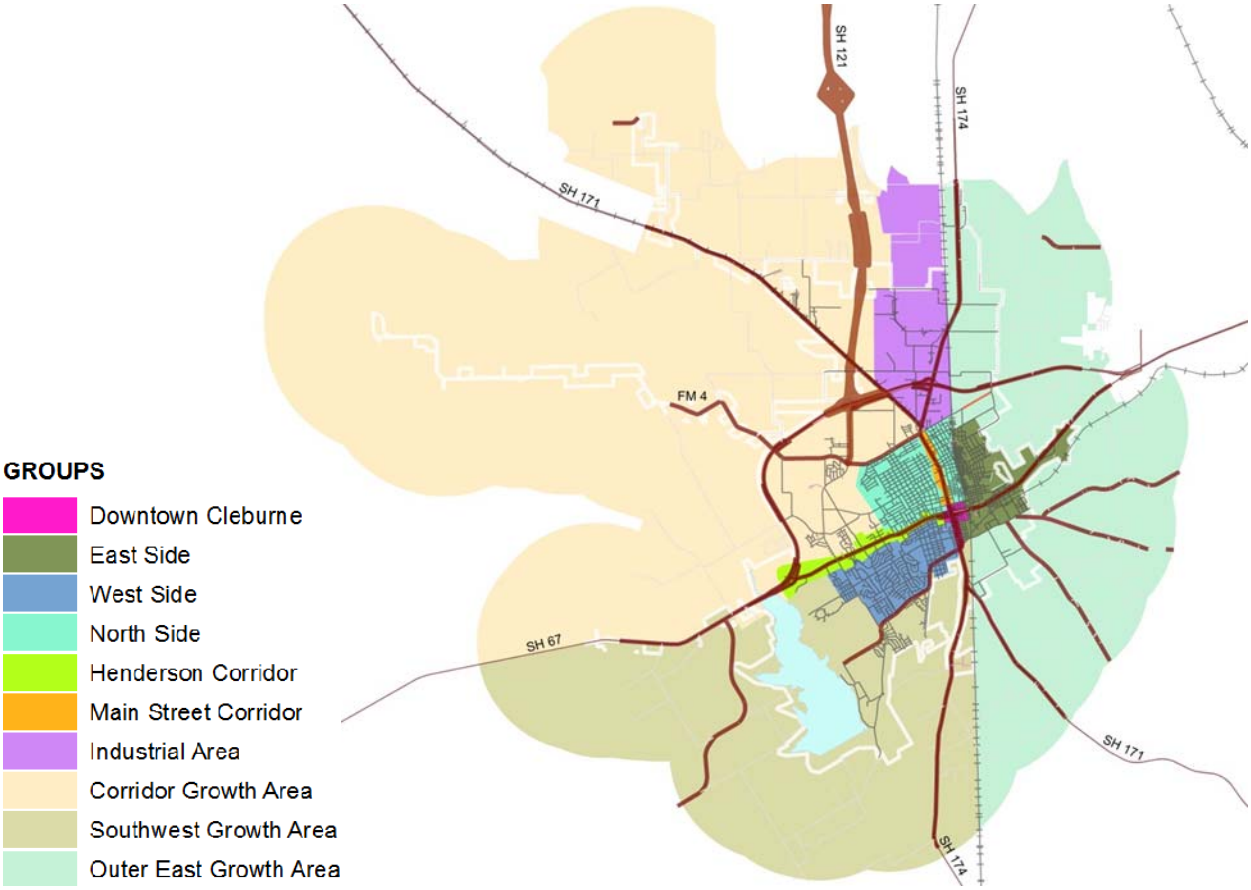


Figure 40. Breakout groups for Workshop #1.

The consultant team fielded a range of questions and discussed various thoughts and concerns that arose in the different groups, while participants recorded their findings on a set of handouts. The groups were asked to prioritize the issues that arose in their discussions. Following the breakout groups, all workshop participants regrouped collectively to share their findings and identify the priority issues that they identified.

Following that workshop, the consultant team took all inputs and ranked them according to the scoring performed by the breakout groups. Each group assigned a priority to the issues they identified. The top scoring issues, as they were summed among all of the breakout groups, are identified in Table 19.

The consultant team used these priorities to develop a first draft of plan goals and a physical framework for the plan components. The draft of planning goals and the physical framework, as well as refinement of planning priorities, were prepared for presentation at Workshop #2.

Table 19. Planning priorities identified in breakout groups at Workshop #1.

Category	Issue	Rank
Traffic, Streets, Sidewalks	Greenbelt/pedestrian network as alternative transportation routes	**14**
Traffic, Streets, Sidewalks	Jogging/bike lanes/pedestrian space along Henderson	**14**
Traffic, Streets, Sidewalks	Sidewalks	**14**
Traffic, Streets, Sidewalks	Provide sidewalks/pedestrian pathways Downtown	**14**
Traffic, Streets, Sidewalks	Improve streetscape in major commercial areas of town	**7**
Traffic, Streets, Sidewalks	Improve streetscaping along Henderson/Main St.	**7**
Traffic, Streets, Sidewalks	Traffic management (wider streets/controlled traffic)	**7**
Traffic, Streets, Sidewalks	traffic management (timing lights and other control mechanisms)	**7**
Traffic, Streets, Sidewalks	create a freight bypass for Main Street (southeast loop)	**11**
Traffic, Streets, Sidewalks	Trucks: traffic and damage to roads; no trucks in nbhds	**11**
Traffic, Streets, Sidewalks	Alleviate the impact of truck traffic in Downtown	**11**
Shopping and Entertainment	More shopping options in Cleburne - less leakage to other cities	**17**
Shopping and Entertainment	better stores/improved shopping options	**17**
Shopping and Entertainment	more shopping options	**17**
Shopping and Entertainment	More entertainment options in Cleburne	**17**
Shopping and Entertainment	Specialty retail/lifestyle shopping opportunity	**8**
Shopping and Entertainment	Specialty retail	**8**
Shopping and Entertainment	improve existing retail expressions (mall, intro a farmers market)	**8**
Shopping and Entertainment	revitalize downtown	**8**
Shopping and Entertainment	longer duration of stays in commercial areas (nighttime activity)	**7**
Public Works and Services	Water/Sewer capacity to accommodate future growth	**12**
Public Works and Services	Water supply: capacity	**12**
Public Works and Services	water supply and system condition	**12**
Public Works and Services	Underground utilities	**5**
Public Works and Services	flooding around cemetery	**1**
Public Works and Services	Train traffic: noisy at night	**1**
Neighborhoods and Character	schools/education are high priorities for future of the City	**10**
Neighborhoods and Character	schools	**10**
Neighborhoods and Character	historic preservation	**1**
Neighborhoods and Character	Code enforcement	**6**
Neighborhoods and Character	Green Spaces	**7**
Neighborhoods and Character	Preserve green spaces/keep some green as the City grows	**7**
Housing Values and Options	better quality housing	**9**
Housing Values and Options	improve quality of affordable housing	**9**
Housing Values and Options	more density options; consider increasing density along Henderson	**5**
Housing Values and Options	increase housing options	**5**
Housing Values and Options	Preserve values of existing residential development	**3**
Parks and Recreation	Marina/restaurant on the lake	**1**
Parks and Recreation	Amenitize Lake Cleburne	**7**
Parks and Recreation	More amenities for younger children	**7**
Parks and Recreation	Better distribution of park facilities throughout town	**1**

PUBLIC PARTICIPATION

WORKSHOP #2

Workshop #2 focused on refinement of the goals for the comprehensive plan and articulation of the physical framework that would guide creation of the plan components.

Following a status update, highlights of Workshop #1 were presented, including the assessments and the planning priorities that grew out of the first workshop. Participants then discussed key planning questions at their tables, documenting feedback for the consultant team. At their tables, participants discussed assets that make Cleburne special, aspects of life in Cleburne that could be improved, level of service and development forms. Participants also reviewed the goals and the planning framework, providing feedback as to whether these were adequate representations of the workshop inputs. The final goal statements and planning framework follow the description of public involvement.

The following tables give a summary of findings from the discussions of Workshop #2.

Table 20. Findings from Workshop #2: Assets.

Character:

What makes Cleburne special?

Community solidarity. Cleburne is a friendly town, and neighborliness is a high community value. This was seen very clearly in the response to the tornado that hit in the late spring of 2013. To preserve this quality of life in Cleburne, neighborhood definition and places to come together is important.

Cost of living. Cleburne enjoys a relatively low cost of living when compared to other cities in the DFW metroplex. Median home values are low, as are property taxes. As the City grows, the focus should be on providing housing options and diversification, rather than elimination of this competitive advantage. Increasing the employment opportunities in and around Cleburne will also help to grow the community while maintaining a reasonable ratio of cost to quality of life.

Recreational opportunity. Consistent with the preference for community engagement is an affinity of Cleburne residents for recreational spaces. Lake Pat Cleburne, Splashtown and the desire for increased recreational facilities indicate that more park and recreational facilities should be provided.

Pastoral landscape. The character of any community is shaped by the land upon which it is built. Cleburne has been built up amidst rolling prairie and woodlands, with open skies and rich soils. This pastoral landscape should be expressed not only in the agricultural land and open spaces of the City, but in general design components for public spaces, such as monuments, signage and streetscape elements. Where appropriate, care should also be taken to protect the big sky viewshed, from vertical interruption by future development.

History. Cleburne enjoys a rich history of development associated with westward expansion. Design components help to commemorate Cleburne's ties to the Chisholm Trail and early railroad lines. This emphasis on transportation should not be overlooked, but should evolve into new expressions in coming decades. This is a fundamental component of the comprehensive plan. Additionally, continuity in theming and monumentation will help to tell a story about who Cleburne was, is and is becoming.

Orderly growth and city form. The continued commitment to Downtown as the cultural and commercial center of the city, coupled with the desire to maintain a radial pattern of vehicular movement indicates that order and form are a priority for community life. As Cleburne grows, it will be important to allow the overall transportation and development network to expand, while promoting order and form through a system-oriented approach.

Accessibility. Cleburne has always been an accessible town for industry and for economic exchange, due to the railroads, US 67 and the state highways that converge in the center city. Rather than congesting the city, future growth should make Cleburne accessible to a larger market. In addition to its county seat roles, growing industries and commercial activity will increase the economic reach of Cleburne. The transportation infrastructure should be designed to facilitates this.

Agricultural Economy. The lifestyle and community components most highly valued by residents and business owners in Cleburne are due largely to the economic mechanics at play in the City. Cleburne's economy was initially built upon agricultural production. Shifts toward manufacturing occurred in the last century, but the mechanics of an agricultural economy were still maintained. This shift in products will continue in the future, but it will be important to focus on what products can form a viable economic base for Cleburne, allowing for vertical industrial expansion and building off of neighboring industries that are advantageous to Cleburne.

Table 21. Findings from Workshop #2: Opportunities.

Future Improvements:

What can we do better?

Median home values. To support vertical expansion in industry and other forms of job growth, it will be important to diversify the housing stock in Cleburne. This will stimulate a rise in median home values. The land use plan should anticipate this, identifying districts that preserve property values and call for a wider range of products to which the housing market can respond.

Relationship of Taxes to Level of Service. Several areas in town have seen increases in property taxes but not improvements in level of service. Care should be given to the correlation of property tax and level of service, specifically with regard to water and wastewater.

Schools. It will be hard for Cleburne to compete for rooftops in the Metroplex if the school district is underperforming. Improving the quality of education in Cleburne is a priority for the community.

Shopping. Right now there is a considerable amount of retail leakage out of Cleburne because of limited shopping opportunity and lack of visual appeal of commercial areas. Improvements to existing establishments are needed, as well as an economic development strategy that promotes more specialty retail and entertainment for the City.

Recreational opportunities. The parks and recreational areas of Cleburne need improvement with regard to amenities and facilities. Lake Pat Cleburne is an underutilized asset and should have more recreational expressions.

Table 22. Findings from Workshop #2: Development Management.

Level of Service and Development Forms:

How should we manage development?

To improve the level of public service, as called for in several of the planning priorities identified in Workshop #1, the plan will need to consider how these improvements could be funded. To minimize increases in property taxes as a source of revenue, the impact of certain development practices on cost of governance were considered:

Quality of development. An increase in median home value and in non-residential land property values will increase ad valorem revenues in the City without raising tax rates. Therefore, where appropriate, the plan must encourage development forms in the City that will attract higher residential values.

Density. Increasing the number of properties permitted in an area will increase ad valorem revenues without raising the City tax rate. For non-residential development, increased building square footage (often expressed in terms of building height and/or floor-area-ratio) will have a positive impact on city revenues.

Economic Development Tools. Tax abatements are just one tool that the City can use to incentivize new development and create value. Diversifying the City's economic development toolbox can provide new methods of funding public improvements that protect taxpayer interests. Adding such tools and incentives will improve Cleburne's competitiveness for new industry and employers.

PUBLIC PARTICIPATION

PROJECT OPEN HOUSE

A comprehensive plan is comprehensive not only because it is forward-thinking, but also because it considers a very broad range of components that influence how cities grow. In March of 2014 the City held an open house to provide the community with an opportunity to review the contents of the plan components. These components included:

- Economic Development
- Future Land Use
- Transportation
- Infrastructure
- Parks and Open Spaces
- Public Services

After brief introductions and a general summary of content, participants were free to visit the stations set up for each of the individual plan components. Consultants were present at the individual stations to answer questions and discuss the content of the plan itself. At each station there was a poster summarizing the content of that particular component, including maps, tables, charts and recommendations.

Participants regrouped toward the end of the evening so that consultants could provide final comments and discuss next steps. The posters presented at the workshops have been included as appendices in this plan, while snapshots are in this section for illustrative purposes.

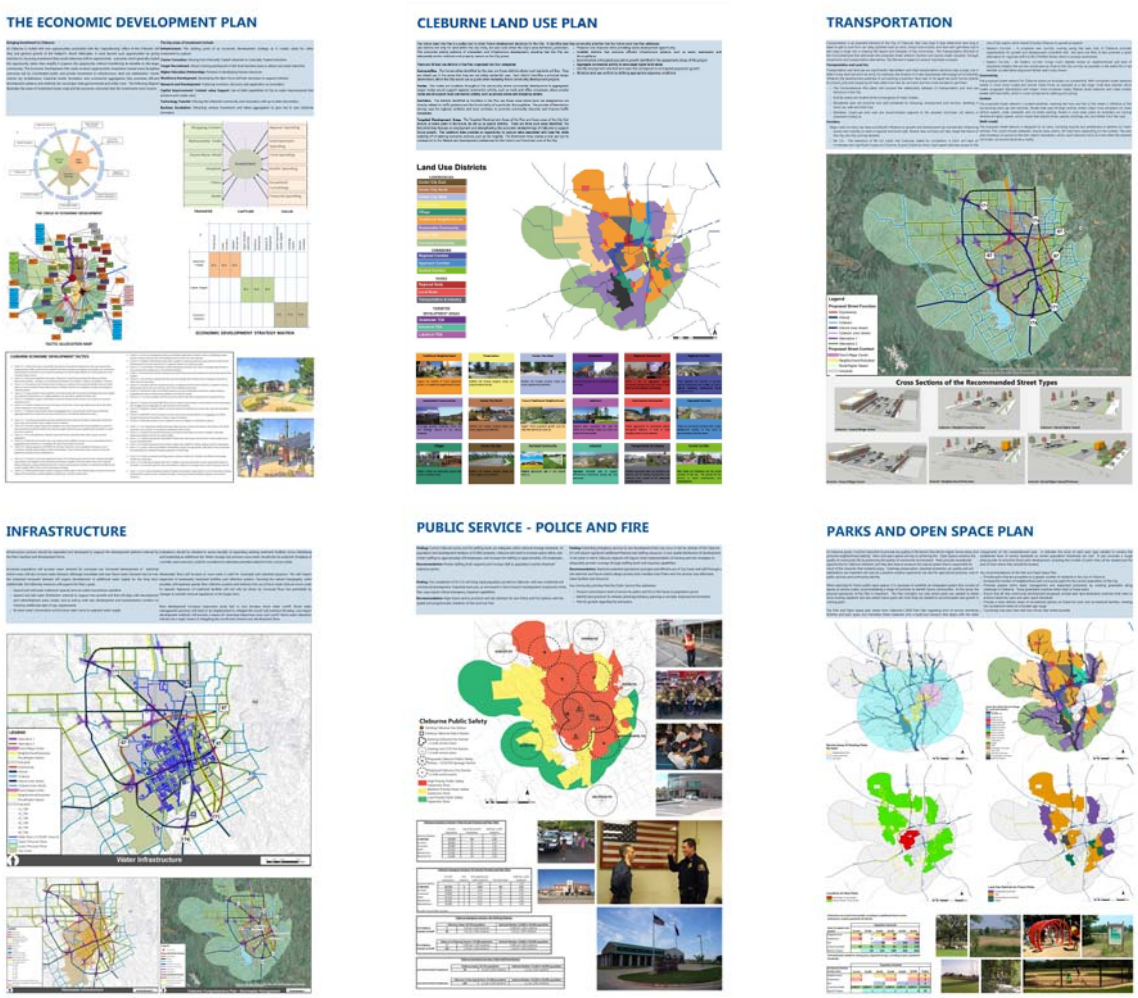


Figure 41. Posters illustrating the six plan components.

Goals and Plan Priorities

GOALS AND PLAN PRIORITIES

The Goals of the comprehensive plan are statements that describe Cleburne's long range priorities regarding community identity and lifestyle preferences. They are directly related to the categorical priorities that emerged from inputs at public meetings, and have therefore been assigned categorically..

Table 23. Cleburne Comprehensive Plan Goals.

Goals for Growth

INFRASTRUCTURE CAPACITY:
Increase water supply and improve existing systems to support future population growth.

FREIGHT TRAFFIC MANAGEMENT:
Provide alternate truck routes to alleviate truck traffic downtown.

RETAIL/COMMERCIAL SERVICES:
Encourage retail development to provide more shopping and entertainment opportunities in Cleburne.

MEDIAN HOME VALUES:
Create plans and policies that attract higher value residential development, to improve median home values in Cleburne.

HOUSING DIVERSIFICATION:
Encourage diversification by providing higher density housing and affordable housing in appropriate locations.

RECREATION AND ENTERTAINMENT OPPORTUNITIES:
Increase visitorship to Cleburne and use of public facilities through improvement of public parks and recreational areas.

PRESERVATION OF CLEBURNE CHARACTER:
Promote Cleburne's distinctive character by incorporating thematic elements into public spaces and, where appropriate, establishing land use patterns that preserve agriculturally-oriented uses.

WALKABILITY:
Improve existing commercial corridors, particularly Henderson and Main Street, in terms of streetscape and pedestrian amenity.

BETTER SCHOOLS:
Ensure compatibility between the Comprehensive Plan and the CISD Master Plan and coordinate educational facility expansion with the City to improve schools in Cleburne.

GOALS AND PLAN PRIORITIES

COMMUNITY PRIORITIES FOR GROWTH

Throughout the public engagement process, a number of priorities arose that relate to patterns of growth, community form and public services. These priorities were used as guides for creation of the individual plan components. As such, they have been grouped here topically, according to the six components that the plan addresses.

Economic Development

1. Provide more shopping, entertainment and dining options in Cleburne.
2. Improve appearance of existing retail establishments.
3. Revitalize Downtown Cleburne.
4. Promote longer duration of stays in commercial areas, including more nighttime activity.
5. Make better commercial use of Lake Pat Cleburne.
6. Avoid commercial displacement from Main Street and Henderson in favor of newer commercial corridors.
7. Find a way for development to overcome the tracks that run through town in order to strengthen the tie between the eastern and western side of town.
8. Expand workforce development, trade-related and specialized training programs to provide jobs for Cleburne residents and employees for new industries.
9. Identify opportunities for vertical expansion in key market sectors.
10. Promote vertical expansion of industrial clusters, moving beyond natural resource mining, farming and ranching.

11. Address both employment needs and anticipated development square footage in the Economic Development Plan.
12. Promote higher price point residential development to sustain the city's ad valorem base and avoid overdependency on sales tax.
13. Ensure that the growth scenario achieves the ad valorem needs of the City.

Future Land Use

1. Revitalize Downtown Cleburne.
2. Work with the school district to coordinate sites for future schools within the preferred growth areas, to attract desirable rooftop development and accommodate growth.
3. Promote higher price point residential development to sustain the City's ad valorem base and avoid over-dependency on sales tax.
4. Improve code enforcement for private properties in Cleburne.
5. Preserve orderly growth patterns.
6. Ensure that the growth scenario achieves the ad valorem needs of the City.
7. Identify which areas of town should contain industrial uses.
8. Don't oversupply the commercial market with commercially zoned land.
9. Encourage a balanced distribution of retail development to meet shopping needs of local population.
10. Define growth boundaries for Cleburne that accommodate future populations in a pattern that is financially sustainable for City operations.
11. Provide more shopping, entertainment and dining options in Cleburne.

GOALS AND PLAN PRIORITIES

Transportation

1. Create a network of greenbelts and pedestrian pathways as alternative transportation routes in Cleburne.
2. Provide bike and pedestrian space along Henderson.
3. The sidewalks in Cleburne need to be improved.
4. Improve pedestrian spaces downtown.
5. Improve streetscape in major commercial areas, including downtown, Main Street and Henderson.
6. Traffic management techniques need to be employed in Cleburne.
7. Freight traffic needs to be re-routed out of Downtown Cleburne.
8. Truck traffic should not pass through neighborhoods.
9. Give differentiation to the major corridors of the City.
10. Consider impact fees as a method for funding road improvements.
11. Create access management standards for frontage roads for SH121.
12. Promote non-frontage-focused development forms.

Infrastructure

1. Identify population thresholds for which water supply will need to be increased.
2. Bury utility lines where possible.
3. Improve storm water management to alleviate flooding around cemetery.
4. Establish a land acquisition strategy that will provide passive open space today and potential water supply tomorrow.
5. Begin planning today for future water supplies for Cleburne, as it is possible that the City could reach its current capacity in 15-20 years.
6. Consider utilization of Municipal Utility Districts, Public Improvement Districts and Fresh Water Supply Districts in the county/ extra-territorial jurisdiction to increase water supply.
7. Engage in regional water planning discussions to preserve Cleburne's position as a growing consumer.
8. Preserve and enhance water quality through effective storm water management practices, such as controls for run-off.
9. Water supply measures should include conservation, re-use and identification of new supplies.
10. Ensure that the gray water/reuse program can grow as the industrial base of the City grows.

GOALS AND PLAN PRIORITIES

Parks and Open Spaces

1. Amenitize Lake Pat to promote greater lake access, not only with respect to commercial development but also with increased recreational facilities.
2. Provide recreational facilities for all ages in the City, including younger children and older adults.
3. Preserve green spaces and some of the native landscape as Cleburne grows.
4. Ensure that park and recreational facilities are distributed throughout all of the City and accessible to all of the residents.
5. Provide more recreational options.
6. Provide parks, open spaces and other amenities that attract a higher price point for new development.
7. Enhance creekways and riparian corridors with vegetative buffers to help with soil stabilization and water quality.
8. Improve pedestrian mobility in Cleburne through an expanded trail network.
9. Amenitize existing assets, such as Lake Pat Cleburne.

Public Services

1. Preserve and enhance level of service for police and fire in the future as the Cleburne population grows.
2. Identify best practices for disaster planning and resiliency planning in tornado-impacted environments.

A Framework for Growth

A FRAMEWORK FOR GROWTH

The current form of the City of Cleburne is centralized, with two major commercial corridors radiating out from downtown, and residential areas resting behind these corridors. This is a very common model of development, especially for cities that serve as county seats. In a county seat, downtowns were created by the intersection of highways, normally passing alongside the town square and/or county courthouse. The square served as the center of commerce and community activity. As the county seat grew, growth radiated out from this center, but the pattern remained: downtown was the center of community life.

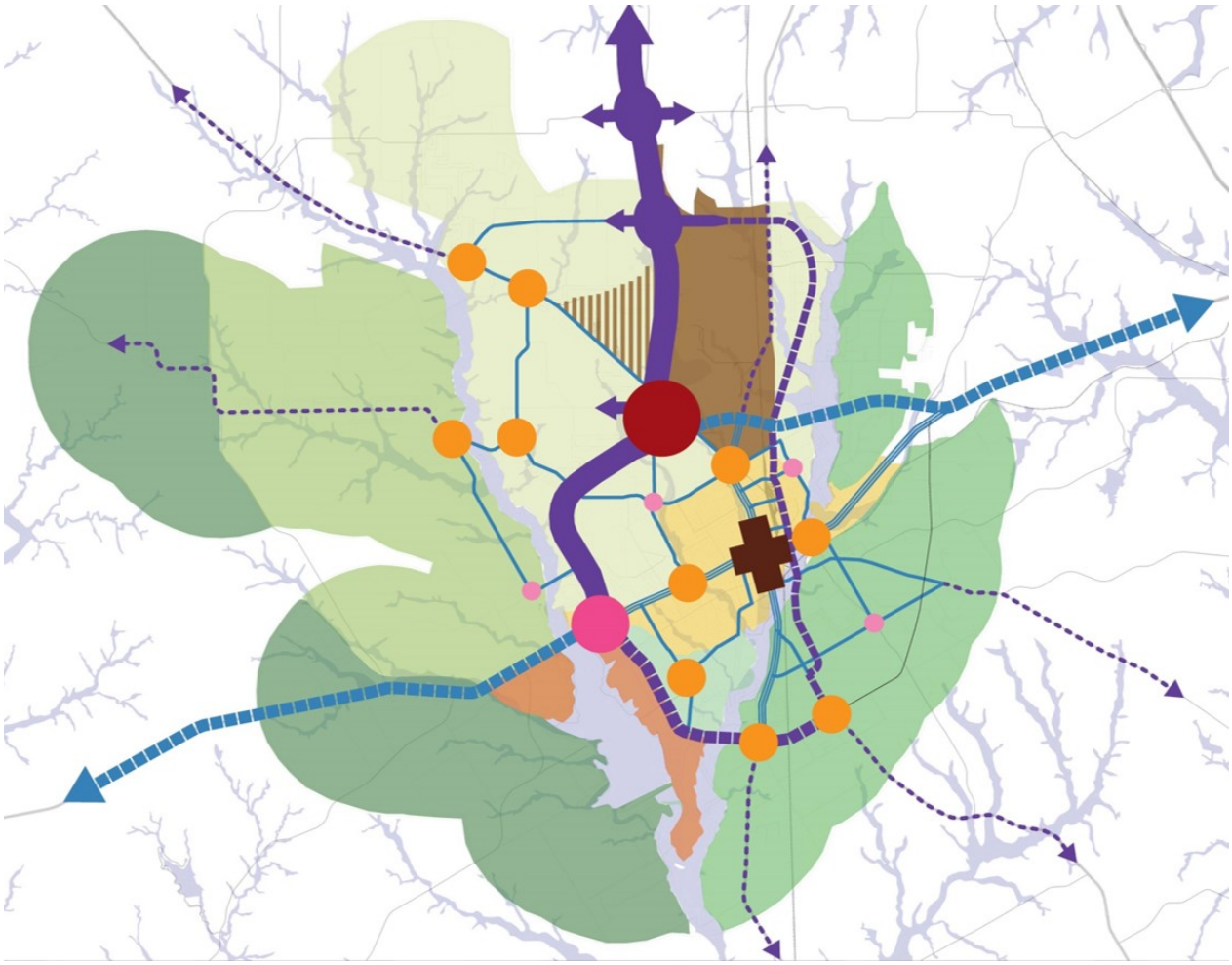
This centralized pattern can serve the community up to a certain point. However, when faced with growth, traffic and suburbanization, many cities experience disruptions in their centralized pattern. This is the place where Cleburne sits today. The current centralized model, which has served well in the past, will not accommodate the intensity of growth anticipated in upcoming decades.

To ensure that the city can still adequately service residents and foster a desirable quality of life, it is important to define a general framework for growth for Cleburne in upcoming years. This framework will shape subsequent plans relating to land use, transportation and public works, preserving the vision that has been articulated by the Cleburne community.

The following is a description of the growth framework for the City of Cleburne. It consists of four primary components: growth zones, corridors, nodes and targeted development areas. When combined, they illustrate not only intensity of growth, but direction of that growth and the factors that should determine how it is manifested.

Figure 42 is a diagram illustrating the complete Framework for Growth. On the pages that follow, descriptions are given of the individual elements of the diagram. A larger version of the Framework for Growth diagram can be found in the appendices.

A FRAMEWORK FOR GROWTH



GROWTH ZONES

Where future growth should be encouraged.

- Center City
- Tier One Suburban
- Tier One Clustered
- Tier Two Suburban
- Tier Two Clustered
- Tier Three Rural

CORRIDORS

Corridor differentiation, depending on traffic and related land uses.

- Urban Connections
- Regional Connections
- Center City Movement
- Parkway Alternatives
- Local Connectivity
- Rural Connections

ACTIVITY NODES

Aggregation of non-residential uses: higher land values, specialty retail and commercial development opportunity.

- Regional Node
- Civic/Activity Node
- Community Node
- Neighborhood Node

TARGETED DEVELOPMENT AREAS

Special areas of town where economic development is a priority, based on employment needs, available amenity and community preferences.

- Downtown Area
- Industrial Area
- Lakefront Area

Figure 42. Framework for Growth diagram.

appendices.

GROWTH ZONES

The growth zones illustrate how and in which directions Cleburne should grow in future years. This creates a more efficient model for public services, maximizes land value and improves overall mobility in the City. It also helps to preserve the natural resources and agricultural heritage of the region. Because development patterns are so strongly shaped by terrain, the challenges to growth management are different in the three natural settings found in Cleburne. The growth zones are therefore built around surface water movement patterns, with creekways defining the major break in short term and long term growth for the City. Based on existing patterns and the influence of natural systems, the growth zones for Cleburne have been defined as follows.

Early Neighborhoods. As Cleburne grows, it will be important to preserve the housing stock in some of the early neighborhoods of the City. Historic preservation of houses promotes cultural heritage in years to come and preserves and improves property values in areas of town that are most vulnerable to depreciation.

Center City Communities. The Center City communities are pre-existing neighborhoods of the City. These communities are already predominantly built out, with established traffic patterns, tree coverage and building characteristics. As these neighborhoods mature, care should be given to stability of the housing stock, infrastructure system maintenance and access to public facilities.

New Community Growth – Prairie. Prairie land is ideal for residential neighborhood development because of the characteristics of the land. Care is especially needed in this area to protect against residential patterns that disproportionately burden city infrastructure systems and ad valorem

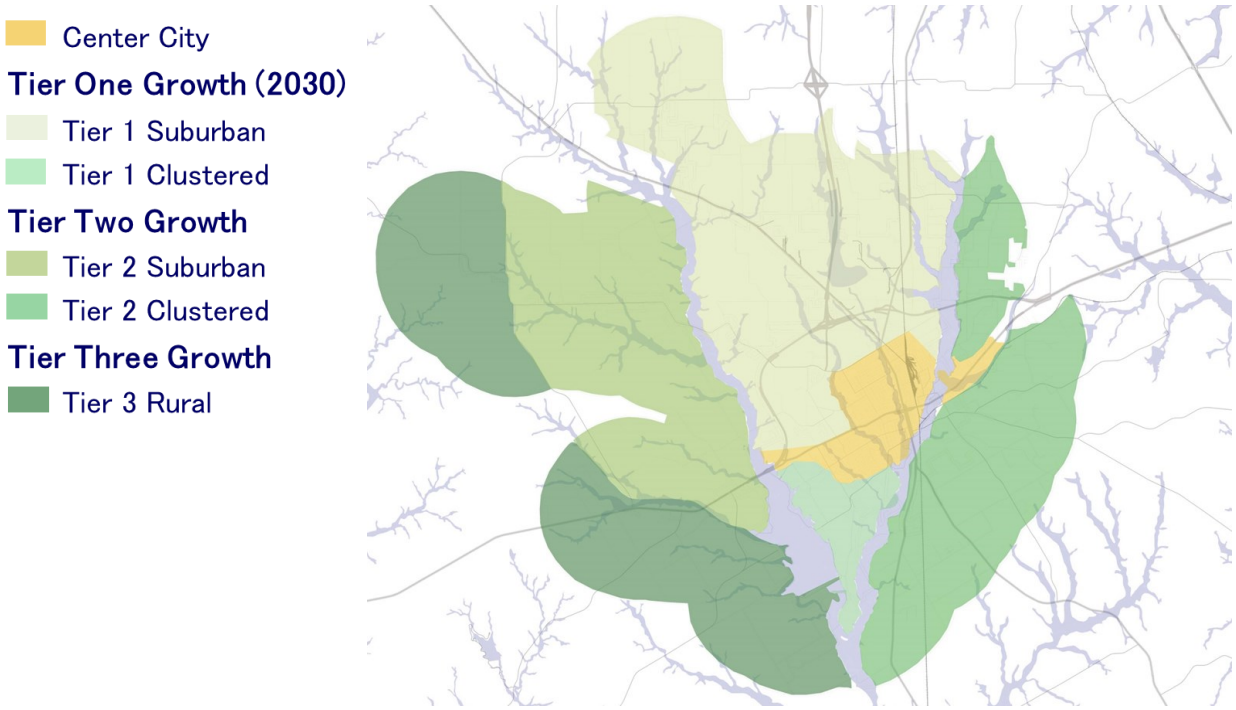


Figure ___. Growth Zones organized by tier, where growth expands from Center City outward through the tiers indicated.

areas are more difficult to develop than prairie areas due to the cost and ability to clear land. Wooded areas tend to attract a larger proportion of custom homes and/or subdivisions with larger lots. In this zone, care must be given to the cost of providing infrastructure services, and the long term impact of the development patterns that are put in place. Tree preservation policies will also be a higher priority in this zone.

New Community Growth – Riparian. The creeks that cut through Cleburne provide unique windows of development opportunity if managed correctly. Water-fronting development normally draws a higher average value than comparable projects in other locations, but the development permitting process can be complicated because of the requirements for surface water management. In this zone, care should be given to waterway access, development density, interface with the thoroughfare system and project-scale development concerns regarding surface water management.

Rural Growth Zone. The ability to preserve the agricultural heritage of Cleburne will depend on thoughtful and intentional preservation of rural land patterns. For this reason, the uses within the Rural Growth Zones will be those that focus on agricultural practices and development scales that can be supported by a rural infrastructure network.

CORRIDORS

The Corridors of Cleburne are defined according to level of service classification as well as their general character and design features. Also considered in this designation is the type of development that each road should support. They are:

Regional Connections. These are the highest capacity roadways in Cleburne. They connect the City to the larger region, and include US highways and State Highways. Standards and configuration are generally defined by TxDOT and USDOT, though some contextualization is possible.

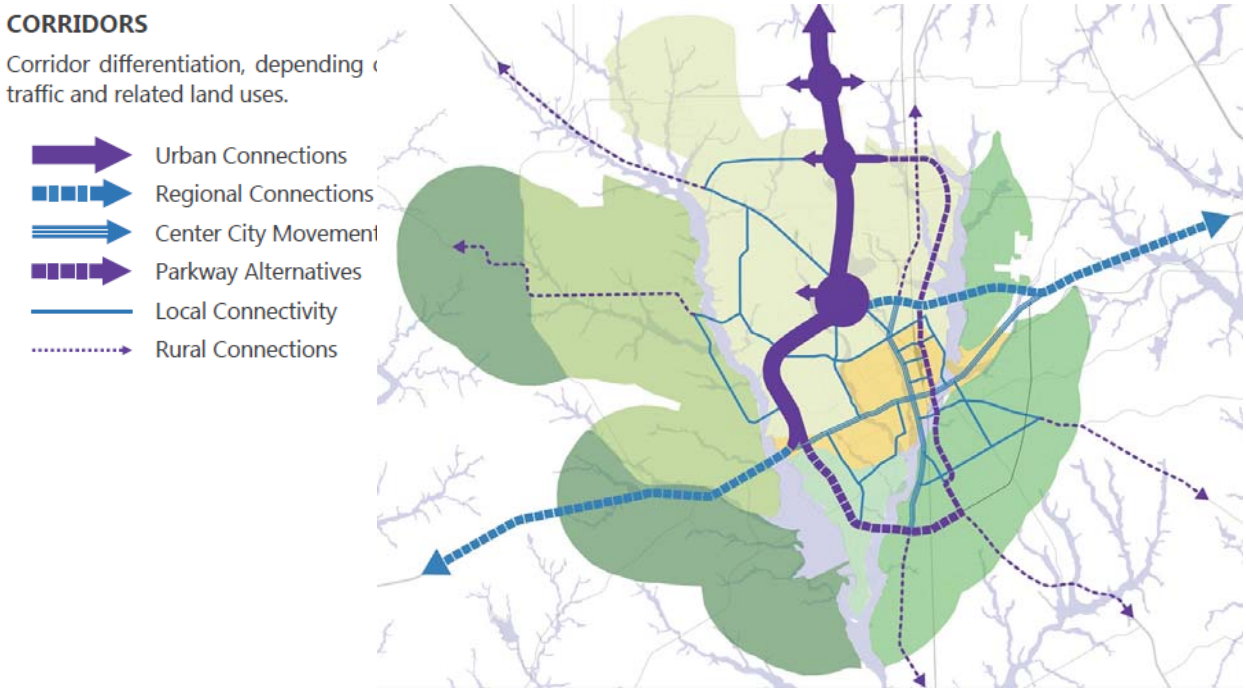


Figure 44. General corridor types for the City, based on the different systems the streets serve.

Urban Connections. Regional commercial corridors are similar to Regional Highways in terms of capacity, but standards are put in place to facilitate desirable commercial development patterns. These corridors will accommodate higher traffic volumes but not support a conventional frontage road-oriented development pattern.

Parkways. These higher capacity roadways in Cleburne are contextually defined. They are divided roadways, with standards and configurations that preserve community character while accommodating increased traffic demand. The parkways provide alternative routes for truck traffic, helping to more effectively manage traffic in the center of the City.

Interior Commercial Corridors.: Center City Movement The Interior Commercial Corridors of the City are medium capacity roadways that support commercial development that serves the local market. They also collect traffic from the neighborhoods of the City and connect people to the regional system. Because they are characterized by commercial development, stop lights and curb cuts are appropriate for these roadways. Design standards are important for these roadways as they impact retail activity/sales tax and general community mobility.

Rural Roadways. There are some approachways to Cleburne that are rural in nature, supporting agricultural activity. The design and configuration of these roadways should be preserved as such. Because of the limited number of lanes and the narrower street width, they are designed to accommodate rural and lighter regional traffic.

Local Connectivity. Local Connectors pass through the neighborhoods of the City and connect people to the Commercial Corridors. Occasional commercial development in these corridors could be appropriate, but in general curb cuts and access points should be limited to neighborhood entry. The streetscape should focus on traffic management, safety and accessibility, for pedestrians as well as vehicular passengers.

NODES

The Nodes of the Growth Framework are intended for aggregation of non-residential uses, in order to promote higher commercial land values and stabilize those values over time. They also aggregate activity, which allows Cleburne to draw more regional and destination-oriented traffic. Although the size and configuration of these can vary, their general purpose, intent and form should be defined by these typologies:

Regional Nodes. Regional Commercial Nodes are found at key intersections along regional highways. These nodes support commercial activity, meaning that they draw patrons from an area larger than the City itself. This means that growth trends and the spending capacity of a larger area will influence development at these intersections. Although the size of the node will be a function of market demand, they should be characterized by the following:

- A backer road system to allow maximum parcel utilization and value transfer

- Onramp and offramp accessibility from regional highway(s)
- Encourage vertical expressions of density (building heights)
- Approved uses should include primarily commercial uses, such as retail, office, multi-family and vertical mixed use.

Community Node. Community Nodes support commercial activity that services a smaller drive time window, meaning that they are most attractive to those businesses that are designed to serve the local market. These nodes should be characterized by

- Proximity to Cleburne neighborhoods
- Location along a Commercial Corridor, a Regional Highway or a Parkway
- Available parcels to support anchor-oriented development patterns
- Moderate expressions of commercial density (limited building heights but higher floor-area-ratio permitted)

Neighborhood Node. Neighborhood Nodes are found at intersections of neighborhood collectors. They support smaller scale commercial activity oriented toward neighborhood services. There is a more limited range of approved uses in these nodes, as building heights and building footprint should be limited. The scale of development of these nodes must be contextually appropriate for surrounding neighborhoods.

Civic/Activity. Civic or Activity Nodes are those nodes in Cleburne that draw their identity from a civic or institutional use. Such uses could include a theme park, a regional hospital, a university or a cultural district.

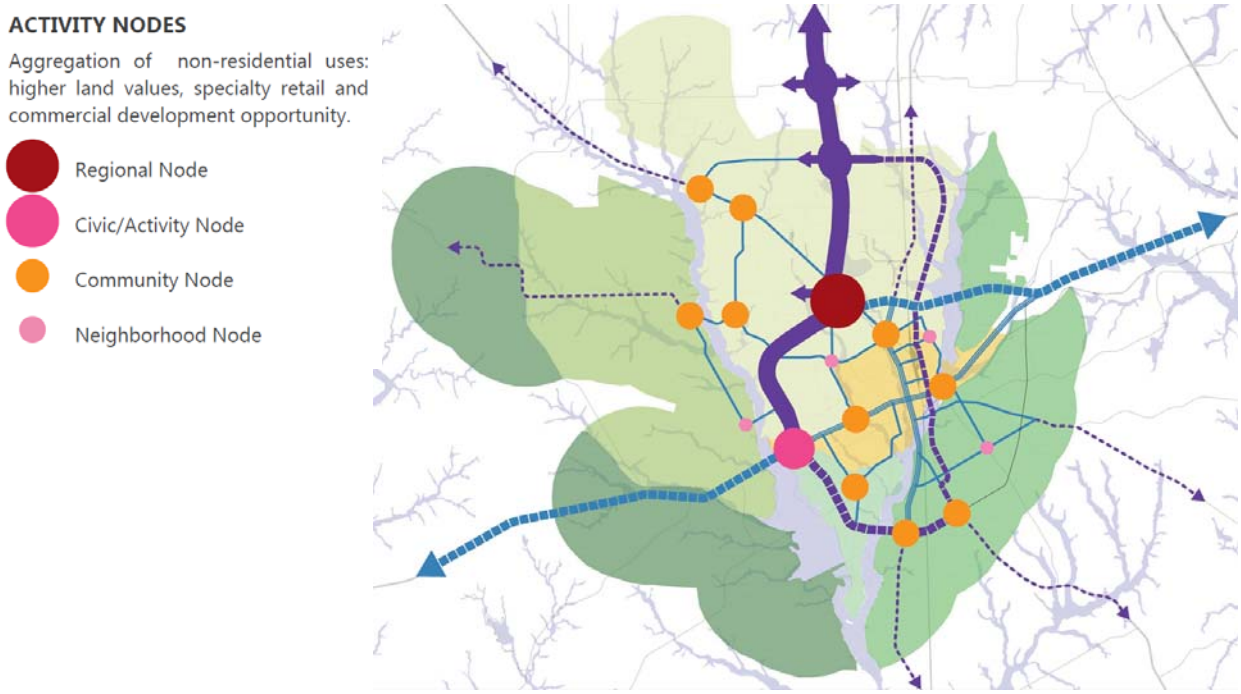


Figure 45. Nodes, organized by type, that are intended to aggregate activity in Cleburne.

A FRAMEWORK FOR GROWTH

TARGETED DEVELOPMENT AREAS (TDA)

Certain areas of the City are targets for economic development, based on employment opportunity, underutilized amenity and community preferences. There are three such areas identified in the Framework for Growth.

Downtown. Downtown is a special area in the City of Cleburne. Because the block and parcel pattern is already established, and there exists a historic precedent regarding building height and uses, Downtown requires treatment as a distinct type of development node in the City. Downtown is the core of the City, meaning that, in addition to land use and design considerations, care must be given to mobility patterns, economic development strategies and public improvements.

Industrial Area. The industrial area of Cleburne still has significant room for growth. This industrial growth is a necessary underpinning of the anticipated population growth of coming decades, as a way to keep jobs and spending local and not leak these things to surrounding cities. In this zone, care must be given to land subdivision, transportation access (particularly rail), thoroughfare improvements and economic development incentives.

Lake Area. Promoting lake-oriented development is a priority for the City. Lake-oriented development will consist of a mixture of uses and density thresholds designed to increase not only residential development but also visitorship to (and spending in) the Lake Cleburne area of the City. To foster stability of property values and opportunity for investment return, regulation of this development will be important.

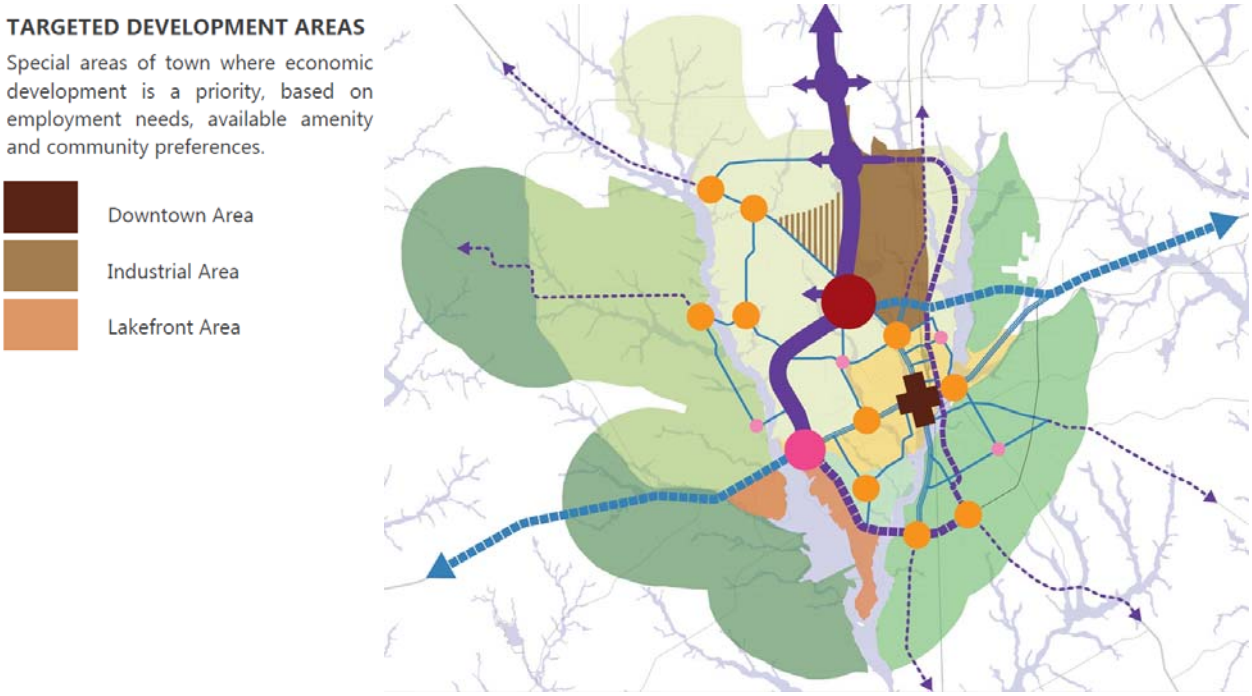


Figure 46. Targeted development areas of Cleburne.

PLAN COMPONENTS

PLAN COMPONENTS

The Comprehensive Plan lays out the growth patterns for coming years for the City. It also provides guidance for Council, P&Z and Staff regarding public infrastructure, development approvals and economic priorities to sustain and enhance quality of live for the Cleburne community. In this chapter, six plan components are addressed: economic development, land use, transportation, infrastructure, parks and open spaces and public services. Each of these plan components grew out of the inputs gathered at the public workshops. Maps, spatial distribution patterns and other matters of physical form were shaped by the Plan Framework included in the Vision Plan.

Economic Development. Quality of life and quality of development are completely interrelated. The economic underpinnings of a community define the character of the place. For this reason the Economic Development Plan preserves the mechanics of the Cleburne economy, while providing new foundational industries on which to build in the future.

Goal Statements addressed in the Economic Development Plan include:

- Encourage retail development to provide more shopping and entertainment opportunities in Cleburne.
- Create plans and policies that attract higher value residential development, in order to improve median home values in Cleburne.
- Encourage diversification by providing higher density housing and affordable housing in appropriate locations.

In addition to the Goal Statements developed for the plan, there were several community priorities that were identified in the breakout groups of the public workshops. The priorities related to economic development include:

1. Provide more shopping, entertainment and dining options in Cleburne.
2. Improve appearance of existing retail establishments.
3. Revitalize Downtown Cleburne.
4. Promote longer duration of stays in commercial areas, including more nighttime activity.
5. Make better commercial use of Lake Pat Cleburne.
6. Avoid commercial displacement from Main Street and Henderson in favor of newer commercial corridors.
7. Find a way for development to overcome the tracks that run through town in order to strengthen the tie between the eastern and western side of town.
8. Expand workforce development, trade-related and specialized training programs to provide jobs for Cleburne residents and employees for new industries.
9. Identify opportunities for vertical expansion in key market sectors.
10. Promote vertical expansion of industrial clusters, moving beyond natural resource mining, farming and ranching.
11. Address both employment needs and anticipated development square footage in the Economic Development Plan.
12. Promote higher price point residential development to sustain the city's ad valorem base and avoid overdependency on sales tax.
13. Ensure that the growth scenario achieves the ad valorem needs of the City.

Future Land Use. The Future Land Use Plan defines land use districts that intended to guide zoning decisions for the City. Each district fosters a different development pattern and achieves a different community objective. The Land Use Plan also provides guidance regarding appropriate transitions between properties to avoid conflicting uses as Cleburne grows.

Goal Statements addressed in the Future Land Use Plan include:

- Create plans and policies that attract higher value residential development, in order to

improve median home values in Cleburne.

- Encourage housing diversification by providing higher density housing and affordable housing in appropriate locations.
- Promote Cleburne's distinctive character by incorporating thematic elements into public spaces and, where appropriate, establishing land use patterns that preserve agriculturally oriented uses.
- Ensure compatibility between the Comprehensive Plan and the CISD Master Plan and coordinate facility expansion with the City to improve schools in Cleburne.

The community priorities related to land use that were identified at the public workshops include:

1. Revitalize Downtown Cleburne.
2. Work with the school district to coordinate sites for future schools within the City's preferred growth scenario, to attract desirable rooftop development and accommodate future growth.
3. Promote higher price point residential development to sustain the City's ad valorem base and avoid over-dependency on sales tax.
4. Improve code enforcement for private properties in Cleburne.
5. Preserve orderly growth patterns.
6. Ensure that the growth scenario achieves the ad valorem needs of the City.
7. Identify which areas of town should contain industrial uses.
8. Don't oversupply the commercial market with commercially zoned land.
9. Encourage a balanced distribution of retail development to meet shopping needs of local population.
10. Define growth boundaries for Cleburne that accommodate future populations in a pattern that is financially sustainable (for City operations).
11. Provide more shopping, entertainment and dining options in Cleburne.

Transportation. The Transportation Plan seeks to align the transportation network of Cleburne with the building forms and preferred development patterns of the City. A long range transportation framework is provided, as are street typologies for new thoroughfares.

Goal Statements addressed in the Transportation Plan Component include:

- Provide alternate truck routes to alleviate truck traffic downtown.
- Promote Cleburne's distinctive character by incorporating thematic element into public spaces and, where appropriate, establishing land use patterns that preserve agriculturally oriented uses.
- Improve existing commercial corridors (ie: Henderson and Main St.) in terms of streetscaping and pedestrian amenity.

The community priorities related to transportation that were identified at the public workshops include:

1. Create a network of greenbelts and pedestrian pathways as alternative transportation routes in Cleburne.
2. Provide bike and pedestrian space along Henderson.
3. The sidewalks in Cleburne need to be improved.
4. Improve pedestrian spaces downtown.
5. Improve streetscape in major commercial areas, including downtown, Main Street and Henderson.
6. Traffic management techniques need to be employed in Cleburne.
7. Freight traffic needs to be re-routed out of Downtown Cleburne.
8. Truck traffic should not pass through neighborhoods.
9. Give differentiation to the major corridors of the City.
10. Consider impact fees as a method for funding road improvements.
11. Create access management standards for

frontage roads for SH121.

12. Promote non-frontage-focused development forms.

Infrastructure. The Infrastructure Plan was designed to ensure that capacity needs of future residents can be accommodated by City systems, such as water, wastewater and storm water. The infrastructure system of the City will attract future development, and therefore the systems addressed are intended to indicate priority areas of expansion that will promote the growth patterns identified in this plan.

Goal Statements addressed in the Infrastructure Plan Component include:

- Increase water supply and improve existing systems to support future population growth.

The community priorities related to infrastructure that were identified at the public workshops include:

1. Identify population thresholds for which water supply will need to be increased.
2. Bury utility lines where possible.
3. Improve storm water management to alleviate flooding around cemetery.
4. Establish a land acquisition strategy that will provide passive open space today and potential water supply tomorrow.
5. Begin planning today for future water supplies for Cleburne, as it is possible that the City could reach its current capacity in 15 -20 years.
6. Consider utilization of Municipal Utility Districts, Public Improvement Districts and Fresh Water Supply Districts in the county/ extra-territorial jurisdiction to increase water supply.
7. Engage in regional water planning discussions to preserve Cleburne's position as a growing consumer.
8. Preserve and enhance water quality through effective storm water management practices, such as controls for run-off.
9. Water supply measures should include conservation, re-use and identification of new supplies.
10. Ensure that the graywater/reuse program can grow as the industrial base of the City grows.

Parks and Open Spaces. The Parks and Open Spaces component of the plan takes the level of service standards defined in Cleburne's current Park and Open Space Plan and identifies future park needs according to city growth thresholds. This includes area needed and land use districts in which parks should be located. Needs of existing residents are also identified.

Goal Statements addressed in the Parks and Open Space Plan Component include:

- Increase visitorship to Cleburne and use of public facilities through improvement of public parks and recreational facilities.
- Ensure compatibility between the Comprehensive Plan and the CISD Master Plan, coordinating facility expansion with the City to improve schools in Cleburne.

The community priorities related to parks and open spaces that were identified at the public workshops include:

1. Amenitize Lake Pat to promote greater lake access, not only with respect to commercial development but also with increased recreational facilities.
2. Provide recreational facilities for all ages in the City, including younger children and older adults.
3. Preserve green spaces and some of the native landscape as Cleburne grows.
4. Ensure that park and recreational facilities are distributed throughout all of the City and accessible to all of the residents.
5. Provide more recreational options.
6. Provide parks, open spaces and other amenities that attract a higher price point for

new development.

7. Enhance creekways and riparian corridors with vegetative buffers to help with soil stabilization and water quality.
8. Improve pedestrian mobility in Cleburne through an expanded trail network.
9. Amenitize existing assets, such as Lake Pat Cleburne.
10. Establish a land acquisition strategy that will provide passive open spaces today and potential water supply tomorrow.

Public Services. The Public Service Plan identifies the needs for police and fire service as the population of Cleburne grows. Level of service standards were used to demonstrate how the City currently lines up with comparable communities, and changes that will need to be made when future population benchmarks are reached.

Goal Statements addressed in the Public Services Plan Component include:

- Create plans and policies that attract higher value residential development, to improve median home values in Cleburne.

The community priorities related to public services that were identified at the public workshops include:

1. Preserve and enhance level of service for police and fire in the future as the Cleburne population grows.
2. Identify best practices for disaster planning and resiliency planning in tornado-impacted environments.

Economic Development Plan

ECONOMIC DEVELOPMENT PLAN

Economic Development Plan Approach:
The Economic Development Plan can be described simply as a strategy for promotin job creation and economic growth that is internally and externally driven. Note that the forces driving a better economy come from within as well as from without. Most Economic Development Strategies focus on attracting external investment (often through incentives) and fail to realize that the internal viability of a city is one of the foremost selection criteria considered when relocation decisions are made. Also, an exclusively external view can overlook incubation of local business.

As Cleburne is visited with new opportunities associated with the "repositioning" effect of the Chisholm Toll Way and general growth of the Dallas/ Fort Worth Metroplex it must "harvest" such opportunities by giving direction to incoming investment that would otherwise drift to opportunistic outcomes which generally exploit the opportunity, rather than amplify it (capture opportunity, not transfer it). Economic Development must direct opportunistic investment toward more farsighted outcomes led by coordinated public and private investment in infrastructure, land use stabilization, transit, central city revitalization, industrial cluster formation, and commercial aggregation that promotes efficient development patterns and relatively low municipal, state governmental and utility costs. Investment areas include:

Infrastructure: Infrastructure is essential to create value patterns that are supportive of the City's preferred future land use. The economic analysis portion of the Comprehensive Plan has already demonstrated that existing traditional, opportunistic roadway frontage, developed at typically low FAR's may not yield sufficient Ad valorem Tax base necessary to fund a coherent economic development vision as lack of such base does not give the City capability to assure future debt guaranteed by "Good Faith and Credit". Therefore, infrastructure is the starting place of

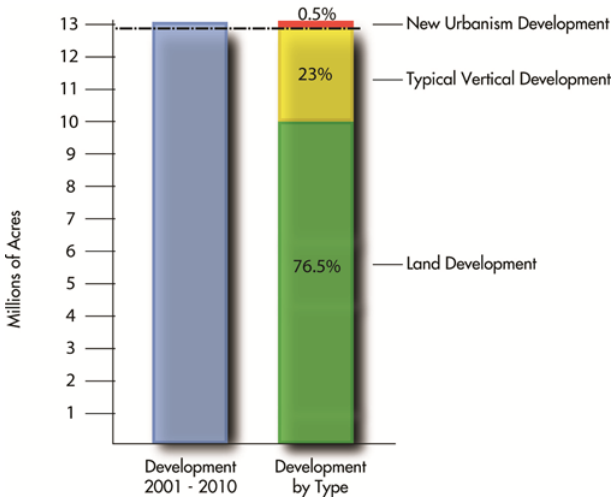


Figure 47. Development Typology.

an Economic Development strategy.

Context value support: the adjacent diagram illustrates that 76% of all development is land development. Investment in land development always seeks return and return is realized through value appreciation. This principal applies to everything from buying a home with the hope of selling it to creating an industrial park with hope of selling industrial sites. It was land development that built Alliance, land development that is building Rail Port, land development that developed Southlake, and land development that has led and shaped growth of the Metroplex. Therefore, it would be a denial of history to suggest that a city could significantly advance a plan for growth without conscripting the power of land development.

Higher education partnerships: Of all the resources that are essential to advancing economic attainment, human resources are the most important. More specifically, human resources that are positioned for innovation and technical/ managerial advancement. Innovation in production and production management is the primary path to increased profit and higher value of investment in cluster formation. For example, most biomedical campuses are located in the vicinity of biomedical research (including hospitals). Developments such as Rail Port seek to succeed on

marginal savings in the cost of logistics. As a result, Rail Port may be successful in attracting distribution facilities that seek enhanced margins through decreased logistics costs. However, Pail Port may not be so successful with industrial development where other value-add features are more important than simple logistic cost reduction (such as the cost of energy).

Research and Development: Research and Development is directly related to higher education partnerships as well as industry relationships. Nationally 78% of all investment in research and development is made by industry, making research and development an important feature of industrial attraction. However, the institutional environment is also necessary to nurture the intellectual exchanges necessary for peer input and dialogue.

Technology Transfer: Technology Transfer is primarily an organizational activity. Perhaps the greatest historic example is the guilds of medieval Europe which preserved, within their ceremonial procedures, the knowledge of their craft and passed it along to future generations. The Order of Masonry is such a guild. In contemporary times, technology has made information more accessible but the environment of transfer has moved to the individual and away from the organization. However, technology transfer is still an organizational undertaking and is the means by which innovation is applied.

Business Incubation: An environment of innovation, application, and investment is fertile for business incubation and attracts venture capital. Los Angeles has long been seen as such a place for certain aspects of the digital industry. The availability of intellectual resources, multiple and active pathways of inter-communication, and constant innovation promotes the continued emergence of digital companies. One such company is RIOT Games which began 5 years ago with $8 million of venture capital and a small group of individuals who broke away from other companies. Today, RIOT's League of Legends game is the number one on-line game in the world with 100 million subscribers and RIOT is worth more than $4 billion.

Capital improvement: The capacity for capital improvement is essential for economic development and also one of the objectives of economic development. Debt obligations of a municipality are secured by the full faith and credit of the municipality which means that the municipality would increase ad valorem rates if necessary to fulfill its obligations. Because State law caps sales tax that a municipality is capable of charging, Ad Valorem rates become the only tax venue over which the City has discretionary authority and therefore, Ad valorem taxes become the most legitimate guarantee for municipal obligations. Being in a position to redirect Ad Valorem tax revenue toward debt obligations and substitute other revenues toward general fund obligations depends on the municipality having sufficient Ad Valorem base in place to make such management decisions. Ad Valorem capacity flows back to the notion of directing investment toward longer term economic effect (as discussed earlier in this introduction).

Business retention: Business growth starts with business retention, as factors which motivate a business to stay will also motivate a business to relocate. It would be difficult to convince business investment to come into a city where existing business investment is leaving. Also, it is true that the existing viable business base is the ground from which a future business strategy is built. Therefore, cluster formation usually starts with what is in place and such base is vertically expanded to form industrial clusters.

Cluster formation: Working from existing business as a basis, the strategy reaches out to align other business investment that vertically or horizontally expands the local base. This is necessary to move the local economy from its current state as an "internally traded" economy (meaning the money is exchanged through locally based transactions which do not import dollars and may export dollars) to an externally traded economy (which sends out goods and services and imports

dollars into the local economy). Cluster formation is more likely when the starting industry is more primary. For example a steel plant will have the effect of supporting more aggressive cluster formation because so many potential clusters require the steel plant product as an industrial input. Therefore, a steel plant can provide industrial input to a host of industries that themselves provide industrial input to other industries (for example steel to coil to car panels to cars and then steel to structural shapes to structural fabrications… etc.).

Targeted Recruitment: The notion of targeted recruitment is a measure intended to set a foundation from which cluster formation can grow. Some targeted recruitment may be to complete missing participants in the local business base or create a new base altogether.

Workforce development: A key industrial resource is workforce availability. Knowing the nature of skillsets needed, a community must recruit and develop the workforce just as aggressively as they recruit the businesses. Higher education partnerships are important. Also, capital investment in quality of life and the opportunity for people, to afford all the assets of a normal life…from schools, to housing, to healthcare.

The following diagram illustrates the interrelated nature of Economic Development initiatives described above. The outer circle of this diagram consists of nine segments, corresponding to the nine initiatives (discussed above). Inside the outer circle are three economic outcomes which individually flow from certain of the economic development initiatives and collectively comprise a vibrant economy for Cleburne. External Trade serves to import capital to the local businesses, capital is then injected into the local economy through higher wages that support a myriad of local transactions and nurture greater economic diversity overall. These three economic outcomes are the common thread of many citizen comments received from Public Workshop #2 (September 2013). In the

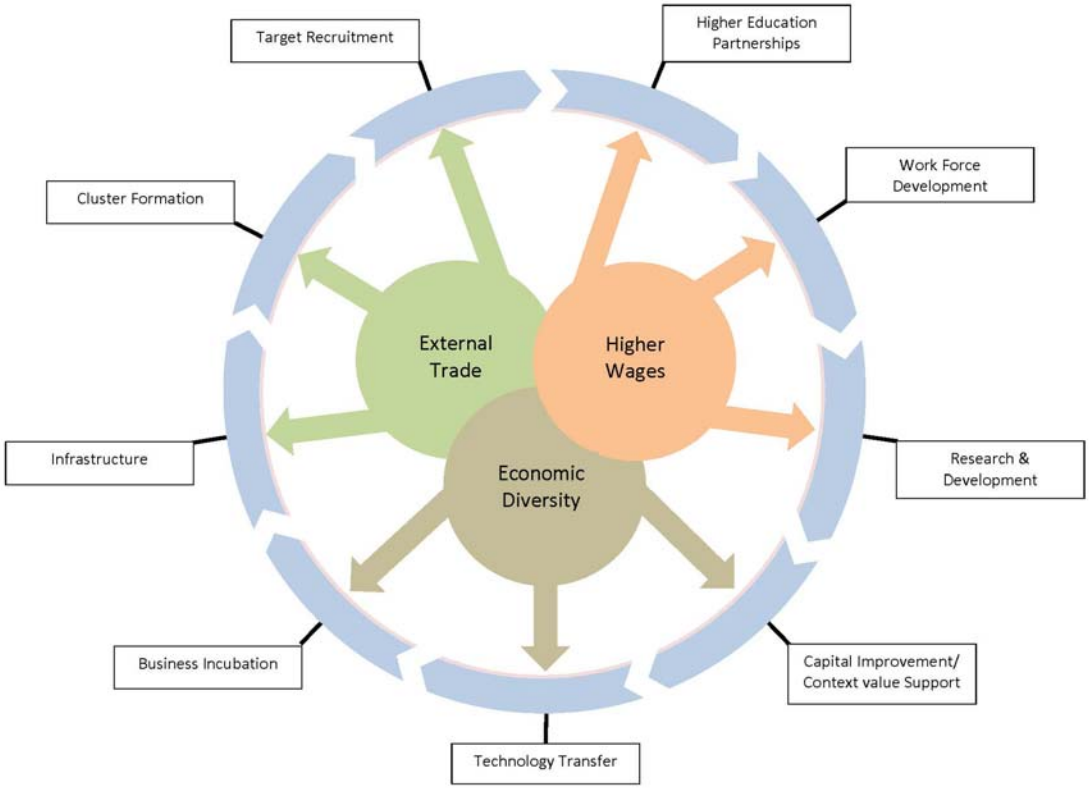


Figure 48. Economic Development Initiatives.

following text, citizen comments received at Public Workshop #2 are listed after a brief description explaining each economic outcome:

EXTERNAL TRADE: External Trade refers to the nature of transactions that dominate the local economy. The earlier economic assessment established that Cleburne's economy can be characterized as an internally traded economy. This is best illustrated by the following pie graph. Note that the dominant employment sectors are Retail (2183), Health/ Social Assistance (1530), and Public Administration (1496). While manufacturing comes in fourth, it only represents about 10% of total employment which is not sufficient to be termed as a dominant cluster. None of the employment sectors is truly dominant with the possible exception of retail which represents 15% of total employment. The largest sectors (Retail, Health/ Social Assistance, Public Administration) are all internally traded employment sectors. This means that the industrial output generated by these sectors is supported by transactions within Cleburne's economy. Therefore, the industrial output generated by these sectors does not import capital to the city. Instead, it moves capital within the local economy around. Therefore, the Cleburne economy is predominantly an **Internally Traded Economy**.

By contrast, an **Externally Traded Economy** is one where the industrial output is exported outside the Cleburne economic sphere and the proceeds of external transactions associated with that output are imported to the local economy. Therefore, an externally traded economy is dominated by industrial employment sectors which produce exportable output. Exportable output is generally associated with manufacturing industry (ranging from primary manufacturing to assembly). While other exportable economic activities also exist (such as certain professional services, artisan products, mining products, etc.), manufacturing is the most common. Historically, Cleburne's agricultural base was a

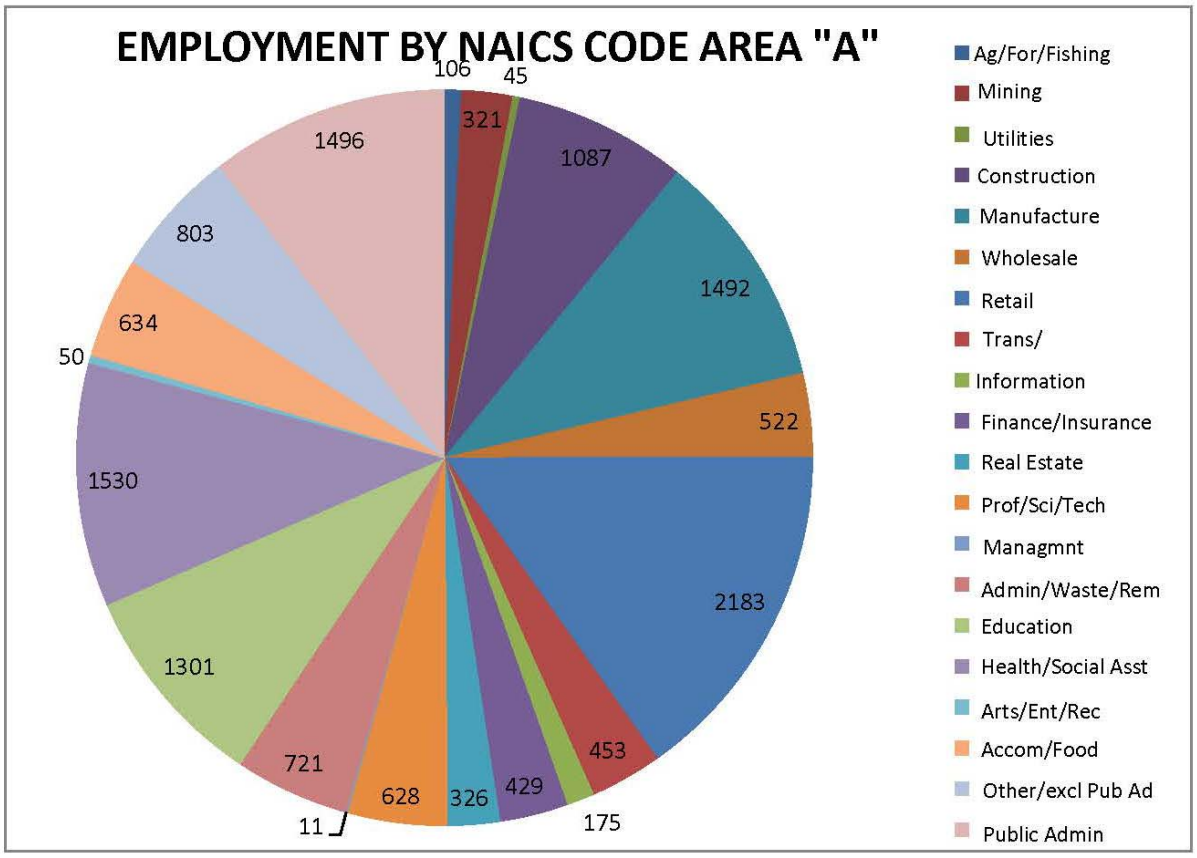


Figure 49. Cleburne Employment by NAICS Code, A.

manufacturing output. The means of production was the farm and the output was dairy, beef, and crops. The exported output of this industrial base imported sufficient capital to support a robust local economy, best demonstrated by the level of urbanization in Cleburne's downtown. It is the gradual weakening of this historic, externally traded, agricultural economy that has pushed Cleburne toward its current state of an internally traded economy. Continued absence of strong externally traded industrial sectors will only lead to diminishing wages and ever slower economic activity.

To establish an economic foundation upon which to build a strong local economy, Cleburne must replace the dominance of internally traded industrial sectors with more dominant externally traded industrial sectors. This Economic Development Plan endeavors to lay out a strategy by which such an economic transformation can be made.

The following is a list of statements showing citizen comments gathered at Public Planning Workshop #2. These statements call for strengthening the City's tax base, revitalizing the Agricultural and Industrial economy, and promoting a city whose form reflects a viable economic organ. These economic outcomes are only possible through an economic condition dominated by externally traded industrial clusters. More specifically, the citizen statements of vision which can only be realized through the emergence of an externally traded economy are:

1. Improve tax base.
2. Agricultural economy (farmer's market, county seat functions, special events for punctuated pattern of visitor-ship.
3. Orderly growth (downtown as center, radial spokes of commerce, easy to get around)
4. Industrial area is important to city tax base
5. Preservation of character rooted in agriculture and railroad

HIGHER WAGES: Industrial cluster formation which moves the Cleburne economy from internally traded industrial sectors to externally traded industrial sectors will begin to import capital to local businesses from export transactions. These businesses will in turn use export proceeds to purchase other industrial inputs (perhaps locally produced) and pay operational costs, such as wages. Because exported goods generally have to compete in a larger and more competitive market, labor and production efficiency become critical to increased profit margins. Such efficiency requires a highly qualified and capable workforce, which is also a competitive commodity. Therefore, where externally traded clusters form, wages generally trend in an upward direction.

According to government data, the average salary for jobs in Cleburne, Texas is $26,954…The chart below illustrates Cleburne's position relative to the State of Texas in the largest industrial sectors of the Cleburne Economy. The salmon colored bar illustrates average wage rates in Cleburne for various industrial sectors and the brown bar illustrates average wages in Texas. Note that Cleburne is consistently lower than the State Averages, reflecting the impact of an internally traded economy on wages in general. Therefore, as the average wage rate continues to fall and those internally traded industrial clusters with lower wages continue to grow (such as retail), Cleburne's ability to support specialized retail, higher priced and diversified housing options, and increased entertainment will continue to diminish. Continued loss of externally traded industrial sectors weaken Cleburne's ability to implement a viable economic development program overall.

The diagram on the next page illustrates the way imported capital finds its way into the internal

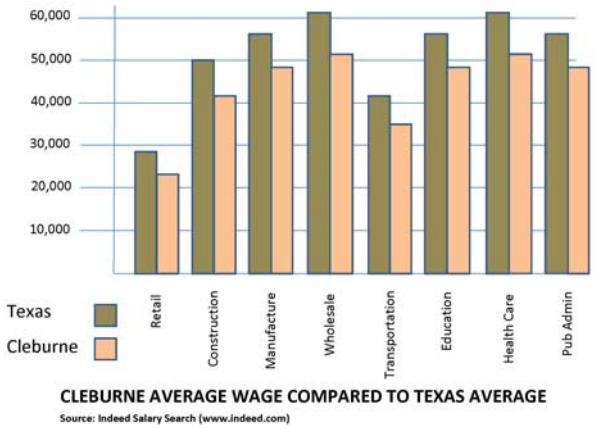


Figure 50. Cleburne and Texas wages.

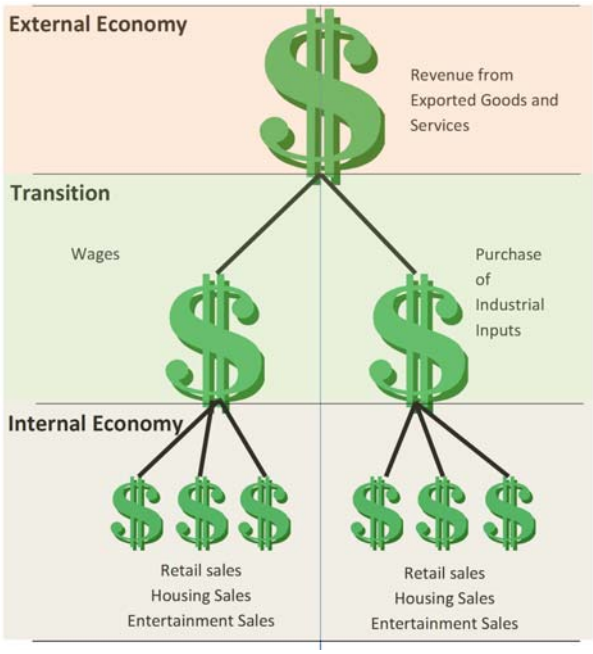


Figure 51. Imported Capital and Internal Economy.

economy. The larger dollar sign, at the top of the diagram, illustrates imported capital derived from the sale of exported industrial production goods and services. In order to support continued production, imported capital is transitioned into the local economy through payment of wages and purchase of locally produced industrial inputs (which are further paid out in wages and continued input acquisition until the remaining acquisition activities leave the local economy through leakage). Wages are spent within the local economy for consumer goods and services including retail sales, housing sales/ rent, and/ or entertainment. Therefore, the pathway to realization of the economic outcomes identified by the citizens who participated in Workshop #2 is increased wages and in-migration of higher income residents as a result of the formation of externally traded industrial clusters.

The following is a list of statements showing citizen comments gathered at Public Planning Workshop #2. These statements call for higher value homes and apartments and an enhanced tax base. These economic outcomes are only possible through an economic condition supporting higher wages and employment. More specifically, the citizen statements

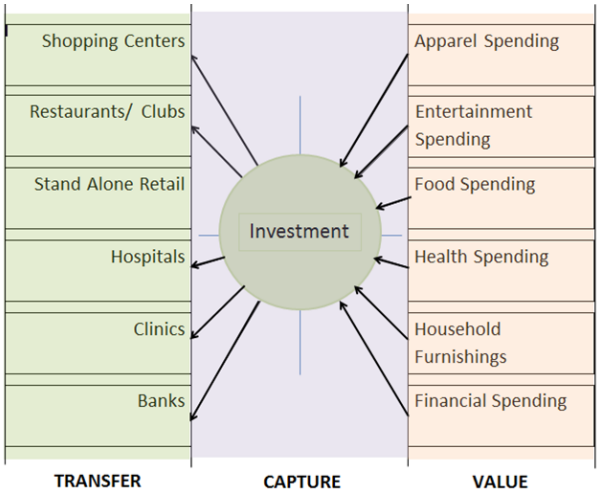


Figure 52. Economic Vibrancy Value, Capture, Transfer.

of vision which can only be realized through the creation of higher wage opportunities are:

1. Higher end apartments are needed.
2. Higher home values: don't squash out residents with more modest means and don't damage existing character; increased median home values require increased wage base.
3. Increase home values.
4. Higher home values = market issue
5. Improve tax base

MARKET VIBRANCY: Market vibrancy is the result of increased demand for goods and services. Increased demand is energized by increased disposable income. As portrayed in the diagram above, imported capital transitioned into the local economy through wages and acquisition of industrial inputs will generally be spent within the local economy for consumer goods and services, thereby representing a demand. This relationship is recognized by Citizen Comment #5 below. Demand is perceived as value to be captured by investment in facilities for, and supply of, goods and services to be sold. Through this recognition of value and responsive investment, the future city will be built and the market place in which economic vibrancy is manifest emerges. This relationship is illustrated on the adjacent diagram. Note that value is expressed by spending potential for desired goods and services, capture is expressed as investment made in recognition

of that value, and transfer is expressed as vertical development necessary to serve demand and which forms/extends the physical city.

The following is a list of statements showing citizen comments gathered at Public Planning Workshop #2. These statements call for increased retail/ entertainment options and greater levels of specialization. These economic outcomes are only possible through an economic condition that can be described as economic vibrancy. More specifically, the citizen statements of vision which can only be realized through the emergence of economic vibrancy are:

1. Activities/entertainment for families and middle aged people
2. Density is appropriate in downtown (i.e. lofts); but business/economic stimulation [is needed] to attract good tenants.
3. Upgrade retail/commercial quality, encourage new businesses, give tax incentives.
4. Have more restaurants at the lake.
5. Retail/commercial services, median home values, and schools are all related…must feed off each other.
6. Improve regional competitiveness in terms of retail
7. Need higher home values to support improved quality of life.
8. Higher home values: not only build higher end homes, but tighten up codes and enforcement to preserve/enhance values of existing housing stock.
9. Support nodal development
10. Development of the east side
11. New roads, new telecommunications
12. Higher quality of development: attract higher end commercial/office/retail
13. Retail growth at Chisholm parkway
14. Consider Buffalo Creek River-walk
15. Support new businesses, people doing new things, etc.

Building Upon the Economic Development Links

In the Economic Development Circle Diagram,

I	Infrastructure	Cluster Formation	Targeted Recruitment	Higher Education partnerships	Workforce Development	Research & Development	Capital Improvement/ Context Support	Technology Transfer	Business Incubation
Externally Traded	A-1	A-2	A-3						
Higher Wages				B-1	B-2	B-3			
Economic Diversity							C-1	C-2	C-3

Figure 53. Economic Development Strategy Matrix.

presented earlier, the ring identifies a set of 9 interconnected economic development initiatives which support the emergence of three economic development conditions (the inner set of three circles). The linkage of certain initiatives to certain conditions is established by the arrows spanning from one to the other. These specific linkages are summarized in the adjacent matrix. Therefore, there is a strategy to accomplish the link between Infrastructure and development of Externally Traded Industrial Sectors, identified by the notation A1 (which references a set of tactics, imbedded in each description below). The following text will explore each of these strategies and tactics. Collectively, these strategies and associated tactics will identify a coherent plan that can move Cleburne toward accomplishment of the economically related vision statements put forward by residents of the City in Public Workshop #2. More specifically, the strategies and tactics are as follows:

Strategy A-1: Infrastructure/ Externally Traded Tactic. Infrastructure is the primary determinant by which land development selects site locations and land development (conversion of raw land into building ready lots/tracts) is fundamental to any successful

industrial development plan. Therefore, the focus of infrastructure is to bring sufficient land availability and sufficient infrastructure capacity that predisposes selection of that targeted land for development of building ready industrial lots/tracts. The importance of land development to this tactic cannot be under represented because only through land development will sufficient demand for infrastructure services be aggregated in a serviceable configuration that justifies the large capital investment required. Infrastructure also influences industrial productivity and the serviceability of infrastructure can influence input costs. Key among infrastructure elements are:

Roads: Roads are the primary locational reference and determine "proximity" within the City physical structure. Proximity can be better defined as one of three types: Place, Adjacency, and/or Purpose. Place is often referenced by such terms as rural, exurban, suburban, urban, core, etc. Adjacency is referenced by such terms as access, exposure, physical association/connection, etc. Finally, Purpose is often referenced by such terms as harbor, river, rail head, freeway crossroads, intermodal, airport, etc. Most of these associations and the subsequent determination of place for one type of investment over another are defined by roadways. Therefore, Roadways are the first consideration in any tactical path toward the emergence of externally traded industrial clusters.

In Cleburne, roadways are needed to disengage industrial traffic from other ordinary residential and commercial traffic. Growth of the City and growth of industry have placed great burden upon existing roadways, which are now undersized to accommodate both ordinary traffic and industrial traffic without causing operational disruptions. Further industrial development of the City (and within the Ad Valorem reach of the City) is constrained by a lack of street capacity. Therefore, an industrial traffic route is needed that will determine the place of future industrial development. However, such a route cannot be so located as to syphon traffic away from the core of the City. Historically, the vibrancy of downtown was supported by the industrial activities of an agricultural industrial base which was connected to the core via Farm-to-Market Roads and State Highways. Therefore, for there to be any flow of benefit from further industrial development to support a robust downtown, it must remain connected. Strong, and meaningful connection will allow downtown to host vertical expansions of the industrial clusters that emerge, including supporting services.

The biggest mistake Cleburne can make is **to view streets as a means of passing traffic through town**. Pass through functions do not support transaction because they are weak determinants of **proximity**. Instead, the street system must be viewed as an opportunity to transform through movement into transactional movements by having points of arrival within the City (such as industrial destinations). In this way traffic comes to Cleburne instead of passing through it.

Streets are the determinant of time, distance, convenience, and capability for exchange. These important aspects of connection are the substance of logistics. Therefore, it is necessary to have streets which allow travel time to key destinations to be shortened, with lower cost to make the connection, and connect in such a way that transactions are facilitated.

Tactic A-1-1: The tactic for using streets to nurture the emergence of external trade is to serve an appropriate land area for industrial land development with street capacity that brings industrial movement to and from the industrial area without excessive comingling of local traffic, yet, connects the industrial area to downtown in such a way that downtown can be the logical selection for vertical expansion of the industrial clusters formed.

Rail: While roads are the primary locational reference, rail is the primary determinant for logistic capability. Unlike roads, rail is an exclusive path that allows levels of logistic management that roadways cannot afford. For example, rail can be branched into shared lines

(team tracks) and single user tracks (latter tracks), all connected to primary service tracts which have direct connections over which large volumes of output can be moved or input can be delivered. Rail allows long term loading into stationary cars that do not have to be moved until ready to be taken to a switch yard for inclusion in a train. Rail makes it possible to have industry that is "heavy in" and "lighter out" where the lighter output can be accommodated by truck while the heavier input is accommodated by rail. Most importantly, rail makes it possible to have terminal facilities that various industries find extremely attractive. A rail yard is a lot like a sea port, in that "throughput "is possible as well as storage and redistribution which serves processing/manufacture (needing to be close to an abundance of a particular input resource).

Cluster formation in Cleburne will emerge to serve markets that Cleburne is well positioned to serve (discussed in strategy A-2, below). Therefore, industry located in Cleburne will likely serve other industry in the area, meaning that industries in Cleburne will be more primary than the industries Cleburne serves. The more primary the industry, the heavier the industrial inputs required. Therefore, it is likely that industrial expansion in Cleburne will find rail an attractive asset.

The plan image below shows Midlothian's Railport

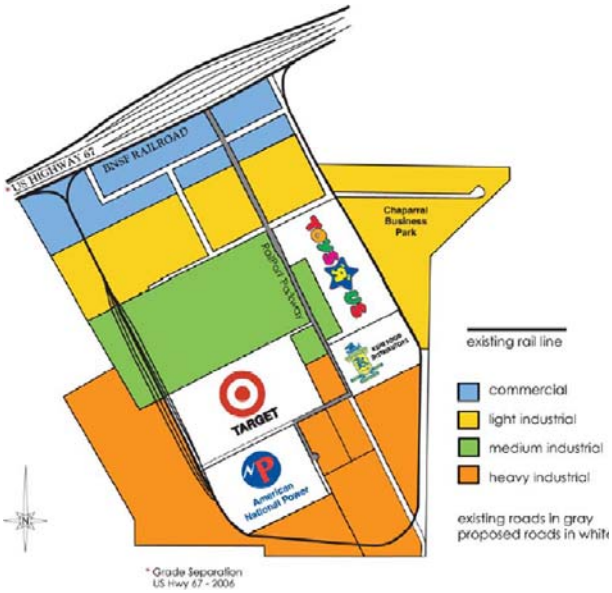


Figure 54. Midlothian Railport development.

project (developed by TXI). At present, the primary tenants in Railport are distribution facilities. Note that the major names displayed on the plan image are Target, Toys-R-Us, and KEHE Food Distributors. Therefore, it can be said that rail capabilities at Railport have given it sufficient logistic advantage to attract distribution facilities which are most influenced by marginal savings in transport. Such distributors are attracted to sites away from urbanized areas, that are well served by road and rail connection. However, the track configuration is not set up for a system of ladder and team track, as typical to most rail served industrial settings. Therefore, it is likely that Railport will continue to attract distribution plates. Track alignments relative to most parcel line geometries in the heavy industrial portion of the plan make rail service relatively inefficient and costly on a site-by-site basis. Therefore, heavy industry may not be a big component of this plan over time (note that the large plate distributers have located in the heavy and medium industrial zones). However, light industrial (primarily assembly) may find Railport attractive for the same reasons that distributers do. Railport demonstrates that rail infrastructure proves to be influential in the locational determinism of industry. A more specific discussion of Railport is presented in the Cluster Formation portion of the Economic Development plan component.

The primary advantage of rail (which is not fully exploited in Railport) is that rail can support the operation of terminal facilities (an infrastructure resource currently lacking in Cleburne). Appropriate terminal facilities to locate in Cleburne would be such facilities that are not found in RailPort. These include:

- **Dry Bulk Facilities**: Except for dry bulk storage at the TXI plant, Railport does not provide dry bulk capabilities. In fact, the way the track is arranged, existing buildings are located along the main line serving TXI. Therefore, car storage at the other distribution facilities would be very limited as such storage would render the track unusable for TXI. Unless the remaining property usage is planned to accommodate dry bulk needs, it is unlikely that any

meaningful dry bulk terminal will be developed at Railport.

- **Wet Bulk Facilities**: As oil production, chemical production, construction, and other industrial activities that produce or use liquid products increase throughout Texas, there is greater need for wet bulk terminals at entry points to major markets. Dallas is such a market. Again Railport is not set up to do this and while there are various tank farms located around the Metroplex, there is no state of the art liquid bulk terminal capable of handling multiple liquid products for distribution to growing industry.
- **Powered Container Yards**: While container intermodal facilities exist in the Metroplex (such as the Union Pacific and proposed BNSF intermodals in Wilmer Hutchins), there are few if any specialized container terminals. Such terminals include storage of refrigerated containers, needing power to maintain container cooling systems. Such refrigerated capability would be influential to food processors dealing with perishable inputs.

Tactic A-1-2: Use Cleburne's existing rail connections to create rail served capability in the areas positioned for industrial land development (as a result of street determined proximity) and configure such rail so that terminal facilities not available in Railport are available in Cleburne (such as dry and/or wet bulk terminals).

Tactic A-1-3: In order to promote more primary industrial cluster formation, create rail served terminal facilities that can handle steel coil, resins and other primary industry inputs in sufficient volume to be considered a locational advantage for industrial location.

Power: As industrial activities are more primary (meaning closer to the transformation of raw materials into various stages of final product inputs), they are more dependent on the availability of power. A typical early stage manufacturer can use 6,000 kW demand. Therefore, using a 75% annual load factor and a $0.067/ KWh cost factor, the annual power usage would cost $2.7 million. If this same facility were a typical industrial facility averaging 65,000,000 in total investment (building and equipment) then the ad valorem income (at $0.62/ $100 valuation, without tax abatement) would be $372,000.00. This is the typical range of abatement incentive available to competing cities in the Cleburne region (including Railport). Therefore, if "power subsidy" becomes an economic development tool, it opens up an area of incentive negotiation that competing cities will not be able to offer. To do this Cleburne must have a relationship with transmission capability through which it can offer a reduced power rate. Thereby, any savings on power costs could be influential in making location decisions for the more power dependent industries. Power availability requires both transmission capability and power substation proximity. This becomes influential in light of the State of Texas statement below:

"On a national level, Texas ranked No. 1 and was the destination for 1 in every 9 foreign Industrial Machinery projects locating in the US. FDI (Foreign Direct Investment) projects in this sector generated an estimated 3,300 jobs and $1.6 billion in FDI in Texas."

The attractiveness of regions surrounding Cleburne for industrial investment is reflected in the magnitude of industrial investment taking place. Here is a quote from a recent Dallas Business News article about such investment:

(Dallas Business News Sept, 2013): "We can build up to 300,000 square feet of additional buildings," said Jeremy Giles, Prologis' senior vice president in charge of the Southwest region.

Giles said companies that are hunting warehouse and distribution space "are seeing the value of being on the I-20 corridor with easy access to I-35 and I-45 to service the other major metropolitan areas in Texas." To meet growing demand, there's a wave of warehouse construction ramping up in the Interstate 20 corridor in southern Dallas County.

Almost 7 million square feet of additional warehouse projects are in the works in far south Dallas, Lancaster and Hutchins.

In Tarrant County such projects as Carter Business Park

and Railport reveal the interest in industrial investment. *Barron's* rates Fort Worth as the most undervalued high -growth market (cited in an article published by Carter Business Park).

If Cleburne can derive an incentive package, with a power subsidy that sets them apart within this competitive environment, then there seems to be sufficient ambient activity to make such a program potentially successful. City power subsidy can be justified by the high leverage factor that more primary industries offer. The more primary the industry, the more power dependent it is and the greater leverage factor it offers (in terms of sales tax, employment, and spin off consumers of industrial outputs). Therefore, the significance of economic contributions to the local economy (leveraged economic impacts upwards of 5.5 times the public investment, depending upon the primary nature of the industry to whom incentives are offered), can justify such an incentive.

Tactic A-1-4: Use Cleburne's relationship to power generation in Glen Rose and Midlothian to create electrical service capability in the areas positioned for industrial land development (as a result of street determined proximity) and configure such electrical infrastructure so it is readily available to any site without significant off-site costs.

Tactic A-1-5: Establish a program and funding mechanism whereby electrical power can be used as an economic development tool.

Gas: Like electrical power, gas is a significant industrial infrastructure service. With continued weakness in the price of dry gas and the abundance of dry gas in the Barnett and Eagle Ford shale formations, it would seem that now is the time to develop a natural gas infrastructure that makes such gas available to industry located in Cleburne. It is important that the benefits of the presently low price are fully realized by location in Cleburne. Therefore, the offsite cost of pipe lines necessary to bring gas to development becomes critical. Such cost structure is too burdensome for an individual industrial user, making it necessary to aggregate industrial users with similar needs so that the infrastructure investment can be justified. Transmission fees become the source of revenue to any private developer, if infrastructure development investment costs can be returned through transmission fees or the transmission fees can be rolled into a broader funding structure (such as a Business Improvement District).

Tactic A-1-6: Create a mechanism for broad funding of transmission costs for gas infrastructure that would attract private investment in such infrastructure.

Tactic A-1-7: Initiate an industrial plan that would aggregate users of any particular infrastructure and thereby aggregate demand for services and promote construction of a cost effective distribution system.

Strategy A-2: Cluster Formation/ Externally Traded

Tactic: A study by the San Diego Association of Governments defines industrial clusters as follows:

"An industry cluster is different from the classic definition of industry sector because it represents the entire value chain of a broadly defined industry from suppliers to end products, including supporting services and specialized infrastructure. Cluster industries are geographically concentrated and inter-connected by the flow of goods and services, which is stronger than the flow linking them to the rest of the economy."

Building upon this definition, the economic development strategy seeks to link the formation of industrial clusters with external trade. Earlier in this discussion of Economic Development, external trade was described as the export of goods and services to markets outside the Cleburne economy and the import of capital to the Cleburne economy. Therefore, the overall link between economic condition (external trade) and economic development initiative (Cluster formation) is to promote industrial clusters that can participate in the export of Cleburne goods and services and the import of capital to the Cleburne economy.

As the definition above reveals, the cluster is the constellation of suppliers and services contributing to the exported product or service. In this configuration, it is the export interface (defined as the production of the exported product or service) which transform the cluster into an "externally traded" cluster. Without the capability to export the final industrial output the inputs and services contributing to such production remain internally traded. This is what happened to the Cleburne economy as it transitioned from an economy that exported agricultural production. Originally the abstract companies, lawyers, equipment sellers, fertilizer suppliers, etc. were linked to export through the exportation of agricultural goods that their inputs and services helped produce. However, when the export function diminished many of those inputs and services remained in Cleburne, selling to an internal economy and this has become the dominant condition of Cleburne today.

More importantly the proceeds from agricultural services sold outside the economic sphere of Cleburne were distributed within the local economy through the agricultural acquisition of inputs and services…making Cleburne a robust and vibrant county seat.

Cluster formation is the alignment of those necessary supports to foster the emergence of that external trading interface between Cleburne and markets outside Cleburne. In order to nurture such cluster formation Cleburne must:

Complete the supporting chain of inputs and services: A complete set of interrelated suppliers and services promotes greater cooperation between cluster members which increases confidence and communication across the supply chain. Finding needed inputs in the local economy fosters the notion of an industrial community and links all participants together by transaction. Such meaningful linkage develops relationships which become another attraction for industrial relocation.

In a holistic view of cluster formation, one would consider the existing set of suppliers and services and endeavor to construct relatively complete supply chain/ production taxonomy that reveals the missing components and/ or suggest the best export production activity.

Tactic A-2-1: Initiate a program of on-going supply chain/production assessment that constructs and refines supply chain/production taxonomies, which are then used to target economic initiatives.

Production stability: A highly competitive context (which is an accurate description of the industrial environment of south Dallas and Tarrant County) makes any measure of stability an attractive economic development incentive. Among the more important elements of stability is **Industrial Expansion and Agility**: Special agile capabilities that would be attractive to time critical manufacturing or expanding industry. Therefore, the capability to realign industrial processes and thereby redefine aspects of industrial output becomes critical. Most of these needs will derive from telecommunications**,** automation, and industrial expansion capability.

Industrial expansions are the often overlooked aspect of economic development. It is more likely that the initial investment response to market advantages realized in Cleburne will come from existing industrial investments seeking to expand or adjust to new opportunities. Therefore, expansion capability and technical assistance becomes very important. It would be a significant economic development tool to offer an industrial expansion program to any incoming industrial investment. Features of an industrial development program would include:

- **Expansion land reservation**: This is a possible mistake that Railport and Carter Business Park are making because development is treated lot by lot, placing a new industrial investment immediately adjacent to a previous industrial investment, thereby making expansion of the earlier investment impossible. A coordinated sequence of sale and reserve for a period of time would allow older investment to expand in response to market

expansion without having to relocate. Once relocation becomes an option, then Cleburne will be vulnerable to industrial outmigration.

- **Expansion and process realignment technical assistance**: Often industrial expansion takes place internally more than externally...meaning industrial process upgrades more than square foot expansion of the industrial plate. In fact, an industry planning to expand the industrial plate could potentially save considerable capital cost if they were to upgrade industrial process. Technical assistance could facilitate a better understanding of such choices, thereby increasing production at lower capital investment and greater profit. The coordination of technical assistance (the assistance delivery structure) is the infrastructure needed. The nature of such assistance is discussed below in Research and Development and Technology Transfer. It is often the case that new investment coming into a market can weaken older investment as a result of increased productivity associated with more current industrial processes. When this happens, internal competition can drive older investment out (an industrial gentrification). Therefore, any infrastructure which seeks to make applications of technology equally available keeps the overall cluster performing at an ever higher level rather than simply turning over. A higher performing cluster will reach critical mass sooner and thereby support vertical expansion, which can flow into the urban core.

Tactic A-2-2: Initiate an industrial expansion program that would assure spatial opportunity for plate expansion and deliver technical assistance for process upgrading. Expansion requires a spatial infrastructure available to any new investment that remains available for a period of time and the latter requires an information infrastructure that encourages industrial process upgrades where beneficial to overall economic success and facilitates such investment.

Predictability of input availability: To maintain viability in one end of a supply chain, one must maintain viability in the other end of the supply chain. This is one of the economic benefits of true cluster formation. The State of Texas is littered with fading industries which located within a community because of a single local factor (such as cheap labor) and became dependent on the supply of other inputs to the production process from sources outside the local area and thereby vulnerable to economic shifts. Therefore, when these supply inputs became difficult to acquire, the industry diminished but employees stayed and local unemployment went up. Therefore, any economic development initiatives targeted to one end of the supply chain must be accompanied by economic development initiatives aimed at the other end of the production chain.

Tactic A-2-3: Execute initiatives that seek to firm and stabilize key industrial inputs and services, particularly those which support industrial aggregation. Such initiatives include terminal facilities and supply chain connections that allow small orders individually but constitute large orders collectively. In order to do this supply coordination needs to be part of the development infrastructure.

Supply chain redundancy and supply stability: The on-going trend of near sourcing to Mexico is largely attributable to the insistence of retailers seeking a supply chain that is not as attenuated or vulnerable as the global connections required to acquire supplies from China. Thereby, illustrating the importance of supply chain stability to any industrial activity. A key component of supply chain stability is redundancy. Supplies provided from Mexico can be acquired via rail, truck, or vessel; making disruptions in supply availability far less likely than China which can only be connected via vessel.

Cleburne, must seek to have (through its infrastructure development) multiple supply capabilities. Of course, the most reliable is local production of the material or service being supplied. Therefore, the long term objective of any supply initiative must be to develop

sufficient export demand locally that the supply of inputs to that export can also be produced locally. This is the essence of cluster formation. Finally, it is the production of input goods and services that can more likely be produced by locally grown business, making efforts in this area particularly supportive of business incubation discussed later in this section.

Tactic A-2-4: Established a balanced economic development that seeks to build export production from local supply/service capability and seeks to use increased demand from aggregated export production to strengthen the base of local supply and services.

Increase market access: Increasing the export production capability of any location can be influenced by its logistic advantage or the extent to which local logistics make market connection stronger and/or less expensive to access. In this regard, Cleburne has several pathways which can be exploited to strengthen its logistic position.

Distribution capability is a key logistic asset. An extensive logistic network is emerging in southern Dallas, Tarrant, and Ellis County. These include Railport, Alliance, the intermodal projects in Wilmer/Hutchins, etc. Rather than view these as competition, Cleburne should view them as assets which improve logistic capabilities from Cleburne. The BNSF line traversing Cleburne also serves many of these logistic platforms. Therefore, it is not that Cleburne is in the center of the Metroplex but that it is equally available to the logistic assets of the Metroplex. In order to accomplish this, discussions should be initiated with BNSF to make these connections more tangible and marketable. Railport has such agreements with BNSF and Alliance.

Tactic A-2-5: Execute agreements with BNSF that will allow Cleburne to set an operational framework over its proximity to multiple logistic platforms within the Metroplex. These include switch yard connections, back haul agreements, transport window availability, etc.

Strategy A-3: Targeted Recruitment/Externally Traded Tactic: The discussion above stresses the need to construct supply/production taxonomies that reveal missing elements in the formation of a complete cluster. Once such missing elements are known, it is necessary to target recruitment efforts to complete the taxonomy. Therefore, targeted recruitment is a necessary part of any effort to strengthen the export capability of a local economy.

Targeted recruitment builds upon what a community already has. If one does not select targets in order to strengthen what exists, then a community is basically transforming their economy, not expanding it. In any transformation, there are negative cycles which may or may not lead to positive outcomes.

Strengthening the local economy is not only served by filling holes in the supply/production chain but also maximizing strengths and resources while resolving weaknesses and eliminating liabilities. This may mean elimination of current industrial activities that negatively affect the desirability of an industrial location. Railport may face these problems as a result of TXI's proximity to distribution and dual use of the track facility for frequent distribution and industrial use. Further the potential emergence of heavy and medium industrial users on the same track as distribution creates potential use conflicts within the track system, thereby depreciating the major relocation attraction. Therefore, more selective recruitment may move recruitment efforts away from industrial uses that complicate the rail infrastructure.

Key among assets that enhance the attractiveness of Cleburne for targeted recruitment is the availability of a capable workforce. While this is discussed in the sections below, it is mentioned here as it is a critical component of targeted recruitment.

Tactic A-3-1: Using the earlier described taxonomy as well as a SWOT (Strengths, Weaknesses, Opportunities, and Threats) Analysis; construct a recruitment agenda that seeks to fill missing

supply/production links, maximize strengths/ opportunities, and mitigate/resolve weaknesses and threats. Targeted recruitment efforts should view incentives aimed at filling any missing industrial activity and/or improving recruitment conditions as investments justified by the overall multiplier effect of the economic development strategy.

Tactic A-3-2: Develop local strategies at filling workforce gaps as well as supply/production gaps that needed supply/production recruitment targets will find compelling as a relocation determinant.

Strategy B-1: Higher Education partnerships/Higher Wages Tactic: The pathway from the present lower wage trending economy to a higher wage trending economy (attained by targeted recruitment, research & development, and technology transfer) is through higher education partnerships. "Partnership" is an organizational term, suggesting that the vehicle within which higher education partnerships will be accomplished is the organizational setting(s) in which shared interest of the city, industry, and higher education can be advanced. These organizational vehicles are catalytic components of an ecosystem of innovation that feeds technology transfer and research and development. There are several organizational vehicle which merit consideration:

An Appointed Economic Development Advisory Committee: Community leaders, industry delegates, and representatives of higher education institutions can be brought together in an appointed committee charged with an on-going mission related to economic development. The course of regular business and discussion pertaining thereto forges a partnership which is strengthened as mutual interests emerge. Key mutual interests include the participation of industry in education (an extension of the education process), the benefit of industry as a source for educational funding, the importance of education as a source of trained labor, and the role of education in research and development. In addition execution of a common economic development mission focuses the participants toward partnered activities that may advance the economic agenda.

Tactic B-1-1: The Cleburne City Council appoints an Economic Development Advisory Committee charged with the specific mission of identifying mutual interests of industry and education and translating those interests into action agendas supported by committee participants and to be carried out by other organizational structures created as part of the overall economic development strategy.

Research program administration boards: Much of necessary research and development activities are discussed in following sections. However, research and development is a shared activity that can be jointly administered. Joint administration will nurture greater cross communication and facilitate innovation as well as assure application. In order to have a shared administration, the funding of research and the doing of research must have oversight of such a joint administration likely established by agreement between institution and industry organization or city acting as coordinator of institution/industry cooperation.

Tactic B-1-2: Educational institutions and industry create a Research Administration Board (typically a board of a non-profit corporation) that is capable of receiving private and public grants (or other forms of endowment) and oversees proposals for various research projects or organizes research for necessary projects. This board can bring the resources of industry and education (intellectual and material) together as needed to address research issues.

Extended education relationships: Formation of a needed workforce requires education experiences that are more vocational than academic (in most cases but not all). Therefore, it is beneficial to the educational experience to have industry participate as an adjunct of the institution. In this relationship, the work environment becomes another class room and thereby part of the education experience. How the work environment and classroom environment are integrated will require some form of joint organization to determine.

Tactic B-1-3: Educational Institutions and Industry create a Joint Education Partnership in which participating institution and industry investigate opportunities to bring the educational experience to the industrial workplace in exchange for targeted educational initiatives aimed at equipping graduates with skills sought by the industry. The Educational partnership program is established by and staffed by the City of Cleburne.

Industrial Sponsorship Committee: Industrial sponsorship can be a powerful asset to education. Sponsorship includes the provision of space, equipment, personnel, and educational funding (e.g. fellowship or chair). Where there is an aggregation of industrial interests, it is possible to aggregate sponsorship resources and dispense them through an allocation process administered by a committee of industry, city, and educational institutions.

Tactic B-1-4: Create a City of Cleburne Corporate Sponsorship Clearing House which brings sponsorship interests and sponsorship opportunities together. Corporate exposure for sponsorship participation is put forward by City and Institution and sponsorship opportunities are matched with corporate need.

Strategy B-2: Workforce Development/Higher Wages Tactic: Workforce development is like any other output product in that it must serve a demand for workforce services. Therefore, any aggregation of industrial type can increase the qualified workforce pool as a result of the employment opportunities available. However, in some cases the workforce pool is a site selection criterion necessary to attract desired industry. Such workforce availability is another reason why the overall economic development strategy and targeted recruitment must build upon the existing industrial supply/production chain. Thereby, workforce development involves skill expansion (in most cases) instead of skill re-training for which employment is not available. However, where skill training resources have a Metroplex, state, or even national market place, such resources, by their presence, can offer the implied availability of a particular workforce capability.

The link between workforce development and higher wages is to continually move the workforce toward higher skill level and thereby, higher wages. The three means of doing this are mentioned above and include:
Demand Pull Development: Aggregating industry that will offer sufficient employment opportunity to nurture the formation of a developed workforce pool. In addition, the aggregation of industry will support more specialized and higher paying services which can emerge. Opportunity for such services will foster business formation and likely import workforce participants with increased skill. An example of this is the demand pull that digital companies in Los Angeles impose and the extent to which these companies drive an ever expanding wealth of programing and artistic talent.

Tactic B-2-1: Guided by the mutual interest in workforce development identified by the above mentioned Economic Development Advisory Committee, pair workforce training with other economic development initiatives (such as targeted recruitment) to match skill and opportunity. Further matching between skill and opportunity is made through an employment resource clearing house sponsored by the City of Cleburne, through which emerging skill opportunities are identified.

Transitional Upgrading: Building upon the skills of the existing workforce and upgrading those skills to meet the needs of industries related to the existing supply.

Tactic B-2-2: Diversify workforce training resources to workplaces where the basic workforce is suitable for training enhancement and include such training as part of the workplace environment. Training can be accomplished during off hours or, where such training is beneficial to the employer, be conducted during work hours. These, decentralized training experiences are funded by the City of Cleburne in partnership with industry and staffed by training resources and educational institutions. Appropriate

training credentials are awarded for training accomplishment.

Institutional Reserve and Vocational training: Where local training institutions serve a broad market place and are a source for the continued production of a developed workforce. Also where the local school district can provide vocational training experiences in partnership with local industry:

Tactic B-2-3: Form coordinated partnerships with local training institutions serving the Metroplex market place, through which workforce candidates with certain necessary skills can be viewed as available to the Cleburne market. Through such partnerships, workforce recruitment opportunities can be made available to local industry.

Tactic B-2-4: Develop curriculum programs with the local school district that offer an opportunity for educational focus (much like a magnet school within the regular school environment) which is funded by the economic development initiative of the City and/or local industry (perhaps this is an opportunity for corporate sponsorship as described above).

Strategy B-3: Research & Development/ Higher Wages Tactic: 78% of all research and development (R&D) spending in the United States comes from industrial investment. The reason there is such industrial support for R&D is that the benefits of such activity include:

Enhanced Productivity: Productivity is increased when the quantity of industrial inputs (including the time cost of labor) necessary to produce a unit of output are lessened. Productivity enhancements include higher levels of automation, product refinement, and process coordination. Therefore R&D initiatives aimed at these aspects of the production are highly desirable and viewed as powerful relocation attractors for industry. Focused R&D in areas relevant to targeted recruitment would be a necessary part of targeted recruitment.

Tactic B-3-1: Using the organizational vehicles discussed above, sponsor and initiate R&D efforts that are aimed at improvements to the production process (automation and management) and aggregate such efforts through enhanced communications to support innovation. Create expeditious pathways for research application in the industrial setting.

Tactic B-3-2: Establish a research platform via web portal that coordinates local research with national/ international research in parallel or related areas, thereby broadening the opportunities for discovery and/or innovation.

Product Improvement and Diversification: While productivity can be enhanced through improvement to the industrial process, it can also be enhanced through improvement to and/ or diversification of the industrial product. Where industrial output can be improved to require less processing overall, productivity is increased. Were the production process can be employed to turn out multiple products, productivity is enhanced. Therefore R&D initiatives that are product oriented are a critical part of a total R&D program.

Tactic B-3-3: Using the organizational vehicles discussed above, sponsor and initiate R&D efforts that are aimed at product improvement and diversification and aggregate such efforts through enhanced communications in order to support innovation. Create expeditious pathways for research application in the industrial setting.

Elimination of by-products: A significant amount of product cost and/ production time allocation is consumed by the disposal/treatment of industrial by-products. Therefore, R&D initiatives which seek to minimize, reuse, or efficiently dispose of by-products. Properly conceived, an industrial by-product could become the industrial input of another production process.

Tactic B-3-4: Using the organizational vehicles discussed above, sponsor and initiate R&D efforts aimed at use of, disposal of, and/or mitigation of industrial by-products. Coordinate these efforts

with advancing regulation so that the costs of compliance are reduced. Special involvement of the City of Cleburne is necessary to provide disposal infrastructures that will aggregate by-products for mass disposal or resource availability.

Strategy C-1: Capital Improvement – Context Support/Economic Diversity Tactic: Context is a value reference supporting the perception of location suitability. It is essential to larger and more identifiable non-residential uses. In a landscape where there are many similar locational advantages (freeway frontage, rail service, primary intersections, etc.), context becomes a persuasive location determinant. This is where Cleburne holds significant advantage over its competing neighbors. These contextual advantages of Cleburne include:

Urban Form: Unlike neighboring cities, Cleburne has a distinctly urban form which is a legacy of its history as a vibrant county seat. Therefore, Cleburne as a place conforms to the cognitive aspects of place in terms of recognition attributes (downtown, surrounding neighborhoods, radiating streets, etc.) Cleburne's plan for the future must remember its past and preserve not only the physical pattern of form but also the integrated functions that animated this pattern, making it a living city.

Tactic C-1-1: Establish a Capital Improvement Program that is more prescriptive than descriptive, meaning that it is aimed at economic conditions rather than simply maintenance. The Capital Improvement Program must place higher priority on those improvements that reinforce the historic urban form and connection of city districts and features with its center.

Natural Setting: Being at the confluence of the Nolan River, Buffalo Creek, and other tributaries to the river, Cleburne is blessed with a varied and beautiful natural setting. This setting further strengthens Cleburne's urban form because its built fabric is a negotiation between natural constraints and building technology. The result is a reassuring fit between natural and built fabric that further identifies the city.

Tactic C-1-2: Establish a Capital Improvement Program that is guided by an understanding of the natural fabric and seeks to establish meaningful relationships between the built and natural setting. Such capital improvements should embrace surface water management over structured water management, tree and riparian community preservation, etc. and guide development toward locations that will bring the natural fabric into the life experiences of the city rather than displace them. Capital improvements should also seek to amplify natural assets and restore lost continuities in the natural fabric.

Architectural Fabric: The historic wealth of Johnson County derived from a robust agriculture that flowed to Cleburne as a result of its status as the County Seat. As a result, architecture of the city became more an expression of wealth than simple functionality. Larger structures, higher levels of ornamentation, more public buildings become a matrix of landmarks and icons that give Cleburne substantial character.

Tactic C-1-3: Establish a Capital Improvement Program that leads to an infrastructure for creation of wealth by opening up increments of value opportunity in the yet undeveloped land, thereby allowing lingering rural populations and land owners to transform their holdings into capital assets which, as a result of other investment opportunities created through capital improvements, can be reinvested into the community. New roads, new utility systems, new amenities, new intersections, new linkages, upgrade enhancements, and new hubs will all redefine the existing distribution of value and allow the creation of wealth within the community by importing investment.

Neighborhood Definition: Cleburne's history as the County Seat within a robust county made Cleburne an employment center for the surrounding population. Therefore, people migrated to Cleburne to find employment or set up a shop and in so doing established neighborhoods which are arrayed around

the central core in a classic urban manner and structurally connected to the core through the extension of the urban grid. This is the classic village form, making Cleburne archetypal in many ways. Public participants in Workshop #2 stressed the need for more, higher value housing. As housing value increases, context becomes more critical as a value determinant. For example, Highland Park sustains an average home value of $1.4 million because it is a community with homes of similar value, significant public amenities, rich natural fabric, protected from encroachment by other value homes or non-residential development, and Highland Park has top quality schools. These features of context assure people that significant home investment in Highland park will not be diminished over time but will appreciate (appreciation is the life of all investment). Therefore, Cleburne must also protect higher value home investment by establishing and protecting contextual attributes that support value.

Tactic C-1-4: Establish a Capital Improvement Program that enhances neighborhood definition, thereby creating a basis for appreciation in older areas and establishing a place for higher value investment that is protected from the encroachment of contextual features that would weaken value. Where, roads and other location defining improvements enhance non-residential uses, amenities, schools, trails, natural presence, etc. enhance residential values. Therefore, needed capital improvements are more than simply streets and utilities.

These attributes of context must continue to be persuasive in the form of the future city and the best way to assure such outcomes is through the City's capital improvements. Capital improvements will create value and investment, seeking to capture such value, will be attracted to places where capital improvements are implemented. Therefore value created in areas where development is desired perpetuates the contextual conditions that make Cleburne more competitive regionally. A competitive edge will attract greater economic diversity to the city, thereby enhancing the quality of life overall. Relocation literature shows that "Quality of Life" is one of the primary selection criteria for relocating industry. Therefore, the link from capital improvement, guided by context understanding, to economic diversity is complete.

Strategy C-2: Technology Transfer/ Economic Diversity Tactic: According to Wikipedia, Technology Transfer (TT) is "the process of transferring skills, knowledge, technologies, methods of manufacturing, samples of manufacturing, and facilities…" While the general view is that such transfer occurs among governments or universities and other institutions; it is important to also include manufacturers. In many ways, technology transfer (TT) is fundamental to the emergence of economic diversity because it nurtures an environment of innovation necessary to support any movement toward higher paying jobs and thereby, increased local spending in an ever wider set of commercial and housing options. Some types of industry are more dependent on a robust set of networks through which TT can happen. Generally the more knowledge based the industry the more indispensable TT becomes. TT is the vehicle through which changes in the manufacturing process can occur. Peter Drucker refers to meaningful change as, "change that creates a new dimension of performance." TT becomes this vehicle because it is best suited to transforming invention into innovation. Invention is the idea while innovation is the application. Therefore, without TT it is unlikely that great and sustained innovation can occur. In addition, TT brings smaller business into an arena of knowledge also populated by larger business and institutions, making broad networks of communication possible and allowing invention (often coming from institutions and small business) to find application in larger business as a result of the capital investment usually required for application…leading to innovation. Here are stages in the transfer of technology that should be reinforced by an economic development strategy. These stages include:

Discovery: Invention has to be recognized and the

search for invention has to be on-going. Therefore, the network of communication must be more than just a facility to be used by communicating partners, it must be able to reach out and recognize (discover) invention. This requires inclusion of many network partners including small/large business, government, and research institutions.

Tactic C-2-1: Create a Technology Platform that facilitates research through greater collaboration among researchers and participation by industrial/ corporate application. The platform should be hosted by the City and include (through membership) small business, large business, research institutions, and the City. Benefits of being a platform participant are the access to research funding (corporate sponsorship and/or public/private grants) and idea sharing as well as access to emerging invention. The platform should have public and membership only segments.

Application: Upon recognition, a process for application is a necessary of any TT platform. Application can lead to many legal issues from contract to copyright to patent and other forms of equitable access to intellectual property. Therefore, the networks leading to application must be reliable, trustworthy, and secure.

Tactic C-2-2: Create a protected technology transfer network of which the TT platform is a component. Further exchange can occur as coordinated by a City established Office of Technology Transfer, charged with the responsibility of establishing, staffing, promoting, and protecting the TT network.

Development: Upon invention and application, there is always a feedback cycle that allows the outcomes of application to inspire improvement or more invention. However, the issues of intellectual rights become more complicated, making the TT network's operational integrity particularly critical. If a TT network can be established that preserves the advantages of invention, innovation, and reinvention for those who author and fund such advances, then a true setting for sustained creativity is established. Such an environment and network becomes an extremely powerful locational determinant for relocation of smarter industries and a powerful agent in advancing wages; leading to ever greater economic diversity.

Tactic C-2-3: Assure the evolutionary development of invention/innovation/reinvention by establishing an application data exchange within the TT platform that allow researchers to fully understand the effects of innovation on productivity and how such productivity is manifest as cost savings and/or profit increasing outcomes. The application evaluation data base is updated under the direction of the Office of Technology Transfer and through the cooperation of participating industries that benefit through increased exposure to invention.

Strategy C-3: Business Incubation/Economic Diversity Tactic: The true indication of effective technology transfer and the other economic development initiatives addressed up to this point is the emergence of new businesses. In the best of all worlds, Cleburne's continued industrial growth would be driven by forces from within. Business incubation is an on-going system of support during early times of financial vulnerability, thereby allowing established businesses to emerge. As new businesses enter the business community of Cleburne, employment increases and wages generally rise as labor becomes a more precious resource. Greater employment earning higher wages, leads to greater economic diversity as a result in increased demand for goods and services.

In addition, as new businesses emerge, they will often be vertical expressions of more basic and established businesses. This growth from an industrial base becomes the vertical expressions that can locate in downtown office space or smaller plate facilities in the core area. Thereby, the city core once again becomes a structural part of the city economy instead of evolving into an entertainment destination apart from the city basic economy. There are several aspects to business incubation that must be addressed in an economic development plan. These include:

Facilities: Space can be a significant capital investment

for incubating business and space leases can impose intolerable financial exposure, thereby increasing startup risk. Many business incubation programs provide office, showroom, or manufacturing space for startups. In downtown Dallas, Fashion Industries Gallery (FIG) is such a program. Here, showroom space is offered to emerging clothes designers/manufacturers; allowing opportunity to establish fashion lines in the market place before being asked to take on lease commitments. When incubating businesses are manufacturing businesses, space and space leases can be particularly expensive. In some cases space can be shared by complimentary enterprises, paving the way for integration and organizational development. Therefore, affordable operation space for startups is an important aspect of the business incubation strategy.

Tactic C-3-1: Create a Business Incubation Program that operates a space facility for use by new business startups. Such a facility should be located in older industrial buildings no longer well suited for contemporary industrial use. Space within this facility can also be used by, and operated by, the Office of Technology Transfer, thereby assuring the integration of new business in the invention/ innovation network and allowing new businesses growing from the exchange of ideas to find start up opportunity within the space facility.

Services: New businesses also need service support which is both expensive and hard to access for those unfamiliar with service providers and lacking credit or other credentials. Therefore, reception, phone operation, conferencing, printing/reproduction, etc. are important services necessary for the success of incubating business. Often services such as these are provided on a shared use basis.

Tactic C-3-2: Retrofit the space facility with basic business services including, shared conference facilities, phone services, printing/reproduction, reception, and other such support services that startup businesses require for growth and establishment.

Partnerships: Technical support, technical training, and mentoring are also valuable supports for incubating business. Within an incubation program, partnership with existing industry and training/education institutions can deliver the training and support an incubating business may need. Therefore, the Business Incubation Program must include participation by established business and training/education institutions.

Tactic C-3-3: The Business Incubation Program must use its TT network connections to foster training and mentoring relationships with existing business and training institutions. The space facility should also provide training space for seminars and classroom sessions as well as small meeting rooms to meet with counselors and mentors.

Market Access: The greatest challenge to any new business is to find a market. Therefore, a Business Incubation Program must make market opportunities available. Typically this is done by having a sufficient mass of new businesses to support marketing functions and/or a shared market facility. Turning small volume sales into higher volume sales by aggregating the selling participants will generate sufficient capital to support market operations.

Tactic C-3-4: Equip the space facility with a market/ show space and coordinate market events that aggregate start up products to such an extent that market interest is precipitated. Also, the market should become the primary means through which orders to, and shipments from, incubating business

are channeled. Such market coordination maintains market visibility for the Business Incubation Center which functions as an agent of the incubation tenants.

The following map further allocates the 35 tactics over the Development Zones of Cleburne (as defined in the assessment portion of this document). Note that there are 4 strategic centers defined by this allocation. Each Strategic Center is associated with a cluster of tactical activities that are critical to the success of that center. The centers are as follows:

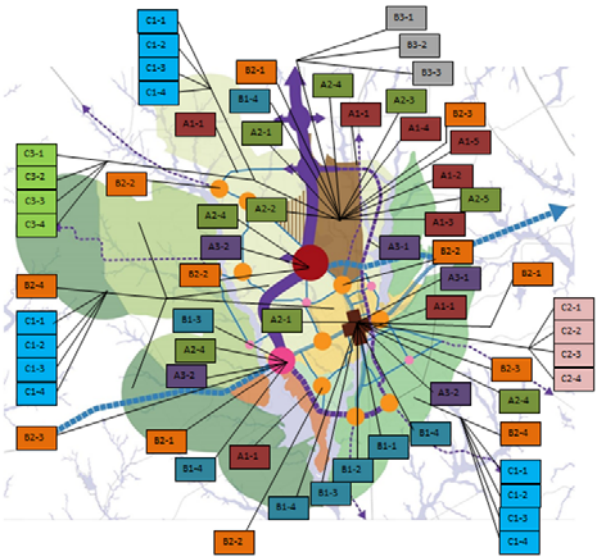


Figure 55. Tactic Allocation Map.

- **The Industrial Center:** The Industrial Center is the core element in this economic plan, aimed at transforming an internally traded economy, on a trajectory of ever lower wages, and redirecting it toward an externally traded economy which can result in higher wages and greater economic diversity for the city. The Industrial Center is the focal point of critical infrastructure improvements needed to redefine the incremental patchwork of industrial businesses into a true industrial park complete with adequate land supply, street/ rail/ power service, and optimum parcelization potential. Key to the infrastructure tactic is the creation of available, cheap power. It is recommended that this will be done through transmission facilities and substation capacity provided by private investment with guaranteed transmission fees provided by the City or other recommended economic development body. This transmission investment is then not a cost to be borne by industry, allowing the City to offer incentive options that competing industrial areas cannot offer at this time (this is known as a Build Lease Public Private Partnership). On top of this basic framework are a series of tactical endeavors aimed at enhancement of the locational advantage that better infrastructure can afford. These include systematic identification of symbiotic enterprises, building from the local businesses to assure cluster formation, affording flexibility for future expansion, aggregating inputs, and integrating the current relationships with BNSF. On top of that are a series of training and workforce enhancement measures that engage industry participation in combination with strengthened and institutionalized research and development measures (including disposal, normally a significant cost item to basic industry). Finally the center strategy is completed with tactical measures aimed at capital funding (of the infrastructure elements mentioned at the outset) and creating a fully equipped Business Incubation Center.

- **The City Center:** It is essential to restoration of the form giving influence of an industrial economy (the same type of economy that built Cleburne) which economically animates downtown; that downtown is in a position to harness the industrial energy of the above described Industrial Center. Therefore, there is a tactical relationship between downtown and the Industrial Center which facilitates the desired relationship. Downtown becomes the administrative, research, and human resource hub for the Economic Development Plan. First,

downtown becomes the human resource hub and looks to use now vacant second floor space as a central training campus which is linked to applied training in the Industrial Center and cooperative programs with education partners (offering certifications and degrees which enhance wage potential). Second, downtown is the economic development administrative hub which is the location for boards, tasks force meeting, and committees established by this plan to oversee research, education, sponsorship, technology transfer, and on-going monitoring and assessment. In this way greater cooperation is assured. Finally, downtown is the research center (with research partnerships that include local industry, aimed at applied invention), including the research platform (which has a national and even global participation). Having the community of invention and innovation in one general location, accessible over a broad platform will assure technology transfer and set Cleburne apart from its competition as a location where industry truly benefits at the bottom line of its operation.

The above described functions of downtown (in addition to the more typical retail and governmental functions), assure that downtown will continue to be the center of Cleburne's economic life. Thereby, revitalization of downtown is more than transforming it into a tourist attraction but rather re-energizing the commercial connections that built downtown in the first place.

- **The Chisholm Center:** The Chisholm Center lies within the large regional node that is planned for the intersection of the Chisholm Trail Parkway and Highway 67. This center is most important for location of associated businesses that serve the industrial park but typically use office lease space (or other small spaces). Therefore, the Chisholm Center becomes the ideal place for attracting new business that "builds from local business" and particularly serves the industrial park. Attention needs to be paid to the development of this yet unbuilt area so that the option for office space, hotels, or even smaller tech flex space is not eliminated by a short term rush to locate retail boxes. Also, roadway links to the industrial area will be important, thereby underpinning the convenience of this location for those doing business with the industrial community.

- **The Medical Center:** The presence of the hospital cannot be ignored as an industrial opportunity. Therefore, emergence of this center starts with building upon local business operations and seeking to expand/refine specialties or expand certain types of facilities. In addition to such efforts, identifying and filling workforce gaps (through incentives or other measures) so that areas of weakness are strengthened. Reaching out through educational partnerships (with university and specialty training…including the new educational facilities being built at John Peter Smith in Ft. Worth). A key opportunity is to merge residential development of the lake area (second homes and retirement homes for seniors) with a financially capable patient base and through such base help existing medical facilities to find new specialties that will attract the right medical professionals. Therefore, the key to emergence of a medical center may rely upon also expanding Cleburne's retirement base to such a point that a patient base is established.

In addition to these centers, the city nodes also become important for those activities that are outreach oriented. These include training facilities located in closer proximity to populations needing

such training to find employment. This includes both the near city areas as well as the rural areas. These training facilities can be staffed by vocational teaching aides who administer certified curriculums under the supervision of educational partners.

Conclusion

There are three economic conditions identified in this plan as critical to promoting community priorities and the goals of Plan Cleburne. These include:

- External Trade
- Higher Wages
- Market Vibrancy

To preserve and enhance these economic conditions, the Economic Development Plan identifies eleven economic development initiatives:

- Infrastructure
- Context value support
- Higher education partnerships
- Research and Development
- Technology Transfer
- Business Incubation
- Capital improvement
- Business retention
- Cluster formation
- Targeted Recruitment
- Workforce development

These eleven economic initiatives have been further expanded into economic tactics. The tactics articulate actions, including physical improvements and incentives, that will promote these initiatives as Cleburne grows, fostering the higher wages, external trade and market vibrancy desired by the community.

Future Land Use Plan

OVERVIEW OF THE FUTURE LAND USE PLAN

WHAT IS THE FUTURE LAND USE PLAN

Land Use differs from zoning in that, where zoning seeks to define and preserve rights of use of personal property, land use seeks to define and preserve orderly development patterns at a larger scale in the community. Both speak to land use, but the intent of each is different.

The way in which the two documents are used is different as well. The Future Land Use Plan is a decision-making tool to be used by City Council, Planning and Zoning Commission and City Staff to make zoning and development decisions as they come forward for approval in the future. The Zoning Code is a record of particular ways in which a property owner is entitled to use or develop his or her private property.

As a decision-making tool, the Land Use Plan must be set up as a guide. It is to provide clearly defined districts, with general use categories assigned to those districts. It is also intended to provide a description of what type of activity is appropriate in each district: general appearance and issues of form, as well as use categories that would be appropriate.

Finally, the Future Land Use Plan is to facilitate complementary transitions so that, as new development proposals come in, conflicts with adjacent uses are minimized.

HOW THE LAND USE PLAN IS STRUCTURED

For each land use district, the following guidelines are provided:

Purpose and Intent. This statement identifies what it is that makes this district different from the other districts. It is the core objective that all development in this district must support.

Principal Design Determinant. Physical development forms found in future projects must be guided by an underlying principle. The Principal Design Determinant is that underlying principle. This should guide decision-making regarding approval of future development and uses in the district. It should also be a reference point for developers who are working on development plans for projects in that particular district.

Development Form. There are some standards that need to be enhanced in order to give the particular land use districts greater definition. Those factors that are most important are here addressed. Also addressed in Development Form are any general guiding principles related to site design, such as building heights, setbacks and treatment of public spaces.

Appropriate Uses. The zoning code will address in greater detail the particular uses that are appropriate within each part of the City. The land use plan focuses on general use categories, such as single family residential, retail/commercial and industrial.

Specially Permitted Uses. Some uses may not automatically be appropriate in certain districts, but may be accommodated, should a development plan demonstrate positive economic or social impacts and mitigation of certain negative impacts

Illustrative Photos. Select photos are included to illustrate principles of form for each district.

THE DISTRICTS OF THE LAND USE PLAN

The Future Land Use Plan defines parameters for future growth for the City. As such, it is structured to guide development decisions rather than describe building attributes. It defines footprints, product types and the various design components that are normally regulated by development standards included in the municipal code.

The districts of the plan are organized according to character and purpose. Each district contains a mixture of uses, but scale, organizing factor and development footprints will be different for each district.

OVERVIEW OF THE FUTURE LAND USE PLAN

The districts of the land use plan include communities, corridors, nodes and targeted development areas. Communities are those districts that will hold the majority of the residential fabric of the City. The will be mixed use districts, but neighborhood form is the predominant issue addressed. Corridors include the development envelope that surrounds certain corridors of the City that are important for commercial activity and/or community identity. The primary concern of these districts is reinforcement of development patterns that promote mobility, access and connectivity. The Nodes are those districts where commercial activity is aggregated to create value reference points and opportunities for improved value distribution patterns. The Targeted Development Areas are special districts in the City that support the social and economic goals of the City. They are mixed use districts that are intended to attract specialized clusters and market sectors, in order to preserve the mechanics of the Cleburne economy and thereby the culture of the Cleburne community.

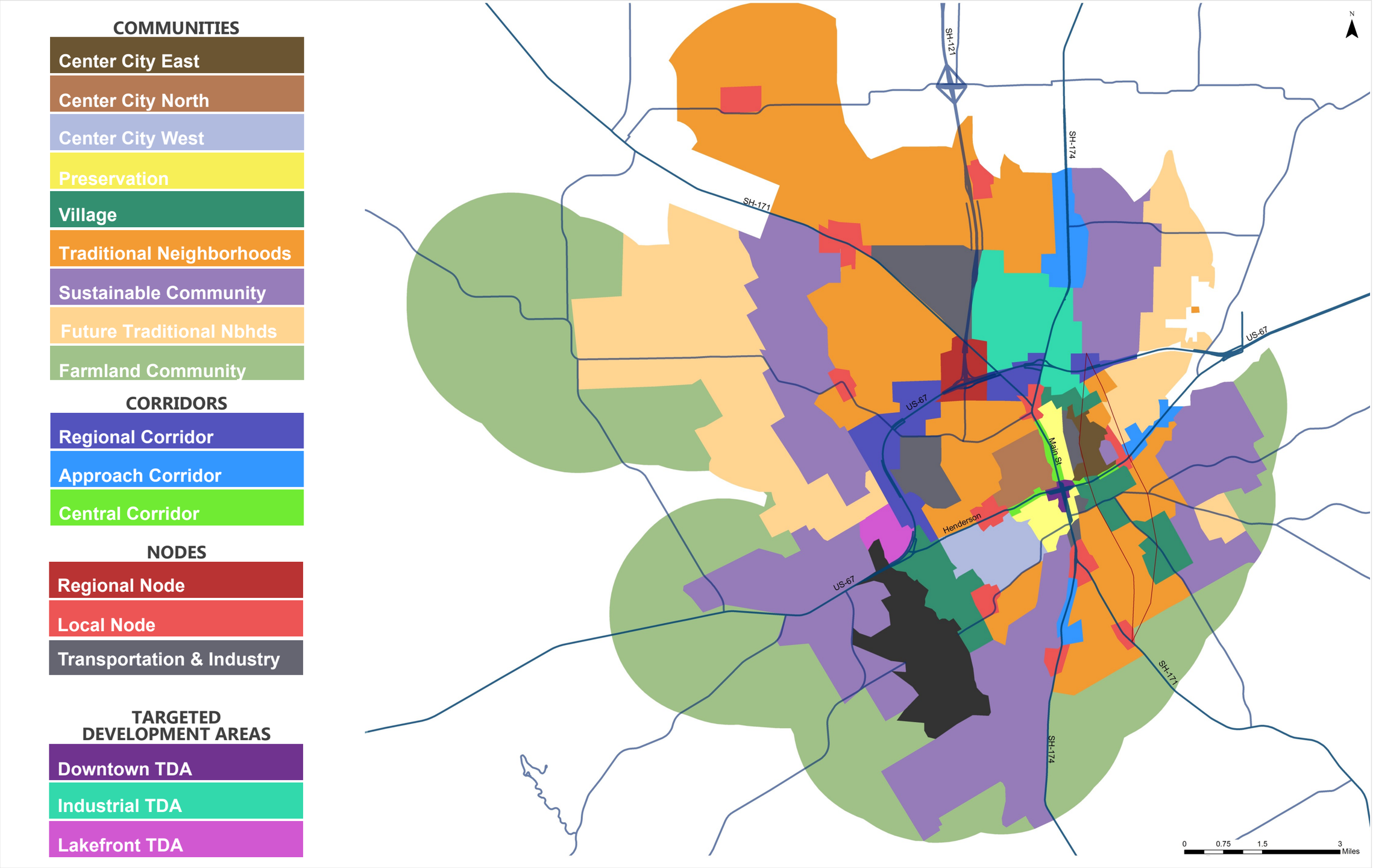
READING THE LAND USE MAP

The map provides direction regarding the application of these land use districts within the City. Because the Future Land Use Plan provides a build-out scenario for the City, the entire Extra-Territorial Jurisdiction is included in the Future Land Use Map. A legend is provided to aid in interpretation of the map. The colors used in the land use map are coordinated with the standards for the districts on the pages that follow the map.

District boundaries are defined by either a significant thoroughfare or by a parcel line. There may be cases where the land use map does not precisely align with the parcel map. This is not an error. Property boundaries are not permanent, and often change over time as property is subdivided for future development. In cases where land use boundaries do not conform to parcel boundaries, the land use map should govern regarding future uses, yet there should be a degree of flexibility in interpretation of district boundaries, understanding that the Land Use Map is not a metes and bounds description of boundaries, but rather a policy guide for development approval.

Figure 56. Districts of the Land Use Plan.

Figure 57. Future Land Use Map



DISTRICT TYPE: COMMUNITY

TRADITIONAL NEIGHBORHOODS

Purpose and Intent:
Support future population growth in a traditional neighborhood development context

Principal Design Determinant:
Medium density development.

Development Form:
Family oriented development, with schools, churches, emergency services and neighborhood retail aggregated where possible. Street networks should promote efficient lot layouts. Parks an recreational areas should be sited next to schools. Height restrictions should be established to maintain consistency with residential density.

Appropriate Uses:
- Single Family Residential
- Retail/Commercial
- Office/Services
- Civic
- Institutional
- Parks and Open Spaces

Specially Permitted Uses:
- Multi-family
- Vertical Mixed Use

SUSTAINABLE COMMUNITIES

Purpose and Intent:
Encourage specialty residential enclaves where lots and buildings respond to the natural landscape

Principal Design Determinant:
Response to natural landscape

Development Form:
Conservation subdivisions, small ranches, cluster development projects and low density residential should characterize this district. It should maintain a high percentage of parkland dedication and more trails and open spaces than other community types. Building standards should encourage sustainable development practices, such as LEED or LID standards.

Appropriate Uses:
- Single Family Residential
- Parks and Open Spaces

Specially Permitted Uses:
- Vertical Mixed Use
- Retail/Commercial
- Office/Services
- Civic
- Institutional
- Industrial
- Agricultural

DISTRICT TYPE: COMMUNITY

VILLAGES

Purpose and Intent:

Create a mixed use community context built around an activity center. This village center should be a publicly accessible space that is connected to and supported by the other uses in the district.

Principal Design Determinant:

Compatibility with village center.

Development Form:

The village center should be clearly defined and should be either a civic, recreational or institutional use. Densities may vary, but there should be a progression in intensity, with highest density levels at or adjacent to the village center. Design guidelines are needed for public spaces in each village.

Appropriate Uses:

- Single & MultiFamily Residences
- Vertical Mixed Use
- Retail/Commercial
- Office/Services
- Civic
- Institutional
- Parks and Open Spaces

Specially Permitted Uses:

- Light Industrial

PRESERVATION

Purpose and Intent:

Stabilize and increase property values and preserve historic homes.

Principal Design Determinant:

Preservation of historic neighborhood context.

Development Form:

The Neighborhood Preservation district is intended to stabilize property values in some of the older neighborhoods in Cleburne. A more uniform street treatment is needed in this district, as well as architectural standards. Historic district designation is encouraged in certain parts of this district in order to encourage neighborhood revitalization.

Appropriate Uses:

- Single Family Residential
- Retail/Commercial
- Office/Services
- Civic
- Institutional
- Parks/Open Spaces

Specially Permitted Uses:

- none

DISTRICT TYPE: COMMUNITY

CITY CENTER EAST

Purpose and Intent:
Improve neighborhood definition by promoting infill development and creating new value reference points to stimulate investment.

Principal Design Determinant:
Impact on surrounding property values

Development Form:
Single family development patterns can occur at higher densities in this area, including townhomes and detached houses with minimum side yard setbacks. Promote transition and pedestrian connectivity with surrounding commercial areas through improved signage and pedestrian spaces. Revisit standards for front yards, parking, street lighting, signage and code enforcement.

Appropriate Uses:
- Single Family Residential
- Civic
- Institutional
- Parks and Open Spaces

Specially Permitted Uses:
- Retail/Commercial
- Office/Services

CITY CENTER NORTH

Purpose and Intent:
Stabilize and improve property values and increase connectivity in order to preserve neighborhood definition.

Principal Design Determinant:
Impact on surrounding property values

Development Form:
Medium density single family development patterns should be preserved in this area, which is predominantly built out with clearly defined lot lines. Promote transition and pedestrian connectivity to surrounding commercial areas through improved signage and pedestrian spaces. Revisit standards for front yards, parking, street lighting, signage and code enforcement.

Appropriate Uses:
- Single Family Residential
- Civic
- Institutional
- Parks/Open Spaces

Specially Permitted Uses:
- Retail/Commercial
- Office/Services

DISTRICT TYPE: COMMUNITY

CITY CENTER WEST

Purpose and Intent:

Stabilize and increase property values and create greater neighborhood definition

Principal Design Determinant:

Impact on surrounding property values

Development Form:

Single family development should occur at variable densities in this area, including townhomes, patio homes and conventional detached residences. Promote transition and pedestrian connectivity to surrounding commercial areas through improved signage and pedestrian spaces. Revisit standards for front yards, parking, street lighting, signage and code enforcement.

Appropriate Uses:

- Single Family Residential
- Civic
- Institutional
- Parks and Open Spaces

Specially Permitted Uses:

- Retail/Commercial
- Office/Services

TND TRANSITION

Purpose and Intent:

Support future population growth once other TND districts are built out.

Principal Design Determinant:

Infrastructure system availability and neighborhood scale development

Development Form:

Medium density single family development projects with schools, churches, emergency services and neighborhood scale retail aggregated where possible. Street networks should promote efficient lot layouts. Parks and recreational areas should be sited next to schools.

Appropriate Uses:

- Single Family Residential
- Institutional
- Agricultural
- Parks and Open Spaces

Specially Permitted Uses:

- Retail/Commercial
- Office/Services
- Civic

DISTRICT TYPE: COMMUNITY

FARMLAND

Purpose and Intent:

Preserve agricultural uses in and around Cleburne

Principal Design Determinant:

Rural viewshed preservation

Development Form:

Rural density residential, with commercial uses limited to those that directly support agricultural practices. Streets should be designed for transport of products from farm to market, with surface/non-structured stormwater management components (bar ditches, no curbs, etc.). Environmental factors such as viewshed, noise levels and light levels should be controlled.

Appropriate Uses:

- Agricultural
- Parks/Open Spaces

Specially Permitted Uses:

- Single Family Residential
- Institutional
- Industrial

DISTRICT TYPE: CORRIDOR

REGIONAL CORRIDOR

Purpose and Intent:
Promote regional connectivity and mobility, as well as regional wayfinding. Development should complement these objectives.

Principal Design Determinant:
Value transfer to non-highway fronting properties

Development Form:
Sites in these corridors should not draw from frontage road access, but build upon backer road and cross-street access. Monumentation should be focused on these roadways. The subdivision code should provide adequate project scale review with respect to street alignments, access points/curb cut, infrastructure connections and right of way

Appropriate Uses:
- Multifamily
- Retail/Commercial
- Office/Services
- Industrial
- Agricultural
- Park/Open Spaces

Specially Permitted Uses:
- Civic
- Institutional

APPROACH CORRIDOR

Purpose and Intent:
These are commercial corridors with a lower development density, serving as approachways to the City center.

Principal Design Determinant:
Traffic management

Development Form:
Design standards and particular uses should complement adjacent districts.

Appropriate Uses:
- Retail/Commercial
- Office/Services
- Agricultural
- Parks/Open Spaces

Specially Permitted Uses:
- Civic
- Institutional
- Industrial

DISTRICT TYPE: CORRIDOR

CENTRAL CORRIDOR

Purpose and Intent:

Main Street and Henderson are the central corridors of the City. The priority for this district is value stabilization and redevelopment.

Principal Design Determinant:

Streetscape and accessibility.

Development Form:

Revise code as related to pedestrian spaces, lighting, signage, parking, landscaping, buildings and code enforcement.

Appropriate Uses:

- Multifamily
- Vertical Mixed Use
- Retail/Commercial
- Office/Services
- Parks/Open Spaces

Specially Permitted Uses:

- Civic
- Institutional

DISTRICT TYPE: NODE

REGIONAL COMMERCIAL

Purpose and Intent:
Define a site for aggregated regional commercial development with access to both US-67 and the Chisholm Trail Parkway.

Principal Design Determinant:
Accessibility to support medium-high density commercial development

Development Form:
High density commercial uses and larger scale retail projects should be encouraged here, supported by high density residential and vertically mixed use. Public spaces should be limited to plazas and greens that are integrated into commercial/mixed-use projects. District-wide design standards, particularly related to lighting, signage, parking, landscaping, sidewalks and public spaces are needed.

Appropriate Uses:
- Multifamily
- Vertical Mixed Use
- Retail/Commercial
- Office/Services
- Institutional

Specially Permitted Uses:
- Civic

COMMUNITY COMMERCIAL

Purpose and Intent:
Create opportunity for distribution of commercial centers throughout Cleburne in order to meet retail and service needs of local residents.

Principal Design Determinant:
Orientation to anchor

Development Form:
Box-oriented commercial development, with retail, dining and office uses. Building and site design standards and incentive packages that help to maximize property values in and around these nodes. Standards should be created with respect to how property interfaces with neighboring uses and with street space, particularly landscaping, parking, lighting, signage and setbacks.

Appropriate Uses:
- Multifamily
- Vertical Mixed Use
- Retail/Commercial
- Office/Services
- Civic
- Institutional
- Parks/Open Spaces

Specially Permitted Uses:
- none

DISTRICT TYPE: NODE

TRANSPORTATION AND INDUSTRY

Purpose and Intent:
Establish appropriate land use transitions and adjacent uses for existing transportation and industrial areas outside of the Industrial Targeted Development Area.

Principal Design Determinant:
Contextual compatibility

Development Form:
Buffers to minimize visual, noise and light impat on surrounding sues. Define compatible uses within the district. Improve accessibility to Hwy67 and/or SH121.

Appropriate Uses:
- Industrial

Specially Permitted Uses:
- Civic
- Agricultural
- Parks/Open Spaces

DISTRICT TYPE: TARGETED DEVELOPMENT AREA

DOWNTOWN AREA

Purpose and Intent:

Promote downtown as the operational center of the City.

Principal Design Determinant:

Contextual continuity with respect to buildings, traffic patterns and economic activity

Development Form:

Preserve and promote centralization of economic exchange in Cleburne through commercial and service-related uses. Encourage vertical and horizontal mixture of uses. Improve pedestrian spaces and pedestrian connectivity to surrounding neighborhoods. Revise code, particularly regarding parking, building design, streetscape, loading, signage and lighting.

Appropriate Uses:

- Vertical Mixed Use
- Retail/Commercial
- Office/Services
- Civic
- Institutional
- Parks/Open Spaces

Specially Permitted Uses:

- Multi-family

LAKEFRONT AREA

Purpose and Intent:

Capture value associated with Lake Pat Cleburne by creating a mixed use center that builds off of the hospital.

Principal Design Determinant:

Mixed use district with Lake Pat as an amenity

Development Form:

Provide a project site for mixed use development that offers lakefront parcels, mixed use development opportunities, connectivity to the hospital, higher density residential allowances and parks and trails.

Appropriate Uses:

- Multifamily
- Vertical Mixed Use
- Retail/Commercial
- Office/Services
- Civic
- Institutional
- Parks/Open Spaces

Specially Permitted Uses:

- Single Family Residential

DISTRICT TYPE: TARGETED DEVELOPMENT AREA

INDUSTRIAL AREA

Purpose and Intent:
Aggregate industrial uses to support infrastructure investment, namely rail, road and power.

Principal Design Determinant:
Support heavy industry

Development Form:
Identify opportunities for future expansion of existing industrial area, with rail-serviced parcels an a functional street network. Promote heavy manufacturing and industrial uses that would complement RailPort and utilize the rail connectivity to Fort Worth.

Appropriate Uses:
- Retail/Commercial
- Industrial
- Agricultural

Specially Permitted Uses:
- Office/Services
- Civic
- Institutional
- Park/Open Spaces

Transportation Plan

Transportation Plan

Overview

The Transportation Element of the Comprehensive Plan is intended to lay out a clear long term plan for the safe efficient movement of people and goods in and around the City while providing the underlying framework for growth and development. The element addresses the proposed street network function and layout, street character, through movements and transportation alternatives.

Mobility and Character

Clearly, one of the primary functions of streets are to provide mobility within and between communities. At the same time, however, streets are also an integral part of our communities. Every business, neighborhood and school interacts with a street in some way.

The Cleburne Comprehensive Plan envisions a future street network that effectively moves people and goods while preserving and enhancing the surrounding community. This is possible through a balance between mobility and character.

Street Types: Functional Classification

Transportation and land use are significantly interrelated, Streets serve a number of different roles within a community, depending on the degree of mobility they provide. The system for defining streets is referred to as functional classification. All streets are functionally classified using criteria established by the Federal Highway Administration (FHWA). Streets generally fall into one of the following categories:

- **Freeways**: Freeways, which include interstates, expressways and toll roads, are designed to carry vehicles long distances (regional travel) at high speeds and are generally not intended for local travel. Access, which is limited by design, is typically achieved through ramps and at-grade intersections are rare. Portions of US 67 and the Chisolm Trail Parkway are both freeways.

- **Arterials**: Arterials play a primary mobility role within communities. They are intended to move vehicles longer distances both within and between communities; thus, they typically span the entire length of a city providing both access and egress. Existing arterials in Cleburne include Business 67, SH 171 and SH 174.

- **Collectors**: Collectors also play an important mobility role within communities, moving vehicles within communities or between rural and urban areas. Existing collectors in Cleburne include Grandbury Street, Nolan River Road, Country Club Road, Westhill Drive and Kilpatrick Street.

- **Frontage roads**: Frontage roads, which are a form of collector, are intended to provide access and egress to freeways and to distribute vehicles to adjacent activities.

- **Local streets**: Local streets provide access within neighborhoods and activity centers and are intended to carry vehicles short distances.

- **Alleys and service roads**: Alleys and service roads are local streets intended to provide direct access to homes and buildings

Character Types

The Comprehensive Plan uses character areas as a way of both preserving existing places as within Cleburne as well as identifying places the City aspires to create. Each of these places is intended to convey a specific look and feel in terms of layout, form, appearance and functionality.

There are a number of different character areas identified in the Plan. However, for the purpose of this Transportation Element, they can be grouped into one of four general categories (see Table 24):

- **Town/Village Center**: These are hubs of activity. People and places are the priority. Buildings are positioned more closely together and to the street.

There is a significant amount of foot traffic. Vehicle move slowly in acknowledgement of their surroundings.

- **Neighborhood/Suburban**: These are residential and less intense commercial areas where there is a balance between moving vehicles and surrounding places. There is some walking and cycling activity, both for recreation and for function (shopping, etc.). Vehicles move at higher speeds and more emphasis is placed on separating pedestrians from traffic.

- **Rural/Higher Speed**: These places are characterized by wide open spaces. Activities are spaced far apart and away from the street (often not visible from the street). The emphasis is on moving vehicles quickly over long distances. Bicycle and pedestrian travel is regional/recreation in nature and often occurs on separate (but parallel) facilities.

- **Industrial**: As the name implies, these are places where industrial activity, such as manufacturing, warehousing, mining and some agricultural activities, take place. The emphasis is on ease of travel for trucks and other large vehicles.

Table 24. Character Area Designations

Category	Character Area
Town/Village Center	Downtown TDA Regional Commercial Node Regional Activity Node Local Commercial Node Central Corridor
Neighborhood/Suburban	Regional Corridor Local Corridor City Center East City Center West City Center North Historic Preservation Village TND TND Annex
Rural/Higher Speed	Preservation Lakefront TDA Sustainable Community Farmland Community
Industrial	Industrial TDA Transportation and Industry

Putting It Together: Context-sensitive Street Types

The proposed street network is *context-sensitive*, meaning the look and feel of the street is reflective of the surrounding land use and activities. Streets that pass through activity centers place more emphasis on lower vehicle speeds, wider sidewalks and on-street parking. Roads in rural areas place an emphasis on moving vehicles at higher speeds, which means that objects (trees, people, buildings, etc.) are farther from the road.

The following typical sections are illustrative of what streets would look like in context with the surrounding character area. Ultimately, the City will need to adopt street design guidelines to ensure new and retrofitted streets meet the intent of context-sensitivity.

Table 25. Relationship Between Streets and Character Areas

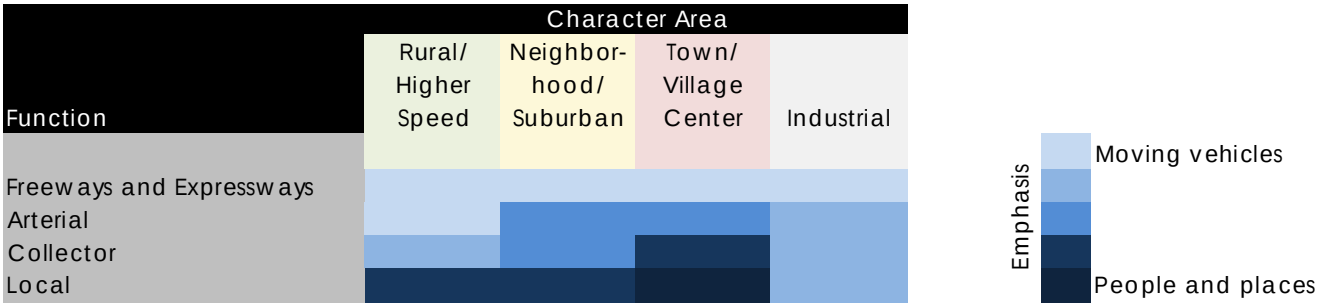


Figure 58. Typical Section: Arterial – Town/Village Center

Figure 59. Typical Section: Arterial – Neighborhood/Suburban

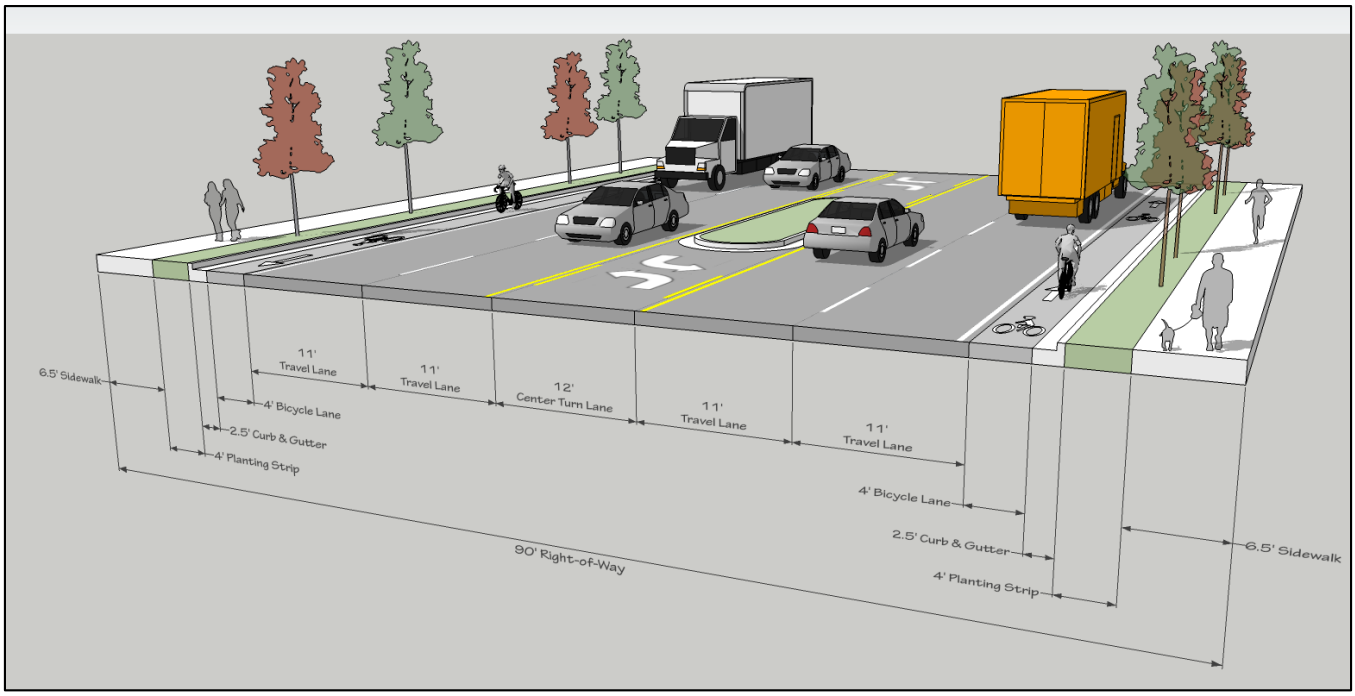


Figure 60. Typical Section: Arterial – Rural/Higher Speed/Parkway

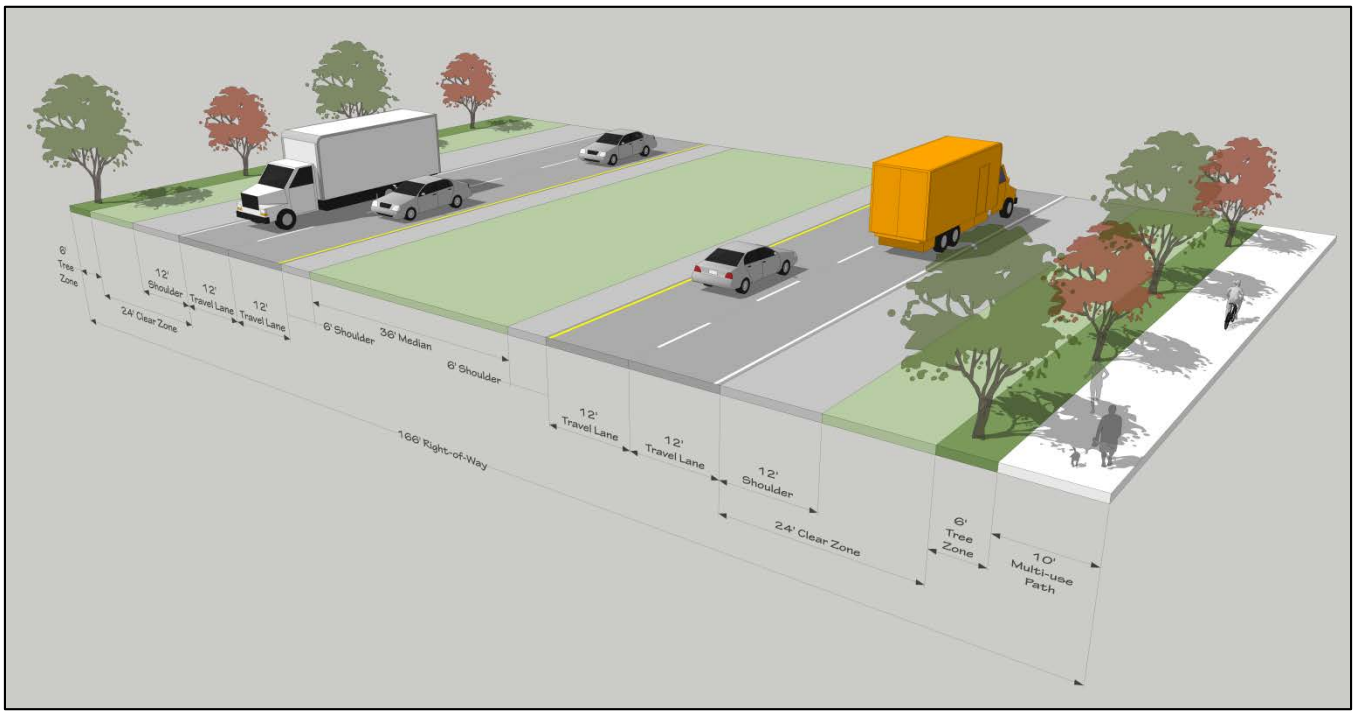


Figure 61. Typical Section: Collector – Town/Village Center

Figure 62. Typical Section: Collector – Neighborhood/Suburban

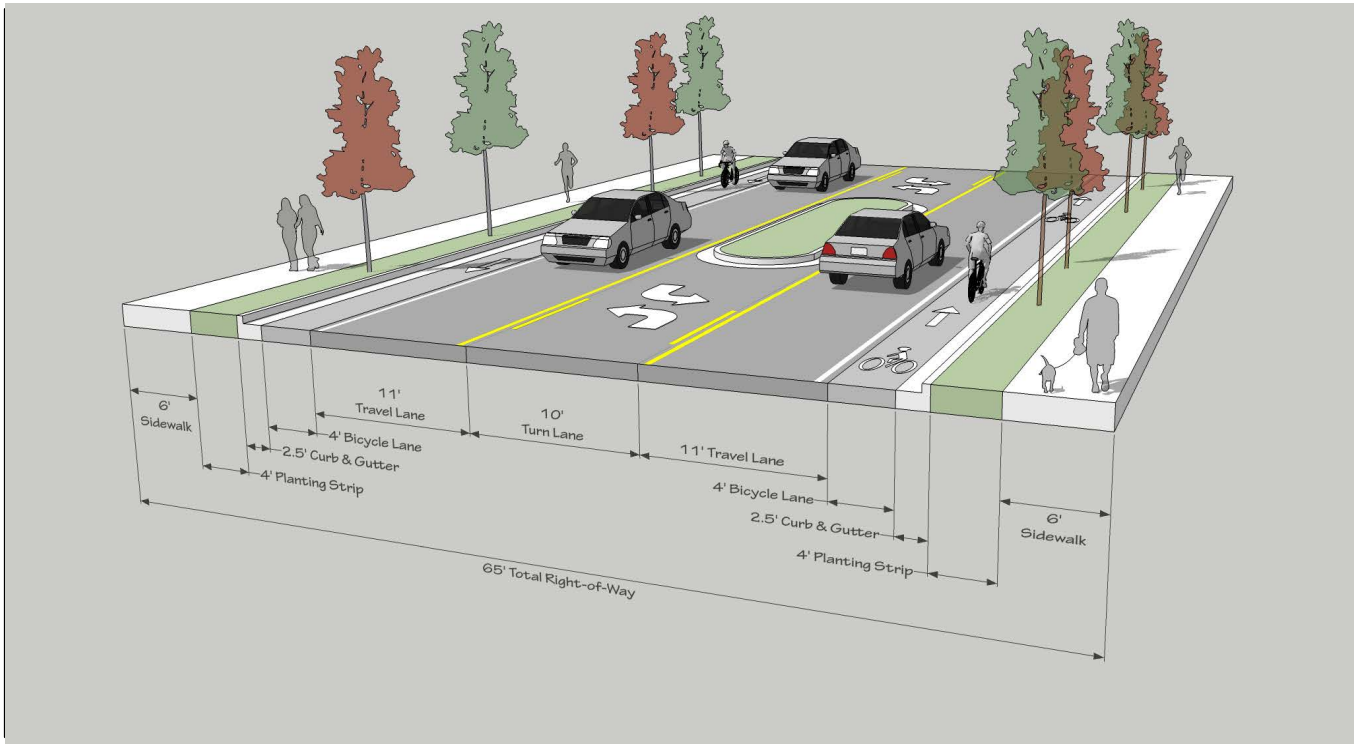
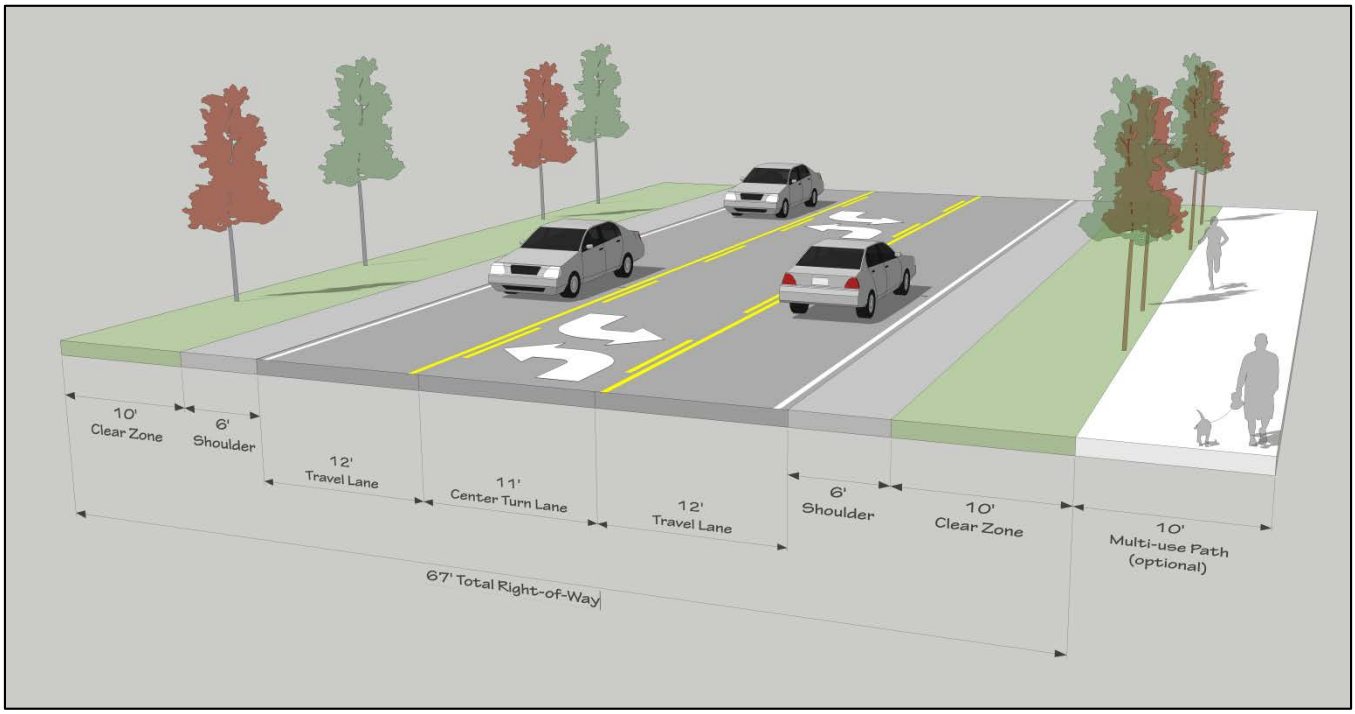


Figure 63. Typical Section: Collector – Rural/Higher Speed



Transportation Plan

Street Framework Plan

The street framework plan lays the ground work for new streets and the transformation of existing streets within the City and the ETJ. The framework plan uses the Cleburne Master Thoroughfare Plan (MTP) as starting point, modified to bring it into context with the Comprehensive Plan.

The street framework plan is intended to support and enhance other elements of the Comprehensive Plan – most notably Land Use and Community Character. This is accomplished in several ways:

- Street types are sensitive to the character of surrounding land uses.
- Activity nodes are located at the convergence of major streets (arterials and/or collector).
- Residential uses are proximal and well-connected to shopping, employment and services, resulting in short, car, walk and bike trips.
- Walkable, mixed-use land uses are recommended adjacent to the planned commuter rail station in downtown Cleburne.

Ultimately, the MTP will need to be updated so that it is consistent with the street framework plan and the rest of the Transportation Element.

New Corridors

A key element of the street framework plan is the identification of several new corridors within the City. Major road corridors can have a profound influence on growth and development by dramatically influencing access and mobility on both a regional and local scale. New corridors that will help shape the future of the City over the coming decade include:

- **Chisolm Trail Parkway** - The extension of Chisolm Trail Parkway south into Cleburne, slated for completion in 2014, will have an immediate and significant impact on Cleburne. It gives Cleburne direct, high-speed vehicular access to the rest of the region, which should directly influence its growth prospects.
- **Western Corridor** – A proposed new corridor running along the west side of Cleburne provides opportunities for growth and development consistent with the Land Use Plan. It also provides a good alternative for regional traffic to SH 174/Main Street, which is already constrained.
- **Eastern Corridor** – An Eastern corridor brings much needed access to neighborhoods just east of downtown. Ideally, the corridor would pass as close to the City corridor as possible; in the event this is not feasible, an alternative alignment farther east is also shown.

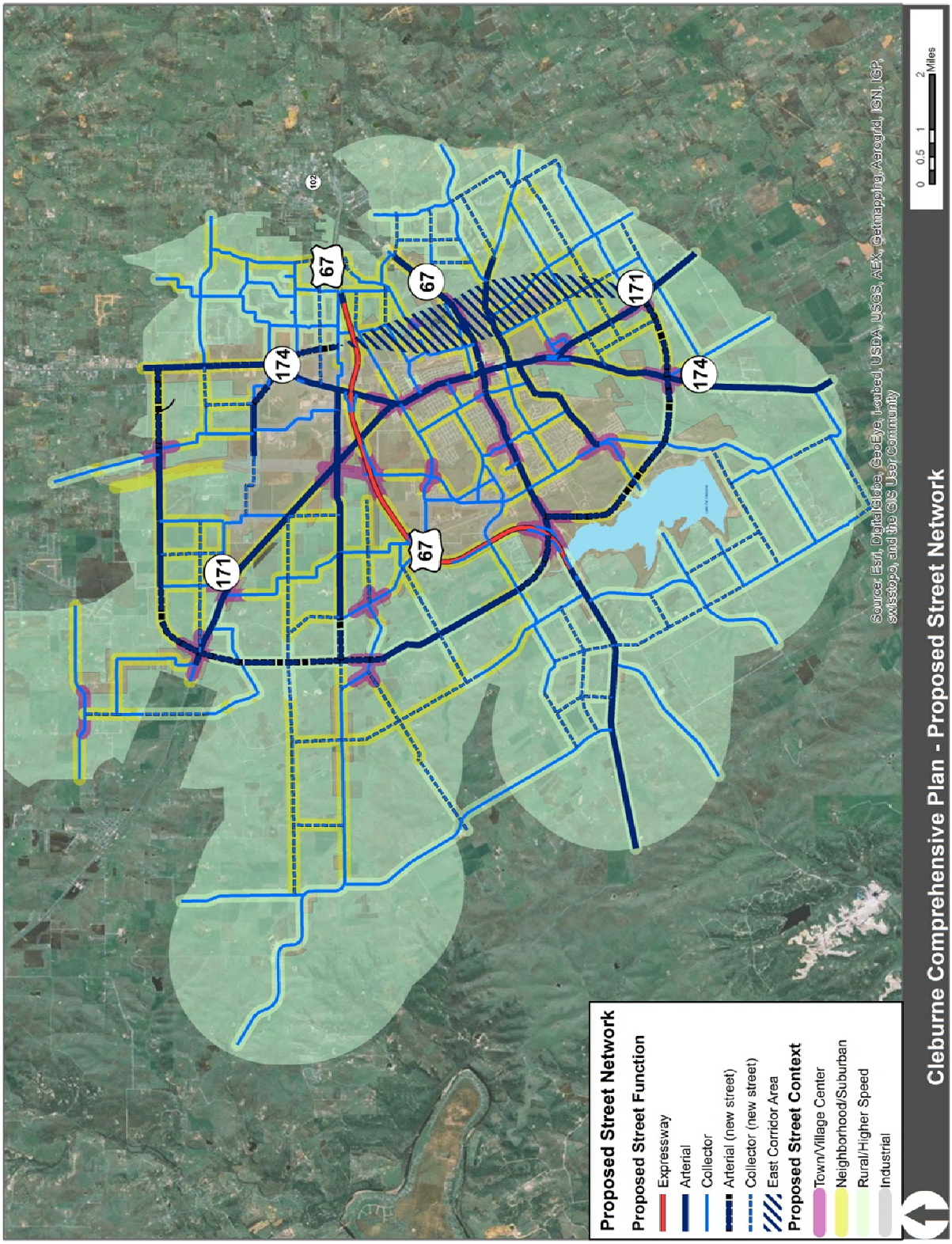


Figure 64. Street Framework Plan

Networks and Access

The street framework plan lays out the locations of major streets – freeways, arterials and collectors – and provides guidance on what those streets should look like. Beyond this foundational framework, however, there are other elements that should be taken into consideration.

Networks and Connectivity

The proposed street network for Cleburne places an emphasis on connectivity. Well-connected street networks result in more direct routes and shorter travel times, as opposed to a few large, multi-lane arterials which create congested intersections and longer, more circuitous routes. Robust street networks also mean smaller streets with less traffic, which is more conducive for walking and cycling.

At a maximum, streets within fully developed areas should be spaced no more than one eighth of a mile apart. Arterials, which form the backbone of the transportation network and carry most of the regional traffic, should be spaced at approximately one to two miles. Collectors should be spaced at ¼ mile to one mile intervals. Local streets should fill in the rest of the network.

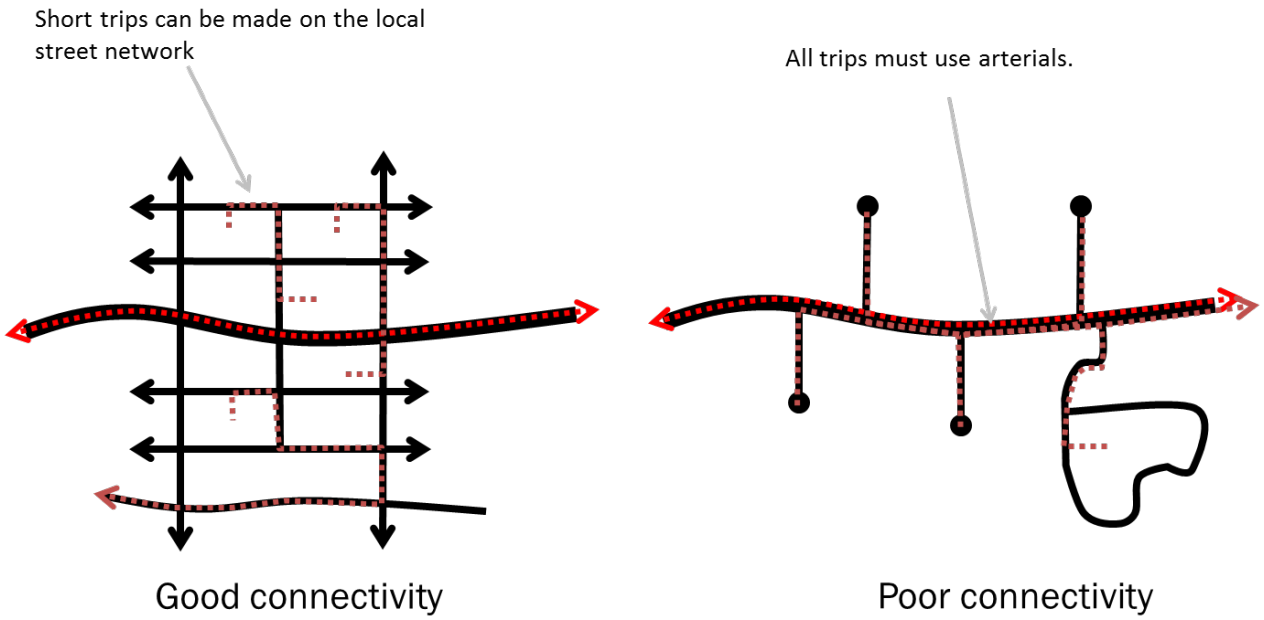
Table 26. Connectivity Guidelines – Example

Block size	200 to 800 feet.
Cul-de-sacs	Limited to 10% of all street links.
Intersection density	Minimum 0.8 to 1.2 intersections per 10 acres.
External connections	Minimum of three sides.

It is important to note that this network does not necessarily have to be provided by the public sector. This network could easily be built as part of private development, as long as it provides connectivity to the external network.

The street framework plan identifies how most arterials and collectors should connect. At a finer grain, network connectivity standards should be prescribed as part of the City's land development regulations.

Figure 65. Connectivity Examples



Access Management

Having good street connectivity is important to a well-functioning transportation network. At the same time, street systems with too many access points can create problems.

Access points include driveways, cross-streets, median openings and signalized intersections. Each additional access point increases the potential for conflict, which degrades roadway capacity and increases the chances for collisions.

Access should be coordinated closely with development. More intense development, where places take priority, should have greater access than in rural locations where vehicular speed and mobility takes precedence. Freeways, by definition, should have very little access, followed by arterials and then collectors. Limiting access is less of a concern on local streets.

Access management standards can provide specific guidance for the placement of access points. For State roads, they should be consistent with the Texas Department of Transportation's (TxDOT) Access Management Manual.

Table 27. Relationship Between Street Type and Access

	Character Area			
Function	Rural/ Higher Speed	Neighbor-hood/ Suburban	Town/ Village Center	Industrial
Freeways and Expressways	NA	NA	NA	NA
Arterial				
Collector				
Local				

Minimum Driveway Spacing	
660'	Less access
440'	
220'	
110'	
<110'	More access

Bicycles and Pedestrians

The proposed street framework is designed for all users, including bicycles and pedestrians in addition to motor vehicles. This could a mix of on-street and off-street facilities, depending on the context.

On-street Facilities

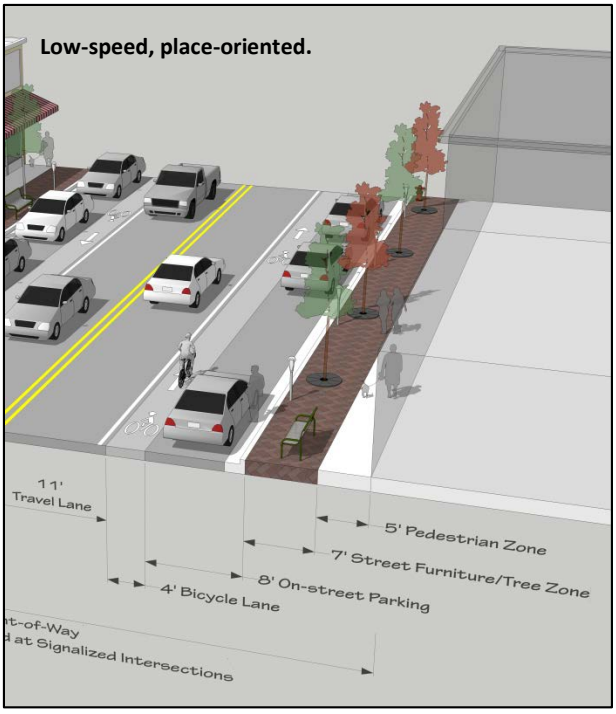
On-road facilities for pedestrians are essentially sidewalks. Sidewalks are appropriate for lower-speed environments and are generally wider in locations where the emphasis on people and places is the greatest. In locations where vehicles move at higher speeds and/or a greater volumes, it is desirable to have some degree of separation between the sidewalk and the road, such as on-street parking or street trees and a planting strip.

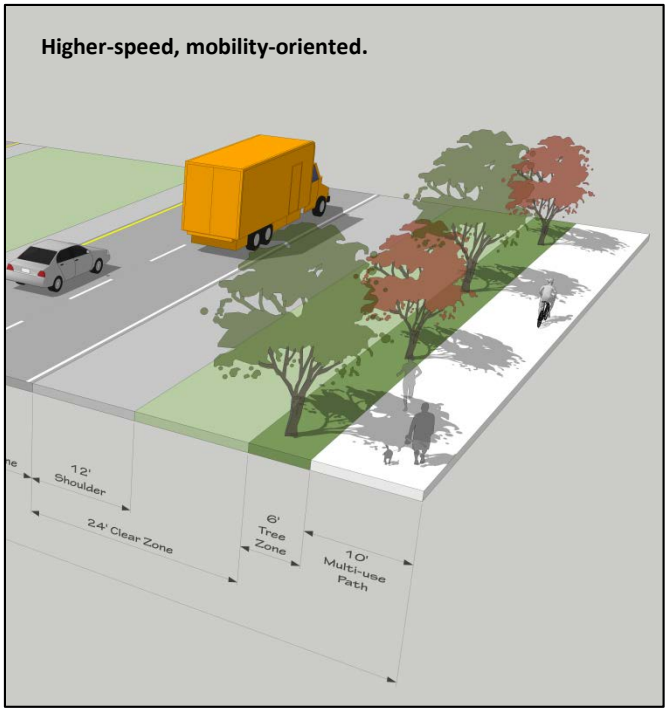
On-street facilities for bicycles include bicycle lanes and wide shoulders. Bicycle lanes are typically found in urban and suburban locations while wide shoulders are typically found in rural locations. On low speed, low volume streets, cyclists can ride in mixed traffic with motor vehicles. Less experienced users (children) may ride on sidewalks.

Off-street facilities

Off-road facilities can serve a number of different purposes. On rural/higher speed streets, a parallel multi-use trail provides safe travel for both bicycles and pedestrians. A series of trails that parallel Cleburne's waterways – referred to as "blueways" provide opportunities for recreation and transportation as well as an economic development tool for downtown.

Figure 66. Bicycle and Pedestrian Facilities in Different Contexts





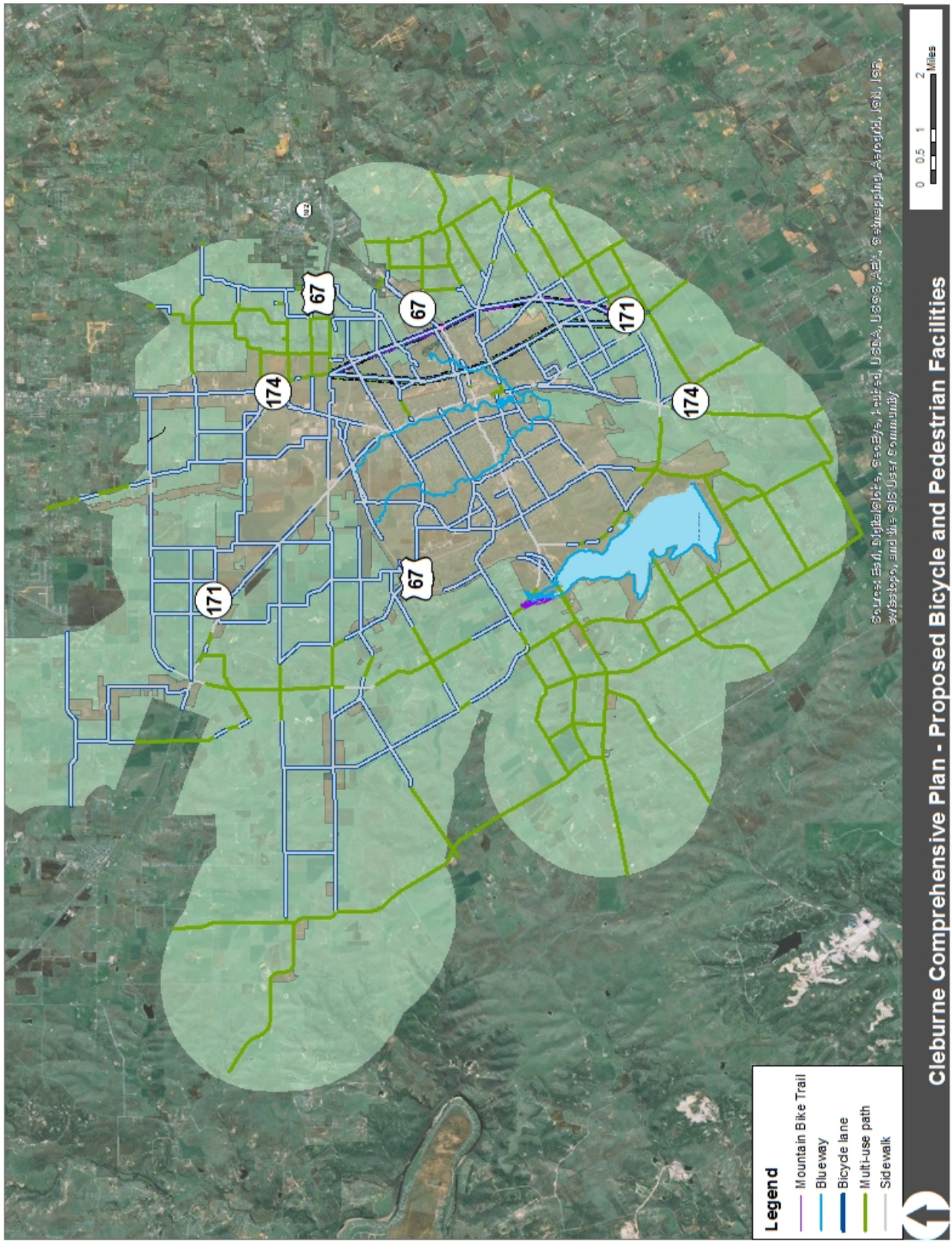


Figure 67. Bicycle and Pedestrian Facilities

Freight Movement

Freight movement emerged as a top priority/issue during community and stakeholder engagement for the Comprehensive Plan. An analysis of existing conditions revealed high truck volumes throughout the City, in some cases comprising one out of every four or five vehicles on the road.

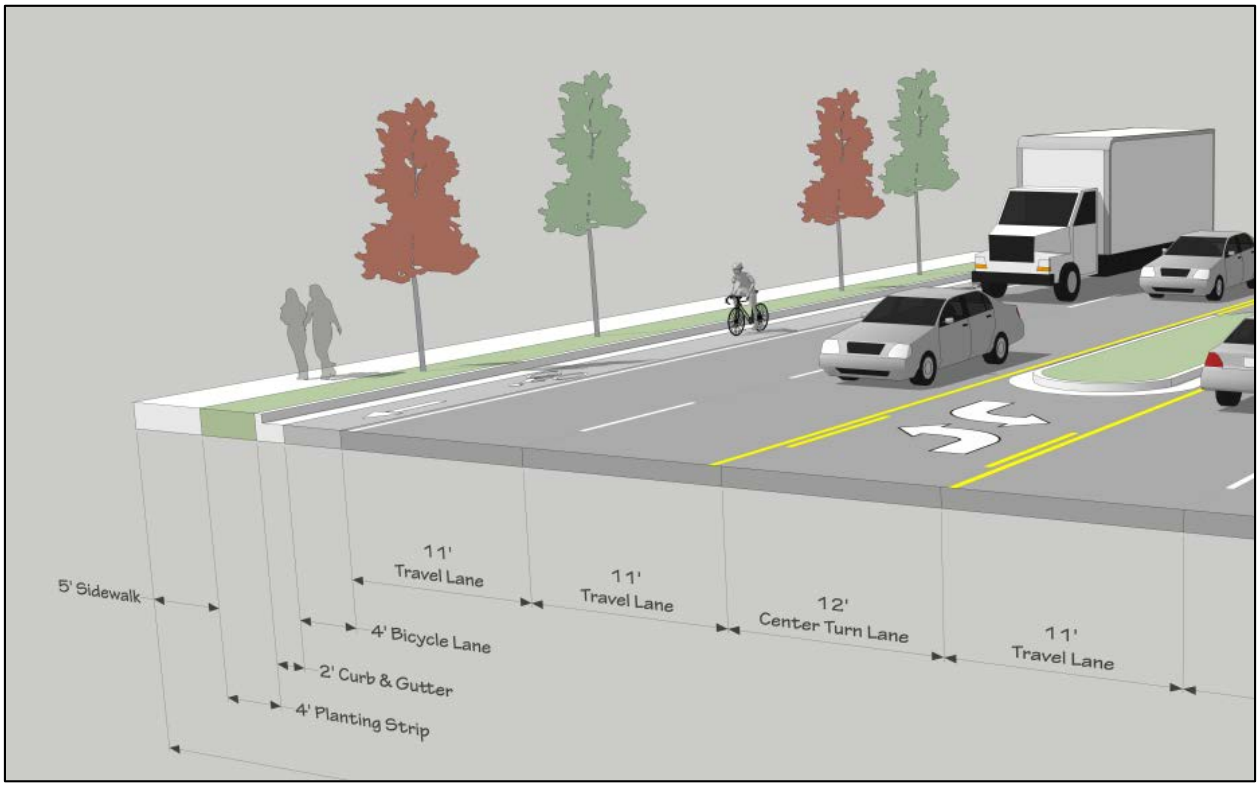
The efficient movement of trucks is paramount to the local and regional economy. The Comprehensive Plan identifies an industrial hub north of downtown near the convergence of SH 121 and US 67.

However, while the movement of truck traffic is good for economic activity in general, it is in direct conflict with the desire to create walkable, people-oriented places. Specifically, downtown Cleburne experiences high truck volumes that hinder the City's ability to create a walkable, people-friendly environment.

The Comprehensive Plan does not recommend a freight route. Rather, a number of new facilities are proposed that can accommodate trucks, thus dispersing them over several facilities and not concentrating them on any single one. This strategy will maintain Cleburne's viability for freight and industry without compromising the ability to create walkable places. The updated of the MTP should address freight routing.

A number of new facilities will provide alternatives for trucks to avoid downtown Cleburne.

Figure 68. Street Design to Accommodate Trucks



Transportation Plan

Transit

Fixed route transit service does not currently exist in Cleburne. However, the need for more transportation options, including transit, will become greater as the City adds another 75,000 plus residents by 2040.

First and foremost, the regional Long Range Transportation Plan (LRTP) identifies a commuter rail line running from Fort Worth into the heart of Cleburne via the BNSF rail line. Commuter rail service could become a critical part the City's growth as it provides an important connection to the rest of the region and an alternative to automobile travel.

The Comprehensive Plan puts emphasis on access to the train station downtown, which could become more of a hub when the commuter rail service becomes a reality. Areas immediately adjacent to the station are intended to be walkable and pedestrian-scaled. The neighborhoods east of downtown could also become

connected to the station area and benefit from it through the establishment of pedestrian "gateways" along the east-west collector streets.

Finally, although local fixed route transit service is not currently planned for Cleburne, the feasibility of starting such a service should be explored as the City grows. The Comprehensive Plan's development framework is supportive of transit service, with the establishment of several mixed-use centers.

Transportation Plan

Assets, Issues and Challenges

The Transportation Assessment revealed a host of assets, issues and challenges for the Comprehensive Plan. Each has been addressed in the following ways:

SH 121 will fundamentally change Cleburne's accessibility to the rest of the region and will be one of the City's most important assets.

The Comprehensive Plan identifies land use and economic development strategies that leverage SH 121's regional accessibility by identifying an industrial hub and regional commercial node. The street framework plan makes SH 121 well-connected to the rest of the City through the identification of two new arterial corridor and a supporting collector street network.

Significant growth means Cleburne could see an increase in as many as 150,000 trips per day by 2030. How to serve those trips represents a significant challenge for the City.

The Comprehensive Plan identifies several strategies for accommodating new trips, including a well-connected street network, regional commuter rail and bicycle and pedestrian facilities.

Personal mobility is heavily dependent on the use and access to personal vehicles. Cleburne must decide to continue this pattern or provide a more robust set of transportation options for its citizens.

The Comprehensive Plan accounts for a robust set of transportation options for its residents in the future. This includes regional commuter rail for travel outside of Cleburne and a system of on-street and off-street bicycle and pedestrian facilities that make walking and cycling possible virtually anywhere within the City.

Anticipated growth in traffic volumes creates several potential capacity issues at key points in the City that must be addressed.

Much of the anticipated traffic issues – Main Street through downtown, SH 174 south of downtown and Henderson Street east of downtown – stem from a lack of alternative routes outside of downtown Cleburne. The Street Framework identifies two new corridors that will effectively distribute through-traffic and mitigate capacity issues in and around downtown.

Cleburne must find a way to balance efficient movement of truck traffic with the character of its places.

Context-sensitive street types strike a balance between mobility and character. The Street Framework identifies locations where mobility is the priority and trucks and move a higher speeds, as well as locations where people and places are emphasized where trucks and other vehicles must move at slower speeds (but can still be accommodated).

There is a major conflict between mobility and character within downtown Cleburne that will only become exacerbated over time. The City must find a way to accommodate traffic growth while maintaining the character of downtown and other places that it treasures.

New corridors in the Street Framework provide alternatives to downtown travel for trucks and other types of regional travel. This give the City the flexibility to create a truly people-oriented, pedestrian downtown. Additionally, the coordination of Character Areas and context-sensitive street types will result in the creation of other place-oriented nodes throughout the City.

The extension of regional commuter rail into Cleburne represents a significant mobility and development opportunity. The City must decide if and how it wants to capitalize. This is especially true for downtown Cleburne, where transit has the opportunity to create foot traffic.

Bringing commuter rail service to Cleburne is a top priority of the Comprehensive Plan and the City as a whole. The land use, character, economic development and transportation components of the Plan all recognize the significant benefit of having a commuter rail station in downtown Cleburne as well as near SH 174 north of downtown.

Infrastructure Plan

INFRASTRUCTURE PLAN

Overview

The Infrastructure Element of the Comprehensive Plan is intended to outline strategies to meet future demands on the infrastructure systems. It also addresses the Plan Goal; INFRASTRUCTURE CAPACITY: Increase water supply and improve existing systems to support future population.

Infrastructure systems should be expanded and developed to support the development patterns induced by the Plan's landuse and development forms.

Increased population will increase water demand for municipal use. Increased development of industrial district areas will also increase water demand. Although immediate and near future water demand may be met, the projected increased demand will require development of additional water supply for the long term. Additionally, the following measures will support the Plan's goals:

- Expand and add water treatment capacity and raw water transmission pipelines
- Expand and add water distribution network to support new growth and that will align with development and redevelopment areas, nodes, and as well as with new development and transportation corridors to minimize additional right of way requirements
- Increase water conservation and increase water reuse to augment water supply

Water

As Cleburne grows into those category forms identified in the Landuse Plan including Communities, Nodes, Corridors and Targeted Development Areas, water infrastructure will need to lead the way to accommodate that growth within the 18 landuse districts. The improvements to the water infrastructure will go in concert with the districts being established in order to have an efficient system.

Planned infrastructure improvements must correspond to the residential and mix use demands in Communities, commercial development at Nodes, resulting uses along Corridors, and pin-pointed at Targeted Development Areas based on their special or industrial uses.

Additional water supply quantities should be negotiated and agreements put in place to secure additional water rights for Cleburne along with other efforts outlined below to meet future water demands. Dredging of currently used reservoirs could be considered to eliminate potential reduction from current yields.

Yield Loss Can Be Minimized By Dredging Sedimentation From Existing Reservoirs

Water Treatment

Evaluations should be initiated to assess feasibly of expanding existing treatment facilities versus identifying and evaluating an additional site for a new water treatment plant. Additional real estate may be needed to expand the existing plant or an additional site acquired.

Additional Water Treatment Capacity Will Be Required

Raw Water Transmission

Raw water pipelines should be brought online ahead of development to connect water sources, where the City has existing water rights and additional future sources with future water rights, to the water treatment facilities. These are long distance pipelines and can be multi-agency/multi-jurisdictional and require long lead time, often years (as is the case for developing new water supplies as well), for permitting, land acquisition, design, and construction. The City must achieve raw water pipeline connectivity to existing and future water treatment plants from Lake Pat Cleburne, Lake Aquilla, Lake Whitney, and any new water supplies that may be developed in the future.

Water Distribution

The existing network of water distribution can be responsive to Center City Districts, the Downtown TDA, the closer-in and existing Traditional Neighborhoods, Villages, Regional and Local Nodes along US 67 and south to Henderson. The existing system will have to be rehabilitated, replaced, and/or maintained. Selective up sizing may be required upon an in depth analysis of the system's capacity and existing condition assessments. On the other hand, farther outlying Village, Traditional Neighborhood and Future Traditional Neighborhood Districts will require expansion of the water distribution network with new pipelines. While Sustainable Community and Farmland Community districts will offer opportunities for sustainable and creative alternatives that could have a direct impact on the size and type of water infrastructure that will serve those areas.

Integral to the distribution network are potable water storage Water storage and pressure zone needs which should be analyzed and addressed accordingly.

Cured in Place pipe (CIPP) techniques can be used to rehabilitate water lines (especially within the City core) and is applicable for pipe diameters from 6 to 106 inches. The existing pipe must be cleaned to remove corrosion, debris, and protruding lateral connections. CIPP liners are non-woven polyester felt or fiber reinforced fabric manufactured to fit the existing host pipe. Using vacuum, gravity or other applied pressure, The CIPP liner is impregnated with a polymer resin and when it cures forms a close fitting liner pipe within the existing host pipe. The liners may be installed by an inversion method using a scaffold tower or pressure vessel to apply air or water pressure to turn the liner inside out and push it along the existing host pipe. Or they may be installed using a winch and running the liner through a manhole or other access point, then inflated (with air or water pressure) to come into close contact with the circumference of the existing pipe. Full length linings can typically be accomplished in the range of 100 to 500 feet, although runs in the range of 2,900 feet have been done.

Future Water Storage and Pressure Zone Needs Will Require Detailed Expansion Assessments

Water Conservation

A number of factors strain the water resources in Cleburne including recurring drought, population and industry growth, as well as changing climate. A cost

effective and good way to help meet growing water demands in the future is water conservation. Successful water conservation depends on smart and willing participation from not only the general public but also water utilities, public officials, and the business sector. Water-efficiency education, legislation, programs and technology must be promoted in order to make a positive impact on water usage.

Water resources are finite and therefore, water conservation should be in the mix of water management strategies to meet future water supply demands. During the last major drought across Texas in 2011, as municipalities enforced water restrictions, residential water use actually increased, in some areas of the state, by as much as 17% over the previous year. Some of these phenomena may be attributed to water users trying to keep lawns green, shrubs growing, and plants blooming, or using more water in anticipation of further or increased restrictions. Additionally, residential water users tend to overwater when only allowed to water on one of two days out of the week.

Key to success is timely water restrictions (as oppose to waiting until the late summer to implement water restrictions). Other key components are a sustainable frame of mind and an aggressive water pricing structure that will allow utilities to overcome the conundrum created by water conservation's impact (lowering) on potential water utilities revenues that would still be needed in order to maintain aging as well as develop new infrastructure. All of these measures can be successfully implemented with a robust conservation outreach campaign. It should also include general leak detection education as well. Policy on landscaping that will promote a more drought tolerant and sustainable environment should go hand in hand with water conservation. Water conservation policy should also be forward looking and not only be responsive to drought conditions but to surface water storage conditions (lake levels) as sometimes the return of normal rainfall may not necessarily replenish reservoirs sufficiently.

Wastewater

Wastewater flows will increase as more water is used for municipal and industrial purposes. This will require expansion of wastewater treatment facilities and collection systems. Expansion of treatment facilities will not only be driven by increased flows but potentially by changes in nutrient removal regulations in the longer term as the Environmental Protection Agency (EPA) continues to push new Numeric Nutrient Limits, lowering of existing limits for nitrogen and phosphorus and total maximum daily loads (TMDLs) for disinfection byproducts of effluent discharges using free chlorine disinfectant.

Wastewater Treatment

Increasing wastewater treatment capacity requires large sums of capital whether it be expanding an existing facility or constructing a new one. Additionally, operating cost present long term challenges and require the City to develop cost saving strategies.

Power costs are the highest annual operating costs for wastewater treatment plants besides labor costs for plant personnel. In North Texas, many municipalities have taken a proactive approach for energy management by utilizing grants and rebates offered by the power providers to implement energy conservation measures (ECMs). ECMs can improve energy efficiency, promote green building design, and possibly consider new resource recovery alternatives including biogas utilization for cogeneration in lieu of continued flaring of methane gas at wastewater plants. ECMs offer energy management solutions. These solutions should follow both the EPA Guide for Energy Management as well as ISO 50001 and 50002 Standards for Energy Management. This approach provides a return on investment for the time and effort spent in developing ECMs along with an implementation plan that identifies the schedule and funding to implement the ECM.

Collection System

Favoring the natural topography, when possible, will maximize gravity flow collection systems and minimize the use of force mains that are more costly to operate.

Rehabilitating existing line can also maintain and/or improve capacity within the Cities core. Moreover, underground trenchless construction technologies provide attractive construction options in urbanized areas. They minimize disruption to existing surface improvements, vehicular and pedestrian traffic; minimize conflicts with existing underground utilities, disruption or impediments to public services and emergency access to private property. They also can eliminate the need to acquire additional right-of-way to install replacement pipes. More important, they can provide more flexibility in the sequence of the implementation of the Plan by allowing installation of aesthetically pleasing surface improvements (public or private) prior to when upgrades or rehabilitation to the underground infrastructure is needed or funded. There are many trenchless methods that can be employed. At a minimum, an assessment of pipe materials, pipe conditions, existing horizontal and vertical alignments and subsurface soil conditions must be performed before deciding which method is the best application in any given situation. The following are some that can be considered:

REHABILITATION STRATEGIES:

SLIP LINING

Slip lining is among the earliest and simplest of trenchless techniques and consist of inserting a new pipe into an existing pipe. The new pipe must have an outside diameter smaller than the existing host pipe and is either pushed or pulled into the existing host pipe. Ideally, the host pipe should have a straight alignment with no to modest bends, no severe protrusions, no or only modest offset joints, and be absent of deformities. When slip lining for a non-man entry circular pipe and performed continuous as opposed to segmental, Polyurethane (HDPE and PE) and polyvinyl chloride (PVC) pipes are typically used. By placing the new pipe above ground and using an excavated entry pit, the new pipe is winched through the host pipe to an exit existing manhole or and excavated exit pit. If conditions are such that space presents retractions on laying the new pipe above ground, the new pipe can be butt-fused as it is being installed. Grout is then inserted into the annular space between the new pipe and the existing host space.

PIPE BURSTING AND PIPE SPLITTING

Pipe bursting can be used to replace pipes such as clay, concrete and cast iron that may be brittle, through the application of a static or pneumatic bursting head to fragment the existing pipe. At the same time, a new product pipe attached to the back of a bursting head is installed in the same alignment as the original pipe. A conical-shaped bursting head that has a diameter two to four inches larger than the new replacement pipe is advanced through the existing pipe, exceeding the host pipe's tensile and shear strength capacities, and leaving the existing host pipe fragmented or split. The new pipe follows the bursting head immediately and is simultaneously pulled or pushed into the newly formed cavity. The ability to use pipe bursting depends on burst length, host pipe material, upsize diameter, and geological conditions. For wastewater lines, burst lengths are typically 300 to 450 feet and may generally coincide with the distance between manhole locations. For waterlines, bursting lengths are between valves. This trenchless method is generally used for upsizing pipe diameters from 6 to 8, 8 to 10, and 10 to 12 inches. At times existing steel, ductile iron, and plastic pipes, will require cutting and pipe bursting cannot be effective. In such cases, pipe splitting is more effective. Pipe splitting uses the same techniques as pipe bursting but it differs in that a pipe splitting head uses cutters or blades to slice the host pipe while an expansion shell head opens the host pipe to create space for the new pipe.

CIPP LINING

Cured in Place pipe (CIPP) is another technology that can be utilized for either wastewater or water lines as described above in the water section.

Water Reuse

The City of Cleburne and Johnson County are within the State of Texas Regional Water Planning Area designated as Brazos G whereas most of the Dallas/Fort Worth metropolitan area is within the planning area designated as Region C. Both Planning Regions have stated goals in the latest 2012 State Plan of utilizing water reuse as a means to supplement future water supplies. Brazos G has

a goal of 7% of future water supplies to meet 2060 water supply demands while Region C's goal is 11%.

Water Reuse entails using reclaimed water (treated wastewater) for a beneficial use. For example, golf courses can be irrigated with municipal reclaimed water while reclaimed industrial water can be used for manufacturing and/or cooling purposes. The type of beneficial use dictates the level of treatment required.

Water reuse is an excellent water management strategy. Statewide projections in the 2012 State Water Plan include 614,000 acre-feet of water per year will come available by 2060 from existing water reuse infrastructure and it also recommends that an additional 915,000 acre-feet per year of new water supplies be obtained from water reuse strategy by 2060. In short, it is recommended that an average of 10% of all new water supplies come from water reuse strategies by 2060.

Storm Water

New development increases impervious areas that in turn increase storm water runoff. Strom water management practices will need to be implemented to mitigate the runoff and minimize flooding. Low impact development (LID) methods and green infrastructure (GI) will provide a means for lessening impervious areas and runoff. Storm water detention will also be a major means of mitigating the runoff and conserve pre-development flows.

Storm Water Management Practices & Impervious Area Mitigation

A number of alternatives can be implemented to manage storm water runoff, some of which can complement open spaces and create high value amenities. Among these methods include:

- Rain Gardens – sometimes referred to as bioretention cells, are swales or depressed porous areas with vegetation cover on the surface and underdrain material that filters runoff as it infiltrates the composite structure of the rain garden. Additional benefits include groundwater recharge, pollutant removal, and runoff detention. These are applicable at parking lots and urban areas with limited green space.

Rain Garden

- Elimination of Curb and gutter – will allow for infiltration by increasing sheet flow and reducing runoff volumes. Runoff can flow to vegetated swales or bioretention basins. This will help prevent erosion and also maintain predevelopment runoff conditions.

- Grassed swales - grass-covered hydraulic channels with shallow depth allow for slowing down runoff and infiltration. Their effectiveness depends on landuse, soil type, and slope, imperviousness of the contributing watershed, and dimensions and slope of the swale. They are generally more effective in drainage areas of less than 10 acres and grades that are no greater than 5 %.

- Green parking design- uses a combination of techniques to reduce the impervious area of a parking lot. Among some of the techniques are: providing economic incentives for structured parking; utilizing alternative pavers in overflow parking areas; minimizing the dimensions of parking lot spaces; alternative pavers in overflow parking areas; and bioretention areas to treat storm water.

- Infiltration trenches - rock-filled ditches with no outlets that collect runoff and allow it to infiltrate into the soil.

- Inlet protection devices – are used to separate sediments, oil, grease, trash, and other storm water pollutants from the runoff in areas where pollutants are more likely to occur at higher concentrations.

- Permeable pavement – an alternative porous pavement section whose surface can have an appearance similar to concrete or asphalt. The subsurface can consist of a stone course with enough voids where runoff is temporarily stored as it infiltrates into the subsoil.

- Permeable pavers – porous concrete block pavers that allow for infiltration of runoff into the ground.

- Rain barrels and cisterns – can be placed at building's roof downspouts, above ground, to store rooftop runoff which can later be used for lawn and garden watering.

Rain Barrel at Roof Downspout

- Cisterns – same as rain barrels but can hold larger runoff in large manufactured tanks or underground storage areas.

- Riparian buffers - area along a stream protected from development to physically protect and separate it from future disturbance and encroachment. It can also provide flood storage and stream ecosystems and habitats.

- Vegetated filter strips - dense vegetation planted downstream of a runoff source and are used for treating runoff from roads and highways, roof downspouts, and other impervious areas.

Ultimately LID and GI can provide positive cost, beneficial social and favorable environmental impacts. Additionally, predominantly residential areas cannot ignore the technical, social and environmental factors that incorporating facilities like bio-swales, detention basins, rain gardens and even water quality treatment can achieve.

Storm Water Detention

Storm water detention can peak runoff discharges from increasing as development occurs and impervious areas are allowed to increase. Regional detention ponds can be effective but tend to be larger and deeper. Smaller and more disbursed detention ponds within the same basin can also be as effective. Shallow and small detention ponds can be achieved with the East Buffalo Creek basin by installing shallow check dams.

Existing Shallow Detention/Retention on Buffalo Creek

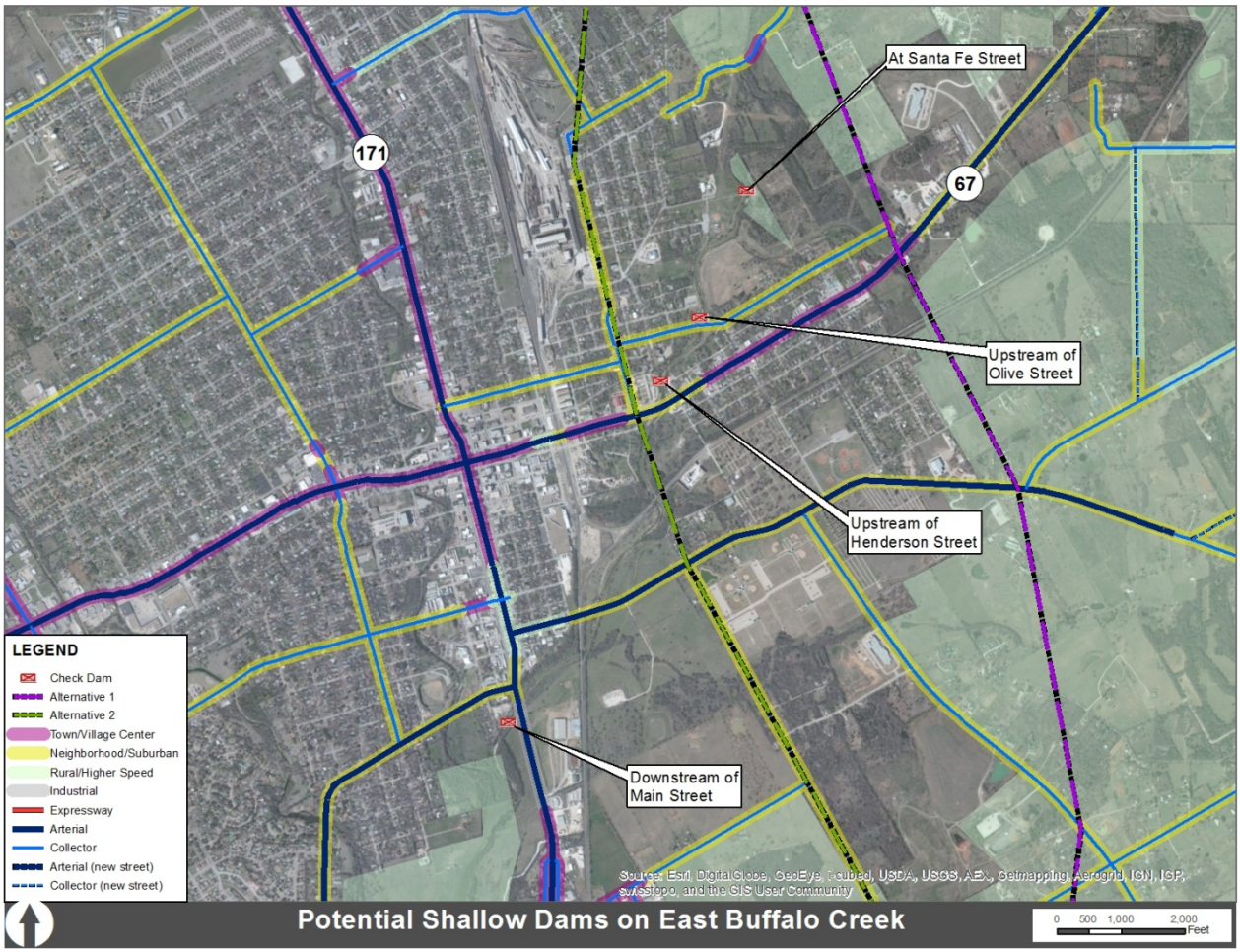


Figure 69. East Buffalo Creek Potential Dam Locations.

Power

Power consumption will increase with increased population and growth in the commercial, retail, and industrial sectors. Build out employment needs will require 16 million square feet 2032 of industrial use and 23 million square feet by 2040 of industrial/commercial/retail space. An important component of the Plan is the Industrial Catalyst Plan. The Industrial Catalyst Plan assumes that 80% of the industrial employment need will be in the Cleburne Industrial Center or 12.5 million square feet which will be sited on 33 industrial parcels, requiring 825MW of power capacity in addition to the demand in other areas of new growth and existing demand. Oncor and United Cooperative Services are the local power providers based on Public Utilities Commission Certification.

Oncor and or United Cooperative Services (United) will have to be in sync with the future power demand. Close coordination must happen in order to insure efficient and high-quality service. Design and construction of expansion and improvements to electrical generation and the electrical distribution system must be performed in advance of the demand. Expansion requirements may include transformers, metering and other equipment that have one year or more of delivery lead times. Oncor and United should be given notification well in advanced of new electrical loads so that it can be prepared to, if needed, increase substation capacity or modify, if

required, distribution facilities. The City and developers must be mindful of the global demand of some electrical equipment and should expect lead times of a year or more for having the equipment on hand. Additionally, identification of property and easement requirements for new equipment or expansion of existing facilities must be identified and secured.

Parks and Open Spaces

PARKS AND OPEN SPACES

As Cleburne grows, it will be important to provide key quality of life factors that attract higher home values and promote neighborhood stability. Parks and open spaces are key to achieving this. Open Spaces enhance the quality of community life by preserving the quality of community environment. Parks provide recreational opportunity for Cleburne residents, but they also help to preserve the natural system that is responsible for much of the character that residents enjoy. Creekway preservation, viewshed protection, air quality and soil stabilization are important not only for a positive outdoor experience, but also for agricultural practices, cost of public services and community identity.

When planning for future public open spaces, it is necessary to establish an integrated system that consists of spaces at various scales, accommodating a range of functions to benefit future communities. In this sense, the physical expression of the Plan is important. The Plan considers not only where parks are needed to better serve existing residents, but also where future parks will most likely be needed to accommodate new growth in coming years.

The Park and Open Space plan component draws from Cleburne's 2009 Park Plan regarding level of service standards, facilities and park types, but translates those measures into a build-out scenario that aligns with the other components of the comprehensive plan. It indicates the acres of each park type needed to achieve the established level of service standards as certain population thresholds are met. It also provides a rough phasing plan to prioritize future park development, including the number of parks that will be needed and the part oF town where they should be located.

EXISTING PARKS

Accoring to the 2009 Park Master Plan, there are 21 parks in Cleburne. These include:

- Hulen Park
- Don Moore Field
- Splash Station
- Byron Stewart Park
- Carver Park
- John S Butner Park
- East Buffalo Creek Linear Park
- Kirtley Park
- McAnear Park
- West Buffalo Creek Linear Park
- John P Bradshaw Park
- P.D. Lacewell Park
- J.E. Standley Park
- Westhill Park
- Winchester Park
- Cleburne Golf Links
- Cleburne Sorts Complex
- Old Sport Complex
- Booker T. Washington Community and Recreation Center
- West Lake Pat Cleburne Boat Ramp
- Winston Patrick McGregor Park

PARKS AND OPEN SPACES

PARK TYPOLOGIES

Parks are classified using the typologies established in the 2009 Master Plan: Neighborhood Park, Community Park, City Park, Linear Park and Special Purpose Facility. For each of these park types, standards have been set in the Master Plan regarding service area, appropriate facilities to be included and acres needed to service the population. A brief description of types is included here, along with summary information regarding level of service standards

Neighborhood Park. Neighborhood Parks are within easy walking or biking distance of residents. Both passive and active recreation is suitable in these parks. They are intended to serve the entire family and provide opportunity for community interaction. They are typically 6-10 acres in size and serve the population within a 0.5 mile radius. Facilities include playgrounds, flexible use fields, trails, benches and picnic facilities, security lighting and sports courts (tennis, basketball, etc.).

Community Park. Community Parks serve several neighborhoods and have a larger radius of service than Neighborhood Parks, and provide more specialized and elaborate facilities as well. These parks are typically accessed by car. These parks house facilities for organized sports such as soccer, football, baseball and swimming. Community Parks are typically 20 to 80 acres in size and service a 1.5 mile radius.

City Park. According to the Master Plan, a City Park serves the entire city. It is typically the largest park type in a municipal system. City Parks may include more spacious natural areas and amenities (such as lakes and historical areas). City Parks are typically over 50 acres in size and should be accessible to the entire Cleburne community, preferably via a major thoroughfare. Much of the site should remain undeveloped or in its natural condition. Facilities would typically include nature center, trails, fishing and boating area, parking facilities and tournament-level sports facilities.

Linear Park. Linear Parks are used to infuse natural spaces into a more urbanized environment. They take advantage of stream corridors and easements for underground infrastructure. They provide not only recreational opportunities for residents but also environmental enhancements with respect to air quality, water quality, temperature, soil stabilization and flood control. They also visually enhance urban communities. Linear parks link neighborhoods, schools, parks and other community facilities. There are no particular size requirements for linear parks, but accessibility is important, so adequate and strategically located street frontage is needed for access points. Typical facilities would include wildlife observation areas, trails, picnic areas and playgrounds.

Special Purpose Facility. As the name implies, Special Purpose Facilities are built around a clearly defined use. They service the entire city, and their size depends on their purpose. Examples of Special Purpose Facilities include aquatics center, arboretum, historic site and golf course.

PARKS AND OPEN SPACES

Table 28. Level of Service Standards for Cleburne Parks.

Park Type	Recommended Level of Service (ac/1000 pop)	Standard Park Size	Radius of service
Neighborhood	0.5	6-10 acres	0.5 mile
Community	1.5	20-80 acres	1.5 mile
City	5	50+	entire city
Linear	2.5	none	n/a
Special use Facility	11.5	functionally driven	n/a

Table 29. Service Gaps in Cleburne Today.

	Total Acres		
Park Type	**Recom-mended**	**Existing**	**GAP**
Neighborhood	15.14	5.28	**9.86**
Community	45.41	10.79	**34.62**
City	151.36	150.17	**1.19**
Linear	75.68	33.67	**42.01**
Special Purpose	348.13	347.64	**0.49**

LEVEL OF SERVICE

For each of these park types, a certain level of service has been established, based on national standards. These standards provide targets for Cleburne as the community grows, enabling the City to more effectively plan for the creation of these valuable public spaces. Table 28 summarizes the level of service standards of the Master Plan.

As Cleburne grows it will be important to ensure that adequate park, open space and recreational facilities are provided for Cleburne residents. Based on the level of service standards adopted by the City in the Park Plan, benchmarks for park land designation have been provided. Population thresholds have been used for indicators of park need, rather than a chronological approach. This allows the City to respond to actual growth patterns rather than a flat calendar designation.

In Table 29, the parks of Cleburne were evaluated against these park standards to determine where gaps exist between national standards and the parks made available to the Cleburne community today. The Types that are most significantly underbuilt include Community Parks and Linear Parks. Special Purpose Facilities and City Parks are provided in accordance with national standards.

As Cleburne continues to grow, it is important to anticipate the park, open space and recreational needs of future residents.

Table 30. Acres of parkland needed, according to park type, measured by population intervals.

	Total Acres Needed for Each Type						
Park Type	**2009 Plan**	**Current Pop.**	**35,000**	**40,000**	**50,000**	**60,000**	**80,000**
Neighborhood	4.75	15.14	17.81	20.82	25.05	29.29	40.83
Community	10.55	45.41	53.43	62.46	75.16	87.87	122.50
City	149.30	151.36	178.11	208.21	250.55	292.89	408.32
Linear	54.87	75.68	89.06	104.10	125.27	146.44	204.16
Special Purpose	347.64	348.13	409.65	478.87	576.25	673.64	939.14

Table 31. Acres of parkland needed, according to park type, measured by population intervals.

	Population threshold						
Anticipated # of New Parks	**Current**	**35,000**	**40,000**	**50,000**	**60,000**	**80,000**	**Total**
Neighborhood	**2**		**1**	**1**		**2**	**6**
Community	**1**			**1**		**1**	**3**
City			**1**		**1**	**1**	**3**
Linear/Greenbelt	***6,000 ft***	**2,000 ft**	**2,000 ft**	**3,000 ft**	**3,000 ft**	**8,000 ft**	**24,000 ft**
Special Purpose		**1**	**1**	**2**	**2**	**4**	**10**

Table 30 provides the same type of analysis of demand, based on population thresholds associated with the projected growth of Cleburne in future years. City leadership will be able to anticipate needed park land and recreational facility needs according to population growth as the benchmark rather than an annualized development schedule. The projected parks needs are based on the projected population growth of the comprehensive plan, roughly correlating to 5 year increments of growth. These projections should accommodate Cleburne growth through the next 25 years.

PARKS AND OPEN SPACES

LOCATING FUTURE PARKS

As the City identifies locations for new parks, recreational facilities and open spaces, it will be important to coordinate such designations with the growth patterns identified in the comprehensive plan. The land use districts, because they are based on character, intent, community form and intensity of development, should strongly influence the locational determination of future parks. Figure 70 shows which land use districts are not serviced by existing parks, based on the service area radius associated with each park type.

According to this map, those portions of the City where most of the land is built out (the center of the City) are also those portions currently serviced by City parks. This is as to be expected. The exceptions to this are the neighborhoods inside of SH67 and Henderson, particularly those residents that live west of Buffalo Creek West. These areas are not adequately serviced by existing parks.

As future parkland is dedicated, the TND, Village and Sustainable Community land use districts should be preferred locations for new parks, open spaces and recreational areas. These districts are keyed out in the legend of Figure 70.

Figure 71 shows those areas of the City where future parkland should be dedicated, based on existing residential distribution and anticipated future development. Servicing existing residents and next tiers of expansion are the priorities of this map.

Figure 72 indicated recommended prioritization of future parkland dedication by land use district, as a way to tie the demand associated with future growth to the land use districts in which that growth will most likely occur. The districts of the Future Land Use Plan that are intended to house future residential growth are identified as preferred locations for parks, open spaces and recreational areas.

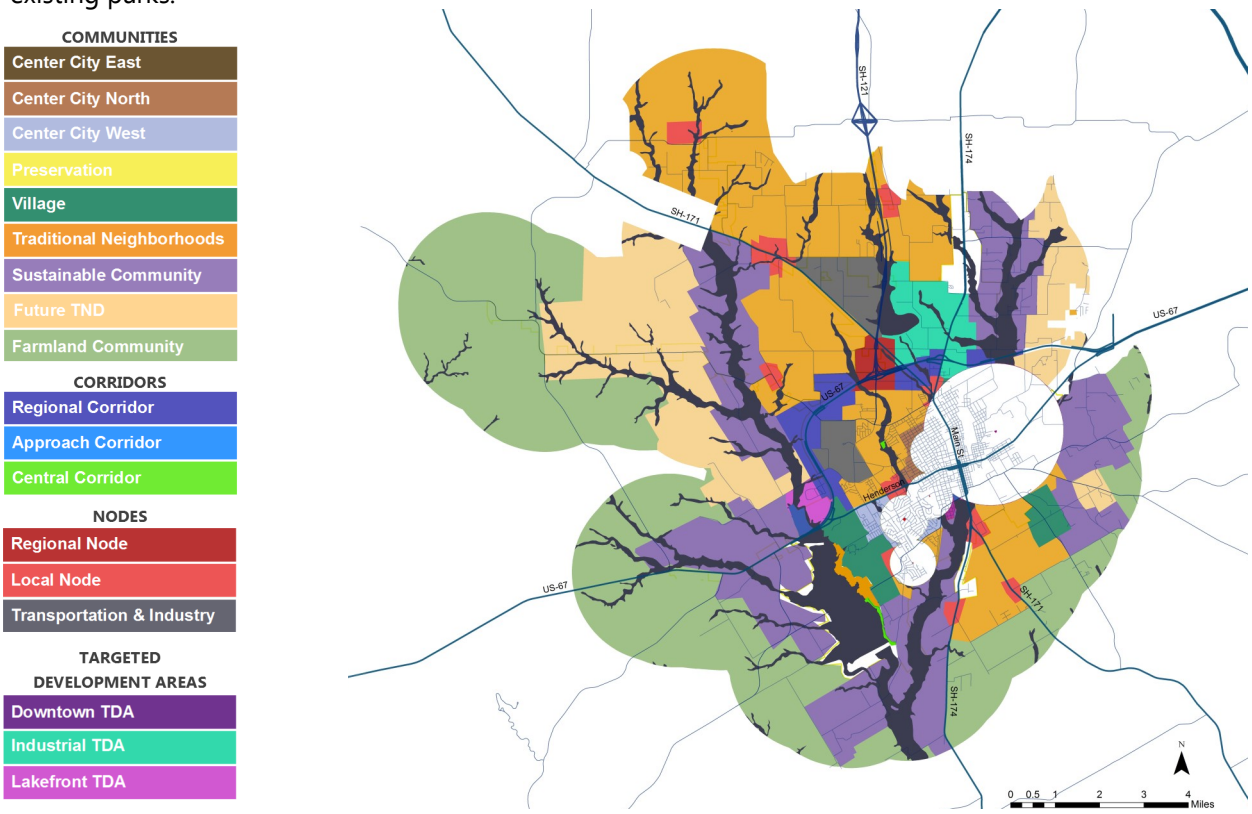


Figure 70. Districts of the Future Land Use Plan not serviced by existing parks.

PARKS AND OPEN SPACES

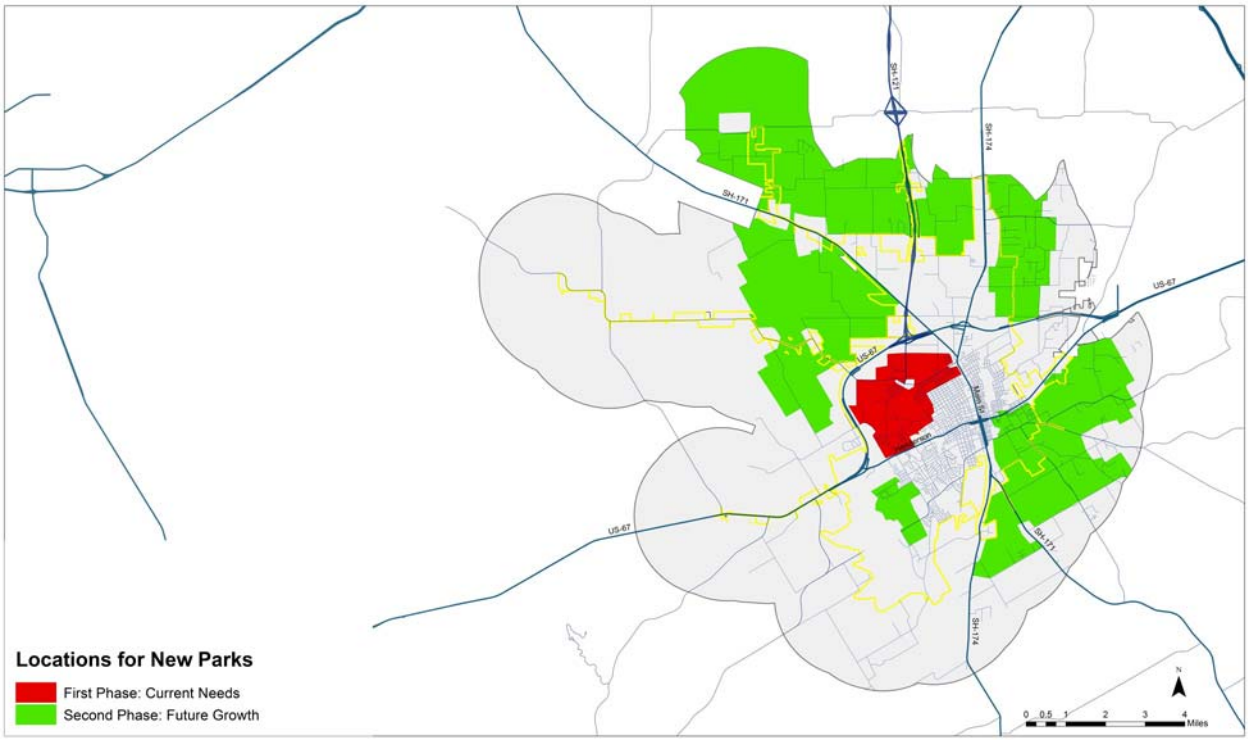


Figure 71. Districts of the Future Land Use Plan where new parks should be located.

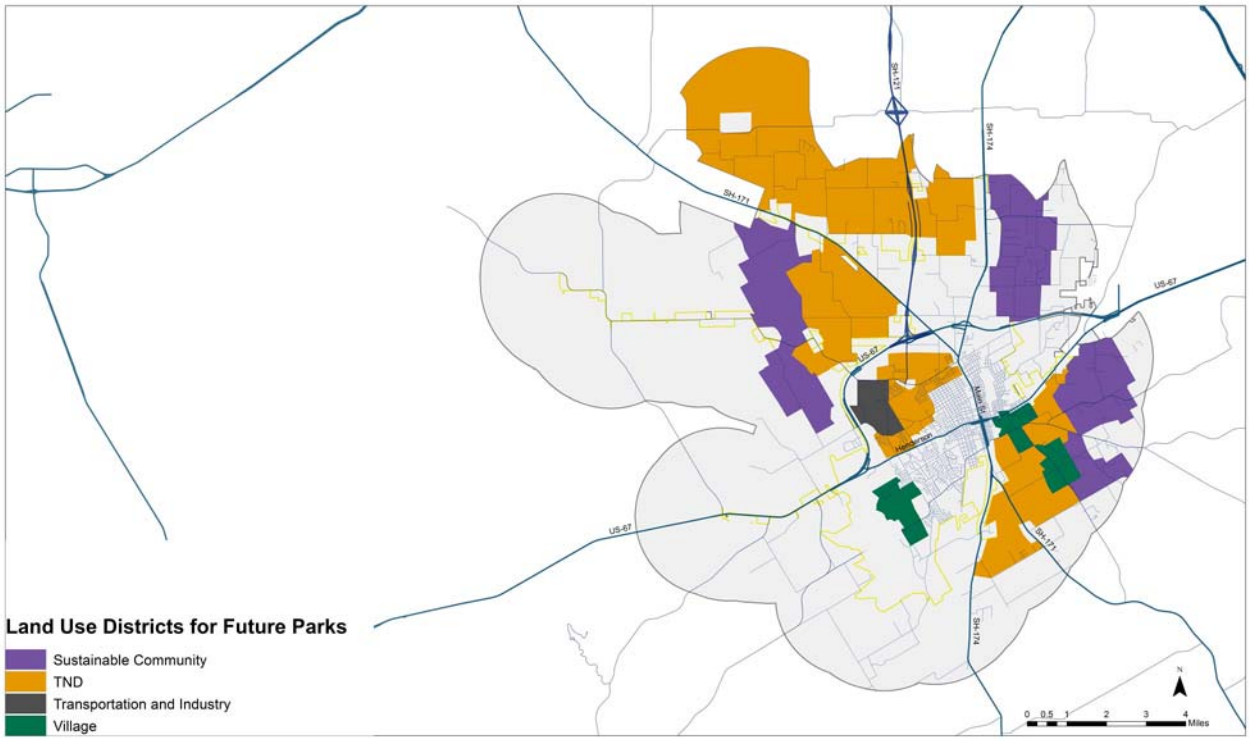


Figure 72. Land Use Districts where future parks should be located..

PARKS AND OPEN SPACES

GENERAL RECOMMENDATIONS OF THE PLAN

In addition to the projected demand for parks, open spaces and recreational areas, there are certain priorities for parkland dedication that were expressed by the community through the planning process. These include:

- Provide parks that are accessible to a greater number of residents in the City of Cleburne.
- Increase the number of neighborhood and community parks for the current population of the City.
- Promote passive storm water management and watershed protection by creating greenbelts along creekways in Cleburne. These greenbelts could be either trails or linear parks.
- Ensure that all new community development proposals include park land dedication practices that meet or achieve Cleburne's park and open space standards.
- Provide a more diverse range of recreational options at Cleburne's park and recreational
- facilities, meeting the recreational needs of a broader age range.
- Coordinate new park sites with new school sites where possible.

These priorities should guide park planning in the City, and should also work their way into plan implementation (addressed in the next chapter of the comprehensive plan), in order to ensure that all built components of the community are considered as Cleburne grows in the future.

Public Services Plan

PUBLIC SERVICES PLAN

INTRODUCTION

The Public Services Plan addresses Police and Fire Department services in Cleburne, providing a snapshot of the current level of service and a future vision based on this Plan's population growth projection. This plan in no way substitutes for a full Public Facility Plan, nor can national standards serve as the only base for such detailed planning. Rather, this plan component is intended to ensure that any master plan developed for police and fire services is done so in accordance with the growth projections and other components of this plan.

WHY PLAN FOR PUBLIC SERVICES?

A city's public safety capability must be uniformly allocated to all its residents, and be prepared to respond professionally to emergencies. Preparing for service to the community, as well as for future growth, is a population-driven exercise. Police and fire staffing and facilities must change in accordance with the evolution of Cleburne. A city's provision of population-driven facilities is a benchmark measurement and point of comparison for potential relocation of future residents and industry. Current residents of Cleburne also have an important interest in levels of public safety services, as projected rapid population growth will impact current service capacity.

Given this context, Cleburne's public safety provision must be evaluated in light of national standards and in comparison to peer cities, and planned for a future in which extension of capacity and service area is developed according to the City's Comprehensive Plan. In this way, Cleburne assures its competitiveness in the region and compliance with national norms of level of service, so that the Cleburne Police and Fire Departments are prepared to respond to emergencies today and into the future.

Recent events ranging from natural disasters to violent crimes serve as an illustration of how important a city's fire and police protection can be. The standards to which this protection is 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 and rates, as well as the marketability of homes and rental spaces. In addition, revitalization initiatives recommended in other sections of this Comprehensive Plan document can be negatively affected if uncertainty about emergency services becomes established in the marketplace. These pragmatic associations with the provision of emergency services make them an important part of any economic development strategy.

Cleburne residents are aware of the importance of planning for Public Services, and expressed this interest at the Plan Cleburne workshops. Cleburne Community Objectives defined from citizen input at the workshops call for preserving and enhancing the level of service for police and fire as the population grows, recognizing the need for resiliency planning in light of extreme events such as the recent tornado, and planning for growth in police and fire capabilities in areas of new City expansion.

Therefore, the Cleburne Public Services Plan is a current and future-oriented analysis, in which national standards and benchmarks, along with Cleburne community priorities drive the planning process and product.

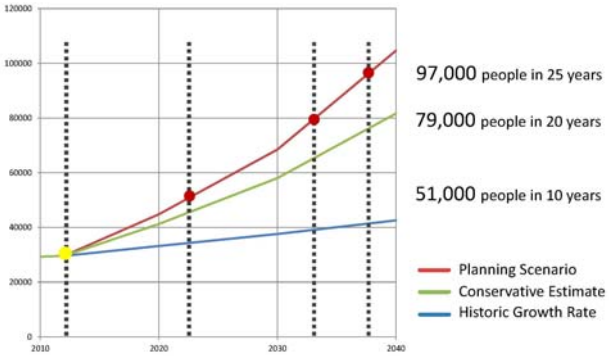


Figure 73. Cleburne population growth.

STANDARDS-BASED LEVEL OF SERVICE

This Plan responds to a key conclusion of the Plan Assessments process: Cleburne's current population of about 30,000 people will increase at a higher-than-historical growth rate in the coming decades. The total future population that the Planning team anticipates is 97,000 residents at build-out of the City, meaning at capacity in terms of municipal services, land area, and in the context of the region, as seen in the graph above.

Table 32. Cleburne Fire Staff and Stations.

Cleburne Emergency Services: Fire Staff and Stations

	Cleburne today: 29,739 population		National Median: 25,000 to 49,999 population
Fire Stations	**3**	0.10 per 1,000 residents	0.096 per 1,000 residents
Number of Staff	**48**	1.61 per 1,000 residents	1.25 per 1,000 residents

	Cleburne in Planning Horizon: 97,000 population		National Median: 50,000 to 99,999 population
Fire Stations	**8**	0.082 per 1,000 residents	0.081 per 1,000 residents
Number of Staff	**126**	1.30 per 1,000 residents	1.29 per 1,000 residents

Table 33. Cleburne and Peer Cities Fire Service.

Cleburne Emergency Services: Fire Service Provision and Peer Cities

	Current Population	Fire Stations	Fire Stations per 1,000 residents	Full-time Staff	Staff per 1,000 residents
National Median	-	-	0.07	-	1.33
CLEBURNE	**29,739**	**3**	**0.10**	**48**	**1.61**
Burleson	38,983	3	0.08	35	0.90
Corsicana*	23,899	4	0.17	63	2.64
Keller	41,923	3	0.07	59	1.41
Waxahachie	31,091	3	0.10	49	1.58
Weatherford	26,385	4	0.15	51	1.93

*63 staff = Fire and EMS, not police

The National Fire Protection Association (NFPA) produces codes and standards, and is a source of data and benchmarks useful in a review of a community's level of fire service. Relevant to this review is the NFPA Survey of Fire Departments, which offers data on ratios of firefighter staffing grouped in communities of various population totals and grouped by region of the US. Cleburne currently falls into the population category of 25,000 to 49,999 residents. At this population range Cleburne is in line in terms of fire protection level of service, with 3 fire stations and 48 firefighters as of 2012. As Cleburne grows in population, the Fire Department will also need to expand staffing and facilities in order to meet the new level of demand. The same NFPA standards, when applied to Cleburne's future build-out population of 97,000, suggest that Cleburne will need 5 additional fire stations and 78 new firefighters on staff. This assumes that Cleburne will continue to staff the Fire Department and provide department facilities at a level consistent with the national median for communities with a similar population total.

An additional point of comparison in assessing a community's level of Public Safety service is provided by peer communities. The communities of Burleson, Corsicana, Keller, Waxahachie, and Weatherford are cities in the DFW region that are currently in the same total population range as Cleburne in the NFPA standards, and therefore provide a useful data checkpoint. As with the NFPA standard, Cleburne is currently on target in terms of adequate level of staffing and fire stations when compared to its peer cities in the region. Cleburne's current level of fire service is adequate in both the national and regional context.

Table 34. Cleburne Police Staff and Stations.

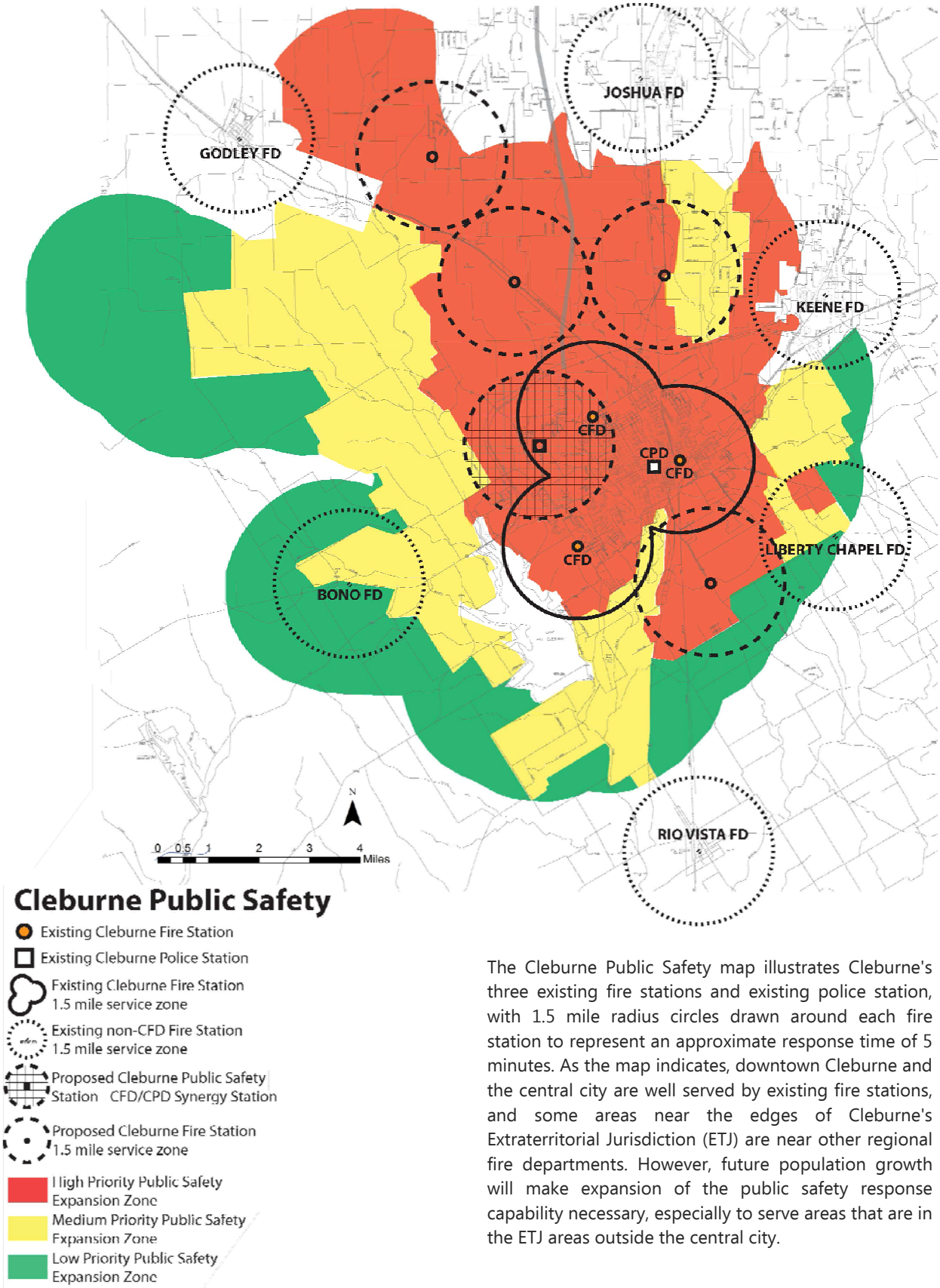
Cleburne Emergency Services: Police Staff and Stations			
	Cleburne today: 29,739 population		**National Median: 25,000 to 49,999 population**
Law Enforcement Employees	**69**	2.3 per 1,000 residents	2.2 per 1,000 residents
	Cleburne in Planning Horizon: 97,000 population		**National Median: 50,000 to 99,999 population**
Law Enforcement Employees	**204**	2.1 per 1,000 residents	2.1 per 1,000 residents

Table 35. Cleburne and Peer Cities Police Service.

Cleburne Emergency Services: Police Service Provision and Peer Cities			
	Current Population	Law Enforcement Employees	Staff per 1,000 residents
National Median	-	-	2.2
CLEBURNE	**29,739**	**69**	**2.32**
Burleson	38,983	75	1.92
Corsicana	23,899	55	2.30
Keller	41,923	82	1.96
Waxahachie	31,091	69	2.22
Weatherford	26,385	68	2.58

The US Department of Justice, Federal Bureau of Investigation produces an annual survey of police departments which details the number of full-time law enforcement employees, grouped by region and urban population total. Cleburne would be classified in Group IV, as a city with a population between 25,000 and 49,999 in total. In the 2012 survey, the national median for Group IV cities was 2.2 employees per 1,000 residents. Cleburne reported a staff total of 51 officers and 18 civilians, making a total of 69 employees, which makes for a ratio of 2.3 employees per 1,000 residents. As with the Fire Department, the Cleburne Police Department is staffed to a level consistent with national standards. As Cleburne grows, the City's investment in police staffing levels and facilities should also grow, and at the build-out population of 97,000, the City would need to add 135 employees to maintain a level of service at the national standard of 2.1 employees per 1,000 residents.

Cleburne also is on target in terms of police staffing when compared to the same group of regional peer cities that were used for the fire service provision. Cleburne is currently on target in terms of adequate level of police staffing when compared to its peer cities of Burleson, Corsicana, Keller, Waxahachie, and Weatherford in the region. Cleburne's current level of police service is adequate in both the national and regional context.



The Cleburne Public Safety map illustrates Cleburne's three existing fire stations and existing police station, with 1.5 mile radius circles drawn around each fire station to represent an approximate response time of 5 minutes. As the map indicates, downtown Cleburne and the central city are well served by existing fire stations, and some areas near the edges of Cleburne's Extraterritorial Jurisdiction (ETJ) are near other regional fire departments. However, future population growth will make expansion of the public safety response capability necessary, especially to serve areas that are in the ETJ areas outside the central city.

Figure 74. Cleburne Public Safety Plan Map.

PUBLIC SERVICES PLAN

The arrival of new regional transportation connectivity and the types and extent of growth envisioned in the Cleburne Land Use Plan indicate that new public services facilities will be needed. In accordance with the criteria for directing and shaping growth established by the Land Use Plan, the Cleburne Public Safety map breaks the Cleburne ETJ into three priority areas for future expansion. The red areas, where new employment and residential growth is expected, would be the highest priority for new public services facilities, followed by the yellow areas of medium priority. The green areas are the lowest priority for expansion, as the Land Use Plan establishes a more rural character for the zone.

A potential shared Cleburne Public Safety Station is also on the map, located near the Cleburne Municipal Airport. Development of a shared station would offer the possibility of a synergy in utilization of some facilities, staff, and other City resources. While the placement on the map is illustrative only, a station north of central Cleburne would position CFD and CPD to serve the growing commercial and residential zones north of US 67. This potential station, as with the other proposed stations, would need to be sited as a part of a public facilities siting process, after completing an in-depth public facilities plan.

CENTRALIZED AND DECENTRALIZED FACILITIES

Cleburne currently has three fire stations, distributed to serve distinct zones of the City, and one police station, centrally located to serve the entire City. This is a common approach to public services, since fire response depends on proximity and accessibility to adjacent areas, and police response can vary depending on location of a patrol car at the time of the emergency. Evaluation of the advantages and disadvantages of centralized versus decentralized public services response teams is a key consideration in looking to the future characteristics and location of facilities in Cleburne. As seen on the Public Safety map, a potential synergy station, located near areas of current and future growth, has been identified. As part of a potential decentralized public services approach, this synergy station would allow both CFD and CPD to base their emergency response efforts from the station, which could bring benefits to operations and budgets. A continued centralized approach, in which fire stations are sited according to timely response necessities and a separate central police station consolidates operations under one roof, would be another option.

Possible advantages of a centralized public services approach, in which police response is based and directed from one facility, would include:

- Continuation of current policy
- Concentrated, efficient use of resources
- Centralized and predictable building and facility operations costs

Possible disadvantages of a centralized approach include:

- Fuel and fleet cost impact: greater response distances to new developments
- Centralized police facilities may be less visible and accessible to citizens

Possible advantages of a decentralized approach would include:

- Faster response times from a more dispersed base level of municipal coverage
- Community interaction and community policing facilitated by decentralized facilities

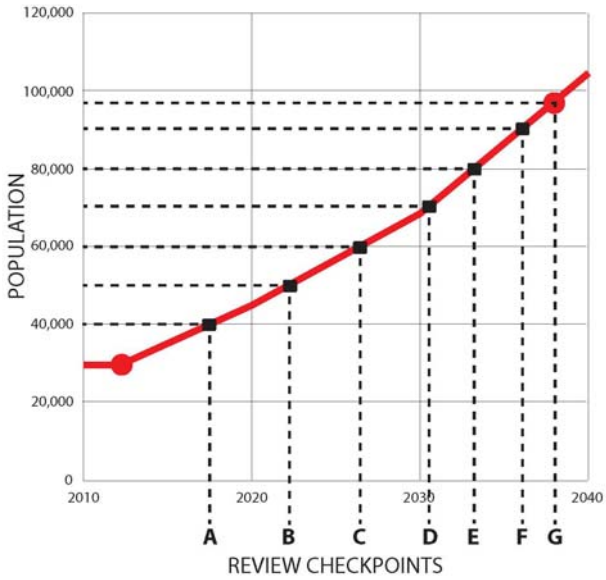
Possible disadvantages of a decentralized approach include:

- Increased operating costs, potential impact on hierarchy and command structure

FUTURE REVIEW ITERATIONS

Future population growth is a key assumption and guiding factor throughout the Plan, and with a continuously growing populace and new developments in the built environment, a recurring periodic public safety planning review is recommended. This review would serve as a milestone check to view the evolution of the City's public safety staffing and facilities ratios, as outlined earlier in this section. The NFPA and DOJ fire and police staffing standards provide a tool for the City to ensure that as the population grows, Cleburne's response potential is accompanying the change. Assuming the rate of growth leading to a build-out population of 97,000 identified in this Plan, a review of Public Safety capabilities after 10,000 new residents have been added is advised.

Table 36. Review Thresholds.



Cleburne Public Safety Planning Proposed Review Thresholds		
Checkpoint	Population	Year
A	40,000	2017
B	50,000	2022
C	60,000	2026
D	70,000	2031
E	80,000	2034
F	90,000	2036
G	97,000	2038

FACILITIES PLANNING, SITE SELECTION, AND PUBLIC SERVICES SITE PLANNING

A future Public Services site selection process should build upon an updated public facilities plan. Comprehensive planning establishes a community's vision for the future, and considers specific aspects of and impacts from future growth in a number of plan element chapters of a Comprehensive Plan document. A finer degree of planning and an approach tied to budgetary, functional, and design considerations is necessary for a public facilities plan and to identify potential sites for public facilities that emerge from the plan.

As with this Public Services Plan and the Comprehensive Plan, public facilities planning should be driven by population growth, and informed by the direction established in the Land Use Plan. To best accommodate and serve new growth, public facilities should be directed to areas identified by the City in the Comprehensive Plan as priorities for growth.

CONCLUSIONS AND GENERAL RECOMMENDATIONS

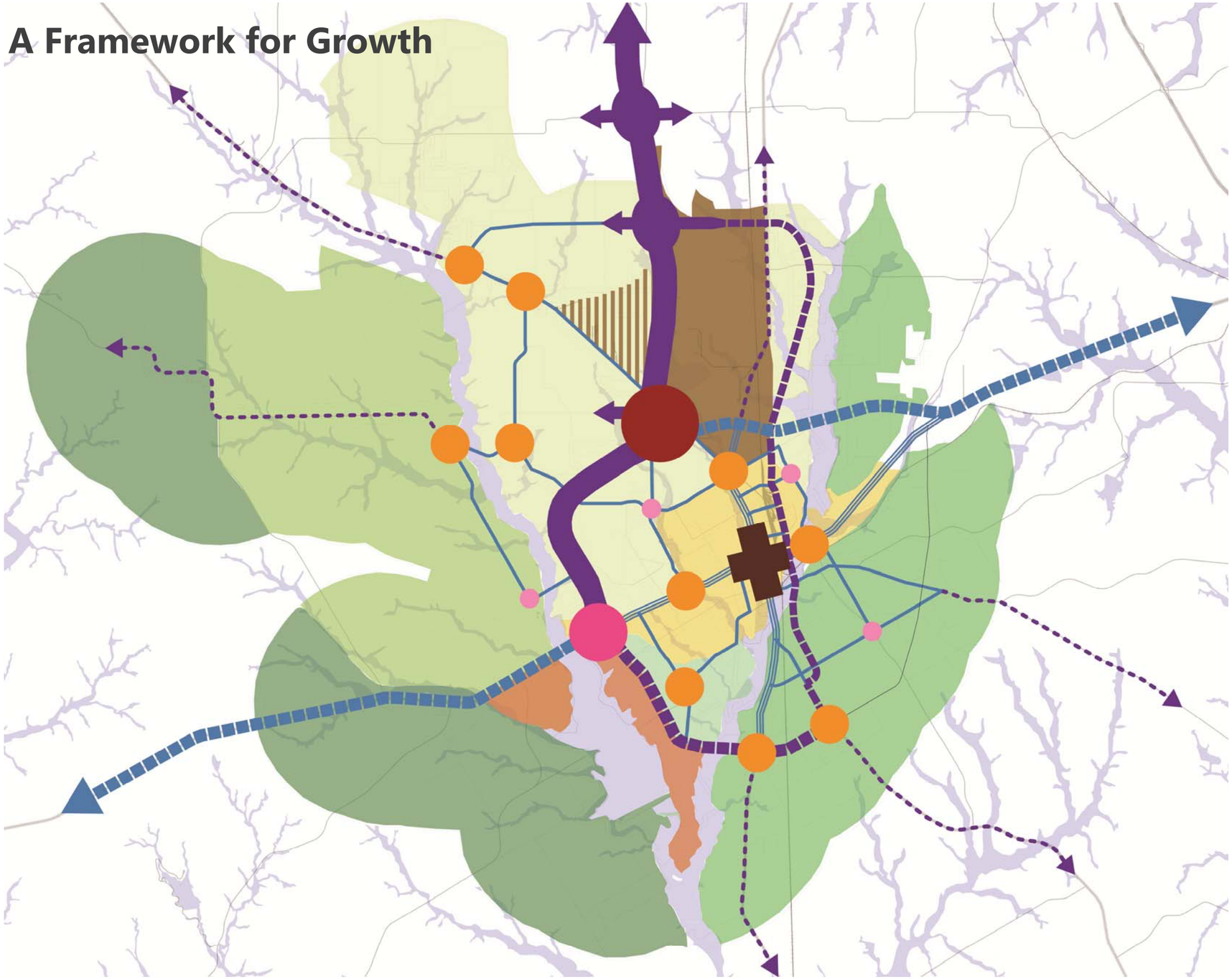
The following recommendations summarize the findings of the Public Services Plan:

- Maintain fire and police provision at high levels of service to protect the high quality of life in Cleburne
- Ensure that firefighter staffing meets the national median.
- Continue to build new fire stations to meet the national median and to ensure greater coverage of the City and ETJ by a 5 minute response time.
- Ensure that police staffing meets the national median.
- Coordinate for Emergency Services and provision of fire and police services.
- Explore possible synergies in a CFD-CPD public services station, as well as options for decentralized service.
- Ensure that future public services facility site selection is grounded in an understanding of population growth, and based on findings of a public facilities plan.
- Develop a Master Plan for Emergency Services for the City of Cleburne.

APPENDICES

Appendix A: Maps

A Framework for Growth



GROWTH ZONES

Where future growth should be encouraged.

- Center City
- Tier One Suburban
- Tier One Clustered
- Tier Two Suburban
- Tier Two Clustered
- Tier Three Rural

ACTIVITY NODES

Aggregation of non-residential uses: higher land values, specialty retail and commercial development opportunity.

- Regional Node
- Civic/Activity Node
- Community Node
- Neighborhood Node

TARGETED DEVELOPMENT AREAS

Special areas of town where economic development is a priority, based on employment needs, available amenity and community preferences.

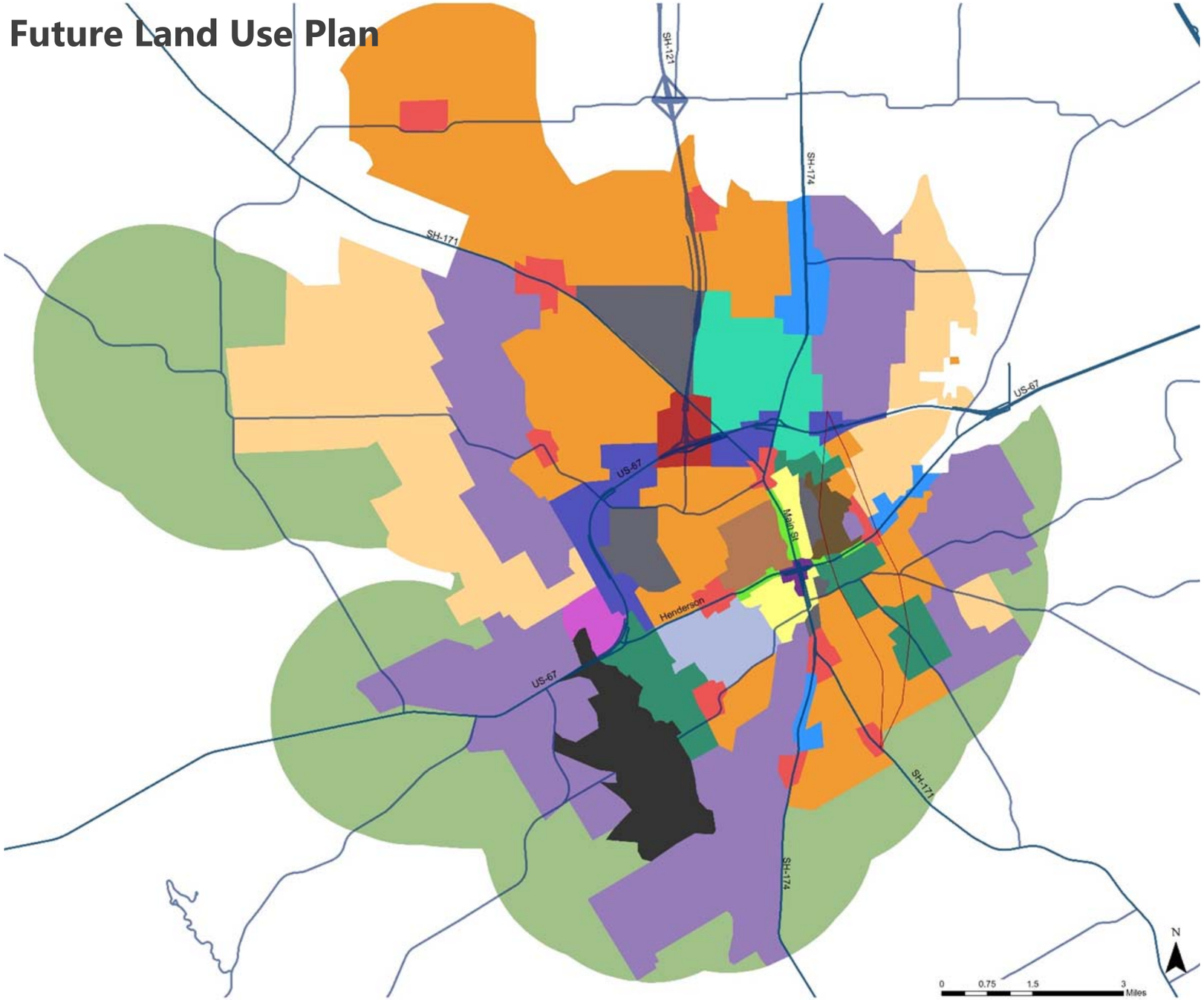
- Downtown Area
- Industrial Area
- Lakefront Area

CORRIDORS

Corridor differentiation, depending on traffic and related land uses.

- Urban Connections
- Regional Connections
- Center City Movement
- Parkway Alternatives
- Local Connectivity
- Rural Connections

Future Land Use Plan



COMMUNITIES

- Center City East
- Center City North
- Center City West
- Preservation
- Village
- Traditional Neighborhoods
- Sustainable Community
- Future TND
- Farmland Community

CORRIDORS

- Regional Corridor
- Approach Corridor
- Central Corridor

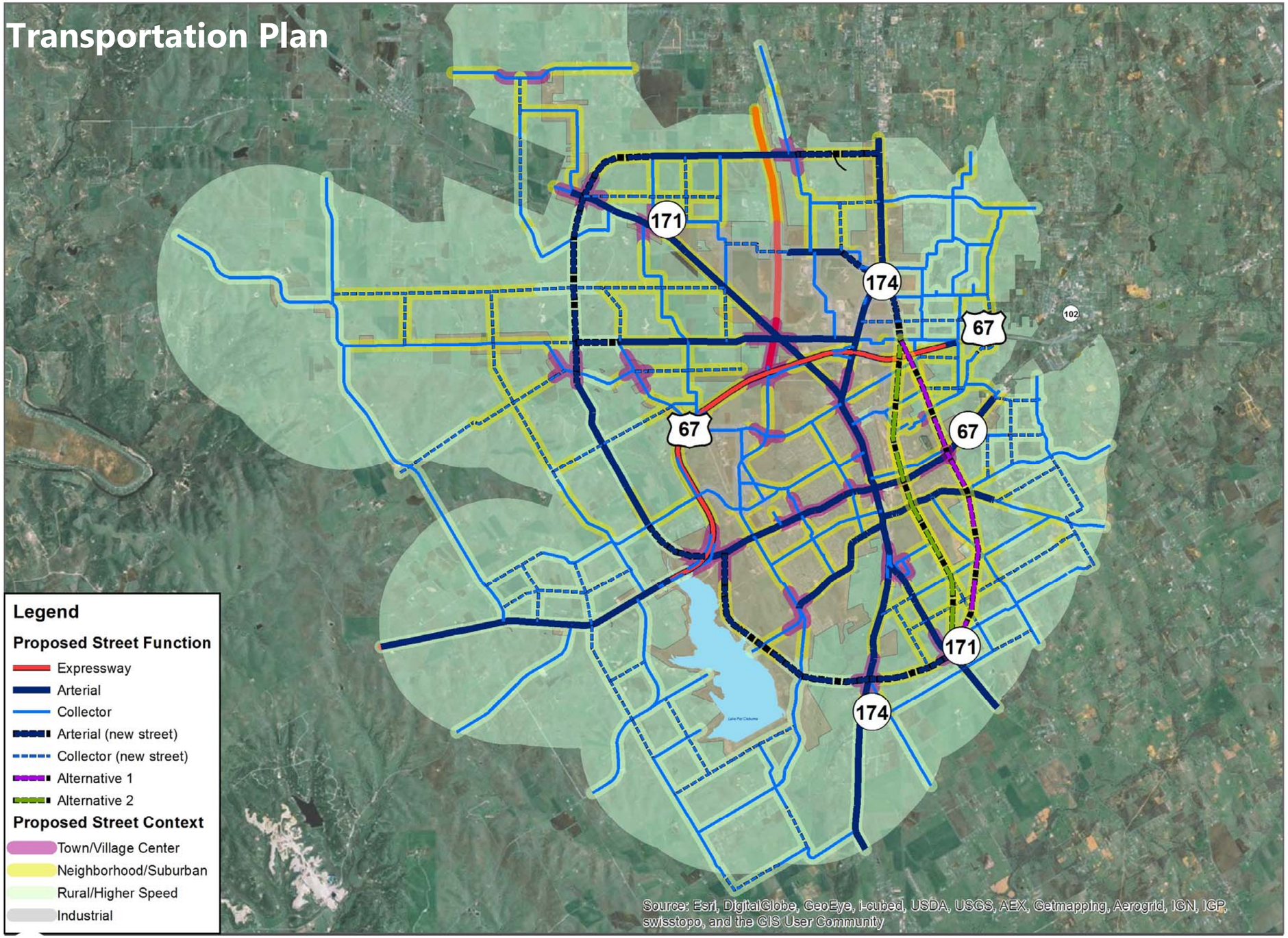
NODES

- Regional Node
- Local Node
- Transportation & Industry

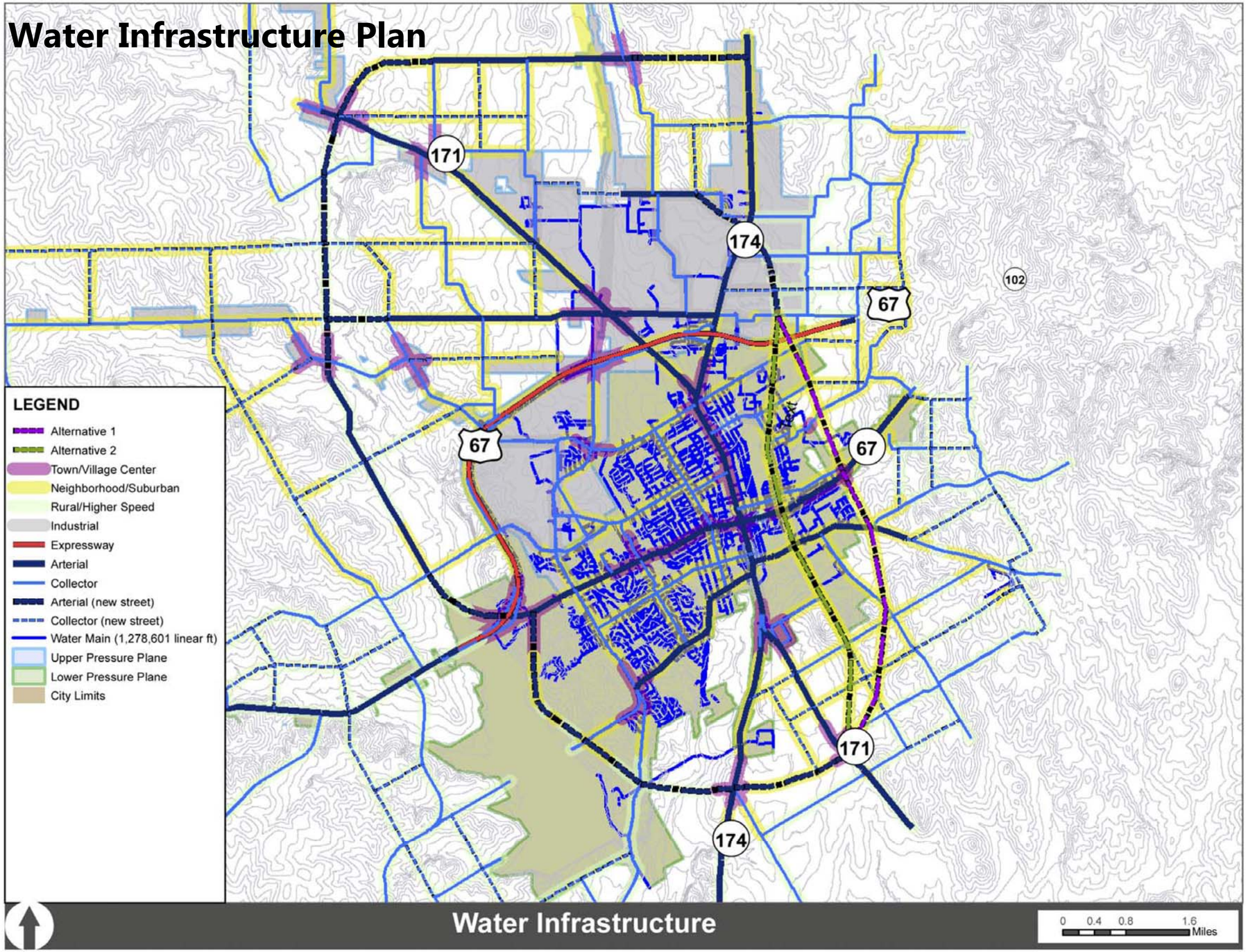
TARGETED DEVELOPMENT AREAS

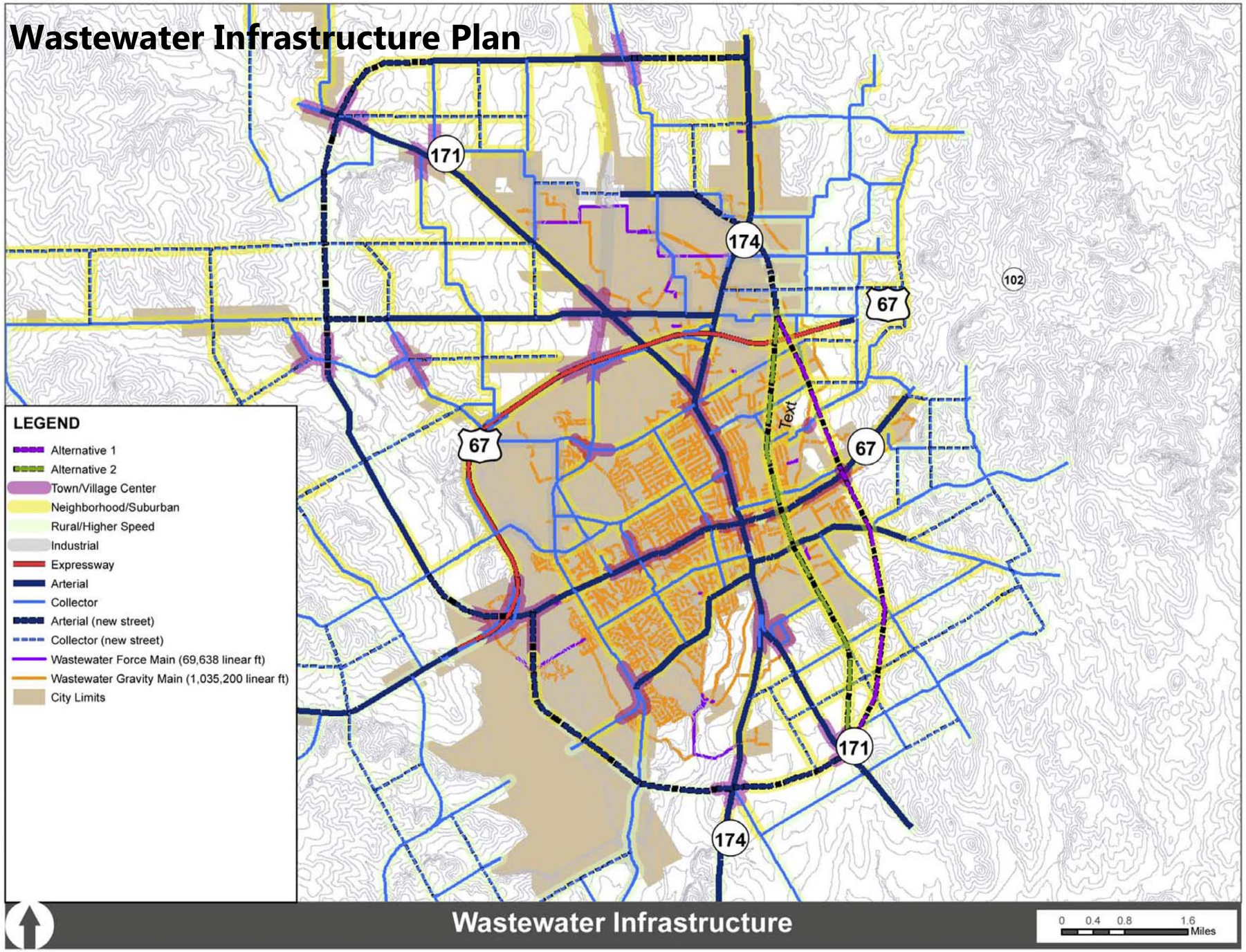
- Downtown TDA
- Industrial TDA
- Lakefront TDA

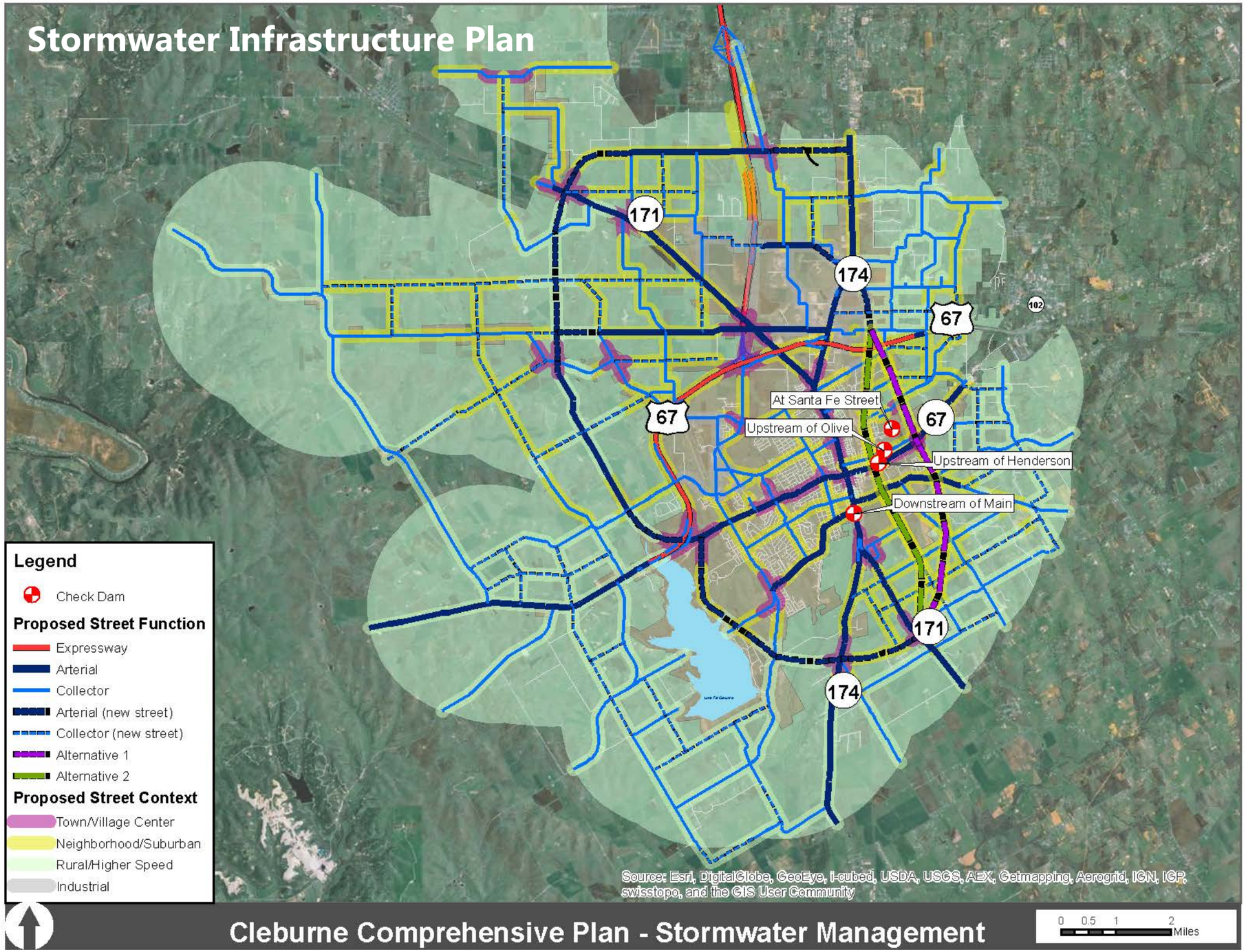
Transportation Plan



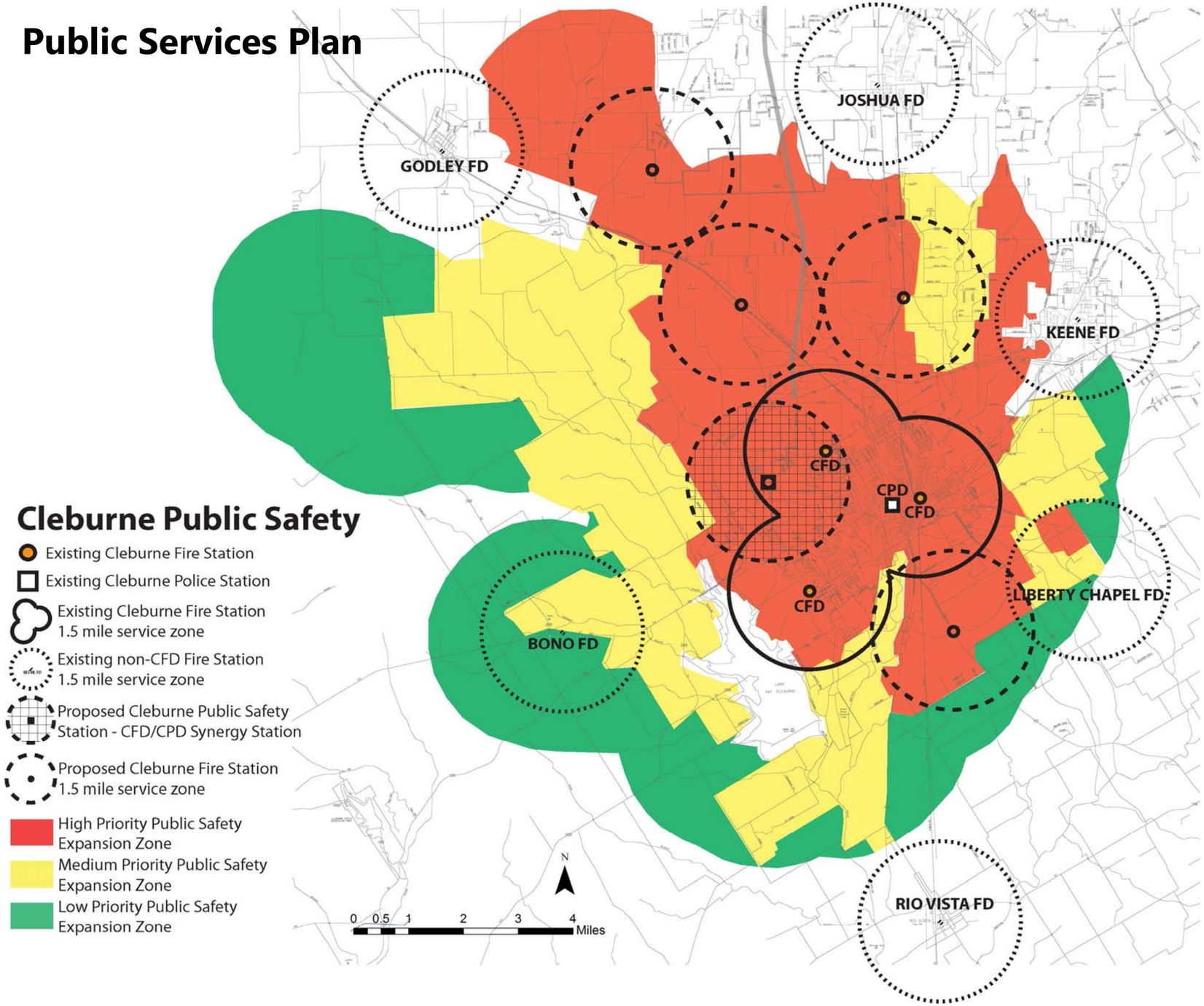
Water Infrastructure Plan



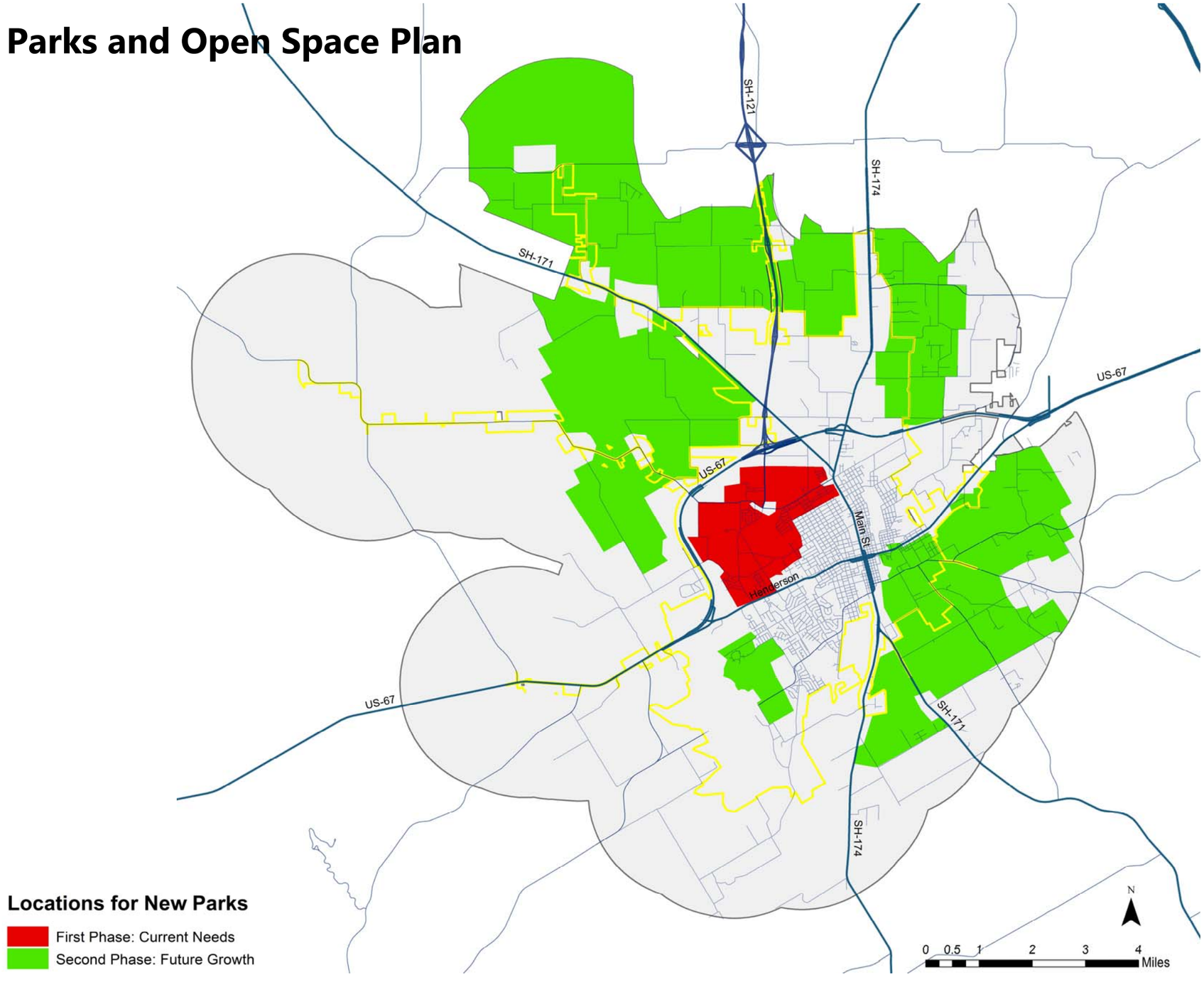

Wastewater Infrastructure Plan
LEGEND
Alternative 1
Alternative 2
Town/Village Center
Neighborhood/Suburban
Rural/Higher Speed
Industrial
Expressway
Arterial
Collector
Arterial (new street)
Collector (new street)
Wastewater Force Main (69,638 linear ft)
Wastewater Gravity Main (1,035,200 linear ft)
City Limits
171
174
67
102
Text
Wastewater Infrastructure
0 0.4 0.8 1.6
Miles


Stormwater Infrastructure Plan
171
174
67
67
67
102
At Santa Fe Street
Upstream of Olive
Upstream of Henderson
Downstream of Main
171
174
Legend
Check Dam
Proposed Street Function
Expressway
Arterial
Collector
Arterial (new street)
Collector (new street)
Alternative 1
Alternative 2
Proposed Street Context
Town/Village Center
Neighborhood/Suburban
Rural/Higher Speed
Industrial
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
Cleburne Comprehensive Plan - Stormwater Management
0 0.5 1 2
Miles

Public Services Plan



Parks and Open Space Plan



Appendix B: Tables and Data

Community Priorities for Future Growth

Throughout the public engagement process, a number of priorities arose that relate to patterns of growth, community form and public services. These priorities were used as guides for creation of the individual plan components. As such, they have been grouped here topically, according to the six components that the plan addresses.

Economic Development

1. Provide more shopping, entertainment and dining options in Cleburne.
2. Improve appearance of existing retail establishments.
3. Revitalize Downtown Cleburne.
4. Promote longer duration of stays in commercial areas, including more nighttime activity.
5. Make better commercial use of Lake Pat Cleburne.
6. Avoid commercial displacement from Main Street and Henderson in favor of newer commercial corridors.
7. Find a way for development to overcome the tracks that run through town in order to strengthen the tie between the eastern and western side of town.
8. Expand workforce development, trade-related and specialized training programs to provide jobs for Cleburne residents and employees for new industries.
9. Identify opportunities for vertical expansion in key market sectors.
10. Promote vertical expansion of industrial clusters, moving beyond natural resource mining, farming and ranching.
11. Address both employment needs and anticipated development square footage in the Economic Development Plan.
12. Promote higher price point residential development to sustain the city's ad valorem base and avoid overdependency on sales tax.
13. Ensure that the growth scenario achieves the ad valorem needs of the City.

Future Land Use

1. Revitalize Downtown Cleburne.
2. Work with the school district to coordinate sites for future schools within the preferred growth areas, to attract desirable rooftop development and accommodate growth.
3. Promote higher price point residential development to sustain the City's ad valorem base and avoid over-dependency on sales tax.
4. Improve code enforcement for private properties in Cleburne.
5. Preserve orderly growth patterns.
6. Ensure that the growth scenario achieves the ad valorem needs of the City.
7. Identify which areas of town should contain industrial uses.
8. Don't oversupply the commercial market with commercially zoned land.
9. Encourage a balanced distribution of retail development to meet shopping needs of local population.
10. Define growth boundaries for Cleburne that accommodate future populations in a pattern that is financially sustainable for City operations.
11. Provide more shopping, entertainment and dining options in Cleburne.

Transportation

1. Create a network of greenbelts and pedestrian pathways as alternative transportation routes in Cleburne.
2. Provide bike and pedestrian space along Henderson.
3. The sidewalks in Cleburne need to be improved.
4. Improve pedestrian spaces downtown.
5. Improve streetscape in major commercial areas, including downtown, Main Street and Henderson.
6. Traffic management techniques need to be employed in Cleburne.
7. Freight traffic needs to be re-routed out of Downtown Cleburne.
8. Truck traffic should not pass through neighborhoods.
9. Give differentiation to the major corridors of the City.
10. Consider impact fees as a method for funding road improvements.
11. Create access management standards for frontage roads for SH121.
12. Promote non-frontage-focused development forms.

Infrastructure

1. Identify population thresholds for which water supply will need to be increased.
2. Bury utility lines where possible.
3. Improve storm water management to alleviate flooding around cemetery.
4. Establish a land acquisition strategy that will provide passive open space today and potential water supply tomorrow.
5. Begin planning today for future water supplies for Cleburne, as it is possible that the City could reach its current capacity in 15-20 years.
6. Consider utilization of Municipal Utility Districts, Public Improvement Districts and Fresh Water Supply Districts in the county/ extra-territorial jurisdiction to increase water supply.
7. Engage in regional water planning discussions to preserve Cleburne's position as a growing consumer.
8. Preserve and enhance water quality through effective storm water management practices, such as controls for run-off.
9. Water supply measures should include conservation, re-use and identification of new supplies.
10. Ensure that the gray water/reuse program can grow as the industrial base of the City grows.

Parks and Open Spaces

1. Amenitize Lake Pat to promote greater lake access, not only with respect to commercial development but also with increased recreational facilities.
2. Provide recreational facilities for all ages in the City, including younger children and older adults.
3. Preserve green spaces and some of the native landscape as Cleburne grows.
4. Ensure that park and recreational facilities are distributed throughout all of the City and accessible to all of the residents.
5. Provide more recreational options.
6. Provide parks, open spaces and other amenities that attract a higher price point for new development.
7. Enhance creekways and riparian corridors with vegetative buffers to help with soil stabilization and water quality.
8. Improve pedestrian mobility in Cleburne through an expanded trail network.
9. Amenitize existing assets, such as Lake Pat Cleburne.

Public Services

1. Preserve and enhance level of service for police and fire in the future as the Cleburne population grows.
2. Identify best practices for disaster planning and resiliency planning in tornado-impacted environments.

Future Land Use: Master Table

Traditional

Support the majority of future population growth, in a traditional neighborhood context.

Preservation

Stabilize and increase property values and preserve historic homes.

Center City West

Stabilize and increase property values and create neighborhood definition.

Downtown

Promote downtown as the operational center of the City.

Regional

Define a site for aggregated regional commercial development with access to both US-67 and the Chisholm Trail Parkway.

Regional Corridor

These highways are intended to promote regional connectivity and mobility, and regional wayfinding. Development should complement this.

Sustainable

Encourage specialty residential, where lots and buildings respond to the natural landscape.

Center City North

Stabilize and increase property values and create neighborhood definition.

Future Traditional

Support future population growth once the other TND districts are built out.

Lakefront

Capture value associated with Lake Pat Cleburne by creating a mixed use center that builds off of the hospital.

Community

Create opportunity for commercial centers throughout Cleburne, in order to meet shopping needs of local residents.

Approach Corridor

These are commercial corridors with a lower development density, as they serve as approachways to the City center.

Villages

Create a mixed use community context built around an activity center.

Center City East

Stabilize and increase property values and create neighborhood definition.

Farmland

Preserve agricultural uses in and around Cleburne.

Industrial

Aggregate industrial uses to support infrastructure investment, namely rail, road and power.

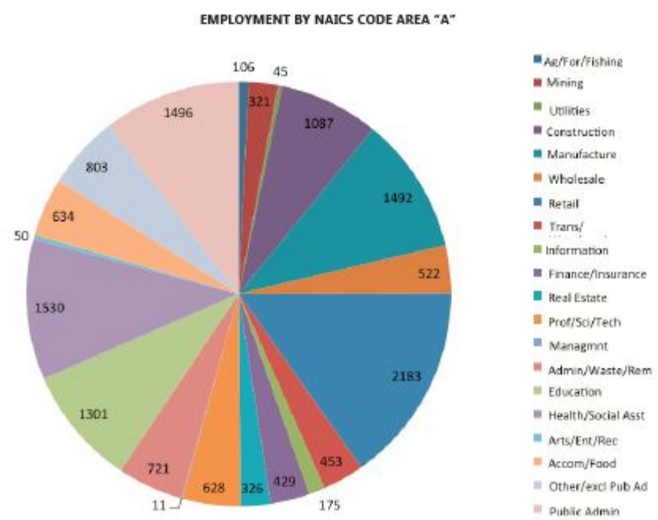
Transportation & Industry

Establish appropriate land use transitions and adjacent uses for existing transportation and industrial areas outside designated industrial district.

Central Corridor

Main Street and Henderson are the central corridors of the city. The priority for this district is value stabilization and redevelopment.

Industrial Snapshot (NAICS)



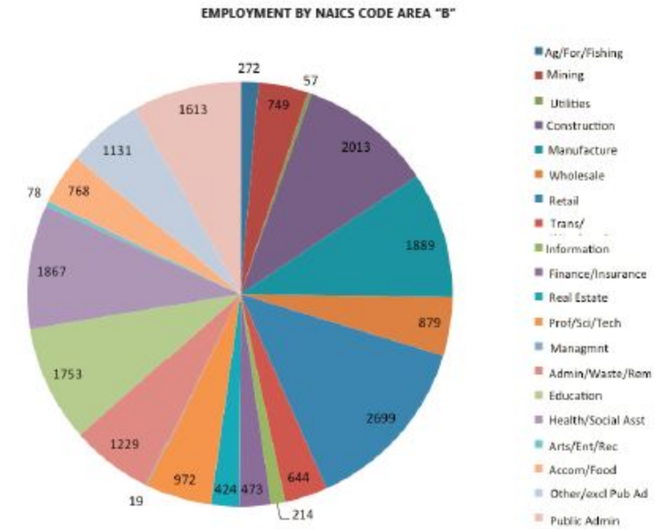


TABLE 1: TOTAL EMPLOYMENT BY CENSUSTRACT AND NAICS SUPER CODE

NAICS CODE	CENSUS TRACT												
	304.09	303.02	303.03	303.04	301.00	306.01	306.02	305.00	309.00	308.00	307.00	310.00	311.00
11 Ag/ Forestry/ Fishing	30	11	4	2	47	14	46	87	2	15	0	0	14
12 Mining	54	44	2	5	365	2	238	4	0	16	0	15	4
22 Utilities	5	45	0	4	0	0	0	3	0	0	0	0	0
23 Construction	348	174	231	132	309	28	286	137	9	271	15	21	52
33 Manufacturing	179	920	123	30	53	123	79	135	81	76	22	14	54
42 Wholesale	180	136	10	46	95	3	101	36	31	201	1	17	22
45 Retail	170	658	43	183	51	27	90	112	49	704	16	569	27
48-49 Transportation/ Warehousing	43	38	135	46	25	37	72	77	4	67	9	86	5
51 Information	11	59	1	18	2	2	5	8	0	71	0	32	5
52 Finances/ Insurance	12	121	14	15	14	4	32	3	4	129	2	111	12
53 Real Estate	29	64	69	40	7	17	49	22	2	47	7	48	23
54 Professional/ Scientific/ Tech Services	86	118	22	75	90	37	70	93	7	241	10	80	43
55 Management of Companies and Enterprises	2	2	0	0	2	0	0	4	0	2	3	2	2
56 Administrative Support/ Waste management/ Remediation Services	175	106	49	75	105	50	187	153	16	87	37	84	105
61 Educational Services	0	331	199	93	255	145	271	104	0	9	70	6	270
62 Health care/ Social Assistance	19	1004	10	201	20	18	10	97	104	146	39	161	38
71 Arts/ Entertainment/ Recreation	8	11	1	13	4	0	9	3	7	16	2	3	1
72 Accommodation/ Food service	55	182	8	31	20	21	50	28	37	56	0	265	15
81 Other (excluding Public Administration	116	145	67	63	59	27	71	90	38	213	20	198	24
92 Public Administration	15	421	85	49	8	5	55	45	0	895	0	35	0

TABLE TWO: EMPLOYMENT BY NAICS SUPER CODE FOR AREA "A" AND AREA "B"

NAICS CODE	CENSUS TRACT			
	Area A: 304.09, 303.02, 303.03, 303.04, 301.00, 306.01, 306.02 305.00, 309.00, 308.00, 307.00, 310.00, 311.00		Area B: 303.02, 303.03, 306.01, 306.02, 309.00, 308.00, 307.00, 310.00, 311.00	
11 Ag/ Forestry/ Fishing	272	1.4% of total	106	0.8% of total
12 Mining	749	3.8% of total	321	2.3% of total
22 Utilities	57	0.1% of total	45	0.4% of total
23 Construction	2013	10.2% of total	1087	7.6% of total
33 Manufacturing	1889	9.6% of total	1492	10.5% of total
42 Wholesale	879	4.5% of total	522	3.7% of total
45 Retail	2699	13.7% of total	2183	15.3% of total
48-49 Transportation/ Warehousing	644	3.3% of total	453	3.2% of total
51 Information	214	1.1 of total	175	0.6% of total
52 Finances/ Insurance	473	2.4% of total	429	3.8% of total
53 Real Estate	424	2.2% of total	326	2.3% of total
54 Professional/ Scientific/ Tech Services	972	5.0% of total	628	4.4% of total
55 Management of Companies and Enterprises	19	0.1% of total	11	0.1% of total
56 Administrative Support/ Waste management/ Remediation Services	1229	6.3% of total	721	5.1% of total
61 Educational Services	1753	8.9% of total	1301	9.1% of total
62 Health care/ Social Assistance	1867	9.5% of total	1530	10.7% of total
71 Arts/ Entertainment/ Recreation	78	0.4% of total	50	0.4% of total
72 Accommodation/ Food service	768	3.9% of total	634	4.5% of total
81 Other (excluding Public Administration	1131	5.8% of total	803	5.7% of total
92 Public Administration	1613	8.2% of total	1496	10.5% of total
Total	19,743.00	100% of total	14,313.00	100% of total

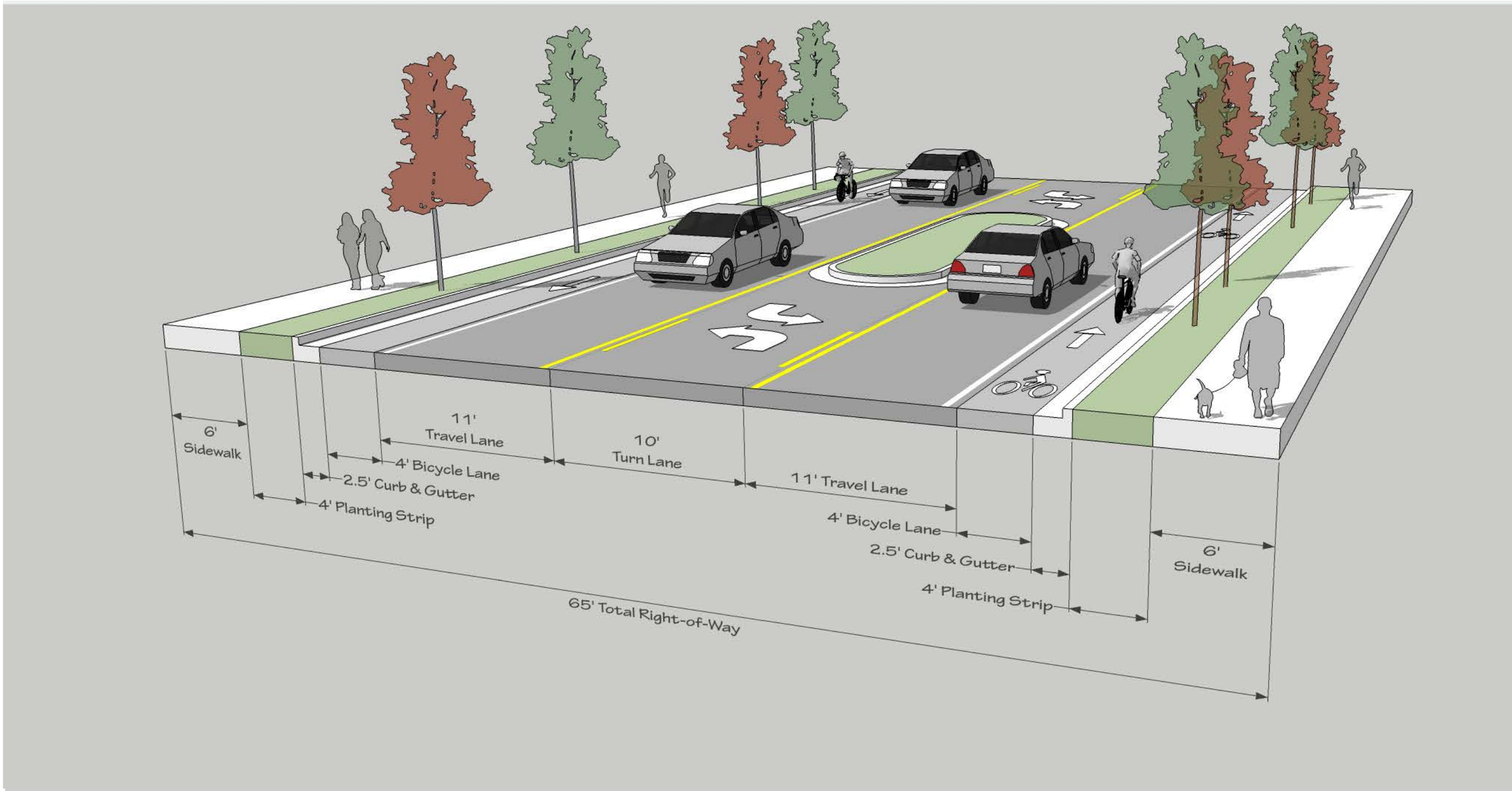
Appendix C: Illustrations

Transportation: Street Sections

Collector—Town/Village Center

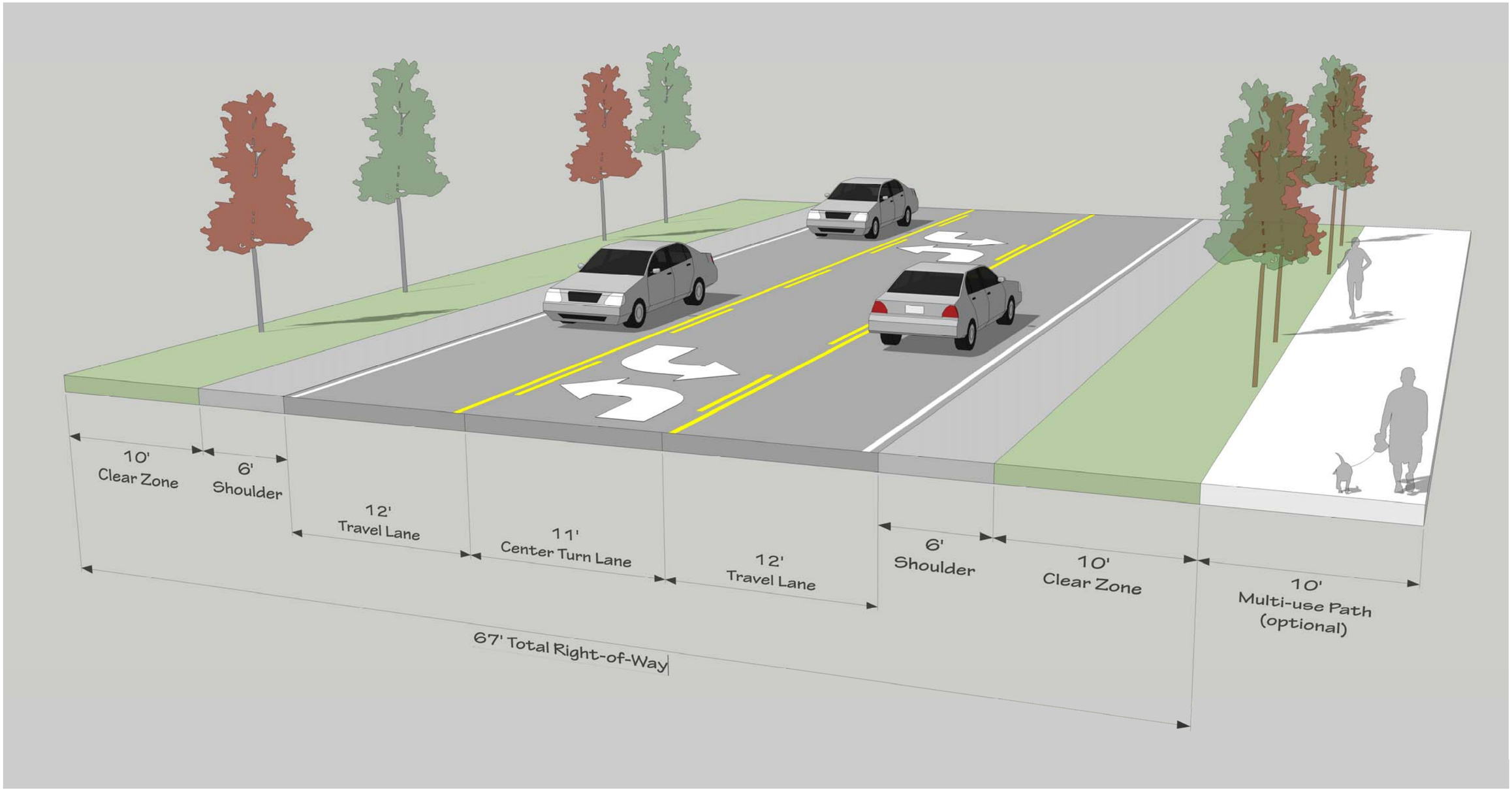
Transportation: Street Sections

Collector—Neighborhood/Suburban



Transportation: Street Sections

Collector—Rural/Higher Speed

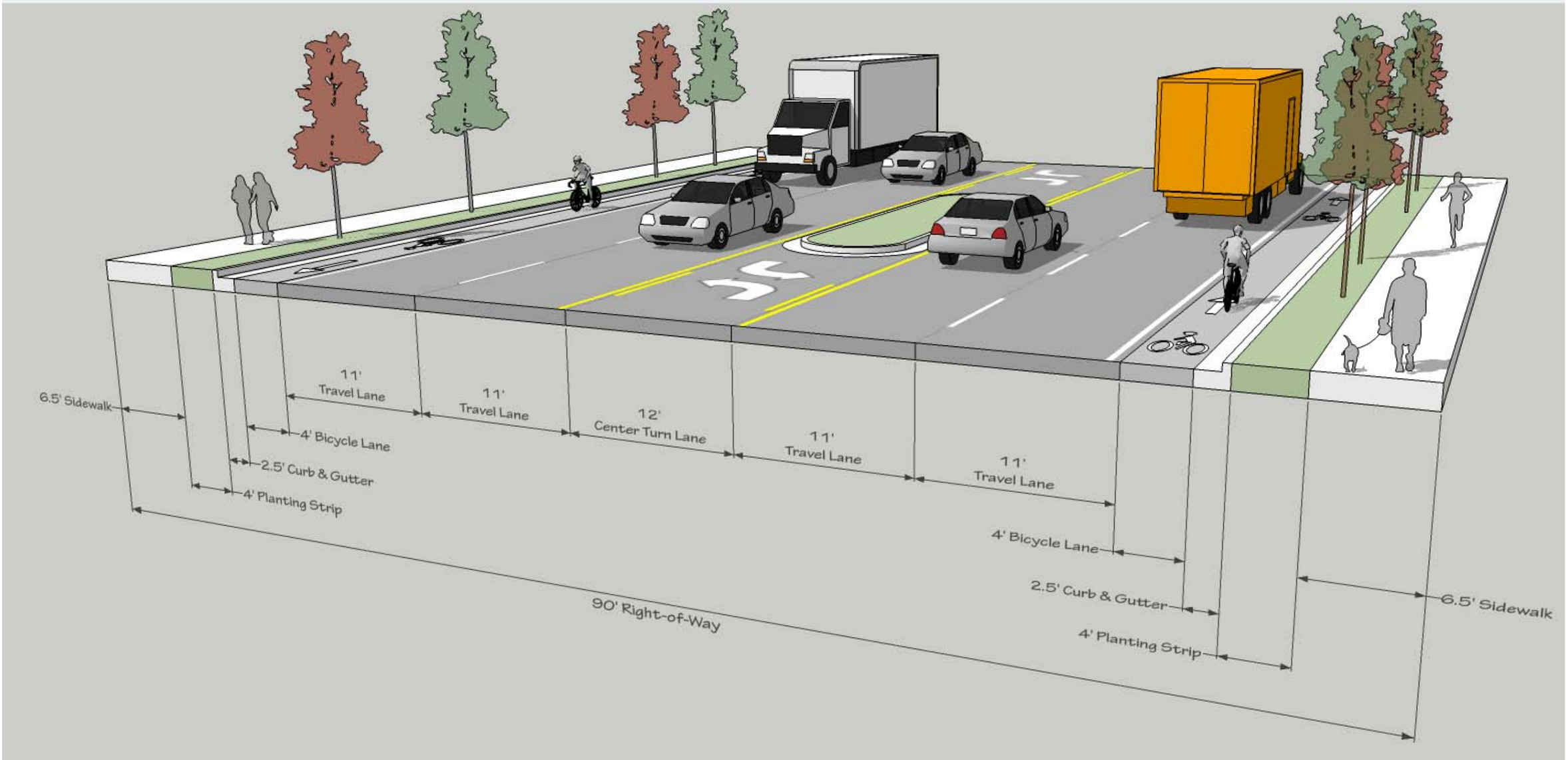


Transportation: Street Sections

Arterial—Town/Village Center

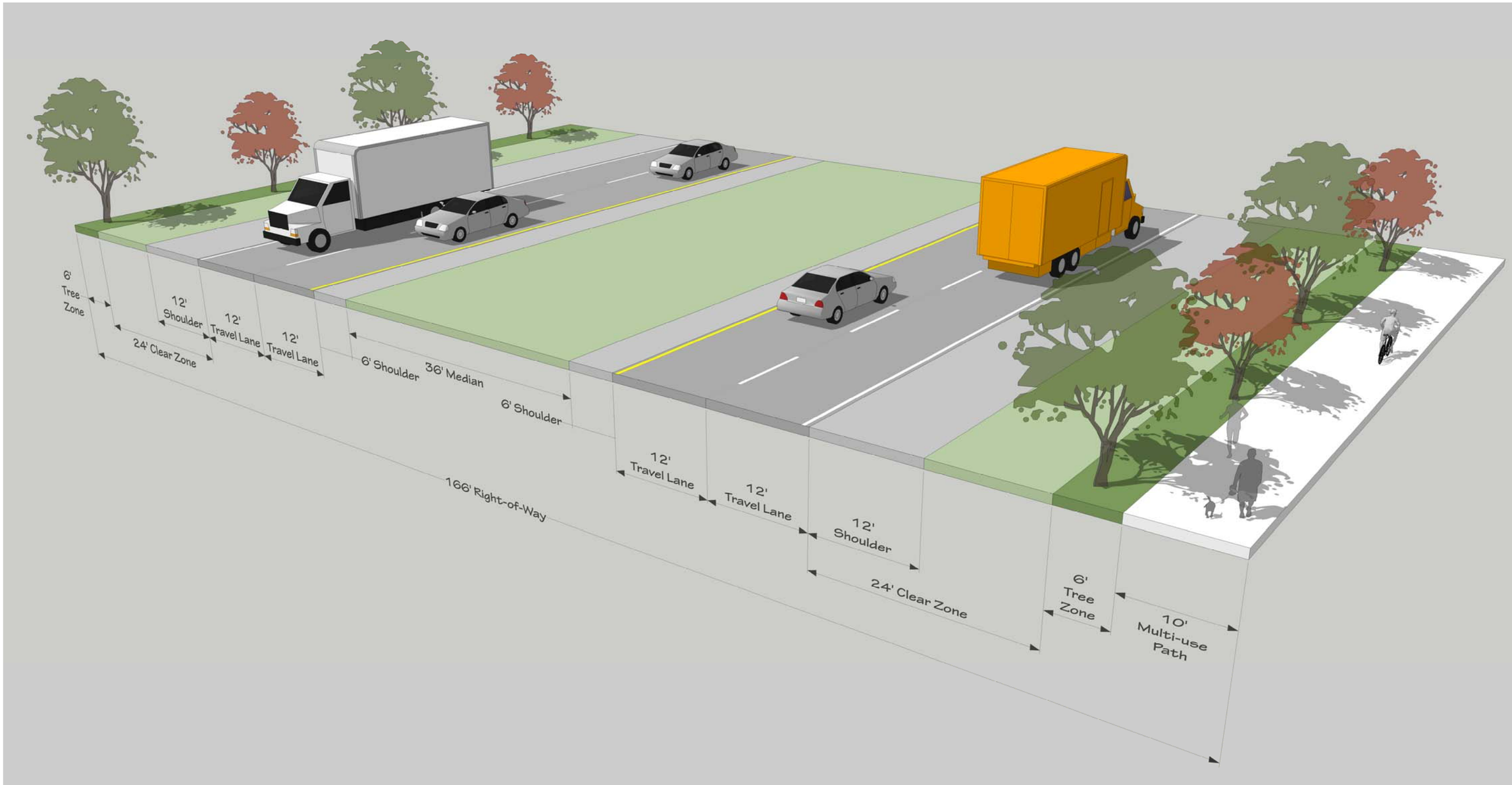
Transportation: Street Sections

Arterial—Neighborhood/Suburban



Transportation: Street Sections

Arterial—Rural/Higher Speed/Parkway



Economic Development Renderings

Economic Development Renderings

Appendix D: Glossary

GLOSSARY

Ad valorem— a tax based on the value of real estate or personal property. It is typically imposed at the time of a transaction, as in the case of a sales tax or value-added tax (VAT). However, an *ad valorem* tax may also be imposed on an annual basis, as in the case of a real or personal property tax,

Bio-swale—linear, vegetated ditches which allow for the collection, conveyance, filtration and infiltration of storm water. They can also be referred to as *grass swales*, *vegetated swales* or *filter strips*.

Build-out—The holding capacity of the city, in terms of development.

Check dam—a small dam, which can be either temporary or permanent, built across a minor channel, swale, bioswale, or drainage ditch. Similar to drop structures in purpose, they reduce erosion and gullying in the channel and allow sediments and pollutants to settle. They also lower the speed of water flow during storm events. Many check dams tend to form stream pools.

Ecoregion—"large unit of land or water containing a geographically distinct assemblage of species, natural communities, and environmental conditions".

Extraterritorial jurisdiction (ETJ)— the legal ability of a government to exercise authority beyond its normal boundaries.

Entitlements—Zoning entitlements are descriptions of what can be built by right on a particular property under the current rules and regulations of the zoning code, the comprehensive plan and any other regulatory restrictions.

Environmental Systems Research Institute (ESRI)—an international supplier of Geographic Information System (GIS) software, web GIS and geodatabase management applications.

Externally traded economy—industrial output is exported outside of a defined economic system (such as a city)

Geographic Information System (GIS)— integration of hardware, software, and data for capturing, managing, analyzing and displaying all forms of geographically referenced information.

Green infrastructure—Green infrastructure is an approach that communities can choose to maintain healthy waters, provide multiple environmental benefits and support sustainable communities. Unlike single-purpose gray storm water infrastructure, which uses pipes to dispose of rainwater, green infrastructure uses vegetation and soil to manage rainwater where it falls. By weaving natural processes into the built environment, green infrastructure provides not only storm water management, but also flood mitigation, air quality management, and much more.

Horizontal cluster expansion—a consolidation of many firms that handle the same part of the production process,

Infiltration planters—structures or containers with open bottoms that allow storm water to slowly infiltrate the ground, allowing for temporary pooling on the ground above. They are helpful on space-limited sites with good drainage. They reduce storm water runoff flow rate, volume, temperature and pollutants, as well as recharging groundwater stores.

GLOSSARY

Internally traded economy—industrial output is not exported outside of a defined economic system, but is rather consumed internally.

Low Impact Development (LID) — LID is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible.

North Central Texas Council of Governments (NCTCOG)—a voluntary association of governments in the Dallas/Fort Worth Metroplex. Its ranks currently include 230 member governments including 16 counties, numerous cities, school districts, and special districts

Permeable pavement—pavement that does not create an impermeable barrier to water entry into the soil below. It is helpful in storm water management, and can be used for a range of land uses, from commercial to residential.

Rain garden—a shallow depression that is planted with deep rooted native plants and grasses. They are intended to be positioned near a runoff source, like a downspout, driveway or sump pump, in order to capture rainwater runoff.

Retail leakage—members of a community spend money outside that community or when money spent inside that community is transferred outside the community.

Streetscaping—*Streetscape* refers to urban roadway design and conditions as they impact street users and nearby residents. Streetscaping recognizes that streets are places where people engage in various activities, including but not limited to motor vehicle travel. Streetscapes are an important component of the *public realm* (public spaces where people interact), which help defines a community's aesthetic quality, identity, economic activity, health, social cohesion and opportunity, not just its mobility. *Streetscaping* (programs to improve streetscape conditions) can include changes to the road cross section, traffic management, sidewalk conditions, landscaping (particularly tree cover), street furniture (utility poles, benches, garbage cans, etc.), building fronts, and materials specifications. It also involves improving signage

Targeted Development Area (TDA)—A category of land use districts in Plan Cleburne.

Tax Increment Finance District (TIF)—a public financing method that is used as a subsidy for redevelopment, infrastructure, and other community-improvement projects in many countries, including the United States . TIF is a method to use future gains in taxes to subsidize current improvements, which are projected to create the conditions for said gains. The completion of a public or private project often results in an increase in the value of surrounding real estate, which generates additional tax revenue. Sales-tax revenue may also increase, and jobs may be added, although these factors and their multipliers usually do not influence the structure of TIF.

Texas Water Development Board (TWDB)—provides water planning, data collection and dissemination, financial assistance and technical assistance services to the citizens of Texas.

Traded cluster—an aggregation of companies, competitors, and suppliers that specialize in particular products, services and markets , who export their products and services to other U.S. states and other countries around the globe.

GLOSSARY

Tree boxes—mini bioretention areas installed beneath trees that can be very effective at controlling runoff, especially when distributed throughout the site.

The Trinity Railway Express (TRE)—the commuter rail line in the Dallas – Fort Worth Metroplex. It was established by an interlocal agreement between Dallas Area Rapid Transit (DART) and the Fort Worth Transportation Authority (The T). Each transit authority owns a 50% stake in the joint rail project and contractor Herzog Transit Services operates the line. The TRE began operating in December 1996.[3]

Vertical cluster expansion—Vertical integration is the degree to which a firm owns its upstream suppliers and its downstream buyers.