

# Duncan, Oklahoma Comprehensive Plan



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Comprehensive Plan Adoption:  
Duncan Municipal Planning Commission - December 21, 2010  
City Council - January 25, 2011





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# ACKNOWLEDGMENTS

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## Comprehensive Plan Adoption

Duncan Municipal Planning Commission -  
December 21, 2010  
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January 25, 2011

# INTRODUCTION



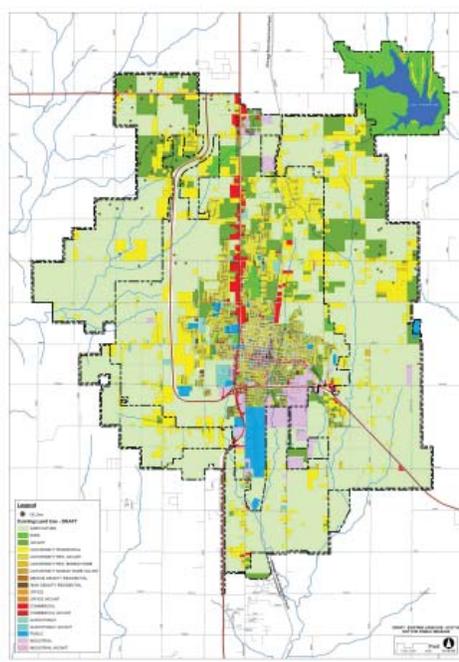
## Intent of the Comprehensive Plan

The process of planning is about looking to the future. It is the process of gathering creative ideas and dreams that exist for a community and comparing those to existing realities and opportunities. By starting the planning process, Duncan's leaders and citizens recognized the need to establish a strategy for future development. The primary goal of this Plan is to create a guide for improvements today and for the next twenty-five years that reflect the desires of citizens and community leaders alike.

The term "Comprehensive Plan" means the same as "General Plan" as per the Oklahoma Statute, Title 11, Chapter 1, Article XXXVIII, Section 38-106(B). The Comprehensive Plan lays out strategies for preserving the distinctive characteristics that make Duncan unique, while improving the areas that detract from the community's vision for a better future.

By creating a Comprehensive Plan, Duncan establishes the rules for potential development. The Plan will provide leverage against unwanted or unwise developments and create incentives for projects that accomplish the goals identified by the citizens of Duncan during the planning process.

By undertaking the Comprehensive Planning process, the City of Duncan made a commitment to evaluate its strengths and weaknesses and to take a step back from the day-to-day operations to envision where the City should be in twenty-five years and beyond. This Comprehensive Plan document is a testament to those that dedicated hours to their community and who carried out the process. It should be used as a reference for City officials and as a road map toward a vision for the future of the City. The plan should also be used to measure the City's progress by evaluating the established goals and recommendations against the implementation plan.





## The Vision

The Duncan community has a unique history, rich in business and industry and solid in faith. The small town feel, proximity to Lawton and Oklahoma City, substantial green space, vibrant downtown and positive community attitude are not easily replicated. Despite these advantages, there is significant potential for further improvements that will greatly enhance the appearance, desirability, and efficiency of the City.

To harness the direction for the community, the residents of Duncan through the Comprehensive Plan public involvement activities, identified values, strengths, weaknesses and desires for the future that should be addressed in the Plan. The public process included a series of listening sessions, open houses and surveys to garner public opinion. With this input, the following vision statement and goals were developed to guide the citizens and planning team in preparation of this Plan.

## Legal Basis

This Comprehensive Plan was developed pursuant to Oklahoma Statutes. The City of Duncan has chosen to create a revised Comprehensive Plan in an effort to develop a vision for the community and to ensure appropriate growth and development.



## *Duncan Vision*

Duncan is a growing city, made strong and stable by its values and character. We nurture what is good about our City—our history, our culture, our schools, our neighborhoods and all that makes Duncan thrive. We care about each other, our health, our safety and natural resources. Duncan leads the region in economic growth in an environment that encourages innovation and entrepreneurship. Our residents are drawn together by beautiful parks, pathways and public places. We are committed to continuing renewal of our vision, to the next generation and achievement of an unmatched quality of life for all.



## Fundamental Policy Guide

The policies for development are outlined in this document and in the Zoning Ordinance, Building Code, Subdivision Regulations, and other codes and ordinances relating to the basic and fundamental development policy of Duncan. All other plans, codes and ordinances, and amendments, shall be in conformity with the intent of the policies both explicitly and implicitly expressed in the Comprehensive Plan. It is intended that studies, public hearings, and official changes in the Comprehensive Plan be completed before the Planning Commission reviews and recommends action to the City Council on plans, ordinances, and amendments, which cause Plan changes to be initiated.

The plans for the use of land are set forth in the Future Land Use Plan (Page 50); for public facilities in the Public Facilities Plan (Page 71); and for transportation networks in the Transportation Plan (Page 66). All of the written material contained in the Comprehensive Plan shall be considered as a further explanation and definition of the material identified on these maps.

## Review of Plans and Policies

The plans and policies expressed herein should be reviewed annually by the Planning Commission. As part of the review, the Commission should ensure the goals continue to support the desires and direction of the community. The supporting documentation should also be reviewed to have an understanding of the changes that may affect the physical environment, as well as the plans and policies. The Planning Commission should file a report with the City Council of their findings including approved changes in the Comprehensive Plan.



## Comprehensive Planning Process

The City of Duncan determined it was time to update the community's Comprehensive Plan. The City went out for proposals and selected the planning and landscape architecture firm of Ochsner Hare & Hare as the prime consultant. To provide a more detailed review of the transportation segment of the project, Wilson & Company Engineers and Architects were brought on as a sub-consultant to the process.

The planning process was initiated with a one day planning workshop with the Comprehensive Plan Advisory Committee and the city staff. The session offered initial guidance on issues that should be addressed in the plan. Early priorities that emerged were the need for housing revitalization and new housing; property maintenance; street improvements; additional high paying jobs; additional retail and restaurants; and youth retention.

Following the Comprehensive Plan Advisory Committee planning workshop, a summary of issues to resolve was developed. Options were developed to solve the identified issues, which followed in an implementation plan toward the end of the process. As part of the issues for resolution, additional attention was given to the housing problems in Duncan. A separate working paper was developed to provide guidance to remedy the problems.

## Public Involvement Process

In a community process such as this, public opinion is extremely important. Gaining an understanding of the community's needs and desires allows for the emergence of a vision. The vision for the community becomes the path to the future that all can follow.

The public process for this plan was led by a City-appointed representative committee, known as the Comprehensive Plan Advisory Committee. The committee worked with the planning team and City staff to conduct a cross section of surveys and interviews to determine issues of greatest concern to Duncan residents. This initial process included a one day planning workshop, surveys and three listening sessions (e.g. focus groups) with the general public. To gain thoughts from another sector of the population, a Facebook page and website were developed. The Facebook page allowed for casual interaction with the public through questions and answers as well as updating when public events were going to occur. The website provided a forum to post survey results, meeting results / minutes, draft chapters for review, and notification of upcoming events.

As a part of the City's request, a first impressions charrette was conducted. The charrette allowed for residents, public officials and City staff to interact with designers to identify orchids (pretty), onions (stinky), opportunities and constraints with regard to beautifying the entrances and key intersections within Duncan. The charrette garnered direction from more than 30 people in the community over a two day period. Results from this event are included in Appendix C.

Throughout the Comprehensive Plan process, the committee had ongoing committee meetings to



discuss information developed and to provide direction and insight.

An Open House was conducted with the general public at the Duncan Middle School to present data that was developed, including existing land use, demographics, housing conditions, and survey results as well as proposed future land use plans, transportation plans and housing revitalization plans. This meeting allowed the public to have input to guide the final product prior to developing the implementation plan and finalizing the document.

The final phase of the Public Involvement Process was approval before the Planning Commission and City Council.

**Summary**

This chapter provided an overview of the Comprehensive Plan process. It also outlined the community’s overall vision for the future through the vision statement. Through the Comprehensive Plan, Duncan is thoughtfully moving forward with decisions which affect all residents of the community.



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# FACTORS AFFECTING DEVELOPMENT



## Introduction

Planning for the future takes place within the context of the past, influenced by location and regional setting, natural features, current trends and existing conditions that may facilitate or constrain realization of the plan. This portion of the document provides relevant background and supporting data with regard to the physical environment, the characteristics of the population, housing, community and public facilities, economic development, transportation and infrastructure, existing land use and potential for growth.

## Location and Regional Setting

The City of Duncan is located within Stephens County in the southwest area of Oklahoma. Duncan is the County seat of Stephens County. The City is comprised of approximately 38 square miles within the City Limits, an additional 40 square miles within the Sphere of Influence and an additional 9.5 square miles within the lake areas. A Vicinity Map is included on the following page. Duncan is located approximately 80 miles southwest of Oklahoma City (the state capital), 37 miles east of Ft. Sill military base and approximately 45 miles west of Interstate 35 at the intersection of U.S. Highway 81 and State Highway 7. Other nearby communities include Comanche, Marlow, Bray, Central High, Empire City and Velma.

The planning area for this update to the City's Comprehensive Plan includes the City of Duncan

and that area within the sphere of influence as delineated by the 202' strip of annexed land surrounding the city. The planning area includes all land areas that may affect the development of the City of Duncan over time and, therefore, should be considered as a comprehensive study area, not defined only by jurisdictional boundary nor focused planning areas.

## History

In its early history, Oklahoma was the "home of the red man." Numerous Native American tribes inhabited the state until it was homesteaded by a series of land runs starting in the late 19th Century.

Duncan's history is linked to the history of America's great cattle drives, a time in the mid-19th Century when active cattle trails intertwined throughout the American West and Midwest. Most noted among these trails is the Chisholm Trail, which ran through Texas, Indian Territory, Oklahoma and Kansas. As the railroad took hold, the cattle drives diminished and Oklahoma was settled in small communities that sprouted up along the route of anticipated rail lines. Duncan's founder, Scotsman William Duncan and his Native American wife sensed the impact of this new mode of transportation on the future of Indian Territory, and re-settled the family to establish a small trading post along the Chisholm Trail, soon to be the connecting route for rail extensions from Kansas to Texas. The tracks would be located along





high ground separating Willow and Claridy Creek drainage basins. The Duncans claimed 500 acres transected by the future railroad tracks and began selling lots. The arrival of the first train is attributed to the City's founding on June 27, 1892, although some records maintain Duncan was founded in April of that year. Historical records claim a population at founding of 500 people. The original town site is concentrated along and east of today's U.S. Highway 81. By 1907, Duncan had 2400 residents. Duncan was declared the County seat and a courthouse was built and later rebuilt.

The town of Duncan's early days saw active agricultural operations, including several cotton gins, a flour mill, two grist mills and an implement dealer. Cotton was the main crop. Like many cities in Oklahoma, Duncan's prosperity exploded with the discovery of oil in the early 20th Century. The town adopted measures to ensure that rowdiness was kept under control and that growth was orderly.

Duncan became known as "The Oil Belt Buckle" and became the home of the international Halliburton Corporation. The oil boom produced an entrepreneurial, self-sufficient and energetic population. Oil became the main economic mainstay of Duncan and most of Oklahoma until the mid 1980s. As the population of the state doubled, Duncan's population grew by more than eight times. Duncan's economy grew with Halliburton and its associated industries; educational and cultural resources enhanced quality of life in the community with the addition of two post-secondary institutions and numerous cultural organizations and facilities. More than a dozen structures are listed on the National Register of Historic Places.

The relocation of the Halliburton headquarters, during what is referred to as the "oil bust" of the 1980s, caused the City to redouble its efforts

to attract new business, stabilize the remaining economy, neighborhoods and schools and expand its tourism industry.

Halliburton is the community's largest employer and remains a valued corporate and community citizen. Communitywide efforts to continue to improve Duncan's quality of life are visible today in the Simmons Center, Chisholm Trail Heritage Center, Cameron University, Red River Technology Center and other educational and cultural resources. In 2008, Duncan was named the official "Crapemyrtle Capital of Oklahoma."

### **Environment**

Environmental factors generally have shaped the establishment and growth of cities throughout history. Rainfall, annual temperatures, floodplains, topography, soils, and the presence of water either facilitate or challenge urban development. The following is a summary of environmental factors within Duncan.

### **Topography**

Duncan is located at an average elevation of 1,122 feet. The highest point in the area is 1,320 feet at the north end of the City with the lowest point of 1,010 feet at the southern end of the City. Much of the area is gently rolling upland plains, which slope toward the south at an average gradient of 28.7 feet per mile. The gentle nature of the topography in Duncan does not negatively impact the ability to develop commercial or residential structures.

### **Watershed**

Topographic features determine the extent to which a community may be subjected to flooding, where development is feasible, and whether development



can accommodate water and sewer services without expensive pumping and lift stations. Steep slopes may not be easily developed, but this is not a concern for Duncan.

There are two major drainage basins within Duncan, Willow Creek and Claridy Creek (See Exhibit Page 14), which currently contain the majority of development for the community. These major drainage basins can accommodate future growth and can be served by existing sewage treatment plants without requiring lift stations; lands on the northeast side of Duncan within the Cow Creek drainage basin and northwest within the Stage Stand Creek drainage basin can accommodate existing needs, but would require significant construction to handle a larger population. Forty-five percent of the soils within the Stage Stand drainage basin are poor soils and over eight percent are fair, causing issues for septic tank installation. These areas would require full retention lagoons, lift stations or a major investment in an additional sewage treatment facility for significant urban development to occur.

## Soils

Soil characteristics, and the extent to which soils shrink and swell can pose construction challenges and the composition, depth of the soil type and percolation rate will influence the capacity of the land to accommodate selected water and wastewater systems. The capabilities of the soil types indicate the extent to which septic and on-site wastewater systems may be used in Duncan. Soil characteristics will influence the future type of development that can occur and the extent of infrastructure that will be needed to serve future development.

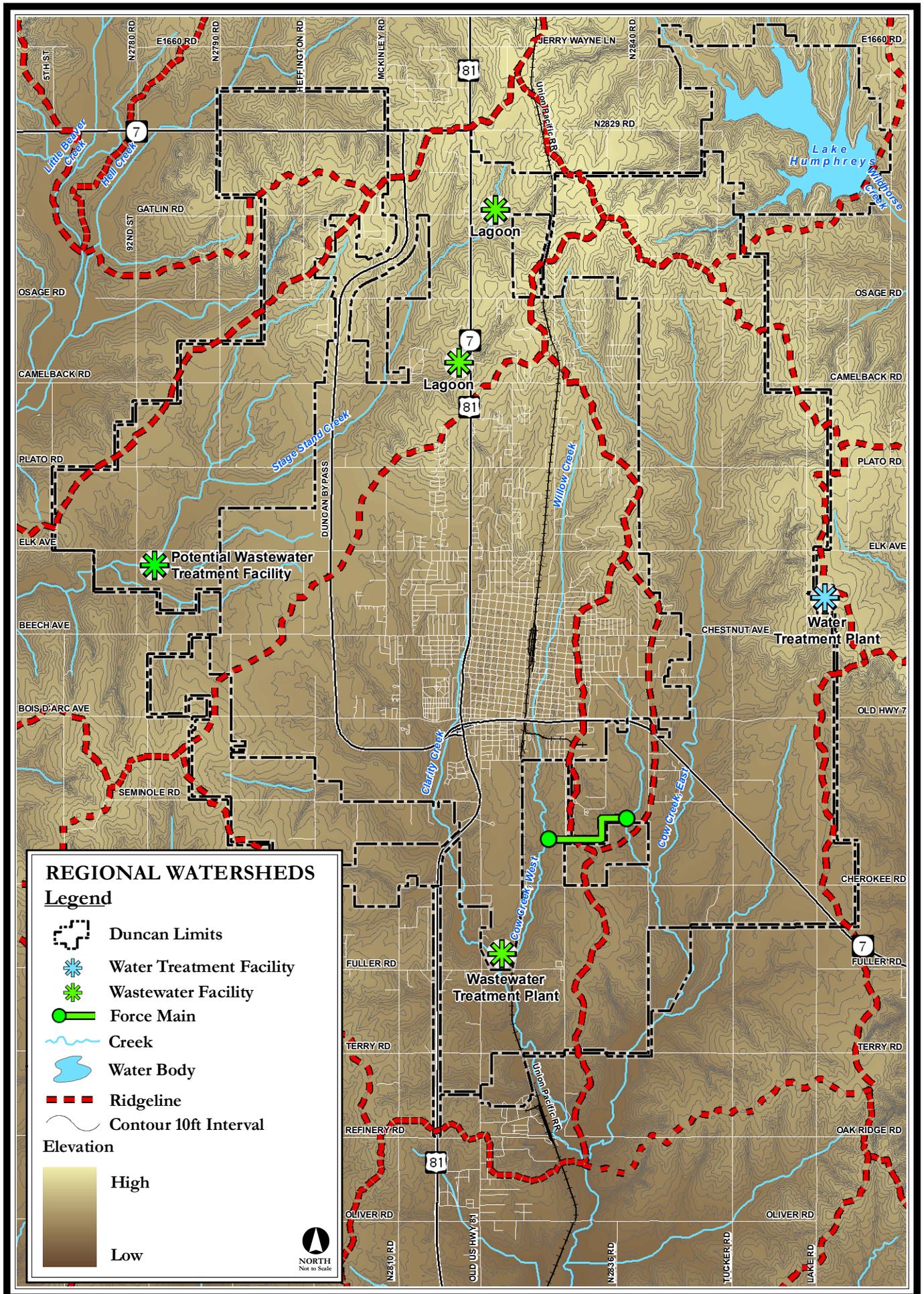
The soils in the area were evaluated through the Soil Survey of Stephens County, Oklahoma. This report was prepared by the Soil Conservation Service and

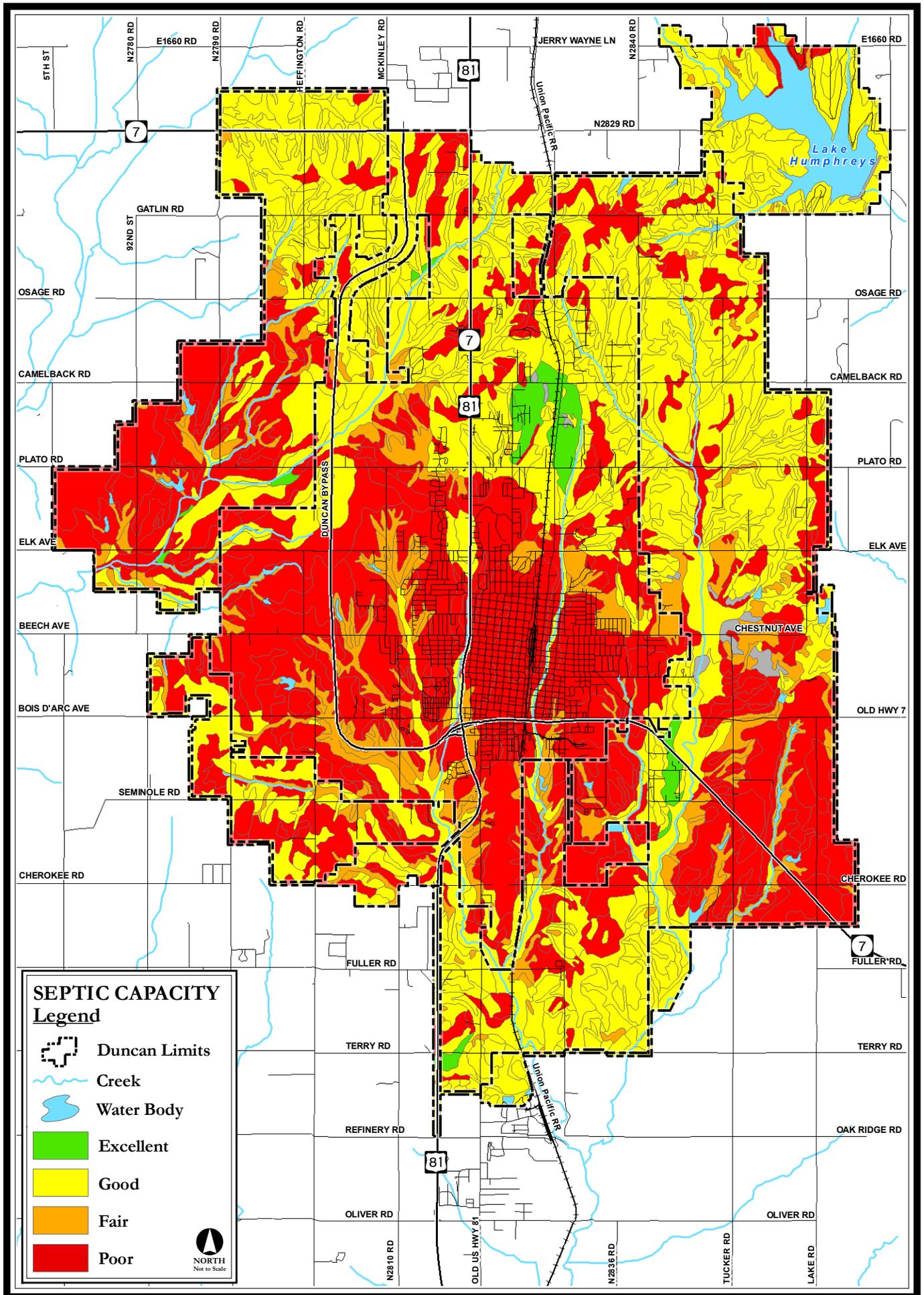
published in November, 1964. The information presented consists only of a synopsis of the data contained in the source. The information needed regarding soil for the purpose of this document is the capability of the soils as it relates to development, specifically the ability to install a septic system, also known as an individual sewage disposal system. In order to analyze the septic capacity of local soils, a city soils map was developed from the maps included in the Soil Survey. The soils were then evaluated based on composition, depth, permeability and percolation and assigned a “septic capacity” rating of excellent, good, fair or poor. A map visually identifying these areas based on this rating is provided on page 15. This map indicates which areas within Duncan are suitable to any form of development which relies upon septic systems. In other words, the information depicted on the Septic Capacity Map identifies those areas where septic systems pose serious environmental hazards due to soil conditions. This map should be utilized as one tool to identify those areas appropriate for residential estate developments and likewise identify areas that should be limited to only development that provides some form of sewage disposal other than individual septic tanks, such as future sanitary sewer extensions and treatment facilities.

## Groundwater

Groundwater quality is greatly influenced by soil characteristics as well as surface pollutants. The State of Oklahoma, like many western and Midwestern states, is confronted with diminishing groundwater resources.

The City of Duncan lacks sufficient groundwater to supply users within the City limits. The most significant source of groundwater in the Duncan area is the Garber sandstone formation, to the south and west of Duncan. The Garber formation is not







adequate to serve the City of Duncan with fresh water and the City has alternative long-term sources to handle water needs. Wells in the Chickasha formation may yield moderate water supplies, but within the Duncan area such wells would be too shallow and would pose risk of contamination by surface pollutants. Earlier studies have stated the limited availability of groundwater, its questionable quality, the unlikelihood of replenishment of depleting aquifers and the urgency of developing a reliable water source for future development in Duncan.

Currently the water sources for Duncan include Lake Fuqua and Lake Humphrey. Duncan is also a part of the Waurika Project Master Conservancy District which provides water supply to the communities of Comanche, Lawton, Duncan, Temple, Walters, Waurika, and several rural water districts.

## Floodplain

Flooding is a natural and recurring event for a river or stream. Flooding is typically the result of heavy or continuous rainfall exceeding the absorptive capacity of soil and the flow capacity of rivers and streams. This causes a watercourse to overflow its banks onto adjacent lands into the area identified as floodplains. Floodplains are, in general, those lands most subject to recurring floods, situated adjacent to rivers and streams. Floodplains are “flood-prone” and hazardous to development activities if the vulnerability of those activities exceeds an acceptable level.

Floodplains are typically referred to in increments identified by a combination of distance from the water source and height of topography. The areas are called 500 year floodplain, 100 year floodplain, floodway and floodway fringe.

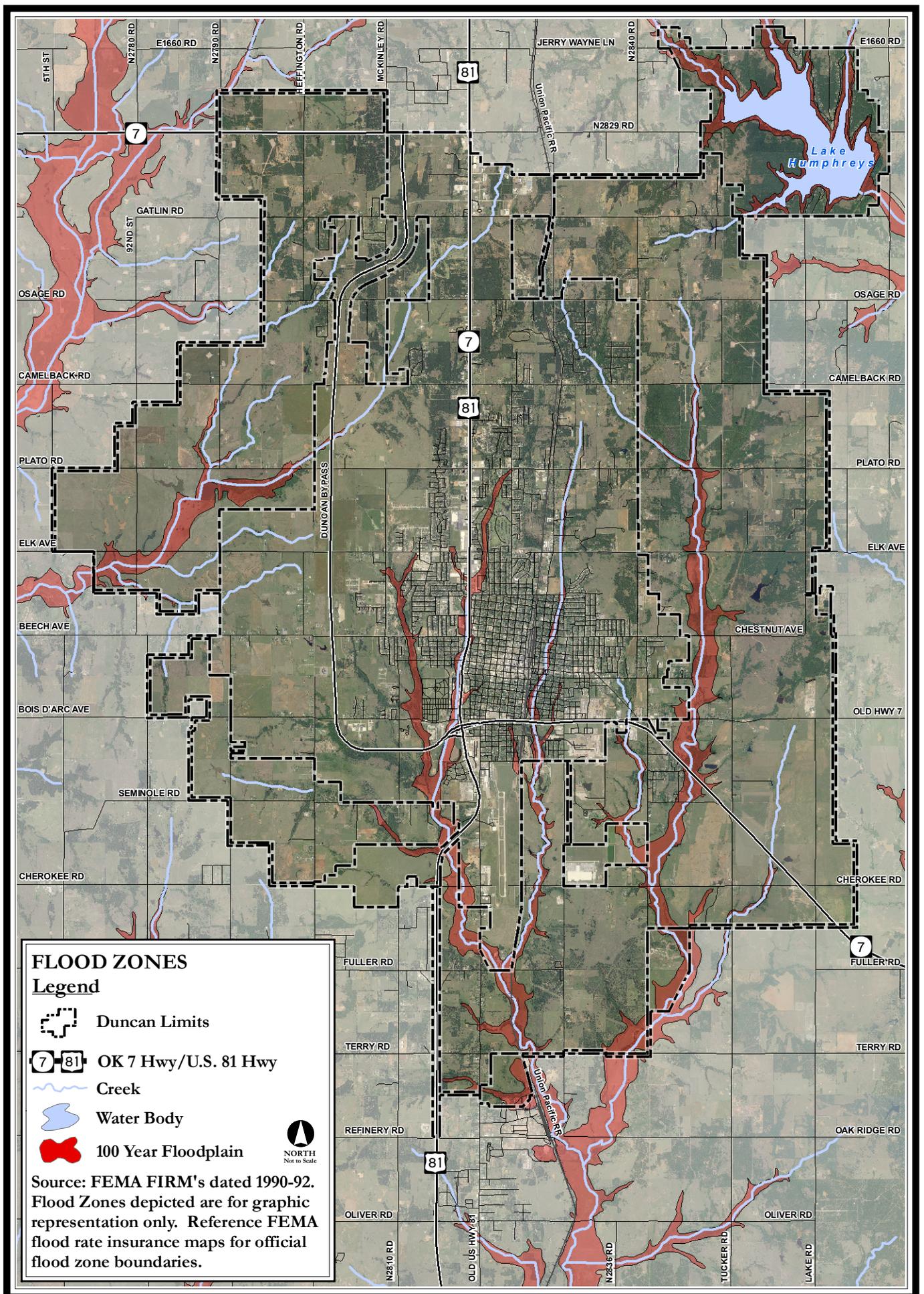
The areas affecting development the most are the 100

year floodplain, floodway and the floodway fringe. The 100 year floodplain is the flood having a one percent chance of being equaled or exceeded in any given year.

The floodplain in Duncan is generally located in three areas running through the city; along Claridy Creek, Willow Creek / Cow Creek and a small tributary on the west side (See map following). These creeks all run in a north / south pattern with the majority in urban areas. Claridy Creek runs primarily along U.S. Highway 81 in open creek beds. Some of the floodplain for this creek can be attributed to the impervious surface run off from the commercial districts and the backup of water due to insufficient capacity of culverts along the creek. The floodplain for Willow Creek / Cow Creek on the east side of town travels generally parallel to the railroad tracks and is found primarily in the residential areas. The ephemeral stream on the west side of town is also within a floodplain. Future development should take into account this minor tributary and provide for appropriate setbacks and open space. Evaluation of future commercial development should be conducted to ensure no additional runoff causing additional downstream flooding occurs. The community should develop a community wide stormwater management plan to reduce the flooding in the community and to minimize future expansion of the floodplain.

## Climate

The average annual precipitation for Stephens County is 35.59 inches according to the Oklahoma Climatological Survey, but there is often great variation from year to year. The average annual temperature is 63 degrees, with the average maximum of 75 degrees and the average minimum of 50 degrees. Abundant sunshine and high winds are distinguishing weather characteristics.





### Existing Land Use

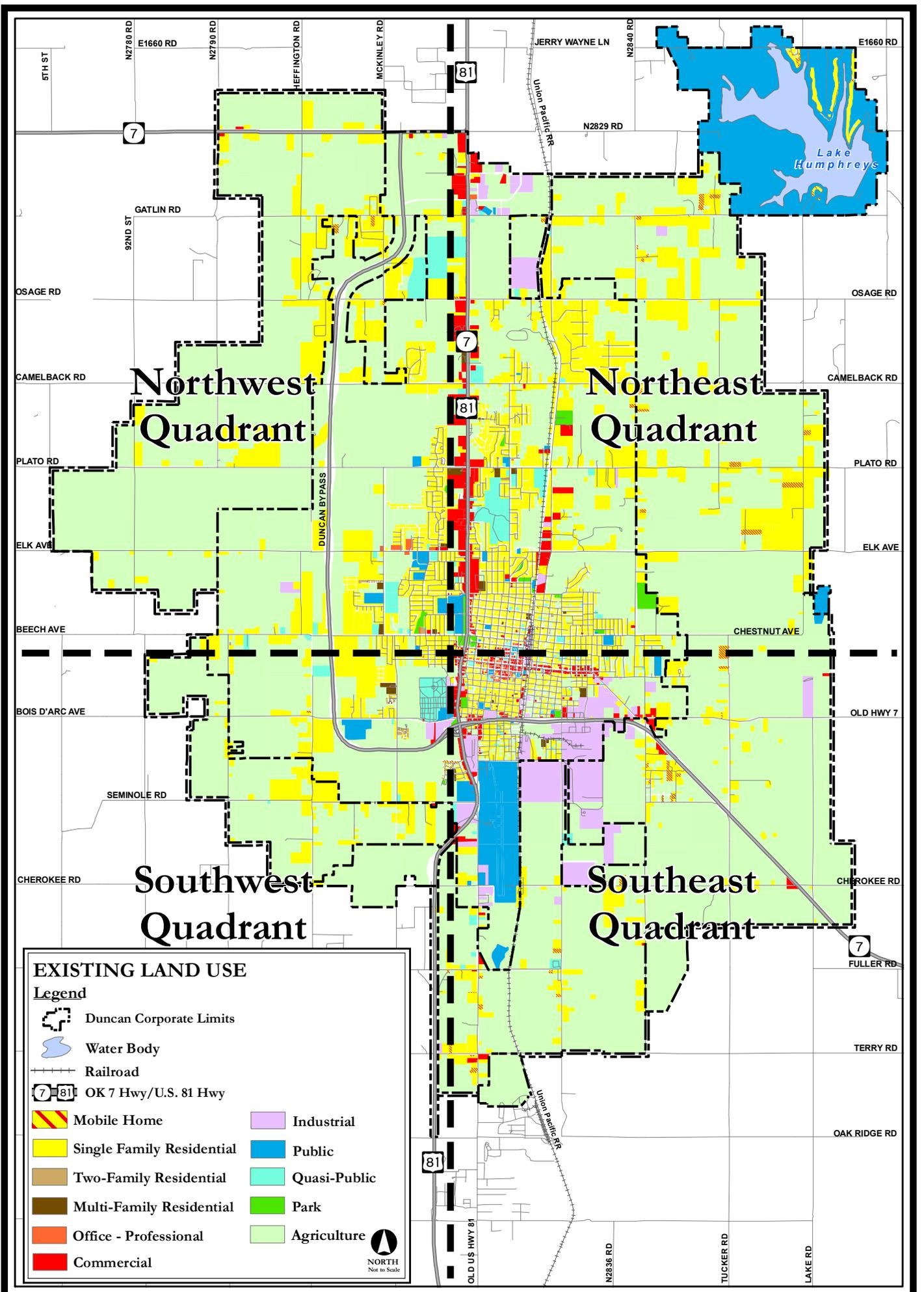
Plans for the future growth and development of the community must be based upon the nature and extent of the development which has occurred over the life of the community. Appropriate uses of land in an urban area provide the community with a rational pattern of urban development. In developing a Comprehensive Plan to guide urban development, the necessary first step is to survey and evaluate past and present use of land within the city and in the area immediately adjoining it.

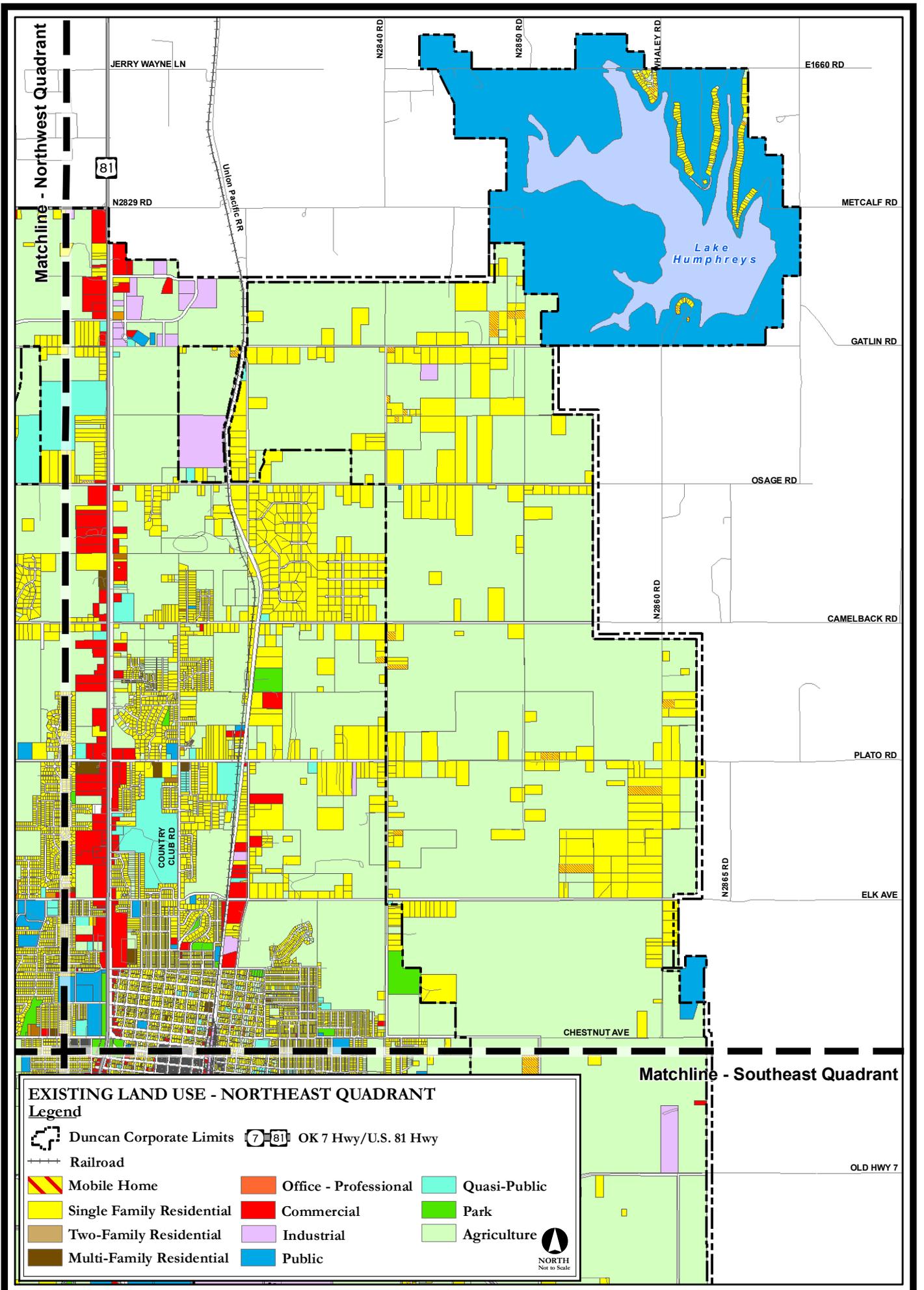
The land use survey provides the essential inventory of the type, amount, and location of all land uses. Through analysis, the efficiency, compatibility and relationship of the land uses may be measured, and evaluation will relate those uses to population, public facilities, infrastructure and ultimately the future land use plan.

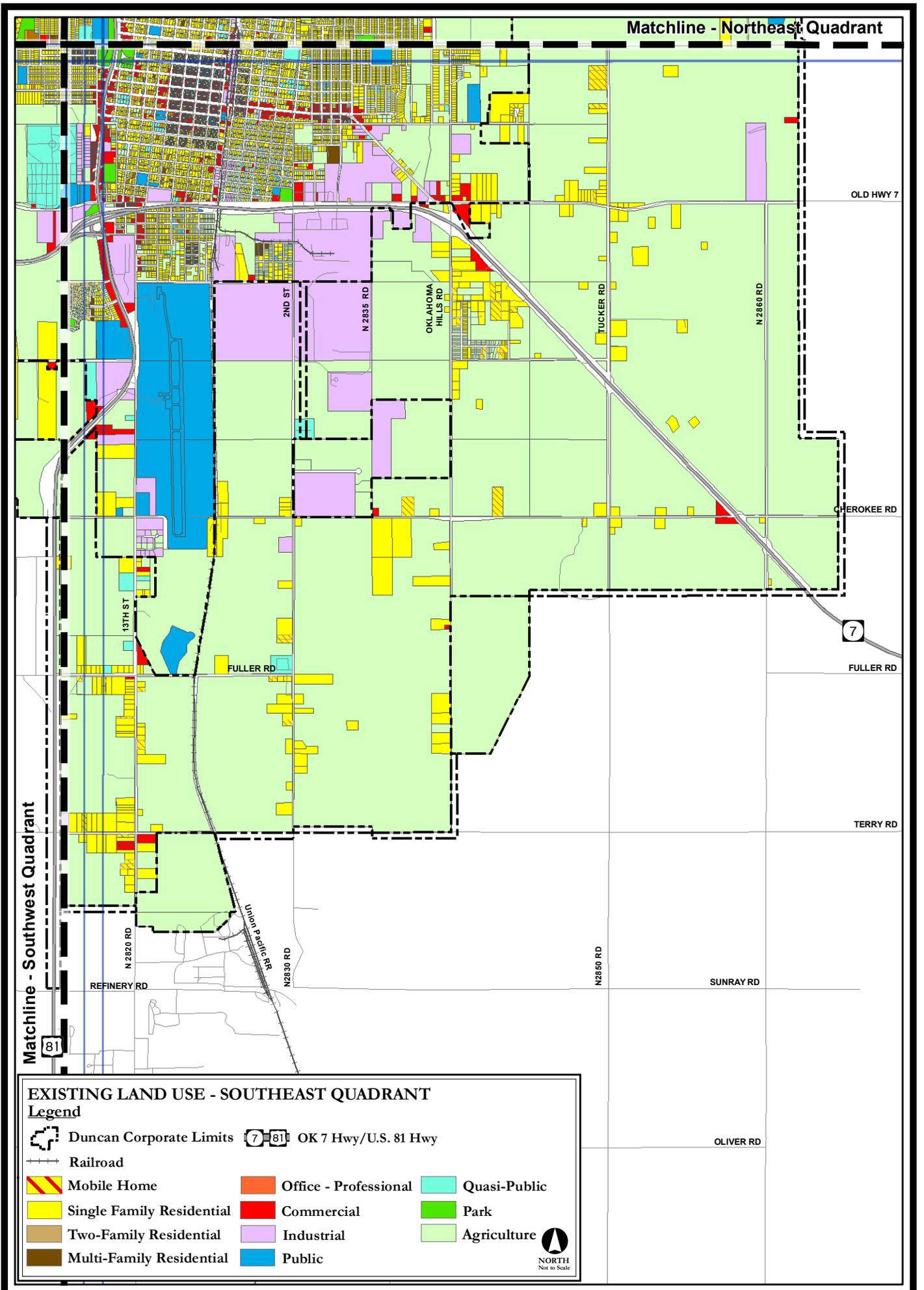
The existing land uses shown in the Exhibits on the following pages, were obtained through a detailed survey of Duncan. The major land use categories include single family, mobile home, two-family, multi-family, office, commercial, industrial, public, quasi-public, park and vacant. Most of these categories are self explanatory, but multi-family, public and quasi-public seem to require an explanation. Multi-family is considered all residential uses excluding single family, mobile home and two-family also known as a duplex. Public includes uses such as schools, and municipal owned facilities with the exception of parks, and Quasi-public includes churches, cemeteries, private golf courses, philanthropic organizations and the like.

Review of the existing land use indicates certain land use trends and patterns. Commercial uses are present in both the cluster and the strip pattern with the majority appearing along U.S. Highway 81 and

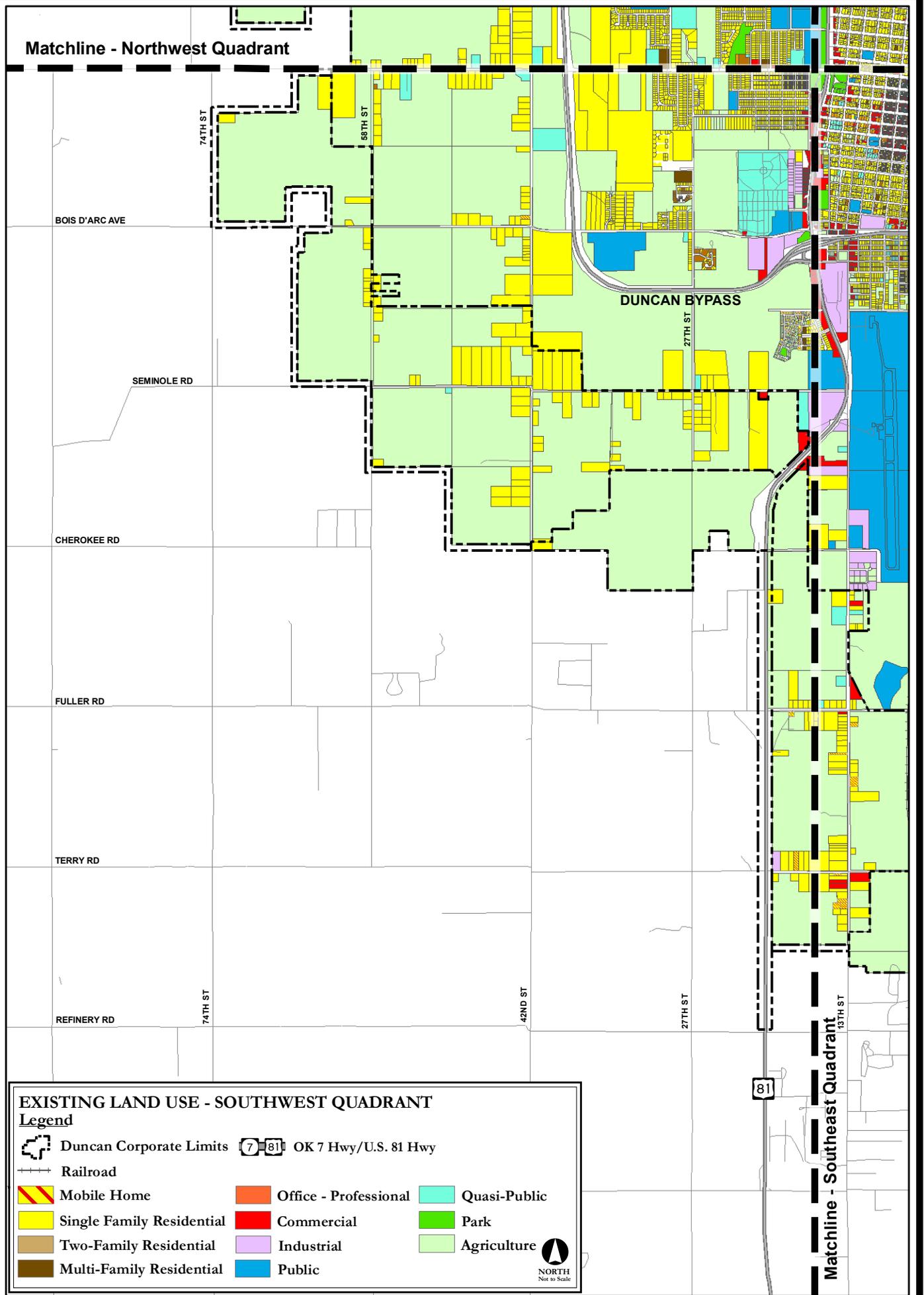
the downtown district. The bulk of the residential uses are in the northeast and northwest quadrants of town. Industrial uses are found in the most southern and northern sections with the public uses spread evenly.







Matchline - Northwest Quadrant



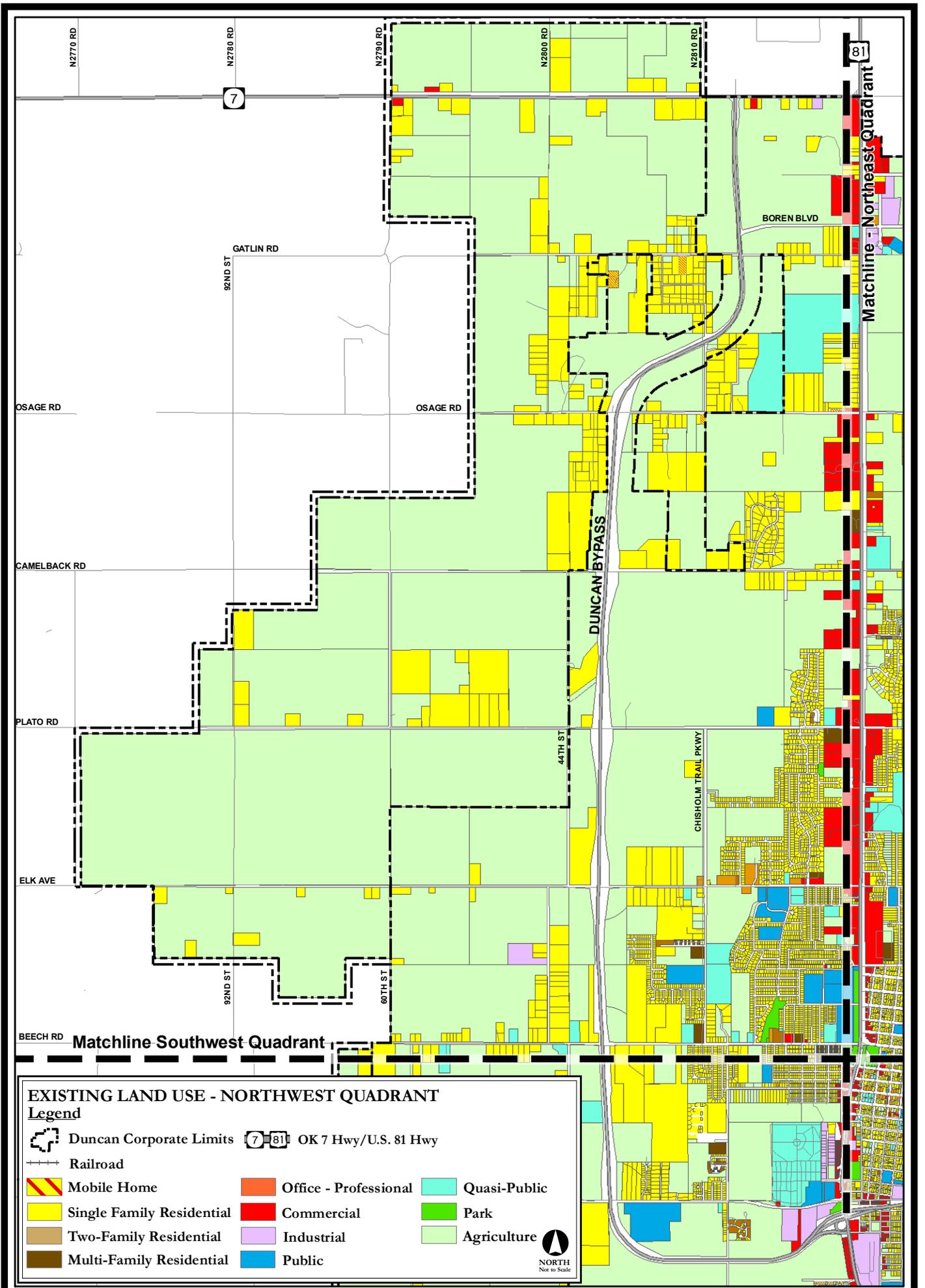
EXISTING LAND USE - SOUTHWEST QUADRANT

Legend

-  Duncan Corporate Limits
-  OK 7 Hwy/U.S. 81 Hwy
-  Railroad
-  Mobile Home
-  Single Family Residential
-  Two-Family Residential
-  Multi-Family Residential
-  Office - Professional
-  Commercial
-  Industrial
-  Public
-  Quasi-Public
-  Park
-  Agriculture



Matchline - Southeast Quadrant





## Population Factors

The normal source of demographic data used in a Comprehensive Plan is the U.S. Census which is conducted at ten year intervals, the latest of which is the year 2000 Census. Actually, the collection of data for the 2010 Census has been completed and is being prepared for distribution. However, complete data tabulation and publication will not be completed prior to late 2010 or early 2011. Between the decade census collections, the U.S. Census conducts periodic estimates via a survey process. For this project, the 2006-2008 U.S. Census estimates were primarily used. To support this information and to fill gaps of information, estimated demographic data was acquired from Nielson-Claritas, a national demographic data source.

The following is a brief overview of the demographics of Stephens County, followed by detailed demographic estimates for the City of Duncan for population, households, housing and employment.

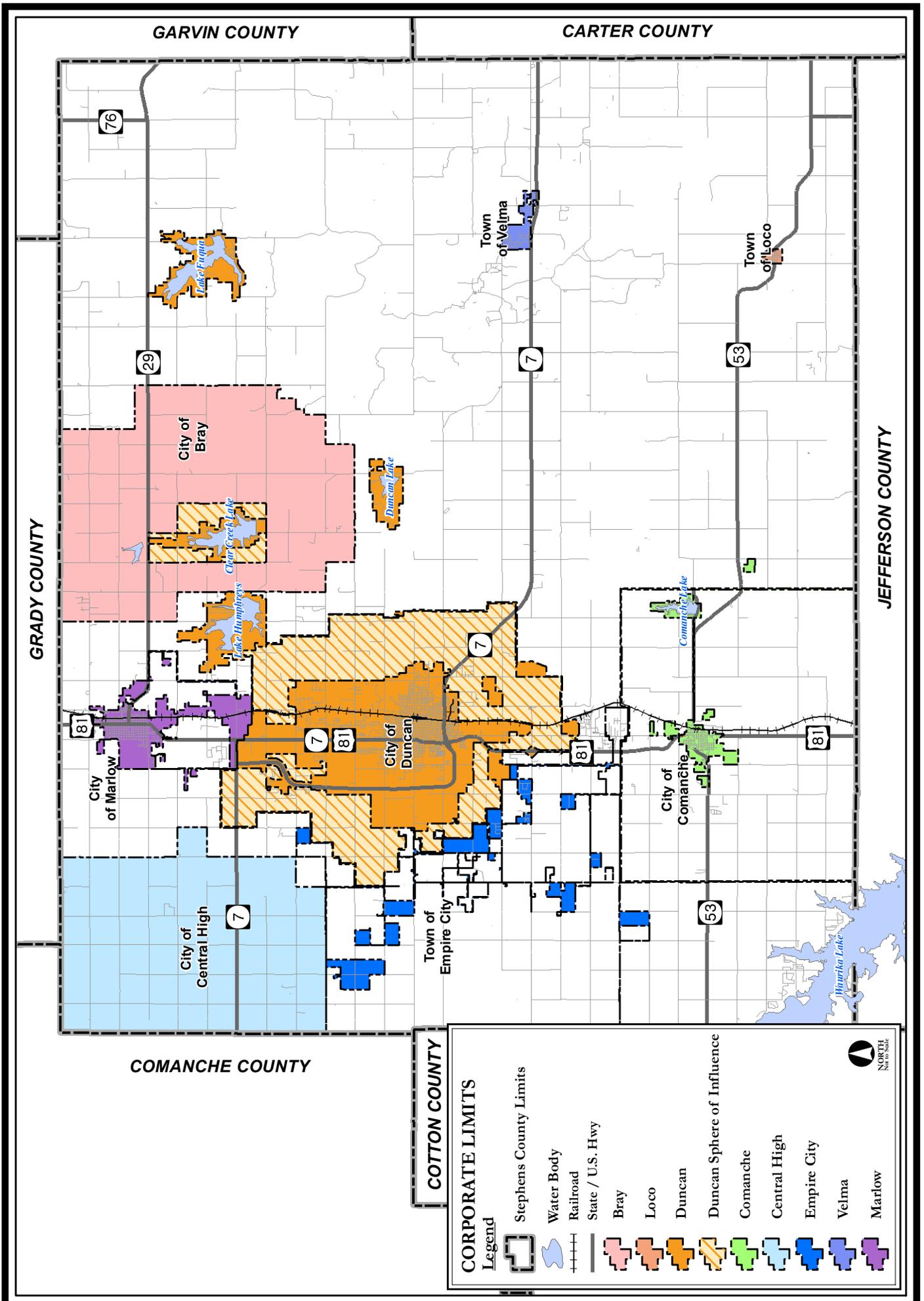
### **Stephens County**

Duncan, the County seat of Stephens County, is one of eight incorporated areas within the County. Duncan is the largest municipality in the County, followed by Marlow and Comanche. Three of the incorporated areas, i.e., Bray, Central High and Empire City, are very low density and do not seem to function as cities in the normal sense of the word. Of Stephens County's 871.2 square miles, 703.8 square miles are unincorporated area.

### Stephens County Overview

Jurisdiction	Estimated 2009 Population	Land Area (Sq. Mi.)	Persons per Sq. Mi.
Stephens County	43,361	871.2	49.8
Stephens County Unincorporated Area	11,345	703.8	16.1
Duncan (Including Lake Areas)	22,719	38.5	590.4
Marlow	4,829	7.1	682.8
Comanche	1,484	2.7	557.3
Bray	1,008	57.9	17.4
Central High	852	53.6	15.9
Velma	397	0.6	690.4
Empire City	577	6.8	84.7
Loco	150	0.3	572.5
Source: Nielson-Claritas 2009			

A map of Stephens County and the various jurisdictions is presented on the following page.





### City of Duncan

The City of Duncan has experienced 2.8% growth between 2000 and 2008 according to the U.S. Census. This growth is contrasted with that of Stephens County, Oklahoma, and the State of Oklahoma, achieving 0.02 percent and 5.26 percent, respectively.

#### City of Duncan, Stephens County, State of Oklahoma Population

Duncan, Oklahoma, Population			Percent of Growth
1970	19,718		
1980	22,517	+2,799	+12.4%
1990	21,732	-785	-3.5%
2000	22,505	+773	+3.4%
2008	23,162	+657	+2.8%
Stephens County, Oklahoma, Population			Percent of Growth
1970	35,902		
1980	43,419	+7,517	+17.3%
1990	42,299	-1,120	-2.6%
2000	43,182	+883	+2.0%
2008	43,255	+73	+.02%
State of Oklahoma Population			Percent of Growth
1970	2,559,229		
1980	3,025,290	+466,061	+15.4%
1990	3,145,585	+120,295	+3.8%
2000	3,450,640	+305,055	+8.8%
2008	3,642,361	+191,721	+5.26%
Source: Nielson-Claritas 2009, 2008 U.S. Census & 1997 General Plan			



## Households

From a municipal planning perspective, data for households and household formation is significant in terms of projected housing development, dwelling unit size, and housing affordability. In Duncan, the projected rate of increase in household formation is slightly higher than in the projected rate of population increase.

### Duncan, Oklahoma Households

Year	Households
1990 Census	9,221
2000 Census	9,435
2008 Estimate	10,090
2014 Projections	10,285
Source: Nielson-Claritas 2009, 2008 U.S. Census	

U.S. Census data show 9,435 households in 2000 and 10,090 in 2008. The average household size in Duncan marginally decreased from 2000 when it was 2.35 to an average of 2.30 in 2008. Currently, the average household size in Oklahoma is 2.50. The average U.S. household size, estimated by U.S. Census for years 2006-2008, is 2.61.



### Duncan, Oklahoma Population by Age

Age	2000	2008
Under 5 years	1,494	1,911
5-9 years	1,433	1,901
10-14 years	1,545	1,273
15-19 years	1,519	1,471
20-24 years	1,296	1,653
25-34 years	2,401	2,932
35-44 years	3,184	2,851
45-54 years	2,968	3,179
55-59 years	1,123	1,551
60-64 years	1,001	1,095
65-74 years	2,291	1,566
75-84 years	1,634	1,452
85 years and over	616	900
<b>TOTAL</b>	<b>22,505</b>	<b>23,735</b>
Source: 2008 U.S. Census		

The median age of the Duncan population is 37.6, which is slightly higher than the state at 36.1 and the country at 36.7. This slight elevation in median age indicates a trend of the younger population leaving the community and the Baby Boomer generation staying and growing.

Among Duncan residents in 2008, 3,918 were age 65 or older, or 17 percent of the population. This figure represents a growth of approximately 3 percent for this age group since 2000. In the State of Oklahoma, the percentage change for this group was 5.1 percent from 2000-2007. Projections for the growth of this age group is 60 percent from 2007-2030. For the age 65-plus, Oklahoma is second among regional states only to Arkansas. Regional states include Texas, New Mexico, Arkansas, Missouri, Kansas and Louisiana. The education and health services occupational group is expected to add the most jobs in the state

of Oklahoma through 2014. On a percentage basis, this is the highest growth jobs sector.





As illustrated in the table below, the White population comprises the major racial group at 84.8% in the City of Duncan. Blacks or African Americans are the second largest racial group, with 3.6% of the total population in the City, followed closely by American Indian & Alaska Native at 3.2%.



Duncan, Oklahoma Population by Race 2008

Race	Number	Percent
One race	22,649	95.4
White	20,119	84.8
Black or African American	861	3.6
American Indian & Alaska Native	759	3.2
Asian Vietnamese	24	0.1
Some other race	886	3.7
Two or more races	1,086	4.6
Source: 2008 U.S. Census		

The following is a breakdown of the Hispanic population which is not considered a separate race by the U.S. Census. Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. People who identify their origin as Spanish, Hispanic, or Latino may be of any race. The Hispanic population has grown in Duncan by 1.4 percent over the last eight years. Growth of this ethnic group is occurring throughout the nation and the community will need to consider cultural differences and needs for this population.

Duncan, Oklahoma Hispanic Population

Race	2000 Number	2000 Percent	2008 Number	2008 Percent
Total Population	22,505		23,735	
Hispanic or Latino	1,349	6.0	1,746	7.4
Not Hispanic or Latino	21,156	94.0	21,989	92.6



## Educational Attainment among Those 25 Years and Older

The Duncan population reflects 49.1 percent male and 50.9 percent female. Of the male population, aged 25 years and older, 2,931, or 40.1 percent, have received a high school diploma or equivalent; 848, or 11.6 percent, hold a bachelor's degree and 453, or 6.2 percent, hold graduate or professional degrees. Males with less than a 9th grade education are 395 or 5.4 percent of the male population. Of the female population, 3,221, or 39.2 percent, have received a high school diploma or equivalent; 1,019, or 12.4 percent, hold bachelor's degrees and 452, or 5.5 percent, have graduate or professional degrees. Females with less than a 9th grade education are 271, or 3.3 percent of the female population.

The State of Oklahoma, according to U.S. Census, lists 15.1 percent of males receiving a bachelor's degree; 8.0 percent receiving graduate or professional degrees; 32.7 percent receiving a high school diploma and 5.2 percent receiving less than 9th grade education among those age 25 and over. Among females, 15.0 percent hold a bachelor's degree; 6.8 percent hold graduate or professional degrees; 33.2 percent receiving a high school diploma and 4.8 percent have received less than 9th grade education.

The educational attainment of the Duncan population is higher for high school graduates than the State of Oklahoma and the U.S. In the bachelor degree category, Duncan is 3 to 5 percent less than the state and country. For graduate level, Duncan is 1.6 – 4.2 percent behind the state and country.

According to the "Oklahoma State of the Workforce Report 2007," in 2004, more than seven out of every 10 job openings in Oklahoma did not require postsecondary education. The openings required only work experience in a related field or on-the-job

training. All activities necessary to do jobs that require on-the-job training can be learned while working in the occupation. Only about 30 percent of the job openings required some level of postsecondary education or training. Approximately 11 percent of jobs required a bachelor's degree, while only 2.5 percent required a master's degree or doctoral degree.



## Median Family Income

The median household income in Duncan in 2008 was \$36,491 and the median household income in 2000 was \$30,373 showing an annual increase of \$765. The per capita income for the city is \$22,648.

### Duncan, Oklahoma Poverty Status by Age

Total	
Income in 2008 below poverty level:	3,900
Under 18 years	1,470
18 to 64 years	2,082
65 and older	348
Source: 2008 U.S. Census	

Approximately 16.9 percent of the Duncan population is below poverty level, which is marginally higher than the State of Oklahoma at 16.2 percent. Duncan has some newer government subsidized housing, but will need to address the poor housing conditions in many of the single family homes within the City to provide affordable housing for this demographic.

## Population Projections

Using a trend of 2.88% growth as shown for the City of Duncan, and relying on current trends in building permits, the following data is presented.

### Duncan, Oklahoma Residential Building

Duncan New Residential Building Permits		Duncan Residential Tear Downs	
Year	Number	Year	Number
2001	40		
2002	134		
2003	61	2001-2003	18
2004	56	2004	9
2005	61	2005	15
2006	72	2006	18
2007	49	2007	13
2008	41	2008	9
<b>Total</b>	<b>514</b>	<b>Total</b>	<b>82</b>
Source: City of Duncan			



A comparison of projected population growth for Duncan, Stephens County and the State of Oklahoma follows. Population estimates for the City of Duncan are based on the projections of 1% for Stephens County and 4.76% for the State of Oklahoma. Prior years indicate Duncan exceeds

Stephens County growth, yet is less than the state average. These population estimates as presented assume moderate growth through additional employment opportunities in the community, as well as growth in average persons per household.

### City of Duncan, Stephens County, State of Oklahoma Population Projections

Jurisdiction	2010	2020	2030
Duncan, OK	23,245	24,017	24,709
Stephens County	43,487	43,922	44,362
State of Oklahoma	3,687,050	3,871,403	4,064,973
Source: Nielson-Claritas 2009, 2008 U.S. Census, OHH			

### Conclusion

Like most communities in rural America, any potential growth for Duncan is based on jobs and quality of life. As a community within an hour of the largest city in the State and within commuting distance of a community almost four times as large, Duncan can benefit by continuing to create a unique, quality, smaller community for those interested in living near Lawton and Oklahoma City, but still in a small community. It is anticipated that Duncan can grow 5% by the year 2030. This increase is based on Duncan providing new housing choices, additional amenities and additional commercial uses. A combination of these additions and the schools continuing ability to be well maintained and provide similar offerings, will ultimately allow Duncan to reach its desired size of 30,000 plus residents in the future.



## **Community and Public Facilities**

### **Introduction**

Community and public facilities are the essential services provided by local government that safeguard public well-being. Included in these essential services are fire and police protection, community facilities, schools, parks and recreation, utilities (water, electric), and solid waste management. These services add elements to the community that contribute greatly to quality of life.

Understanding community facilities and their relationship to a growing population is of great importance to the comprehensive planning process. This section reviews facilities and utilities of a community nature in order to determine the way(s) in which development in the City is affected. The relationship of public facilities to the planning process lies largely in their location and adequacy of space. The goal of providing community services at a high level of efficiency and economy requires safe and convenient locations for governmental administration, law enforcement, fire protection, and health and welfare services. The location of facilities also affects traffic, both amount and dispersion or concentration, and the need for roads. In addition, the economy is affected as public services are sources of employment and thus bring a demand for housing and utilities, as well as general goods and services.

### **City Buildings**

Public buildings are needed for a variety of public services and functions. When public facilities are modern and well maintained, they are assets that help the community to grow. However, when public facilities are allowed to become old and outdated, they can inhibit growth and become a financial burden to taxpayers. This section presents an overview and

general inventory of the public facilities and services provided by the City of Duncan.

### **City Hall**



City Hall was constructed at 8th Street and Willow Avenue in 1951. The City Hall houses the City Administration Department, Community Development, and Finance Department. This facility is sufficient for current City functions, but it is imperative the City continue to maintain and make appropriate modifications to avoid significant expenditures in the future. In the event the population grows and additional staff is required to serve the community, the City Hall will need to be remodeled and expanded.

### **Police Department**

The Duncan Police Department and City Council Chambers are located at 7th Street and Willow Avenue in a building built in 1984, and is currently at capacity. With a staff of 46 officers and 7 support personnel the City of Duncan provides 2 police officers per 1000 residents. This ratio is comparable



to other communities in the Midwest. The future needs of the police department include providing space meeting the required F5 tornado rating for emergency structures, possible police substation in the northwest portion of town, and additional apparatus for the lakes to provide quicker response to those in need.

### Fire Department



The Fire Department maintains 3 stations with 24-hour coverage. The main fire station located at 720 W. Willow Avenue was built in 2008. Fire Station #2 located at 501 E. Chestnut Avenue and Fire Station #3 located at 1601 Spruce Avenue were both built in 1964. The department consists of 37 fire fighters, one secretary, one deputy Chief and various volunteers. Each fire station is equipped with one fire truck and one brush truck. All ambulance services are provided by American Medical Response (AMR), a private service. Currently, the Fire Department reports an average response time of 3 minutes within the City Limits. This level of response far exceeds the 4 minute requirements of the National Fire Prevention Association. To continue this level of service, the option to provide another fire station in the northwest section of town near the recent growth has been discussed.

### Public Works Facility

The Public Works Facility is located at 1220 Martin Luther King Boulevard and was constructed in 1939. Also at this location are the Water Department (1948), Street Department (1954) and Vehicle Maintenance (1950). As part of the Public Works Department there is the Wastewater Treatment Plant located on Fuller Road east of U.S. Highway 81. This facility was constructed in 1939 and has been expanded to accommodate current capacity needs. Other facilities within the Public Works territory include the Water Filtration Plant. These facilities have been moderately renovated over time and meet the current needs of the public works staff. Continued monitoring and required renovations need to occur.

### Airport

Halliburton Field, a publicly owned airport is located on the south edge of the community. Recently, a new terminal building was constructed and opened to the public. The airport has one runway set in a north/south configuration and one parallel taxi-way. The runway is 6,650 feet in length with an existing runway protection area of 1,700' and a future runway protection area of 2,500'. To capitalize on the airport facility, an industrial park master plan has been developed providing for light industrial





development on the east, south and west sides of the airport. Currently, the City is using some of this area for a land application system to use the effluent from the wastewater treatment facility.

### **Public Infrastructure**

#### **Duncan Power**

The citizens of Duncan, Oklahoma are the owners of a 13.2 kV electrical distribution system. The system is leased to the Duncan Public Utilities Authority, a public trust created to operate the enterprise operations of the City of Duncan. The system is marketed as Duncan Power for its customers and potential customers. The system is self-sustaining from a financial standpoint, in that revenues are in excess of the expenditures necessary for operation and has operated at this level for decades. Future Substation additions and Major System changes should be considered at a higher, more up-to-date voltage such as 34.5 / 19.9 kV.

#### **Water**

Water in the city of Duncan is supplied from three sources: Waurika Lake, Humphrey Lake, and Fuqua Lake, which are treated by a water treatment plant on the East side of the City. Treated water is supplied to the developed areas of the City via three major lines which generally supply the distribution system at Chestnut Avenue and Elk Avenue. The distribution system maintains three separate zones of pressure to maintain adequate water pressure across the varied topography of the City.

It is recommended by the Water Distribution System Study provided to the City of Duncan by Design Engineers Inc. that to allow for additional industrial sites in the southern region of the community, an elevated water tower be installed.

It is also recommended that additional water line improvements for the western portion of the city be improved to facilitate development. The community is currently constructing a new water tower north of Plato Road to improve water pressure and capacity in the north and west portions of town.

#### **Sewer**

Wastewater sewage is treated at the Duncan Wastewater Treatment Facility at the base of the Claridy Creek Drainage Basin. Currently the facility has treatment capacity for a population of approximately 30,000 people within the existing drainage basin. The City currently is growing in the north and westerly direction into the Stage Stand Creek Drainage Basin. Continued development into this drainage basin will require the need for additional wastewater treatment options.

### **Community Buildings**

#### **County Courthouse**

The Stephens County Courthouse is located in downtown Duncan on 11th Street between Maple Avenue and Willow Avenue. The original County Courthouse was located in the center of Main Street at 10th Street and faced east. This original courthouse was torn down in 1968 after the current courthouse was completed in 1967.





### Stephens County Historical Museum

Located in the historic National Guard Armory at U.S. Highway 81 and Beech Avenue, the museum features displays and artifacts illustrating early land-run and settlement life in Oklahoma together with early 20th century memorabilia. Duncan Armory was added to the National Register of Historical Places in 1996.

### Chisholm Trail Heritage Museum



The Heritage Center was established in 1998 to commemorate and celebrate the great history and heritage of the old Chisholm Trail and the other Great Cattle Trails of the late 19th century. The Center includes the largest bronze sculpture in Oklahoma, a monumental statue of a cattle drive, and an adjacent museum and visitor center. Inside the museum, displays and galleries put you on the old trail. From the economic forces stimulating the cattle industry after the Civil War, to the entrepreneurs and cattle barons who made it happen, and on to the cowboys, the Native Americans, the cavalry, the cattle, and the terrain, the Heritage Center tells the complete story of the famous trail.

### Other Public Facilities

Other public structures include Latham Building (1955), Genealogy Library (1935), Parks and Cemetery Building (1976), Duncan Senior Citizen

Center Building (1985), Duncan Public Library (1985), and Duncan Public Library Annex (1996). All of these structures are in good repair and should continue to provide adequate service for the community.

### Conclusion

As the community moves forward, it is imperative the City continue to improve existing structures and infrastructure. These improvements should primarily consist of maintenance of the existing facilities. As Duncan's population has not changed significantly through the years, adding a large amount of additional infrastructure to a community that is not growing only increases the burden on the current residents. To determine priorities for public improvements, the City should create a Capital Improvements Plan to outline projects for the next 5 years. This document should be created using the Comprehensive Plan as a reference, while working with the Planning Commission and the City Council to determine priorities.



## Parks and Recreation

### **Introduction**

Parks and Recreation are very important parts of community aesthetics and outdoor life. Whether for children or adults, parkland and open space can enrich a community. Sports fields and courts, playgrounds, bike and walking trails, picnic benches, and natural open space are all components of a vibrant and diverse park system that generate social activities. In addition to the social activities of parks and open space, these places also provide environmental amenities in terms of flood protection, runoff mitigation, higher air quality, and increased shade. All together parks and their amenities can have a significant positive impact upon quality of life within a community, becoming an economic amenity as well.

In urban and urbanizing areas, parks and open space are important land use considerations that can help foster a high quality of life. Parks and open space

have the tendency to become the focal point of many neighborhoods: calm, relaxing places fostering community bonds amidst the hustle and bustle of higher intensity urban uses. Parks are used by adults and children alike for a variety of leisure and lifestyle activities. Pedestrian and bicycle activities are important modes of transportation and park design needs to reflect multi-modal transit options in terms of accessibility. Larger urban parks can consume large tracts of land and include parking lots. There exists the potential for large urban parks to become generators of excess traffic and require additional traffic and transportation planning. Land values are also positively affected by proximity to park amenities. This section provides a breakdown of parks, recreation and open space in Duncan.

The National Recreation and Park Association (NRPA) has issued standards for parkland which may be used as a general rule to gauge the adequacy of parks and open space on a per 1,000 population basis.

### National Recreation and Park Association Guidelines

Type of Park	Acres per 1,000 population
Local park	6 acres per 1,000 population
Regional Park	15 acres per 1,000 population

The NRPA recommends six acres of local parks per 1,000 population and 15 acres of regional parks per 1,000 population. Given these recommendations, the City of Duncan currently has approximately 4.84 acres of park land per 1,000 residents. This total is slightly under the NRPA guidelines. To meet the NRPA guidelines for local parks, the City of Duncan would need to obtain another 27 acres of park land. As for regional park facilities, the City exceeds the recommended 15 acres of park land with the inclusion of the area lakes.





### City of Duncan, Park Land Summary

City Parks	Acreage
Abe Raizen Park Sports Complex	37.5 acres
B. P. & W. Park	1.4 acres
Centennial Park	0.4 acres
Douglas Park	4.2 acres
Edgewood Park	6.4 acres
Fuqua Park (east and west)	14.3 acres
Hillcrest Park	4.6 acres
Heritage Park	2.2 acres
McCasland Parkway	1.7 acres
Memorial Park	12.8 acres
Playday Park	5.8 acres
Sledge Park	3.6 acres
Timbercreek Park	2.5 acres
Timbergate Park	2.9 acres
Whisenant Park	11.4 acres
<b>Total Acreage</b>	<b>111.7 acres</b>
Source: City of Duncan	

Additional park land is found throughout the city in the form of private land open to the public. The following is a list of these park facilities.

Private Park Land	Acreage
Jaycees Park	0.9 acres
Hines Park	23.7 acres
McCasland Rotary Park	2.33 acres
Source: City of Duncan	

Hines Park is a park with ball diamonds, Jaycees Park is a neighborhood park and McCasland Rotary Park is a private park maintained by the City. Although not owned and operated by the City of Duncan, these park spaces provide additional green space which benefits the community as a whole.



### Parks Master Plan

A parks and open space plan was developed for the community in 1977. Then in 2002, a trail corridor master plan was developed by University of Oklahoma students. Both documents offer a number of key recommendations for the community to pursue. Though well done, these documents need to be reviewed and brought up to date with current goals, land use and development in the community.

Other plans that have been developed include a master plan for Abe Raizen and Fuqua / Memorial Parks. Fuqua Park / Memorial Park, located on U.S. Highway 81, will provide improvements such as the rehabilitation of the existing swimming pool facility, the addition of a splash pad, new parking area and removal of asphalt for additional green space. A bridge concept, connecting the two parks across U.S. Highway 81, has been developed by a Leadership Duncan Class to allow for pedestrian connections over the street level. Soccer fields and lighting have been developed for Abe Raizen Park as well as additional parking has been identified for future development along N Street.

To determine community support for improvements to Douglass Park, several meetings were held in 2004. The community determined overall improvements to the park were preferred over only pool improvements. The requested improvements included play equipment, additional parking, lighting and a number of other items.

### Simmons Center

The Simmons Center is a 105,000 square foot facility which began construction in 1987 and was completed in 1990. This facility is operated and maintained by the Simmons Center Foundation, Inc. a 501(c)(3) non-profit organization. The facility



and the grounds are owned by the City of Duncan and leased to the Simmons Center Foundation, Inc. under a 20 year lease agreement.

The Recreation wing of the facility was officially opened in January 1990. This wing contains an aquatic center, racquetball courts, gymnasiums, walking / jogging track, aerobics dance room, body development room, game room, and locker room facilities. Following this, one year later, the convention / theatre wing of the facility was opened. This section offers a 750 seat theatre, dressing rooms, three large convention/meeting rooms each dividing into three sections, and a catering kitchen. To expand the opportunities for the community, Centennial Park was completed in late 1993. The park offers 10,000 sq. ft. of handicapped “total access” playground space free to the public and maintained by the Simmons Center staff.

### Golf Courses

There is one golf facility within the city limits of Duncan, known as Duncan Elks Golf & Country Club and one facility partially within the City of Duncan, known as Twin Oaks Golf Course. Immediately outside the city limits is The Territory Golf Course. These are all privately owned facilities.



## Conclusion

As the City develops, new parks and open spaces must be identified to accommodate increased population growth and community needs. As the majority of existing parks are located in the southern portion of the community and most new residential development is occurring to the north and west, additional land should be acquired in north and west portions of Duncan to accommodate future parks. The existing community parks should also be considered for additional programming to meet the needs and desires of the continually diversifying community.



## Schools

Schools are one of the most fundamental community services and facilities provided by government. They have a dramatic influence on the quality of life and economic development a community experiences. Not only do schools provide educational opportunities for children, but the facilities host a variety of other community activities: meetings, scouting events, celebrations and sporting league competitions and practices, etc. Schools are the foundational cornerstone for communities and are a direct reflection of a community's investment in its future.

Duncan Independent School District (ISD) has experienced a steady increase in student population from 3703 (2007) to 3893 (2010). Children are served at five K-5 elementary campuses, three buildings provide Pre-Kindergarten and Early Childhood programming, one traditional sixth through eighth grade middle school and one comprehensive high school campus. Additionally, Duncan ISD serves secondary level alternative education students at a renovated campus located near downtown. The district also works collaboratively with the Delta Community Action Foundation to provide space for Early Head Start programming at the Irving campus and Pre-Kindergarten services at the Will Rogers PK Center.



Portions of existing school facilities pre-date World War II and are inadequate to meet 21st Century technology standards and the increase in student population. A committee came together in 2008 to develop a district facility master plan. After an exhaustive process of examination of the condition of school buildings and considering numerous options, a comprehensive master plan was proposed to the Board of Education and subsequently adopted in June, 2009.

The goal of the plan was three-fold: Create a high school campus where students could receive state-of-the-art instruction in an inclusive, safe environment; re-configure an existing elementary building to house all early childhood services on one campus; and, unite K-5 programming on one 45 acre property located on the west side of Duncan in three grade-level buildings (K-1, 2-3 and 4-5). The community has a long history of supporting schools; but was unwilling to abandon the neighbor school concept and defeated the bond issue submitted for a vote in 2010.

As the school age population continues to increase, Duncan will be compelled to consider school facility options (expansion, renovation or new construction). A coalition of citizens made up of local business owners, community leaders, City of Duncan representatives, parents and educators has been organized to begin the process of developing a new plan for Board of Education approval and community consideration. The mission of this group is to develop a Comprehensive Plan to meet the educational needs of our students today and into the future.



## Economic Development

The City of Duncan and the southwest Oklahoma region benefit from a number of public and private entities recruiting new businesses and industries, while encouraging and supporting expansion of existing businesses. The work of these entities is respected and long-standing and has had a major impact on the economic health and quality of life of Duncan.

The continuation of these efforts and coordination of their activities and resources will affect the economic vitality of the community, influence quality and quantity of housing, and strengthen Duncan's ability to attract a skilled workforce in the future.

To the extent that communities assess strengths and weaknesses, build on strengths, correct weaknesses and pursue opportunities for economic growth and development, they will achieve a high quality of life. Duncan is well served by public utilities, including power, water and wastewater, and an adequate transportation system that includes major highways, rail and air.

Improving the economic health of Duncan and vicinity is the focus of:

- the Duncan Area Economic Development Foundation,
- the City of Duncan Economic Development Trust Authority,
- the Duncan Industrial Authority,
- the Duncan Chamber of Commerce & Industry,
- the Simmons Center,
- Duncan Convention and Visitors Bureau, and
- Main Street Duncan organization.

The City's economic health also is supported by the work of the Oklahoma Department of Commerce, Association of South Central Oklahoma Governments (ASCOG), Stephens County Fair and Expo Center (arena, pavilion, conference center events) and Southwestern Oklahoma Impact Coalition.

Duncan Area Economic Development Foundation (DAEDF) is the lead organization for Duncan's Economic Development activities. The Foundation's mission is "to continually increase job opportunities and the development of a favorable business climate and workforce development programs." The Foundation's primary goals are to:

- provide for new business and existing business growth;
- increase the per capita income of the area;
- serve as a resource agency to provide continuing economic development planning, and
- program development services.

The Foundation is engaged in recruitment, expansion, assistance with finance and training. The Foundation's opening, in November, 2009, of Oklahoma's newest business incubator in Duncan, provides new opportunities for emerging businesses focused on research and development, assembly and light manufacturing, advanced technology or services. The Center provides low cost office space and support services as well as economic incentives to tenants who are establishing new businesses.



The Foundation also administers Duncan's Venture Capital Fund to launch innovative new businesses or assist businesses in crisis. The Duncan fund is one of several Oklahoma venture capital funds.

The Foundation facilitates relationships with local, regional and state agencies. Services include renovation, acquisition or construction of buildings, permitting, negotiation of tax incentives, access to grant funds and grant administration marketing, and promotions literature, acting as general contractor during construction of sites and pertinent research and surveys. DAEDF is a full service operation.

Duncan's current major employers are:

The DAEDF works in cooperation with the Duncan Industrial Authority (DIA) to market four industrial parks: the East Industrial Park, the North Industrial Park, the Duncan Industrial Park and the South Industrial Park, all for light industry. The total acreage of the parks is approximately 623 acres. The DIA functions under the City of Duncan and oversees trust expenditures and has authority to support industries financially through issuance of bonds. The Authority works with the Duncan City Council on issues relating to economic development.

Company	Product/Services	#Employed
Halliburton Energy	Oilfield Services	2,100
Duncan Regional Hospital	Healthcare	625
Wal-Mart	Retail Sales	460
Duncan Public Schools	Education	459
Family Dollar Services, Inc	Distribution Center	325
Wilco Manufacturing	Machine Fabrication	200
Elliott Manufactured Homes	Manufactured Homes	200
City of Duncan	Services	200
M & M Supply	Oilfield Services	60
Mack Energy	Oilfield Services	112
Pre-Paid Legal Services	Legal Services	123
Cameron Measurement Systems	Machine Fabrication	88
Source: DAEDF		



Duncan's workforce employed by sector reported by U.S. Census 2008 for civilian employees over age 16, is as follows:

<b>Employed Civilian Population 16 Years and Over</b>	
<b>Total</b>	<b>10,275</b>
Agriculture, forestry, fishing and hunting, and mining	1,051
Construction	1,013
Manufacturing	1,252
Wholesale trade	242
Retail trade	1,357
Transportation and warehousing and utilities	616
Transportation and warehousing	483
Utilities	133
Information	161
Finance, insurance, real estate and rental and leasing	397
Finance and insurance	324
Real estate and rental and leasing	73
Professional, scientific, management, administrative and waste management services	667
Professional, scientific and technical services	345
Management of companies and enterprises	41
Administrative and support and waste management services	281
Educational, health and social services	2,111
Educational services	554
Health care and social assistance	1,557
Arts, entertainment, recreation, accommodation and food services	610
Arts, entertainment, recreation	166
Accommodation and food services	444
Other services (except public administration)	449
Public Administration	349
Source: U.S. Census 2008	



Educational, health and social services comprise the largest employment group in the City of Duncan. According to the “Oklahoma State of the Workforce Report 2007,” the median wage in this category is a favorable 80 percent of the national average, as is the median wage for retail sales. Oklahoma median wages in the agriculture, fishing and forestry occupations exceed the national average.

<b>Wages by Occupations Group, Oklahoma and US 1997-2006</b>			
<b>Major Occupational Group</b>	<b>Median Wage</b>		<b>OK as % of US</b>
	<b>OK</b>	<b>US</b>	
Management occupations	\$28.04	\$38.93	72.03%
Business & financial operations occupations	\$21.47	\$25.81	83.18%
Computer & mathematical occupations	\$23.34	\$31.80	73.40%
Architecture & engineering occupations	\$28.15	\$30.00	93.83%
Life, physical science & social science occupations	\$21.10	\$25.49	82.78%
Community & social services occupations	\$14.61	\$17.21	84.89%
Legal occupations	\$25.07	\$32.56	77.00%
Education, training & library occupations	\$15.53	\$19.76	78.59%
Arts, design, entertainment, sports & media occupations	\$14.44	\$18.44	78.31%
Health care practitioners & technical occupations	\$19.67	\$24.99	78.71%
Health care support occupations	\$9.33	\$11.00	84.82%
Protective service occupations	\$12.90	\$15.42	83.66%
Food preparation & serving related occupations	\$6.86	\$7.90	86.84%
Building & grounds cleaning & maintenance occupations	\$8.36	\$9.75	85.74%
Personal care & service occupations	\$7.83	\$9.17	85.39%
Sales & related occupations	\$9.14	\$11.14	82.05%
Office & administrative support occupations	\$11.50	\$13.50	85.19%
Farming, fishing & forestry occupations	\$9.57	\$8.63	110.89%
Construction & extraction occupations	\$14.01	\$17.04	82.22%
Installation, maintenance & repair occupations	\$16.29	\$17.65	92.29%
Production occupations	\$12.27	\$13.16	93.24%
Transportation & material moving occupations	\$11.13	\$12.17	91.45%

Source: Bureau of Labor Statistics



The Duncan Chamber of Commerce and Industry, through the Chamber's Business Development Division, focuses on improving the business climate of Duncan and recruiting new business and retaining existing businesses in cooperation with DAEDF. The Chamber also takes the lead in legislative issues that affect the economic health of the City of Duncan.

Main Street Duncan is an active downtown organization that promotes downtown events, oversees the aesthetics of downtown, such as streetscapes and building facades, and markets downtown office and retail space to new tenants. Main Street Duncan has grown along with the recovery of Duncan's downtown area. The organization plans increased fundraising activities in 2010, as well as initiatives for a downtown pocket park and assessment of loft living in downtown Duncan. Main Street's activities complement ongoing recruitment of the Chamber and DAEDF.

Oklahoma is home to almost a dozen councils of government and Duncan is served by the Association of South Central Oklahoma Governments (ASCOG). ASCOG's Community and Economic Development Division works with communities and other state agencies to procure funding for a variety of programs, primary of which is securing funding for planning, funding and construction of vital water and sewer infrastructure improvements. Other priorities are creating jobs and improving local economies for more rural communities. ASCOG promotes industrial park development funding, small and large business financing packages, business planning and creation of revolving loan funds to expand the availability of capital. The group also supports downtown revitalization efforts. ASCOG is a partner in the South Central Oklahoma Workforce Investment Program and assists individual clients with procurement of state training grants, assisting

with employment and recruitment of personnel and other training needs.

Regional partnerships and promotion of five cities in southwest Oklahoma (Duncan, Lawton, Altus, Fredrick, and Marlow) cooperate for the joint marketing efforts as Oklahoma Mountain Metro, which references mountain chains found in southwestern Oklahoma. This organization works together in recruiting businesses, industry, tourism and people to the southwest region of Oklahoma.

Stephens County supports economic development efforts through marketing its Fairgrounds and Expo Center, which includes the fairgrounds arena, pavilion and conference center. The facilities maintain an active year-around schedule, yielding strong revenues and stimulating economic activity throughout the region.

Activities of all economic entities serving the Duncan region are coordinated informally, primarily through DAEDF.

### **Chapter Summary**

The discussion in this chapter of Factors Affecting Development has provided valuable information for drafting the Comprehensive Plan. Upon review of all the factors it is clear each of the factors discussed possess certain ramifications which should be reflected in the long range plan for Duncan.

The task at hand is to take all the various factors and integrate them into the Comprehensive Plan for the future growth and development of the urban area. It is this task that the following Chapter will be devoted.



# COMPREHENSIVE PLAN

## Introduction

This Chapter is a culmination of many hours of evaluation, input and idea generation that will describe the guiding principles for the Comprehensive Plan, and provide recommendations for future land use, transportation, community facilities, parks and recreation, economic development, housing and youth retention.

The goals and objectives outlined in this Chapter are based on community input, thorough evaluation of current conditions within the community and guidance by the Comprehensive Plan Advisory Committee. The future of the community will be based on community involvement, the diversified industrial base, strong school system, and the diligent, passionate residents of the community.

As identified in Chapter 1 of this report, the Plan's vision statement is as follows:

Duncan is a growing city, made strong and stable by its values and character. We nurture what is good about our City—our history, our culture, our schools, our neighborhoods and all that makes Duncan thrive. We care about each other, our health, our safety and natural resources. Duncan leads the region in economic growth in an environment that encourages innovation and entrepreneurship. Our residents are drawn together by beautiful parks, pathways and public places. We are committed to continuing renewal of our vision, to the next generation and achievement of an unmatched quality of life for all.

This statement should serve as a benchmark for analyzing, evaluating, and implementing the effects of new development within the City. The recommendations of this chapter will build upon the information from Chapters 1 and 2, and provide further basis for the development of recommendations.

This chapter describes guiding principles for the Comprehensive Plan and provides recommendations for land use, transportation, community facilities, housing, parks, and economic development.

## Guiding Principles

Community planning principles are advocated throughout this Comprehensive Plan to serve as the basic framework for developing a high quality of life that allows residents to live, work, shop and play. To develop this framework, the following guiding principles will be used. These principles reflect community sentiments, data from the community survey, and an understanding of present and future development possibilities desired and envisioned by Duncan.



Some guiding principles identified through the process by the Committee, Staff and residents include:

- Encouraging economic investment, especially in the downtown area
- Promotion of employment diversity
- Efficient use of land and infrastructure
- Effective rehabilitation of existing housing and promotion of appropriate infill housing
- A greater mix of housing choices focused on middle income single family, affordable single family and market rate multi-family housing
- Providing amenities that ensure quality of life for future generations
- Preservation and management of historic sites
- Beautification of the community as a whole

### **Land Use Plan**

The future land use plan is the graphic representation of the physical development of Duncan in the next ten to twenty-five years. The plan was prepared with the objective of guiding growth in an orderly and more compact fashion. Even with this objective in mind, the Future Land Use Plan provides significantly more land area, for accommodating future development, than the projected population will require. Providing a plan for more area than is expected to be developed offers flexibility for development opportunities. The projected urban growth can be accommodated in a relatively short distance from the current urbanized area. This plan discourages “Leap Frog” development, even if the development could be serviced by public water and sanitary sewer facilities.

The Future Land Use Plan also addresses a growing or shifting population and sets general guidelines for development that serves the population through a healthy mix of land uses—commercial, residential, mixed use, industrial, public, parks and recreation and institutional. Key factors that will influence the shaping of the City’s land use plan include:

- The three major watersheds that make up the community and determine drainage and wastewater treatment locations;
- The State Highway 7 Bypass and the consideration of development to the western portion of Duncan;
- The Sphere of Influence line which identifies the extent to which the community can grow;
- The Housing Impact Strategy Area which has significant housing issues;
- The current and future street improvement plan; and
- The continued growth of the Duncan Regional Hospital.

### **Land Use Classifications**

Land use classifications provide a means for describing the preferred Land Use within the community. Classifications are designated rather than specific zoning districts to allow flexibility in implementing the recommendations over time. When development, redevelopment, or revitalization occurs, then zoning changes should be made to reflect the intent of the Plan.



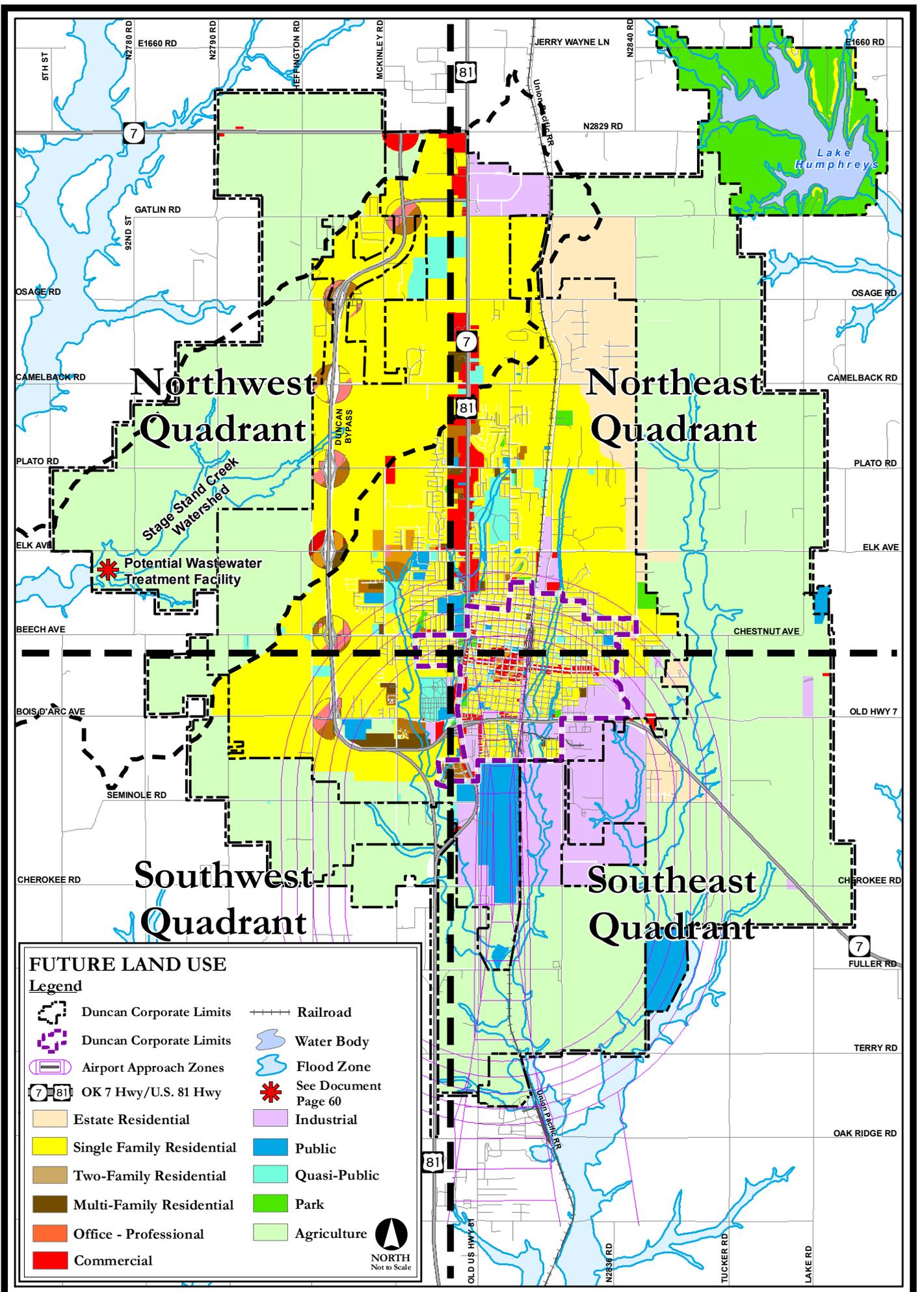
The land use classifications on the Future Land Use Map are:

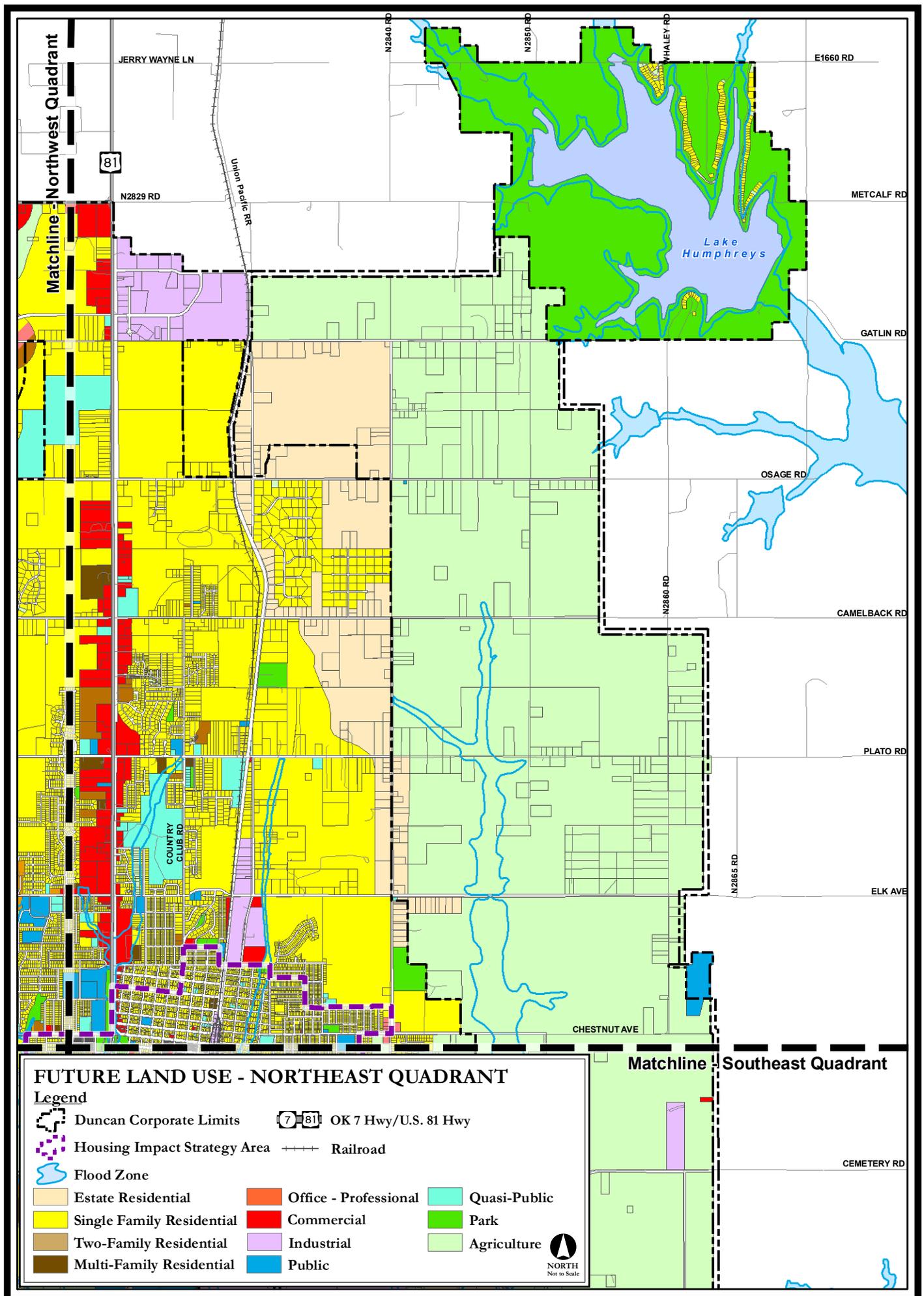
Land Use Classification	Proposed Density and Uses
Estate Residential	Minimum 1 acre
Low Density Residential	Up to 7 units per acre
Medium Density Residential	7 to 12 units per acre
High Density Residential	Up to 18 units per acre
Office	Office and Professional Uses
Neighborhood Commercial	Restricted Retail Business
Commercial	General Retail Business
Downtown Mixed Use	Mix of uses including residential
Mixed Use – High Density Residential, Office, Commercial	Mix of high density residential, office and retail
Mixed Use – Low Density Residential, Medium Density Residential, Neighborhood Retail	Mix of low density, medium density and restricted retail
Industrial	Industrial assembly, warehousing and manufacturing
Public	Institutional uses for government and educational purposes
Quasi-Public	Churches, cemeteries, private golf courses, etc.
Parks	Park land and recreational improvements
Agriculture	Land used for growing crops and raising animals
Housing Impact Strategy Area	Area designated for additional housing study / improvements

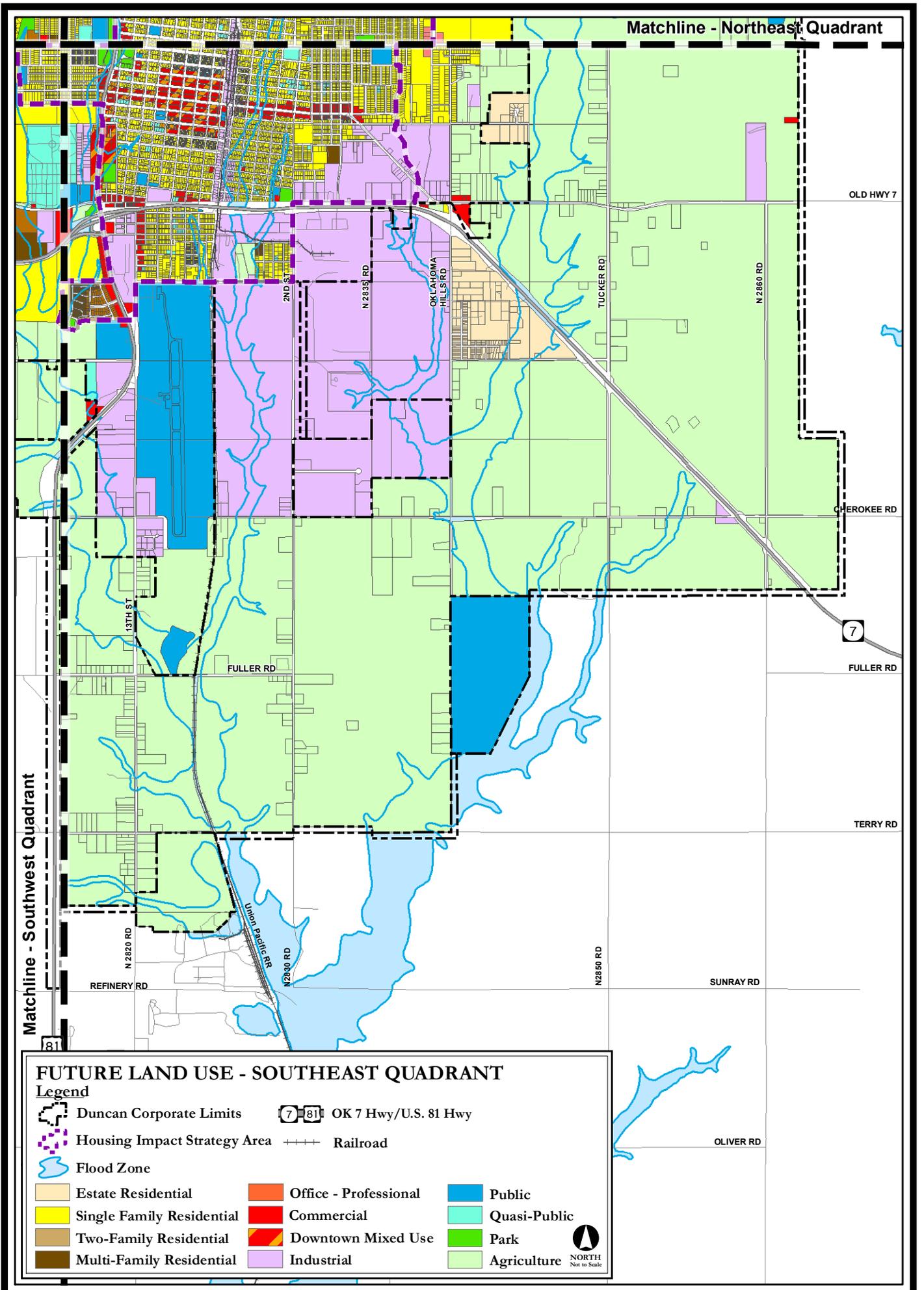
Although not a land use classification, the housing impact area is a line indicating the area that should be studied for revitalization. The identification of the housing impact area provides the City and property owners with an understanding of where additional focus needs to occur to improve the area.

### **Future Land Use**

The Future Land Use Map, on the following page, reflects recommended future use of land with the land use classifications.







Matchline - Northeast Quadrant

Matchline - Southwest Quadrant

**FUTURE LAND USE - SOUTHEAST QUADRANT**

**Legend**

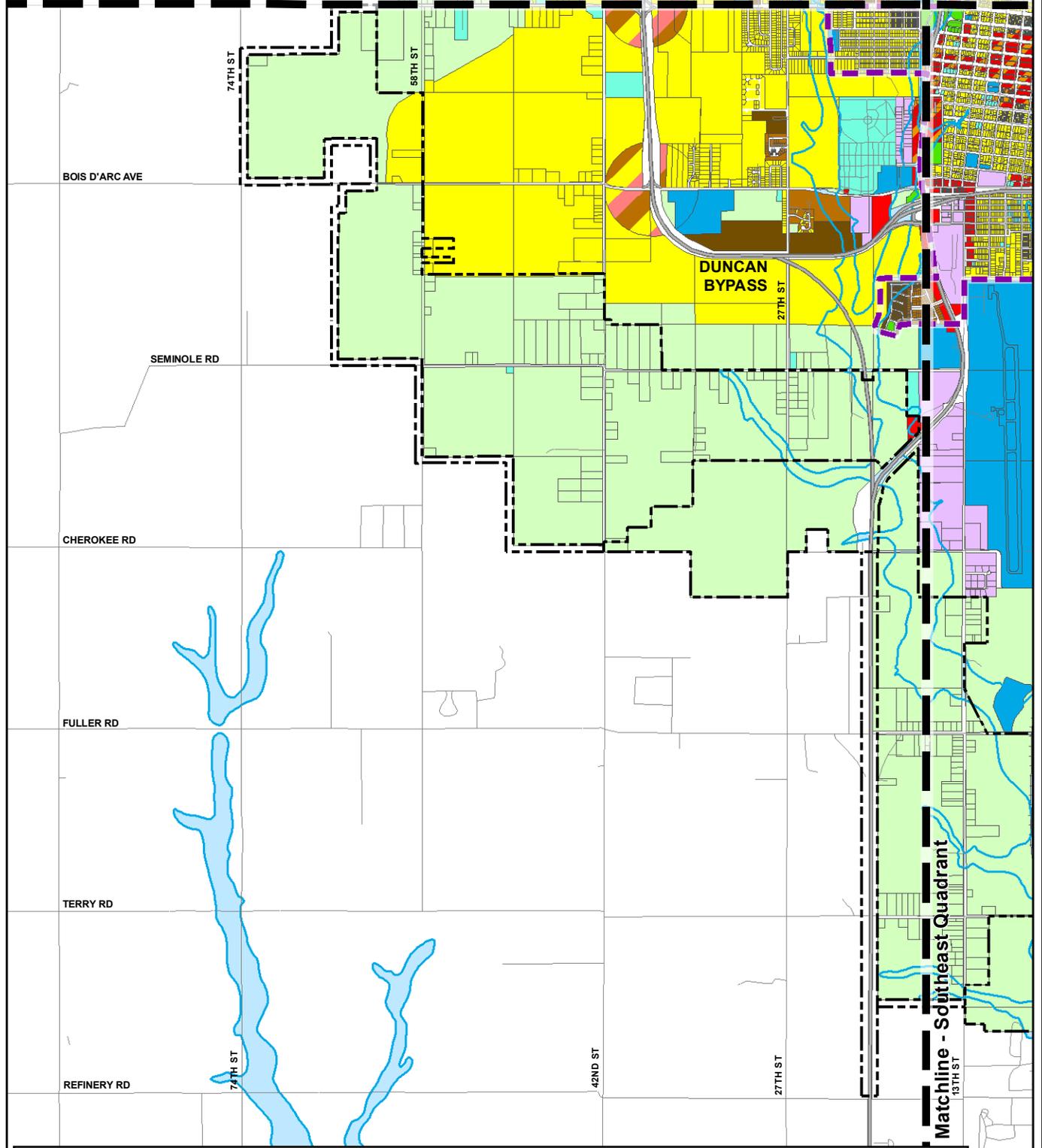
-  Duncan Corporate Limits
-  Housing Impact Strategy Area
-  Flood Zone
-  Estate Residential
-  Single Family Residential
-  Two-Family Residential
-  Multi-Family Residential
-  Office - Professional
-  Commercial
-  Downtown Mixed Use
-  Industrial
-  Public
-  Quasi-Public
-  Park
-  Agriculture

  OK 7 Hwy/U.S. 81 Hwy

 Railroad



Matchline - Northwest Quadrant

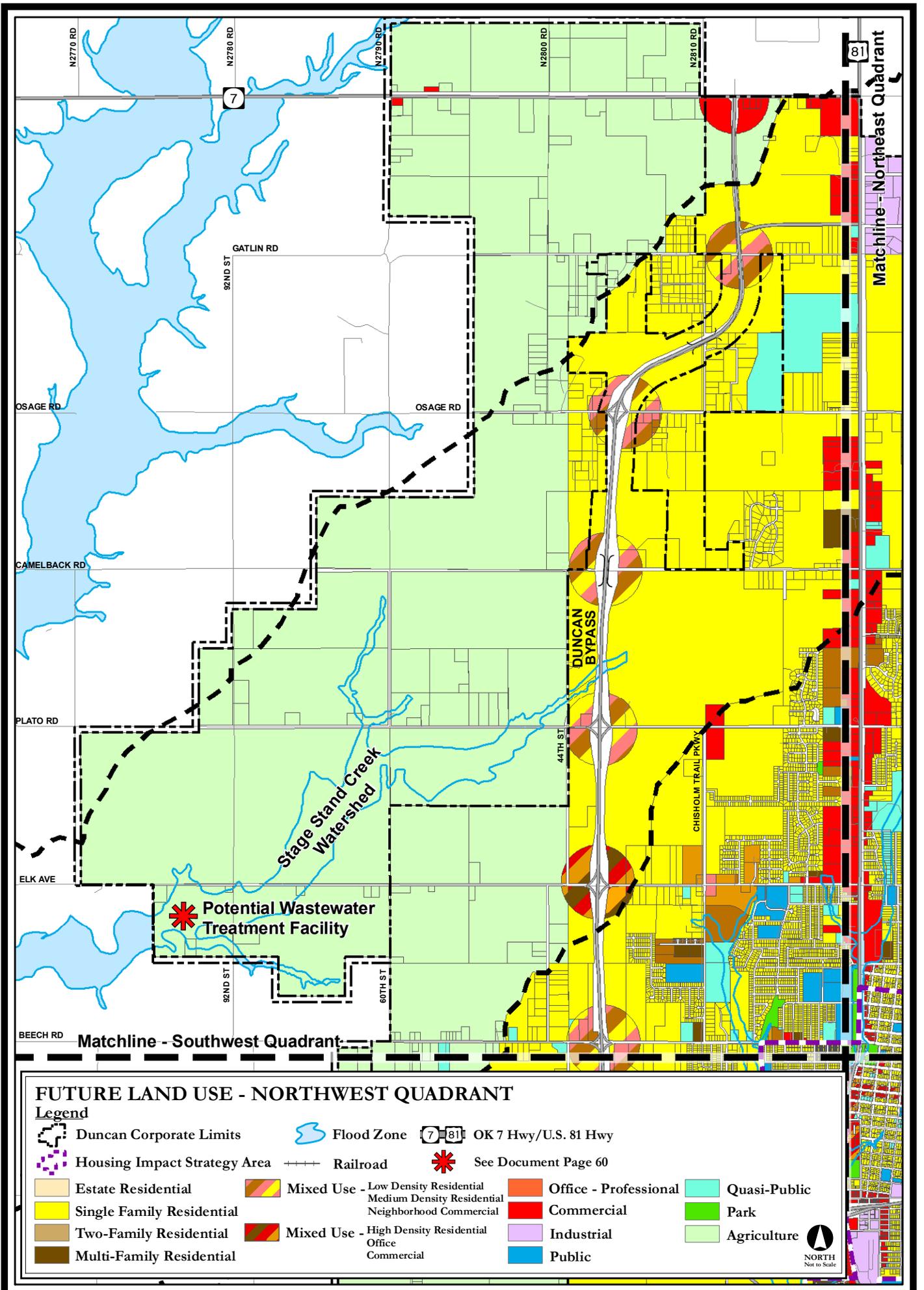


**FUTURE LAND USE - SOUTHWEST QUADRANT**

**Legend**

- |                              |  |                       |
|------------------------------|--|-----------------------|
| Duncan Corporate Limits      | Flood Zone   | OK 7 Hwy/U.S. 81 Hwy  |
| Housing Impact Strategy Area | Railroad   |                       |
| Estate Residential           | Mixed Use - Low Density Residential<br>Medium Density Residential<br>Neighborhood Commercial | Office - Professional |
| Single Family Residential    | Mixed Use - High Density Residential<br>Office<br>Commercial                                 | Commercial            |
| Two-Family Residential       |  | Industrial            |
| Multi-Family Residential     |  | Quasi-Public          |
|                              |  | Park                  |
|                              |  | Agriculture           |
|                              |  | Public                |







## **Future Land Use Recommendations**

The following land use development goal and recommendations for Duncan are a culmination of the previous sections and will provide further guidance and direction in determining how the City's current and future land use growth and development will proceed. The use of land in a

community is not a random process but requires a deliberate process of analysis and accountability on the part of key decision-makers. Such decisions will embody the guidelines as outlined in the following recommendations.

### **Goal:**

*Develop an orderly and balanced growth pattern, through adequate infrastructure, preservation of natural resources, while maximizing development and infill opportunities.*

### **Recommendations:**

- Ensure, through proper planning and land use controls, that future land development in the area follows a pattern that enhances the overall image of the community and the quality of life.
  - o Review and update the Zoning Regulations to conform to the land use standards as they are developed
    - Revise ordinances to allow for mixed use development and specifically provide for flexibility in the Central Business District and at the interchanges along the by-pass
    - Amend the zoning regulations to provide minimum standards for mobile home parks
    - Develop, amend and adopt overlay districts to accomplish future desired development in corridor and business districts
    - Amend the requirement for street widths and right-of-way requirements to standards outlined in this document
    - Consider revising the Sign Ordinance to reduce clutter and improve aesthetics
- Develop a strong working relationship with Stephens County and the Duncan Independent School District providing for support for development incentives.
- Preserve the unique natural beauty of the community and outlying areas encouraging development that protects and effectively uses the floodplain, woodlands and vistas as open, park or recreational space.
- Develop a plan for redevelopment of the obsolete retail properties on the east side of U.S. Highway 81, providing incentives and recruitment of a developer(s).



### **Commercial Development Recommendations**

The challenge for the City is to create a vision for compatible redevelopment and to carry out strategies for implementing the vision within the context of the Comprehensive Plan. The two most critical areas for commercial redevelopment and rehabilitation are the Central Business District and the vacant buildings and obsolete structures along U.S. Highway 81, in particular south of Pine Street. Duncan is a Main Street Organization and together with the Chamber of Commerce and Industry is improving the appearance and awareness of the downtown. To create a more vibrant downtown, additional residential uses and continued development of community activities will be necessary.

#### **Goal:**

*Establish a strong, high-quality commercial base providing diverse, accessible, and convenient services.*

As new uses and structures are promoted in existing commercial districts, including along U.S. Highway 81, developments should remain compatible with surrounding land uses, particularly residential neighborhoods, and should foster a pedestrian experience that encourages nearby residents to walk or bike as an alternative to driving. Providing for cross access easements and pedestrian friendly developments will create a balance between the needs of the vehicle and the pedestrian. Bringing in new retailers to fill market voids is critical to Duncan's ability to draw from a larger market, resulting in more tax dollars and more retailer interest.

The following commercial development recommendations should guide the City officials when considering development scenarios and for updates to the City's zoning regulations.



### Recommendations:

- Achieve a proper balance between commercial uses and other uses by:
  - commissioning a retail / office market study that identifies retail leakage, absorption rates and achievable rents; and
  - encouraging commercial and office development that diversifies the local economic base.
- Provide locations and opportunities for commercial development including:
  - preservation of land west of State Highway 7 Bypass for agricultural uses;
  - protection of sufficient depth along major traffic ways and at major interchanges/intersections for future commercial, office and mixed-used development;
  - encouraging commercial and mixed-use development at key locations along State Highway 7 Bypass; and
  - identifying and actively pursuing potential economic development sites for future development of commercial projects.
- Ensure that commercial development is of high quality by:
  - requiring that new commercial developments use attractive architectural styles and high quality materials for exterior finishes;
  - requiring cross access easements to limit additional traffic on public rights of way and ease of access to multiple shopping venues;
  - encouraging pedestrian-friendly commercial design and development by integrating outdoor public open space and walkways; and
  - ensuring that new commercial uses fit the surrounding development style.



## **Industrial Development Recommendations**

Industrial companies have been the backbone to Duncan since the beginning. Halliburton was the major employer for the city for a number of years and what made the community known to the world. Today, Halliburton is still a major employer in the job market, but Duncan has several other large employers as well. It is the communities desire to see the industrial base expand to provide more jobs in the community and lessen the reliance on Halliburton. In an effort to accomplish this goal, Duncan has identified large areas of land for industrial use and Duncan Area Economic Development Foundation is pursuing companies specializing in oil and wind energy in addition to other industries that provide for a diverse industrial base.

It is also the desire of the community that Duncan expand the job opportunities to high tech jobs that will bring the youth of the community back to Duncan. To bring these types of jobs, the community will need to invest in upgraded technological services as well as consider expanding educational opportunities in the area to support these companies.

The following recommendations for industrial development are intended to serve as the basis for developing the appropriate implementation tools used to create and sustain industrial areas within the City.

### **Goal:**

*Promote industrial growth to expand the employment base and strengthen local financial health.*

### **Recommendations:**

- Retain and/or attract high-quality industries that provide high-paying jobs and pleasant working environments by:
  - o expanding higher education and trade school opportunities;
  - o providing T-1 lines for high speed, high capacity internet capabilities for high tech companies;
  - o protecting the development potential of the industrial zones through restricting conflicting uses on the abutting properties;
  - o pursue complementary manufacturing companies that support the current companies within Duncan;
  - o identify new technologies and companies to bring to the community;
  - o continue the use of incentive packages to make Duncan competitive;
  - o continue use of the incubator for small business start ups; and
  - o encouraging expansion of existing industrial operations within the designated industrial zones.
- Minimize negative impacts of industrial uses on the adjacent properties, public infrastructure and the natural environment by:
  - o encouraging innovative design of industrial structures and proper use of building materials to prevent negative impacts of noise, smell, appearance, and pollution; and
  - o ensuring that proper landscaping and screening is provided in the development plan prior to plan approval.



## **Residential Development Recommendations**

Housing is a critical issue for the Duncan community. Currently the housing stock ranges significantly from new high end housing to dilapidated, uninhabitable housing, with a limited number of multi-family developments. Duncan must address declining neighborhoods, lack of housing choice and a growing number of residents who require residential subsidies for housing. Due to the extent and serious nature of Duncan's deteriorating housing, as identified in the housing paper in Appendix B, it is recommended that the City take additional steps to stop deterioration and create new investment.

Long term implementation of the housing goal of this plan should begin with greater community

awareness of the extent of the problem. The City should pursue involvement of key stakeholders, community organizations, local businesses, institutions and the faith community as it continues to turn around neglected neighborhoods and meet the City's demand for housing choice. Support of financial commitments to meet the housing goal will be needed from the City and its residents.

The following residential development goal and recommendations for Duncan are intended to serve as the basis for City officials to use when considering development scenarios and for updates to the City's zoning regulations.

### **Goal:**

*Provide access to safe, well-maintained housing for all residents of the community.*

### **Recommendations:**

- Encourage the development of a wide range of housing choices.
  - Appoint a citizen committee to support and guide Duncan's housing progress and to keep the housing issue in the forefront;
  - Rehabilitation of housing in the community shall be encouraged to preserve the character and integrity of existing neighborhoods;
  - Work with low income housing developers to locate residential developments within the city;
  - Recruit developers to construct a wide range of housing choices, including quality multi-family housing, senior housing, small lot affordable single family housing, and quality rental housing; and
  - Anticipate the senior housing surge by attracting developers of housing for this age group.
- Promote quality infill housing development by:
  - Identifying all vacant residential parcels within the City and encourage reuse of these parcels, as possible, for infill housing;
  - Developing design guidelines for infill housing to provide cohesion within the neighborhood; and



- o Implementing a proactive strategy for addressing vacant lots that include:
  - purchase of the lots by the City and write-down for redevelopment;
  - working with the manufactured home companies to develop a concept that is affordable and complimentary to the neighborhoods in Duncan;
  - incentives for existing owners to redevelop the property; and
  - incorporation of certain properties into the parks system to be utilized as pocket parks or extension to existing parks.
- Improve and maintain the existing housing stock while preserving affordability.
  - o Work toward the elimination and prevention of the spread of blight and deterioration through property maintenance and community awareness;
  - o Develop a program to promote conservation, rehabilitation and redevelopment of blighted areas within the City;
  - o Ensure that housing meets all applicable code requirements, without imposing unnecessary costs; and
  - o Establish and maintain development standards that support housing development while protecting the quality of life.
- Enforce the housing maintenance codes by:
  - o considering development of a rental inspection program;
  - o requiring full interior and exterior inspections when multiple code violations have occurred; and
  - o providing landlords with standards and expose landlords with consistent violations.
- Encourage quality low income housing by:
  - o developing a strategy to ensure that affordable housing is available in Duncan in the future;
  - o supporting and working with human services groups such as Delta Community Action Foundation in their efforts to provide housing for the low income and homeless; and
  - o pursuing State of Oklahoma programs that provide funding for housing.
- Preserve and protect the existing residential neighborhoods by recognizing the existing development pattern in the built areas and by recommending compatible uses in the adjacent areas.
- In the City's first neighborhoods, identify potential historic districts, conduct inventory and approve a district, which then is eligible for state and federal tax benefits.
- In the upper portion of the Stage Stand Creek watershed designated for residential development (see page 50), it is the intent of the Future Land Use Plan to reserve those areas for future urban density development until waste water treatment facilities are available. Until that time, the land use should remain agriculture. New large lot estate development on individual septic tanks should be discouraged.



## **Transportation Plan**

This transportation plan was developed as part of a collaborative process under the development of the Comprehensive Plan. This City of Duncan Transportation Plan establishes the foundation of a sustainable transportation system that is cognizant of and accommodates all travel modes. The transportation system portrayed in this plan will support the future land uses proposed in the Future Land Use Plan, and work as an overall system to provide safe and efficient multi-modal travel opportunities.

## **Transportation System**

The primary street network within Duncan is a traditional grid pattern. Within the downtown area, the grid is offset to match the north-south railroad corridor that generally bisects the downtown area. U.S. Highway 81, the primary north/south route through Duncan, serves as Duncan's retail corridor. U.S. Highway 81 also facilitates most of the north-south travel within Duncan due to discontinuity issues of the parallel network to U.S. Highway 81. On the west side of Duncan, the new Duncan Bypass extends from State Highway 7 to the north, to the U.S. Highway 81/State Highway 7 intersection to the south. The Bypass plays a significant role as a viable north/south travel option for motorists.

The east/west grid street network is fairly established and plays a vital role in distributing traffic throughout Duncan. The network is still preliminary as much of the network has few turn lanes and primarily provides two traffic lanes, one-lane in each direction.

Pedestrian and bicycle mobility throughout Duncan is fairly restricted with limited sidewalks, paths and shoulders for non-motorized mobility. Safe, non-motorized mobility can play a substantial role in

overall transportation mobility success, as it reduces the need for vehicle related capacity improvements and enhances transportation options. Providing transportation options throughout a community can have a significant positive impact on diminishing fiscal resources dedicated to address roadway improvement needs.

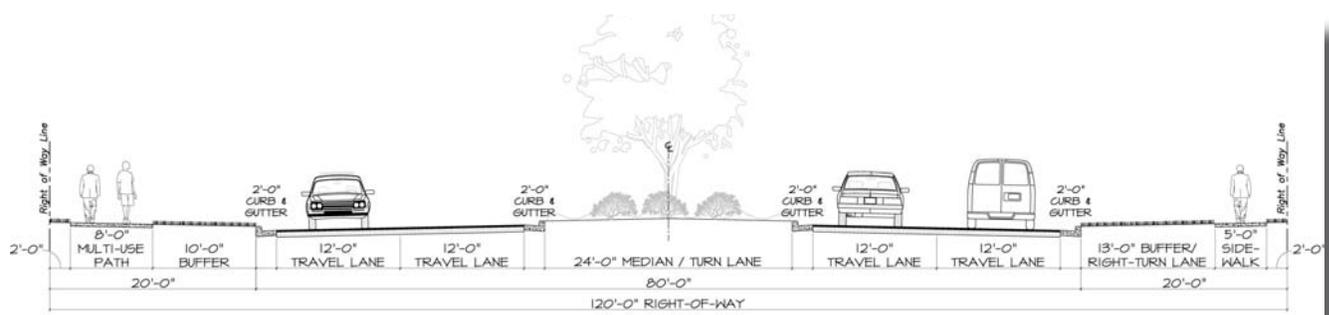
The transportation system must work together with the existing and future land uses to help ensure that safe mobility for all modes is provided and protected. Transportation system investments must be long lasting and work for all citizens and business owners of a community. As such, maintaining a street hierarchy is critical to maintain mobility, provide for growth and allow for informed transportation and land use investment decisions. The street hierarchy, or Functional Classification, provides a framework for transportation system owners (City, County, State and private) to apply specific design criteria to handle and manage anticipated traffic characteristics including traffic volume, traffic type and access. Typically when congestion occurs, there is an imbalance between the functional classification, access and surrounding land uses. To accomplish a fully functional transportation system, Duncan's recommended street functional classifications are defined as follows:



**Expressway:** Expressways are partially access-controlled roadways whose primary function is to facilitate subregional travel. The typical expressway has a limited number of at-grade intersections, but portions of the route may have full access control with traffic interchanges. Roadways that are classified as expressways are envisioned to be upgradeable to freeway standards if and when demand warrants and funding becomes available. This can be achieved by restricting access to predetermined locations that can be converted to grade separations over time. All roadways classified as expressways on the City of Duncan Transportation Plan are portions of the State Highway System, and are under the jurisdiction of ODOT.

**Primary Arterial:** A primary arterial can be four or more lanes, is generally high speed with the primary purpose of moving traffic efficiently. Primary arterial roadways generally connect major activity centers, serve longer trips, and provide primary accesses to freeways at interchanges. Local or individual access is generally not permitted in order to maintain the integrity of the roadway. U.S. Highway 81 is an example of a Primary Arterial. Key aspects of a Primary Arterial include:

- 4 or more travel lanes
- Left-turn lanes at intersections
- Right-turn lanes at intersections
- Right-turn auxiliary lanes are permitted
- Raised center median
- Residential driveways are prohibited
- Parking is prohibited
- Minimum driveway spacing standards apply
- Traffic signals are permitted, with spacing requirements for minimum distances between traffic signals

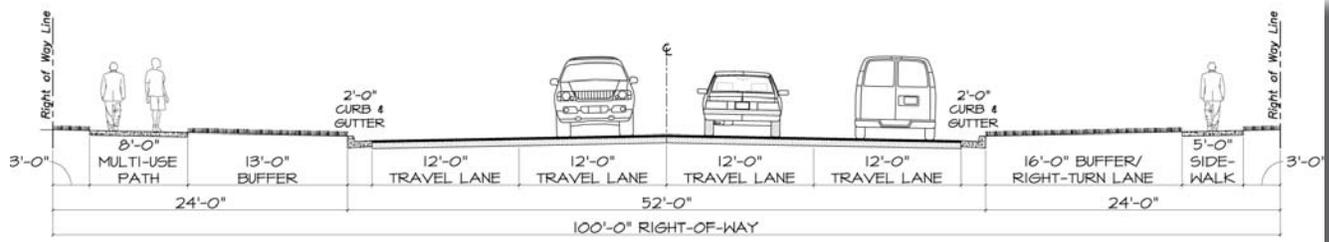


Section Not to Scale



**Secondary Arterial:** A secondary arterial can also be two or more lanes with the purpose of connecting lower and higher functionally classified facilities. Secondary arterials also connect major activity centers, but serve shorter trips and offer connectivity to larger land tracts and larger commercial developments. Commercial driveway access is generally shared to maintain the integrity of the roadway. Elk Avenue is an example of a Secondary Arterial. Key aspects of a Secondary Arterial include:

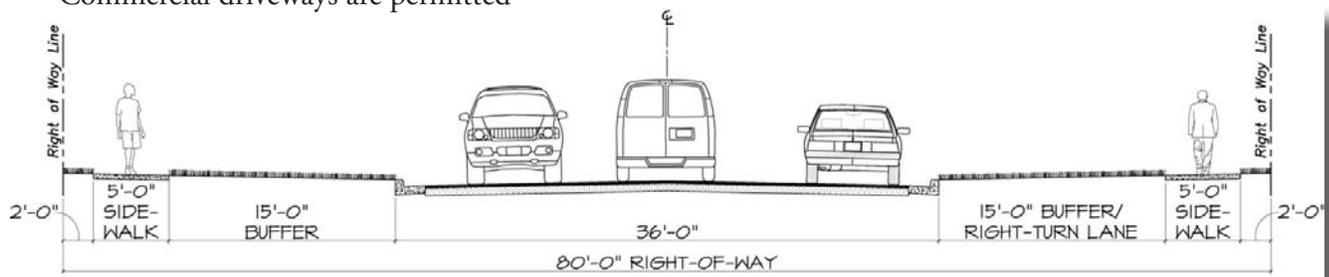
- 4 travel lanes
- Left-turn lanes at intersections
- Right-turn lanes at intersections
- Residential driveways are prohibited
- Parking is prohibited
- Minimum driveway spacing standards apply



Section Not to Scale

**Major Collector:** A major collector is generally two lanes with the purpose of providing connectivity between the minor collector and local street network to the secondary arterial network as well as providing direct commercial and larger residential development access to the roadway network. Eastland Drive is an example of a Major Collector. Key aspects of a Major Collector include:

- 2 travel lanes
- Left-turn lanes at intersections
- Continuous two-way left-turn lanes can be provided
- Right-turn lanes at intersections can be provided
- Parking is prohibited
- Residential driveways are not recommended
- Commercial driveways are permitted

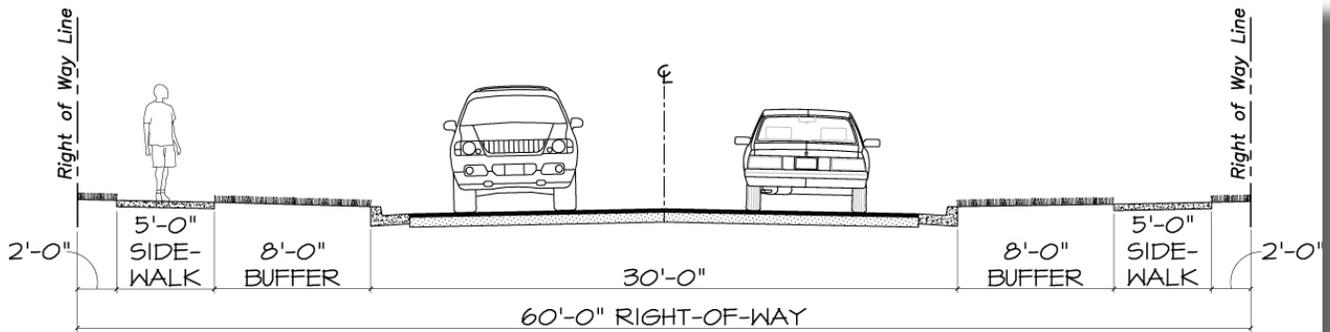


Section Not to Scale



**Minor Collector:** A minor collector is generally two lanes with the purpose of providing local street network access to the major collector and minor arterial roadways. The level of access is greater than the higher classification facilities, providing direct commercial and multi-family residential access to the transportation system. 5th Street south of Elder Avenue is an example of a Minor Collector. Key aspects of a Minor Collector include:

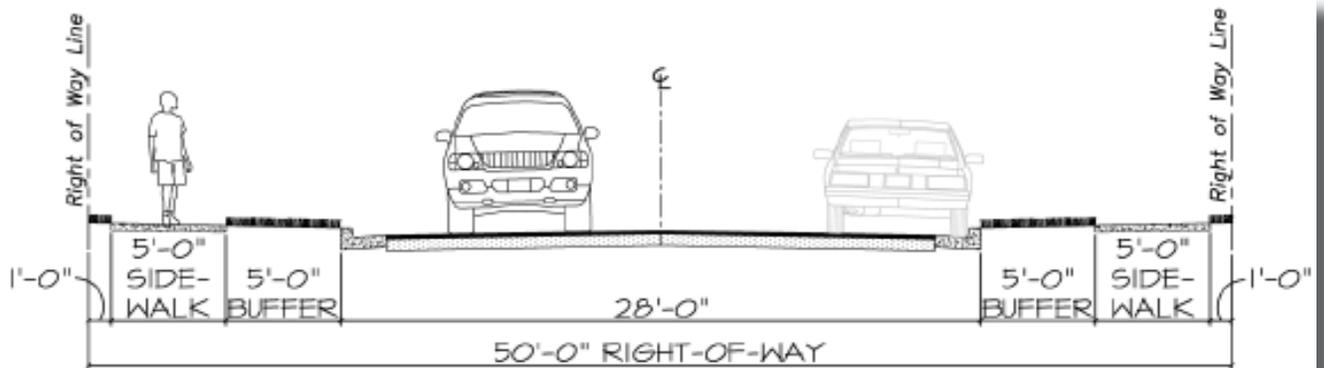
- 2 travel lanes
- Left-turn lanes at intersections
- Right-turn lanes at intersections can be provided
- Commercial driveways are permitted
- Minimum driveway spacing standards apply



Section Not to Scale

**Minor Street:** Minor streets provide direct access, and have the greatest amount of access allowed. Through traffic is discouraged on local roadways. Most of the residential developments throughout Duncan are representative of minor streets. Key aspects of a Minor Street include:

- 2 travel lanes
- Parking is allowed
- Residential driveways are allowed



Section Not to Scale



## Critical Mobility Planning

Through the efforts of the Comprehensive Plan, a concerted effort was made to identify area mobility issues at a community-wide scale so to allow the City of Duncan to further identify sub-area or corridor level improvement needs. The Transportation Plan on the following page establishes the framework to develop a sustainable transportation system. The Major Street Plan also included provides the basic system needed to accommodate the anticipated growth within Duncan. These two elements of the Comprehensive Plan will provide overall guidance regarding functional classification, future roadway improvements, access/driveways, right-of-way needs, sidewalk widths and parking. To further support the framework, access management techniques should be considered for the City. In Appendix D, access management information can be found for review and consideration for adoption as a part of the Zoning Ordinance.

## Project Prioritization

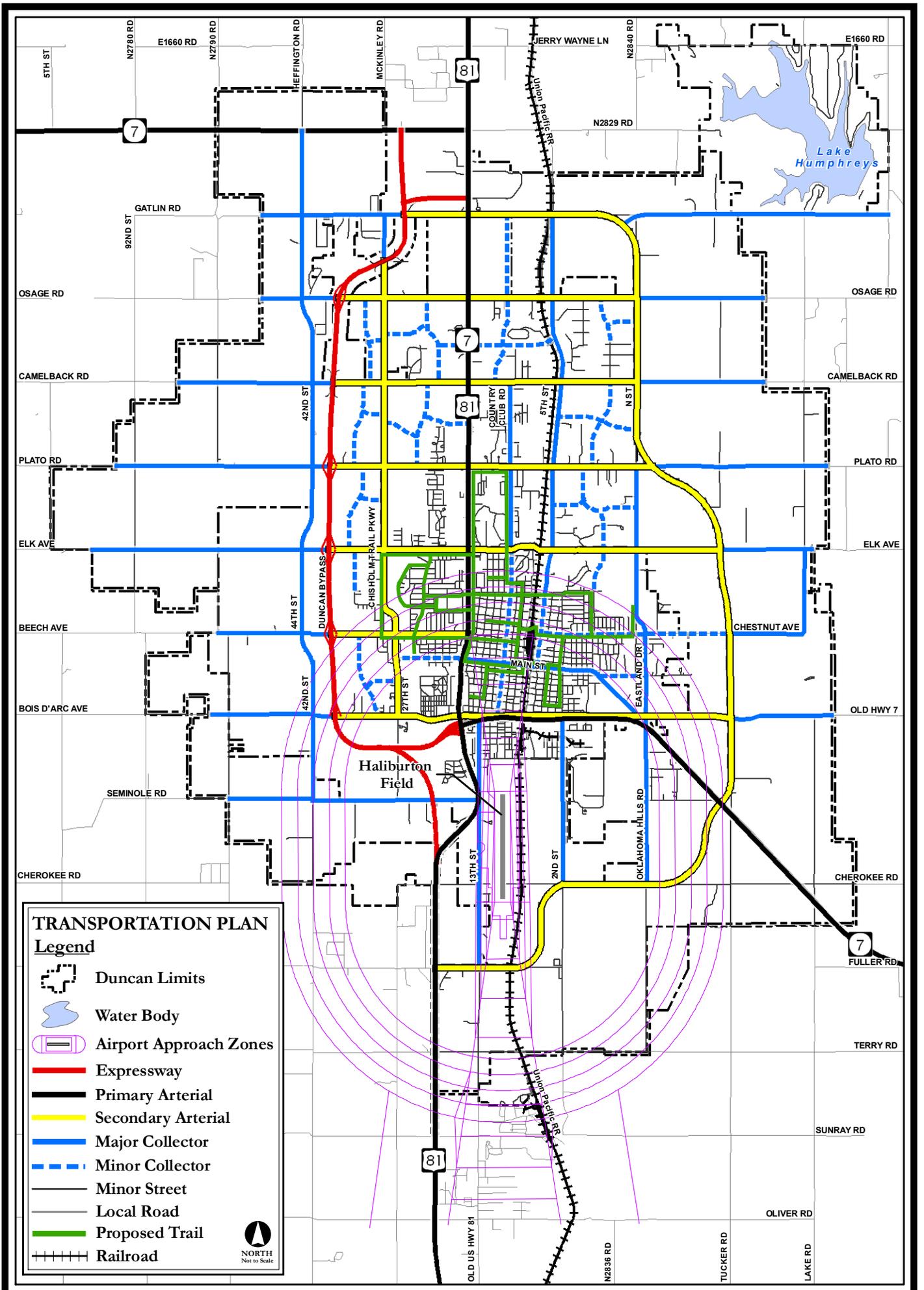
Project prioritization becomes crucial when funding is inadequate. Priority should be given to projects in the order from the most needs/benefits to the least critical. Addressing these priority projects first will most effectively use limited resources to address the City of Duncan's long range transportation needs. This plan recommends that each transportation project shall be rated based on the planning and engineering criteria by assigning points based

on accomplishing community goals. The City Public Works Department should develop the Project Prioritization process for ultimate program development. Such questions that should be asked include:

- Is the project consistent with the Major Street Plan?
- Will the project improve motorist, pedestrian or bicyclist safety?
- Will the project improve traffic congestion?
- Is there a current maintenance need that will be addressed?
- Are there other funding partners that will participate in the project costs?
- Will the project enhance multi-modal mobility?

## Major Street Plan

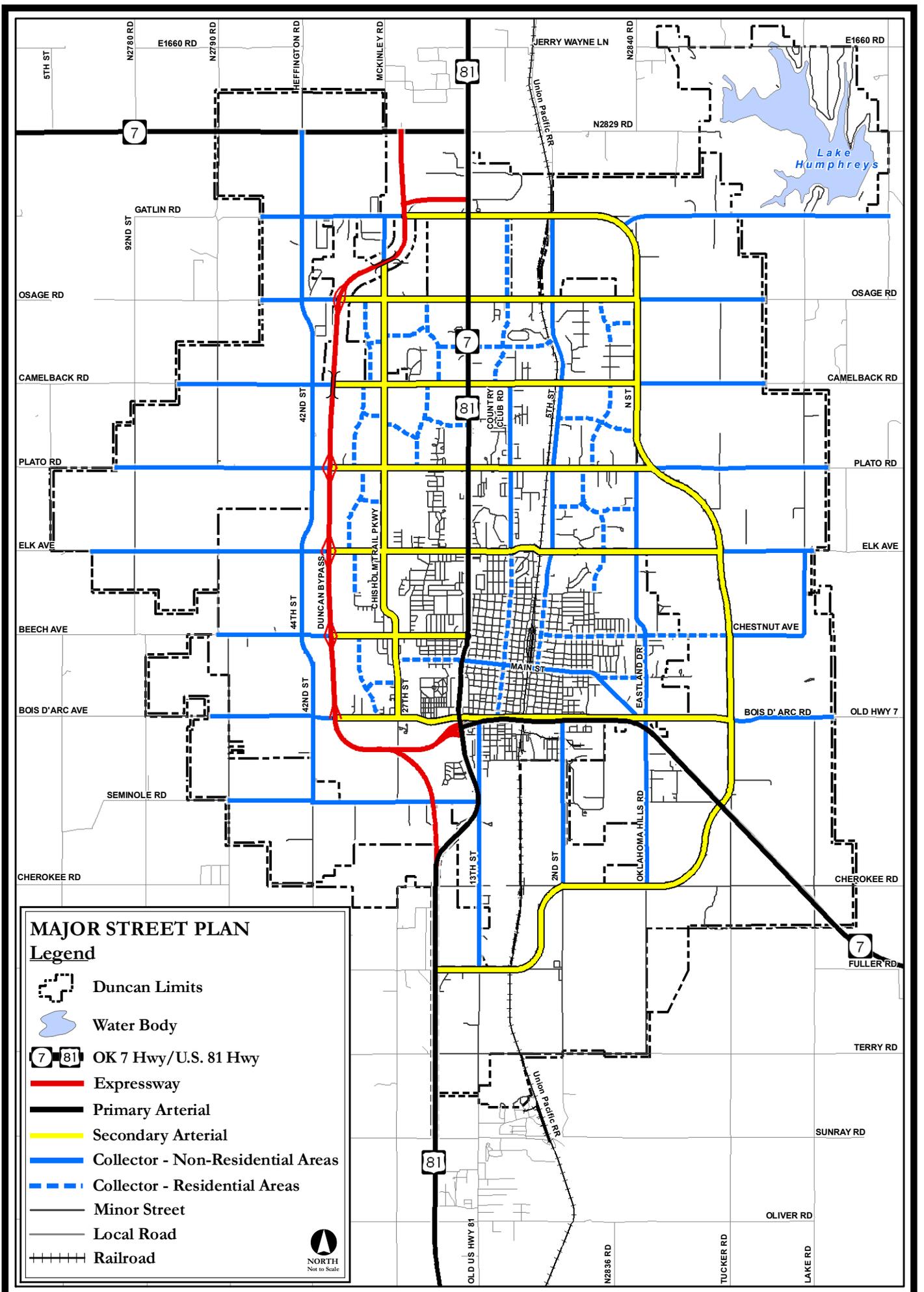
The Major Street Plan sets the foundation for transportation system improvements of existing and new streets. It also establishes the functional classification, which in turn, defines the right-of-way needs, access types and mobility requirements. The Major Street Plan, on page 67, defines the future roadway network required for a sustainable multi-modal transportation system.



**TRANSPORTATION PLAN**  
**Legend**

- Duncan Limits
- Water Body
- Airport Approach Zones
- Expressway
- Primary Arterial
- Secondary Arterial
- Major Collector
- Minor Collector
- Minor Street
- Local Road
- Proposed Trail
- Railroad

NORTH  
 Not to Scale





### Rail Service

The Union Pacific Railroad operates the railroad that traverses through the City of Duncan, with linkages south to Texas and north to Wichita, KS. Research indicates the future will bring additional trains through Duncan and the railroad companies are continuing to run longer trains. Currently the railroad crossings in Duncan are at-grade, with one grade separated crossing on Highway 7 located at the southern end of the community. The potential growth of Duncan and additional train activity will trigger the eventual need to improve additional rail crossings, particularly in the northern portion of Duncan. Converting an at-grade crossing to a grade-separated crossing requires protecting the corridor from new roadways, driveways and buildings where the grade separation will occur. Additionally, determining if the grade separation should be above grade (road-over-rail) or below grade (rail-over-road) will determine the distances that will need to be protected from the rail crossing, and the level of investment to be made. Above grade crossings can generally be constructed more cost effectively and generally in a reduced amount of time to design and obtain required approvals.

Two potential railroad crossings that could be beneficial to protect for railroad grade separated crossings would include Elk Avenue and Osage Road. The potential crossing at Elk Avenue could be an undercrossing requiring approximately 1300' of distance to cross under the tracks. Additionally, Osage Road is a potential overcrossing location as there is enough distance between the railroad and 5th Street to cross over the railroad tracks and return to grade without having to also span 5th Street as well. These two crossings should be considered key elements in Duncan's mobility.

### Air Transportation

Duncan currently has air service at Halliburton Field, a public airport. The airport primarily provides for single-engine planes, with some multi-engine planes, jet and helicopters. The airport is currently in excellent condition and provides the necessary services to the community and surrounding area. Duncan should continue to promote the airport to potential industrial users.



**Goal:**

*To continue to enhance the transportation system to be safe, efficient and aesthetically pleasing through multi-modal travel and connectivity.*

The following recommendations will support a system of multi-modal mobility while providing a structure for economic development opportunity.

**Recommendations:**

- Maintain a functional classification street hierarchy as defined herein to manage traffic and access, while promoting coordinated development and maintaining sustainable transportation investment.
- Enhance safety by providing safe and efficient ways to walk or bicycle within the community.
- Establish access management policies and ordinances to protect roadway infrastructure investments, preserve roadway capacity, improve safety and mobility, and enhance the balance between land use and transportation.
- Establish a process for project prioritization to spend public infrastructure funds on the projects that have the greatest needs.
- Complete a Corridor Plan for U.S. Highway 81 to evaluate land use, redevelopment, access and general transportation issues in a cohesive assessment.
- Provide proper connections between land uses and roadway continuity along collector and arterial routes to enhance system-wide circulation, and reduce out-of-direction travel.
- Developers of new projects should provide studies that demonstrate how the existing transportation road system will be affected by the project and indicate the system improvements needed to accommodate the project.
- Road and path linkages should be encouraged between residential subdivisions, to enhance accessibility and to help alleviate congestion on arterial roadways. By providing interconnected subdivisions, local traffic can be shifted to internal local streets, thereby reducing congestion on the major roadways.



## **Public Facilities Plan**

The Public Facilities Plan is intended to supplement the Land Use Plan and the Transportation Plan by providing the necessary services to adequately meet current and anticipated needs for the City.

Duncan has continued to maintain the public facilities and ensure proper working facilities for the employees. The facility needing attention in the next few years is City Hall. The current facility, although in good repair, is not customer service oriented with the phone system for access to the second floor departments. Also, with the addition of any more employees there will be a shortage of space.

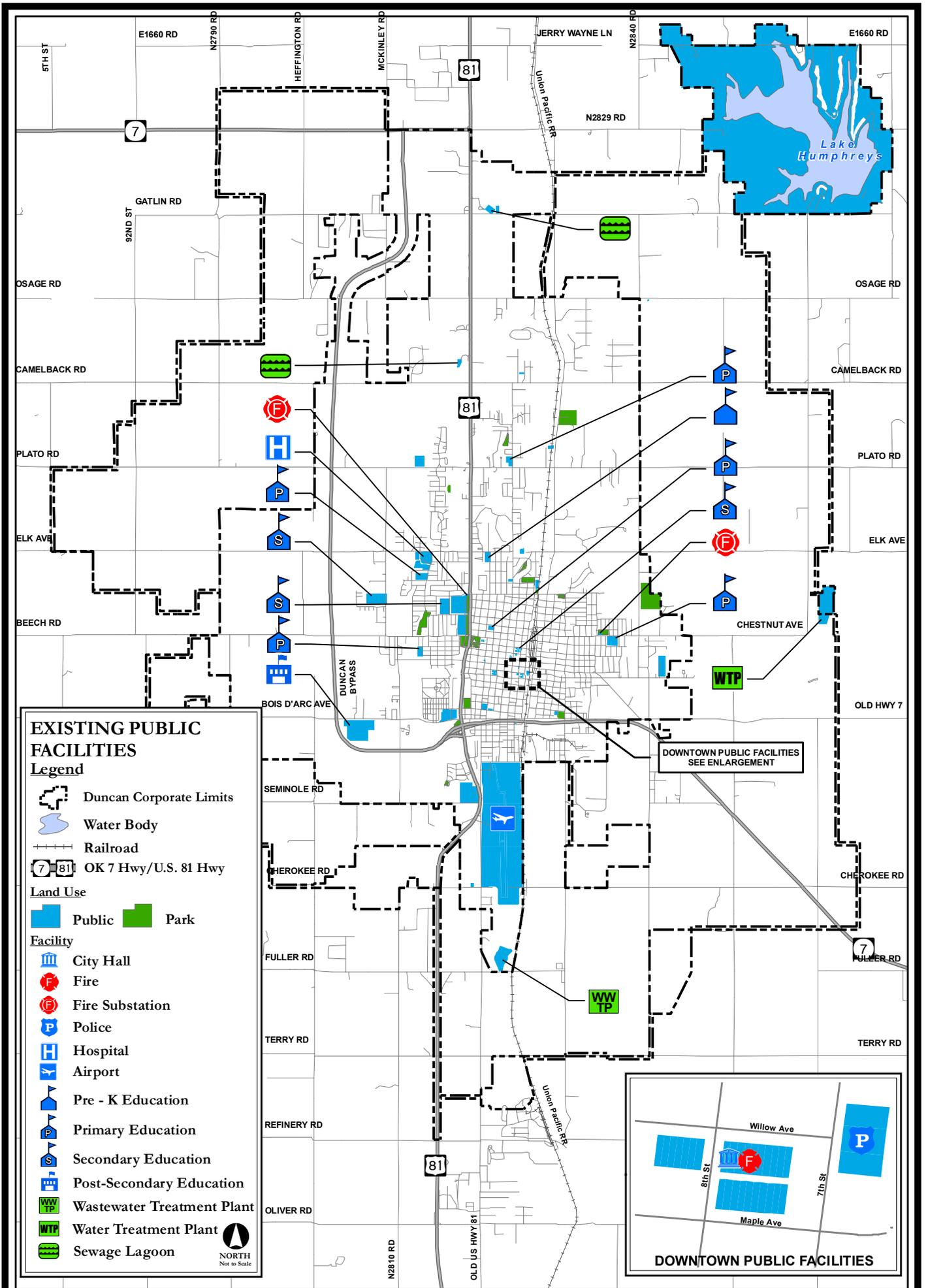
As the community continues to grow to the north and west, the Police and Fire Departments have identified the need to add substations in this area. With the construction of the water tower and ancillary space, there is room available for both departments to be present in the growth area.

In an effort to outline future expenditures for public facilities and infrastructure, the City will need to develop a Capital Improvements Program (CIP). This document will address maintenance issues and infrastructure improvements to accommodate future growth and targeted redevelopment on a long term basis, and will protect the City from the risk of being confronted with multiple repairs or maintenance expenses in a single year. A CIP would allow the City to project budget items over a period of five years with an additional five years of unfunded proposed projects.

The Duncan Independent School District has its own Comprehensive Plan for future improvements to the schools. This document is currently in a state of flux as the school district is working with the community to set priorities. Based on this, the Public Facilities

Plan only identifies existing facilities and does not represent any future schools.

The Public Facilities Plan on the following page identifies existing and proposed public facilities. The following goal and recommendations will guide City leaders when determining public improvements and needs.



**Goal:**

*Ensure that future land development and public facilities and services are mutually supportive.*

**Recommendations:**

- Develop a 5-year Capital Improvements Program with an additional 5 year list of anticipated or to be funded projects by:
  - o outlining maintenance and new construction of all public buildings and infrastructure;
  - o ensuring the CIP is linked to the Comprehensive Plan through review by the Planning Commission and the City Council;
  - o use the CIP to reinforce the goals of the Comprehensive Plan;
  - o conduct at least one public meeting for input on proposed projects;
  - o aggressively pursue sources of state and federal funding to accomplish public infrastructure improvements; and
  - o specifying the following projects that should be included:
    - Transportation / Streets and Sidewalks
      - Street maintenance
      - New street and utility installation to stimulate development
      - Sidewalk replacement and new construction
      - Design and installation of sidewalks across U.S. Highway 81 to connect the two parks
      - Creation of an ADA plan to meet the new federal standards
    - Parks and Recreation
      - Development of a parks and trails master plan
      - Construction of trails
      - Revitalization and programming of existing parks
      - Acquisition of new park land to meet national standards
      - Creation of recreation space and private amenities at the lake facilities
    - Urban Design
      - Final design and installation of community entry features
      - Improved directional signage for downtown
      - Landscape medians along U.S. Highway 81
    - Public Buildings
      - Renovation of City Hall and scheduled maintenance
      - Meeting the needs of the Police Department to provide F5 tornado rated structures
      - Fire Station substation for the northwest section of town to ensure response times continue to meet or exceed standards
- Improve stormwater management in flood prone areas through:
  - o a community wide stormwater management plan;
  - o working with FEMA and state agencies to determine appropriate actions for improving flood areas; and



- o identifying potential grants and funding sources to help alleviate financial cost to the city.
- Continue working with the airport to ensure appropriate improvements are made to continue a safe mode of transportation.
- Develop a recycling program for the community by:
  - o assessing options for residential service by trash haulers;
  - o working with schools and shopping areas to provide locations on site for paper and plastic drop offs; and
  - o working with high school and college students to promote the program through competition or funding opportunities to raise funds for the schools.
- Provide safe, reliable, and cost-effective water and sewer services to the area:
  - o Ensure that new development pays its fair share for the expansion of water and sewer capacity or use as an incentive to bring desired development; and
  - o Use the CIP as a planning tool to ensure sufficient funding for high-priority water and sewer projects that support the City's long-term growth policy is in place.
- Provide adequate police and fire protection to area residents and businesses.
  - o Plan for staffing of police and fire personnel, purchases of police and fire protection equipment and location of future sub-stations in such a way as to minimize the response time for all types of emergencies; and
  - o Enforce development standards that ensure adequate accessibility for emergency equipment.
- Use infrastructure as an economic development incentive in new areas.
- Develop a community wide plan for street trees; remove dead trees.
- Improve maintenance of all City streets.
- Develop a plan for shared funding sidewalk renovation in areas where sidewalks are deteriorated or missing.
- Use infrastructure to develop family friendly, walkable neighborhoods; i.e. sidewalks, ADA ramps, street lighting.
- Invest in public improvements in strategic locations in order to serve new development and promote economic growth:
  - o New development should be encouraged to locate in areas where municipal services are already present or where utility extensions are planned in the CIP. Planning for capital improvements should be based on prioritized needs, guided by a public policy direction;
  - o Emphasize capital improvements which extend utilities in a logical fashion as well as maintain existing lines; and
  - o Provide extension of sanitary sewer, improved roads and water utilities to outlying areas only upon annexation.



## Parks, Recreation and Open Space

Parks and Recreation are at the core of every community's quality of life. Parks bring families together and figure prominently in the quality of life equation. Duncan has a number of park facilities, including Kiddieland Park, a municipal pool, ball fields and other traditional park facilities. Land has been dedicated in the downtown area for a pocket park, which will allow for event and gathering space. To increase quality of life for the residents and commercial users, this property should be designed and funds raised to make the improvements.

Duncan residents have expressed the need for improvements and programming to occur in the existing parks and for the extension of trails and more park land. Residents are also interested in significant improvements to Lake Humphrey, Lake Fuqua, Duncan Lake and Clear Creek Lake. The following goal and recommendations will guide the community to this end.

### **Goal:**

*Introduce parks and green spaces throughout the community; improve neighborhood access to parks and green spaces; increase usage and amenities in existing parks and recreation facilities; utilize lakes for residential development, tourist attractions and alternative recreational activities.*

### **Recommendations:**

- Ensure the long term viability of existing parks by:
  - addressing long term financial issues confronting park improvements and maintenance;
  - introducing more fee based programming in the parks, some of which could be managed by volunteers;
  - considering consolidating some parks, while redeveloping other parks; and
  - where possible, program all recreation centers to create a revenue stream and bring people to parks.
- Review and update the existing Parks and Open Space Plan (June 1977). This update should consider the following:
  - acquiring park land for future parks;
  - considering expansion of sports activities in the parks;
  - exploring regional cooperation for larger amenities, including Lake Humphrey and Lake Fuqua;
  - use State and Federal grants to offset costs of improvements to park facilities;
  - provide parks experiences suitable for all residents, including those with disabilities;
  - reviewing and setting guidelines for ADA standards in current and future parks; and
  - adopting minimal maintenance and usage standards for parks to achieve.
- Create a well connected community through:
  - development of a comprehensive trails plan that connects major City attractions and parks;
  - working with developers to provide trail connections through floodplain, woodland areas and



- o other natural features;
- o providing bicycle racks downtown and at park sites, city facilities and major commercial centers;
- o connecting the community with the parks through bike or pedestrian trails; and
- o improving the City's capacity to utilize bicycles as a mode of transportation.
- Provide adequate recreational facilities and services to meet the needs of local residents of all age groups for indoor and outdoor entertainment and recreation:
  - o Reserve sufficient land in the area for future development of needed parks and other recreational facilities;
  - o Support the neighborhood concept by encouraging residential development to integrate common areas, playgrounds, and other types of recreational facilities; and
  - o Continue to utilize the Simmons Center and analyze future needs to determine potential expansion of the facility.
- Develop a system of parkways throughout the City for the dual purpose of:
  - o incorporating current drainage areas and easements to manage stormwater in an aesthetically pleasing way; and
  - o providing additional recreational / open space opportunities throughout the City.

### **Economic Development/Downtown**

For a community to grow, economic development is the conduit which promotes business and job expansion, new residents, and new housing, which creates the demand for new consumer goods, more sales tax and more revenue sources. The Duncan Area Economic Development Foundation, Chamber of Commerce and Industry, Duncan Main Street and a number of other public and private groups partner to retain and recruit business to Duncan. The main pursuit is to bring a diverse industrial base to the community, including additional jobs in the area of oil and wind industries.

To continue helping the focus of bringing more energy companies to the City and to fully understand Duncan's position in the marketplace, a retail and

office market study needs to be conducted. As the community desires more retail and specifically clothing stores and sit down restaurants, it is imperative that a market study be conducted to help understand the existing conditions and the future opportunities for the community, specifically relating to retail leakage. As a key part of economic development, the community and economic development groups should also focus on housing. Without quality and varied housing choices, it will be difficult to bring new industry to the community.

The following recommendations will provide continued guidance and direction in formulating the foundation for present and future economic development efforts.



### Goal:

*To develop a broad tax base for economic stability through retention, expansion and recruitment of commerce and industry providing stable employment opportunities in the city.*

### Recommendations:

- Support the private sector in maintaining and improving downtown as a Central Business District:
  - Make downtown more visible, especially from U.S. Highway 81, through construction of monumentation at Main Street & U.S. Highway 81;
  - Create a formal entrance into downtown from U.S. Highway 81 along Main Street with street trees and street light banners;
  - Work with Duncan Main Street to develop additional housing in downtown;
  - Continue creating annual events in the public spaces to bring more people to downtown;
  - Promote new development adjacent to downtown that will bring more patrons and residents;
  - Provide development incentives to promote development in downtown;
  - Enforce maintenance codes in downtown; and
  - Address environmental issues and resolve to enable re-use of properties.
- Foster a positive climate for business retention and expansion:
  - Assemble properties for redevelopment to be held by the City or County as needed; and
  - Pursue redevelopment of areas of town that currently have momentum and will create synergy.
- Pursue historic designation as an economic benefit and cultural tourism attraction.
- Promote tourism in Duncan:
  - Develop Chisholm Trail tour link that draws people upon entry to the City;
  - Pursue grant opportunities through the Oklahoma Tourism and Recreation Department; and
  - Tie Duncan history in with Oklahoma statehood celebration for celebratory opportunities.

### Chapter Summary

This chapter set forth the basic elements of the Comprehensive Plan for the growth and development of Duncan. The basic elements provided were the Future Land Use Plan, The Transportation Plan and the Public Facilities Plan. To support these elements, goals and recommendations were provided to guide the community to a positive future. No matter how well thought out the recommendations of these elements, they are of no value to the community until they are put into effect. Therefore, Chapter 4 will provide specific direction to accomplish the adoption and implementation of this plan.



# IMPLEMENTATION PLAN

The residents of Duncan, Oklahoma, through the Comprehensive Plan Advisory Committee, open meetings, surveys, and other communications, have expressed their vision for the future of their community.



This Comprehensive Plan reflects that vision and provides the basis for policy decisions that will achieve it. It is the responsibility of government to take the lead in implementing the recommendations of this plan. Achieving the envisioned results requires cooperation or partnership with other governments, agencies or organizations as well as the private sector and voluntary organizations. This chapter offers guidance on actions that should be undertaken in the near term to accomplish the vision.

It is recommended that the City assign responsibility for monitoring progress of the plan to a body of citizens—an appointed committee or the Planning

Commission. To ensure the vision and goals are still adequate, the plan should be reviewed annually.

The following recommendations provide a path for the community to get started. Additional recommendations are in Appendix A of this document.

## **Adoption of the Comprehensive Plan**

Plan implementation begins with adoption by the Duncan Municipal Planning Commission. Formal notification of a public hearing required for adoption of the plan by the Planning Commission must be published in a newspaper of general circulation in the municipality and in the official gazette, if any, of the municipality. The plan requires adoption by the majority of the Planning Commission. The action taken shall be recorded on the map and plan by the identifying signature of the chairman or the secretary of the Planning Commission. An attested copy of the plan shall be certified to the Council. It is recommended that the City Council by resolution endorse the adoption of the plan by the Planning Commission.

## **Revision of Codes and Ordinances**

### Zoning and Subdivision Codes

Upon approval of the Comprehensive Plan, the City of Duncan should conduct a comprehensive review of existing codes, ordinances, and zoning map for compliance with the Comprehensive Plan now in



effect. The Zoning Ordinance is the primary tool for implementing the land use plan and will require the City's attention in the near future to completely update the document or, at a minimum, update the following items:

- Revise ordinances to allow for mixed use development and specifically provide for flexibility in the Central Business District.
- Revise Zoning Ordinance to provide for sign regulations to eliminate visual clutter.
- Revise subdivision regulations to include recommended minimum requirements for street widths, as outlined in this document.
- Strengthen the Property Maintenance code to allow expedient City intervention and clean up with cost recovery from the owner.

#### Building Codes

Currently, the City is operating under codes developed by the International Code Council (ICC). The specific codes for the City are the 2006 Residential Code, Mechanical Code, Building Code, Fire Code and Plumbing Code. The adopted Electrical Code is the 2008 National Electrical Code. The City should continue to monitor and approve updates to these codes to insure continued safety for the community, as well as consider adopting the most current Property Maintenance Code.

To properly enforce the codes and ensure safety for the residents of Duncan, a certified building inspector should be hired to oversee inspections and adoption of building codes.

#### Capital Improvements Program

Many elements of the Comprehensive Plan cannot be implemented through the daily operations of the

City. These elements are those which require direct action by the government through the acquisition of property and construction of public works. This plan calls for parks and trails to be built, roads to be expanded and improved, and long term potential for a new sewage treatment facility in Stage Stand Creek Drainage Basin. Such improvements should be accomplished through the yearly budget of the City and through coordinated bond programs. It is important that these expenditures be outlined in a capital improvements program.

Currently the City does not have a capital improvements program. Prepared under the general direction of the Planning Commission, the capital improvements program process should include these four steps:

1. **Financial Analysis:** An analysis of the present and future ability of Duncan to pay for the cost of construction and maintenance of capital improvements should be prepared.
2. **Listing of Capital Improvements:** A listing of needed capital improvements by the City Manager, department heads, elected officials, interested citizens and civic groups should be compiled to include present and anticipated needs.
3. **Evaluation and Determination of Priorities:** The Planning Commission should evaluate and recommend the priority of each item in the interest of the orderly accomplishment of the Comprehensive City Plan and the financial ability of the City to finance the improvements.
4. **Capital Improvements Program:** Finally, the Planning Commission should review and present a long range capital improvements program to the City Council for approval which can be implemented in the yearly capital budget of the City.



A Capital Improvements Plan should be developed with a 5 year list of funded projects and an additional 5 year list of anticipated or to be funded projects. The document should be implemented and reviewed annually. This formal, long term plan should replace the City's current process.

### **Code Enforcement/Property Maintenance**

To create a quality living environment for the City of Duncan residents, property maintenance is critical. Property maintenance enforcement can be pursued through the adoption of the International Property Maintenance Code. This action should be followed by the hiring of a full time Neighborhood Services Officer to proactively enforce the code. The role of a Neighborhood Services Officer allows for continual, focused review of property maintenance items in residential and commercial areas alike.

To help the community with maintaining their properties, a cleanup program should be initiated offering large item pick up. As there may be elderly and disabled residents unable to take items to the curb, a volunteer group should be organized to offer assistance to these residents.

Painting of structures is another component to fixing up a neighborhood. Such programs as free or discounted paint promotions can be done with local paint stores, with volunteer groups providing painting services to elderly and disabled residents. This program should be set as an annual event to ensure continued improvements.

Other opportunities include free day at the landfill and scheduled neighborhood cleanup. These items are all based on a combination of City and private funds and community volunteers.

### **Annexation**

With the annexation of the State Highway 7 Corridor (by-pass) and the railroad, there were three areas left surrounded by the City and still left in the County. The City should focus on bringing those areas into the city to ensure the same codes and requirements are being met as those residents within the city. Duncan is currently providing emergency services to these areas and therefore, should pursue annexation.

### **Housing**

The extent of Duncan's existing housing deterioration is an urgent need as determined in the Housing Report in Appendix B. The community should move forward with a Housing Impact Area Strategy Plan to begin making significant changes within the community. This plan should include two market studies, a retail and office market study and a housing study. Through the Revitalization Plan, the community should coordinate with Delta Community Action Foundation to develop a plan for the utilization of resources. A Not For Profit Housing Development Corporation should be evaluated as well as funding for identified needs and programming. Movement on these items in a swift manner will position the City to take further steps to provide healthy neighborhoods and housing choices.

### **First Impressions**

As part of the Comprehensive Plan, a First Impressions design charrette was conducted. The result was conceptual designs for community markers at each of the main entrances into the city, as well as landscape concepts for the medians on U.S. Highway 81. The community should move forward with funding to develop final designs and



construction of the structures through cooperative funding. Funding sources could include: CIP, Community Development Block Grant (CDBG) funds, Oklahoma Department of Agriculture ISTEPA Program grants through the Main Street program, and focused private campaigns.

### **Retail / Office Market Study**

A desire of the community is to have more shopping options in Duncan, including men's and women's clothing stores, home stores, and electronics stores. The community also would like better hotels and national chain sit down restaurants. To evaluate Duncan's capacity for these types of uses, a retail / office market study needs to be done that includes details such as retail leakage, absorption rates, achievable rental and potential business. This study could be funded through the Area Economic Development Foundation as it will provide information to help guide their pursuit of the desired businesses.

### **Redevelopment Incentives**

In an effort to make Duncan more attractive for redevelopment, the City should create a package of incentives for specific types of users, e.g. restaurants, and develop a marketing packet and strategy for introducing the existing and new incentives.

### **Additional Studies**

In order to accomplish some of the recommendations, additional study is imperative. The following are a list of plans and studies that need to occur to support continued improvement through development and redevelopment as well as supporting an improved quality of life for the community.

#### **U.S. Highway 81 Plan**

As the transportation spine for the City, a corridor plan for U.S. Highway 81 should be funded to evaluate and determine specific recommendations for traffic and access management, redevelopment, urban design, street lighting and beautification.

#### **Stage Stand Creek Study**

In an effort to insure proper development of the Stage Stand Creek Watershed, a wastewater management study should be conducted which outlines the best management of the wastewater infrastructure to support appropriate urban development.

#### **Parks and Recreation Plan**

Through public input, it is apparent Parks are a top priority for the community. The majority of the population desires improved parks and programming. To identify appropriate improvements and to provide support to the Capital Improvements Program, the Parks and Open Space Plan should be reviewed and updated. The plan should include a complete inventory and analysis of existing parks facilities and current recreation programs. The plan should include all parks within the city including the Lake Humphrey, Lake Fuqua, Lake Duncan and Lake Clear Creek. The plan should ultimately include plan priorities, facilities development programs, financial strategies and administrative strategies.

#### **Lake Development Market Study**

In an effort to expand park opportunities in the community and to promote tourism, the City should evaluate Lake Humphrey, Lake Fuqua, Duncan Lake and Clear Creek Lake for recreational activities and residential growth. To understand the market potential for these two areas, a market study should be conducted. Upon completion of the market study, if there is a market for recreation and housing, a concept plan for residential lake



development and public facilities should be commissioned. This should then be followed by an RFQ/RFP process for developer solicitation. To create a vibrant lake community with recreational activities, it will require a public/private partnership.

# APPENDIX A

## ACTIONS WITH PROPOSED TIMEFRAMES



## **Appendix A: Actions with Proposed Timeframes**

The following goals and actions were developed during the Comprehensive Planning process with considerable input by the residents of Duncan. The following is a chart of action steps to guide the community toward implementation of the goals set forth in this document.

### **Program Priorities – Future Land Use**

**Land Use/Growth Management Goal:** Develop an orderly and balanced growth pattern, through adequate infrastructure, preservation of natural resources and maximizing development and infill opportunities.

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<b><i>1. Ensure, through proper planning and land use controls, that future land development in the area follows a pattern that enhances the overall image of the community and the quality of life.</i></b>	✓	✓	✓				✓	
<i>a. Review and update the Zoning Regulations to conform to the land use standards as they are developed.</i>	✓	✓		✓			✓	✓
<i>i. Revise ordinances to allow for mixed use development and specifically provide for flexibility in the central business district and at the interchanges along the by-pass.</i>	✓	✓		✓				✓
<i>ii. Amend the zoning regulations to provide minimum standards for mobile home parks.</i>	✓	✓		✓				✓
<i>iii. Develop, amend and adopt overlay districts to accomplish future desired development in corridor and business districts.</i>	✓	✓		✓				✓
<i>iv. Amend the requirement for street widths and right-of-way requirements to standards outlined in this document.</i>	✓	✓		✓				
<i>v. Consider a sign ordinance to reduce clutter and increase aesthetics.</i>	✓	✓			✓			✓

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<b><i>2. Develop a strong working relationship with Stephens County and the Duncan School District providing for support for development incentives.</i></b>	✓	✓		✓			✓	
<b><i>3. Preserve the unique natural beauty of the community and outlying areas encouraging development that protects and effectively uses the floodplain, woodlands and vistas as open, park or recreational space.</i></b>	✓	✓	✓				✓	
<b><i>4. Develop a plan for redevelopment of the obsolete properties south of Pine on U.S. Highway 81.</i></b>	✓		✓	✓			✓	✓

## **Program Priorities – Commercial Development**

**Commercial Development Goal:** Establish a strong, high-quality commercial base providing diverse, accessible and convenient services.

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<b>1. Achieve a proper balance between commercial uses and other uses by:</b>	✓	✓	✓				✓	
<i>a. commissioning a retail/office market study that identifies retail leakage, absorption rates and achievable rents</i>	✓			✓				✓
<i>b. encouraging commercial and office development that diversifies the local economic base.</i>	✓	✓	✓				✓	
<b>2. Provide locations and opportunities for commercial development including:</b>	✓		✓				✓	
<i>a. preservation of land west of State Highway 7 for agricultural use.</i>	✓		✓				✓	
<i>b. protection of sufficient depth along major traffic ways and at major interchanges/intersections for future commercial, office and mixed use developments.</i>	✓		✓				✓	
<i>c. encouraging commercial and mixed use development at key locations along State Highway 7</i>	✓		✓				✓	
<i>d. identifying and actively pursuing potential economic development sites for future development of commercial projects.</i>	✓		✓				✓	✓
<b>3. Ensure that commercial development is of high quality by:</b>	✓		✓				✓	
<i>a. requiring that new commercial developments use attractive architectural styles and high quality materials for exterior finishes.</i>	✓		✓				✓	

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<i>b. requiring cross access easements to limit additional traffic on public rights of way and ease of access to multiple shopping venues</i>	✓		✓				✓	
<i>c. encouraging pedestrian friendly commercial design and development by integrating outdoor public open space and walkways</i>	✓		✓				✓	
<i>d. ensuring that new commercial uses fit the surrounding development style.</i>	✓		✓				✓	

**Program Priorities – Industrial Development**

**Industrial Development Goal:** Promote industrial growth to expand the employment base and strengthen local financial health.

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<b>1. Retain and/or attract high quality industries that provide high-paying jobs and pleasant working environments by:</b>	✓	✓					✓	✓
<i>a. Expanding higher education and trade school opportunities;</i>	✓	✓			✓		✓	
<i>b. Providing T-1 lines for high speed, high capacity internet capabilities for high tech companies;</i>	✓	✓					✓	✓
<i>c. Protecting the development potential of the industrial zones through restricting conflicting uses on the abutting properties;</i>	✓	✓	✓				✓	
<i>d. Pursue complementary manufacturing companies that support the current companies within Duncan;</i>	✓	✓	✓				✓	
<i>e. Identify new technologies and companies to bring to the community,</i>	✓	✓					✓	
<i>f. Continue the use of incentive packages to make Duncan competitive,</i>	✓	✓						✓
<i>g. Continue the use of the incubator for small business start ups, and</i>	✓	✓					✓	
<i>h. Encouraging expansion of existing industrial operations within the designated industrial zones.</i>	✓		✓				✓	
<b>2. Minimize negative impacts of industrial uses on the adjacent properties, public infrastructure and the natural environment by:</b>	✓		✓				✓	

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<i>a. Encouraging innovative design of industrial structures and proper use of building materials to prevent negative impacts of noise, smell, appearance and pollution.</i>	✓		✓				✓	
<i>b. Ensuring that proper landscaping and screening is provided in the development plan prior to plan approval.</i>	✓						✓	

## **Program Priorities - Residential Development**

**Residential Development Goal:** Provide access to safe, well-maintained housing for all residents of the community.

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<b>1. Encourage the development of a wide range of housing choices.</b>	✓		✓				✓	✓
<i>a. Appoint a citizen committee to support and guide Duncan's housing progress and to keep the housing issue in the forefront.</i>	✓			✓				✓
<i>b. Rehabilitation of housing in the community shall be encouraged to preserve the character and integrity of existing neighborhoods.</i>	✓		✓				✓	✓
<i>c. Work with low income housing developers to locate residential developments within the city.</i>	✓		✓				✓	✓
<i>d. Recruit developers to construct a wide range of housing choices, including quality multi-family housing, senior housing, small lot affordable single family housing and quality rental housing.</i>	✓		✓				✓	✓
<i>e. Encourage developers to pursue development in Duncan by marketing opportunities on the City's website and through streamlined zoning processes.</i>	✓		✓				✓	✓
<i>f. Anticipate the senior housing surge by attracting developers of housing for this age group.</i>	✓		✓				✓	
<b>2. Promote quality infill housing development by:</b>	✓		✓				✓	
<i>a. Identifying all vacant residential parcels within the City and encourage reuse of these parcels, as possible, for infill housing;</i>	✓			✓				
<i>b. Developing design guidelines for infill housing to provide cohesion within the neighborhood</i>	✓			✓				✓
<i>c. Implementing a proactive strategy for addressing vacant lots that include</i>	✓			✓				✓
<i>i. purchase of the lots by the City and write-down for redevelopment;</i>	✓						✓	✓

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<i>ii. working with the manufactured home companies to develop a concept that is affordable and complimentary to the neighborhoods in Duncan;</i>	✓		✓		✓			
<i>iii. incentives for existing owners to redevelop the property; and,</i>	✓			✓				✓
<i>iv. incorporation of certain properties into the parks system to be utilized as pocket parks or extension to existing parks.</i>	✓				✓			✓
<b>3. Improve and maintain the existing housing stock while preserving affordability.</b>	✓		✓				✓	
<i>a. work toward the elimination and prevention of the spread of blight and deterioration through property maintenance and community awareness.</i>	✓			✓				✓
<i>b. Develop a program to promote conservation, rehabilitation and redevelopment of blighted areas within the City.</i>	✓	✓		✓				✓
<i>c. Ensure that housing meets all applicable code requirements, without imposing unnecessary costs.</i>	✓				✓		✓	
<i>d. Establish and maintain development standards that support housing development while protecting the quality of life.</i>	✓			✓				
<b>4. Enforce the housing maintenance codes by:</b>	✓						✓	
<i>a. Considering development of a rental program;</i>	✓				✓			✓
<i>b. Requiring full interior and exterior inspections when multiple code violations have occurred; and,</i>	✓				✓			✓
<i>c. Providing landlords with standards and expose landlords with consistent violations.</i>	✓				✓			✓
<b>5. Encourage quality low income housing by:</b>	✓						✓	
<i>a. Developing a strategy to ensure that affordable housing is available in Duncan in the future;</i>	✓			✓				✓
<i>b. Supporting and working with human services groups such as Delta Community Action Foundation in their efforts to provide housing for the low income and homeless; and,</i>	✓	✓		✓				✓

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<i>c. Pursuing State of Oklahoma programs that provide funding for housing.</i>	✓	✓					✓	
<b>6. Preserve and protect the existing residential neighborhoods by recognizing the existing development pattern in the built areas and by recommending compatible uses in the adjacent areas.</b>	✓		✓				✓	
<b>7. Offer incentives to developers, such as fee waivers, density bonuses and streamlined permitting processes.</b>	✓	✓				✓		
<b>8. In the City's first neighborhoods, identify potential historic districts, conduct inventory and approve a district, which then is eligible for state and federal tax benefits.</b>	✓	✓				✓		✓

**Program Priorities- Transportation & Infrastructure Development**

**Transportation & Infrastructure Development Goal:** To continue to enhance the transportation system to be safe, efficient and aesthetically pleasing through multi-modal travel and connectivity.

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<b><i>1. Maintain a functional classification street hierarchy as defined herein to manage traffic and access, while promoting coordinated development and maintaining sustainable transportation investment.</i></b>	✓	✓	✓				✓	
<b><i>2. Enhance safety by providing safe and efficient ways to walk or bicycle within the community.</i></b>	✓		✓	✓			✓	✓
<b><i>3. Establish access management policies and ordinances to protect roadway infrastructure investments, preserve roadway capacity, improve safety and mobility and enhance the balance between land use and transportation.</i></b>	✓	✓	✓	✓				✓
<b><i>4. Establish a process for project prioritization to spend public infrastructure funds on the projects that have the greatest needs.</i></b>	✓	✓		✓				✓
<b><i>5. Complete a Corridor Plan for U.S. Highway 81 to evaluate land use, redevelopment access and general transportation issues in a cohesive assessment.</i></b>	✓			✓				✓
<b><i>6. Evaluate and locate a direct connection between the U.S. Highway 81 bypass and U.S. Highway 81 in the vicinity of State Highway 7 towards the north end of Duncan.</i></b>	✓	✓			✓			
<b><i>7. Provide proper connections between land uses and roadway continuity along collector and arterial routes to enhance system-wide circulation and reduce out-of-direction travel.</i></b>	✓						✓	

Actions	City	Govt., Org., Agency	Private	Near term (immediate to 2 yr.)	Mid- Term (2-5 yr.)	Long term (5-20 yr.)	On- going	Funding Needed
<b>8. Developers of new projects should provide studies that demonstrate how the existing transportation road system will be affected by the project and indicate the system improvements needed to accommodate the project.</b>	✓		✓				✓	
<b>9. Road and path linkages should be encouraged between residential subdivisions, to enhance accessibility and to help alleviate congestion on arterial roadways. By providing interconnected subdivisions, local traffic can be shifted to internal local streets, thereby reducing congestion on the major roadways.</b>	✓		✓				✓	

## **Program Priorities – Capital Improvements**

**Capital Improvements Goal:** Ensure that future land development and public facilities and services are mutually supportive.

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<b>1. Develop a 5-year Capital Improvements Program with an additional 5 year list of anticipated or to be funded projects by:</b>	✓	✓					✓	✓
<i>a. Outlining maintenance and new construction of all public buildings and infrastructure;</i>	✓			✓			✓	
<i>b. Ensuring the CIP is linked to the comprehensive plan through review by the Planning Commission and the City Council;</i>	✓			✓			✓	
<i>c. Use the CIP to reinforce the goals of the comprehensive plan;</i>	✓			✓			✓	
<i>d. Conduct at least one public meeting for input on proposed projects;</i>	✓			✓			✓	
<i>e. Aggressively pursue sources of state and federal funding to accomplish public infrastructure improvements;</i>	✓	✓		✓			✓	
<i>f. Specifying the following projects that should be included:</i>								
<i>i. Transportation / Streets and Sidewalks</i>	✓						✓	
1). Street maintenance	✓			✓				✓
2). New street and utility installation to stimulate development	✓				✓			✓
3). Sidewalk replacement and new construction	✓				✓			
4). Design and installation of sidewalks across U.S. Highway 81 to connect the two parks	✓	✓		✓				✓
5). Creation of an ADA plan to meet the new federal standards	✓			✓				✓
<i>ii. Parks and Recreation</i>	✓						✓	
1). Development of a parks and trails master plan	✓			✓				✓
2). Construction of trails	✓				✓			✓
3). Revitalization and programming of existing parks	✓				✓			✓

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
4). Acquisition of new park land to meet national standards	✓				✓			✓
5). Creation of recreation space and private amenities at the lake facilities	✓	✓	✓		✓			✓
iii. Urban Design	✓						✓	
1). Final design and installation of community entry features	✓	✓	✓	✓				✓
2). Improved directional signage for downtown	✓		✓		✓			✓
3). Landscape medians along U.S. Highway 81	✓	✓	✓	✓			✓	✓
iv. Public Buildings	✓						✓	
1). Renovation of City Hall and scheduled maintenance	✓					✓		✓
2). Meeting the needs of the Police Department to provide F5 tornado rated structures	✓				✓			✓
3). Fire Station substation for the northwest section of town to ensure response times continue to meet or exceed standards	✓				✓			✓
<b>2. Improve storm water management in flood prone areas through:</b>	✓	✓					✓	
a. A community wide stormwater management plan;	✓				✓			✓
b. Working with FEMA and state agencies to determine appropriated actions for improving flood areas; and,	✓	✓			✓			✓
c. Identifying potential grants and funding sources to help alleviate financial cost to the city	✓	✓			✓			
<b>3. Continue working with the airport to ensure appropriate improvements are made to continue a safe mode of transportation.</b>	✓						✓	
<b>4. Develop a recycling program for the community by:</b>	✓						✓	✓
a. Assessing options for residential service by trash haulers;	✓			✓				
b. Working with schools and shopping areas to provide locations on site for paper and plastic drop offs; and,	✓		✓		✓			
c. Working with high school and college students to promote the program through competition or funding opportunities to raise funds for the schools	✓	✓			✓		✓	

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<b>5. Provide safe, reliable and cost-effective water and sewer services to the area.</b>	✓						✓	✓
<i>a. Ensure that new development pays its fair share for the expansion of water and sewer capacity or use as an incentive to bring desired development</i>			✓	✓				
<i>b. Use the Capital Improvement Program as a planning tool to ensure sufficient funding for high-priority water and sewer projects that support the City's long-term growth policy is in place</i>	✓			✓			✓	✓
<b>6. Provide adequate police and fire protection and emergency medical services to area residents and businesses.</b>	✓						✓	
<i>a. Plan for staffing of police and fire personnel, purchases of police and fire protection equipment and location of future sub-stations in such a way as to minimize the response time for all types of emergencies</i>	✓						✓	✓
<i>b. Enforce development standards that ensure adequate accessibility for emergency equipment</i>	✓	✓	✓				✓	
<b>7. Use infrastructure as an economic development incentive in new areas.</b>	✓	✓					✓	
<b>8. Develop a community wide plan for street trees; remove dead trees.</b>	✓						✓	✓
<b>9. Improve maintenance of all City streets.</b>	✓			✓			✓	✓
<b>10. Develop a plan for shared funding sidewalk renovation in areas where sidewalks are deteriorated or missing.</b>	✓		✓			✓		✓
<b>11. Use infrastructure to develop family friendly, walkable neighborhoods; e.g. sidewalks, ADA ramps, street lighting</b>	✓			✓				✓
<b>12. Invest in public improvements in strategic location in order to serve new development and promote economic growth.</b>	✓						✓	✓

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agen cy</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<i>a. New development should be encouraged to locate in areas where municipal services are already present or where utility extensions are planned in the CIP. Planning for capital improvements should be based on prioritized needs, guided by a public policy direction</i>	✓						✓	
<i>b. Emphasize capital improvements which extend utilities in a logical fashion as well as maintain existing lines</i>	✓						✓	
<i>c. Provide extension of sanitary sewer, improved roads and water utilities to outlying areas only upon annexation</i>	✓						✓	

## **Program Priorities-Parks and Recreation**

**Parks and Recreation Goal:** Introduce parks and green spaces throughout the community; improve neighborhood access to parks and green spaces; increase usage and amenities in existing parks and recreation facilities; utilize lakes for residential development, tourist attractions and alternative recreation activities.

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<b>1. Ensure the long term viability of existing parks by:</b>	✓						✓	
<i>a. Addressing long term financial issues confronting park improvements and maintenance</i>	✓			✓				
<i>b. Introducing more fee based programming in the park, some of which could be managed by volunteers;</i>	✓			✓				
<i>c. Considering consolidating some parks, while redeveloping other parks; and,</i>	✓					✓		
<i>d. Where possible, program all recreation centers to create a revenue stream and bring people to the parks.</i>	✓			✓				
<b>2. Develop a park and recreation master plan for the community by:</b>	✓						✓	
<i>a. Acquiring park land for future parks;</i>	✓				✓			✓
<i>b. Considering expansion of sports activities in the parks;</i>	✓			✓				✓
<i>c. Exploring regional cooperation for larger amenities, including Lake Humphrey and Lake Fugua;</i>	✓	✓	✓		✓			✓
<i>d. Using State and Federal grants to offset costs of improvements to park facilities;</i>	✓						✓	✓
<i>e. Providing park experiences suitable for all residents, including those with disabilities;</i>	✓			✓				✓
<i>f. Reviewing and setting guidelines for ADA standards in current and future parks;</i>	✓			✓				
<i>g. Adopting minimal maintenance and usage standards for parks to achieve.</i>	✓			✓				
<b>3. Create a well connected community through:</b>	✓						✓	

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<i>a. Development of a comprehensive trails plan that connects major City attractions and parks</i>	✓			✓				✓
<i>b. Working with developers to provide trail connections through floodplain, woodland areas and other natural features;</i>	✓		✓	✓				
<i>c. Providing bicycle racks downtown and at park sites, city facilities and major commercial centers;</i>	✓		✓	✓				✓
<i>d. Connecting the community with the parks through bike or pedestrian trails;</i>	✓						✓	✓
<i>e. Improving the city's capacity to utilize bicycles as a mode of transportation.</i>	✓	✓	✓				✓	✓
<b>4. Provide adequate recreational facilities and services to meet the needs of local residents of all age groups for indoor and outdoor entertainment and recreation.</b>	✓						✓	✓
<i>a. Reserve sufficient land in the area for future development of needed parks and other recreational facilities.</i>	✓	✓	✓			✓	✓	✓
<i>b. Support the neighborhood concept by encouraging residential development to integrate common areas, playgrounds and other types of recreational facilities.</i>	✓		✓		✓		✓	
<i>c. Continue to utilize the Simmons Center and analyze future needs to determine potential expansion of the facility.</i>	✓		✓				✓	✓

## **Program Priorities – Downtown Development**

**Downtown Development Goal:** To develop a broad tax base for economic stability through retention, expansion and recruitment of commerce and industry providing stable employment opportunities in the city.

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<b>1. Support the private sector in maintaining and improving downtown as a central business district.</b>	✓		✓				✓	
<i>a. Make downtown more visible, especially from U.S. Highway 81, through construction of monumentation at Main &amp; U.S. Highway 81</i>	✓		✓		✓			✓
<i>b. Create a formal entrance into downtown from U.S. Highway 81 along Main Street with street trees and street light banners</i>	✓		✓	✓				✓
<i>c. Work with Duncan Main Street to develop additional housing downtown</i>	✓	✓	✓		✓			✓
<i>d. Continue creating annual events in the public spaces to bring more people to downtown</i>	✓	✓					✓	
<i>e. Promote new development adjacent to downtown that will bring more patrons and residents</i>	✓		✓		✓			✓
<i>f. Provide development incentives to promote development in downtown</i>	✓			✓				✓
<i>g. Enforce maintenance codes in downtown</i>	✓			✓				✓
<i>h. Address environmental issues and resolve to enable re-use of properties</i>	✓		✓		✓			✓
<b>2. Foster a positive climate for business retention and expansion</b>	✓	✓					✓	
<i>a. Assemble properties for redevelopment to be held by the City or County as needed;</i>	✓	✓			✓			✓
<i>b. Pursue redevelopment of areas of town that currently have momentum and will create synergy.</i>	✓	✓	✓	✓				✓
<b>3. Pursue historic designation as an economic benefit and cultural tourism attraction</b>	✓	✓	✓			✓		✓
<b>4. Promote tourism in Duncan</b>	✓	✓					✓	

<b>Actions</b>	<b>City</b>	<b>Govt., Org., Agency</b>	<b>Private</b>	<b>Near term (immediate to 2 yr.)</b>	<b>Mid- Term (2-5 yr.)</b>	<b>Long term (5-20 yr.)</b>	<b>On- going</b>	<b>Funding Needed</b>
<i>a. Develop Chisholm Trail tour link that draws people upon entry to the City;</i>	✓	✓	✓		✓			✓
<i>b. Pursue grant opportunities through the Oklahoma Tourism and Recreation Department;</i>	✓	✓					✓	
<i>c. Tie Duncan history in with Oklahoma statehood celebration</i>	✓	✓					✓	

# APPENDIX B

## HOUSING WORKING PAPER



# HOUSING WORKING PAPER

## Duncan, Oklahoma

### INTRODUCTION

As a part of the process of preparing a complete update of the 1997 Duncan General Plan, both interviews and listening sessions for community input were held. Emerging from that process was a clear indication of the need to address the lack of new affordable housing construction and the condition of elements of the existing housing stock. The purpose of this Working Paper is to present data and information to facilitate further discussion of those issues.

### EXISTING HOUSING CONDITIONS

During the week of November 9-12, 2009, a city-wide structure by structure survey of existing land use and housing conditions was completed. The housing conditions rating scale utilized is presented in Appendix A to this paper. Each housing unit was classified by the following condition ratings:

- Number 1      Sound                                      No Treatment Required
- Number 2      Minor Deficiencies                                      Normal Maintenance
- Number 3      Deteriorating    Major Rehabilitation Required
- Number 4      Dilapidated    Probable Clearance

Examples of dwelling units by condition are illustrated by photographs in Figure 1, Housing Condition Rating Examples, page following.<sup>1</sup>

The housing condition data is presented in Figure 2, Duncan Housing Condition Data, Summary Table by Census Tract<sup>2</sup>, page 3.

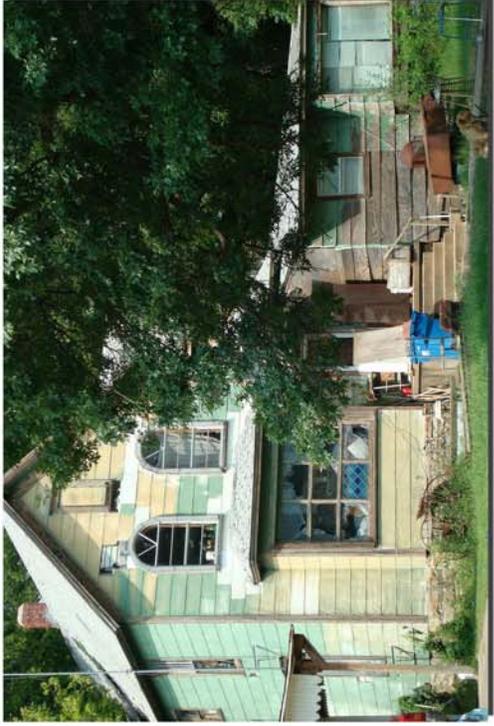
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<sup>1</sup> Housing units pictured are not located in Duncan. They are examples from other cities.

<sup>2</sup> A Census Tract map is included as Appendix B.



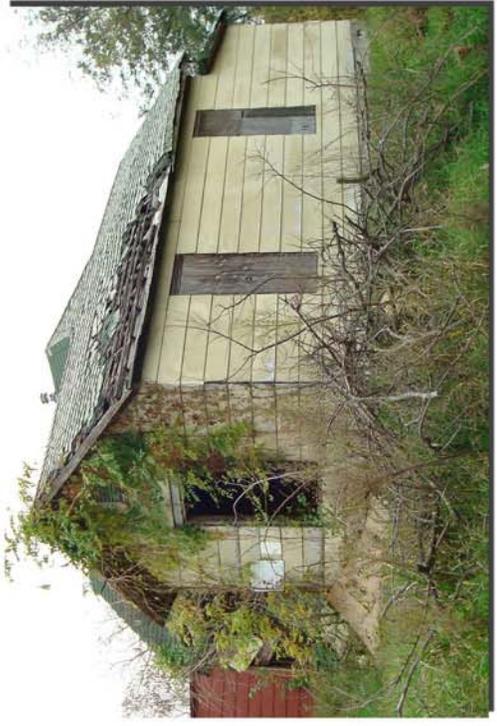
**#1 - Sound Condition**



**#3 - Deteriorating**



**#2 - Minor Deficiencies**



**#4 - Dilapidated**

**Figure 1. Housing Condition Rating Examples**

**Figure 2 - Duncan Housing Condition Data**

Summary Table by Census Tract										
Land Use Data:										
2000 Census Tract Residential Structures										
	S.F.	M.H.	Duplex	M.F.	Total Structures	# 1	# 2	# 3	# 4	Total D.U.s
<b>Within City Limits</b>										
Census Tract 1.01	2,093	-	20	28	2,141	2,468	66	2	-	2,536
Census Tract 1.02	813	61	32	25	931	1,020	103	55	8	1,186
Census Tract 2	1,506	-	16	5	1,527	1,639	44	8	1	1,692
Census Tract 3	833	4	17	17	871	822	115	23	7	967
Census Tract 4	2,378	5	9	1	2,393	1,826	442	121	23	2,412
Census Tract 6	1,315	1	20	7	1,343	856	426	162	62	1,506
Census Tract 8	322	24	-	5	351	305	48	25	8	386
Census Tract 9	9	-	-	-	9	9	-	-	-	9
Census Tract 10	-	-	-	-	-	-	-	-	-	-
Census Tract 11	16	4	-	-	20	16	3	1	-	20
<b>Subtotal</b>	<b>9,285</b>	<b>99</b>	<b>114</b>	<b>88</b>	<b>9,586</b>	<b>8,961</b>	<b>1,247</b>	<b>397</b>	<b>109</b>	<b>10,714</b>
<b>Within the Area of Interest</b>										
Census Tract 4	78	-	-	-	78	70	3	4	1	78
Census Tract 6	93	9	-	-	102	84	16	2	-	102
Census Tract 8	54	10	-	-	64	42	19	2	1	64
<b>Subtotal</b>	<b>491</b>	<b>37</b>	<b>-</b>	<b>-</b>	<b>528</b>	<b>436</b>	<b>71</b>	<b>13</b>	<b>8</b>	<b>528</b>
<b>City + Area of Interest</b>	<b>10,001</b>	<b>155</b>	<b>114</b>	<b>88</b>	<b>10,358</b>	<b>9,593</b>	<b>1,356</b>	<b>418</b>	<b>119</b>	<b>11,486</b>
<b>Area of Interest:</b>	<b>Structure Code:</b>	<b>Condition Code:</b>	<b>Land Use and Building Condition Survey</b>							
Area between the City	S.F. = Single Family Dwelling	# 1 = Sound Dwelling Unit	conducted November 9 - 13, 2009							
Limits and the 200 foot	M.H. = Mobile Home	# 2 = Minor Deficiencies	by Ochsner Hare & Hare							
Strip Annexation	Duplex = Two Family Dwelling	# 3 = Major Rehabilitation								
	M.F. = Multiple Family Dwelling	# 4 = Probable Clearance								

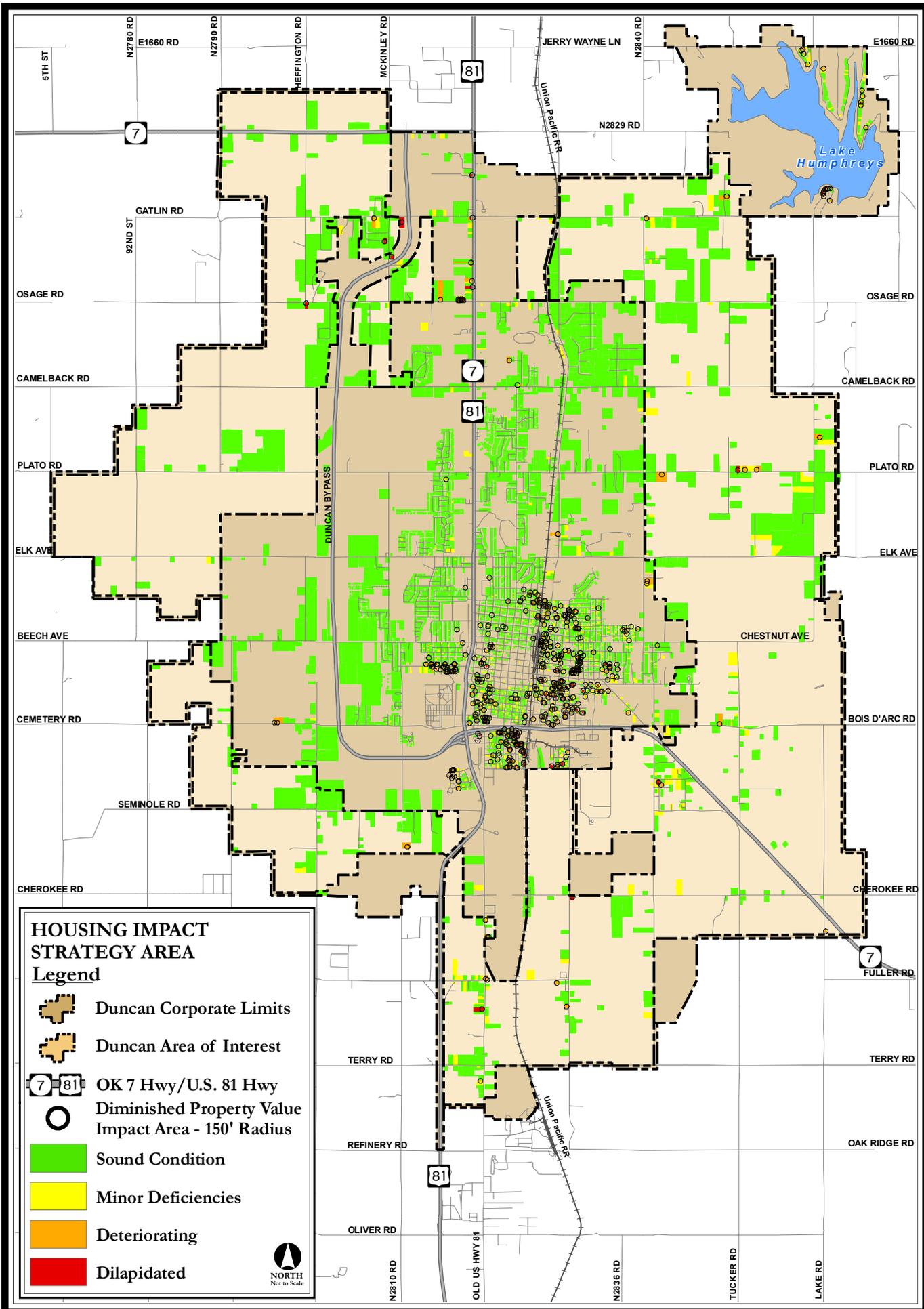
As indicated in Figure 2, within the Duncan City Limits a total of 9,586 residential structures were surveyed. These included 9,285 single-family structures, 99 mobile home units, 114 duplex structures and 88 multi-family structures. City-wide, a total of 506 dwelling units were rated as deteriorating (#3) or dilapidated (#4). An additional 1,247 were rated as having minor deficiencies (#2). Based on OHH's experience in other communities, it is estimated that the average investment required to bring a #2 dwelling unit up to #1 condition is about \$5,000; to completely rehabilitate a #3 dwelling unit averages \$28,000; and the average cost to demolish a #4 structure is \$2,000. This means that the total needed additional investment in Duncan's existing housing stock is approximately \$17,569,000. Within the Area of Interest<sup>3</sup>, is estimated that an additional \$1,153,000 would be needed to bring all residential units up to standard condition.

## **HOUSING CONDITION IMPACT AREA**

Identified in Figure 3 is an area identified as the Housing Condition Impact Area, page following. The area is located generally south Peach Street, west of N Street, North of M. L. King Jr., and east of 22<sup>nd</sup> Street. The Housing Condition Impact Area contains 95.7 percent of the #3 and #4 housing units and 91.7% of the #2 housing units within the City Limits of Duncan.

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<sup>3</sup> The "Area of Interest" is the area between the Duncan city limits and the 200 foot Strip Annexation.



**HOUSING IMPACT STRATEGY AREA**

**Legend**

-  Duncan Corporate Limits
-  Duncan Area of Interest
-  OK 7 Hwy/U.S. 81 Hwy
-  Diminished Property Value Impact Area - 150' Radius
-  Sound Condition
-  Minor Deficiencies
-  Deteriorating
-  Dilapidated



## HOUSING IMPACT AREA DEMOGRAPHICS

Past studies have found a high correlation between income, education and occupation with the condition of a community's housing stock.<sup>4</sup> Presented in the following table is relevant demographic data for the Duncan Housing Impact Area.

<b>Housing Impact Area Demographics</b>		
<b>Population Facts</b>		
2014 Projection	9,437	
2009 Estimate	9,402	
2000 Census	9,445	
1990 Census	9,269	
<b>Population Facts, Continued</b>		
Growth 2009-2014	0.37%	
Growth 2000-2009	-0.45%	
Growth 1990-2000	1.90%	
<b>2009 Estimated Population by Single Race Classification</b>		
White Alone	7,315	77.80%
Black or African American Alone	774	8.23%
American Indian and Alaska Native Alone	434	4.62%
Asian Alone	34	0.36%
Native Hawaiian and Other Pacific Islander Alone	3	0.03%
Some Other Race Alone	517	5.50%
Two or More Races	326	3.46%
<b>2009 Estimated Population Hispanic or Latino</b>		
Hispanic or Latino	1,212	12.89%
Not Hispanic or Latino	8,190	87.11%
<b>2009 Estimated Median Age</b>		
	34.96	
<b>2009 Estimated Average Age</b>		
	37.15	
<b>2009 Estimated Families by Poverty Status</b>		
	2,453	

<sup>4</sup> Incidentally, these same studies found no correlation between race and ethnicity and to condition of housing.

<b>Income Below Poverty Level</b>	424	17.30%
Married-Couple Family	152	6.20%
With own children	99	4.03%
No own children	53	2.17%
Male Householder	38	1.56%
With own children	29	1.19%
No own children	9	0.37%
Female Householder	234	9.54%
With own children	196	7.99%
No own children	38	1.55%
<b>Households:</b>		
<b>Households</b>		
2014 Projection	3,815	
2009 Estimate	3,824	
2000 Census	3,872	
1990 Census	3,901	
<b>Households, Continued</b>		
Growth 2009-2014	-0.23%	
Growth 2000-2009	-1.24%	
Growth 1990-2000	-0.74%	
<b>2009 Average Household Size</b>		2.39
<b>2009 Estimated Households by Household Income</b>	3,824	
Less than \$15,000	820	21.45%
\$15,000 to \$24,999	753	19.69%
\$25,000 to \$34,999	606	15.85%
\$35,000 to \$49,999	608	15.89%
\$50,000 to \$74,999	592	15.49%
\$75,000 to \$99,999	256	6.70%
\$100,000 to \$149,999	138	3.61%
\$150,000 to \$249,999	40	1.04%
\$250,000 to \$499,999	11	0.28%
\$500,000 or more	0	0.01%
<b>2009 Estimated Average Household Income</b>	\$39,577	
<b>2009 Estimated Median Household Income</b>	\$30,590	
<b>2009 Estimated Per Capita Income</b>	\$16,145	

<b>2009 Estimated Households by Household Type</b>	3,824	
Family Households	2,453	64.14%
Nonfamily Households	1,371	35.86%
<b>2009 Estimated Group Quarters Population</b>	220	
<b>2009 Estimated Households by Household Size</b>	3,824	
1-person household	1,217	31.83%
2-person household	1,212	31.69%
3-person household	602	15.75%
4-person household	455	11.90%
5-person household	212	5.55%
6-person household	76	2.00%
7 or more person household	49	1.29%
<b>2009 Average Household Size</b>	2.39	
<b>2009 Estimated Households by Type and Presence of Own Children</b>	3,824	
Single Male Householder	497	12.99%
Single Female Householder	721	18.84%
<b>2009 Estimated Households by Type and Presence of Own Children, Continued</b>		
Married-Couple Family	1,771	46.30%
With own children	754	19.72%
No own children	1,017	26.58%
Male Householder	173	4.52%
With own children	90	2.36%
No own children	83	2.16%
Female Householder	509	13.32%
With own children	305	7.97%
No own children	204	5.34%
Nonfamily: Male Householder	89	2.33%
Nonfamily: Female Householder	65	1.71%

<b>Housing:</b>		
<b>Tenure of Occupied Housing Units 2009 Estimated</b>	3,824	
Owner-Occupied	2,337	61.11%
Renter-Occupied	1,487	38.89%
<b>2009 Owner-Occupied Housing - Average Length of Residence</b>	10	
<b>2009 Estimated All Owner-Occupied Housing Units by Value</b>	2,337	
Less than \$20,000	289	12.35%
\$20,000 to \$39,999	698	29.88%
\$40,000 to \$59,999	736	31.49%
\$60,000 to \$79,999	279	11.92%
\$80,000 to \$99,999	156	6.65%
\$100,000 to \$149,999	148	6.32%
\$150,000 to \$199,999	18	0.77%
\$200,000 to \$299,999	13	0.54%
<b>2009 Estimated All Owner-Occupied Housing Units by Value, Continued</b>		
\$300,000 to \$399,999	1	0.06%
\$400,000 or more	0	0.00%
<b>2009 Estimated Median Owner-Occupied Housing Unit Value</b>	\$44,938	
<i>Source: Nielsen 2009 Data for PCensus, OchsnerHare &amp; Hare</i>		

Of significance are the estimated households in the Housing Impact Area by household income since that is the largest determinant of the financial capability of households to pay higher rent or mortgage payments in order to afford the cost of the elimination of dwelling unit deficiencies. Of immediate concern is that 21.4% or 820 households have incomes of less than \$15,000 per year. Almost one half, some 41.1%, of the households are estimated to have incomes of \$25,000 or less. Of the estimated 2,453 families in the Impact Area, 17.3% or 424 have incomes below the poverty level.

Of the estimated total 3,824 occupied housing units, 2,337 or 61.1% are owner occupied while 1,487 or 38.9% are renter-occupied.

Of the owner-occupied housing units, the median owner-occupied housing unit value is estimated at \$44,938.

### **ESTIMATED AFFORDABLE MONTHLY DWELLING UNIT COST**

Given the demographic characteristics outlined above, the next step in the possible design of a housing initiative to achieve a sound existing stock for the City of Duncan is to realistically assess what existing households can afford in monthly dwelling unit cost. That analysis is presented in Figure 4 – Estimated Affordable Monthly Dwelling Unit Cost, page following. The concept of “affordable housing cost” is based upon the idea that expenditures for housing and utilities above a certain percentage of household income will result in inadequate monies for food, clothing, and medical care. For example, an exhibit at the National Building Museum titled “Affordable Housing: Designing an American Dream” assumed that percentage to be 22.68%. However, it appears that most mortgage lenders use a general guide that mortgage payments plus utilities should not exceed 30% of total household income and that housing costs plus all other monthly payments, car payments for example, should not exceed 35% of total household income. The data presented in Figure 4 assumes the 30% criteria.

A review of recent advertisements in The Duncan Banner found a very limited number of housing units available for rent. Only 3 or 4 apartment units and 2 or 3 townhome units are advertised. Those available ranged from \$340 for a one bedroom efficiency apartment to \$475 to \$500 for two bedroom apartment or townhome units. Approximately fifteen homes were advertised for rent. The rentals ranged from \$250 to \$800. The homes advertised averaged a rental of \$535. Only Duncan Plaza was taking applications for HUD subsidized units.

It seems apparent that in order for Duncan to house its low income households in other than substandard and/or dilapidated dwelling units, it will be necessary to expand its inventory of low and moderate rent housing units.

<b>Figure 4 - Estimated Affordable Monthly Dwelling Unit Cost</b>									
<b>Duncan Housing Impact Area Households</b>									
<b>Household Income:</b>		<b>Number of Households:</b>	<b>Affordable Rent and/or Mortgage Payment plus Utilities:</b>		<b>Affordable Rent and/or Mortgage Payment excluding Utilities:</b>				
Less than	\$15,000	820	Less than	\$375.00	Less than	\$175.00			
\$15,000 to	\$24,999	753	\$375.00 to	\$624.98	\$175.00 to	\$424.98			
\$25,000 to	\$34,999	606	\$625.00 to	\$874.98	\$425.00 to	\$674.98			
\$35,000 to	\$49,999	608	\$875.00 to	\$1,249.98	\$675.00 to	\$1,049.98			
\$50,000 to	\$74,000	592	\$1,250.00 to	\$1,850.00	\$1,050.00 to	\$1,650.00			
\$75,000 to	\$99,999	256	\$1,875.00 to	\$2,499.98	\$1,675.00 to	\$2,299.98			
\$100,000 to	\$149,999	138	\$2,500.00 to	\$3,749.98	\$2,300.00 to	\$3,549.98			
More than	\$150,000	51	More than	\$3,750.00	More than to	\$3,550.00			
<b>Total</b>		<b>3,824</b>							
Source: Nielsen 2009 Data for P-census; Ochsner • Hare & Hare									
Is\09-02 1\Housing Working Paper\Estimated Affordable Monthly Dwelling Unit Cost-01									

## **IMPACT OF DETERIORATING AND DILAPIDATED HOUSING UNITS**

A number of studies have measured the effect of a deteriorating, dilapidated, foreclosed, and/or abandoned dwelling unit on surrounding property values. In general, they have found that property values within 150 feet of such a structure will be decreased by approximately 30 percent, and if within 150 feet of two or more such structures, by at least 50 percent.

Presented in Figure 3, Impact of Deteriorating or Dilapidated Housing Units, page following, is a graphic representation of the areas in Duncan's Housing Impact Area lying within 150 feet of a #3 deteriorating or #4 dilapidated housing unit. It shows that in a significant portion of the Impact Area, property values probably have been reduced by approximately 30 to 50 percent. This situation results in several negatives. First, it represents an unwarranted burden on those property owners who maintain their properties in a sound condition. Second, it results in a lower assessed valuation of Duncan's tax base. Third, it represents a major impediment to the construction of new infill housing units in revitalization areas. A number of vacant lots with all utilities present exist and are available at low cost. Yet, it is unreasonable to assume that any number of new homes would be constructed at say a cost of \$100,000 or \$110,000 only to be worth \$60,000 or \$70,000 in market value.

The remaining sections of this Working Paper examine potential programs and efforts to remedy substandard housing conditions and then identify possible modifications to those efforts as well as additional initiatives to increase the City's production of affordable new housing construction.

## **POTENTIAL HOUSING DEVELOPMENT INITIATIVES**

It seems that for Duncan, two different housing related needs exist. The first is the need for either the rehabilitation, or in some cases demolition, of the City's some 506 housing units in major substandard condition. The second is the expansion of affordable housing of a variety of types. Related to both is the City's stated goal to rebuild portions of the east side of Duncan. Given the data presented above regarding the numbers of low or moderate income households, it is unlikely that that these needs can be met on a purely market rate basis. This study therefore next identifies a number of potential housing development incentives available to the City of Duncan.

A number of Acts passed by the Oklahoma Legislature are intended to address housing needs both in cities and rural areas. Those which the City of Duncan might choose to utilize are outlined below. They include:

- Oklahoma Housing Reinvestment Act
- Oklahoma Rural Housing Incentive District Act
- Neighborhood Redevelopment Act
- Urban Renewal Authority Act
- Oklahoma Local Development Act

A brief discussion of the features of each Act follows, however a more complete description of each is contained in Appendix C of this report.

The **Oklahoma Housing Reinvestment Act** allows certain cities,<sup>5</sup> to establish a housing reinvestment district in which, subject to the consent of each taxing entity, abatements of ad valorem taxes may be granted for properties which qualify for a homestead exemption as follows:

- Newly constructed residences, on a parcel that has not contained a residence within the last ten years, may be granted an exemption for two (2) tax years based upon the increase in fair market value;
- Newly constructed residences, on a parcel that has contained a residence within the last ten years, may be granted an exemption for three (3) tax years based upon the increase in fair market value; and
- A residence to which an improvement which increases the fair cash value not less than \$20,000 may be granted an exemption for five (5) years based on the value of the improvement.

In as much as the City has demolished a number of structures, primarily on the east side, those lots potentially could be eligible for the three (3) years of tax abatement if redeveloped with new housing structures. Other vacant lots could qualify for the two (2) years of tax abatement. It seems, however, that this incentive program, standing alone, is unlikely to be

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<sup>5</sup> Municipalities of less than 300,000 persons and in which the percentage change in population, according to the most recent federal decennial census compared with the previous decennial census is less than the national average change in population. For the City of Duncan, the percent change between 1990 and 2000 was + 3.56% while the United States grew by + 13.2%.

sufficient incentive to spur new housing construction. One approach might be to package the incentives with others in a comprehensive redevelopment plan.

After a review of the various housing related incentives available for consideration, it should be noted that only this Act provides an incentive for rehabilitation and improvement of the existing housing stock. While limited only to those owner occupied dwelling units eligible for a homestead exemption, there are areas within the Housing Impact Area characterized by predominately sound dwelling units, or dwellings with only minor deficiencies, that might benefit from the provision that allows a tax exemption for five (5) years for improvements which increase in the fair cash value not less than \$20,000. Looking at the pattern of housing conditions shown in Figure 3, page 5, such areas could be identified both north and south of the downtown area, west of Highway 81, and to the northeast portion of the Impact Area. This program possibly could be included as one element of a central Duncan reinvestment plan.

Although the Act will expire on January 1, 2013, unless extended, it still may be desirable to have the incentives in place between now and then.

The **Oklahoma Rural Housing Incentive District Act** applies to cities with a population less than 40,000 in counties with a population less than 75,000. Duncan and Stephens County meet that requirement. The Act allows for the designation of rural housing districts, after completing a housing needs analysis. It requires the adoption of a project plan for the district (up to 15 years) and a public hearing.<sup>6</sup> The proposed district must then be submitted to the Oklahoma Housing Finance Agency for approval.

The Act further allows the municipality to issue special obligation bonds, upon voter approval, to finance the project plan implementation. Bonds are payable from property tax increments, revenues derived from the project, private or governmental sources, developer sureties or guarantees, and/or local governmental revenues. Bonds are exempt from all state taxes other than estate taxes, and have a maturity of up to 15 years.

Basically, the proceeds from bonds may be used for the acquisition of property within the specific project area, payment of relocation assistance, site preparation and the installation of infrastructure. However, none of the proceeds from the sale of bonds may be used for the

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<sup>6</sup> Such a resolution approving the designation of a district may be nullified in affected school districts, municipalities and counties determine that the housing district will have an adverse impact.

construction of buildings or other structures to be owned by or leased to any developer of a residential housing project within the district.

Although passed by the Legislature in 1988, the Act has yet to be utilized by any city in the State.<sup>7</sup> However, the Act remains on the books and is one option which could be considered as a component of a redevelopment plan for the Housing Impact Area.

Yet another potential approach to redevelopment available to Oklahoma communities is the **Neighborhood Redevelopment Act**.<sup>8</sup> Utilization of the Act requires a finding that all or a portion of a neighborhood to be redeveloped contains blighted conditions. Thereafter, the municipality must prepare a redevelopment plan containing the following:

- A description and map of the boundaries of the redevelopment district being proposed;
- A delegation of authority to a public trust created pursuant to Section 176 et seq. of Title 60 of the Oklahoma Statutes, . . .
- A summary of the types of redevelopment activities and projects which may be undertaken by the redevelopment trust; and
- Such other information as deemed by the governing body necessary to advise the public as to the intent of the plan.

The redevelopment plan must fix a date on which the redevelopment plan shall terminate, said date not more than twenty-five (25) years from the date of approval. Approval of such plan requires a two-thirds vote of the governing body.

The redevelopment trust may issue tax apportionment bonds or notes and may receive and pledge revenues derived from the apportionment of the ad valorem taxes and local sales taxes (same as provided in OS 62-850, 62-861 and 62-862 of the Oklahoma Local Development Act).

Presumably originally adopted to facilitate Oklahoma communities' participation in the Federal Urban Renewal Program of the 1960's, the **Oklahoma Urban Renewal Authority Act**<sup>9</sup> remains an option for communities to address the rehabilitation, conservation or redevelopment of blighted areas. Under the Act, an Oklahoma community may establish an Urban Renewal

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<sup>7</sup> Oklahoma Housing Finance Agency.

<sup>8</sup> This is the approach utilized by the City of Midwest City for its "City of Midwest City Downtown Redevelopment" project, the redevelopment of approximately 80 acres on Southeast 29<sup>th</sup> Street. The municipal trust utilized was the Midwest City Memorial Hospital Authority.

<sup>9</sup> 11 O.S. 38-101 to 38-123

Authority. The Authority may prepare or cause to be prepared an urban renewal plan or any person, agency, public or private, may prepare and submit such a plan to the municipality. However, the governing body shall not approve an urban renewal plan or project until a general plan (comprehensive plan) has been adopted and such general plan must have designated and delineated urban renewal areas, established the appropriate reuse of such areas and established priorities for the rehabilitation or clearance and redevelopment of such areas.

The Act provides a broad range of powers to enable the Urban Renewal Authority to carry out urban renewal projects including the power to issue notes or bonds, including revenue bonds to finance the undertaking of any urban renewal project. Such bonds may be payable from a variety of sources including, but not limited to, taxes on incremental property values.

It appears that the **Oklahoma Local Development Act**<sup>10</sup> could provide the greatest incentives for both major rehabilitation projects and for new development, either for housing, mixed-use, downtown or new or rehabilitated commercial projects. Under the Act, a municipality may establish either an “incentive district” or a “reinvestment district” in which all or any portion of an increment of ad valorem taxes and all or any portion an increment of sales taxes, other local taxes or local fees, or any combination thereof are apportioned to financing a plan and project in accordance with the Act. Such apportionment shall not be for a period in excess of twenty-five years.

Eligible project costs essentially are all of a development’s costs including, but not limited to, site acquisition, planning, development and financing.

A “reinvestment area” means an area in which fifty percent (50%) or more of the structures have an age of thirty-five (35) years or more and contains a blighted area as defined in the Oklahoma Statutes. An “enterprise area,” also a qualifier for the application of this Act, means any area within a designated state or federal enterprise zone. As the reader may note, a large portion of the Housing Impact Area, see page 5, above, lies within Duncan’s existing enterprise zone area. The remaining portion almost certainly meets the requirement in which fifty percent (50%) or more of the structures have an age of thirty-five years or more and contains a blighted area as defined in the Oklahoma Statutes.

In addition to the potential housing development incentives discussed above, other programs exist through the Oklahoma Housing Finance Agency. These are next discussed.

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<sup>10</sup> Title 62, Chapter 9, Sections 850-869 (Also commonly known as Tax Increment Financing)

## **OKLAHOMA HOUSING FINANCE AGENCY<sup>11</sup>**

The Oklahoma Housing Finance Agency (OHFA) maintains five programs aimed at the production of low and moderate income housing throughout the state. The programs include:

- Affordable Housing Tax Credits (AHTC)
- HOME Program
- Housing Trust Fund (HTF)
- Rural Housing Linked Deposit (LD)
- Multi Family Bonds.

Each is discussed briefly as follows.

The **Affordable Housing Tax Credits Program** uses federal tax credits available under Section 42 of the Internal Revenue Code of 1986, as a tool for the creation and maintenance of rental housing units for low and very low-income households. Applications by development entities file proposed projects with OHFA in two cycles per year.

In 2009, OHFA approved nineteen AHTC projects in various communities throughout the State for the construction of some 794 housing units. Communities with approved projects included Chickasha, Ardmore, McAlester, Ada, Tishomingo, Broken Arrow and Enid, for example. Of interest, project developers included two housing authorities, eight Oklahoma based development companies, and twelve out of state developers. Should Duncan identify one or more desired developments, but no local developers were interested, a Request for Qualifications and Request for Proposals process likely would identify a potential developer for projects in Duncan.

**HOME Program** funds are allocated by the U.S. Housing and Urban Development Department to the State of Oklahoma. OHFA has been designated as the State HOME Participating Jurisdiction.

HOME funds are used to provide funds for development costs and for assistance for home purchase or rehabilitation and to assist low income renters. Eligible applicants include non-profit organizations, units of local governments, Indian tribes, political subdivisions and CHDOs (Community Housing Development Organizations). In 2010, thirty Oklahoma cities, towns and counties were selected to participate in the homeowner rehabilitation program. Neither Stephens County nor the City of Duncan was approved for the program.

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<sup>11</sup> Data for this section of this report are provided by the Oklahoma Housing Finance Agency.

Approved in 1998, the **Oklahoma Housing Trust Fund (HTF)** was established with OHFA designated as the administrative agency. Funds available as of March 2010 were \$2,648,395. However, the allocation, outside of Oklahoma City and Tulsa, was a minimum of \$1,000,178 and a maximum of \$1,471,097. HTF funds may be used for new construction of rental or homeowner units, conversion of non-residential structures into rental or homeownership, acquisition and/or rehabilitation and housing infrastructure when part of a total development. Eligible applicants are the same as for the HOME Program as noted above.

The **Rural Housing Linked Deposit Program** was put into operation in 2005 to provide low-interest loans of up to \$2,000,000 to qualified housing developers to construct single-family and multi-family housing in rural Oklahoma and in qualifying areas of urban centers. In the past, Stephens County met neither the lower than median income requirements, the need for more than 100 low income rental units nor was an “Opportunity Zone” as required for participation in the Program. It is unlikely that the County meets any of those requirements today.

A final OHFA Program for possible use is the **Multi-Family Bonds Program**. OHFA’s share of Oklahoma’s Private Activity Bond Cap is only \$42 million. Currently all of that is utilized to fund Single-family Mortgage Revenue Bonds which provide mortgages for homeownership, however OHFA has indicated that it would entertain proposals for multi-family bond issuance.

## **COMMUNITY HOUSING DEVELOPMENT ORGANIZATIONS (CHDOs)**

Community Housing Development Organizations (CHDOs) are local non-profit housing development organizations. They receive certification through OHFA. Once certified, the local communities they serve receive priority status for the allocation of HOME funds, CDBG funds and other programs. Currently, there are twenty-one certified CHDOs in Oklahoma. One of these, the **Delta Community Action Foundation**, serves Garvin, McClain and Stephens Counties.

As a Community Action Foundation, Delta also provides a range of non-housing services as well. They have various offices, one of which is located at 921 Maple in Duncan. In terms of housing, they work with the Neighborhood Stabilization Program to buy foreclosures,

rehabilitate them and then resell the unit. Other services include weatherization, roofs, HVAC, doors, energy star appliances, etc.

While Delta Community Action Foundation is providing a range of beneficial services in Duncan, it may be desirable for Duncan to also establish its own Local Non-Profit Housing and Redevelopment Corporation.

## **LOCAL NON-PROFIT HOUSING AND REDEVELOPMENT CORPORATION**

It is recommended that Duncan explore the creation of a separate non-profit housing development corporation to supplement the activities of Delta. Such a local Non-profit Housing and Redevelopment Corporation with a community-based board of directors could be formed and a source of funding for the Corporation's activities could be established. Advisory committees comprised of a majority of revitalization and/or redevelopment area residents could be formed for the various revitalization plan areas. The Housing and Redevelopment Corporation could be charged with the local administration various programs identified above, marketing the programs, and finding solutions for the worst properties in the revitalization areas.

After establishing its validity through performance, the Redevelopment Corporation could choose to be designated by the Department of Housing and Urban Development and OHFA as a Community Housing Development Organization (CHODO). As noted above, such a designation would give Duncan priority for funding from a number of federal programs including, but not limited to, Community Development Block Grants and HOME funds.

## **CONCLUSION**

This working paper has attempted to quantify the extent of housing deficiencies in the existing housing stock and to identify the need for additional new housing development as well as efforts to stimulate the rehabilitation of substandard housing units. It is now recommended that the Comprehensive Plan Committee, perhaps through a smaller housing working group within the Committee, begin the discussion of which potential efforts and programs the City of Duncan should pursue.

## APPENDIX A

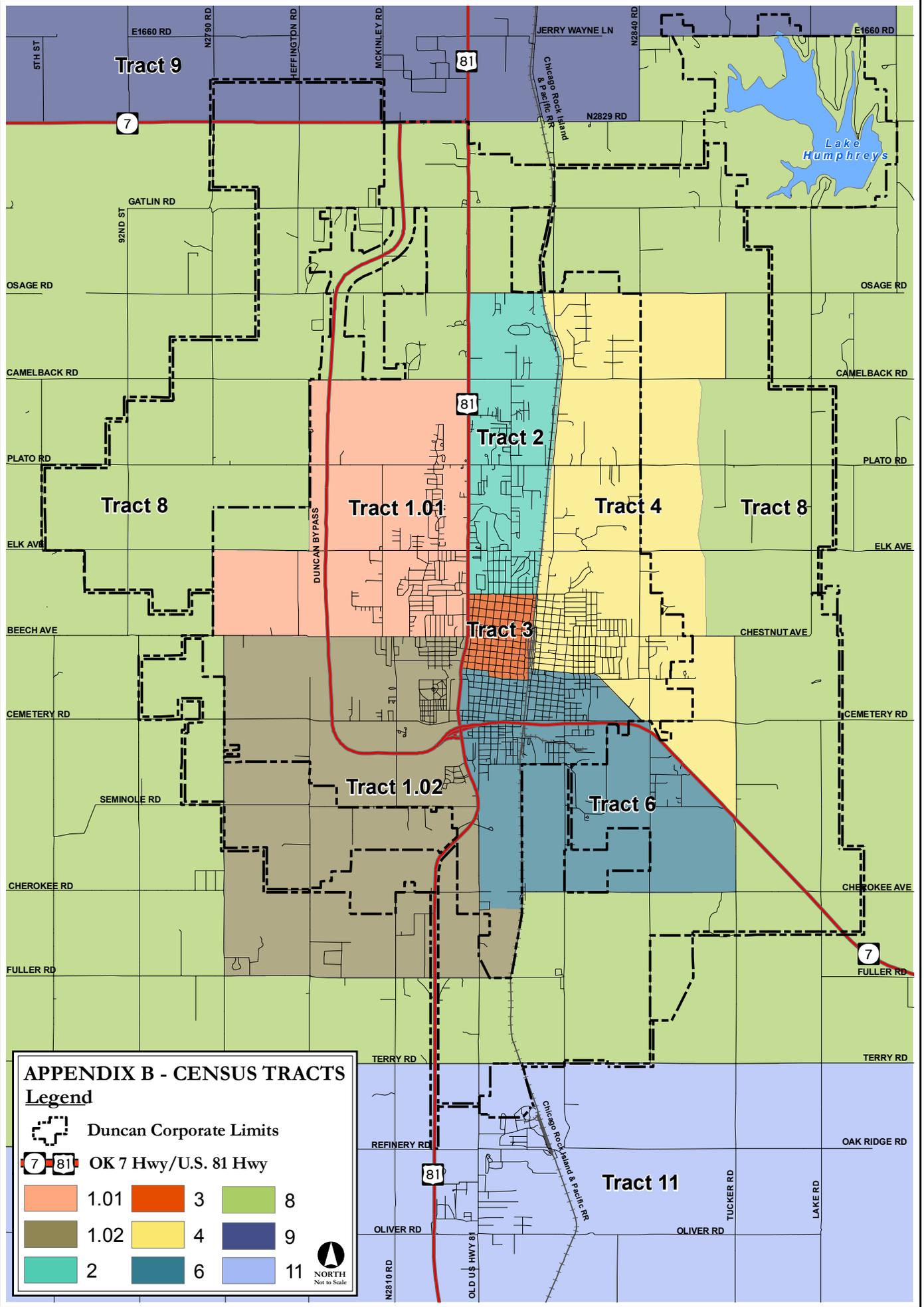
### HOUSING CONDITION RATING SCALE

#### Housing Condition Structural Deficiency Rating Scale 2009 Housing Survey

<u>Structure Element</u>	<u>Penalty Points</u>
<b>FOUNDATION</b>	
No foundation	5
Insufficient clearance	4
Settling/exposed footing	3
Cracks/holes	2
<b>WALLS</b>	
Wall leaning, bowed, etc.	5
Settling and/or cracked	4
Loose, lacking or damaged siding	3
Lacking paint	2
<b>ROOF</b>	
Sagging	5
Roof missing, aged, loose	4
Rotted or deteriorated eaves	3
Lack of ventilation	2
<b>STAIRCASE, STEPS</b>	
Sagging, broken, missing	1
Rails and/or balusters missing	1
Inadequate foundation	1
Pulling away from house	1
<b>WINDOWS, DOORS</b>	
Rotted or missing sills or frames	1
Broken and/or missing panes	1
Missing or torn screens	1
Lack of windows	1
<b>PORCHES</b>	
Sagging or deteriorated roof	1
Sagging or deteriorated floor	1
Inadequate foundation	1
Deteriorated roof supports, steps, rails	1

<u>Structure Element</u>	<u>Penalty Points</u>
<b>CHIMNEY</b>	
Cracked	.5
Improper height	.5
UngROUTED	.5
Partially destroyed	.5
<b>GUTTERS</b>	
No splash plate	.5
Chipped or peeling paint	.5
Sagging	.5
Downspout or gutter missing	.5

Housing Rating Scale	Penalty Points Total	Probable Treatment
#1 - Sound	0 - 2	None
# 2 - Minor Deficiencies	2.5 - 6.5	Normal Maintenance
# 3 - Deteriorating	7 - 17.5	Major Rehabilitation
# 4 - Dilapidated	18 +	Probable Clearance



**APPENDIX B - CENSUS TRACTS**  
**Legend**

-  Duncan Corporate Limits
-  OK 7 Hwy/U.S. 81 Hwy
-  1.01
-  3
-  8
-  1.02
-  4
-  9
-  2
-  6
-  11



## Appendix C

Appendix C includes:

- Oklahoma Housing Reinvestment Act
- Oklahoma Rural Housing Incentive District Act
- Neighborhood Redevelopment Act
- Urban Renewal Authority Act
- Oklahoma Local Development Act

## Oklahoma Housing Reinvestment Act

Under the provisions of the Oklahoma Housing Reinvestment Act, (Title 62, Chapter 9, Sections 881 – 887), it appears that the City of Duncan qualifies as being eligible to establish a housing reinvestment district. Such a district may be created within a municipality of less than 300,00 persons and in which the percentage change in population, according to the most recent federal decennial census compared with the previous decennial census is less than the national average change in population. The relevant data is set forth below.

Area	1990 Population	2000 Population	Percent Change
City of Duncan	21,732	22,505	+ 3.56 %
United States	248,709,873	281,421,906	+ 13.2 %

Source: U. S. Census Bureau, American FactFinder

In a housing reinvestment district, subject to the written consent of each taxing entity levying ad valorem taxes within the boundaries of the district, abatements of such ad valorem taxes may be granted for properties which qualify for a homestead exemption as follows:

- Newly constructed residences, on a parcel that has not contained a residence within the last ten years, may be granted an exemption for two (2) tax years based upon the increase in fair market value;
- Newly constructed residences, on a parcel that has contained a residence within the last ten years, may be granted an exemption for three (3) tax years based upon the increase in fair market value; and
- A residence to which an improvement which increases the fair cash value not less than \$20,000 may be granted an exemption for five (5) years based on the value of the improvement.

In considering the use of this program, it should be noted that the Act will expire January 1, 2013, unless reenacted.

## Oklahoma Rural Housing Incentive District Act

Under the provisions of the Oklahoma Rural Housing Incentive District Act (Title 62, Chapter 9, Sections 871 – 879), the City of Duncan appears to qualify to establish an Oklahoma Rural Housing Incentive District. Such a district may be established in a municipality with a population of less than forty thousand (40,000) persons in a county with a population of less than seventy-five thousand (75,000) persons. The relevant data is set forth below.

<b>Area</b>	<b>2000 Population</b>
City of Duncan	22,505
Stephens County	43,182

Source: U.S. Census Bureau, American FactFinder

Passed as SB 336(1) in 1999, the Act:<sup>12</sup>

- Authorizes governing body of county or municipality to designate rural housing districts, after housing needs analysis. A resolution must be approved by the governing body, published, and submitted to the Oklahoma Housing Finance Agency for approval;
- Requires adoption of project plan for district (up to 15 years), and a public hearing on the plan;
- Specifies procedures for public hearing and provides for nullification of ordinance or resolution establishing the district if governing bodies of affected school districts, municipalities and counties determine that the housing district will have an adverse impact;
- Allows municipality or county which has established a district to issue special obligation bonds to finance the project plan implementation, upon voter approval. Bonds are payable from property tax increments, revenues derived from the project, private or governmental sources, developer sureties or guarantees, and/or local governmental revenues. Bonds are exempt from all state taxes other than estate taxes, and have a maturity of up to 15 years.
- Specifies allowable uses of proceeds from bonds; including

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<sup>12</sup> 1999 Legislative Summary – Government (County, Municipal & Local)

1. Acquisition of property within the specific project area or areas as provided in Section 7 of the Act;
2. Payment of relocation assistance;
3. Site preparation;
4. Sanitary and storm sewers and lift stations;
5. Drainage conduits, channels and levees;
6. Street grading, paving, graveling, macadamizing, curbing, guttering and surfacing;
7. Street lighting fixtures, connection and facilities;
8. Underground gas, water, heat, and electrical services and connections located within the public right-of-way;
9. Sidewalks; and
10. Water mains and extensions.<sup>13</sup>

Note: None of the proceeds from the sale of special obligation bonds issued under Section 8 of this act shall be used for the construction of buildings or other structures to be owned by or to be leased to any developer of a residential housing project within the district.

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<sup>13</sup> Title 62, Chapter 9, Section 878 of the Act.

## Neighborhood Redevelopment Act<sup>14</sup>

The Neighborhood Redevelopment Act authorizes cities and towns to establish redevelopment trust authorities, and to authorize such authorities to undertake redevelopment activities within commercial, industrial and residential neighborhoods. The exercise of such powers requires that the city or town shall have adopted a resolution finding that all or a portion of such neighborhoods contain blighted conditions.

A city or town proposing to undertake the redevelopment of a neighborhood must first prepare a redevelopment plan containing the following:

- A description and map of the boundaries of the redevelopment district being proposed;
- A delegation of authority to a public trust created pursuant to Section 176 et seq. of Title 60 of the Oklahoma Statutes, . . .
- A summary of the types of redevelopment activities and projects which may be undertaken by the redevelopment trust; and
- Such other information as deemed by the governing body necessary to advise the public as to the intent of the plan.

The redevelopment plan must fix a date on which the redevelopment plan shall terminate, said date not more that twenty-five (25) years from the date the plan was adopted. Approval of such plan requires a two-thirds (2/3) vote of the governing body.

The redevelopment trust may issue tax apportionment bonds or notes and may receive and pledge revenues derived from the apportionment of ad valorem taxes.

A relocation assistance plan is required and the redevelopment trust shall have the right to acquire by the exercise of the power of eminent domain real property which is necessary to accomplish the purposed of the Act, when so approved by the governing body.

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<sup>14</sup> Title 11, Chapter 1, Article XL, Section 40-101-115

## Urban Renewal Authority<sup>15</sup>

Oklahoma municipalities may create an Urban Renewal Authority upon adoption of a resolution finding that:

1. One or more blighted areas exist in its area of operation; and
2. The rehabilitation, conservation or redevelopment, or a combination thereof, of the area or areas is necessary in the interest of the public health, safety, morals and welfare of the residents of the area.

The Urban Renewal Authority may itself prepare or cause to be prepared an urban renewal plan or any person or agency, public or private, may prepare and submit such a plan to the municipality.

The municipality governing body shall not approve an urban renewal plan or project until a general plan for the municipality has been adopted as the long-range development policy, and such urban renewal plan shall adhere thereto; provided however, that such general plan must have designated and delineated urban renewal areas, established the appropriate reuse of such areas and established priorities for the rehabilitation or clearance and redevelopment of such areas.

The Urban Renewal Authority shall have all the powers necessary or convenient to carry out and effectuate the purposes and provisions of the Article, including the following powers in addition to others granted:

1. To undertake and carry out urban renewal projects within its area of operation . . .
2. To provide or to arrange or contract for the furnishing by any person or agency, public or private, of services, privileges, works, streets, roads, public utilities, or other facilities for or in connection with an urban renewal project; to install, construct, and reconstruct . . .
3. With the permission of the owner or occupant, to enter into any building or property in any urban renewal area with its area of operation in order to make inspections, surveys, appraisal, . . .
4. etc.

After the adoption by the municipal governing body of an urban renewal plan and a resolution declaring that the acquisition of real property described in the plan is necessary to the execution of the plan, the Urban Renewal Authority designated as the agency to execute such

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<sup>15</sup> Title 11, Chapter 1, Article XXXVIII, Section 38-101-123

plan shall have the right to acquire by condemnation or otherwise, any interest or right or combination of rights in real property, . . . necessary to the execution of the approved plan.

An Urban Renewal Authority has the power to issue notes or bonds, including revenue bonds, from time to time as its discretion to finance the undertaking of any urban renewal project. . .

The municipality governing body may designate the urban renewal area to be a tax increment allocation district by either resolution or ordinance.

## Oklahoma Local Development Act<sup>16</sup>

Under the Oklahoma Local Development Act, a City may establish what is known as either an “incentive district” or a “reinvestment district” in which to apply all or any portion of an increment of ad valorem taxes and all or any portion of sales taxes, other local taxes or local fees, or any combination thereof to financing a plan and project in accordance with the Act.

Project costs include, but are not limited to:

- Capital costs, including the actual costs of the acquisition and construction of public works, public improvements, new public or private buildings, structures and fixtures; the actual costs of the acquisition, demolition, alteration, remodeling, repair, or reconstruction of existing public or *private buildings* (emphasis added), structures, and fixtures; and the actual costs of the acquisition of land and equipment for public works, public improvements and public buildings and the actual costs of clearing and grading of such land and environmental remediation related thereto,
- Financing costs, . . .
- Real property assembly costs, including clearance and preparation costs,
- Professional service costs,
- Direct administrative costs, . . .
- Organizational costs, . . .
- Interest, . . .
- Fees for bond guarantees, . . .and
- Other related costs.

A “reinvestment area” means an area in which fifty percent (50%) or more of the structures have an age of thirty-five (35) years or more and contains a blighted area as defined in the Oklahoma Statutes. An “enterprise area,” also a qualifier for the application of this Act, means any area within a designated state or federal enterprise zone.

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<sup>16</sup> Title 62, Chapter 9, Sections 850-869 (Also known as Tax Increment Financing)

# APPENDIX C

## FIRST IMPRESSIONS CHARRETTE

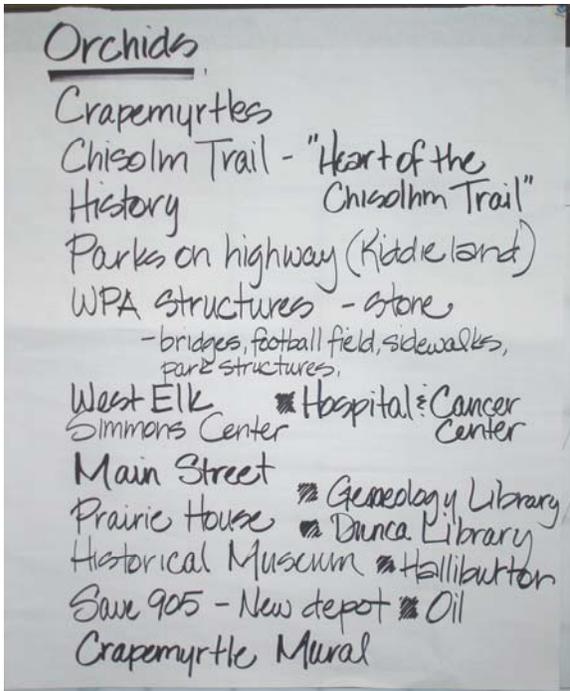


## Appendix C: First Impressions Charrette

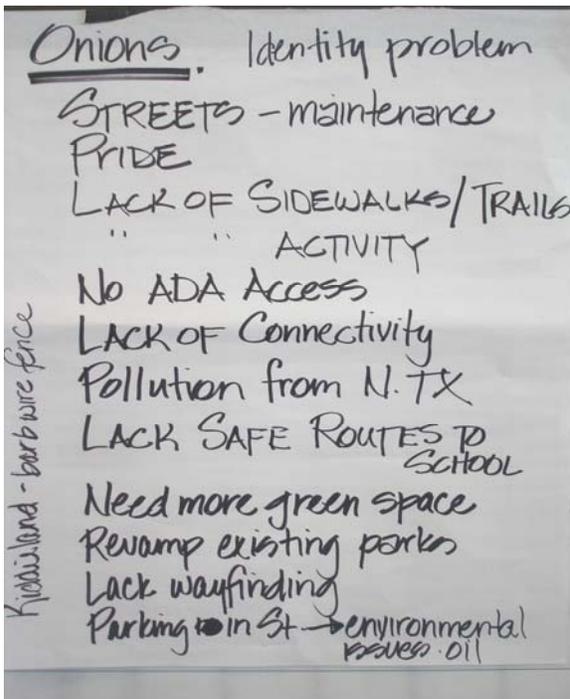
In an effort to identify beautification opportunities for the City of Duncan, a First Impressions Charrette was conducted. Before proceeding, it is important to answer the question:

**What is a charrette?** The origin of the term comes from the French word, "charrette" meaning "cart" and is often used to describe the final, intense work effort expended by art and architecture students to meet a project deadline. This use of the term is said to originate from the École des Beaux Arts in Paris during the 19th century, where proctors circulated a cart, or "charrette", to collect final drawings while students frantically put finishing touches on their work.

The actual definition of charrette combines a creative, intense work session with public workshops and open houses. The charrette is a collaborative planning process that harnesses the talents and energies of all interested parties to create and support a feasible plan that represents transformative community change. The two day charrette in Duncan began with the Charrette team members presenting an overview of the project to the community. The Charrette team engaged the community requesting input associated with "Orchids" (what looks and "smells" good) within the community. The community was quick to note some key destinations and uses, including Chisholm Trail Heritage Museum, crapemyrtles, Simmons Center and more. A complete showing of the input is noted on the next page.



After providing the more positive side to the Community, the group focused on Onions (what looks and "smells" bad). This list was similar in size to the Orchids list, as shown below.



Based on the strengths and weaknesses of the Community, the group then discussed goals and objectives, what they believe to be the first impression of Duncan, and described "Duncan in a word". This exercise was followed by a short presentation showing iconic examples from other communities and what makes them unique.

PLAN TO DEVELOP FIRST IMPR.  
BETTER FIRST IMPRESSION.  
COMMUNITY "BUY-IN"  
CREATE A SENSE OF PRIDE  
All "sides" represented w/  
first impressions imp.  
Example community  
Fredericksburg TX  
Common theme  
Welcome  
Connectivity  
Elk entrance

**GOALS & OBJECTIVES**

"DUNCAN IN A WORD"

FRIENDLY  
FAMILY-ORIENTED  
- SCHOOLS  
- NEIGHBORHOODS  
- CHURCHES  
- FRIENDS

FATIGUED  
"CLIQUEST"  
SAFE

NICE DOWNTOWN  
FRIENDLY  
WELCOMING  
SOME OPERATIONS  
DRIVE-THRU COMMUNITY  
DIRTY @ HIGHWAYS  
LOTS OF SIGN CLUTTER  
SUMMER & WINTER INTEREST  
CONCENTRATE EFFORTS ON 4 "ENTRY"  
"ROUTES" need maint

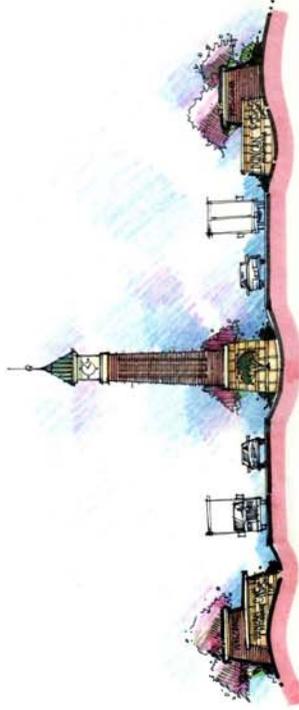
Fatigued

**FIRST IMPRESSIONS.**

Based on the input from the community, the Charrette team began sketching ideas for entry monumentation for the community and for the downtown. The concepts developed were based on the community's perceptions of what makes Duncan special / unique. The designs presented are on the following page.

The community reacted to these designs and provided input that directed the Charrette team to move toward a set of designs that incorporated the three themes, but with a common design direction. The resulting designs each included the WPA stone design, cast stone medallions and crapemyrtles in the landscaping. The remainder of each entry feature is designed to represent the area of town the entry is located. For example, the Oil Rig and pump jacks are located on the south side of town near Halliburton. The final renderings are represented on the last page of Appendix C (C-6).

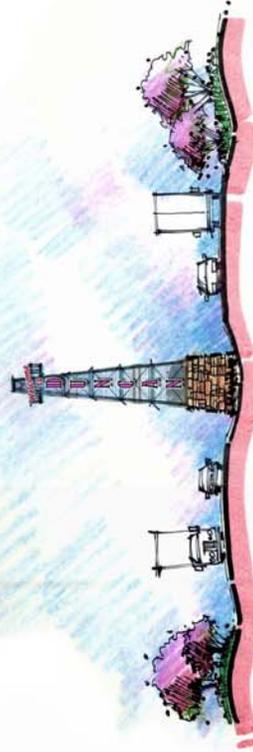
The revised drawings were presented to the public on the second day of the charrette. The citizens were pleased with the revisions and were interested in how to fund the projects.



**Primary Concept A**



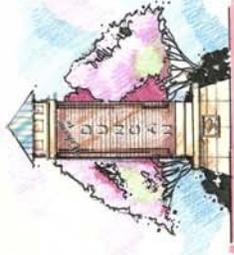
**Primary Concept B**



**Primary Concept C**



**Cast Stone Medallion Concepts**



**Secondary Concept A**



**Secondary Concept B**



**Secondary Concept C**



**Gateway Concept A**

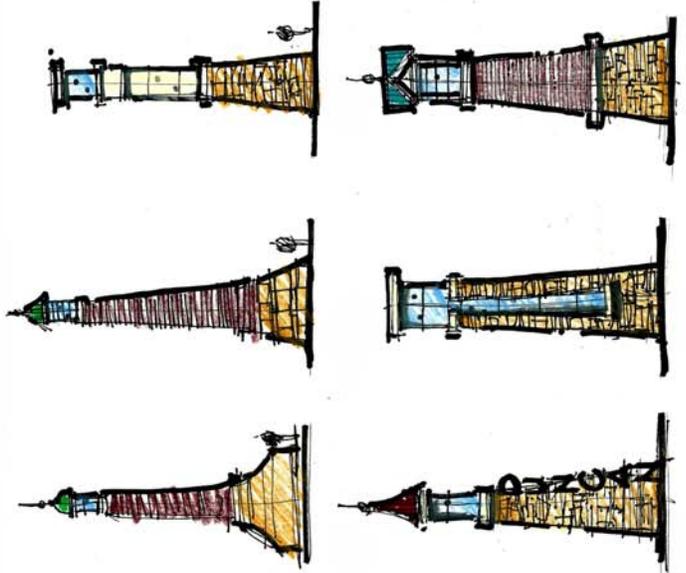
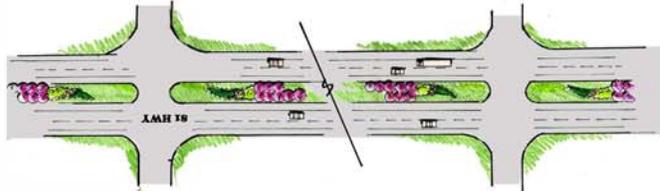


**Gateway Concept B**



**Gateway Concept C**

**Median Planting First Impressions**



**Alternate Tower Concepts**



**North Gateway Concept**



**North Gateway Concept 2**



**Main St. Gateway Concept**



**South Gateway Concept**



**East Gateway Concept**

# APPENDIX D

## ACCESS MANAGEMENT



## Appendix D: Access Management

Access management is defined in the TRB 2003 *Access Management Manual*, as the “systematic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway.” Application of the best practices of access management has benefits for motorists, bicyclists, pedestrians, transit riders, business people, government agencies, and communities. The desired outcomes of access management are highways that:

- Are safer for vehicular and pedestrian traffic
- Maintain their functional integrity and efficiency, helping to protect the investment of taxpayer dollars
- Are used for the purposes (functions) for which they are designed
- Provide reasonable access to properties
- Reflect coordination between land use and transportation decisions
- Allow motorists to operate vehicles with fewer delays, less fuel consumption, and fewer emissions

The Federal Highway Administration (FHWA) maintains an access management website, <http://www.accessmanagement.info> and provides extensive documentation of current practice and benefits of access management for all functional levels of the roadway system. The FHWA defines access management as “a set of techniques that state and local governments can use to control access to highways, major arterials, and other roadways.” The techniques provide tools that increase roadway capacity, manage congestion and reduce crashes. In addition, the Center for Urban Transportation Research, College of Engineering at the University of South Florida developed “Ten Ways to Manage Roadway Access in Your Community” to help communities develop an understanding of the benefits of access management.

A key aspect to access management is driveway management. The table below provides the recommended driveway and intersection spacing standards for Duncan's transportation system.

### Access Spacing

Managing access spacing includes both traffic signal spacing and conflict access spacing which includes driveways and unsignalized streets. The City of Duncan should establish minimum driveway separation standards for each functionally classified roadway. Some key aspects to access spacing are defined below.

### *Traffic Signal Spacing*

Extensive research on traffic signal spacing and access management found that each additional signal over a one-half mile spacing (two per mile) increased travel time by at least six percent. The same research identified that increasing the distance between signals also reduces the potential for crashes. The research also included a review of crash data from seven states which demonstrated that the crash rate increased substantially with additional signals per mile, as demonstrated in **Table D.1**.

**Table D.1**  
**Correlation of Signals Per Mile and Crash Rate**

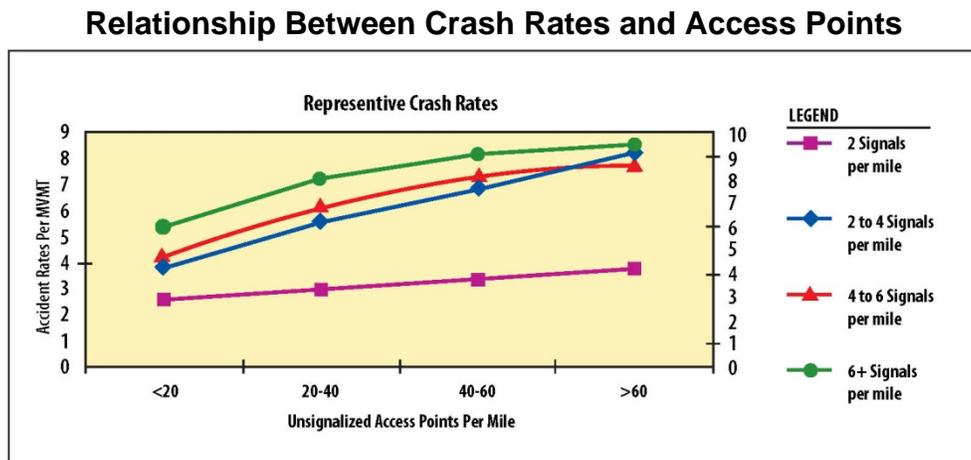
Signals per mile	Crashes per million VMT
Less than 2	3.53
2 to 4	6.89
4 to 6	7.49
More than 6	9.11

Source: **Benefits of Access Management, Brochure, Federal Highway Administration, 2005.**

As documented in the table, there is a fifty percent increase in crashes per million VMT by increasing the number of signals from less than two per mile to between two and four signals per mile. **Figure D-1** graphically depicts the relationship between the number of traffic signals per mile and the crash expectancy.

The TRB Access Management Manual has documented several benefits of proper signal spacing. A Colorado Department of Transportation (DOT) access management demonstration project concluded that half-mile signal spacing could reduce vehicle-hours of delay by over 60 percent, and vehicle-hours of travel by over 50 percent, compared with signals at quarter-mile spacing intervals. Other studies found that a four-lane divided roadway with half-mile signal spacing had the same carrying capacity as a six-lane divided roadway with quarter-mile signal spacing.

**Figure D.1**



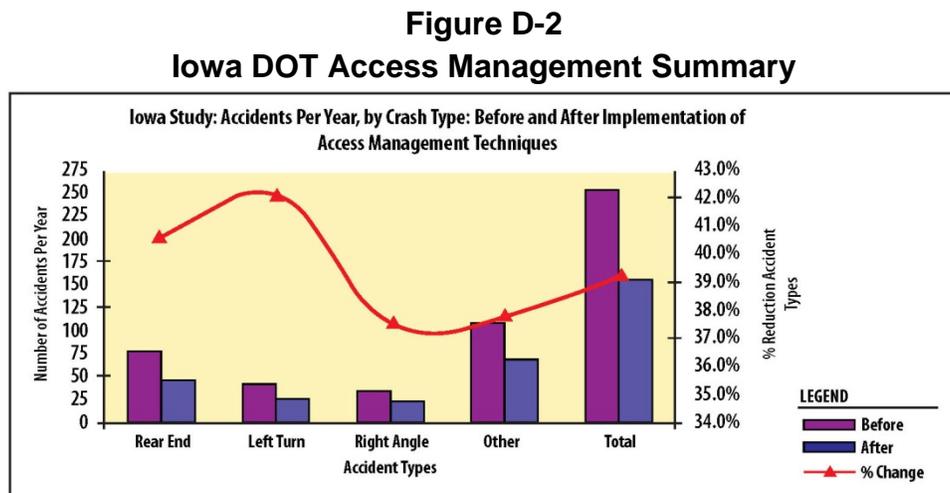
Source: Transportation Research Board, NCHRP Report 420, 1999.

*Driveway Spacing*

The number of driveways and unsignalized intersections directly relates to the number of potential conflict areas on a roadway. Fewer driveways spaced further apart reduce the number of conflict points and allow for more orderly vehicle movement. The level of congestion directly relates to the presence of driveway access points. A research synthesis found that roadway speeds were reduced by 2.5 mph for 10 access points per

mile, and up to 10 mph for 40 access points per mile. This same study identified a strong linear relationship between the number of access points and the rate of vehicle crashes, which was also identified in **Figure D-1**. This was particularly true for urbanized areas.

The Iowa Department of Transportation conducted an access management research project involving seven communities. Before and after studies were conducted to identify the effects of access management relating to crash type and occurrence. **Figure D-2** depicts the findings from this study.



Source: Transportation Research Board, NCHRP Report 420, 1999.

### Turning Lanes

Some typical turning lane treatments include left-turn, right-turn, indirect turn and roundabouts. These four types of turning lane treatments have the potential to reduce crashes and increase capacity, particularly at intersections. Left-turn, right-turn and indirect turn lanes are described briefly below.

#### *Left-turn Lanes*

Exclusive left-turn lanes are used to remove left-turning vehicles from the through traffic stream. Left-turn lanes at intersections substantially reduce rear-end type crashes.

Left-turn lane research shows that left-turn lanes reduce crashes by 50 percent on average, and reduce rear-end crashes by up to 88 percent. With the addition of a left-turn lane, capacity increases of 25 percent can be seen.

*Right-turn Lanes*

Exclusive right-turn lanes are used to remove right-turning vehicles from the through traffic. Right-turn lanes typically have less of an impact on crashes and roadway capacity as this movement does not need to yield to other movements. This impact was found to be dependent on the spacing between intersecting driveways, the amount of right-turning volume, and speed. It is important to note the suburban arterial roadways analyzed had no deceleration/right-turning lanes and the intersecting driveways were not signalized.

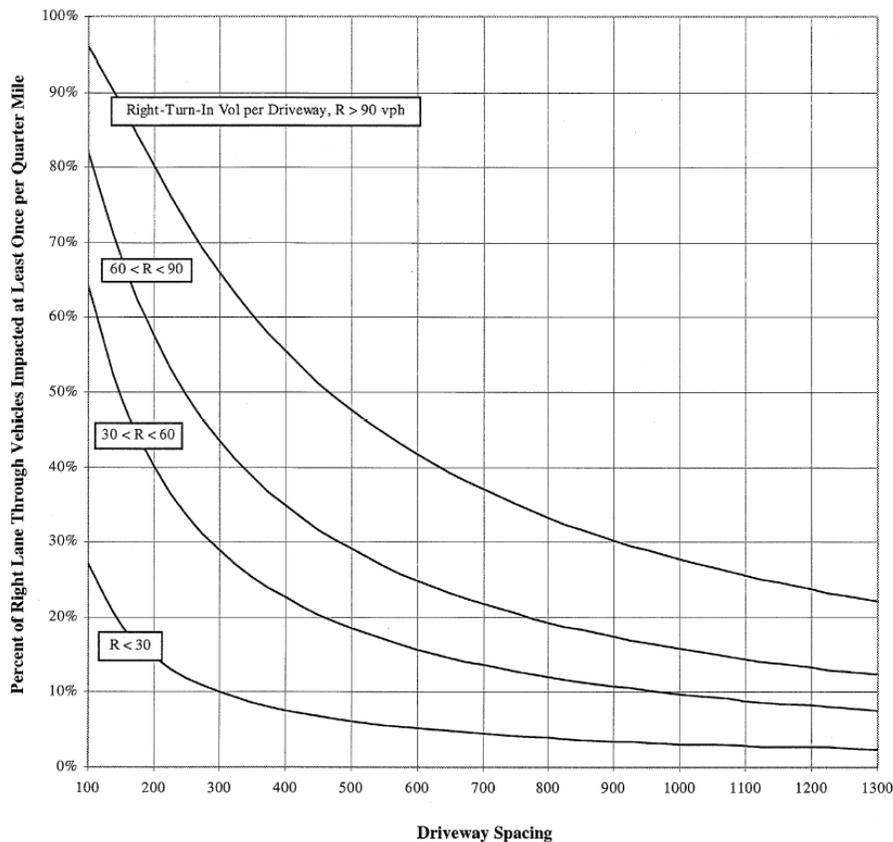
Research presented at a 1999 Transportation Research Board Urban Street Symposium, shows that there are differing impacts at single driveways versus multiple driveways. For single driveway locations, there were generally four classes of driveway impacts due to differing levels of right-turn volumes within a shared right/through lane. The reduction in through traffic from right-turning traffic is summarized below:

<u>Right-Turn-In-Volume (vph)</u>	<u>Percent of Right Lane Through Vehicles That Were Impacted by Right-Turn-In</u>
<30	2%
31-60	7%
61-90	12%
>90	22%

When there are multiple closely spaced driveways along a corridor, the impacts are compounded. Based on studies on quarter-mile sections of arterial roadway, driveway spacing can play a significant role in preserving or deteriorating lane capacity. **Figure D-3** depicts impact curves based on multiple driveways spaced along an arterial

roadway. With reduced driveway spacing and higher right-turn volumes, the right-turn traffic can essentially impact all operations in the shared right-turn/through lane. With increased driveway spacing, the impact to through vehicles can be reduced substantially.

**Figure D-3**  
**Through Movement Impacts due to Multiple Driveways**  
*Driveway Spacing and Traffic Operations by Gluck, Haas, Mahmood, and Levinson*



Median Treatments

As stated in the FHWA publication median treatments for roadways represent one of the most effective means to regulate access, but are also the most controversial. The two major median treatments include two-way left turn lanes (TWLTL) and raised medians. The inclusion of a raised median design element on all high grade facilities in the

functional classification system plan for the City of Duncan provides an added degree of safety in terms of separation of opposing traffic.

The safety benefits of median improvements have been the subject of numerous studies and syntheses. Studies of both particular corridors and comparative research on different types of median treatments indicate the significant safety benefits from access management techniques. According to an analysis of crash data in seven states, raised medians reduce crashes by over 40 percent in urban areas and over 60 percent in rural areas. Raised medians also provide extra protection for pedestrians. A study of median treatments in Georgia found that raised medians reduced pedestrian-involved crashes by 45 percent and fatalities by 78 percent, compare to two-way left-turn lane.

Median treatments are typically a critical issue for the development community. The provision median openings allowing full access is often considered a critical element affecting the viability of existing or future development projects along key arterial corridors. The FHWA brochure summarizes the results of the actual impacts of median treatments and access control techniques on business sales. Surveys conducted in multiple corridors in Texas, Iowa and Florida demonstrate that the vast majority of business owners believe there have been no decline in sales, with some believing there are actually improvements in business sales. One study in Texas indicated that corridors with access control improvements experienced an increase in property values after construction.

### Cross Access

Cross access between two adjacent properties, particularly non-residential land uses, is a very important access management tool that can enhance corridor sustainability, improve motorist and non-motorized safety, reduce traffic control needs, reduce driveway needs and improve capacity. By allowing motorists, pedestrians and bicyclists to access adjacent businesses without requiring reentry into the roadway, it directly

reduces the traffic demands on the roadway serving the businesses. Cross access becomes more important with the non-Local functionally classified roadways.