Preface

Oak Point Comprehensive Plan

The **Oak Point Comprehensive Plan** is the result of a multi-stage process of identifying issues and needs, building consensus, establishing goals and objectives, and determining the most effective means by which these ends may be achieved. With its emphasis on meaningful results, this Comprehensive Plan sets the stage for intelligent and coordinated actions.

When Oak Point initiated this new effort in long-range planning, the City decided to manage its destiny rather than reacting to change. The results of previous planning efforts are reflected in very tangible accomplishments across the community achieved through dedication and commitment to a shared vision.

Through community involvement, the Comprehensive Plan process sought to incorporate the community's values in terms of quality of life; character and scale of development; enhanced aesthetic appeal; and how new development should be integrated into the existing and future city framework.

The new Comprehensive Plan is a principal part of the city's overall, ongoing planning process. While Oak Point's Comprehensive Plan should be flexible enough to respond to changing needs, the community should remain steadfast in its vision and support for the core goals and objectives contained in the Plan.

In light of the challenges and opportunities facing Oak Point, the following chapters of the Comprehensive Plan are intended to provide the framework and guidelines for the next 20 years to ensure Oak Point's desired future.

Introduction

Oak Point Comprehensive Plan

The City of Oak Point is a community of just over 2,000 residents located in the northeast quadrant of Denton County in north central Texas approximately 40 miles north of Dallas. It is northwest of Little Elm and south of Cross Roads and east of Denton. This country community, bordered by scenic Lewisville Lake, provides a tranquil setting away from the pressures of a more urban environment.

Aware of the development issues facing it and its neighboring communities, the City of Oak Point decided to develop a Comprehensive Plan in June of 2001. For this small community, safeguarding its "country place" identity is of high importance to its residents. The City sought to develop the Plan in order to:

- Decide which types of development are compatible with the City's vision for the future and assist in preparing a vision statement.
- Provide guidance and a tool for making land use decisions.
- Preserve and improve neighborhoods and the overall quality of life.
- Promote economic development that is sensitive to residential and quality of life considerations.
- Review and make recommendations to the Zoning and Subdivision Ordinances.

This Plan provides the vision, goals, objectives and actions necessary to direct the City's progress over the next five, ten, even twenty years. It is the official public document, which will serve as a guide for policy decisions relating to the physical, social, and economic growth of the community. In addition to providing goals and objectives to work toward, the Plan assesses the opportunities and challenges facing the City and sets priorities for an implementation program that emphasizes specific actions and practical results.

The Comprehensive Plan is a principal part of the City's overall, ongoing planning process. Approval of the Comprehensive Plan by the City Council establishes the vision and direction of the community and represents an important first step toward achieving the City's desired goals. This Plan should not be considered a static document, but the result of a continuous process to gather and evaluate information and make informed decisions based upon constantly changing conditions. The Plan should be regularly reviewed and updated as needed to maintain its applicability to current conditions and priorities of the community. At a minimum, the entire Plan should be revisited every five years and revised as needed to ensure that it still reflects the true values and direction of the community. While Oak Point's Comprehensive Plan should be flexible enough to respond to changing needs, the community should remain steadfast in its vision and support for the core goals and objectives contained in the Plan.

A comprehensive plan is to a community what a business plan is to a business. No successful business venture is undertaken without first developing a business plan. No community can expect to be successful in managing its physical growth without first having a blueprint to follow. As changes in the economy affect business strategies, changes in physical, social, economic and environmental conditions affect a community's previous comprehensive plan. What may have been desirable five or ten years ago, may no longer be wanted or needed. A fundamental purpose of a comprehensive plan is to provide a planning process that results in a desirable direction for future growth and development of the community.

Elements of the Comprehensive Plan

The City of Oak Point's Comprehensive Plan is organized into eight individual plan elements or chapters. Each chapter includes a summary of existing conditions, discussion of issues, followed by goals, objectives, and actions. These chapters are:

Introduction
Chapter 1 - Community Profile
Chapter 2 - Vision and Goals
Chapter 3 - Land Use
Chapter 4 - Transportation
Chapter 5 - Economic Development
Chapter 6 - Community Facilities and Services
Chapter 7 - Water, Wastewater and Drainage
Chapter 8 - Implementation

Each chapter of the Plan is developed to specifically address the current and anticipated needs of the community. Although they are separate chapters, they should be viewed together as each chapter influences the other. This requires coordination between the goals, objectives and actions of each chapter within the overall Comprehensive Plan.

Development of the Comprehensive Plan

The development of Oak Point's Comprehensive Plan is the result of many meetings and workshops with community residents, leaders and City Staff in an effort to answer some basic questions:

- Where has Oak Point been in the past?
- Where is it now?
- Where is it heading in the future?
- Where does it want to be in the year 2020?
- How does it reach the desired future?

These questions form the basis for development of a long-range plan. Once the residents and community leaders of Oak Point are confident in the knowledge of the community's past and present condition, they can then look ahead to the future. Residents and community leaders can understand where the City will be if the present course is maintained.

Key participants in this planning process that will set the course for the future of Oak Point include the citizens of Oak Point, the Oak Point Comprehensive Plan Steering Commission, Planning and Zoning Commission, City Council, City Staff, and the Consultant Team. As citizen involvement is critical to any plan, two Town Meetings, as well as Steering Commission meetings open to the public, were held during the course of development of the Plan to obtain citizen views, comments and suggestions and to encourage support of the Plan by the Oak Point community. This plan builds on the previous efforts of *Oak Point Tomorrow*, a citizen led series of meetings and activities that identified the strengths and needs of Oak Point.

A successful plan must reflect the vision of the entire community. Citizen involvement and debate were an essential part of the planning process. Through this community involvement, this Comprehensive Plan incorporates the community's values in terms of quality of life; character and scale of development; urban form; aesthetic appeal; and how new development should be integrated with existing and future neighborhoods. The resulting Comprehensive Plan should assure the citizens of Oak Point a future that meets their desires and aspirations for their community.

Chapter 1 - Community Profile

Location

Oak Point is located in central Denton County. Originally a destination of weekend lake visitors, this small community is bounded by Lewisville Lake to the west and southwest and by the Town of Crossroads to the north. It is adjacent to Lakewood Village to the south and nearly adjacent to the Town of Little Elm to the southeast. It was incorporated as a general law City in 1976.

Population

The 2000 Census indicates a population of 1,747. The North Central Council of Governments currently estimates Oak Point's 2002 population to be 1,950, an increase of 203 people from the 2000 data. This rate of growth (11.62%) is comparable to other cities in the Metroplex, yet it is quite small in comparison to Oak Point's neighboring city, Little Elm, which experienced an estimated 38.75% rate of growth between year 2000 and 2001. The City estimates that the current January 2002 population of Oak Point, based on the number of households and persons per household is just over 2,000 people. The following table, **Table 1-1 Decennial Census Data** shows Oak Point's population growth from 1980 to 2002.

TABLE 1-1
DECENIAL CENSUS DATA- OAK POINT

	Final Census 4/1/80	Final Census 4/1/90	Final Census 4/1/00	Estimated Population 1/1/02	Decennial Growth Rate 1990-2000	Growth Rate 2000-2001
Oak Point	387	645	1,747	1,950	170.85%	11.62%

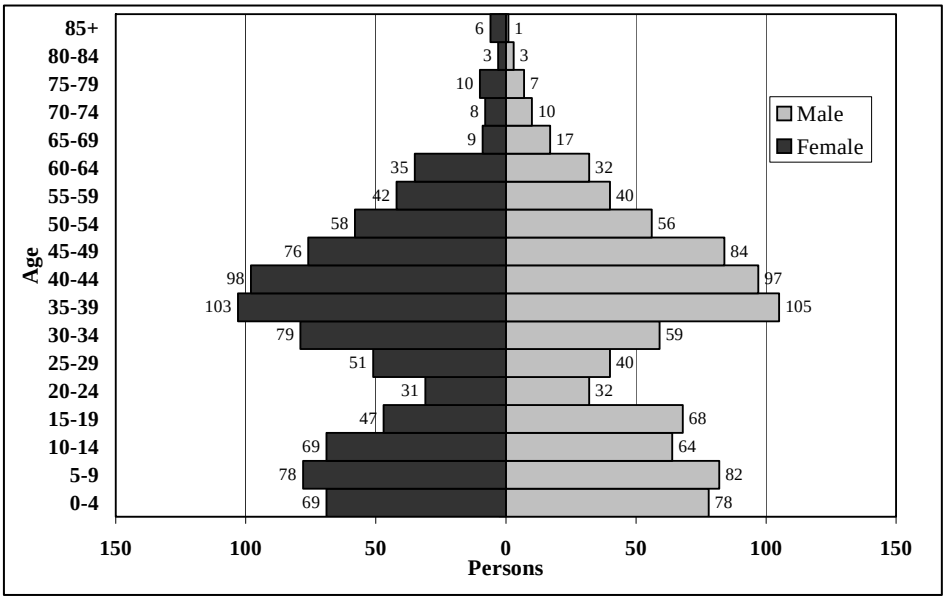
Source: North Central Texas Council of Governments, 2002

Demographics

The 2000 Census also provides a demographic breakdown of the City. The majority of Oak Point's population is in the 35-44 age group (23.1%), the second largest falls in the 45-54 age group (15.7%), and the third largest falls in the 25-34 age group (13.1%). Median age in the City is 35.6 years. The majority of the City is white (95.0%). The Black or African American community makes up just fewer than two percent of the population, American Indian and Alaskan Native community makes up 2.3 percent and the Asian community makes up 0.3 percent of the population.

The following figure, **Figure 1-1 Age and Gender Pyramid** shows Oak Point's population broken down into age cohorts by gender. As stated above, the largest population falls in the 35-44 age group, but more specifically in the 35-39-age cohort. There is a noticeable drop in the population of university aged people (21-24 age cohort), and then a rise from 25 years and older. This shows that there are a number of young and middle aged families in Oak Point and the large population of children aged 0-15 confirms this. There are also a very small percentage of seniors currently living in Oak Point.

FIGURE 1-1
AGE AND GENDER PYRAMID



Source: US Census Bureau, 2000

Households

According to the 2000 Census, there were 640 households in the City. The average household size is 2.91 persons, whereas the average family size is 3.22 people. January 2002 City data shows that there are 724 households in the City. With a household size of 2.91 persons per household, this amounts to a total estimated population of 2,106. The 2000 Census shows that a majority of Oak Point, just fewer than 93% of the population, live in owner occupied housing units. The rest of the population, just over 8%, is renters. At the beginning of 2002, there were 719 homes that were existing or under construction.

Oak Point is served by both the Denton Independent School District and the Little Elm Independent School District.

Chapter 2 - Vision and Goals

Planning for the future begins with a **vision**, a broad statement of how the community views what it will become in the 21st Century, particularly over the next 20 years. This vision is an ideal, the result of imagining the future based on established perceptions and values. To establish its vision, the City of Oak Point sought input from citizens and City staff to create a vision that best described their ideal image of Oak Point for the future. This vision statement serves as the basis for developing the City's Comprehensive Land Use Plan.

The Vision

Oak Point, a unique place, a country atmosphere with a:

- Tranquil residential atmosphere;
- Highly involved and informed citizens and staff;
- Natural scenic landscapes with a desire for balanced commercial development; and
- Appropriate community facilities.

While a vision is at the heart of the planning process for the future, goals, objectives and actions are the guides for implementation. After the vision is formed, the next step is to identify the ways to secure it through goals, objectives and actions. **Goals** are broad statements of the needs and priorities of citizens. They are the general ends toward which community leaders should direct their efforts. Goals may stretch and challenge cities, but should not be unrealistic. An important reason for establishing goals is to encourage citizen participation and understanding that results in a unified approach toward desired accomplishments and to promote consistency in plan implementation as the community changes over time.

Based on the vision, a goal has been identified in each element of the Comprehensive Plan. These elements are: Land Use, Thoroughfare, Economic Development, Community Facilities/Services, Water/Wastewater/Drainage, and Implementation. These goals are based on citizen input from the Town Meeting, identification of the strengths and weaknesses of the community, extensive consideration by the Oak Point Comprehensive Plan Steering Commission and review by the Planning and Zoning Commission before consideration by the City Council.

Goals

Land Use Goal:

Maintain Oak Point's country atmosphere with an appropriate variety of land uses for both residential and commercial development.

Thoroughfare Goal:

Provide access and circulation throughout the City while preserving the rural quality and identity of Oak Point.

Economic Development Goal:

Encourage appropriate commercial and retail development in the City to improve the City's tax base while minimizing impacts on the surrounding areas.

Community Facilities/Services Goal:

Provide appropriate and desirable city facilities and services that are easily accessible to the citizens of Oak Point.

Water/Wastewater/ Drainage Goal:

Assure appropriate and adequate water, wastewater and drainage facilities are provided to all the residents of Oak Point in an efficient and cost effective manner.

Implementation Goal:

Encourage the use of the Comprehensive Plan and the implementation of the Zoning Ordinance, Subdivision Regulations and the Capital Improvements Program as the City guides appropriate and desired development.

Objectives and Actions

Once goals have been identified, the next step to achieve the long-range goals is to establish objectives. Objectives are clear targets for specific action. Linked directly to goals, objectives are measurable statements of intent. Objectives and their related actions are the guides for the implementation process. Once objectives are established, the next step is to decide upon the appropriate actions. Actions are even more specific methods that determine how to achieve the objectives and must reflect budgetary constraints and resources.

Objectives and actions for each of the elements of the Comprehensive Plan are included in their respective chapter.

OAK POINT
a country place

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380

POTTER SHOP
NAYLOR
TIPPS
HISTORIC
FM720 W
KEYES
MILL CREEK
OAK SHORES
LLOYDS
CRYSTAL CV
AMBER
TOURMALINE COVE
PEARL COVE
RUBY COVE
EMERALD SOUND
OPAL
TOPAZ
MARTOP
WINCHESTER
STAGECOACH
GONCHO
LAMP POST
MATADOR
TORERO
MARTINGALE
MCCORMICK
YACHT CLUB
CEDAR
COTTONWOOD TRL
PINE BLUFF TRL
REGATTA ROW
OAK MEADOW
ROBBLAING
MCDANIEL
LONESOME DOVE
W DICKSON
SUNSET CV
LEWISVILLE LAKE

Legend

Existing Land Use
- Ranch Residential (Max. 0.33 Units/Ac. Density)
- Estate Residential (Max. 1.0 Units/Ac. Density)
- Rural Residential (Max. 2.0 Units/Ac. Density)
- Manufactured Home
- Public
- Semi-Public/Institutional
- Light Industrial
- Agricultural
- Park and Open Space
- Vacant
- Corps Of Engineers
- City Limit
- Extraterritorial Jurisdiction
- I.S.D. Boundary
- Water

0 0.5 Miles

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Oak Point
Figure 3-1 - Existing Land Use
March 2002 Revised

OAK POINT
a country place

TOURMALINE COVE
AMBER
EMERALD SOUND
NAYLOR ROAD
MARTOP
STAGECOACH
CONCHO
LAMP POST
MATADOR
TORERO
MARTINGALE
McCORMICK ROAD
SHAHAN PRAIRIE
YACHT CLUB ROAD
FM 720
COTTONWOOD
EAGLES LANDING
REGATTA ROW
LEWISVILLE LAKE
CEDAR PINE
MCDANIEL
LONESOME DOVE
W DICKSON
CITY LIMITS
ETJ
LEWISVILLE LAKE

- RANCH RESIDENTIAL (Max. 0.3 Units/AC)
- ESTATE RESIDENTIAL (Max. 1.0 Units/AC)
- COUNTRY RESIDENTIAL (Lot Size > 1 AC)
- RURAL RESIDENTIAL (Max. 2.0 Units /AC)
- HIGH DENSITY RESIDENTIAL (Max. 3.8 Units/AC)
- MANUFACTURED HOME (Max. 2.0 Units/AC)
- COMMERCIAL
- PUBLIC
- AGRICULTURAL/PRIVATE OPEN SPACE
- PARK AND OPEN SPACE
- LIGHT INDUSTRIAL
- CORPS OF ENGINEERS

- COMMUNITY FACILITIES (NOT PARCEL OR SIZE SPECIFIC)
- CITY LIMITS
- EXTRATERRITORIAL JURISDICTION
- TXDOT HIGHWAY
- EXISTING MINOR ARTERIAL
- PROPOSED MINOR ARTERIAL
- EXISTING COLLECTOR
- PROPOSED COLLECTOR

1000 500 0 1000 2000

CITY OF OAK POINT

FIG 3-2

FUTURE LAND USE PLAN

AUGUST 2006

Allison Engineering Group

Planning Communities—Designing the Systems That Serve them

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Project	OPT04GS
Drawn by:	JSR
Checked by:	LKA

SHEET 1 OF 1 SHEETS

Chapter 3 - Land Use

The **Land Use Plan** is a principal element of a Comprehensive Plan. It is the basis for guiding development and redevelopment in the City and its extraterritorial jurisdiction (ETJ) and serves as a guide for day-to-day land use decisions. The land uses designated here provide City staff and City officials with a guide for considering development proposals, such as zoning and platting petitions. Like every community, Oak Point is unique. As such, it is important that the arrangement of land uses respects the community's agreed upon vision of being a "country place." This arrangement must take into consideration the history, growth patterns, current and desired physical characteristics, development trends, as well as demographic and economic trends.

As defined in the Texas Local Government Code, Oak Point is a Type A General Law City. Its total surface area is approximately 5.7 square miles and its 2006 population is approximately 3,475. As a Type A General Law City, Oak Point's ETJ extends one half mile outside of its boundaries.

Existing Land Use Classifications

In the summer of 2001, an Existing Land Use inventory was conducted for the City. Existing land uses were surveyed by driving each of the City streets and noting on parceled base maps how land was used. The base maps were obtained from Denton County and the Denton County Appraisal District. It should be noted that the Existing Land Use Map is not a Zoning Map, and that the categories shown on a Land Use Map indicate how the land is currently used and not necessarily how the land was intended to be used or how it is zoned. Existing land uses were determined for the City and its ETJ.

The categories used on the **Existing Land Use Map** are:

Ranch Style Residential (Light Green)

Single-family detached residential homes, generally including land for agricultural or ranching purposes on lots at least three acres in size.

Estate Residential (Beige)

Single family detached homes on one to three acre lots.

Rural Residential (Gold)

Single family detached homes on lots ranging from 10,000 square feet to one acre.

Manufactured Homes (Brown)

Mobile or HUD Code manufactured homes.

Public (Dark Blue)

Public and City owned facilities.

Semi-Public/Institutional (Blue)

Semi-public facilities including schools and churches.

Light Industrial (Light Gray)

Light industrial, warehousing and assembly uses.

Agricultural (Medium Green)

Land used for the express purposes of agricultural based activities.

Park and Open Space (Dark Green)

Public parks, open spaces and preservation areas.

Vacant (White)

Undeveloped private land.

Corps of Engineers (Tan)

Waterfront under the control of the U.S. Army Corps of Engineers.

The resulting map, **Figure 3-1 - Existing Land Use** shows the distribution of land in the City and ETJ based on these land use categories. The City is divided along the north-south roads of Naylor Road and Yacht Club Road. Land to the east of these roads is predominantly Agricultural and Ranch Style Residential. To the west, land has been primarily used for Rural and Estate Residential uses. Historically, lakefront properties developed first as summer homes or cottages. These homes, in very natural, rural-type surroundings on large lots, set the precedent for the desired style of housing and density in Oak Point. The newer developments, Eagles Landing and Emerald Sound, have maintained existing trees and natural features making these developments stand out in comparison to many other similar density developments in neighboring cities. Future developments should maintain the features set out by these two developments.

Public and semi-public facilities are limited to City Hall and a few churches. Commercial uses are obviously missing in the City, something that makes Oak Point unique in comparison to other cities. Recognizing the need for added tax revenue, as well as the pending expansion of FM 720 to a six-lane divided highway, commercial development along the FM 720 Corridor should be and is encouraged. In order to manage the commercial development along FM 720 while maintaining its rural character, the City has created the 720 Corridor Overlay District. The 720 Corridor Overlay District establishes development standards that are intended to maintain the character of the community and preserve the City's Cross Timbers history through the use of architectural standards for buildings, native vegetation and stone, parking regulations, lighting and signage, and incorporation of pedestrian elements.

The following, **Table 3-1 - Existing Land Use Map Acreage** shows the acreage for each land use category on the Existing Land Use Plan.

TABLE 3-1 –EXISTING LAND USE MAP ACREAGE

CATEGORY	ACRES	PERCENT
Ranch Style Residential (Yellow-green)	1,224.096	21.73%
Estate Residential (Beige)	568.253	10.09%
Rural Residential (Gold)	189.349	3.36%
Manufactured Home (Brown)	159.323	2.84%
Public (Dark blue)	6.352	0.11%
Semi-Public/Institutional (Blue)	11.075	0.19%
Light Industrial (Grey)	19.126	0.34%
Agricultural (Light green)	2,544.22	45.17%
Park and Open Space (Dark green)	25.292	0.45%
Vacant (White)	556.066	9.87%
ROW	328.942	5.85%
SUBTOTAL	**5,632.094**	**100.00%**
Corps of Engineers (Tan)	509.049	100.00%

TOTAL	**6,141.143**	**100.00%**

Future Land Use Plan

The Future Land Use Plan reflects the desired pattern of growth over the planning period in the City and ETJ. It is intended to guide public and private decision making for future land use and development within the community. The Future Land Use Plan was developed by the City of Oak Point Planning and Zoning Commission, City Staff, and citizen input. There were workshop sessions with the Commission members, citizens and Staff to develop the final draft of the Future Land Use Plan. The purpose of the Future Land Use Plan is to ensure that development occurs in an orderly and efficient manner contributing to the quality of life in Oak Point. It is important to realize that the Future Land Use Plan is a conceptual plan. Although the delineation of land uses tends to follow streets and other divisions, it is not intended to be parcel specific. Amendments to the Future Land Use Plan should always be considered in an open, public process.

Future build-out population projections have been calculated for the City based on the Future Land Use Map and residential densities. These projections could be considered "ultimate holding capacities." The ultimate holding capacity represents the total estimated dwelling unit and population counts that could be accommodated at build-out throughout the planning area, should all of the future development occur at the stated maximum allowable densities. Ultimate holding capacities may be calculated by multiplying the number of acres of each residential land use category, density, average household size, land use efficiency, and occupancy rate. The land use efficiency represents the amount of land utilized by engineering related infrastructure such as right-of-way, easements, drainage areas, utilities, etc. It is assumed that approximately twenty percent (20%) of the land is utilized for this infrastructure. According to the North Central Texas Council of Governments, the average household size is 3.2 people per unit per acre. The total build-out population within the City limits is projected to be 11,252. The total build-out population of the City's ETJ is projected to be 13,542, resulting in a total build-out population for the City of Oak Point of 24,795.

In addition to the land uses shown on the Existing Land Use Map, new land uses shown on the Future Land Use Map include: Country Residential, High Density Residential, and Commercial. Country Residential is designed to accommodate lots one acre or greater. High Density Residential is intended to accommodate a variety of lot sizes. The two Commercial categories are intended to provide a level of commercial activity to the City without causing any negative impacts or taking away from the desired quality of life in Oak Point. Additionally, a trail system has been designed to run through the City providing a connection to the different developments and access to the Commercial and Civic centers of the City as part of the City's Parks and Trails Master Plan incorporated into Chapter 6, Community Facilities and Services. It should be noted that the trails are not parcel specific.

While the total build-out population for Oak Point is estimated to be 24,795, Oak Point's Retail Trade Area spans 60 square miles with an estimated population in 2006 of 28,932. In light of the projected population growth with its Retail Trade Area, the expansion of FM 720 through the City to a six-lane divided highway, and development of a high school by Denton Independent School District, Oak Point is poised to support a considerable amount of commercial land within its City limits.

Future Land Use Classifications

The goal of the Future Land Use Plan is to protect existing residential areas and to show appropriate locations for new neighborhoods of varying densities. Based on previous planning work and community input, it is generally agreed that the predominant land use for Oak Point should be large lot (one acre or larger), single-family homes in a rural setting. To provide for a range of housing types to meet the future needs of Oak Point, five classifications of residential land use are proposed.

Each residential classification is defined by density. The term density is used to illustrate the maximum number of housing units per acre allowed. By using this term, residential land use categories in the Plan can have a range of values (in the Plan, it ranges from 0.3 units/acre to 3.8 units/acre) to reflect the type of residential development already developed and future development desired by the City. Density is defined as the maximum number of dwelling units per acre determined by dividing the total number of proposed units in a tract of land by the total number of acres, excluding common open space, rights-of-way, parks, drainage ways, flood ways and community facilities. By excluding these areas in proposed developments, housing units cannot be "clustered" in one area of a development, leaving copious amounts of "open space" in the remaining area, thereby, creating a development that actually exceeds the density allowed. The proposed land use categories are not intended to correspond exactly to current City of Oak Point zoning classifications or to any other related planning document currently used by the City. Each new residential development should include land set aside for park and/or open space dedication and should encourage the preservation of trees and the natural environment.

The categories used on **Figure 3-2 - Future Land Use Plan** are:

Ranch Residential (Light Green)
The purpose of this land use category is to accommodate large acre single-family homesteads in a ranch style environment. Characteristics include large yards, barns and corrals, and preservation of the natural setting, separated from neighboring houses. This land use category provides for residential development of single-family detached dwellings at a density not greater than 0.3 units per acre.

Estate Residential (Canary Yellow)
The purpose of this land use category is to provide medium acre single-family detached residences with generous amounts of open space per lot. This land use category provides for residential development of single-family detached dwellings at a density not greater than 1.0 unit per acre.

Country Residential (Cornflower Blue)
The purpose of this land use category is to provide medium acre single-family detached residences. This land use category provides for residential development of single-family detached dwellings at a density not greater than 1.0 unit per acre. However, no platted lot shall be smaller than one acre.

High Density Residential (Dark Gold)
This land use category will accommodate a broader range of housing types and lot sizes not offered in the Ranch, Estate or Rural Residential categories. It provides for single-family detached dwellings at a density not greater than 3.8 units per acre.

Manufactured Home (Plum)
This category reflects areas that are currently used for manufactured housing at a density not greater than 2.0 units per acre.

Commercial (Red)
In addition to convenience goods and personal services, this land use category provides for professional offices, retail, restaurants, and services. Typical developments in the Commercial land use category may include:

- City Hall, library, and other City facilities and services;
- Banking services;
- Personal services (dry cleaning (pick-up only), hair salon/barber shop);
- Convenience stores;
- Retail stores such as gift/antique shops;
- Clothing stores;
- Variety stores;
- Restaurants;
- Postal station/reproduction services;
- Neighborhood grocery/supermarket;
- Nursery/flower shops (no outside display or storage); and
- Professional services (law offices, accountants, medical offices).

Public (Dark Blue)
This category includes public facilities that may provide a variety of services. These include governmental facilities such as city hall and the police station.

Agricultural/Private Open Space (Green)
This category includes land primarily used for agricultural purposes (grazing, crop production, stables) as well as land set aside as undeveloped private property.

Park and Open Space (Dark Green)
This category identifies public parks, open spaces and preservation areas.

Light Industrial (Purple)
Light industrial, warehousing and assembly uses.

Corps of Engineers (Grey)

This category defines the area controlled by the United States Army Corps of Engineers that is located along the take-line of Lewisville Lake.

Community Facilities (*)
This category illustrates potential sites for both public and semi-public land uses that may provide a variety of services. These include governmental facilities (city hall complex, public library) and utility facilities such as water storage facilities, electrical substations and wastewater treatment plants as well as public and private schools, park and ride facilities, and churches. This category is not parcel or size specific.

The following **Table 3-2 – Future Land Use Map Acreage** shows the acreage for each land use category on the Future Land Use Map.

TABLE 3-2 – FUTURE LAND USE MAP ACREAGE

CATEGORY	EST. ACRES	PERCENT
Ranch Residential (Light Green)	564.995	10.64%
Estate Residential (Canary Yellow)	2584.505	48.68%
Country Residential (Cornflower Blue)	200.789	3.78%
High Density Residential (Dark Gold)	1535.604	28.92%
Manufactured Home (Plum)	108.997	2.05%
Commercial (Red)	218.030	4.11%
Public (Dark Blue)	7.809	0.15%
Agricultural/Private Open Space (Green)	49.230	0.92%
Park and Open Space (Dark Green)	20.292	0.38%
Light Industrial (Purple)	19.126	0.36%
Community Facilities (*)	NA	NA
SUBTOTAL	**5,309.337**	**100.00%**
Corps of Engineers (Grey)	509.049	100.00%
TOTAL	**5,818.386**	**100.00%**

Notes: 1. ROW is included in individual land use categories.
2. Acreage includes the City's ETJ.

Land Use Policies

Policies serve as guides for decision-making and the development of goals and objectives. They should be a continual reference for City officials and City staff, and should be used to assure that goals, objectives and actions are addressed when reviewing new development and redevelopment that require zoning classification changes or amendment to the Future Land Use Plan.

- Residential development densities should reflect the desires of the community to maintain its rural character. Lot sizes of at least one house per acre net are recommended.
- Residential lots should be discouraged from backing to arterial or major streets.
- Residential areas should be buffered from incompatible uses and where adjacent to thoroughfares through the use of landscaping features, distance separation and/or screening walls.
- Natural features should be preserved. Greenbelts and trails should take advantage of the natural environment to link different residential areas to each other, and to City and community facilities.
- New local residential streets should be encouraged to be rural in character.
- Local streets should also be curvilinear and provide green space either in the median or parkway to ensure a rural neighborhood atmosphere.
- Collector streets should be tree-lined and maintain the rural character of the community.
- Community facilities should be centrally located together in easily accessible areas within the community, adjacent to major streets to accommodate traffic and should be accessible by trails and sidewalks.

- Adequate park dedication for all new residential subdivisions should be evenly dispersed throughout the city and there should be linkages between parks, schools and residential areas. Natural features, such as creeks and floodplains, should be preserved in parks and open space areas.
- Commercial uses within the City should be concentrated within the 720 Corridor Overlay District, should be large enough to accommodate intended uses with adequate parking and suitable landscaping, and should be developed in accordance with the provisions of the 720 Corridor Overlay District. Commercial uses should include a variety of neighborhood stores and freestanding commercial sites. Where possible, commercial uses should be located adjacent to City facilities and arranged in a town square concept.
- Transportation access and circulation should be provided from existing and future residential neighborhoods to future commercial areas, but should not infringe upon neighborhoods.
- Development along FM 720 should be consistent in design and reflect the development standards for all future development adjacent to FM 720 through the use of architectural standards for buildings, landscape buffers, lighting and signage as established in the 720 Corridor Overlay District. Through cooperation with the Texas Department of Transportation (TxDOT), develop a landscape and lighting plan in conjunction with the eventual widening of FM 720.

Goals, Objectives, and Actions

Goals, objectives, and actions form the basis of the Comprehensive Plan. The following goal, objectives, and actions should serve as a foundation for guiding future land use within the City. They are based on accepted planning principles to encourage an orderly and well-managed community now and in the future.

Land Use Goal:
Maintain Oak Point's unique country atmosphere with an appropriate variety of land uses for both residential and commercial development.

Objective 3.1: Assure that new developments are compatible with existing City neighborhoods.

Action 3.1.1: Require new developments adhere to development standards and design guidelines.

Action 3.1.2: Locate appropriate commercial uses along FM 720 in the 720 Corridor Overlay District ensuring that architectural standards, landscape buffering, lighting and signage adhere to development standards established for the 720 Corridor Overlay District.

Action 3.1.3: Review all new development to ensure conformity with the Future Land Use Plan.

Objective 3.2: Protect the natural landscapes.

Action 3.2.1: Require all new residential development preserve existing trees and natural features.

Action 3.2.2: Place natural areas in parks and greenbelt areas.

Action 3.2.3: Require additional setbacks in zoning to allow rural streetscapes along major collectors and arterial streets.

Action 3.2.4: Require all new developments incorporate adequate open space.

Action 3.2.5: Link new and existing neighborhoods with a system of trails.

Relationship of Land Use to Zoning

Zoning is a form of land use control permitted by both federal and state governments. The applicable statutes for municipal land use and zoning are found in Section 211 of the *Texas Local Government Code.* This statute includes the requirement that zoning be in general conformance with the Comprehensive Plan. When a zoning change is requested, the first step in considering the change is to see what the Future Land Use Plan has determined as the appropriate use of the property. This requires careful consideration to be sure that the change is in accordance with the principles, goals and objectives of the Land Use Element of the Comprehensive Plan. The use of the Future Land Use Plan in decision-making relating to zoning and subdivision approvals is to ensure that development and redevelopment are consistent with the City's Comprehensive Plan. Each new development or redevelopment should be reviewed for general compliance to the plan, but this does not automatically preclude a use not identified in an area from being located there.

Implementation

The Future Land Use Plan is a very general plan for future land use and development. It bridges the gap between existing and future development. In using land use principles and policies it is available to guide new projects so that they may better blend into the community. The Plan is not to be considered etched in stone or viewed as zoning. The areas shown on the map are considered to be the best use of the property at the time the map was developed. The map does not attempt to predetermine the use of each individual tract, but seeks to establish a logical framework for future land use and development decisions. The implementation tools of a Comprehensive Plan are the Zoning Ordinance, the Subdivision Regulations and the Capital Improvements Program.

The **Zoning Ordinance** and the zoning map should not to be confused with land use, nor are the maps for zoning and land use interchangeable. While the Future Land Use Plan expresses the desirable land use, the zoning map indicates the permitted use of the property in accordance with the Zoning Ordinance for the district in which it is located. In some cases the current use of the property is not a permitted use, having been in existence prior to the adoption of the Zoning Ordinance. In such cases, the non-conforming use is "grandfathered" as long as it continues in operation. However, should the non-conforming use cease for a specified period of time, the property use must be in compliance with the permitted uses in the zoning districts and in accordance with the land use map.

The **Subdivision Regulations** govern the division of land and the platting process. Plat requirements should conform to the zoning district in which the new subdivision is located. The Subdivision Regulations also work with the **Capital Improvements Program** to guide general development and the expenditures for infrastructure needs. Easements, rights-of-way, and the location of parks and public facilities are included in the requirements of both of these tools. Other implementation tools are the new Landscape Ordinance and the Building Code.

Amendments to the Future Land Use Plan

It is recognized that circumstances will change in the future and the Comprehensive Plan will require modifications and refinements to be kept up-to-date and current. Needed adjustments and changes to the Future Land Use Plan and other components of the Land Use element should be carefully considered as part of the annual Plan updates and five-year major Plan revisions. Amendments to the Future Land Use Plan should be subject to the same scrutiny and considered through the same public processes and procedures required in any ordinance change.

Chapter 4 - Transportation

The Transportation chapter of the Oak Point Comprehensive Plan provides an efficient and structured framework for planning and guiding the rational and orderly development of the City's thoroughfare system, including Arterial, Collector and Local streets, to accommodate future growth and development while maintaining the community's desire for continued rural residential characteristics. It works in concert with the Land Use Plan and includes an overview of existing transportation facilities and services, analysis of travel characteristics and development of the thoroughfare system plan for the City of Oak Point. It encompasses the same geographic area, the city limits and Extraterritorial Jurisdiction (ETJ), as other elements of the Comprehensive Plan.

The location of the City and ETJ with respect to its location in the northern part of the Dallas-Fort Worth Metroplex as well as Denton and Collin Counties is illustrated in **Figure 4-1 – Regional Location.** Increasing growth is impacting the City of Oak Point and it is time to plan for the future.

Authority for Planning and Regulating of Thoroughfares

Under the provisions of Article XI, Section 5 of the Texas Constitution and Title 7, Chapter 212 of the Texas Local Government Code, the City of Oak Point may require that development plans and subdivision plats must conform to "...the general plan of the municipality and its current and future streets..." and, "...the general plan for extension of the municipality and its roads, streets and public highways within the municipality and its extraterritorial jurisdiction...". Requirements for right-of-way dedication and construction of street improvements apply to all subdivision of land within the City's incorporated area.

Regional Transportation Planning

The North Central Texas Council of Governments (NCTCOG) is the entity that addresses region-wide transportation issues for the Dallas-Fort Worth Metroplex. The current regional transportation plan, *Mobility 2025 (as amended in April of 2005)*, which covers the City of Oak Point and Denton County, was reviewed and considered in the development of the Comprehensive Plan. Based on the growth that is anticipated in the Oak Point region within the next 5-10 years, there is a possibility that public mass transit will be needed. Currently, limited, private transit is available from SPAN Transit by request and for a fee. SPAN Transit is a private organization founded in 1974 to assist senior citizens in transportation needs and has since been open to the general public throughout Denton County. SPAN Transit is available to and utilized by a few Oak Point residents. The need for SPAN Transit services and/or public mass transit is expected to grow as the region continues to grow and as the population demographics change. Additionally, NCTCOG will consider and incorporate Oak Point's plans in their continuing evaluation of streets and roadways in their service areas. The continued growth of Oak Point will depend largely upon the efficiency of local and regional thoroughfares and of the overall regional transportation system.

Existing and Programmed Transportation System

The development of the Transportation Element for the Comprehensive Plan includes analysis and evaluation of the City of Oak Point's existing transportation system. The existing roadway and traffic conditions of the highway and street network have been identified and analyzed to assist in determining long-range needs for thoroughfare system development. Physical conditions of the roadway system and characteristics of existing travel patterns are based upon available information obtained through the City

of Oak Point, Denton County, North Central Texas Council of Governments (NCTCOG), Texas Department of Transportation (TxDOT) and other governmental agencies.

The automobile travel mode, the predominant mode, is served through a utilitarian roadway network of state highways and local roads and streets. Oak Point's state highway is Farm-to-Market Road (FM) 720, which connects from United States (US) Highway 380 at Lincoln Park to FM 423, a highway that runs north/south from US 380 to State Highway (SH) 121 in The Colony. Through Oak Point, FM 720 is currently a two-lane undivided facility that traverses the City from north to south, with a bend to an east-west alignment at the southeastern extent of Oak Point near its boundary with Little Elm. Over the past two years, the City of Oak Point has worked collaboratively with Denton County and Texas Department of Transportation to initiate the expansion of FM 720 to a six-lane divided State highway. This project is known as "720 North/South Project" is in the final phases of the design process and is vital to Oak Point's future commercial/retail growth as it will connect at Garza Lane to the future Lake Lewisville Toll Bridge. The remainder of Oak Point's roadway network is comprised of arterial and collector roads and local streets.

Of significance is the future toll bridge across Lewisville Lake that will connect to FM 720 just south of Oak Point at Garza Lane. The North Texas Tollway Authority (NTTA) is constructing the toll bridge across Lake Lewisville,, and Denton County is constructing the connecting roadways along Swisher Road to the west and Garza Road to the east. Current concepts indicate that Garza Road will be constructed ultimately as a four-lane road to FM 720 and that FM 720 will be widened to a four-lane roadway as it runs east through Little Elm, reconstructing the existing bridge crossing of an inlet of Lewisville Lake. Current concepts for development of these improvements anticipate completion by 2008.

Although there are currently very limited facilities dedicated to the non-motorized travel mode, there is current demand for walking, jogging, bicycling and horse trails. As a result, the Future Land Use Plan and Subdivision Regulations reflect the need and locations for a greenbelt trail system that preserves natural features and links neighborhoods while providing off-street circulation.

Major Traffic Generators

The location and character of land uses that generate large numbers of trips have a major influence on traffic volumes and flow patterns. Major traffic generators are identified and considered in reviewing the transportation system and developing the Transportation Element. At this time, there are no major local businesses and activities in the area. However, the area is growing at an exponential rate due to residential developments within the City and within its extraterritorial jurisdiction. The expansion of FM 720 to a six-lane divided highway that will connect at Garza Lane to the future toll bridge across Lake Lewisville will result in greater commercial developments along FM 720. With the current and anticipated growth, future major traffic generators in the area may include a town center commercial area and smaller neighborhood commercial nodes development along FM 720, several large residential developments, future school sites, and traffic from large residential developments located on US 380 to the east that will come down FM 720 through Oak Point in order to access the future Lake Lewisville toll bridge. Increased population as well as increased single-person trips will increase traffic on existing roadways. Increased development will result in increased demand and additional resources to expand the system to keep pace with growing needs.

THOROUGHFARE PLAN

Thoroughfare System Planning is the process used by cities and other governmental entities to assure development of the most efficient and appropriate street system to meet existing and future travel needs. The purpose is to ensure orderly and progressive development of the streets to serve mobility and access needs of the public. Thoroughfare planning is interrelated with other components of comprehensive planning and urban development such as land use, housing, environment and public utilities.

It is a common misconception that a Thoroughfare Plan is a blueprint for capital improvements—that once a street or road is shown on a Thoroughfare Plan, it must be improved to the minimum standards shown on the Plan. However, this is not the purpose of a Thoroughfare Plan. Its purpose is to identify how streets and roads operate and are intended to operate, to provide guidance to local officials and property owners in the decision making process and to help ensure the construction of a logical, complete and functional roadway network. Through the use of functional classification, the Thoroughfare Plan provides a uniform and consistent design for all new or improved roadway facilities, which helps provide guidance to motorists with respect to utility, speed and land use. While the Thoroughfare Plan does not identify who is responsible for funding and/or building proposed thoroughfare improvements, including new roadways, it shall be considered to be standard operating procedure that **developers are responsible for constructing and/or improving that portion of all roadways within or adjacent to their development, regardless of functional classification**. While the Thoroughfare Plan does identify how streets and roads are intended to operate, it **does not mandate that an existing functionally classified street or road must be improved to the specifications shown,** except where adjacent to or traversing a new development. In other words, just because an existing street or road is shown as a particular functional classification does not mean it must be improved to conform to the cross-section shown for that particular classification where it is not adjacent to or traversing a new development.

A Thoroughfare Plan is just that, a plan. It is important to recognize that the alignments shown for proposed facilities represent desired corridors and are merely illustrative. In other words, the alignments shown are general alignments. Because of geographical and other constraints, actual alignments may vary. The approximate alignments and right-of-way requirements for planned thoroughfares shown on the Plan should be considered in platting of subdivisions, right-of-way dedication and construction of major roadways.

A number of elements must be considered in the process of developing a Thoroughfare Plan, including the Land Use Plan, travel demands, traffic movement and access requirements, and existing physical constraints to roadway construction. The types of land uses that exist and are planned for an area affect the roadway capacity and access needs for that area. Moreover, special efforts will be required in the thoroughfare planning process to ensure that the integrity of residential neighborhoods are protected from unwanted and undesired vehicular traffic.

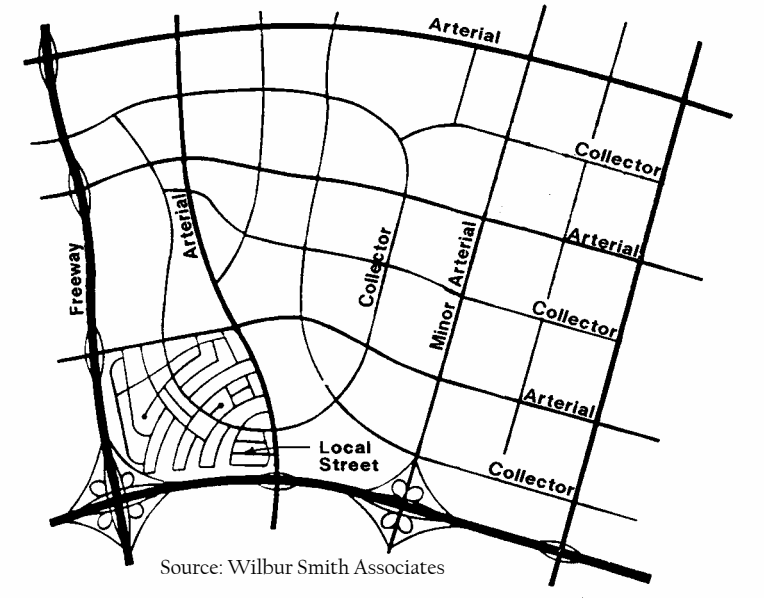
The Oak Point Thoroughfare Plan classifies roads and streets into one of four categories (listed from highest functional classification to lowest): Principal Arterial, Minor Arterial, Collector and Local Street. The Oak Point Thoroughfare Plan is represented graphically in **Figure 4-2 - Thoroughfare Plan.** While

the Plan does show future alignments for those facilities assigned a functional classification of Collector or higher, it does not show future alignments for new Local Streets, because these streets function principally to provide access to adjacent land and their future alignments may vary depending upon specific development plans. Local Street alignments should be determined by the City, in cooperation with developers, as part of all planning for new development.

Functional Classification of Thoroughfares

Thoroughfares are grouped into functional classes according to the type of service they are intended to provide. Thoroughfares are classified according to their functional role in terms of *movement* and *access*. The higher classifications emphasize movement over access, while the lower classifications emphasize access over movement. The functional classification of a thoroughfare normally does not change as traffic increases and improvements are made unless the intended use of that roadway changes. Functional classification is not necessarily related to the number of lanes, although higher classes tend to be multi-lane roadways. However, two-lane roadways can and do function as Principal Arterials in many areas. A graphical representation of the functional classification hierarchy is shown in **Figure 4-3 - Relationship of Functional Classes**.

FIGURE 4-3
RELATIONSHIP OF FUNCTIONAL CLASSES



Source: Wilbur Smith Associates

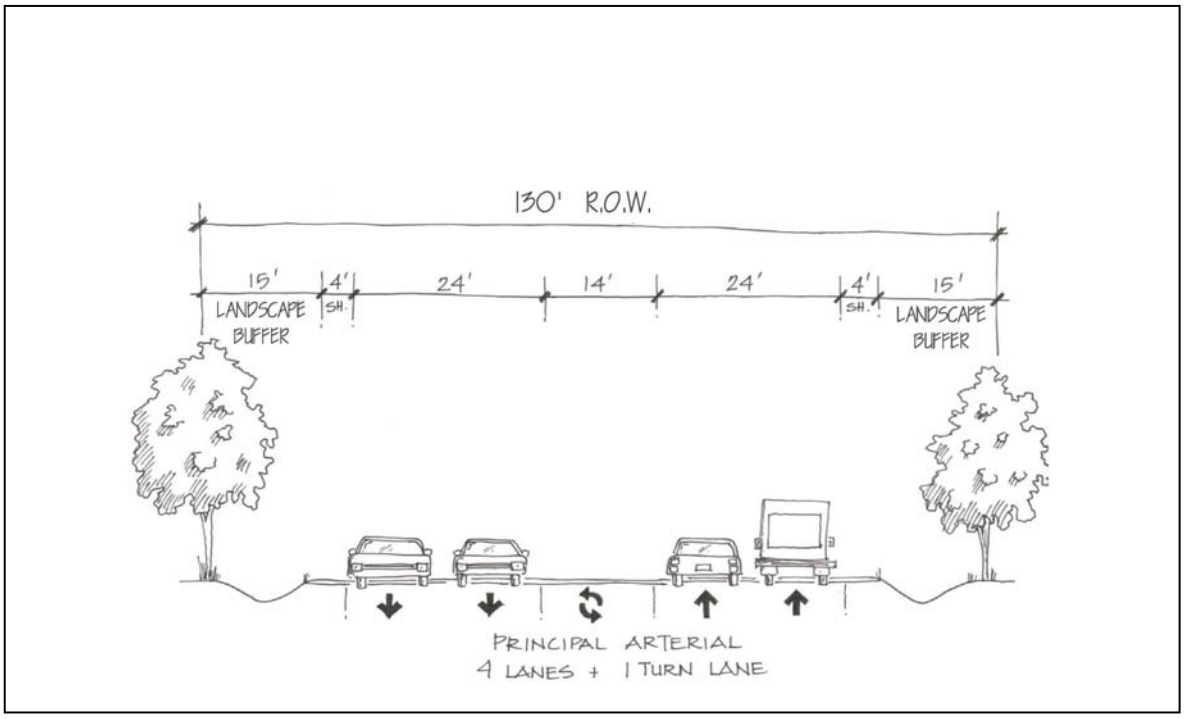
Functional Classifications

As stated previously, each of Oak Point's streets and roads, existing and future, has been assigned one of the following classifications: Principal Arterial, Minor Arterial, Collector and Local Street, with the Arterial being the highest classification, and the Local Street the lowest.

Principal Arterials are streets and highways that provide a high degree of mobility, serve relatively high traffic volumes, have high operational speeds and serve a significant portion of through-travel or long-distance trips. Freeways and Principal Arterials together typically accommodate about 30 to 40 percent of a region's travel on 5 to 10 percent of the total roadway network. Principal Arterials serve as primary routes through a region and between regions. They are continuous over long distances (greater than five miles) and accommodate both intraregional and interregional travel. These facilities generally serve high-volume travel corridors that connect major generators of traffic, such as the central business district, other large employment centers, suburban commercial centers, industrial centers, major residential communities and other major activity centers within the urban area. Principal arterials are shown in black on the Thoroughfare Plan, and a typical cross-section is illustrated in **Figure 4-4 – Principal Arterial** below.

In Oak Point, FM 720 is the only facility that functions as a principal arterial. It is owned, operated and maintained by TxDOT. Thus, the number of lanes and physical appearance are controlled by TxDOT, though they will work with local jurisdictions to incorporate local concepts for roadway appearance and needs for access. The TxDOT roadway section for a rural highway that would be typically applied to the widening of this facility to four lanes (open-ditch drainage, auxiliary turn lanes and paved shoulders) would be appropriate for the rural nature of the setting of the highway within Oak Point.

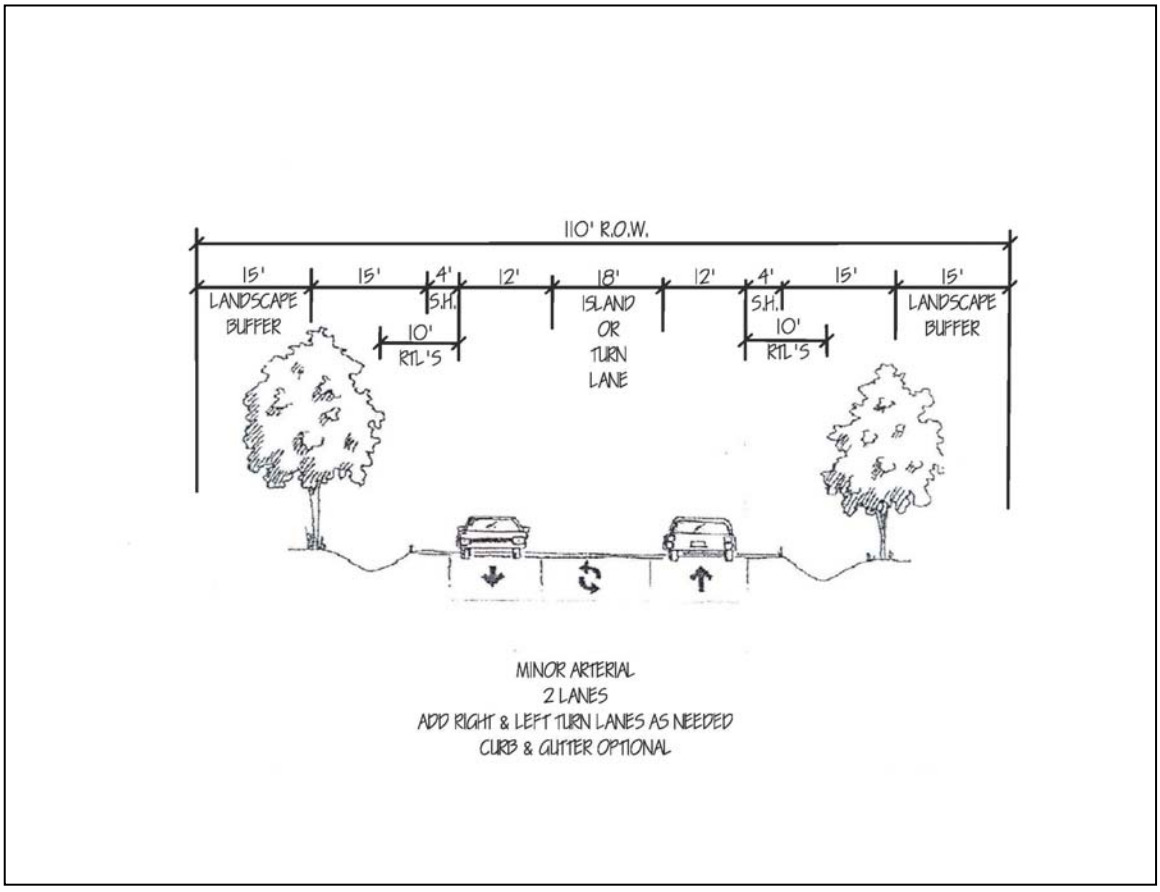
FIGURE 4-4
PRINCIPAL ARTERIAL



Principal Arterials typically operate at between 40 to 55 MPH. To expedite the movement of traffic, access to adjacent properties is minimized, on-street parking is prohibited and signals are spaced at not less than ½ mile intervals and are typically limited to only those intersections where the intersecting street is of a classification of Minor Arterial or higher. Where two Principal Arterials intersect, a grade separation should be considered. At an interchange of a Principal Arterial and a Tollway or Freeway, a cloverleaf or similar indirect ramping system is desirable to minimize the impedance of through-traffic. Where intersections on Principal Arterials are installed, they are typically designed to limit speed differentials between turning vehicles and other traffic to no more than 10 to 15 MPH.

Minor Arterials function similarly to Principal Arterials, except that their primary function is to accommodate only intraregional mobility. Minor Arterials are from one to five miles in length, operate at lower speeds (35 to 45 MPH), and provide more direct access to adjacent properties and the local street network. Signals and driveways are more frequent on Minor Arterials; with signals every block in heavily urbanized districts. Unlike Principal Arterials, on-street parking is sometimes permitted on Minor Arterials. Principal and Minor Arterials are generally spaced at one mile intervals in an alternating grid pattern. The integrated system formed by Principal Arterials and Minor Arterials typically includes 15 to 25 percent of the total roadway network and serves 40 to 60 percent of total motor vehicle travel in the area. **Figure 4-5 – Minor Arterial** illustrates a typical Minor Arterial cross-section.

FIGURE 4-5
MINOR ARTERIAL



On the Oak Point Thoroughfare Plan map, current Minor Arterials are shown in red with future Minor Arterials indicated by a dashed red line. McCormick, Shahan Prairie, Naylor (north of McCormick) and Martop Roads currently function as minor arterials and the future extension of Martop Road and the future connection to Shahan Prairie Road through Martop Road will function as minor arterials. They have a limited number of access points, mostly by collector streets; they carry traffic from the interior of Oak Point through adjacent communities to a Principal Arterial. Due to its limited collection area, Naylor Road also behaves much like a collector street in that it receives many local streets and driveways and has a traffic signal controlled intersection with a Principal Arterial, US 380. As such, the typical section of a minor arterial in Oak Point should call for two travel lanes plus auxiliary lanes for left and right turns utilizing either turn bays at intersections or a continuous turn center lane. A five- to six-foot wide shoulder lane would also be desirable for added safety and joint use of Naylor Road as a bikeway.

Collectors are the connectors between Arterials and Local Streets, which serve to collect traffic and distribute it to the Arterial network. Collectors also serve to provide direct access to a wide variety of residential, commercial and other land uses, and their design involves site-specific considerations. They provide direct service to neighborhoods and other local areas, and may border or traverse neighborhood boundaries. Parking is generally permitted on Collectors. Yacht Club Road, the future connection to FM 720 through Martingale Road, the future connection to McCormick and Shahan Prairie Roads through proposed new developments, the future connection to Martop Road from Lloyd Road, and the future connection to Hill Lane and Dickson Lane from Martingale Road Extension will function in this capacity. Current Collectors are shown in light blue on the map with future Collectors indicated by a dashed light blue line. Cross-sections of Urban and Rural Collectors are illustrated in **Figure 4-6 – Urban Collector** and **Figure 4-7 – Rural Collector**.

Since Collectors are used for short distance trips between Local Streets and Arterials, they should be continuous in the spaces between Arterials. Collectors should not be more than two miles in length in a rural setting. Collectors should generally line up across an Arterial, to promote connectivity between neighborhoods and reduce short trips on the arterial, but such alignment should be carefully considered as to not promote the misuse of the Collectors as an Arterial. To provide efficient traffic circulation and preserve amenities of neighborhoods, Collectors should desirably be spaced at about one-quarter to one-half mile intervals, depending on development density. Subdivision street layout plans should include Collectors as well as Local Streets in order to provide efficient traffic access and circulation.

Since Collectors generally carry higher traffic volumes than Local Streets, they require a wider roadway cross section. An Urban Collector (usually designed for suburban residential subdivisions) should be designed to accommodate two travel lanes a total of 30 feet in width. A Rural Collector (usually designed for rural residential subdivisions)should be designed to accommodate two travel lanes a total of 28 feet in width. A Collector should rarely be designed to accommodate more than two travel lanes throughout its length; such a design will encourage the misuse of the Collector as an Arterial. A Collector in a rural setting as in Oak Point should be designed for an operating speed of 30 to 35 MPH. Collectors typically make up about 5 to 10 percent of the total street system.

Collectors serve an important role in collecting and distributing traffic between Arterials and Local Streets. Their identification is essential in planning and managing traffic ingress/egress and movement within residential neighborhoods as well as commercial and industrial areas.

FIGURE 4-6
URBAN COLLECTOR

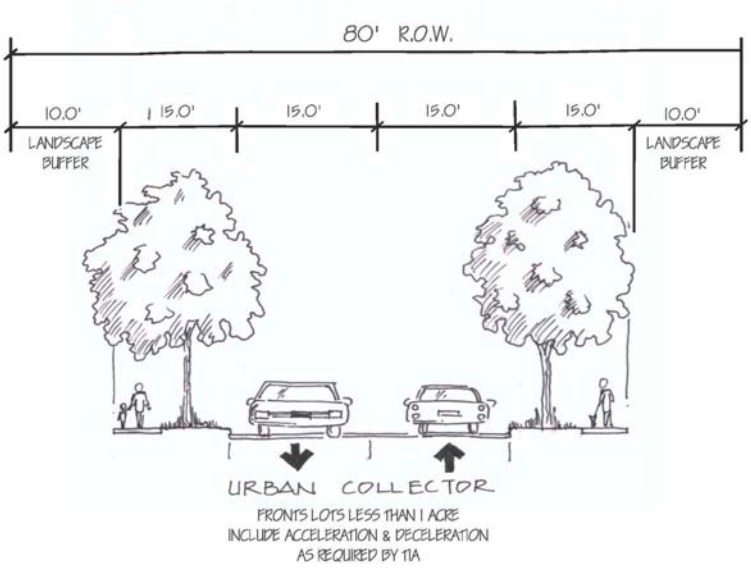
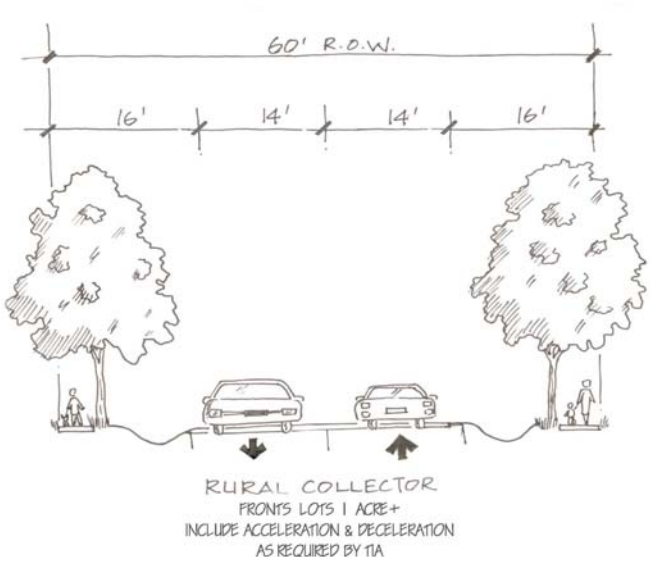


FIGURE 4-7
RURAL COLLECTOR



Local Streets include all other streets and roads that are not included in higher classes. They include internal and access streets that allow direct access to residential and commercial properties and similar traffic destinations. Direct access to abutting land is their primary role, for all traffic originates from or is destined to abutting land. Through-traffic and excessive speeds should be discouraged by using appropriate geometric designs, traffic control devices, curvilinear alignments and discontinuous streets. On-street parking is generally permitted. Trip lengths on Local Streets are short, volumes are low and speeds are slow, typically 25-30 MPH. A typical local street can accommodate one travel lane and two parking lanes and a width of 26 to 28 feet of pavement is desirable, although cross-sections as wide as 34 feet can be acceptable. Often on rural Local Street sections with open-ditch drainage and unpaved shoulders, minimum portions of the shoulder and drainage ditch slope are used for parking. Local Streets typically comprise about 65 to 80 percent of the total street system in urban areas. Local streets are shown as thin black lines on the Thoroughfare Plan. Typical cross-sections of Local Streets are illustrated in **Figure 4-8 – Urban Local** and **Figure 4-9 – Rural Local**.

FIGURE 4-8
URBAN LOCAL

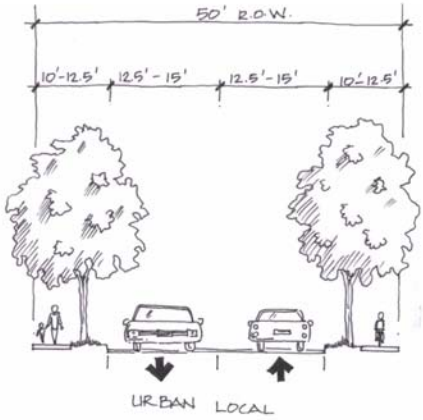
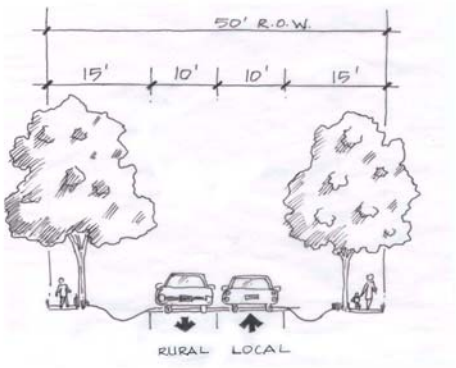


FIGURE 4-9
RURAL LOCAL



The following table indicates the criteria for the Thoroughfare system.

TABLE 4.1
THOROUGHFARE CLASSIFICATION SYSTEM

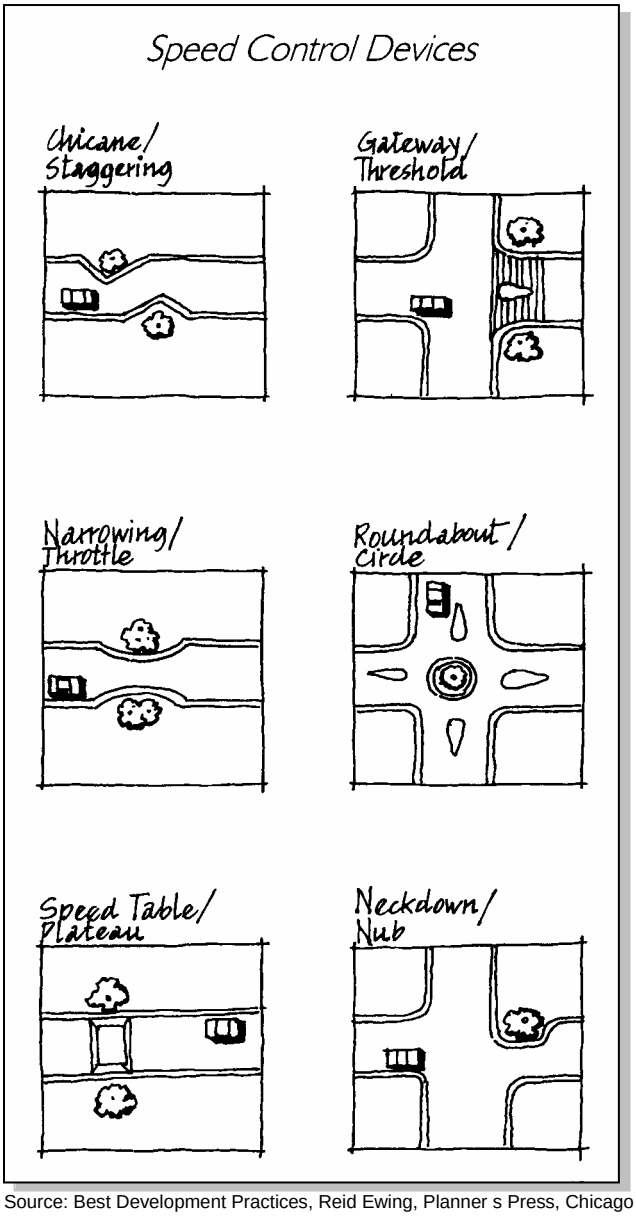
Criterion	Principal Arterial	Minor Arterial	Collector	Local Street
Functional Role	Mobility is primary, Access is secondary; Connects highways and other Arterials	Connect Principal Arterials and lower classes Access is secondary	Collects traffic; Connect Arterials to Local Streets; also land access	Access is primary; Little through movement
Roadway Continuity	Connect Highways, Arterials and lower classes; Connect major activity centers	Connect Principal Arterials to lower classes	Continuous in spaces between Arterials. Connect Arterials to local streets; extend across Arterials	Discontinuous Connect to Collectors
Purpose	Serve trips entering and leaving the urban area as well as trips within	Serve shorter distance trips than principal arterials	Provide direct access to residential, commercial and other land uses	Provide direct access to residential and commercial properties
Roadway Length	Usually more than 5 miles long	Usually more than 3 miles long	Varies from about 1/2 mile to 2 miles	Generally less than 1 mile long
Traffic Volumes	12,000 to 50,000 VPD	3,500 to 18,000 VPD	1,500 to 8,000 VPD	100 to 1,500 VPD
Desirable Spacing	2 miles or more between Principal Arterials	Generally 1/2 to 2 miles between Minor Arterials	Generally 1/4 to 1/2 miles between Collectors	Varies with block length, min. ›125 ft.
Posted Speed	40 to 55 mph	35 to 45 mph	30 to 35 mph	20 to 30 mph
Peak Period Speeds	30 to 35 mph	20 to 35 mph	NA	NA
Access	Intersect with Arterials, Collectors and Local Streets; Restricted driveway access	Intersect with Arterials, Collectors, and Local Streets, Limited driveway access	Intersect with Arterials and Local Streets; Driveways permitted	Intersect with Collectors and Arterials; Driveways permitted
On-Street Parking	Restricted	Restricted	Generally permitted	Permitted
Intersections	Intersections should be designed to limit speed differentials between turning vehicles and other traffic to no more than 10 to 15 mph	NA	Higher speed differential and closer intersection/access spacing can be used than on Arterials	NA
Percent of Roadway Network	5 to 10 percent	15 to 25 percent	5 to 10 percent	65 to 80 percent
Percent of Total Motor Vehicle Travel	30 to 40 percent	40 to 60 percent	NA	NA
Community Relationship	Define neighborhood boundaries	Define and traverse neighborhood boundaries	Internal and traverses boundaries	Internal
Through Truck Routes	Yes	Permitted	No	No
Bikeways	No	Limited	Yes	Yes
Sidewalks	Yes	Yes	Yes	Yes

Source: Wilbur Smith Associates

Traffic Calming Measures

As in many communities across the nation, there is a growing concern in Oak Point about the increase of non-local traffic in residential areas, as well as traffic speeds on collector streets and through the center of town. Many cities are joining a nation wide trend among local governments by adopting traffic calming programs, which are aimed at controlling cut-through traffic and speeding on neighborhood streets and generally aggressive driving that threatens the safety of other drivers and pedestrians.

Traffic calming measures are instrumental in providing livable neighborhoods where residents feel safe walking, biking, and playing. In addition to reducing speeds in residential neighborhood traffic calming measures are also useful in pedestrian-oriented commercial areas. The Institute of Transportation Engineers (ITE) defines "traffic calming" as "the combination of mainly physical features that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users." In addition to addressing motor vehicle issues, traffic calming can also involve disparate objectives such as improving aesthetics, promoting urban renewal, reducing crime, and increasing water filtration into the ground.



Source: Best Development Practices, Reid Ewing, Planner s Press, Chicago 1996,

The Institute of Transportation Engineers identifies broad goals for traffic calming, which include: increasing quality of life; incorporating the preferences and requirements of nearby residents and others who use the area adjacent to streets and intersections; creating safe and attractive streets; helping to reduce the negative effects of motor vehicles on the environment (pollution, urban sprawl, etc.); and; promoting walking, bicycle and transit use. More specific objectives, as applied to local streets, include:

- achieving slower speeds for motor vehicles;
- reducing collision frequency and severity;
- increasing safety and the perception of safety for non-motorized users of the street;
- reducing the need for police enforcement;
- enhancing the street environment (streetscape, etc.);
- increasing access for all modes of transportation; and,
- reducing cut-through motor vehicle traffic through neighborhoods.

Traffic calming is accomplished through a combination of measures that control both traffic speeds and volume. Volume controlled measures include street closures, restrictive one-way streets and turn restrictions all of which should only be implemented on local streets. These measures are effective in reducing traffic on streets; however, such measures do not reduce speed and often result in the diversion of unwanted traffic onto other residential streets. Speed controlled measures are important in reducing injury accident rates and in increasing walking and bicycling on streets. These measures include speed humps, speed tables, traffic circles, sharp bends, chicanes, and narrowing at mid block. Speed control measures should be designed into the community through urban design and land use features such as smaller setbacks, street trees, short streets, sharp curves, center islands, traffic circles, textured pavements, speed humps and flat topped speed tables. Speed control measures are typically implemented on local streets but can be installed on collector streets with proper traffic operations considerations, such as emergency vehicle access and conveyance.

Lessons from communities that have experimented with traffic calming initiatives point to the following characteristics of a successful program:

- ensuring early involvement of and communication between neighborhood residents, City staff, and City Council;
- establishing specific procedures for defining and studying potential traffic problems;
- creating a clear process for requesting potential calming measures, securing project approval and funding, and then designing and implementing the measures;
- outlining an array of preferred calming techniques or combinations of methods based upon industry standards as documented in publications of the Institute of Transportation Engineers and similar professional associations;
- confirming neighborhood consensus and support before proceeding with implementation; and,
- monitoring and evaluating the effectiveness of calming measures on a case-by-case basis, with the ability to reconsider – and alter or remove if necessary – any traffic calming device or technique which inadvertently creates and/or shifts a traffic problem from one street or neighborhood to another.

The Institute of Transportation Engineers, state transportation departments and others entities have published manuals and other materials documenting numerous traffic calming options and techniques, including some that are subtle and intended to influence drivers' perceptions of their surroundings and thereby their driving behavior. These can include road and intersection narrowing methods, better definition of crosswalks and pedestrian-oriented settings, and manipulation of road surfaces. Illustrations and specifications are provided and the advantages and disadvantages of each calming method are presented.

Transportation Issues

The citizens of Oak Point identified the following as important traffic and transportation issues:

- Desire to maintain rural character of Oak Point; and,
- Fear that, as a result of continued development, streets such as Naylor and Martingale will become through-streets through the City, destroying the tranquil quality of Oak Point.

Goal, Objectives, and Actions

Transportation Goal:

Provide access and circulation throughout the City while preserving the rural quality and identity of Oak Point.

Objective 4.1: Maintain rural character of Oak Point in roadway system.

Action 4.1.1: Require new developments maintain a rural residential character on new and existing Collector streets and the reconstruction of existing streets with trees, landscaping, trails, and open ditch drainage. (See cross-sections)

Action 4.1.2: Discourage "through traffic" in the City by innovative street designs that reduce speeds and provide visual interest.

Action 4.1.3: Connect older neighborhoods to new ones through a system of trails and greenbelts throughout the City.

Objective 4.2: Create a "front door" entry and identity for the City.

Action 4.2.1: Develop the design of city entrance sign and landscaping that reflect the character of Oak Point.

Action 4.2.2: Require major entry roads reflect rural character of Oak Point with landscaping, additional setbacks, preservation of existing trees and planting of additional trees, open ditch drainage, and trails. (See cross-sections)

Objective 4.3: Ensure adequate access and circulation within the City.

Action 4.3.1: Require a collector street to link Martingale Road Extension to Hill Lane and/or Dickson Lane.

Action 4.3.2: Extend Martingale Road to FM 720 coordinating with adjacent development.

Action 4.3.3: Extend Lloyds Road to FM 720 coordinating with adjacent development.

Action 4.3.4: Extend Martop from Naylor Road to the east past FM 720 to the future north-south minor arterial incorporated into the Prairie Oaks subdivision as northern east-west minor arterial.

Action 4.3.5: Require a collector street to link Martop Road to McCormick Road with adjacent development.

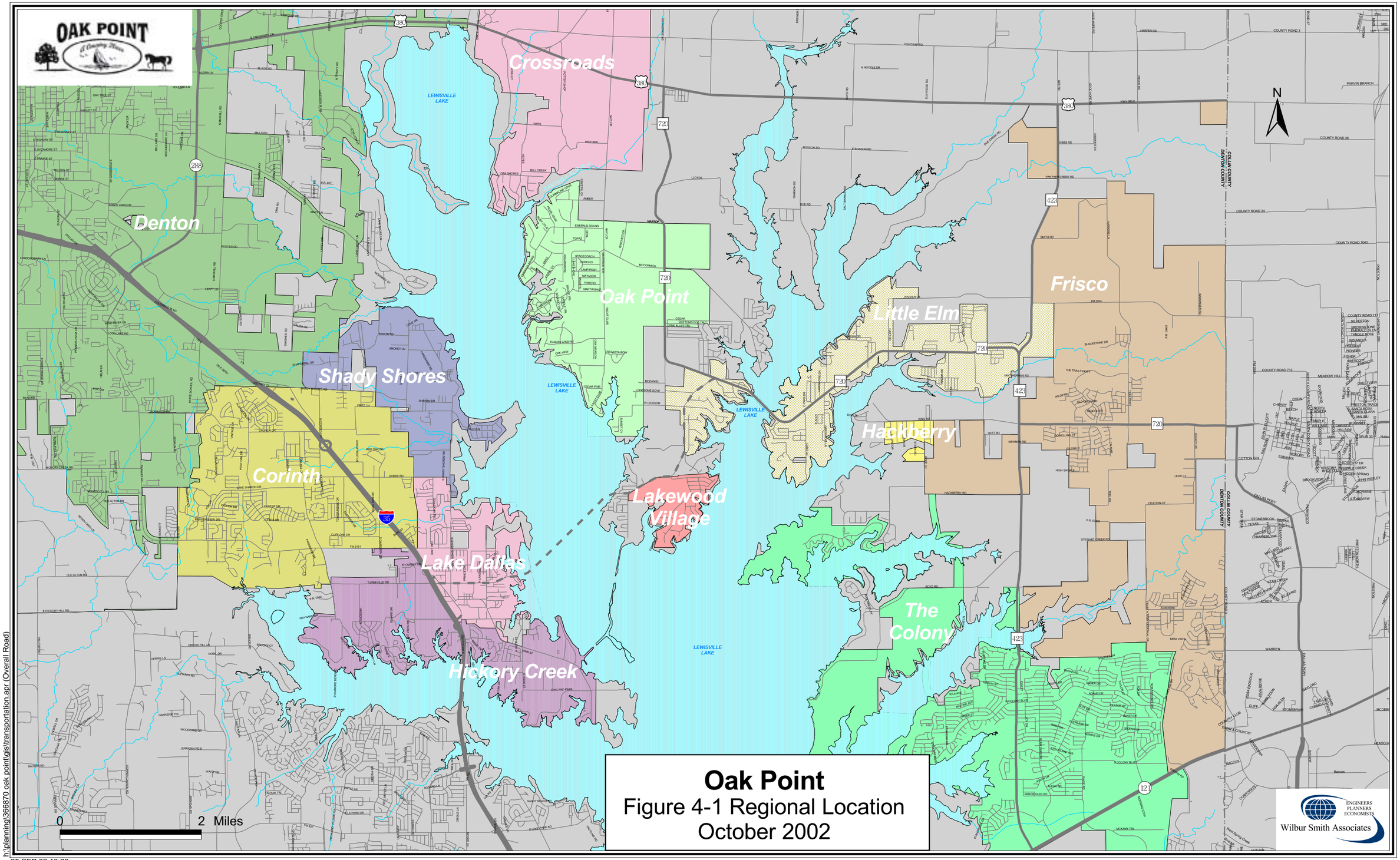
Action 4.3.6: Require a collector street to link future Martop Road to Shahan Prairie Road with adjacent development.

Implementation of the Thoroughfare Plan

Implementation of thoroughfare system improvements occurs in stages over time as the City grows and, over many years, builds toward the ultimate thoroughfare system shown in the Thoroughfare Plan. The fact that a planned thoroughfare is shown in the plan does not represent a commitment to a specific time frame for construction, nor that the City will build the roadway improvement. Individual thoroughfare improvements may be constructed by a variety of implementing agencies including the City of Oak Point, Denton County and Texas Department of Transportation (TxDOT), as well as private developers and land owners for sections of roadways located within or adjacent to their property.

The City of Oak Point, Denton County, TxDOT, as well as residents, land owners and developers, can utilize the Thoroughfare Plan in making decisions relating to the planning, coordination and programming of future development and transportation improvements. Review by the City of preliminary and final plats for proposed subdivisions in accordance with the Subdivision Ordinance should include consideration of compliance with the Thoroughfare Plan, in order to ensure consistency and availability of sufficient right-of-way for the general roadway alignments shown in the Plan. By identifying thoroughfare locations where right-of-way is needed, land owners and developers can consider the roadways in their subdivision planning, dedication of public right-of-way and provision of set backs for new buildings, utility lines, and other improvements located along the rights-of-way for existing and planned thoroughfares.

The Thoroughfare Plan will have long reaching effects on the growth and development in the Oak Point area, since it guides the reservation of rights-of-way needed for future thoroughfare improvements. The plan has important influence on the pattern of movement and the desirability of areas as locations for development and land use. While other elements of the Comprehensive Plan look at foreseeable changes and needs over a 20-year period, thoroughfare planning requires an even longer-range perspective extending into the very long-term future. Future changes in transportation technology, cost structure, service demands for the transportation system and resulting long-term shifts in urban growth and development patterns require a farsighted and visionary approach to thoroughfare planning decisions.



Oak Point

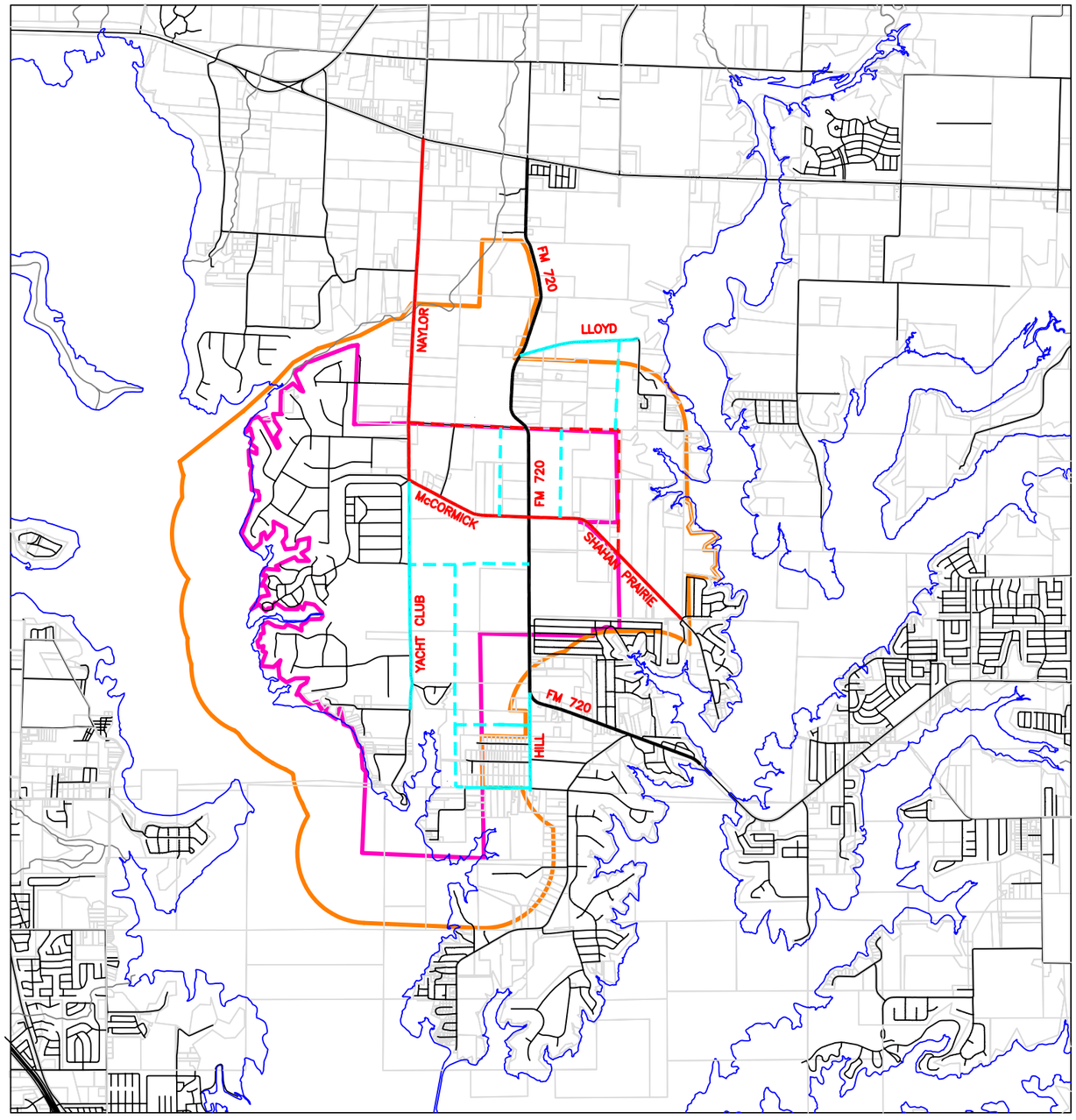
Figure 4-1 Regional Location

October 2002

ENGINEERS
PLANNERS
ECONOMISTS
Wilbur Smith Associates

h:\planning\366870 oak point\gis\transportation.apr (Overall Road)

25 SEP 02 10:20



LEGEND

- *TXDOT HIGHWAY*
- *EXISTING PRINCIPAL ARTERIAL*
- *PROPOSED PRINCIPAL ARTERIAL*
- *EXISTING MINOR ARTERIAL*
- *PROPOSED MINOR ARTERIAL*
- *EXISTING COLLECTOR*
- *PROPOSED COLLECTOR*
- *CITY LIMITS*
- *ETJ*

CITY OF OAK POINT

FUTURE THOROUGHFARE PLAN

APRIL 2006

1500 750 0 1500 3000

SCALE: 1"=1500'

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Planning Communities—Designing the Systems That Serve them

Date:	3/15/06
Project	OPT04GS
Drawn by:	JSR
Checked by:	LKA

SHEET 1 OF 1 SHEETS

Chapter 5 - Economic Development

Economic development is, of necessity, a partnership between public and private interests to promote extensive and prolonged private investment. Available land, customer base, workforce, financing options and supporting community incentives are factors necessary to take advantage of the expanding local economy. Currently, there are very limited commercial activities in Oak Point. However, in light of the projected population growth within its Retail Trade Area, the expansion of FM 720 through the City to a six-lane divided highway, and development of a high school by Denton Independent School District, the City is poised for explosive commercial/retail growth within the next five years. Oak Point's Retail Trade Area spans approximately 60 square miles with an estimated population in 2006 of 28, 932. Oak Point's Retail Trade Area as of May 2006 is reflected in Figure 5-1.

With the anticipated growth of a vibrant commercial/retail tax base, the City must consider goals, objectives and actions that will attract and sustain desirable businesses. Commercial establishments will, in turn, begin to provide additional tax revenues that will ultimately support the community's quality of life. Specifically, the City must partner with its commercial property owners to attract businesses that will provide goods and services for the citizens. These businesses should be of sufficient size as to attract shoppers and patrons from the surrounding residential areas who will contribute substantially to the tax base.

Guiding Principles for Economic Development

Principles serve as guides for decision-making and the development of goals and objectives. They should be a continual reference for City officials and City staff and should be used to assure that goals, objectives and actions are addressed when reviewing new economic development opportunities.

- In promoting economic development, the City should be ever mindful of what initially attracted residents to Oak Point – its quality of life. Commercial development should not be allowed to infringe upon existing neighborhoods and new residential development should be buffered from businesses.
- While it is a difficult balance to strike, the City should seek balanced commercial development that complies with the requirements of the 720 Corridor Overlay District while also supporting the rural residential atmosphere and enhancing the quality of life for residents.
- New businesses should be those that are permitted in the Community Commercial and Neighborhood Commercial categories in the Zoning Ordinance so that zoning would be maintained in accordance with the Comprehensive Plan.
- Commercial development should be unique and distinctive compared to surrounding communities.
- Consideration should be given to the costs of providing and maintaining public services associated with new development so that it does not exceed anticipated revenues. Although sales and commercial property tax revenues generally more than offset the costs of providing public services (and even underwrite the services provided to residents), the City should not extend services beyond what reasonably can be handled.
- The City should undertake efforts to ensure that businesses are engaged as active members of the community.

- The City should continue to develop and improve community resources that will contribute to a favorable business environment and encourage high-quality commercial development.

Goal, Objectives, and Actions

Economic Development Goal:

Encourage appropriate commercial and retail development in the City to expand the commercial tax base and increase tax revenues in a manner that supports the community character and quality of life, promotes a vigorous, diversified and regionally competitive economy and provides maximum tax relief for homeowners while still responding to demands for quality services.

Objective 5.1: Guide location of commercial areas through land use planning.

Action 5.1.1: Locate commercial development within the 720 Corridor Overlay District and in conformance with the Future Land Use Map.

Action5.1.2: Do not allow commercial development to locate along Naylor and Yacht Club Roads .

Objective 5.2: Attract desirable businesses to locate within the 720 Corridor Overlay District that complement the City's existing image and quality lifestyle.

Action 5.2.1: Identify targeted business categories utilizing the City's Retail Trade Area Analysis and Leakage Analysis.

Action 5.2.2: Partner with commercial property owners, commercial real estate brokers, and community business leaders to facilitate recruitment of targeted businesses through the use of effective recruiting and promotional techniques, appropriate incentive offerings and responsiveness to business needs.

Action 5.2.3: Create a campaign to encourage residents to shop locally and to increase public awareness of the importance of sales tax revenues.

Action 5.2.4: Utilize advisory groups, surveys, and other feedback mechanisms to proactively identify problem areas and opportunities for assistance.

Action 5.2.5: Host special events designed to promote the public exposure of new businesses and the recognition of awards or special achievements for existing businesses.

Action 5.2.6: Actively promote the success and expansion of all public festivals and seasonal events.

Objective 5.3: Develop and improve community resources that contribute to a favorable business environment and encourage high-quality commercial development.

Action 5.3.1: Offer financial incentives that are fiscally sound, commensurate with the anticipated benefits, and competitive with other communities.

Action 5.3.2: Work to ensure responsive and efficient regulatory and development processes that balance customer service excellence with public accountability.

Action 5.3.3: Foster an organizational culture of the City that maximizes employee motivation and proficiency through recognition, training and team-building programs.

Action 5.3.4: Proactively identify and prioritize as part of the City's Capital Improvement Program those infrastructure projects needed to establish a foundation for subsequent development and infrastructure expansion

Action 5.3.5: Engage in ongoing strategic transportation and mobility planning to help ensure adequate capacity and efficiency for the City's thoroughfare system.

Action5.3.6: Develop and maintain a comprehensive park system to provide diverse leisure opportunities for all of Oak Point.

Action 5.3.7: Ensure the beauty and uniqueness of the community through the preservation of the natural environment and promotion of the cultural and visual arts.

Objective 5.4: Reduce the tax burden of residential property owners.

Action5.4.1: Facilitate the establishment a commercial property tax base that represents at least 10% of the City's total property tax base by the end of 2008.

Action 5.4.2: Facilitate the construction of at least 50,000 square feet of commercial, retail and office space within the 720 Corridor Overlay District by the end of 2008.

Objective 5.5: Create an aggressive marketing program to encourage the attraction of targeted commercial and retail developments.

Action5.5.1: Focus marketing efforts primarily on the commercial/retail uses identified in the City's Leakage Analysis.

Action 5.5.2: Communicate the City's strategic advantages and development opportunities to commercial real estate brokers/developers, site location consultants, corporate real estate executives, regional marketing allies, elected representatives, local business leaders and commercial landowners.

Action 5.5.3: Invest in enhanced technical assets and capabilities such as specialized software and/or subscription services and a dedicated economic development website.

Action 5.5.4: Research, collect and analyze all demographic, tax rate, and competitive comparison data needed to demonstrate the City's strategic advantages.

Action 5.5.5: Maintain a current collection of printed and electronic marketing materials, distribution lists, and promotional items.

Action 5.5.6: Mount a public relations campaign designed to maximize media exposure of significant economic development accomplishments and opportunities.

Action 5.5.7: Establish a continuous advertising presence in those trade publications, web sites, and other information sources that are most frequently used by our targeted audiences.

Action 5.5.8: Pursue a variety of direct marketing efforts including email and postal solicitations, routine cold calls, public speaking events, and group sales presentations.

Action 5.5.9: Maintain an active membership in selected economic development, commercial real estate, and target industry associations and attend meetings and networking functions ona regular basis.

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Chapter 6 - Community Facilities and Services

Public buildings and facilities are integral functions of any city. This Community Facilities chapter provides general directions for the development of community facilities necessary or desirable to support future land use patterns and to meet projected needs of the community. Coordination with other local governments, special districts, school districts and state and federal agencies may provide opportunities for multi-jurisdictional facilities. The ultimate goal of the City is to be self-sufficient regarding its community facilities and services.

Oak Point's future depends on its maintaining the quality of life that drew its residents to the City. Funding facilities and services will be determined largely by the desire to be a self-sustained community. The ability to build and develop these facilities and services will be increased with the advent of commercial development where sales tax rather than residential property tax will provide the necessary funding.

This chapter focuses on municipal facilities and parks and trails. Chapter 7 - Water, Wastewater and Drainage chapter addresses infrastructure and utilities issues.

Inventory of Existing Community Facilities

The following facilities already exist in the City of Oak Point. As the City is still in its initial stages of development, there are facilities not yet available in the City. As the City expands, there will be a need for expanded and additional facilities.

Oak Point City Hall

The City Hall building is located at 100 Naylor Road. The 1,891 square foot building currently houses administrative offices and the City Council chambers. Currently, the City has a City Manager and a three person Administrative Staff.

DPS/Public Works Building

In 2004, Oak Point began providing its own fire services and acquired additional firefighting apparatus and equipment. Consequently, the City constructed a new 9,000 square foot DPS/Public Works Building to house the Department of Public Safety, the Public Works Department, and a Community Room. The DPS/Public Works Building is located just behind City Hall. A city's primary public services are police, fire and emergency medical services. The Department of Public Safety currently has seven full time cross-trained public safety officers who provide routine patrols and enforcement, fire services and first-response emergency medical services on a 24-hour basis. The full-time cross-trained public safety officers are supplemented by approximately 20 volunteer firefighters.

The Public Works Department is responsible for the construction and maintenance of the City's streets; placement and maintenance of traffic and other signage throughout the City; monitoring drainage systems and repairing when appropriate; inspection of public infrastructure construction; facility maintenance; limited fleet maintenance; and parks maintenance and improvements. The Public Works Department is currently comprised of three staff members.

In addition to housing the Departments of Public Safety and Public Works, the DPS/Public Works Building also contains a Community Room that is used for the City's Parks and Recreation Program (which began in 2005) and is available for rent for other functions.

Water/Wastewater

A more detailed description of water and wastewater services to the community is found in the Water/Wastewater and Drainage element of this Comprehensive Plan.

Parks

There are two facilities that are operated by the City. Jake's Place is a community park located next to City Hall. It has a playground, sand volleyball court, basketball court, baseball field, two practice soccer fields, horseshoe arena, and picnic areas that include grills and tables. The park is approximately 8.41 acres. The City also leases a boat ramp from the U.S. Army Corp of Engineers. There are private recreation areas and trails in Emerald Sound, Crescent Oaks, Eagles Landing and Woodridge Estates.

Utilities

The majority of water service in Oak Point is provided by Mustang Special Utility District. EcoResources serves the Crescent Oaks community and Terra Southwest, Inc. serves the Hilltown Community and southern portions of the City. Oncor Electric and CoServ are the electric transmission and distribution companies for Oak Point while there are numerous retail electric providers operating within the City. Telephone service is provided mainly by AT&T while there are numerous competitive telecommunications providers also providing service to residents. Suddenlink (formerly Cebridge Connections) provides cable television reception in limited areas. High-speed Internet services are available through both DSL and cable modem platforms through either the telecommunications or cable television providers. At present, there are no natural gas providers that serve the City.

Schools

Both the Little Elm and Denton Independent School Districts serve Oak Point. At present, there are no school sites in Oak Point; however, the Little Elm Independent School District will be opening Oak Point Elementary School on the south side of Shahan Prairie Road in August of 2007 and the Denton Independent School District anticipates opening a high school and practice stadium on the south side of Martop Road and west of FM 720 in the next five to ten years. Approximate locations for future school sites are shown on the Future Land Use Plan Map and on the Parks and Trails Master Plan. The City is coordinating with the two districts on each of these projects in order to assure orderly development of the sites.

Future Community Facilities and Services

As Oak Point directs its growth, there is continued interest in being a complete community, one with the services and facilities desired by its residents. One purpose of this element is to be able to identify the desired needs of the community in the future. As the City grows, there will be additional services required or desired by residents. The following are facilities and services that may be desirable for Oak Point as the city grows.

Municipal Facilities

A new City Hall with administrative offices, Council chamber, and municipal court will be needed in the future as the City has already outgrown the facilities on Naylor Road. A general standard for municipal office space used by many cities is 1,000 feet of floor area per 1,000 residents. A possible location in the FM 720 Corridor Overlay District may be the appropriate place, as it will be accessible while not impacting the existing neighborhoods. The decision on the actual location and size will be determined at a later date.

The current DPS/Public Works Building may continue to be appropriate at the location on Naylor Road. An additional DPS location on FM 720 or on the east side of the City may be appropriate to ensure adequate public safety coverage.

A local public library is a desirable city facility and service that the City may wish to consider in the future. The current City Hall could be converted into a local public library and/or additional parks and recreation facilities. Ultimately, the current City Hall building should be accessible to sidewalks and/or trails so residents can get to the facility easily, safely, and without a car.

Public Safety

The City of Oak Point is currently served by seven cross-trained Public Safety Officers who provide police, fire and first-response emergency medical services. The City began providing its own fire protection services in October of 2004 utilizing its Public Safety Officers and supplementing with a volunteer fire department. The City currently operates several patrol vehicles and has a fire apparatus inventory of two brush trucks and two pumper trucks in providing public safety services. As the City grows, additional personnel, vehicles, apparatus and equipment will be needed to maintain the service level that Oak Point now provides. With an anticipated total build-out population of approximately 24,795, the building of two new schools in the City, and the recruitment of commercial development, public safety personnel requirements will be increased and based on standards developed by the Department. The additional personnel will be added gradually as the population increases, the schools are built, and commercial development commences. The City also benefits from continued cooperation through interlocal agreements with neighboring communities for ambulance service and mutual emergency response assistance.

Further development of fire services will require capital outlays for equipment as well as personnel. Fire response in the City also hinges on the size and ability of the water distribution system to provide water flows and pressure to contain and extinguish fires. The City will continue to work closely with the different water providers to ensure that needed capital improvements to the different water systems within the City are undertaken by the water providers.

Water, Wastewater, and Drainage

Water treatment, distribution, and storage are addressed in Chapter 7 as well as wastewater collection, treatment and drainage issues.

Utilities

The City hopes to have natural gas available throughout the City in the future.

Parks and Trails Master Plan

Introduction

Like many communities in the United States, the City of Oak Point is facing the need to provide quality outdoor recreational opportunities for its citizens. According to the National Recreation and Parks Association, individual health has become a priority to many Americans. At the same time, citizens have begun to expect their cities to offer public facilities promoting mental and physical well-being, and foster social interaction. Municipal recreational opportunities are therefore assuming a major role in promoting healthy lifestyles and community cohesiveness.

The Comprehensive Plan presents an ideal opportunity for Oak Point to begin addressing its parks, recreation and open space needs in a thoughtful, proactive way. This small city, which wants to be known as a "Country Place," is largely undeveloped, offering the community a wide variety of options to consider in developing parks and preserving open space. Its city leaders, anticipating inevitable growth, wish to protect the city's image and unique natural resources by adopting the Parks and Trails Master Plan set forth in this chapter.

As part of the Comprehensive Plan, this Parks and Trails Master Plan will assist the city in the acquisition and development of parks, trails and open space for the next 5-10 years. It has been developed under the direction of the Oak Point Parks Board and City Council and formatted for approval by the Texas Parks and Wildlife Department. This present chapter is intended to promote the viability of Oak Point as a desirable place to live by presenting a well conceived Parks and Trails Plan that is aggressive and farsighted, yet practical and realistic.

Parks and Trails Master Plan Process

A master plan provides a framework for city planning and funding of parks, recreation areas and open space. When properly developed, a master plan can enable a municipality to qualify for Federal and state funding opportunities. It can also set the stage for a city to take advantage of State of Texas enabling legislation requiring the mandatory dedication of parkland or payment of fees-in-lieu of land.

At the City of Oak Point, the following actions occurred as part of its Parks and Trails Master Plan process:

- Gaining consensus among City leaders about the Plan's fundamentals
- The City's role in providing parks and recreation opportunities
- Core values for parks and recreation development
- Determining citizen attitudes and preferences regarding parks and recreation in general, and specific types of facilities desired
- Developing goals and objectives to guide the Master Plan process
- Inventorying current recreational facilities
- Recommending development standards for new facilities
- Determining present and future needs, based on population, for each type of park or facility
- Identifying future parks and recreation opportunities, improvements and priorities
- Preparing a prioritized implementation plan

This process has been intended, from its outset, to result in a facility-driven, needs-based, prioritized plan for development of Oak Point's parks and recreation resources.

Guidance Provided by City Leaders: Plan Fundamentals

The first step in the Master Plan process required City leadership to discuss, explore and reach consensus about a foundation for the ultimate Plan. City leaders ultimately agreed upon two general philosophies:

A definition of the City's role in providing parks and recreation opportunities to its citizens; and,
A set of core values to guide parks and recreation development

The City's Role in Providing Parks and Recreation Opportunities

- Provision of basic recreational opportunities
- Administration and management of the City's system of parks and recreational opportunities
- Provision of material and other resources in support of the development and maintenance of the City's parks and recreation system
- Enactment of regulations and zoning necessary to maintain the quality and availability of recreational resources to citizens
- Establishment of cooperative agreements with other entities, such as school districts, neighboring cities and the Army Corps of Engineers, to expand the supply of public recreational facilities
- Emphasis on low maintenance facilities and landscape, and multi-use facilities for greater efficiency of operation
- Pursuit of citizen input in planning parks and utilizing this input in the preparation of periodic needs assessments
- Acquisition and preservation of parkland, greenbelts, natural areas, and open space
- Development of funding opportunities for park development, maintenance and operation

Oak Point Parks and Recreation: Core Values to Guide Development

- Parks and recreation planning should reflect the preferences of the citizens of Oak .
- The City should make the most of its Parks and Trails Plan in preserving the "rural" feeling of the community, despite development pressure.
- As Oak Point grows, developers who reap the gains of this growth have a responsibility to provide land or funds for parks and recreation development.
- Land for parks, recreation and open space should be designated and acquired early in the process while it is still available and affordable.
- New parks should be designed so that each has a unique "sense of place."
- Planning should be coordinated with adjacent communities.
- The City should acquire and develop parks in combination with other public facilities to achieve cost effective delivery of public services. Park property should be jointly developed with facilities such as schools, fire and/or police stations, libraries and/or other public entities.
- Parks and City facilities should be linked via a system of trails and greenbelts.
- Park equipment should be constructed of high quality, long-lasting, safe materials.
- If possible, floodplains should be protected from heavy development and designated for trails and open space.
- Parks should be planned so that they require the lowest possible maintenance costs.
- A Parks and Recreation Master Plan should be updated on a regular basis (at least every 5 years) after its implementation.

The views of City leaders were only part of the picture, however. The next step was to determine the opinions of Oak Point citizens about parks and recreation.

Citizen Attitudes and Preferences

Determining what Oak Point citizens want in the way of parks and recreation facilities and priorities was an important component of the Master Plan process. From January through August 2006, seven Park Board meetings were held to discuss the plan and allow citizens an opportunity to provide input. In addition during that period, consultants and staff presented findings to the City Council and public on two occasions. Park Board input was critical to the compilation of data for the plan. As appointed representatives of the public, the Park Board along with City staff served as ambassadors for the general public. Data provided by those sources became the foundation for the plan and its recommendations.

Once information about the views of Oak Point citizens was complete, the stage was set to begin work on the Master Plan itself.

Master Plan Goals and Objectives

Information about citizen attitudes and preferences, coupled with the consensual views of City leadership was utilized to establish a set of goals and objectives for the Master Plan. Goals are broad statements of the needs and priorities of citizens, and they represent general areas of emphasis for the plan. Objectives are clear statements of intent, representing specific steps to be taken in accomplishing each goal. These goals and objectives were intended to ensure the final plan was on track with community wants and needs. The goals and objectives for Oak Point's Parks and Trails Master Plan (which appear below in priority order) are consistent with the overall Comprehensive Plan Goals and Objectives (outlined in Chapter 2).

Goal 1: Create a system of pedestrian, equestrian and bicycle linkages (connections) between residential neighborhoods, linear greenbelts, schools, public administrative facilities, and other activity centers, as an alternative to automobile transportation.

Objectives:

1. Utilize trails, wherever possible, to connect residential areas with schools, parks and other public facilities.
2. Require developers to provide walking, jogging, cycling and/or equestrian pathways within large private developments.
3. Design an interconnected, multifunctional parks and open space system which protects important natural, cultural and visual resources while providing appropriate opportunities for recreation.
4. Integrate planned trails with other public and private trail plans where possible.
5. Coordinate planning efforts with those of adjacent cities.

Goal 2: Provide a network of trails and open space to serve as a greenbelt connecting residential neighborhoods. This system should help define community form and preserve the community's desired rural character.

Objectives:

1. Ensure that the Parks and Trails Plan addresses needs for leisure and open space at both the neighborhood and community levels.
2. Require greenbelt and open space dedication during the development review process.
3. Explore new recreational and leisure programs for all age groups, especially for the community's youth and teens.

Goal 3: Oak Point's natural environment and native ecosystems contribute positively to the essential character of the community. These assets should be preserved and protected to the greatest extent possible.

Objectives:

1. Encourage development approaches designed to minimize impact upon the community's natural resources and visual appeal.
2. Conserve and protect ecologically sensitive and naturally beautiful areas, such as flood plains along creeks, and high points with scenic views toward Lake Lewisville, etc.
3. Establish and/or enhance green space and natural areas along floodplains, and promote public access to greenbelt areas with a multifunctional trail system (e.g., equestrian, cycling, hiking trails).
4. Preserve and respect areas with natural features such as steep slopes native grasses/wildflowers and/or scenic views.
5. Encourage and promote water conservation through the use of native plant materials, xeriscape plantings and other methods.
6. Maintain high standards for groundwater quality due to the proximity of Lake Lewisville.
7. Maintain high air quality standards.

Goal 4: Design a park system that will satisfy the varied recreational needs of a growing population and protect and enhance the quality of life in Oak Point.

Objectives:

1. Revise plans on a regular basis, with citizen preferences serving as a major input to this process.
2. Ensure that all relevant demographic groups are represented in parks planning.

Goal 5: Use county, state and national resources as well as city resources to develop a park system.

Objectives:

1. Leverage City and private funding against County, State and Federal funding to obtain the most cost effective use of funds.
2. Use training provided by other agencies to build the City's expertise.

Inventory: Current Parks and Recreation Assets

Oak Point is strategically situated halfway between Denton and Frisco on a north shore peninsula of Lake Lewisville, the largest Army Corps of Engineers lake in north central Texas. This bedroom community provides a tranquil lifestyle to Denton/Dallas/Fort Worth commuters who wish to live in a small city with a rural character.

The city lies in the Cross Timbers Region of north central Texas, an area of significant historical and environmental character. Indigenous native oak vegetation is found in abundance throughout the community. Native blackland prairie land, an increasingly rare ecosystem, which has been all but destroyed by agriculture and development, may also be found here.

At present, Oak Point has two public areas designated for parks and recreation. Jake's Place is a community park of approximately 8.4 acres, deeded to the City as part of the Emerald Sound development. This park features a playground, sand volleyball court, basketball court, horseshoe arena,

picnic area with grills and tables, a league baseball field, and practice athletic field. A second major recreation asset is a boat ramp leased from the Corps of Engineers. In addition, private recreation areas exist for use of residents of the Emerald Sound, Crescent Oaks, Eagles Landing and Woodridge Estates subdivisions.

Despite the present scarcity of public parks and recreational land, Oak Point enjoys rich future potential. The Corps' lakefront property immediately adjacent to Oak Point – largely undeveloped open space of over 500 acres – offers restricted recreational possibilities. There is a great deal of undeveloped land within city boundaries, a situation that gives City leaders many options and a great deal of flexibility in planning for the future.

Parks and Recreation Standards

The population of a city is an important driver of parks and recreation needs. In fact, the ratio of parks acres per population is considered to be a broad indicator of parks and recreation service, and a benchmark for comparison to other cities. Oak Point's parks and recreation standards have therefore been determined based upon projected future population.

The 2006 population of the City of Oak Point was estimated at 3,475. The city is expected to have 11,252 residents at build-out and its long-range objective is to have at least 5.7 acres of park land for every 1000 residents.

Table 6-1 following shows the standards Oak Point's leaders and staff have established for a variety of future parks and recreation facilities desired by city residents. These standards (Addendum 6-1) were derived by reviewing facility standards used by other cities similar to Oak Point in size and growth potential, then adapting these standards to Oak Point's unique situation. Oak Point's adopted standards appear in column 2 of Table 6-1.

It should be noted that the City has set ambitious standards for parks land and for trails. This is appropriate, given that the designation and acquisition of public open space are key enablers to three of the five Master Plan goals described above. A high priority was therefore placed on the development of a far-reaching pedestrian trail system connecting residential neighborhoods to schools, parks, and the FM 720 Corridor Overlay District. This is an extremely important need for citizens, since the existing vehicular infrastructure offers no paved walkways. Not only are these connections needed as pedestrian connectors, but also as opportunities for passive recreation for walkers, joggers, and bicyclists.

Other important recreational needs identified included playgrounds, park shelters, and picnic stations. Moderate needs included basketball and tennis courts, volleyball courts, and organized play fields.

While the proximity to Lake Lewisville was recognized as an outstanding natural resource, the City is afforded only one realistic opportunity for access – the existing Corps of Engineers site. Further recreational development near the lake is limited by private ownership and steep, difficult banks. In addition only one recreation center and water playground are proposed for the City. These are low priority needs, only to be addressed as the city nears build-out.

Table 6-1: City of Oak Point Parks and Recreation Needs Assessment

1 Facility	*2* City of Oak Point Adopted Standard: 1 Per (# of Residents):	Units Needed by		*5* Present Inventory (as of 8-1-06)	*6* Immediate needs (as of 8-1-06)	*7* Projected Needs @ City Buildout
		3 2006	*4* City@ Buildout			
Park Land (in acres)	175	20	64	10	10	54
Pavilions	4,500	1	3	0	1	3
Picnic Tables	350	10	32	4	6	28
Shelters	2,500	1	5	0	1	5
Playgrounds	2,000	2	6	1	1	5
Basketball Courts	7,000	0	2	1	-1	1
Tennis Courts	9,000	0	1	0	0	1
Volleyball Courts	6,000	1	2	1	0	1
Fishing / Boating	20,000	0	1	1	-1	0
T-Ball Fields	10,000	0	1	0	0	1
Little League Baseball Fields	3,500	1	3	1	0	2
Softball Field - Girls	7,000	0	2	0	0	2
Softball field - Adult	7,000	0	2	0	0	2
Practice / Informal Field	4,000	1	3	2	-1	1
Soccer Fields	4,000	1	3	0	1	3
Trails (in miles)	675	5	17	0	5	17
Horseshoe Pits	7,000	0	2	1	-1	1
Shuffleboard Courts	7,000	0	2	0	0	2
Washer Pits	8,000	0	1	0	0	1
Aquatic Facilities	20,000	0	1	0	0	1
Recreation Centers	20,000	0	1	0	0	1
Water Playground	20,000	0	1	0	0	1
Dog Park	20,000	0	1	0	0	1

Needs Assessment

Oak Point's adopted standards were applied against city population estimates to develop specific assessments of the City's immediate and long term parks and recreation needs. The results of this assessment also appear in Table 6-1. Immediate needs are shown for Oak Point (column 3); long term needs (at buildout) are shown in column 4.

Immediate Needs

The needs assessments were then compared to the City's present inventory of parks and recreation facilities (column 5). The results of these comparisons show that, as of August 2006, the City is below its adopted standards with those types of recreational facilities that are important to its citizens. While the City does have enough playgrounds, basketball courts, practice fields, and fishing/boating facilities for 2006 needs, it only has half of the needed park acres, and 2/3 of the needed picnic tables. For many types of needed facilities, the City has no facilities at all. When the assessment of present needs is held up to the Goals and Objectives of this Plan, it is evident that the City's most urgent needs are for additional park acres (10) and for trail miles (5).

Long Term Needs

The needs assessment was also carried into the future to examine projected needs at buildout (approximately 2025). This analysis revealed that there are some facilities that will be relatively easy to bring up to the long term standards. Because they are inexpensive and easy to situate, small facilities such as picnic tables, horseshoe pits and shuffleboard courts fall in this category. Two basketball courts will be ultimately needed, and there is already one in place, so this need should also be filled with no difficulty. Similarly, there are adequate fishing and boating facilities for the long term.

Other needs will be moderately easy to meet. Six playgrounds are ultimately needed, but while safe and high quality playground equipment is relatively expensive, these facilities do not require large amounts of land. Playgrounds can often be placed in "pocket parks" near residential areas for optimal accessibility.

The needs for other types of facilities will be difficult to meet. Organized play fields for baseball, softball, T-ball and soccer require considerable land that may need to be cleared and leveled. Citizens often prefer to have additional recreational amenities, such as lighting, bleachers, concession stands, rest rooms, pavilions and playgrounds at organized play fields. These amenities are expensive to construct. Small cities like Oak Point often locate such facilities in central athletic complexes. These require a significant outlay of funds for initial construction. To protect a city's investment, there must also be a commitment of ongoing maintenance funds for such facilities.

The greatest long-term challenge to Oak Point mirrors its immediate challenge: the need to acquire acreage for parkland and trails. The city will require 54 acres of parkland, and 17 miles of trails. At present, there are only 10 acres of parkland and no trail miles. City staff and elected leaders have begun to implement methods to move the plan forward, including passage of a 4B sales tax which may be used for parks. Staff also works closely with private developers to develop cost sharing agreements for recreational development. These and other innovative strategies must be considered if Oak Point is to meet these needs. Refer to Park Revenue Estimates that follows for additional information.

Oak Point's Future: Parks and Recreation Opportunities, Improvements and Priorities

With the recent passage of a 4B sales tax, Oak Point now has a revenue source to help in the implementation of this plan. However, these finances will not totally fund planned acquisitions and improvements. The city must continue to work with developers and other public agencies to implement innovative and creative plans to construct parks and open space. Cost sharing projects with local school districts as well as potential state and federal grants are achievable and must be considered.

The following plan is based on the latest available revenue estimates, including potential donations and Texas Parks and Wildlife grants. Cost estimates were applied to the priorities established in the Needs Assessment. The projects were then prioritized through input from citizens, elected/appointed officials,

and staff. Lastly the projects were assigned target implementation dates based on potential available funding for the next five years.

It is important to note that the factors that were used to develop the plan will continue to evolve and as they do, so too will the plan itself. Although the plan provides the city with a good chart for development, the changing needs of the community must take priority.

Table 6-2 – Five Year Prioritized Action Plan

Priority	Year	Project	Estimated Cost	Yearly Expenditures
1	2007	Pavilion in Jakes Place	$130,000	
2	2007	Trail Development 8' Width (0.5 mile)	$100,000	
3	2007	Volleyball Court in Jake's Place	$7,000	
4	2007	Fencing & Signage for Jake's Place	$17,000	$254,000
5	2008	Acquire Parkland by Donation	$0	
6	2008	Trail Development 8' Width (1 mile)	$200,000	
7	2008	Build (5) Picnic Stations	$15,000	
8	2008	Construct Playground	$75,000	
9	2008	Build (1) Picnic Shelter	$45,000	
10	2008	Soccer Field	$45,000	
11	2008	Basketball Court	$45,000	$425,000
12	2009	Event Seating for Jake's Place	$25,000	
13	2009	Acquire Parkland by Donation	$0	
14	2009	Neighborhood Park Development	$90,000	
15	2009	Trail Development 8' Width (0.5 mile)	$100,000	$215,000
16	2010	Acquire Parkland by Donation	$0	$0
17	2011	Neighborhood Park Development	$100,000	$100,000
TOTAL			**$994,000**	**$994,000**

City of Oak Point Parks and Trails Plan

City leaders have, with involvement of citizens, drafted a parks and trails plan, as the first step bringing this master plan to reality. The prioritized list of projects appears as Table 6-2. This section describes how the Oak Point Parks and Trails Plan addresses all the goals and objectives established at the beginning of the master plan process.

Goals 1 and 2 are closely related, and these goals speak to Oak Point's need for a trail and greenbelt system of citywide linkages. The plan defines a system that will provide an alternative to automobile transportation and preserve Oak Point's rural character. This system will ultimately link neighborhoods, schools, parks and other key areas of the city. Over half of the estimated cost of new facilities will go to support trail development.

Goal 3 addresses the preservation of the city's natural environment and native ecosystems. The plan identifies possible future park locations in Oak Point, giving City leaders a roadmap for the acquisition and protection of appropriate park resources.

Goal 4 articulates the aim of having park system that will satisfy the varied recreational needs of a growing and diverse community. The plan acknowledges the importance of existing recreational assets and builds new ones in line with the desires of Oak Point citizens. It creates locations for relaxing family outdoor gatherings, such as neighborhood parks, playgrounds and picnic facilities. It also provides venues for the excitement of organized sports, such as basketball, volleyball and soccer.

Goal 5 defines the City's desire to leverage resources from outside the city to help provide a first-class parks system. As described below, the plan lays out an approach to the acquisition of funding from both public and private sources to bolster Oak Point's recreational facilities.

Table 6-3 - Park Revenue Estimates

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
Revenue Sources					
Infill Building	$4,000	$5,000	$7,000	$9,000	$12,000
Commercial	$0	$600	$600	$300	$0
Development Agreements					
Cross Oak Ranch	$59,000				
4B Sales Tax	$0	$11,250	$75,000	$85,000	$125,000
Texas Parks & Wildlife Grant (Potential)	$0	$500,000*	$50,000**	$0	$50,000
TOTALS	$63,000	$516,850	$132,600	$94,300	$187,000
Cumulative Totals	**$63,000**	**$579,850**	**$712,450**	**$806,750**	**$993,750**

* - Potential grant is matched with value of possible land donation

** - Potential grant is matched by revenue

Challenges the City Will Face in Implementing Plan

Challenges are:

- Crafting a strategy for the preservation and development of land to govern how the City will work with developers.
- Designating appropriate land for parks and trails now – before it is consumed by development.
- Linking planning for parks with that for other public facilities (like school, libraries, etc.)
- Establishing coordination mechanisms and processes with adjacent communities and other government agencies (like the Corps of Engineers).
- Ensuring commitment to quality and low maintenance facilities to hold down life cycle costs.

- Gaining commitment of City leaders to revisit and update this plan every five years.
- Developing partnerships with public and private agencies to provide recreational facilities for all residents.

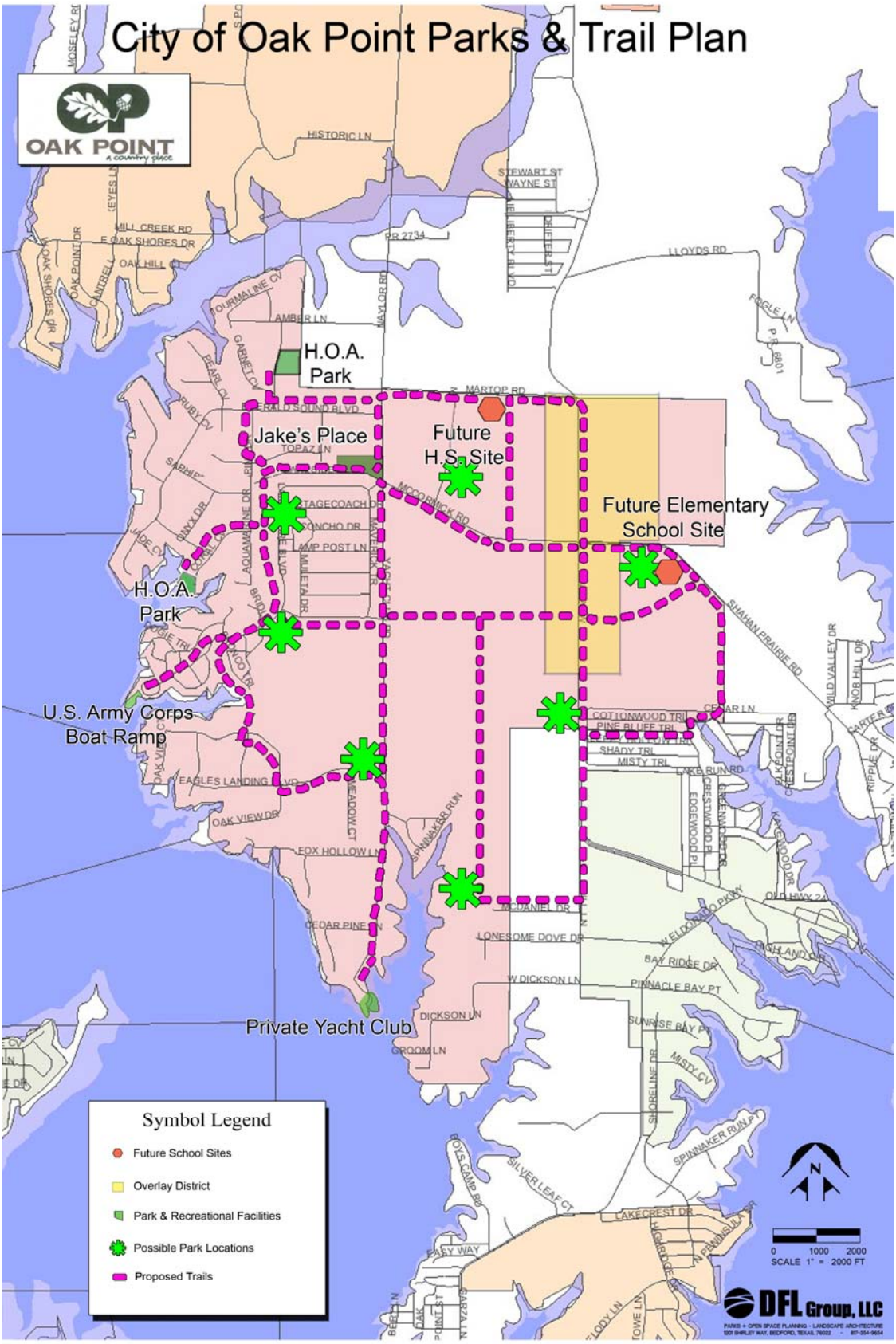
"A Country Place"

Oak Point's location and character will continue to be a magnet for potential homeowners, developers, and builders from throughout the Metroplex. Its convenient, but protected, location along with its extensive environmental resources give this city a unique opportunity, one that is unmatched in most areas. But these very advantages also offer challenges that city leaders must address. As the city continues to grow, staff must be given the tools to address rising recreational needs or those very citizens who moved to Oak Point because of its peaceful nature will be forced to recreate elsewhere.

Addendum 6-1
PARK ACRES/RECREATIONAL FACILITIES

Comparative Standards

Facility	Arlington	Lucas (Proposed)	Allen	Plano	McKinney	Collin County	National Recreation & Park Association
Local Park Land (Acres/1000)	13	10	8.5	10	8.5	12	5.25-10.5
Pavilions (1/Population)	40,000	3,000	NA	NA	NA	NA	60,000
Picnic Tables (1/Population)	800	250	343	1,000	200	375	NA
Shelters (1/Population)	15,000	1,500	NA	NA	NA	NA	10,000
Playgrounds (1/Population)	7,500	1,000	2,307	5,000	3,939	5,000	NA
Basketball Courts (1/Population)	12,000	2,000	13,333	NA	7,000	5,000	5,000
Tennis Courts (1/Population)	7,000	6,000	2,400	2,148	4,000	2,600	2,000
Volleyball Courts (1/Population)	NA	4,000	15,000	NA	10,000	15,000	NA
Fishing/Boating (1/Population)	NA	4,000	NA	NA	NA	NA	NA
Disc Golf (1/Population)	NA	8,000	NA	NA	NA	NA	NA
T Ball Field (1/Population)	NA	2,000	NA	NA	NA	NA	NA
Little League Baseball (1/Population)	10,000	2,000	1,818	2,500	3,733	5,000	5,000
Softball Field - Girls (1/Population)	10,000	2,000	NA	NA	NA	NA	5,000
Softball Field - Adult (1/Population)	50,000	4,000	NA	NA	NA	NA	30,000
Practice Field (1/Population)	NA	2,000	NA	NA	NA	NA	NA
Soccer Fields (1/Population)	12,000	1,000	2,222	5,000	7,000	4,500	10,000
Trails (1 Mile/Population)	7,000	500	NA	NA	NA	NA	10,000
Horseshoe Pit (1/Population)	NA	3,000	NA	NA	NA	NA	NA
Shuffleboard Court (1/Population)	NA	3,000	NA	NA	NA	NA	NA
Washer Pit (1/Population)	NA	3,000	NA	NA	NA	NA	NA
Equestrian Facilities (1/Population)	NA	8,000	NA	NA	NA	250,000	NA
Aquatic Facilities (1/Population)	50,000	20,000	30,000	43,333	20,000	26,000	20,000
Recreation Centers (1/Population)	70,000	25,000	24,000	37,143	25,000	25,000	NA


City of Oak Point Parks & Trail Plan
OAK POINT
a country place
H.O.A. Park
Jake's Place
Future H.S. Site
Future Elementary School Site
H.O.A. Park
U.S. Army Corps Boat Ramp
Private Yacht Club
Symbol Legend
Future School Sites
Overlay District
Park & Recreational Facilities
Possible Park Locations
Proposed Trails
SCALE 1" = 2000 FT
DFL Group, LLC

Goal, Objectives, and Actions

Community Facilities and Services Goal:
Provide appropriate and desirable city facilities and services that are easily accessible to the citizens of Oak Point.

Objective 6.1: Expand and relocate City facilities to a location within the FM 720 Corridor Overlay District to ensure that adequate services are provided to the eastern and southern parts of the City, to schools, and to the commercial community.

Action 6.1.1: Design a City Hall that would house city officials and council chambers for public hearings and provide office space for all current and future City Departments.

Action 6.1.2: Relocate City Hall to a location on FM 720 in the FM 720 Corridor Overlay District between McCormick and Martop Roads.

Action 6.1.3: Construct an additional public safety station in the FM 720 Corridor Overlay District that would provide public safety services for the part of the City east of FM 720.

Action 6.1.4: Convert the current City Hall into an additional parks and recreation or other community facility.

Objective 6.3: Create a system of pedestrian, equestrian, and bicycle linkages (connections) between residential neighborhoods, linear greenbelts, schools, public administrative facilities, and other activity centers, as an alternative to automobile transportation.

Action 6.3.1: Utilize trails, wherever possible, to connect residential areas with schools, parks and other public facilities.

Action 6.3.2: Require developers to provide walking, jogging, cycling and/or equestrian pathways within large private developments.

Action 6.3.3: Design an interconnected, multifunctional parks and open space system that protects important natural, cultural and visual resources while providing appropriate opportunities for recreation.

Action 6.3.4: Integrate planned trails with other public and private trail plans where possible.

Action 6.3.5: Coordinate planning efforts with those of adjacent cities.

Objective 6.4: Provide a network of trails and open space to serve as a greenbelt connecting residential neighborhoods. This system should help define community form and preserve the community's desired rural character.

Action 6.4.1: Ensure that the Parks and Trails Master Plan addresses needs for leisure and open space at both the neighborhood and community levels.

Action 6.4.2: Continue to require park dedication during the development review process.

Action 6.4.3: Explore new recreational and leisure programs for all age groups, especially for the community's youth and teens.

Objective 6.5: Oak Point's natural environment and native ecosystems contribute positively to the essential character of the community. These assets should be preserved and protected to the greatest extent possible.

Action 6.5.1: Encourage development approaches designed to minimize impact upon the community's natural resources and visual appeal.

Action 6.5.2: Conserve and protect ecologically sensitive and naturally beautiful areas, such as flood plains along creeks and high points with scenic views toward Lake Lewisville, etc.

Action 6.5.3: Establish and/or enhance green space and natural areas along floodplains and promote public access to greenbelt areas with a multifunctional trail system (e.g., equestrian, cycling, and hiking trails).

Action 6.5.4: Preserve and respect areas with natural features such as steep slopes, native grasses/wildflowers, and/or scenic views.

Action 6.5.5: Encourage and promote water conservation through the use of native plant materials, xeriscape plantings and other methods.

Action 6.5.6: Maintain high standards for groundwater quality due to the proximity of Lake Lewisville.

Action 6.5.7: Maintain high air quality standards.

Objective 6.6: Design a park system that will satisfy the varied recreational needs of a growing population and protect and enhance the quality of life in Oak Point.

Action 6.6.1: Revise plans on a regular basis, with citizen preferences serving as a major input to this process.

Action 6.6.2: Ensure that all relevant demographic groups are represented in parks planning.

Objective 6.7: use county, state and national resources as well as city resources to develop a park system.

Action 6.7.1: Leverage City and private funding against County, State and Federal funding to obtain the most cost effective use of funds.

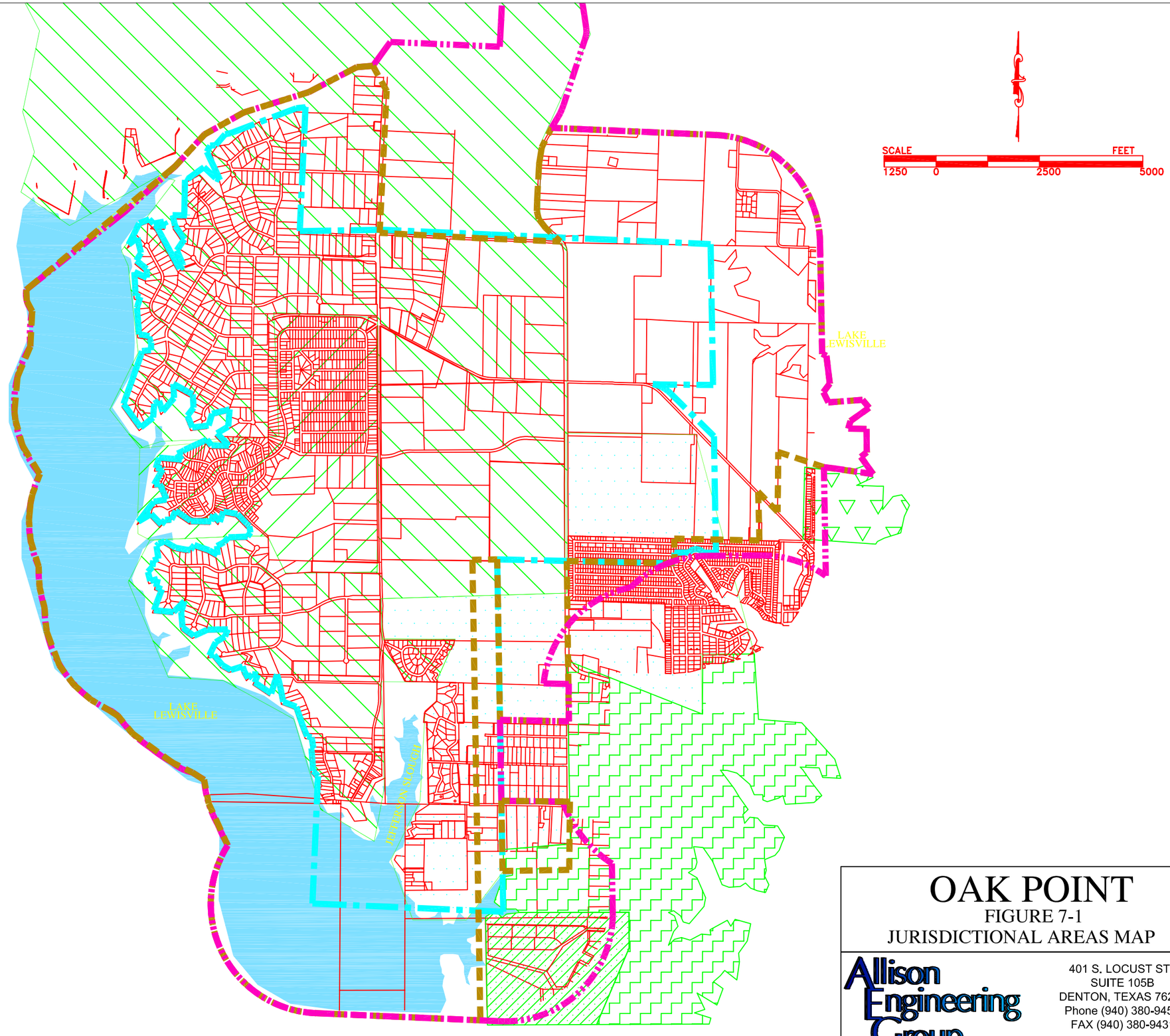
Action 6.7.2: Use training provided by other agencies to build the City's expertise.

Objective 6.8: Establish a City Library.

Action 6.8.1: Construct a community library that would serve the Oak Point area.

LEGEND

- CITY LIMITS
- ETJ LIMITS
- OAK POINT WWCCN BOUNDARY
- MUSTANG SUD
- MONARCH UTILITIES
- TERRA SW WSC
- LITTLE ELM WATER SYSTEM
- KNOB HILL WATER SYSTEM
- AQUASOURCE UTLITY INC.



OAK POINT

FIGURE 7-1

JURISDICTIONAL AREAS MAP

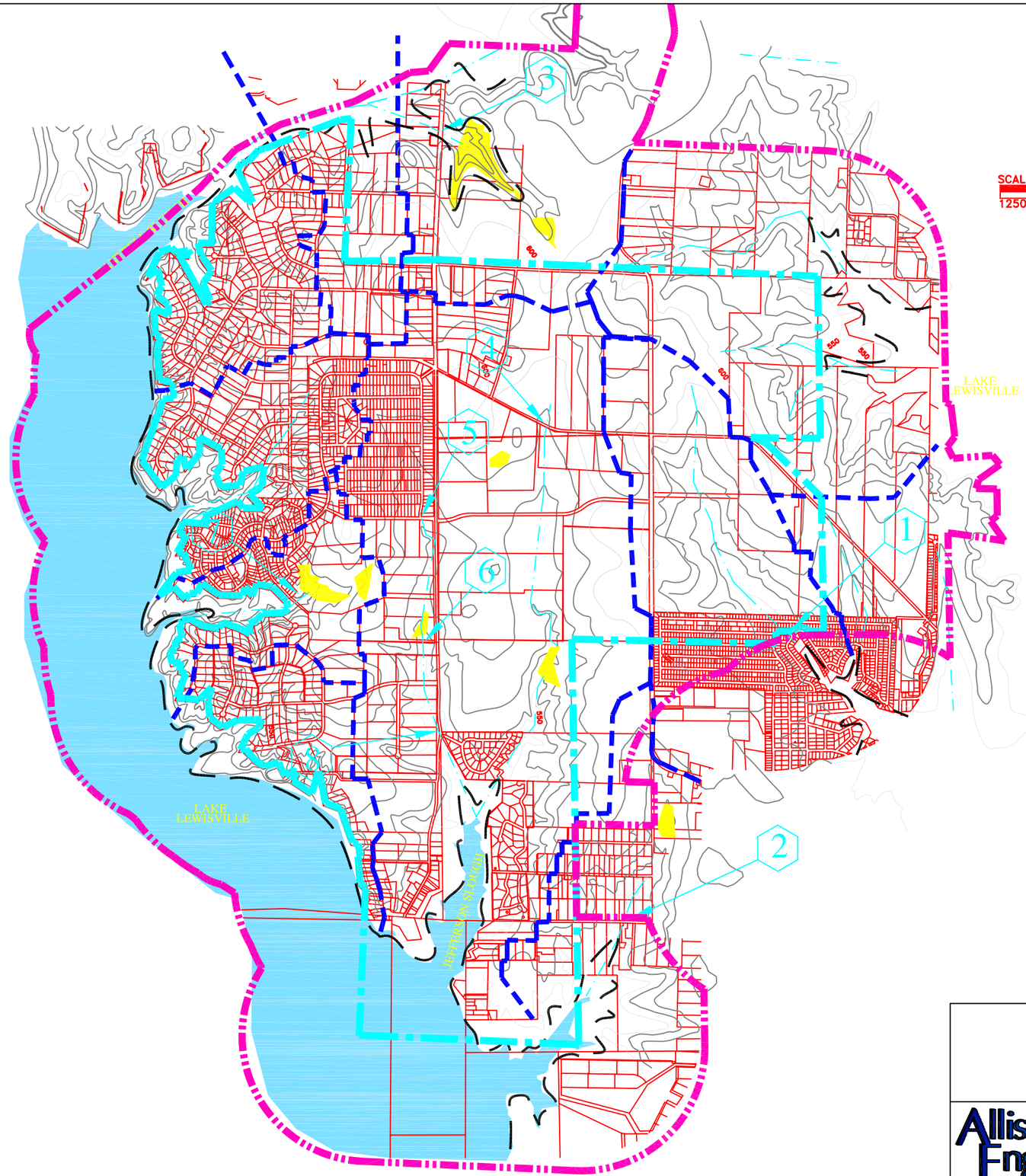
Allison Engineering Group

401 S. LOCUST ST.,
SUITE 105B
DENTON, TEXAS 76201
Phone (940) 380-9453
FAX (940) 380-9431

01-12-2007

LEGEND

- CITY LIMITS
- ETJ LIMITS
- DRAINAGE DIVIDES
- APPROX. 100-YR FLOOD HAZARD AREA
- 3 DRAINAGE FEATURE



OAK POINT

FIGURE 7-2

DRAINAGE BASIN MAP

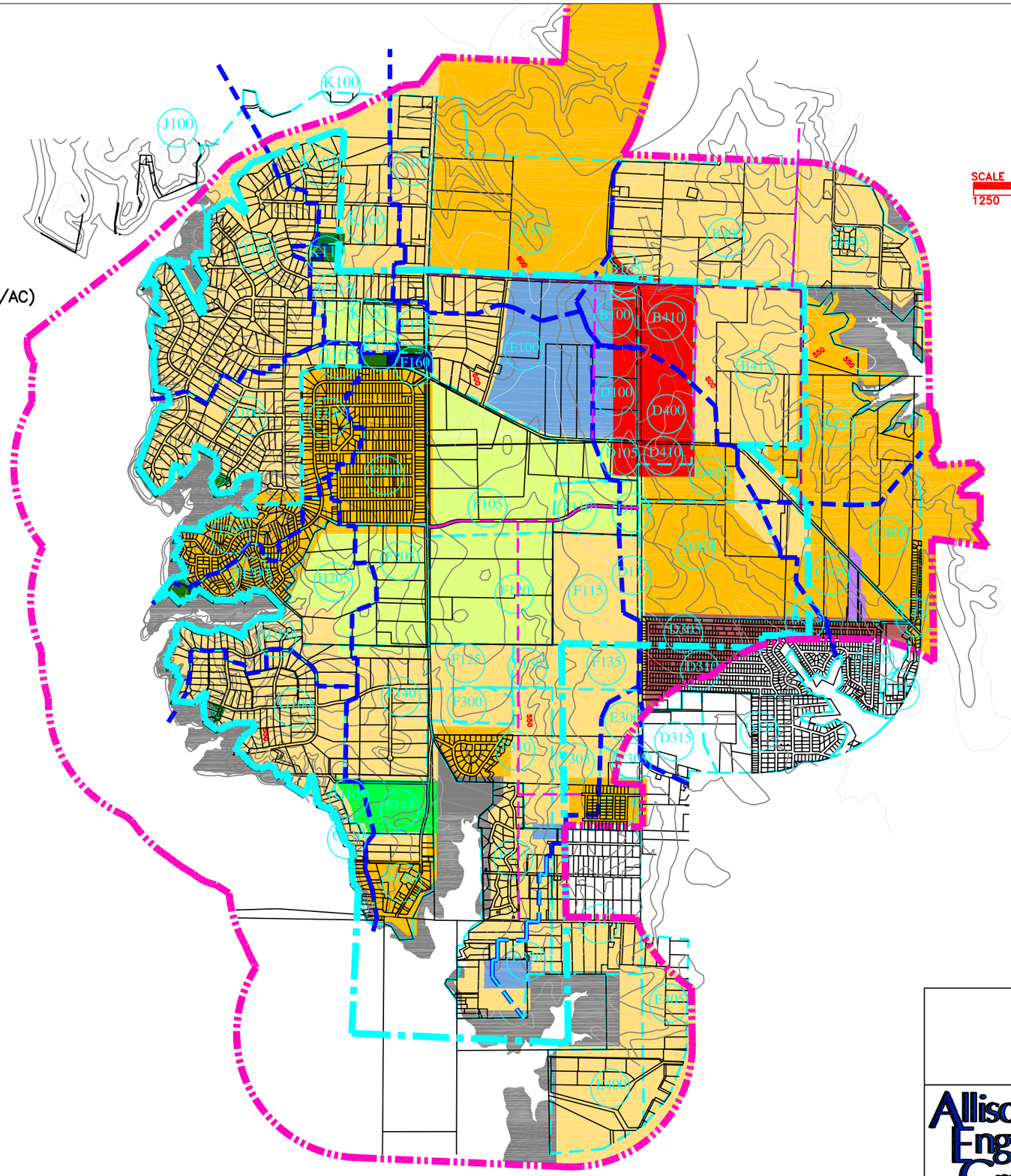
Allison Engineering Group

401 S. LOCUST ST.,
SUITE 105B
DENTON, TEXAS 76201
Phone (940) 380-9453
FAX (940) 380-9431

01-12-2007

LEGEND

- RANCH RESIDENTIAL (Max. 0.3 Units/AC)
- ESTATE RESIDENTIAL (Max. 1.0 Units/AC)
- COUNTRY RESIDENTIAL (Lot Size > 1 AC)
- RURAL RESIDENTIAL (Max. 2.0 Units /AC)
- HIGH DENSITY RESIDENTIAL (Max. 3.8 Units/AC)
- MANUFACTURED HOME (Max. 2.0 Units/AC)
- COMMERCIAL
- PUBLIC
- AGRICULTURAL/PRIVATE OPEN SPACE
- PARK AND OPEN SPACE
- LIGHT INDUSTRIAL
- CORPS OF ENGINEERS
- CITY LIMITS
- ETJ LIMITS
- PROPOSED ARTERIAL
- PROPOSED COLLECTOR
- DRAINAGE DIVIDES
- K100 PLANNING AREA I.D.



OAK POINT

FIGURE 7-3

PLANNING AREA MAP

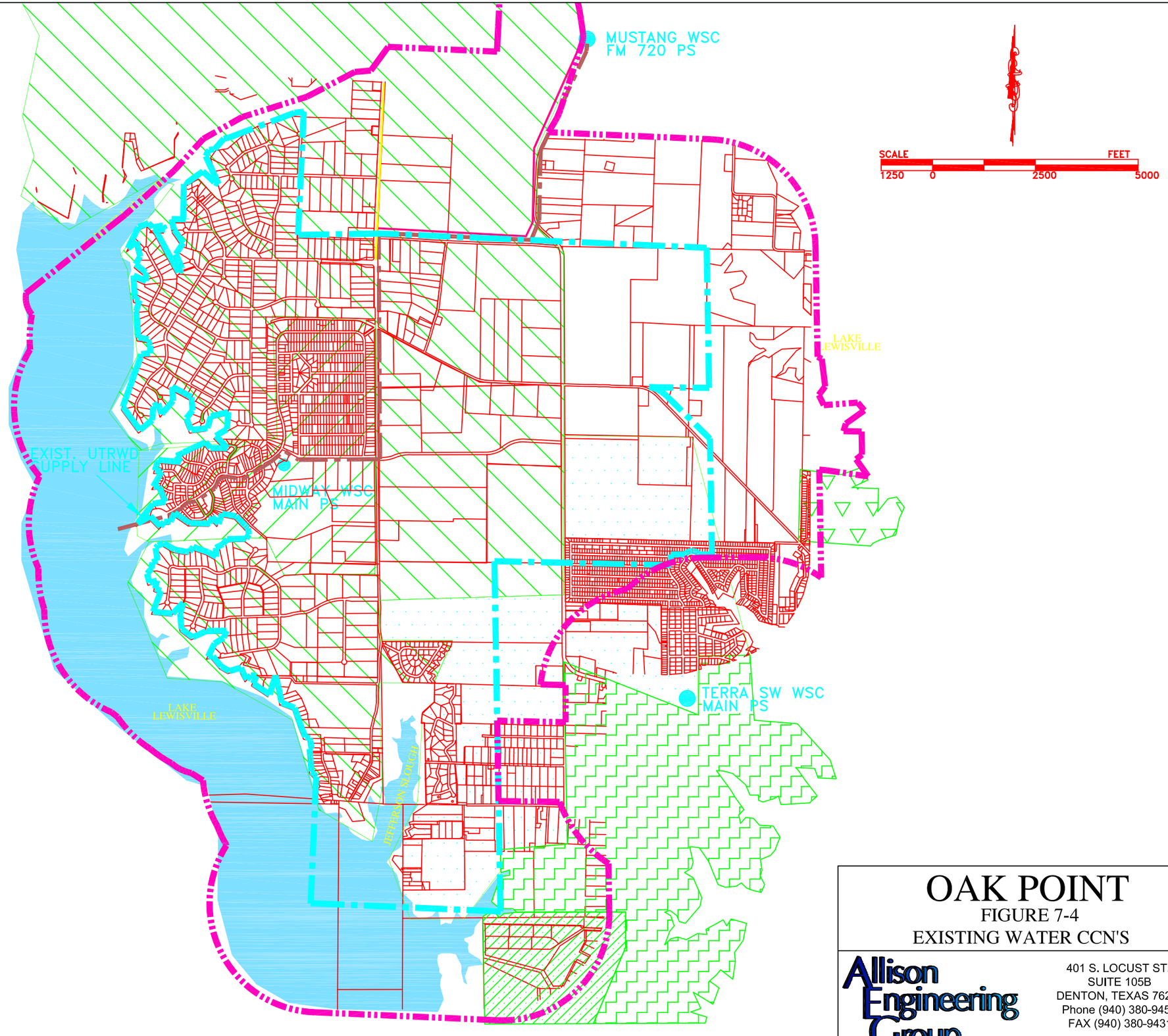
Allison Engineering Group

401 S. LOCUST ST.,
SUITE 105B
DENTON, TEXAS 76201
Phone (940) 380-9453
FAX (940) 380-9431

01-12-2007

LEGEND

- CITY LIMITS
- ETJ LIMITS
- EXISTING UTRWD SUPPLY LINE
- MUSTANG SUD
- MONARCH UTILITIES
- TERRA SW WSC
- LITTLE ELM WATER SYSTEM
- KNOB HILL WATER SYSTEM
- AQUASOURCE UTLITY INC.



OAK POINT

FIGURE 7-4

EXISTING WATER CCN'S

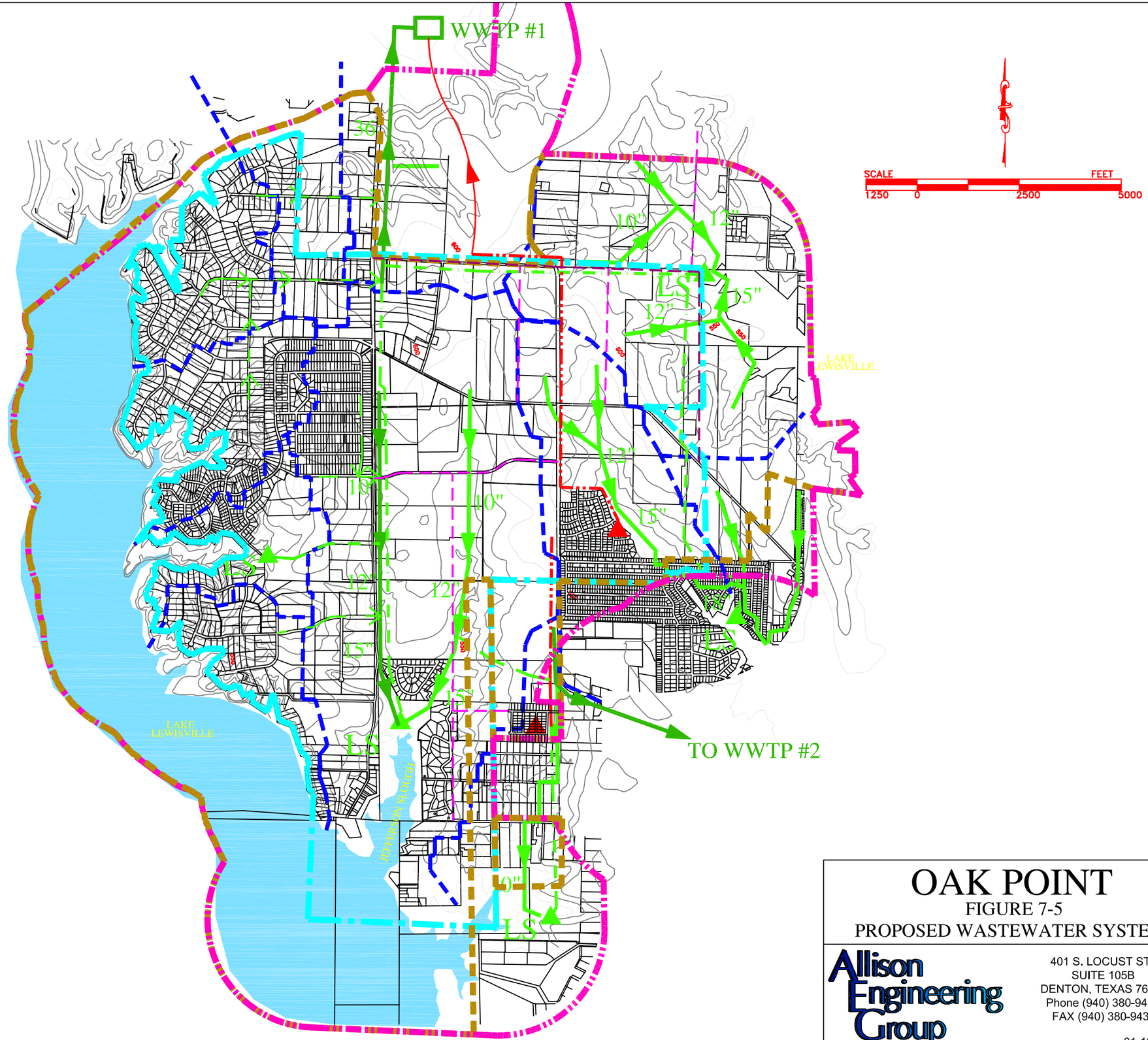
Allison Engineering Group

401 S. LOCUST ST.,
SUITE 105B
DENTON, TEXAS 76201
Phone (940) 380-9453
FAX (940) 380-9431

01-12-2007

LEGEND

- CITY LIMITS
- ETJ LIMITS
- PROPOSED ARTERIAL
- PROPOSED COLLECTOR
- DRAINAGE DIVIDES
- OAK POINT WWCCN BOUNDARY
- PROPOSED LIFT STATION
- PROPOSED SEWER LINES
- PROPOSED UTRWD SEWER
- PROPOSED FORCE MAINS
- EXISTING LIFT STATION
- EXISTING FORCE MAINS
- EXISTING SEWER LINE



NOTE:
SEWER LINES CONSIDERED TO BE 8" MINIMUM, OR SIZE INDICATED.

OAK POINT

FIGURE 7-5
PROPOSED WASTEWATER SYSTEM

Allison Engineering Group
401 S. LOCUST ST.,
SUITE 105B
DENTON, TEXAS 76201
Phone (940) 380-9453
FAX (940) 380-9431

01-12-2007

Table 7-1
Development Projections

		Land Use, acres *(units per acre)*												
		Residential					Commercial		Other					
Drn	Planning	Ranch	Estate	Rural	High Dens.	Mfr. Hm.	N'hood	Mixed	Public	Park/Open	Corps	Ag/Pvt	Other	Total
Bsn	Area	*0.33*	*0.5*	*2*	*3.8*	*2.00*	*4.00*	*8.00*	*4*	*0.25*	*0*	*0*	*0*	Acreage
A	100		73.1											73.1
A	105			249.5										249.5
A	110			58.0										58.0
A	115		9.1											9.1
B	100			33.6										33.6
B	105													0.0
B	400				237.0									237.0
B	405		142.5											142.5
B	410							49.1						49.1
B	415				201.0									201.0
B	420		168.5											168.5
C	400		97.2											97.2
C	405				63.1									63.1
C	410					53.2								53.2
C	415													0.0
C	420													0.0
D	100			30.9										30.9
D	105	15.3												15.3
D	110													0.0
D	115		18.8											18.8
D	300				171.1									171.1
D	305					41.5								41.5
D	310					109.6								109.6
D	315				44.9									44.9
D	320				98.5									98.5
D	325													0.0
D	400							56.5						56.5
D	405				67.5									67.5
E	300				18.5									18.5
E	305						6.7							6.7
E	310				33.1									33.1
E	315		133.5											133.5
E	320		42.0											42.0
E	400		124.0											124.0
E	405		76.8											76.8
F	100			191.9										191.9

Table 7-1
Development Projections

		Land Use, acres *(units per acre)*												
		Residential					Commercial		Other					
Drn	Planning	Ranch	Estate	Rural	High Dens.	Mfr. Hm.	N'hood	Mixed	Public	Park/Open	Corps	Ag/Pvt	Other	Total
Bsn	Area	***0.33***	***0.5***	***2***	***3.8***	***2.00***	***4.00***	***8.00***	***4***	***0.25***	***0***	***0***	***0***	Acreage
F	105	206.0												206.0
F	110			37.1										37.1
F	115		95.3											95.3
F	120	142.1												142.1
F	125			29.7										29.7
F	130				18.6									18.6
F	135				41.0									41.0
F	140		117.2											117.2
F	145									31.1				31.1
F	150				58.2									58.2
F	200				132.8									132.8
f	205	86.8												86.8
F	300			29.7										29.7
F	305				70.8									70.8
F	310				97.9									97.9
F	315		132.5											132.5
G	100		159.4											159.4
G	105									11.8				11.8
G	110				24.0									24.0
H	100		68.6											68.6
H	200				60.2									60.2
H	205	77.5												77.5
I	100		178.6											178.6
I	105	8.1												8.1
I	200				61.7									61.7
I	205				59.0									59.0
J	100		174.1											174.1
J	105		284.4											284.4
K	100		239.1											239.1
K	105		49.1											49.1
K	110									4.1				4.1
K	115		26.7											26.7
K	120	31.3												31.3
K	125		4.0											4.0
z														0.0
Z	**Totals**	**567**	**2,414**	**660**	**1,559**	**204**	**7**	**106**	**-**	**47**	**-**	**-**	**-**	**5,564**

Table 7-2
Population and Connection Projections

			Residential		Non-Residential			
			Net yield:	***87.98%***	***87.98%***	***87.98%***	**TOTALS**	
Drn	Planning	Developed	Units	Pop	Commercial	Other	Equiv	Pop
Bsn	Area	%		***2.91***	Conn's	Conn's	Conn's	***2.91***
A	100	100%	32	94	-	-	32	94
A	105	100%	439	1,278	-	-	439	1,278
A	110	100%	102	297	-	-	102	297
A	115	100%	4	12	-	-	4	12
B	100	100%	59	172	-	-	59	172
B	105	100%	-	-	-	-	-	-
B	400	100%	792	2,306	-	-	792	2,306
B	405	100%	63	182	-	-	63	182
B	410	100%	-	-	346	-	346	1,006
B	415	100%	672	1,955	-	-	672	1,955
B	420	100%	74	216	-	-	74	216
C	400	100%	43	124	-	-	43	124
C	405	100%	211	614	-	-	211	614
C	410	100%	94	272	-	-	94	272
C	415	100%	-	-	-	-	-	-
C	420	100%	-	-	-	-	-	-
D	100	100%	54	158	-	-	54	158
D	105	100%	4	13	-	-	4	13
D	110	100%	-	-	-	-	-	-
D	115	100%	8	24	-	-	8	24
D	300	100%	572	1,665	-	-	572	1,665
D	305	100%	73	212	-	-	73	212
D	310	100%	193	561	-	-	193	561
D	315	100%	150	437	-	-	150	437
D	320	100%	329	958	-	-	329	958
D	325	100%	-	-	-	-	-	-
D	400	100%	-	-	398	-	398	1,157
D	405	100%	226	657	-	-	226	657
E	300	100%	62	180	-	-	62	180
E	305	100%	-	-	24	-	24	69
E	310	100%	111	322	-	-	111	322
E	315	100%	59	171	-	-	59	171
E	320	100%	18	54	-	-	18	54
E	400	100%	55	159	-	-	55	159
E	405	100%	34	98	-	-	34	98
F	100	100%	338	983	-	-	338	983
F	105	100%	60	176	-	-	60	176
F	110	100%	65	190	-	-	65	190
F	115	100%	42	122	-	-	42	122
F	120	100%	42	121	-	-	42	121
F	125	100%	52	152	-	-	52	152
F	130	100%	62	181	-	-	62	181
F	135	100%	137	399	-	-	137	399
F	140	100%	52	150	-	-	52	150
F	145	100%	-	-	-	7	7	20
F	150	100%	195	566	-	-	195	566
F	200	100%	444	1,292	-	-	444	1,292
f	205	100%	25	74	-	-	25	74
F	300	100%	52	152	-	-	52	152

Table 7-2
Population and Connection Projections

			Residential		Non-Residential			
			Net yield:	***87.98%***	***87.98%***	***87.98%***	**TOTALS**	
Drn	Planning	Developed	Units	Pop	Commercial	Other	Equiv	Pop
Bsn	Area	%		***2.91***	Conn's	Conn's	Conn's	***2.91***
F	305	100%	237	689	-	-	237	689
F	310	100%	327	952	-	-	327	952
F	315	100%	58	170	-	-	58	170
G	100	100%	70	204	-	-	70	204
G	105	100%	-	-	-	3	3	8
G	110	100%	80	233	-	-	80	233
H	100	100%	30	88	-	-	30	88
H	200	100%	201	586	-	-	201	586
H	205	100%	23	66	-	-	23	66
I	100	100%	79	229	-	-	79	229
I	105	100%	2	7	-	-	2	7
I	200	100%	206	600	-	-	206	600
I	205	100%	197	574	-	-	197	574
J	100	100%	77	223	-	-	77	223
J	105	100%	125	364	-	-	125	364
K	100	100%	105	306	-	-	105	306
K	105	100%	22	63	-	-	22	63
K	110	100%	-	-	-	1	1	3
K	115	100%	12	34	-	-	12	34
K	120	100%	9	27	-	-	9	27
K	125	100%	2	5	-	-	2	5
z		100%	-	-	-	-	-	-
Z	**Totals**		**7,962**	**23,169**	**767**	**10**	**8,739**	**25,430**

Table 7-3
Water and Sewer Flow Projections
Grouped by Basin

		Projected Occupancy		Water Demands			Wastewater Flows		
		TOTALS		Avg. Day	Max Day	Peak Hour	Avg. Day	PF	Peak
Drn	Planning	Equiv	Pop	***150***	***2.3***	***4***	***120***		
Bsn	Area	Conn's	***2.91***	(gpd)	(gpd)	(gpm)	(gpd)		(mgd)
A	100	32	94	14,036	32,284	39	11,229		
A	105	439	1,278	191,632	440,754	532	153,306		
A	110	102	297	44,548	102,460	124	35,638		
A	115	4	12	1,747	4,019	5	1,398		
A	**Subtotal**	**577**	**1,680**	**251,964**	**579,517**	**700**	**201,571**	**4.59**	**0.924**
A									
B	100	59	172	25,807	59,356	72	20,646		
B	105	-	-	-	-	-	-		
B	400	792	2,306	345,901	795,572	961	276,721		
B	405	63	182	27,362	62,933	76	21,890		
B	410	346	1,006	150,848	346,951	419	120,678		
B	415	672	1,955	293,280	674,545	815	234,624		
B	420	74	216	32,355	74,416	90	25,884		
B	**Subtotal**	**2,006**	**5,837**	**875,553**	**2,013,772**	**2,432**	**700,443**	**3.72**	**2.608**
B									
C	400	43	124	18,664	42,927	52	14,931		
C	405	211	614	92,083	211,792	256	73,667		
C	410	94	272	40,861	93,980	114	32,689		
C	415	-	-	-	-	-	-		
C	420	-	-	-	-	-	-		
C	**Subtotal**	**347**	**1,011**	**151,608**	**348,699**	**421**	**121,287**	**4.99**	**0.605**
C									
D	100	54	158	23,733	54,586	66	18,987		
D	105	4	13	1,959	4,505	5	1,567		
D	110	-	-	-	-	-	-		
D	115	8	24	3,610	8,303	10	2,888		
D	300	572	1,665	249,690	574,288	694	199,752		
D	305	73	212	31,875	73,312	89	25,500		
D	310	193	561	84,180	193,614	234	67,344		
D	315	150	437	65,524	150,704	182	52,419		
D	320	329	958	143,743	330,610	399	114,995		
D	325	-	-	-	-	-	-		
D	400	398	1,157	173,583	399,240	482	138,866		
D	405	226	657	98,504	226,560	274	78,804		
D	**Subtotal**	**2,008**	**5,843**	**876,401**	**2,015,722**	**2,434**	**701,121**	**3.72**	**2.611**
D									
E	300	62	180	26,997	62,094	75	21,598		
E	305	24	69	10,292	23,672	29	8,234		
E	310	111	322	48,304	111,098	134	38,643		
E	315	59	171	25,634	58,959	71	20,507		
E	320	18	54	8,065	18,549	22	6,452		
E	400	55	159	23,810	54,763	66	19,048		
E	405	34	98	14,747	33,918	41	11,797		
E	**Subtotal**	**362**	**1,052**	**157,849**	**363,053**	**438**	**126,279**	**4.96**	**0.626**
E									
F	100	338	983	147,376	338,966	409	117,901		
F	105	60	176	26,368	60,646	73	21,094		
F	110	65	190	28,495	65,539	79	22,796		
F	115	42	122	18,299	42,088	51	14,639		
F	120	42	121	18,190	41,838	51	14,552		
F	125	52	152	22,812	52,467	63	18,249		

Table 7-3
Water and Sewer Flow Projections
Grouped by Basin

		Projected Occupancy		Water Demands			Wastewater Flows		
		TOTALS		Avg. Day	Max Day	Peak Hour	Avg. Day	PF	Peak
Drn	Planning	Equiv	Pop	***150***	***2.3***	***4***	***120***		
Bsn	Area	Conn's	***2.91***	(gpd)	(gpd)	(gpm)	(gpd)		(mgd)
F	130	62	181	27,143	62,430	75	21,715		
F	135	137	399	59,832	137,614	166	47,866		
F	140	52	150	22,504	51,760	63	18,003		
F	145	7	20	2,986	6,867	8	2,389		
F	150	195	566	84,933	195,345	236	67,946		
F	200	444	1,292	193,798	445,736	538	155,039		
f	205	25	74	11,108	25,547	31	8,886		
F	300	52	152	22,812	52,467	63	18,249		
F	305	237	689	103,320	237,636	287	82,656		
F	310	327	952	142,868	328,596	397	114,294		
F	315	58	170	25,442	58,517	71	20,354		
F	**Subtotal**	**2,195**	**6,389**	**958,286**	**2,204,059**	**2,662**	**766,629**	**3.67**	**2.812**
F									
G	105	3	8	1,133	2,606	3	906		
G	110	80	233	34,980	80,454	97	27,984		
G	**Subtotal**	**83**	**241**	**36,113**	**83,060**	**100**	**28,890**	**5.00**	**0.144**
G									
G	100	70	204	30,607	70,397	85	24,486		
H	100	30	88	13,163	30,274	37	10,530		
H	200	201	586	87,851	202,058	244	70,281		
H	205	23	66	9,920	22,817	28	7,936		
H	**Subtotal**	**324**	**944**	**141,542**	**325,546**	**393**	**113,233**	**5.00**	**0.566**
H									
I	100	79	229	34,294	78,876	95	27,435		
I	105	2	7	1,037	2,385	3	830		
I	200	206	600	90,040	207,093	250	72,032		
I	205	197	574	86,100	198,030	239	68,880		
I	**Subtotal**	**484**	**1,410**	**211,471**	**486,384**	**587**	**169,177**	**4.72**	**0.799**
I									
J	100	77	223	33,430	76,889	93	26,744		
J	105	125	364	54,609	125,602	152	43,688		
J	**Subtotal**	**202**	**587**	**88,039**	**202,491**	**245**	**70,432**	**5.00**	**0.352**
J									
K	100	105	306	45,911	105,596	128	36,729		
K	105	22	63	9,428	21,684	26	7,542		
K	110	1	3	394	905	1	315		
K	115	12	34	5,127	11,792	14	4,101		
K	120	9	27	4,007	9,216	11	3,205		
K	125	2	5	768	1,767	2	614		
K	**Subtotal**	**150**	**438**	**65,634**	**150,959**	**182**	**52,508**	**5.00**	**0.263**
K									
z	**TOTALS**	**8,739**	**25,430**	**3,814,462**	**8,773,262**	**10,596**	**3,051,570**	**2.91**	**8.888**

Table 7-4
Culvert Analysis

Analysis Point	Drainage Basin Area (sq. mi.)	Drainageway Slope (ft./mi.)	Projected Urban 100-yr flow (cfs)	Existing Culvert Size	Existing Culvert Description	Existing Culvert Capacity (cfs)	Adequate for Projected Urban Flow?	Proposed Culvert Size	Proposed Culvert Description
1	0.65	62	1184	7' deep x 10' wide	concrete box	1033	NO	7' deep x 12' wide	concrete box
2	0.31	63	698	60"	CGMP	178	NO	3- 54"	RCP's
3	0.39	81	868	3- 72"	CGMP's	723	NO	2- 72"	RCP's
4	0.3	28	573	3' deep x 8' wide	concrete box	351	NO	2- 3' deep x 7' wide	concrete boxes
5	0.43	38	792	3- 36" CGMP's, 1-36" RCP		136	NO	3- 3' deep x 8' wide	concrete boxes
6	0.68	37	1095	4- 60"	CGMP's	644	NO	4- 60"	RCP's
7*	0.12	(not applicable)	225	18"	RCP	17	NO	4- 30"	RCP's
8	0.84	42	1310	2- 48"	CGMP's	98	NO	4- 4' deep x 8' wide	concrete boxes

*Drainage basin runoff calculation performed using Rational Method
CGMP: Corrugated Metal Pipe
RCP: Reinforced Concrete Pipe

Chapter 7- Water, Wastewater, and Drainage

This chapter provides a general review of water supply, wastewater collection and treatment, and storm drainage facilities required to serve the City of Oak Point. The utilities planning process includes an inventory and assessment of existing facilities and systems, a projection of future utility demands based on projected land use and associated development, consideration of regulatory requirements for these facilities, and development of master plan layouts for the utility systems with recommendations for implementation.

Planning Area Configuration

To establish the proper background and framework for utility planning, the limits of the area of interest should be defined, mapped, and organized into logical planning areas. These areas are generally comprised of all or part of three governmental boundaries including:

- City Limits
- Extraterritorial Jurisdiction (ETJ)
- Certificate of Convenience and Necessity (CCN)

The Oak Point utility planning area is generally considered to be all land area within the City limits and ETJ ("Planning Area"). These areas are used for planning for drainage needs. The City does not have a CCN for water so the City limits and ETJ are also used for planning the water system as well. The primary distinction between the City limits and the ETJ is that the City does not have any control of the land use within the ETJ. Therefore the City should plan for higher densities within the ETJ than within the City limits.

The City of Oak Point holds a wastewater CCN that was originally granted by the Texas Commission on Environmental Quality (TCEQ) in August of 2002. The City has amended its wastewater CCN on two separate occasions.. The boundary of the service area is also shown in **Figure 7-1 – Jurisdictional AreasWastewater CCN Boundary Map**. The CCN boundary is typically independent of the City limits and the ETJ. However, the City has purposely tried to establish its CCN boundary in alignment with its ETJ boundary.

Natural and topographical features must also be considered in the utility planning process. The area's topography obviously controls storm drainage routing, and also dictates the configuration of gravity sanitary sewer systems. The Planning Area generally encompasses a broad peninsula surrounded by Lewisville Lake. A review of USGS topographic maps indicate natural ground elevations within the Planning Area ranging from a high of around 620' (feet above MSL) in the central portion of the peninsula, down to the Lake, which varies from a normal pool level of 515', to the 100-year flood plain elevation of 537'. Approximately eleven natural drainage basins were identified in the Planning Area, as shown in **Figure 7-2 – Drainage Basin Map**.

To facilitate projection of future utility demands, the overall Planning Area was broken down into smaller planning areas, defined by jurisdictional boundaries, natural features (i.e., drainage divides), existing and future thoroughfares, and other logical divisors, as presented in **Figure 7-3 – Planning Area Map**. The Land Use Map has been superimposed so that future land use types within each planning area are readily identified. Approximately 70 planning areas have been delineated, then listed in a spreadsheet database along with the associated acreage of each future land use type, as shown in **Table 7-1 – Development Projections**. Planning area identifying numbers are keyed to drainage basins as well as the

predominant existing water utility jurisdictional areas, so that the database can be sorted and grouped in those categories.

Future population and utility connection projections were generated for each planning area by applying factors established in the Land Use section of the Plan. Overall net developable property was determined to be approximately 88% of the gross acreage. Future residential dwellings or commercial units (equivalent single-family utility connections) for each planning area are calculated by applying density factors for each land use type against the corresponding acreage, as presented in **Table 7-2 – Population and Connection Projections**. The future residential population for each planning area is derived by multiplying the average occupancy factor (3.2 persons per dwelling) by the number of dwelling units. As indicated at the end of Table 7-2, this projection indicates a total of approximately 8,700 equivalent utility connections upon buildout of the Planning Area.

It should be noted that the land use plan within the ETJ was based upon the density desired by the constituency. That density is still desired. However, it is now better understood that the City has no control and limited influence regarding the density of developments outside of the City Limits. Therefore, it is recommended that the land use, population, number of connections and sewer flows be updated in the next two to three years to reflect the higher densities expected in the ETJ.

Water System

Duty to Serve

Every municipality has a duty to assure that its constituents receive adequate utility services including water, wastewater, and drainage. It is not required that the City be the direct service provider. These services may be provided by other regulated entities such as water supply companies, special utility districts, municipal utility districts, and water control and improvement districts. Oak Point has chosen not provide direct service for water supply. Instead, Oak Point has chosen to allow the existing service providers to continue providing water supply service within the Planning Area.

To be the single service provider, Oak Point would, at a minimum, have to:

- Apply for a CCN within the uncertified portion of the area.
- Apply for a CCN within the City Limits.
- Take over the Certificates within the City Limits via a force buy out.
- Negotiate the acquisition of the Certificates within the remaining area.

This would require an extraordinary effort. Many of these systems need improvements and essentially all of them would require upgrading in order to provide fire protection.

In summary the cost and effort of trying to become the direct service provider for the water utility is not fiscally reasonable.

Existing Facilities

Several water utilities currently have jurisdiction within the Planning Area, as shown in **Figure 7-2 – Jurisdictional Areas Map**. Based upon a review of the TCEQ Utilities Database, there are currently six

entities that hold Certificates of Convenience and Necessity (CCN) to provide water service within the Planning Area as listed below:

- Mustang Special Utility District (CCN# 11856)
- Monarch Utilities, Inc. (CCN# 11571)
- Terra Southwest Water Supply Corporation (CCN# 11608)
- Little Elm Water System (CCN# 11202)
- Knob Hill Water System (CCN# 11414)
- Aquasource Utility Inc. (CCN# 11157)

Existing water facilities in the Planning Area predominantly consist of three separate water systems owned and operated by the Mustang Special Utility District, Monarch Utilities, Inc., and Terra Southwest Water Supply Corporation as reflected in **Figure 7-3 – Existing Water System CCN's**. The following is a brief summary of the scope and condition of each system, and is based on a review of available background data and discussions with representatives of the aforementioned utilities.

- Mustang currently serves approximately 619 connections within the City, but is apparently a significant regional utility provider, serving areas north of Oak Point. Mustang's CCN encompasses approximately 3,000 acres, or more than half of the Planning Area, and the existing system serves residential subdivisions in the northwestern and southwestern portions of the City. Service to the Oak Point area emanates from Mustang's FM 720 pump station, a relatively new facility located just northeast of the Planning Area. Water supply to the FM 720 pump station is from an Upper Trinity Regional Water District (UTRWD) pipeline that crosses the Lake from the west and traverses the western and northern parts of the City., as shown in **Figure 7-3**.

- The Monarch system serves approximately 391 meters in the west-central area of the City, and its CCN contains about 480 acres. Monarch Utilities purchased Midway Water Supply Company in 2004. After the purchase, Monarch invested approximately $250,000 in new capital facilities for the system. The Monarch facilities now consist of a single well plant/pump station site, feeding into the adjacent distribution system, a new pump building, pressure tank, and booster pumps. Monarch plans on constructing a new ground storage tank in 2007 and is in the process of changing out several old meters to improve accuracy. Monarch is also renegotiating additional capacity from Mustang SUD. Based upon information received from Monarch, the existing water plant and distribution system facilities vary in age and condition, with the oldest facilities installed in 1976.

- Terra Southwest serves about 75 connections within the easterly portion of the City limits, but apparently has an additional 461 customers in the adjoining areas within and outside of the ETJ. The Terra CCN, like the Mustang CCN, encompasses large areas of undeveloped land, and includes a total area of 1,030 acres. The facilities serving the area consist of a well plant located southeast of the Planning Area, with distribution lines extending through the adjacent subdivisions. Little information on the existing facilities was available, but site observations indicate the plant facilities to be in relatively poor condition. In 2005, the Wellington Trace Subdivision was completed within the Terra SW CCN. This development contributed two more wells to the system in order to provide the required level of service.

Level of Service

It is the individual responsibility of each of the service providers to supply an adequate level of service. The minimum level of service is specified by the TCEQ. The customer's demand for any higher level of service is reflected in the rates that they are willing to pay for the additional service.

Unfortunately, the water supply corporations were established for the purpose of providing water service to a rural area that would otherwise be left to a large number of private wells and other inefficient systems. The Planning Area is developing in an urbanized manner and requires an urban service; most notably fire protection.

The vision of Oak Point is to:

- Require developers to install water systems capable of conveying fire flows once they are available from the service providers.
- Work with the water suppliers to encourage and facilitate the development of systems capable of providing fire protection in an urban environment.
- Work with the TCEQ to encourage rules that require water service providers to supply fire flows in urbanized areas.
- Work with the Texas Municipal League and the Legislature to adopt legislation that requires fire protection in urbanized areas.

Wastewater Systems

The wastewater system provides service to residential and commercial development, which typically produces normal-strength, "domestic" wastewater flows. Little or no industrial development is expected to occur in the Planning Area. In the event that industrial development does occur, however, consideration should be given to requiring industries to pre-treat their wastes through the enforcement of an industrial waste ordinance. Of course, the location, type, and capacity of the required pre-treatment facilities will be according to the specific needs at each industrial site.

Extraneous wastewater, known as infiltration/inflow (I/I), is that part of the wastewater flow that comes from storm water run-off and groundwater. This water enters the sewage collection system by leakage through faulty pipe joints, manholes, cracked pipe, and any connections that may not be watertight. All wastewater collection systems have some infiltration/inflow because it has not been economically feasible to build and maintain a watertight sewerage system, except in areas where the sewer mains are constructed below the groundwater table.

In the design analysis of the system of wastewater mains, average flows do not represent the flows that the mains must be expected to handle. The wastewater mains should be designed to carry the projected peak flows that can range from 2.5 to 5.0 times the average flow, depending upon the drainage area and population served by the wastewater main. Wastewater flows are presented in **Table 7- 3 – Water and Sewer Flow Projections.**For purposes of this Comprehensive Plan, peak flows are based on the Babbitt Formula, $M=5/p^{0.2}$, where M is the ratio of maximum to average for sewage flows and p is the accumulated population in thousands.

Future Wastewater System

Most existing residential development relies on on-site sewage systems, presumably either septic tanks with field lines, or the "aerobic" type treatment systems. However, the City of Oak Point envisions a

future centralized wastewater system and has constructed a few centralized wastewater collection and treatment facilities in the Planning Area. One is located in the Woodridge Estates Subdivision and the other is in the Wellington Trace Subdivision. The lift stations in these two subdivisions deliver wastewater through a force main that runs from Wellington Trace to Woodridge Estates along FM 720 and then from Woodridge Estates to the Peninsula Wastewater Reclamation Plant located on Naylor Road and owned by the Upper Trinity Regional Water District.

The City continues to plan for a centralized system that serves the entire planning area. The initial elements of the system and those in the planning stages are predominately in the eastern portion of the system. These systems have not developed enough of the overall system to have a significant impact on the master plan for the system. Therefore, the City continues to rely heavily upon the master plan developed by the UTRWD.

Specifically, in 1999, UTRWD commissioned a study to review wastewater treatment options for the Lewisville Lake Peninsula area. The Study area included Cross Roads, Lincoln Park, Oak Point, Lakewood Village, and Little Elm. Several conveyance and treatment scenarios were analyzed. This process culminated in the City's adoption of Resolution 00-21, which states the City's support and acceptance of a regional wastewater system plan (taken from the study) as the guide for system planning in the area. The system plan generally depicts collection and treatment in two systems: one for the western portion of the peninsula, with a treatment plant on Cantrell Slough, and the second for the southeastern portion of the area, with a treatment plant near the Little Elm side of the peninsula. This regional system layout, along with supplemental future wastewater collection facilities required for the Planning Area, is presented in **Figure 7-4 – Proposed Wastewater System**.

Consideration should be given to retrofitting a centralized collection system in the existing developed areas at some point in the future. For most new development, conventional wastewater collection systems (i.e.: gravity mains, lift stations, force mains) are recommended. A conventional system is often not particularly well suited, however, where the topography is sloping in the "wrong" direction, especially in a retrofit installation. Such is the case in the western areas of the City of Oak Point. It is indeed possible to design a conventional system in those areas, albeit likely at greater cost, greater construction impact to trees and landscaping, and involving wider easements and deeper lines. It is recommended that the use of low-pressure wastewater collection facilities, involving grinder pump units and related low-pressure, small-diameter mains, be considered for these parts of the City.

The connection at each property served would consist of a grinder pump being installed in an underground vault near the building. As the name implies, the grinder pump would literally grind and cut solids in the wastewater, and pump effluent through a small-diameter plastic discharge pipe to the main at the street. The pressurized effluent would travel through the street main, to either gravity collection facilities or directly to the wastewater treatment plant site.

Drainage System

Drainage Criteria/Policies

A cursory review of the City's Drainage Criteria has been performed. Within the City's Code of Ordinances, Article 3.600 (Culverts and Drainage Ditches), Article 800 (Flood Damage Prevention Regulations), and Chapter 9, Exhibit "A" Subdivision Ordinances, Section 3.19 (Drainage requirements and design standards) discuss drainage-related issues. The latter section also states "the City of Denton Drainage Design Criteria is adopted by reference as a part of the regulations and standards of this

Ordinance". These sections cover such topics as runoff and facility design calculations, culverts, storm sewers, street drainage, channels, easements, detention basins, flood damage prevention, erosion control, and related issues. Basically, the documents appeared to adequately address the most important drainage issues. Proper enforcement of these ordinances is highly recommended so that their usefulness will be maximized.

Capacity Analysis

Existing drainage facilities (culverts) at road crossings were evaluated at eight different locations within the Planning Area. The objective was to determine whether or not each facility had sufficient capacity to accommodate the projected ultimate runoff resulting from the design frequency rainfall event. In cases where existing facilities were found to be insufficient, proposed replacement facilities were sized. The locations of the eight facilities evaluated are shown in **Figure 7-2**, which also shows the general topography of the Planning Area, including the delineation between drainage basins. The results of the analysis are summarized in **Table 7-4**.

In most cases, ultimate urban runoff was determined using regression equations developed by United States Geological Survey (USGS) and adopted by Texas Department of Transportation (TxDOT). For one case (Analysis Point 7), the drainage basin area was too small to be analyzed with the aforementioned regression equations. Analysis for this facility was performed using the Rational Method. Per the requirements of the City Subdivision Regulations, calculations associated with a 100-year design frequency storm were performed. A 100-year design frequency storm is a storm so severe that its statistical probability of occurring in any one year in the region is only 1 in 100. (It should be noted that TxDOT's Bridge Division Hydraulic Manual lists a 50-year design frequency as being generally preferred for the design of culverts and small bridges. Thus, the City's requirement is more conservative than TxDOT's.)

It was determined from these calculations that all the drainage facilities that were analyzed do not have sufficient capacity to accommodate the projected ultimate urban runoff. Analysis Points 5, 6, and 8, which all serve the same drainage basin, were found to be especially deficient, as was Analysis Point 2.

At the far right of **Table 7-4**, proposed culverts are suggested. Reinforced concrete was selected as the material for all proposed facilities, for its advantages in hydraulic efficiency and structural strength. The proposed facilities were developed such that ground surface elevations would not have to be changed, with the exception of Analysis Point 7, where the existing culvert is only 18", and the drainage basin is still largely undeveloped.

It should be emphasized that the scope of this capacity analysis was simplistic and intended only for basic evaluation and planning purposes; future detailed survey and design may result in the selection of proposed facilities that are somewhat different in configuration and/or size.

Stormwater Permitting

The 1987 amendments to the Clean Water Act required the U.S. Environmental Protection Agency to develop regulations for storm water discharges as part of the National Pollutant Discharge Elimination System (NPDES) Program. The Texas Pollutant Discharge Elimination System (TPDES) implements the federal NPDES program in the state of Texas. The TPDES is made up of several different programs aimed at controlling the discharge of pollutants to surface waters. One of these programs is the TPDES Storm Water Program, which regulates storm water discharges from industrial activities, construction

activities, and municipal separate storm sewer systems (MS4s). These storm water discharges are regulated through TPDES storm water permits, administered by TCEQ.

TCEQ classifies each MS4 as either large, medium or small. The City of Oak Point is considered a small MS4. Large and medium MS4s are required to obtain a permit under Phase I of the NPDES Storm Water Program. Only a select subset of small MS4s, referred to as regulated small MS4s, will have to obtain a storm water discharge permit, per the requirements of Phase II of the NPDES Storm Water Program, published on December 8, 1999. A regulated small MS4 is any small MS4 that is either located in a Bureau of Census-defined "urbanized area" (UA), or determined by TCEQ to have discharges that cause, or have the potential to cause, an adverse effect on water quality. According to TCEQ, this latter, discretionary designation is only done in unusual cases. TCEQ must designate small MS4s and issue storm water discharge permits no later than December 9, 2002. Until TCEQ issues its permits, there are no permitting requirements for small MS4s in Texas.

As of the date of this writing, UA maps associated with the 2000 Census are not available, making it impossible to determine if the City of Oak Point will be required to obtain a TPDES storm water permit. It is understood that the new UA maps will be published imminently, so the City should be able to obtain a copy soon.

Denton County is in the process of preparing a storm water plan that they are required to complete by March 2003. This plan is necessary for the purpose of obtaining a TPDES storm water permit, required by Phase II of the NPDES Storm Water Program. This plan and permit will pertain to UAs within the County; they would not apply to the City of Oak Point until it becomes a UA and is required to obtain a permit. At that point, the City can use the plan that the County enacts and be covered under the County's permit.

For a regulated small MS4, a TPDES MS4 storm water permit would require at a minimum that a City develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. The storm water management program must include the following minimum control measures:

(1) Public education and outreach on storm water impacts. This would involve conducting outreach activities educating about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

(2) Public involvement/ participation. This would involve complying with State, Tribal, and local public notice requirements when implementing a public involvement/ participation program.

(3) Illicit discharge detection and elimination. This would involve developing, implementing, and enforcing a program to detect and eliminate illicit discharges into the MS4.

a. Developing a storm sewer system map.

b. Prohibiting non-storm water discharges into the system.

c. Developing a plan to detect and address such discharges.

d. Informing the public of hazards associated with illegal discharges.

(4) Construction site storm water runoff control. This would involve developing, implementing, and enforcing a program to reduce pollutants in any storm water runoff to the system from construction activities.

a. A regulatory mechanism requiring erosion and sediment controls, and sanctions to ensure compliance.

b. Requirements for construction site operators to implement appropriate erosion and sediment control best management practices.

c. Requirements for construction site operators to control waste at the construction site that may cause adverse impacts to water quality.

d. Procedures for site plan review which incorporate consideration of potential water quality impacts.

e. Procedures for receipt and consideration of information submitted by the public.

f. Procedures for site inspection and enforcement of control measures.

(5) Post-construction storm water management in new development and redevelopment. This would involve developing, implementing, and enforcing a program to address storm water runoff from new development and redevelopment projects.

a. Developing and implementing strategies that include best management practices for the community.

b. Use of a regulatory mechanism to address post-construction runoff from new development and redevelopment projects.

c. Ensure adequate long-term operation and maintenance of best management practices.

(6) Pollution control/good housekeeping for municipal operations. This would involve developing and implementing an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

Goals and Objectives

Water/Wastewater/Drainage Goal

Assure appropriate and adequate water, wastewater and drainage facilities are provided to all the residents of Oak Point in an efficient and cost effective manner.

Objectives and Actions

Objective 7.1: Create and maintain master plans for wastewater and drainage to establish the overall framework for the City's utility infrastructure.

Action 7.1.1: Finalize and adopt the utility component of this Comprehensive Plan.

Action 7.1.2: Direct City staff and consultants to refer to and apply the master plans in the review of all new development plans.

Action 7.1.3: Review and update the utility plans in 3-5 years.

Objective 7.2: Establish a strategy that will facilitate fire protection (urban level of service) within the Planning Area.

Action 7.2.1: Build solid relationships with the various water providers in order to facilitate the provision of quality water service to residents.

Action 7.2.2: Require developers to install water systems capable of conveying fire flows once they are available from the service providers.

Action 7.2.3: Work with the water suppliers to encourage and facilitate the development of systems capable of providing fire protection in an urban environment.

Action 7.2.4: Work with the TCEQ to encourage rules that require water service providers to supply fire flows in urbanized areas.

Action 7.2.5: Work with the Texas Municipal League and the Legislature to adopt legislation that requires fire protection in urbanized areas.

Action 7.2.6: Coordinate with the various water providers to include annual capital improvements to their systems in Oak Point.

Objective 7.3: Continue the implementation and configuration of the regional wastewater system.

Action 7.3.1: Require developers to construct new systems in collaboration with the ultimate development of the regional master plan.

Action 7.3.2: Encourage new developments to install wastewater collection systems in lieu of private treatment systems - allowing the use of low pressure systems to the greatest extent possible.

Action 7.3.3: Become informed of the advantages of using low pressure systems to extend services into the existing developed areas of the City.

Objective 7.4: Adopt ordinances, or modify the Subdivision Regulations to ensure new development complies with the new stormwater permitting/management practices and requirements.

Chapter 8 - Implementation

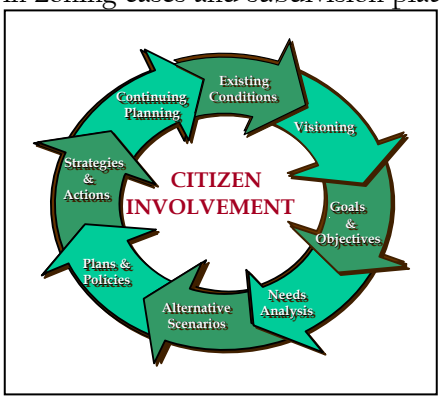
The purpose of the Implementation element is to provide direction and recommendations for implementation of the Comprehensive Plan and for continued planning. The report also identifies future capital improvements recommended in the Comprehensive Plan and addresses various funding sources and financing methods.

Planning is a continuous process. Completion of the Comprehensive Plan is by no means an end in itself. A comprehensive plan must be constantly scrutinized to ensure that its goals, objectives and recommended actions continue to reflect changing community needs and attitudes. Above all, it must be used.

The Comprehensive Plan is the City's guide for government officials and citizens in making decisions about land use and development. The Comprehensive Plan is *comprehensive* in the manner that it identifies the myriad of factors related to future community growth; analyzes the relationships between these factors; proposes what needs to be done about them; and recommends *goals and objectives* for using the City's resources in the most efficient and effective ways.

An aggressive, yet realistic, program for implementing the Comprehensive Plan should be established by the Mayor, City Council, and the Planning and Zoning Commission, maintained by the staff, and then used by the entire community. Implementation tools include the Zoning Ordinance, Subdivision Regulations and the Capital Improvement Program and Capital Budget. These tools should be reviewed and updated periodically so that the goals, objectives and policies of the Comprehensive Plan are put into action.

Plan implementation includes the use of the Future Land Use Plan as a general guide for decision-making in zoning cases and subdivision plat review approvals. This practice is to ensure that development and redevelopment are consistent with the policies of the City's Comprehensive Plan. Review and revision of the City Code for updating, strengthening and streamlining the Zoning Ordinance and Subdivision Regulations will be a plan implementation activity. Dedication of needed rights-of-way for street and highway improvements in accord with the City's Thoroughfare Plan will be another implementation activity. Studies for drainage basins are critical to the protection of existing and future development. Water and sewer needs and improvements must be addressed on a yearly basis. Parks development and community facilities improvements will be needed as well.



Commitment to Implementation

It is important to note that successful implementation of this plan relies on many non-traditional resources. The many hours committed by citizens to shaping the Comprehensive Plan attest to their desire for attaining their vision for Oak Point. The City's leaders sought to involve the entire community in the planning effort. The effort and time contributed by citizens, committed to betterment of their community, require that actions be taken to carry out the recommended policies and proposals.

Proposed Implementation Actions

Perhaps the most important method of implementing the Oak Point Comprehensive Plan comes from the day-to-day commitment by elected and appointed officials, city staff members and citizens. The Comprehensive Plan must be understood as a useful and capable tool to direct the City's future. The Future Land Use Plan and Thoroughfare Plan should be displayed and available for easy reference by officials, staff and citizens. The Comprehensive Plan should continually be referenced in planning studies and zoning case reports as well as informal discussion situations. High visibility will make the plan successful, dynamic and a powerful tool for guiding Oak Point's future growth.

A series of proposed implementation actions were developed after reviewing the goals and objectives described in the plan elements. These are specific steps that should be taken to better implement the plan. These actions were synthesized by analysis of the goals and objectives. Some proposals may call for the formation of a new committee, or identify the need for a specific study. In addition to such "new" initiatives, the continuation of ongoing City policies and programs is recommended in many instances.

The following implementation goal will guide the proposed objectives and actions. These objectives and actions are described in each of the chapters. While the proposed implementation actions are not legally binding like the zoning code and subdivision regulations, the proposals are tremendously important to the plan's successful implementation, and are a vital supplement to its goals, objectives and policies.

Implementation Goal:

Encourage the use of the Comprehensive Plan and the implementation of the Zoning Ordinance, Subdivision Regulations and the Capital Improvements Program as the City's guides to appropriate and desired development.

Objectives and Actions

Land Use:

Objective 3.1: Assure that new developments are compatible with existing City neighborhoods.

Action 3.1.1: Require new developments adhere to development standards and design guidelines.

Action 3.1.2: Locate appropriate commercial uses along FM 720 ensuring that architectural standards, landscape buffering, lighting and signage adhere to development standards and reflect rural atmosphere.

Action 3.1.3: Review all new development to ensure conformity with the Future Land Use Plan.

Objective 3.2: Protect the natural landscapes.

Action 3.2.1: Require all new residential development preserve existing trees and natural features.

Action 3.2.2: Place natural areas in parks and greenbelt areas.

Action 3.2.3: Require additional setbacks in zoning to allow rural streetscapes along major collectors and arterial streets.

Action 3.2.4: Require all new developments incorporate open space.

Action 3.2.5: Link new and existing neighborhoods with a system of trails and greenbelts.

Transportation:

Objective 4.1: Maintain rural character of Oak Point in roadway system.

Action 4.1.1: Require new developments maintain a rural residential character on new and existing Collector streets and the reconstruction of existing streets with trees, landscaping, trails, and open ditch drainage. (See cross-sections)

Action 4.1.2: Discourage "through traffic" in the City by innovative street designs that reduce speeds and provide visual interest.

Action 4.1.3: Connect older neighborhoods to new ones through a system of trails and greenbelts throughout the City.

Objective 4.2: Create a "front door" entry and identity for the City.

Action 4.2.1: Develop the design of city entrance sign and landscaping that reflect the character of Oak Point.

Action 4.2.2: Require major entry roads reflect rural character of Oak Point with landscaping, additional setbacks, preservation of existing trees and planting of additional trees, open ditch drainage, and trails. (See cross-sections)

Objective 4.3: Ensure adequate access and circulation within the City.

Action 4.3.1: Require a collector street to link FM 720 to Yacht Club Road.

Action 4.3.2: Extend Martingale Road to FM 720 coordinating with adjacent development.

Action 4.3.3: Extend Lloyds Road to FM 720 coordinating with adjacent development.

Action 4.3.4: Extend Martop from Naylor Road to FM 720 as northern east-west collector.

Economic Development:

Objective 5.1: Guide location of commercial areas through land use planning.

Action 5.1.1: Locate commercial development in nodes along FM 720 in conformance with the Future Land Use Map.

Action5.1.2: Do not allow commercial development to locate along Naylor and Yacht Club Roads or generally east of FM 720 except for tracts with highway and arterial/collector intersection frontage.

Objective 5.2: Attract desirable businesses to serve local needs.

Action 5.2.1: Work with developers and commercial property owners to encourage small-scale grocery store and restaurants.

Action 5.2.2: Consider allowing alcoholic beverage sales in the City.

Objective 5.3: Promote business locations by providing incentives.

Action 5.3.1: Consider the levy of a Section 4A or Section 4B sales tax.

Action 5.3.2: Consider creation of an Economic Development Corporation (4A or 4B).

Action5.3.2: Use sales tax revenues to develop parks and community facilities.

Objective 5.4: Reduce the tax burden of residential property owners.

Action5.4.1: Consider dedicating a percentage of sales tax to the reduction of property taxes.

Community Facilities/Services:

Objective 6.1: Expand and relocate City services to a central location.

Action 6.1.1: Design a City Hall that would house city officials and council chambers for public hearings and provide office space for all current and future City Departments.

Action 6.1.2: Relocate City Hall and the Police Department to the proposed Town Center on FM 720 between McCormick and Martop Roads.

Objective 6.2: Create and staff a paid Fire Department for citywide fire protection.

Action 6.2.1: Construct a "central" fire station in the proposed Town Center that would be occupied by the Chief and the Emergency Management staff and would provide fire protection for the part of the City east of FM 720.

Action 6.2.2: Convert the current City Hall and Police Department to a second fire station that would provide fire protection to the part of the City west of FM 720.

Objective 6.3: Provide adequate recreational facilities for citizens.

Action 6.3.1: Construct a community center that has the capacity to hold large activities such as receptions, banquets and parties. Locate the center in an area that takes advantage of the natural features (trees, topography) that the City has to offer.

Action 6.3.2: Establish an ordinance that requires park dedication with new residential subdivision development.

Objective 6.4: Establish a City Library.

Action 6.4.1: Construct a community library in the proposed Town Center that would serve the Oak Point area.

Water/Wastewater/ Drainage:

Objective 7.1: Create and maintain master plans for water, wastewater and drainage to establish the overall framework for the City's utility infrastructure.

Action 7.1.2: Finalize and adopt the utility component of this Comprehensive Plan.

Action 7.1.3: Direct City staff and consultants to refer to and apply the master plans in the review of all new development plans.

Action 7.1.4: Review and update the utility plans in 3-5 years.

Objective 7.2: Establish a strategy that will result in a single water utility for the City.

Action 7.2.1: Perform a study to evaluate the feasibility and financial impact of acquiring the Mustang, Midway, and Terra Southwest CCN areas within the City/ETJ.

Action 7.2.2: Request UTRWD provide firm information regarding the availability, cost, and timeframe for a wholesale water supply to the City.

Action 7.2.3: Negotiate a mutually-acceptable, utility development plan with Mustang that will allow either the City or Mustang to eventually serve the entire Planning Area.

Objective 7.3: Coordinate proactively with UTRWD regarding the implementation and configuration of the regional wastewater system.

Action 7.3.1: Advise UTRWD of the City's projected capacity requirements, to include eventual service to existing, unsewered development.

Action 7.3.2: Review plans for the initial phase of the Cantrell Slough WWTP to ensure that the site and facilities are configured to be efficiently expanded to accommodate the City's ultimate needs.

Objective 7.4: Adopt ordinances, or modify the Subdivision Regulations to ensure new development complies with the new stormwater permitting/management practices and requirements.

The objectives and actions identified above require *prioritization*—they need to be put in the order in which the City will address them through funding in the Capital Improvement Program (CIP), ordinance changes and perhaps additional study.

The Continuous Planning Process

Circumstances will continue to change in the future and the Oak Point Comprehensive Plan will require modifications and refinements to be kept up-to-date and current. Some of its proposals will be found unworkable and other solutions will continue to emerge. Needed refinements and changes should be carefully noted and thoroughly considered as part of the **Annual Plan Updates** and **5-Year Major Plan Revisions**. As change occurs, however, Oak Point's vision should remain the central theme and provide a unifying element. The plan's importance lies in the commitment of citizens to agree on Oak Point's purposes for the future, and to apply that consensus in continuing efforts that focus on the betterment of their community.

Major Updates of the Comprehensive Plan

Major updating of the Comprehensive Plan should occur every five years. These updates will ensure renewal and continued utility of the Comprehensive Plan for use by the City officials and staff. Annual plan amendments from the previous four years should be incorporated into the next major plan update. Plan updates will be a significant undertaking involving City officials, departments and citizens. Consultant services may be utilized if needed. The result of the major plan updates will be a new Comprehensive Plan for the City, including new identification of up-to-date goals, objectives, policies and implementation actions.

Citizen Participation in Continued Planning

Oak Point's citizens shared in developing the plan's goals, objectives and proposals by participating in public meetings and planning workshops. The many ideas and comments contributed by citizens during the plan's development were incorporated and shaped the resulting proposals and recommendations. Similarly, the citizens should continue to be involved in implementation and maintenance of the Comprehensive Plan. The Planning and Zoning Commission, advisory committees, public meetings and community workshops, town meetings, public forums, newsletters, citizen comments, media releases and public notices should be utilized to inform and involve citizens in continued planning. Methods and

activities for public participation should be carefully chosen and designed to achieve meaningful and effective involvement.

Annual Plan Amendment Process

Annual plan amendments will provide opportunity for relatively minor plan updates and revisions such as changes in future land use designations, implementation actions and review of plan consistency with ordinances and regulations. A plan amendment should be prepared and distributed in the form of an addendum to the adopted Comprehensive Plan. Identification of potential plan amendments should be an ongoing process by the Planning and Zoning Commission and City staff throughout the year. Requests for plan amendments can also be submitted by citizens, property owners, community organizations and other governmental entities. Proposed plan amendments should be reviewed and approved by the Planning and Zoning Commission. Plan amendments should be adopted in a manner similar to the plan itself. This process includes public hearings, citizen input and consideration of action by both the Planning and Zoning Commission and City Council. Plan amendments should be adopted by resolution.

Reports of the Planning and Zoning Commission

As a part of their annual Plan of Work, the Planning and Zoning Commission should prepare an annual report for submittal and discussion with the City Council. Status of implementation for the Comprehensive Plan should be included in these quarterly reports. Significant actions and accomplishments during the past quarter should be recognized, as well as identification and recommendations for needed actions and programs to be developed and implemented in the coming new year. A compilation of the quarterly reports into an annual report of the Comprehensive Plan implementation status by the Planning and Zoning Commission should be coordinated with the City's annual budget development process so that the recommendations will be available early in the budgeting process.

Capital Improvements Program

What Are Capital Improvements?

Broadly, capital improvements encompass such items as buildings, land, sewers, streets, parks and fire stations. The definition of a ***capital improvement*** includes the following four practical characteristics:

- They last a long time;
- They are relatively expensive;
- They usually do not recur annually; and,
- They result in fixed assets.

The distinction between a capital expenditure and an operating expenditure is not always precise. Capital projects tend to be relatively expensive and are often financed by borrowing. They are non-recurring, that is, they do not occur every year and they usually have a life expectancy of several years.

Planning for capital improvements and maintenance is sound development and business practice. A rational, carefully planned program of capital improvements is necessary in order to:

- Attract new business investment that will increase tax revenues and provide jobs;
- Ensure that public investments in new or improved facilities are made in locations which make the most sense for service and maintenance; and,
- Preserve and enhance the quality of life for citizens of Oak Point.

What Is A Capital Improvement Program (CIP)?

If a city constructs a new building, it will probably be there for a long time. So will the bonds that paid for it. Because the characteristics of capital improvements tend to be physically and financially visible for a long time in the future, it's especially important to provide a careful plan when the community is thinking about undertaking them. This process of planning is usually called "***capital improvement programming***."

In its simplest form, a CIP is merely a schedule listing capital improvements, in order of priority, together with estimates of their costs and the proposed means for financing them. Even a simple CIP involves four principal types of information:

- Specific capital improvement projects;
- Estimated costs for those projects;
- Proposed sources of funding for each of them; and,
- The year during which each project will be undertaken.

It is important to note that the CIP is not merely a list of desired projects – although every city can think of plenty of these – but rather, it is a schedule of desired projects encompassing both realistic costs and financing elements.

Of course, a CIP is not intended to be cast in concrete – costs change, emergencies arise, and even the priorities of a community can change over time – all of which can modify the contents of a CIP. Adoption of the five-year CIP does not, by itself, totally commit a city to any particular set of projects. Every year the entire CIP is reconsidered and three types of actions are taken:

- The first year is eliminated (because it has been implemented);
- Another "fifth" or final year is added; and,
- Projects in "in-between" years are re-examined and updated including changing priorities.

The five-year length of the CIP is fairly arbitrary, although that is the length used by most cities. Generally, it has been found that two or three years are too short a time because individual projects sometimes take that long to plan, design and construct. On the other hand, trying to estimate much beyond five years tends to become so laden with guesswork that it's not very useful. A CIP covering five years is a fairly reasonable length of time. A community may elect, of course, to develop a CIP for a period of greater than five years.

How does the City plan for capital investments as part of its comprehensive planning process? First, it must plan for the maintenance and replacement of its existing capital facilities. Then, it must plan the major investments needed to replace and build new community facilities.

Sufficient public funds must be budgeted for the upkeep and preventive maintenance and repair of existing public buildings, streets, drainage, parks and other facilities. Future maintenance and repair requirements must also be taken into account when planning and designing new community facilities.

The phrase "capital improvement cost" usually includes more than the cost of the land or other actual tangible physical assets. The total cost also includes legal, financial and engineering fees, site investigation and preparation costs and inspection fees and other costs necessary to get the facility into actual operation.

General Procedure for Capital Improvement Programming

The Mayor and City Council work with the City Manager to develop CIP goals, a fiscal policy, and an administrative process.

The City Manager instructs Department Directors to submit capital project requests upon pre-designed forms according to a timetable or calendar.

The City Manager appoints a coordinator for the process, who receives the requests from Department Directors and others, sees to it that they receive various types of review and compiles the requests for the City Manager's consideration.

The City Manager reviews all requests, probably in consultation with the Department Directors.

A Capital Improvements Advisory Committee appointed by the Mayor and City Council reviews the recommended capital project priorities. This committee could easily be the Planning and Zoning Commission. Recommendations and comments of the Committee should be considered by the Manager and City Council in the development of long-range expenditure plans.

On the basis of this review, some requests are deferred indefinitely, some are given high priorities and scheduled early in the CIP and some are scheduled for later. The City Manager submits the recommended CIP to City Council, along with recommendations from the Capital Improvements Advisory Committee. Upon its tentative approval, the City Council schedules a public hearing.

After providing prior public notice, the City Council conducts a public hearing on the CIP. After making such modifications, as it deems necessary, the CIP is adopted by resolution.

The first year projects are implemented.

After a year passes, the process is repeated. Year Two of the first CIP now becomes Year One, Year Five becomes Year Four, and an additional year added as Year Five. Of course, individual projects within any of the years may be modified, added, or deleted. Approval of a project scheduled for Year Two, for example, doesn't mean that the project will receive automatic approval the next year.

Capital Funding Sources and Financing Methods

Financial planning to meet capital requirements includes consideration of a number of important objectives:

- Changes in the ad valorem property tax rate;
- Changes in sales tax revenue received by the City;
- Maintaining a balance between debt redemption, capital outlays and current expenditures;
- Maximizing use of available Federal and State aid;
- Trends in future revenues and expenditures; and,
- Funds available to finance new capital projects.

The various potential funding sources and methods of financing for capital improvements are as follows:

- General funds;
- Federal and State financial assistance grants and loans;
- Pay-as-you go from current revenues;
- Issuance of long term debt instruments such as Certificates of Obligation, Revenue Bonds and General Obligation Bonds;

- Property tax;
- Sales Tax;
- Hotel/Motel Occupancy Tax;
- Special assessments;
- User Charges;
- Impact Fees; and,
- Innovative Financing methods such as Tax Increment Financing, Lease-Purchase Financing.

Role of the CIP in Implementation

The Capital Improvement Program (CIP) is a mechanism for analyzing the City's major capital facility needs in the near future. By undertaking a financial analysis as part of the CIP, the City is able to predict, with reasonable accuracy, its capacity to finance capital improvements after it has paid its basic operating expenses. Once this capacity has been identified, a fiscal program is developed. The financial analysis also estimates the impact that capital expenditures will have on the operating budget.

Capital improvements include facilities such as utility systems, public buildings, land acquisition, parks, streets and sidewalks, drainage, libraries and major equipment. These are items that may have a significant impact on the community and are often too expensive to be financed in the annual operating budget.

Preparation of a Capital Improvements Program involves difficult decisions. Often there are more worthwhile projects to consider than there are dollars to fund them.