



AGENDA

City of Lucas City Council Meeting March 2, 2017

7:00 PM

**City Hall – Council Chambers
665 Country Club Road – Lucas, Texas**

Notice is hereby given that a City of Lucas meeting of the City Council will be held on Thursday, March 2, 2017 at 7:00 pm at Lucas City Hall, 665 Country Club Road, Lucas, Texas, 75002-7651 at which time the following agenda will be discussed. As authorized by Section 551.071 of the Texas Government Code, the City Council may convene into closed Executive Session for the purpose of seeking confidential legal advice from the City Attorney on any item on the agenda at any time during the meeting.

Call to Order

- Roll Call
- Determination of Quorum
- Reminder to turn off or silence cell phones
- Pledge of Allegiance

Citizen Input

The Citizens' Input portion of the agenda is an opportunity for the public to address the City Council on any subject. By completing a "Request to Speak" form and submitting it to the City Secretary, citizens have an opportunity to speak at the City Council meeting. However, in accordance with the Texas Open Meetings Act, the City Council cannot discuss issues raised or make any decisions but may refer items to City Staff for research and possible inclusion on a future agenda.

1. Citizens' Input (**Mayor Jim Olk**)

Community Interest

Pursuant to Section 551.0415 of the Texas Government Code, the City Council may report on the following items: 1) expression of thanks, congratulations or condolences; 2) information about holiday schedules; 3) recognition of individuals; 4) reminders about upcoming City Council events; 5) information about community events; and 6) announcements involving imminent threat to public health and safety.

2. Items of Community Interest.

Discuss pending legislation that is being considered by the 85th Legislature and provide guidance to City Staff and City Attorney. (**City Manager Joni Clarke**)

Consent Agenda

3. Consider approval of the minutes of the February 16, 2017 City Council meeting. (City Secretary Stacy Henderson)

Presentations

4. Presentation and discussion from Lovejoy High School and Willow Springs Middle School students participating in the Lovejoy ISD Independent Studies Program: (Mayor Olk)
 - Catherine Wilson – Willow Springs Middle School - Equine Therapy
 - Lindsay Haden – Lovejoy High School - Child Behavior and Weather

Public Hearing

5. Consider the 2017 Comprehensive Plan for the City of Lucas including the Sewer Master Plan Map, Water System Map, Thoroughfare Plan Map, and Land Use Map: (Development Services Director Joe Hilbourn)
 - A. Presentation by Development Services Director Joe Hilbourn
 - B. Conduct Public Hearing
 - C. Take action regarding adopting Ordinance 2017-03-00850 approving the 2017 Comprehensive Plan for the City of Lucas including the Sewer Master Plan Map, Water System Map, Thoroughfare Plan Map, and Land Use Map

Regular Agenda

6. Discuss and consider water projects and funding strategy to fund design and construction: (Councilmember Wayne Millsap, Public Works Director/City Engineer Stanton Foerster)
 - A) Water Fund projects for consideration and prioritization:
 1. Elevated Water Tower, Wiltshire Court to the North Pump Station 8-Inch Connection and Pressure Regulating Valves
 2. Parker Road Waterline Phase 2 (from Shepherds Creek Drive to Santa Fe Trail)
 3. Parker Road Waterline Phase 3T (From Santa Fe Trail to Stinson Road)
 4. Replace three existing pumps at the North Pump Station
 5. Add new pump house at the North Pump Station with three 500 GPM pumps
 6. Any additional water projects that Council may determine
 - B) Discuss funding strategies including using unencumbered line item balances in the Capital fund, unrestricted Water Fund reserves and work with SAMCO Financial Advisors on the Notice of Intention Resolution to issue Certificates of Obligation and provide guidance to staff on the specified amount required to fund the water system projects.

7. Discuss and consider roadway projects, determine priority and funding strategy to fund design and construction: (**Councilmember Wayne Millsap, Public Works Director/City Engineer Stanton Foerster**)
 - A) General Fund roadway projects for consideration and prioritization:
 1. Winningkoff Rd Reverse Curve (design funded in FY 16/17)
 2. Stinson Rd/W. Lucas Rd Intersection (design funded in FY 16/17)
 3. Country Club Road/Estates Parkway Intersection
 4. Winningkoff Road (Reverse Curve to Snider Lane)
 5. Stinson Road South of Bridge
 6. Blondy Jhune Road (West Bridge to Winningkoff Road)
 7. Stinson Road North of Bridge (middle section)
 8. Winningkoff Road (E. Lucas Rd to Reverse Curve)
 9. Any additional roadway projects that Council may determine.
 - B) Discuss funding strategy including using unencumbered line item balances in the Capital fund, unrestricted General Fund reserves and work with SAMCO Financial Advisors on the Notice of Intention Resolution to issue Certificates of Obligation and provide guidance to staff on the specified amount required to fund the roadway projects.

Executive Session

The City Council may convene in a closed Executive Session pursuant to Chapter 551.071 of the Texas Government Code.

8. Executive Session: The City Council may enter into Executive Session as permitted under the Texas Government Code, Section 551.072 to deliberate the purchase, exchange, lease or value of real property within the City of Lucas.
9. Reconvene into open session and take any action necessary as a result of the Executive Session.
10. Adjournment.

Certification

I hereby certify that the above notice was posted in accordance with the Texas Open Meetings Act on the bulletin board at Lucas City Hall, 665 Country Club Road, Lucas, TX 75002 and on the City's website at www.lucastexas.us on or before 5:00 p.m. on February 24, 2017.

Stacy Henderson, City Secretary

In compliance with the American with Disabilities Act, the City of Lucas will provide for reasonable accommodations for persons attending public meetings at City Hall. Requests for accommodations or interpretive services should be directed to Stacy Henderson at 972.912.1211 or by email at shenderson@lucastexas.us at least 48 hours prior to the meeting.



City of Lucas City Council Agenda Request March 2, 2017

Item No. 01

Requester: Mayor Jim Olk

Agenda Item:

Citizens' Input

Background Information:

NA

Attachments/Supporting Documentation:

NA

Budget/Financial Impact:

NA

Recommendation:

NA

Motion:

NA



City of Lucas Council Agenda Request March 2, 2017

Requester: City Manager Joni Clarke

Agenda Item:

Items of Community Interest:

Discuss pending legislation that is being considered by the 85th Legislature and provide guidance to City Staff and City Attorney.

Background Information:

NA

Attachments/Supporting Documentation:

NA

Budget/Financial Impact:

NA

Recommendation:

NA

Motion:

NA



City of Lucas Council Agenda Request March 2, 2017

Requester: City Secretary Stacy Henderson

Consent Agenda Items:

3. Consider approval of the minutes of the February 16, 2017 City Council meeting. (City Secretary Stacy Henderson)

Background Information:

NA

Attachments/Supporting Documentation:

1. Minutes of the February 16, 2017 City Council meeting

Budget/Financial Impact:

NA

Recommendation:

City Staff recommends approval of the Consent Agenda.

Motion:

I make a motion to approve/deny the Consent Agenda as presented.



**City of Lucas
City Council Meeting
February 16, 2017
7:00 P.M.**

**City Hall - 665 Country Club Road – Lucas Texas
Minutes**

Call to Order

Mayor Olk called the meeting to order at 7:00 p.m.

City Councilmembers Present:

Mayor Jim Olk
Councilmember Wayne Millsap
Councilmember Tim Baney
Councilmember Steve Duke
Councilmember Philip Lawrence
Councilmember Debbie Fisher

Staff Present:

City Manager Joni Clarke
City Attorney Joe Gorfida
City Secretary Stacy Henderson
Development Services Director Joe Hilbourn
Executive Assistant/Special Projects Coordinator Cathey Bonczar

City Councilmember Absent:

Mayor Pro Tem Kathleen Peele

Mayor Olk determined that a quorum was present. Everyone was reminded to turn off or silence their cell phones and the Pledge of Allegiance was recited.

Citizen Input

1. Citizen Input.

There was no citizen input.

Community Interest

2. Community Interest Items.

Discuss pending legislation that is being considered by the 85th Legislature and provide guidance to City Staff and City Attorney.

There was no discussion regarding particular items being considered by the 85th Legislature. City Attorney Joe Gorfida asked to let him know should there be any House Bill or Senate Bill the Council would like to watch more closely.

Consent Agenda

3. Consider approval of the minutes of the January 26, 2017 Town Hall meeting.

4. Consider approval of the minutes of the February 2, 2017 City Council meeting.
5. Consider approving a Proclamation declaring March 19-25, 2017 as Poison Prevention Week.

MOTION: A motion was made by Councilmember Baney, seconded by Councilmember Fisher to approve the Consent Agenda as presented. The motion passed unanimously by a 6 to 0 vote.

Regular Agenda

6. Consider the provision of residential and commercial solid waste collection/disposal, recycling related services including curbside residential recycling and e-waste/household hazardous waste removal, residential bulk/brush/yard waste collection services.
 - A. Receive a presentation from Community Waste Disposal (CWD) regarding waste and recycling programs that are available to the City of Lucas including:
 - Solid waste residential collection
 - Solid waste commercial collection and the provision of dumpsters
 - Recycling services including e-waste/household hazardous waste/household metal appliances options/green waste programs
 - Residential bulk/brush/yard waste collection services
 - B. Provide direction to staff regarding the types of refuse-related services to be provided to the citizens of Lucas and the process to consider in acquiring a provider for those services and the negotiation of contract with selected contractor.

Greg Roemer, President of Community Waste Disposal discussed the history of their company, their recycling program and the 19 communities that currently use their recycling program. He stated the company did not use diesel trucks and discussed the various services that were available to the City of Lucas Mr. Roemer stated that he would propose recycling pickup occur once a week, with residents using a 95-gallon cart for curbside pickup or blue recycle bags. Two cubic yards of bulky items would be picked up weekly, and household hazardous waste items such as paints, pesticides, fertilizers and batteries would be collected twice per year.

Councilmember Fisher asked how many routes CWD proposed for Lucas.

Mr. Roemer stated routes would be run Monday, Tuesday and Thursday for trash pickup and every other week on Wednesdays for recycling.

The Council briefly discussed with Mr. Roemer the factors that would go into providing a price on the cost for services. Mr. Roemer stated such things as the type of service provided; trash, recycling or both, the number of collection times per week and the size of the city would be considered.

The Council discussed the asphalt roadways in Lucas and the size and weight of collection vehicles that would be used to pick up trash.

Mr. Roemer stated that their trash collection trucks were 20-yard single axle trucks with a 33,000-gross vehicle weight.

The Council was in agreement that they would like Community Waste Disposal to bring back a proposal for both trash and recycling services.

Mayor Olk also asked that Barnes Waste Disposal review their existing contract and bring back a proposal as well.

This item was for discussion purposes only, no formal action was taken.

7. Discuss moving the 2017 Founders Day event to April 14, 2018.

Development Services Director Joe Hilbourn gave a brief presentation discussing the need to move the Founders Day event due its close proximity to the Country Christmas event and the lack of volunteers that are able to assist.

Councilmember Fisher discussed her concerns relating to moving the event to April, as it was close to the City's May general election, which could be used to politicize the event.

The Council discussed political signage on public property and State law requirements that limited where and for how long political signage could be erected.

Mayor Olk read an email received from Rebecca Mark, Volunteer Coordinator for the Founders Day event. Ms. Mark noted her difficulty in scheduling volunteers for the Founders Day event, the limited time that separated the Founders Day event from the Country Christmas event, and was in favor of moving the event to the spring.

MOTION: *A motion was made by Councilmember Millsap, seconded by Councilmember Duke to approve moving Founders Day to April 14, 2018. The motion passed unanimously by a 6 to 0 vote.*

8. Discuss and provide feedback to staff regarding the City's annual Keep Lucas Beautiful Clean Up event scheduled for April 22, 2017.

Development Services Director Joe Hilbourn gave a brief presentation discussing details of the cleanup event noting the following streets that would be included for cleanup as part of the event:

- West Lucas Road from FM 1378 to Angel Parkway
- Stinson Road from West Lucas Road to Parker Road
- Lewis Lane from West Lucas Road to Parker Road
- Estates Road from Angel Parkway to 1378
- Blondy Jhune Road from 1378 to Winningkoff Road
- Brockdale Park and Highland Park

Mr. Hilbourn stated that for the safety of the volunteers, Blondy Jhune and Stinson Roads would be closed for the event, and that Staff would be closing Snider Lane from Shady Lane to East Lucas Road to through traffic during the cleanup event from 9:00 am until 12:00 pm.

This item was for discussion purposes only, no action was taken.

9. Discussion regarding Article IV, Section 3 of the Friends of the Lucas Fire-Rescue, Inc., Bylaws regarding appointment of the Board of Directors and take action to reappoint Kathleen LoSapio and Linda Abston for a two-year term beginning March 1, 2017 through March 1, 2019.

Councilmember Millsap, liaison to the Friends of the Lucas Fire-Rescue, Inc., discussed the history of the board, its 501C3 organization status, and its current membership. Councilmember Millsap noted that the board has been operating for approximately one year, had plans in place for fundraising, and recommended the board be allowed to amend their bylaws to appoint their own membership from this point forward. Councilmember Millsap also noted that board members Kathleen LoSapio and Linda Abston were interested in being reappointed for two year terms.

The City Council was in agreement the board be allowed to change provisions in their bylaws and appoint their own members. City Attorney Joe Gorfida noted that since the board was separate and apart from the City of Lucas, the bylaws did not have to come back before the City Council to be amended.

***MOTION:** A motion was made by Councilmember Millsap, seconded by Councilmember Lawrence to reappoint Kathleen LoSapio and Linda Abston for two-year terms beginning March 1, 2017 through March 1, 2019. The motion passed unanimously by a 6 to 0 vote.*

10. Consider setting the date of July 27, 2017 for the 2017-2018 budget workshop session.

The City Council discussed various dates for the budget workshop session and decided upon hosting their budget workshop session on July 13, 2017 at 6:00 pm.

Executive Session

The City Council may convene in a closed Executive Session pursuant to Chapter 551.071 of the Texas Government Code.

11. The City Council may enter into Executive Session as permitted under the Texas Government Code, Section 551.072 to deliberate the purchase, exchange, lease or value of real property within the City of Lucas.

The City Council convened into Executive Session at 7:56 pm.

12. Reconvene into open session and take any action necessary as a result of the Executive Session.

The City Council reconvened from Executive Session at 8:17 pm. There was no action taken as a result of the Executive Session.

13. Adjournment.

MOTION: *A motion was made by Councilmember Duke, seconded by Councilmember Baney to adjourn the meeting at 8:18 pm. The motion passed unanimously by a 6 to 0 vote.*

APPROVED:

ATTEST:

Jim Olk, Mayor

Stacy Henderson, City Secretary



City of Lucas Council Agenda Request March 2, 2017

Item No. 04

Requester: Mayor Jim Olk

Agenda Item:

Presentation and discussion from Lovejoy High School and Willow Springs Middle School students participating in the Lovejoy ISD Independent Studies Program:

- Catherine Wilson – Willow Springs Middle School - Equine Therapy
- Lindsay Haden – Lovejoy High School - Child Behavior and Weather

Background Information:

As part of the Lovejoy ISD Independent Studies Program, students from Lovejoy High School and Willow Springs Middle School are required to present their project of interest to a public audience and have asked if they may present their reports to the City Council. This is the third year in a row that the students of Lovejoy High School and the first-year students from Willow Springs Middle School will be sharing their presentations with the City Council.

Attachments/Supporting Documentation:

NA

Budget/Financial Impact:

NA

Recommendation:

NA

Motion:

NA



City of Lucas

City Council Agenda Request

March 2, 2017

Item No. 05

Requester: Development Services Director Joe Hilbourn

Agenda Item:

Consider the 2017 Comprehensive Plan for the City of Lucas including the Sewer Master Plan Map, Water System Map, Thoroughfare Plan Map, and Land Use Map:

- A. Presentation by Development Services Director Joe Hilbourn
- B. Conduct Public Hearing
- C. Take action regarding adopting Ordinance 2017-03-00850 approving the 2017 Comprehensive Plan for the City of Lucas including the Sewer Master Plan Map, Water System Map, Thoroughfare Plan Map, and Land Use Map

Background Information:

The process to update the City's Comprehensive Plan began in 2015 with staff bringing each chapter to the Planning and Zoning Commission and City Council requesting feedback. Staff has incorporated amendments recommended by the Planning and Zoning Commission and City Council into the updated 2017 Comprehensive Plan.

There is no state law that requires a City to have a Comprehensive Plan; however, if a City would like to enforce zoning it is required to have an adopted Comprehensive Plan that is updated periodically. The Comprehensive Plan is a long-range planning tool that is intended to be used by the City to guide growth and development of the community for the future. The Comprehensive Plan was first adopted in 1980, and as the City developed, the Plan was updated with the last update occurring in 2004. The goal of this update is to continue to make long-range plans for the community of Lucas and incorporate the necessary revisions to help guide the City's development based on the vision of its citizens.

The Comprehensive Plan is required to be adopted following two public hearings. Public hearings for adoption of the amended Comprehensive Plan took place before the Planning and Zoning Commission on February 9, 2017 with the second public hearing and request for approval coming before the City Council on March 2, 2017.

Remaining items for consideration by the City Council includes future zoning for the four residential properties adjacent to the high school fronting Estates Parkway, and if East Winningkoff Road should be a through street or a dead end on the Thoroughfare Plan. (See Planning and Zoning Commission recommendations on the next page.)



**City of Lucas
City Council Agenda Request
March 2, 2017**

Item No. 05

Attachments/Supporting Documentation:

1. Ordinance 2017-03-00850 adopting the Comprehensive Plan
2. Updated Comprehensive Plan
3. Wastewater System Master Plan Map
4. Water System Map
5. Thoroughfare Plan Map
6. Existing Land Use Map
7. Proposed Land Use Map A

Budget/Financial Impact:

NA

Recommendation:

The Planning and Zoning Commission approved the Comprehensive Plan by a 3 to 2 vote. The Commission was in favor of allowing Village Center zoning for the four lots adjacent to the high school fronting Estates Parkway. However, two members were not in favor of creating a dead end on East Winningkoff Road.

Motion:

I make a motion to adopt Ordinance 2017-03-00850 approving the 2017 Comprehensive Plan for the City of Lucas including the Sewer Master Plan Map, Water System Map, Thoroughfare Plan Map, and Land Use Map.



ORDINANCE 2017-03-00850
[APPROVAL OF 2017 COMPREHENSIVE PLAN]

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LUCAS, COLLIN COUNTY, TEXAS, ADOPTING A NEW COMPREHENSIVE PLAN TO SERVE AS A GUIDE FOR ALL FUTURE CITY COUNCIL ACTION CONCERNING LAND USE AND DEVELOPMENT REGULATIONS; PROVIDING A REPEALING CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Planning and Zoning Commission of the City of Lucas and the governing body of the City of Lucas in compliance with the laws of the State of Texas and the City Charter and Ordinances of the City of Lucas, have given requisite notice by publication and otherwise, after holding due hearings and affording a full and fair hearing to all persons interested, and in the exercise of its legislative discretion in the best interests of the health, safety and welfare of the citizens of the City of Lucas, have concluded that a new comprehensive plan, attached hereto as Exhibit “A” and incorporated herein by reference, should be adopted;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LUCAS, COLLIN COUNTY, TEXAS, THAT:

Section 1. That the City of Lucas shall and does hereby adopt the “2017 Comprehensive Plan of the City of Lucas, Texas” which is attached hereto as Exhibit “A”. The 2017 Lucas Comprehensive Plan shall and does hereby serve as the master plan for the physical development of the City to provide recommendations for the growth, development and beautification of the City and its extraterritorial jurisdiction. The 2017 Comprehensive Plan shall also serve as the master plan of the City as a guide to all future city council action concerning land use and development regulations. Nothing herein shall be construed to prohibit amendments to the 2017 Comprehensive Plan by simple majority vote except as may otherwise be required by law.

Section 2. All ordinances of the City of Lucas in conflict with the provisions of this Ordinance shall be, and same are hereby repealed, provided, however, that all other provisions of said Ordinances that are not in conflict herewith shall remain in full force and effect.

Section 3. Should any word, sentence, paragraph, subdivision, clause, phrase or section of this Ordinance or of the City of Lucas Code of Ordinances, as amended hereby, be adjudged or held to be voided or unconstitutional, the same shall not affect the validity of the remaining portions of said Ordinances or the City of Lucas Code of Ordinances, as amended hereby, which shall remain in full force and effect.

Section 4. An offense committed before the effective date of the Ordinance is governed by prior law and the provisions of the City of Lucas Code of Ordinances in effect when the offense was committed and the former law is continued in effect for this purpose.

Section 5. This Ordinance shall take effect immediately from and after its passage and publication in accordance with the provisions of the Charter of the City of Lucas, and it is accordingly so ordained.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LUCAS, COLLIN COUNTY, TEXAS, ON THIS _____ DAY OF _____, 2017.

APPROVED:

Jim Olk, Mayor

APPROVED AS TO FORM:

ATTEST:

Joseph J. Gorfida, Jr., City Attorney
(02-22-2017/84037)

Stacy Henderson, City Secretary

CITY OF LUCAS



COMPREHENSIVE PLAN

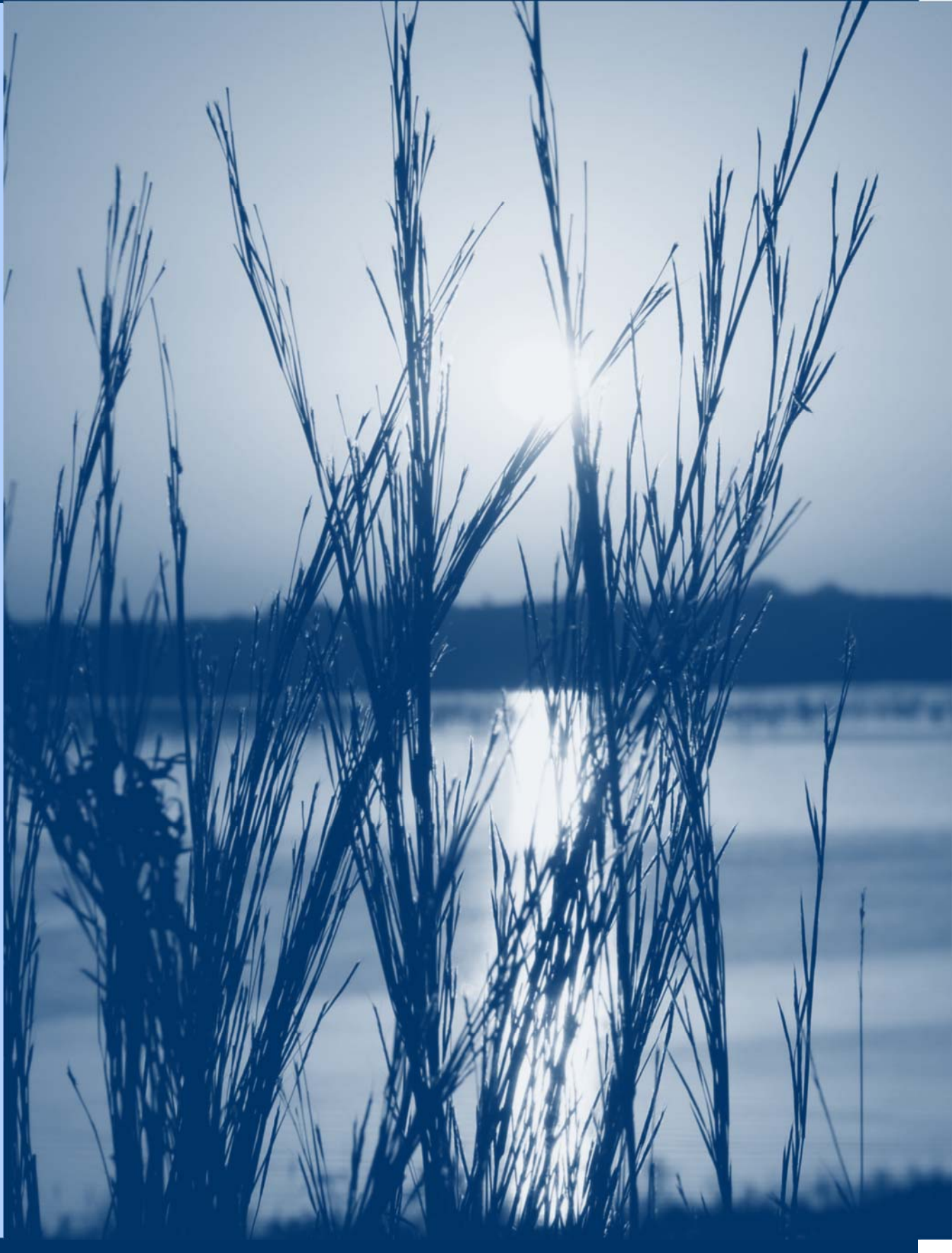


TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION 4

CHAPTER 2 POPULATION 6

CHAPTER 3 HOUSING 8

CHAPTER 4 LAND USE 10

CHAPTER 5 ECONOMIC DEVELOPMENT 19

CHAPTER 6 PARKS, RECREATION AND OPEN SPACE..... 24

CHAPTER 7 STREETS AND DRAINAGE 30

CHAPTER 8 WATER SYSTEM 40

APPENDIX MAPS 46



INTRODUCTION

PURPOSE

The comprehensive plan can be defined as a long-range planning tool that is intended to be used by city staff, decision-makers and citizens to guide the growth and physical development of a community for its future growth. The original plan adopted in the late 1980's initiated the framework for the City of Lucas. Over the years it has been reviewed and updated as growth dictated. Having this comprehensive framework will assist in evaluating proposed actions, decisions concerning changes in local economic and demographic conditions, and resources, as well as guiding future planning scenarios for Lucas.

The State of Texas has established laws that specifically regulate the way incorporated cities such as Lucas can ensure the health, safety, and welfare of their citizens. It gives them the power to regulate the use of land, but only if such regulations are based on a comprehensive plan. Lucas strives to guide future development to accommodate new development without sacrificing the unique character of the city.

In basic terms, the primary objectives of a comprehensive plan are to:

- Manage growth in an orderly manner,
- Minimize potential conflicts between land uses,
- Provide for efficient and cost-effective delivery of public services, and
- Establish a rational and reasonable basis for making decisions about the community.

This updated version of the comprehensive plan will address the preservation of the country atmosphere of Lucas by addressing the growth and future needs relating to population, housing, land use, economic development, parks, streets, drainage, water, thoroughfares, and capital improvements.

LOCATION

Lucas is located in Collin County just northeast of the Dallas-Fort Worth Metroplex, 30 miles north of downtown Dallas. The City is positioned 10 miles east of the DART Parker Road Station, 30 miles north of the Love Field Airport, and 40 miles east of the Dallas-Fort Worth International Airport. Lucas is bordered by the City of Allen to the west, the City of Parker to the southwest, the City of Wylie to the south, the City of St. Paul to the southeast, Lake Lavon to the east, and the City of Fairview to the northwest as shown in figures 1.1 and 1.2.

The population is estimated at 6,875 in 2016 and contains a total land area of 9.85 acres.



The City has experienced significant growth in recent years as a result of its unique features including:

- Appealing rural atmosphere
- Animal friendly neighborhoods
- Exceptional educational systems
- Proximity to services and shopping
- Low crime rate
- High quality housing
- Large lot sizes
- Proximity to Lake Lavon

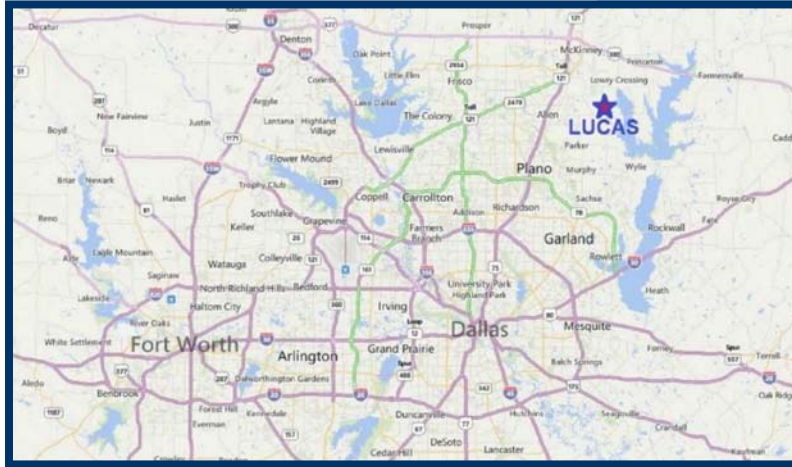


Figure 1.1—City of Lucas and Dallas/Fort Worth Metroplex

The City of Lucas' location, outside the pressures and restrictions of intense urban life, combined with its convenient position relative to local and regional economic and recreational centers, makes the City a stable and attractive community.



Figure 1.2—City of Lucas, Texas



POPULATION



One of the most important parameters of the planning process is the analysis and projection of the population. The purpose of projecting population is to provide a general scale for future development which is compatible with the prospects and the potentials of the city.

Population growth is primarily driven by construction of new housing and the annexation of land.

The population estimates reported in this plan are based on the US Census Bureau, the North Central Texas Council of Governments Databases on Demographics, and other State agencies. Over the next 25 years the North Central Texas population is expected to grow by 5 million people. It is assumed the City of Lucas will also experience significant growth if the local and regional economies remain stable.

After estimating the size and density of the future population, it becomes possible to determine the future level of demand for facilities, and to develop indices for issues which typically confront those persons who are actively involved in making decisions related to the planning process.

Projected population demand is the rational basis for projecting infrastructure needs, and establishing the timing of capital expenditures.

POPULATION TRENDS

The population of Lucas has increased dramatically from 540 in 1970 to 6,875 in 2016. This represents an annual growth rate of 5.69%. This is a reflection of the desire of many people to live in a rural or "small town" environment while keeping close to major urban centers. Continued population growth in Lucas is supported by forecast data for Collin County. The population of Collin County is expected to increase by almost 54 percent by 2035. The age composition of the Lucas population provides a profile, illustrating when and where the greatest need for various types of public expenditures will be required in order to meet citizen demand.

POPULATION PROJECTIONS

Population projections provide the most basic planning assumptions required for strategically meeting future public needs. Six significant assumptions specific to Lucas help form the basis from which to project the populations, and are listed below:

1. The density and character of development in Lucas will not change appreciably.
2. Lucas will experience in-migration from larger urban areas causing the local population to increase.



3. The average household size will remain 3.22 persons per household.
4. Population can be estimated based on the number of existing houses; the calculation of potential number of houses that can be built on developable land based on projected future land use, and subdivision of land tracts.
5. The City of Lucas is estimated to be built out in 2030. Based upon all the foregoing assumptions, future population projections for both Lucas and the area within the extra-territorial jurisdiction (ETJ) are shown in table 2.1 and illustrated in figure 2.2.
6. Whether the projected population occurs five years early or five years later, the city will require the same number of facilities for the projected number of people.

The anticipated population growth will place additional burdens on the City's

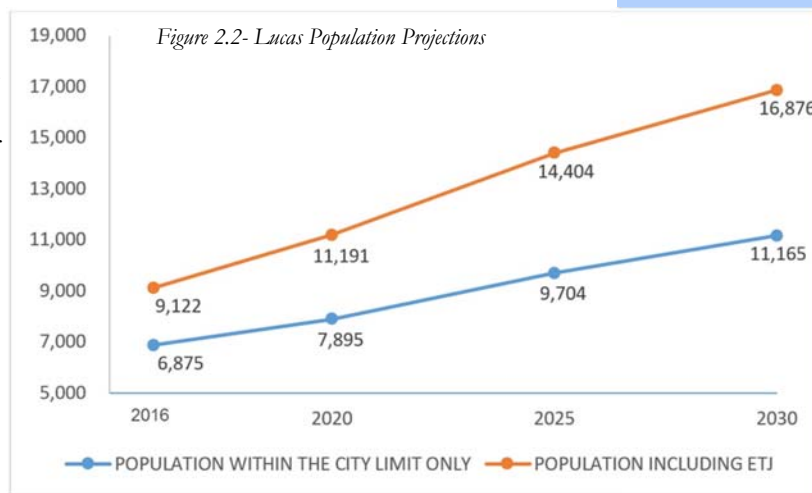
YEAR	POPULATION (CITY LIMITS ONLY)	PERCENT GROWTH	ANNUAL GROWTH RATE	POPULATION (ETJ)	POPULATION (CITY LIMITS & ETJ)	PERCENT GROWTH	ANNUAL GROWTH RATE
2016	6,875	N/A	N/A	2,247	9,122	N/A	N/A
2020	7,895	14.8%	3.5%	3,296	11,191	22.7%	5.2%
2025	9,704	22.9%	4.2%	4,700	14,404	28.7%	5.2%
2030	11,165	15.1%	2.8%	5,711	16,876	17.2%	3.2%

Table 2.1- City of Lucas Population Projections

infrastructure and resources:

- Streets
- Water and wastewater system (waste water serves non-residential uses only)
- Parks and recreational facilities
- Environmental, educational, safety and health services

Lucas should set goals for both the desired population levels and facilities necessary to accommodate the resulting demands. Most of these topics will be discussed in the following chapters of this Comprehensive Plan.



H O U S I N G

INTRODUCTION

There are four generally recognized determinants of the level of effective demand for housing units as follow:

1. The physical sources of housing demand which includes the number of type of family units in an area and the need for replacing existing units.
2. The level of wealth in an area and the distribution of that income.
3. Mortgage rates.
4. The supply price of housing which is the cost of providing the residents of an area with appropriate housing facilities.

The complex interaction of these four considerations works to determine whether or not adequate housing of the appropriate types is available to the residents of Lucas.

EXISTING HOUSING ANALYSIS

As of June 1, 2016 there were 2111 single family housing units in Lucas. There are an additional 24 other forms of housing units in Lucas which could be classified as housing in a non- or semi-permanent structure. Within the Lucas extra territorial jurisdiction there are 697 units, bringing the total housing in Lucas and the ETJ to 2,832 units.

- Single family 2111 units
- Semi or non-permanent housing 24 units
- Single family 697 units
- Total 2,832 units

HOUSING GOALS AND OBJECTIVES

Although Lucas will add new dwelling units through new construction, existing units must be adequately maintained in order to meet the local housing demand and foster a stable housing environment. It should be assumed that all housing and properties within the community are maintained in a reasonable (or sound), safe and sanitary condition for its useful life. To enable the city to direct its efforts in develop housing with the highest and best use, the following specific goals and objectives should be followed:

GOAL 1.

Encourage suitable development of land with adequate lot sizes, paved streets and utility lines.

Objectives:

- Establish and maintain subdivision ordinances to ensure that new infrastructure meets or exceeds minimum city requirements.
- Encourage high-quality construction through the continued enforcement of recognized building codes.



- Alleviate maintenance and service issues by upgrading existing infrastructure (water, streets and drainage) to meet or exceed minimum acceptable standards.

GOAL 2.

A sufficient choice of adequate housing should be provided to meet the needs of individuals.

Objectives:

- Zone land to promote long-term neighborhood stability.
- Maintain moderate density housing in suitable locations on the periphery of the city.

FUTURE HOUSING REQUIREMENTS

To provide an indication of the future demand for housing in Lucas, it is necessary to project the number of housing units which will be needed. These projections are based upon the assumption that the average household size would remain at 3.22 persons during the planning period. Allowing for a five percent vacancy rate, and reflecting anticipated future population levels, the future total housing needs for Lucas are estimated and illustrated in Figure 3.1. Lucas should encourage the maintenance of, and/or rehabilitation of older homes so they remain habitable over the planning period and beyond. As the population ages, provision must be considered for proper accessibility for an increasing elderly and disabled population. Attention to building design and adaptability can achieve a solution to this challenge.

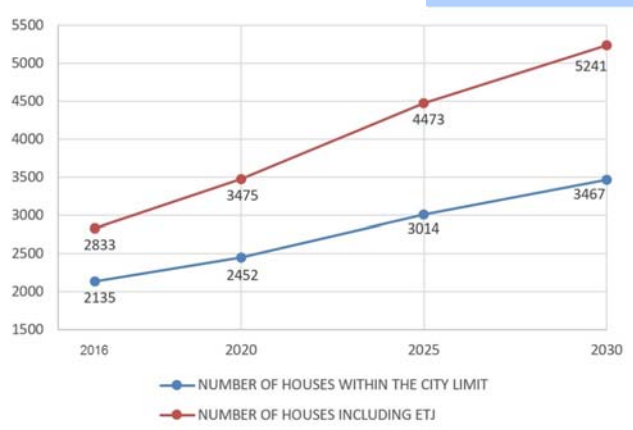


Figure 3.1– Projected number of housing unit needs for City of Lucas

HOUSING ACTIONS

Housing needs and some of the potential housing issues within the City have been identified above. The prevention of housing issues in Lucas will require the development and implementation of an effective housing program. Although this will be an ongoing process, specific actions for the next five years have been developed. These actions, all of which will be of negligible cost to the city, are listed below.

Action Items:

1. Beginning with those units in worst condition, complete the rehabilitation of housing units in the City by using one or a combination of the following methods:
 - Strict Code Enforcement of the City’s adopted ordinances.
 - Establish or coordinate with existing benevolent groups such as Habitat for Humanity to help those unable to help themselves.
2. Review current zoning ordinance for compliance with development issues within the city.



LAND USE

INTRODUCTION

The purpose of the land use analysis is to provide both statistical and graphical information concerning the various types, amount and intensity of land use within Lucas and identify problems which have arisen as a result of conflicting land use patterns or inappropriate land uses. An updated future land use plan can then be produced enabling Lucas to better guide land development in a manner which reflects local goals and objectives.

The total corporate limits of Lucas comprise 9,855 acres of land while the actual developed area of the City covers 7,285 acres. The extraterritorial jurisdiction (ETJ) covers an additional 1922 acres. Figure 4.1 at the end of this chapter displays an aerial illustration of the City of Lucas and the extraterritorial (ETJ) pockets within the city.

ANALYSIS OF EXISTING LAND USE



Residential Land Use

Residential land use consists of 5,582 acres of single family land use and 43 acres of manufactured homes land use, or 56 percent of the gross land area of Lucas. This is the most important land use classification in Lucas. Most single-family development lies in the central portions of Lucas, taking advantage of gentle topography which is out of floodplain areas. Although there are some scattered commercial uses intermingled with single-family uses,

most neighborhoods contend only with vacant lots as the only other use present. Manufactured homes account for 0.6 percent of total developed land area.

Commercial Land Use

Commercial land use covers 505 acres or 5 percent of the gross land area of Lucas. Access to public sewer facilities is allowed only in areas designated by metes and bounds that have been zoned for commercial use. There are six independent school districts in City of Lucas and one private school:

- McKinney ISD
- Princeton ISD
- Allen ISD
- Lovejoy ISD
- Plano ISD
- Wylie ISD
- Lucas Christian Academy



Most of the remaining commercial land uses within the city are in close proximity to the major roadway system. At present, there appears to be minimal conflict between commercial land uses and adjacent land uses.

Industrial Land Use - (These parcels are zoned LI light industrial)

Industrial land use covers 7 acres or 0.08 percent gross land area of the City and consists of light industrial uses along the north side of West Lucas Road. These light industrial uses have potential for conflict with adjacent future residential uses.

Streets and Rights-of-Way

Land utilized for streets and utilities comprises 965 acres, or 9.79 percent of the gross land area of Lucas. Streets do not pose any conflicts with other land uses in Lucas as these uses tend to be compatible.

Public/Semi-Public Land Use

Public and semi-public land use within Lucas covers 29 acres, or 0.30 percent of the gross land area. Most of this is utilized for City facilities, cemeteries and public utilities such as water towers.

Parks Land Use

Parks land use covers 153 acres, or 1.55 percent of the gross land area of the City. This includes three neighborhood parks, the Lucas Community Park and two parks located adjacent to Lake Lavon. In general, parks are compatible with their surrounding land uses.

Agricultural and Open Space Land Use

The remaining land use types, including agricultural and open spaces, are located randomly throughout the City. Agricultural and Open Spaces cover 2,570 acres or 26.08 percent of the gross land in the City of Lucas. In addition to land located in flood plain areas, this also includes those areas which are usually subdivided into lots with access to potable water facilities and paved streets or where surrounding development densities make agriculture or ranching less practical.



SOCIO-ECONOMIC AND MAN-MADE INFLUENCES AFFECTING LAND USE

An analysis of the existing development activity in Lucas should examine the following basic influences: population growth, housing availability, public utilities and facilities, transportation, and development constraints posed by both the natural and man-made environment. This can then be used to better determine the influences which will define future land development in the City.



Housing

Lucas is comprised of only single-family housing units. With a steady growth in population, it is anticipated that the demand for well-constructed and well-maintained housing will continue to increase. Therefore, more units will need to be built to provide adequate and safe housing for the growing population. As the City's development approaches a "built out" condition, the increase in tax revenue due to new housing should be expected to diminish.

Infrastructure

Future growth and appropriate levels of service depends upon the City's water supply and distribution system, street system, and drainage system at suitable capacities and operational levels to meet demands. Various elements of Lucas' water, streets, and drainage systems will need improvement in the coming years.

Public/Semi-Public Facilities

Public facilities in Lucas include a City Hall, community center, parks, cemeteries, fire station and utility sites. As the future population increases, there will be a corresponding increase in the demand for these public facilities.

OTHER SERVICES

As the population increases, there will be an increase in the local demand for retail and/or consumer services. The City of Lucas has approximately 5.85 acres of commercial land use per 100 inhabitants (excluding the schools). To avoid conflict with adjacent residential uses and minimize negative traffic impacts, future commercial uses should generally continue to be confined to peripheral areas of the city.

ETJ AND FUTURE ANNEXATIONS

The extraterritorial jurisdiction of Lucas includes:

- Land adjacent to Lake Lavon.
- A municipal utility district in the southeast corner of the City
- Several pockets of land scattered throughout the City as well as adjacent to it

Figure 4.3 depicts the current ETJ. Additional development is anticipated to occur in the ETJ.



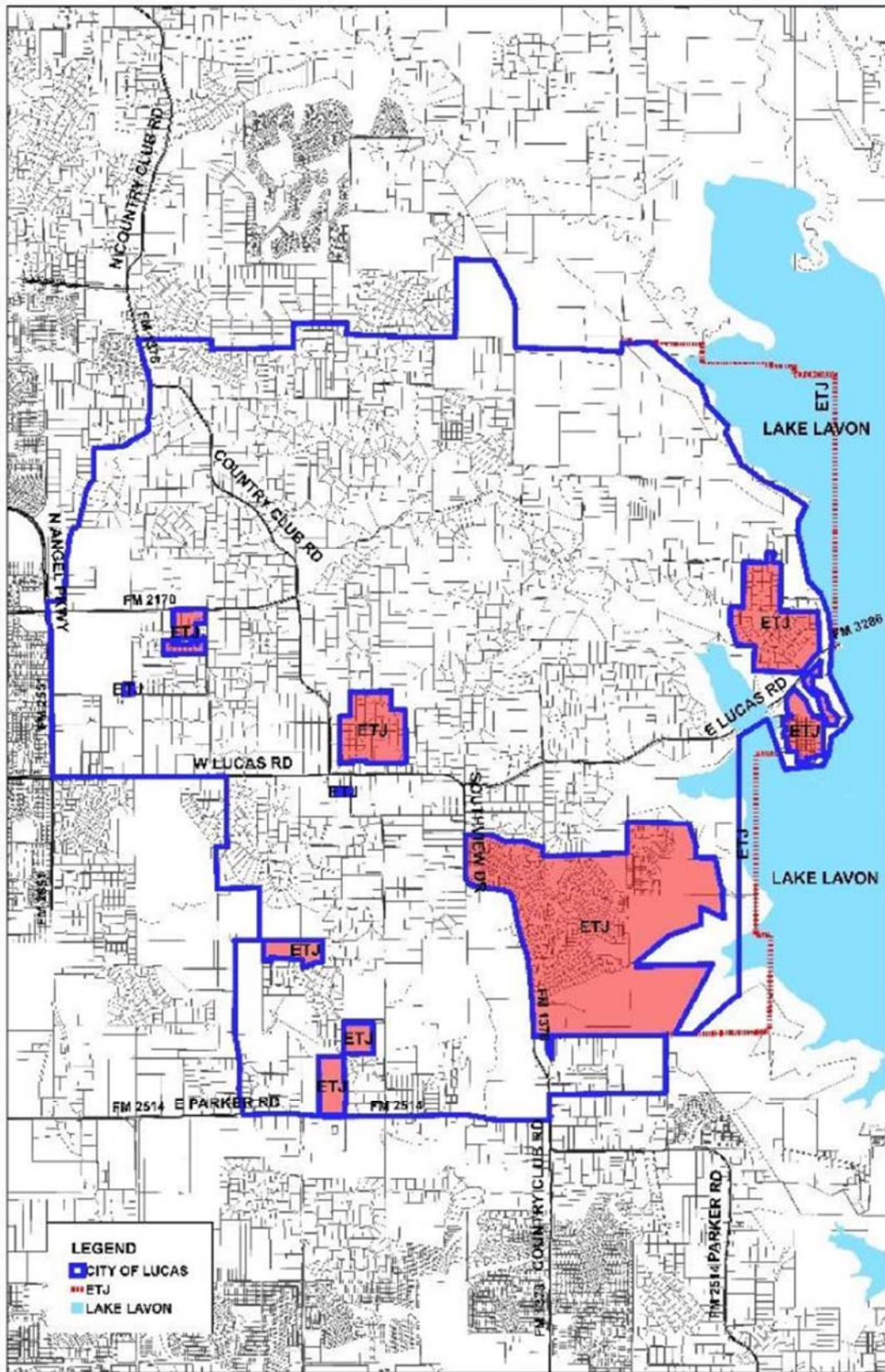


Figure 4.3 - City Limits and Exterritorial jurisdictions (ETJ)



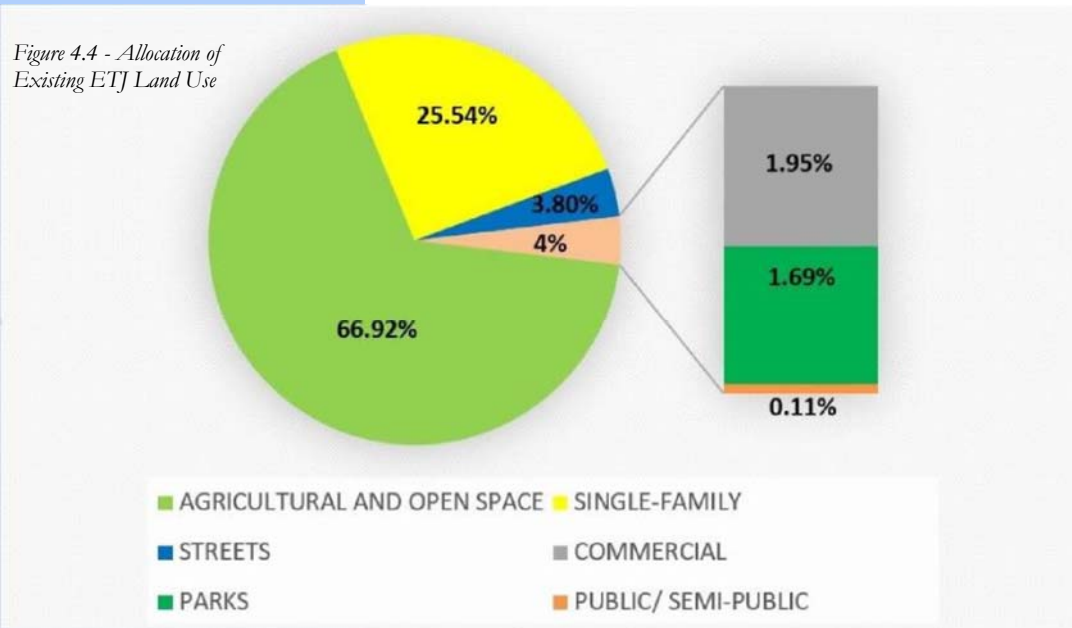
The composition of the ETJ area is presented in table 4.3 and figure 4.4. Any future large-scale residential development in the ETJ area will most probably occur to the southeast adjacent to Lake Lavon. As opportunities arise, the city should favorably consider annexing those "out areas" currently within the city limits as they become available for annexation. It should be noted that development agreements are in place which preclude some of the ETJ areas from annexation at the time of preparation of this Comprehensive Plan. The available areas for annexation at this time include:

- Claremont Springs Phase 1
- Cimarron
- Edgewood Estates
- Trinity Park

Table 4.3 - Allocation of Existing ETJ Land Uses

LAND USE	ACRES	% OF GROSS
SINGLE-FAMILY	490.88	25.54
COMMERCIAL	37.44	1.95
INDUSTRIAL	0.00	0.00
PARKS	32.39	1.69
PUBLIC/ SEMI-PUBLIC	2.15	0.11
STREETS	73.00	3.80
AGRICULTURAL AND OPEN SPACE	1286.43	66.92
TOTAL	1922.29	100.0

Source: August 2015 land use survey using aerial photography



ZONING AND SUBDIVISION REGULATIONS

Lucas has previously adopted zoning and subdivision ordinances. The subdivision ordinance provides the City with control over development practices within both the City and the ETJ. The zoning ordinance is used to regulate land uses that can occur within the city limits. The continued monitoring of these ordinances is important to ensure future development activities are consistent with the City's development objectives.

LAND USE GOALS AND OBJECTIVES

The goal of Lucas is to optimize land use in order to increase the quality of life of the residents. Lucas' land use goals are to avoid traffic congestion, inadequate or obsolete utilities or services and the location of incompatible land uses adjacent to one another. The proper planning and use of land will result in well-ordered land uses and development patterns as the City progresses.

LOCAL GOALS AND OBJECTIVES AFFECTING DEVELOPMENT

GOAL 1.

Develop the community in a manner which preserves and maintains property values and is consistent with the City's ability to serve existing and future development.

Objectives:

- Plan for reasonable demand with regard to water, street circulation and neighborhood connectors.
- Maintain the present rural atmosphere with a majority of large-lot residential development.

GOAL 2.

Preserve the residential and rural small-town atmosphere of the community while encouraging some quality small-scale economic development.

Objectives:

Utilize the "Survey of selected business" as a guideline for attracting business to the community.

- Ensure that commercial and other "high activity" uses are adjacent to designated neighborhood connectors to maintain acceptable fire/emergency response times.
- Preserve peripheral areas to the south and west for future limited commercial and moderate density residential development.
- Regularly review, update (if necessary) and enforce the zoning and subdivision ordinances to minimize the intrusion of incompatible land uses.
- Promote the general health and safety of the residents of the community.



It is important to understand that the Land Use Plan for Lucas is intended to serve as a general guide for the future development of the city. It should be considered flexible in nature, rather than a rigid blueprint for future land use. The population, housing, infrastructure and land use data contained in sections of this Comprehensive Plan serve to establish the determinants for land use projections.

FUTURE LAND USE

Land Use Planning Principles and Process

The following principles are considered applicable to the proper designation of land for residential use:

- Residential land should be well drained and free from danger of floods.
- Residential land should be readily accessible from, but not necessarily facing, arterial or collector streets.
- Residential land should be free from the danger of encroaching incompatible land uses.
- Residences should be able to access community facilities such as parks, schools, playgrounds and commercial facilities serving everyday needs.

Factors relating to the designation of land for commercial land uses include:

- Commercial areas must be located to maximize the use of major neighborhood connectors while minimizing excessive traffic impacts on residential roads and neighborhoods.
- Commercial areas should be limited and compact.
- Commercial areas must allow for safe automobile/pedestrian access and circulation. (Commercial areas require sidewalks per our adopted regulations)
- Commercial areas must be designed to avoid blighting effects on adjacent residential land and must be kept from encroaching on other sensitive land uses.

The proposed locations for commercial activities on the periphery of the community is acceptable both in terms of decreasing traffic stresses on central area roadways while providing accessibility to area customers. Commercial areas, if properly developed with landscaping programs and a developed access route to remove consumer traffic from through traffic, can be an asset to a community. It is with these factors in mind that the following principles were established for the planning of commercial areas:

- Commercial land uses should be formed into compact developments, avoiding "strip commercial" growth.
- Avoid the occurrence of scattered commercial development along major highways. Commercial activities should be consolidated into a few well organized areas to take maximum advantage of utilities and services and to promote the economic well-being of the total business community.



- Adequate off-street parking and access should be utilized for commercial areas to decrease potential congestion and safety hazards.
- Avoid commercial growth on both sides of heavily traveled highways.

As the City of Lucas grows, future fire stations and emergency sites should be located to minimize the response time in accordance with National Fire Protection Association (NFPA) standards.

In order to formulate, adopt and implement a plan that accomplishes the foregoing overall goals and objectives, it is important to incorporate certain basic planning principles and processes into the local future land use planning effort. The Future Land Use Plan expresses projections that are based on sound planning principles, recognizing and supporting existing land uses, community facilities and physical features.

The plan for Lucas suggests that certain areas be reserved and developed for various land uses. Selecting the pattern and distribution of future land use is best accomplished through:

1. The analysis of existing land use characteristics
2. The effects of existing infrastructure
3. The location of existing neighborhood connectors
4. The application of recognized planning principles

These characteristics and principles establish a process by which to judge the most optimum and best land use based on local and community-wide standards. There are two advantages of going through such a process. First, it results in a land use plan for the City as represented by the Future Land Use Map. The Future Land Use Map can be used to assure that individual decisions follow a comprehensive pattern. It also helps in the sensitive but necessary evaluation of change with respect to public and private benefits. Second, the establishment of this planning process provides the City with a method of logically making subsequent land use decisions. It is important to reiterate that the Future Land Use Plan does not attempt to set the specific use for each and every parcel in the planning area.

RECOMMENDED ASSIGNMENT OF LAND USES

Residential Land Use Requirements

The assignment of land uses is then based upon the goals, objectives and planning principles previously stated. It is anticipated that new residential uses will be built as (1) new subdivisions close to or within current city limits, as (2) larger lot development in sparsely populated areas adjacent to Lake Lavon and the ETJs, and as (3) in-fill development/redevelopment. As one moves further west and south, residential densities transition from larger lots of two or more acres, to lots of one and one-half acres, and one acre. By establishing this hierarchy of development density, will result in a more cohesive land use throughout the City.



Commercial Land Use Requirements

Future commercial land use allocations in Lucas should focus on peripheral locations to minimize traffic impacts on residential areas, reduce the potential for incompatible land uses, and minimize subsequent potential adverse effects. Drive will serve local needs with limited impacts to commuter and passerby highway traffic.

Industrial Land Use Requirements

No provision is made for future industrial development in Lucas. There are no perceived benefits to the City in preserving areas for future industrial development.

Parks Requirements

With respect to parks and open space, local opportunities for residents exist in Lucas. Expanded recreation options can be a benefit if operating and maintenance costs are held to manageable levels. Because of its limited tax base, Lucas should only expand park and open space facilities where and to the extent they are deemed needed.

RECOMMENDED LAND USE PLAN

A current delineation of existing conditions in both graphic and tabular form will not only allow for an up-to-date analysis of needs but will also allow for a measurement of success in achieving the Plan. Further, the Future Land Use Map should be used as a guide to keep incremental changes of the community in perspective. The individual decisions which actually shape the community, however, should be evaluated with respect to the characteristics and principles discussed throughout this document. Exceptions to this plan can be made and can be acceptable on a case by case basis where the greater good of the community is enhanced.



ECONOMIC DEVELOPMENT

INTRODUCTION

Economic Development can be defined as the basis by which a community maximizes or preserves the quality of life for its citizens. Economic development is a complex process vital to a community's pursuit of greater prosperity. Successful community development is a result of a well-executed economic development process that is given high priority by local leadership, and supported by residents. Moreover, economic development provides local employment and investment opportunities that generate these revenues. These revenues pay for public improvements, services, and facilities, as well as offset the increases in property taxes. However, for the City of Lucas, it is important to understand that economic development is only supported when it sustains the overall livability of Lucas. What does the term livability mean with regard to city planning? Many intangibles make a city livable, such as a sense of community, a strong sense of place in particular areas, city pride, and the friendliness of neighbors. However, there are also tangible aspects which can nurture livability. Therefore, the aspects of livability that this chapter will embrace include:

- Creation of a trail network that connects neighborhoods;
- Creation of neighborhood identity, and areas with a strong “sense of place”;
- Aesthetic quality of the neighborhoods and community;
- Proximity to open space and recreational opportunities;
- Proximity and availability of other community services such as high quality schools;
- Ease of access to and quality of retail and restaurants;
- Traffic flow and managing the impact of development and the associated increase in traffic on neighborhoods;
- Sustainability in buildings and development pattern; and
- Accessibility to natural areas

DEVELOPMENT CHARACTERISTICS AND POLICIES

Regional Context

Many aspects of regional development and demographic trends have a significant influence on economic potential. State, national, and international economics influence the regional and local economic potential, as well as contribute to the underlying assumptions for conducting regional and local economic analysis.

Lucas, with a current population estimate of 6,875 persons in 2016, contains a total land area of approximately 9,855 acres. An additional 1,922 acres is located within the extra-territorial jurisdiction. The city's location in Collin County places it on the northeastern



edge of the Dallas/Fort Worth Metroplex, convenient to most major employment centers.

Physical Growth Patterns



The Future Land Use Plan (Figure 4.5) depicts future land development characteristics for Lucas. Lucas is a traditional bedroom community with primarily large single-family lots and open spaces located through the core of the city with commercial located on the periphery. Residential is served by on-site sewerage facilities (OSSF), which requires a minimum of one acre for a residential home site. Commercial is served as defined by the Waste Water Master Plan. Commercial development is planned in two primary areas of the City. Both of these areas have been planned and have all necessary services installed for development. Unlike residential development, these areas for commercial development have access to sanitary sewer infrastructure installed with capacity available to meet future demand for these services.

In the past, the majority of commercial establishments consisted of small retail providers catering generally to local trade. In recent years major commercial growth has occurred along the western city limit boundary near the City of Allen, between West Lucas Road and Estates Parkway. In addition to development of commercial establishments near the western city limit, future commercial growth is anticipated near the southern city limit boundary in an area west of Southview Drive. Since Lucas foresees itself in the future as a community of primarily low density residential uses, the City will focus on appropriate, smaller scale commercial development, which will generate an acceptable level of sales tax revenues while effectively serving the needs of the local population base.

Local Regulations and Development Policies

The local regulations are reflected in the City's subdivision and zoning ordinances. Both ordinances must effectively direct development activities in a manner which both reflects local goals and objectives while recognizing realistic development standards. These regulations are not intended to discourage growth but rather to ensure that any new development provides for quality facilities and services.

Economic Base Study

The majority of all workers living in Lucas tend to be employed in occupations which require a higher or higher/moderate skill level. According to the US Census Bureau estimates for 2009-2013, the median household income in City of Lucas is \$101,636, which is almost twice the \$51,900 median household for the State of Texas.



Utility Services

The City of Lucas is the retail provider of water for its residents and businesses and its water wholesaler is the North Texas Municipal Water District. Details regarding the water system are described in Chapter 8 (Water) of this planning document. TXU and Grayson/Collin Electric provide electrical distribution. Natural gas, supplied by CoServe, is available in limited areas of the city.

Industrial Sites

Presently, there is no industrial development in Lucas. The high land costs in the area, compared to the Dallas/Fort Worth Metroplex, the zoning, the limited sanitary sewer system and the emphasis on Lucas remaining a low density residential community, are factors which make future industrial development in Lucas unlikely. The proximity of Lucas to major employment centers makes the issue of local job creation less important. Residential development is and will continue to be the most dominant land use along with minor ancillary development.

Commercial Sites

Lucas has a total of 505 acres of commercial development. By excluding land reserved for schools, 375 acres are directly reserved for commercial land uses. Future commercial sites will be located on the periphery of the city to minimize intrusive traffic volumes on interior neighborhoods. Details are provided in the Land Use Section of this planning document.

Community Assessment

It is important to note there is a critical link between economic development and comprehensive planning. Economic development is impacted by:

- Land use;
- Zoning;
- Accessibility to utilities;
- Access via transportation systems and infrastructure; and
- Demographics..

Characteristics of the City of Lucas include:

1. A property tax rate lower than the average for cities in Collin County and for the cities in DFW region. (\$0.320661 in 2015)
2. The city has traditionally had a conservative City Council that places an emphasis on providing a balance between necessary services with low taxes.
3. Skilled labor represents a high percentage of the Lucas work force.
4. Commercial land availability along FM 2551 and the southeast quadrant of the City (FM1378 and Parker Road).
5. Vacant land for additional housing.
6. Sewer service is available in commercially zoned areas as defined by the Waste Water Master Plan.
7. Land prices are higher than region or state average.



It is important for Lucas to realize its potentials and liabilities in terms of future economic development. Because of its location, Lucas has more potential for developing as a quality residential area than it does in becoming a significant economic center. However, it is important for Lucas to develop some commercial areas to meet the needs of residents.

While it is possible to operate primarily upon property taxes, doing so may require undesirable constraints on future spending. It is important Lucas not become dependent solely upon property taxes as the only revenue source for local government operations. The City of Lucas needs a healthy mix of ad valorem and sales tax revenue. Ad valorem taxes should be used generally for day-to-day operations while sales tax revenue should be used for capital projects.

Decision regarding business location will come from the business owner and his or her willingness to invest in a particular site; however, the city's development environment as conveyed through its development codes will have a major impact on where and what type of business activity takes place.

ECONOMIC DEVELOPMENT PLAN

Economic development in Lucas should have two major thrusts: (1) maintain appropriate housing development and (2) attract businesses that are appropriate for the City. Commercial development has benefitted the City with increased revenue. Balancing the financial well-being of the City and its ability to provide essential services with the citizens' desire to maintain the features and attributes of the City is paramount. Therefore, it is important to emphasize citizen feedback during the public meeting regarding economic development.

HOUSING SUPPLY

The demand for quality, upscale housing in Lucas is expected to continue. Lucas should focus on quality housing to ensure that values are maintained and the city continues as desirable place to live.

ATTRACTING NEW BUSINESSES

Attracting appropriate new businesses to Lucas will increase tax revenues and fund city-provided services. There is attractive land available for new businesses in western and southern city limit boundaries with infrastructure in place or in the planning stages. The western area is accessible through three arterial roadways including West Lucas Road, Estates Parkway and Angel Parkway. The area in southern part of city is similarly accessible through two major arterial roadways East Parker Road and Southview Drive.



The citizen's preferable commercial businesses survey conducted by the City in 2015 should be utilized to attract businesses desired by citizens of Lucas. The top five responses from the survey include:

- Sit Down Family Restaurant
- Farmers Market
- Garden/Nursery
- Grocery Store
- Feed Store

These types of retail establishments typically generate sales tax revenues. It is anticipated that planning for the continued development of similar businesses in the western and southern part of the city in commercial zoning areas will continue.

ECONOMIC DEVELOPMENT GOALS AND OBJECTIVES

Based on input from Lucas citizens, Boards and Commissions, City Council and staff, the following economic development goals and implementation strategies are recommended:

GOAL 1:

Support business endeavors that are in harmony with the rural characteristics and distinctive environment.

GOAL 2:

Improve and maintain the infrastructure to support growth in the tax base and sustain a sound financial future through the adoption and implementation of a capital improvement program.

GOAL 3:

Attract businesses to Lucas that serve the local population and promote the livability and a high quality of life for our citizens.



PARKS, RECREATION AND OPEN SPACE

INTRODUCTION PARKS, OPEN SPACE, AND TRAILS



The amount and quality of parks and open space within a community are often cited as important elements of local quality of life. Lucas has recognized this fact through an adopted Park Plan and a park dedication ordinance. Lucas is a unique community with large lots and open spaces naturally throughout the city. The city's entire eastern boundary is located on the shores of Lake Lavon, with natural waterways through the city for storm water run-off.

Due to the unique features of Lucas and the large lots and natural open spaces, parks are not as important to the city as they are to surrounding communities. With input from the community, Boards, council, and staff it was decided that existing parks with the exception of the future potential to expand existing facilities especially at the community park located next to city hall, that we have adequate parks facilities. The city should concentrate on expanding existing equestrian and hiking trails adjacent to the city on US Army Corps of Engineering property and throughout the city.

COMMUNITY COMPOSITION

The City of Lucas contains a total land area of approximately 9,856 acres. Approximately 74 percent (about 7,285 acres) of the land within the existing City is developed, while the remaining acreage is vacant or being used for some agricultural related purpose. Lucas currently has six parks (153 acres) utilized as parkland and has no planned or designated open space system. In addition the City of Lucas is located immediately adjacent to Lake Lavon, which provides opportunities for water based recreational activities, trails and open spaces.

PREVIOUS PARKS AND OPEN SPACE STUDIES

The City of Lucas historically has had common visions for development of Parks & Open Space. Previous studies performed date back to 2001 when community planning involved City officials interacting with the citizens in the form of Town Hall meetings and questionnaires intended to gather preferences and opinions about parks and open space in the City. Preferences and opinions came from a sample of the population voicing a variety of choices. A 2001 study entitled "Lucas Parks and Open Space Master Plan" presented a detailed analysis of the park system, open spaces, possible programs and recreational opportunities available,



and the detailed history of lands in the City. The study also painted an overall picture of the City's situation regarding these issues, described a strategy in which to develop a parks and open space master plan, and established goals and objectives outlining means to implement the proposed plan. Additional study was performed as a part of the 2004 City of Lucas Comprehensive plan which included an evaluation of the parks and recreational opportunities in the City and the current opportunities available and existing facilities available.

In 2015, the City hosted several Town Hall meetings to provide forum to receive feedback from citizens and to address the parks, recreation, and open space needs. The town hall meetings, previous study, and ongoing changes to parks and recreation in the region will serve as a backdrop in describing the current opportunities as they exist today.

EXISTING PARKS AND OPEN SPACE

Over the years, the City of Lucas has developed 4 parks and preserved open space in accordance with community planning efforts. The existing parks and open space include Brockdale and Highland Park currently operated by the Army Corps of engineers, and one private park located in the Stonegate sub-division making a total of 6 parks in the city and they are described and evaluated as follows.

BROCKDALE PARK

Brockdale Park was established in 2005 and is located at east edge of City of Lucas immediately next to Lake Lavon. Brockdale Park is 127 acres and has several amenities that have been developed and includes The Blackland Prairie Raptor Center that is located in the middle section of the park. This center is a nonprofit, rehabilitation and conservation education organization. The mission of this organization is to preserve the environment through public education and conservation of birds of prey and wildlife in their natural habitat.

KENNETH R. LEWIS PARK

Kenneth R. Lewis Park is located adjacent to FM 1378 (Southview Dr.), near the southern side of the City. The park is approximately 5 acres and offers baseball/softball field and soccer field. About two thirds of the park is open space and undeveloped for use with other activities.

LUCAS COMMUNITY PARK AT CITY HALL

The Lucas Community Park at City Hall is directly adjacent to the southern side of City Hall Parking Lot. The park is approximately 3 acres and offers a 5-foot wide concrete sidewalk that circulates the park and a pavilion for picnics and barbeques for the City residents of Lucas, and a large playground including multiple slides and climbing areas. The park also boasts a



community center with rooms available to residents at no cost. The parking area provided for the City Hall can be also utilized for the community park.

HIGHLAND PARK

Highland Park is located at Northeast edge of the city just off Snider Lane. This park is approximately 59 acres and has a minimal of services developed at the park.

Highland Park Provides a boat ramp at the north end of the park for boating and fishing activities on Lake Lavon. The ramp is concrete with ample parking for trailers and vehicles. Entrance to the boat ramp area is via Highland Park Road. Available facilities at this park include the following: a parking area, boat ramp, and restrooms.

As with Brockdale Park, the Trinity Trail passes through the Highland Park. There is a trailhead existing at this park that serves as a point for riders to unload and load their horses with an entrance area on Highland Park Road. The Trinity trail continues north past the limit of Highland Park to the north end of City of Lucas limit near the North Texas Municipal Water District Treatment Plant as previously discussed. Available facilities at the trailhead in Highland Park include the followings: loading/unloading area, restroom facility with ADA considerations, one pavilion, and a watering place for horses.

FOREST CREEK NEIGHBORHOOD PARK

Forest Creek Neighborhood Park is located north of the City of Lucas next to Orchard Gap Lane. The Forest Creek Neighborhood Park is a small 2 acre park with several playgrounds and a soccer field. Access to the park is from Country Club Road via Orchard Gap Lane off Norfolk Lane. Facilities available at this park includes a traditional neighborhood playground and open space.

STONE GATE PARK

Stone Gate Park is a private park located on north side of the city in the Stone Gate Neighborhood and is only accessible to residents of that neighborhood. This park is a very small neighborhood park occupying less than 1 acre next to one of the tributaries of White Rock Creek. This park offers a traditional multiuse playground, a small gazebo, picnic tables and a 2-foot wide concrete sidewalk that passes through the park. The sidewalk connects to a concrete trail that continues alongside the tributary of the White Rock Creek.

OPEN SPACES AND NATURAL FEATURES

Open space represents the natural and agricultural through fields, pastures, prairies and woodlands. Public and private objectives may differ in regard to preservation of open spaces. The City's desire to preserve open spaces will depend on achieving common goals with private land owners and the public. The goal of maintaining open space should be continued with interaction between the City and land owners to determine common means to achieve these goals.



Other open spaces in Lucas are in the form of:

- Lake Lavon existing flood plain areas
- Creeks and waterways;
- Vacant lands, farm lands, pastures and rights-of-way

All these open spaces can potentially allow for trails and trail connections.

The most important natural feature in Lucas is Lake Lavon and its tributary creeks. Constructed in 1954, the lake is owned and controlled by the U.S. Army Corp of Engineers. There are twenty areas along the lake designated for park use, including Highland Park and Brockdale Park which reside in Lucas. These parks provide water-based recreational opportunities that would otherwise not generally be available in the county.

EXISTING TRAILS

Currently Trinity Trail is the only trail in-use that exists in City of Lucas. The Trinity Trail is situated along Lake Lavon with scenic views of the lake and surrounding landscape. The trail extends to the southeastern city limit of Lucas, and north to the City limit we share with North Texas Municipal Water District. This unpaved trail is 25.5 miles long and placed on the US Army Corps of Engineers land along Lake Lavon from East Fork Trail Head in Wylie in the south to the Giant Sycamore Loop to the north. Approximately 11 miles of the Trinity Trail passes through the City of Lucas. This trail enters the City of Lucas in the south from Collin Park in St. Paul, and stretches north along the edge of the lake passing through Brockdale Park and Highland Park. This trail is only open to horseback riders and hikers, and is maintained and operated by a group of volunteers named Trinity Trail Preservation Association (TTPA).



PROPOSED FUTURE TRAILS

Based on input from the citizens, boards, city council, and staff, the future needs of the city are to add additional equestrian/hiking trails. Specifically a trail system linking the Trinity Trails on the north side of the city with a trail through the city to reconnect with the Trinity Trails on the southern end of the city. The proposed trail and trailheads would start at E. Winningkoff Road and end at the Hunt property on the southern end of the city at a future trail head location. The trail should utilize wet lands and natural tree lines whenever possible to create a secluded and shaded trail area.



GOALS AND OBJECTIVES

The City has continued to work toward achieving the goals and objectives established with previous comprehensive and community planning. By setting the goals and objectives, some results are evident and progress has been made. Recognizing the current achievements, changed environment and surroundings, a revised set of goals have been outlined that share common themes that resonate with Collin County Open Space Strategic Plan:

GOAL 1.

Preserve natural environment and native ecosystems.

Objectives:

- Conserve and protect ecologically sensitive and naturally beautiful areas, e.g. flood plains along creeks, high points with scenic views toward Lavon Lake, etc.
- Establish and/or enhance green space and natural areas along flood plains, and promote public access to green belt areas with trail systems, e.g. equestrian/hiking trails, etc.
- Encourage and promote water conservation through the use of native plant materials, xeriscape techniques, and other methods.
- Maintain high standards for groundwater quality due to the proximity of Lake Lavon.
- Encourage development types, which minimize impacts upon the community's natural resources and visual appeal.

GOAL 2.

Provide a comprehensive Trail System Plan to include green belt and open space that is compatible with the environment and compatible with residential neighborhoods.

Objectives:

- Continue to revise and adopt comprehensive Parks and Open Space Plan that meets current preferences and reflection of changing environment in the region in 2016.
- Promote trail connections, and ensure greenbelt and open space dedication during the development review process.
- Create pedestrian and equestrian trails between residential neighborhoods, linear greenbelts, schools, public administrative facilities, and other activity centers, whenever physically and financially possible.
- Continue to adopt and finalize a detailed plan for necessary open space/trail easements to connect existing and future parks, schools, and neighborhoods into an integrated, low maintenance park and recreation system.
- Formulate and adopt policies and ordinances that protect the acquired/donated park land and open space easements.
- Utilize trails, wherever possible, to locally and regionally connect schools, parks and residential areas.



- Design a parks and open space system that is interconnected and multifunctional, which protects important natural, cultural and visual resources while providing appropriate opportunities for recreation.
- Integrate locally planned trails with the "Collin County Regional Master Trail Plan".
- Coordinate planning efforts with those of adjacent cities.

GOAL 3.

Develop and maintain the new Lucas parks and open space system.

Objectives:

- Determine actual maintenance cost currently needed to maintain existing parks.
- Undertake the necessary effort to determine maintenance costs and capital investment costs associated with acquiring and/or developing new parks and open space.
- Allocate sufficient funding to maintain existing parks, open space and trails.
- Formulate and adopt policies and ordinances that protect existing park facilities, open spaces, and trails.
- Explore cost sharing options such as Federal, TxDOT grants, or "Keep Lucas Beautiful" for fund raising.

PLAN AND RECOMMENDATIONS

The purpose of the plan and recommendations is to provide community direction in a constantly changing environment. Under existing and currently projected conditions and circumstances, the City of Lucas parks, open space and recreational needs will be well satisfied. Few things have so positive an effect on the quality of life in a community as a well-executed plan for a community's parks, open space, trails, and recreational facilities. These recommendations should be helpful to future decision-making as each plan component is gradually considered for implementation or revision.

- Equestrian, hike, and bike trails, greenbelts, parkways or paths should be provided to connect large recreational areas, providing access, scenic views and recreational opportunities.
- Combined municipal and school recreational facilities should be used to serve the community and prevent the construction of redundant facilities. If possible, school recreational areas should include parking, drinking fountains and restrooms and should remain open on weekends and during the summer months.



STREETS AND DRAINAGE

STREETS



The livelihood of a community is, to a very large extent, dependent upon convenient and efficient access to nearby major trade centers outside the city, major national travel routes and transportation terminals of national importance outside of the city. It is likewise dependent upon efficient circulation of people within the city. Local streets should provide safe, reliable access to work, schools, shopping, and homes. A street network, therefore, is of vital importance as it ties a community together and links it to the outside world.

The primary function of a street network is the safe and efficient movement of vehicles and people. The street network of any city operates, in effect, as the skeleton of that city, providing access in varying degrees to all properties abutting the network. Roadways and other rights-of-ways occupy more than 13% of the total developed area and allow for circulation between all areas within the City. In addition to moving traffic, streets provide: access to and drainage for abutting properties; open space between buildings; and right-of-way for various utilities. In this way, the street network is a primary factor in the determination of appropriate land use locations.

The condition of the streets in a city are, perhaps, the item most noticed and for which the city receives the most criticism. While the average citizen cannot see breaks in the water lines or know that an area needs more water storage capacity, they are very aware of the condition of the roads, especially ones near their homes. Street problems affect them daily and can be very aggravating.

If adequate streets and drainage facilities are constructed, they can represent the largest single required expenditure of a city, because problems within the street system are costly to repair. The condition of the roads is affected by many factors: the quality of the soil under the road base and pavement surface; the maintenance on the roads needed to seal cracks and prevent water from soaking into the road base; drainage conditions in the area (related to topography); and the ability to afford needed improvements.

In order to repair the roads to proper standards for long term durability, many roads must be raised or lowered to improve drainage, have additional right-of-way dedicated, have improved drainage facilities installed, and have appropriate road materials used in construction. This involves an intensive process. While a large number of the streets in Lucas are in good condition, many are in need of immediate attention. All of the paved roadways consist of asphalt or concrete.



DRAINAGE

The topography of Lucas consists of both level and rolling terrain. As a result, localized flooding can be a problem, especially where culvert and drainage ditches are obstructed with vegetation or debris.

To help minimize property damage from flooding during periods of intense rainfall, the drainage system for a community must be addressed, sized, and properly maintained. The public has an expectation that no damage will result to property from storm drainage or high water. Many factors directly affect the surface storm drainage immediately adjacent to homes and other structures. Storm drainage facilities include inlets, culverts, bridges, concrete lined channels, natural drainage channels, swales, creeks, rivers, retention and detention ponds, and lakes.

Drainage can have significant effects on structural durability of streets and travel safety. Level ground and poor drainage allows water to collect in some areas, which erodes the road base and causes sections of road to fail, and can also lead to hydroplaning. Currently roadway drainage is primarily handled via open ditches and culverts. The lack of maintenance on some of these ditches has resulted in over growth of trees and other vegetation. This over growth can make roads difficult to drain, and roots can undermine the structural stability of the pavements. As a result the drainage system is discussed in conjunction with the streets system in this chapter.

STREET SYSTEM ANALYSIS

General Street Statistics

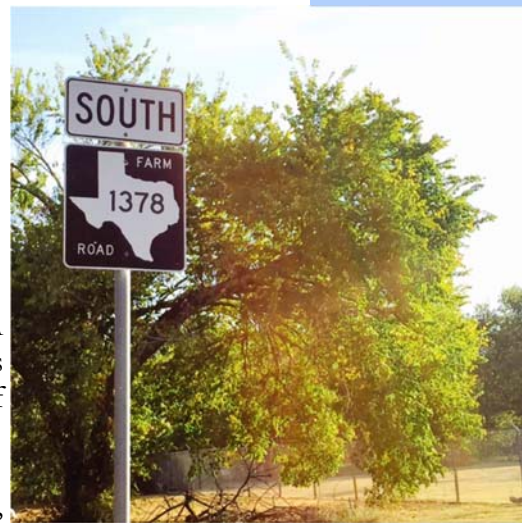
Within the City, traffic control is achieved primarily with signage. The City does not own, operate, or monitor any traffic signals to control traffic flow. However, the Texas Department of Transportation (TxDOT) controls several traffic signals at these intersections:

- Lucas Road and Southview Drive
- West Lucas Road and Country Club Road
- Country Club Road and Estates Parkway

STREET CONFIGURATION AND FUNCTIONAL CLASSIFICATION

The roadways in Lucas, which are classified as arterials (Type A and B), neighborhood connectors (Type C), and local streets (Type D). All of these roadways provide different levels of access and serve varying levels of the traffic volumes.

The highest level of roadway in the City of Lucas is the arterial, which carries varying amounts of traffic based upon the number of lanes, with somewhat limited access connections.



On the next level of the spectrum is the neighborhood connector, which carries less traffic for mostly local trips and has a higher level of access associated with it. At the lowest end is the local street, which has direct access to every parcel and carries a more limited volume of traffic. Figure 7.1 shows the relation between different levels of roadways.

Presently, Angel Parkway, Country Club Road, Estates Parkway, Lucas Road, Parker Road, and Southview Drive function as the arterial streets in the City. They allow traffic movement to cities such as Allen, Fairview, McKinney, Parker, Plano, and Wylie..

The neighborhood connectors in the City are Blondy Jhune Road, Brockdale Park Road, East Winningkoff Road, Forest Grove Road, Highland Drive, Ingram Lane, Lewis Lane, Orr Road, Snider Lane, Stinson Road, Winningkoff Road, Snider Lane, and Stinson Road. The remaining streets in the City function as local streets. On local streets through traffic is normally discouraged, On-street parking is normally not permitted throughout Lucas roadways. Figure 7.2 represents the street network in City of Lucas located in the Appendix.

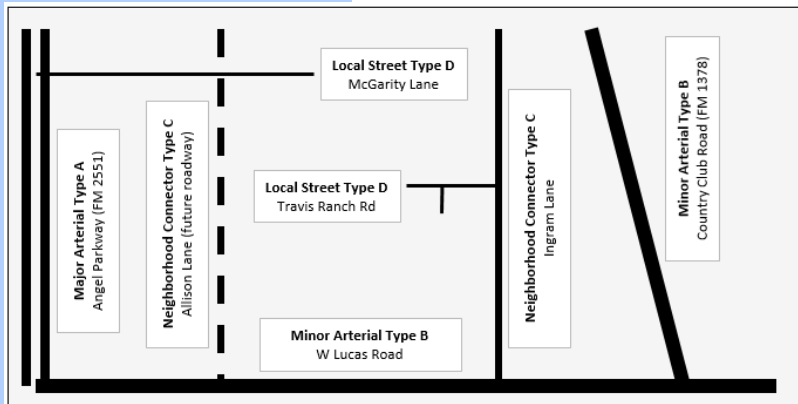


Figure 7.1– Roadway Classification

The geometric configuration of the street system is adequate to meet most current vehicle circulation demands. However, some of the roadways in the City are narrow and have pavement conditions that are unacceptable for current residents. The narrow roadways are inconvenient for two way traffic.

STREET SYSTEM EVALUATION

Before beginning major improvements to roadways, it is essential that the City have a street condition assessment and management system in place. This system will help to ensure that streets in the existing developed areas of Lucas are improved in a uniform and orderly manner. It is through such a system that completed City projects will provide maximum benefits and will become an integral part of the future City. This should assist in the elimination of duplicate expenditures and assure that possible early obsolescence of improvements can be avoided.

A system inventory, as part of a street management system helps to identify different segments of the roadway system. Condition evaluation of the roadway segments is the first step in planning improvement. Such a system will provide a continuous evaluation of the street system inventory. It will also help to detect developing problems and determine the proper, corrective action needed. If a road is found to be adequate for its present service, it should be re-evaluated every five to 10 years to determine the trend of changes affecting its future adequacy. A complete evaluation of the roadway system would include all arterials, neighborhood connectors, and local streets in the city. As part of the condition assessment, an extensive visual evaluation of the pavement surface conditions, drainage, traffic control devices, and environmental conditions was performed. This evaluation included collecting data on the existing conditions and rating evaluated elements for adequacy.



The criteria for the condition assessment are based on criteria which was adapted to the City needs. Table 7.1 describes the ratings used currently used in the assessment of the neighborhood connectors. Figure 7.3 summarizes the present ratings of the neighborhood connectors in Lucas.

This condition assessment identified neighborhood connectors' segments that were nearing failure so that the City might be able to repair or perform a total reconstruction. It should be noted that the longer repairs or proper maintenance are deferred, the more expensive it will be to repair a roadway to standard condition.

EXISTING STREET DEFICIENCIES

The results of the data from the streets observation and the assessments of the neighborhood connectors combined with data obtained from the City of Lucas were utilized to identify deficiencies in need of remedial action. These are ranked according to priority as in the followings:

1) Street Paving

While a large number of streets in the City are paved, have acceptable pavement width, and are in fair to good condition, many are in need of attention or have never been properly paved. Most of the concrete sections of roadway are in good condition.

However, a majority of the asphalt streets, while seemingly in good driving condition, are demonstrating signs of eminent failure due to inadequate road bases and potentially poor in soil condition.

2) Street Drainage

As mentioned earlier, some of the street system has been affected by poor drainage flow. The key areas that need to be addressed are silted and improperly sloped bar ditches along some roadways as well as the silted or undersized culverts. These ditches and culverts allow water to sheet across roadways causing premature damage. Potholes, cracks, and slumped pavement are examples of what can happen when the road base is allowed to erode.

Rating	Description
Good	Good riding surface with no noticeable wear or obvious defects.
Acceptable	Good riding surface, but has some minor surface defects and indications. Some minor cracking or patch repairs may exist.
Fair	Slightly rough riding surface, edges beginning to break down, some moderate cracking, small areas of spalling, pavement, shoulder drop-offs, and cut repairs beginning to require attention.
Poor	Uncomfortable and/or badly worn riding surface, extensive cracking, potholes, and other major defects.

Table 7.1 Rating Description

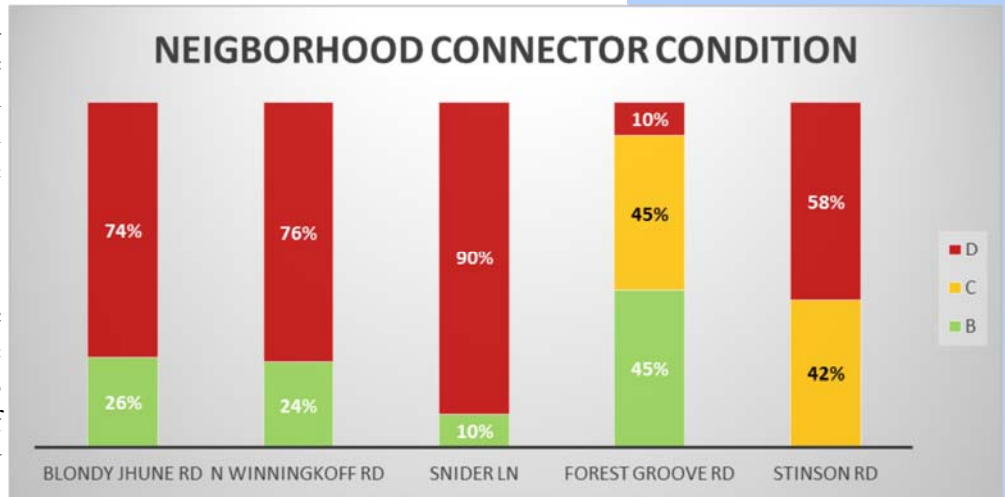


Figure 7.3 Neighborhood Connector Condition



3) Street Right-of-Way

Many of the roadways appear to have been constructed with inadequate right-of-way. As a result, bar ditches are too close to the road base, allowing water to prematurely deteriorate it. These narrow rights-of-way also allow trees to grow too close to the road ways, when the right-of-way is not cleaned or maintained properly. Roots from these trees have been found to burrow under the roadway. These roots cause premature damage to the pavement.

4) Surface Deficiencies

Surface distresses appear on many of the City streets. The asphalt pavement related-distresses that are most common included: longitudinal and transverse cracking, potholes and patch deterioration, rutting, shoving and corrugation, alligator cracking, and shoulder/pavement edge drop-offs, and deterioration. These deficiencies will lend to citizen complaints if not managed properly.

5) Street Width

Some roadways in the City are undersized. These narrow streets present a hindrance to vehicular circulation.

If the deficiencies outlined above are addressed, the primary roadway problems will be eliminated. The remaining streets in the City, which are maintained by TxDOT, will continue to operate effectively within their design and function classification.

TYPES OF STREET IMPROVEMENTS

There are several different methods of maintaining streets within a City. The appropriate choice depend upon the condition of roadway, the anticipated traffic load, and available funds.

Generally, paving improvements for asphalt roadways utilize either asphaltic concrete or surface treatments. The asphaltic concrete consists of a mixture of asphalt and aggregate. Asphaltic concrete is usually prepared at an asphalt batch plant, taken to the job site, laid by street paving contractors or paving machines on a prepared base material, and compacted. Although asphaltic concrete is generally expensive, its durability and relative ease of installation makes it the preferred type of surface pavement in some communities. Surface treatment is generally used for road maintenance or preventive maintenance of existing asphalt pavements. Surface treatment is usually used by communities to renew the pavement where the road is still in a relatively good condition. Chip seal is a very common form of asphalt surface treatment. Surface treatment is considered as a short- term solution for extending the life of a road, however it does not improve the strength of the pavement.

Recommended street maintenance improvements alternatives for City of Lucas can include the followings.

- “Do Nothing” -- This means to not perform any type of improvements. This might apply to roadways at very good condition. However, these roads should



continue to be monitored for pavement deterioration over the next 5 to 10 years.

- Point Repairs -- Excavation of failed pavement sections to a depth of eight to 10 inches, back-filled with eight inches of crushed limestone stabilized with 2% cement, primed and sealed with a coarse surface treatment. (Used to treat potholes and other imperfections and roadway hazards.)
- Level-Up -- Leveling of depressions in pavement with hot/cold mix asphalt concrete. This is used to even out roadway surface.
- Seal-Coat -- Application of asphaltic cement covered with uniform size of aggregate and rolling the aggregates after application. Ideally used once every three to five years to maintain streets and forestall more costly repairs. It should be noted that seal-coating does not address the structural deficiencies and it is only effective when the roadway base is in relatively good structural condition. Seal-coating should be performed by only qualified contractors, as too much asphalt is wasteful and insufficient asphalt does not seal the pavement or bond the aggregate to the surface.
- Overlay -- Depending on the severity of wear, approximately one inch of surface is milled off the existing roadway. The remaining surface material is then overlaid with a minimum of 1.5 to 2 inches of hot mix asphaltic concrete, followed by a surface treatment. This is used to completely replace the surface material of a street to address pavement deterioration and extend street life.
- Reclaim -- Scarifying existing pavement and base material, while adding cement to create a recycled asphalt-enhanced roadway base. The base is then compacted and overlaid with a new asphaltic concrete pavement. Streets receiving this treatment might last five years, depending on the traffic load and environmental conditions.
- Reconstruction -- Roadway reconstruction options removes of the existing pavement structure, and the new pavement structure is recommended to include a 6 to 12-inch lime treated subgrade, a flexible base, and asphaltic concrete surface layer. The existing road pavement can be also replaced with a new reinforced concrete pavement.

The City historically budgets approximately \$500,000 each year for maintaining the street system. These funds are used for point repairing, leveling-up, overlaying, and reclaiming.

DRAINAGE SYSTEM ANALYSIS

The entire City relies on storm water drainage to be carried on the surface. The storm drainage system of Lucas currently consists of a system of bar ditches, channels, and culverts. These facilities carry storm water run-off within Lucas to the eventual terminus outside the city limits in Lavon Lake or Lake Ray Hubbard.

Annual precipitation is approximately 42 inches per year. The rains are heaviest in spring and fall. The streets in the City crowned to promote open ditch drainage on each side.



The Federal Emergency Management Agency (FEMA) provides flood insurance rate maps that depict the 100-year and 500-year flood plains. These flood plains cover those areas that would most likely be inundated with storm water during the heaviest rains . The 100- year floodway defines the area where buildings are not eligible for flood insurance, while those located in the 100-year floodway fringe are eligible once flood proofing is implemented. The goal of this program is to curtail development in flood plains, thereby reducing damage to structures and minimizing the danger to people during flooding. The City of Lucas is a participating city in the National Flood Insurance Program (NFIP).

The City of Lucas does not maintain most of the above drainage features within the city limits, and jurisdictions. Collin County, TxDOT, and US Army Corps of Engineers control some of those facilities in the extraterritorial jurisdiction and along some of the roadways in and around the City. Most of the necessary seasonal maintenance is the responsibility of the individual property owners. The open ditches running parallel to the city streets receive little to no maintenance from the property owners. The root cause of most if not all the negative drainage issues within the City of Lucas stem from failure of the initial design and lack of maintenance. Many of the neighborhoods and properties developed before 2002 did not have any consideration for proper drainage. Properties along West Lucas Road, north of Estates Parkway and west of Country Club Road, and along Estates Road were not graded or constructed for drainage.

GENERAL DRAINAGE PROBLEMS

Creeks

All creeks are subject to flooding at some point. However, most large channels have had their flood carrying capacity as indicated by FEMA, as shown on their respective floodway maps. It is important to note that creeks that have not been mapped by FEMA are still subject to inundation.

Bar Ditches and Water Channels

A significant portion of the flooding that occurs in the City is associated with bar ditches and culverts being inundated with rainwater flowing off adjacent properties while following the natural topographical lay of the City. Despite the proper construction and operation of the majority of these ditches, some are not able to deal with the intense storm water flows brought on by heavy rains. As a result, water is often left standing in intersections and yards of homes after rain has subsided. This water is a breeding ground for mosquitoes, contributes to premature street damage and is a visual blight on the City. Compounding negative drainage issues is the lack of understanding by homeowners for their responsibility to maintain the drainage associated with their property.

Street System

Some structures in the street system do not lend themselves to adequate drainage since the facilities exist perpendicular to the natural flow lines. In cases where culvert passage is silted, undersized or not provided, the storm water can cause premature damage to roadways and major safety problems.



PLAN AND RECOMMENDATIONS

Purpose

The purpose of the Streets and Drainage section of the Comprehensive Plan is to assist the City in appropriating public funds in a manner which maximizes benefit. The plan identifies those street and drainage improvements, which are needed in order to provide an efficient transportation system, as well as minimizing property damage from flooding during periods of intense rainfall in the City.

STREET RECOMMENDATIONS

The most important consideration when developing a plan for street rehabilitation is to ensure that all plans for roadway construction also include plans for drainage improvements. In Lucas, the drainage ditches along the sides of the roads serve as a route of storm water removal from the City. All plans for road reconstruction must consider the size and slope needs for drainage ditches or the potential construction of curb and gutter as part of an underground storm sewer system. Any program for street improvements without drainage improvements would be futile.

The City has adopted specific street section designs based on the classification of the roadway. Different rights-of-way widths, pavement widths, and base thicknesses, are required for roadways that are expected to serve differing levels of traffic. This is especially useful when enforcing street quality standards and minimums for residential subdivision developments.

If several years lapse before projects are undertaken, a new assessment may be necessary to ensure that data is current. Whether increased traffic due to growth, new commercial, and changes in City; maintenance practices can change the recommendations made in this report. Street maintenance and repair plans should be reviewed annually to adjust for cost and changes in the road conditions.

Proposed improvements were based on the street analysis, focusing on the improvements that are most in need or will benefit the most people. High priority projects including highly traveled roadways in poor condition or first-time paving should be considered as soon as the City is able to finance the repairs. Typically, roads with the greatest traffic should be improved first since a larger number of people will benefit from the limited tax dollars available. This excludes the state roads since they are maintained by TxDOT. For this plan, improvements are phased. Phasing of improvements is designed to help minimize the financial impact on the community, while still realizing the need to make necessary improvements.

PROPOSED IMPROVEMENTS

As part of the Street Plan, recommended roads for reconstruction are presented in Table 7.2. Possible funding sources has been developed and is presented below.



These projects also include improving bar ditches along these roadways as recommended previously.

For the remainder of the planning period, the City should continue to reconstruct roadways that have inadequate bases. It should be noted that while overlay is a viable solution for repairing damaged roadways, it is most effective when done on streets with properly constructed bases. If for example, a street improperly constructed to handle heavy vehicles is overlaid, it can be expected that continued traffic of this type will accelerate premature roadway damage. Therefore, it is recommended that before overlay is initiated, proper base construction be ensured. This way, maintenance costs will be reduced and the longevity of the roadway will be ensured.

Street Name	Type of Repair
Blondy Jhune Road	Reconstruction
Forest Grove Road	Reconstruction
Snider Lane and Bridge	Reconstruction
Stinson Road and Culvert	Reconstruction
Winningkoff Road	Reconstruction

Table 7.2 - Recommended Roads for Reconstruction, City of Lucas, Texas

POSSIBLE FINANCIAL SOURCES FOR STREETS

The City should aggressively pursue these, and any other funding sources, available to assist in providing necessary street improvements:

- The General Fund
- General Obligation Bonds
- Certificates of Obligation
- City Sales Tax
- Special Fees/User Fees

POSSIBLE FINANCIAL SOURCES FOR DRAINAGE IMPROVEMENTS

The following is a listing of sources which may be utilized to assist with future drainage projects:

- The General Fund
- General Obligation Bonds
- Certificates of Obligation
- Grants through the Office of Rural Community Affairs
- Special Fees/User Fees
- Increase landowners' participation

ADDITIONAL FINANCIAL SOURCES

- Grants through the Office of Rural Community Affairs/Texas Community Development Program can be used to re-pave and repair streets. However, while streets are eligible, it is unlikely that a street project alone would be funded. Therefore, it might be possible to incorporate some street work into another, more fundable activity such as water line or sewer line construction where streets must be torn up to bury line.



- Individuals who are required to perform community service can often be utilized to do some of the required labor. Often times, this can be accomplished by participating with local governmental units such as the county judicial system.
- The Texas Department of Transportation (TxDOT) has a program designed to maintain and improve on- and off-system roadways.
- The Texas Department of Transportation (TxDOT) also has a landscaping cost sharing program through which the department will provide landscaping materials up to 50% of the project cost. The city's contribution may be in-kind in the form of installation of materials. The city must provide the design plan for approval by the department over and above the city's in-kind contribution. Finally, the city must commit to maintaining the landscaping improvements
- Loans from the Texas Department of Agriculture. These low interest loans can be utilized in place of bank loans and the issuing of bonds.
- In an Assessment Paving Program, the City has its engineer prepare designs and cost estimates. Afterward, the City then, following carefully prescribed procedures of notices, public hearings and bidding, begins making the street improvements, assessing a portion of the costs against the adjacent property owners. The City may have to advance the cost of the projects, but eventually, the property owners will pay their fair share of the costs. This procedure is governed by the Texas Civil Statutes.



WATER SYSTEM

INTRODUCTION

The City of Lucas owns and operates Lucas Waterworks that serves the residents inside and outside its current Certificate of Convenience and Necessity (CCN) site map. The Lucas Waterworks serves residents outside the city limits and outside the Lucas extraterritorial jurisdiction (ETJ), but the City does not supply water to all residents within the Lucas ETJ. The Seis Lagos Utility District, the Wylie Northeast Special Utility District and the City of Allen supply water to a portion of residents inside the Lucas city limits and within the Lucas ETJ.

The City’s water system is a vital part of the City owned infrastructure. The purpose of this section on the water system is to update the Comprehensive Plan by providing a description of the current water system, identifying the criteria for determining future additions to the water system, and providing a description of the capital improvements needed for the future water system.

EXISTING WATER SYSTEM

Water Supply

The City purchases water from the North Texas Municipal Water District (NTMWD). Water is delivered to the City at two delivery points. One of the delivery points is at the North Pump Station site located on Country Club Road between West Lucas Road and Estates Parkway. The other delivery site is at the McGarity Pump Station site located on McGarity Lane just east of Angel Parkway. The delivery point at the McGarity Pump Station site is the newer of the two delivery sites. It was established when the first facilities were constructed at that site in 2004/2005.

Existing System Facilities

The principal facilities in the existing water system include ground storage tanks, elevated storage tanks, and pump stations. The storage tanks and pump stations are all located at the McGarity Pump Station, the North Pump Station and the Winningkoff elevated tank site. The existing water system is shown on Figure 8.1 at the end of this section. Following is a summary of the principal facilities in the existing water system:

Ground Storage:

McGarity Pump Station	200,000 gallon tank 350,000 gallon tank
North Pump Station	500,000 gallon tank 750,000 gallon tank
Total	1,800,000 gallons



Elevated Storage:

McGarity Pump Station	300,000 gallon tank
Winningkoff Site	300,000 gallon tank
Total	600,000 gallons

Pumping Facilities:

McGarity Pump Station:

- Pump No. 3 – 750 gpm
- Pump No. 4 – 750 gpm
- Pump No. 5 – 750 gpm

North Pump Station:

- Pump No. 1 – 1,100 gpm
- Pump No. 2 – 1,000 gpm
- Pump No. 3 – 1,000 gpm
- Total** **5,250 gpm**

New Facilities

A number of facilities have been added to the existing water system since the last comprehensive plan was prepared in 2004. These facilities include the initial McGarity Pump Station facilities which were under construction at the time of the preparation of the last comprehensive plan. Those facilities include the 300,000 gallon elevated storage tank, the 200,000 gallon ground storage tank, and the pump station with the first two 750 gpm pumps. Other facilities that have been added to the water system include the following:

Ground Storage:

- 750,000 gallon ground storage tank at the North Pump Station
- 350,000 gallon ground storage tank at the McGarity Pump Station

Pumping Facilities:

- Replacement of 900 gpm pump with 1,100 gpm pump at the North Pump Station
- New pump station at the McGarity Pump Station with two 750 gpm pumps
- Additional 750 gpm pump at the McGarity Pump Station

Water Lines:

- Country Club Road Water Line, including 9,200 feet of sixteen inch- and twelve-inch water lines
- Forest Grove Road Water Line, including 1,000 feet of eight-inch water line
- Shady Lane Water Line including 2,200 feet of eight-inch water line
- Southview Drive Water Line, including 12,000 feet of twelve inch water line
- Brockdale Park Road Water Line, including 7,000 feet of eight-inch water line
- Brookhaven Drive Water Line, including 6,300 feet of eight-inch water line
- Stinson Road Water Line, including 11,700 feet of twelve water line



- Water line to the fire station, including 320 feet of 12-inch water line
- Rock Ridge Road Water Line Phase I, including 3,500 feet of twelve inch water line
- Osage Lane Water Line, including 2,700 feet of six-inch water line

PARAMETERS FOR FUTURE FACILITIES

Typically, the two principal factors that determine the size and capacity of future water system facilities are the anticipated water demand in the water system and certain facilities design criteria. In the case of the Lucas water system, four other factors will also have an impact on the future water system facilities. These factors are the pending conversion of the water system from two pressure planes to one pressure plane, staging the additions to the water system to account for development, the need to reduce the number of dead end water lines in the system, and the ability of the NTMWD to supply water.

Water Demand

Water demand is a function of the number of people living in the service area and their water usage habits. The water customers projected population of the water customers is included in the following table:

The present water system service area is shown in Figure 8.2.

The population to be served by the water system will include the build out population of 13,274, plus an estimated population of 168 people in the Allen ETJ currently being served by the water system. Accordingly, a total population of 13,442 located within the proposed Certificate of Convenience and Necessity (CCN) will be utilized for determining the water demand that will eventually need to be met by the water system. The size and capacity of future system facilities will be based on this population of 13,442.

Since water demand in the water system service area is based on the population and their water usage habits, historical water usage habits need to be determined in order to establish the projected demands. Based on established water usage habits, the water usage is approximately 250 gallons per capita per day, the maximum day to average day ratio is 2.5, and the peak hour to maximum day ratio is 1.8. With a build out population of 13,442 in the service area, this water usage will result in an average daily demand of 3.36 mgd, a maximum day demand of 8.4 mgd, and a peak hour demand of 15.12 mgd for the water system at build out.

Design Criteria

Different design criteria can be used to determine the size and capacity needed for future system facilities. Minimum requirements for determining the size of storage facilities and pumping facilities are provided by the Texas commission on environmental quality (TCEQ). Per the Texas commission on environmental quality (TCEQ), the water system needs to have at least 200 gallons of ground storage and 100 gallons of elevated storage per connection. More stringent design criteria has been utilized, per previous



analysis, for the present water system. This design criteria is based on providing elevated storage to meet peak hour demands in the system. Based on this criteria, the elevated storage needs to have enough capacity to provide for peak hour demand with a reserve of one-third of the total elevated storage capacity for fire flow. The ground storage requires sufficient capacity to meet a specified portion of the maximum day demand. The pumping capacity in the system needs to be sufficient to meet a specified portion of the maximum day demand. It is recommended that the more stringent design criteria, which has been used in the past for the existing water system, continue to be utilized for system facilities.

Pressure Planes

The existing water system presently operates on two pressure planes. The upper pressure plane is located primarily in the northwest part of the service area. The lower pressure plane serves the rest of the service area. The facilities that provide water to the upper pressure plane are located at the McGarity Pump Station site. The facilities that provide water to the lower pressure plane are located at the North Pump Station site and the Winningkoff Elevated Tank site.

Prior to the establishment of the two pressure planes, the water system was operating on a single pressure plane. One of the goals is to reestablish one pressure plane in order to simplify operation of the water system and improve efficiency. Due to the difference in elevations of the elevated storage tanks serving the existing water system, one strategy is an altitude valve installed at the Winningkoff elevated storage tank. This will allow the two elevated storage tanks to work together in the water system when it is converted to one pressure plane. Additionally limiting connections between the planes and the installation of residential pressure regulating valves (RPRVs) are other strategies for balancing the planes.

ETJ Annexation

The areas within the Lucas ETJ with the highest potential for annexation are already being served by the Lucas waterworks. However, the large ETJ area in the southeast part of the City is not. If this ETJ area is added to the City by annexation, the area would not be added to the water system service area. These areas are currently located within the CCN held by the Wylie Northeast Special Utility District (WNSUD) and the Seis Lagos Utility District (SLUD). In general terms, the WNSUD supplies water to the southeast corner of the city as well as the Inspiration neighborhood within the Lucas ETJ and the SLUD supplies the Seis Lagos and Brockdale Park neighborhoods.

Projected population in this area at build out is 3,892 people. This added population would not increase the projected population in the water system service area at build out. The only potential impact to the Lucas waterworks would be the operation of the SLUD water infrastructure. The WNSUD would most likely not relinquish its system to the City of Lucas.



Dead End Water Lines

There are a large number of dead end water lines in the existing water system. Most of these have been created over the years as a result of expansion of the water system, primarily when subdivisions were built. Several of the dead end lines are long. Dead end water lines have to be periodically flushed per TCEQ requirements in order to keep sufficient disinfection levels in the water lines. The City has to devote resources and funds to accomplish this purpose. It is the City's goal to address this situation by reducing the number of dead end water lines in the City thru the addition of water lines that will provide loops to eliminate the longer dead end water lines. Looping lines will eliminate the need to flush the lines, will improve the dependability of the system in the area, and enhancing fire protection. Included at the end of this section is a water system map showing the existing dead end water lines.

PROPOSED WATER SYSTEM

Proposed System Facilities

A number of system improvements will need to be made for the future water system based on water demand, the design criteria for improvements, and the other criteria mentioned in the previous section. The principal facilities needed for build out conditions when the water system service area (without the large ETJ area in the southeast part of the City included in the service area) include the following:

McGarity P.S. Site:

- 1,000,000 gallon ground storage tank
- Pump station with two 1,250 gpm pumps (replaces old pump station)
- 300,000 gallon elevated storage tank

North P.S. Site:

- Replace existing 8" delivery line (from NTMWD) with 12" delivery line
- Pump station with two 800 gpm pumps

Winningkoff Elevated Tank Site:

- Altitude valve with valve vault and piping

The additional facilities needed for build out conditions when the water system service area (with the large ETJ area in the southeast part of the City included in the service area) include the following. These improvements are shown on Figure 8.4 (the capital improvements map) shown at the end of this section.

McGarity P.S. Site:

- Add a third 1,250 gpm pump in the new pump station
- 200,000 gallon elevated storage tank



North P.S. Site:

- 800,000 gallon ground storage tank
- Add a third 800 gpm pump in the new pump station

Water Lines:

- 12" water line along Country Club Road and East Lucas Road
- 12" water line between Brockdale Park Road and Southview Drive

The additions to the water system listed above for both sets of conditions (i.e., with and without the large ETJ area in the southeast part of the City included in the service area) provide the facilities that will be needed in the water system under build out conditions and provide a balanced water system with similar capacity facilities at the two pump station sites.



APPENDIX

Maps included in the Comprehensive Plan are as follows:

- Wastewater System Master Plan Map
- Water System Map
- Thoroughfare Plan Map
- Land Use Map



APPENDIX



DISCHARGE POINT TO THE NTMWD REGIONAL SEWER LINE

2551 COMMERCIAL AREA

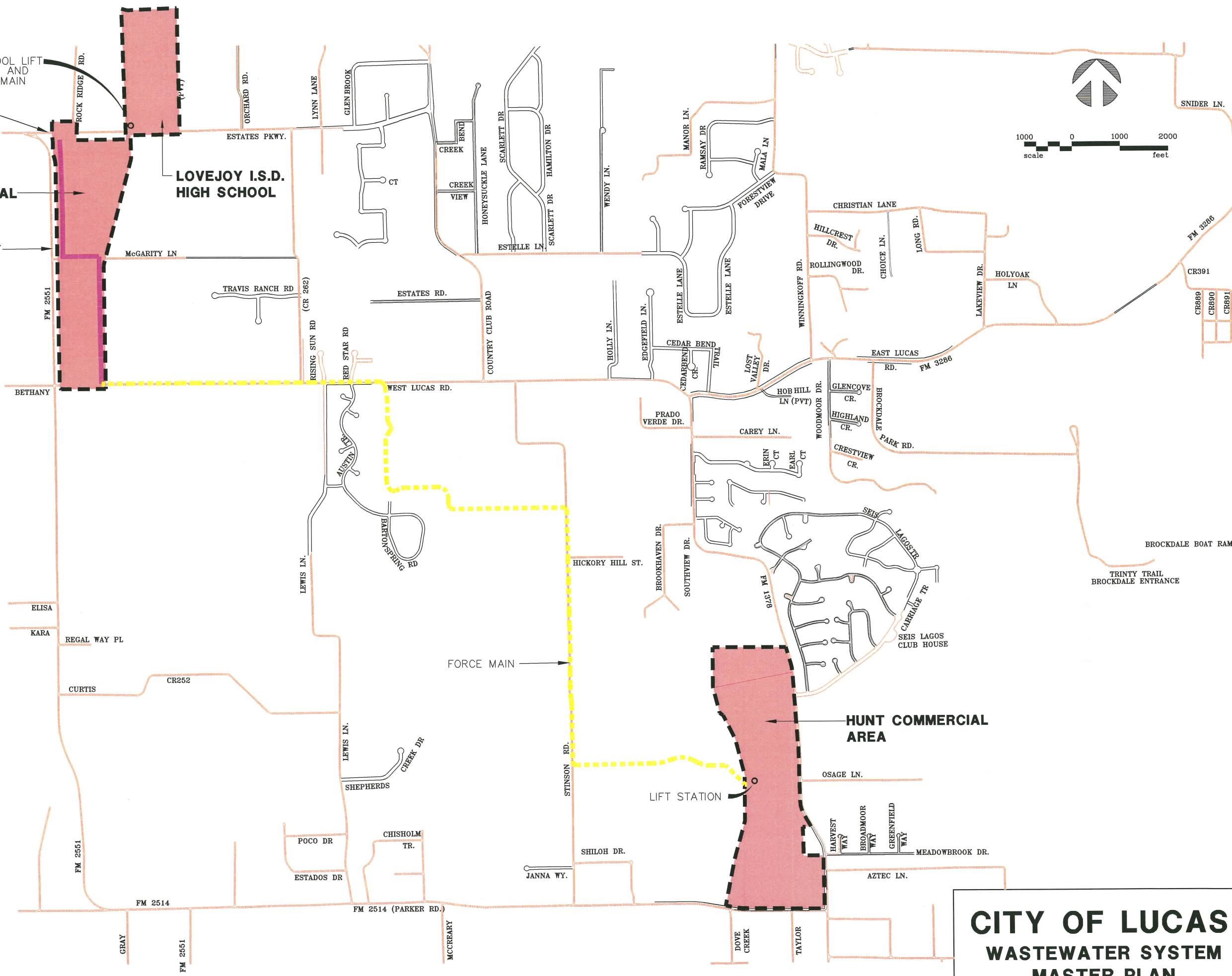
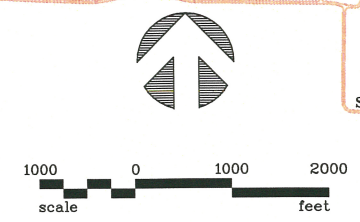
PROPOSED GRAVITY SANITARY SEWER

HIGH SCHOOL LIFT STATION AND FORCE MAIN

LOVEJOY I.S.D. HIGH SCHOOL

HUNT COMMERCIAL AREA

CITY OF LUCAS WASTEWATER SYSTEM MASTER PLAN



FORCE MAIN

LIFT STATION

BROCKDALE BOAT RAMP
TRINITY TRAIL
BROCKDALE ENTRANCE

SEIS LAGOS CLUB HOUSE

HARVEST WAY
BROADMOOR WAY
GREENFIELD WAY

FM 2514 (PARKER RD.)

POCO DR

CHISHOLM TR.

SHILOH DR.

MEADOWBROOK DR.

AZTEC LN.

OSAGE LN.

DOVE CREEK

TAYLOR

JANNA WY.

STINSON RD.

SHILOH DR.

ESTADOS DR

CHISHOLM TR.

POCO DR

SHEPHERDS

LEWIS LN.

LEWIS LN.

REGAL WAY PL

KARA

ELISA

BETHANY

WEST LUCAS RD.

BARROWS RD

AUSTIN

RED STAR RD

RISING SUN RD (CR 262)

TRAVIS RANCH RD

McGARITY LN

ESTATES RD.

COUNTRY CLUB ROAD

ESTELLE LN

WENDY LN.

SCARLETT DR

HAMILTON DR

SCARLETT DR

HONEYSUCKLE LANE

CREEK VIEW

CREEK BEND

GLEN BROOK

LYNN LANE

ORCHARD RD.

ESTATES PKWY.

ROCK RIDGE RD.

MANOR LN.

RAMSAY DR

MALA LN

FORESTVIEW DRIVE

WINNINGKOFF RD.

CHRISTIAN LANE

HILLCREST DR.

ROLLINGWOOD DR.

CHOICE LN.

LONG RD.

LAKEVIEW DR.

HOLYOAK LN

SNIDER LN.

FM 3286

CR391

CR888

CR890

CR891

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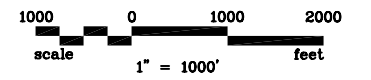
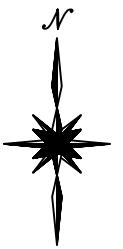
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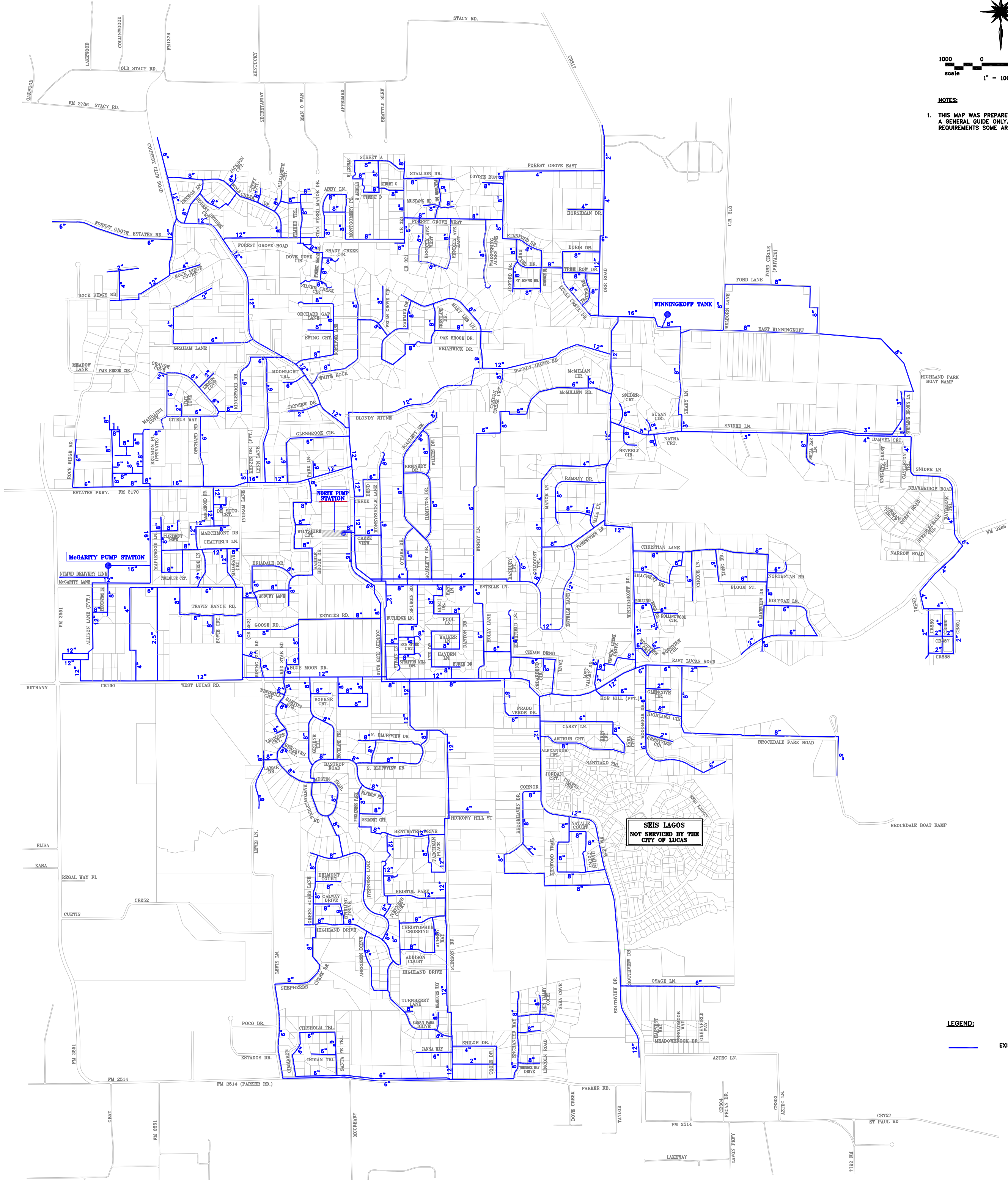
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Water System Map



NOTES:
 1. THIS MAP WAS PREPARED FOR AND INTENDED TO BE A GENERAL GUIDE ONLY. DUE TO GRAPHIC REQUIREMENTS SOME AREAS ARE NOT TO SCALE.

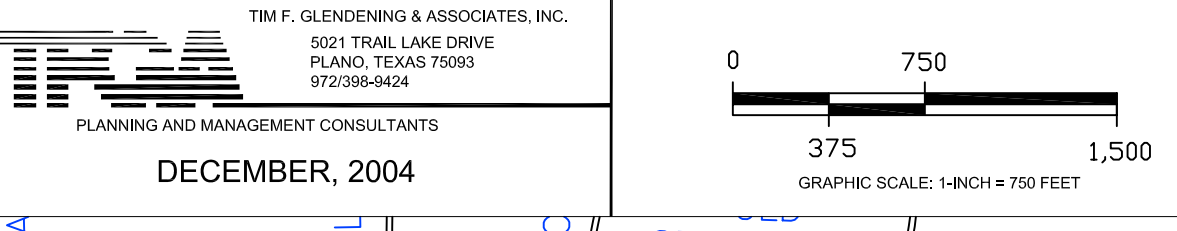


LEGEND:
 EXISTING WATER LINE



EXISTING LAND USE PLAN

CITY OF LUCAS
COLLIN COUNTY, TEXAS
FIGURE 4.2
FUTURE LAND USE
TRACY R. BURGESS & ASSOCIATES, INC.
101 FUTURE LAND USE PLAN, YEAR 2010
97590402
PLANNING AND DEVELOPMENT DEPARTMENT
DECEMBER, 2004

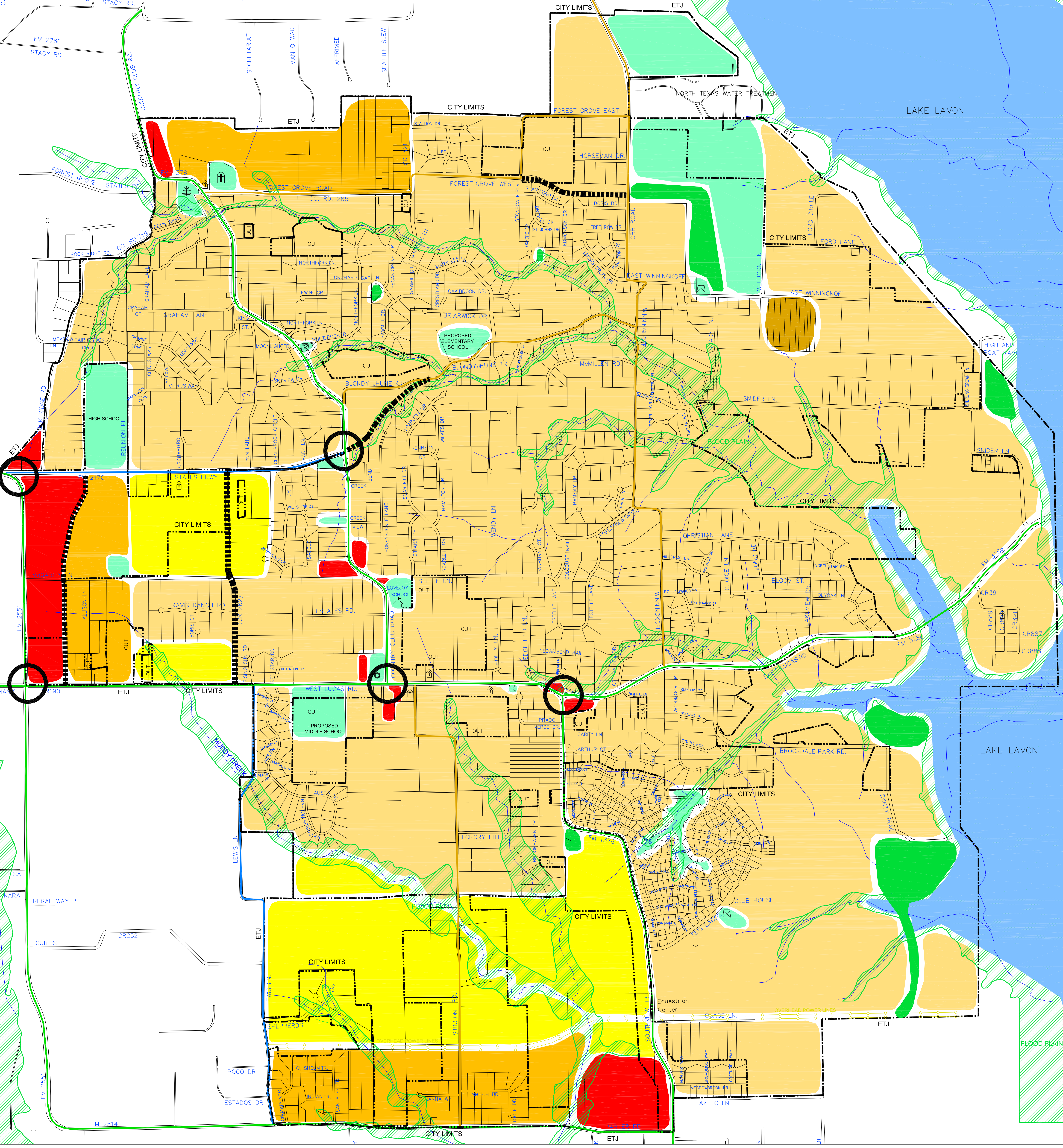


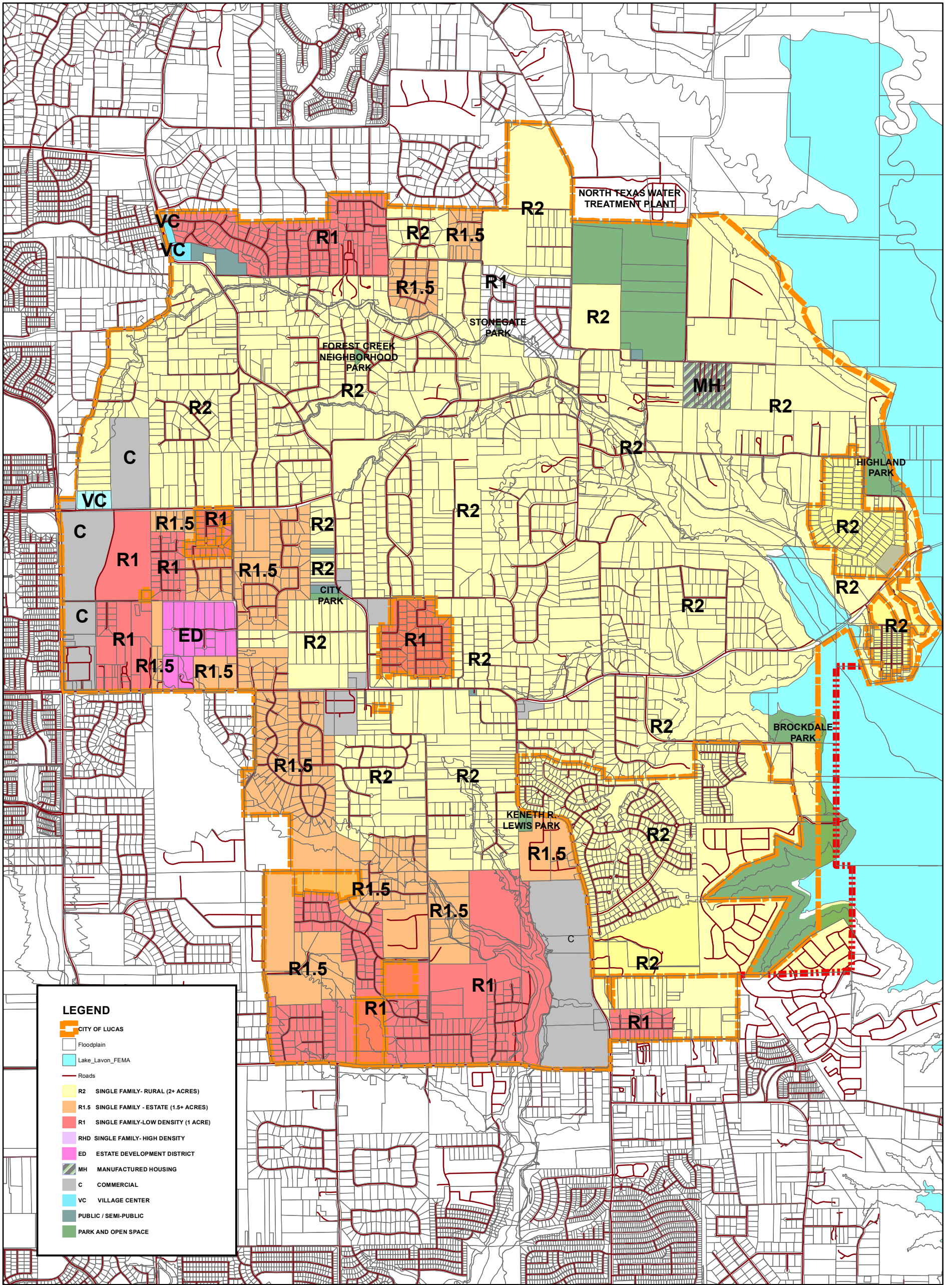
LEGEND

- CITY PARK
- WATER TOWER
- CITY HALL; POLICE DEPARTMENT
- SCHOOL
- CEMETARY
- CHURCH

- ### THOROUGHFARES
- MAJOR ARTERIAL
 - MINOR ARTERIAL
 - COLLECTOR STREET
 - FUTURE THOROUGHFARE
 - INTERSECTION ENHANCEMENT
- Texas Local Government Code
§ 213.005. NOTATION ON MAP OF COMPREHENSIVE PLAN. A map of a comprehensive plan showing future uses and other uses for the following clearly visible features: "A comprehensive plan shall not contain zoning regulations or subdivision zoning district boundaries."

- SINGLE-FAMILY - RURAL (2+ ACRES)
 - SINGLE-FAMILY - ESTATE (1.5+ ACRES)
 - SINGLE-FAMILY - LOW DENSITY (1 ACRE)
 - MANUFACTURED HOUSING
 - COMMERCIAL
 - PUBLIC/SEMI-PUBLIC
 - PARKS AND OPEN SPACE
- ALL FUTURE LAND USES WITHIN THE FLOOD ZONE ARE SUBJECT TO FLOOD PREVENTION ACTIONS SET FORTH BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AND/OR ZONING ORDINANCE.

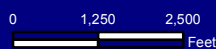




Proposed Land Use Map "A"

DRAFT JULY 9, 2015

FUTURE LAND USE MAP
CITY OF LUCAS



METROPOLITAN INFRASTRUCTURE, PLLC

Engineering/Environmental/Construction Management Services
9601 White Rock Trail - Suite 204 Dallas, Texas 75238
(214) 341-1501 OFFICE (214) 341-1640 FAX
Texas Registered Firm # 6939
www.metroinfrastructure.com



City of Lucas

City Council Agenda Request

March 2, 2017

Requester: Councilmember Wayne Millsap
Public Works Director/City Engineer Stanton Foerster

Agenda Item:

Discuss and consider water projects and funding strategy to fund design and construction:

A) Water Fund projects for consideration and prioritization:

1. Elevated Water Tower, Wiltshire Court to the North Pump Station 8-Inch Connection and Pressure Regulating Valves
2. Parker Road Waterline Phase 2 (from Shepherds Creek Drive to Santa Fe Trail)
3. Parker Road Waterline Phase 3T (From Santa Fe Trail to Stinson Road)
4. Replace three existing pumps at the North Pump Station
5. Add new pump house at the North Pump Station with three 500 GPM pumps
6. Any additional water projects that Council may determine

B) Discuss funding strategies including using unencumbered line item balances in the Capital fund, unrestricted Water Fund reserves and work with SAMCO Financial Advisors on the Notice of Intention Resolution to issue Certificates of Obligation and provide guidance to staff on the specified amount required to fund the water system projects.

Background Information:

During the past few years, the City Council has considered a variety of infrastructure projects. At different times, staff has brought forward projects depending on the directions from the City Council. With the near completion of the City's Comprehensive Plan and Capital Improvement Plan, the timing is right to consider moving forward with high priority infrastructure projects.

THE WATER FUND PRIORITY WATER SYSTEM PROJECTS INCLUDE:

1. Elevated Water Tower, Wiltshire Court to the North Pump Station 8-Inch Connection and Pressure Regulating Valves:

By adding a 500,000 gallon elevated storage tank at the North Pump Station (alternate location to consider would be west of City Hall), this will allow for the elimination of the lower pressure plane increasing the manageability of the water system and increase water storage capacity. The in-line pressure regulating values are necessary to maintain 60 to 80 pounds of pressure.

Estimated Cost (Design, Construction & Contingency): \$2,190,844



City of Lucas

City Council Agenda Request

March 2, 2017

Parker Road Water Project Summary:

The Parker Road Waterline Project is needed to improve infrastructure and to accommodate the TxDOT Parker Road widening, which is causing City of Lucas to abandon an existing six-inch waterline along Parker Road. Parker Road 12-Inch Phase 1-1 (From Stinson Road to Enchanted Way is funded in the current fiscal year 16/17 budget (CIP Engineering Priority number 1B). Staff is not requesting funding for Phase 1 – Section 2, because it is developer driven. The Parker Road Waterline Project has several phases as detailed in the attached map and the following phases are priority contenders for funding:

2. Parker Road Waterline Phase 2:

The Parker Road 8-inch waterline (from Shepherds Creek Drive to Santa Fe Trail) Phase 2 replaces some of the thin-walled, six-inch waterline starting at Shepherds Creek Drive, south along Lewis Lane, east through Kirkland Estates West subdivision, east along Indian trail, south along Santa Fe Trail and east between 2 and 4 Santa Fe Trail in a new easement. BW2 Engineers were engaged in January 2017 in the amount of \$33,500 from 21-8210-490-122 and have started design work.

Estimated Cost (Construction & Contingency): \$348,000 (design is funded 16/17 budget)

3. Parker Road Waterline Phase 3T:

The Parker Road 4-inch Temporary Phase 3T (from Santa Fe to Stinson Road). The four-inch line will provide temporary, minimal service to three residential properties. Phase 3 will remove and replace the four-inch line installed in Phase 3T when and if these properties are subdivided. When subdivided, the property owner will be responsible for replacing the four-inch waterline with at least an eight-inch waterline (the city may choose to fund upsizing to a 12 inch line).

Estimated Cost (Construction & Contingency): \$159,503

4. Restore or replace) aging pumps at the North Pump Station

The existing three pumps in the North Pump Station pump house are 20 plus years old. A detailed evaluation needs to be done to determine if the pumps need to be replaced or refurbished. This project cost is based on replacing the pumps.

Estimate Cost: \$153,821



City of Lucas City Council Agenda Request March 2, 2017

5. New Pump House – North Pump Station

Add new pump house at the North Pump Station with three 500 GPM pumps. This will provide redundancy to move water from the ground storage tanks to the new water tower.

Estimated Cost: \$432,575

Attachments/Supporting Documentation:

1. Parker Road Waterline Projects Map
2. Single Pressure Plane Map
3. Timeline for Certificates of Obligation
4. Projected Fund Balance – Water Fund

Budget/Financial Impact:

Water Fund:

Total Priority Projects	\$3,284,743
Less Unencumbered Balance in 21-8210-490-120/122.....	(142,964)
Funding Needed	\$3,141,779

Projected Excess Reserves After GASB 54 Requirements as of 9/30/2017:

Water Fund.....	\$2,638,344
-----------------	-------------

Recommendation:

Staff recommends the City Council consider 1) the use of existing budgeted FY 16/17 unencumbered funds to partially fund water and roadway projects; 2) use a portion of Water Fund excess reserves to reduce the amount of debt necessary to fund priority roadway projects; and 3) use of Certificates of Obligation to fund the unfunded portion of the selected priority projects.



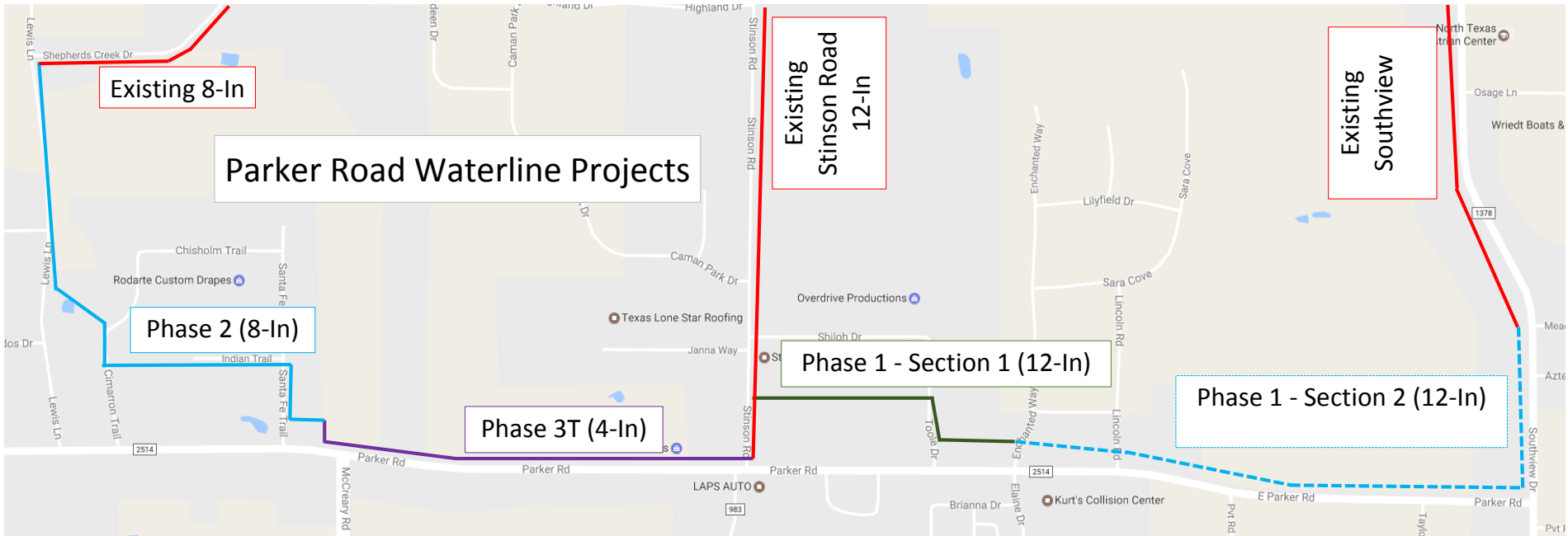
City of Lucas

City Council Agenda Request

March 2, 2017

Motion:

- A) I make a motion to approve and authorize the following water projects to be initiated in generally the following priority order:
1. Elevated Water Tower, Wiltshire Court to the North Pump Station 8-Inch Connection and Pressure Regulating Valves
 2. Parker Road Waterline Phase 2 (from Shepherds Creek Drive to Santa Fe Trail)
 3. Parker Road Waterline Phase 3T (From Santa Fe Trail to Stinson Road)
 4. Restore or replace pumps at the North Pump Station
 5. Add new pump house at the North Pump Station with three 500 GPM pumps; and (Any additional water projects that Council determined)
- B) I make a motion to use the remaining balances in accounts 21-8210-490-120 and 21-8210-490-122 in an amount not to exceed \$142,964 to be used to fund the water projects approved in this Item 6.
- C) I make a motion to use Water Fund reserves in an amount not to exceed \$141,779 to be used to fund the water projects approved in this Item 6.
- D) I make a motion to direct the City Manager to engage SAMCO Financial Advisors to assist on the Notice of Intention Resolution to issue Certificates of Obligation up to \$3,000,000 to fund the water projects approved in this Item 6.



CITY OF LUCAS, TEXAS (THE "CITY")
 \$ _____*
 COMBINATION TAX AND LIMITED PLEDGE REVENUE CERTIFICATES OF OBLIGATION,
 SERIES 2017 (THE "OBLIGATIONS")

April							May							June							July							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
						1	1	2	3	4	5	6							1	2	3							1
2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8	
9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15	
16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22	
23	24	25	26	27	28	29	28	29	30	31	25	26	27	28	29	30	23	24	25	26	27	28	29					
30																			30	31								

Monday, April 17, 2017	SAMCO Capital Markets, Inc. ("SAMCO") sends the City the Request for Information ("RFI")
Monday, April 24, 2017	City returns the RFI to SAMCO
Monday, May 1, 2017	First draft of the NOS/POS sent to Bond Counsel
Thursday, May 4, 2017	City Council meets to authorize the Notice of Intention Resolution ("NOI") to issue the Obligations
Monday, May 8, 2017	Comments due on first draft of NOS/POS
Wednesday, May 10, 2017	First publication of the NOI in City's paper of record
	Second draft of NOS/POS sent to Issuer, Bond Counsel and Rating Agency
Monday, May 15, 2017	Comments due on the second draft of the NOS/POS
Week of May 15 th	Hold Rating Call with the City and Rating Agency
Wednesday, May 17, 2017	Second publication of the NOI in City's paper of record
Wednesday, May 31, 2017	Rating due back; Post NOS/POS to the Municipal Advisory Council
Thursday, June 8, 2017	Post the NOS/POS to PostOS and email link to working group
Thursday, June 15, 2017	Bids due at 12 noon (Central Time);
	7p.m. City Council authorizes the issuance of the Obligations at a competitive sale.
Wednesday, July 13, 2017	Obligations Closing; Funds wired to the City's depository bank

City of Lucas
 Projected Fund Balances Water Fund
 For Fiscal Year Ended September 30, 2017

Beginning Reserve Balance September 30, 2016	\$	5,954,746
Projected change in Fund Balance	\$	23,186
Subtotal	\$	<u>5,977,932</u>
Minus:		
Restrictions:		
Debt Service Payments	\$	(375,000)
Customer Deposits	\$	(239,250)
Reserve Transfer for New Position	\$	(31,086)
Reserve Transfer for Capital Projects	\$	<u>(876,117)</u>
Total Projected Unrestricted prior to GASB 54 requirement	\$	<u>4,456,479</u>
Projected FY 16-17 Operating Costs	\$	3,636,271
Six Month Reserve Requirement	\$	<u>1,818,136</u>
Excess Reserves After GASB 54 Requirement	\$	<u>2,638,344</u>
Operating Days		265
Months		9



City of Lucas City Council Agenda Request March 2, 2017

Requester: Councilmember Wayne Millsap
Public Works Director/City Engineer Stanton Foerster

Agenda Item:

Discuss and consider roadway projects, determine priority and funding strategy to fund design and construction:

A) General Fund roadway projects for consideration and prioritization:

1. Winningkoff Rd Reverse Curve (design funded in FY 16/17)
2. Stinson Rd/W. Lucas Rd Intersection (design funded in FY 16/17)
3. Country Club Road/Estates Parkway Intersection
4. Winningkoff Road (Reverse Curve to Snider Lane)
5. Stinson Road South of Bridge
6. Blondy Jhune Road (West Bridge to Winningkoff Road)
7. Stinson Road North of Bridge (middle section)
8. Winningkoff Road (E. Lucas Rd to Reverse Curve)
9. Any additional roadway projects that Council may determine.

B) Discuss funding strategy including using unencumbered line item balances in the Capital fund, unrestricted General Fund reserves and work with SAMCO Financial Advisors on the Notice of Intention Resolution to issue Certificates of Obligation and provide guidance to staff on the specified amount required to fund the roadway projects.

Background Information:

During the past few years, the City Council has considered a variety of infrastructure projects. At different times, staff has brought forward projects depending on the directions from the City Council. With the near completion of the City’s Comprehensive Plan and Capital Improvement Plan, the timing is right to consider moving forward with high priority infrastructure projects.

GENERAL FUND ROADWAY PROJECTS (all inclusive) FOR CONSIDERATION AND PRIORITIZATION:

1. Winningkoff Road Reverse Curve (design funded in FY 16/17)	\$964,000
2. Stinson Rd/W. Lucas Rd Intersection (design funded in FY 16/17)	\$453,000
3. Country Club Road/Estates Parkway Intersection	\$350,000
4. Winningkoff Road - Reverse Curve to Snider Lane	\$1,400,000
5. Stinson Road South of Bridge.....	\$2,267,000
6. Blondy Jhune Road - West Bridge to Winningkoff Road	\$2,700,000
7. Stinson Road North of Bridge (middle section)	\$2,000,000



City of Lucas City Council Agenda Request March 2, 2017

Item No. 07

8. Winningkoff Road - E. Lucas Rd to Reverse Curve.....	\$1,900,000
Total Cost	\$12,034,000

Note: Cost estimates include design, construction and contingency unless otherwise noted.

Attachments/Supporting Documentation:

1. Roadway Projects Map
2. Timeline for Certificates of Obligation
3. Project Fund Balance – General Fund

Budget/Financial Impact:

General Fund:

Total Priority Projects	\$12,034,000
Less Unencumbered Balance in 21-8210-491-123.....	(749,000)
Funding Needed.....	\$11,285,000

Projected Excess Reserves After GASB 54 Requirements as of 9/30/2017:

General Fund.....	\$5,055,355
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Recommendation:

Staff recommends the City Council 1) use existing budgeted FY 16/17 unencumbered funds to partially fund roadway projects; 2) use a portion of General Fund excess reserves to reduce the amount of debt necessary to fund roadway projects; and 3) use of Certificates of Obligation to fund the unfunded portion of the selected projects.

Motion:

A) I make a motion to approve the following roadway projects to be initiated in generally the following priority order:

1. Winningkoff Road Reverse Curve (design funded in FY 16/17)\$964,000
2. Stinson Rd/W. Lucas Rd Intersection (design funded in FY 16/17)\$453,000
3. Country Club Road/Estates Parkway Intersection.....\$350,000
4. Winningkoff Road - Reverse Curve to Snider Lane.....\$1,400,000
5. Stinson Road South of Bridge.....\$2,267,000
6. Blondy Jhune Road - West Bridge to Winningkoff Road\$2,700,000
7. Stinson Road North of Bridge (middle section)\$2,000,000



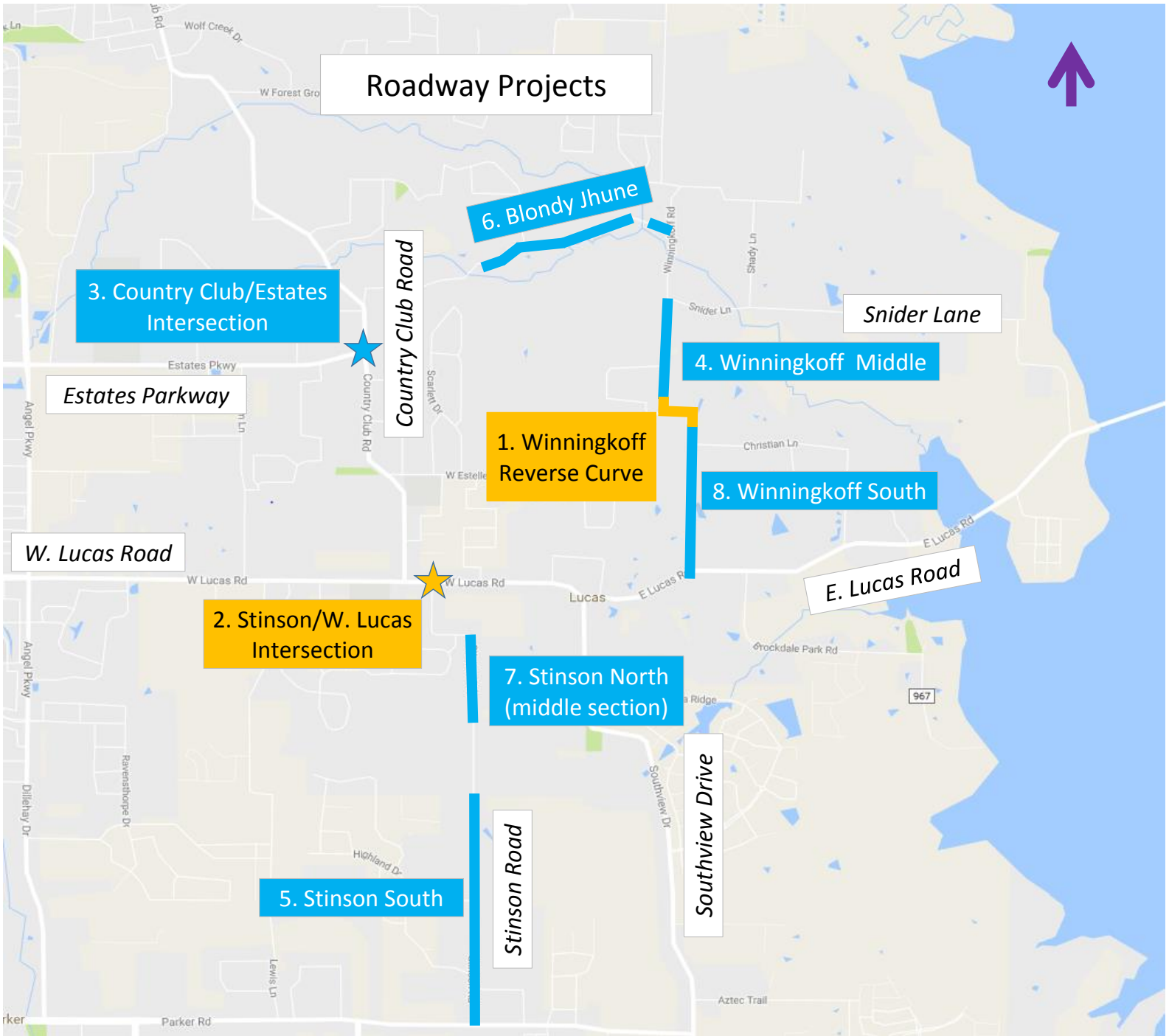
City of Lucas City Council Agenda Request March 2, 2017

8. Winningkoff Road - E. Lucas Rd to Reverse Curve.....\$1,900,000
Total Cost\$_____

B) I make a motion to use the remaining balance in account 21-8210-491-123 in an amount not to exceed \$749,000 to be used to fund the roadway projects approved in this Item 7.

C) I make a motion to use excess General Fund in an amount not to exceed \$_____ to be used to fund the roadway projects approved in this Item 7.

D) I make a motion to direct the City Manager to engage SAMCO Financial Advisors to assist on the Notice of Intention Resolution to issue Certificates of Obligation up to \$_____ to fund the roadway projects approved in this Item 7.



Roadway Projects

3. Country Club/Estates Intersection

6. Blondy Jhune

Snider Lane

4. Winningkoff Middle

1. Winningkoff Reverse Curve

8. Winningkoff South

Estates Parkway

W. Lucas Road

2. Stinson/W. Lucas Intersection

E. Lucas Road

7. Stinson North (middle section)

5. Stinson South

Stinson Road

Southview Drive

CITY OF LUCAS, TEXAS (THE "CITY")
 \$ _____*
 COMBINATION TAX AND LIMITED PLEDGE REVENUE CERTIFICATES OF OBLIGATION,
 SERIES 2017 (THE "OBLIGATIONS")

April							May							June							July							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
						1	1	2	3	4	5	6							1	2	3							1
2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8	
9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15	
16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22	
23	24	25	26	27	28	29	28	29	30	31	25	26	27	28	29	30	23	24	25	26	27	28	29					
30																			30	31								

Monday, April 17, 2017	SAMCO Capital Markets, Inc. ("SAMCO") sends the City the Request for Information ("RFI")
Monday, April 24, 2017	City returns the RFI to SAMCO
Monday, May 1, 2017	First draft of the NOS/POS sent to Bond Counsel
Thursday, May 4, 2017	City Council meets to authorize the Notice of Intention Resolution ("NOI") to issue the Obligations
Monday, May 8, 2017	Comments due on first draft of NOS/POS
Wednesday, May 10, 2017	First publication of the NOI in City's paper of record
	Second draft of NOS/POS sent to Issuer, Bond Counsel and Rating Agency
Monday, May 15, 2017	Comments due on the second draft of the NOS/POS
Week of May 15 th	Hold Rating Call with the City and Rating Agency
Wednesday, May 17, 2017	Second publication of the NOI in City's paper of record
Wednesday, May 31, 2017	Rating due back; Post NOS/POS to the Municipal Advisory Council
Thursday, June 8, 2017	Post the NOS/POS to PostOS and email link to working group
Thursday, June 15, 2017	Bids due at 12 noon (Central Time);
	7p.m. City Council authorizes the issuance of the Obligations at a competitive sale.
Wednesday, July 13, 2017	Obligations Closing; Funds wired to the City's depository bank

City of Lucas
Projected Fund Balances General Fund
For Fiscal Year Ended September 30, 2017

Beginning Reserve Balance September 30, 2016	\$ 7,398,056
Projected change in Fund Balance	\$ 415,828
Subtotal	<u>\$ 7,813,884</u>
Minus:	
Restrictions:	
FY 15-16 Capital Outlay Reserve	\$ (100,000)
FY 16-17 Capital Outlay Reserve	\$ (50,000)
Reserve Transfer for Trail Project	\$ (11,000)
Municipal Court and Cable Peg Fees	<u>\$ (68,674)</u>
Total Projected Unrestricted prior to GASB 54 requirement	<u>\$ 7,584,210</u>
Projected FY 16-17 Operating Costs	\$ 5,057,710
Six Month Reserve Requirement	<u>\$ 2,528,855</u>
Excess Reserves After GASB 54 Requirement	<u>\$ 5,055,355</u>
Operating Days	365
Months	12



City of Lucas Council Agenda Request March 2, 2017

Requester: Mayor Jim Olk

Agenda Item:

Executive Session:

The City Council may enter into Executive Session as permitted under the Texas Government Code, Section 551.072 to deliberate the purchase, exchange, lease or value of real property within the City of Lucas.

Background Information:

NA

Attachments/Supporting Documentation:

NA

Budget/Financial Impact:

NA

Recommendation:

NA

Motion:

NA



City of Lucas Council Agenda Request March 2, 2017

Requester: Mayor Jim Olk

Agenda Item:

Reconvene into open session and take any action necessary as a result of the Executive Session.

Background Information:

NA

Attachments/Supporting Documentation:

NA

Budget/Financial Impact:

NA

Recommendation:

NA

Motion:

NA