A COMPREHENSIVE PLAN
FOR THE
CITY OF FLATONIA, TEXAS
2020-2040

SEPTEMBER 2019

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December 2019

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IN ASSOCIATION WITH:

TDA CONTRACT NO. 7217074

"FINANCED THROUGH THE TEXAS DEPARTMENT OF AGRICULTURE. The preparation of this document was financed through provisions of a Texas Community Development Block Grant with funds allocated by the U.S. Department of Housing and Urban Development"

"The Texas Department of Agriculture in conjunction with the United States Department of Housing and Urban Development furnished financial support to the activity described in this publication which does not necessarily indicate the agreement of the Texas Department of Agriculture or the United States Department of Housing and Urban Development with the statements or conclusions contained in this publication."

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SECTION A. BASIC PLANNING ACTIVITIES

1. BACKGROUND AND INTRODUCTION/BASE MAPPING

Cities are complex social, economic and political structures. The physical development of a city is in response to a variety of forces and pressures. Municipal government through the adoption of appropriate policies, ordinances, and standards for orderly development provides direction and guidance in community development.

Local government direction and guidance takes the form of comprehensive planning and land use regulations. By developing and implementing a comprehensive plan, capital improvement program, and land use control ordinances, the local policy makers may give direction in the physical development of the community.

This Comprehensive Plan contains the City of Flatonia's official policies on land use, transportation, housing, environment, and utilities. Its policies apply to both public and private properties.

The Plan is used by the City Council to evaluate land use changes and to make funding and budget decisions. The Plan is used by City Staff to regulate building and development and to make recommendations on projects. It is used by citizens to understand the City's long-range plans and proposals for different areas in the City. The Plan provides the basis for the City's development regulations and the foundation for its capital improvements program.

The Flatonia Comprehensive Plan is to be used by all members of the community, as well as any other person or organization interested in the future of the City. City staff and elected officials should continually review and update the Plan to fully understand the policies and programs that will help the City to achieve its vision for the future.

Flatonia's Comprehensive Plan provides a guide for the physical development of the community by identifying characteristics and features which influence the community growth patterns. Included in this plan is an analysis of Flatonia's historical patterns of development in the areas of housing, population, land use, and projections for the City's future. Attention is given to the adequacy of each of these major elements for future development needs and how these facilities will affect and be affected by future growth. The plan also suggests appropriate objectives which would assist in meeting the community's goals regarding future growth and development.

Flatonia is located in the "Texas Triangle" which is one of eleven megaregions in the United States. The Texas Triangle is formed by Houston, Dallas-Fort Worth, San Antonio and Austin. They are connected by Interstate 45, Interstate 10, and Interstate 35. Flatonia is on the southern leg (US 10), 90 miles from Houston and 60 miles from San Antonio. The Texas Triangle contains five of the 20 largest cities in the United States. I.H. 10 is the southernmost cross-country artery that transects the United States from the Santa Monica California to Jacksonville, Florida. The base map for the City is attached as "Map 1".

COMPREHENSIVE PLAN IMPLEMENTATION PROCESS

The recommended goals and objectives as determined through the study of each planning element in this report are listed in the appropriate chapter. An overview of the subject matter in the report makes it easier for local citizens and officials to identify the most important activities that they want to address. Many of the recommended activities can be achieved with city policies while other activities will require financial investment by private funds, local funds, or state and federal agency loan/grant funds.

The recommended goals and objectives need to be reviewed and updated periodically to measure accomplishments and benchmark achievements.

Through the actions of the City Council, City Staff, local planning bodies, and in general, the citizens of Flatonia, the Comprehensive Plan can be adopted by the City and financial means allocated to implement the recommended goals and objectives.

2. HOUSING INVENTORY, ANALYSIS AND PLAN

Affordable quality housing is an important element in attracting and retaining residents, businesses, and employers. Flatonia is predominately developed with single-family detached housing that includes manufactured housing and some multifamily housing units.

The housing plan includes an inventory of current housing within the city and an analysis based on this inventory along with other available data. Major trends emerge from the data from which general observations can be made. Goals can then be established based on the observations. Objectives are then defined to ensure that the city's housing policies clearly form future decisions regarding housing stabilization, growth, and development.

Housing Stock Inventory

The City of Flatonia currently has 481 single-family, stick-built residences which is 84% of the city's housing inventory. There are nine duplexes and no triplexes in Flatonia. There are 25 apartment complexes having from 5-9 units each. Apartment complexes account for 4% of the housing inventory in Flatonia. There are 102 manufactured homes in Flatonia. This accounts for 10% of the housing inventory in Flatonia. The challenges of manufactured housing are discussed later in this section.

A windshield survey was conducted by LCMS, Inc. in July 2019 to assess housing within Flatonia based on condition, vacancy, and lot improvement. The conditions of each residential structure were noted according to the following criteria. Generally, an assessment was made about the following components. If two or more of the criteria were met, the structure received the corresponding classification.

Housing Element	Standard	Deteriorating	Dilapidated
Foundation	Level. No signs of settling or cracking	Some signs of settling or cracking	Clear or multiple signs of settling or cracking
Roof	Shingles all intact. No apparent wear of shingle edges. Metal roof is free of rust and gaps. Ridge and rafters are straight.	Some wear to shingle edges or not more than 5% of shingles missing. Water has potential to intrude inside gaps and penetrations. Rafters and ridge beam showing sag.	Large areas of shingles and moisture barrier missing. Water is penetrating toe structure at gaps. Rafters and/or ridge beam showing sag or collapse.
Exterior Walls	Walls are plumb and free of gaps/intrusions. Minor cosmetic concerns can be ignored without risk to the structure. Skirting of the mobile home is complete and intact.	Some walls bow slightly. Less than 10% of the siding is missing or damaged. Skirting of mobile home is complete but damaged in less than 10% of the area.	Carpentry shows signs of rot and collapse. Walls are bowed or missing siding. Skirting is missing on mobile home.
Windows	Windows are intact with headers and sills are free of rot and sag.	Some (<25%) of windows may be cracked but still integral. Headers and sills are free of rot and sag.	More than 25% of windows are cracked or broken. More than 25% of window headers and sills exhibit rot or sag.
Doors	Doors are intact. Frames are free of rot or sag.	Doors show surface wear but do not show gaps in vertical or horizontal planes.	One or more doors are missing or exhibit gaps in vertical or horizontal planes.

As part of the survey, a determination was made on occupancy status to the extent that it could observed (i.e. an electrical meter was present, doors and windows appears operational, there were other clearly evident signs of habitation).

Table 1. Housing Condition

Housing Condition	Standard	Intermediate	Substandard	Dilapidated	Vacant
Total Units - 516	194	184	76	56	6

The following tables reflect 2013-2017 ACS data and provide a snapshot of recent housing characteristics in the City of Flatonia.

Table 2. Housing Characteristics

Characteristic	2017 ACS Estimate	Margin of Error, ACS (+/-)
Total Housing Units	573	
Occupied Housing Units	463 (80.8%)	7.8
Owner-Occupied	336 (72.6%)	10.9
Renter-Occupied	127 (20.7%)	10.9
Vacant/Abandoned	110 (20.7%)	7.8

Owner occupied housing units account for 72.6% of the occupied housing units in Flatonia while the State of Texas average for owner occupied dwellings is 62%. The higher percentage of owner-occupied dwellings in Flatonia can be attributed to a lower cost of living and lower construction cost per square foot.

The 2010 Census showed that of 515 occupied units, 375 were owned and 140 were rented. Of the owned units, 118 were owned by Hispanic persons, 228 by White persons and 29 by Others.

2013-2017 ACS HOUSING DATA BY AGE

Age	Owner - 336	Renter - 127
Less than 10 years of age	6	
10-20 years of age	75	33
20-30 years of age	77	49
30-40 years of age	80	25
40-50 years of age	51	4
Over 60 years old	47	16

The decennial Census and the American Community Survey 2013-2017, updated annually, provide counts that give a better understanding of the housing within Flatonia. These include housing age, housing type, occupancy status and median home value.

Based on the American Community Survey 2013-2017, 75.8% of the owner-occupied housing and 74% of the renter occupied housing in the city was built prior to 2000.

The median home value in Flatonia, TX, according to the 2017 5-year ACS is $129,900.00.

The monthly cost for housing is estimated in the American Community Survey for 2017, which represents a fair statistical approximation of the distribution of these costs and can be used as an indicator for housing cost burden.

Fair Market Rents (FMRs) are established every year by HUD for each county in the country to determine Payment Standards for the Section 8 Housing Voucher program, maximum rents in HOME financed rental projects, and initial rents for Section 8 project-based assistance. Though Flatonia is not within a SMA HUD provides fair market rents (FMR). The FMR serves as a barometer to assess local rents and housing costs.

Table 3. 2018 Fair Market Rent

Unit Type	Efficiency	1 BR	2 BR	3 BR	4 BR
Fair Market Rent (Monthly)	$563	$584	$749	$1,083	$1,154

The greatest housing needs center on the existing housing stock and ensuring that it can be protected and reconditioned.

Manufactured/mobile homes are perceived as a more economical housing option than traditional "stick-built" constructed homes. However, because of the materials used and the method of construction, manufactured/mobile homes age and deteriorate more rapidly than traditionally constructed homes.

The number of manufactured/mobile homes in Flatonia is not disproportionate to the population. In a housing survey conducted in 1985, 16.7% of the single-family housing in the city was manufactured/mobile homes. The 1996 Comprehensive Plan for the City of Flatonia reported a total of 133 manufactured/mobile homes in the City. This equated to 25% of the housing inventory at that time. Of the 133 manufactured homes, 120 were determined to be deteriorating or dilapidated.

Currently Flatonia has 102 manufactured homes or 19.8% of the total single-family housing in the city. Of the 102 manufactured homes, 56 were determined to be substandard or dilapidated.

A major challenge as well as hindrance to the development of affordable housing in Flatonia is that the lots in Flatonia are small, only 25 feet in width, which prevents the construction of stick-built homes unless the resident owns two or more lots and due to the majority of the residents being low to moderate income, most cannot afford two or more lots. The small lots are the main cause of the proliferation in manufactured/mobile homes as these type homes can fit on the small lots.

Fair Housing Activities

The City of Flatonia fully promotes and encourages Fair Housing practices. They demonstrate this by recognizing Federal Fair Housing Month with a Fair Housing Proclamation, placing newspaper articles, and posting fliers in support of Fair Housing. The City has an adopted Fair Housing Ordinance that includes a fine for not following the Fair Housing laws.

Previous Housing Studies Performed

Housing Survey for Flatonia – 1985

1996 Comprehensive Plan for Flatonia

Housing Survey for Flatonia - 2019

Future Housing Needs

The City of Flatonia just recently applied and received a TDHCA HOME program contract to assist the residents with the construction of stick-built homes. The target population for this program is the low to moderate income residents.

The homes will be built completely handicap-accessible for the elderly and disabled population.

The City is also proactively working on demolition of dilapidated and abandoned houses to provide properties that are available for the construction of new homes to accommodate for the projected future growth in population.

The City of Flatonia held several public hearings to obtain comments and concerns from the public. No comments or concerns were received about housing in these hearings.

Local Capacity

The following entities serve as local resources toward achieving some of the housing goals described.

- The Texas Department of Housing and Community Affairs (TDHCA) is designated as the HUD funded public housing agency that serves Flatonia.

- USDA Rural Development Single-Family Housing and Multi-Family Housing are also potential resources for funding assistance.

Housing Goals and Objectives

Housing Goal 1: Housing Stabilization Activities

Housing stabilization activities are those that assist in the production and preservation of affordable housing. Given the high percentage of residential units that are in a deteriorating or dilapidated condition, these activities are essential.

- Pursue funding opportunities with local providers and state and federal housing programs to stabilize housing in the city.

    - Texas Department of Housing and Community Affairs (TDHCA): The TDHCA administers many housing related programs for the State of Texas and an overview can be found at the following: https://www.tdhca.state.tx.us/overview.htm

Selected programs include:

Single Family Housing –

- Neighborhood Stabilization Program – https://www.tdhca.state.tx.us/nsp/
- Homeowner Rehabilitation Assistance (HRA) Program (HOME) – https://www.tdhca.state.tx.us/home-division/hra.htm
- Housing Trust Fund – https://www.tdhca.state.tx.us/htf/
- USDA Rural Development Single Family Housing Program – https://www.rd.usda.gov

Multi-Family Housing –

- Housing Tax Credit Programs – http://www/tdhca.state.tx.us/multifamily/housing-tax-credits-9pct/index.htm
- Multifamily Bond Program – http://www.tdhca.state.tx.us/multifamily/bond/index.htm
- USDA Rural Development Multi-Family Housing Program
  https://www.rd.usda.gov
  Farm Labor Direct Loans & Grants
  Housing Preservation & Revitalization Demonstration Loans & Grants
  Housing Preservation Grants
  Multi-Family Housing Direct Loans
  Multi-Family Housing Loan Guarantees
  Multi-Family Housing Rental Assistance

Housing Goal 2: Promote Quality Affordable Housing

Quality housing that is affordable to a wide range of income groups will attract residents and businesses to Flatonia.

- Encourage the construction of housing within the city which is "affordably priced at a burden of less than 33% of the median household income. (Median Household Income per ASC 2017= $43,079. Monthly housing costs@33%= $1,196.52)

- Pursue partnership opportunities with local affordable housing providers to provide a variety of housing with options for seniors, young families, and people making 50% or less of the area median household income. (50% or less of Median Household Income per ACS 2017 = $21,539. Monthly housing cost so that these households are not cost burdened = $1,794.92)

- Ensure quality housing construction through code reviews and compliance inspections.

Actions:

- Permits are requested and issued for all building activities.
- Compile a list of active registered electricians and plumbers doing business in Flatonia to provide to the public.
- Review the zoning and subdivision ordinances and enforce zoning designations. Structures not meeting the zoning designation where it is situated will be labeled as "Non-Conforming" and will remain until it is removed or demolished at which time a conforming structure will be required in its place.

Housing Goal 3: Encourage Neighborhoods with Appropriate Amenities for Existing and Future Residents

- 2019 – Improve neighborhood appearances through subdivision design and street planting along local streets.
- 2019- Request that the local Texas A&M AgriLife County Extension Agent provide technical assistance and workshops to local citizens on developing landscaping their properties with the use of native plant materials.
- 2020 – Develop a policy on the types of residential development that the city would like to see constructed.
- 2021 – Submit an application to Texas Parks and Wildlife Department for grant funds to improve recreation facilities.
- 2021 – Request that the Texas Department of Transportation provide assistance to attractively landscape local highways, in particular the major intersection of FM 471, Walton Drive and IH 35.

Housing Goal 4: Encourage Appropriate Development of Land for Residential Areas

- 2020 – Develop a ten-year housing improvement program.
- 2019 (on-going) – Assist property owners who wish to subdivide their land to create a desirable subdivision that will meet the Texas Model Subdivision requirements as well as all local zoning and subdivision ordinances and will blend with the development plans of the city.

Housing Goal 5: Demolish All Dilapidated Housing Units

- 2019 (on-going) – Begin a demolition program for dilapidated structures by working with the property owners to achieve compliance either through rehabilitation of the structures by the owners; demolition of the structures by the owners; or demolition of the structures by the city with the owner's cooperation or through a court order.

Estimated Costs

The below numbers are an average cost per unit as there will be large variations from house to house. Focus is made on the deteriorating housing units.

Table 4. Estimated costs for Housing Rehabilitation Per Unit

Housing Element	Unit Cost	Cost Per Housing Unit
Roof	$450/100sf	$4,500
Exterior	$500/day	$2,500
Windows/Doors	$300/window	$1,800
Plumbing	$750/day	$3,750
Electrical	$750/day	$3,750
Total Per Unit		$16,300
Number of Deteriorating Units		48
		$782,400

Note: Costs were obtained from sources including contractors and home repair supply companies. No temporary relocation assistance costs are included in the cost.

3. POPULATION

Historical Background

The town of Flatonia is located in southwest Fayette County on IH 10. SH 95, US 90 and the Union Pacific Railroad. It is approximately 100 miles from Houston and 60 miles from San Antonio. Flatonia's location on an Interstate, a Railroad, and two additional major highways places Flatonia businesses in an excellent location for trade. The location also provides Flatonia residents within commuting distances to three of Texas' largest cities and several small cities for employment opportunities not currently provided within Flatonia.

Flatonia is situated on land granted in 1840s to rancher William A. Faires. Germans began to settle here in 1860s, and soon needed a shipping point for their products. Sailing master Friedrich Wilhelm Flato (1820-1899) and his wife Sophie, of the German Colony, had a store about 2 miles south of here. In the 1870s, Czech immigrants arrived, and the Galveston, Harrisburg & San Antonio Railroad

(delayed by Civil War, 1861-65) was built to this point. John Cline, F. W. Flato, John Lattimore, and railroad president T. W. Pierce founded Flatonia on Oct. 16, 1873, naming it for the Flato family.

At the same time, adjacent landowners Anton Freytag and James Faires platted Freytag and Faires' additions to the town. A post office opened in 1874 and Flatonia was incorporated Nov. 8, 1875. Soon it had churches, a school, cotton gins, a newspaper (The Flatonia "Argus"), a cottonseed oil mill, and other businesses. A casino was built for political gatherings, dances, dramas, and other uses. In 1886, a second railroad, the San Antonio & Aransas Pass, reached here. With the new railway came new settlements and new businesses, including the Swift Meat Packing Company, cotton and agricultural companies. In 1910 a new electric light plant, ice plant, water works, and cold storage warehouses were established, earmarking Flatonia for future growth.

During the first half of the 20th century Flatonia's prospects increased and decreased according to the national economy and cattle and cotton markets. In 1950 Flatonia had 1,024 residents, 50 businesses, and a wide farm and ranch service area. In the 1960s cotton no longer was a substantial aspect of the area economy; therefore, many area farms began to ranch cattle. During that time the population was between 1,000 and 1,500. Interstate 10 (I-10) opened in the 1970s, leading many tourist businesses to move to IH 10. Flatonia is a scenic spot for train watchers, boasting one of Texas' longest standing, manually operated railroad switching towers with North-South, East-West cross rails. A true piece of Americana, the tower now resides on South Main.

Population

Demographics are characteristics of a given population such as the number of people, how many are from different racial and ethnic backgrounds, different age ranges, income ranges, etc. This plan looks at how the demographics of Flatonia look today and identifies trends over time. Looking at many different characteristics of a community provides a picture of how the city is changing so that decisions regarding growth are better informed.

The 2017 American Community Survey population data was used to determine current population characteristics. Forecast scenarios were also evaluated for projected population counts. LCMS, Inc. performed a field survey of the housing units in the City of Flatonia in July, 2019, noting their condition. This process and the results are described in the housing chapter, but the total number of housing units can serve as an estimator of the population.

As of the 2017 Census there were 1,299 people making up 463 households residing in Flatonia. The racial makeup of the city was White, including Hispanic or Latino, 83.6%; Black, 7.2%, and two or more races, .6%. The Hispanic or Latino population was 674.

The City of Flatonia had 28.3% growth between 1960 and 1990. There has been little change since the 1990 census. The following table shows the historic population of the City of Flatonia over the past 57

years. In the decades between 1990 and 2000 Flatonia experienced an increase in population of 6.3% followed by an increase in population of .43% between the 2000 census and the 2010 census. The 2017 American Community Survey indicates a decrease of 6.4% between the 2010 census and the 2017 ACS population estimate.

Table 5. Decennial Census Population and Current Estimates

Year and Source	Population	Percentage Change
1960 Census	1,009	
1970 Census	1,108	9.8%
1980 Census	1,070	-3.4%
1990 Census	1,295	21.0%
2000 Census	1,377	6.3%
2010 Census	1,383	0.4%
2018 Census Year Est.	1,461	5.6%

There are currently 516 housing units which were identified in the process, 510 of which have been identified as occupied housing units and 6 are vacant housing units. Using the average household size of 2.59, the population would be 1,321 persons. This is consistent with the 2017 ACS 5-Year population estimate of 1,299 persons. The 2010 Census reported a population of 1,383 based upon a reported 515 households.

Total Population of Flatonia (Beneficiaries)	1,383
Males	671
Females	712

Household Size

The most recent estimate for household size in Flatonia comes from the 2017 ACS and is 2.59 persons per household, or 3.20 persons per family. This is higher than the average for the State of Texas at 2.82 persons per household. Flatonia experienced no change in household size between the 2000 Census and the 2010 Census. The average household size in 2000 was 2.59 with owner occupied housing consistently exhibiting more people per household than renter occupied housing.

Median Income

The following table summarizes the range of household incomes, and the distribution, within the City of Flatonia as reported by the American Community Survey (ACS)

Table 6. Median Household Income

Income Range	Households
Total	463
Less than $10,000	9.9%
$10,000.00 to $14,999	9.9%
$15,000 to $24,999	4.8%
$25,000 to $34,999	15.6%
$35,000 to $49,999	23.5%
$50,000 to $74,999	7.1%
$75,000 to $99,999	11.7%
$100,000 to $149,999	6.3%
$150,000 or more	1.3%
Median income (dollars)	$43,079

Median Family Income is a separate statistic from "Household income", although the two are usually fairly similar. The 2017 median family income for Flatonia is $46,094.

CURRENT POPULATION CHARACTERISTICS

Beneficiaries

The following table is a demographic summary from the 2017 American Community Survey for Flatonia providing population estimates for the following racial and ethnic groups:

Table 7. Summary of Beneficiaries (2017 ACS)

RACE	Non-Hispanic	Hispanic Ethnicity Also	Total
White	419	643	1,062
Black/African American	83	0	83
Asian	2	0	2
American Indian/Alaskan Native	24	0	24
Native Hawaiian/Other Pacific Islander	0	0	0
Asian & White	0	0	0
Black/African American & White	0	0	0
American Indian/Alaskan Native & Black/African American	0	0	0
Other Multi-Racial	212	0	212
		Grand Total	1,383

The following table describes the distribution of the population of Flatonia according to Income Level.

Table 8. Income Levels relative to Median Family Income (2017 ACS)

Income Level	**No. of Families**
Very Low (at or below 30% AMFI)	17
Low (31-50% of the AFMI)	9
Moderate (51-80% of the AMFI)	58
Non-Low/Moderate (Above 80% of AMFI)	226
Total	310
Subtotal – All Low/Moderate	84
Percent Low/Moderate	27.1%

Federal Fair Housing Laws – Protected Classes

LCMS, Inc. evaluated the block-groups at which race data is reported. There exists no essential difference in the composition of those populations by race. There is no outward indication of unfair housing practices on the basis of race – the only protected class parameter for which data is available.

Population Projections

Population Projections Based on Migration Rate for Fayette County, Texas – 5 Year Increments *(Texas Demographic Center – UTSA)*

Table 9. Population Projections for Fayette County, Texas

Year	Area Code	Area Name	Age	Total Pop
2010	325	Fayette	All (0-85+)	24,554
2015	325	Fayette	All (0-85+)	25,219
2020	325	Fayette	All (0-85+)	26,086
2025	325	Fayette	All (0-85+)	26,998
2030	325	Fayette	All (0-85+)	27,748
2035	325	Fayette	All (0-85+)	28,354
2040	325	Fayette	All (0-85+)	28,831
2045	325	Fayette	All (0-85+)	29,421
2050	325	Fayette	All (0-85+)	30,148

The above table shows the population projections for Fayette County in five-year increments through the year 2050, provided by the Texas Demographic Center. Each five-year increment indicates a projected population increase for the county between 500 and 900 persons.

Flatonia has been experiencing a stable population since the 1990 Census with some modulation in decennial numbers. This can be attributed primarily to the location midway between San Antonio and Houston at distances making a commute to either major employment center problematic. Likewise, there have not been new major employment generators.

Flatonia's population has been relatively stable. For the purpose of this plan, forecasts by the Texas Water Development Board were used:

Table 10. Flatonia Population Projections

YEAR	PROJECTED POPULATION
2020	1,598
2030	1,824
2040	1,977
2050	2,103
2060	2,203
2070	2,279

4. LAND USE INVENTORY, ANALYSIS AND PLAN

Overview

The Future Land Use Plan is perhaps the most important component of a Master Plan. The Future Land Use Plan is not only a map indicating preferred patterns of future development, but also background and guidance to City staff and elected officials, the public, and the development community on why and how land should be utilized in particular areas of the community. At the core of the Future Land Use Plan is the promotion of public safety, health, and well-being, and the preservation of important community features.

The Future Land Use Plan should be consulted by the City Council, Planning and Zoning Commission, and City Staff in decision-making about changes to the zoning map and ordinance, the coordination of public improvements during the subdivision process, economic development activities, the consideration of revisions to codes such as: zoning, subdivision, sign regulations, landscape requirements, building codes, etc. and the pursuit of grant funding.

Land use considerations are central to municipal planning. The types of uses are a guide to the general character of a community. The distribution of uses and relative amounts of land allocated for various uses are important factors in considering planning elements for a community.

The primary focus of a land use plan is to assist local officials in establishing policies regarding existing and future uses of public and private property. As growth occurs in the city, the plan identifies existing land uses and encourages and establishes a design of land uses by type, location, and acreage.

A land use plan should:

- Assure that adequate amounts of designated residential, commercial, industrial, and public land uses are designated in such a pattern to encourage the City to adopt the plan and work toward implementing the plan through local ordinances, policies, and private development.

- Assure that sites for public facilities be reserved or acquired at a reasonable cost in advance of development.
- Assure that development patterns occur so that utilities and transportation needs can be met in an efficient manner.
- Recognize the need for diversity of types of development.
- Improve the developmental qualities of the community by encouraging:
  a. A land use design pattern.
  b. Establishment of land use goals and policies.
  c. Projection of future streets to serve the community.

Future Challenges

Future land use challenges facing Flatonia are:

- Encourage more commercial development
- Encourage industrial development
- Encourage more and desirable residential development
- Expand the corporate limits to insure appropriate development codes are enforced.

Guidelines in Determining Land Uses

The following are land use categories used in this plan:

- Residential – To include single-family housing, multi-family housing, manufactured housing/mobile homes, and duplexes.
- Commercial – A structure for retail stores, shops, and offices.
- Industrial – A structure used for manufacturing operations.
- Public/Semi-Public – Schools, parks, governmental buildings, water and wastewater facilities, churches, cemeteries.
- Agricultural – farm and/or ranchland of five or more acres.
- Vacant – developed or undeveloped.

Benchmark Assessment

The land use "health" of a community is a qualitative question asked about a dynamic, organic entity. Much like the lab work that is common to provide some indicator for a person's health, there is a benchmark assessment that can be done which is intended to provide a snapshot of the community's land use health. There are some limitations to trying to employ a benchmark land use comparison approach. However, as long as the community recognizes this and establishes policy based on this partial representation of the community's health, but other more significant factors, such as debt ratios, vacancy rates, commuting patterns, and housing cost trends, this analysis can still present some fair and general insight. There is no standard local, regional, or state-wide comparative model which is readily available for use in Flatonia. Many communities over time have utilized the Bartholomew model as a benchmarking means[1]. However, this is based upon decades-old land use and economic

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Bartholomew, Harland. *Land Uses in American Cities*. Harvard, 1955.

considerations, is generally indicated for larger cities, and therefore should be interpreted with caution.

Factors Affecting the Development of Land

The following observations and guidance are presented here for consideration by the community.

- The small lot sizes in Flatonia are not conducive to single-family housing development unless two or more contiguous lots are owned, thus the proliferation of manufactured homes has occurred as they can typically fit on smaller size lots.
- The high rate of dilapidated buildings and vacant lots within existing neighborhoods means that most of the new growth can be absorbed by infill development, not requiring extension of water, sewer and city services beyond the current city limits.
- There will be some need to provide newer, modern neighborhoods, though these will occur when developers foresee the right environment.
- An aging population will need various housing options, and should be kept inside existing neighborhoods.
- There is very little multiple-family housing in Flatonia. At this time, the population growth expected does not demand much multifamily construction. If it is proposed, it should be located in an area with adequate sewer capacity and situated to transition development intensity from commercial to single family residential. Duplex residential can be located in some single-family areas where the lot size is adequate and off-street parking can be managed.
- The city's thoroughfare network is satisfactory in its configuration as the city has utilized a grid system. This allows for capacity to be distributed across the network and will serve the city efficiently in the future. Future developments should lay out all streets to connect to existing streets and provide for their future, orderly extension.
- The railroad can be considered a man-made constraint in many respects. The City should maintain communication with the Union Pacific line manager for maintenance or emergency situations.
- The current city hall location, police, and public works locations are adequate with respect to their location (within 1.5 miles of all points of the city), though some modernization of their structures will need to occur further in the planning horizon.
- The provision of public utilities should continue with consistently applied policies, and specific improvement recommendations are made in those chapters.

Future Land Use Plan

Future Land Use Planning Area

The Future Land Use Map is shown on Map 3. This map depicts the location of residential and non-residential land uses inside the current city limits its extraterritorial jurisdiction, and beyond these limits in anticipation of growth.

Land Use Goals & Objectives

Goal 1: Emphasize Flatonia's inherent strengths of location, schools, available land and infrastructure capacity, to capture and support retail growth on the interstate and industry.

Goal 2: Provide a careful balance of land uses, offering a mix of residential and non-residential uses.

Goal 3: Focus on placemaking and compatibility, with respect for existing neighborhoods.

Objective 1: Promote managed, well-coordinated development that is consistent with the Comprehensive Plan

Actions:

- Consult the plan regularly, in decisions about zoning, land use, interdepartmental and interagency coordination, as well as day-to-day development issues and applications.
- Maintain a continuous and coordinated planning process that involves citizens, stakeholders, the Commission, various city departments, and outside entities in deliberations concerning policy
- Develop a standard requirement for the separation and buffering of adjacent, incompatible or conflicting land uses.
- Consider every request to extend the current city limits carefully, with respect to financial return and service commitments.

Target Date for Achievement: 2018-2038

Objective 2: Encourage a continued diversification of the tax base by planning for the inevitable retail and commercial service areas along major thoroughfares and intersections, to increase opportunities for residents and business development.

Actions:

- Protect key retail-oriented intersections with targeted retail zoning districts, and gateway designations where necessary.
- Provide distinct industrial and commercial service areas where they naturally locate, but reserve them separate from residential areas.

Target Date for Achievement: 2019

Land Use Descriptions

Residential Areas of the Plan

The plan is designed to protect existing residential neighborhoods. As growth occurs, it will be important to recognize the existing areas with careful separation and buffering of uses. The plan at this stage does not distinguish on the Future Land Use Map, but identifies here for future consideration

and refinement the three general groups of residential land use, at an approximate density to correspond to their intensity and utility service planning.

Low Density Residential Land Use (< 2 units per acre)

This use is representative of traditional, single-family detached dwelling units, including larger-lot residences, and reflects the largest land use category. Low density residential land use areas are usually not located adjacent to major thoroughfares or other incompatible land uses, and are in proximity to existing single-family residential land use. As the City contemplates changes to its zoning regulations, it should encourage a variety of lot sizes within the low density district, to offer good market choices.

Medium Density Residential Land Use (2-5 units per acre)

This use generally includes two-family, attached dwelling units, such as duplex units, patio homes, and townhomes. Medium density land uses often provide areas for "empty nesters" who may not want the maintenance of a large-lot single-family home, and for young families who may find a townhome or duplex more affordable than a single-family home. It is anticipated that new areas for medium density land use will be developed in the future. Medium Density is also the zoning district that authorizes manufactured homes outside of manufactured/mobile home parks.

High Density Residential Land Uses (5-12 units per acre)

At the top end of the density scale, high density typically includes apartments and condominiums in attached buildings. Generally, medium density uses should also be permitted in any area designated for high density use, as the Future Land Use Plan emphasizes flexibility as a stated goal. The plan includes several areas for multiple-family or higher density residential development. These areas have been located next to collectors or major arterials to promote ease of access and to avoid congestion. Multi-family complexes would be appropriate in density ranging from 4 to 16 units per acre. Densities proposed higher than this should require additional review of traffic impacts, location, and utility considerations.

Non-Residential Areas of the Plan

Retail and Commercial Uses

Retail land use areas are intended to provide for a variety of retail trade, personal, and business services and establishments. Retail establishments generally require greater visibility than do other types of nonresidential land use (e.g., office, commercial).

Within the plan, key intersections with good access and high visibility are designated for retail development. For example, the plan recognizes the four key intersections which are adjacent to the I-10 exit and entrance ramps.

Smaller retail and personal service uses are also envisioned as a part of existing and future neighborhoods. While these locations are not called out directly on the map, they are part of the neighborhood character and are supported in revisions to the zoning regulations.

Commercial Service land use includes repair, business-to-business services, and logistics. Areas designated for commercial land use are intended for a variety of commercial uses and establishments with outside storage, display and sales. Examples of such uses include automobile-related services, self-storage units, welding shops, and pawn shops.

Commercial uses often locate along major thoroughfares not because they need the same level of visibility as retail uses do, but because they need the accessibility. The key difference is that commercial uses generally have a greater need for outside storage areas, and these areas tend to reduce the aesthetic quality of major thoroughfares.

These users need large, flexible space and large unimpeded outdoor storage area for supplies and equipment which is easily accessible by large and even DOT-permitted oversize vehicles. Because this use will continue to be critical to the economic vitality of the city, ample space is envisioned in the areas where this is occurring is provided, taking advantage of natural open space buffer features.

Industrial

Industrial users generally fall into two categories: those dealing in raw materials processing or resource extraction, and those which are involved in manufacturing, assembly, or other production. These users are not always compatible, and the risk for a city is in assuming that they will be. Generally, a distinction is made in the zoning regulations and unless there are existing areas of mining or raw materials processing, very little provision of more intense industrial use should be made. Land that is to be suitable for industrial land use should be based on the following criteria:

- Access to an existing or proposed major artery;
- Access to a railroad;
- Relatively flat site;
- The site will not negatively impact the existing or proposed residential areas; and
- A relatively large amount of land can be assembled in one area;

General planning criteria for industrial uses suggests that the minimum size requirements for preplanned industrial parks area about 200 to 300 acres. Approximately three to five percent of a city's land (0.2 to 0.3 acres per 100 persons) is often allocated to industrial uses. The most relevant of these criteria above, in terms of the City of Flatonia, will be avoidance of negative impact to residential areas. The others are relatively easy to achieve.

Civic and Institutional

Binding the residential and commercial uses together are the civic and institutional uses that support public space, public administration, utilities, and schools. These uses often have very specific land use requirements. For example, schools must manage large populations, peak traffic flows, and indoor and outdoor activities. A wastewater plant is strategically located with respect to topography, as is an elevated storage tank that provides drinking water at a higher pressure. Land must be reserved for these types of facilities throughout the community.

Park, Open Space and Agriculture

There are numerous benefits associated with keeping open, green space in the community, both for the active and passive use of residents and visitors. Indeed, access to even modestly-developed parks has been shown to further "active living.

Open space is also an important land use technique to further the goal of compatibility. Uses which are specifically intense, such as an airport or industrial operation, should be buffered along the perimeter with open space. Areas which are unsuitable for development, such as playas or "low spots" should be designated for open space and protected from fill.

Land Uses – City of Flatonia

Land Use	EXISTING ACRES	FUTURE ACRES
RES	334	1102
MH	36	38
MU	8	392
OF	5	5
RET	36	38
COMM	73	417
IND	19	160
PARKS	33	176
AG	184	699
PUBLIC	96	102
R-O-W	40	194
VACANT	77	10
Total	941	3333

Natural Barriers to Development
Big 5-Mile Creek
IH 10

Occupied Dwellings - 516

Thoroughfares in Flatonia:

- Highway 90/North Main Street
- FM 609/North La Grange Street
- Highway 95/North Penn Street

- Highway 95/South Faires Street
- I-10

Soils Characteristics

The soils in Flatonia are Poth, Wilco, and Nueces. The Poth and Nueces are sandy clay loam soils and the Wilco is a sandy clay soil. All three soils have a low shrink-swell potential.

Future Land Use Map

The Future Land Use Map is included as Map 3.

SECTION B. ECONOMIC DEVELOPMENT

Economic growth of a community is best achieved by structuring adequate community policies and leveraging additional sources of investment to assist in improving the community's economic assets. The city's challenge will be to attract businesses to the community and capitalize on retail sales tax.

1. HISTORIC DEVELOPMENT AND GENERAL CHARACTERISTICS

Retail Trade - Retail plays an increasingly essential role in economic development. Retail establishments often shape decisions about infrastructure development. Large retail outlets will bring income from outside of the community, thus providing an important revenue source for local government.

Industrial - The industrial sector is typically a goods-producing business but also includes utilities, mining, and heavy construction.

Service – The service sector covers a broad array of occupations that serve both individuals and businesses. Fields such as engineering, legal services, health care, and hotel/motels are some examples.

Government/Administrative – This sector includes public and private jobs such as public schools and hospitals as well as local, state, and federal employment.

Development of the Economy

Fayette County has its roots in agriculture – farming and ranching. The region has long produced a broad range of crops including corn, grain, cotton, peanuts, pecans, and vegetables. Much of the region's earliest history was tied to the processing and shipping of agricultural products. The region's proximity to the Austin, San Antonio, and Houston region has seen the growth of retail businesses and light manufacturing in the area.

The Austin/San Marcos/Round Rock and San Antonio MSA, in which Flatonia is located, plays a key role as a trade center, drawing people from tech, medical, military, education and manufacturing. Tourism is an important aspect to the region's economy, with the Alamo being the number one tourist destination in the country and the Texas Capitol the number two destination.

Previous Economic Development Studies

The 2020 Economic Development Council Comprehensive Plan for Flatonia addressed Economic Development:

> General - Growth that maintains the traditional character of Flatonia while offering economic opportunity and quality of life

- Work closely with buyers and realtors
- Use outside recruiters for retail and light industrial
- Promote Façade Improvement Grant, Utility Deposit Loan Program and Business Incentive Programs
- Continue to develop parks and trail and other recreational activity
- Promote and keep the high standard of education in Flatonia
- Add or improve infrastructure in the Downtown, Interstate, North ETJ and East ETJ

Downtown – Maintain historic character while promoting it as a destination with shops, restaurants and venues.

- Promote Flatonia as a destination through a broad selection of media
- Promote open air mall concept with shopping, restaurants, galleries, entertainment, museums, etc.
- Support training and seminars developing a destination
- Promote a shop local in conjunction with the Chamber of Commerce
- Promote existing availability of high-speed technology
- Develop stop and depot for CARTS buses (and possible future ATMRAK stop) at renovated 1878 train depot which is also the former Police Station and City Hall

Interstate – Capture tax revenue and jobs along the interstate

- Identify and push to develop properties near the interstate
- Coordinate with TXDOT for best options for economic development during I-10 improvements (Truck route, utility easements, straightening USH95)
- Plan and work for Market St. extension to I-10 Frontage Road.

North ETJ – Areas for light industrial and residential

- Provide utilities to make the area more attractive (ex: Nikel-Mica waterline)
- Negotiate to make annexation attractive and part of development
- Work with recruiter for Light Industrial businesses
- Possible wastewater pipeline option to Mulberry Creek

East ETJ – Businesses south of interstate – housing (single family residential and multi-family residential)

- Garbade Ln. extension with water and wastewater
- Jares Ln. extension with water
- I10 Frontage Road connections
- Negotiate to make annexation attractive and a part of any developments.

Development Corporation Act

The Development Corporation Act of 1979 (the Act) has played an essential role in funding economic development in the region. As initially passed, the Act allowed municipalities to create nonprofit development corporations, which operated separately from municipalities and were funded from private sources. Following a change to the Texas Constitution in 1987 which recognized economic development as a public good, the Act was amended to add Section 4A. This expansion of the Act authorized eligible communities to enact a dedicated sales tax as a means of funding development corporations.

These "4A" corporations (now known as Type A corporations) focused on funding projects in support of new and expanded industrial and manufacturing activities. Section 4B was added in 1991 authorizing the levying of a tax for a broader range of economic development activities. So-called "4B" or Type B corporations can fund all the activities of a Type A corporation, as well as quality of life improvements, such as parks, sporting facilities, and affordable housing. The tax enables hundreds of Texas communities to create a significant revenue stream for economic development.

Under Texas law, local governments are allowed to impose up to an additional 2 percent on top of the state sales tax rate of 6.25 percent, for a maximum allowable rate of 8.25 percent.

Flatonia does not have many retail establishments, and therefore does not generate much retail sales tax. Based upon the most recent net payment report from the Comptroller, Flatonia does not yet compete with surrounding communities on per capita basis.

Relationship to the Region

From an employment standpoint, Texas is growing faster than US. Flatonia is located in IH 10, 60 miles east of San Antonio, TX, the second largest metropolitan area in Texas and the seventh largest in the United States. Flatonia is also located 60 miles south of Austin which is an international tech and education center.

Connectivity

The City of Flatonia is extremely well connected to both the San Antonio/New Braunfels MSA known as the Greater San Antonio MSA and the Austin/San Marcos/Round Rock MSA.

Role in the Region

Regional growth is due in great part to its pivotal role in international commerce. San Antonio's role as a tourism, military and manufacturing center keeps that city in the national eye. Austin's function as an international tech center as well as a government and education provider are keys to its sustained growth average 3% per year per decade for its entire history as a city.

Employment Growth

Data compiled by the US Census Bureau helps illustrate employment trends in Fayette County. Employment in Fayette County averaged 11,626 workers in 2017. The most recent year for which figures were available for employing entities at the time of analysis for Fayette County is 2012.

			Change 2002-2012	
	2012	**2002**	*Net*	*%*
Fayette County				
Total number of establishments	775	727	45	+6.7%
Paid employees	5,569	5,602	33	+.58%
Annual payroll/paid employee (calculated)	$28,943	$22,883	+6,060	+26.4%

Source: 2012 Economic Census

2. BUSINESS INVENTORY

The City of Flatonia Chamber of Commerce lists 130 in categories that include Lodging, Retail & Business Services, Flowers & Floral, Construction & Agriculture, Egg Producer, Entertainment, Food & Beverage, Education, Services, Dog Breeding & Boarding, Convenient Stores, Real Estate, Health Care, Propane, Child Care, Insurance, Event Venue, and Internet Services.

The City of Flatonia is projected to grow to the north toward IH 10. A portion of the city limits is on the north side of IH 10. The City should create a proactive plan that recognizes the importance of the IH 10 corridor in attracting business growth and development. Zoning regulations should be implemented to develop a highway commercial district that regulates construction, lighting, signage and landscaping standards to make the area attractive for businesses to locate to Flatonia.

3. ECONOMIC BASE, "BARRIER ANALYSIS"

This section provides an overview of factors that influence Flatonia's development potential. To the extent possible, these factors are compared with peer communities in Fayette County, as well as with the state or the US. The section concludes with a matrix summarizing the community's relative performance on each factor using the following scale: favorable (+), neutral (=), or negative (-).

Utilities/Communications Services

The National Broadband Map provides a standard set of data on broadband access across every community in the US. As of June 2014 (the latest available), the region's access to broadband services was comparable to that of the state and the US with the exception of fiber.

Transportation

The rail network in Fayette County is comprised of tracks owned by the Union Pacific Railroad.

Trucks remain the primary method of freight transport in the IH 10 corridor between Houston, Austin and San Antonio according to a study of freight movement by the Texas Department of Transportation. At the time of publication (July 2011), slightly more than two-thirds of the region's truck traffic (68 percent) was moving to and from other metropolitan areas in the state, including Houston, Dallas-Fort Worth, Waco, San Antonio, and Corpus Christi. These figures were projected to remain relatively stable through 2035.

Cost factors

A variety of costs affect business location decisions. This section provides an overview of Flatonia's competitive position with regard to a number of such factors, with comparison to other communities in the region and to the state and US, where applicable.

Wage levels

Wage rates in Flatonia are lower for most occupations than in other nearby communities. From an industry recruitment standpoint, the region's low labor costs represent an advantage. For talent recruitment and retention, however, low wage rates can be a negative.

Unionization

Texas has low rates of unionization relative to other parts of the country. According to the US Bureau of Labor Statistics, 5.6 percent of wage and salary workers in the state were represented by unions in 2015. This group includes both union members (4.5 percent of the total) and workers who report no union affiliation but whose jobs are covered by a union contract. Nationally, nearly 14.8 million workers age 16 years and over were union members in 2015, comprising 11.1 percent of all wage and salary workers. Roughly 16.5 million were represented by unions (12.3 percent of the total).

Table 11. Union affiliation of employed wage/salary workers (numbers in 1,000s)

	US		Texas	
	2014	***2015***	***2014***	***2015***
Total employed	131,431	133,743	11,205	11,177
Members of unions				
Number	14,576	14,795	543	503
Percent of total employed	11.1	11.1	4.8	4.5
Represented by unions				
Number	16,152	16,441	700	626
Percent of total employed	12.3	12.3	6.2	5.6

Source: US Bureau of Labor Statistics NOTE: Data refer to the sole or principal job of full- and part-time wage and salary workers. All self-employed workers are excluded, both those with incorporated businesses as well as those with unincorporated businesses.

Utility Costs: Electricity

Data compiled by the US Energy Information Administration shows Texas's rates among the lowest in the nation for commercial and industrial users. From an economic development standpoint, Texas' low rates relative to neighboring states presents an advantage.

Utility Costs: Water/Wastewater

Data compiled by the Texas Municipal League can help gauge Flatonia's position relative to other similarly sized communities in the state. According to the TML's most recent survey, the average cost of water usage of 5,000 gallons in communities of Flatonia's size was $42.64. The average cost of wastewater service for residential usage of 5,000 gallons was $27.47. Flatonia's current water rates are based on a minimum charge of $25.00 for up to 1,000 gallons inside the city limits and minimum wastewater rates based on $20.50 for up to 1,000 gallons inside the city limits.

Table 12. Average costs for water and wastewater in Texas communities by population group

	Water		Wastewater	
Population Group	*No. of cities reporting*	*Avg. cost reported for 5,000 gallons*	*No. of cities reporting*	*Avg. cost reported for 5,000 gallons*
2,000 or less	267	$42.64	243	$27.47
2,001 - 5,000	121	$38.96	123	$29.71
5,001 - 10,000	83	$35.82	81	$30.14
10,001 - 15,000	41	$33.38	41	$30.27
15,001 - 20,000	33	$30.83	34	$30.91
20,001 - 25,000	14	$38.21	14	$35.99
25,001 - 30,000	10	$36.00	10	$31.70
30,001 - 50,000	24	$35.05	24	$32.21
50,001 - 75,000	9	$28.44	9	$31.40
75,001 - 100,000	8	$23.37	8	$22.99
100,001 - 200,000	19	$30.40	19	$28.31
200,001 - 350,000	5	$29.86	5	$26.33
350,001 - 500,000	1	$22.71	1	$33.84
MORE THAN 500,000	3	$34.26	3	$41.29
Total / Averages	**638**	**$38.38**	**615**	**$29.19**

Source: Texas Municipal League 2018 Annual Water and Wastewater Survey Results

Land & Building Costs

NAI San Antonio and Austin provide an overview of real estate costs by property type for the those market areas. Effective average costs per square foot (the base rent plus any additional fees and escalations) are significantly higher in the both areas than in Flatonia. This price differential can also be seen in the cost of land. There is very little publicly available data about land and building cost in Flatonia.

Local Property Taxes

Table 13 provides a comparison of selected property taxes for each of the communities in Fayette County. The calculations are intended for purposes of comparison only. They exclude rates for special districts, such as drainage or emergency medical services, which might be levied in portions of selected jurisdictions. As a result, they should not be interpreted as the rate that would apply to a specific property within a given city. Based on these calculations, Flatonia had the highest total tax rate as calculated.

Table 13: Comparison of 2018 Tax Rates – Regional Cities

City	Total
La Grange	.29
Schulenburg	.19
Smithville	.55
Shiner	.26
Luling	.52

Source: Respective Appraisal Districts

Financing and State Costs

Financing costs in the region differ by the type of loan and the size of the issuing bank. Each bank's financing costs are then compared to a group of peer institutions (as defined by Federal Financial Institutions Examination Council) and to the state average. It appears that financing costs in the region are somewhat lower than average, with some exceptions. However, average rates in Texas are higher than reported by the national peer groups for nearly every loan type and size of bank shown.

While there are a number of rankings of business costs at the state level, Moody's Analytics Cost of Doing Business Index is one of the few that includes metropolitan statistical areas (MSAs). Moody's index compares the cost of doing business across four components for metropolitan areas: unit labor cost, energy costs, state and local taxes, and office rents. States and the District of Columbia are ranked on three of the four components, due to a lack of state-level data for office rents. Labor costs represent a significant component of the ranking and are based on Moody's calculation of compensation per dollar of output for selected industry classifications at the three-digit level. Texas' relatively low unit labor costs and tax burden contributed to its ranking among the lowest-cost states.

One challenge presented by the use of the Moody's index is its treatment of energy costs. The energy cost index compares average commercial and industrial electricity costs (in cents per kilowatt-hour) for each state and MSA against the national average. Because industrial rates are typically significantly lower than commercial rates, however, the two rates are combined into a single component for each geography, with the relative importance of each rate weighted to reflect the national consumption patterns. While this step is taken to reduce bias (because areas with a large proportion of industrial users would appear to have exceptionally low rates), it likely discounts the competitive advantage of states like Texas. This discrepancy can be seen in the fact that Texas ranks 28th among states on energy costs in the Moody's index, despite having commercial and industrial rates well below the national average according to the published data.

Operating Condition Factors

The data presented above was used to prepare the matrix of "operating conditions factors" presented below. Where applicable, ratings are based on quantitative findings. However, not all factors are readily quantifiable. For these factors, the rating is based on the experience of the consulting team in evaluating markets across the US.

OPERATING CONDITION FACTORS MATRIX
STRENGTH (+), NEUTRAL (=), WEAKNESS (-)

		Comments
Unskilled labor supply	+	Employment data points to a large supply of unskilled labor and competitive wage rates in the region.
Skilled labor	=	Skilled labor is in tight supply nationally. The workforce analysis points to concentrations in several "middle skills" jobs including teachers, public safety workers, welders, and fabricators.
Productivity	=	Calculations of value added per production worker hour point to equivalent levels of productivity for manufacturing operations in Flatonia relative to peer communities.
Unionization	+	Texas has low rates of unionization relative to other parts of the US. According to the US Bureau of Labor

OPERATING CONDITION FACTORS MATRIX
STRENGTH (+), NEUTRAL (=), WEAKNESS (-)

		Comments
		Statistics, an average of 5.6 percent of employed workers in the state were represented by unions in 2015 compared with 12.3 percent nationally.
Labor-management relations	+	Texas is a right-to-work state which is generally seen as an advantage in industrial recruitment.
Electric power availability	+	Many retail electric providers serve the region. Industrial rates in the state are significantly lower than in most parts of the US.
Water and sewer availability	+	Based on a comparison with average rates for similarly sized communities, Flatonia's rates are competitive.
Gas availability	=	Service is available.
Common motor carrier service	=	Flatonia has no licensed motor carrier services located within its border, however, these services are available within close proximity.
Telecommunications availability	-	Based on published data, Flatonia has access to broadband equal to surrounding communities.
Rail/freight services	+	On the Union Pacific rail between Mexico and Houston helps ensure the presence of a strong Class 1 freight transportation services.
Availability of air service	+	The region is served by San Antonio International Airport, Austin/Bergstrom Airport and Fayette Regional Air Center.
Vocational education facilities	=	Flatonia is approximately 60 miles from San Antonio and

OPERATING CONDITION FACTORS MATRIX
STRENGTH (+), NEUTRAL (=), WEAKNESS (-)

		Comments
		Austin where numerous vocational education schools are located that serve every interest from cosmetology to welding.
School facilities	=	Flatonia ISD serves a student body of approximately 564 students from Pre-K – Grade 12. It employs 53 teachers and is ranked in the top 20% of Texas public schools.
Medical services	+	The area has a wide range of healthcare assets with Flatonia being just 60 miles south of major medical facilities in San Antonio and Austin. In addition there are three health care clinics in Flatonia.
Natural features, resources, and geography	+	Flatonia's proximity to San Antonio, Austin and Houston provide ready access to numerous state and local parks with favorable weather that provide advantages relative to other parts of the US.
Economic development tools	-	The presence of the economic development sales tax provides Texas communities with a dedicated source of funding. Flatonia has sales tax revenues equal to comparable communities in the region.
Financing costs	+	According to published data reviewed for this analysis, financing costs in Fayette County are somewhat lower than the state average.

3. PLAN

The following goals and objectives provide a framework for a more aggressive approach to economic development going forward.

Economic Development Goals & Objectives

Goal 1: Position Flatonia to capture retail growth on I-10.

Create a pro-active zoning scheme which recognizes the importance of the I-10 corridor to generating revenue.

Actions:

- Utilize the Future Land Use Map to indicate that the City is supporting new retail commercial growth in preferred locations.
- Develop a distinct "highway commercial" district which provides predictable standards for such things as building articulation, lighting, landscaping, for example.

Target Date for Achievement: 2020

Goal 2: Position Flatonia to enhance downtown opportunities.

Create a pro-active zoning scheme which recognizes the important history of downtown Flatonia, including the Rail Park.

Actions:

- Create a formal Business Retention and Expansion Program with the assistance of a college intern whose focus is business, operating in conjunction with Goal 3. (Estimated cost: $5,000)

Target Date for Achievement: 2020

Goal 3: Focus on existing business retention and development.

Develop a Business Retention and Expansion Program as a primary objective for the Municipal Development District (MDD).

Actions:

- Create a formal Business Retention and Expansion Program with the assistance of a college intern whose focus is business. (Estimated cost: $5,000)
- Visit with business owners to determine their needs (Estimated Annual Cost: $25,000)

- Host an "Entrepreneur Meeting" to solicit feedback from existing business owners and those interested in starting a business about the types of assistance that the MDD and City could provide that would be meaningful. ($500)

Target Date for Achievement: 2021

Program Costs

The economic development activities presented here are envisioned to be carried out by the City of Flatonia total approximately $30,500.00 over a three-year period.

SECTION C. STREET SYSTEM

STREET SYSTEM ANALYSIS

The City's street system consists of major state highways, county roads, collector roads and residential streets. The road conditions are provided below. Much of the street system that is not maintained by either TxDOT or the County is deteriorating, littered with potholes.

The City of Flatonia street system is that of a typical small Texas town consisting of a gridded street system of City residential streets with larger thoroughfares controlled by TxDOT which move larger volumes of traffic. The main collectors\arterials in the City of Flatonia are controlled by TxDOT.

BEFCO Engineering, Inc. completed a study for the street system. The study classifies each street as being in excellent, good, fair or poor condition.

The following street inventory table is provided.

The main collectors\arterials in the City of Flatonia are controlled by TxDOT and are:

- Highway 90/North Main Street
- FM 609/North La Grange Street
- Highway 95/North Penn Street
- Highway 95/South Faires Street
- I-10

These thoroughfares carry the large volumes of traffic for access to commercial and industrial uses in the City and to convey traffic to the local residential street network. No additional collectors\arterials are anticipated to be needed for the City of Flatonia in the next 10 years and the above stated TxDOT highways will be adequate for Flatonia's growth for the next 10 years. It is noted that I-10 will be upgraded in Flatonia. The current anticipated upgrades are:

- On ramp and off ramp relocations
- Additional main lane in each direction

- Frontage road on south side of I-10 between Flatonia and Schulenburg

TxDOT anticipates the project will start construction by 2030.

Residential streets in City of Flatonia are typically within an 80-foot right-of-way with paving widths varying with an average width of 30 feet. Existing curb and gutter within the City are limited. City of Flatonia has performed a street condition assessment. This assessment was developed by the City Manager and Public Works Director and included an assessment of all the City residential streets with a ranking system as follows:

1 – Good, paved in last 3 years
2 – Minor surface imperfection, potholes
3 – Road fracturing, structural integrity issues
4 – Road is failing
5 – Failed surface, no pavement

Streets rated as a 4 and 5 are deficient (5 being the worst). City of Flatonia over the next 10 years will reconstruct these streets. The streets will be reconstructed to achieve at minimum their existing width. Reconstruction will include a minimum of six (6) inches of road base with a 2-course chip seal. Reconstructed streets do not include curb and gutters unless adjacent homeowners pay for that improvement. Reference the Existing Street Conditions Map (Map5) for the existing street system and street conditions assessment.

Based on the street conditions assessment, streets listed as a 4 and 5 condition are listed below. City of Flatonia's goal is to reconstruct these streets over the next 10 years. The City anticipates reconstructing on average approximately 5 streets per year and typically budgets $80,000 per year on road reconstruction. City of Flatonia self performs the street reconstruction with cooperation from Fayette County. Cost for City of Flatonia to reconstruct the streets is approximately $10 per square yard of surface. City of Flatonia will be funding the street reconstruction projects. Following is the street priority list with estimated cost. It is noted that the street priority list will be evaluated by the City of Flatonia on an annual basis and priority subject to change based on existing utility infrastructure below the street, timing of new utility projects along the street corridor and City available funds.

For planning purposes, City has shown anticipated streets located outside the City limits but within the ETJ. These streets are anticipated to be needed beyond 2030; therefore, cost and schedule is not included. The timing of these road extension projects will be dependent on the development of the ETJ. It is also noted that streets required for development in the ETJ will be built by developers subject to the City of Flatonia Subdivision Ordinance.

Reference the Future Street Conditions Map for the proposed streets to be reconstructed over the next 10 years and location of future streets anticipated to be needed beyond 2030.

A comprehensive inventory of the City's streets is included below:

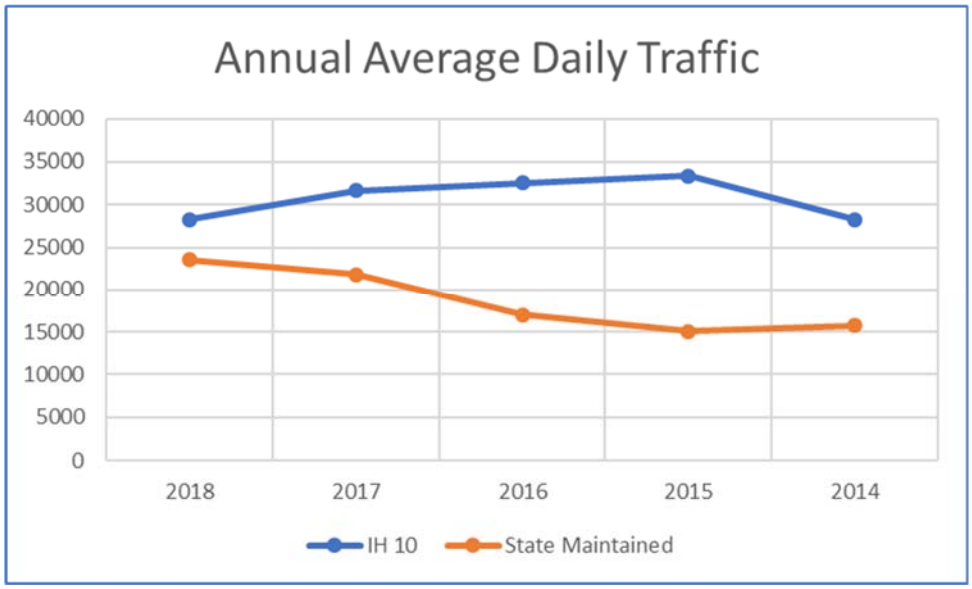
TABLE 15: Condition 5 Street Reconstruction Projects		
Street Name	Pavement Width (Ft.)	Budget
Hackberry St. (From Collins to I-10)	500 LF	$ 20,000
Collins St. (From Hackberry to Walnut)	530 LF	$ 20,000
E. 12th St. (From N La Grange to Hackberry)	500 LF	$ 20,000
N. Hudson St. (From W. 8th to W. 9th)	360 LF	$ 15,000
W. 7th St. (From RR to Mill St.)	300 LF	$ 10,000
S. Hudson St. (From W. Main to W. 6th)	400 LF	$ 15,000
W. 6th St. (From S. Mill to S. Colorado)	500 LF	$ 20,000
W. 3rd St. (From S. Colorado to just west of Mill)	300 LF	$ 10,000
S. Mesquite St. (From 90 to Old Spanish Tr)	500 LF	$ 20,000
S. Middle St. (From E. 4th to E. 2nd)	800 LF	$ 30,000
S. Market St. (From E. 1st to Old Hallettsville)	500 LF	$ 20,000

Subtotal Condition 5 Street Reconstruction Projects - $200,000

TABLE 15: Condition 4 Street Reconstruction Projects		
Street Name	Pavement Width (Ft.)	Budget
Hackberry St. (From Collins to I-10)	500 LF	$ 20,000
Collins St. (From Hackberry to Walnut)	530 LF	$ 20,000
E. 12th St. (From N La Grange to Hackberry)	500 LF	$ 20,000
N. Hudson St. (From W. 8th to W. 9th)	360 LF	$ 15,000
W. 7th St. (From RR to Mill St.)	300 LF	$ 10,000
S. Hudson St. (From W. Main to W. 6th)	400 LF	$ 15,000
W. 6th St. (From S. Mill to S. Colorado)	500 LF	$ 20,000
W. 3rd St. (From S. Colorado to just west of Mill)	300 LF	$ 10,000
S. Mesquite St. (From 90 to Old Spanish Tr)	500 LF	$ 20,000
S. Middle St. (From E. 4th to E. 2nd)	800 LF	$ 30,000
S. Market St. (From E. 1st to Old Hallettsville)	500 LF	$ 20,000

Subtotal Condition 5 Street Reconstruction Projects - #385,000

The chart below is a graphical correlation of the Texas Transportation of Transportation (TxDOT) annual average daily traffic counts on TxDOT maintained roads from 2010 to 2017. Twenty-four-hour counts, with truck and seasonal factors, are applied. The numerical number displayed are the average flow for US90, US95, SH95 and FM609 combined. Two points on IH 10 are also combined. The Annual Average Daily Traffic (AADT) counts have declined over the past four years. Although these counts are only based on traffic along state roadways (and not collector or residential streets), these numbers provide insight into the amount of traffic that goes through the City of Flatonia.



SECTION D. WATER SYSTEM

DESCRIPTION OF SYSTEM

Although the population of Flatonia has shown growth since 1980, Flatonia has traditionally been a very stable community. Refer to the table shown below for population projections as provided from the Texas Water Development Board (TWDB) website:

2016 Regional Water Plan

Population Projections for 2020-2070

Entity Id	City Name	2020	2030	2040	2050	2060	2070
1562	FLATONIA	1,598	1,824	1,977	2,103	2,203	2,279

Based on the above, the growth rate is expected to be about 14-15% over the next 10 years. The City of Flatonia presently has 808 total connections. City staff provided water meter counts from January 2015 to October 2019. During that time, the lowest meter count was 785 total connections in April 2015 & January 2016 and the high was 817 total connections in September 2018. A growth of 32 meters over a 4 year period results in a growth rate of 8 connections per year.

Water System Inventory and System Analysis

The City of Flatonia Water System presently consists of three (3) water wells, four (4) water plant sites and water distribution lines ranging in size from 1" to 8" diameter to serve up to 817 total connections/apartment units. The system is split into two (2) pressure zones:

North Pressure Zone covering a majority of the City, generally located north of Fourth Street;

South Pressure Zone, generally located on south side of town, south of Fourth Street

At present, the North Pressure Zone serves 620 connections, while 197 connections are served by the South Pressure Zone. The following is an inventory of the City's water plant facilities:

NORTH PRESSURE ZONE

Water Plant No. 1 (E. Main Street south of the Railroad Tracks)

50,000-Gallon Steel, Riveted Multi-Leg Elevated Storage Tank (Built in the 1930s). Inside was painted in 2009 and vent replaced in 2016.

NOTE: Elevated Storage Tank will need to be painted sometime in the next 10 years.

Water Plant No. 2 (Old Hallettsville Road on Hill on south part of Flatonia)

- Water Well No.9 (1977) — 250 gpm, 506' Depth, 25 Hp Pump on 4" Certa-LOK Piping.
- Chlorine disinfection and NAPCO 214 polyphosphate is used to sequester iron & manganese;
- 50,000-Gallon Steel, Welded Multi-Leg Elevated Storage Tank – Inside painted in 2011;
- 2 — 500 GPM Booster Pumps.

NOTE: Elevated Storage Tank will need to be painted sometime in the next 10 years.

Water Plant No. 3 (1 mile east of Flatonia on US 90)

- Water Well No.10 (1985) — 320 GPM, 604' Depth, 25 Hp Pump on 4" Certa-LOK Piping;
- Water Well No. 12 (2001) – 385 GPM, 400' Depth, 40 Hp Pump on 4" Certa-LOK Piping;
- 125,000-Gallon Galvanized, Bolted Ground Storage Tank (2002);
- 250,000-Gallon Coated, Bolted Ground Storage Tank (2013);
- 2 — 300 GPM 40 Hp Booster Pumps – *City wants 2-500 GPM replacements and VFDs installed.*;
- Arsenic Filtration Unit (2012) – Laynox Media (2012) in one filter, Dual Media (2018) in the second filter.

NOTE: Water Wells 9, 10 & 12 Pumps are in need of replacement and top check valve replaced.

Water Plant No. 4 (On north side of US 90 in east part of Flatonia near City Parks)

- 100,000-Gallon Steel, Welded Multi-Leg Elevated Storage Tank (2007) – 145' HWL

NOTE: Elevated Storage Tank will need to be painted sometime in the next 10 years.

Water Well 9 is controlled by electrodes in the Water Plant 2 Ground Storage Tank. Free chlorine is utilized for disinfection and NAPCO 214 polyphosphate is used to sequester iron & manganese for WW 9. Water Wells 10 & 12 are controlled by electrodes in either of the Water Plant 3 Ground Storage Tanks. Free chlorine is used for disinfection and the filters remove arsenic, iron and manganese so no polyphosphate is needed for WW 10 & 12. The signal from Water Plant No. 3 GST to remote WW12 is via a dedicated buried communication line that is buried with the WW12 water supply line. These two GSTs have an equalization line that keeps an equal level in both tanks and both tanks can be operated independently as well. Water Plant No. 3 Booster Pumps are controlled by a level transducer in the Water Plant 4 Elevated Storage Tank. Both booster pumps alternate for each fill cycle and if one can't keep up, the lag pump with supplement the lead pump. The EST tank level is transmitted via radio communication to Water Plant No. 3. Water Plant No. 2 North Zone Booster Pumps are manually run every Friday by the water plant operator to put fresh water into the local elevated storage tank & system. Please note that there is a direct 8" dedicated water line along S. Penn St. that transports water from the Water Plant 2 Booster Pumps & Elevated Storage Tank into the North Zone.

During November 2019, Water Well 10 failed. After removing the existing submersible pump & motor, a color TV video survey was conducted that found several holes in the 8" liner, just above the top 8" screens. After reviewing several alternatives for well repairs, it was decided to install a new 6" PVC liner/screens inside the existing 14" casing/8" liner-screens. After this rehab, production is expected to be decreased to approximately 200 GPM. This repair will only buy the City several more years to allow for the planning & design of a new water well. The City is recommended to plan, design and construct a new well within the next 5-10 years.

<u>SOUTH PRESSURE ZONE</u>

<u>Water Plant No. 2 (Old Hallettsville Road on Hill on south part of Flatonia)</u>

- Water Well No.9 (1977) — 250 GPM, 506' Depth, 25 Hp Pump on 4" Certa-LOK Piping;
- 250,000-Gallon Steel, Welded Ground Storage Tank (New Floor and Inside painted in 2016;
- 2 — 300 GPM Booster Pumps;
- 10,000 gallon hydropneumatic tank – *In need of painting by 2021*

Water Well 9 is controlled by electrodes in the Water Plant 2 Ground Storage Tank. Free chlorine is utilized for disinfection and NAPCO 214 polyphosphate is used to sequester iron & manganese. Booster Pumps are controlled by the system pressure as determined by the hydropneumatic tank. At this time, the pressure settings for the South Pressure Zone are 52 to 62 psi. Both booster pumps

alternate for each fill cycle and if one can't keep up, the lag pump with supplement the lead pump. An air compressor also supplements maintaining pressure in the hydropneumatic tank.

The distribution system generally consists of aged cast iron and asbestos-cement lines throughout the older portions of the City and PVC on the outer fringes of the system & where replacement projects have been constructed. As financing allows, these outdated lines should be replaced and some upgraded.

TCEQ Water Plant Capacity Requirements

Per Texas Commission on Environmental Quality (TCEQ), a connection is defined as "*a single family residential unit or each commercial or industrial establishment to which drinking water is supplied from the system. As an example, the number of service connections in an apartment complex would be equal to the number of individual apartment units (30 TAC §290.38(16)…"* The City's system has water service connections ranging in size from 5/8" x ¾" up to 4". As of October 2019, the City had a total of 808 connections which includes 632 single-family residential and 176 multi-family & commercial meters. Over the last 4.5 years, the City has had up to 817 total connections and that number will be used for the TCEQ capacity analysis. The North Pressure Zone has 620 connections while the Southern Pressure Zone has 197 connections respectively.

The TCEQ provides the minimum system capacity requirements. These are minimum requirements only and do not include emergency fire flow capacities. The TCEQ minimum water system capacity requirements include the following {30 TAC §290.45(b)(1)(D)(i-v)}:

0.6 GPM/Connection	-	*Well Capacity;*
200 Gallons/Connection	-	*Total Storage Capacity;*
2 GPM/Connection	-	*Pump Capacity;*
100 Gallons/Connection	-	*Elevated Storage Capacity, or;*
20 Gallons/Connection	-	*Pressure Tank Capacity*
Emergency power	-	*N/A due to available Elevated Storage*

Applying these minimum requirements to the maximum connection count of 817 over the last 4-5 years yields the following:

North Pressure Zone TCEQ Capacity Table			
	Existing System		*TCEQ Capacity Requirements*
	Description	*Total*	
Number of Connections	620		-
Well Capacity (GPM)	Wells 9,10 & 12	835	372
Total Storage Capacity (Gal)	Ground and Elevated Storage Tanks	575,000	124,000
Elevated Storage Capacity (Gal)	Downtown, South and East ESTs	200,000	62,000
Pump Capacity (GPM)	South and East	1,600	372
Pressure Tank (GPM)	-	0	N/A

<u>NOTE</u>: Since the North Pressure Zone is able to provide 200 Gallons/Connection of Elevated Storage Capacity, the Booster Pumps only need to be able to provide 0.6 GPM/Connection versus the normally required 2.0 GPM/Connection (Community Systems serving >250 Connection - 30 TAC 290.45(b)(D)).

South Pressure Zone TCEQ Capacity Table			
	Existing System		*TCEQ Capacity Requirements*
	Description	*Total*	
Number of Connections	197		-
Well Capacity (GPM)	Well 9	250	119
Total Storage Capacity (Gal)	South Ground Storage Tank	250,000	39,400

Elevated Storage Capacity (Gal)	-	0	N/A
Pump Capacity (GPM)	South	600	394
Pressure Tank (GPM)	South	10,000	3,940

The North and South Pressure Zones are divided by Pressure Reducing Valves (PRV)/Check Valves (CV) located at 5th and Market and 4th and Hudson, along with normally closed valves at 4th & Colorado, 4th & Mill, 4th & Faires, Converse & Alley and just north of the City of Flatonia ISD Tennis Courts. Please note that there is not a PRV, CV or closed valve on Penn Street as there are lines from both the north & south pressure zones that run along Penn, but they are NOT connected. The PRVs & CVs allow water to flow in/out both pressure systems to help each other in times of water system problems or power failures. Since the South System is currently served by Water Well 9, booster pumps and a hydro-system at Water Plant No. 2 and this facility also contains an Elevated Storage Tank that can serve the North Zone, it's recommended to install a generator at this facility to run all mechanical equipment to provide greater than 35 psi during a power outage. This generator is currently under design/bidding/construction and will be in operation Spring 2020.

Water Line - Meter Capacity

TCEQ provides a table of maximum number of connections allowable for various water line sizes starting with a 2-inch line in 30 TAC §290.44(c). However, the City does have existing lines smaller than 2-inches. For these lines, reference is made to the Texas Rural Water Association's (TRWA) residential meter equivalents table. We assume the maximum number of connections allowable for these undersized lines is the same as that of a like sized meter. As an example, per TRWA, a 1-½" meter is equivalent to 5 residential meters. Thus a 1-½" waterline is assumed to serve a maximum of 5 residential meters. Bear in mind, these minimum line sizes are for domestic flows only and do not consider fire flow.

Minimum Waterline Sizes based on meters:

1" - *3 Connections*

1-1/2" - *5 Connections*

2" - *10 Connections*

2-1/2" - *25 Connections*

3" - *50 Connections*

Minimum Waterline Sizes based on meters:

4”	-	*100 Connections*
6”	-	*250 Connections*
8” and larger	-	*> 250 Connections*

A majority of the City of Flatonia Water Lines meet TCEQ Meter Capacity requirements for not having too many meters on a certain diameter line, except two:

1” Line that has 4 meters to the M&M Trailer Park on E. Seventh Street, between Cedar & Mesquite. This line needs to be upgraded to a minimum 2” Line, but 3” water lines are always recommended in order to address future growth;

1” Line that has 4 meters on W. 7th Street between Penn & Hudson Streets. This line needs to be upgraded to a minimum 2” Line, but 3” water lines are always recommended in order to address future growth;

Please note that the 2” Water Line along S. Pecan Street on the southeast part of town off US 90 East has 9 meters, so it’s at 90% capacity. It is doubtful this line could be used for any irrigation type meters/sprinkler systems.

Hydraulics

System Hydraulics and Fire Hydrant Flow Rates

KYPIPE Version 10.001 (5/13/2019) was used to model the City’s water distribution system. Multiple factors are used as inputs into the software to characterize the distribution system including, but not limited to, line size, length, material and age, number of meters on each pipe run, ground elevation of each individual line, fire hydrant, valves, plant tanks and equipment. The model prepared for this report is considered a static model which provides an analysis for a particular point in time.

TCEQ requires that a public water system be capable of maintaining a minimum 35 pounds per square inch (psi) at a flow rate of 1.5 gallons per minute per connection {30 TAC §290.44(d)}. The City has meter sizes ranging from 5/8”x3/4” to 4”. Below is a table showing a breakdown of the meters that make of the water system.

City of Flatonia Meter Breakdown	
Meter Size	*Number*
5/8" x 3/4"	744
1"	50
1 ½"	1
2"	17
3"	2
4"	3

In order to account for meters larger than the standard residential 5/8"X3/4" meter, AWWA provides a meter equivalents table. These values are factored into the hydraulic model.

AWWA Meter Equivalency	
Meter Size	*Residential Meter Equivalents*
5/8" x 3/4"	1.0
1"	2.5
1 ½"	5.0
2"	8.0
3" DISP.	9.0
4" CMPD	25.0

The City of Flatonia's water system is divided into the North and South Pressure Zones. The Northern Zone pressure is controlled by the water level within the City's three elevated storage tanks. The Southern Zone pressure is controlled by Water Plant No. 2 service pumps and a hydropneumatic tank at a pressure setting range of 52-62 psi. Evaluating the system at 52 psi equates to the lowest anticipated pressure the system should experience assuming normal daily operation and the water plants functioning properly.

Overall, the City is in 100% compliance with TCEQ's rule stating a minimum of 35 psi in all areas of the water system during a demand-cycle of 1.5 gpm/meter. Most of the pressures within Northern Zone range between 40 and 55 psi, while pressures within the Southern Zone range from 40 to 75 psi.

KY Pipe is able to evaluate each fire hydrant's calculated potential fire flow. The model performs a theoretical flow test on each fire hydrant individually until a minimum pressure of 20 psi is reached at some location within the model. The minimum pressure is usually experienced at the location of the hydrant in question, but may also occur at some other locations within the system. It should be noted that the results produced by the model may not reflect actual achievable fire flow due to orifice head losses experienced at the hydrant and extreme head losses that could occur within the system due to absorbent line velocities. However, these unachievable calculated flow numbers usually occur at hydrants boasting unusually high flow numbers. Ultimately, the model attributes a National Fire Protection Association (NFPA) color classification to each hydrant. Below is a table explaining the color system:

Table 11 - NFPA Hydrant Color Classifications (NFPA 291)

Color	***Flow Produced***	***Applicability***
Blue	1500 GPM or More	Very Good Flow
Green	1,000 – 1,499 GPM	Good for residential Areas
Orange	500 – 999 GPM	Marginally Adequate
Red	Below 500 GPM	Inadequate

The lowest hydrant available flows shown by the model on the end of dead-end 6" lines at 475-700 GPM throughout the system and a few other hydrants at 700-1,500 GPM, but the majority of the hydrants throughout the remainder of the system are 1,500 GPM or greater. For the northern zone, the following improvements result in the following available fire flows (AFF):

New 8" line through the alley between North Main & 7th Streets, from Converse to Faires – Additional 700-1,200 GPM AFF;

New 8" line along SH 95 north and looping the 6" line along Nickel-Mica Road – Additional 500-1,000 GPM AFF;

New 8" line loop from Prototype to US 90 along FM 2762 – Additional 400-700 GPM AFF;

New 6" lines along La Grange & Elm Streets between US 90 East & RR Tracks – Additional 1,000 GPM AFF.

It should be noted that available fire flows along the north side of I-10 and FM 609 business corridors are just under the 1500 GPM threshold. Future consideration of a water plant on the north side of I-10 should be evaluated as these growth corridors continue to expand.

The southern zone available fire flows are all above 1,000 GPM with the exception of the high elevations on the hill along the south side of Flatonia, west of SH 95. However, it should also be mentioned that the southern system actual fire flow is limited by the two-300 GPM booster pumps with supplemental help from the northern system elevated storage tanks for the lower elevations of the southern system.

New 8" line along E. Second St. starting at Market & heading eastward to Flatonia ISD, including School St. – Additional 1,000 GPM AFF along 2nd & School Streets and 400 GPM in Flatonia ISD areas. This additional 400 GPM at Flatonia ISD improves AFF to above 1,500 GPM.

In summary, the water system provides adequate available fire flow, but a few areas need to be looped or upgraded as described above to improve available fire flow. While some available fire flows along 4th, 5th & 6th Streets are less than 1,500 GPM this is based upon dead-end lines due to the North-South Zone Pressure Zone division, it will actually be above 1,500 GPM AFF when the pressure reducing valves or check valves open to provide pressurized water from one source or the other.

Miscellaneous Water System Information

The City presently has iron & manganese from water drawn from Water Well 9 and iron, manganese & arsenic from Water Wells 10 & 12. Polyphosphates are used to sequester the iron & manganese at WW9. Filtration treatment is used at Water Plant No. 3 to treat the iron, manganese & arsenic from WWs 10 & 12. The filters at WP3 are backwashed with pressurized, treated water from the pressure side of the booster pumps. Backwash is discharged to a backwash settling tank. Once settled, the clear portion of the backwash tank is pumped back through the filters into the ground storage tank. The solids remaining in the bottom portion of the settling tank are held in the tank until the volume dictates removal to the City's WWTP.

The system currently has an average unaccounted annual water loss of 8.5% as reported on the Texas Water Development Board Annual Water Audit Reports for Years 2016-2018. Water loss and percent water loss per month includes only unaccounted water and not water loss due to flushing and leaks. Unaccounted water can be attributed to inaccurate flushing and leak measurements, unknown leaks, and unaccounted fire department use. An unaccounted water loss of 8.5% is a little lower than nationwide averages and is not considered to be a serious issue. However, the City does monitor this loss monthly and if it gets high enough and leaks are continuously experienced in a certain area of the system, then those lines are replaced.

Summary/Recommendations

Overall, the City of Flatonia Water System satisfies all the TCEQ Ch. 290 plant capacity requirements and service pressure requirements. There are a couple isolated areas of 40 psi at the high elevations on the extreme south & northeast parts of the system, as well as the dead end lines where the north system intersects into the south system at the check and pressure-reducing valves. There was one potential violation related to number of connections on a given line with a 1" line within the M&M Trailer Park that has 4 meters and a 1" line on W. 7th Street between Penn & Hudson Streets that also have 4 meters. These lines can be easily rectified with 2" minimum (3" recommended) water lines in these areas. The larger issue is the distribution system lacks, in certain places, the ability some hydrants to provide adequate fire flows per International Fire Code. A majority of these areas will be addressed with upgraded and looped water lines in these areas along SH 95 North, Nickel-Mica & Slaughterhouse Roads, Prototype Road, FM 2762, US 90 West, East Old Spanish Trail and Flatonia ISD. Another existing water system need will be painting all 3 elevated storage tanks and the Water Plant 2 Pressure Tank. The City also wants to look at a new water well into one of the larger producing aquifers in this area, the Carrizo Aquifer at the South Water Plant No. 2. In the Flatonia Area, this aquifer is deep at around 2,750-3,500 feet below ground based upon an oil well supply well drilled on the SW side of the City. Before drilling this deep, BEFCO recommends to look into other Carrizo wells in this area for water quality. Due to the recent structural issues with Water Well 10, it's also recommended to plan for a new water well at Water Plant No. 3 to replace ex. Water Well 10. The City also wants to replace/upgrade the Water Plant No. 3 Booster Pumps to facilitate pumping more water to the City and install new electrical VFD control panels to provide for efficient pump operation. Additionally at Water Plant No. 3, City staff wants to tie-in the filter system, level and lockouts to the existing radio control system to send alarms to Water Plant No. 2. Lastly, Water Plant No. 2 Improvements include adding a generator & wireless autodialer, as well as replacing the aged 8" AC Water Lines with new 12" PVC water lines from the plant site to Old Hallettsville Road. While the Northern Pressure Zone has adequate elevated storage and check valves to provide water to the Southern Pressure Zone to possibly negate the need for a generator, there would be several connections that experience less than the TCEQ-required 20 psi during these emergencies. The generator would also provide power to the Southern Zone booster pumps that can provide the TCEQ-required 20 psi during emergencies. The new generator, control panels and associated electrical improvements will be in operation in the spring of 2020.

The only areas of continual maintenance for the City are the aged asbestos-cement water lines. A majority of these lines are scheduled for replacement with new PVC water lines as shown on the Future Water System Map with estimates shown below. There are additional AC lines throughout the City not highlighted on the Future Map and those will be replaced as funds allow.

SECTION E. WASTEWATER SYSTEM

DESCRIPTION OF SYSTEM & ASSUMPTIONS

For the purpose of this plan, the following factors were taken into consideration:

Service Area

Present Population and Future Growth

Existing Wastewater Plant Location, Type of Treatment & Capacity

Characteristics of Existing Wastewater Discharge & Receiving Stream

Existing Collection System Topography, Layout & Operation

Unserved Residential Areas

The design & operation of wastewater facilities entails the understanding of the relationship between these factors. That is, simple changes in the system operation or an increase in the service area can have simple or significant impacts on the system. This report will examine each of the above described areas. It should be noted that the City of Flatonia sewer system is currently not under any enforcement from the TCEQ.

Presently, the City of Flatonia service area encompasses an area of approximately 1,100 acres of land. The City currently serves approximately 680 sewer connections, the City was unable to provide any long-term sewer connections data, so a sewer system growth rate was unable to be determined. Generally, the sewer system serves all areas within the city limits and all major corridors along I-10, SH 95, US 90 and FM 609. It should also be noted that a sewer extension along FM 609 was constructed to Flatonia RV Ranch on top of the hill towards the north, which will allow any commercial or residential construction along FM 609 towards La Grange.

Although the population of Flatonia has shown growth since 1980, Flatonia has traditionally been a very stable community. Refer to the table shown below for population projections as provided from the Texas Water Development Board (TWDB) website:

2016 Regional Water Plan

Population Projections for 2020-2070

Entity Id	City Name	2020	2030	2040	2050	2060	2070
1562	FLATONIA	1,598	1,824	1,977	2,103	2,203	2,279

Based on the above, the growth rate is expected to be about 14-15% over the next 10 years. At a 14-15% growth rate, the number of sewer connections will increase to about 775 connections by 2030.

Wastewater System Inventory and System Analysis

The City's wastewater treatment plant (WWTP) is located on the north side of Interstate 10 near Big Five Mile Creek. The existing WWTP consists of a lift station, aeration lagoon, facultative lagoon and 3 stabilization ponds. The WWTP Lift Station receives waste from the collection system and pumps it up into the aeration basin, then waste flows by gravity through the aeration lagoon, facultative lagoon and 3 stabilization ponds. The effluent flow at the treatment plant is presently measured daily by a v-notch weir, then it flows by gravity through a manmade ditch on the WWTP property to Big Five Mile Creek near the lift station. The aeration lagoon contains four-7.5 Hp and two-10 Hp Surface Aerators that require significant electrical demands. The facultative lagoon provides additional treatment and subsequent stabilization ponds allow settling to polish the waste to meet TCEQ effluent standards of 30 mg/L Biological Oxygen Demand (BOD), 90 mg/L Total Suspended Solids (TSS) and pH of 10. To ensure harmful bacteria are not discharged to the receiving stream and the facility meets the TCEQ E-Coli effluent standards of 126 MPU/100 mL, the WWTP has a minimum detention time of 21 days. The WWTP is currently permitted for an average flow of 250,000 Gallons per Day (0.250 MGD). The City recently completed the TCEQ Discharge Permit Renewal process. The renewed discharge permit will be valid for 5 years until October 7, 2024. Additionally, over the years, the City has spent hundreds of thousands of budgeted dollars to remove sludge from the pond system. Sludge is a biproduct of wastewater treatment and for a pond system, biological digestion during the warm months of the year typically doesn't keep up with sludge generation. This sludge removal is an ongoing 5-10 year cyclical process that the City will continue the need to budget for. Another issue that affects the WWTP according to staff is grit/solids from the collection system entering the WWTP pond system. The City is looking into mechanical dredging and biological sludge digestion methods to help manage WWTP sludge levels & address grit/solids as well.

Data from the WWTP has been recorded since the plant was expanded in the late 1990s. The following is data from April 1999 to the present, with the exception of E-Coli which is April 2009 to the present:

Wastewater Data After Late 1990s Construction		
Average Flow	0.112	MGD
Average pH (Influent)	7.35	
Average BOD-5 (Influent)	251.34	mg/L
Average TSS (Influent)	192.07	mg/L
Average pH (Effluent)	9.00	
Average BOD-5 (Effluent)	18.31	mg/L
Average TSS (Effluent)	47.12	mg/L
Average Fecal Colif. (Effluent)	510.88	#/100 mL
Average E-Coli (Effluent) - Since April 2009	28.11	#/100 mL
Average Dissolved Oxygen (Effluent)	8.78	mg/L
Average Ammonia Nitrogen (Effluent)	0.29	mg/L
Average Temperature (Effluent)	21.854657	deg C

Based upon the effluent data above, the WWTP meets the TCEQ effluent discharge parameters. Periodically, the plant has some single effluent exceedances of TSS and E-Coli but the average typically is in compliance even during these times of periodic single exceedances. These exceedances typically occur when the ponds "turnover" during the Fall/Winter and Winter/Spring transition periods. The WWTP discharges directly to Big Five Mile Creek and ultimately to Peach Creek & Guadalupe River. Peach Creek is listed as an impaired water body by the TCEQ, as a result, the TCEQ will not approve additional BOD loading. This means any proposed discharge above the current permitted 250,000-GPD flow will require improvements to decrease effluent loading to a level equal to or less than current permitted levels based on 250,000 GPD. If the City were to decide to go to a mechanical plant that can produce an effluent with a BOD of 10 mg/L, 15 mg/L TSS and pH of 6-9, then the City could increase the flowrate up to 750,000 GPD or 0.750 MGD. This is because the effluent BOD & TSS loading in pounds per day on Peach Creek would be the same for a 0.250 MGD Pond System and 0.750 MGD Mechanical System.

The WWTP presently experiences an effluent flowrate of 0.112 MGD, while the permitted rate per the City's TCEQ discharge permit is 0.250 MGD. Therefore, the actual WWTP flowrate is 45% of the discharge permitted flowrate. Using 680 existing connections and an effluent flowrate of 0.112 MGD results in an average usage of 165 gallons per day (GPD) per connection. TCEQ Ch. 217 Regulations state that once a plant reaches 75% (187,500 GPD) for 3 consecutive months, the City needs to begin planning for a new WWTP. When the WWTP reaches 90% (225,000 GPD) for 3 consecutive months,

the City needs to be constructing a new WWTP. Based on this 165 GPD average flowrate per connection, the sewer system can add up to 455 connections prior to reaching 75% and 685 connections prior to reaching 90%. However, if large scale commercial users are added to the system in the future, the number of connections to reach the 75% or 90% thresholds will be less. The average daily discharge flows should be reviewed annually and after new non-residential connections are added to the system in an effort to monitor the proximity to the 75% and 90% thresholds.

The City has discussed several alternatives for WWTP improvements over that last several years including an effluent polishing pond to improve effluent discharge, hybrid aerators for biological sludge digestions, mobile dredgers and new mechanical plant to improve effluent discharge & allow for growth. WWTP are a major financial investment and this will be more thoroughly analyzed & planned when flowrate reaches 75% of the current permitted effluent flowrate on a more consistent basis. During the next decade, the City will need to address sludge removal and perhaps planning/design/budgeting for a new wastewater treatment plant, if growth dictates. BEFCO also recommends an Industrial Pretreatment Ordinance be developed and adopted to address future industrial discharges to the City of Flatonia wastewater system.

The existing sewer collection system is adequate for the present customer base. However, if growth occurs within the current service area, some of the lines could exceed their capacities. The sewage system should be closely monitored to avoid any overloading problems. For collection system expansion, this will be developer driven and will most likely occur along the major highway corridors for commercial expansion & where land is available with nearby infrastructure for residential/multi-family expansion.

Topography of the area is very gently rolling with very good excavation characteristics. Very little or no rock is present and very little ground water exists near the surface. However, the City is at a high point at the start of drainage basins to the Navidad and Guadalupe River Basins. Consequently, the west, southwest & north sides of town slopes downward to the northwest, while the east & northeast portions of town slope downward to the southeast. This makes it challenging for gravity sewer lines to slope towards a common downslope point. As a result, the City has 7 lift stations and expansion of the collection system would most certainly require several more lift stations. The following is an inventory of the lift stations:

Flatonia Lift Stations						
Lift Station #	Address	pump hp	Number of Pumps	voltage & phase	comments	
Sewer Plant LS	345 E. IH 10 Frontage Rd.	5 HP	3	240, 3 ph.	Hydromatic	S4H500M3-4
#1	708 Collins	5 HP	2	240, 1 ph	Myers	SP50-21D-FE-C
#2	120 S. Mesquite	2 HP	2	240, 1 ph		
#3	532 W. Ninth St.	2 HP	2	240, 1 ph	Hydromatic	HPG200M2-2
#4	1135 E. US Hwy 90	5 HP	2	240, 1 ph	Myers	3WHV59M4-21
#5	499 E. IH 10 Frontage Rd.	3 HP	2	240, 3ph corner grd.	Grundfus	SLV.303A30.3034361 R.C
#6	1159 E. Old Spanish Trail	2 HP	2	240, 1 ph	Myers	EP20-210-FBC
#7	1508 E. US Hwy 90	2 HP	2	240, 1 ph	Myers	EP20-210-FBC
PD	225 E. South Main	1.5	1	240, 1 ph	personal lift	120 V, PHI
Legion Hall	1225 E. US Hwy 90	2	1	240, 1ph	personal lift	WGL 20-21
Golf Course	1245 E. US Hwy 90	2	1	240, 1 ph	personal lift	WGL 20-21

On the eastern side of the City, multiple lift stations exist within close proximity. A goal for the future is to look to see if some of these lift stations can be eliminated and flow to a common lift station along Mulberry Creek at or near existing Lift Station 7. LS7 is at a good location to serve existing residential & commercial areas on the east side along US 90, but also can serve future residential, multi-family & commercial development along US 90 & north along Jares Lane. As future development occurs on the east side of Flatonia, combining all these lift stations can be evaluated. A cost is not included since this will be development\growth driven and timing is unknown.

Sewer collection system facilities consist of four (4) to twelve (12) inch vitrified clay, concrete sewer pipe and PVC. The sewer extensions and replacements over the last 20-30 years have been with PVC pipe. Since the formal adoption of the 2010 Comprehensive Plan, City staff and capital improvement projects have addressed a majority of the aged, deteriorated infrastructure listed in that plan. The City presently conducts periodic smoke testing and manhole inspections to determine areas of high infiltration & inflow (I/I). The smoke testing is typically done during dry periods to allow for the smoke to migrate through cracks in the pipe and ground. During the most recent smoke testing in 2019, the City identified approximately 10 areas that were point repaired by City crews. Additionally, the City replaced a “ton” of cleanouts. The City will continue to annually conduct this smoke testing & repairs. The majority of the issues associated with the sewer collection system still involve aged, deteriorated clay & concrete lines in the older parts of town, particularly on the south part of the City. The following is a list of existing infrastructure that needs to be addressed per City staff:

City of Flatonia

2030 Comprehensive Plan

PRELIMINARY OPINION OF CONSTRUCTION COST

Prepared By BEFCO Engineering, Inc. Date: 10/31/19

Area	Description	Quantity	Units	Unit Price	Total
	WASTEWATER IMPROVEMENTS				
1	Alley along W. South Main St., west of Faires St.				$50,000.00
2	W. Sixth St East/West of S. Colorado St.				$90,000.00
3	Alley east of S. Colorado St. between W. 5th & 6th Streets				$40,000.00
4	W. 5th St. west of S. Faires St.				$60,000.00
5	W. 1st St. east of S. Mill St.				$40,000.00
6	S. Faires St (SH 95S) from W. 6th St. north to Alley				$50,000.00
7	W. 2nd St from S. Mill St. to S Hudson St.				$130,000.00
8	S. Faires St (SH 95S) from W. 2nd St to Old				$140,000.00
9	S. Hudson St. from Alley north of W. 6th St. to Alley				$60,000.00
10	Alley between E. 5th & 6th Streets, from S. Hudson to S. Converse				$180,000.00
11	Alley between E. 4th & 5th Streets, from S. Penn to S. Converse (2 Sections)				$80,000.00
12	S. Penn St. from Alley between 5th & 6th Streets to Dead End near Old Hallettsville Rd				$280,000.00
13	S. Market St. from Alley between 5th & 6th Streets to 1st St				$220,000.00
14	S. Converse St. from Alley between 5th & 6th Streets to 1st St				$250,000.00
15	E. 4th St. from Converse eastward to Flatonia ISD				$90,000.00
16	S. Pecan St. from US 90E southward toward Railroad Tracks				$70,000.00
17	E. North Main St. (US 90E) from Cedar St. westward towards Downtown				$50,000.00
18	E. Mulberry St. from Cedar to Hackberry				$40,000.00
19	N. Converse St. from 9th to 11th				$110,000.00
20	Re-route 6" PVC Sewer Line from Hackberry westward toward FM 609 (Happy Eatery)				$40,000.00
21	Wastewater Treatment Plant Sludge Removal Allowance				$500,000.00
	Water Construction Subtotal				**$2,570,000.00**
	Contingency (10%):				**$257,000.00**
	ENGINEERING\SURVEYING (10%):				**$257,000.00**
	INSPECTION (3%):				**$77,100.00**
	LEGAL (1%):				**$25,700.00**
	INTEREST DURING CONSTRUCTION (1%):				**$25,700.00**
	Grand Total of ALL Wastewater Project including Soft Costs:				**$3,300,000.00**

Notes:

1. BEFCO Engineering, Inc. does not guarantee or warrant that quantities, bids or actual costs will not vary from the professional opinion of probable cost shown herein. Costs reflected herein are based on professional opinions based on experience, available data and limited conceptual engineering design. BEFCO Engineering, Inc. has no control over the cost of construction such as labor, materials, equipment, etc.
2. Cost estimate assumes lines will be placed in public right-of-way and that no easement acquisition will be required.

The above pricing is based upon current contractor pricing over the last several years of bidding. BEFCO does not guarantee these bid prices will equate to actual costs when bidding. Please note that there are not any sewer systems extension cost estimates provided as they will be developer driven and presently, there are not any development projects in the planning stages. Existing lines and lift station capacities will need to be evaluated on an on-going basis as new connections are added. Cost estimates for upsizing lines and lift stations are not included. As stated previously, the

capacity of the existing wastewater treatment should be evaluated by the City annually. A new mechanical plant will be a significant cost that is not included in this comprehensive plan.

SECTION F. STORM WATER SYSTEM

The City of Flatonia's existing drainage system consists of drainage conveyance to the City streets and ditches which convey to Big Five Mile Creek running through the City or draining to TxDOT roadways. Existing storm sewer within the City is limited with a majority of the storm sewer being culvert pipes crossing City streets along the alignment of Big Five Mile Creek.

A majority of the City of Flatonia drains to a confluence known as Big Five Mile Creek with its headwaters forming on the south end of the City near Hudson and 3rd Street. Big Five Mile Creek generally parallels Hudson Street travelling from 3rd Street to a culvert crossing at I-10. Once across I-10, Big Five Mile Creek drains past the City of Flatonia WWTP and eventually discharges to Peach Creek. The east\southeastern portion of the City drains back to the southeast towards Mulberry Creek which eventually discharges to the Navidad River. A portion of the west side of town drains to the northwest into Hog Branch which crosses Fair Park Road\Railroad tracks which drains across I-10 to Big Five Mile Creek. The only mapped FEMA floodplain within the City is for Big Five Mile Creek which was mapped by FEMA in October 2006 and revised in Letter of Map Revision (LOMR) dated December 2008. Reference the existing storm drainage map for floodplain, drainage ways and available storm drainage structures.

City of Flatonia has experienced significant rainfall events over the last 5 years including the following events:

- April 2015 (4.94 inches in 3 hours)
- April 2016 (9.17 inches in 12 hours)
- May 2016 (2.18 inches in 1 hour)
- August 2017 (12.95 inches in 24 hours)

The rain totals are based on LCRA gauges located in La Grange (LCRA does not have gauges in Flatonia). These rainfall events are significant including in excess of the 100-year event occurring in August 2017 associated with Hurricane Harvey. Flatonia's existing drainage system was tested and did not experience significant flooding issues. The current FEMA floodplain maps accurately depict the extents of floodplain in the City and are shown on the storm drainage maps.

Based on the descriptions above the City of Flatonia does not have significant flooding\drainage issues; however, following is a list of drainage deficiencies that could be improved.

1. Lift station at City WWTP has an open wet well top which during larger rain events sees a backup of stormwater from Big Five Mile Creek into the wet well

2. FM 609 becomes partially inundated from 12th Street to I-10 (TXDOT storm drainage system deficiency)

3. Intersection at the southeast corner of FM 609 and I-10 becomes inundated (TXDOT storm drainage system deficiency)

4. A drainage backup occurs (consistent with FEMA Floodplain Mapping) at the culvert where Big Five Mile Creek crosses the rail road track through the City of Flatonia. Culvert is a Union Pacific railroad culvert crossing (UP drainage system deficiency).

5. A drainage backup occurs on the west side of 6th Street at Railroad tracks due to an unmaintained railroad right-of-way ditch (UP drainage system deficiency)

6. A drainage backup\inundation of SH 95/North Penn occurs due to an undersized culverts conveying Big Five Mile Creek across SH 95 (TXDOT storm drainage deficiency).

The following proposed improvements and\or policy related recommendation are proposed to address the deficiencies noted above.

1. In order to address the drainage backup into the Lift Station located at the City WWTP, a containment berm, containment curb, steps and concrete flatwork could be constructed around the perimeter of the open wet well basin. The estimated cost for this improvement is $150,000. The goal for this improvement is to be completed by 2030. City has submitted a FEMA grant application to fund this project.

2. TxDOT will need to upgrade the existing storm sewer system in FM 609 from 12th Street to I-10 in order to improve the existing drainage condition. This project would be in TxDOT right-of-way and be a TxDOT funded project; therefore, timeline and cost for proposed improvements is not provided. City of Flatonia will urge TxDOT to make improvements to the existing system over the next 10 years.

3. TxDOT will need to upgrade the existing culvert system under I-10 from the southeast corner of FM 609\I-10 to the north and then back to the west towards Big Five Mile Creek. This project would be in TxDOT right-of-way and be a TxDOT funded project; therefore, timeline and cost for proposed improvements is not provided. City of Flatonia will urge TxDOT to make improvements to the existing system over the next 10 years; however, it is more likely improvements to this drainage condition will not occur until TxDOT makes improvements to I-10 which are slated to occur over the next 10 to 20 years.

4. Union Pacific will need to upgrade the existing culvert where Big Five Mile Creek crosses the rail road track. This project would be in UP right-of-way and be a UP funded project; therefore, timeline and cost for proposed improvements is not provided. City of Flatonia will urge UP to make improvements to the existing system over the next 10 years.

5. Union Pacific will need to regrade, mow and maintain the existing railroad ditch between the existing railroad drainage crossing at Hog Branch back up to W. 6th Street.

This project would be in UP right-of-way and be a UP funded project; therefore, timeline and cost for proposed improvements is not provided. City of Flatonia will urge UP to grade and maintain the existing ditch over the next 10 years.

6. TxDOT is in the planning phase of SH 95 reconstruction. It is recommended that TXDOT upgrade the existing box culverts where Big Five Mile Creek crosses SH-95. This project would be in TxDOT right-of-way and be a TxDOT funded project; therefore, timeline and cost for proposed improvements is not provided. City of Flatonia will urge TxDOT to upgrade the culverts at time of SH 95 reconstruction project.

7. City will continue to perform periodic ditch cleaning\mowing maintenance in an effort to minimize obstructions in the existing drainage system.

Reference the Future Storm Drainage Map in the Appendix of this plan for location of the planned drainage improvements to the system.

SECTION G. Electric Distribution System

City of Flatonia owns and operates the electric distribution system within the City limits and portions beyond the City limits. City's electric distribution system consists of a series of conductors, poles, transformers and associated hardware. City of Flatonia's electric power source is the Lower Colorado River Authority (LCRA) and is fed to the City at an LCRA substation located on the south side of town on Old Hallettsville Road. LCRA also provides power to the City of Flatonia at a small substation located in Engle, which is located approximately 5.5 miles east of Flatonia. The City provides electric distribution service to Engle which is a small unincorporated community in Fayette County. The Lower Colorado River Authority (LCRA) provides the mapping, design and modeling of the City's electric distribution system. Reference the Existing Electric System Map in the Appendix of this plan. There are LCRA and Fayette Electric Cooperative electric lines through the City limits and/or ETJ and are not shown on the electric maps for clarity since they are not owned and maintained by City of Flatonia.

City of Flatonia has evaluated their existing electric distribution system and has identified the following deficiencies:

- Over 50-year-old #6HdCu conductor located from the intersection of US Highway 90\Balcones Lane to the west approximately 3.2 miles along US Highway 90.

- Existing single-phase power located from just east of Old Hallettsville Road to the east to Praha approximately 2.0 miles.

The following proposed improvements address the deficiencies noted above, ongoing maintenance needs of the City and future needs.

1. Reconductor the existing #6HdCu electric line to 1/o ACSR from the intersection of US Highway 90\Balcones Lane to the west approximately 3.2 miles along US Highway 90. Goal is to have this line upgraded by 2030 with an estimated construction cost of $110,000.

2. Upgrade existing single-phase power to three phase power located from just east of Old Hallettsville Road to the east to Praha approximately 2.0 miles. Goal is to have this line upgraded by 2030 with an estimated construction cost of $80,000.

3. City will perform replacement of poles and tree trimming as needed for the ongoing maintenance of the electric distribution system. Timeframe, location and cost are not estimated since these maintenance improvements will be on an as needed basis.

4. As the City's ETJ is developed, additional electric line extensions will be required. These line extensions will occur as needed; therefore timeframe, location and cost will be determined at time of development of these ETJ areas.

Reference the Future Electric System Map in the Appendix of this plan for location of the planned improvements to the system. City will fund the improvements through their electrical maintenance budget. Electric line extensions to serve new developed ETJ areas will be funded by the end user in accordance with the City's line extension policy.

The City of Flatonia purchases electricity from the Lower Colorado River Authority (LCRA). Rates for wholesale electrical purchase are set by the LCRA Board of Directors in May of each year for the following LCRA fiscal year (July1-June 30). The City of Flatonia passes along to all customers both fuel and non-fuel costs for electricity purchase from LCRA through a Power Cost Recovery Factor (PCRF). PCRF changes are affected by the LCRA Board of Directors rate adjustments each year. City of Flatonia anticipates a rate change for electric usage in the next 10 years based on ongoing wholesale electric costs and maintenance costs. Rates will be evaluated annually to determine when a rate increase is appropriate to meet the wholesale and maintenance needs of the system.

SECTION G. RECREATION AND OPEN SPACE

Parks and open space provide an outlet for the residents of a community to come together for sports, recreation, and exercise.

Recreation and Open Space Inventory

The City of Flatonia has the Flatonia Golf Course, American Legion Hall, Garbade Park, McWhirter Park, Mulberry Creek Connector Park, Railroad Park, and the 7 Acre Park Central Park. The 7 Acre Park Central Park features a multi-purpose soccer field, a skate park, a walking trail, disc golf course, benches, and Parking.

There are numerous State parks and recreation areas located a short drive from Flatonia and offer historic/educational programs, recreation, camping, hiking, bird watching and sight-seeing. Some of the nearby State Parks and Natural areas include Monument Hill State Park, Welhausen Park, McKinney Roughs Nature Park, Palmetto State Park, and Buescher State Park.

Recreation and Open Space Analysis

Space not used for buildings or structures may be defined as open space. It may be land or water in urban cities or rural areas. It may also be park space. Three functions that open space areas serve are:

1. Open spaces can meet human needs in recreation amenities through the physical and psychological senses.

2. Open space enhances and protects our natural resources such as air, water, soil, plants, and animals.

3. Open space has an impact on economic development decisions, affects development patterns and real estate values.

Important local considerations in planning park and recreation sites in a community are:

1. Locate lighted and noisy park activities away from residential areas.

2. Small park sites with children's playground equipment needs to be located away from busy highways.

3. The location and conditions of existing recreation facilities.

4. Conditions and type of recreation facilities at school grounds and availability of the facilities to the public.

5. Landscaping.

6. Availability of land to expand park facilities.

7. Adequate city staff to provide park maintenance

8. Local budget

The National Park and Recreation Association recommends a total of 30 acres of parkland per 1,000 persons. This amount can be allocated in any combination of park types. The recommended allocation for each of the three park types listed below for every 1,000 persons are as follows:

- Ten (10) acres of park land for recreational use;

- Ten (10) acres in “green” areas such as scenic parks, streams, parkways, etc.

- Ten (10) acres in a natural area.

Recognized Park Types and Standards

The size of a park usually determines the park type such as playground park, neighborhood park, community park, etc. This provides a tool that can be used in community planning to determine the amount and size of future parkland requirements for the city.

- **Playground Park** – A playground park is small, typically from 2,500 square feet to one acre and services a two to three block area around the park. In some areas, a playground park is also referred to as a mini-park. Facilities in a playground park include playground equipment, park benches, picnic tables, drinking fountains, hard surface courts for a variety of activities.

- **Neighborhood Park** – In small rural communities Neighborhood Parks are often referred to as the City Park. A neighborhood park is usually divided into different activity areas. There is an area for children with playground equipment, and perhaps a wading pool or splash pad. There is an area for active sports such as football, soccer, softball/baseball, jogging/walking trails, etc. There is an area for group gatherings with picnic tables, bar-b-que grills, and pavilions or canopies. A Neighborhood Park or City Park is usually 5-20 acres and services a one-quarter to one-half mile radius around the park.

- **Community Park –** A community park is larger than a Neighborhood Park but contains some of the same amenities that are found in a Neighborhood Park. The ball fields and tennis courts will have lights for night play. The park may also have a swimming pool and off-street parking. A community Park is usually 20 – 100 acres in size and serves an area from one-half mile to three miles around the park.

- **City Park** – The minimum size for a City Park is 100 acres with the service area being the entire City, usually having a population of 5,000 persons. A City Park may provide space for day camps, lighted overnight camping, and a band shell/performance area in addition to all of the facilities provided in a Community Park.

- **Regional Park –** A Regional Park is usually a minimum of 250 acres with a service area within a one-hour drive. A Regional Park often provides activities and facilities which cannot be found in the other types of parks such as large organized campgrounds, boat launches, nature trails, etc.

Recreation Facilities and Open Space Plan

The existing park facilities in Flatonia are not sufficient to meet the needs of the community, however, Flatonia is actively working towards making the Haywood Park project a reality.

Problems Identified

1. Lack of parking areas at the baseball field complex.

2. The City needs more parkland to meet the recommended park acreage.

3. A large variety of recreation facilities are needed.

Goals and Objectives

1. **Provide park and recreational facilities and programs to serve all ages of the local population.**

    - Obtain information from local citizens on facilities they would like to see in the local parks. Timeline – 2019 and on-going.
    - Continue developing parks in underserved areas of the City. Timeline – 2019 and on-going
    - Consider seeking funding from Texas Parks and Wildlife Department (TPWD) to match the donated fund/lands to best utilize local funds in the development of these parks.
    - Timeline for application, funding, and construction of a new Park. 2022 – 2025
    - Create trail system throughout the City for safe access of facilities by foot or bicycle.

2. **Initiate and carry out a general beautification and environmental improvement program.**

    - Work with property owners along the major roads and streets to develop a street tree planting program that will improve local appearance. Timeline – 2019 and on-going. Estimated costs - $150,000.00. Possible sources of funding – Texas Parks & Wildlife; the UPS Foundation; Arbor Day Foundation.
    - Work with the Texas Department of Transportation to develop a landscape program for the local highways. Timeline – 2019 and on-going. Estimated costs - $100,000.00. Possible sources of funding – TxDOT Wildflower Program; TxDOT Green Ribbon Landscape Improvement Program; U.S. Forest Service
    - Request the local Texas AgriLife County Agent provide information and workshops to local residents on landscaping, tree planting, tree pruning and the use of native plants and vegetation in landscaping considerations. Timeline – 2019 and on-going. No cost involved.

- Enlist the use of individual residents and volunteer organizations to assist in the beautification and maintenance of city park facilities. Timeline – 2019 and on-going. No cost involved.

3. **Develop maintenance schedules for current park facilities.**
    - Through an asset management type schedule, the City will place park facilities on appropriate facility timed replacement, painting and/or general upkeep. Timeline- 2019 and ongoing

Potential Sources of Funding

Texas Parks and Wildlife Department – Land and Water Conservation Fund
Local Parks, Recreation, and Open Space Fund

Texas Department of Transportation – Funding assistance for local highway landscaping.
TxDOT Wildflower Program
TxDOT Green Ribbon Landscape Improvement Program

USDA Rural Development – Community Facilities Program

The UPS Foundation – Funding assistance for tree planting.

SECTION H. CAPITAL IMPROVEMENTS PROGRAM

Capital improvements programming is the listing of needed public improvements by topics, their urgency of need, multi-year scheduling of the public improvements with their construction dates and determine fiscal resources available to the locality. Scheduling the activities is based on the availability of financial resources and the choice of specific capital improvements to be constructed during the next five to six years. Only major, non-recurring items are included in the Capital Improvements Program as opposed to normal operating and maintenance expenses. It would be inappropriate to include in the Capital Improvement Program expenditure items that occur every year such as salaries, office supplies, etc. Examples of capital improvement projects are:

- New and expanded physical facilities for the City which are relatively large and expensive.
- Large scale rehabilitation or replacement of existing facilities.
- Major pieces of equipment that are expensive and have a relatively long period of usefulness.
- Cost of engineering or architectural studies and services relative to public improvements.
- Acquisition of land by the City for a community facility. This may involve a park, street water or wastewater lines, or a community building.

Local government benefits through an effective Capital Improvement Program may include:

- Encouragement of local officials to review needed projects;
- Assist in establishing priorities to carry out community facilities;
- Assist the community to better schedule public improvements that require more than one year to construct;
- Provide an opportunity, assuming funds are available, to purchase land before costs increase;
- Provide an opportunity for long-range financial planning and management;
- Stabilize tax rates through intelligent debt management;
- Avoid such mismanagement as paving a street one year and tearing it up the next year to replace a waterline;
- Offer an opportunity for citizens and public interest groups to participate in decision making;
- Contribute to a better overall management of City affairs.

General steps to the City's comprehensive planning process as undertaken in the 2018 planning program are illustrated below. Only through the actions of the City Council, staff, local planning bodies and in general, the citizens can the prepared plans be adopted or accepted for implementation by the City. Phase 2 of the Comprehensive Plan is the implementation step. A form for local use in identifying strategies for City Council action is included hereafter. Even though it may take many years to implement most of the planning recommendations, the planning process should continue as implementation and changes bring about new insight.

Planning activities included in the 2018 Comprehensive Planning project are:

- Mapping
- Housing
- Population
- Land Use
- Economic Development
- Streets
- Water System
- Wastewater System
- Storm Drainage
- Recreation and Open Space
- Capital Improvements Program
- Subdivision Ordinance Update
- Zoning Ordinance Update

Implementation of the City's Comprehensive Plan can occur in many ways, by various organizations, individuals and government agencies. The revised Zoning Ordinance prepared as part of the Comprehensive Planning Program, the Subdivision Ordinance, and other codes and ordinances will assist the City in directing development in an orderly compatible fashion. Administration of these

ordinances should enhance the appearance and can be effective in maintaining property values in the City of Flatonia. Ordinance jurisdiction for Zoning is within the corporate limits while the Subdivision Regulations include the corporate limits plus the extraterritorial jurisdiction.

ZONING ORDINANCE

The proposed revised Zoning Ordinance provides the City an orderly process for land use management, which permits and encourages development of similar functions in a designated section or district zone within the City. State legislation permitting a City to adopt a Zoning Ordinance, requires all land within the City be placed into one of the Ordinance District Zones. Flatonia's proposed revised Zoning Ordinance stipulates nine (9) sections or Zone Districts.

SUBDIVISION ORDINANCE

Subdivision controls can assure the probability that land will be platted and developed in a way that the property owner and local citizens benefit. Local advantages arrived through the subdivision regulations enforcement are:

- Assist in maintaining a stable tax base through the approval of adequate construction of subdivisions;
- Improved quality control through the assurance of engineered water and wastewater facilities;
- Improved street and drainage systems that are designed in accordance with established right-of-way and pavement standards and which will conform to existing streets and proposed thoroughfares.

The City has subdivision control within the City and the extraterritorial jurisdiction. All plats within the City's jurisdiction should bear the City's appropriate signature prior to recording by Fayette County. If the city intends to withhold the extension of utilities to a particular tract of land within the extraterritorial jurisdiction, because the subdivision was not constructed in accordance with City Codes, the City's intent should be recorded.

ANNEXATION

Flatonia should continue moving along IH 10 by annexing property and extending the city limits to include both sides of IH 10 and beyond to the east and west of IH 10. Serving as the front door to the city, the area should be under Flatonia's land use controls and property tax revenues.

CAPITAL IMPROVEMENT PROGRAM FINANCING

An additional method for implementing a Comprehensive Plan is for the City to initiate the construction of infrastructure to accommodate or guide growth and development. This is typically accomplished through an annual capital improvement program that identifies streets, water, sewer, drainage, parks, electric and other public infrastructure and facilities to be constructed. This list is prioritized and improvements are incorporated into the City's annual budget. Decisions regarding the prioritization of proposed capital improvements should take into account the strategies and action recommendations of this Plan.

MUNICIPAL OPERATING FUNDS

All municipal governmental revenue and expenditure operations can be said to be either governmental, proprietary (or enterprise), or fiduciary in nature. Governmental operations are those usually not engaged in by private business such as police and fire protection services. These are usually financed by the General Fund or from other sources not directly related to the operations themselves.

Proprietary or Enterprise Operations are those, which are similar to the operations of private business such as the water, wastewater and sanitation departments of a city. They are financed by direct charges assessed against the citizens benefiting from them. However, the major difference between private enterprise and the enterprise funds of a city is the profit motive. A city is not concerned with making profits for gain. The city, however, must be concerned about establishing reserve funds for each of the city's enterprise activities. This assures the city that they can keep facilities operating when major problems occur or when additional State and Federal requirements are imposed, without seeking outside financial assistance.

Fiduciary Operations are those undertaken by a government on behalf of, or in a fiduciary capacity for some other persons or groups. Examples of fiduciary operations of the City are State and Federal Grant Programs. Many times fiduciary operations are considered either as Proprietary or Governmental.

The need to account for separate operations differently, and the fact that many governmental revenue sources carry legal restrictions regarding how they are spent, has resulted in the development of fund accounting for governments. Fund accounting emphasizes separate detailed accounting and reporting for each of the several sub-parts of a government, called funds, rather than accounting and reporting for the governmental unit as a whole. The following types of funds used by the City are:

General Fund - are all resources not required to be accounted for in another capacity.

Proprietary Fund - to account for operations that are financed and operated in a manner similar to a private business, and where the intent of the governing body is that the cost (expenses including

depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered through user fees.

Debt Service Fund - to account for resources and expenditures used in repaying long-term debt (General Obligation Bonds, Revenue Bonds, and Certificates of Obligation).

Trust and Agency Funds - to account for resources held by the City in a fiduciary capacity on behalf of other parties. These can include projects involving state or federal funds, private donations for a particular purpose, foundation grants, etc.

The City should always attempt to maintain the minimum number of funds consistent with legal and operating requirements. Excessive funds can result in inflexibility, undue complexity and inefficient financial management, such as, more time will be required to post ledgers, reconcile bank balances, prepare financial statements, and to conduct the annual audit.

PURPOSES OF THE CAPITAL IMPROVEMENTS PROGRAM STUDY:

- Identify and quantify available sources of revenue and analyze trends in operational expenditures.
- Attempt to identify relationships between expenditure items and revenue sources.
- Provide greater assurance that capital improvements be made consistent with both community need and financial capability.
- Prevent unnecessary and extreme fluctuations in the rate of spending to contribute to stabilization of local tax rates.
- Facilitate, coordinate and phase projects for Flatonia's future growth.
- As a basis for decisions on individual projects and programs, the City must provide officials and citizens with a long-range picture of the community's financial progress.
- Provide an integral tool to implement policies of the Comprehensive Plan.
- Present a five-year Capital Improvement schedule and financing program based on the recommendations of the Comprehensive Plan.

Capital Improvements Program Benefits

The Comprehensive Plan Documents recommend various projects for maintaining and upgrading municipal facilities and providing for the community's projected growth. The proposed projects can be accomplished through an ongoing Capital Improvement Program process. The CIP earmarks a portion of the City's Budget for financing these improvements, and establishes a schedule for completion of the projects.

An effective Capital Improvements Program can provide many potential benefits for the City of Flatonia including:

- Ensuring that necessary community facilities and improvements are completed.

- Scheduling public improvements, especially large scale projects requiring more than one year to complete.
- In advance of need, acquire land for improvements enabling the City to purchase such land in an orderly and cost effective manner.
- The City should stabilize tax and utility rates through responsible debt management.
- Eliminate fiscal inefficiencies and mismanagement (e.g., allocating funds to pave a street one year and allocating funds to tear it up the next to replace a water line).

FINANCIAL REVIEW

Cities are required to use different accounting methods for different operations. Because many governmental revenue sources carry legal restrictions regarding how cities can spend, thus cities have developed fund accounting systems. Fund accounting provides detailed accounting and reporting for each distinct fund, rather than accounting and reporting for the city as a whole.

The City of Flatonia operates with various funding groups. A description of the City's funding system is as follows:

Major Funds

The City of Flatonia, Texas maintains three individual governmental funds. Information is presented separately in the governmental fund balance sheet and in the governmental fund statement of revenues, expenditures, and changes in fund balances for the general fund, the NPD Impound Fund, and the Municipal Development District fund.

The focus of the City of Flatonia, Texas' governmental funds is to provide information on near-term inflows, outflows, and balances of spendable resources. Such information is useful in assessing the City of Flatonia, Texas' financing requirements. In particular, unassigned fund balance may serve as a useful measure of a government's net resources available for spending at the end of the fiscal year.

General Fund: The General Fund is the chief operating fund of the City of Flatonia. It is used to account for all financial resources except those required to be accounted for in another fund.

Proprietary funds*:* The City of Flatonia, Texas maintains one type of proprietary fund. *Enterprise funds* are used to report the same functions presented as business-type activities in the government-wide financial statements. The City of Flatonia, Texas uses enterprise funds to account for its utility operations.

Proprietary funds provide the same type of information as the government-wide financial statements, only in more detail. The proprietary fund financial statements provide separate information for the utility operations.

TAXES

This category includes current and delinquent personal and real property taxes, franchise taxes, sales taxes and other

Ad Valorem Tax

Property tax has been the cornerstone of the revenue structure of Texas cities. In general, taxes on property represent the largest single revenue source for Texas cities. Usually this tax averages about 14 percent of a city's total revenues. Property tax in Texas is a general tax applied to all types of property capable of producing income. All real property and certain personal property are taxable unless specifically exempted by law. Taxable property in Flatonia includes real property (land and buildings) and personal property (now limited only to business assets). Actual revenues from property tax are determined by multiplying each 100 dollars of the taxable property's valuation by the adopted tax rate. The property tax process is very complex and includes the following steps:

a. Appraisal - Identification and valuation of all taxable property by the Fayette County Appraisal District, resulting in the appraisal roll.

b. Assessment - City analysis of the appraisal roll, calculation of an effective tax rate, and adoption of a tax rate result in the tax roll determining the tax liability for each property.

c. Collection - City preparation of tax bills acceptance of tax payments, notification of delinquent taxpayers, and collection of delinquent taxes, results in the total property tax revenues.

Obtaining revenues for capital improvements through increased tax rates is usually an unpopular method, but considering that property taxes on a person's home are deductible on federal income taxes, it may be a more realistic method of increasing local revenues than it would be to increase utility rates for capital improvements.

Sales Tax

Sales tax is a consumption tax imposed by the government on the sale of goods and services. Sales tax is levied at the point of sale, collected by the retailer and passed on to the governmental body.

Franchise Taxes

Franchise Taxes are charges to private utilities for conducting business in the city and for the city's provision of infrastructure support services.

CAPITAL IMPROVEMENTS FINANCING

General Debt Financing

The various types of debt financing for generating needed revenues, including voter authorized borrowing instruments (bond), Commission authorized borrowing instruments (Certificates of Obligation), and limitations on borrowing discussed hereafter.

The most widely used methods for major capital infrastructure improvements are:

General Obligation Bonds - These are used for improvements to non-revenue producing systems such as roads are repaid from Property Tax Revenues. General Obligation Bonds authorized by citizen approval of bond elections specifying the projects to be funded and the amounts for each project to be repaid through property taxes.

Revenue Bonds - for improvements to revenue generators such as water and sewer systems.

Certificates of Obligation - are similar to General Obligation Bonds and are often used for emergency purchases. Certificates of Obligation are similar to bonds, with the major difference being that Certificates of Obligation do not require voter approval. Certificates of Obligation, like bonds, are repaid as general obligation, revenue, or combination tax and revenue instruments.

Combinations of General Obligation Bonds, Revenue Bonds and Property Tax or Revenue Certificates of Obligation - for improvements when more than one source of financing is necessary.

Contractual Obligations - Contractual Obligation instruments are a relatively new method for financing generally smaller expenditures for items having a known useful life, such as police cars and fire trucks as well as for major capital infrastructure projects. Contractual Obligations are like Certificates of Obligation, but are quicker to process have higher processing fees, are for smaller amounts and for shorter terms (3-5 years), do not require public notification, are not subject to a voter referendum, and do not figure into the city's effective tax rate calculations. This new method is repaid through a specific debt service tax, and could be competitive with leasing for vehicles and computers.

FIVE YEAR CAPITAL IMPROVEMENTS PROGRAM

The recommended Capital Improvements were based on studies of the Comprehensive Planning activities. Each specific program listed in this Capital Improvements Program exhibit was assigned one of the priority terms.

M – Mandatory: Those which protect life or health.

N – Necessary: Those which are important public services.

D - Desirable: Those which replaces obsolete facilities.

A – Acceptable: Those which reduce operating costs.

The engineering firm of M&S Engineering completed a study of the city's streets, water system, wastewater system and storm drainage. These studies identify both present day needs as well as future needs for the community. This Capital Improvements Program is predicated upon these studies. A Parks and Recreation Study, Thoroughfare Study and Central Business District study with recommended landscaping through the Texas Department of Transportation and/or the Texas Forest Service. If the city is successful in receiving landscape funding from the state, very little local funds will be required to achieve the recommended landscaping in the Central Business District. Thoroughfare improvements for the next five years are included in the Street Study.

SOURCE OF FUNDING CODES

GO GENERAL OBLIGATION BONDS

AF ASSESSMENT FEES

RB REVENUE BONDS

CITY GENERAL FUND OR PROPRIETARY FUND

GS GRANT SOURCES

FIVE-YEAR CAPITAL IMPROVEMENTS BY YEAR AND PRIORITY

Water System	Est. Cost	Fund	Year
M Repair or replace fire hydrants throughout the City	$45,000	CITY	2019
N Perform tank inspections and make identified repairs including recoating and repainting	$300,000	GS/RB	2020
N Locate/adjust valve boxes to surface grade	$28,000	CITY	2021
D Replace all water meters with manual read meters	$75,000	GS/RB	2021
A Add new isolation valves at critical locations	$40,000	CITY	2022
D Replace identified aged water mains	$50,000/annually	GS/RB	2023

The water system improvements are city-wide improvements that will benefit all residents of Flatonia including protected classes and the disabled and handicapped. Affordable housing opportunities through new construction may arise as a result of the water system improvements. Affordable housing opportunities will be available to all residents of Flatonia including protected classes and the disabled and handicapped.

Wastewater System	Est. Cost	Fund	Year
M Enhance security at WWTP (i.e., construct building to house field equipment, install new fencing, install security cameras)	$75,000	GS/RB	2019
N Make repairs to Clarifier #1: bridge and rake structures, effluent weirs	$73,000	GS/RB	2019
N Perform CCTV inspection of gravity sewers	$130,000	GS/RB	2020

N Repair/replace gravity sewers based on CCTV inspection results	$50,000 ann.	GS/RB	2021
D Make repairs to manhole rings	$75,000	GS/RB	2021
N Make repairs to chlorine contact chamber (floor and baffles) and install door on chlorine building	$25,000	CITY	2022
A Drainage improvements at WWTP to eliminate rainfall runoff into drying beds	$10,000	CITY	2022
D Make drainage modifications at each wet well	$4,000 each	CITY	2023
N Replace force main from Ballfield lift station to City buildings (Estimated cost: $85,000)	$85,000	CITY	2023

The wastewater system improvements are city-wide improvements that will benefit all residents of Flatonia including protected classes and the disabled and handicapped. Affordable housing opportunities through new construction may arise as a result of the wastewater system improvements. Affordable housing opportunities will be available to all residents of Flatonia including protected classes and the disabled and handicapped.

Storm Water System	**Est. Cost**	**Fund**	**Year**
M Document flooding events	Staff	CITY	On-Going
M Research FEMA Hazard Mitigation Grant Program for property buyouts in the floodplain	Staff	CITY	2019
N Perform drainage analysis	$32,000	GS/GO	2020
N Perform routine and preventative maintenance annually	$7,000	CITY	On-Going
D Construct drainage swale along Bartlett Street	$26,000	CITY/GS	2021
N Implement erosion control and streambank stabilization along wash out area of Fort Ewell Creek	$50,000	GS/GO	2021
D Construct curb and gutter along 8th Street	$25,000	GS/GO	2022
D Construct curb and gutter along 3rd Street	$15,000	GS/GO	2023

The storm water system improvements are city-wide improvements that will benefit all residents of Flatonia including protected classes and the disabled and handicapped. Affordable housing opportunities through new construction may arise as a result of the storm water system

improvements. Affordable housing opportunities will be available to all residents of Flatonia including protected classes and the disabled and handicapped.

Street System	Est. Cost	Fund	Year
M Install/ replace street signs	$18,000.00	CITY	2019
A Develop City ordinance regarding street parking	Staff	CITY	2019
A Perform pavement survey	$6,000	CITY	2020
N 8th Street Reconstruction	$475,000	GS/GO	2022
N 3rd Street Reconstruction	$1,025,000	GS/GO	2023
N 6th Street Reconstruction	$238,000	GS/GO	2024
D Annual budget money set aside for street construction and repair	$50,000/Annually	CITY	On-Going

The street system improvements are city-wide improvements that will benefit all residents of Flatonia including protected classes and the disabled and handicapped. 3rd Street and 6th Street are both major north-south access streets that are used by all residents of Flatonia. 8th Street is the major street used by all residents and school busses to access the various Flatonia ISD campuses. Affordable housing opportunities through new construction may arise as a result of the street system improvements. Affordable housing opportunities will be available to all residents of Flatonia including protected classes and the disabled and handicapped.

Application of the Plan

It must be recognized that any plan for the future must be based on an estimate of certain growth, conditions, trends and projections. These conditions may change and vary from time to time, and when they do, the Capital Improvements Program should be re-analyzed.

This plan is not meant to be inflexible, but rather a tool to help establish a course of action. The saying, "where there is a will there is a way" appropriately applies here.

SECTION I. SUBDIVISION ORDINANCE

The following draft Subdivision Ordinance for the City of Flatonia is prepared and presented for City Staff and the City Attorney to review, and make desired corrections or changes prior to adoption by the Flatonia City Council.

ORDINANCE 2018-___

CITY OF FLATONIA

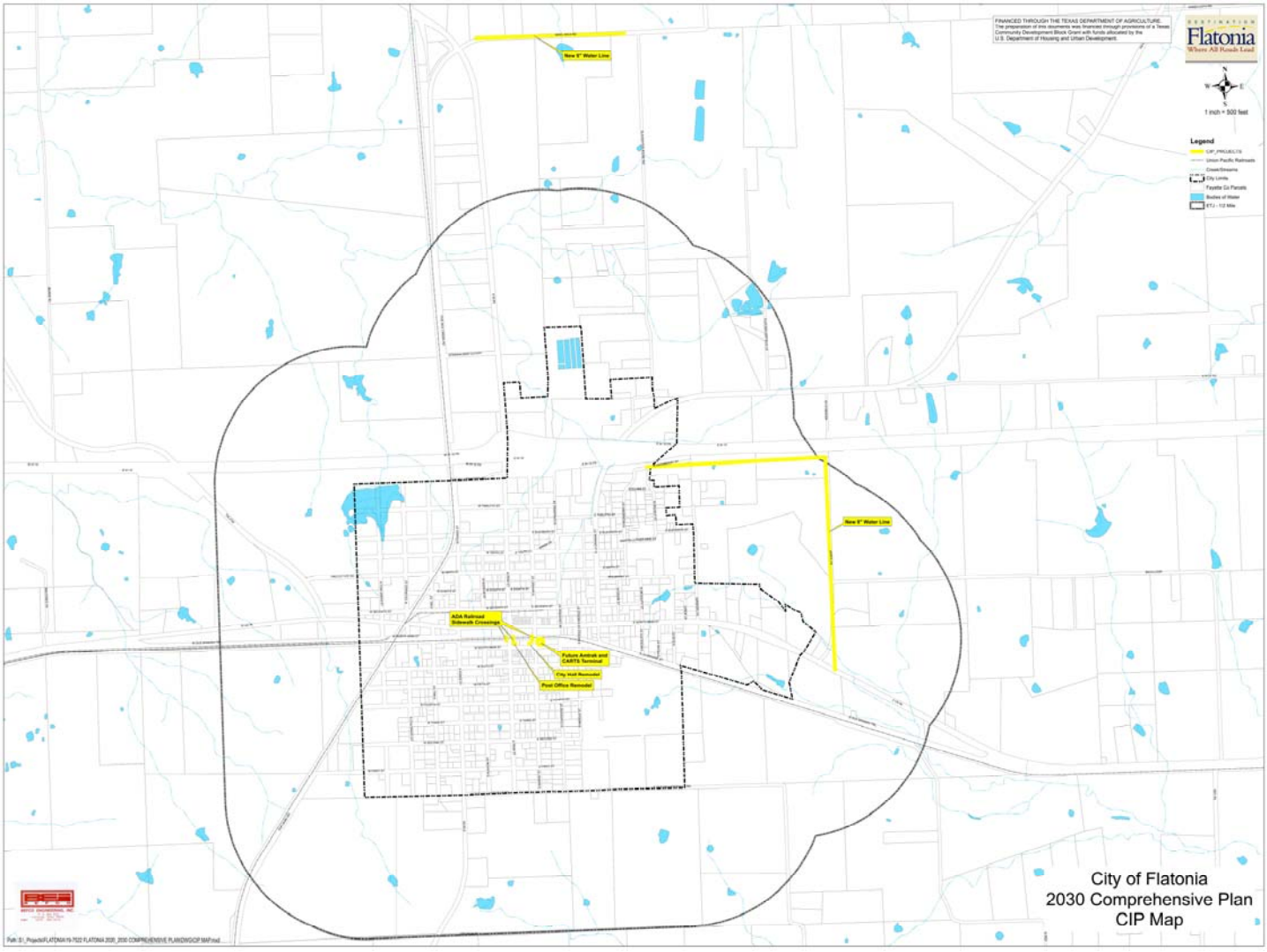
SUBDIVISION ORDINANCE

SECTION J. ZONING

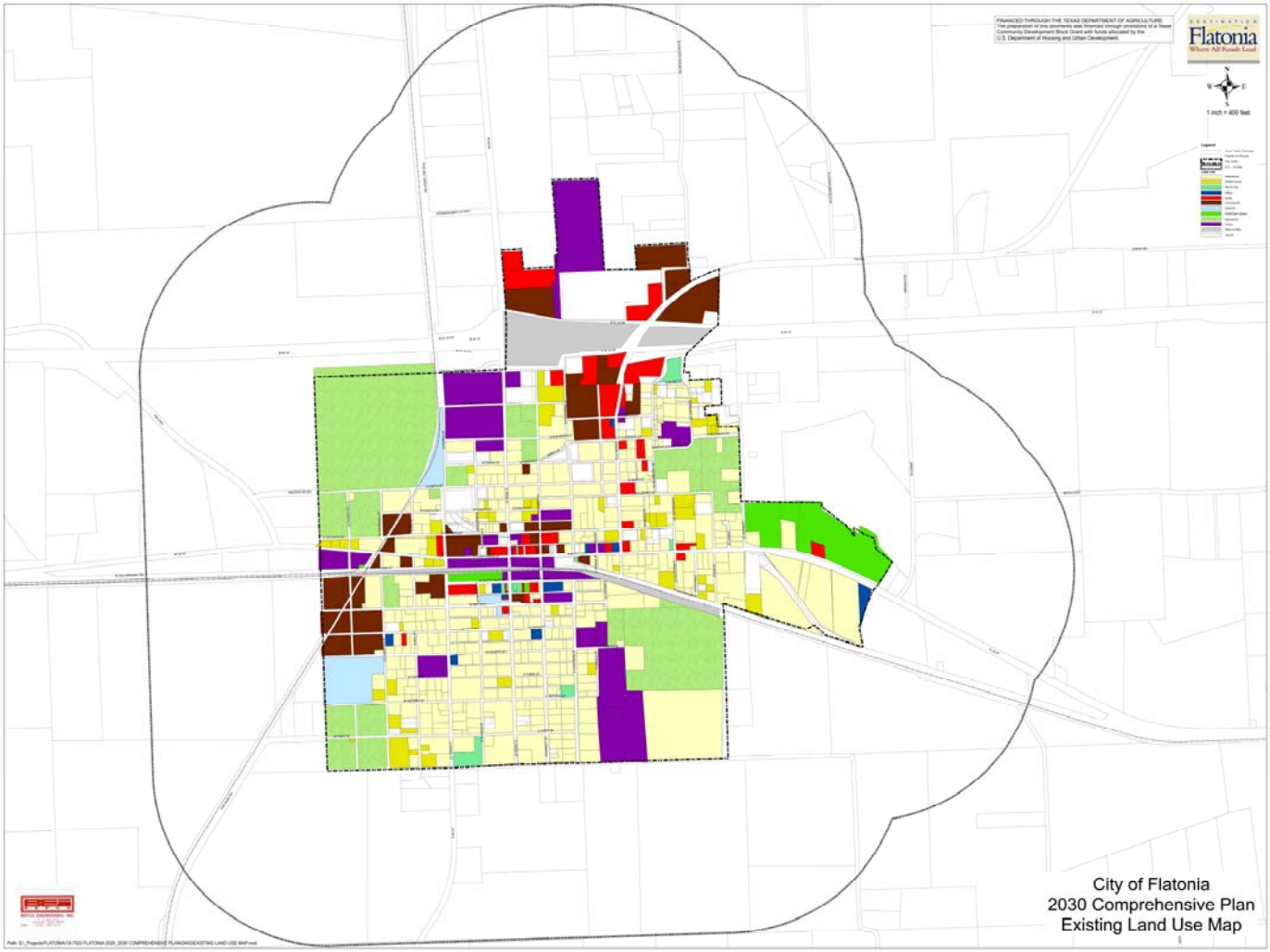
The following proposed revisions to the Zoning Ordinance for the City of Flatonia are prepared to assist in the strengthening and enforcement of zoning designations and issues and is presented for City Staff and the City Attorney to review, and make desired corrections or changes prior to adoption by the Flatonia City Council.

MAPS

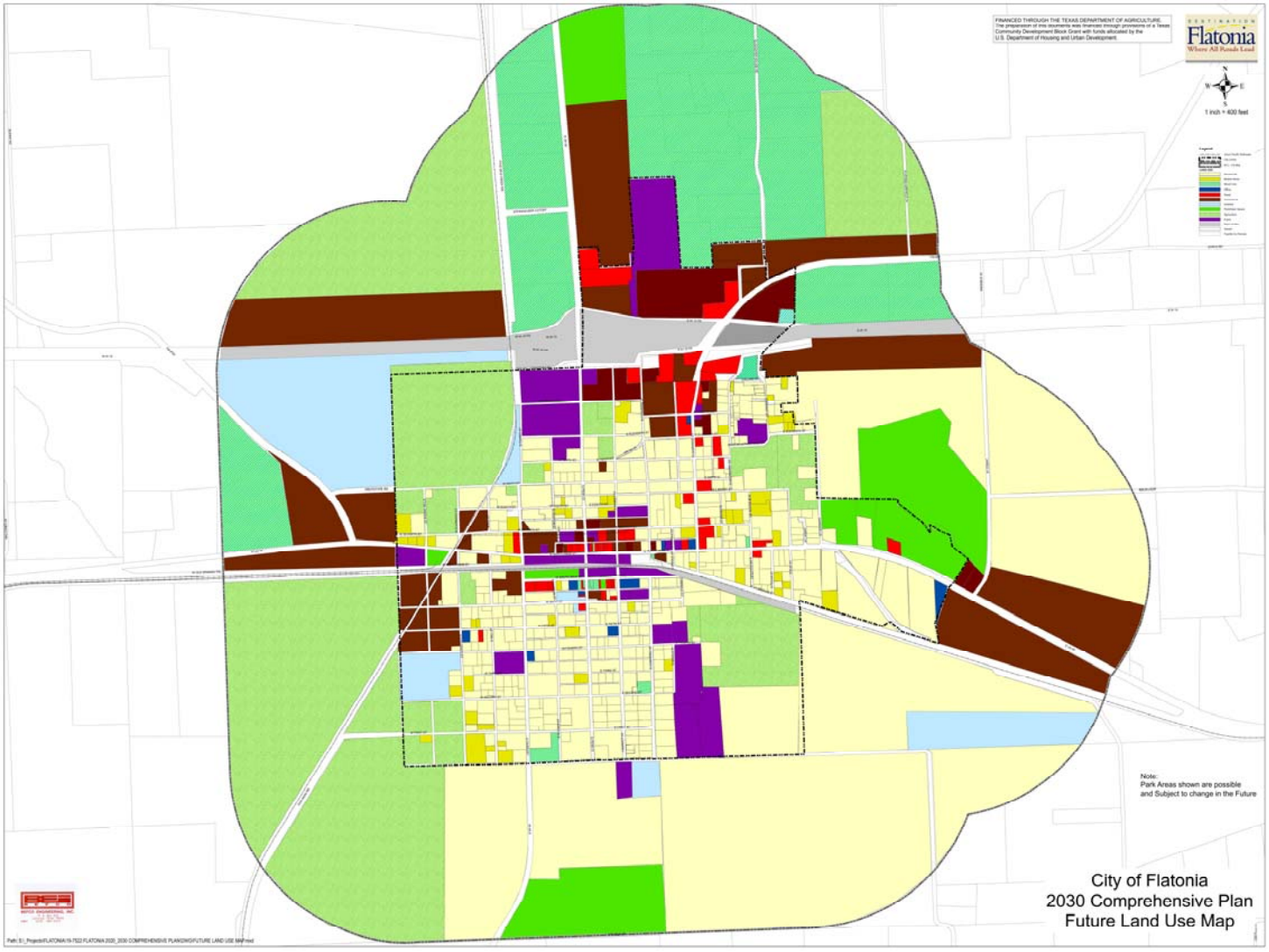
MAP 1: Base CIP Map



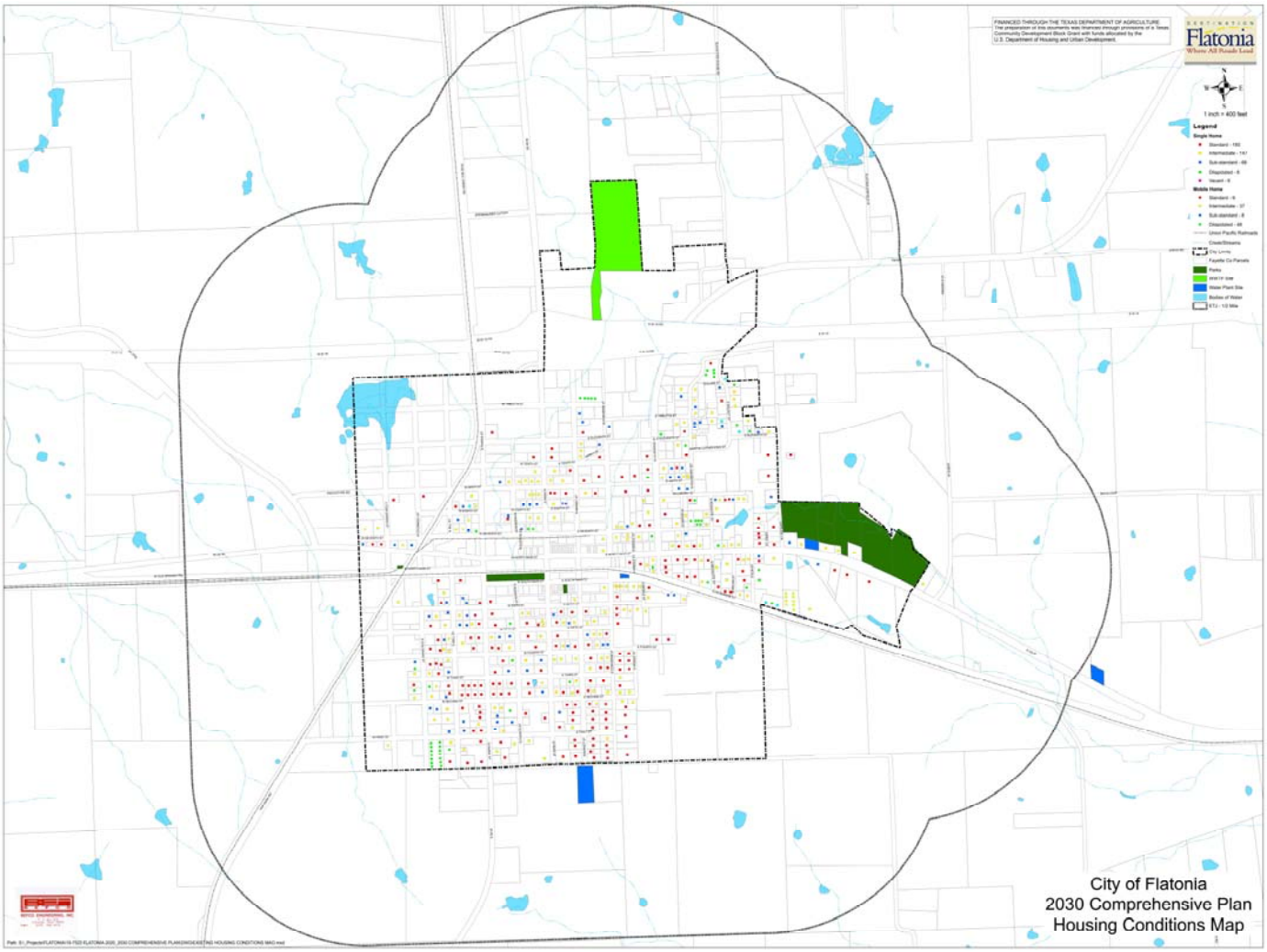
MAP 2: Existing Land Use



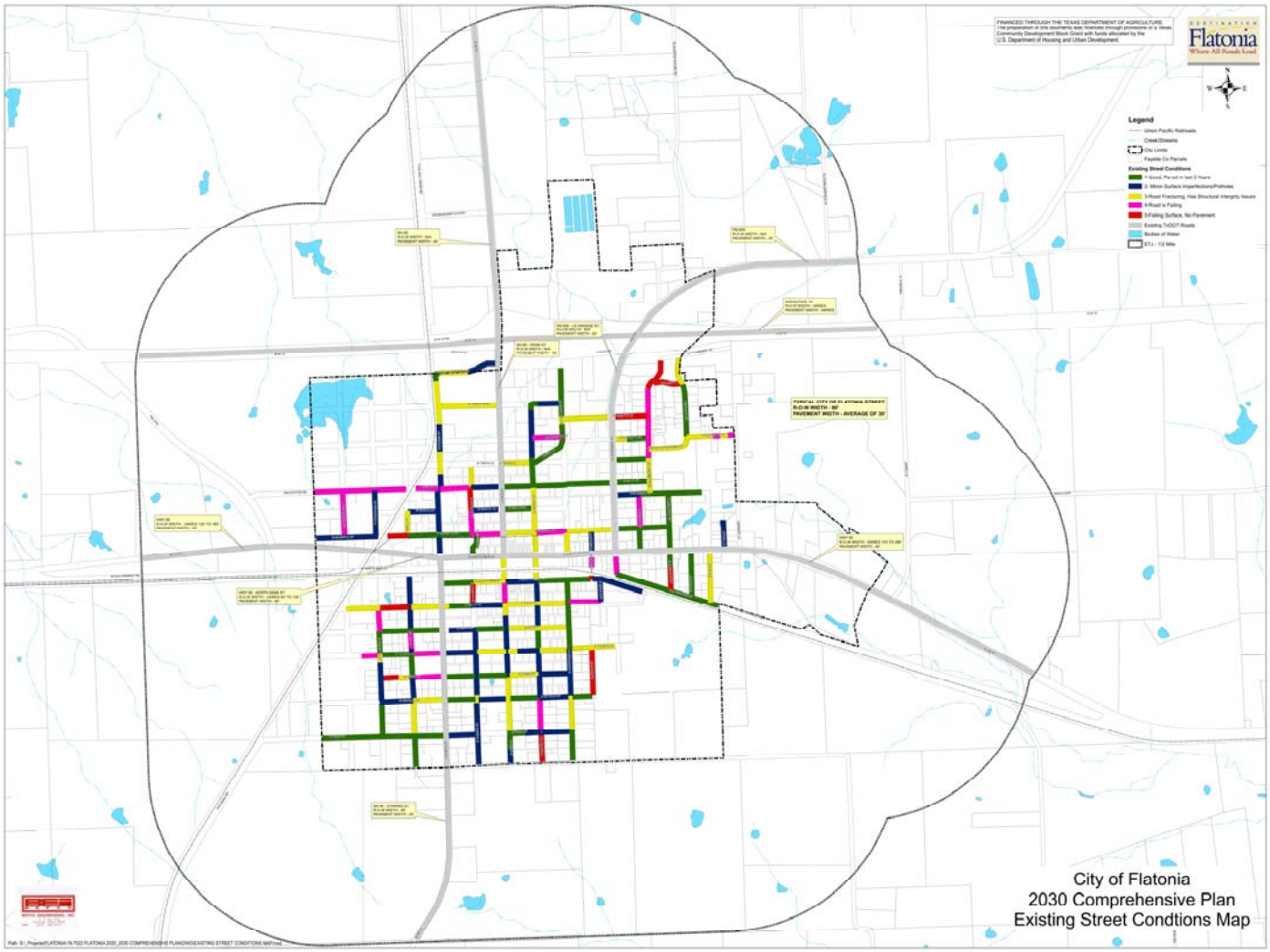
MAP 3: Future Land Use



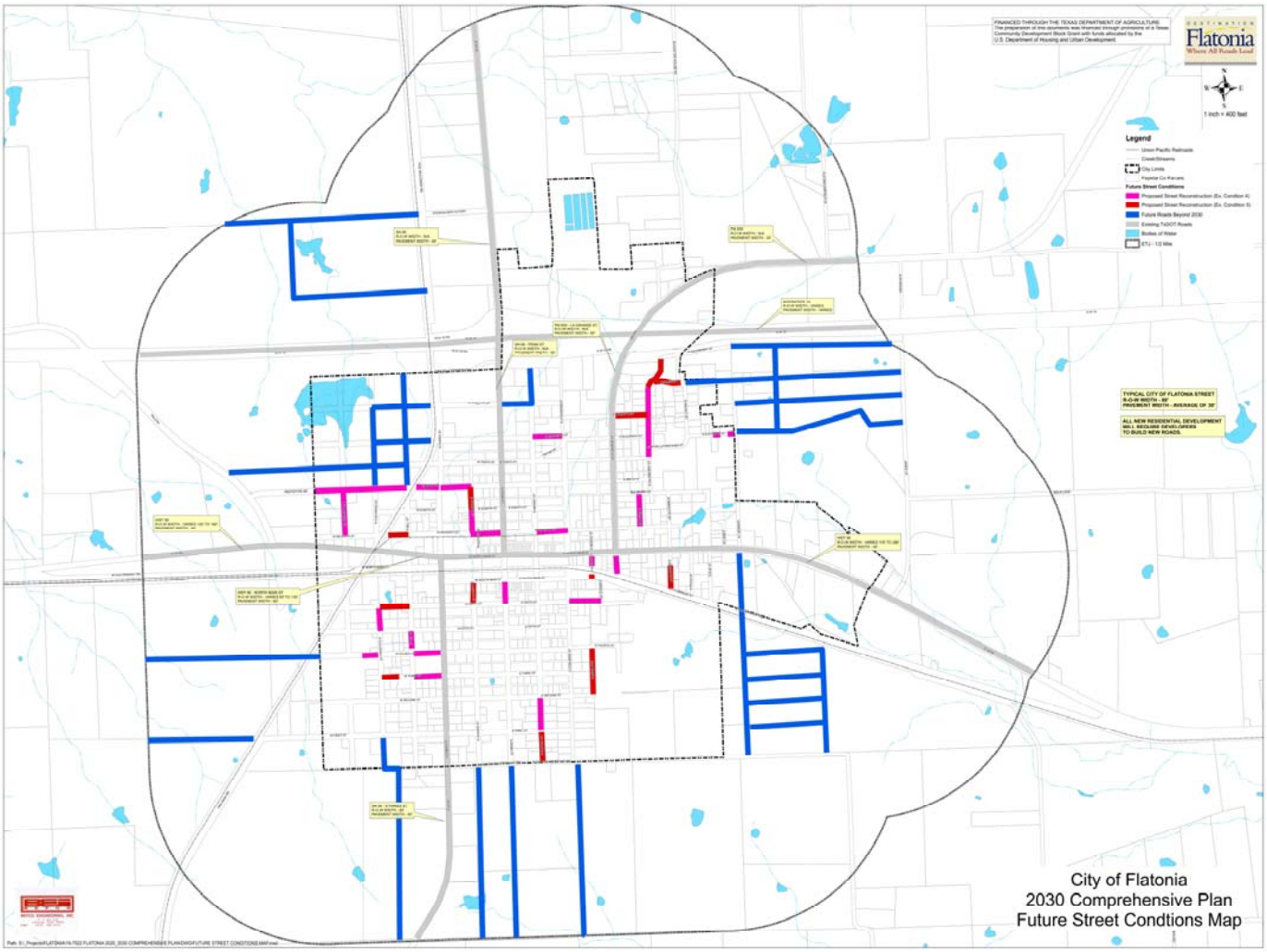
MAP 4: Existing Housing Conditions



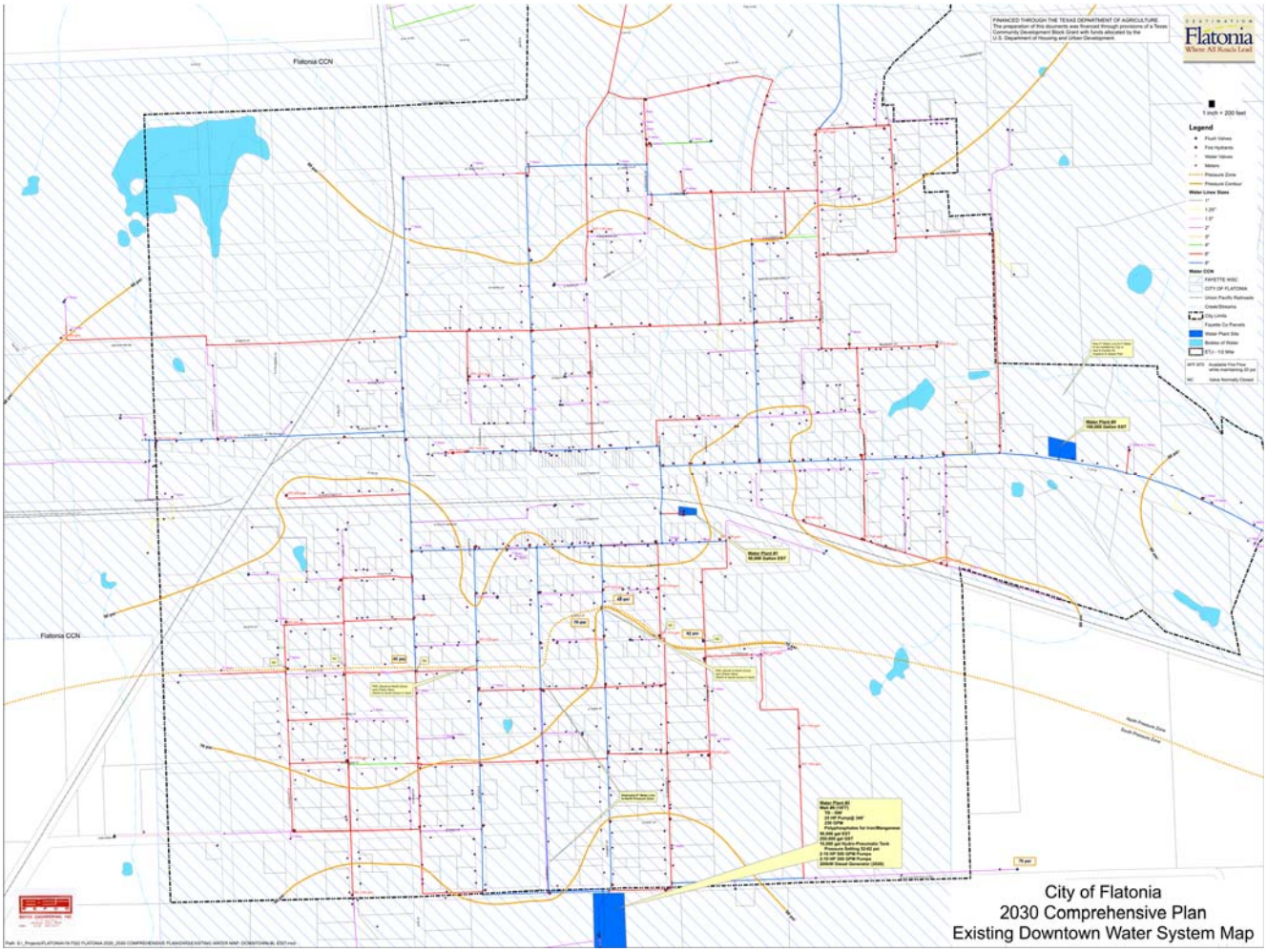
MAP 5: Street Conditions



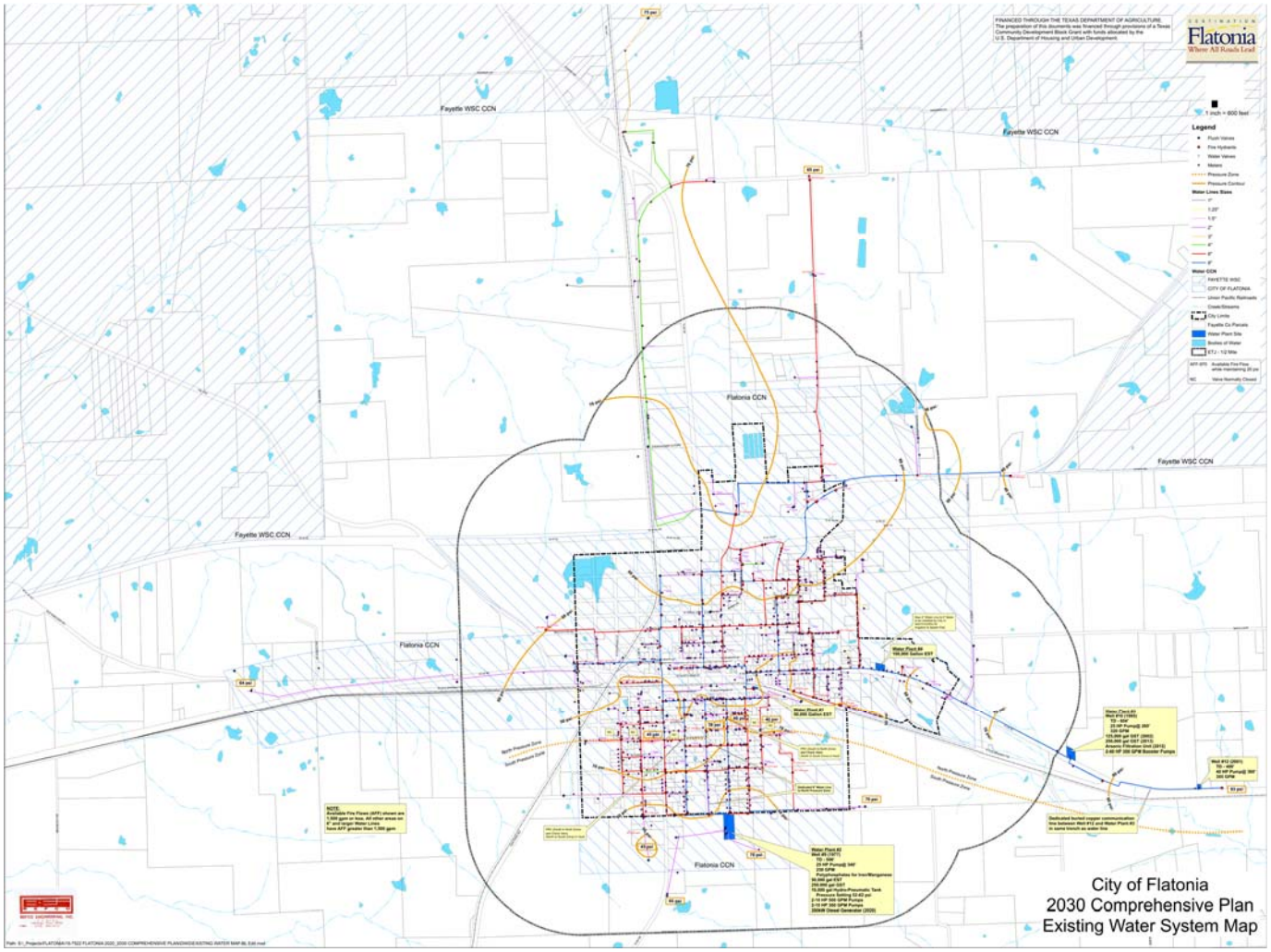
MAP 6: Future Streets



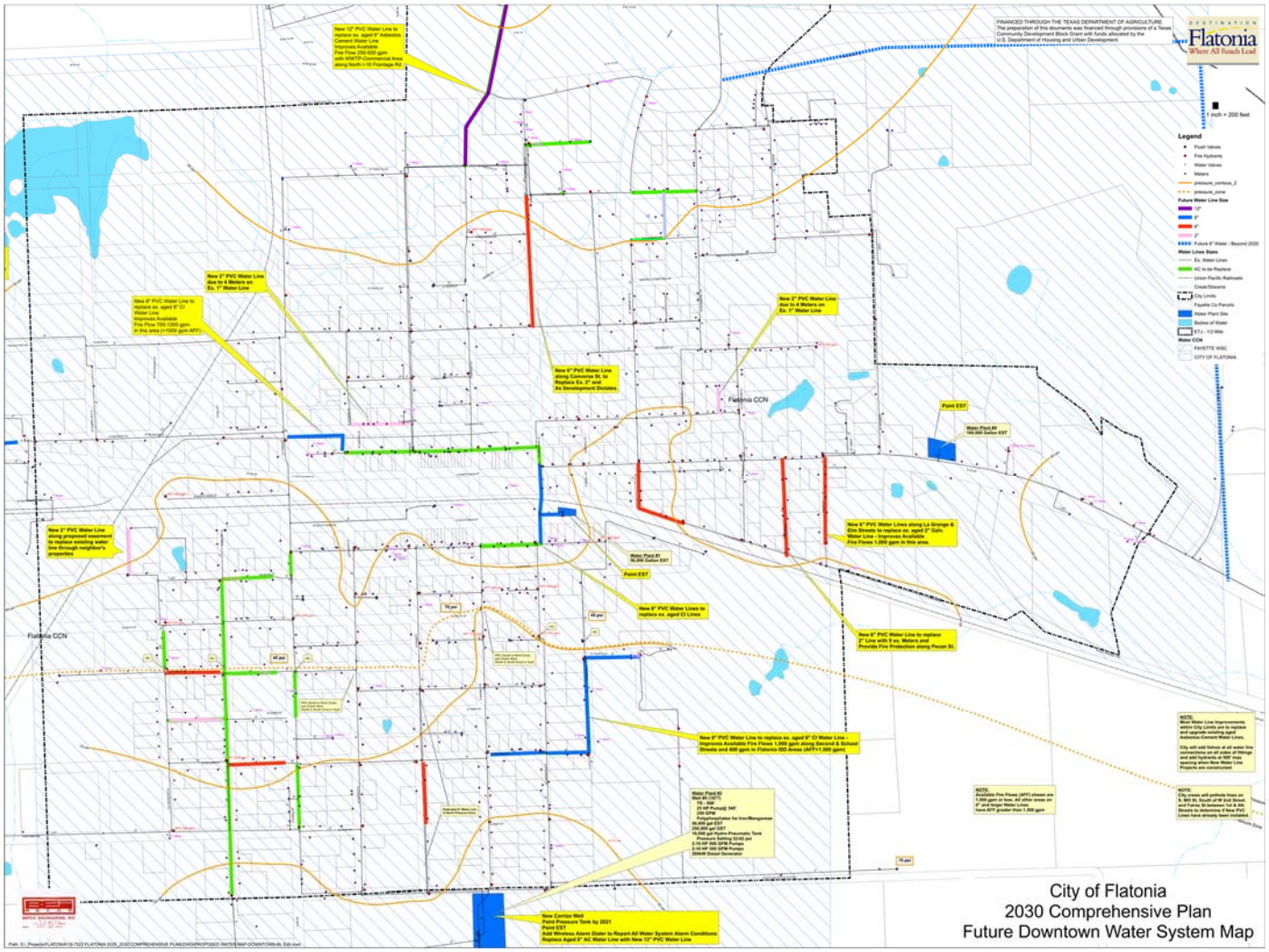
MAP 7: Existing Water Downtown



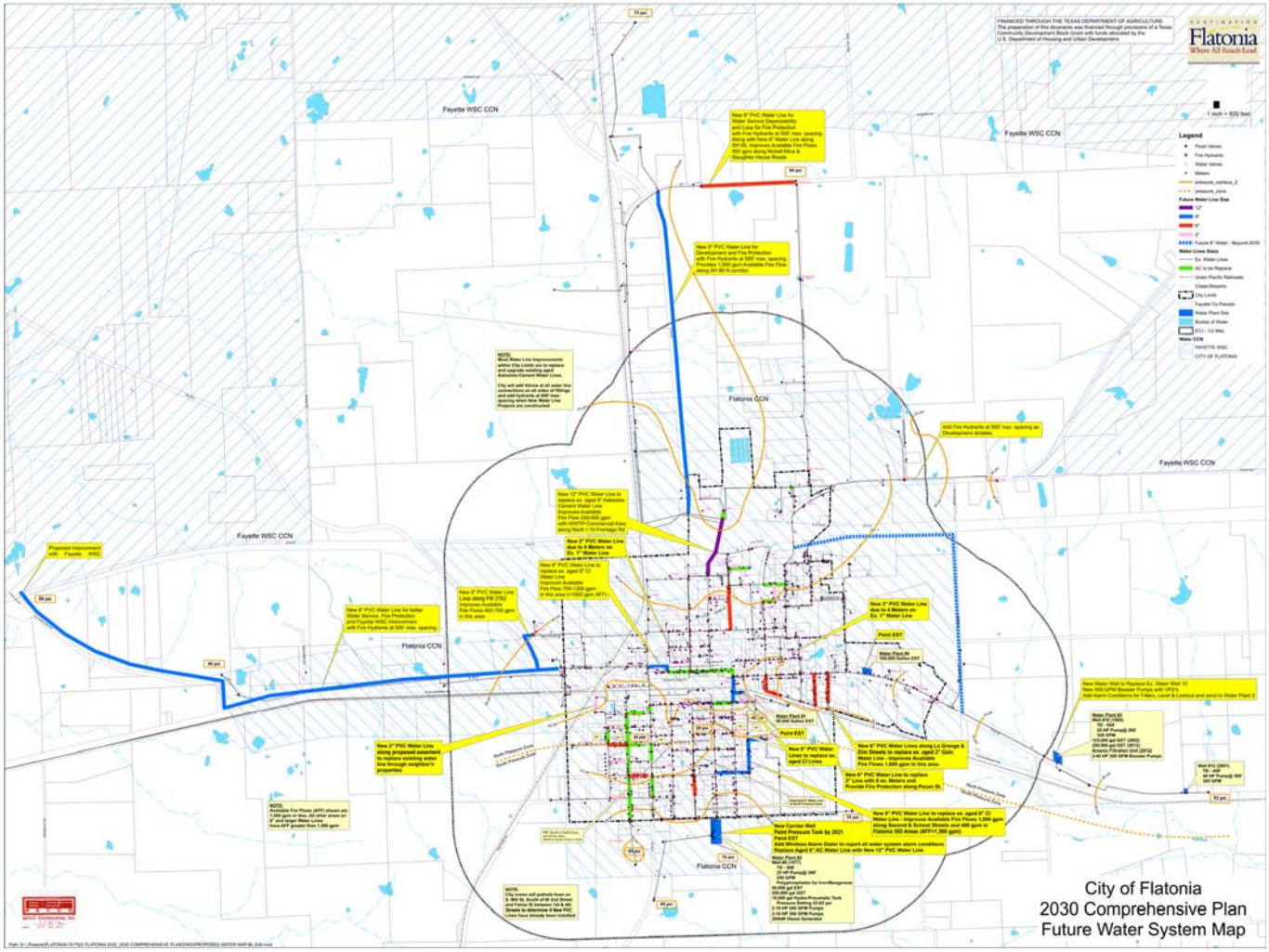
MAP 8: Existing Water



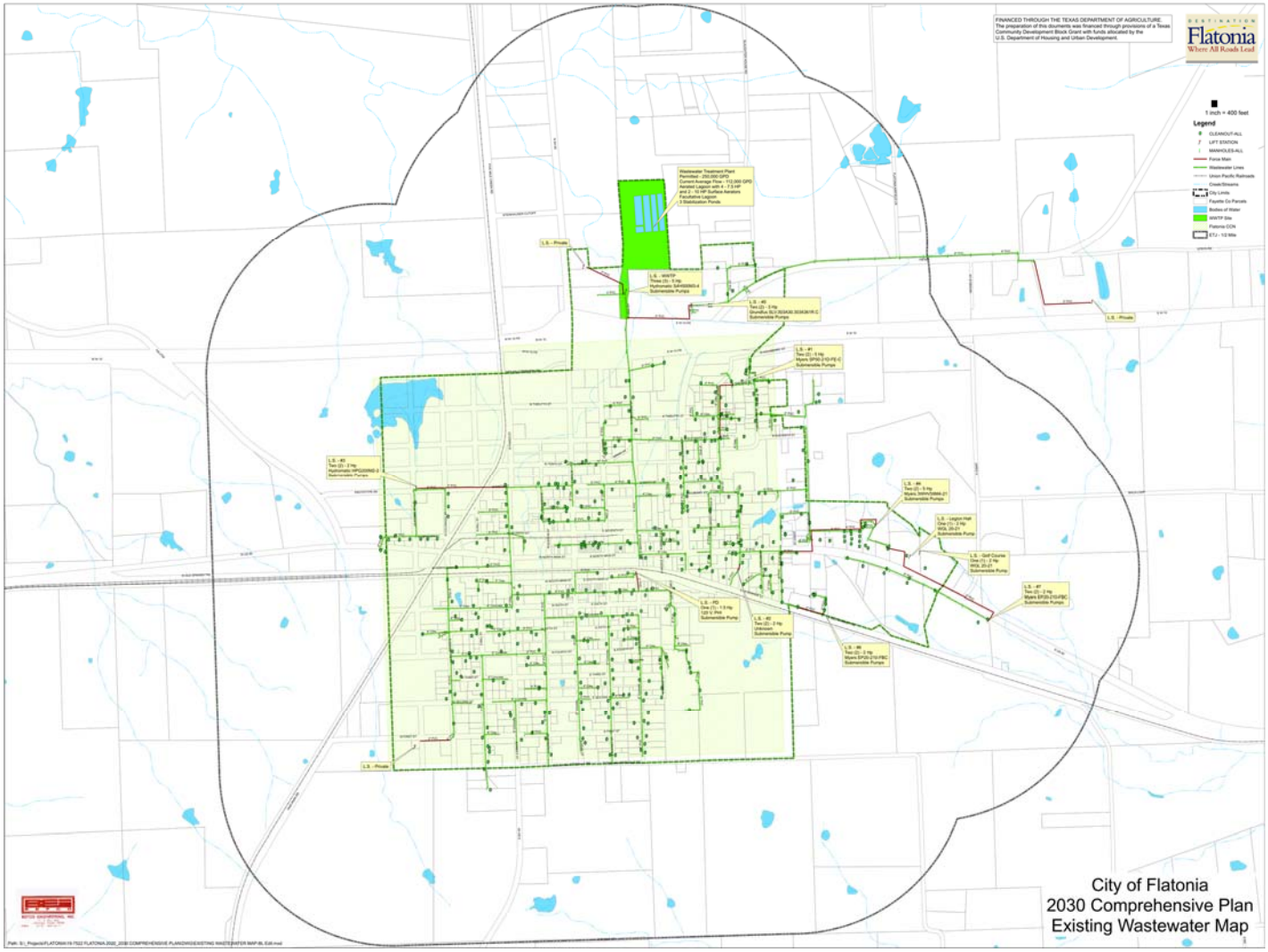
MAP 10: Future Water Downtown



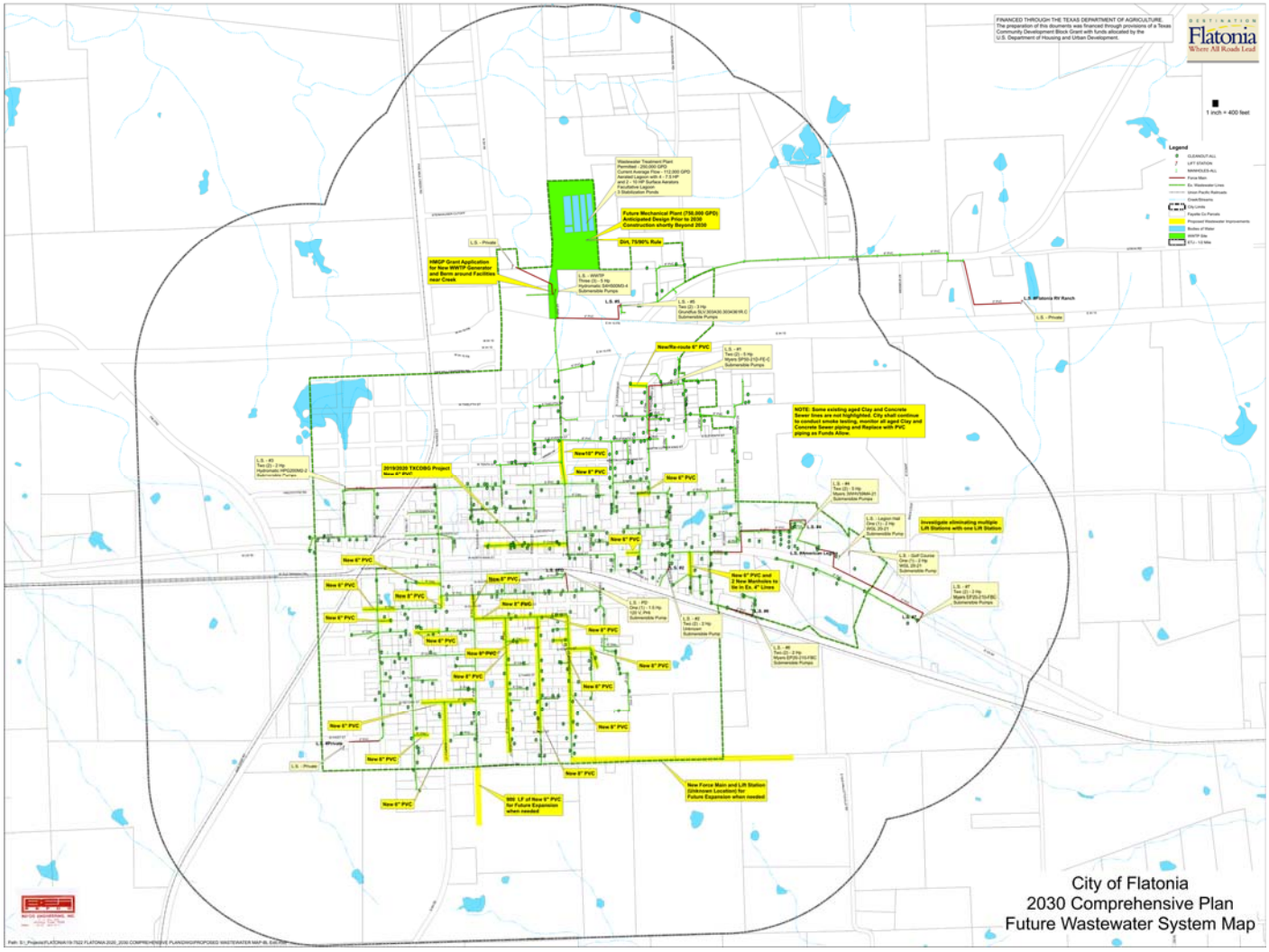
MAP 11: Future Water



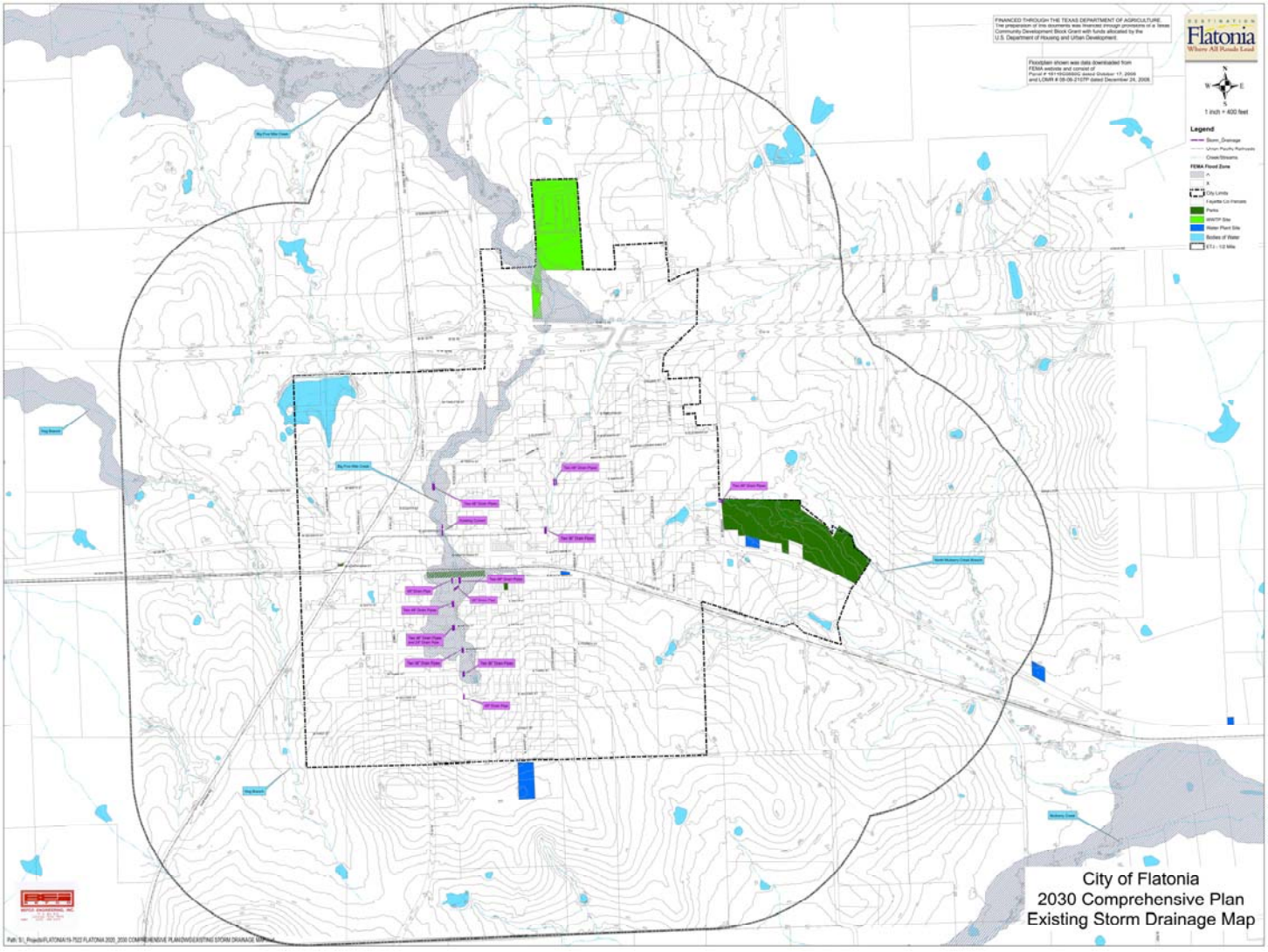
MAP 12: Existing Wastewater



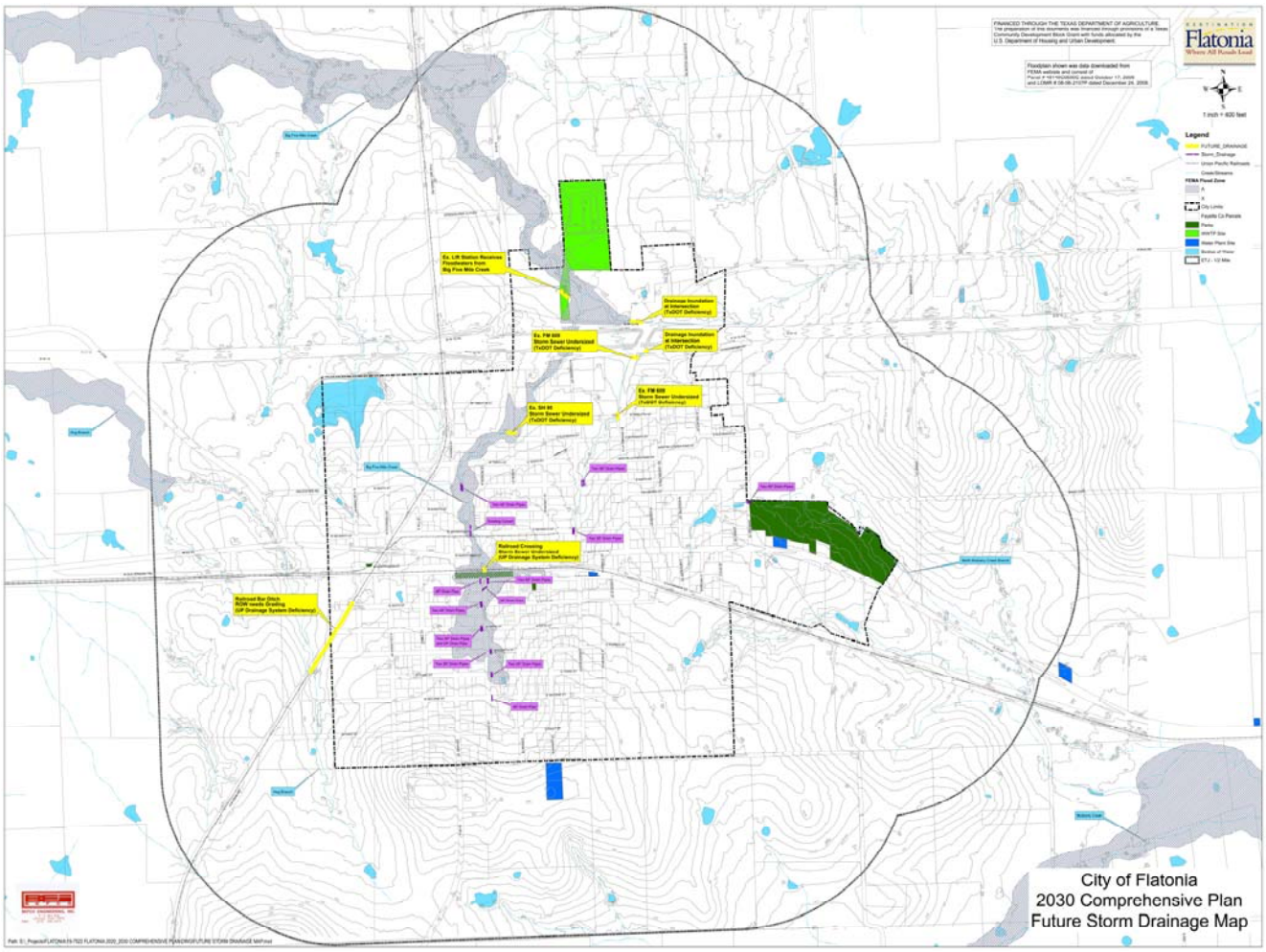
MAP 13: Future Wastewater



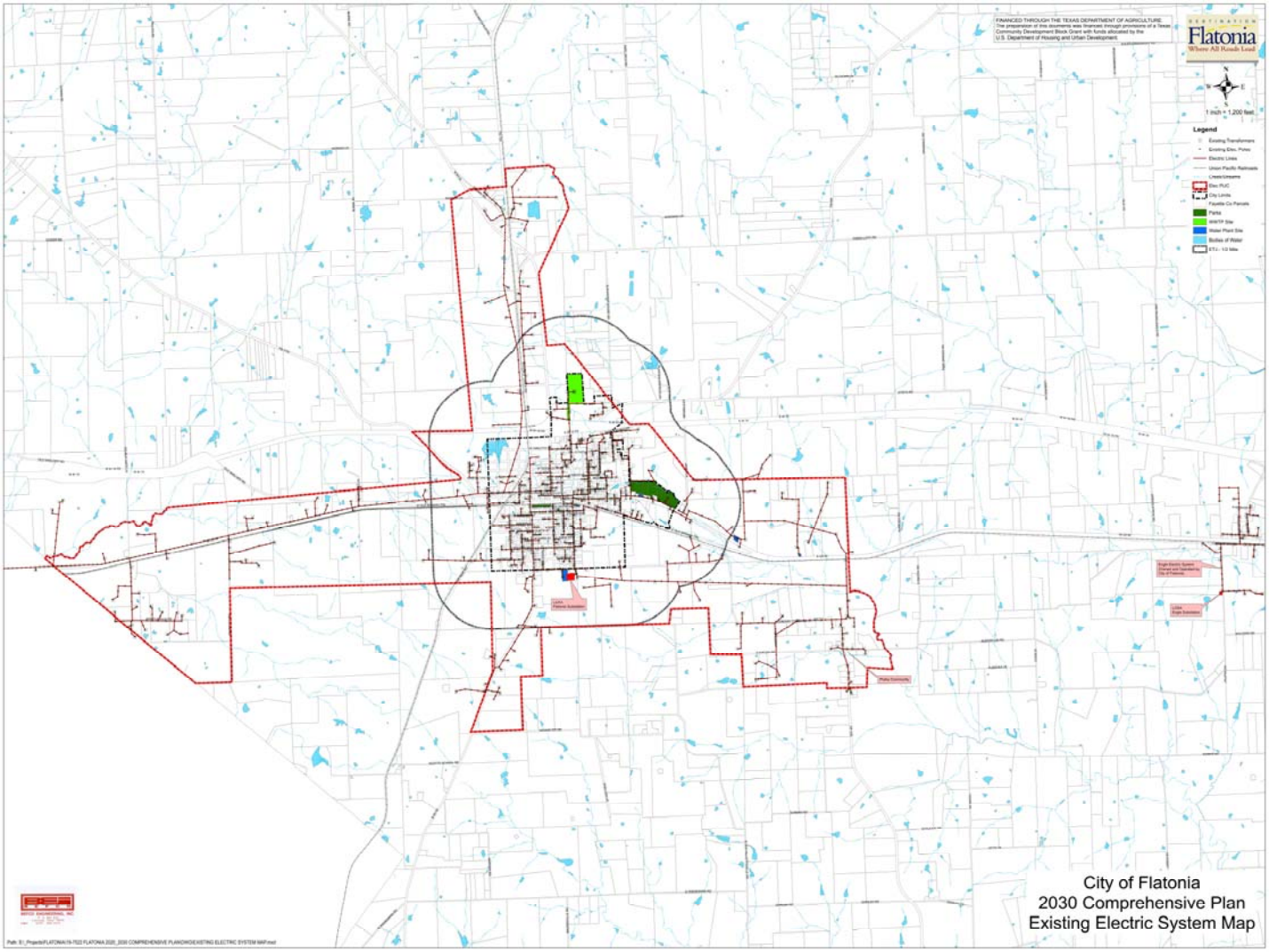
MAP 14: Existing Storm Drainage



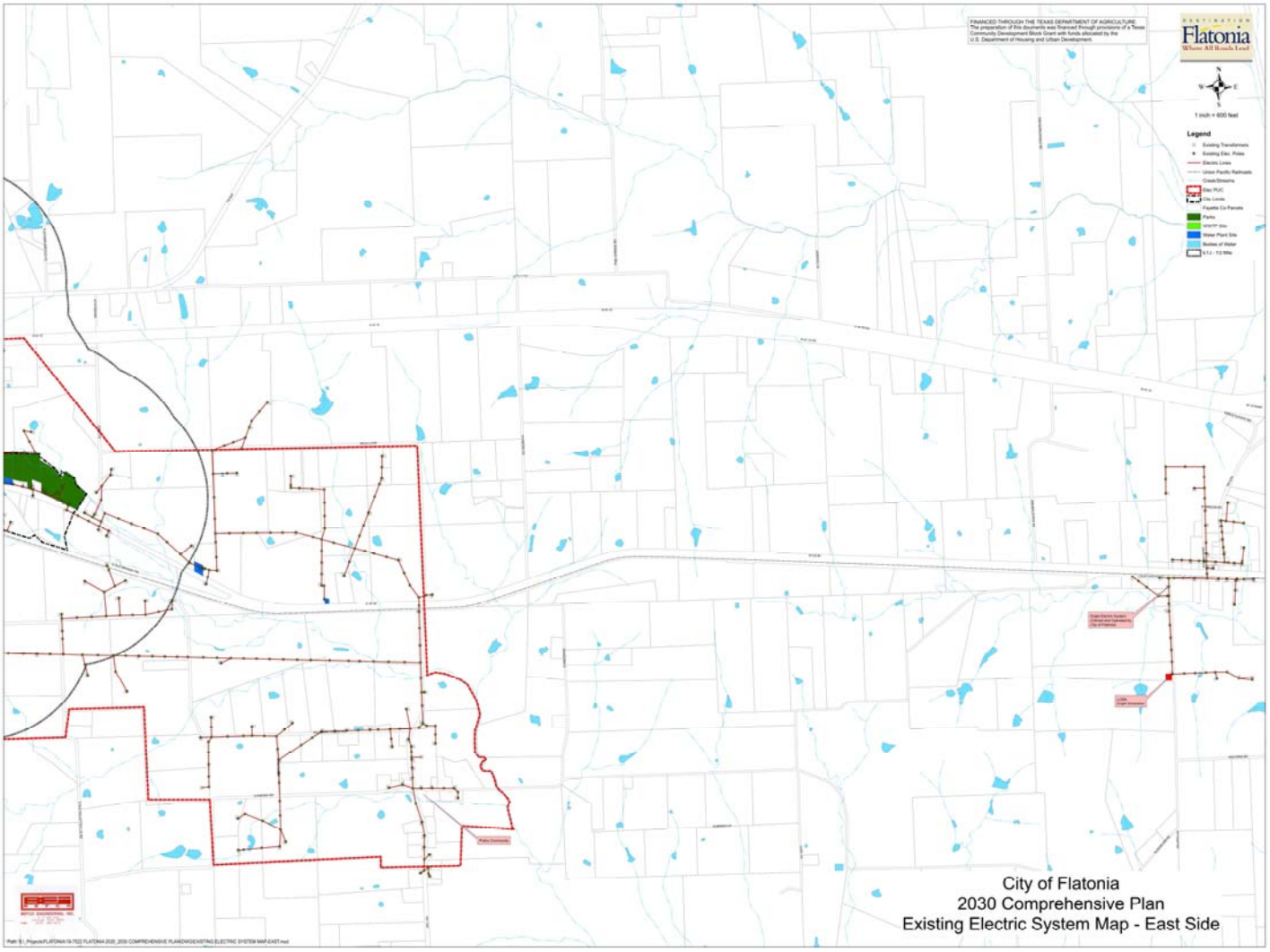
MAP 15: Future Storm Drainage



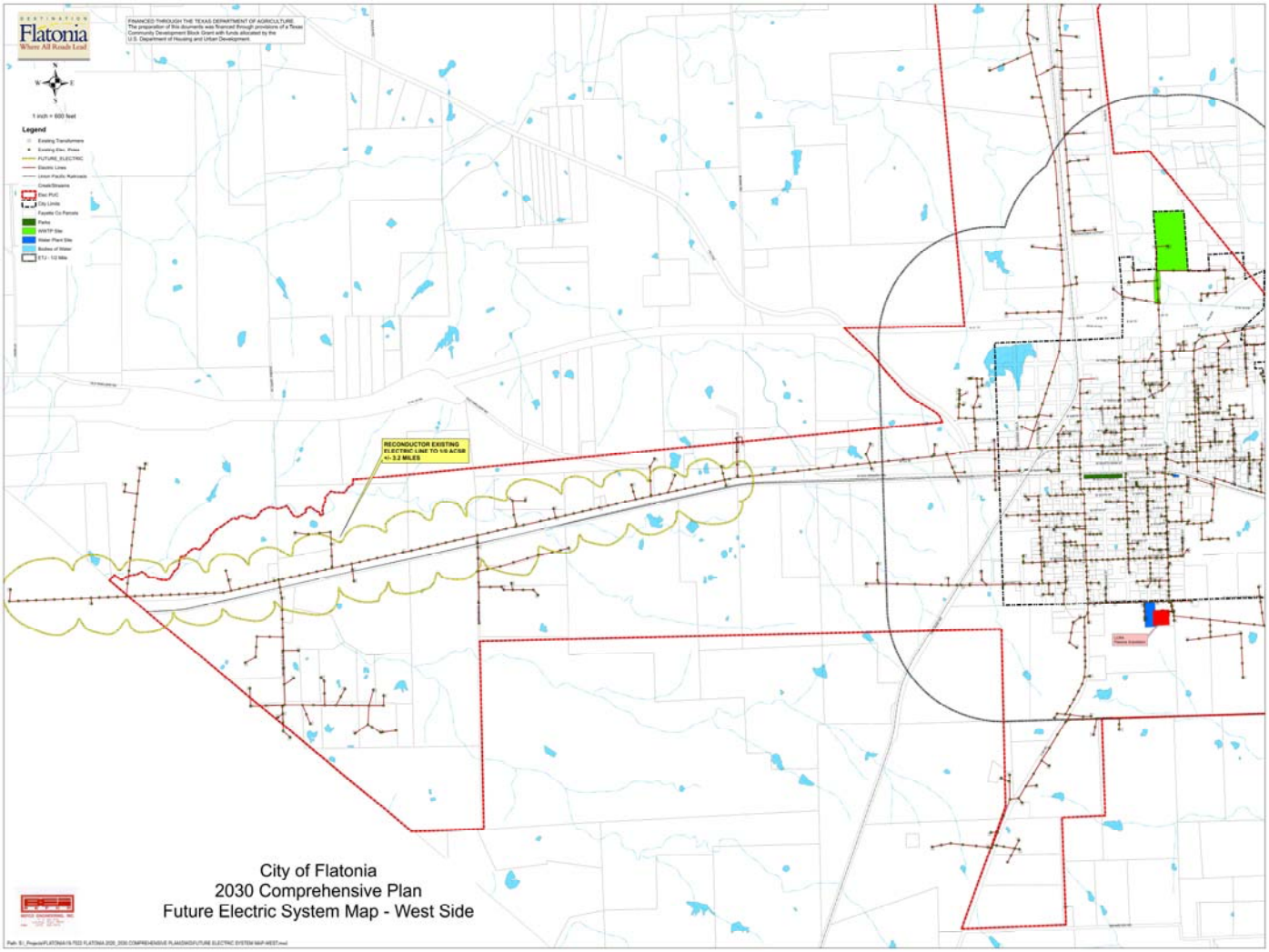
MAP 16: Existing Electric



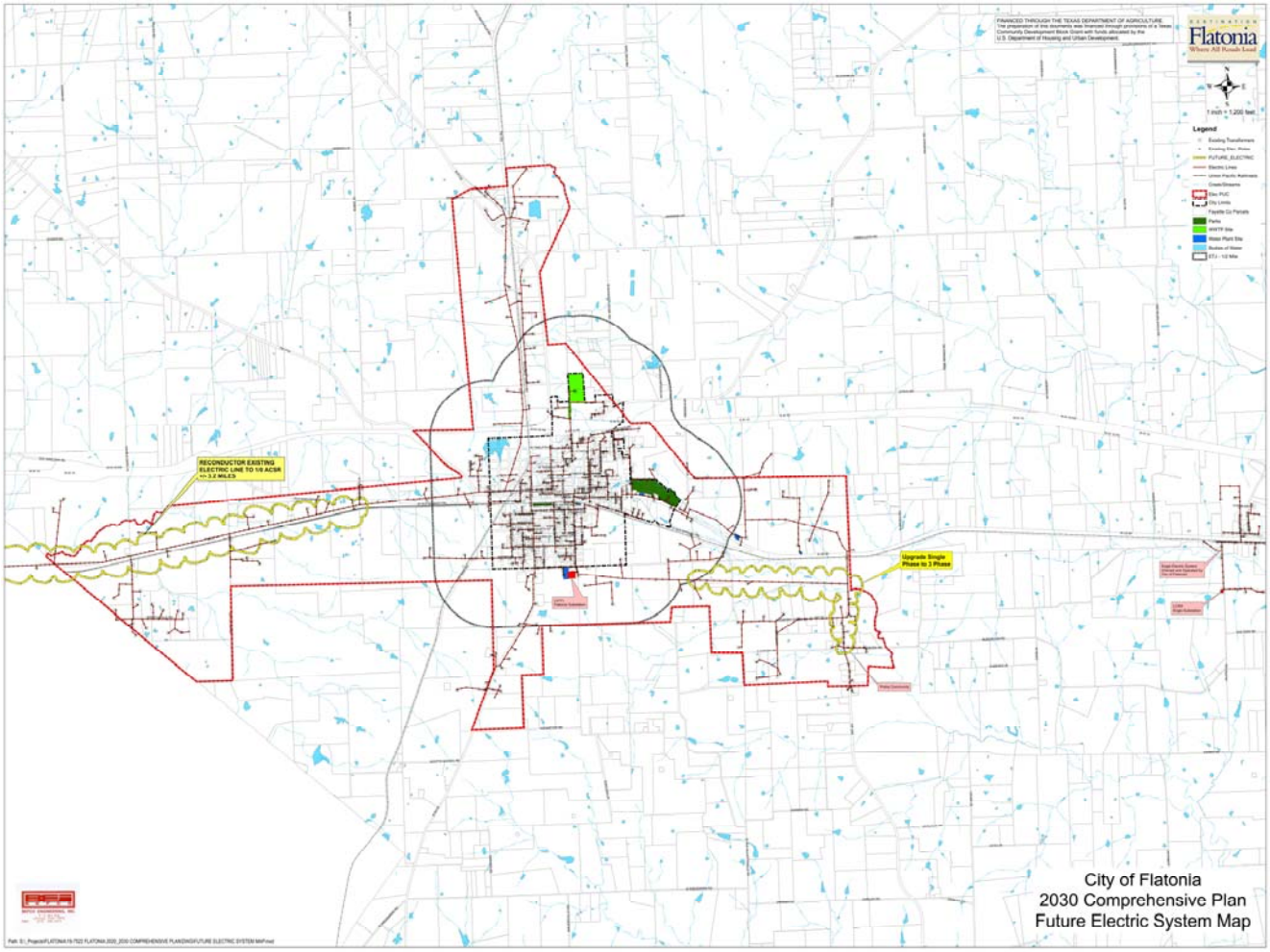
MAP 17: Existing Electric – East



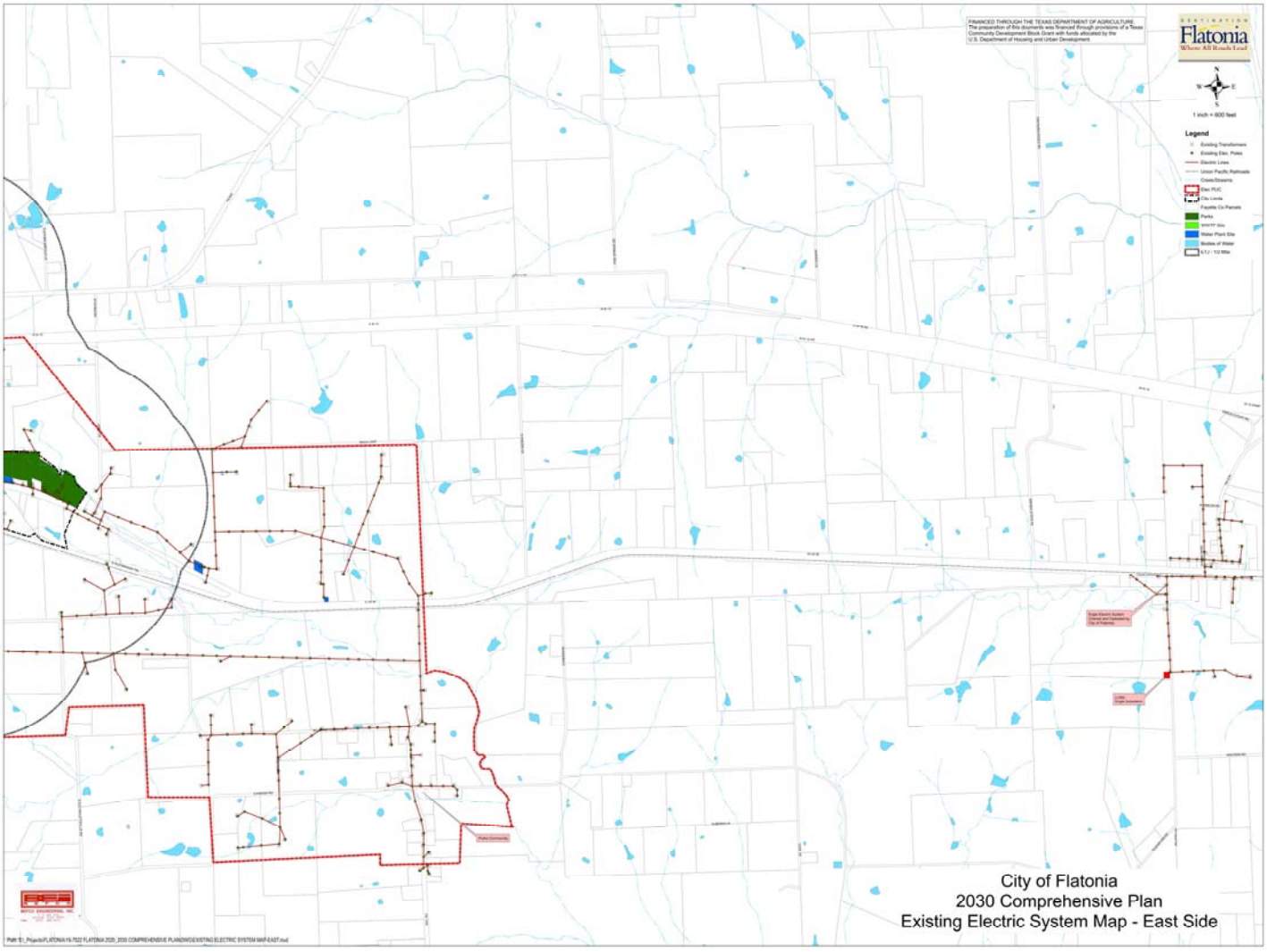
MAP 18: Existing Electric – West



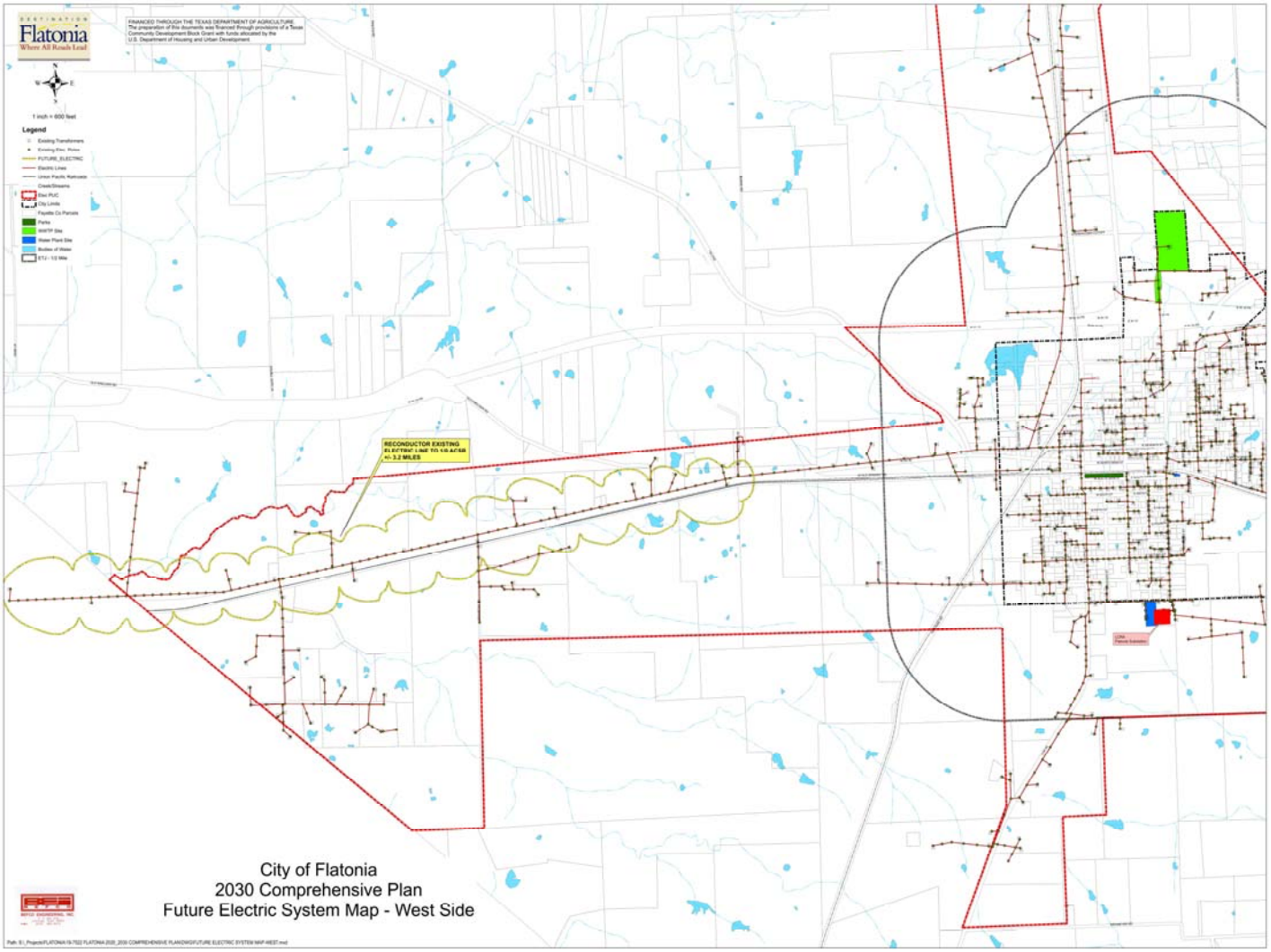
MAP 19: Future Electric



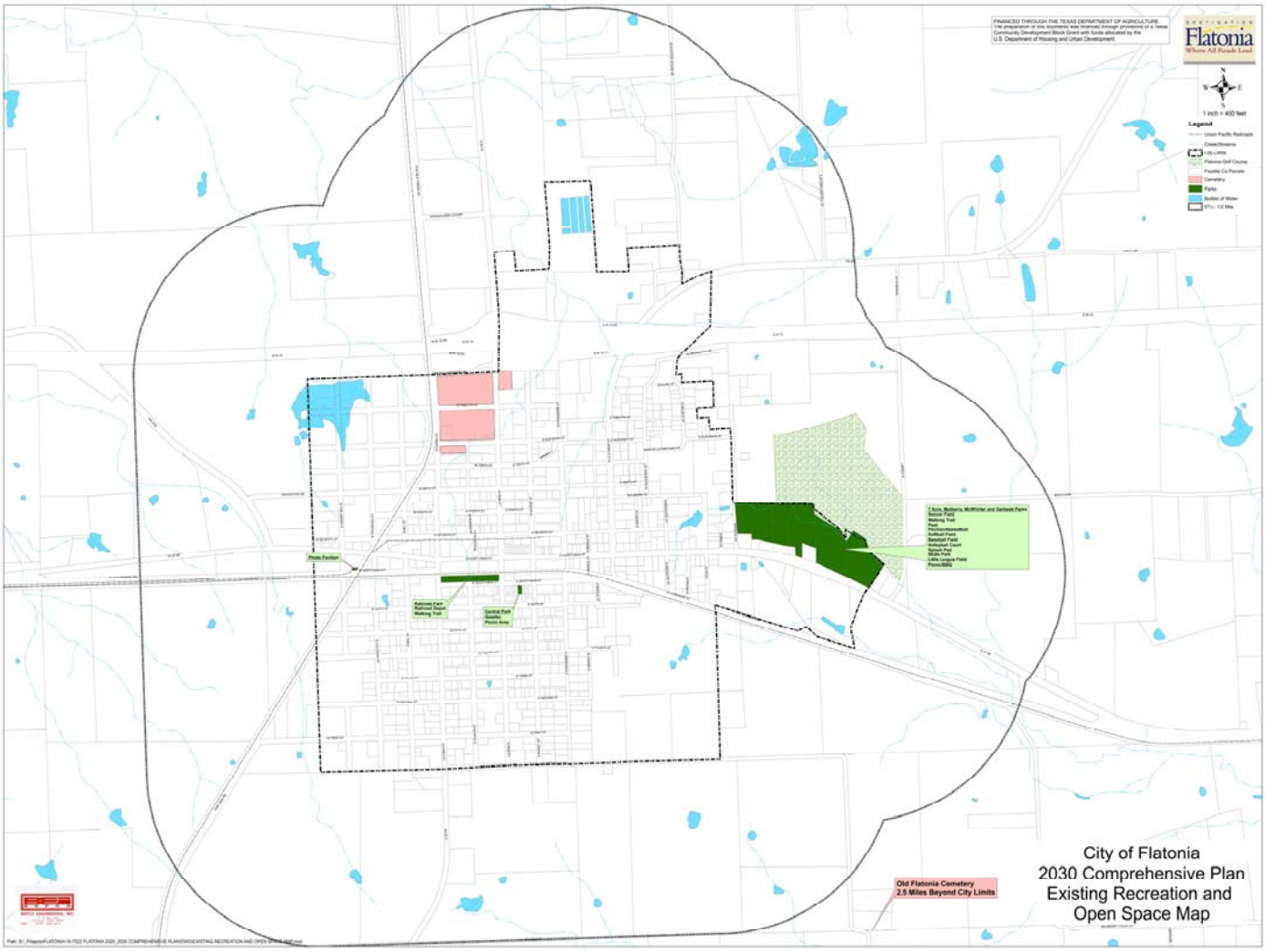
MAP 20: Future Electric – East



MAP 21: Future Electric – West



MAP 22: Exiting Recreation and Open Space



MAP 23: Future Recreation and Open Space