THE CITY OF RHOME PARKS, RECREATION & OPEN SPACE MASTER PLAN **2020-2030**

IUS
INSTITUTE OF URBAN STUDIES

RHOME

ACKNOWLEDGMENTS

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EXECUTIVE SUMMARY

Introduction

The City of Rhome, TX partnered with The University of Texas at Arlington's Institute of Urban Studies (IUS) to produce a ***Master Parks, Recreation, and Open Space Plan*** (PROS Plan) as an amendment to the City's recently completed Comprehensive Plan. Other involved parties included the Parks Plan Steering Committee and a representative from Northwest Independent School District.

The PROS Plan is intended to provide long-term visionary guidance to Rhome for improving its parks, recreation, and open space network for the benefit of its residents. The purpose of the PROS Plan is to provide a "roadmap" to the development of safe places for recreation and neighborhood gathering, protecting natural resources, and supporting local economic development, public heath, cultural identity and civic engagement. PROS areas are defined as lands free of residential, institutional, commercial, or industrial land uses.

The Planning Process & Public Engagement

The PROS Plan is based on the input from stakeholders and the broader community, as well as careful on the ground evaluation and application of expertise and best practices by the IUS planning team. In short, the planning process can be described as seeking answers for the following questions:

- *What does Rhome currently have in its PROS network?*
- *What are the park and recreational standards for a community like Rhome?*
- *What does Rhome desire and envision for its future PROS network?*
- *How can Rhome best achieve, whenever feasible, the desires for its future PROS network?*

The IUS team visited Rhome on (2) occasions and during these visits, the team toured the current PROS sites, viewed and evaluated potential future PROS sites, presented data to the steering committee and to Rhome residents, and received input and feedback. In addition to onsite visits, the IUS team conducted several remote video conferences to solicit input and testimony from Rhome's stakeholders. Due to COVID-19 gathering restrictions, after March 2020, IUS transitioned to conducted all client and public meetings remotely. Client meetings were held remotely through the GoTo Meeting platform on a periodic basis for PROS planning communication. Remote online surveys and focus group sessions were conducted in lieu of in-person public meetings to gather feedback for the PROS Plan from the community. While this unprecedented time posed some challenges, the City and citizens of Rhome were enthused and engaged throughout the process.

IUS evaluated PROS needs based on three criteria:

- ***Standards-Based Approach*** – This approach uses established standards published by the National Recreation and Parks Association (NRPA) for park acreage related to an area's overall population. The standards are expressed as the ratio of park land needed for every 1,000 residents of the community.
- ***Resource-Based Approach*** –This approach evaluates the availability of natural resources and the condition of existing facilities.
- ***Demand-Based Approach*** – The demand-based approach relies on information gathered from community participation during public engagement meetings, as well as community surveys.

The IUS team developed a site inventory of existing parks and potential PROS locations. The inventory identified the size of parcels/parks, enumerated existing park facilities, identified facility condition, and evaluated accessibility for pedestrians, vehicles, and other forms of transportation.

Site Inventory, Needs & Standards-Based Assessment

There are 2 existing parks in Rhome: Rhome Family Park and the Rhome Veterans Memorial. Some of the amenities in these parks include a large pavilion, a veteran's memorial space, multiple playgrounds, a half-court basketball court, and picnic areas. Rhome's existing parks total a little over 2 acres.

Standards-Based Assessment

In terms of total park acreage standards, that puts Rhome 4.1 acres short of the lowest park acreage recommendation by NRPA standards for the 2019 population.

Even though the existing PROS acreage is 11 acres below standard for 2020, the disparity only grows over time. At the projected 2030 population of 3,500, if park acreage is not set aside, the existing PROS network would be ***21*** acres below even the lowest end NRPA standard.

Resource-Based Assessment

The IUS team identified a number of potential PROS areas. The team focused on city owned property, since funding for land acquisition is tight to non-existent. The IUS team identified (6) potential park sites within Rhome, then sought to evaluate these areas in consultation with the Steering Committee and the citizens of Rhome. The remote public engagement surveys and focus group sessions were used to gather feedback about the recreational needs and desires of the community. IUS generated concept plans for the new potential parks and upgrades to the two existing parks based on the community's feedback.

Demand-Based Assessment

Public engagement is the basis for the demand-based assessment of Rhome's PROS network. Engagement opportunities consisted of multiple Steering Committee meetings, an online community survey with over 200 responses, and three focus group meetings with citizens from Rhome's different neighborhoods. This input was also critical in establishing an overall vision for Rhome's PROS network.

The most desired facilities, determined from public input, include trails and paths, covered pavilions, sidewalks, a community garden, and outdoor sports facilities. Most desired park activities include concerts in the park, more vegetation and trees, sidewalks, paths, and trails. Residents want their parks to be available for exercise, connected to their community, and to be aesthetically pleasing.

PROS Proposals & Final Recommendations

PROS Proposals

The results of the public input, combined with an IUS conducted suitability analysis, yielded a specific set of park and trail improvement proposals. These are:

- Upgrades to (2) existing parks: Rhome Family Park and Rhome Veterans Memorial
- (6) New PROS Proposals:
    - Potential Park 1
    - Potential Park 2
    - Potential Park 3

- Potential Park 4
- Potential Park 5
- Potential Park 6

Sidewalk and Trail Networks

Expand sidewalk and trail network to better connect Rhome residents with schools, parks, and nearby commercial spaces and to allow recreational and fitness activities, especially concentrating on downtown Rhome. Proposed trail improvements include:

- Development/continuation of sidewalk network within Downtown Rhome (see comprehensive plan) to connect neighborhoods with businesses, parks, and trails
- Install high visibility crosswalks and other traffic calming features where trails or sidewalks cross roadways near park facilities
- Removable bollards prohibiting unauthorized vehicular access to trails and parks

Prioritization

The prioritizations for the level of needs expressed in the PROS Plan are based on the following criteria:

- *Standard-based needs as assessed through state and national standards compared to current and future growth*
- *Resource based needs based on natural and cultural conditions*
- *Demand-based needs as expressed in the public input*
- *Overall project timeline& coordination feasibility*

In addition, the project team conducted prioritization according to:

- Park Size
- Park Amenity
- Park location (neighborhood equity)
- Cost Estimate of PROS Proposals

The Implementation Strategies section provides a detailed prioritization of the PROS proposals, including a prioritization matrix.

Implementation

Beyond prioritization, the PROS plan offers an extensive implementation section. An implementation matrix for each park or proposed park identifies specific prioritized park development with specific actions, responsible parties, and whether those actions should occur in the short, medium, or long-term timeframe. The plan also includes funding strategies and resources discussing internal budget impacts, grant and external funding opportunities, and approximate costs to develop park amenities.

**Please note that suggested implementation order and time frame is not strictly proscriptive: Rhome should always plan additional park locations and amenities with fiscal prudence to ensure the City's ability to adequately maintain improvements.*

Final Recommendations for Policies and Strategies

The final recommendations section provides a detailed set of ongoing goals and strategies to further address Rhome's PROS needs. Implementing these goals will assist Rhome in reaching its PROS Plan goals. Each policy has a set of strategies aligned to it, which will assist in the achievement of that policy and goals.

INTRODUCTION

The Purpose of a Parks, Recreation and Open Space Plan

The purpose of a parks, recreation and open space plan, or ***PROS Plan***, is to provide a "roadmap" to the development of safe places for recreation and neighborhood gathering, protecting natural resources, and supporting local economic development. Moreover, PROS plans aim to improve public heath, cultural identity, and civic engagement. ***PROS areas*** are defined as lands free of residential, institutional, commercial, or industrial land uses. The quality of life, or ***livability***, of a community relies on the careful balance between social equity, the natural environment, and the economy. The collaborative efforts between the stakeholders, the community, and IUS will result in a vision and a set of goals for the revitalization of Rhome's PROS network.

The PROS Master Plan is a tool to:

- *Provide the framework for consistent planning and development*
- *Provide detailed research and facts concerning the community and the roles of parks and recreation*
- *Establish fact-based priorities and direction, which point out opportunities for park development*
- *Provide information for needed land acquisition*
- *Prioritize key recommendations*
- *Develop a plan pursuant to requirements of the TPWD and NRPA*

In accordance with guidelines developed by TPWD for *Parks, Recreation and Open Spaces Master Plans*, the Rhome PROS Master Plan addresses the following criteria in order to facilitate possible grant funding opportunities for the proposals developed in this plan [17]. The criteria are as follows:

- *Highlights the need for and benefits of parks and recreation and establishes appropriate expectations for service delivery*
- *Establishes a fiscally responsible plan that identifies Parks and Recreation goals and priorities*
- *Offers policy recommendations to guide staff and officials in ongoing development of the Parks system*
- *Enables Rhome to qualify for funding opportunities offered by the private sector, state, and regional governments*

For reference, the TPWD PROS Guidelines are appended to the end of this report in Appendix.

Study Partnership

The City of Rhome (Rhome) has partnered with The University of Texas at Arlington's Institute of Urban Studies (IUS) to complete its PROS Plan. IUS is an urban research and service organization within the University of Texas at Arlington (UTA) that consists of Master's and PhD students with diverse backgrounds within the College of Architecture, Planning, and Public Administration (CAPPA) including other university departments.

Rhome is the primary responsible governmental body that provides infrastructure services to the community of Rhome including the services required to provide quality parks and recreational spaces. Other parties that may become involved in this plan include Northwest Independent School District (NISD), Wise County, and the State of Texas through the Texas Parks and Wildlife Department (TPWD) and the Texas Department of Transportation (TXDOT).

Project Scope, Communication Strategies, & Deliverables

- *Researching the existing conditions of Rhome's PROS inventory, as well as the overall region in terms of environmental, ecological, economic, and demographical aspects of the community.*
- *Surveys of the residents and other stakeholders within Rhome and its ETJ. The PROS Plan aims to deliver a final product that achieves to the maximum extent possible the PROS goals of the community.*
- *IUS held 4 Steering Committee Meetings, conducted an online parks survey, and held 3 Focus Groups with representatives from Rhome's various residential neighborhoods.*
- *Deliverables will include an electronic version and 1 bound copy of the final PROS Master Plan*

The PROS Plan Timeframe

Pursuant to TPWD PROS guidelines, the proposed timeframe for Rhome's PROS plan is a 10-year planning period with a recommended update period every 5 years and a development of a new plan every 10 years.

The Parks, Recreation, and Open Space Planning Process

The following report describes in detail the overall planning process. The process included:

- Researching background information and the characteristics of Rhome
- Conducting on-stie park facility tours and condition assessments
- Evaluating Rhome's recreational needs and desires through a needs-assessment
- Gathering community input
- Designing conceptual PROS Proposals
- Gathering community feedback
- Developing implementation strategies
- Identifying costs and resources for the PROS Plan
- Providing final recommendations and strategies for proactive PROS planning

RHOME PARKS, RECREATION, & OPEN SPACE MASTER PLAN

POTENTIAL PARK 3 PRAIRIE POINT PARCEL

DEMOGRAPHIC ANALYSIS

DEMOGRAPHIC ANALYSIS

Introduction

The demographic analysis for the PROS Plan evaluates Rhome's current and historical population profile, household profile, and several population forecasts. In terms of a PROS Plan, it is important to evaluate the current demographics and the future population changes and growth in Rhome because it can impact the long-term recreational demands of the community.

Population Analysis

According to the U.S. Census Bureau, ***as of 2018*** Rhome has a total population of 1,824 citizens. To gain perspective on Rhome's possible population growth, historical data were analyzed for Rhome, as well as population data for neighboring cities, counties, and the State of Texas.

Rhome is a small-town, yet its population growth in most recent years has reflected a rate of growth similar to that of Wise County and the State of Texas. Between 2010 and 2017, Rhome increased by 1.8% annually, while Wise County and the State of Texas grew at a similar rate at 1.3% and 1.8%, respectively. According to historical data, Rhome's average annual percent growth rate from 1990 to 2018 was approximately 3.7%. The most significant rate of population growth occurred between 1999 and 2007 at a rate of 7.2%. The time period with the least growth occurred after 2008 and until 2014 at 1.1%. However, since 2014 Rhome has had a steadily increased in population.

The final population forecast for used for the Rhome PROS Plan is based on the average annual population growth rate at **2.9%.** Other resources were evaluated for minimum and maximum population projection bounds at average annual population growth rates of -3.2% and 5.5%, respectively. Population growth from Rhome was also retrieved from the *Texas Water Development Board* (TWDB). TWDB projects a slightly higher average annual population growth rate at 3.1% over a 20-year period. The population forecast model used for this PROS Plan shows Rhome's population over the next 5-years (2025) will reach 2,300, and by the year 2030, will reach a population of nearly ***3,000*** people. Providing a range of population forecasts helps IUS determine the appropriate amount of park land dedication suitable for Rhome over the TPWD recommended 10-year PROS planning period.

Figure 1 illustrates the observed historical growth of Rhome and the surrounding region and Figure 2 shows the observed historical trends and future population projections from starting from 1990 to 2040.

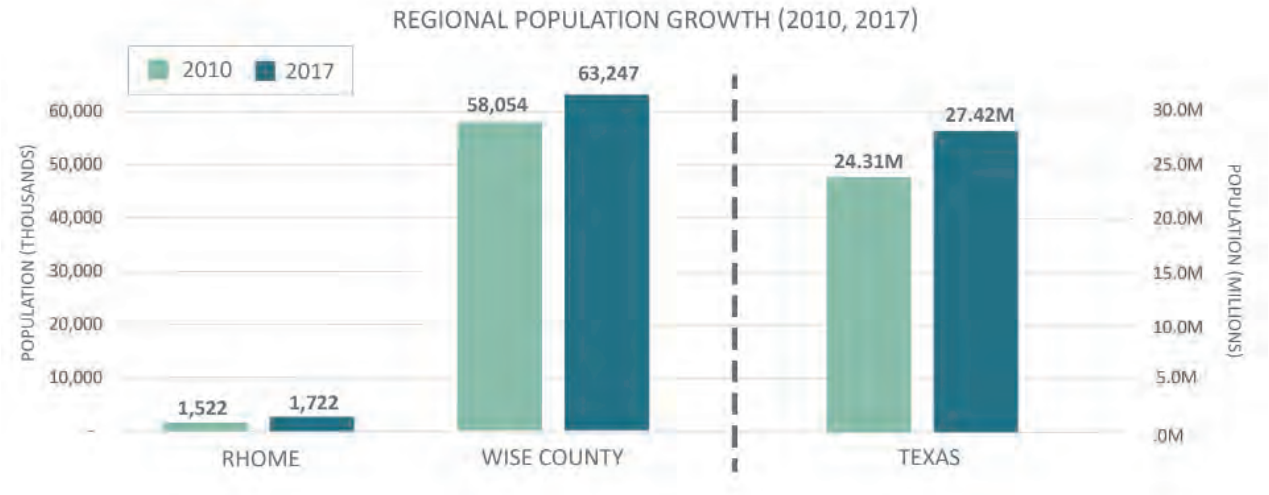


FIGURE 1 - REGIONAL POPULATION GROWTH OF RHOME, WISE COUNTY, AND THE STATE OF TEXAS

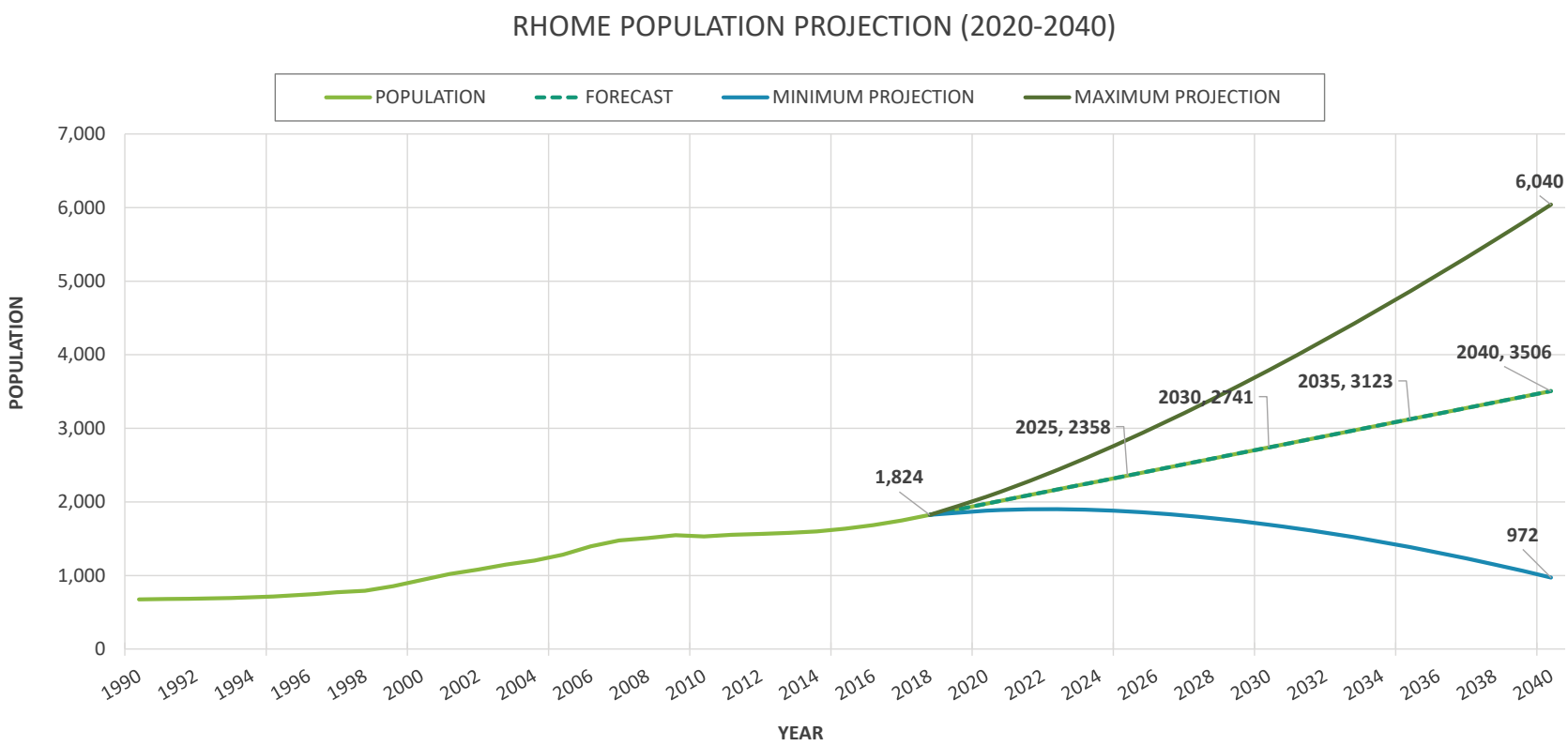


FIGURE 2 - RHOME HISTORICAL POPULATION GROWTH & POPULATION PROJECTIONS (1990 - 2040)

DEMOGRAPHIC ANALYSIS

Population Profile

The ***population profile*** is an evaluation of the general demographics of a region's population such as age, gender, race and ethnicity. Rhome's population profile includes *age and gender distribution, race, and ethnicity*. These data and statistics were obtained from the U.S. Census Bureau (USCB) from the most recent 5-Year American Community Surveys (5-YR ACS).

Age & Gender Distribution

As of 2018, Rhome's population gender ratio is fairly evenly split between males and females: 51% male and 49% female.

Overall, the age-gender pyramid indicates that the age cohorts in Rhome are almost split evenly into thirds with 30.3% of the population being children and adolescents between the ages of 0 to 18, 27.5% representing adults in the 19 to 39 age group, and 34.5% of the population in the 40 to 64 age group. The remaining 7.4% represents the age group of adults 65 years and older. However, within the young and middle age adult cohorts, the age-gender pyramid shows a gap in young adults ages 20 to 29 and in adults ages 35 to 44.

The age-gender distribution indicates that Rhome is primarily a suburban family community comprised of young families with small children, as well as families with older children of high school and early college age. The small percentage of senior citizens indicates that Rhome is currently not a retirement community, however it is possible that this age group will increase within the 10-year PROS planning period given that in mobility statistics in 2017 showed that 90% residents remained in Rhome.

This information highlights that proposed park amenities and activities in the short to medium-term should cater to family-oriented activities, since most of the population is comprised of children, adolescents, and their parents. The high percentage of young families points to the need for active outdoor recreation like playgrounds, sport fields and sport courts, as well as sidewalks and paths for family's that use a stroller. Given the major cohort of persons under 18, young children and teens would benefit from educational elements and activities in the parks such as pollinator gardens, community gardens, and descriptive plant and wildlife signage. In contrast, newly retired couples are most in need of social spaces where they can enjoy time together with friends and family. Pavilions, walking trails with benches, community garden areas, and BBQ grills, along with safe and accessible walking trails, would fit the needs of the elderly population cohorts. Amenities for the other age cohorts will be considered in park proposals in the medium to long-term as the demographics change over time.

Race & Ethnicity Evaluation

The 2017 race and ethnicity demographic analysis show that most of the population in Rhome identify as predominately Caucasian or White, representing 86.9% of the population. The remaining ethnicities and races that comprise Rhome's population are Hispanic or Latino at 11.8%, Some other race (not specified) at .5%, two or more races (not specified) at .3%, African American or Black at .2%, and Asian at .2%.

However, since 2010, the ethnic and racial diversity of Rhome has *decreased* for all cohorts except Caucasian or White, which has increased by 12.4%. In 2010, the ethnicity and racial breakdown of Rhome was comprised of Caucasian or White at 74.4%, Hispanic or Latino at 12.5%, some other race (not specified) at 7.7%, two or more races (not specified) at 2.6% of the population, American Indian or Alaskan Native at 1.4%, and the remaining cohorts of African-American or Black, Asian, and Native Hawaiian each representing approximately 1% or less of the population. This change in demographics indicates that people who identify as Caucasian and White or Hispanic and Hispanic or Latino currently shape the culture of the community, which includes the types of recreational amenities and activities preferred in their parks. That being said, a full quarter of the population is of a different ethnic and racial background.

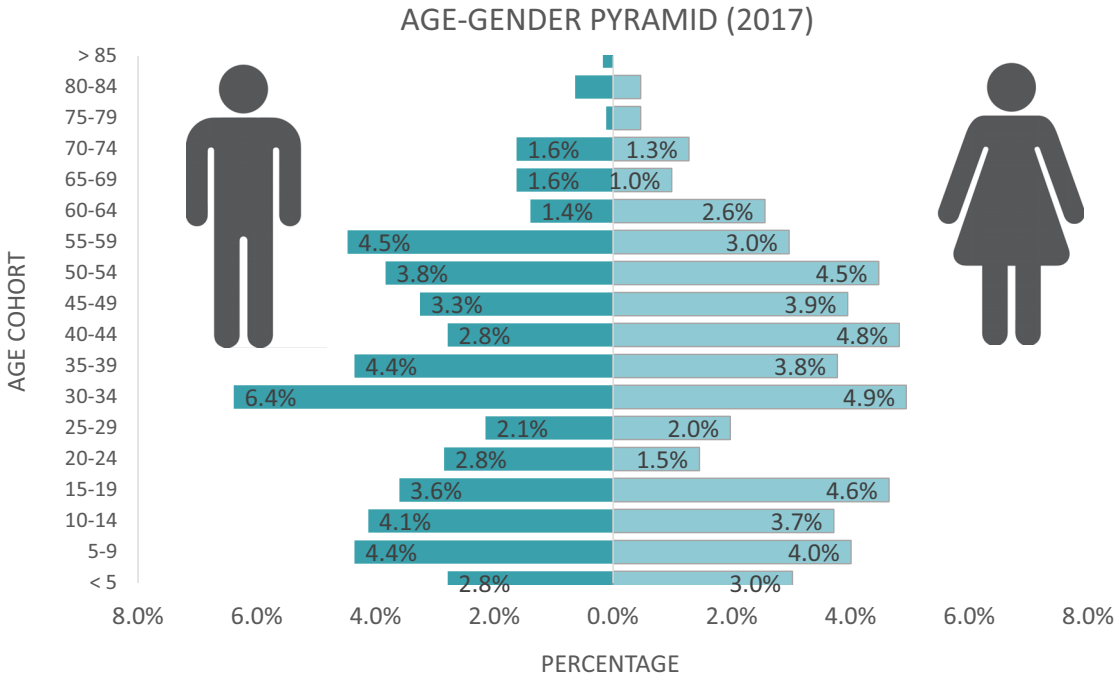


FIGURE 3- AGE-GENDER PYRAMID (2017)

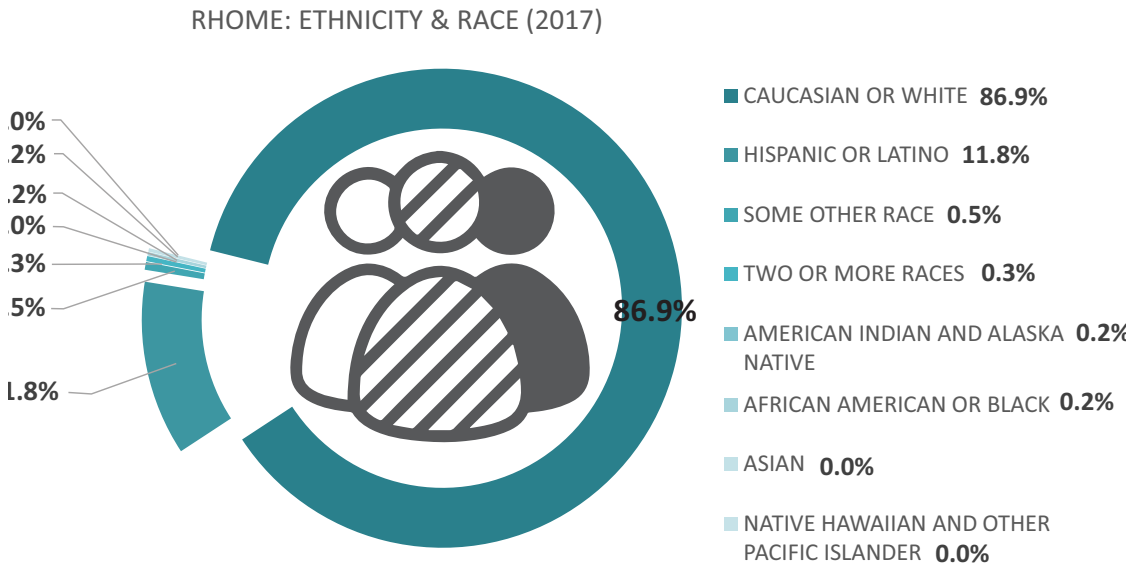


FIGURE 4 - RHOME ETHNICITY & RACE (2017)

DEMOGRAPHIC ANALYSIS

Household Profile

The *household profile* evaluates statistics such as *educational attainment, household income, occupancy rates*, *and size*, as well as *commuting patterns* to evaluate the socioeconomic standing and possible social capital needs of the community [USCB]. Social capital is important to understand the household profile of Rhome because it helps assess what the community can afford and the possible social capital needs and therefore the most suitable PROS amenities.

School Enrollment & Educational Attainment

The educational attainment for Rhome as of 2017 shows that the majority of the population has a high school diploma or higher degree at 86.4%, and a Bachelor's or higher degree at 15.4%. These statistics indicate that communities within Rhome are more likely to use public park facilities rather than private facilities such as country clubs. The results of the school enrollment evaluation show that the majority of children in Rhome are elementary or middle school aged comprising 50% of all school enrollment, followed by 26% high school age. The current large percentage of young children indicates a short-term need to provide PROS amenities and activities for this demographic. However, taking into account the 30% of teenage-aged children currently in the community and the transition of the young children into the teen demographic over time, this indicates a need for recreational amenities for teenagers over the medium- to long-term in Rhome.

General Household Profile

The general household profile analyzed data for household income, housing occupancy rates, and household sizes in Rhome.

Household income is an important factor to consider for a PROS plan because it indicates what a household or a community can afford. The median household income in Rhome is $70,000. The household income data from 2017 shows that 26.5% of Rhome residents are within the $50,000 to $74,999 income bracket, while approximately 20% of residents respectively are within upper income brackets of $75k to $99.9k and $100k to $149.9k. Rhome's household income distribution shows that it is a mid-income community. The mode income range of $50 to $75,000 reinforces the narrative that Rhome is predominately a community of young families with the parents starting out in their careers. This is important in that this demographic is likely to take advantage of public recreation oriented toward families such as sport fields, trails, pavilions, and grills. In contrast, it is more likely that high-income communities tend to privatize those functions through country clubs, membership facilities, or building their own private recreation such as pools or basketball courts.

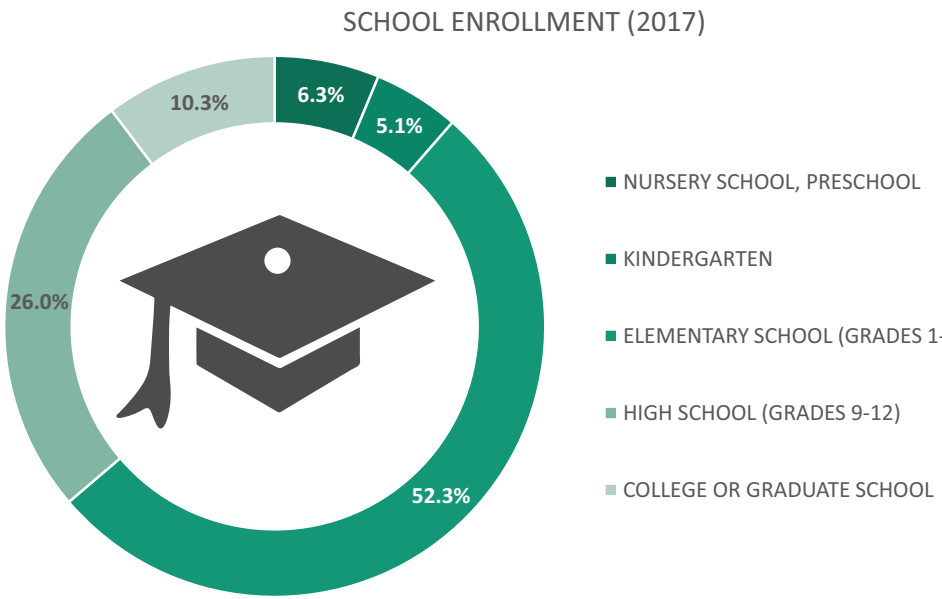


FIGURE 5 - RHOME SCHOOL ENROLLMENT (2017)

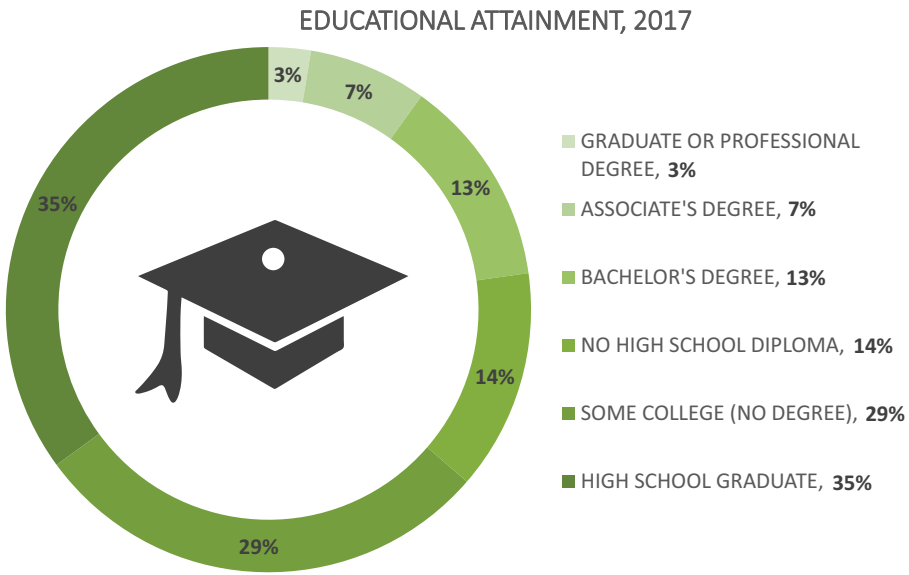


FIGURE 6 - RHOME EDUCATIONAL ATTAINMENT (2017)

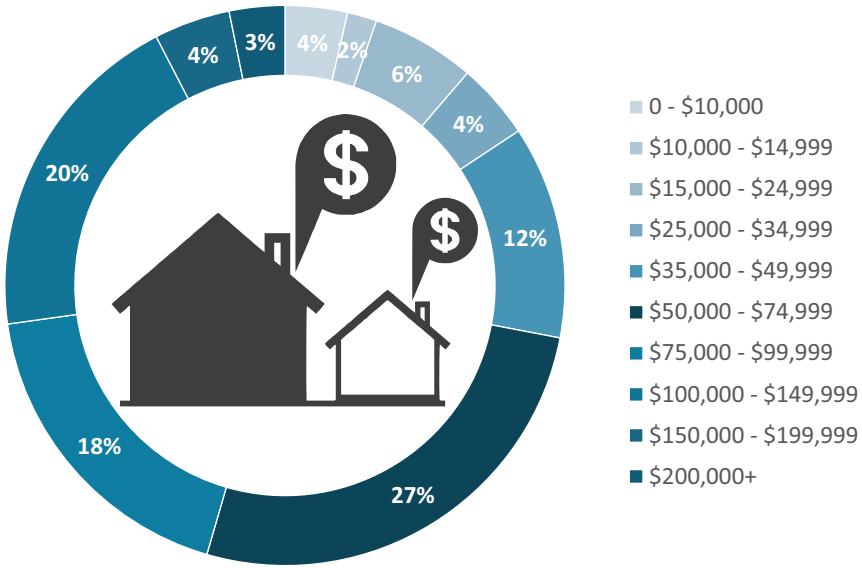


FIGURE 7- RHOME HOUSEHOLD INCOME (2017)

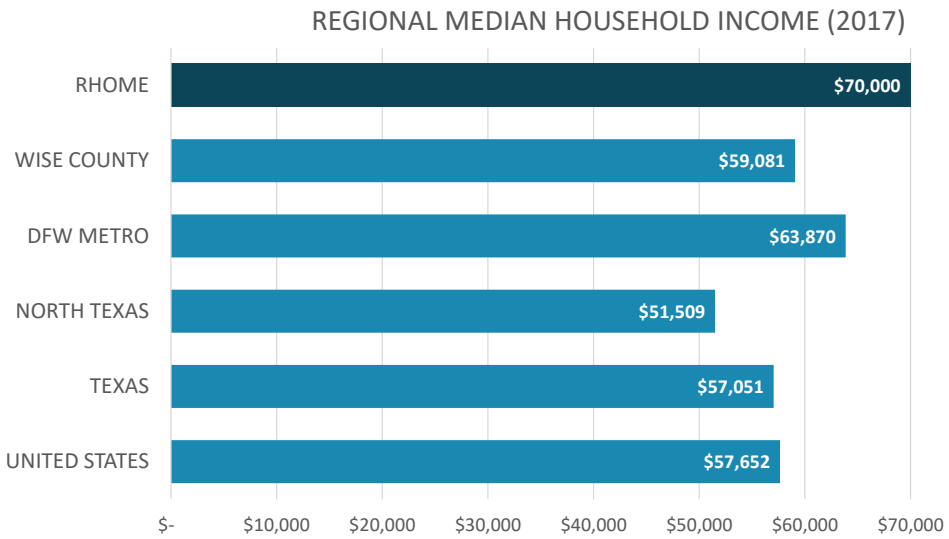


FIGURE 8 - REGIONAL MEDIAN HOUSEHOLD INCOME (2017)

DEMOGRAPHIC ANALYSIS

The percentage of renter-occupied housing in Rhome is 26%, while the owner-occupied housing is 74%. In terms of a PROS plan, this is indicative that the residents are not transient and have sufficient economic means to purchase a home in the area.

The average household size in Rhome as of 2017 is 2.94, slightly larger than the state of Texas. This household size is likely to increase slightly since there are planned suburban subdivisions planned to be built in Rhome. This indicates and reinforces that Rhome's PROS network should plan to cater to families – young children, adolescents and teenagers, and their parents.

Commuting Patterns

It is important to evaluate general commuting patterns of a community for a PROS plan because it may indicate the types of PROS amenities desired based on typical mode of transportation, as well as the most suitable types of connectivity to parks and other points of interest in Rhome.

Several major roads including US 287/81, TX-114 and FM -3433 surround or go through Rhome, making commuting to destinations by car very convenient. The main mode of transportation in Rhome is driving alone in a personal vehicle at 79%, which is also common throughout the state and the North Texas region. The mode of transportation with the least use is walking or biking - combined they total at less than 3%. Likely pedestrian modes of travel to work are inconvenient and public transit options are not available. Although driving to work might be preferred over pedestrian modes of transportation, this statistic may indicate that there will be an increased desire for residents' to be able to walk and bike in their parks after the work day.

The largest percentage of travel time to work was 25 to 19 minutes at 30.8% and the cumulative percentage of commuting time greater than 30 minutes significantly outnumbered commuting time less than 30 minutes. This reinforces the narrative that most residents drive alone from home to work.

Promoting walking and biking as an alternative means of transportation and providing the amenity in parks can help improve the overall quality of life of the residents and Rhome. The goal of the PROS plan in terms of commuting patterns will be to encourage safe pedestrian modes of travel when the residents of Rhome are at home and traveling to the local parks in their communities.

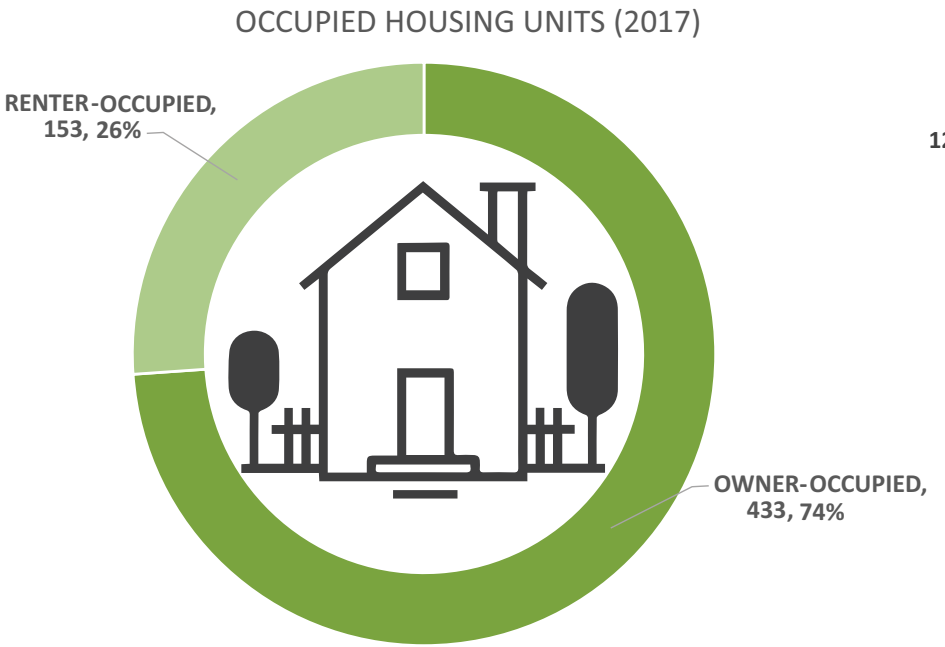


FIGURE 9 - RHOME OCCUPIED HOUSING UNITS(2017)

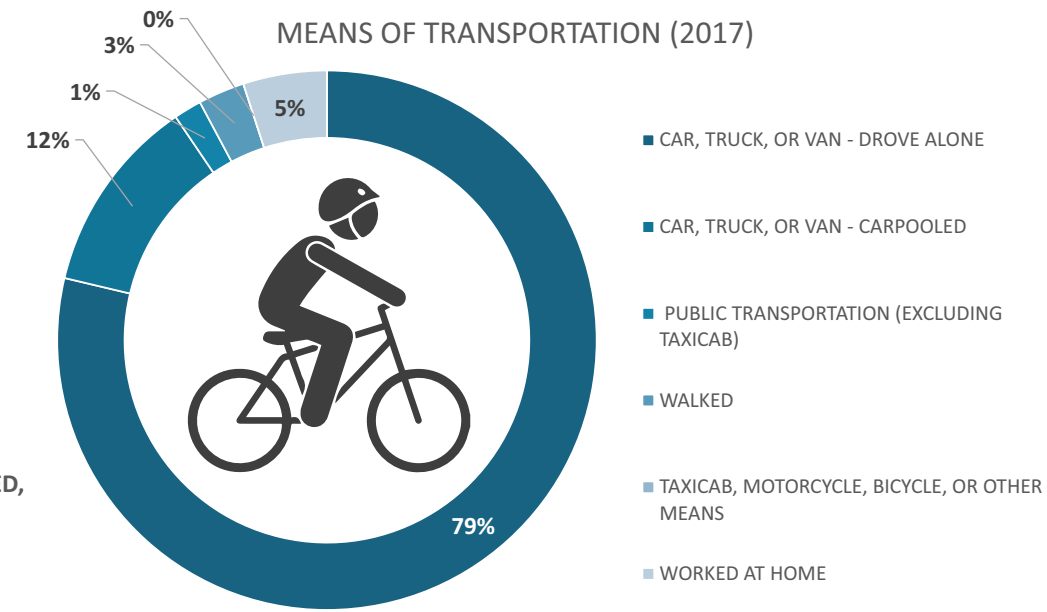


FIGURE 10 - RHOME MEANS OF TRANSPORTATION (2017)

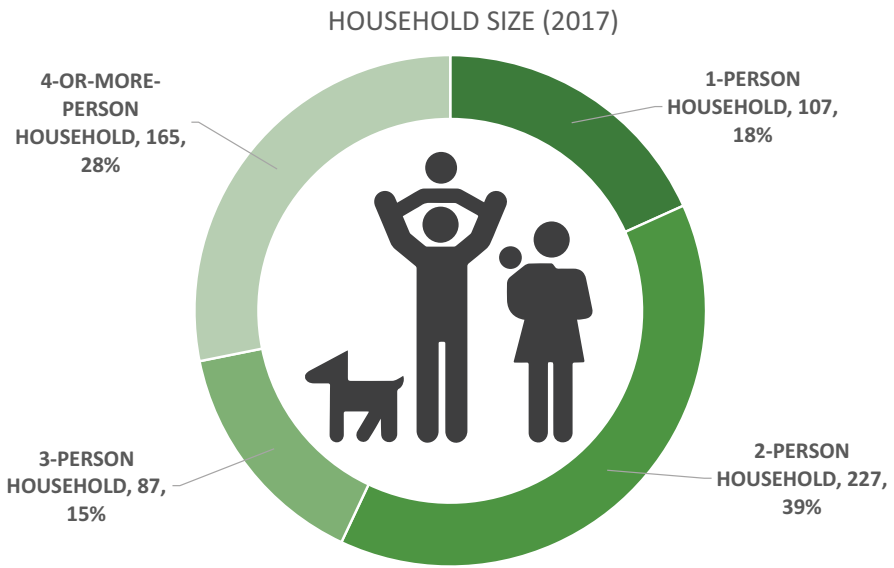


FIGURE 11 - RHOME HOUSEHOLD SIZE (2017)

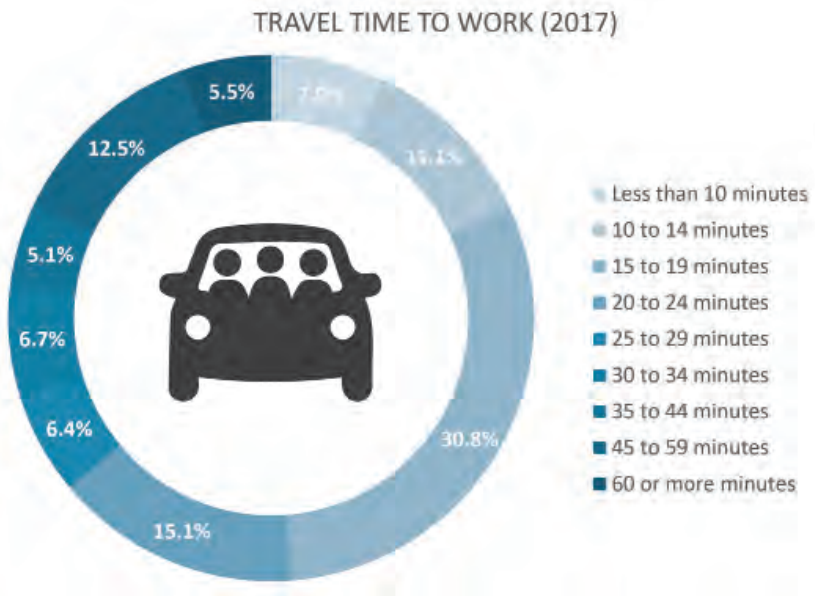


FIGURE 12 - RHOME TRAVEL TIME TO WORK (2017)

RHOME PARKS, RECREATION, & OPEN SPACE MASTER PLAN

ELLIS WATERFALL

ECOLOGICAL & ENVIRONMENTAL BACKGROUND

ECOLOGICAL & ENVIRONMENTAL BACKGROUND

Introduction

The environmental and ecological background is important for the development the PROS plan as it directly connecting each other.

Unique environmental and ecological features within the city can be transformed into beautiful park areas. There are many opportunities, as well as some constrains embedded in the existing park lands, proposes and possible future Parks and Open spaces.

The environmental and ecological benefits of PROS include:

- *Improving air quality by preserving existing native vegetation,*
- *Land development and resources cost savings e.g. dedicating a park instead of a residential parcel in a flood prone area, using low maintenance plants, low energy cost during the summer due to cooling effect of trees etc.*
- *Conservation and preservation of valuable natural resources that improve the environmental conditions, including water quality, micro-climates soil conditions as well as the local ecology, preserving habitats for local fauna, inspects, and pollinators and increases the biodiversity within the city.*
- *Educational component Surrounding environment works as a live laboratory which gives city residents, especially for the youth for understanding of nature Geological process, Biological process, Chemical process and physical process of the earth,*
- *Offer social spaces for all age city residence,*
- *Offer relaxing and clamming environment, stress reliever and psychological benefits of nature, and*
- *Enhances the quality of life.*

Endangered Native Comanche Prairie Clover

Endangered Whooping Crane

Ecoregion

Ecoregions are defined as areas with similarities in their ecosystem in terms of land characteristics, variety of flora and fauna, and the quantity and quality of the environmental resources in a region such as rainfall [TPWD]. Understanding Rhome's ecoregion will help IUS identify important ecological and environmental factors to preserve or to recommend for recreational conservation when evaluating potential PROS areas.

The City of Rhome falls within the ***Cross Timbers*** ecoregion, specifically at the intersection of the *Western Cross Timbers* and the *Grand Prairies* of Texas. The Cross Timbers ecoregion is characterized by rolling hills with tall grasses and pockets of wooded areas in both high-land and low-land areas and near streams, similar to a savanna-like landscape. The soils include fine sandy loams, clay subsoils, and limestone rocks mixed with marl and clay. Some of the common cross timbers vegetation that can found in Rhome include post oaks and blackjack oaks and the grasses include big bluestem, yellow Indiangrass, little bluestem, hairy grama, Texas wintergrass, sideoats grama, and Texas cupgrass.

FIGURE 13 - ECOREGIONS OF TEXAS; WISE COUNTY AND RHOME IN THE CROSS TIMEBERS REGION

ECOLOGICAL & ENVIRONMENTAL BACKGROUND

IUS analyzed several of the potential PROS areas for natural features and vegetation that reflect the unique characteristics of the Cross Timbers ecoregion through the TPWD vegetation database.

Potential Park 2, Ellis Homestead parcel, is approximately 10 to 14 acres of partially developed land within the Ellis homestead neighborhood. There are (2) main streams flowing through the parcel and the majority of the parcel is in the FEMA 100-yr floodplain. According to the TPWD vegetation analysis shown in figure 14, the parcel is comprised of upland tallgrass prairies, savanna grasslands, and row crop farmland, and the lowland areas consist of herbaceous and hardwood riparian areas. There is a unique limestone or limestone waterfall feature on the parcel.

Potential Park 3, Prairie Point parcel, is a 10-acre parcel of undeveloped land with a small stream running through it, gentle slopes and a wide floodplain. According to the TPWD vegetation analysis shown in figure 15, the parcel is comprised of upland tallgrass prairies, savanna grasslands, and row crop farmland, and the lowland areas consist of herbaceous and hardwood riparian areas.

Potential Park 5, By Wells Estates parcel, is approximately 40-acres of undeveloped land near a small low-density residential area, that has two converging streams. The majority of PP5 is in the FEMA 100-year floodplain and is characterized by steeper slopes than PP3 due to the converging streams. According to the TPWD vegetation analysis shown in figure 16, PP5 is comprised of upland savanna grasslands, tallgrass grand prairie, and deciduous woodland areas. The lowland areas within the floodplain are comprised of hardwood motte and woodland forests, and herbaceous and hardwood riparian areas.

IUS will take into consideration the unique ecoregion characteristics of each potential PROS area to ensure Rhome's natural resources are protected and are able to be appreciated by the community.

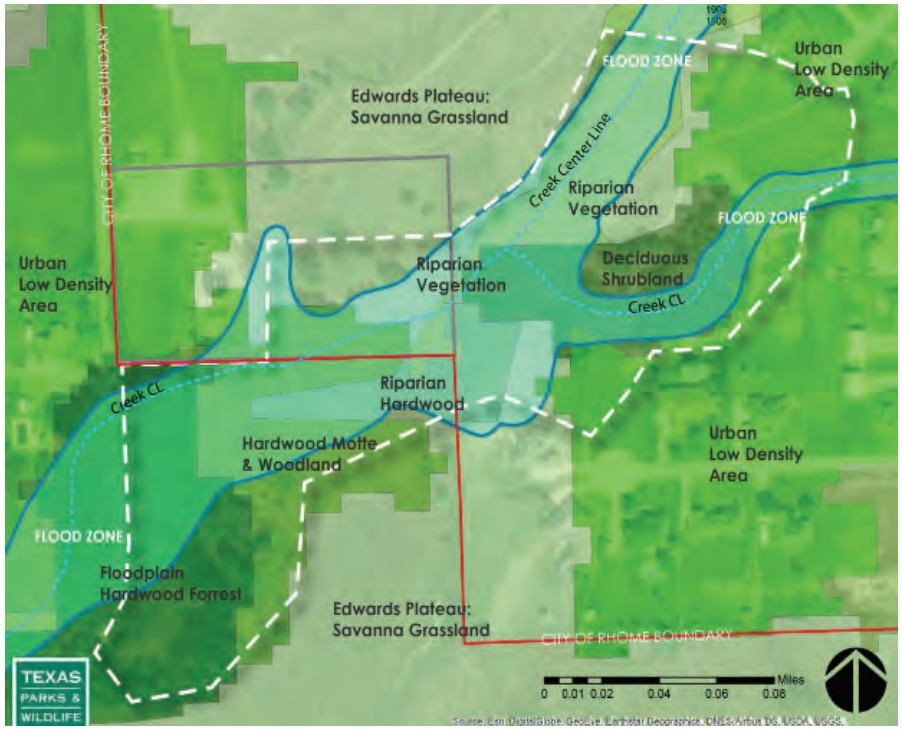


FIGURE 14 -VEGETATION MAP FOR POTENTIAL PARK 2

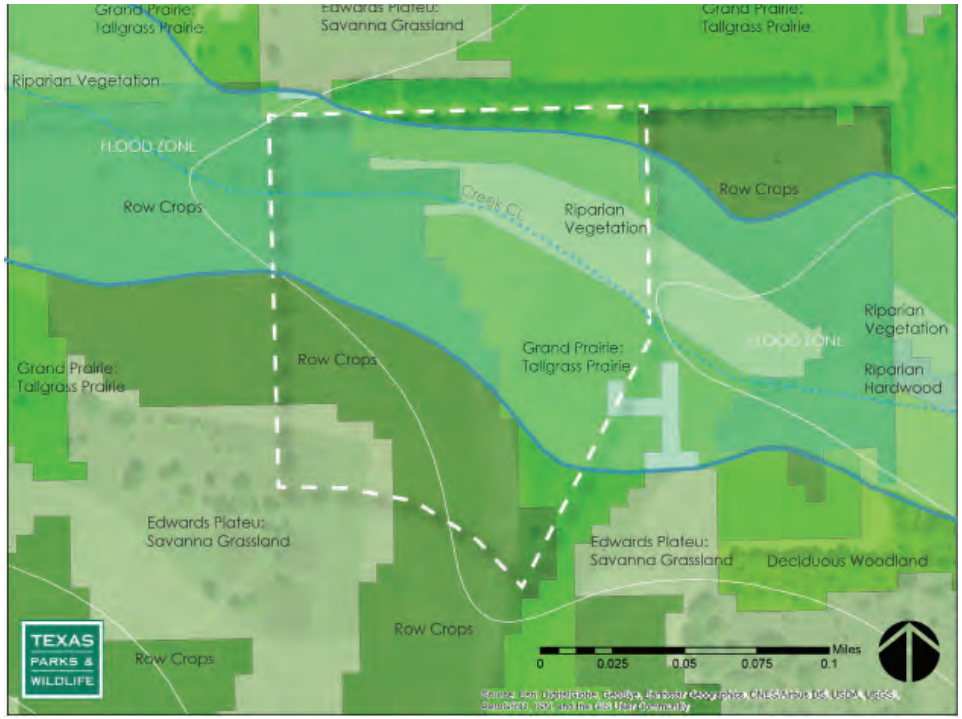


FIGURE 15 - VEGETATION MAP FOR POTENTIAL PARK 3

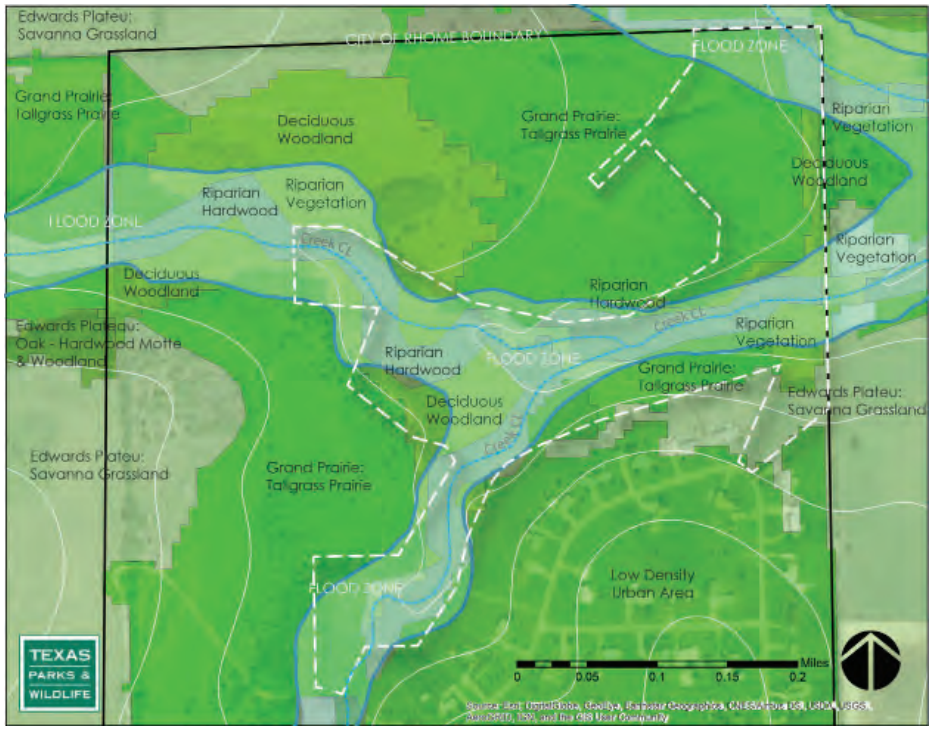


FIGURE 16 - VEGETATION MAP FOR POTENTIAL PARK 5

Climate & Weather

The average rainfall for Rhome TX is about 38.9 inches per year and precipitation spread on averagely 75 days of the year and annual snowfall is about 1.4 inches. Highest precipitation receives on month of May, June and October also receive considerable high precipitation.

Average temperature of Rhome is 63.6F and it is lower than Texas average temperature but greater than national average temperature.

The Heating Cost Index and the Cooling Cost Index, which are indicators of the relative heating and cooling cost of an area, calculated based on the average temperate and duration of the hot and cold days for the area. Respectively rank as 1799 and 373. Further, Heating cost Index of Rhome is 111.11, which is higher than Texas State 77.04.

Average Humidity of the area is 78.81% and commonly highest humidity is from month of February to April and lowest from end of August to early November.

Monthly average wind speed is 17.20 mph in the city and its 15.55 mph for the State of Texas.

ECOLOGICAL & ENVIRONMENTAL BACKGROUND

Topography

The City of Rhome is located in southern Wise County, TX. Heading southeast, Rhome is approximately 30 minutes from Fort Worth, TX, and heading northwest Rhome is 20 minutes from Decatur, TX. According to the United States Census Bureau, the city has a total area of 4.7 square miles, and out of total area 4.6 square miles are allocated to land and 0.1 square miles of surface is covered with water. The general landscape has very little elevation variation, mostly parries and is characterized by gently rolling hills. Rhome is 942ft (287m) above mean sea-level (msl).

Soils

Soil type of the city of Rhome- Alfisols. Further the area has Alfisols soil. Soil categorized as the area were or are forested, with moderate to high base saturation; most formed under deciduous forest. Characteristically, soil has a light-colored surface layer over a horizon of silicate clay accumulation (argillic).

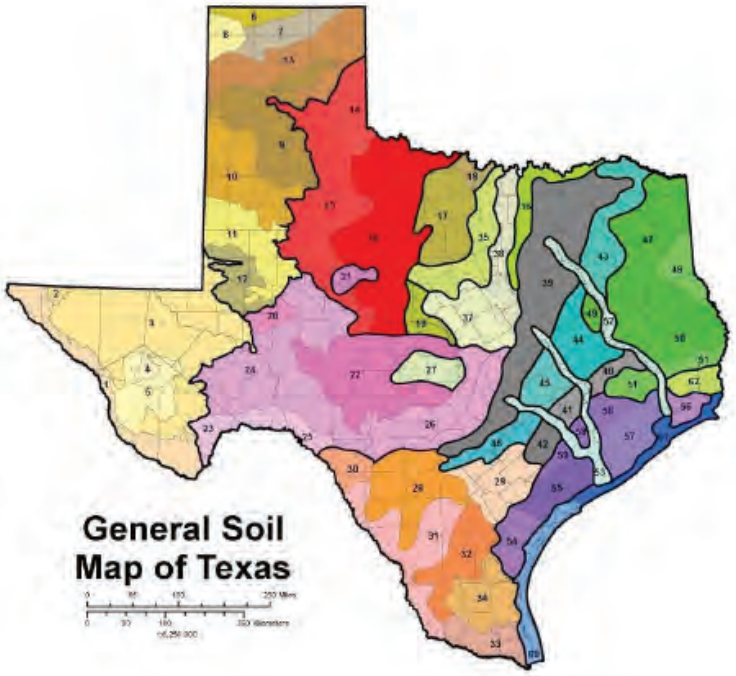


FIGURE 17 - SOIL MAP OF TEXAS, SOURCE: USDA, NRCA

Plant Hardiness Zones

The United States Department of Agriculture (USDA) publishes information on Plant Hardiness Zones. Plant hardiness is based on a plant's tolerance to withstand cold temperatures during the winter months. The USDA Plant hardiness zone for southern Wise County is 8a, which reaches a temperature as low as 10-15 degrees Fahrenheit at least once during the winter season. These soils and climate support vigorous growing prairie trees such as Live Oaks and Post Oaks, as well as tall grasses such as Big, Little Bluestem, Indiangrass, and Switchgrass. An extensive list of recommended native and well adapted plants for Rhome can be found in the Appendix.

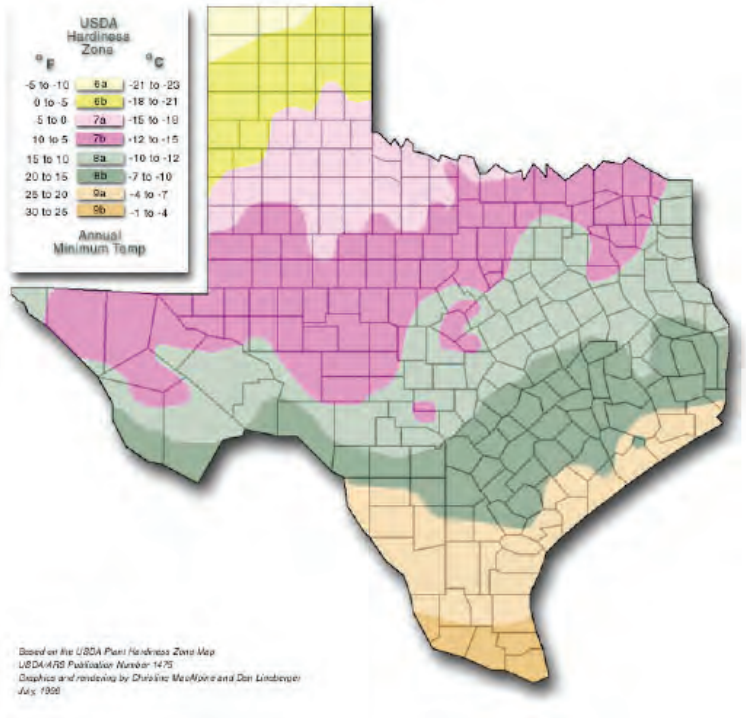


FIGURE 18 - PLANT HARDINESS ZONES OF TEXAS, SOURCE: USDA

ECOLOGICAL & ENVIRONMENTAL BACKGROUND

Environmental Hazards

Environmental hazards are defined as a threatening event or the probability of occurrence of a potentially damaging phenomena. Environmental hazards are important to consider when developing a PROS plan in order to ensure the public's safety and to mitigate hazards by designating areas as either developable or un-developable areas. The most common natural environmental hazards impacting Rhome include flooding, severe thunderstorms, droughts, wildfires, tornadoes, and winter storms.

PROS land dedication can tremendously benefit communities by mitigating or attenuating some of these hazards. PROS areas can create buffers in flood prone such as floodplains and riparian areas which not only prevent potential property damage and loss of life, but also protects natural resources which can benefit local ecosystems, improve water quality, and provide the community with recreational opportunities [FEMA].

Industrial hazards can also pose a threat to the environment and to the safety of the public. The oil and gas industry are prevalent in Rhome and in surrounding areas of North Texas. Certain hazards to take into consideration when evaluating PROS areas are proximity to oil and gas infrastructure such as fracking wells, injection disposal areas, and industrial processing plants. Other industrial hazards to consider include manufacturing plants, rail road track loading stations, and waste water treatment plants. The following map highlights areas of environmental and industrial hazards.

FIGURE 19 - AREAL IMAGE OF FRACKING WELLS IN RHOME

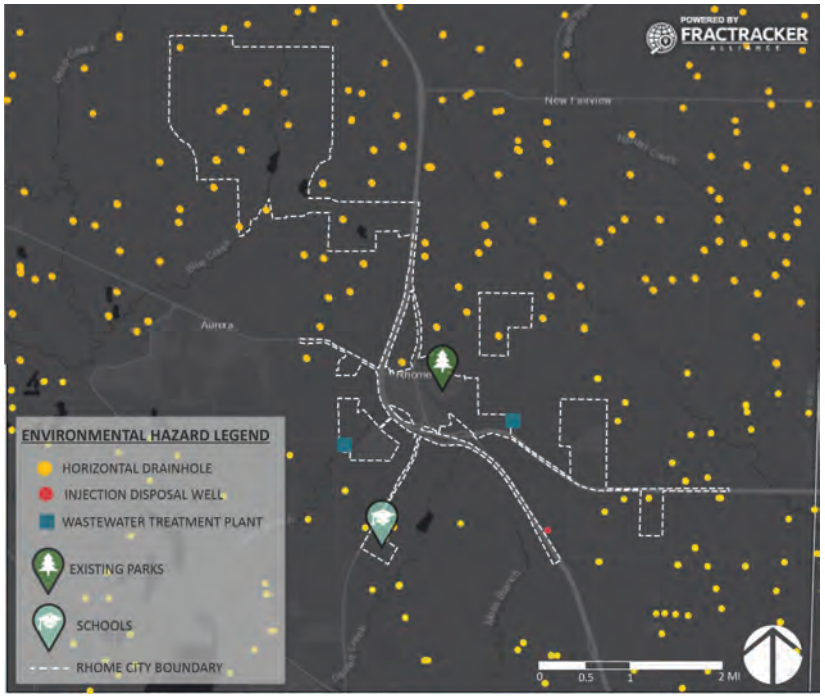


FIGURE 20 - ENVIRONMENTAL HAZARD LEGEND

FIGURE 21- FLOODPLAIN MAP SOURCE: FEMA

General Land Use

The land extent of the City of Rhome is 5.6 sq. miles. However, Rhome's extraterritorial jurisdiction (ETJ) is around 19.9 sq. miles, out of which 46% covers ranch land and an agricultural type of land use, and 15% residential use that makes up about 15% of all land (City of Rhome comprehensive plan, page 17). The population density in Rhome in 2010 was 310.6 resident per square mile (120.2/km²) which is higher than the Texas (109.9). Among the identified issues during the development of City of Rhome Comprehensive Plan, it has been identified that 'infrastructure needs to be repaired and improved and public open spaces for recreation and for citizens to gather and socialize in Rhome and Parks and recreational areas should be grown to accommodate Current Rhome residents and as per the future population projections. Source: Rhome City Comprehensive Plan.

RHOME PARKS, RECREATION, & OPEN SPACE MASTER PLAN

RHOME VETERANS MEMORIAL

PROS INVENTORY & ANALYSIS

PROS INVENTORY & ANALYSIS

Introduction

The purpose of the site inventory and analysis is to evaluate Rhome's inventory of existing park facilities and any potential PROS areas and to assess current site conditions for *physical condition, design performance, environmental performance,* and *social performance* which includes factors such as public safety, design intent, functionality, drainage, accessibility, and overall physical condition. This assessment benchmarks the PROS performance to help identify any improvements needed to meet the current and future recreational demands (i.e. recreational needs and desires) of the community.

The IUS team conducted a site visit on February 13, 2020 accompanied by Rhome officials to view the existing parks and several potential PROS sites. In addition to on-site assessments, spatial analyses were also conducted to evaluate factors such as floodplains, environmental characteristics, and access and circulation.

PROS Classification & Assessment

The ***National Recreation and Parks Association (NRPA)*** outlines (4) broad categories of parks that vary by size, population service area, and featured amenities. The NRPA is a non-profit organization that advocates for public parks and recreation, as well as the preservation of natural areas. The NRPA collaborates with entities such as the federal government, local governments, non-profits and commercial enterprises to produce research and policy initiatives for best practice park standards for the public.

NRPA National Recreation and Park Association
Because everyone deserves a great park

Rhome's existing parks and the potential PROS areas were assessed using the NRPA's park guidelines. The following table and descriptions outline the categories of parks that were used to assess Rhome's PROS inventory.

- ***Pocket & Mini Parks*** are less than an acre in size, have a service distance that is approximately .25 miles and they usually do not accommodate parking. These parks are generally located between existing houses or at the ends of residential neighborhoods. These parks are local and are accessed by foot or bike and usually provide facilities such as benches, fountains, aesthetic and functional landscapes, play equipment, and local features.
- ***Neighborhood Parks*** range between 1 and 16 acres, have a larger service area of .5 miles and usually accommodate parking. The neighborhood park typically services one large or several small neighborhoods. Ideally, the park should be between 5 to 10 acres and can serve between 3,000-4,000 residents.
- ***Community Parks*** are larger parks greater than 16 acres and less than 100 acres that serve a larger portion of a community and are usually reached by car. The typical amenities established in community parks include larger recreational features such as sports fields, hike and bike trails, and sufficient parking to accommodate large community events.

National Recreation and Park Association (NRPA) Park Land Dedication Guidelines

Park Category	Desirable Size (acres)		Acreage Per 1000 Residents		Service Area Range (Miles)	
	Low	High	Low	High	Low	High
Mini Park	0.5	1	0.5	1	0.25	0.25
Neighborhood	1	15	1	2	0.25	0.5
Community	16	100	5	8	1	2
Totals			**6.5**	**11**		

- ***Linear Parks*** are open park areas that are linear in nature and follow a feature, natural or artificial, such as a creek, drainage channel, power utility or corridor easement. These parks can serve as vital non-vehicular connections to points of interest such as parks, schools, or neighboring points such as an adjacent neighborhood or commercial area.

IUS Pros Assessment Criteria

When assessing existing park facilities and potential PROS areas, the assessment and subsequent considerations are based on the *IUS PROS Assessment Criteria* developed by IUS. The criteria are derived from national and regional PROS guidelines including the NRPA, *The Trust for Public Land* (TPL), the *Landscape Architecture Foundation* (LAF), and also from previous PROS master plans developed by IUS.

The IUS PROS Assessment Criteria evaluates factors including *physical condition, design performance, environmental performance,* and *social* performance to assess the overall PROS performance of each park or potential park. **PROS Performance** in this document is defined as the current operational state of Rhome's park facilities in terms of size and featured amenities. Potential PROS areas are also evaluated by the same criteria, but assessed for their 'potential' to become recreational areas in the future. Potential PROS sites exist in their current state as raw land, vacant parcels, and as utility or drainage easements.

The PROS Assessment Rating ranges from 1 to 5, or from *excellent* to *very poor* respectively. The final rating is calculated by a simple average of each of the main factors and is rounded up if the decimal greater than 0.5.

The PROS Assessment is used to understand the PROS performance and how to improve each existing park or potential PROS area during the 10-year planning period to better meet the recreational demands of Rhome.

Park Amenities Operations & Maintenance Safety	**Physical Condition**	**Social Performance**	Accessibility Connectivity Wayfinding Transportation
Design Intent Usability Functionality Attractiveness	**Design Performance**	**Environmental Performance**	Stormwater Management Topography Ecology/Habitat Pollution

PROS INVENTORY & ANALYSIS

Existing PROS Areas

As of *February 2020*, Rhome has 2 existing parks totaling approximately **2-acres** of land dedicated toward parks, recreation, and open space. The following table summarizes Rhome's existing PROS facilities and potential PROS areas showing land use category, PROS Status, land ownership, total acreage, area in the floodplain, usable area (upland, non-floodplain areas), NRPA park classification and service area. Figure 22 shows the overall map extent of the existing and potential PROS areas.

TABLE 1: SUMMARY OF EVALUATED PROS SITES IN RHOME FOR ASSESSMENT

Name	Land Use Category	Status	Land Owner-ship	Total Area (AC)	Area in the Flood-plain (AC)	Usable Area (AC)	NRPA Park Classification	Park Service Area (MI)
Rhome Family Park & Pavilion	Park	Existing Park	City of Rhome	1.9	0.0	1.9	Neighborhood	0.50
Rhome Veterans Memorial Park	Memorial	Existing Park	City of Rhome	0.2	0.0	0.2	Mini/Pocket Park	0.25
Potential Park 1: 1st & Elm Street Pocket Park	Vacant Lot	Viable Potential Park Area	City of Rhome	0.9	0.0	0.9	Mini/Pocket Park	0.25
Potential Park 2: Ellis Neighborhood Park	Open Space	Viable Potential Park Area	NISD	14.5	7.8	7.8	Neighbor-hood-Community	0.50
Potential Park 3: Prairie Point Park	Open Space	Viable Potential Park Area	City of Rhome	11.1	6.2	6.2	Neighbor-hood-Community	0.50
Potential Park 4: Morris and Old Mill Rd Pocket Park	Vacant Lot	Viable Potential Park Area	City of Rhome	0.3	0.0	0.3	Mini/Pocket Park	0.25
Potential Park 5: By Well Estates Community Park	Open Space	Viable Potential Park Area	City of Rhome	39.6	22.9	22.9	Community	2.00
Potential Park 6: By Well Estates Neighborhood Park	Drainage Easement	Viable Potential Park Area	City of Rhome	1.8	0.0	1.8	Neighborhood	0.50

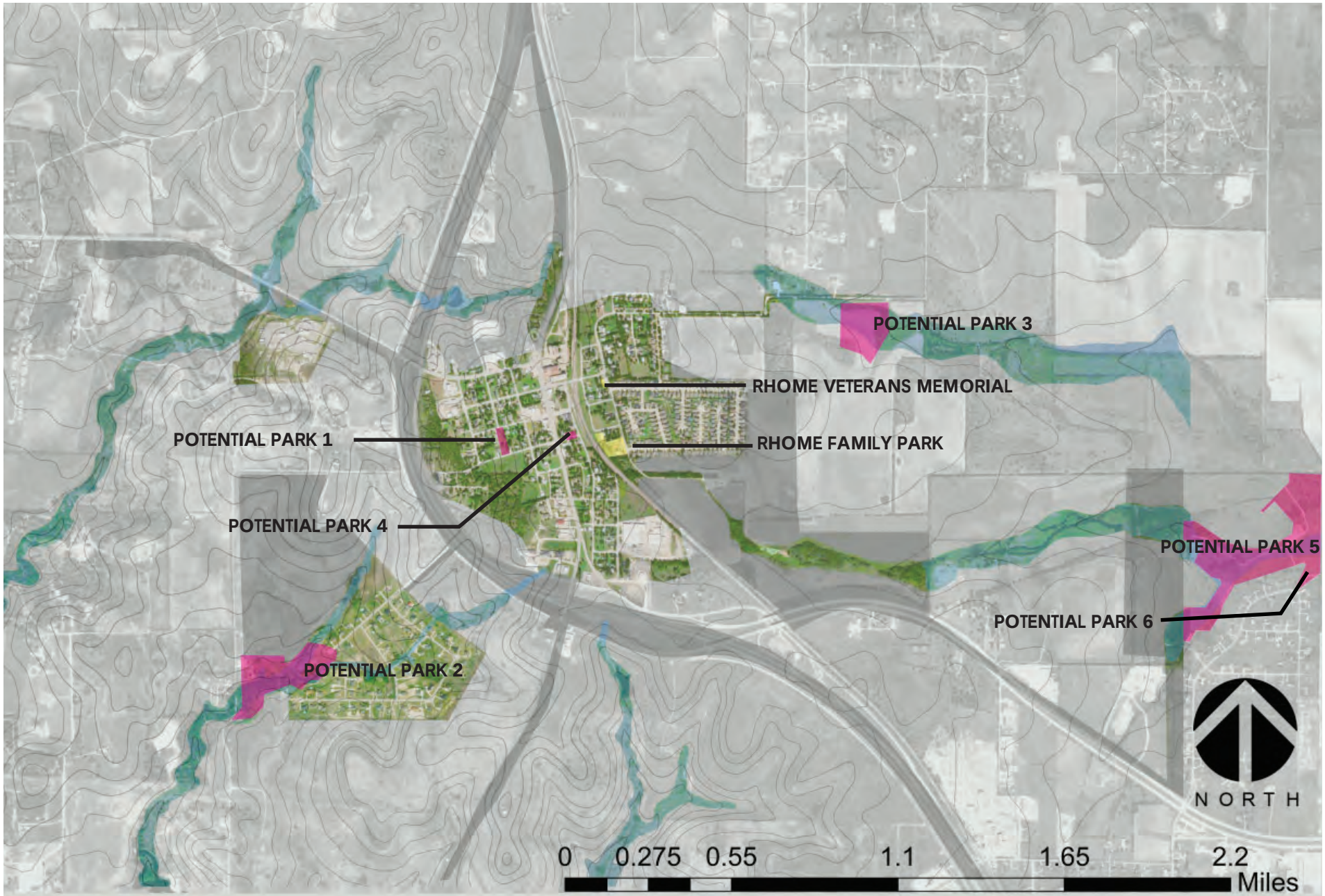


FIGURE 22 - OVERALL MAP OF RHOME PROS SITES

PROS INVENTORY & ANALYSIS

Rhome Family Park

Name	Rhome Family Park
Category	Existing Park
Ownership	City of Rhome
Size	1.8 acres
NRPA Park Class	Neighborhood Park
IUS Rating	Good
Area in the floodplain	N/A

The main park is the Rhome is Rhome Family Park (RFP) and is located at 400 S. Virginia Lane, east of downtown Rhome. Rhome Family Park is approximately 1.8-acres with an abundance of park amenities. Based on NRPA guidelines, Rhome Family Park is classified as a neighborhood park with a service area of 0.5 miles or a walking distance of 10-minutes.

The active recreational amenities at Rhome Family Park include a (2) playgrounds for children (one for small children and the other for children less than 11 years of age), a large swing set, a small jungle gym, a half-court basketball court, ADA accessible sidewalks throughout the park, small personal pavilions with picnic tables and BBQ grilling stations, and a large pavilion with a stage and equipped with electricity. The passive recreational amenities include a small 'butterfly' garden, a large open space adjacent to the pavilion, bench seating near the playground areas, and a wooded area on the East side of the property near the fence-line. The park has adequate functional features such as upgraded light fixtures throughout the park, trash cans, restrooms, ADA ramps at the main entrances of the park, as well as a large parking lot that can accommodate roughly 15 to 20 vehicles. It is important to note that although there are restrooms present, they have been closed to the public by the City due to vandalism and safety concerns.

There were several issues noted during the site visit including drainage issues on the back of the property (standing water, eroded drainage channel), mosquitoes due to standing water, noise coming from the adjacent railroad, privacy issues with the adjacent residential properties, lack of bench seating near the sport courts, lack of shade (either natural or man-made structures).

Although Rhome Family Park is classified as a 'neighborhood park', it acts as a 'community park' for the City because it services all of Rhome. This presents connectivity issues, especially because there are several 'connectivity barriers' (railroad and high-speed county road) for residents coming from outside the east side of the downtown.

Based on IUS's observations and the PROS assessment criteria, the overall PRO performance rating for Rhome Family Park is a **3** or ***fair*** for the current population size and demographics of the community. The park offers sufficient amenities that meet the basic park design criteria, it is accessible to most residents by vehicle, and the park is in excellent physical condition. However, the issues noted during the site visit will need to be addressed to improve the park. Given the growth that Rhome will experience during the 10-year PROS planning timeframe, this park facility will not be able to sufficiently accommodate the future population growth of Rhome on its own and will require upgrades to the park facilities to meet the recreational demands of the community. The recreational demands of the community will be addressed in subsequent sections.

View of Rhome Family Pavilion

View of playground and park amenities and paths

View of drainage issues on the south portion of Rhome Family Park

View of open space and fence line separating the park from the rail road track

PROS INVENTORY & ANALYSIS

Rhome Veterans Memorial Park

Name	Rhome Veterans Memorial
Category	Existing Park-Memorial
Ownership	City of Rhome
Size	0.2 acres
NRPA Park Class	Mini/Pocket Park
IUS Rating	Excellent
Area in the floodplain	N/A

The Rhome Veterans Memorial Park is located at 100 South Virginia Lane, east of downtown Rhome and approximately 0.2 miles from Rhome Family Park. The Rhome Veterans Memorial is approximately 0.2 *acres* and per NRPA guidelines is classified as a mini- or pocket park with a service area of .25 miles or a 5-minute walking distance.

The Rhome Veterans Memorial park has 12 plaques that recognize and honor American service members of the armed forces who have pledged their allegiance to their country. The park amenities include a small covered-pavilion with seating that is used for ceremonies, both decorative and functional vegetation used for aesthetics and screening, lawn space for gathering, a simple sidewalk path along the periphery of the park with several benches. The memorial-park also has adequate functional features such as lighting and trash cans. The sidewalks and paved parking lot is ADA accessible and is accessible for all users at the park.

Some minor issues noted for future improvements include connectivity to external points of interest including Rhome Family Park and enhancing the aesthetic interest with vegetation.

Based on IUS's observations and the PROS assessment criteria, the overall PROS performance rating for the Rhome Veterans Memorial park is a **1** or **excellent** for the current population size and demographics of the community. It provides the proper amenities for this type of park (memorial), does not have any issues with its physical condition, and has good vehicular and pedestrian accessibility. The overall condition of the park is excellent and any proposed upgrades are gentle recommendations for enhancement and are done so keeping in mind the sensitivity of the memorial's purpose.

View of Rhome Veterans Memorial plaques and pavilion

View of open lawn spaces from the north end of the memorial

View of planter boxes constructed by civic engagement groups

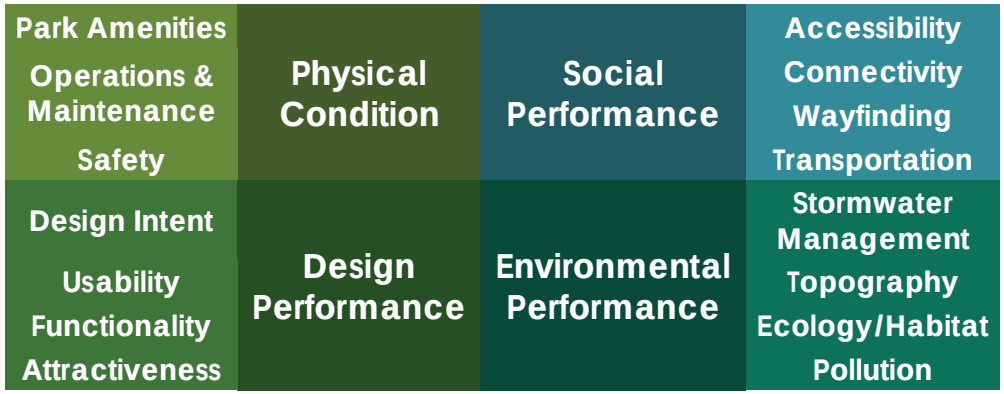
View of pedestrian access point from 2nd Street

PROS INVENTORY & ANALYSIS

Potential PROS Areas

Several sites in Rhome were evaluated for their potential to become a part of Rhome's future PROS network. Potential PROS areas are also evaluated by the same criteria as existing PROS, however they are assessed for their 'potential' to become recreational areas in the future. Potential PROS sites exist in their current state as raw land, vacant parcels, floodplains, and as utility or drainage easements.

Among the list of areas evaluated for potential PROS for Rhome, the following PROS areas were considered the most likely to become parks because they met the p*hysical conditions, design performance, environmental performance,* and *social performance* factors for a safe and successful park.



Potential Park 1: 1st Street & Elm Street Pocket Park

Potential Park 1, or the 1st Street & Elm Street Pocket park, is a vacant, city-owned parcel and formally a road right-of-way (ROW) for Elm Street. The 1-acre lot has the potential to serve as a NRPA pocket park for Rhome with a service distance of .25 miles or a 5-minute walking distance.

The parcel is located west of downtown and in an urban district with both residential and commercial businesses close by. The parcel is surrounded by single family houses on two sides, with planned residential development just south of the parcel. The parcel is sloped with a grade that exceeds 10% and has visible drainage and erosion issues impacting the immediate site and the houses adjacent to it. The lot also has two existing trees (Osage Orange, *Maclura pomifera*) with ponding water and construction debris surrounding them. General site concerns include the proximity to adjacent homes i.e. privacy issues and the drainage issues and its impacts (erosion, mosquitos, etc.).

Based on site observations and spatial analysis, this site has the potential to meet the *physical, design, environmental,* and *social performance* factors to become a safe and successful park in Rhome. This site will require significant improvements to address the deficiencies in the physical conditions and performance of the site (drainage issues and debris), however there is also potential to develop a local pocket park to address the recreational needs of the citizens of Rhome, in particular the residents in Old Town Rhome.

The PROS opportunities for this parcel include including park amenities for both active and passive recreation at a pocket-park scale to address the recreational demands of the local community. The site also presents an opportunity to mitigate flooding upstream of the adjacent residential houses. This area will be further discussed in subsequent sections as a potential PROS area for the City of Rhome.

Name	1st and Elm Street Pocket Park
Category	Vacant Parcel
Ownership	City of Rhome
Size	1.8 acres
NRPA Park Class	Mini-Pocket Park
IUS Rating	Potential Park Area 1
Area in the floodplain	N/A

View of vacant parcel and existing site conditions facing north toward W. 1st Street

PROS INVENTORY & ANALYSIS

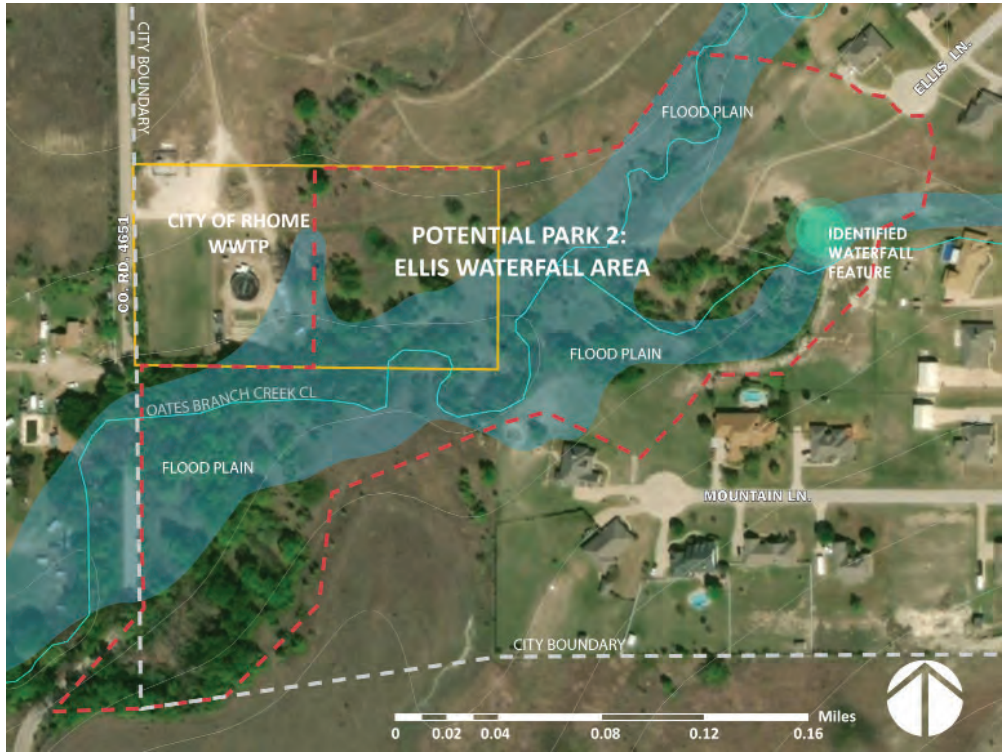
Potential Park 2: Ellis Community Park

Name	Ellis Neighborhood Park
Category	Open Space
Ownership	Northwest Independent School District
Size	10-15 acres
NRPA Park Class	Neighborhood-Community Park
IUS Rating	Potential Park Area 2
Area in the floodplain	7.8 acres

Potential Park 2, Ellis Community Park, is located southwest of downtown Rhome in the satellite community of the Ellis Homestead neighborhood. The PROS area of interest is approximately 10 to 14-acres of undeveloped land. Only 2-acres of land owned by the City are suitable for park use and the remaining acreage is owned by Northwest Independent School District (NISD) and future residential land developers. PP2 can either be categorized as a NRPA neighborhood or community park depending on the final negotiated size of the park. This parcel could accommodate both active and passive recreational amenities on a much larger scale than the main existing community park, RFP.

There is existing park infrastructure on this site, including an incomplete concrete sidewalk path and several concrete pads for picnic benches, however there are no picnic benches present. There are also various paths and trails that meander through the prairie that have been created by local park users that were not previously defined by the park developer. There are remnants of ranch equipment such as cattle troughs and windmills. It was also observed that there is localized illegal dumping of debris in certain areas. The parcel is adjacent to the city-owned wastewater treatment plant (WWTP), which can present issues with the parcel's environmental performance (water quality, unpleasant smells).

It is important to note that the majority of the PROS parcel of interest is in the 100-year FEMA floodplain and is not suitable for conventional residential development. A creek with a constant base flow runs through the property. This site has unique geological features, including an upstream limestone creek bed and a downstream waterfall which are both accessible to park users using the existing park infrastructure on the site. General site concerns include land ownership, the proximity to WWTP, proximity to adjacent homes i.e. privacy issues, access and traffic impacts, future land development and its environmental impacts.



Based on site observations and spatial analysis, this site has the potential to meet the *physical, design, environmental,* and *social performance* factors to become a safe and successful park in Rhome. This site will require some improvements to address the issues aforementioned, however there is a high potential to develop PP2 into a neighborhood or community park to address the recreational needs of citizens in Rhome.

The PROS opportunities for this parcel include a developing a partnership with NISD, showcasing the unique natural features characteristic Rhome's ecoregion, and to incorporate 'natural' active and passive recreational amenities for the community such as hiking trails and picnic areas. This area will be further discussed in subsequent sections as a potential PROS area for the City of Rhome.

View of upstream creek running through Ellis Homestead Community

View of the limestone waterfall feature

View of existing, but incomplete sidwalk path leading to bench pads

View of easement clearings and pedestrian made paths ideal for hike and bike trails

PROS INVENTORY & ANALYSIS

Potential Park 3: Prairie Point Community Park

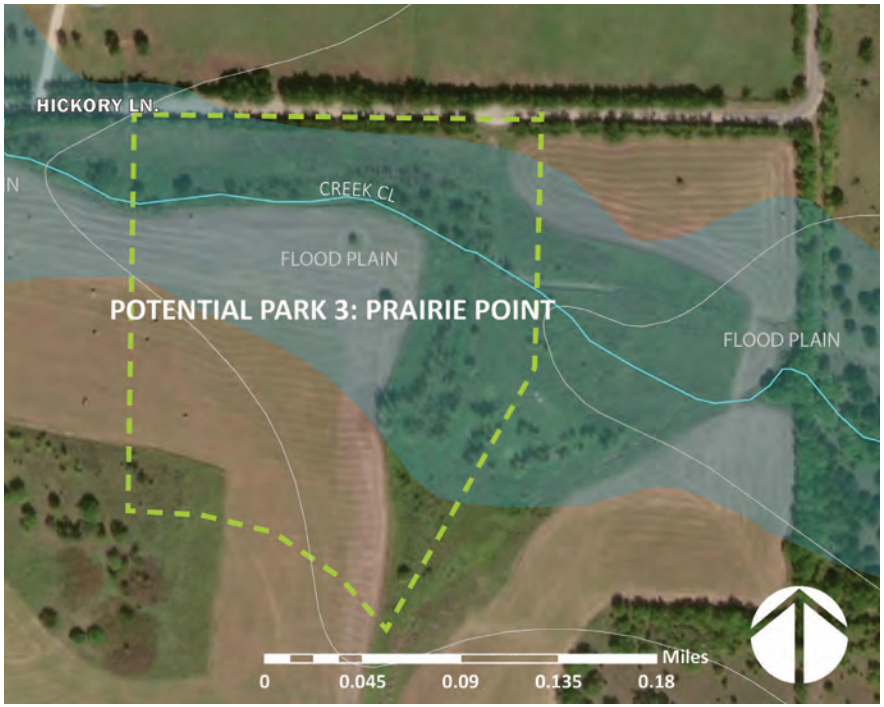
Potential Park 3, or Prairie Point Community Park, is a 10-acre parcel located in a rural area approximately 1-mile northeast of downtown Rhome off of Hickory Lane. This parcel is city-owned and is undeveloped former farm land. This parcel was not accessible for on-site observations by the IUS team, therefore GIS spatial analyses were carried out.

Based on spatial analyses, it was observed that a creek runs through the property and approximately 5.6 acres or 55% of the parcel is located within the 100-year FEMA floodplain. There are upland areas (areas not within the floodplain) that are clear of vegetation, and lowland areas (areas within the floodplain) with unique geographical features and vegetation characteristic of the ecoregion. General site concerns include access and traffic impacts and adjacent future developments.

Based on spatial analyses and off-site observations, this site has the potential to meet the *physical, design, environmental,* and *social performance* factors to become a safe and successful park in Rhome. This site will require site investigations and surveys, as well as substantial land development improvements, however there is a high potential to develop this parcel into a community park to address the recreational needs and desires of citizens of Rhome.

The PROS opportunities for this parcel include developing the upland areas for active park amenities such as sport courts and ball fields, and developing the lowland, floodplain areas for 'natural' active recreational amenities such as hike and bike trails, as well as passive recreation such as picnic areas.

View of open space area for Potential Park 3 at Prairie Point



Name	Prairie Point Community Park
Category	Open Space
Ownership	City of Rhome
Size	10.0 acres
NRPA Park Class	Neighborhood-Community Park
IUS Rating	Potential Park Area 3
Area in the floodplain	6.2 acres

Potential Park 4: Morris and Old Mill Pocket Park

Potential Park 4 (PP4), or Morris and Old Mill Pocket Park, is comprised of (2) city-owned vacant lots in downtown Rhome at the intersection of Old Mill Road and Morris Street. This parcel is 0.35-acres and would be classified as an NRPA mini- or pocket park.

PP4 located in downtown Rhome to the west of the railroad track, which is an access barrier for park users that use the two existing parks in Rhome. PP4 is an 8-minute walk (0.4 miles) from the current location of the Rhome Community Library and the Senior Center, and is approximately a 5-minute walk (0.3-0.5miles) to the Veterans Memorial Park and Rhome Family Park. PP4 has (3) large trees on site that are worth protecting including a native Texas Pecan tree and (2) Mexican Sycamore trees. There is a utility pole on the property close to Morris St and utility maps show that this parcel has access to city utilities. General site concerns include the proximity to the railroad track, parking, and privacy issues.

Based on site observations and spatial analyses, this site has the potential to meet the *physical, design, environmental,* and *social performance* factors to become a safe and successful park in Rhome. This site will require further site investigations and some land improvements, however there is a high potential to develop this parcel into a pocket park to address the recreational needs and desires of citizens of Rhome.

The PROS opportunities for this parcel include incorporating park amenities and activities with an 'urban' aesthetic. Given the property's proximity to the commercial areas on Main Street, it has the potential to become a pocket park that caters to the commercial areas, as well as the neighboring residential areas.

Name	Old Mill & Morris Pocket Park
Category	Vacant Parcel
Ownership	City of Rhome
Size	0.35 acres
NRPA Park Class	Mini-Pocket Park
IUS Rating	Potential Park Area 4
Area in the floodplain	N/A

View of vacant parcel and existing site conditions facing northeast toward Old Mill Rd.

PROS INVENTORY & ANALYSIS

Potential Park 5: By Well Estates Community Park

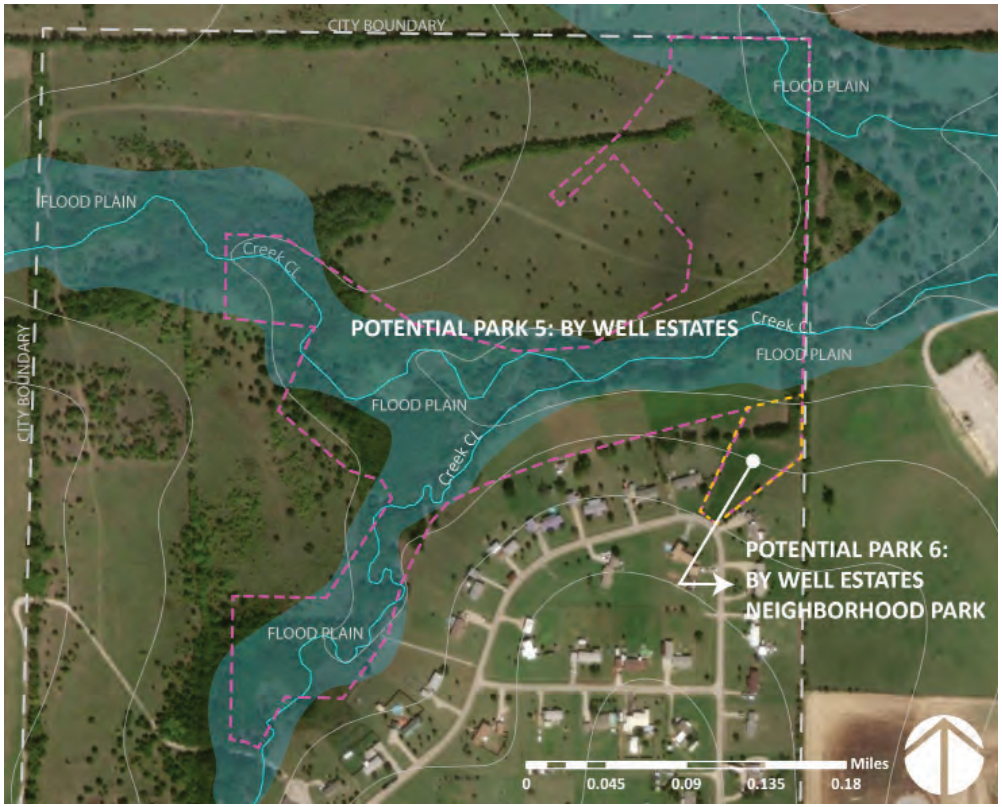
Name	By Well Estates Community Park
Category	Open Space
Ownership	City of Rhome
Size	39.6 acres
NRPA Park Class	Community Park
IUS Rating	Potential Park Area 5
Area in the floodplain	22.9 acres

Potential Park 5 (PP5), or By Well Estates Community Park, is the largest potential PROS area at 39.6-acres. PP5 is located adjacent to the satellite By Well Estates neighborhood southeast of Rhome's downtown. This parcel is city-owned and is undeveloped former ranch land. This parcel was not accessible for on-site observations by the IUS team, therefore GIS spatial analyses were carried out.

Based on spatial analyses, it was observed that 2 creeks run through and converge on the property and approximately 22.9-acres or 60% of the parcel is located within the 100-year FEMA floodplain. There are upland areas (areas not within the floodplain) that are clear of vegetation, and lowland areas (areas within the floodplain) with unique geographical features and vegetation characteristic of the ecoregion. General site concerns include the proximity to adjacent fracking well and adjacent industrial areas such as a concrete facility which can impact environmental quality, as well as vehicular access and circulation to a community-sized park.

Based on site observations and spatial analyses, this site has the potential to meet the *physical, design, environmental,* and *social performance* factors to become a safe and successful park in Rhome. This site will require further site investigations, surveys, and significant land improvements, however there is potential to develop this parcel into a community park to address the recreational needs and desires of citizens of Rhome.

The PROS opportunities for this parcel include providing green corridors, natural experiences, leisure and recreational spaces. This land can also be beneficial for the environment. As the city begins to experience an urban sprawl, this land can retain some of the rural landscape that is characteristic of Rhome within the city limits. Preserving rural landscapes and preventing development in the floodplain can help tackle some of the environmental issues like pollution, environmental degradation, and the destruction of local ecosystems. For this parcel, upland areas could be developed for park amenities such as sand volleyball and pavilions, and the lowland, floodplain areas for recreational amenities such as hike and bike trails.



Potential Park 6: By Well Estates Neighborhood Park

Potential Park 6 (PP6), or the By Well Estates Neighborhood Park, is a city-owned drainage easement located within the By Well Estates neighborhood on Alliance Blvd. This parcel is approximately 1.2-acres and would be classified as an NRPA neighborhood park.

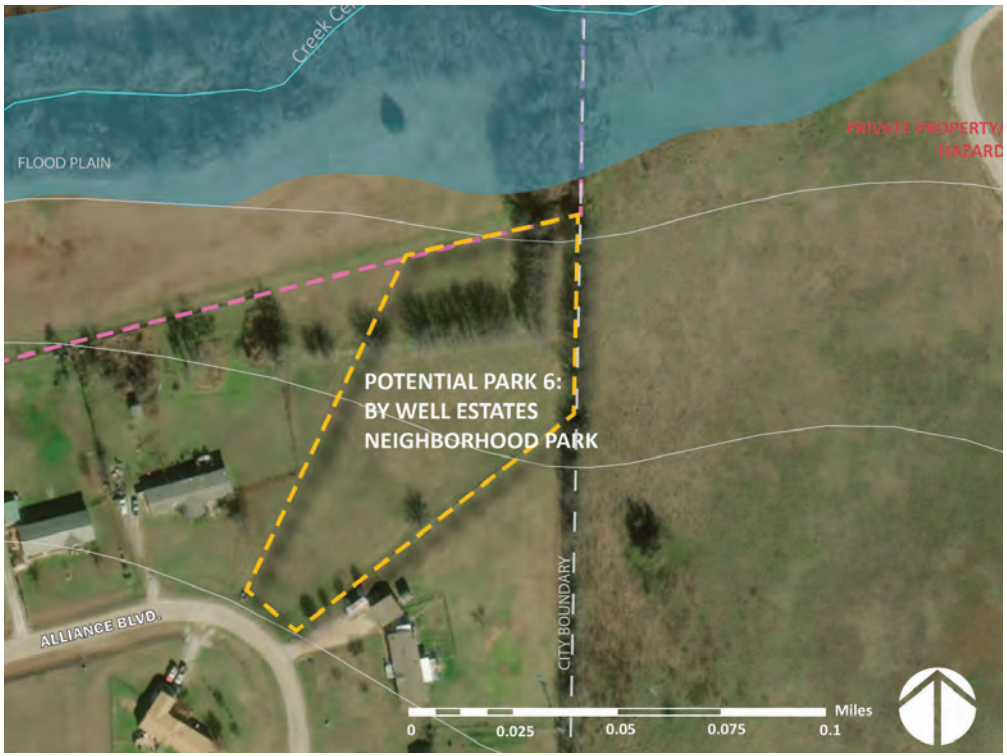
PP6 is a drainage easement for the By Well Estates neighborhood. A series of bar ditches and culverts lead to the lot and carry the water to the creek located on the PP5 parcel. The parcel is relatively flat with a gentle grade. There is existing vegetation toward the back of the site away from the main road. The parcel is also in between two residential properties. General site concerns include the proximity to adjacent homes i.e. privacy issues, access and traffic impacts, and drainage concerns.

Based on site observations and spatial analyses, this site has the potential to meet the *physical, design, environmental,* and *social performance* factors to become a safe and successful park in Rhome. This site will require further site investigations and some land improvements, however there is a high potential to develop this parcel into a neighborhood park to address the recreational needs and desires of citizens of Rhome, and more locally the residents of By Well Estates.

The PROS opportunities for this parcel include developing a neighborhood park with similar amenities to Rhome Family Park to address park equity issues for this satellite community.

Name	By Well Estates Neighborhood Park
Category	Drainage Parcel
Ownership	City of Rhome
Size	1.2 - 2.0 acres
NRPA Park Class	Neighborhood Park
IUS Rating	Potential Park Area 6
Area in the floodplain	N/A

View of vacant drainage easement at the end of Alliance Blvd. in the By Well Estates Community



RHOME PARKS, RECREATION, & OPEN SPACE MASTER PLAN

CREEK RUNNING THROUGH ELLIS COMMUNITY

NEEDS-BASED ASSESSMENT

NEEDS-BASED ASSESSMENT

Introduction

The *Needs-Based Assessment* is used to identify PROS deficiencies and available resources that Rhome can use to improve its current and future PROS network over the 10-year PROS planning period. It involves the integration of data, research, IUS site assessments, spatial analyses, and the public's input to ensure the PROS proposals and the final recommendations for Rhome are feasible and that the community's expressed needs are met. All PROS proposals are measured against known and practiced recreational standards. These standards are then used as a best practice guidelines for Rhome as ***indicators of recreational needs.***

The ***needs-based assessment*** is comprised of (3) separate evaluations and assessments:

- ***Standards-Based Assessment*** – Uses national and regional standards for PROS published by resources such as the *National Recreation and Parks Association* (NRPA) and *The Trust for Public Land* (TPL) as guidelines for determining parks and recreational needs in Rhome.
- ***Resource-Based Assessment*** – Evaluates the available resources within Rhome's capacity including existing PROS facilities, other City owned properties, potential PROS areas, areas with potential for joint-facilities agreements with community partners, or necessary land acquisition.
- ***Demand-Based Assessment*** – Uses citizen input and testimony during the public engagement meetings, steering committee meetings, and community surveys to determine the recreational needs and desires of Rhome.

These assessments will help IUS identify PROS deficiencies and will highlight the best approach to take for achieving Rhome's long-term PROS goals. The actionable steps resulting from the Needs-Based Assessment will follow in subsequent sections of this report.

Standards-Based Assessment

NRPA Park Land Dedication Standards

The standards produced by the *National Recreation and Park Association* (NRPA) include park land dedication guidelines based on population and park categories by size, service distance, and appropriate amenities. The NRPA park land dedication guidelines use a ratio of *1,000 persons per acre* that yields a recommended ***minimum*** and ***maximum*** park land acreage. IUS's goal is to help Rhome meet the ***minimum*** recommended park land acreage in a manner which is feasible within the 10-year planning timeframe.

NRPA National Recreation and Park Association

Because everyone deserves a great park

It is important to note that the NRPA standards are used as guidance for Rhome, as these are not mandated or imposed requirements by the City of Rhome, Wise County, or the State of Texas - rather these standards are an indicator of best practice for parks, recreation, and open spaces based on national averages.

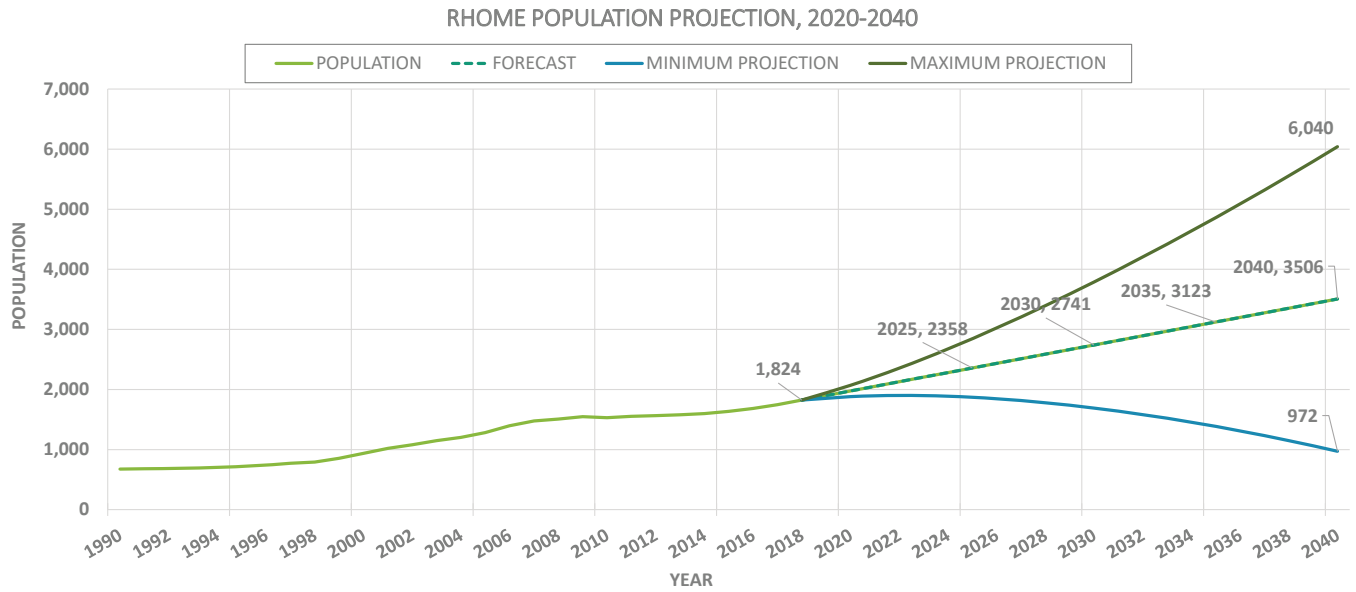


FIGURE 23 - HISTORICAL POPULATION GROWTH AND POPULATION PROJECTIONS FOR RHOME, TX (1990-2040)

Figure 23 shows Rhome's population projections through 2040, including the lower and upper bound projections. The population forecast model used to determine Rhome's park land needs over the 10-year planning period shows Rhome's population nearing 3,000 residents by 2030.

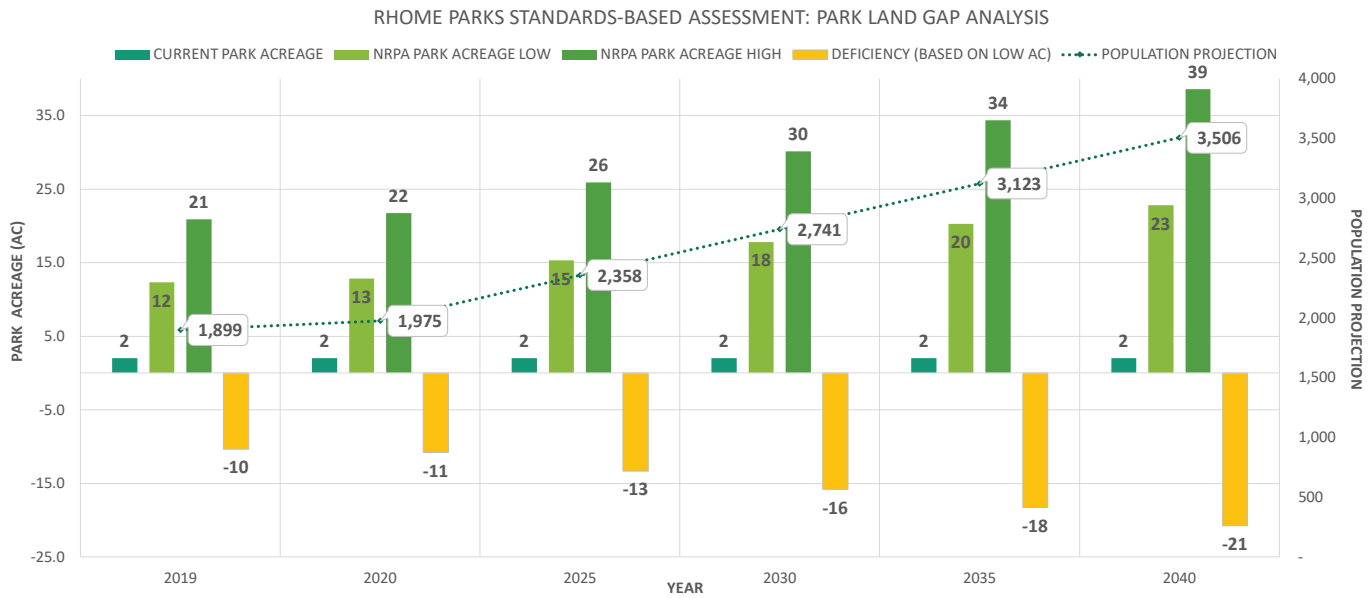


FIGURE 24 - NRPA STANDARDS-BASED ASSESSMENT FOR RHOME'S FUTURE PARK LAND DEDICATION ACREAGE

Figure 24 shows Rhome's current park acreage, the NRPA park land dedication acreage recommendations (minimum and maximum), and the park land acreage deficiency based on the minimum recommended park land acreage. Rhome as of 2019 currently has 2 parks totaling approximately 2-acres for a population of 1,800. Based on Rhome's population growth by 2030, Rhome should meet the minimum NRPA park land dedication acreage of 18-acres in order to accommodate the recreational needs of approximately 3,000 citizens. IUS will use this information to identify suitable PROS resources, including upgrades to existing parks, evaluating potential PROS areas, and land acquisition to meet the recreational needs of these areas.

NEEDS-BASED ASSESSMENT

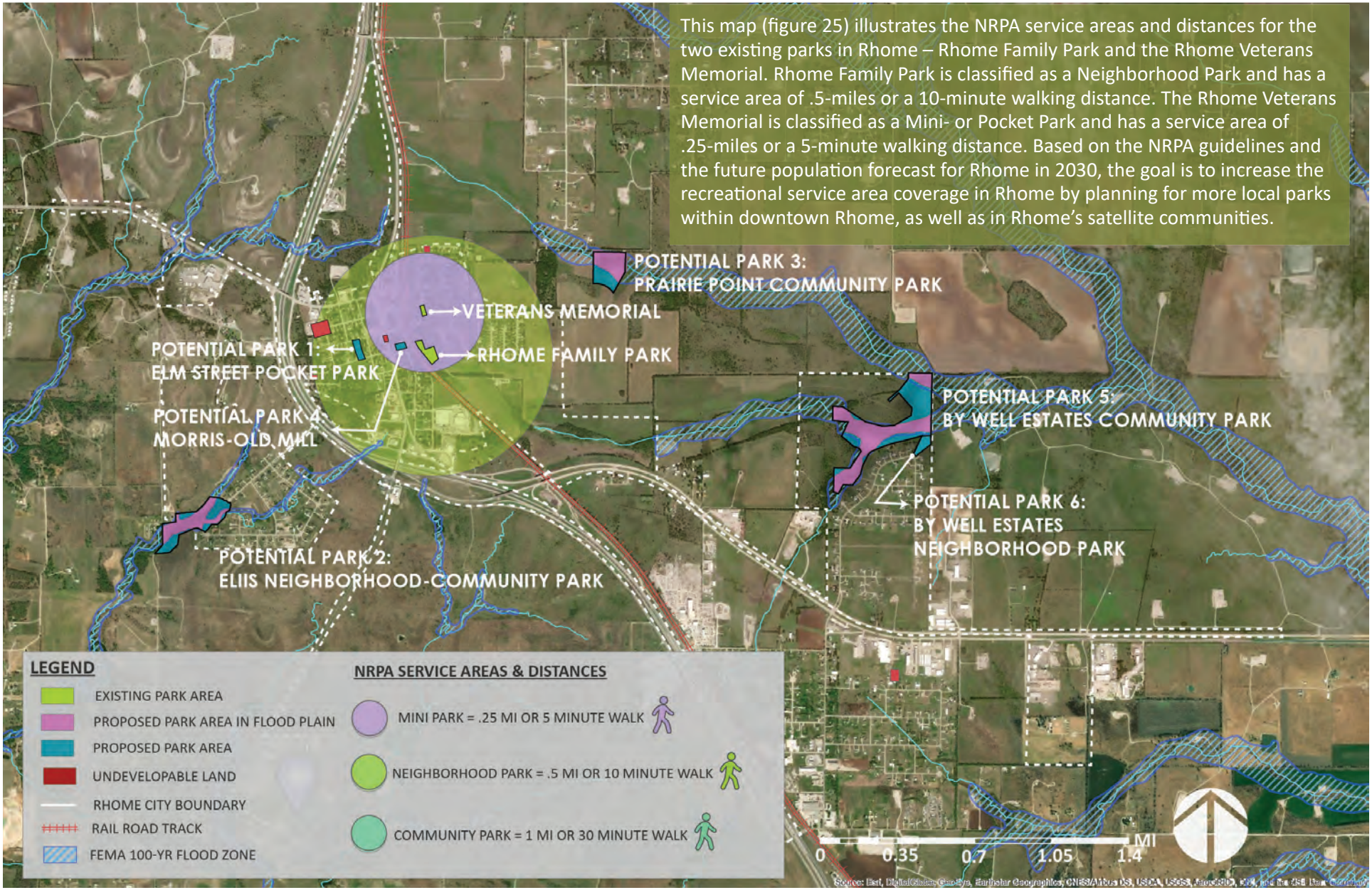


FIGURE 25 - MAP OF NRPA SERVICE AREAS AND DISTANCES FOR RHOME'S EXISTING PARKS

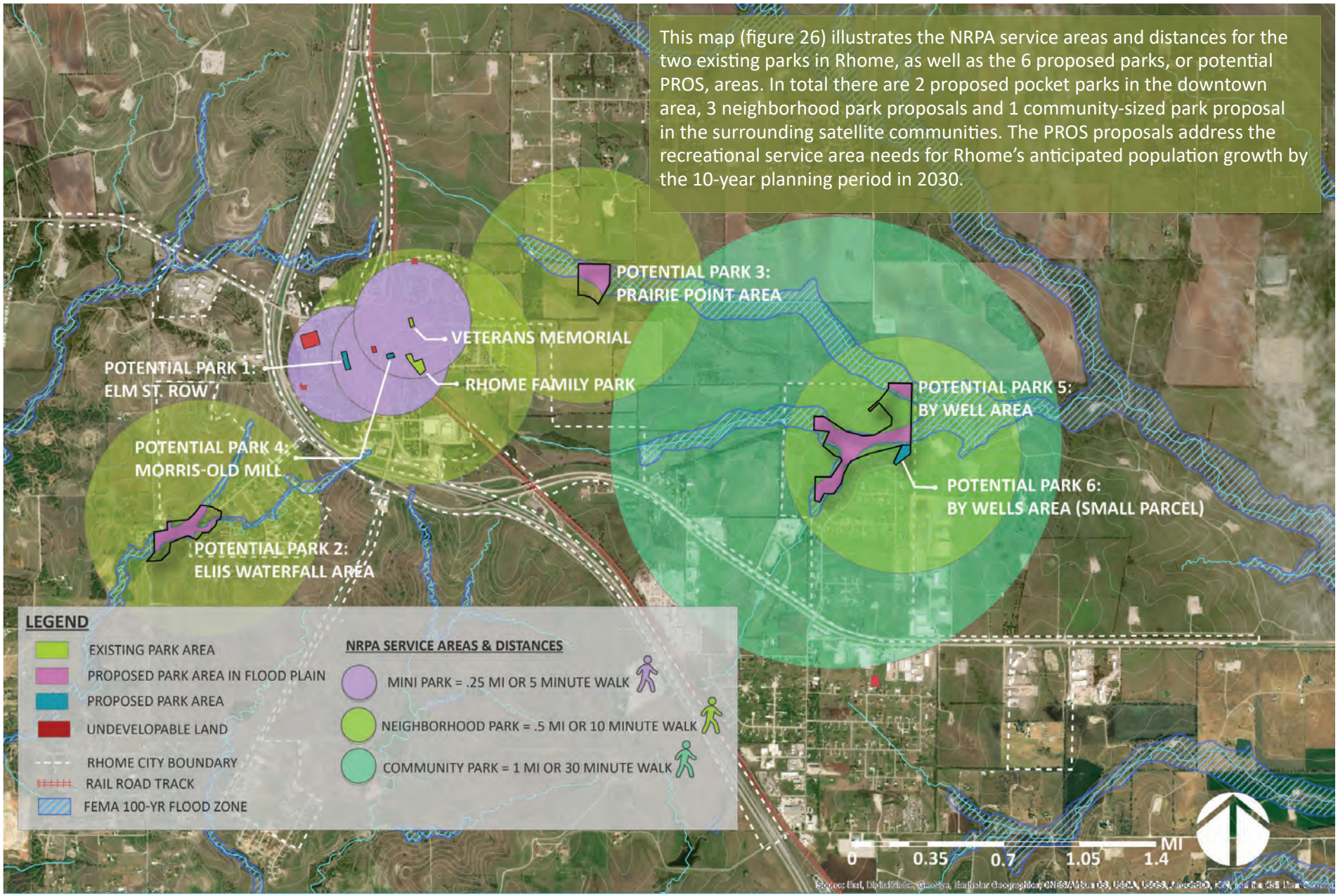


FIGURE 26 - MAP OF NRPA SERVICE AREAS AND DISTANCES FOR RHOME'S EXISTING PARKS AND (6) PROS PROPOSALS

NEEDS-BASED ASSESSMENT

Trust for Public Land Parks & Recreation Standards Assessment

The *Trust for Public Land* (TPL) publishes parks and recreational standards similar to the NRPA which includes recommended park land dedication based on population and identifying areas with recreational needs through the ParkScore® assessment. The TPL ParkScore® assessment shows areas with recreational needs based on a 10-minute walking distance. This is calculated using 2018 U.S. Census Block Group population and demographic estimates and by analyzing the proximity of physical geographical barriers or 'connectivity barriers' that hinder park access such as highways, train tracks, rivers without bridges, etc. The following maps show the TPL ParkScore® identifying recreational needs in Rhome.

Based on the TPL ParkScore®, Rhome has significant park needs to the north, east, and south of the City, as well as in Old Rhome. This is likely due to the 'connectivity barriers' including the highways separating the satellite neighborhoods, and the high-speed county road and the train tracks separating Old Town Rhome. IUS will use TPL ParkScore® in addition to NRPA guidelines, to identify suitable PROS resources, including upgrades to existing parks, evaluating potential PROS areas, and land acquisition to meet the recreational needs of these areas.

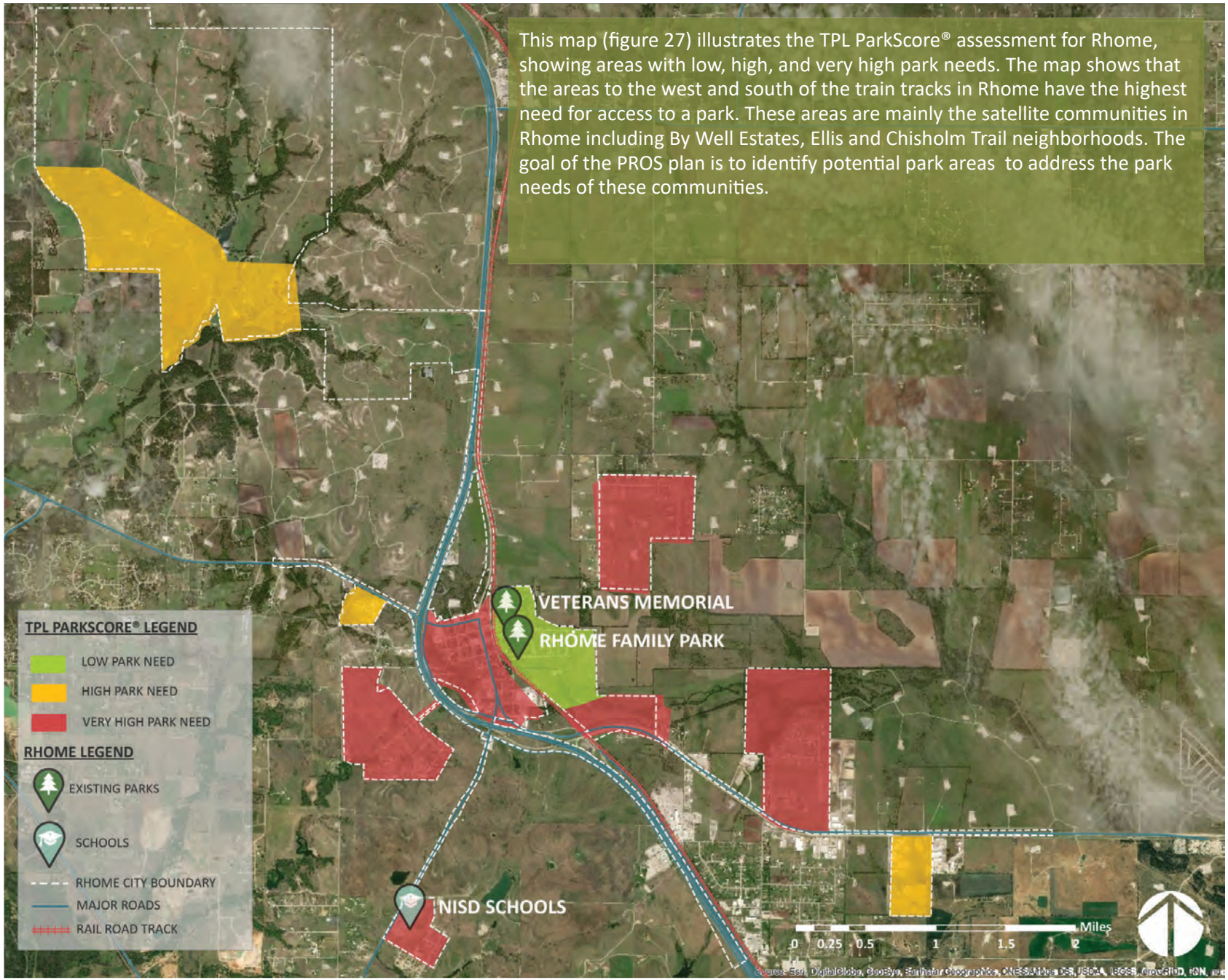


FIGURE 27 - MAP OF TPL PARKSCORE ASSESSMENT SHOWING AREAS IN RHOME WITH PARK NEEDS.

NEEDS-BASED ASSESSMENT

Resource-Based Assessment

The resource-based assessment evaluates Rhome's available PROS resources including existing PROS facilities, other City owned parcels, natural open spaces areas, utility corridors and easements, and possible partnerships and land acquisitions in order to achieve the community's desired PROS network and to meet NRPA park land dedication standards.

The ***Resource-Based Assessment*** is based on:

- ***Spatial Analysis*** – Uses geographical data and jurisdictional boundaries to analyze the geographical characteristics of the land including floodplains, topography, soil type, etc.
- ***Physical Site Assessment*** – Physical site visits were conducted on known and accessible sites to identify specific safety and accessibility issues impacting the viability of a PROS area.
- ***Expert Interviews*** – An expert interview was held with a representative Rhome's engineering group to provide IUS with valuable feedback regarding the viability of potential PROS areas based on the expert's expertise, and familiarity with the community.

Resource-Based Assessment Methodology

The spatial analysis was conducted using ArcGIS to evaluate Rhome's available open spaces. The analysis used information provided by Rhome and other entities to evaluate jurisdictional boundaries, land ownership, land use, drainage areas, and utilities, as well as natural resources information such as floodplain information, topography, geography, etc. Each site was evaluated based on the aforementioned factors, as well as for its size and NRPA park service area, as well as general accessibility and safety.

The constraints of this exercise are that the potential PROS areas remain within Rhome's jurisdiction and that there were no residential or non-recreational existing structures on the sites in accordance with TPWD PROS guidelines. Several sites were selected as potential PROS areas and others were eliminated. However, a physical site inventory analysis and expert opinion was necessary to confirm the viability of the potential PROS areas.

The physical site inventory analysis evaluated several sites for user accessibility and safety, as well the site's overall potential to be a successful PROS area for the community. Accessibility and safety included the evaluation of relative location and proximity to streets, as well as its slope and other possible hazards or obstructions including flooding and utility maintenance.

IUS held one expert interview with City staff within relevant departments to evaluate and to assess the selected sites for the PROS proposals.

There are (3) categories for the final Resource-Based Assessment:

- ***Existing Parks*** – includes Rhome's inventory of 2 parks, totaling approximately 2 acres of park land.
- ***Potential PROS Areas*** – These areas were classified as 'viable' potential PROS areas based on the spatial analysis, physical site visits (if possible to access), and expert feedback; *however, it is important to note that these areas are subject to change and are at the discretion of selection and implementation by the City of Rhome based on further evaluation and engineering studies.*
- ***Undevelopable Areas*** – These potential PROS areas are considered unsuitable for park land development due to inaccessibility, hazards, lack of information, or negative feedback from City officials or the citizens of Rhome.

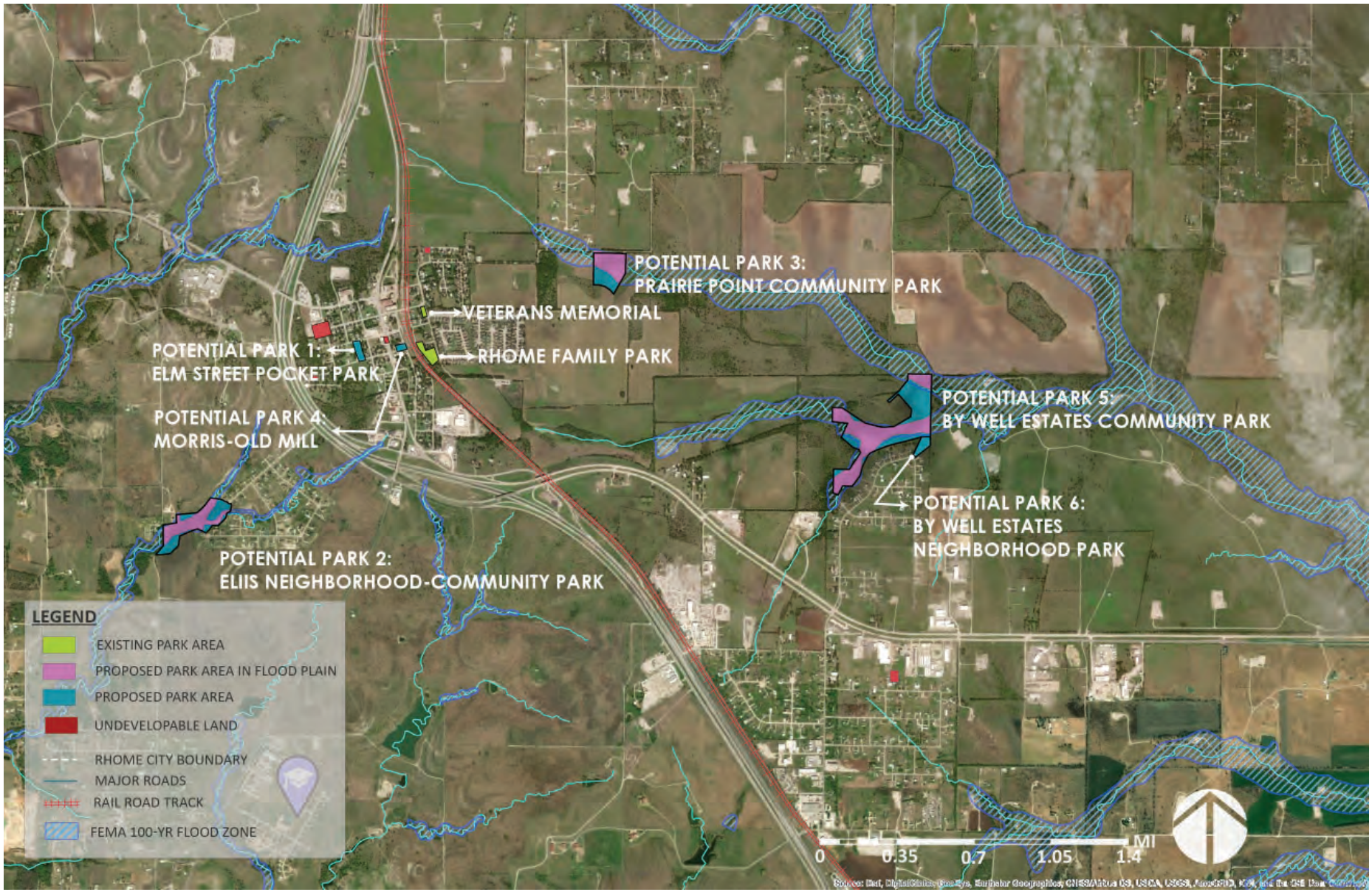
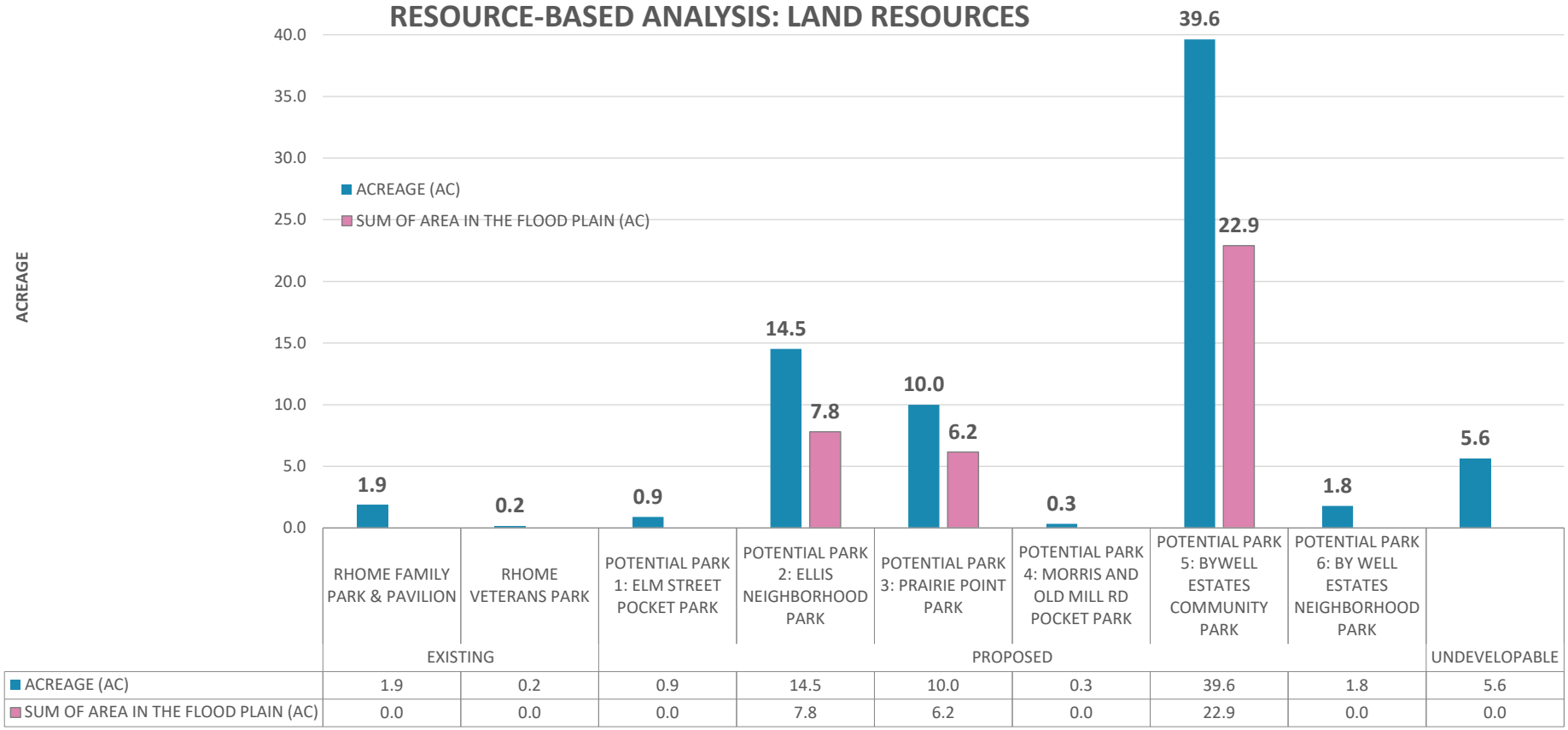


FIGURE 28 - MAP OF RESOURCE-BASED ASSESSMENT SHOWING THE CATEGORIES OF PARCELS, INCLUDING THOSE IMPACTED BY THE 100-YEAR FEMA FLOODPLAIN

NEEDS-BASED ASSESSMENT

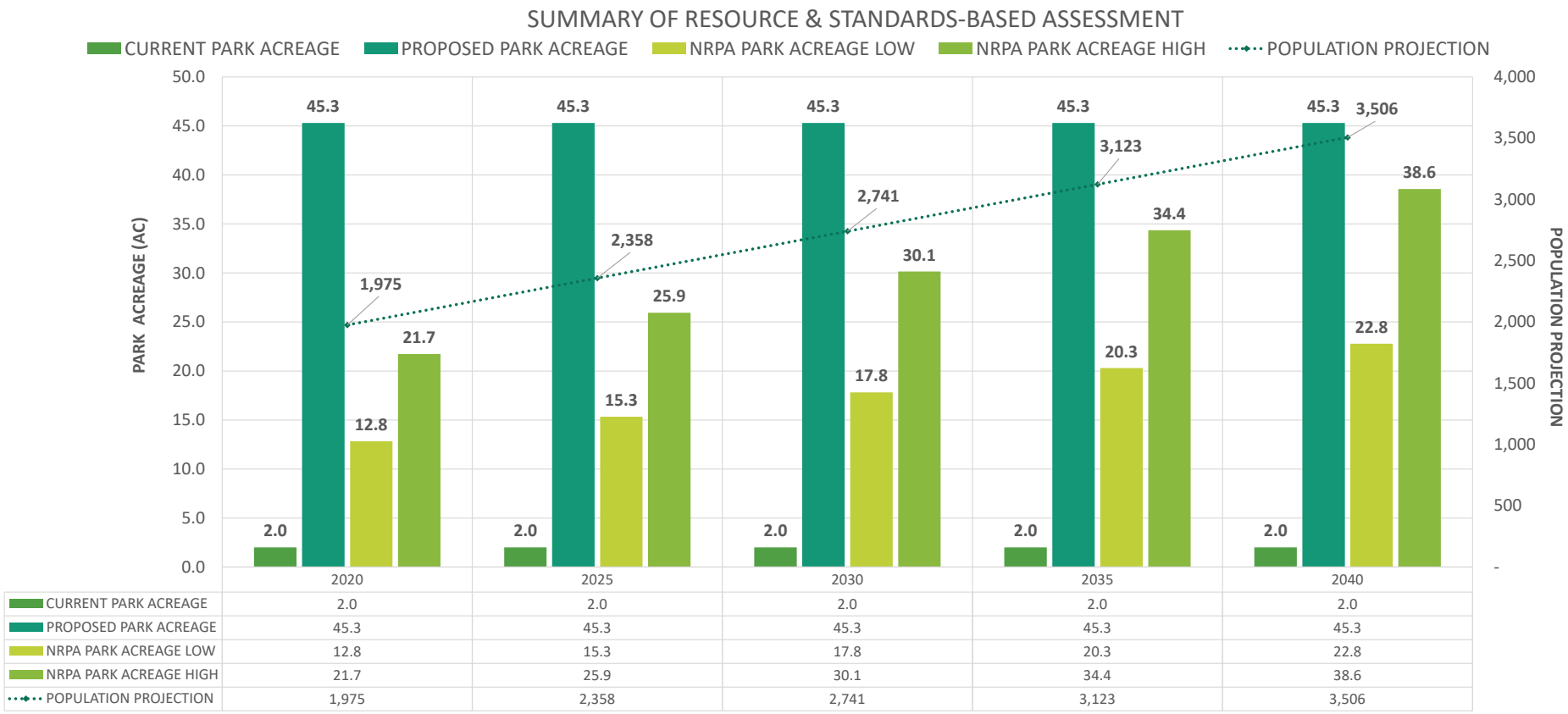


	RHOME FAMILY PARK & PAVILION	RHOME VETERANS PARK	POTENTIAL PARK 1: ELM STREET POCKET PARK	POTENTIAL PARK 2: ELLIS NEIGHBORHOOD PARK	POTENTIAL PARK 3: PRAIRIE POINT PARK	POTENTIAL PARK 4: MORRIS AND OLD MILL RD POCKET PARK	POTENTIAL PARK 5: BYWELL ESTATES COMMUNITY PARK	POTENTIAL PARK 6: BY WELL ESTATES NEIGHBORHOOD PARK	UNDEVELOPABLE
	EXISTING		PROPOSED						
ACREAGE (AC)	1.9	0.2	0.9	14.5	10.0	0.3	39.6	1.8	5.6
SUM OF AREA IN THE FLOOD PLAIN (AC)	0.0	0.0	0.0	7.8	6.2	0.0	22.9	0.0	0.0

FIGURE 29 - SUMMARY OF THE RESOURCE-BASED ASSESSMENT SHOWING TOTAL ACREAGE OF EACH PARCEL AND AREAS IN THE 100-YEAR FEMA FLOODPLAIN

Results of the Resource-Based Assessment

The results of the Resource-Based Assessment shown in figure 29 yielded (6) Potential Pros areas for an additional 67 acres of potential park land. Of the total 67 acres of Potential PROS, approximately 37 acres (or 55%) were within the FEMA 100-year floodplain and roughly 40 acres (or 45%) was in an upland area. Land located in the floodplain or in low-land areas is still suitable for park land development; however, the types of park amenities and facilities built in the floodplain must be evaluated for suitability and safety. Approximately 6 acres of land evaluated were considered undevelopable or unsuitable as park land and did not meet the IUS PROS Assessment criteria.



	2020	2025	2030	2035	2040
CURRENT PARK ACREAGE	2.0	2.0	2.0	2.0	2.0
PROPOSED PARK ACREAGE	45.3	45.3	45.3	45.3	45.3
NRPA PARK ACREAGE LOW	12.8	15.3	17.8	20.3	22.8
NRPA PARK ACREAGE HIGH	21.7	25.9	30.1	34.4	38.6
POPULATION PROJECTION	1,975	2,358	2,741	3,123	3,506

FIGURE 30 - SUMMARY OF THE RESOURCE & STANDARDS-BASED ASSESSMENTS FOR RHOME

Summary of the Resource & Standards-Based Assessment

The results of the resource and standards-based assessment shown in figure 30 demonstrate the current park acreage in Rhome at 2.0 acres, the total proposed and potential park acreage at 45.3 acres, as well as the NRPA minimum and maximum recommended park land dedication based on Rhome's future population growth during the 10-year parks planning period and beyond. This assessment concludes that Rhome has sufficient available potential park land to create a PROS network to support the recreational needs and desires of the community. Although Rhome has sufficient park land acreage, most of the acreage is concentrated in certain areas including the By Well Estates community and Old Town Rhome. The proposed park area in the Ellis Homestead community (potential park 2) could address the recreational needs of the local communities in that area, however a joint-use agreement with the land owner and future land owners or land acquisition would be necessary in order to secure city-owned public property for recreational use. The total proposed and potential park land acreage without the Potential Park 2 acreage (14.5 acres) decreases to 30.8 acres, which still surpasses the minimum NRPA recommended park land dedication acreage for Rhome's 2030 population.

RHOME PARKS, RECREATION, & OPEN SPACE MASTER PLAN

RHOME FAMILY PARK PAVILION

MEETINGS & PUBLIC ENGAGEMENTS

MEETINGS & PUBLIC ENGAGEMENTS

Demand-Based Assessment

The demand-based assessment evaluates the results of the public engagement events. Several interactive activities were held during the first community event including a PROS vision, park facilities and parks programming voting exercise. The results of these activities informed IUS of the types of amenities and features to be considered during the PROS proposal design process.

PROS Visioning *– How do the citizens of Rhome envision the role of parks in their community? Do PROS promote health, fitness, civic engagement, learning, etc.?*

PROS Amenities *– What kind of park amenities do the citizens of Rhome desire most in their parks?*

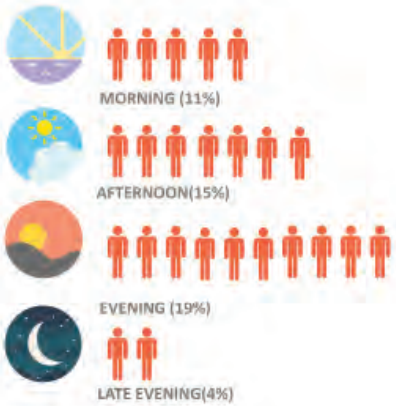
PROS Activities *– What kind of park activities do the citizens of Rhome desire most to do in their parks?*

Public Survey Results

Q1. Which parks do you visit most frequently?

TOTAL RESPONSES 192

Q3. When do you use the parks the most?

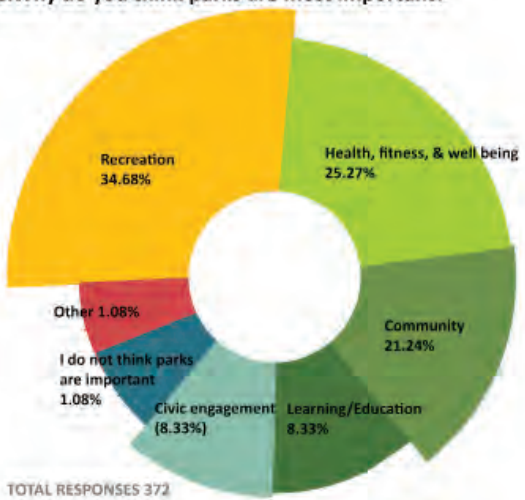


TOTAL RESPONSES 196

Q4. Which family members typically go with you?

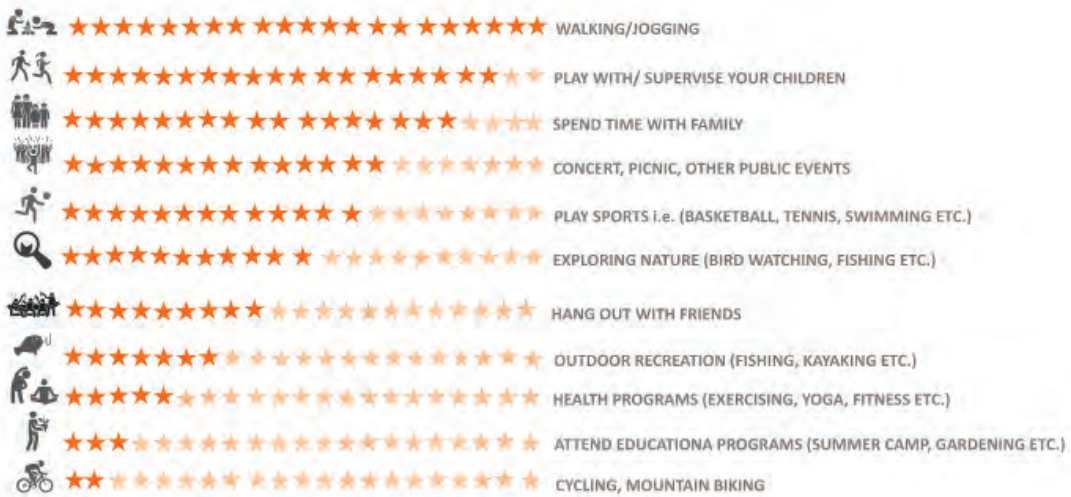
TOTAL RESPONSES 244

Q6.Why do you think parks are most important?



TOTAL RESPONSES 372

Q7. What kind of recreational activities would you like to do in your parks?



TOTAL RESPONSES 796

MEETINGS & PUBLIC ENGAGEMENTS

1st Steering Committee Meeting

The first steering committee meeting took in-person place on February 6, 2020 with the Rhome Parks Committee, City officials, and the IUS project team in attendance.

The purpose of the meeting was to establish the client working relationship, the scope of work, and to understand the desired outcomes of the parks and recreation master plan from the perspective of the committee.

A parks survey was distributed to the committee to identify the *strengths, weaknesses, opportunities,* and *threats* (SWOT) in Rhome as they pertain to parks, recreation, and open space. Table 2 summarizes the SWOT analysis of the recreational needs, desires, and demand of Rhome.

Public Engagement Survey

In-lieu of in-person public meetings due to COVID-19 gathering restrictions, an online public engagement survey about parks and recreation in Rhome was conducted using Qualtrics. The survey was open from April 10, 2020 to May 31, 2020. There was a total of 21 questions in the survey – 16 questions about parks and recreation and 5 demographics questions. There were 206 survey participants yielding 165 complete surveys and 41 partial surveys. The 206 survey responses represented 11.2% of Rhome's total population as of 2018 – a great turn out that provided significant insight into the recreational needs and desires of Rhome.

Among existing parks, Rhome Family Park was the most popular park in the City. Park visitors responded that they frequently used parks on weekends on a weekly basis. Most park users visited the parks with their kids and spouses, indicating that family-oriented park amenities and activities would be in demand. The majority of survey participants thought parks were most important for recreational purposes, which follow health and fitness and well-being, community, and civic engagement. Walking, play with kids, and/or spouse is the most ranked recreational activity, followed by play sports, explore nature including bird watching, concerts, and picnics. Movies in the park are the most wanted community program and Easter egg hunts, BBQ, Fireworks. Shade structures, walking, and jogging trails, adventure playgrounds, splash pads, and spray grounds, restroom, lighting for the evening, trash cans, and dog waste stations are some of the amenities that Rhome park users are looking for enhance their park experience and safety.

Major issues in Rhome parks were listed as lack of park amenities, especially shade structures, less parking space, lack of playgrounds, bike racks, and not enough open spaces. Park visitors are enjoying many varieties of birds (especially hummingbirds) and butterflies considered Rhome parks as their habitats. Currently, majority of Rhome park users drive to the parks, but would like to walk, bike, and use multi modes of transportation, if safe walking parks and bike lanes are available and connecting the Rhome park system.

TABLE 2 - SUMMARY OF STRENGTHS, WEAKNESSES, OPPORTUNITIES, & THREATS (SWOT) ANALYSIS FOR PROS IN RHOME CONDUCTED DURING 1ST STEERING COMMITTEE MEETING

Strengths	· Rhome Family Park accommodates residents of all ages
	· Park is used for seasonal events and entertainment events
	· Appreciation of natural environment in the park as well as in Rhome
	· Rhome Family Park provides a place for the community to gather to spend quality time with family and friends
Weaknesses	· Not enough parks (2 existing parks)
	· No special activities for youth
	· Limited recreation for teens and young adults
	· No sanitary facilities/restrooms
	· No indoor recreational facilities
	· Low interest on educational programs
	· Mosquito issue
Opportunities	· Family members in all age can visit and entertain the park
	· Organize sports events
	· Opportunities for explore nature and increase health and wellness of residence through walking trails, bird watching etc.,
	· To create strong social bonds through gatherings, and events
Threats	· Potential of reduction in visiting
	· Politics
	· Potential of residents traveling to parks in neighborhood cities
	· Retention of Rhome's youth after high school and college due to lack of park amenities

MEETINGS & PUBLIC ENGAGEMENTS

2nd Steering Committee Meeting

The 2nd Rhome Parks Steering Committee was held remotely on June 22, 2020 with the committee members, City officials, and the IUS project team.

The purpose of the meeting was to inform the committee of the progress of the PROS plan to-date, the results of the public engagement survey, and next steps concerning the remote parks focus group sessions that would be conducted in-lieu of an in-person public house.

Some of the meeting highlights included:

- IUS proposed sanitation stations (hand sanitizer/hand-washing stations) at the park as a precautionary measure for COVID-19 and the Committee did not oppose the idea. COVID-19 park measures would be discussed in the focus group sessions.
- The Committee had concerns on prioritization of PROS proposals and suggested prioritization by park amenity, size, need, and location in addition to cost.
- Importance of participation of the younger generation, especially the below 17 years, in the public survey, lack of their participation and strategies to get their participation was discussed. As an example, getting participation of high school students in upcoming events.
- IUS team highlighted lack of interest in biking as a transport mode. It may be due to safety concerns on the roads. IUS proposed bike lanes as the survey results showcased desire to bike to the parks.
- As the survey results highlighted the neediness of restrooms in parks and IUS brought up the idea of placing existing restrooms as a cost-effective method, but the committee had different opinions on placing restrooms in the parks. The reason the restrooms are closed is due to vandalism and theft.
- Chisholm Trail Ranch and Chisholm Trail subdivisions are different.

Focus Group Sessions

Remote focus group sessions were conducted in-lieu of an in-person public house to better understand the needs and desires of each neighborhood in Rhome. *Focus groups* are a research method used to gather feedback and opinions from an audience about a subject. In general, focus groups are used to gauge public opinion and to gather information from specific users about products, services, and features before they are developed, and in this case, in this case, to understand the recreational demands of the citizens of Rhome for their future PROS network.

Methodology

The goal of the focus group sessions was to gather information regarding neighborhood-specific recreational desires and needs, as well as feedback regarding the to-date PROS proposals which were drafted based on the community-wide online public survey. Three remote focus group sessions were conducted. Each focus group session was comprised of at least 5 people from each of the neighborhoods in Rhome including Old Town, Crown Point, Ellis Homestead, the Chisholm neighborhood, and the By Well Estates neighborhood. The (3) focus groups sessions were 1) Ellis and Chisholm Neighborhoods, 2) Crown Point and Old Town Rhome, and 3) By Wells Neighborhood. IUS used 'Mentimeter' to conduct the remote focus groups. Mentimeter is an online platform that allows the audience to interact with the presentation and to provide feedback and comments in real-time. The data produced from the focus group sessions will be used to update the PROS proposals.

All focus group participants were volunteers in a survey-led discussion planned by IUS and the Rhome Parks Committee. The City of Rhome was responsible for community outreach and recruitment for the focus group participants and IUS was responsible for establishing the content of the focus group presentation and leading the discussions. The focus group sessions were guided by a facilitator-presenter from the IUS team. Members of the parks committee or City staff attended the focus group sessions to answer questions from the public.

MEETINGS & PUBLIC ENGAGEMENTS

Focus Group Session 1: Ellis and Chisholm Neighborhoods

The 1st parks focus group session for the Ellis Homestead and Chisholm neighborhoods took place on Tuesday, August 28th, 2020 from 6 to 8p. There was a total of 12 attendees – 9 focus group participants and 4 administrators. In terms of demographics, none of the participants were under the age of 18. The focus group questionnaire was shared for one-week post-focus group session to ensure community members who were unable to join the meeting could voice their opinions and concerns regarding the PROS proposals.

The feedback from the focus group discussion indicated that:

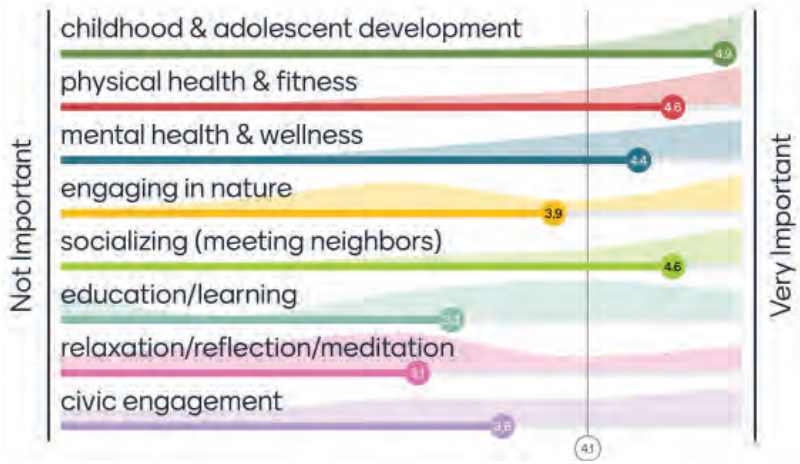
- There was a strong desire for a local neighborhood park in the community that would be safely accessible to residents by foot or by bike
- Recreation for pre-teens and teenagers was a high-need in these neighborhoods. Park amenities for teens like basketball or volleyball and outdoor recreation such as fishing and climbing were desired for this demographic. According to the residents, there are occasional issues with teenagers trespassing the parcel owned by NISD and the land developer for outdoor recreation such as fishing and biking
- There was concern regarding the City's coordination with future land developers, specifically the Rolling V residential development that will abut both neighborhoods. The citizens wanted assurances that there would be park land dedication by the land developer and completion of promised park amenities so that incomplete parks such as those at Ellis Homestead and Chisholm neighborhood would not happen again.
- The citizens were also concerned about access to any future parks – exclusivity of park amenities constructed by Rolling V and other residential developments in town and accessibility issues that might create car traffic in their neighborhoods.
- There was interest in NISD and the City partnering to construct PP2, but concerns about whether a partnership would be a feasible option for building a community park.
- There was concern about the parks planning process and how outcomes would be achieved by the Rhome Parks Committee and the City.

Regarding the to-date proposals, much of the feedback suggested:

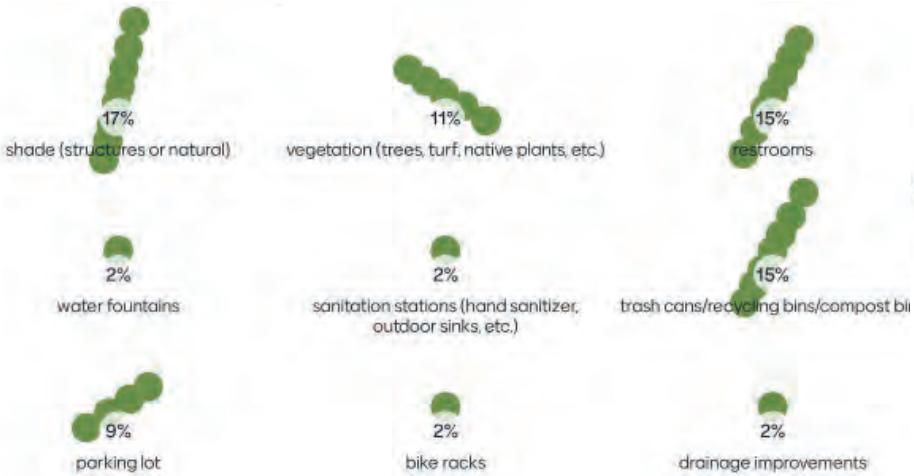
- The citizens preferred 'natural' park aesthetics, amenities and activities as opposed to 'urban' or 'manicured' parks
- The park proposals with multi-use park amenities or a variety of park amenities were the most favorable among the residents
- There was an interest in park amenities for adults and children with disabilities

What do parks and open space provide for you & your neighborhood?

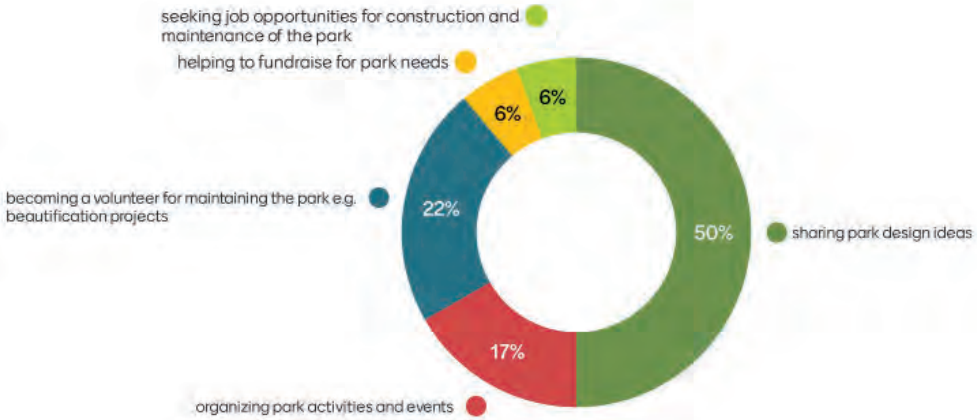
WHY do you think parks are important?



What kind of functional facilities are most needed in Rhome's current & future parks?



How would you like to be involved in Rhome's parks?



MEETINGS & PUBLIC ENGAGEMENTS

Focus Group Session 2: Old Town Rhome & Crown Point Neighborhoods

The 2nd parks focus group session for Old Town Rhome and Crown Point neighborhoods took place on Monday August 3rd, 2020 from 6 to 8p. There was a total of 8 attendees – 3 focus group participants and 5 administrators.

The feedback from the focus group discussion indicated that:

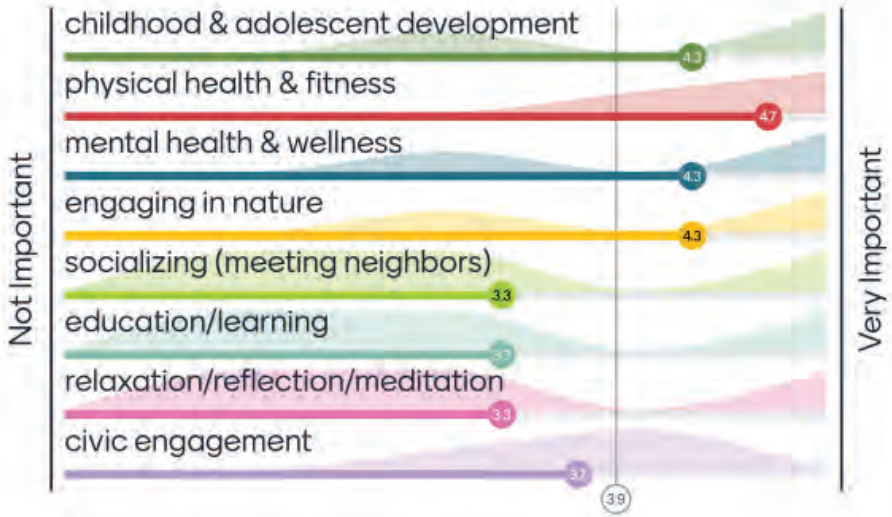
- There was an interest in park amenities for children and adults with disabilities, including persons with visual impairments

Regarding the to-date proposals, much of the feedback suggested:

- There is an interest in aquatic amenities such as pools and splashpads
- Connectivity between park proposals was a priority
- The Rhome Veterans Memorial proposed upgrades will disrupt how the spaces are intended to be used for gatherings

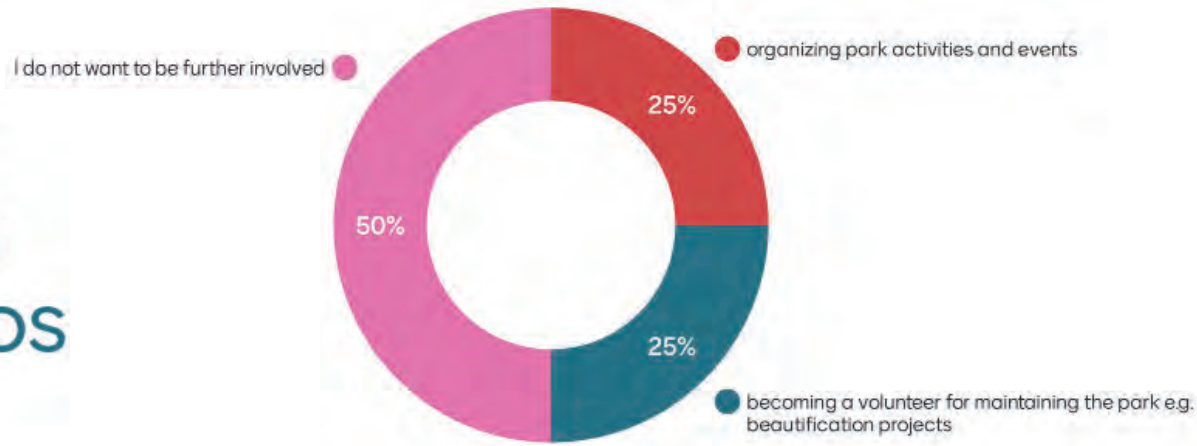
What do parks and open space provide for you & your neighborhood?

WHY do you think parks are important?



What are the major issues impacting your neighborhood?

How would you like to be involved in Rhome's parks?



MEETINGS & PUBLIC ENGAGEMENTS

Focus Group Session 3: By Wells Neighborhood

The 3rd parks focus group session for the By Well Estates neighborhood took place on Monday, August 17, 2020 from 6 to 8p. There was a total of 11 attendees – 7 focus group participants and 4 administrators. In terms of demographics, none of the participants were under the age of 18 and most were in the age cohort of 46 to 65. The focus group questionnaire was shared for one-week post-focus group session to ensure community members who were unable to join the meeting could voice their opinions and concerns regarding the PROS proposals.

The results and discussion of the focus group indicated that:

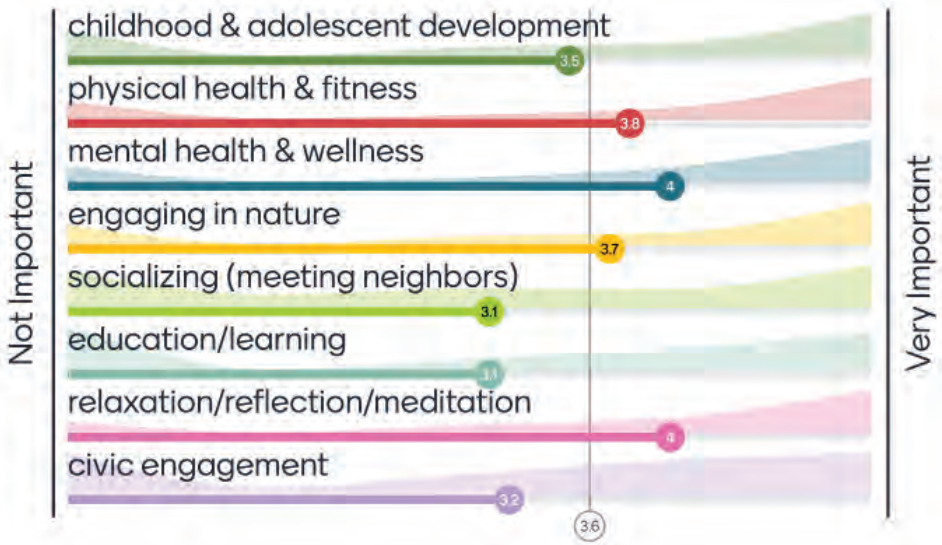
- There was a high interest and enthusiasm for Rhome's future PROS network and participating with the PROS Plan in the future
- Some residents were concerned about access to the proposal for Potential Park 5. This brought up concerns regarding the future phases of development for the By Well Estates neighborhood and how this might impact the PROS proposal for PP5.
- There was a strong emphasis and desire for physical fitness, mental health and wellness, and relaxation in their parks

Regarding the to-date proposals, much of the feedback suggested:

- High interest on this design and would like to see a ribbon of paved track for skateboarding biking, scooters, etc.
- Mentioned drainage issues, mosquito issues, floodplain, and happy with pocket parks, adventure parks, shade structures, sensory garden, healing garden and other small-scale gardens within the park, green belt trail etc.
- Concerned that proposed decorative lighting at the Rhome veteran's Park could be objectionable to neighbors.

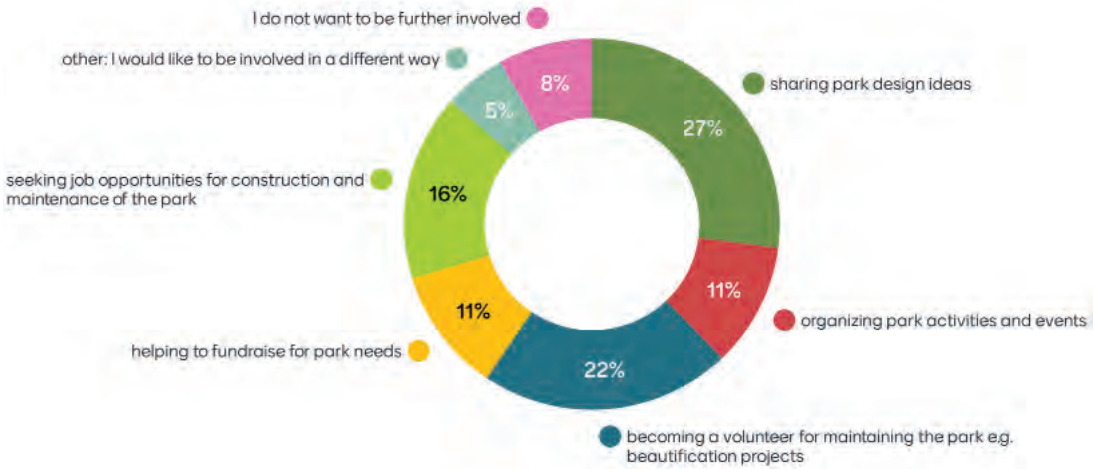
What do parks and open space provide for you & your neighborhood?

WHY do you think parks are important?



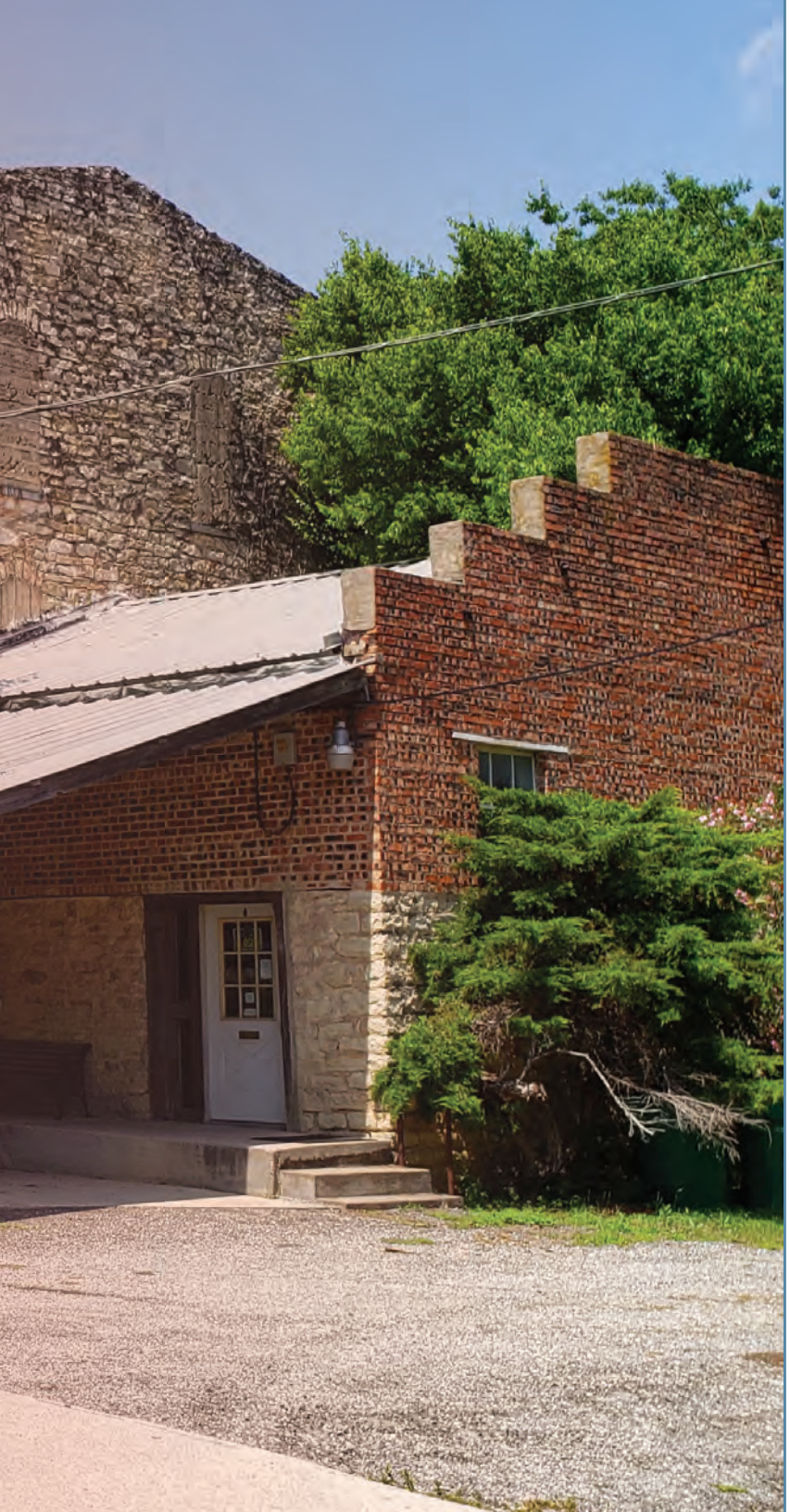
What are the major issues impacting your neighborhood?

How would you like to be involved in Rhome's parks?



RHOME PARKS, RECREATION, & OPEN SPACE MASTER PLAN

THE HISTORIC OLD MILL ON OLD MILL ROAD



COMMUNITY CONNECTIVITY & MOBILITY

COMMUNITY CONNECTIVITY & MOBILITY

Community Connectivity & Mobility Findings

Connectivity is a critical element of the PROS plan because access to local parks and to surrounding points of interest are part of the recreational experience that parks and open space provide.

The results of the focus group sessions showed that the current predominate mode of travel to locals parks was to drive and park (Figure 31). Focus group 2 had the lowest percentage of drive and park likely because both of the existing parks in Rhome are within .5-miles or within a 10-minute walking distance from the focus group's neighborhoods. When the focus groups were asked how they would prefer to travel to their local parks, the majority of all three focus groups desired to either walk, bike, or to do a combination of both (Figure 32). This indicates a strong desire for residents to be have recreational activity not only at their parks, but also while traveling to their local parks. It also indicates a need for more local parks within walking distance, especially for focus groups 1 and 3, and also for safe pedestrian and bicycle routes to these parks, whether existing or proposed future parks. Although drive and park received the least percentage of all the modes of travel, it is still an important mode of transportation to consider to ensure that residents not within walking or biking distance are able to enjoy these parks, too.

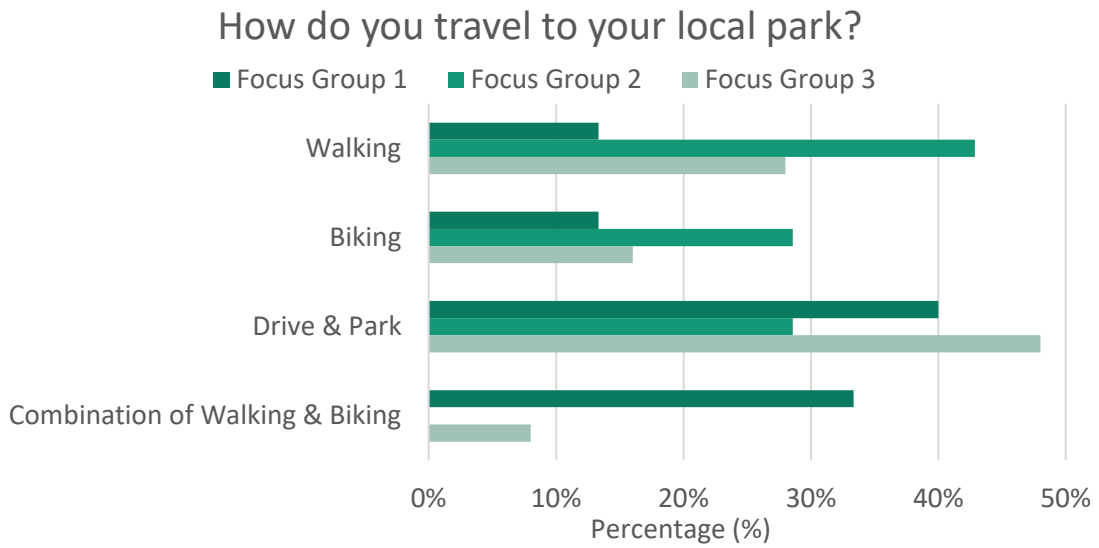


FIGURE 31 - RESULTS FROM THE FOCUS GROUP SESSIONS FOR CURRENT MODE OF COMMUTING TO PARKS; FOCUS GROUP 1: ELLIS & CHISHOLM, FOCUS GROUP 2: OLD TOWN RHOME AND CROWN POINT, FOCUS GROUP 3: BY WELL ESTATES

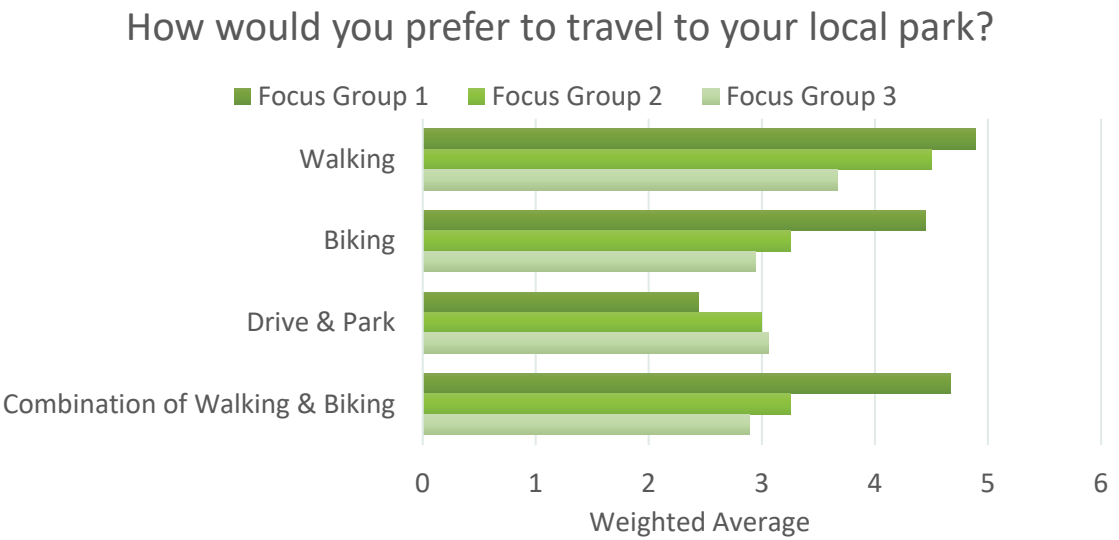


FIGURE 32 - RESULTS FROM THE FOCUS GROUP SESSION FOR COMMUTING PREFERENCE; FOCUS GROUP 1: ELLIS & CHISHOLM, FOCUS GROUP 2: OLD TOWN RHOME AND CROWN POINT, FOCUS GROUP 3: BY WELL ESTATES

Community Connectivity & Mobility Findings

Figures 33 and 34 show the results of the community focus group sessions and the desired distance to travel to local parks by either walking or biking.

The results showed that the maximum distance the majority of respondents were willing to walk to their local park was between .5-miles to 1-mile (Figure 33). The maximum distance the majority of respondents were willing to bike to their local park was less than 2-miles (Figure 34). This information shows the need for local parks, in particular NRPA categories of pocket and neighborhood parks, within the satellite communities in Rhome. Since most respondents were willing to bike farther than to walk to their local parks, this indicates that all parks, especially community-sized parks that service all of Rhome, should have safe biking routes leading to them. Although this information was used to identify specific park-related connectivity desires, this information can also be applied to other points of interest and destinations in town such as community centers, public areas and commercial areas.

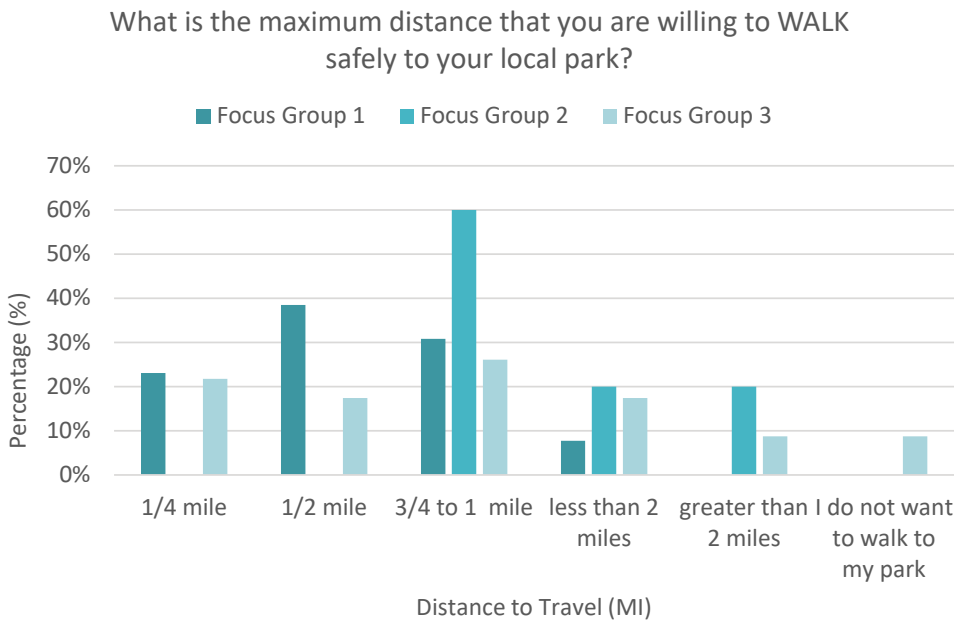


FIGURE 33 - RESULTS FROM THE FOCUS GROUP SESSIONS FOR MAXIMUM WALKING DISTANCE TO LOCAL PARKS; FOCUS GROUP 1: ELLIS & CHISHOLM, FOCUS GROUP 2: OLD TOWN RHOME AND CROWN POINT, FOCUS GROUP 3: BY WELL ESTATES

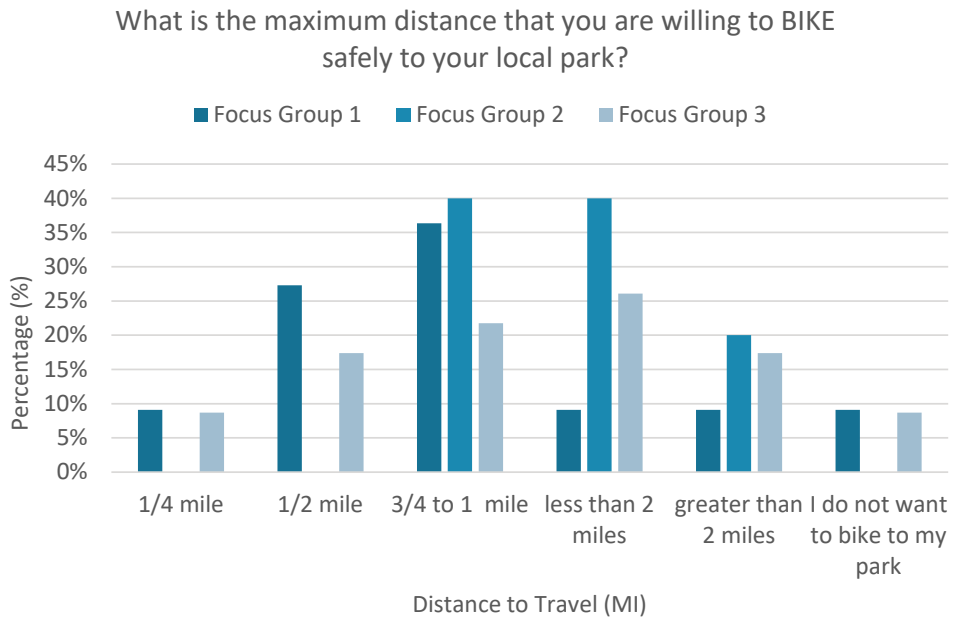


FIGURE 34 - RESULTS FROM THE FOCUS GROUP SESSIONS FOR MAXIMUM BIKING DISTANCE TO LOCAL PARKS; FOCUS GROUP 1: ELLIS & CHISHOLM, FOCUS GROUP 2: OLD TOWN RHOME AND CROWN POINT, FOCUS GROUP 3: BY WELL ESTATES

COMMUNITY CONNECTIVITY & MOBILITY

Community Connectivity & Mobility Findings

Figure 35 shows the results of the 1st engagement public survey which asked residents to mark on the map the top 5 points of interest in Rhome that they frequently visited. The key for the map is shown at the bottom - areas in red are most frequently visited, while areas is blue are the least frequently visited.

The results show that Rhome Family Park, the south side commercial district on Main Street, the Rhome Veterans Memorial, as well as several commercial areas at the intersection of School Rd. and B.C. Rhome are most frequently visited by the residents of Rhome. In addition to these findings, other areas were evaluated during site visits based on feedback from the community engagement survey. Image 1 shows Main Street near 2nd Street showing a lack of safe pedestrian infrastructure in an area that is frequented by residents based on the results of the survey and is the only route to the (2) existing parks in Rhome. Image 2 shows the rail road tracks that are a geographic barrier for residents walking or biking from Old Town Rhome to the (2) existing parks.

Using the results from this map, the neighborhood focus group sessions, and from site visits, IUS was able to develop a connectivity proposal to ensure the needs and desires for pedestrian friendly infrastructure to local parks and points of interest were met.

FIGURE 35 - RESULTS FROM THE PUBLIC ENGAGEMENT SURVEY SHOWING PLACES OF INTEREST IN RHOME

View of Main Street facing northeast toward 2nd Street showing lack of pedestrian infrastructure

View of W. 1st Street store fronts off of Main Street showing potetnial pedestrian destinations

View of rail road tracks on 2nd Street through downtown Rhome that can pose a safety risk to pedestrians and cyclists

View of a proposed safe shared-lane bicycle route through Old Mill Road

COMMUNITY CONNECTIVITY & MOBILITY

Connectivity & Mobility Proposal

Figure 36 shows the proposed connectivity and mobility map for pedestrian and bike friendly routes to the local existing parks in Rhome, the proposed parks, as well as to the highly visited points of interest determined by the survey.

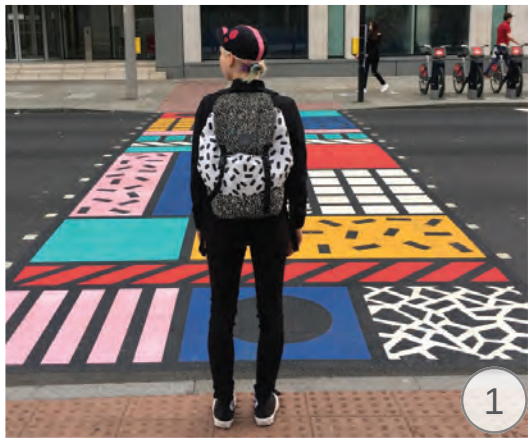
Connectivity Category	# of proposals	Length (linear feet)	Length (miles)
Shared Bike Lane Segments	5	6,789	1.3
Crosswalk Areas	6	553	0.1
Sidewalk	10	7,300	1.4
Sidewalk-Pedestrian Bridge	1	-	0.0
Grand Total	21	14,642	2.8

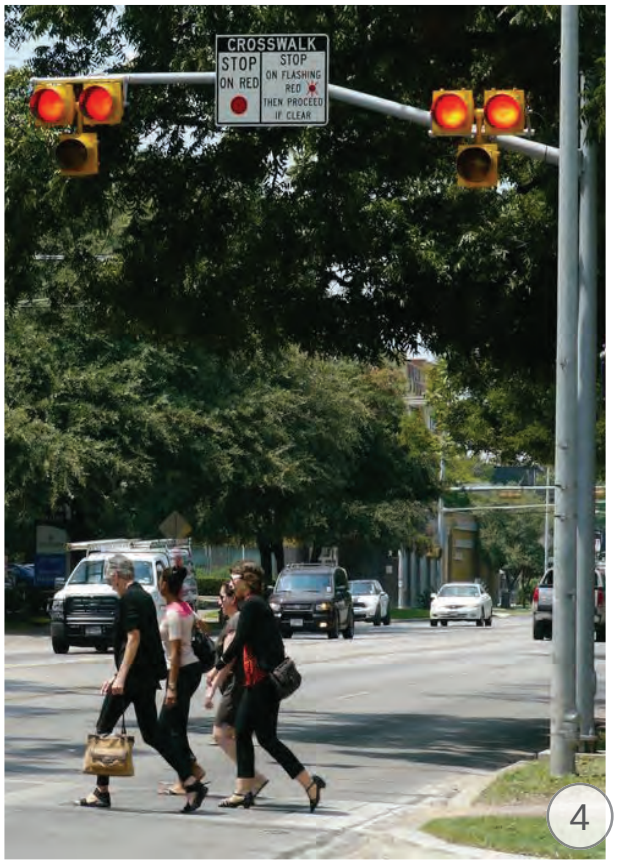
FIGURE 36 - CONNECTIVITY AND MOBILITY PROPOSAL FOR RHOME

Sidewalk & Bike Path Design Recommendations

The following images are to illustrate the sidewalk and bike path infrastructure recommendations to meet the connectivity needs and desires of Rhome.

1. Crosswalks/colorful crosswalks - IUS recommends implementing highly visible crosswalks at critical intersections throughout Rhome, with appropriate ramps and tactile pavement per ADA standards. The recommended locations include points 7, 14, 19, and 20 on figure 36.
2. Shared-Bike Lane - IUS recommends using shared-bike lane symbols (sharrows) throughout all proposed bike routes on figure 36. Sharrows help drivers to be aware of cyclists and help cyclists find bike-friendly routes to their destinations.
3. Cycle Tracks - Cycle track bike lanes are an upgrade to sharrows that give cyclists a safe defined and separate path on roads. Cycle tracks should be used in areas where there is sufficient right of way and when the use of shared lanes is more dangerous to cyclists e.g. due to high speeds.
4. Pedestrian Hybrid Beacon (PHB) - IUS recommends implementing PHB across high speed roads where pedestrians are highly likely to cross due to a point of interest. The recommended location for a PHB is point 8 on figure 36.
5. Pedestrian Rail Crossing Signage and Sidewalk - IUS recommends implementing a sidewalk and highly visible and tactile markings to ensure pedestrians cross the rail road tracks as safely as possible. The recommended location for this feature is point 1on figure 36.





COMMUNITY CONNECTIVITY & MOBILITY

Streetscape Design Proposal

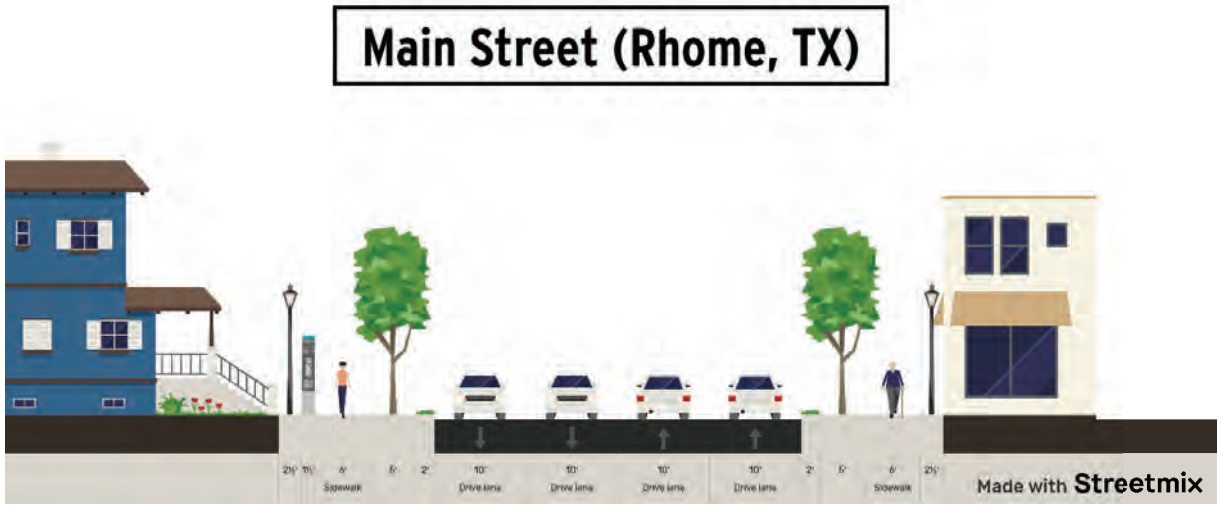


FIGURE 37 - STREETSCAPE DESIGN PROPOSAL FOR MAIN STREET IN DOWNTOWN RHOME

The cross-section shown in figure 37 is the streetscape design proposal for Main Street for pedestrian-friendly infrastructure improvements for residents that choose to walk to their local parks and to points of interest in Rhome.

The recommendations include implementing wide sidewalk infrastructure (6 feet) and a grassy median, shade trees or other forms of shade elements whenever possible along highly visited points of interest, wayfinding maps at important intersections and places to aid pedestrians and cyclists to reach points of interest such as parks, as well as adequate lighting for evening and nighttime use.

The cross-section shown in figure 38 is the streetscape design proposal for Old Mill Road for pedestrian and bike-friendly infrastructure improvements for residents that choose to walk or bike to their local parks and to points of interest in Rhome. Old Mill Road was selected for bike infrastructure improvements because it has a lower speed and less traffic than Main Street and it also connects to the highly visited points of interest.

The recommendations include implementing wide sidewalk infrastructure (5 to 6 feet), a grassy median whenever possible, shade trees or other forms of shade elements whenever possible along highly visited points of interest, wayfinding maps at important intersections and places to aid pedestrians and cyclists to reach points of interest, adequate lighting for evening and nighttime use, and marked shared bike lane symbols (sharrows) to clearly indicate to drivers cyclists share the road.

FIGURE 38 - STREETSCAPE DESIGN PROPOSAL FOR OLD MILL ROAD

Streetscape Design Recommendations

The National Association of City Transportation Officials (NACTO) is an organization that publishes research and guidelines pertaining to transportation and streetscape infrastructure.

1. FRONTAGE ZONE - The frontage zone describes the section of the sidewalk that functions as an extension of the building, whether through entryways and doors or sidewalk cafes and sandwich boards.
2. PEDESTRIAN THROUGH ZONE - The pedestrian through zone is the primary, accessible pathway that runs parallel to the street. The through zone ensures that pedestrians have a safe and adequate place to walk and should be 5–7 feet wide in residential settings and 8–12 feet wide in downtown or commercial areas.
3. STREET FURNITURE/CURB ZONE - The street furniture zone is defined as the section of the sidewalk between the curb and the through zone in which street furniture and amenities, such as lighting, benches, newspaper kiosks, utility poles, tree pits, and bicycle parking are provided. The street furniture zone may also consist of green infrastructure elements, such as rain gardens or flow-through planters.
4. ENHANCEMENT/BUFFER ZONE - The enhancement/buffer zone is the space immediately next to the sidewalk that may consist of a variety of different elements. These include curb extensions, parklets, stormwater management features, parking, bike racks, bike share stations, and curbside bike lanes or cycle tracks.

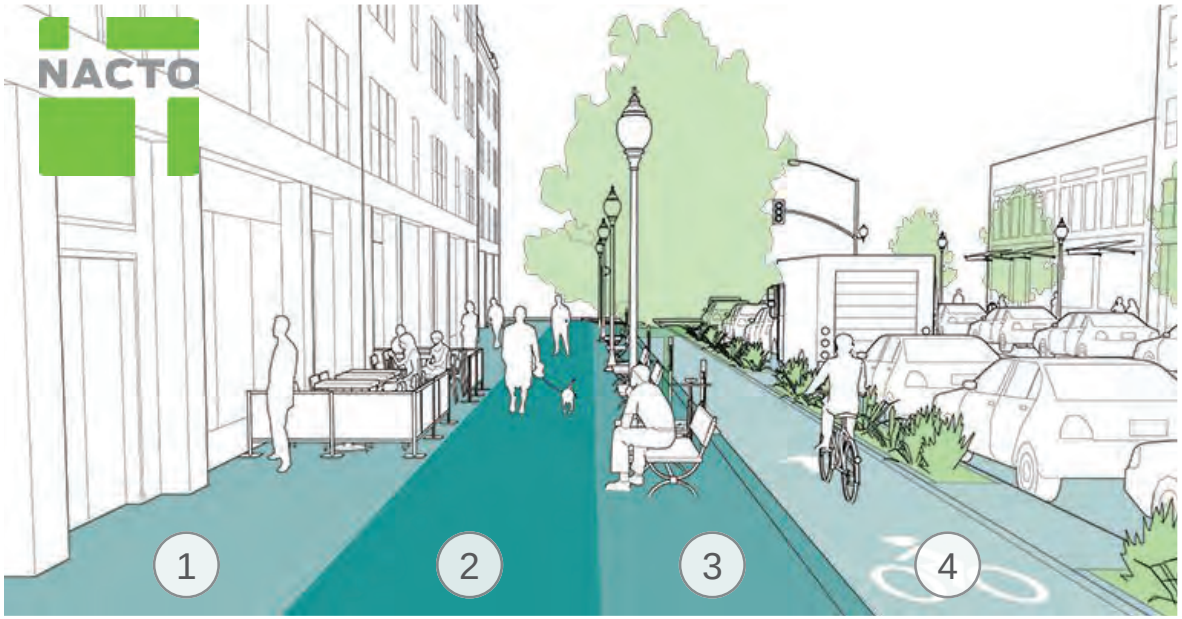


FIGURE 39 - NACTO STREETSCAPE DIAGRAM

View of NACTO streetscape recommendations; Lamar Blvd in Austin, TX, Bishop Arts District in Dallas, TX.

RHOME FAMILY PARK PLAYGROUND

CONCEPT PROS PROPOSALS

CONCEPT PROS PROPOSALS

Garden Types Design Recommendations

The following garden types are recommendations for Rhome's current and future PROS network. Gardens can provide passive recreation for all ages and abilities, as well as a chance to promote community gathering and horticultural education through the care and maintenance of the gardens.

1. Pollinator Garden - A pollinator garden is planted predominately with flowering plants that provide nectar and pollen for a wide range of pollinating insects such as butterflies and bees or fauna such as birds.
2. Sensory Garden - A sensory garden allows visitors to enjoy a wide variety of sensory experiences associated with vegetation including sight, small, sound, taste, and touch.
3. Healing Garden - Healing gardens are designed with restorative qualities in mind to alleviate stress and anxiety from visitors. Healing gardens are similar to sensory gardens, but in addition to the sensory features, they will have a water element such as a small fountain or stream.
4. Wildflower Gardens - Wildflower gardens feature native wildflowers and function as pollinator gardens and as scenic landscapes that reflect the local ecoregion.

PERSPECTIVE RENDERING OF A POLLINATOR GARDEN AT RHOME FAMILY PARK 1

2

3

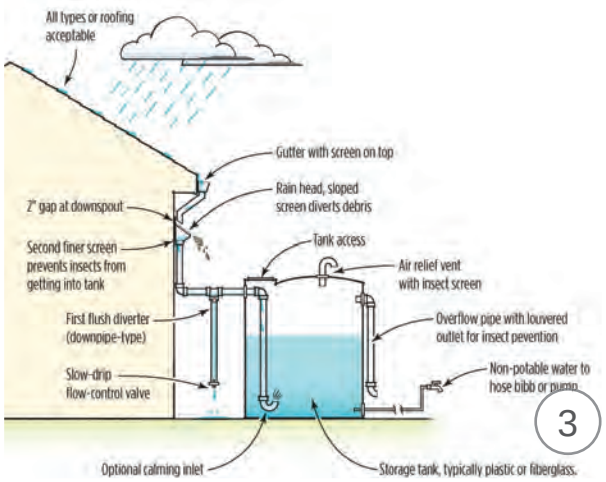
4

Community Garden
Design Recommendations

1. Raised Garden Beds - Raised garden beds are excellent for community garden plots because they prevent soil compaction, weed growth, and pest infestations that would occur in surface level plots. Raised beds also tend to have better drainage than surface level plots. According to the American Society of Landscape Architects and AARP, raised garden beds are also more universally accessible for individuals with disabilities and elderly populations thus making this passive recreational activity available across a wide demographics.
2. Communal Gathering Areas - Having a small to medium-sized gathering area with comfortable seating and shade can provide an excellent opportunity to provide community-based education about community gardening.
3. Storage Space - A small to medium-sized storage space such as a shed is important for community gardens especially when it comes to community-based maintenance of the plots or to allow individuals to borrow tools when maintaining their own plots.
4. Rainwater Harvesting - Rainwater harvesting (RWH) is process of collecting rain water from roofs and diverting it into a cistern for storage. A medium-sized RWH system can be established to reduce dependency on potable drinking water and in the long run can save the community the cost of water connection.


1


2



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4

CONCEPT PROS PROPOSALS

Paths & Trails Design Recommendations

1. Trails - For trails that traverse wooded areas or with minimal topography, decomposed granite, crushed limestone, and other forms of loose aggregate are acceptable. For flood prone areas, paved materials such as concrete and asphalt are recommended due to their ability to withstand damage from flooding.
2. Boardwalk Paths - Boardwalk paths are commonly used in natural open spaces to designate an interesting walking path for users. Boardwalk paths used in open space areas are slightly elevated (less than 4 inches) and are typically used in areas with minimal topography. Boardwalk paths can be made from wood, concrete, composite and recycled materials.
3. Paved Bike Trails - Paved bike trails are some of the best for cycling. Typically concrete paths are the best ADA surface, have a long life cycle, and require minimal maintenance. Although the initial cost of installation is more expensive, the maintenance costs are cheaper than other materials including asphalt and loose gravels.
4. Trailhead Kiosks & Wayfinding Stations - Kiosks and wayfinding stations are great ways to inform park users about the expectations of the trail, as well as to provide emergency assistance to users on the trail (images 4 & 5).
5. Bench Seating - Bench seating along paths and trails is important to not only provide resting breaks for park users, but to also have them enjoy the natural scenery of the park.

EMERGENCY WAYFINDING STATION ALONG THE TRINITY RIVER TRAIL IN FORT WORTH, TX

Playground Types
Design Recommendations

1. Splash Pad/Spray Ground - A splash pad or spray ground is a recreational amenity for water play that has little to no standing water. As the name implies, water is 'sprayed' from the ground or from the playground equipment. Splash pads have special surfaces to prevent slip or running injuries. Splash pads are also a form of more inclusive recreation. More information on splash pads can be found in the appendix.
2. Adventure Playground - An adventure playground, also known as non-descriptive playgrounds, are defined by an ethos of unrestricted play and imagination. Adventure playgrounds can either use the natural landscape or mimic the natural landscape to form the play area. Examples include mounds and hills, slides built into the landscape, and climbing.
3. All-Abilities Playground - An all-abilities playground is an inclusive playground for children of all abilities, including those with disabilities. All-abilities playgrounds feature a wide-range of design elements to facilitate inclusive interaction between children.

PERSPECTIVE RENDERING OF SMALL SPLASH PAD AT RHOME FAMILY PARK

CONCEPT PROS PROPOSALS

Recommended Plant List

The recommended plants listed below are either native Texas plants or plants that are well adapted to the North Texas region. There are different types of native plants recommended for Rhome's landscape especially in Rhome's parks, recreational and open space areas including trees (T), ornamental trees (OT), shrubs (S), perennial plants (P), ornamental grasses (OG), and ground covers (GC). Native plants produce flowers, fruits, and seeds throughout the year and create a beautiful, natural look and attract wildlife such as birds and butterflies to your yard. Native plants are well suited to our climate and soil conditions. Once these plants become established, they require less watering and need no chemical fertilizers, pesticides, or herbicides to thrive. When used in the correct conditions, they also require little maintenance. Compared to exotic plants, natives can better withstand drought and are more resistant to attack by insects and diseases. They can also limit the chances of invasive species overtaking your yard. The plants shown below list their common name, scientific name, as well as their growth habit. The full recommended plant list of native and well-adapted plants suitable for Rhome's area is available in the Appendix I of the report.

MEXICAN SYCAMORE
(PLATANUS MEXICANA) T

DRUMMOND RED MAPLE
(ACER RUBRUM VAR. DRUMMONDII) T

TEXAS MOUNTAIN LAUREL
(DERMATOPHYLLUM SECUNDIFLORUM) OT

CRAPE MYRTLE
LAGERSTROEMIA INDICA
OT

TURKS CAP
(MALVAVISCUS ARBOREUS VAR. DRUMMONDII)
S

TEXAS SAGE
(LEUCOPHYLLUM FRUTESCENS)
S

MEALY BLUE SAGE
(SALVIA FARINACEA)
P

PINK GULF MUHLY
(MUHLENBERGIA CAPILLARIS)
OG

RED BIRD OF PARADISE
(CAESALPINIA GILLIESII)
P

EASTERN PURPLE CONEFLOWER
(ECHINACEA PURPUREA)
P

TEXAS LANTANA
(LANTANA URTICOIDES)
P

SILVER PONY FOOT
(DICHONDRA ARGENTEA)
GC

CONCEPT PROS PROPOSALS

Design Recommendations: Potential Park 1

Potential Park 1 or the The Elm Street Pocket Park is located in the southwest area of Old Town Rhome adjacent to existing residential areas and within walking distance to Rhome's main street area.

The following design recommendations for PP1 are based on the community's input, as well as the professional recommendations of IUS.

1. Shaded Picnic Areas – IUS recommends implementing shaded seating and picnic areas in the pocket park for passive recreation and to encourage gathering and socialization among neighbors. Natural shade is encouraged, therefore small to medium sized trees from the IUS plant list are recommended.
2. Native Pollinator Garden – IUS recommends implementing a pollinator garden in the pocket park to add aesthetic interest and bio-diversity to the park's landscape. These gardens are designed to attract bees, butterflies, moths, flies, beetles, bats, and even hummingbirds, primarily with native and well-adapted flowering plants.
3. Green Stormwater Control Measures (SCM) – Green stormwater control measures, also known as green stormwater infrastructure (GSI), are hydraulic devices used to mitigate flooding, to improve the water quality and infiltration rates of stormwater runoff, and also to provide ecosystem services (e.g. pollinator habitats). IUS recommends implementing green SCMs such as raingardens

CONCEPT PROS PROPOSALS

Potential Park 1: Elm & 1st Street Pocket Park

Site Plan Rendering

Site Plan Legend

1. Shaded Picnic Areas
2. Native Pollinator Garden
3. Green Stormwater Control Device
4. Adventure Playground
5. Area for Teens & Adults
6. Sidewalk & Paths
7. Vegetative Buffer
8. Small Bridge

Design Recommendations: Potential Park 1

in combination with a flood detention device to address the existing flooding issues observed on the parcel. More information on SCMs can be found in the Final Recommendations Section.

4. Adventure Playground – IUS recommends implementing an adventure playground area that can accommodate all ages and abilities. An adventure playground is suitable for the pocket park because it can be designed to match the natural aesthetic of the parcel.
5. Area for Teenagers & Adults – IUS recommends both a passive and active recreational area for teenagers and adult park users. This is ideal for guardians supervising their children at the park and to provide park amenities for teenagers. The passive areas should include shaded benches, with either natural or man-made shade structures, while the active areas should include outdoor fitness equipment for stretching or light-work outs.
6. Sidewalks & Paths –Meandering paths will provide park users an interesting place to walk, safe pedestrian and bike access through the park, and will enhance the overall quality of life of all park users through passive recreation and physical fitness. IUS recommends implementing paths that are at least 5 feet wide based on NACTO sidewalk guidelines to accommodate a pedestrian and wheelchair user comfortably on the path.

CONCEPT PROS PROPOSALS

Design Recommendations: Potential Park 2

Potential Park 2 or the Ellis-NISD Community Park, is located in the Ellis Homestead Community southwest of downtown Rhome. This park has unique natural features such as a creek and karts/limestone waterfall that is characteristic of Rhome's ecoregion. The design recommendations aim to provide NISD and Rhome with joint-use amenities that also protect the surrounding landscape.

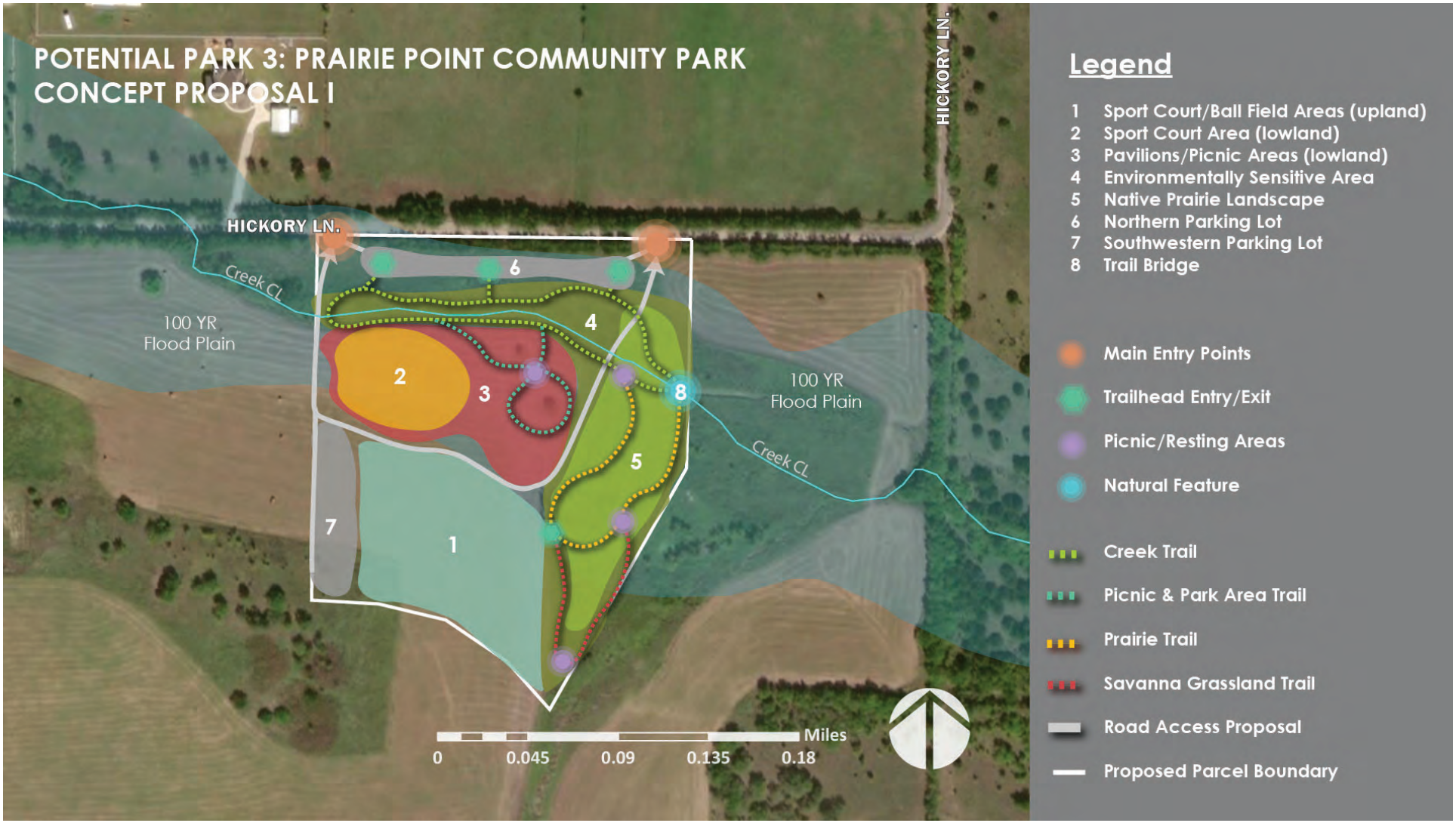
1. Boardwalk Paths – Boardwalk paths are used in natural open spaces to designate walking paths in order to protect the surrounding landscape. IUS recommends implementing paths that are at least 6 to 8 feet wide based on NACTO sidewalk guidelines and ADA standards to accommodate pedestrians and wheelchair users comfortably on the path.
2. Outdoor Classroom/Shaded Pavilion – IUS recommends implementing a medium to large pavilion structure to be used as an outdoor classroom by the local school district in Rhome and as a gathering place after school hours for the community. The structure should provide shade and accessible and comfortable seating areas.
3. Interactive Creek Features- Interactive creek features can be implemented a safe distance upstream of the waterfall to allow local residents and students to experience first-hand the natural beauty of the creek. Interactive creek features can include large stepping stones or periphery concrete pads.
4. Pollinator Gardens & Native Texas Landscaping based on the IUS recommended plant list.

ELMER OLIVER NATURE PARK BOARDWALK PATH - MANSFIELD, TX

OUTDOOR CLASSROOM AT SOUTH KNOLL ELEMENTARY SCHOOL - COLLEGE STATION, TX

PERSPECTIVE RENDERING OF THE INTERACTIVE WATERFALL AREA WITH DECK LEADING FROM BOARDWALK PATH

CONCEPT PROS PROPOSALS



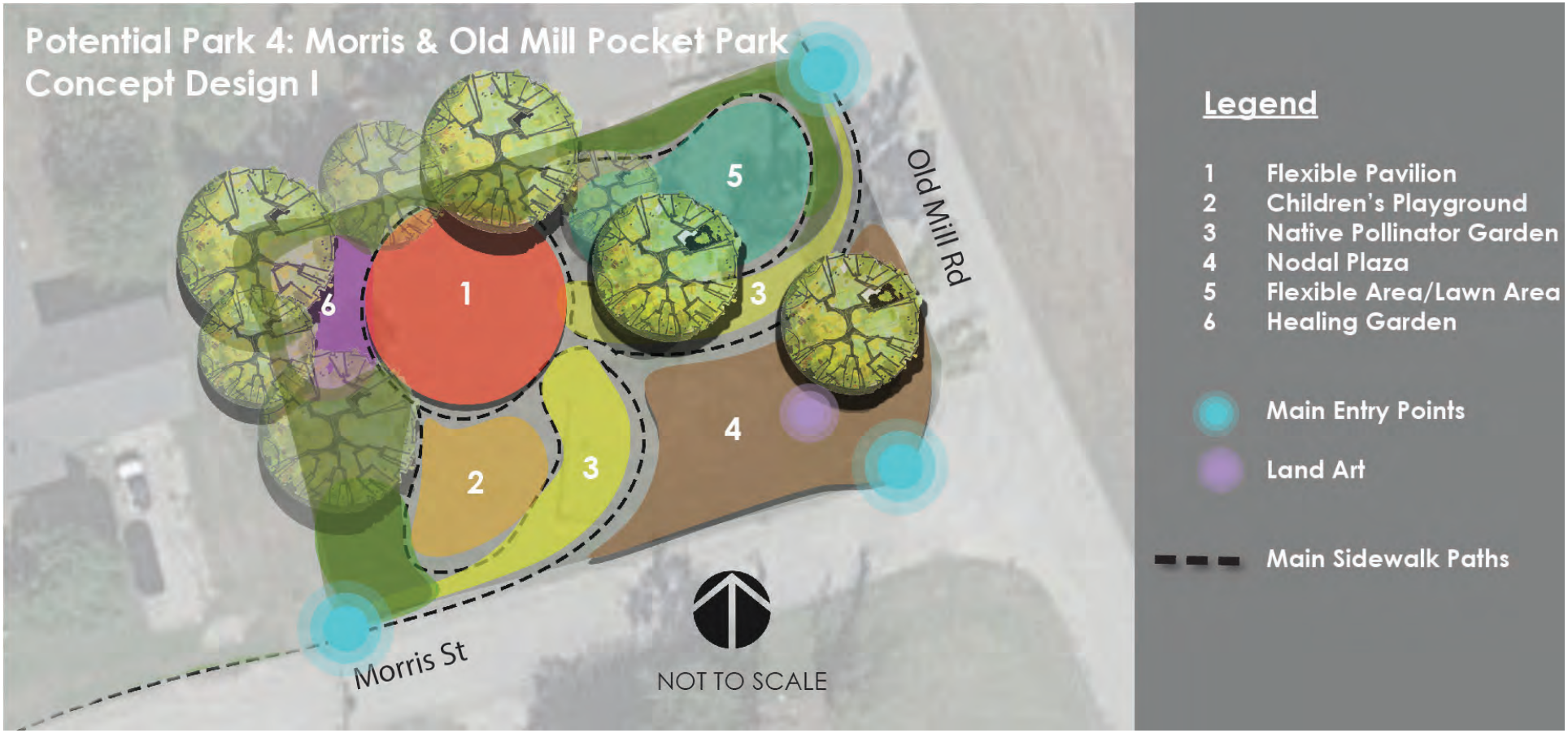
Design Recommendations: Potential Park 3

1. Sport Court/Ball Fields Upland Areas- IUS recommends implementing sport courts such as tennis or basketball courts, or ball fields such as baseball or kickball, in the available upland acreage within the parcel.
2. Active and Passive Recreation in Lowland Areas - IUS recommends implementing both active and passive recreational activities in the lowland areas that are able to withstand flood events in the 100-year FEMA floodplain with minimal damage. Some of these amenities include paths and trails, frisbee golf, isolated bench seating.
3. Shaded Trails and Paths –Meandering paths will provide park users an interesting place to walk, safe pedestrian and bike access through the park, and will enhance the overall quality of life of all park users through passive recreation and physical fitness. IUS recommends implementing paths that are at least 5 feet wide based on NACTO sidewalk guidelines to accommodate a pedestrian and wheelchair user comfortably on the path
4. Pavilion – IUS recommends implementing a medium to large-sized pavilion to accommodate city-wide gatherings and events at this location.

JOPPA PRESERVE HIKE AND BIKE TRAIL - DALLAS, TX

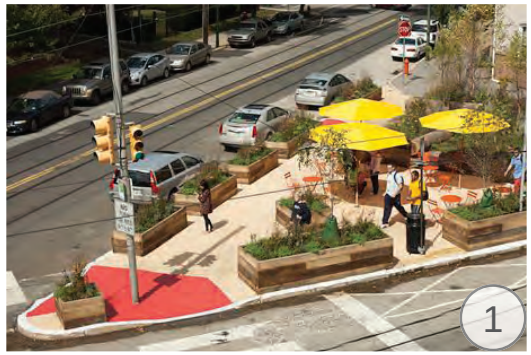
PERSPECTIVE RENDERING OF THE NATURAL AREAS IN POTENTIAL PARK 3.

CONCEPT PROS PROPOSALS



Design Recommendations: Potential Park 4

1. Nodal Plaza – a nodal plaza is a small plaza typically found at the corner of an intersection to help distinguish an area in an urban district. IUS recommends implementing a small nodal plaza to create a defined entry to the pocket park that is characteristic of Rhome and a usable space for park users.
2. Gazebo – IUS recommends a medium sized gazebo or wooden deck with a trellis structure for the pocket park. The gazebo addresses the community's desire for a park with a natural aesthetic, as well as to create gathering spaces. The gazebo can be used for community events, picnics, passive recreation.
3. Flexible Open Space – IUS recommends a flexible open space or lawn area for park users to use for active or passive recreation.
4. Shaded Picnic Areas – IUS recommends implementing shaded seating and picnic areas in the pocket park for passive recreation to encourage gathering and socialization among neighbors. Natural shade using small to medium sized trees from the IUS plant list are recommended.
5. Children's Playground – IUS recommends implementing a small children's playground in the park.
6. Healing Garden – IUS recommends incorporating a healing garden to promote the community's desired PROS goal of mental health and wellness. The design proposal features a small water fountain as the central focal point of the garden.
7. Native Pollinator Garden – IUS recommends establishing a native pollinator garden in the pocket park to add

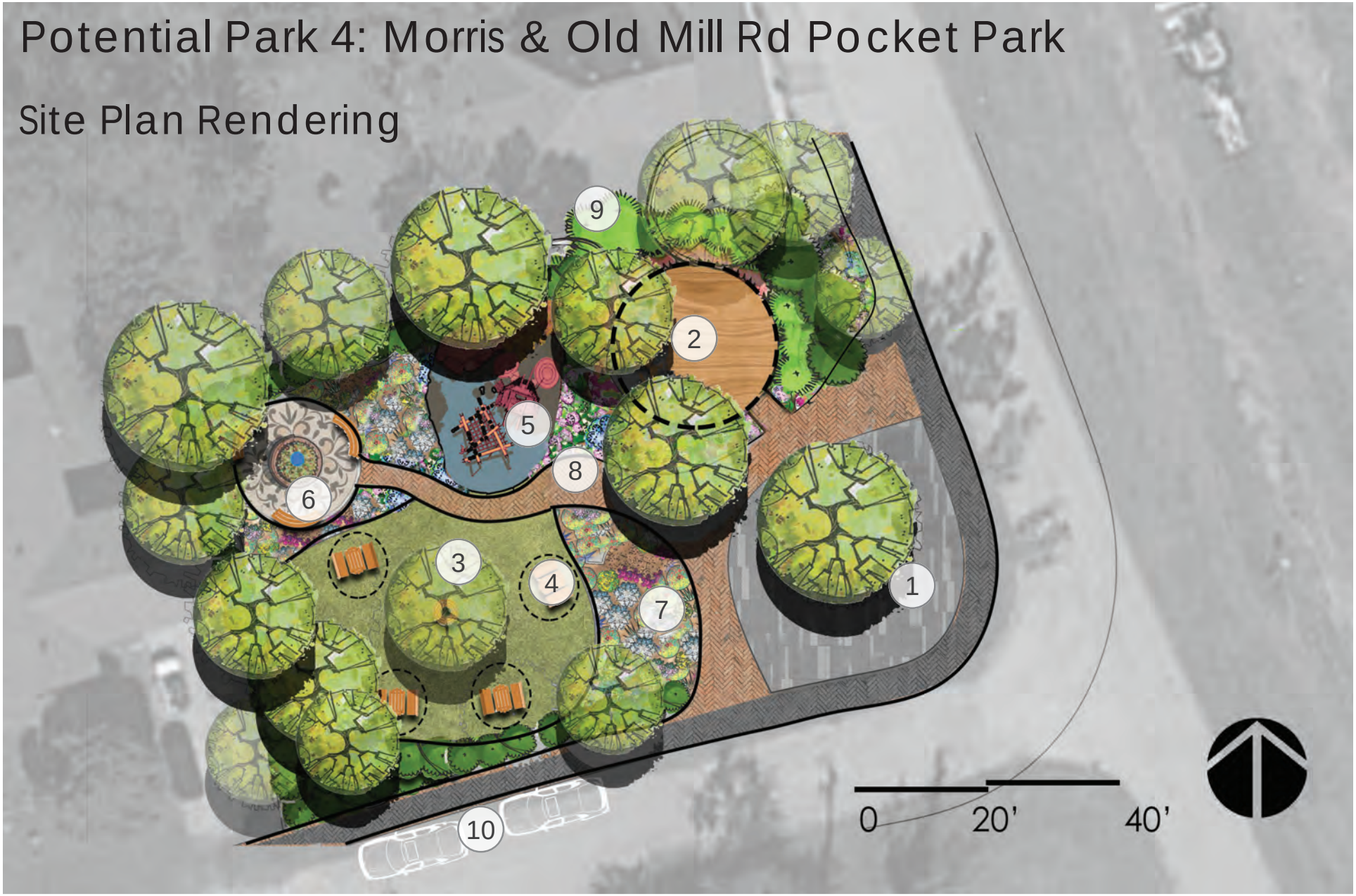


KLYDE WARREN PARK SHADED SEATING AREAS - DALLAS, TX

CONCEPT PROS PROPOSALS

Potential Park 4: Morris & Old Mill Rd Pocket Park

Site Plan Rendering



Legend

1. Nodal Plaza
2. Gazebo
3. Flexible Open Space
4. Shaded Picnic Areas
5. Children's Playground
6. Healing Garden
7. Native Pollinator garden
8. Meandering Paths
9. Vegetative Buffer
10. On-Street Parking

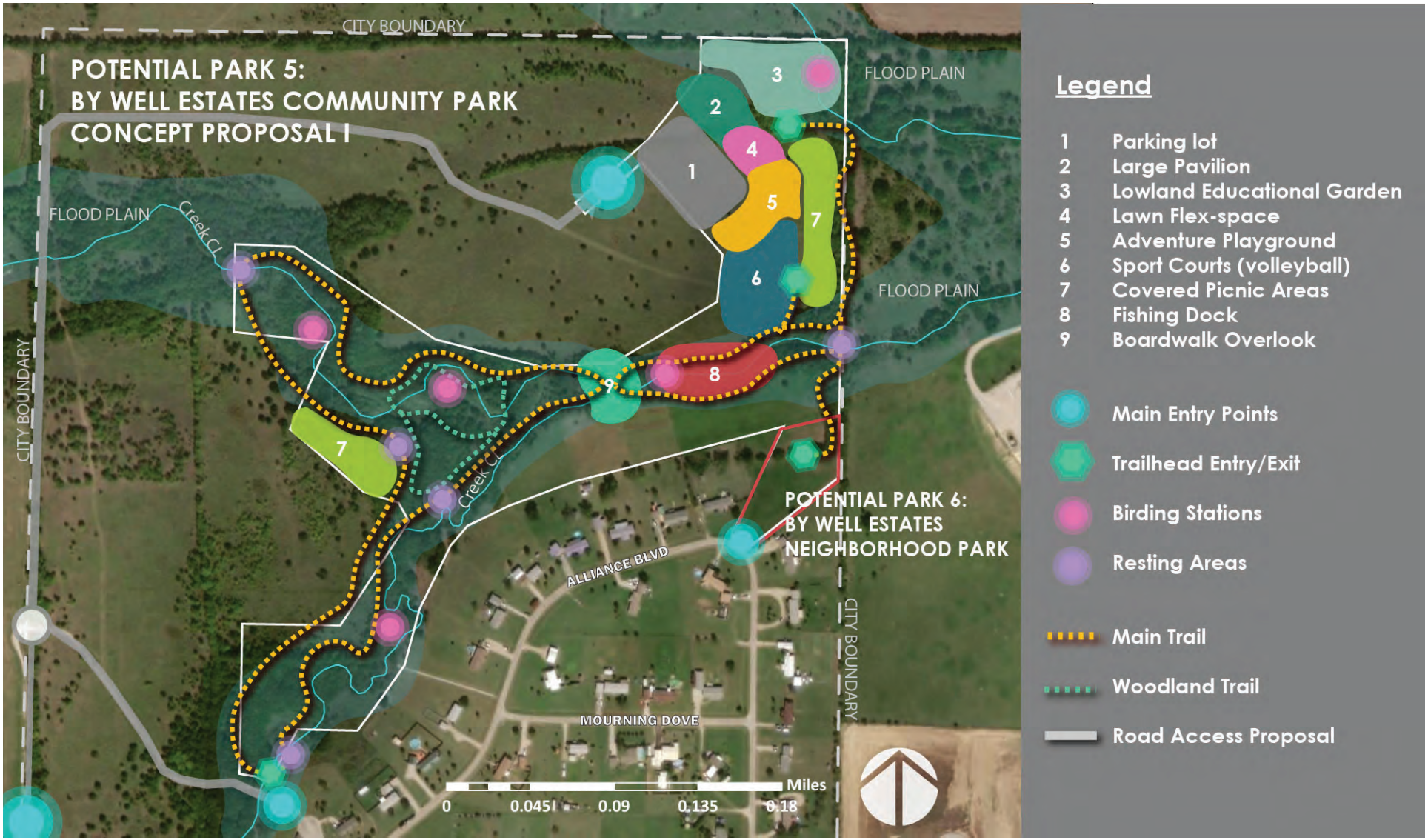
Design Recommendations: Potential Park 4

aesthetic interest and bio-diversity to park's landscape.

8. Meandering Paths - Meandering paths will provide park users an interesting place to walk and will enhance the overall quality of life of all park users through passive recreation and physical fitness. IUS recommends implementing sidewalk paths at least 5 to 6 feet wide to accommodate a pedestrian and wheelchair user comfortably on the path, based on NACTO sidewalk guidelines. Walking and biking trail will aid in physical activity for elderly and teenage populations.
9. Vegetative Buffer - A vegetative buffer between the park and the residential areas will create privacy and filter noise from the park.
10. On-Street Parking – IUS recommends on street parallel parking adjacent to the park with at least (2) handicap parking spaces.

PERSPECTIVE RENDERING OF THE GAZEBO AND PLAYGROUND AREAS FOR POTENTIAL PARK 4.

CONCEPT PROS PROPOSALS



Design Recommendations: Potential Park 5

1. Shaded Picnic Areas – IUS recommends implementing shaded seating and picnic areas in the pocket park for passive recreation to encourage gathering and socialization among neighbors. Natural shade using small to medium sized trees from the IUS plant list are recommended.
2. Natural Trails – IUS recommends implementing natural trails and paths throughout the park. The recommended trails including using natural materials such as decomposed granite and that are at least 5 feet wide based on NACTO sidewalk guidelines to accommodate multiple persons walking side-by-side comfortably.
3. Children's Adventure Playground – IUS recommends implementing an adventure playground amenity to complement the natural features of the park.
4. Upland Sport Courts - IUS recommends implementing suitable upland sport courts in this park such as sand volley ball courts.
5. Boardwalk Overlook Feature - The boardwalk overlook feature is a suggested focal point amenity to highlight the natural features of this park.
6. Fishing Pond - IUS recommends a fishing pond and dock in this park given the convergence of streams on the site.

OAK CLIFF PRESERVE, DALLAS - TX

ELMER OLIVER NATURE PARK CREEK OVERLOOK - MANSFIELD, TX

ELMER OLIVER NATURE PARK TPWD FISHING POND AREAS - MANSFIELD, TX

CONCEPT PROS PROPOSALS

Design Recommendations: Potential Park 6

1. Open Space Picnic Areas – IUS recommends implementing shaded seating and picnic areas at each end of the pocket park for passive recreation and to encourage gathering and socialization among neighbors. Natural shade is encouraged, therefore small to medium sized trees from the IUS plant list are recommended.
2. Community Garden - A community garden is a single parcel of land used by a group of people to garden. Garden plots are provided to individuals, typically as raised garden beds, to grow fruits and vegetables. Community gardens are a form of passive recreation that can accommodate many ages and abilities, aids in community gathering, as well as agricultural and horticultural education. IUS recommends implementing a community garden in the PROS proposal.
3. Outdoor Fitness Equipment - Outdoor fitness equipment is excellent recreation for adolescents and adults to promote physical activity. Outdoor fitness equipment can vary from light exercise such as stretching, to intensive exercise such as full-body workouts. IUS recommends implementing outdoor fitness equipment in this PROS proposal to accommodate the community's desire for recreational physical fitness.
4. Land Art – land art comes in the form of permanent sculptures and murals, to interactive art pieces such as writing and games. IUS recommends implementing a land art feature to foster a creative, lively, and welcoming

LAKE CLIFF PARK OPEN SPACE AREA - DALLAS, TX

CONCEPT PROS PROPOSALS

Legend

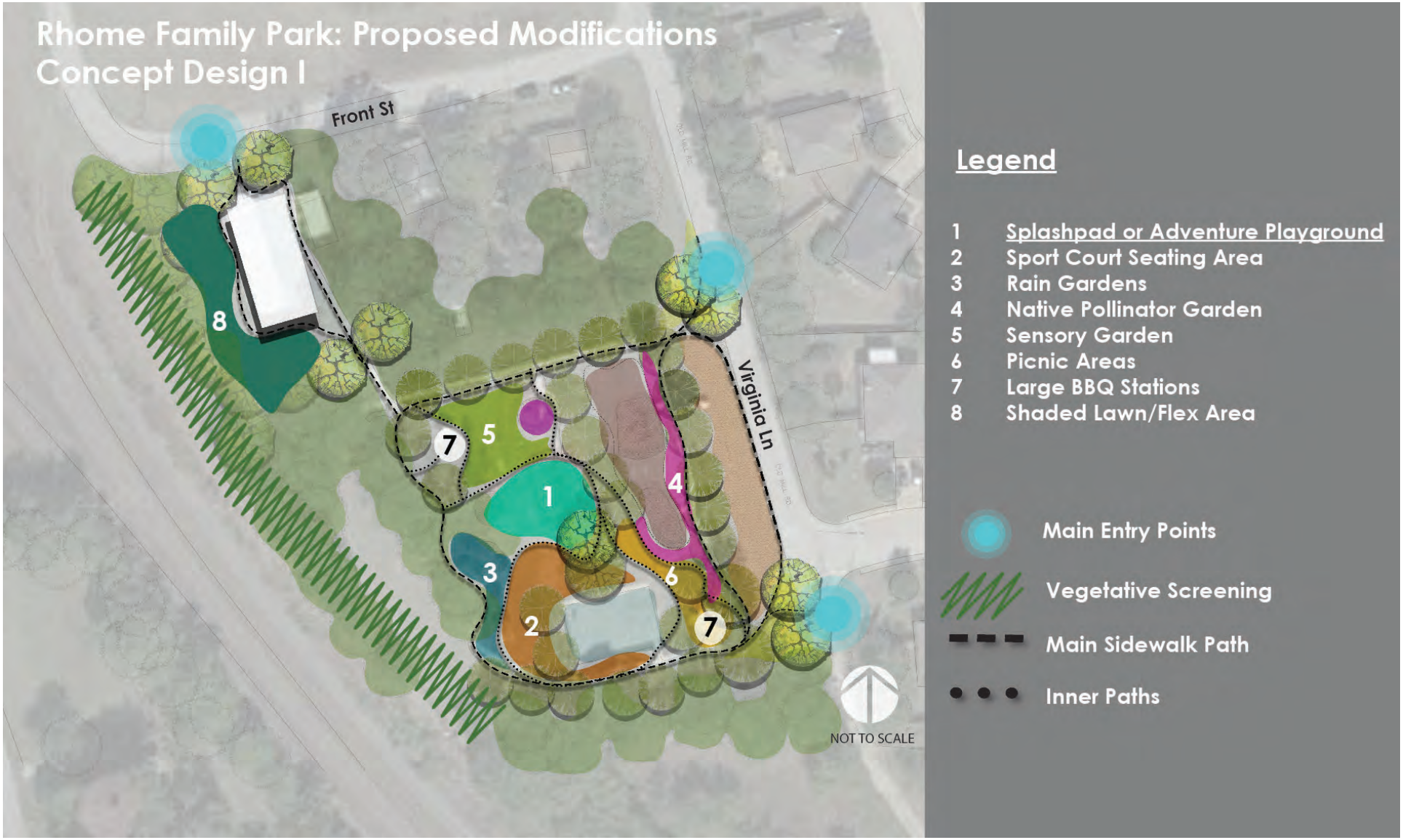
1. Entry
2. Pollinator garden
3. Bike tracks & Parking
4. Open Space/Lawn area
5. Fitness equipment
6. All abilities playground
7. Pollinator garden
8. Picnic area
9. Green belt
10. Extended walkway

Design Recommendations: Potential Park 6

environment for persons of all ages and abilities.

5. Meandering Paths - Meandering paths for walking and biking will provide park users an interesting place to walk and will enhance the overall quality of life of all park users through passive recreation and physical fitness. IUS recommends implementing paved sidewalk paths at least 5 to 6 feet wide to accommodate a pedestrian and wheelchair user comfortably on the path, based on NACTO sidewalk guidelines.
6. All-Abilities Playground - IUS recommends incorporating an all-abilities children's playground or a portion of the playground to accommodate all-abilities equipment for this PROS proposal to ensure all the children across demographics from this community are able to play and enjoy their park.
7. Native Pollinator Garden - IUS recommends implementing a small pollinator garden for this PROS proposal to add aesthetic interest in the park by creating a pollinator habitat.

CONCEPT PROS PROPOSALS



Design Recommendations: Rhome Family Park

1. Splash Pad/Spray Ground - A splash pad or spray ground in a recreational amenity for water play that has little to no standing water. As the name implies, water is 'sprayed' from the ground or from the playground equipment. Splash pads have special surfaces to prevent slip or running injuries. Splash pads are also a form of more inclusive recreation.
2. Adventure Playground - An adventure playground, also known as non-descriptive playgrounds, are defined by an ethos of unrestricted play and imagination. Adventure playgrounds can either use the natural landscape or mimic the natural landscape to form the play area. Examples include mounds and hills, slides built into the landscape, and climbing.
3. Shaded Picnic Areas – IUS recommends implementing shaded seating and picnic areas in the pocket park for passive recreation to encourage gathering and socialization among neighbors. Natural shade using small to medium sized trees from the IUS plant list are recommended.
4. Native Pollinator Garden – Pollinator gardens are a great way to add aesthetic interest and bio-diversity to the park's landscape. These gardens are designed to attract bees. IUS recommends implementing a pollinator garden in the pocket park.

PEASE PARK SPLASH PAD - AUSTIN, TX

CONCEPT PROS PROPOSALS

Legend

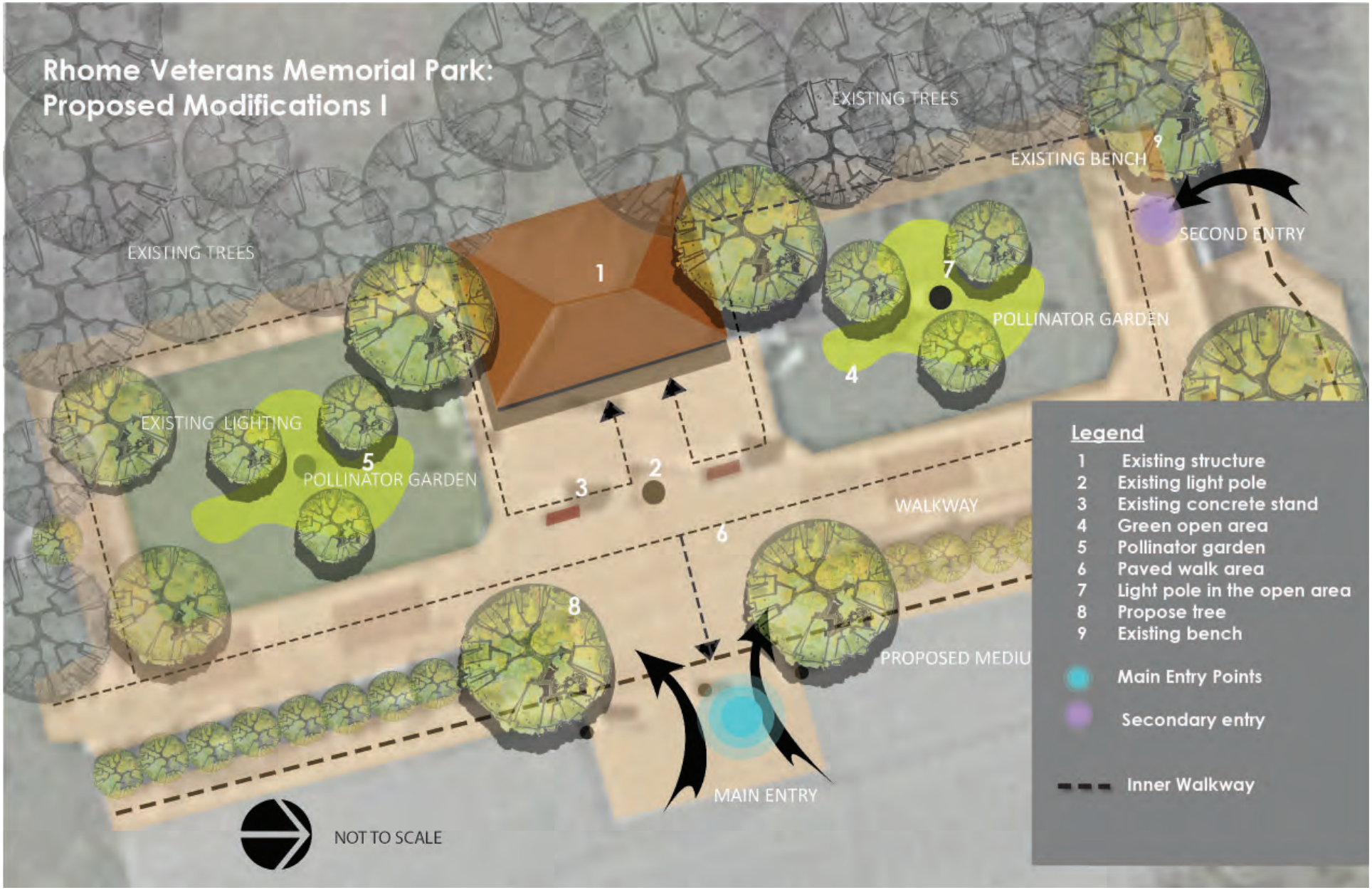
1. Parking
2. Walkway
3. Adventure Playground
4. Sensory garden
5. BBQ pit
6. Splash pad
7. Picnic area
8. Rain garden
9. Basketball court
10. Sitting area
11. Pollinator garden
12. Existing structure
13. Shaded space
14. Buffer

Design Recommendations: Rhome Family Park

5. Land Art – land art comes in the form of permanent sculptures and murals to interactive art pieces such as writing and games. IUS recommends implementing a land art feature to foster a creative, lively, and welcoming environment for persons of all ages and abilities.
6. Flexible Open Space – IUS recommends a flexible open space or lawn area for park users to use for active or passive recreation.
7. Shade Structures - IUS recommends incorporating a flexible shade structure such as shade sails which can help make open lawn spaces and other areas such as playgrounds, usable during the hot summer months of Texas. This is based on community feedback desiring shade as a top functional facility feature in their parks.

PERSPECTIVE RENDERING OF FLEXIBLE OPEN SPACE WITH SHADE STRUCTURES FOR RHOME FAMILY PARK

CONCEPT PROS PROPOSALS



Design Recommendations: Rhome Veterans Memorial

1. Flower beds - IUS recommends incorporating permanent flower beds near the lawn space areas to add interest to the entry of the memorial. The flower beds can also be one of the garden types recommended by IUS including a native pollinator garden, a sensory garden, a healing Garden, or even a wildflower garden.
2. Ornamental Trees - IUS recommends adding ornamental trees near the entry of the memorial to add aesthetic interest, as well as natural shade for visitors.
3. Aesthetic lighting - IUS recommends implementing aesthetic lighting for evening and nighttime use to add interest to the memorial during these hours.

PERSPECTIVE RENDERING OF THE ENTRY TO THE MEMORIAL WITH ORNAMENTAL TREES

PERSPECTIVE RENDERING OF THE MEMORIAL SHOWING FLOWER BEDS AND AESTHETIC LIGHTING FOR EVENING USE OF THE MEMORIAL

RHOME PARKS, RECREATION, & OPEN SPACE MASTER PLAN

IMPLEMENTATION STRATEGIES & FINAL RECOMMENDATIONS

IMPLEMENTATION STRATEGIES

Introduction

In order to realize the goals of the PROS Plan, it is important to develop ***implementation strategies*** for the timely follow through of these goals. The implementation strategies recommended by IUS include the prioritization of the PROS Proposals, an implementation matrix highlighting the actionable steps to be taken within a reasonable timeframe, the funding strategies unique to each PROS proposal, cost estimates for the proposals, as well as a feedback, monitoring and evaluation to determine the success of the plan.

High Priority Facility Needs

The prioritizations for the level of need expressed in the PROS Proposals are based on the following criteria:

- Standard-based needs as assessed through state and national standards compared to current and future growth
- Resource based needs based on natural conditions
- Demand-based needs as expressed in the public input

The following prioritization tables for the PROS Proposals are based on cost, equity, park size, and park amenity.

Based on geographic equity, or the spatial distribution of parks, Potential Park 1 received the highest priority, followed by Potential Park 4, and Potential Park 3. The PROS proposal that was least geographically equitable was Potential Park 5. Based on desired park amenity, which took into account the results of the community wide public engagement survey and the neighborhood focus group sessions, the park that received the highest priority was Rhome Family Park, followed by Potential Park 3, and Potential Park 2. Upgrades to Rhome Family Park could greatly address the community-wide recreational needs and the development of Potential Park 3, also considered to be geographically equitable, could also address the community-wide desires for some of the larger recreational amenity and activities such as sport courts, paths and trails, and splash pads. Based on smallest park size and usable park area, the Rhome Veterans Memorial is the smallest park to address park upgrades, however the smallest park to address new park needs is Potential Park 4 followed by Potential Park 1. Both PP4 and PP1 are located in Old Town Rhome. Based on cost, specifically the least initial project cost whether upgrades to existing parks or new park development, the highest ranking park was Rhome Veterans Memorial, followed by Potential Park 4 and Potential Park 1. The park ranked most expensive to develop was Potential Park 5.

Implementation Matrix

The purpose of the ***implementation matrix*** is to outline the PROS proposals and the actionable steps to take in order to strategically achieve these goals within the 10-year planning period. The matrix outlines the PROS Proposals in order of priority, the recommended actions to take in sequential order, the purpose for the action and responsible entities, as well as the expected timeframe for accomplishing these goals. The 10-year planning period is categorized into three timespans: ***Short-term (1 to 4 years), Medium-term (4 to 7 years), and Long-term (7-10 years).***

It is important to note that these are best practice actions recommended by IUS and are subject to change based on the individual projects or at the discretion of Rhome and its stakeholders. IUS advises that the main PROS stakeholders remain in communication throughout each implementation phase and to facilitate public engagement with the community whenever possible to ensure the community's PROS desires are met. The following tables show the implementation matrices for each parks proposal, including upgrades to the two existing parks and new development for the 6 proposed potential park areas.

Prioritization Rankings

Park Name	Equity
PP1	1
PP4	2
Rhome Family Park	3
PP3	4
PP6	5
PP2	6
Rhome Veterans Memorial	7
PP5	8

Prioritization Rankings

Park Name	Desired Park Amenity
Rhome Family Park	1
PP3	2
PP2	3
PP1	4
PP6	5
PP4	6
PP5	7
Rhome Veterans Memorial	8

Prioritization Rankings

Park Name	Total Area (AC)	Area in the Flood Plain (AC)	Useable Area (AC)	Rank (Smallest to Larget)
Rhome Veterans Memorial Park	0.165	0	0.165	1
PP4	0.346	0	0.346	2
PP1	0.899	0	0.899	3
PP6	1.784	0	1.784	4
Rhome Family Park	1.863	0	1.863	5
PP3	11.07	6.16	6.16	6
PP2	14.53	7.8	7.8	7
PP5	39.63	22.9	22.9	8

Prioritization Rankings

Park Name	Estimated Project Cost	Estimated Annual Average Maintenance	Prioritization Ranking (from smallest to largest cost)
Rhome Veterans Memorial	$ 6,500	$ 500	1
PP4	$ 158,490	$ 5,180	2
PP1	$ 209,393	$ 8,752	3
PP6	$ 262,640	$ 8,600	4
Rhome Family Park	$ 460,704	$ 17,718	5
PP3	$500,000 +	N/A	6
PP2	$500,000 +	N/A	7
PP5	$500,000 +	N/A	8

FIGURE 40 - PRIORITIZATION OF EXISTING AND PROPOSED PARKS BY GEOGRAPHIC EQUITY, DESIRED PARK AMENITY, PARK SIZE, AND PARK COST.

IMPLEMENTATION STRATEGIES

TABLE 3: IMPLEMENTATION MATRIX FOR RHOME FAMILY PARK ADDRESSING ACTION, PURPOSE, RESPONSIBLE ENTITIES, AND RECOMMENDED TIMEFRAME FOR COMPLETION.

Rhome Family Park						
Implementation Matrix				**Timeframe**		
Action		**Purpose**	**Responsible Entities**	**Short-Term (1 to 4 years)**	**Medium-Term (4-7 years)**	**Long-Term (7-10 years)**
1	Address O&M needs of existing park facilities (e.g. upgrades to play-ground surfacing, repairs, etc.)	To ensure park equipment is up-to-date and safe for park users	City of Rhome	**X**		
2	Upgrade park facilities based on available general funds (e.g. shade structures, benches, etc.)	To address the recreational desires of the citizens in the short-term	City of Rhome	**X**		
3	Identify desired park improvements to add to Capital Improvement Plan (CIP)	To finance parks proposals goals	City of Rhome, Parks Committee	**X**		
4	Public engagement and community outreach	Design feedback, recruiting volunteers, establishing long-term citizen management groups (e.g. Friends of the Park, Park Conservancies, Pri-vate-Public Partnerships, etc.)	City of Rhome, Parks Committee, Citizen Volunteers	**X**		
5	Coordinate with relevant agencies and organizations for desired park amenities (e.g. TPWD, Kaboom, Wise County, etc.)	To seek guidance and assis-tance with desired park amen-ity implementation	City of Rhome	**X**	**X**	
6	Issue Request for Proposal (RFP)	To solicit bids for design and construction documents, etc.	City of Rhome	**X**	**X**	
7	Apply for grants and other applica-ble funding resources (e.g. TPWD, Kaboom, TxDOT, etc.)	To fund projects or to receive partial reimbursement for projects	City of Rhome, Parks Committee, Citizen Volunteers	**X**	**X**	
8	Award Project	Construction	City of Rhome	**X**	**X**	
Overall Proposal Timeframe				**X**	**X**	

TABLE 4: IMPLEMENTATION MATRIX FOR RHOME VETERANS MEMORIAL ADDRESSING ACTION, PURPOSE, RESPONSIBLE ENTITIES, AND RECOMMENDED TIMEFRAME FOR COMPLETION.

Rhome Veterans Memorial						
Implementation Matrix				Timeframe		
	Action	Purpose	Responsible Entities	Short-Term (1 to 4 years)	Medium-Term (4-7 years)	Long-Term (7-10 years)
1	Address O&M needs of existing park facilities (e.g. upgrades to play-ground surfacing, repairs, etc.)	To ensure park equipment is up-to-date and safe for park users	City of Rhome	X		
2	Upgrade park facilities based on available general funds (e.g. shade structures, benches, etc.)	To address the recreational desires of the citizens in the short-term	City of Rhome	X		
3	Identify desired park improvements to add to Capital Improvement Plan (CIP)	To finance parks proposals goals	City of Rhome, Parks Committee	X		
4	Public engagement and community outreach	Design feedback, recruiting volunteers, establishing long-term citizen management groups (e.g. Friends of the Park, Park Conservancies, Pri-vate-Public Partnerships, etc.)	City of Rhome, Parks Committee, Citizen Volunteers	X		
5	Coordinate with relevant agencies and organizations for desired park amenities (e.g. TPWD, Kaboom, Wise County, etc.)	To seek guidance and assis-tance with desired park amen-ity implementation	City of Rhome	X		
6	Issue Request for Proposal (RFP)	To solicit bids for design and construction documents, etc.	City of Rhome	X		
7	Apply for grants and other applica-ble funding resources (e.g. TPWD, Kaboom, TxDOT, etc.)	To fund projects or to receive partial reimbursement for projects	City of Rhome, Parks Committee, Citizen Volunteers	X		
8	Award Project	Construction	City of Rhome	X		
Overall Proposal Timeframe				X		

IMPLEMENTATION STRATEGIES

TABLE 5: IMPLEMENTATION MATRIX FOR POTENTIAL PARK 1: 1ST STREET AT ELM STREET POCKET PARK ADDRESSING ACTION, PURPOSE, RESPONSIBLE ENTITIES, AND RECOMMENDED TIMEFRAME FOR COMPLETION.

Potential Park 1: 1st Street at Elm Street Pocket Park						
Implementation Matrix				Timeframe		
	Action	Purpose	Responsible Entities	Short-Term (1 to 4 years)	Medium-Term (4-7 years)	Long-Term (7-10 years)
1	Coordinate with relevant impacted entities (e.g. Northwest ISD, land developers, adjacent property owners, municipal departments, neighboring cities, etc.)	To establish land agreements, joint-use agreements, determining access and other impacts due to development, etc.	City of Rhome	X		
2	Identify desired park improvements to add to Capital Improvement Plan (CIP)	To finance parks proposals goals	City of Rhome, Parks Committee	X	X	
3	Public engagement and community outreach	Design feedback, recruiting volunteers, establishing long-term citizen management groups (e.g. Friends of the Park, Park Conservancies, Private-Public Partnerships, etc.)	City of Rhome, Parks Committee, Citizen Volunteers	X	X	
4	Coordinate with relevant agencies and organizations for desired park amenities (e.g. TPWD, Kaboom, Wise County, etc.)	To seek guidance and assistance with desired park amenity implementation	City of Rhome	X	X	
5	Issue Request for Proposal (RFP)	To solicit bids for design and construction documents, etc.	City of Rhome	X	X	
6	Apply for grants and other applicable funding resources (e.g. TPWD, Kaboom, TxDOT, etc.)	To fund projects or to receive partial reimbursement for projects	City of Rhome, Parks Committee, Citizen Volunteers		X	
7	Award Project	Construction	City of Rhome		X	
Overall Proposal Timeframe				X	X	

TABLE 6: IMPLEMENTATION MATRIX FOR POTENTIAL PARK 2: ELLIS NEIGHBORHOOD-COMMUNITY PARK ADDRESSING ACTION, PURPOSE, RESPONSIBLE ENTITIES, AND RECOMMENDED TIMEFRAME FOR COMPLETION.

Potential Park 2: Ellis Neighborhood-Community Park						
Implementation Matrix				Timeframe		
	Action	Purpose	Responsible Entities	Short-Term (1 to 4 years)	Medium-Term (4-7 years)	Long-Term (7-10 years)
1	Coordinate with relevant impacted entities (e.g. Northwest ISD, land developers, adjacent property owners, municipal departments, neighboring cities, etc.)	To establish land agreements, joint-use agreements, determining access and other impacts due to development, etc.	City of Rhome	X		
2	Identify desired park improvements to add to Capital Improvement Plan (CIP)	To finance parks proposals goals	City of Rhome, Parks Committee	X	X	
3	Public engagement and community outreach	Design feedback, recruiting volunteers, establishing long-term citizen management groups (e.g. Friends of the Park, Park Conservancies, Private-Public Partnerships, etc.)	City of Rhome, Parks Committee, Citizen Volunteers		X	
4	Coordinate with relevant agencies and organizations for desired park amenities (e.g. TPWD, Kaboom, Wise County, etc.)	To seek guidance and assistance with desired park amenity implementation	City of Rhome		X	X
5	Issue Request for Proposal (RFP)	To solicit bids for design and construction documents, etc.	City of Rhome		X	X
6	Apply for grants and other applicable funding resources (e.g. TPWD, Kaboom, TxDOT, etc.)	To fund projects or to receive partial reimbursement for projects	City of Rhome, Parks Committee, Citizen Volunteers		X	X
7	Award Project	Construction	City of Rhome			X
Overall Proposal Timeframe					X	X

IMPLEMENTATION STRATEGIES

TABLE 7: IMPLEMENTATION MATRIX FOR POTENTIAL PARK 3: PRAIRIE POINT COMMUNITY PARK ADDRESSING ACTION, PURPOSE, RESPONSIBLE ENTITIES, AND RECOMMENDED TIMEFRAME FOR COMPLETION.

Potential Park 3: Prairie Point Community Park						
Implementation Matrix				Timeframe		
	Action	Purpose	Responsible Entities	Short-Term (1 to 4 years)	Medium-Term (4-7 years)	Long-Term (7-10 years)
1	Coordinate with relevant impacted entities (e.g. Northwest ISD, land developers, adjacent property owners, municipal departments, neighboring cities, etc.)	To establish land agreements, joint-use agreements, determining access and other impacts due to development, etc.	City of Rhome	X		
2	Identify desired park improvements to add to Capital Improvement Plan (CIP)	To finance parks proposals goals	City of Rhome, Parks Committee	X	X	
3	Public engagement and community outreach	Design feedback, recruiting volunteers, establishing long-term citizen management groups (e.g. Friends of the Park, Park Conservancies, Private-Public Partnerships, etc.)	City of Rhome, Parks Committee, Citizen Volunteers		X	
4	Coordinate with relevant agencies and organizations for desired park amenities (e.g. TPWD, Kaboom, Wise County, etc.)	To seek guidance and assistance with desired park amenity implementation	City of Rhome		X	
5	Issue Request for Proposal (RFP)	To solicit bids for design and construction documents, etc.	City of Rhome		X	
6	Apply for grants and other applicable funding resources (e.g. TPWD, Kaboom, TxDOT, etc.)	To fund projects or to receive partial reimbursement for projects	City of Rhome, Parks Committee, Citizen Volunteers		X	X
7	Award Project	Construction	City of Rhome		X	X
Overall Proposal Timeframe					X	X

TABLE 8: IMPLEMENTATION MATRIX FOR POTENTIAL PARK 4: MORRIS & OLD MILL POCKET PARK ADDRESSING ACTION, PURPOSE, RESPONSIBLE ENTITIES, AND RECOMMENDED TIMEFRAME FOR COMPLETION.

Potential Park 4: Morris & Old Mill Pocket Park						
Implementation Matrix				Timeframe		
	Action	Purpose	Responsible Entities	Short-Term (1 to 4 years)	Medium-Term (4-7 years)	Long-Term (7-10 years)
1	Coordinate with relevant impacted entities (e.g. Northwest ISD, land developers, adjacent property owners, municipal departments, neighboring cities, etc.)	To establish land agreements, joint-use agreements, determining access and other impacts due to development, etc.	City of Rhome	X		
2	Identify desired park improvements to add to Capital Improvement Plan (CIP)	To finance parks proposals goals	City of Rhome, Parks Committee	X		
3	Public engagement and community outreach	Design feedback, recruiting volunteers, establishing long-term citizen management groups (e.g. Friends of the Park, Park Conservancies, Private-Public Partnerships, etc.)	City of Rhome, Parks Committee, Citizen Volunteers	X		
4	Coordinate with relevant agencies and organizations for desired park amenities (e.g. TPWD, Kaboom, Wise County, etc.)	To seek guidance and assistance with desired park amenity implementation	City of Rhome	X		
5	Issue Request for Proposal (RFP)	To solicit bids for design and construction documents, etc.	City of Rhome	X	X	
6	Apply for grants and other applicable funding resources (e.g. TPWD, Kaboom, TxDOT, etc.)	To fund projects or to receive partial reimbursement for projects	City of Rhome, Parks Committee, Citizen Volunteers	X	X	
7	Award Project	Construction	City of Rhome	X	X	
Overall Proposal Timeframe				X	X	

IMPLEMENTATION STRATEGIES

TABLE 9: IMPLEMENTATION MATRIX FOR POTENTIAL PARK 5: BY WELL ESTATES COMMUNITY PARK ADDRESSING ACTION, PURPOSE, RESPONSIBLE ENTITIES, AND RECOMMENDED TIMEFRAME FOR COMPLETION.

Potential Park 5: By Well Estates Community Park						
Implementation Matrix				**Timeframe**		
	Action	**Purpose**	**Responsible Entities**	**Short-Term (1 to 4 years)**	**Medium-Term (4-7 years)**	**Long-Term (7-10 years)**
1	Coordinate with relevant impacted entities (e.g. Northwest ISD, land developers, adjacent property owners, municipal departments, neighboring cities, etc.)	To establish land agreements, joint-use agreements, determining access and other impacts due to development, etc.	City of Rhome		**X**	
2	Identify desired park improvements to add to Capital Improvement Plan (CIP)	To finance parks proposals goals	City of Rhome, Parks Committee		**X**	
3	Public engagement and community outreach	Design feedback, recruiting volunteers, establishing long-term citizen management groups (e.g. Friends of the Park, Park Conservancies, Private-Public Partnerships, etc.)	City of Rhome, Parks Committee, Citizen Volunteers		**X**	
4	Coordinate with relevant agencies and organizations for desired park amenities (e.g. TPWD, Kaboom, Wise County, etc.)	To seek guidance and assistance with desired park amenity implementation	City of Rhome			**X**
5	Issue Request for Proposal (RFP)	To solicit bids for design and construction documents, etc.	City of Rhome			**X**
6	Apply for grants and other applicable funding resources (e.g. TPWD, Kaboom, TxDOT, etc.)	To fund projects or to receive partial reimbursement for projects	City of Rhome, Parks Committee, Citizen Volunteers			**X**
7	Award Project	Construction	City of Rhome			**X**
Overall Proposal Timeframe						**X**

TABLE 10: IMPLEMENTATION MATRIX FOR POTENTIAL PARK 6: BY WELL ESTATES NEIGHBORHOOD PARK ADDRESSING ACTION, PURPOSE, RESPONSIBLE ENTITIES, AND RECOMMENDED TIMEFRAME FOR COMPLETION.

Potential Park 6: By Well Estates Neighborhood Park						
Implementation Matrix				Timeframe		
	Action	Purpose	Responsible Entities	Short-Term (1 to 4 years)	Medium-Term (4-7 years)	Long-Term (7-10 years)
1	Coordinate with relevant impacted entities (e.g. Northwest ISD, land developers, adjacent property owners, municipal departments, neighboring cities, etc.)	To establish land agreements, joint-use agreements, determining access and other impacts due to development, etc.	City of Rhome	X		
2	Identify desired park improvements to add to Capital Improvement Plan (CIP)	To finance parks proposals goals	City of Rhome, Parks Committee	X		
3	Public engagement and community outreach	Design feedback, recruiting volunteers, establishing long-term citizen management groups (e.g. Friends of the Park, Park Conservancies, Private-Public Partnerships, etc.)	City of Rhome, Parks Committee, Citizen Volunteers	X		
4	Coordinate with relevant agencies and organizations for desired park amenities (e.g. TPWD, Kaboom, Wise County, etc.)	To seek guidance and assistance with desired park amenity implementation	City of Rhome	X		
5	Issue Request for Proposal (RFP)	To solicit bids for design and construction documents, etc.	City of Rhome	X	X	
6	Apply for grants and other applicable funding resources (e.g. TPWD, Kaboom, TxDOT, etc.)	To fund projects or to receive partial reimbursement for projects	City of Rhome, Parks Committee, Citizen Volunteers	X	X	
7	Award Project	Construction	City of Rhome	X	X	
Overall Proposal Timeframe				X	X	

IMPLEMENTATION STRATEGIES

Funding Strategies

The realization of Rhome's PROS Plan can only be achieved if there is funding to support it. The funding strategies and resources section discusses internal funding strategies pertaining to Rhome's publicly available fiscal year budget, as well as external funding strategies which includes grants, federal low interest loan programs, and cost participation partnering opportunities with various entities, including Northwest ISD and Wise County.

Internal Funding Strategies

Rhome's main source of revenue generation for its parks and recreation facilities comes from the general fund. In order to accommodate improved parks and recreation facilities in the future, IUS strongly recommends considering the following to help improve internal funding strategies.

Based on the FYE 2019 and 2020 budgets, IUS recommends:

- *Reallocation of funds in anticipation of increased costs due to operations and maintenance of new PROS facilities*
- *Reallocation of funds for full-time or part-time parks and recreation employees for O&M services*
- *Include Park Facility Upgrades and New Park Facility Proposals in the Capital Improvement Plan (CIP)*

External Funding Resources

Most parks maintenance and upkeep are funded through the general fund, however finding new and creative ways to fund and finance PROS and services can add a layer of certainty to achieving PROS goals. The following organizations range from international non-profits to local non-profits (Kaboom etc.), with Rhome's highest ranked potential funding sources stemming from State level entities such as TWPD and TXDOT. Top 5 funding opportunities are listed in the table and the full list is available in Appendix N.

TABLE 11: EXTERNAL FUNDING STRATEGIES LIST SHOWING THE TOP 5 PRORITY GRANTS AND SERVICES FOR RHOME

Priority	Name	Entity	Level	Type	Services	Grant? (Y/N)	Grant Amount	Deadline
1	**Local Parks Small Community Recreation (Local Parks Grants)**	**TPWD**	State	Outdoor Park Amenities	Assists local units of government with the acquisition and/or development of public recreation areas and facilities throughout the State of Texas. Outdoor recreational facilities	Y	Up to $150,000	11/6
2	**Local Parks Non-Urban Outdoor Recreation (Local Parks Grants)**	**TPWD**	State	Outdoor Park Amenities	Assists local units of government with the acquisition and/or development of public recreation areas and facilities throughout the State of Texas. Outdoor recreational facilities	Y	Up to $750,000	11/6
3	**Recreational Trails Grants**	**TPWD**	State	Trails & Paths	Funds can be spent on both motorized and non-motorized recreational trail projects such as the construction of new recreational trails, improvements to existing trails, development of trailheads or trailside facilities, and assistance with acquiring trail corridors.	Y	Reimbursement up to 80% of project cost with a maximum of $200,000 for non-motorized trail grants/maximum award of $400,000 for motorized trail grants	2/1
4	**Community Outdoor Outreach Program (CO-OP)**	**TPWD**	State	Park Activities	Grant funding for programming that introduces under-served populations to environmental and conservation programs as well as TPWD mission oriented outdoor activities.	Y	Up to $50,000	11/6
5	**Adventure Courses**	**KA-**	Private/	Teen Playground	For older kids and teenagers. Through our signature community-build model, communities will design and build an amazing playspace aimed at kids and teens, aged 10 and older. Adventure course playspaces provide a fun, challenging option for physical activity.	Y	Variable	Rolling Basis

IMPLEMENTATION STRATEGIES

External Funding Resources: Conservation Easements

In addition to external funding resources such as the list of grants opportunities and community services provided, IUS recommends that Rhome evaluate the possibility of obtaining a conservation easement, in particular for the larger potential park areas such as Potential Park 5, 3, and 2. Per the Texas Land Trust Council, conservation easements are a voluntary and legal land agreement between the owner and the land trust holder of the easement that is used to restrict certain land uses in order to protect the natural or other unique qualities of the property. Conservation easements allow the owner, such as a governmental entity, to retain legal rights to the property and to determine what kinds of uses can be done on the property. Parks and open space recreation are typical of such land uses for conservation easements as they are generally low impact land uses and highlight the natural beauty of the land.

TABLE 12: LIST OF LAND TRUST HOLDERS FOR CONSERVATION EASEMENTS RELEVANT TO RHOME'S DESIRED FUTURE PROS NETWORK

Priority	Name of Trust	Mission Statement	Link
1	**The Trust for Public Land**	At The Trust for Public Land, we create parks and protect land for people – for you – ensuring healthy, livable communities for generations to come.	www.tpl.org/our-work/texas
2	**The Katy Prairie Conservancy**	Works to protect greenspace for its conservation and recreational benefits, enhance wildlife habitat, restore tallgrass prairie and wetlands, sponsor scientific research, and offer public programming and activities to introduce the general and school-aged public to the sights and sounds of the prairie.	www.katyprairie.org
3	**Upper Trinity Conservation Trust**	Protecting natural features in the riparian zone along creeks and streams, helping to safeguard the quality of the water we drink, the air we breathe and the food we eat – – right where we live.	www.utct.org
4	**Native Prairies Association of Texas**	The Native Prairies Association of Texas (NPAT) is a non-profit membership organization and land trust dedicated to the conservation, restoration, and appreciation of native prairies, savannas, and other grasslands in Texas.	https://texasprairie.org/
5	**Connemara Conservancy**	Connemara works with farmers, ranchers and other landowners as well as city officials and forward-thinking developers to protect over 6,000 acres of land throughout North Texas.	www.connemaraconservancy.org
6	**Texas Land Conservancy**	The mission of Texas Land Conservancy is to conserve natural areas in Texas and to protect the physical and ecological integrity of their wildlife habitat, native plant communities, and scenic landscapes for the benefit of present and future generations.	www.texaslandconservancy.org
7	**Audubon Texas**	Audubon Texas is the state branch of the National Audubon Society, dedicated for over 100 years to conserving and restoring natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth's biological diversity.	www.txaudubon.org
8	**The Nature Conservancy - Texas Chapter**	To conserve the land and waters on which all life depends.	www.nature.org/texas

IMPLEMENTATION STRATEGIES

Cost of Implementation

The cost of implementing each of the PROS proposals greatly varies and depends on local market trends and design and construction costs. The following tables list the general costs for implementing park amenities like those in the PROS proposals, as well as their estimated O&M costs. Subsequent tables discuss the cost of functional park amenities such as picnic tables, doggy waste stations, shade structures, and water fountains, and the approximate cost of park amenities not listed in either the upgrades for existing parks or the new park proposals such as volleyball and tennis courts. It is important to note that these costs do not include design or full construction costs. It is recommended that all cost estimates carry a 30% contingency fee. Turner Construction Cost Indexes for 2012 and 2020 were used for estimating costs. Information provided by the Bureau of Labor Statistics (BLS) CPI data used to adjust inflation and calculate the cumulative inflation rate through September 2020.

TABLE 13: APPROXIMATE COST OF IMPLEMENTATION AND MAINTENANCE FOR UPGRADES TO RHOME FAMILY PARK

Rhome Family Park					
Facility Type	Amenity	Quantity	Size	Est. Construction Cost	Est. Annual Maintenance Cost
Picnic Area Small	x	1	988	$4,847	$372
Playgrounds (including All-Abilities & Adventure Playgrounds) Small	x	1	2500	$152,425	$5,000
Splashpad	x	1	1800	$180,000	$10,363
Trail Small	x	1	2966	$12,116	$1,483
Gardens Small (less than 15 plots)	x	1	1400	$5,000	$500
Totals				$354,388	$17,718
Project Contingency			30%	$106,316	
Project Cost Estimate				$460,704	

TABLE 14: APPROXIMATE COST OF IMPLEMENTATION AND MAINTENANCE FOR UPGRADES TO RHOME VETERANS MEMORIAL

Rhome Veterans Memorial					
Facility Type	Amenity	Quantity	Size (SF)	Est. Construction Cost	Est. Annual Maintenance Cost
Gardens Small (less than 15 plots)	x	1	1400	$5,000	$500
Totals				$5,000	$500
Project Contingency			0	$1,500	
Project Cost Estimate				$6,500	

TABLE 15: APPROXIMATE COST OF IMPLEMENTATION AND MAINTENANCE FOR NEW PARK PROPOSAL FOR POTENTIAL PARK 1

Potential Park 1 Cost Estimate					
Facility Type	Amenity	Quantity	Size (SF)	Est. Construction Cost	Est. Annual Maintenance Cost
Exercise Area	x	1	200	$4,884	$92
Open Space Small	x	1	2000	$3,698	$904
Picnic Area Small	x	2	1000	$4,907	$610
Playground (including All-Abilities & Adventure) Small	x	1	1987	$121,154	$3,974
Shelters Small	x	1	589	$25,000	$3,029
Gardens (community gardens, healing gardens, native gardens, etc.) Small	x	2	400	$1,429	$143
Totals				$161,071	$8,752
Project Contingency			30%	$48,321	
Project Cost Estimate				$209,393	

TABLE 16: APPROXIMATE COST OF IMPLEMENTATION AND MAINTENANCE FOR NEW PARK PROPOSAL FOR POTENTIAL PARK 4

Potential Park 4 Cost Estimate					
Facility Type	Amenity	Quantity	Size	Est. Construction Cost	Est. Annual Maintenance Cost
Color Design/Walkway	x		500	$3,654	$-
Open Area Small	x	1	1500	$2,774	$678
Picnic Area Small	x		500	$2,453	$94
Playgrounds (including All-Abilities & Adventure Playgrounds) Small	x	1	800	$48,776	$1,600
Shelters Small	x	2	589	$50,000	$1,110
Trail Small	x		2966	$12,116	$1,483
Gardens Small (less than 15 plots)	x		600	$2,143	$214
Totals				$121,915	$5,180
Project Contingency			30%	$36,575	
Project Cost Estimate				$158,490	

IMPLEMENTATION STRATEGIES

TABLE 17: APPROXIMATE COST OF IMPLEMENTATION AND MAINTENANCE FOR NEW PARK PROPOSAL FOR POTENTIAL PARK 6

Potential Park 6 Cost Estimate					
Facility Type	Amenity	Quantity	Size	Est. Construction Cost	Est. Annual Maintenance Cost
Exercise Area	x		500	$12,210	$71
Multi-court Purpose	x				
Open Area Small	x		4000	$7,396	
Picnic Area Small	x				
Playgrounds (including All-Abilities & Adventure Playgrounds) Small	x		2500	$152,425	$5,000
Shelters Small	x	1	589	$25,000	$3,029
Trail Small	x				
Gardens Small (less than 15 plots)	x	2	1400	$5,000	$500
Totals				$202,031	$8,600
Project Contingency			30%	$60,609	
Project Cost Estimate				$262,640	

TABLE 18: APPROXIMATE COST OF FUNCTIONAL PARK AMENITIES

Average Market Cost of Commercial Grade Functional Facilities	
Item	Value
Dog Waste Station	$400
Benches	$600
Picnic Tables	$700
Shade Structure Small (10'x10')	$3,000
Shade Structure Medium (26'x26')	$7,000
Shade Structure Large (40x40)	$12,000
Bike Racks	$800
Trash Cans	$400
Recycling Bins	$300
Pedestal Park Grills	$300
Commercial Water Fountiains	$4,000
Wayfinding Signage	$500

IMPLEMENTATION STRATEGIES

TABLE 19: APPROXIMATE COST OF IMPLEMENTATION AND MAINTENANCE FOR VARIOUS PARK AMENITIES

Facility Type	Mean Size of Observed Park Activity Zones (SF)	Construction Cost Estimate (Adjusted 2020 dollars)	Annual Maintenance Cost Estimate (Adjusted 2020 dollars)	Construction Cost per SF (2020 dollars)	Annual Maintenance Cost per SF (2020 dollars)
Amphitheater	3215	$60,577	$6,058	$19	$2
Basketball Medium	6985	$36,346	$3,029	$5	$1
Basketball Small	2884	$18,173	$3,029	$6	$1
Color Design/Walkway	13229	$96,674	$-	$7	$-
Exercise Area	992	$24,231	$455	$24	$0
Football Area	58718	$121,154	$18,173	$2	$6
Handball Court	13914	$12,116	$12,116	$1	$4
Multi-court Purpose	6215	$24,231	$3,029	$4	$1
Open Area Large	58347	$109,039	$18,173	$2	$6
Open Area Medium	16335	$30,288	$4,240	$2	$1
Open Area Small	4914	$9,087	$1,454	$2	$0
Picnic Area Large	20944	$36,346	$6,058	$2	$2
Picnic Area Medium	6671	$10,903	$1,818	$2	$1

Picnic Area Small	988	$4,847	$606	$5	$0
Playgrounds Large	18700	$605,769	$30,288	$32	$9
Playgrounds Medium	5853	$302,885	$15,145	$52	$5
Playgrounds Small	1987	$121,154	$6,058	$61	$2
Swimming Pool	4494	$8,480,769	$-	$1,887	$-
Splashpad	3500	$350,000	$15,500	$100	$4
Racquetball Courts	5434	$145,384	$1,818	$27	$1
Rink/skate	19333	$145,384	$6,058	$8	$2
Shelters Large	5285	$121,154	$12,116	$23	$4
Shelters Medium	1056	$54,519	$5,452	$52	$2
Shelters Small	589	$25,000	$3,029	$42	$1
Shuffleboard Courts	576	$3,634	$908	$6	$0
Soccer Field Medium	25221	$90,865	$18,173	$4	$6
Soccer Field Small	20648	$48,461	$9,087	$2	$3
Softball/Baseball Field Large	61086	$484,615	$24,231	$8	$8
Softball/Baseball Field Medium	33546	$363,462	$18,173	$11	$6
Softball/Baseball Field Small	20141	$242,307	$12,116	$12	$4
Tennis Court Large	56211	$327,116	$30,288	$6	$9
Tennis Court Medium	28973	$218,077	$18,173	$8	$6
Tennis Court Small	16309	$109,039	$9,087	$7	$3
Track	22657	$484,615	$72,693	$21	$23
Trail Large	41769	$181,730	$1	$4	$1
Trail Medium	8354	$36,346	$0	$4	$1
Trail Small	2966	$12,116	$0	$4	$1
Volleyball Medium	4309	$121,154	$12,116	$28	$4
Volleyball Small	2651	$60,577	$6,058	$23	$2
Gardens Medium	2800	$10,000	$750	$4	$0
Gardens Small (less than 15 plots)	1400	$5,000	$500	$4	$0

FINAL RECOMMENDATIONS

Final Recommendations

The final recommendations strive to promote park planning strategies that achieve a balance between equitable fulfillment of community desires, environmental and open space conservation, and economic development to foster a livable and sustainable parks network. Final recommendations are proactive, long-term strategies for implementing Rhome's future parks system. These recommendations include policies for stronger park land dedication incentives, strategies for addressing future growth, strategies for improved connectivity to parks and trails, and strategies for the ongoing success of the PROS plan during the 10-year plan timeframe. The PROS plan goals fall within those four broad areas and together work to provide Rhome residents with a diverse and robust PROS network. This network will include an array of desired facilities and programming for both active and passive recreation and will allow Rhome the ability to acquire additional PROS land as land development moves to maximum capacity and build out.

Policies for An Enhanced PROS Network

Cooperative Agreements & Partnerships

Interlocal Cooperative Agreements and *Developer Participation Contracts* are effective and efficient ways for local governments to respond to the recreational needs of their citizens. *Interlocal Cooperation Contracts* per Texas Local Government Code strongly encourage local governments to form contractual agreements with other agencies of the state, such as independent school districts, for governmental functions and services such as parks and recreation.

In general, an interlocal agreement must:

- Be authorized by the governing body of each party to the agreement (exception for municipally owned utilities)
- State the purpose, terms, rights, and duties of the contracting parties
- Specify that any payments are being made from revenues currently available
- Fairly compensate the performing party

It is best practice for these agreements to cover the longevity of the PROS plan (a 10-year span) in addition to a 5-year capital improvement plan period. The contract should provide guidance for determining the need for land development and park facilities, as well as a long-term operations and maintenance program.

Developer Participation Contracts: a municipality with 5,000 or more inhabitants may make a contract with a developer of a subdivision or land in the municipality to construct public improvements, not including a building, related to the development. (Sec. 212.072). These agreements ensure developer accountability and that the citizens will have access to their parks. Rhome should consider using these contracts once it reaches the needed population threshold.

Additionally, Rhome should explore options for cooperative and partner agreements to establish and/or develop specific PROS facilities desired by the stakeholders and the residents, and partnerships with conservancies, neighborhood groups and associations. The initial recommended cooperative agreement for park facilities and facilities improvements would be between Rhome and Northwest ISD. Other potential partners include: Texas Department of Transportation (TxDOT), North Texas Council of Governments (NCTCOG), Wise County, and neighboring municipalities or government entities such as the City of Aurora, etc. An example of an interlocal cooperation agreement in Texas can be found in Appendix B.

Sustainable Stormwater Management Practices

Practicing sustainable stormwater management mechanics is a must for the Rhome park system due to predicted global climatic system changes and current lack of robust stormwater infrastructure in many parts of Rhome. Stormwater runoff (or overland flow) is the portion of precipitation reaching the ground that does not infiltrate into soils, is not taken up for transpiration by plants, and not evaporated into the atmosphere. Stormwater control devices (SCMs) offer both "non-structural" and "structural" approaches, and are used to mitigate flooding hazards, and improve water quality. Certain SCMs can also act as a 'park-like' amenity in a dual-use function.

IUS strongly recommends *Green Infrastructure,* or non-structural Storm water control devices, for Rhome, where natural systems, including plants and vegetation can serve mitigation and water quality functions. Poor drainage in some proposed park lands creates long term standing water that then causes mosquito issues. Rain gardens, bioswales, minimum impervious surfaces, and detention ponds will be best options to deal with these drainage issues for small-scale parks.

Further, IUS highly recommends conservation and enhancement of the riparian zone along water bodies and streams. If any wetlands or wetland characteristics are present, conservation concerns are indicated, and anthropogenic (human created) risk should be reduced. Development should always take a holistic approach for a livable, sustainable community. The natural environment is the best module of environmental education and serves as a tool to increase environmental awareness among the younger generation of the community as well. General local references

Sustainable Floodplain Management Practices

Floodplains play an important role in local water bodies exchanging water masses and matter between aquatic and terrestrial ecosystems in Rhome. Effective practice of sustainable floodplain management includes restoring natural floodplain areas and increasing natural retention. The floodplain absorbs runoff and pollutants and minimizes water pollution in local water bodies and supports terrestrial and aquatic biodiversity enhancement. IUS recommends sustainable floodplain management to provide mitigation and resilience options to reduce flood risk in large scale parks in Rhome. It is highly encouraged not to **build residential or commercial uses in the floodplain and to dedicate floodplain areas for recreational uses.**

Note:

The "100-year floodplain" is an area with a one in 100, or 1-percent, chance of a flood occurring in any given year (FEMA). Building in the 100-year floodplain requires permission and requires soil buildup out of the floodplain in order to undertake construction.

FEMA Flood zone categorization:

- *V zone - the most hazardous of the Special Flood Hazard Areas. The hazards in these areas are increased because of wave or water flow velocity.*
- *A zone - the next most volatile of the Special Flood Hazard Areas - are subject to rising waters and are usually near a lake, river, stream, or other body of water. Flood insurance is mandatory in all A zones because of the high potential of flooding (FEMA).*
- *X zone - minimal-risk areas where flood insurance is not mandatory.*

FINAL RECOMMENDATIONS

No Mow Zones

The City of Rhome is surrounded by prairies and native grassland ecosystems. Establishing *No Mow Zones* will be a strategy for the preservation of these natural areas. *No Mow Zones* are areas found in riparian zones (near creeks, open spaces) that allows grass to mature and drop seeds naturally. Establishment of No Mow Zones will reduce soil erosion and storm water, increase carbon sequestration, preserve natural habitats including breeding and resting grounds for both native and migratory species.

Some examples of cities in Texas with no mow zone policies include:

- The City of Kyle,TX: https://www.cityofkyle.com/recreation/dont-mow-those-weeds
- The City of Austin, TX: https://www.austintexas.gov/blog/grow-zones

Examples of successful No Mow Zones: The U.S. National Park Service highlights that the Wolf Trap National Park preserves 15 distinct of no-mow zones throughout the park. These spaces include picnic areas, native gardens, and places for the support performance of arts.

The City of Austin,TX is focusing on Grow Zone, a step beyond the No Mow zone. The City of Austin Parks and Recreation and Watershed Protection departments are working together to improve riparian zones in nineteen city parks.

IUS recommends identifying and demarcating Low Mow Zones/No Mow Zones in Rhome parks, and especially within the floodplains. Also, IUS highly recommends conducting habitat assessments and disaster risk assessments in the area. Permits can be given to trim the area once or twice annually upon prior approval, and under the supervision of the authorities during off breading seasons of species.

An example of a landscape and tree ordinance through the City of Dallas can be found in Appendix D.

Conservation Easements & Natural Resources Preservation

The concept of a conservation easement, which is a legal agreement between a landowner and a land trust or government agency where the landowner retains many private property rights, keeps land in private ownership and continues to provide economic benefits to the area. However, a conservation easement does not automatically make properties open to the public, and permanently limits uses of the land in order to protect its conservation value.

Landscaping & Tree Ordinance

IUS recommends implementing a landscape and tree ordinance to help promote the preservation, protection and enhancement of ecological and aesthetic attributes of the community. The landscaping and tree ordinance should include native or well-adapted plants suitable to plant hardiness zone 8a to reduce irrigation needs and to prevent the spread of detrimental invasive species of plants that can be harmful to local flora and fauna. It is important to note that the suggested native plant list is intended to be a starting point for thinking about how to incorporate native plants into the design of Rhome's landscape. Over time, more varieties could be included in the designs. A specific plant pallet will be determined during the design phases of each park improvement based on extensive research as to how these plants impact the interactions in the PROS area (e.g. using non-toxic plants near playgrounds, low-ground plants for active areas, tall trees for passive areas, etc.).

Local resources for Rhome include the City of Austin's *Grow Green Native and Well-Adapted Planting Guide* and The Lady Bird Johnson Wildflower Center Native Plant Database (https://www.wildflower.org/plants-main) which can be used to further research suitable xeric and low-maintenance plants for Rhome. Local wholesale growers have available catalogs upon request.

Operations & Maintenance Strategies

The long-term operations & maintenance (O&M) of Rhome's PROS facilities are key to sustaining the quality and longevity of the PROS network. Without a clear vision for the day to day running of the parks and recreation system, inefficiency and sub-optimal use of funds and effort will develop. In order to forestall such events, the plan recommends the following as ways to prepare and to strategize long-term O&M:

- Conducting public surveys to determine maintenance areas of need
- Developing an internal asset management plan to determine the highest priority facility needs

Community-Public Engagement Strategies

Community engagement and feedback is key to the success of Rhome's PROS network. Having strategies for community engagement ensures that the recreational needs of the community are met in the park designs. Giving the community agency over the PROS spaces during the design process improves community involvement and relationships, and also fosters a sense of ownership, cultural identity, and pride towards the parks and encourages the community to care and appreciate their PROS network.

- Online surveys
- Focus groups
- Volunteer events
- Working with neighborhoods

Internal Funding Strategies

Limited municipal finance from local government- general tax funds - is the most common revenue source of the Rhome parks. Rhome's Park System can also generate funding through fees associated with utilities such as water. Also, Rhome can provide for cash or in-kind matching to leverage federal, foundation, or state grant funding.

Establishment of Friend of the park/Conservancy will be an excellent option for helping develop and fund Rhome's Park system. These types of private-public partnerships support maintenance, capital development, and advocacy for current and future park development. Typically, a Conservancy can be a type of private, or nonprofit organization that raises money through various models and can also provide a pool of volunteers for park operations. Through a highly engaged local community, volunteerism, political support, donations, and other fundraising will increase capital generation and public interest. A membership fee for conservancy members, establishing Outlets or selling of Rhome park-related souvenirs and Rhome Park system logo associated other goods (i.e Clothing items-T shirts, water bottles, school items, etc.) can generate revenue for the Rhome Park system.

Bonds and Capital improvement programs can also generate money for Rhome's Parks system. More details can be found in Local Government Funding Strategies for Parks and Recreation Projects, https://www.completecommunitiesde.org/planning/healthy-and-livable/local-government-funding-strategies-parks-rec/

Economic development strategies such as income generation through rentals, food trucks, events generate money for the parks. Park rentals for such events as outdoor concerts, sports events, exhibitions, weddings, and other family events can contribute revenue. Rentals can also be collected through registered food trucks and other local vendors.

Examples of local partnerships with parks departments include the following:

- Friends of Oak Cliff Parks, Dallas: https://friendsofoakcliffparks.org
- Friend of Fair Park: https://www.fairpark.org/connect/contact

Strategies for Future Growth

Park Land Dedication Ordinance

Park Land Dedication Ordinances are a proactive park planning strategy for cities like Rhome that are anticipating future growth. A Parkland Dedication Ordinance places a fee or dedication requirement on certain types of new constructions (Houses, apartments, etc.). It serves to increase available lands for future facilities without directly costing current residents or the city.

Park land dedication ordinances are comprised of (5) main parts including:

- Having a park land dedication ordinance in place
- Adequate fee in-lieu of when land dedication is not feasible
- Setting spatial goals for parkland dedication e.g. 10-minute walk goal/neighborhood park development
- Large community park development

Ordinances should be benchmarked and revised every 3 years as necessary to ensure the recreational demands of the community are met.

Example of a city ordinance designed to increase park land through the City of Dallas: http://www.dallascitynews.net/new-city-ordinance-designed-increase-park-land

More information on developing park land dedication ordinances can be found in Appendix K.

Park Land Acquisition

Given the land constraints Rhome is facing and the rapid growth rate of DFW and Wise County, IUS strongly recommends land acquisition as strategy for accommodating the community's PROS needs while available land adjacent to Rhome still exists.

Based on the community engagement meetings, Rhome residents are requesting certain types of facilities/amenities that *cannot be accommodated or are not compatible with much of the available land* within Rhome, which most often included large amounts of floodplain and/or drainage corridors and smaller parcels. While this plan utilizes these non-traditional park spaces wherever possible when feasible, these types of spaces are limited in terms of the types of facilities they can accommodate (e.g. placing a basketball court in a drainage easement). If Rhome desires to prioritize facilities such as baseball and soccer fields, large sport courts, large pavilions, etc., IUS recommends Rhome ***set aside or purchase suitable park land***.

Equity is also a critical component of parks planning and development. Rhome should strive to ensure that each of its neighborhoods has access to adequate park facilities, and that larger parks are developed to be convenient and accessible to residents of the entire city. Ideally, each neighborhood should have a neighborhood park that is within safe walking or biking distance to the entire neighborhood.

Strategies for Improved Connectivity

Access to Parks & Traffic Impacts

When developing new parks or adding amenities to existing parks, care should be taken to evaluate potential traffic impacts and to ensure safe pedestrian and bike access. This includes providing adequate cross walks, signage, and traffic calming measures, as necessary. Depending upon the size and type of park facility, provisions should be made for some parking spaces, especially for handicapped accessible parking.

Safe Routes to School

Parks and trails can be designed and partially funded via Safe Routes to Schools programs of state transportation agencies and Metropolitan Planning Organizations. This is an excellent means of addressing pedestrian safety concerns in and around both park facilities and schools. Safe Routes to School programs also allow for productive cooperation between the City and local ISDs, including Northwest ISD that services Rhome K-12 students.

Americans with Disabilities Act Guidelines

Although demographic information on persons with disabilities within Rhome were not available, the topic of an all-inclusive playground for the community was discussed during the second community meeting. The *Americans with Disabilities Act* (ADA) requires that play structures constructed or altered after *2012* must comply with the 2010 ADA Standards. For further information on specific standards for ground surface types, play components, and other accessibility rules, please consult the Americans with Disabilities Act, the 2010 ADA Standards, and the American Society for Testing and Materials appended to the end of this document. Other resources found pertaining to all-inclusive play include *Playcore*, a playground equipment company, in conjunction with *Utah State University's Center for Persons with Disabilities*, have developed guidelines for all-abilities play and playground equipment. Their guidelines can be found in the Appendix of this report.

Pedestrian Safety

Pedestrian safety is a major concern for the residents of Rhome. IUS urges Rhome to consider traffic calming measures around its park facilities, as appropriate. TXDOT's *Texas Manual on Uniform Traffic Control Devices* (TMUTCD) discusses several traffic calming devices and strategies that promote pedestrian safety, including Pedestrian Hybrid Beacons (PHB). According to the TMUTCD, A PHB is a special type of hybrid beacon used to warn and control traffic at an unsignalized location to assist pedestrians in crossing a street or highway at a marked crosswalk. Other traffic calming options include changes in pavement patterns, raised crosswalks, crossing medians, reducing speed limits. Relevant sections of the TMUTCD are appended to the end of this document in the Appendix.

FINAL RECOMMENDATIONS

Strategies for Sustainable Park Design & Development

IUS highly encourages incorporation of environmental and ecological sustainability practices in tho future Rhome park system. Some of the best practices listed below.

Sustainable SITES

SITES is a sustainability-focused framework that cities can use to protect ecosystems and enhance the mosaic of benefits they continuously provide our communities, such as climate regulation, carbon storage and flood mitigation" (sustainablesites.org). SITES offer an inclusive rating system to distinguish sustainable landscapes in Rhome, measure their performance and elevate their value in Rhome Parks System and other development projects. IUS highly recommends registering Rhome projects with SITES. This link provides necessary information- https://sitesonline.usgbc.org/.

LEED Neighborhood Development

LEED for Neighborhood Development (LEED-ND) was engineered to inspire and help create better, more sustainable, well-connected neighborhoods. Usually, it looks beyond the scale of buildings to entire communities (https://www.usgbc.org/leed. LEED Certification is available to any neighborhood-scale projects, if it is currently in any phase of planning and designed to 75% constructed. It offers developers market and funds the project among prospective tenants, financiers, public officials, etc. Rhome can be applied for the built projects if the project is at near completion stage or already completed within the last 3 years. The LEED rating system applies to your project building and the site it is located on, while the SITES rating system applies to everything on your site, except your building (with a few exceptions). Reference guide for LEED-ND: https://www.usgbc.org/guide/nd.

Community Gardens

Community gardens provide residents a place to grow fresh food, while also cultivating a sense of place and community. Community gardens also encourage physical activity and ecological and environmental education for persons of all ages. Community garden programming was desired by the community, though as a lower priority than some other amenities.

Several resources including the *Sustainable Food Center* (headquarters in Austin, TX) and the community garden program for the *City of Addison, TX*, provide guidance on how to start community gardens and provide examples of commonly established land use agreements between residents and the sponsor (Rhome), as well as design guidelines and maintenance plans. Some of the example agreements include a garden plot fee and a fixed amount of community service hours to be completed throughout the year. These documents can be found in the Appendix.

Park Safety

Crime prevention through environmental design (CPTED) uses design elements to create a safer neighborhood . It aims to reduce both crime and the fear of crime in the Rhome Park System. Core Concepts of CPTED are displayed in the figure below. Better lighting in the Rhome park system is critical. It offers a welcoming and safer open space environment and outdoor experience for park users, especially for the park users who access parks at late evening or night. Better lighting showcases the layout of the park: walking paths, cycling paths, focal points, setting areas, restrooms, entering, and exit points, and parking lots. Lightning not only illuminates the Rhome parks, but it will also offer an enjoyable experience. Please note that lighting within parks can also be turned off, if desired, after park closing times in the evening.

The Rhome Park system should have an Emergency Action Plan for its newly proposed park system. Emergency services and access points throughout the park are needed, especially for large parks, where lengthy walking paths are to monitor at all times. In addition to service boxes, camera monitoring should be considered as appropriate and in consultation with the public and the police. This will offer safer park system in Rhome and higher safety and quick access to necessary authorities during an emergency to Rhome park users.

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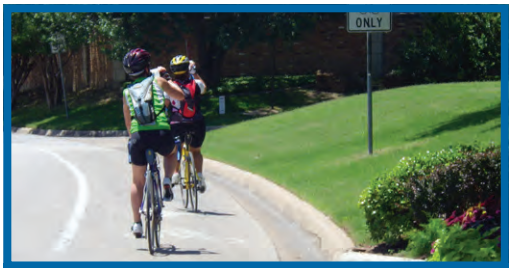
APPENDIX - A

AASHTO & NACTO:
Guide for the Development of Bicycle Facilities

AASHTO
Guide for the Development of Bicycle Facilities, 4th Edition (2012)

North Central Texas Council of Governments

Bike/Walk North Texas



Bike Lanes

Best Use
Major roads that provide direct, convenient, quick access to major land uses. Also can be used on collector roads and busy urban streets with slower speeds.

Motor Vehicle Design Speed
Generally, any road where the design speed is more than 25 mph.

Traffic Volume
Variable. Speed differential is generally a more important factor in the decision to provide ike lanes than traf c volumes

Classification or Intended Use
Arterials and collectors intended for major motor vehicle traf c movements

Other Considerations
Where motor vehicles are allowed to park adjacent to bike lane, provide a bike lane of suf cient idth to reduce pro a ility of con icts due to opening vehicle doors and objects in the road. Analyze intersections to reduce icyclist motor vehicle con icts

Marked Shared Lanes

Best Use
Space-constrained roads with narrow travel lanes, or road segments upon which bike lanes are not selected due to space constraints or other limitations.

Motor Vehicle Design Speed
Variable. Use where the speed limit is 35 mph or less.

Traffic Volume
Variable. Useful where there is high turnover in on-street parking to prevent crashes with open car doors.

Classification or Intended Use
Collectors or minor arterials.

Other Considerations
May be used in conjunction with wide outside lanes. Explore opportunities to provide parallel facilities for less con dent icyclists Where motor vehicles are allowed to park along shared lanes, place markings farther out to reduce potential con icts ith opening car doors.

Off Street Shared Use Path (Trail)
independent right-of-way

Best Use
Linear corridors in greenways, or along waterways, freeways, active or abandoned rail lines, utility rights-of-way, unused rights-of-way. May be a short connection, such as a connector between two cul-de-sacs, or a longer connection between cities.

Motor Vehicle Design Speed
N/A

Traffic Volume
N/A

Classification or Intended Use
Provides a separated path for non-motorized users. Intended to supplement a network of on-road bike lanes, shared lanes, bicycle boulevards, and paved shoulders.

Other Considerations
Analyze intersections to anticipate and mitigate con icts et een path and road ays users Design path with all users in mind, wide enough to accommodate expected usage. On-road alternatives may be desired for advanced riders who desire a more direct facility that accommodates higher speeds and minimi es con icts ith intersection and drive ay traf c, pedestrians, and young bicyclists.

Shared Lanes (wide outside lanes)

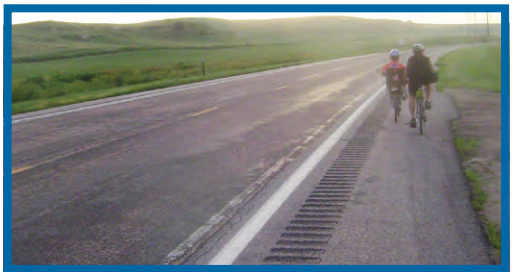
Best Use
Major roads where bike lanes are not selected due to space constraints or other limitations

Motor Vehicle Design Speed
Variable. Use as the speed differential between bicyclist and motorists increases. Generally any road where the design speed is more than 25 mph.

Traffic Volume
Generally more than 3,000 vehicles per day.

Classification or Intended Use
Arterials and collectors intended for major motor vehicle traf c movements

Other Considerations
Explore opportunities to provide marked shared lanes, paved shoulder, or bike lanes for less con dent icyclists



Paved Shoulders

Best Use
Rural highways that connect town center and other major attractors.

Motor Vehicle Design Speed
Variable. Typical posted rural highway speeds (generally 40-55 mph).

Traffic Volume
Variable.

Classification or Intended Use
Rural roadways; inter-city highways.

Other Considerations
Provides more shoulder width for roadway stability. Shoulder width should be dependent on characteristics of the adjacent motor vehicle traf c, i e ider shoulders on higher speed and/or higher-volume roads.

Off Street Shared Use Path (Sidepath)
adjacent to roadways

Best Use
Adjacent to roadways with no or very few intersections or driveways. The path is used for a short distance to provide continuity between sections of path on independent right-of-way.

Motor Vehicle Design Speed
The adjacent roadway has high-speed motor vehicle traf c such that icyclists might e discouraged from riding on the roadway.

Traffic Volume
The adjacent roadway has very high motor vehicle traf c volumes such that icyclists might be discouraged from riding on the roadway.

Classification or Intended Use
Provides a separated path for non-motorized users. Intended to supplement a network of on-road bike lanes, shared lanes, bicycle boulevards, and paved shoulders. Not intended to substitute or replace on-road accommodations for bicyclists, unless bicycle use is prohibited

Other Considerations
Several serious operational issues are associated with this facility type.

NACTO
Urban Bikeway Design Guide

OTHER LOCAL FACILITIES
(Not included in AASHTO or Mobility 2035, The Metropolitan Transportation Plan)

Cycle Track

Best Use
Space that is intended to be exclusively or primarily used for bicycles, and are separated from motor vehicle travel lanes, parking lanes, and sidewalks.

Motor Vehicle Design Speed
Streets with high motor vehicle speeds.

Traffic Volume
There are no US standards for the bicyclist and motor vehicle volumes that warrant cycle tracks, however several international documents provide basic guidance.

Classification or Intended Use
Dedicates and protects space for bicyclists in order to improve perceived comfort and safety.

Other Considerations
Cycle tracks may be one-way or two-way, and may be at street level, at sidewalk level, or at an intermediate level. If at sidewalk level, a curb or median separates them from motor traf c, hile different pavement color/texture separates the cycle track from the sidewalk. If at street level, they can e separated from motor traf c y raised medians, on-street parking, or bollards.

Signed Bike Route

Best Use
A roadway or bikeway designated by the jurisdiction having authority, either with a unique route designation or with Bike Route signs, along which bicycle guide signs may provide directional and distance information.

Other Considerations
Decision signs should include destinations, directional arrows, and distance. Travel time required to reach the destination provides bicyclists with additional information and may also be included. It is recommended that a 10 mph bicycle speed be used for travel time calculations.[1]

Nature Trails, Equestrian Trails

Best Use
Natural areas where constraints prevent building of paved surface trails or a more natural experience is desired.

Classification or Intended Use
Hiking, horseback riding

Other Considerations
Primarily natural surface trails such as crushed aggregate, mulch, or dirt.

1. NACTO Urban Bikeway Design Guide

Bicycle Boulevards

Best Use
Streets ith lo motori ed traf c volumes and speeds, designated and designed to give bicycle travel priority.

Motor Vehicle Design Speed
Bicycle boulevards should have a maximum posted speed of 25 mph.

Traffic Volume
Bicycle boulevards should be designed for motor vehicle volumes under 1,500 vehicles per day (vpd), with up to 3,000 vpd allowed in limited sections of a bicycle boulevard corridor.

Classification or Intended Use
Residential roadways.

Other Considerations
Bicycle Boulevards use signs, pavement markings, and speed and volume management measures to discourage through trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets.

Private

Definition
Privately maintained shared use paths and sidewalks. Typically located on private property or within a subdivision and maintained by a Property Owners Association. Facilities may vary in width, length, and surface material. Occasionally these facilities connect to a larger public path (trail) system.

Wide Sidewalks

Definition
Wide sidewalks may have a greater width than standard sidewalks to accommodate higher volumes of users. However, the facility width does not comply with AASHTO guidelines for a shared use path that safely accommodates a range of non-motorized users.

APPENDIX - B

Development Agreement:
Johnson County, T

STATE OF TEXAS §
COUNTY OF JOHNSON §

DEVELOPMENT AGREEMENT

This agreement is entered into pursuant to Sections 212.072 and 43.035 of the Texas Local Government Code (the "Code") between the City of Burleson, Texas (the "City") acting by and through its City Manager (or his designee), and _____ _____ (the "Owner"). The term "Owner" includes all owners of the Property.

WHEREAS, the Owner owns real property (the "Property") in Johnson County, Texas, more particularly and separately described in the attached Exhibit "A", which is located in the extraterritorial jurisdiction of the City; and

WHEREAS, the Owner desires to continue the current use of the Property and to remain outside of the City Limits, in the City's extraterritorial jurisdiction, in consideration for which the Owner agrees to enter into this Agreement; and

WHEREAS, it is the City's desire to permit the Owner to continue current use of the Owner's Property according to the terms of this Agreement without being annexed into the City; and

WHEREAS, the Property is eligible to be the subject of a development agreement under Sections 212.72 and 43.035 of the Texas Local Government Code; and

WHEREAS, this Agreement is entered into in lieu of involuntary annexation and in compliance with Sections 212.172 and 43.035 of the Code, in order to address the desires of the Owner and the procedures of the City; and

WHEREAS, the Owner and the City acknowledge that this Agreement is binding upon the City and the Owner and their respective heirs, successors and assigns for the Term (defined below) of this Agreement; and

WHEREAS, this Agreement is to be recorded in the Real Property Records of Johnson County.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the parties hereto agree as follows:

SECTION 1.
CONDITIONAL IMMUNITY FROM ANNEXATION

A. The City guarantees that it will not involuntarily or "force" annexation of the Property (the "guarantee of immunity from annexation"), nor institute proceedings to annex the property, nor charge City property taxes, for the term of this Agreement subject to the provisions of this Agreement. If the Property is annexed pursuant to the terms of this Agreement, the City will provide services to the Property in accordance with a service plan in compliance with Chapter 43 of the Texas Local Government Code and consistent with the services provided to similarly situated properties existing in the city's limits.

B. This guarantee not to annex the Property will end should any of the events listed in Section 3 occur or if the Owner requests annexation to be completed prior to expiration of the Term of this Agreement.

SECTION 2.
REGULATION OF PROPERTY

A. Until such time the Property is annexed, the City will enforce all the City's regulations and planning authority approved by the City Council for the ETJ. The parties agree that, as of the effective date of this agreement, said enforcement and planning authority consists of:
    1. the Subdivision and Development Ordinance; and
    2. Ordinances prohibiting:
        (i) construction of a billboard(s); and
        (ii) possession, manufacture, storage, sale, handling and use of fireworks.

B. In no case will the City's enforcement of any regulations and planning authority materially interfere with the use of the Property for Agriculture, Wildlife Management or Timber Uses as such are defined by Chapter 23 of the Texas Property Code.

C. For purposes of this agreement, the following uses shall be consistent with the uses in paragraph B of this Section:
    1. A "residential homestead" as such is defined by Chapter 11 of the Tax Code; and
    2. Land used for single family residential purposes as defined by Section 23.25(a) of the Tax Code. For purposes of this agreement, a legal entity that is affiliated with the Owner (as cited in Paragraph (a)(2)(B)(iv) of 23.25) shall mean a family trust only.

D. The Owner may construct any building(s) consistent with the uses described in this section. Prior to initiation of construction, Owner shall obtain the City's written consent. The City's consent shall be limited to the question of whether or not the construction is or is not consistent with the uses described in this section.

SECTION 3.
EVENTS THAT TERMINATE IMMUNITY FROM ANNEXATION

The occurrence of any of the following events shall constitute a petition for voluntary annexation by the Owner and shall terminate the guarantee of immunity from annexation:

A. If the Owner files (with the City or any other governmental unit) any type of subdivision plat, development plat, or related development documents for the Property save and except for a plat or documents submitted in relation to the uses listed in Section 2, Paragraph C. above;

B. If the Owner commences or allows development and/or use of the Property in violation of this Agreement.

SECTION 4.
TERM

A. Subject to Section 3 of this Agreement, the term of this Agreement (the "Term") is ten (10) years from the date that the City Manager's (or designee's) signature to this Agreement is acknowledged by a public notary.

B. Upon expiration of the Term:
   1. Owner, Owner's heirs, successors and assigns shall be deemed to have filed a petition for voluntary annexation; and
   2. The City will institute and complete annexation proceedings for the Property; and
   3. Said annexation shall be a voluntary annexation under any applicable law now or then existing.

C. The Term may be extended for an additional period or periods of time (subject to the limitations of State law) by the City or by written agreement of the Parties.

D. Owner may, at any time, petition the City to voluntarily annex all or a portion of the Property prior to expiration of the Term.

SECTION 5.
GENERAL PROVISIONS

A. Notice. Prior to the sale or conveyance of any portion of the Property, the Owner shall give written notice of this Agreement to the prospective purchaser or grantee, and shall give written notice of the sale or conveyance to the City.

   A copy of the notice required by this section shall be forwarded to the City at the following address:

City of Burleson, Texas
Attn: City Manager
Burleson City Hall
141 West Renfro
Burleson, Texas 76028-4261

B. Runs with Property. This Agreement shall run with the Property, shall be recorded in the real property records of Johnson County, Texas, and shall be binding on the Owner and the Owner's successors in title.

C. Severability. If a court of competent jurisdiction determines that any covenant or requirement of this Agreement is void or unenforceable, including the covenants regarding involuntary annexation, then the remainder of this Agreement shall remain in full force and effect.

D. Enforcement; No Waiver. This Agreement may be enforced by the Owner or the City by any proceeding at law or in equity. Failure to do so shall not be deemed a waiver to enforce the provisions of this Agreement thereafter.

E. Applicable Law. No subsequent change in the law regarding annexation shall affect the enforceability of this Agreement or the City's ability to annex the properties covered herein pursuant to the terms of this Agreement.

F. Venue. Venue for this Agreement shall be in Johnson County, Texas.

G. No Vested Rights. This Agreement shall not be construed as a permit for purposes of Chapter 245, Texas Local Government Code. Should annexation occur, the Owners hereby waive any vested rights they may have under Section 43.002(a)(2) and Chapter 245 of the Texas Local Government Code that would otherwise exist by virtue of any plat or construction any of the owners may initiate during the time between the expiration of this Agreement and the institution of annexation proceedings by the City.

H. Execution. This Agreement may be separately executed in individual counterparts and, upon execution, shall constitute one and the same instrument.

I. This Agreement shall survive its termination to the extent necessary for the implementation of the provisions of Sections 2 and 3 herein.

J. "The Owner acknowledges that each and every owner of the Property must sign this Agreement in order for the agreement to take full effect, and the Owner who signs this Agreement covenants and agrees, jointly and severally, to indemnify, hold harmless, and defend the City against any and all legal claims, by any persons claiming an ownership interest in the Property who has not signed the Agreement, arising in any way from the City's reliance on this Agreement."

Executed this ____ day of _____, 20_____ by Owner.

Owner's Signature(s): _____

Owner's Printed Name(s): _____

Executed this ____ day of _____, 20_____ by City.

City Representative Signature(s): _____

City Representative Printed Name: _____

City Representative Title: _____

STATE OF TEXAS §

COUNTY OF JOHNSON §

Before me, _____, on this day personally appeared _____, known to me, or through examination of a valid Texas Driver's License proven to be, the person(s) whose name(s) is/are subscribed to the foregoing instrument as Owner(s) and acknowledged to me that he/she/they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this _____ day of _____, 2014.

_____

(Notary Seal) Notary Public's Signature

STATE OF TEXAS §
COUNTY OF JOHNSON §

This instrument was acknowledged before me on the ____ day of _____, 2014, by _____, _____, of the City of Burleson, Texas.
(name) (title)

_____

(Notary Seal) Notary Public's Signature

APPENDIX - C

Addison, T Community Garden Forms

Release of All Claims

I, _____, the undersigned, am a voluntary participant in the Addison Community Garden project ("Community Garden"). The Community Garden is sponsored by the Town of Addison, Texas (the "Town") and the Addison Arbor Foundation (the "Foundation"). In consideration for the privilege of participating in the Community Garden, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and as an inducement to the Town and the Foundation to allow me to participate in the Community Garden, I do hereby execute this Release of All Claims ("Release") and agree to the following:

1. I am fully aware of the risks and hazards associated with participating in the Community Garden. I ASSUME RESPONSIBILITY FOR ALL SUCH RISKS AND HAZARDS, including any loss, cost, or damage that may result from any accident, injury, illness, or death to me or another person, or any damage to or loss of any property owned by me or another person.

2. I hereby fully and finally RELEASE AND FOREVER DISCHARGE the Town of Addison, Texas, its elected officials, its officers, employees, agents and volunteers (collectively, "Addison Persons"), and the Addison Arbor Foundation, its officers, employees, agents and volunteers (collectively, "Foundation Persons") (the Town and all other Addison Persons, and the Foundation and all other Foundation Persons, being collectively the "Releasees"), of and from all claims, liability, losses, harm, costs, fees, expenses, suits, judgments, proceedings, demands, and actions whatsoever, including but not limited to those based on negligence, (collectively, "Claims"), in any manner arising out of or resulting from in whole or in part my participation in or activities at the Community Garden. I understand that this Release means that, among other things, I am GIVING UP MY RIGHT TO SUE the Releasees or any of them, for any accident, injury, illness, or death to me or another person, or any damage to or loss of any property owned by me or another person arising out of or resulting from my participation in or activities at the Community Garden.

3. I agree to fully DEFEND, INDEMNIFY, AND HOLD HARMLESS the Releasees (and each of them) from and against any and all Claims that may arise out of, result from, or be incurred due to my participation in, or any of my acts or omissions at or in connection with, the Community Garden, and INCLUDING CLAIMS ALLEGED OR FOUND TO HAVE BEEN CAUSED, IN WHOLE OR IN PART, BY THE NEGLIGENCE OF THE RELEASEES (OR ANY OF THEM), OR BY ANY ACT OR OMISSION OF THE RELEASEES (OR ANY OF THEM) THAT WOULD GIVE RISE TO STRICT LIABILITY OF ANY KIND.

4. I agree to abide by all of the rules or guidelines of the Community Garden that are in effect now or may be in effect in the future. I understand that my right to participate in the Community Garden may be revoked by the Town at any time and for any reason or for no reason.

5. The provisions of this Release are severable, and if any provision hereof is held to be illegal, invalid or unenforceable under present or future constitution or laws, such provision shall be fully severable and this Release shall be construed and enforced as if such illegal, invalid or unenforceable provision is not a part hereof, and the remaining provisions hereof shall remain in full force and effect. This Release shall be governed by and construed according to the laws of the State of Texas (without reference to the choice of laws provisions of any jurisdiction), and

venue for all matters, claims, or proceedings hereunder shall lie exclusively in Dallas County, Texas.

I represent and certify that I am at least 18 years old, am of sound mental health, and have carefully read this Release in its entirety and have fully informed myself of and understand its contents. I am aware that this Release, among other things, includes a release of liability and an indemnity obligation, and I am voluntarily signing it of my own free will.

SIGNED, AGREED AND ACCEPTED BY:

Signature of Participant:_____ Date:_____

Participant's Name: _____ Phone:_____

Street Address:_____

Witness Signature:_____ Date:_____

Witness Name:_____

ADDISON COMMUNITY GARDEN

2010-2011 ADOPT-A-PLOT APPLICATION & REGISTRATION

Please Print Legibly

Date: _____ Email:_____

Name: _____
Address: _____
_____

Phones: Home _____Cell_____

Community Garden Experience:_____

Garden Plot Preference: __Standard Garden Plot (4’ x 20’ x 16”)
__Raised Plot (4’ x 12’ x 30”)
Please explain physical need
_____
_____ I would like to be partnered in a Shared Plot

Applicant (s) Signature: _____

_____

2010-2011 Adopt-A-Plot

Application & Registration

ADDISON COMMUNITY GARDEN

ADDISON COMMUNITY GARDEN
2010-11 ADOPT-A-PLOT AGREEMENT

Terms of Agreement for Adopt-a-Plot

Please read the following guidelines carefully and agree to adhere to them by signing in the space provided.

1. Individuals who are residents of the Town of Addison. Preference will be given to those who are actively participating in the Addison Community Garden.

2. The Town of Addison will provide the garden plot, water and gardening information.

3. For 2010-2011 all plots will be assigned by the following: 1) Underwriter members, 2) Charter members, 3) volunteer hours toward to the community garden, and 4) time and date that the plot agreement is received.

4. Each gardener's responsibility is for his/her allotted plot(s) and sharing the maintenance for the common areas and garden-made compost. With respect to the plot, each gardener must:

    - Continuously produce vegetables, fruits and companion plants by succession planting, mulching all soil with organic matter, and using proper watering techniques.

    - Never have bare soil.

    - During winter, completely mulch plot(s) soil and/or plant a cover crop.

    - Continuously maintain adjacent paths, aisles, and edges.

    - Weed plots and adjacent paths weekly.

    - Commit and participate in sharing common chores and in maintaining common areas of the garden.

    - Support and participate in the self-management of your respective plot.

5. Plot Maintenance – Organic methods are strongly encouraged.
    - Soil Amendments
        Use commonly accepted natural products.
    - Fertilizer
        Organic, water soluble, granular or liquid.
        May request a specific product and the request will be evaluated.
    - Disease Control Methods
        Organic products
        May request a specific product and the request will be evaluated.
    - Mulch - only plant based
        Native tree chippings
        Shredded leaves provided by gardeners
        Cover crop planted by gardener
    - Water – provided by the Town of Addison
        Use at the gardener's discretion but not to the point of run-off
        Hose and hose rack supplied by the gardener
        Soaker hoses may be used
        Mechanical timers may be used with soaker hoses only. No programmable timers are permitted.
        When watering, apply water to your space only.
    - Plants
        No illegal or invasive plants
        No trees
        Plan your garden layout so that your plants do not shade your neighbor's area
    - Clean up
        Dead plant material must be removed with 2 weeks
        Non-diseased material should be composted
        Diseased material should be disposed of in the trash

6. Gardeners will be responsible for harvesting their produce weekly and contributing a suggested 20% of that harvest to designated organizations. It will be the responsibility of the participant to make arrangements for their contributing portion if unavailable at designated times. The gardener will participate in the rotation to deliver the garden's gift to the designated organization.

7. Each gardener will support their garden by doing their fair share of common work as required by the garden. Consideration will be given for special skills, physical and mental capabilities and age. Youth participation is encouraged with adult guidance.

8. Gardeners will record all volunteer hours in the log book.

9. Gardeners will keep areas litter, tobacco, and drug free. Pets are not allowed within the garden. Service dogs are allowed. Never compost dog or cat feces. Walk through the garden on the garden paths. Never step on the garden beds or plot soil. Respect neighboring plots by keeping your vines and shade from tall plants or trellis within your plot borders.

10. Gardeners must adhere to the guidelines as stated here to continue to garden their adopted plot. If guidelines are not followed, the Garden Committee will contact the gardener with one grievance stating a specified time to adhere. If the gardener does not adhere, then the adopted plot may be reassigned.

11. The Garden Committee oversees the garden. Volunteers will serve on the Committee. This Committee will assist new gardeners, report maintenance issues, check garden plots for compliance with guidelines and be available to resolve problems. Committee meetings will be announced and gardeners will be encouraged to attend and to bring issues forward to the group to resolve. When needed, the Garden Committee will make recommendations to the Addison Community Garden members regarding policies and procedures.

12. If for any reason you cannot maintain your plot or have a grievance with others, inform your line captain after taking steps to resolve it yourself.

13. Underwriter Member – Persons who donate $2,500 or more to the building of the Addison Community Garden.

14. Charter Member - A fee of $100.00 and 50 volunteer hours are required for Charter Member status. Volunteer hours must be completed by Sept. 15, 2010. A plaque at the Garden site will list the names of all who worked to make the Addison Community Garden a reality.

    The standard plot agreement fee is $100.00. The initial term is September 2010 to December 31, 2011.

    The 2012 annual fee will be determined by the Garden Committee at a later date.

The Town of Addison may establish additional or other rules, regulations and/or standards for participating, working, and/or volunteering at or in connection with the Community Garden, or may on its own amend the provisions and guidelines of this Adopt-a-Plot Agreement at any time, and each participant must abide with such rules, regulations, standards, provisions and guidelines. Adhere to these guidelines. Consequences will be enforced as follows:

One warning will be given. If you have not adhered within the specified time, your plot will be recommended for reassignment. The final decision will be made by the Garden Committee.

It is understood that the Town of Addison does not assume liability for the actions of the Volunteer Gardener in performing maintenance in the Community Garden. Each participant in the Volunteer Garden must sign a Release of All Claims form and such other documents as the Town may require.

I AGREE TO FOLLOW ALL GUIDELINES SET FORTH ABOVE.

Name: _____
Please Print

Signature: _____

Date: _____

APPENDIX - D

City of Dallas Landscape and Tree Preservation Ordinance Example

ARTICLE X.

LANDSCAPE AND TREE PRESERVATION REGULATIONS.

Division 51A-10.100. In General.

SEC. 51A-10.101. DEFINITIONS.

In this article:

(1) ARTIFICIAL LOT means an area within the building site that is delineated by the building official or the director of park and recreation for the sole purpose of satisfying the requirements of this article (see Section 51A-10.122).

(2) CALIPER means:

(A) for a single-stem tree, the diameter of the trunk measured 12 inches above the ground for a tree having a diameter up to and including eight inches, and measured at four and one-half feet above the ground for a tree having a diameter of more than eight inches.

(B) for multi-stem trees, the diameter of the trunk measured at the narrowest point below branching when branching occurs higher than 12 inches above the ground. When branching occurs at or lower than 12 inches above the ground, caliper means the diameter of the largest stem plus the average diameter of the remaining stems, measured at four and one-half feet above the ground.

(3) CANOPY TREE means a species of tree that normally bears crown foliage no lower than six feet above ground level upon maturity.

(4) CLEARING means any activity that removes or seriously injures one or more trees or the vegetative ground cover of one or more trees, such as root mat removal or topsoil removal.

(5) CRITICAL ROOT ZONE means the circular area of ground surrounding a tree extending a distance of one foot per caliper inch of the tree, measured from the tree trunk or stem.

(6) ENHANCED PAVEMENT means any permeable or nonpermeable decorative pavement material intended for pedestrian or vehicular use. Examples of enhanced pavement include brick or stone pavers, grass paver, exposed aggregate concrete, and stamped and stained concrete.

(7) EVERGREEN TREE OR SHRUB means a tree or shrub of a species that normally retains its leaves throughout the year.

(8) FLOOD PLAIN means any land area susceptible to inundation by the hundred-year frequency flood.

(9) GRADING means any digging, scooping, removing, depositing or stockpiling, of earth materials.

(10) GROUND COVER means natural mulch, or plants of species that normally reach a height of less than three feet upon maturity, installed in such a manner so as to form a continuous cover over the ground.

(11) HUNDRED-YEAR FREQUENCY FLOOD means the flood having a one percent chance of being equalled or exceeded in any given year. This flood is based upon the drainage area being fully developed to current zoning limitations.

(12) LANDSCAPE ARCHITECT means a person licensed to use the title of "landscape architect" in the State of Texas in accordance with state law.

(13) LANDSCAPE AREA means an area at least 80 percent of which is covered by natural grass, ground cover, or other natural plant materials (excluding screening).

(14) LANDSCAPE BUFFER STRIP means a landscape area that serves a buffer function.

(15) LARGE SHRUB means a shrub that normally reaches a height of six feet or more upon maturity.

(16) LARGE TREE means a tree of a species that normally reaches a height of 30 feet or more upon maturity.

(17) LOT means:

(A) a "lot" as defined in Section 51A-2.102; and

(B) an "artificial lot" as defined in this section.

(18) LOT WITH RESIDENTIAL ADJACENCY means any of the following:

(A) A building site containing a multifamily use that is adjacent to or directly across:

(i) a street 64 feet or less in width; or

(ii) an alley;

from private property in a single family, duplex, townhouse, or CH district.

(B) A building site containing a nonresidential use that is adjacent to or directly across:

(i) a street 64 feet or less in width; or

(ii) an alley;

from private property in an agricultural, single family, duplex, townhouse, CH, multifamily, or manufactured housing district.

(C) An artificial lot containing a multifamily use if the lot is less than 200 feet from private property in a single family, duplex, townhouse, or CH zoning district.

(D) An artificial lot containing a nonresidential use if the lot is less than 200 feet from private property in an agricultural, single family, duplex, townhouse, CH, multifamily, or manufactured housing zoning district.

(19) NONPERMEABLE COVERAGE means coverage with any pavement that is not “permeable pavement” as defined in this section.

(20) PERMEABLE PAVEMENT means a paving material that permits water penetration to a soil depth of 18 inches or more. Permeable pavement may consist of nonporous surface materials poured or laid in sections not exceeding one square foot in area and collectively comprising less than two-thirds of the total surface area.

(21) PRIVATE PROPERTY means any property not dedicated to public use, except that "private property" does not include the following:

(A) A private street or alley.

(B) Property on which a utility and public service use listed in Section 51A-4.212 is being conducted as a main use.

(C) A railroad right-of-way.

(D) A cemetery or mausoleum.

(22) PROTECTED TREE means:

(A) a tree that has a caliper of eight inches or more and is not one of the following trees:

(i) *Acer saccharinum* (Silver Maple).
(ii) *Ailanthus altissima* (Tree of Heaven).
(iii) *Albizzia julibrissen* (Mimosa or Silktree).
(iv) *Celtis occidentalis/ laevigata* (Hackberry or Sugarberry).
(v) *Fraxinus velutina* (Arizona Ash).
(vi) *Juniperus virginiana* (Eastern Red Cedar)[unless protected under subparagraph (B).]
(vii) *Maclura pomifera* [female only] (Bois d'Arc or Horseapple).
(viii) *Melia azedarach* (Chinaberry).
(ix) *Prosopis glandulosa* (Mesquite) [unless protected under subparagraph (B).]
(x) *Salix nigra* (Black Willow).
(xi) *Sabium sebiferum* (Chinese Tallow).
(xii) *Ulmus pumila* (Siberian Elm).

(B) an Eastern Red Cedar (*Juniperus virginia*) or Mesquite (*Prosopis glandulosa*) tree that has a caliper of eight inches or more and the trunk is located:

(i) in, or within 120 feet of the boundary of: a floodplain [as defined in Article V]; a wetland area [as defined in federal environmental regulations]; or an escarpment zone [as defined in Article V]; or

(ii) within 50 feet of a natural channel setback line [as defined in Article V].

(C) an Eastern Red Cedar (*Juniperus virginiana*) or Mesquite (*Prosopis glandulosa*) tree that has a caliper of at least 12 inches; or

(D) a tree that was planted as a replacement tree.

(23) REMOVE OR SERIOUSLY INJURE means an intentional or negligent action that will more likely than not cause a tree to decline and die within five years of the act. Actions that constitute removing or seriously injuring a tree include, but are not limited to: cutting down a tree; excessively pruning or topping a tree; compacting the soil above the root system of a tree; changing the natural grade above the root system of a tree; damaging the root system or the trunk of a tree (such as by operating machinery near, or by clearing or grading the area around, the trunk of a tree); failing to repair an injury to a tree from fire or other causes, which results in or permits tree infections or pest infestations into or on the tree; applying herbicidal or other lethal chemicals; and placing nonpermeable pavement over the root system of a tree.

(24) RESPONSIBLE PARTY means the property owner and any other person or entity responsible for removing or seriously injuring a protected tree.

(25) REPLACEMENT TREE means a tree that is planted in accordance with Section 51A-10.134.

(26) SCREENING means screening that complies with Section 51A-4.602, except as those regulations may be expressly modified in this article.

(27) SMALL TREE means a tree of a species that normally reaches a height of less than 30 feet upon maturity.

(28) SOIL means a medium that plants will grow in.

APPENDIX - E

GameTime Company Playground
Construction Guide

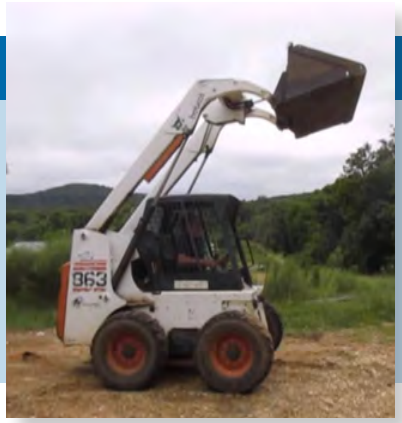
CONSTRUCTION GUIDE FOR THE PERFECT PLAYGROUND

Things to Think About

800.235.2440 | gametime.com

SITE & ACCESS

- An unobstructed path to the site, that will not present any damages to the surrounding area.
- Depending on job, must accommodate a Bobcat type machine, and have a minimum access width of 8'.
- Trees and landscaping may need to be removed.
- Utilities located and marked by all appropriate local jurisdictions.
- Is the ground flat?
- Drainage.



PLAYGROUNDS

- Actual location of equipment must be provided.
- Finished grade floor for top of playground surfacing to be determined.
- Staging area will be needed for construction items and equipment not yet installed.
- Water and electricity will be needed.
- Access must be determined.
- Location of anything buried must be marked.
- Disposal of waste materials.

SURFACING

Loose Fill

- Staging area for several dump trucks of material.
- Clean up.
- Finish grade (borders/ dig out).
- Drainage.

Unitary Surfacing

- Drainage.
- Finish grade (borders/ dig out).
- Staging area.
- Security at night.
- Disposal of wasted materials.

SHADE

- Lull access and maneuverability.
- If there is existing equipment, we need the measurement of the highest point and the layout of equipment, can we get around equipment?
- Underground utilities, note footers are massive, could be 8'x8'x8' deep depending on size of shade.
- Dirt removed from footers will need to be placed somewhere on site.
- Very slow installation process.

PERMITS

- Site Plans are needed, with setbacks noted. Owner must provide.
- Must be signed by the owner of the property.
- May take an extended period of time, depending on your municipality.
- Costs of permits can vary greatly and sometimes final price is not known until the permits are ready to be picked up.
- When permits are involved, inspections on site will be necessary. Project may seem suspended for long periods of time. Security may be a concern.
- At conclusion of work, a final inspection will be required before opening. This may add even more time when the project looks complete.

GameTime®

A PLAYCORE Company

APPENDIX - F

LEED 4 Neigh orhood Development Checklist

LEED v4 for Neighborhood Development Built Project

Project Checklist

Project Name:

Date:

Yes	?	No				
0	**0**	**0**	**Smart Location & Linkage**			**28**
Y			Prereq	Smart Location		Required
Y			Prereq	Imperiled Species and Ecological Communities		Required
Y			Prereq	WetlandS and Water Body Conservation		Required
Y			Prereq	Agricultural Land Conservation		Required
Y			Prereq	Floodplain Avoidance		Required
			Credit	Preferred Locations		10
			Credit	Brownfield Remediation		2
			Credit	Access to Quality Transit		7
			Credit	Bicycle Facilities		2
			Credit	Housing and Jobs Proximity		3
			Credit	Steep Slope Protection		1
			Credit	Site Design for Habitat or Wetland and Water Body Conservation		1
			Credit	Restoration of Habitat or Wetlands and Water Bodies		1
			Credit	Long-Term Conservation Management of Habitat or Wetlands and Water Bodies		1

0	**0**	**0**	**Neighborhood Pattern & Design**			**41**
Y			Prereq	Walkable Streets		Required
Y			Prereq	Compact Development		Required
Y			Prereq	Connected and Open Community		Required
			Credit	Walkable Streets		9
			Credit	Compact Development		6
			Credit	Mixed-Use Neighborhoods		4
			Credit	Housing Types and Affordability		7
			Credit	Reduced Parking Footprint		1
			Credit	Connected and Open Community		2
			Credit	Transit Facilities		1
			Credit	Transportation Demand Management		2
			Credit	Access to Civic & Public Space		1
			Credit	Access to Recreation Facilities		1
			Credit	Visitability and Universal Design		1
			Credit	Community Outreach and Involvement		2
			Credit	Local Food Production		1
			Credit	Tree-Lined and Shaded Streetscapes		2
			Credit	Neighborhood Schools		1

0	**0**	**0**	**Green Infrastructure & Buildings**			**31**
Y			Prereq	Certified Green Building		Required
Y			Prereq	Minimum Building Energy Performance		Required
Y			Prereq	Indoor Water Use Reduction		Required
Y			Prereq	Construction Activity Pollution Prevention		Required
			Credit	Certified Green Buildings		5
			Credit	Optimize Building Energy Performance		2
			Credit	Indoor Water Use Reduction		1
			Credit	Outdoor Water Use Reduction		2
			Credit	Building Reuse		1
			Credit	Historic Resource Preservation and Adaptive Reuse		2
			Credit	Minimized Site Disturbance		1
			Credit	Rainwater Management		4
			Credit	Heat Island Reduction		1
			Credit	Solar Orientation		1
			Credit	Renewable Energy Production		3
			Credit	District Heating and Cooling		2
			Credit	Infrastructure Energy Efficiency		1
			Credit	Wastewater Management		2
			Credit	Recycled and Reused Infrastructure		1
			Credit	Solid Waste Management		1
			Credit	Light Pollution Reduction		1

0	**0**	**0**	**Innovation & Design Process**			**6**
			Credit	Innovation		5
			Credit	LEED® Accredited Professional		1

0	**0**	**0**	**Regional Priority Credits**			**4**
			Credit	Regional Priority Credit: Region Defined		1
			Credit	Regional Priority Credit: Region Defined		1
			Credit	Regional Priority Credit: Region Defined		1
			Credit	Regional Priority Credit: Region Defined		1

0	**0**	**0**	**Project Totals (Certification estimates)**	110

Certified: 40-49 points, **Silver:** 50-59 points, **Gold:** 60-79 points, **Platinum:** 80+ points

APPENDIX - G

PLAYGRO ND S RFACING MATERIALS 2010
ADA-APPRO ED AND NON-APPPRO ED

Playground Surfacing Materials ADA-Approved and Non-Appproved

by Mike Marshall

On March 15, 2011 The U.S. DEPARTMENT OF JUSTICE 2010 ADA Standards go into effect with specific new sections that govern the design, construction and numbers of accessible elements in playgrounds.

Section 240 of the 2010 Standards provides scoping for play areas and section 1008 provides the technical requirements.

Section 240.1 of the 2010 Standards establishes play area requirements for children ages 2 and over and covers separate play areas within a site for specific age groups. Section 240.1 also provides four exceptions to the requirements that apply to family child care facilities, relocation of existing play components in existing play areas, amusement attractions, and alterations to play components where the ground surface is not altered.

Section 1008.2.6 of the 2010 Standards provides technical requirements for accessible ground surfaces for play areas on accessible routes, clear floor or ground spaces, and turning spaces. These ground surfaces must follow special rules, incorporated by reference from nationally recognized standards for accessibility and safety in play areas, including those issued by the American Society for Testing and Materials (ASTM).

ASTM code standards identify ways to test and compare surfacing materials. They do not identify specific materials; rather, they establish standards that must be met if the materials are to be used in ADA-compliant playgrounds. The selection of materials must be based on many characteristics of the individual play areas: height of equipment; age of users; dispersion of elements; normal weather conditions; maintenance costs; installation costs; equipment life expectancy; and environmental concerns.

There are basically two options for ADA-compliant surfacing materials, loose fill materials or synthetic materials. The functionality of the different types of materials is the most significant concern for a school or public entity that is installing or upgrading a playground. When choosing between types of surfacing materials there are three criteria that must be used to assess functionality in an ADA-approved play area.

1. What is the force of impact from a fall in a use zone, in and around playground equipment? The code requirements are referenced and established by ASTM Standard 1292-99 and ASTM F 1292-04. These codes provide a uniform means to measure and compare characteristics of surfacing materials to determine whether materials provide a safe surface under and around playground equipment. These standards are also referenced when an accessible surface is required inside a play area use zone where a fall attenuating surface is also required. The standards cover the minimum impact attenuation requirements, when tested in accordance with Test Method F 355, for surface systems to be used under and around any piece of playground equipment from which a person may fall.

2. Where are the accessible Routes located both in and around playground components and to and from playgrounds themselves? These requirements can be found in ASTM F 1487 and ASTM 1487-01, which establishes a nationally recognized safety standard for public playground equipment to avoid injuries identified by the U.S. Consumer Product Safety Commission. ASTM 1487 defines the use zone as the ground area beneath and immediately adjacent to a play structure or play equipment that is designed for unrestricted

circulation around the equipment and on whose surface it is predicted that a user would land when falling from or exiting pertinent play structures or equipment. ASTM F 1487 identifies the play area standard when defining accessible routes, which overlap use zones that require fall attenuating surfaces. In short, if the use zone of a playground is not entirely surfaced with an accessible material, at least one accessible route within the use zone must be provided from the perimeter to all accessible play structures or components within the playground.

3. What are the surface characteristics of playground surfaces that allow for compaction, propulsion and turning capabilities for mobility devices on playground surfaces? These standards are addressed in ASTM F 1951-99.

ASTM F 1951-99 establishes a uniform means to measure the characteristics of surface systems in order to provide performance specifications to be used when selecting materials for use as an accessible surface under and around playground equipment. Surface materials that comply with this standard and are located in the use zone must also comply with ASTM F 1292. The test methods in this standard address access for children and adults who may traverse the surfacing to aid children who are playing. When a surface is tested it must have an average work per foot value for straight propulsion and for turning less than the average work per foot values for straight propulsion and for turning, respectively, on a hard, smooth surface with a grade of 7% (1:14). Some of the surfacing materials do not meet the level of compliance for both impact attenuating surfaces and compaction for mobility devices that the standards address but the materials, when tested to the AMSE Standards; do meet the definition of the new regulations. Here are a few specifications and recommendations for the different types of surfacing materials.

Loose Fill

All loose fill surfacing requires daily raking to maintain the required depth of the material to ensure the safety of children. Replenishment is also required as loose fill gets packed down or kicked away. Often this type of maintenance does not take place, creating unsafe playgrounds. In addition, loose fill is often tracked into buildings requiring additional maintenance indoors. These are the most common types of loose fill:

Pea gravel, sand and wood chips

These materials do meet compliance standards for impact attenuating surfaces, but they seldom meet the standard for propulsion and turning requirements in the ASTM standards and are not recognized as ADA-approved materials. Other surfacing materials can be used to create paths to the entry point of the play equipment and render your playgrounds compliant.

Pea gravel

Pros: The material is quite cheap and easy to maintain. It allows for good drainage and does not attract animals.

Cons: It can be a hazard if it is thrown by persons in the playground and daycare providers have reported that pea gravel fits well in a nostril or an ear, which can result in an unwanted visit to the doctor or emergency room. It is creates a problem for maintenance of the grass and surfaces surrounding the playground. Lawn mowers can throw the gravel significant distances.

The material cannot be used if the fall height within the playground is greater than 5 feet.

Sand

Pros: Sand is one of the easiest products to maintain. You just need to level out the sand if it gets windswept. Children love to play in sand.

Cons: Cats often use the sand as a liter box—a health code concern. Broken glass and other debris can also become buried in sand and present other hazards. Furthermore, in freezing conditions, sand can become as hard as concrete and can only be used after the sun warms the surface or the materials are loosened manually.

The material cannot be used if the fall height within the playground is greater than 4 feet.

Wood Chips (not engineered wood fiber)

Pros: This material is inexpensive, easy to find, and easy to move from place to place. It is also a good fall attenuating surface material.

Cons: This material requires constant maintenance. It must be turned over occasionally to prevent decomposing, and wood chips do not have good drainage qualities. Moreover, about 25% of the material must be replaced annually.

Wood Chips can be used for play structures with a fall height up to 10 feet.

Shredded Rubber and Engineered Wood Fiber

Pros: Both of these products are ADA-approved for both mobility and impact attenuation. That is not to say that they are extremely functional as a solid surface material, but they do meet the minimum requirements of ASTM F 1292. And other surfacing materials are not required to create circulation paths. They are also cost efficient.

Cons: These materials have the potential to off-gas in high temperatures. They are also difficult to keep in the play areas, out of the grass, and out of children's clothes.

Shredded Rubber and Engineered Wood Fiber can be used for play structures with a fall height up to 10 feet.

Fully Accessible Surfaces

Pour-in-Place, Rubber Mats/Tiles

Pros: These artificial surfacing materials exceed ADA standards and are deemed universally accessible for children with disabilities. The most significant benefit of these surfaces, other than accessibility, is that daily maintenance is usually not required to ensure that safety is maintained. Generally, relatively little effort is required to keep the surfacing materials safe and usable, in normal use zones. If the materials are installed on a grade with no place for water to puddle, the surface of the mats and tiles will not freeze causing the outer layer to break away. This can cause for expensive and time consuming repairs.

Cons: Over time tile edges turn up, creating a trip hazard. Expansion between tiles also allows materials to accumulate, and the surface of the pour-in-place materials can freeze and separate. Consequently, it is difficult to patch the surface for an extended period of time. The biggest problem with these surfaces is the cost, which is significantly more than loose-filled surfacing. Lastly, the average life expectancy for the pour-in-place materials is usually much less than advertised, as weather conditions are a significant factor in the life of this type of surfacing material.

While products differ in quality and density, the average pour in place product can provide an ASTM safety rating for fall heights up to 12 feet.

Artificial Grass with Rubber in-fill

- Pros: A properly certified turf should also have a soft, consistent surface that is ADA accessible for easy wheelchair access. Since the grass won't displace like loose fill, such as sand, rubber chips, or wood chips, the safety rating is easy to maintain, even under play equipment. Moreover, a synthetic grass playground surface that is certified by IPEMA provides independent verification that the product has met a rigorous set of industry standards.
- Cons: The greater issue with these surfaces is the cost, which is significantly more than the costs of loose filled surfacing; however, they are an excellent choice if the accessibility of the surface is as important as the functionality. Lastly, artificial Grass with a rubber infill is significantly more expensive than loose fill materials, but is usually less expensive than pour-in-place surfaces.
- Artificial grass installed over a proper base can provide an ASTM safety rating for fall heights up to 12 feet.

All surfacing materials have advantages and disadvantages. The purchaser and the installer must ultimately assess the safety factors that will influence the type or types of playground surfaces to be used. Among those factors are the location of the playground; drainage potential; average grade of the surrounding area; cost of installation and maintenance; life expectancy of the surface and infill materials; accessible routes to the playground; ambient temperature of the environment; security for the playground; amount of use; ages of the users; height of equipment; and amount and dispersion of accessible elements.

To provide a safe and accessible playground that is consistent with the new 2010 Standards for Accessible Playgrounds, all of these factors should be reviewed. While expense is a primary concern for the school, park or city that is investing in a new playground, it cannot be the only limiting factor according to the ADA. Remember, safety, accessibility, and user integration are equally as important.

APPENDIX - H

Pollinator Partnership Foundation:
nderstanding the Prairie Parkland Su tropical Region

UNDERSTANDING THE PRAIRIE PARKLAND (SUBTROPICAL)

- This region is designated **number 255** in the Baileys' Ecosystem Provinces. To see a map of the provinces go to: **www.fs.fed.us/colorimagemap/ecoreg1_provinces.html**
- Not sure about which bioregion you live or work in? Go to **www.pollinator.org** and click on **Ecoregion Locator** for help.
- 80,100 square miles within Texas and Oklahoma.
- Primarily gently rolling to flat plains.
- Elevations ranging from sea level to 1,300 feet.
- Average winter temperature from 50° to 60°F, summers from 70° to 80°F.
- Average year-round precipitation ranges from 35 inches in the north to 55 inches in the south.
- USDA Hardiness Zones 7a-9a.

CHARACTERISTICS

- Comprised of prairies and savannas.
- Vegetation includes oak and hickory trees and various short and medium-to-tall grasses.
- One of the most altered regions in the U.S.' threats to habitat include conversion and fragmentation associated with agriculture and development.

Photo Kim Davis & Mike Stangeland

Pair of Reakirt's Blue butterflies mating.

A female Black Chinned Hummingbird in flight.

WHO ARE THE POLLINATORS?

BEES

Bees are well documented pollinators in the natural and agricultural systems of the Prairie Parkland (Subtropical). A wide range of crops including cucumbers, figs, blackberries, and blueberries are just a few plants that benefit from bee pollinators.

Most of us are familiar with the colonies of honey bees that have been the workhorses of agricultural pollination for years in the United States. They were imported from Europe almost 400 years ago.

There are nearly 4000 species of native ground and twig nesting bees in the U.S. Some form colonies while others live and work a solitary life. Native bees currently pollinate many crops and can be encouraged to do more to support agricultural endeavors if their needs for nesting habitat are met and if suitable sources of nectar, pollen, and water are provided. Bees have tongues of varying lengths that help determine which flowers they can obtain nectar and pollen from.

The bumble bee (*Bombus* spp.) forms small colonies, usually underground. They are generalists, feeding on a wide range of plant material from February to November and are important pollinators of tomatoes. The sweat bee (family *Halictidae*) nests underground. Various species are solitary while others form loose colonies.

Solitary bees include carpenter bees (*Xylocopa* spp.), which nest in wood; digger, or polyester bees (*Colletes* spp.), which nest underground; leafcutter bees (*Megachile* spp.), which prefer dead trees or branches for their nest sites; and mason bees (*Osmia* spp.), which utilize cavities that they find in stems and dead wood. Cactus bees (*Diadasia* spp.) are also solitary ground nesters.

BUTTERFLIES

Gardeners have been attracting butterflies to their gardens for some time. These insects tend to be eye-catching, as are the flowers that attract them. Position flowering plants where they have full sun and are protected from the wind. Also, you will need to provide open areas (e.g. bare earth, large stones) where butterflies may bask, and moist soil from which they may get needed minerals. By providing a safe place to eat and nest, gardeners can also support the pollination role that butterflies play in the landscape. It might mean accepting slight damage to the plants, known as host plants, that provide food for the larval stage of the butterfly.

A diverse group of butterflies are present in garden areas and woodland edges that provide bright flowers, water sources, and specific host plants. Numerous trees, shrubs, and herbaceous plants support butterfly populations.

Butterflies are in the Order *Lepidoptera*. Some of the species in the Prairie Parkland (Subtropical)

are Silver-spotted Skipper, Eastern Tiger Swallowtail, Dainty Sulphur, Reakirt's Blue, and Pearl Crescent butterflies. They usually look for flowers that provide a good landing platform.

Wet mud areas provide butterflies with both the moisture and minerals they need to stay healthy. Butterflies eat rotten fruit and even dung, so don't clean up all the messes in your garden!

MOTHS

Moths are most easily distinguished from butterflies by their antennae. Butterfly antennae are simple with a swelling at the end. Moth antennae differ from simple to featherlike, but never have a swelling at the tip. In addition, butterflies typically are active during the day; moths at night. Butterfly bodies are not very hairy, while moth bodies are quite hairy and more stout.

Moths, generally less colorful than butterflies, also play a role in pollination. They are attracted to flowers that are strongly sweet smelling, open in late afternoon or night, and are typically white or pale colored.

BEETLES

Over 30,000 species of beetles are found in the United States and many of them can be found on flower heads. Gardeners have yet to intentionally draw beetles to their gardens, possibly because beetle watching isn't as inspiring as butterfly or bird watching. Yet beetles do play a role in pollination. Some have a bad reputation because they can leave a mess behind, damaging plant parts that they eat. Beetles are not as efficient as some pollinators. They wander between different species, often dropping pollen as they go.

Beetle pollinated plants tend to be large, strong scented flowers with their sexual organs exposed. They are known to pollinate Magnolia, sweetshrub (*Calycanthus*), paw paws, and yellow pond lilies.

FLIES

It may be hard to imagine why one would want to attract flies to the garden. However, like beetles, the number of fly species and the fact that flies are generalist pollinators (visit many species of plants), should encourage us all to leave those flies alone and let them do their job as pollinators.

Recent research indicates that flies primarily pollinate small flowers that bloom under shade and in seasonally moist habitats. The National Research Council's *Status of Pollinators in North America* study states that flies are economically important as pollinators for a range of annual and bulbous ornamental flowers.

Plants pollinated by the fly include the American pawpaw (*Asimina triloba*), dead horse arum (*Helicodiceros muscivorus*), skunk cabbage (*Symplocarpus foetidus*), goldenrod (*Solidago* spp.), and members of the carrot family like Queen Anne's lace (*Daucus carota*).

BIRDS

Hummingbirds are the primary birds which play a role in pollination in North America. Their long beaks and tongues draw nectar from tubular flowers. Pollen is carried on both the beaks and feathers of different hummingbirds. The regions closer to the tropics, with warmer climates, boast the largest number of hummingbird species and the greatest number of native plants to support the bird's need for food. White-winged doves (*Zenaida asiatica*) are also pollinators of the saguaro cactus (*Carnegeia gigantea*) in the south central United States.

Bright colored tubular flowers attract hummingbirds to gardens throughout the United States. Hummingbirds can see the color red; bees cannot. Coralbean growing in the Prairie Parkland (Subtropical) attracts black-chinned hummingbirds.

BATS

Though bats in the Prairie Parkland (Subtropical) are not pollinators, bats play an important role in pollination in the other regions of the southwest where they feed on agave and cactus. The long-nosed bats' head shape and long tongue allows it to delve into flower blossoms and extract both pollen and nectar.

PLANT TRAITS

WHICH FLOWERS DO THE POLLINATORS PREFER?

Not all pollinators are found in each North American province, and some are more important in different parts of the United States. Use this page as a resource to understand the plants and pollinators where you live.

Plants can be grouped together based on the similar characteristics of their flowers. These floral characteristics can be useful to predict the type of pollination method or animal that is most effective for that group of plants. This association between floral characteristics and pollination method is called a pollination syndrome.

The interactions of animal pollinators and plants have influenced the evolution of both groups of organisms. A mutualistic relationship between the pollinator and the plant species helps the pollinator find necessary pollen and nectar sources and helps the plant reproduce by ensuring that pollen is carried from one flower to another.

Plant Trait	Bats	Bees	Beetles
Color	Dull white, green or purple	Bright white, yellow, blue, or UV	Dull white or green
Nectar guides	Absent	Present	Absent
Odor	Strong musty; emitted at night	Fresh, mild, pleasant	None to strongly fruity or fetid
Nectar	Abundant; somewhat hidden	Usually present	Sometimes present; not hidden
Pollen	Ample	Limited; often sticky and scented	Ample
Flower Shape	Regular; bowl shaped – closed during day	Shallow; have landing platform; tubular	Large bowl-like, Magnolia

This chart and more information on pollinator syndromes can be found at:

AND THE POLLINATORS THEY ATTRACT

Pollinator				
Birds	Butterflies	Flies	Moths	Wind
Scarlet, orange, red or white	Bright, including red and purple	Pale and dull to dark brown or purple; flecked with translucent patches	Pale and dull red, purple, pink or white	Dull green, brown, or colorless; petals absent or reduced
Absent	Present	Absent	Absent	Absent
None	Faint but fresh	Putrid	Strong sweet; emitted at night	None
Ample; deeply hidden	Ample; deeply hidden	Usually absent	Ample; deeply hidden	None
Modest	Limited	Modest in amount	Limited	Abundant; small, smooth, and not sticky
Large funnel like; cups, strong perch support	Narrow tube with spur; wide landing pad	Shallow; funnel like or complex and trap-like	Regular; tubular without a lip	Regular; small and stigmas exerted

http://www.fs.fed.us/wildflowers/pollinators/syndromes.shtml

Botanical Name	Common Name	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Guara lindheimeri	White Gaura			white to red	white to red	white to red	white to red	white to red	white to red	white to red	white to red	
Helianthus maximiliani	Maximillian sunflower							yellow	yellow	yellow		
Liatris mucronata	Gayfeather											
Liatris pyncnostachya	Gayfeather, Blazing Star							pink	pink	pink	pink	pink
Linum lewisii	Blue Flax				blue	blue	blue	blue	blue			
Lobelia cardinalis	Cardinal Flower						red	red	red	red		
Marshallia caespitosa	Barbara's Buttons			white	white	white						
Monarda fistulosa	Bergamot				purple	purple	purple					
Oenothera missouriensis	Missouri Primrose			yellow	yellow	yellow						
Oenothera speciosa	Pink Evening Primrose		pink	pink	pink	pink	pink					
Penstemon cobaea	Foxglove			white-purple	white-purple							
Penstemon laxiflorus	Beardtongue		pink	pink	pink	pink						
Physostegia intermedia	Obedient Plant				pink	pink						
Ratibida columnifera	Mexican Hat			red or yellow	red or yellow	red or yellow	red or yellow					
Rudbeckia hirta	Black-Eyed Susan				yellow	yellow	yellow	yellow	yellow	yellow	yellow	
Rudbeckia maxima	Giant Coneflower				yellow	yellow						
Salvia azurea	Pitcher Sage				blue	blue	blue	blue	blue	blue	blue	
Salvia coccinea	Scarlet Sage				red	red	red	red	red	red		
Salvia engelmannii	Englemann Sage			red	red	red						
Solidago gigantea	Giant Goldenrod						yellow	yellow	yellow	yellow	yellow	
Solidago nemoralis	Prairie Goldenrod								yellow	yellow		
Tradescantia occidentalis	Spiderwort			purple	purple	purple						
Verbesina virginica	Frostweed							white	white	white	white	
Vernonia baldwinii	Western Ironweed					purple	purple	purple	purple			
Shrubs												
Callicarpa americana	American Beautyberry				purple	purple	purple					
Cephalanthus occidentalis	Buttonbush					white	white					
Dalea frutescens	Black Dalea						purple	purple	purple	purple		
Vines												
Campsis radicans	Trumpetvine					orange	orange	orange	orange			
Passiflora incarnata	Passionflower				lavender	lavender	lavender	lavender				
Trees												
Cercis canadensis var. texensis	Texas Redbud		lavender	lavender								

PLANTS THAT ATTRACT POLLINATORS
FOR THE PRAIRIE PARKLAND (SUBTROPICAL)
(WESTERN CROSS TIMBERS AND BLACKLAND PRAIRIES)

The following chart lists plants that attract pollinators. It is not exhaustive, but provides guidance on where to start. Annuals, herbs, weeds, and cover crops provide food and shelter for pollinators, too.

Botanical Name	Common Name	Color	Height	Flower Season	Sun	Soil	Visitation by Pollinator
Annual Flowers							
Argemone albiflora	White Prickly Poppy	white	2-4′	Mar-July	sun to partial sun	sand, loam, clay, caliche-well drained	bees, beetles, flies, butterflies
Castilleja indivisa	Indian Paintbrush	red	6-18″	Mar-May	full sun	sand, loam, clay-well drained	beetles, butterflies
Centaurea americana	American Basketflower	white-purple	2-5′	May-June	full sun	sand, loam, clay-medium-moist	bees, beetles, flies, butterflies
Chamaechrista fasiculata	Partridge Pea	yellow	1-3′	June-Oct	sun to partial sun	sand, loam, clay-well drained	bees
Coreopsis basalis	Golden-Wave Tickseed	yellow w/red center	8-16″	Apr-July	sun to partial sun	sand-well drained	bees, beetles, flies, butterflies
Coreopsis tinctoria	Plains Coreopsis	yellow w/red center	1-2′	Mar-July	sun to partial sun	sand, loam, clay-medium-moist	bees, beetles, flies, butterflies
Eustoma grandiflorum	Texas Bluebells	purple	1-2′	June-Oct	sun to partial sun	sand, loam, clay	bees
Gaillardia pulchella	Indian Blanket	red w/yellow tips	1-2′	May-July	sun to partial sun	sand, loam, clay-well drained	bees, beetles, flies, butterflies
Helianthus annuus	Common Sunflower	yellow	2-8′	May-Oct	sun to partial sun	sand, loam, clay, caliche-moist	songbirds,butterflies
Lupinus texensis	Texas Bluebonnet	blue	6-20″	Mar-May	full sun	sand, loam, clay, caliche-well drained	bees
Oenothera laciniata	Cutleaf Evening Primrose	yellow	2-10″	Mar-Oct	sun to partial sun	sand	beetles, butterflies
Phacelia congesta	Blue Curls	blue	1-3′	Mar-May	full sun to shade	sand, loam, clay	bees
Phlox drummondii	Drummond Phlox	pink	6-18″	Mar-June	sun to partial sun	sand-well drained	butterflies
Proboscidea louisianica	Devil's Claw	purple	1-2′	June-Sept	full sun	sand, loam, clay	bees
Sabatia campestris	Meadow Pinks	pink	9-12″	Mar-July	sun to partial sun	sand, loam, clay	bees, beetles
Verbesina encelioides	Cowpen Daisy	yellow	1-4′	April-Oct	full sun	sand	bees, beetles, flies, butterflies
Perennial Flowers							
Aquilegia canadensis	Red Columbine	red	1-2′	Mar-May	partial sun to shade	sand,loam	hummingbirds
Asclepias tuberosa	Butterfly Weed	orange	10-20″	May-Sept	sun to partial sun	sand, loam, clay-well drained	bees, butterflies
Asclepias viridis	Green Milkweed	green	1-2′	Apr-Sept	full sun	sand, loam, clay, caliche	bees, butterflies
Callirhoe involucrata	Winecup	pink	6-12″	Feb-June	sun to partial sun	sand, loam, clay, caliche-well drained	beetles
Camassia scilloides	Wild Hyacinth	blue	1-2′	Mar-May	full sun to dappled shade	sand, loam, clay	hawkmoths
Castilleja purpurea	Prairie Paintbrush	purple	6-18″	Mar-May	full sun	sand, loam, clay, caliche	bees, beetles, flies, butterflies
Coreopsis lanceolata	Lanceleaf Coreopsis	yellow	2-3′	May-July	sun to partial sun	sand, loam, clay-well drained	bees, beetles,butterflies
Dalea aurea	Golden Dalea	yellow	1-2′	June-July	full sun	sand, caliche	bees
Dalea candida	White Prairie Clover	white	2-3′	June-July	full sun	clay, caliche-well drained	bees
Dalea purpurea	Purple Prairie Clover	red-purple	1-3′	June-July	full sun	loam, clay, caliche-dry medium	bees
Delphinium virescens	Prairie Larkspur	blue	1-3′	Apr-June	sun to partial sun	sand, loam, clay	bees
Desmanthus illinoensis	Illinois Bundleflower	white	1-3′	May-Sept	sun to partial sun	sand, loam, clay, caliche-well drained	bees
Echinacia angustifolia	Purple coneflower	purple	2′	May-June	sun to partial sun	sand, loam, clay-well-drained	butterflies
Eryngium yuccifolium	Rattlesnake Master	white	8-20″	Apr-July	sun to partial sun	sand, loam, clay	bees, beetles, butterflies

Botanical Name	Common Name	Color	Height	Flower Season	Sun	Soil	Visitation by Pollinator
Eupatorium serotinum	White Boneset	white	2-4′	Aug-Oct	full sun to shade	sand, loam, clay	bees, butterflies
Gaillardia suavis	Pincushion Daisy	red	1-2′	Mar-May	full sun	sand, loam, clay	bees, beetles,butterflies
Guara lindheimeri	White Gaura	white to red	2-5′	Apr-Nov	full sun	sand, loam, clay, caliche-well drained	butterflies, bees, hummingbirds
Helianthus maximiliani	Maximillian sunflower	yellow	4-6′	Aug-Oct	sun to partial sun	sand, loam, clay-medium-moist	butterflies, bees
Liatris mucronata	Gayfeather	pink	1-3′	Aug-Dec	sun to partial sun	sand, loam, clay, caliche-well drained	bees, butterflies
Liatris pyncnostachya	Gayfeather, Blazing Star	pink	1-3′	Aug-Dec	sun to partial sun	sand, loam, clay-medium-moist	bees, butterflies
Linum lewisii	Blue Flax	blue	1-2′	May-Sept	sun to partial sun	sand, loam, clay, caliche-dry	bees
Lobelia cardinalis	Cardinal Flower	red	1-4′	July-Oct	sun to partial sun	sand, loam, clay	hummingbirds
Marshallia caespitosa	Barbara's Buttons	white	8-18″	Apr-June	sun to partial sun	sand, loam, clay, caliche-medium	bees, beetles, butterflies
Monarda fistulosa	Bergamot	purple	1-3′	May-July	sun to partial sun	sand, loam, clay-medium	bees, butterflies, hummingbirds
Oenothera missouriensis	Missouri Primrose	yellow	3-12″	Apr-June	full sun	sand, caliche-well drained	bees, moths, butterflies
Oenothera speciosa	Pink Evening Primrose	pink	1-2′	Mar-July	sun to partial sun	sand, loam, clay, caliche-medium	bees, moths, butterflies
Penstemon cobaea	Foxglove	white-purple	12-18″	Apr-May	sun to partial sun	sand, loam, clay, caliche-well drained	bees
Penstemon laxiflorus	Beardtongue	pink	1-2′	Mar-June	sun to partial sun	sand-well drained	bees
Physostegia intermedia	Obedient Plant	pink	12-36″	May-June	full sun to shade	sand, caliche-well drained	bees
Ratibida columnifera	Mexican Hat	red or yellow	1-3′	Apr-July	sun to partial sun	sand, loam, clay, caliche-well drained	bees, butterflies
Rudbeckia hirta	Black-Eyed Susan	yellow	1-3′	May-Nov	sun to partial sun	sand, loam, clay-well drained	bees, butterflies
Rudbeckia maxima	Giant Coneflower	yellow	3-6′	May-June	sun to partial sun	sand, loam, clay	bees
Salvia azurea	Pitcher Sage	blue	2-3′	May-Nov	sun to partial sun	sand, loam, clay-medium	bees
Salvia coccinea	Scarlet Sage	red	6-30″	May-Oct	sun to partial sun	sand, loam, clay, caliche-medium-moist	hummingbirds
Salvia engelmannii	Englemann Sage	red	12-18″	Apr-June	sun to partial sun	sand, loam, clay, caliche-medium	bees, hummingbirds
Solidago gigantea	Giant Goldenrod	yellow	3-5′	July-Nov	sun to dappled sun	loam, clay	bees, beetles, butterflies
Solidago nemoralis	Prairie Goldenrod	yellow	8-24″	Sept-Oct	full sun	sand, loam, clay, caliche	bees, beetles, butterflies
Tradescantia occidentalis	Spiderwort	purple	12-18″	Apr-June	sun to partial sun	sand, loam, clay-medium-moist	bees
Verbesina virginica	Frostweed	white	3-6′	Aug-Nov	full sun to shade	sand, loam, clay	bees, butterflies
Vernonia baldwinii	Western Ironweed	purple	2-4′	June-Sept	full sun to dappled shade	sand, loam, clay, caliche	bees, beetles, butterflies
Shrubs							
Callicarpa americana	American Beautyberry	purple	3-4′	May-July	dappled sun to shade	sand, loam, clay-well drained	bees
Cephalanthus occidentalis	Buttonbush	white	to 9′	June-July	sun	moist to flooded	bees, beetles, butterflies
Dalea frutescens	Black Dalea	purple	1-3′	July-Oct	full sun	sand, clay, caliche	bees
Vines							
Campsis radicans	Trumpetvine	orange		Jun-Sept	full to dappled sun	sand, loam, clay, caliche	hummingbirds
Passiflora incarnata	Passionflower	lavender		May-Aug	full to dappled sun	sand, loam, clay	bees, beetles, butterflies
Trees							
Cercis canadensis var. texensis	Texas Redbud	lavender	sm. tree	Mar-Apr	sun to partial sun	loam, clay, caliche	bees

APPENDIX - I

I S Recommended Plant List - Full List

Common Name	Scientific Name	Type	Texas Native	Height	Spread	Light	Evergreen/ Deciduous	Seasonal Interest	Color/ Feature	Water	Wild-life	Comments/Maintenance
Cedar Elm	*Ulmus crassifolia*	Tree	B/E	50-75'	25-35'	Sun/Part Shade	D	Fall	Gold foliage	VL	x	Provides seeds and nesting for wildlife
Bur Oak	*Quercus macrocarpa*	Tree	B/E	50-70'+	30-50'+	Sun	D	Spring	Large acorns	M	x	Provide plenty of space and deep soil
Bald Cypress	*Taxodium distichum*	Tree	B/E	60-100'	30-50'	Sun/Part Shade	D	Fall	Copper foliage	H	x	For riparian/moist, deep soil or poor drainage conditions
Pecan	*Carya illinoensis*	Tree	B	60-	60-75'	Sun	D	Fall	Nut	H	x	For riparian/moist, deep
Mexican Sycamore	*Platanus mexicana*	Tree		60'	40'	Sun/Part Shade	D	Fall	Yellow/orange	H	x	For riparian/moist deep soil conditions only
Mexican Buckeye	*Ungnadia speciosa*	Small Tree	E	12-20'	12-20'	Sun/Part Shade	D	Early Spring	Pink flowers	L	x	Seeds are eaten by wildlife, but poisonous for humans
Mountain Laurel	*Sophora secundiflora*	Small Tree	E	12-20'	8-12'	Sun/Part Shade	E	Spring	Purple flowers	VL	x	Showy purple flowers, but poisonous seeds
Huisache	*Acacia farnesiana*	Small Tree	T	15-20'+	20'	Sun	SE	Spring	Yellow flowers	VL	x	Excellent native tree for waterwise gardens
Dessert Willow	*Chilopsis linearis*	Small Tree	E	20'	15-20'	Sun/Part Shade	D	Spring-Fall	White, pink or burgundy	VL	x	Open, airy structure creates light shade for underplantings
Mexican Plum	*Prunus mexicana*	Small Tree	B/E	15-20'+	15-20'	Sun/Part Shade	D	Spring	White flowers	L	x	Earliest spring bloomer. Edible fruit in July-Sept
Texas Sage	*Leucophyllum frutescens*	Shrub	T	5-8'	4-5'	Sun	E	Spring-Summer	Purple, pink or white flowers	L-VL	x	Provide well-drained soil; prune for natural look; do not shear or hedge
Flame Acanthus	*Aniscanthus quadrifidus*	Shrub	E	3-5'	3-4'	Sun/Part Shade	D	Summer-Fall	Orange red flowers	VL	x	Flowers attract hummingbirds and butterflies. Reseeds agressively.
Turk's Cap	Malvaviscus arboreus va	Shrub	E	2-6'	3-5'	Sun/Part Shade	D	Late Spring-Fall	Red flowers & fruits	L	x	Attracts hummingbirds and butterflies
American Beautyberry	*Callicarpa americana*	Shrub	B	4-6'	6'	Shade	D	Fall-Winter	Purple fruit	L-M	x	Attractive berries in Fall and Winter. Not suited for rain gardens .
White Mistflower	*Ageratina havanensis*	Shrub	E	3-5'	2-3'	Sun/Part Shade	D	Fall	White flowers	L	x	Attracts butterflies, moths and hummungbirds

Red Bird of Paradise	*Caesalpinia pulcherrima*	Perennial		5-6'+	3-6'	Sun	D	Summer-Fall	Red/orange flowers	L	x	Heat tolerant; Attracts hummingbirds
Winecup	*Callirohoe involucrata*	Perennial	B/E	6"-1'	4-5'	Sun/Part Shade	D	Spring-Early Summer	Magenta flowers	L	x	Sprawling habit great for filling in between plants
Purple Coneflower	*Echinacea purpurea*	Perennial	T	1-3'	3'+	Sun/Part Shade	D	Spring-Summer	Violet or white flowers	L	x	Attracts butterflies and birds
Texas lantana	*Lantana urticoides*	Perennial	B/E	3-5'	4-5'	Sun	D	Summer-Fall	Orange and yellow flowers	L	x	Attracts butterflies; All parts are poisonous
Plumbago	*Plumbago auriculata*	Perennial		3-4'	4-6'	Sun/Part Shade	D	Summer	sky blue or white	L-M	x	Does best in morning sun and afternoon shade; Attracts hummingbirds
Prickly Pear Cactus	*Opuntia spp.*	Yucca	B/E	varies	varies	Sun	E	varies*	varies	L	x	Many types available, including spineless; check label for size, flower color, hardiness and distinguishing attributes.
Texas Sotol	Dasylirion texanum	Yucca	E	3-4'	3-4'	Sun/Part Shade	E	Early Summer		L	x	Not a pedestrian friendly plant, good for a barrier
Nolina	*Nolina lindheimeriana*	Yucca	E	10-12'	4-5'	Sun/Part Shade	E	Summer	Tan flowers	L	x	10' tall spike of small, tan flowers
Red Yucca	*Hesperaloe parviflora*	Yucca	E	2-4'	4'	Sun	E	Spring-Summer	Coral spike	VL	x	Attracts hummingbirds
Twistleaf Yucca	*Yucca rupicola*	Yucca	E	1-2'	2'	Sun/Part shade	E	Summer	White	L	x	Older leaves are twisted; nectar attracts nocturnal moths
Little Bluestem	*Schizachyrium scoparium*	Grasses	B/E	3-4'	1.5'	Sun	D	Fall	Copper foliage	L	x	Prairie plant appropriate in mass plantings in meadow, natural areas or restoration project
Indian Grass	*Sorghastrum nutans*	Grasses		3-5'	5'	Sun	D	Fall	Bright gold	M-H	x	Prairie plant appropriate in mass plantings in meadow, natural areas or wetlands
Big Muhly	*Muhlenbergia lindheime*	Grasses	E	3-4'	3-4'	Sun/Part Shade	D	Fall	White flowers on 6' stalk	L-M	x	Smaller native alternative to Pampasgrass

Inland Sea Oats	*Chasmanthium latifolium*	Grasses	B/E	2-4'	3-6'+	Shade	D	Summer-Fall	Ivory seeds	L-M	x	Good understory plant; appropriate for woodlands
Gulf Muhly	*Muhlenbergia capillaris*	Grasses	T	2-1/2'	2'	Sun/Part Shade	D	Fall	Pink seed heads	L-M	x	Wispy seed heads provide great fall color
Switch Grass	*Panicum virgatum*	Grasses	B/E	6'	4'	Sun/Part Shade	D	Fall	Reddish tint	L-H	x	Prairie plant appropriate in mass plantings in meadow, natural areas or wetlands
Cross Vine	*Bignonia capreolata*	Vines	T		6-30'+	Sun/Part Shade	SE	Spring-Summer	Orange flowers	L	x	Tendril vine attches to wall; very aggressive climber; attracts hummingbirds and bees
Coral Honey Suckle	*Lonicera sempervirens*	Vines	T		6-12'	Sun/Part Shade	SE	Late Winter to early Spring	Coral flowers	L-M	x	Nectar attracts hummingbirds and butterflies; fruit attracts birds
Carolina Jessamine	*Gelsemium sempervirens*	Vines	T		6-20'	Sun/Part Shade	E	Early Spring	Yellow flowers	M	x	Fragrant; attracts hummingbirds
Texas Wisteria	*Wisteria frutescens*	Vines	T	25-30'	3-6'	Sun/Part Shade	D	Spring	Bluish-lilac flowers	M	x	High heat tolerance; fragrant
Alamo Vine	*Merremia dissecta*	Vines	E	12'	10-12'	Sun/Part Shade	D	Spring-Fall	White flowers with red throat	L-M	x	Fat-growing; nectar is good for butterflies
Frog Fruit	*Phyla nodiflora*	Ground Covers	B/E	6-8"	1.5-2'	Sun/Part Shade	D	Spring-Fall	Whiteflowers	L-M	x	Native groundcover; spreads rapidly
Horse Herb	*Calyptocarpus vialis*	Ground Covers	B/E	8-10"	1'	Sun/Part Shade	SE	Spring-Fall	Yellow flowers	VL	x	Naturally abundant in shady areas and lawns
Santolina	*Santolina chamaecyparis*	Ground Covers		1-2'	1-2'	Sun	E	Spring	Yellow flowers	VL	x	Aromatic evergreen foliage
Creeping Germander	*Teucrium cossonii*	Ground Covers		4-6"	1.5-2'	Sun	E	Summer	Pink and purple flowers	L	x	Silver foliage; attracts bees

APPENDIX - J

Sustaina le SITES 2 Scorecard Checklist

Project Name: _____ Project ID#:_____ Date: _____

SITES v2 Scorecard Summary

YES	?	NO	1: SITE CONTEXT		Possible Points: 13
0	0	0			
Y			CONTEXT P1.1	Limit development on farmland	
Y			CONTEXT P1.2	Protect floodplain functions	
Y			CONTEXT P1.3	Conserve aquatic ecosystems	
Y			CONTEXT P1.4	Conserve habitats for threatened and endangered species	
			CONTEXT C1.5	Redevelop degraded sites	3 to 6
			CONTEXT C1.6	Locate projects within existing developed areas	4
			CONTEXT C1.7	Connect to multi-modal transit networks	2 to 3

YES	?	NO	2: PRE-DESIGN ASSESSMENT + PLANNING		Possible Points: 3
0	0	0			
Y			PRE-DESIGN P2.1	Use an integrative design process	
Y			PRE-DESIGN P2.2	Conduct a pre-design site assessment	
Y			PRE-DESIGN P2.3	Designate and communicate VSPZs	
			PRE-DESIGN C2.4	Engage users and stakeholders	3

YES	?	NO	3: SITE DESIGN - WATER		Possible Points: 23
0	0	0			
Y			WATER P3.1	Manage precipitation on site	
Y			WATER P3.2	Reduce water use for landscape irrigation	
			WATER C3.3	Manage precipitation beyond baseline	4 to 6
			WATER C3.4	Reduce outdoor water use	4 to 6
			WATER C3.5	Design functional stormwater features as amenities	4 to 5
			WATER C3.6	Restore aquatic ecosystems	4 to 6

YES	?	NO	4: SITE DESIGN - SOIL + VEGETATION		Possible Points: 40
0	0	0			
Y			SOIL+VEG P4.1	Create and communicate a soil management plan	
Y			SOIL+VEG P4.2	Control and manage invasive plants	
Y			SOIL+VEG P4.3	Use appropriate plants	
			SOIL+VEG C4.4	Conserve healthy soils and appropriate vegetation	4 to 6
			SOIL+VEG C4.5	Conserve special status vegetation	4
			SOIL+VEG C4.6	Conserve and use native plants	3 to 6
			SOIL+VEG C4.7	Conserve and restore native plant communities	4 to 6
			SOIL+VEG C4.8	Optimize biomass	1 to 6
			SOIL+VEG C4.9	Reduce urban heat island effects	4
			SOIL+VEG C4.10	Use vegetation to minimize building energy use	1 to 4
			SOIL+VEG C4.11	Reduce the risk of catastrophic wildfire	4

YES	?	NO	5: SITE DESIGN - MATERIALS SELECTION		Possible Points: 41
0	0	0			
Y			MATERIALS P5.1	Eliminate the use of wood from threatened tree species	
			MATERIALS C5.2	Maintain on-site structures and paving	2 to 4
			MATERIALS C5.3	Design for adaptability and disassembly	3 to 4
			MATERIALS C5.4	Use salvaged materials and plants	3 to 4
			MATERIALS C5.5	Use recycled content materials	3 to 4
			MATERIALS C5.6	Use regional materials	3 to 5
			MATERIALS C5.7	Support responsible extraction of raw materials	1 to 5
			MATERIALS C5.8	Support transparency and safer chemistry	1 to 5

YES	?	NO	6: SITE DESIGN - HUMAN HEALTH + WELL-BEING		Possible Points: 30
0	0	0			
			HHWB C6.1	Protect and maintain cultural and historic places	2 to 3
			HHWB C6.2	Provide optimum site accessibility, safety, and wayfinding	2
			HHWB C6.3	Promote equitable site use	2
			HHWB C6.4	Support mental restoration	2
			HHWB C6.5	Support physical activity	2
			HHWB C6.6	Support social connection	2
			HHWB C6.7	Provide on-site food production	3 to 4
			HHWB C6.8	Reduce light pollution	4
			HHWB C6.9	Encourage fuel efficient and multi-modal transportation	4
			HHWB C6.10	Minimize exposure to environmental tobacco smoke	1 to 2
			HHWB C6.11	Support local economy	3

YES	?	NO	7: CONSTRUCTION		Possible Points: 17
0	0	0			
Y			CONSTRUCTION P7.1	Communicate and verify sustainable construction practices	
Y			CONSTRUCTION P7.2	Control and retain construction pollutants	
Y			CONSTRUCTION P7.3	Restore soils disturbed during construction	
			CONSTRUCTION C7.4	Restore soils disturbed by previous development	3 to 5
			CONSTRUCTION C7.5	Divert construction and demolition materials from disposal	3 to 4
			CONSTRUCTION C7.6	Divert reusable vegetation, rocks, and soil from disposal	3 to 4
			CONSTRUCTION C7.7	Protect air quality during construction	2 to 4

YES	?	NO	8. OPERATIONS + MAINTENANCE		Possible Points: 22
0	0	0			
Y			O+M P8.1	Plan for sustainable site maintenance	
Y			O+M P8.2	Provide for storage and collection of recyclables	
			O+M C8.3	Recycle organic matter	3 to 5
			O+M C8.4	Minimize pesticide and fertilizer use	4 to 5
			O+M C8.5	Reduce outdoor energy consumption	2 to 4
			O+M C8.6	Use renewable sources for landscape electricity needs	3 to 4
			O+M C8.7	Protect air quality during landscape maintenance	2 to 4

YES	?	NO	9. EDUCATION + PERFORMANCE MONITORING		Possible Points: 11
0	0	0			
			EDUCATION C9.1	Promote sustainability awareness and education	3 to 4
			EDUCATION C9.2	Develop and communicate a case study	3
			EDUCATION C9.3	Plan to monitor and report site performance	4

YES	?	NO	10. INNOVATION OR EXEMPLARY PERFORMANCE		Bonus Points: 9
0	0	0			
			INNOVATION C10.1	Innovation or exemplary performance	3 to 9

YES	?	NO	TOTAL ESTIMATED POINTS	Total Possible Points: 200
0	0	0		

KEY		SITES Certification levels	Points
YES	Project confident points are achievable	CERTIFIED	70
?	Project striving to achieve points, not 100% confident	SILVER	85

5/21/2020

Project Name: _____ Project ID#:_____ Date: _____

SITES v2 Scorecard Summary

			MATERIALS C5.9	Support sustainability in materials manufacturing	**5**
			MATERIALS C5.10	Support sustainability in plant production	**1 to 5**

NO	Project is unable to achieve these credit points	**GOLD**	100
		PLATINUM	135

APPENDIX - K

Texas A&M niversity: ASSESSING THE CONSTIT TIONALLY OF PARKLAND DEDICATION ORDINANCE IN TE AS A FRAMEWORK OF FO R CRITERIA

Assessing the constitutionality of parkland dedication ordinances in Texas: a framework of four criteria

The guidance provided by the *Turtle Rock*, *Dolan*, and some subsequent cases where courts have provided some minor clarifications of issues in those two major cases, suggests that four broad criteria may be used to assess the constitutionality of parkland dedication ordinances in Texas. These four criteria provide the framework for most of this report:

- The method of calculating a parkland dedication requirement must demonstrate that it is proportionate to the need created by a new development.
- The ordinance must adhere to the nexus principle.
- A time limit must be set for expending fees-in-lieu.
- The scope and range of the ordinance must be delineated.

Calculation of the amount of a park dedication requirement

The dedication requirement in a parkland dedication ordinance should comprise three elements:

- A land requirement
- A fee-in-lieu alternative to the land requirement
- A parks development fee

Although the first two elements were incorporated in all 48 Texas ordinances reviewed in this study, the park development fee is a more recent addition to the ordinances and has been incorporated in only 10 of them.

A problem with ordinances that contain only the land and fee-in-lieu elements is that they provide only for the acquisition of land. The additional capital needed to transform that bare land into a park is borne by the existing taxpayers. In some instances, the result is that the dedicated land is never developed into a park and remains sterile open space that detracts from the community's appeal rather than adding to it. This led 10 Texas communities to expand their ordinances to incorporate a park development fee element to cover the cost of transforming the land into a park. Thus, the scope of parkland dedication ordinances in Texas has broadened as they have gained legal and public acceptance.

The most widely accepted approach to meeting the *Dolan* "rough proportionality" criterion is to assume that the new residents' demands will require the same level of service as those of the existing residents in the community. The courts have ruled consistently that standards for new residents cannot be set at a higher level than those prevailing for existing residents. Thus, deficiencies in the supply of park amenities arising from demand generated by earlier development cannot be funded by imposing higher dedications on new developments.

A problem with ordinances that contain only the land and fee-in-lieu elements is that they provide only for the acquisition of land. The additional capital needed to transform that bare land into a park is borne by the existing taxpayers. In some instances, the result is that the dedicated land is never developed into a park and remains sterile open space that detracts from the community's appeal rather than adding to it.

A recommended approach for calculating a parkland dedication requirement based on existing level of service is illustrated in Table 3, which describes how the City of College Station ascertained its parkland dedication requirement for both neighborhood parks and community parks. The calculation has four parts:

- *Current level of service*
- *Fee-in-lieu*
- *Park development fee*
- *Total neighborhood parks fees for single-family and multifamily units*

Table 3. Park land dedication and development fees methodology for neighborhood and community parks in College Station.[1]

Requirement	Methodology
Neighborhood parks: Current level of service is 1 acre per 285 people. 2008 total population: 87,758. 2.80 persons per household (PPH) for single family and 2.28 PPH for multifamily based on census information for owner- and renter-occupied units.	
Land	**Single family:** 285 people ÷ 2.80 PPH = 102 DUs = 1 acre per 102 DUs **Multifamily:** 285 people ÷ 2.28 PPH = 125 DUs = 1 acre per 125 DUs
Fee-in-lieu of land	*Assume 1 acre costs $32,000.* **Single family:** $32,000 ÷ 102 DUs = $314 per DU **Multifamily:** $32,000 ÷ 125 DUs = $256 per DU
Park development fee	The cost of improvements in an average neighborhood park in College Station is $630,520. One neighborhood park serves 2,309 people, based on a total city population of 87,758 being served by 38 parks (count includes neighborhood parks and 6 mini parks). It costs $273 per person ($630,520/2309) to develop an average neighborhood park. **Single family:** $273 x 2.80 PPH = $764 per DU **Multifamily:** $273 x 2.28 PPH = $622 per DU
Total neighborhood park fee	**Single family:** $314 + $764 = $1,078 **Multifamily:** $256 + $622 = $878
Community parks: Current level of service is 1 acre per 294 people. 2008 total population: 87,758. 2.80 persons per household (PPH) for single family and 2.28 PPH for multifamily based on census information for owner- and renter-occupied units.	
Land	**Single family:** 294 people + 2.80 PPH = 105 DUs = 1 acre per 105 DUs **Multifamily:** 294 people + 2.28 PPH = 129 DUs = 1 acre per 129 DUs
Fee-in-lieu of land	*Assume 1 acre costs $32,000.* **Single family:** $32,000 + 105 DUs = $305 per DU **Multifamily:** $32,000 + 129 DUs = $248 per DU
Park development fee	One community park serves 10,970 people, based on a total city population of 87,758 being served by 8 community parks. The cost of improvements in an average community park in College Station is $2.5 million. It costs $228 per person ($2,500,000/10,970) to develop an average neighborhood park. **Single family:** $228 x 2.80 PPH = $638 per DU **Multifamily:** $228 x 2.28 PPH = $520 per DU
Total community park fee	**Single family:** $305 + $638 = $943 per DU **Multifamily:** $248 + $520 = $768 per DU

DU = dwelling unit *PPH = persons per household*

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[1]Community Park Planning Guidelines

A typical community park in College Station is designed to serve residents from several neighborhoods located within a ½- to 3-mile radius. These parks are generally 25 to 70 acres in size. However, larger and smaller community parks may be developed to meet specific requirements of a particular area of town.

Community parks, by their nature, serve both the active and passive leisure needs of residents. The acquisition and development of the "basic" infrastructure and facilities for the passive usage of these community parks is based on the demand from new residents and should be addressed through the Park Land Dedication Ordinance requirements.

The development of facilities for active use programs that might also be included in community parks, such as swimming pools, sports complexes, recreation centers and other similar improvements, are the responsibility of the entire community. These facilities should be developed with specific funding approval through general obligation bond elections or City Council approved authorizations as needed.

A typical College Station community park has these "basic" infrastructure elements and facilities:

• Playground areas with shade covers	$120,000
• Group picnic pavilion with restrooms	$750,000
• Concrete walking trails, lights, benches, fountains (per mile)	$500,000
• Picnic tables, trash receptacles, and furnishings	$ 50,000
• Lighted tennis courts (2)	$140,000
• Lighted basketball court	$ 50,000
• Roads and parking (200 spaces)	$500,000
• Landscape improvements	$250,000
• Design fees	$140,000
• **Total planning estimate**	**$2,500,000**

Each community park varies in size, design, and facilities based on the needs of the residents. These guidelines are developed to serve as a base line for planning future community parks for College Station.

The neighborhood parks calculation in Table 3 is used for the purpose of illustration. Part 1 derives the current level of service of 1 acre per 285 people for neighborhood parks by dividing the city's population by its existing neighborhood public park acreage. The level of service standard is transformed to dwelling units (DUs) by dividing the 285 people by the average number of people in single and multifamily dwellings. These averages are available from the Census Bureau. This establishes the land dedication requirement at 1 acre per 102 DUs for single-family units and 1 acre per 125 DUs for multifamily units.

Part 2 calculates the fee-in-lieu based on an average land cost in the city of $32,000 per acre. In larger cities, there may be merit in calculating different average land values in different areas of the city because land values vary widely. For example, fees-in-lieu in Austin average $650 across the city, but Austin divides the city into three zones: Western, Central, and Eastern, and imposes different fees in each zone. Thus, the fees-in-lieu per unit for developments in densities with fewer than 6 units per acre are $840, $630, and $420 for the three zones, respectively. Similarly, the City of Rockwall has 25 park district areas, each with a different per lot fee ranging from $151 to $620. The different fees-in-lieu will not penalize lower land value areas where most affordable housing is built, and they will capture higher land values from areas where the most expensive housing is located.

Table 4. Estimated costs for neighborhood parks in College Station.

Item	Cost
Basketball court	$40,000
6-foot sidewalk @$5.50 per SF x 4,000 linear feet	$132,000
Handicap-accessible ramp x 2	$2,000
Pedestrian bridge (average 30 feet) with concrete footings	$40,000
Picnic unit (slab, table, trash can, grill) @ $4,000 x 2	$8,000
Shelter and slab (2 picnic tables w/trash cans)	$34,000
Area lights (12 ht.) @$4,000 x 20	$80,000
2-foot x 8-foot park sign (Cylex) and keystone planter bed	$6,000
Benches (painted steel) with slab @$2,000 x 4	$8,000
Bicycle rack	$1,500
50 trees (30–45 gal. installed) w/Irrigation @ $350	$17,500
Specialized irrigation system	$15,000
Drinking fountain (concrete-handicap accessible, dual height, dog dish)	$7,500
Water meter 1.5 inches	$1,200
Electric meter/breaker panel	$2,000
Finish sodding, grading and seeding	$5,000
Drain lines @ $20 linear feet (average 100 feet)	$2,000
Swing set with rubber and gravel mix	$25,000
Playground with concrete base and rubber surfacing	$75,000
Playground shade cover	$17,500
Galvanized fence @ $36/linear foot, 1,500 feet	$54,000
Subtotal	$573,200
10% contingency	$57,230
Total	$630,520

Part 3 in Table 3 calculates the park development fee. Its derivation is shown in Table 4, which lists the elements and their costs incorporated in a typical College Station neighborhood park. These development costs are divided by the average number of people served by a neighborhood park. The resultant fee of $273 per person is then multiplied by the number of people per household to derive dwelling unit fees of $764 for single units and $622 for multifamily units.

Part 4 aggregates Parts 2 and 3 to derive total neighborhood park fees of $1,078 for single-family units and $878 for multifamily units. If the city accepted land (Part 1) rather than a fee-in-lieu (Part 2), the developer would be required to pay only the park development fee. A similar process was used to derive the community park fee shown in Table 3.

Overview of parkland dedication requirements in Texas cities

Table 5. Parkland dedication requirements in Texas cities.

	Dwelling units		Current level of parkland provision		Land dedication requirements		Fee-in-lieu*[a]	
City	Population	#DU	Total park acreage	DU/acre	DU/acre	DU/acre multifamily	SDU	MDU
Alvin	21,500	8,442	740.00	11.41	100.00		$300.00	$-
Angleton	18,130	7,220	100.00	72.20	200.00		$1,083.00	$250.00
Austin	656,562	276,842	16,862.00	16.42	83.33		$650.00	$-
Bryan	72,015	25,703	580.00	44.32	74.00	90.00	$162.00	$133.00
Cedar Hill	43,500	11,075	653.75	16.94	133.00		$250.00	$-
Cedar Park	45,000	8,914	847.00	10.52	41.67		$720.00	$480.00
College Station	88,183	34,619	1,274.00	27.17	102.00	125.00	$619.00	$504
Colleyville	21,720	6,549	202.00	32.42	25.00		$1,802.00	$-
Corinth	18,000	4,100	179.00	22.91	50.00		$-	$-
Corpus Christi	293,122	107,831	1,586.46	67.97	NA		5% of total value	$-
Deer Park	30,000	9,921	527.00	18.83	NA		5% of total value	$-
Denton	105,000	32,716	1,158.00	28.25	170.21		market value	$-
Edinburg	68,802	16,031	253.00	63.36	125.00		$250.00	$-
Flower Mound	60,450	16,833	575.00	29.27	29.76		market value	$-
Frisco	89,000	13,683	1,300.00	10.53	100.00		$300.00	$-
Grapevine	46,684	16,486	1,492.00	11.05	145.20		$1,416.00	$-
Haltom	39,000	15,716	184.00	85.41	150.00		$-	$-
Highland Village	14,500	4,009	354.00	11.32	N/A		$2,160.00	$-
Houston	1,953,631	783,009	19,699.00	39.75	55.50		$700.00	
Hutto	14,000	424	150.00	2.83	50.00		market value	
Keller	34,800	9,216	415.00	22.21	30.00	60.00	$1,000.00	$-
La Porte	33,500	11,720	188.00	62.34	93.00		$490.00	$-
League City	62,500	17,280	1,041.00	16.60	90.00		$1,000.00	$-
Leander	23,000	2,612	90.00	29.02	NA	10.54	$550.00	$-
Lewisville	89,000	31,764	1,100.00	28.88	33.00		$750.00	$-
McKinney	110,000	19,462	1,604.00	12.13	50.00		market value	$-
Mansfield	55,000	9,172	664.00	13.81	100.00		$500.00	$-

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	Dwelling units		Current level of parkland provision		Land dedication requirements		Fee-in-lieu*[a]	
City	Population	#DU	Total park acreage	DU/acre	DU/acre	DU/acre multifamily	SDU	MDU
Missouri City	63,910	17,481	848.99	20.59	100.00		$900.00	$-
New Braunfels	45,000	14,896	408.00	36.51	150.00		$100.00	$-
Pearland	70,000	13,922	376.92	36.94	100.00		market value	$-
Pflugerville	30,000	5,239	450.00	11.64	50.00		market value	$-
Plano	240,000	86,078	3,800.00	22.65	N/A		$467.47	$323.96
Rockwall	30,000	7,089	480.00	14.77	67.00	250.00	151.00-620.00	$-
Rowlett	53,000	14,580	994.00	14.67	71.92		$325.00	$-
San Antonio	1,282,800	433,122	16,310.00	26.56	70.00	114.00	market value	$-
Southlake	24,900	6,614	644.10	10.27	40.00		market value	$-
Sugarland	74,472	21,090	896.30	23.53	114.38		$350.00	$240.00
Temple	58,447	23,511	727.00	32.34	133.00		$225.00	$-
The Colony	36,000	8,812	1,925.00	4.58	64.00		market value	$-
Waxahachie	25,000	7,909	230.00	34.39	100.00		$200.00	$-
Weslaco	32,000	10,230	250.00	40.92	N/A		$150.00	$350.00
Wylie	32,000	5,326	592.00	9.00	20.00		b/w $1500 - $3000	$800.00

[a] This does not include park development fees.

Table 5 shows the current level of parkland provision for the Texas cities with dedication ordinances in column 5. These are the same data that were reported in Table 1, but in Table 5 they are expressed in terms of dwelling units per acre of parkland. This is derived by dividing column 3 by column 4. The number of dwelling units in column 3 was extracted from Census Bureau data. In columns 6 and 7 and 8 and 9, Table 5 uses the same measure of dwelling units to report the current dedication requirements for parkland in terms of dwelling units per acre and for the alternative fee-in-lieu option.

Calculation of the parkland dedication requirement

Most cities responding to the survey express their current parkland dedication requirements in terms of dwelling units per acre. In some instances, the requirements for single-family differ from those of multifamily dwelling units. For example, in College Station the neighborhood parks requirement for a single-family unit is 102

dwelling units per acre; for multifamily developments, it is 125 dwelling units per acre. This recognizes that both the size of the household and the building density are likely to differ within these two categories. Hence, the amount of parkland needed to meet the needs of their residents and maintain the existing level of service will differ.

Four Texas cities express the dedication amount in acres per 1,000 population:

- Austin: 5 acres per 1,000
- Cedar Park: 8 acres per 1,000
- Denton: 2.5 acres per 1,000
- Rowlett: 4.5 acres per 1,000

Assuming that these dedication amounts reflect the current level of service, this form of specification is likely to meet the "rough proportionality" standard because it relates the area required to likely demand from a development. All four cities do this explicitly by using a similar formula. For example, the Austin formula is:

$$\frac{5.0 \times (\text{No of units}) \times (\text{Persons/Unit})}{1{,}000} = \text{Acres to be dedicated}$$

To facilitate comparison with other Texas cities in this study, the requirements of the four cities were converted to dwelling units per acre by using the following approach (the Austin example):

$$\frac{\text{City dedication requirement (5 acres per 1,000 = 1 acre per 200)}}{\text{Census average household size for the city (2.4)}}$$

This suggests that in Austin, the ratio is 83.33 dwelling units per acre of parkland.

In four Texas cities, the dedication requirements are expressed as a percentage of the tract to be developed. Corpus Christi and Deer Park both require 5 percent of the total land area of the subdivision; in Elgin, the amount is 8 percent. Leander uses both the acres per 1,000 population and tract percentage in its ordinance: "two and a half (2.5) acres for each 100 new dwelling units or 5% of the total project area, whichever is greater."

The percentage of tract approach has the advantage of simplicity and ease of computation, but it takes no account of development density. Although the park demands generated obviously will differ according to the number of people residing in a development, adopting the percentage approach means that the dedication requirement remains the same whether five or 100 people per acre live in the homes built. This approach fails to meet the "rough proportionality" standard and is likely to be rejected by the courts.

Calculation of the fee-in-lieu

All the ordinances reviewed for the study authorized communities to require developers to contribute cash instead of dedicating land. The cities that required the highest fees-in-lieu were (expressed in terms of per dwelling unit):

- Highland Village $2,298
- Colleyville $1,802
- Wylie $1,500
- Grapevine $1,416
- Mansfield $1,250
- Arlington $1,083
- League City $1,000
- Keller $1,000

The amount of cash for a fee-in-lieu should theoretically be equal to the fair market value of the land that would have been dedicated if the community had selected that option. This criterion was cited explicitly in the ordinances of 15 Texas cities:

Corpus Christi	Hutto	Pflugerville
Denton	La Porte	Rockwall
Flower Mound	Leander	San Antonio
Grapevine	McKinney	Southlake
Haltom	Plano	The Colony

However, these cities differed greatly in the methods used to establish the equivalence of fair market values. Some of the methods of determining the fee-in-lieu may be challengeable in the courts. For example, the Leander ordinance requires "fair market value . . . or a minimum of $550 per residential unit, whichever is greater." It is unlikely that the city could defend a fee that is higher than fair market value.

The Allen ordinance states that "payment of money in lieu of land will be sufficient to acquire and develop neighborhood parks at a rate set by the Council by resolution." It does not speak to the methodology that is used to arrive at that rate, which likely will be defensible only if it is no higher than fair market value.

The Allen situation exemplifies a common potential problem among the ordinances in that fair market value is often presented as a fixed amount per dwelling unit. How that amount is derived is unknown. At least in some cases, it is likely that it is determined arbitrarily, which likely would be rejected by the courts. However, given that cities tend to fix the amount far below fair market value, this practice is unlikely to be challenged by developers.

Some cities, such as Rockwall and Haltom, commit to revise the fee-in-lieu amount annually to reflect changes in land values. The Haltom ordinance states:

> Annually during the budget adoption process the city council shall establish a raw acreage acquisition cost figure to be used in calculating park fees. The council shall, after reasonable study and investigation, and based upon the best available information as to land and property values within the community, determine what the cost would be of acquiring one acre of vacant land in a

> developing area of the community. This figure shall be the raw acreage cost under which all park fees are calculated for the budget year. The amount of the fee per dwelling unit shall thereafter be established by resolution of the city council on an annual basis.

In some instances, equivalency is determined at the site level. This means that a unique market value must be determined for each development. For example, Denton's ordinance states:

> The value of the land shall be calculated as the average estimated fair market value per acre of the land being subdivided at the time of preliminary plat approval . . . If the Developer/Owner objects to the fair market value determination, the Developer/Owner at his own expense, may obtain an appraisal by a State of Texas certified real estate appraiser, mutually agreed upon by the City and the Developer/Owner.

This approach gives the city the prerogative of establishing the fair market value but provides the developer with the right to contest it at his/her expense.

An alternative approach is for the city to offer developers a per-unit option based on an average city valuation of the land so they can choose from two methods. This was used in Austin.

The Colony's dedication ordinance provided for the city council to use one of three approaches for ascertaining fair market value. Presumably the city could calculate the requirement yielded by all three methods and choose the one that the council preferred:

> In determining the average per acre value of the total land included within the proposed residential development, the Council may base its determination on one or more of the following:
>
> 1. The most recent appraisal of all or part of the property made by the Central Appraisal District; or
> 2. Confirm sale prices of all or part of the property to be developed, or comparable property in close proximity thereof, which have occurred within two (2) years immediately preceding the date of determination; or
> 3. Where, in the judgment of the Council, (1) or (2) above would not, because of changed conditions, be a reliable indication of the then current value of the land being developed, an independent appraisal of the whole property shall be obtained by the City and paid for by the developer.

Many cities equate fair market value to the appraised value established by the county tax assessor. Despite the legal requirement in Texas that the assessed value should be set at the fair market value, many tax assessors set their appraisals below fair market value to avoid the costs associated with large numbers of property owners contesting their valuations. To counter this tendency to low-ball appraisals, the McKinney ordinance authorizes the city council to upgrade the county assessor's appraised value if the council elects to do so:

> Any payment of money required to be paid by this article shall be in an amount equal to the value of the property established by the most recent appraisal of all or part of the property made by the central appraisal district. Periodically the city may have an independent appraisal conducted for a sampling of properties to determine if the appraised value established by the central appraisal district is appropriate. The city council may adjust the amount assessed based on any difference between the value of property established by the central appraisal district and the value of property per the independent appraisal. The adjustment shall be a percentage change to all properties of the values established by the central appraisal district.

The San Antonio ordinance arbitrarily caps the maximum fee-in-lieu that can be charged at $30,000 per acre, presumably as a result of pressure from the development community, although it does allow for an annual inflation adjustment. To alleviate political pressure on the city council, the San Antonio ordinance requires that fee-in-lieu valuations be undertaken by an independent "third party." Presumably, this is an attempt to arrive at a valuation that is transparently free of vested interest and influence that may be exerted by developers or the city. The ordinance states:

> Beginning in 2010, and once every fifth (5th) year thereafter, the fair market value cap may be adjusted based on the evaluation and recommendation of a consultant selected and engaged by the City.

Some cities require only that land be dedicated and do not impose a park development fee; these cities authorize developers to make improvements to existing parks in lieu of paying a park dedication fee. The city of Elgin's ordinance for example, authorizes this:

> The director of public works may recommend to the planning and zoning commission that a developer dedicate park improvements in lieu of park land, equivalent to the cash contribution herein.

Other cities that include this provision are Arlington, Cedar Hill, Corpus Christi, Keller, La Porte, Plano, and Rosenberg.

League City was alone in specifically prohibiting the possibility of developers receiving credit for park improvements:

> The developer may, at his option, improve the park area. Improvements to the recreational sites cannot be used as credit towards the Land Dedication or the Regional [Parks] Fee.

Ordinances that contain only the land and the fee-in-lieu elements without containing a park development fee require existing taxpayers to pay the costs of improvements to transform the bare land into a park.

Calculation of park development fees

The survey revealed that among the 48 municipalities with parkland dedication ordinances in Texas, only 10 had expanded their ordinances to include a park development component. The park development fees charged in these cities are listed in Table 6. In 3 of the 10 cities, a different park development fee was charged for single dwelling units (SDU) than for multiple dwelling units (MDU).

Four of the 10 communities (Cedar Hill, La Porte, Mansfield, and New Braunfels) use language similar to that incorporated in the La Porte ordinance:

> Such park development fee shall be set from time to time by ordinance of the City Council of the City of La Porte sufficient to provide for the development of amenities and improvements on the dedicated land to meet the standards for a neighborhood park to serve the area in which the subdivision is located. Unless and until changed by ordinance of the City Council of the City of La Porte, the park development fee shall be calculated on the basis of $318 per dwelling unit.

In these four cases the fee is specified, but the basis used to calculate it is not attached to the ordinance. The rounded nature of some of the park development fees of these cites (such as $250, $500, and $750) and their wide disparity suggest that there was a degree of arbitrariness in fixing these fees that is unlikely to be accepted by the courts.

Table 6. Park development fees for Texas cities.

City	All	Single dwelling unit	Multiple dwelling unit
Bryan	--	$385	$292
Cedar Hill	$250	--	--
College Station	--	$1,402	$1,142
Denton	--	$291	$187
Flower Mound	$790	--	--
Highland Village	$1,025–$1,447 (based on level of service)	--	
La Porte	$318	--	--
Mansfield	$750	--	--
New Braunfels	$500	--	--
Rockwall	$202–$831 (based on district level of service)	--	

Seven cities provided an empirical basis for deriving their park improvement fees. In four cases (Denton, Flower Mound, Highland Village, and Rockwall) the cost of a typical neighborhood park is cited as the basis for the fee. For example, the Denton ordinance states: "Based on an assumed cost of typical improvements for a five acre park of $208,000." The neighborhood park development costs used by Flower Mound, Highland Village, and Rockwall are $117,600, $293,500, and $375,000, respectively. The Rockwall ordinance is unique in requiring annual reviews of the park development fee:

> A uniform cost shall be prepared annually for the park features set forth for a neighborhood park in the Activity Menu for the Park Plan, and adopted by the City Council. The dedication factor shall

APPENDIX - L

TPWD: LOCAL PARK GRANTS PROGRAM RETENTION, OPERATION & MAINTENANCE RESPONSIBILITIES

LOCAL PARK GRANTS PROGRAM

RETENTION, OPERATION & MAINTENANCE RESPONSIBILITIES

RETENTION AND USE

Property acquired or developed with grant assistance shall be retained and used for public recreation. Any property acquired or developed shall not be converted to other than public recreation uses without Department approval. Such approval will be given only with the substitution of other properties of at least equal fair market value and equivalent usefulness, quality, and location.

CHANGES IN RECREATIONAL USES

The recreational use of property developed with program assistance may not be changed from that approved when assistance was obtained, unless prior approval is obtained.

OPERATION AND MAINTENANCE

Property acquired or developed with program assistance will be operated and maintained as follows:

1. The property will be maintained as attractive and inviting to the public.

2. Sanitation and sanitary facilities will be maintained in accordance with applicable health standards.

3. Properties will be kept reasonably safe for public use.

4. Buildings, roads, trails, and other improvements will be kept in reasonable repair throughout their estimated lifetime to prevent undue deterioration and to encourage public use. It is not necessary that assisted improvements be maintained in perpetuity. Once assisted improvements have exceeded their estimated lifetime, or they are no longer economically feasible to operate or maintain, they may be demolished as long as the area remains in use for public recreation and prior Departmental approval is received.

5. The facility will be kept open for public use at reasonable hours and times of the year.

6. Property which includes natural area, wetland, or open space dedication should be maintained to preserve the original characteristics of the area which were suitable for these designations. This might include restrictions on development, mowing, drainage, landscaping, intensity of use, or other considerations which could affect the habitat or species within these designated areas.

AVAILABILITY TO USERS

- Non-Discrimination: Property acquired or developed with program assistance shall be open to persons regardless of age, race, color, religion, sex, national origin, or handicap. Discrimination on the basis of residence, including preferential reservation or membership systems, is prohibited, except to the extent that reasonable differences may be charged on the basis of residence. The requirements for posting this information and text are available in this section.

- Reasonable Use Limitations: Participants may impose reasonable limits on the type and extent of use of the areas and facilities acquired or developed with program assistance when such a limitation is necessary for maintenance or preservation.

Additional on-going commitments include, but are not limited to:

1. All property acquired and/or developed with fund assistance must remain dedicated in perpetuity and be used only for public recreation, with the exception of leased lands which may revert to other uses upon lease expiration;

2. No overhead utility lines may be installed;

3. The project area(s) must be open to the public and utilized for public recreation, free from discrimination pursuant to Title VI of the Civil Rights Act of 1964;

4. The project area(s) must be maintained so that it is safe, attractive, and inviting to the public.

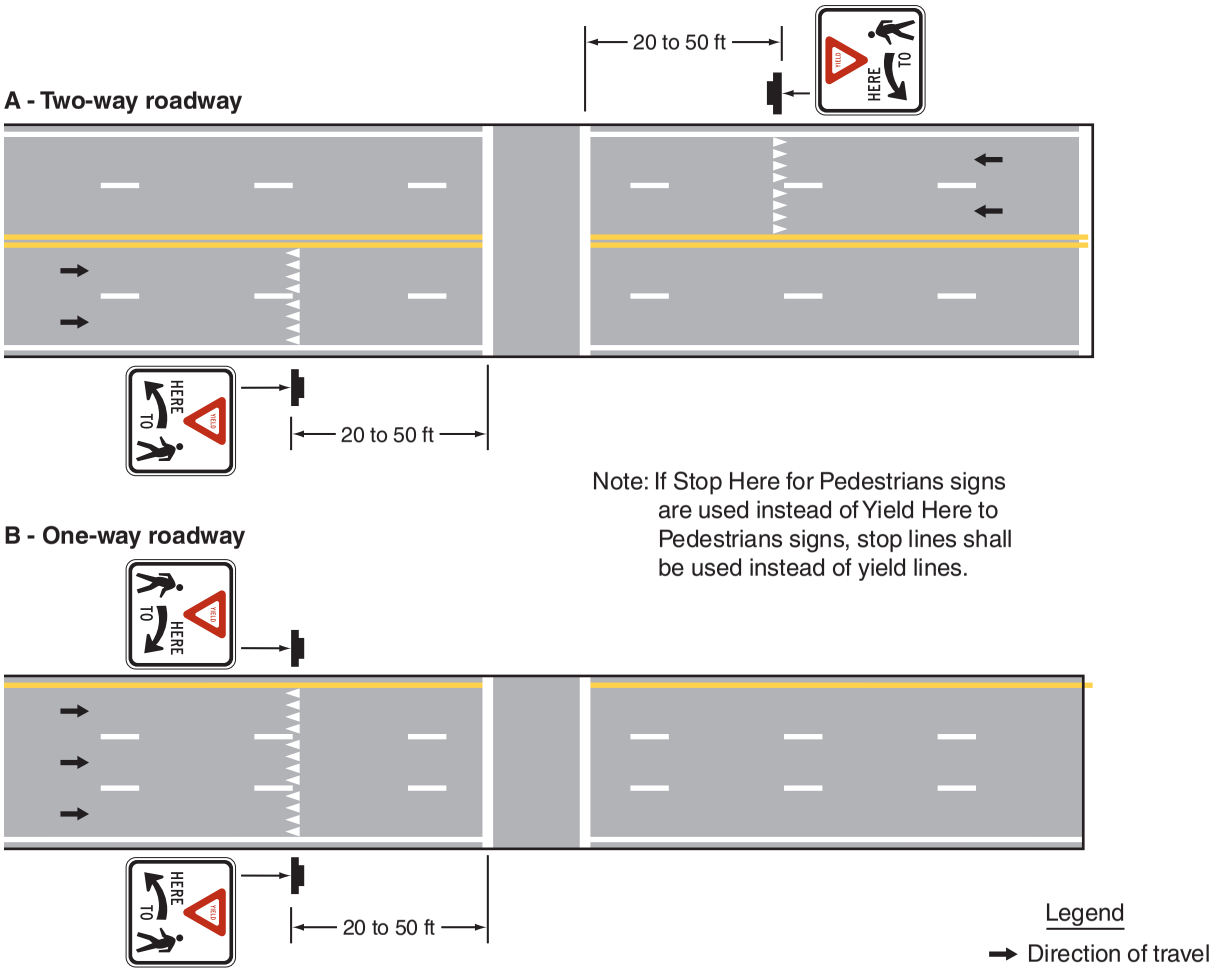
5. A permanent program acknowledgement sign or plaque must be installed and maintained at all project sites;

6. Periodic post completion inspections by Department staff will generally be unannounced, and are intended to ensure that program compliance continues after the project is completed. The sponsor may be asked periodically to participate in post completion self-inspection at the request of the Department. Sponsors who fail to comply with long-term program commitments may jeopardize future eligibility for funds for new projects and/or be subject to legal actions by the state and/or federal government to enforce program compliance.

APPENDIX - M

Texas Manual on niform Traffic Control Devices 2011 : Cross alks & Pedestrian Hy rid Beacon Guidelines

Figure 3B-17. Examples of Yield Lines at Unsignalized Midblock Crosswalks



Section 3B.18 Crosswalk Markings

Support:

01 Crosswalk markings provide guidance for pedestrians who are crossing roadways by defining and delineating paths on approaches to and within signalized intersections, and on approaches to other intersections where traffic stops.

02 In conjunction with signs and other measures, crosswalk markings help to alert road users of a designated pedestrian crossing point across roadways at locations that are not controlled by traffic control signals or STOP or YIELD signs.

03 At non-intersection locations, crosswalk markings legally establish the crosswalk.

Standard:

04 **When crosswalk lines are used, they shall consist of solid white lines that mark the crosswalk. They shall not be less than 6 inches or greater than 24 inches in width.**

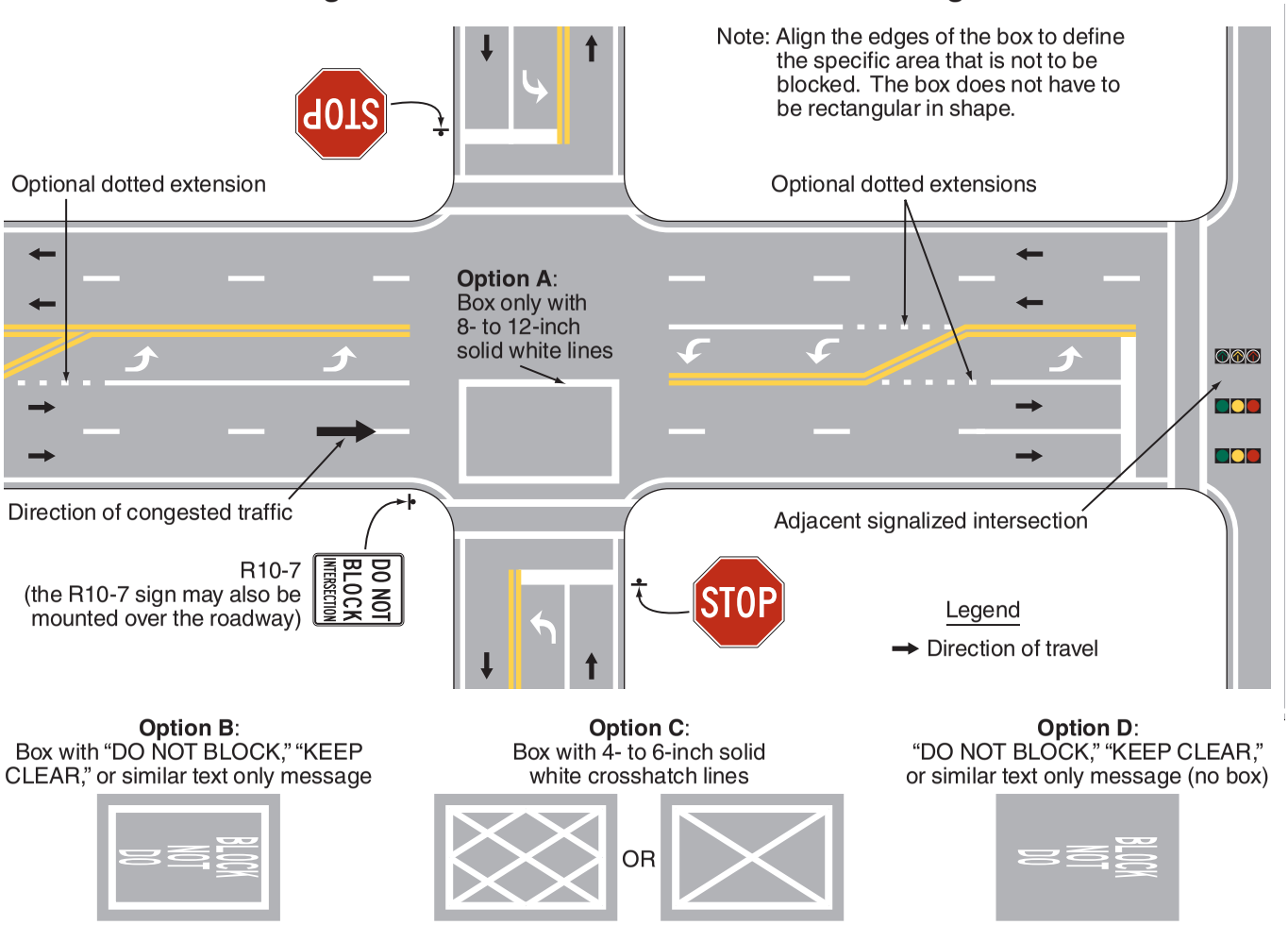
Guidance:

05 *If transverse lines are used to mark a crosswalk, the gap between the lines should not be less than 6 feet. If diagonal or longitudinal lines are used without transverse lines to mark a crosswalk, the crosswalk should be not less than 6 feet wide.*

06 *Crosswalk lines, if used on both sides of the crosswalk, should extend across the full width of pavement or to the edge of the intersecting crosswalk to discourage diagonal walking between crosswalks (see Figures 3B-17 and 3B-19).*

07 *At locations controlled by traffic control signals or on approaches controlled by STOP or YIELD signs, crosswalk lines should be installed where engineering judgment indicates they are needed to direct pedestrians to the proper crossing path(s).*

Figure 3B-18. Do Not Block Intersection Markings



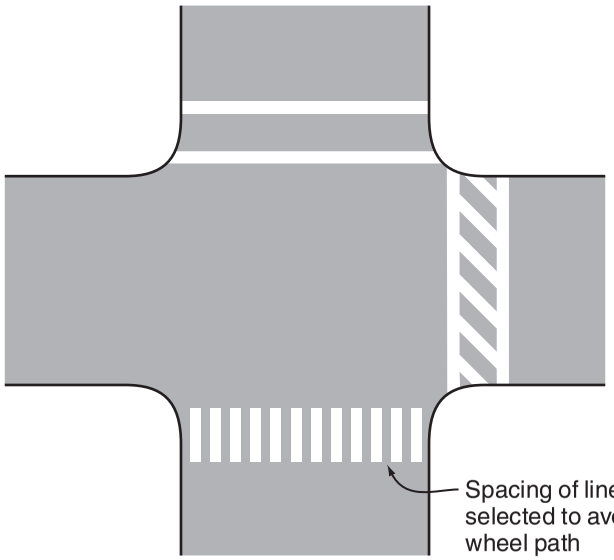
08 *Crosswalk lines should not be used indiscriminately. An engineering study should be performed before a marked crosswalk is installed at a location away from a traffic control signal or an approach controlled by a STOP or YIELD sign. The engineering study should consider the number of lanes, the presence of a median, the distance from adjacent signalized intersections, the pedestrian volumes and delays, the average daily traffic (ADT), the posted or statutory speed limit or 85th-percentile speed, the geometry of the location, the possible consolidation of multiple crossing points, the availability of street lighting, and other appropriate factors.*

09 *New marked crosswalks alone, without other measures designed to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence, should not be installed across uncontrolled roadways where the speed limit exceeds 40 mph and either:*

A. The roadway has four or more lanes of travel without a raised median or pedestrian refuge island and an ADT of 12,000 vehicles per day or greater; or

B. The roadway has four or more lanes of travel with a raised median or pedestrian refuge island and an ADT of 15,000 vehicles per day or greater.

Figure 3B-19. Examples of Crosswalk Markings



Support:

10 Chapter 4F contains information on Pedestrian Hybrid Beacons. Section 4L.03 contains information regarding Warning Beacons to provide active warning of a pedestrian's presence. Section 4N.02 contains information regarding In-Roadway Warning Lights at crosswalks. Chapter 7D contains information regarding school crossing supervision.

Guidance:

11 *Because non-intersection pedestrian crossings are generally unexpected by the road user, warning signs (see Section 2C.50) should be installed for all marked crosswalks at non-intersection locations and adequate visibility should be provided by parking prohibitions.*

Support:

12 Section 3B.16 contains information regarding placement of stop line markings near crosswalk markings.

Option:

13 For added visibility, the area of the crosswalk may be marked with white diagonal lines at a 45-degree angle to the line of the crosswalk or with white longitudinal lines parallel to traffic flow as shown in Figure 3B-19.

14 When diagonal or longitudinal lines are used to mark a crosswalk, the transverse crosswalk lines may be omitted. This type of marking may be used at locations where substantial numbers of pedestrians cross without any other traffic control device, at locations where physical conditions are such that added visibility of the crosswalk is desired, or at places where a pedestrian crosswalk might not be expected.

Guidance:

15 *If used, the diagonal or longitudinal lines should be 12 to 24 inches wide and separated by gaps of 12 to 60 inches. The design of the lines and gaps should avoid the wheel paths if possible, and the gap between the lines should not exceed 2.5 times the width of the diagonal or longitudinal lines.*

Option:

16 When an exclusive pedestrian phase that permits diagonal crossing of an intersection is provided at a traffic control signal, a marking as shown in Figure 3B-20 may be used for the crosswalk.

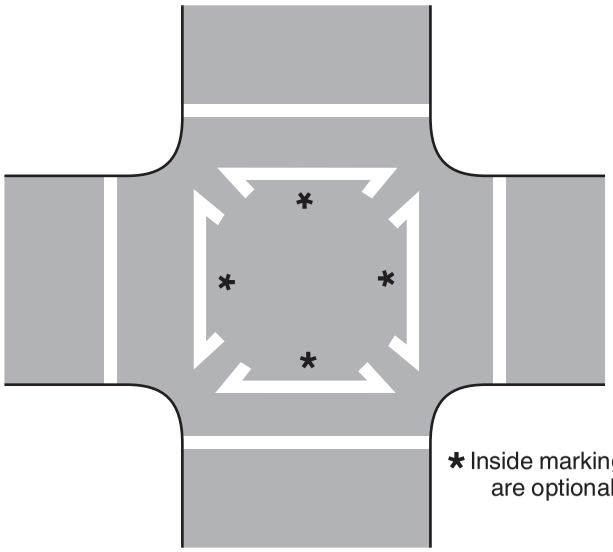
Guidance:

17 *Crosswalk markings should be located so that the curb ramps are within the extension of the crosswalk markings.*

Support:

18 Detectable warning surfaces mark boundaries between pedestrian and vehicular ways where there is no raised curb. Detectable warning surfaces are required by 49 CFR, Part 37 and by the Americans with Disabilities Act (ADA) where curb ramps are constructed at the junction of sidewalks and the roadway, for marked and unmarked crosswalks. Detectable warning surfaces contrast visually with adjacent walking surfaces, either light-on-dark, or dark-on-light. The "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)" (see Section 1A.11) contains specifications for design and placement of detectable warning surfaces.

Figure 3B-20. Example of Crosswalk Markings for an Exclusive Pedestrian Phase that Permits Diagonal Crossing



Section 3B.19 Parking Space Markings

Support:

01 Marking of parking space boundaries encourages more orderly and efficient use of parking spaces where parking turnover is substantial. Parking space markings tend to prevent encroachment into fire hydrant zones, bus stops, loading zones, approaches to intersections, curb ramps, and clearance spaces for islands and other zones where parking is restricted. Examples of parking space markings are shown in Figure 3B-21.

Standard:

02 **Parking space markings shall be white.**

CHAPTER 4F. PEDESTRIAN HYBRID BEACONS

Section 4F.01 Application of Pedestrian Hybrid Beacons

Support:

01 A pedestrian hybrid beacon is a special type of hybrid beacon used to warn and control traffic at an unsignalized location to assist pedestrians in crossing a street or highway at a marked crosswalk.

Option:

02 A pedestrian hybrid beacon may be considered for installation to facilitate pedestrian crossings at a location that does not meet traffic signal warrants (see Chapter 4C), or at a location that meets traffic signal warrants under Sections 4C.05 and/or 4C.06 but a decision is made to not install a traffic control signal.

Standard:

03 **If used, pedestrian hybrid beacons shall be used in conjunction with signs and pavement markings to warn and control traffic at locations where pedestrians enter or cross a street or highway. A pedestrian hybrid beacon shall only be installed at a marked crosswalk.**

Guidance:

04 *If one of the signal warrants of Chapter 4C is met and a traffic control signal is justified by an engineering study, and if a decision is made to install a traffic control signal, it should be installed based upon the provisions of Chapters 4D and 4E.*

05 *If a traffic control signal is not justified under the signal warrants of Chapter 4C and if gaps in traffic are not adequate to permit pedestrians to cross, or if the speed for vehicles approaching on the major street is too high to permit pedestrians to cross, or if pedestrian delay is excessive, the need for a pedestrian hybrid beacon should be considered on the basis of an engineering study that considers major-street volumes, speeds, widths, and gaps in conjunction with pedestrian volumes, walking speeds, and delay.*

06 *For a major street where the posted or statutory speed limit or the 85th-percentile speed is 35 mph or less, the need for a pedestrian hybrid beacon should be considered if the engineering study finds that the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding total of all pedestrians crossing the major street for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4F-1 for the length of the crosswalk.*

07 *For a major street where the posted or statutory speed limit or the 85th-percentile speed exceeds 35 mph, the need for a pedestrian hybrid beacon should be considered if the engineering study finds that the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding total of all pedestrians crossing the major street for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4F-2 for the length of the crosswalk.*

08 *For crosswalks that have lengths other than the four that are specifically shown in Figures 4F-1 and 4F-2, the values should be interpolated between the curves.*

Section 4F.02 Design of Pedestrian Hybrid Beacons

Standard:

01 **Except as otherwise provided in this Section, a pedestrian hybrid beacon shall meet the provisions of Chapters 4D and 4E.**

02 **A pedestrian hybrid beacon face shall consist of three signal sections, with a CIRCULAR YELLOW signal indication centered below two horizontally aligned CIRCULAR RED signal indications (see Figure 4F-3).**

03 **When an engineering study finds that installation of a pedestrian hybrid beacon is justified, then:**

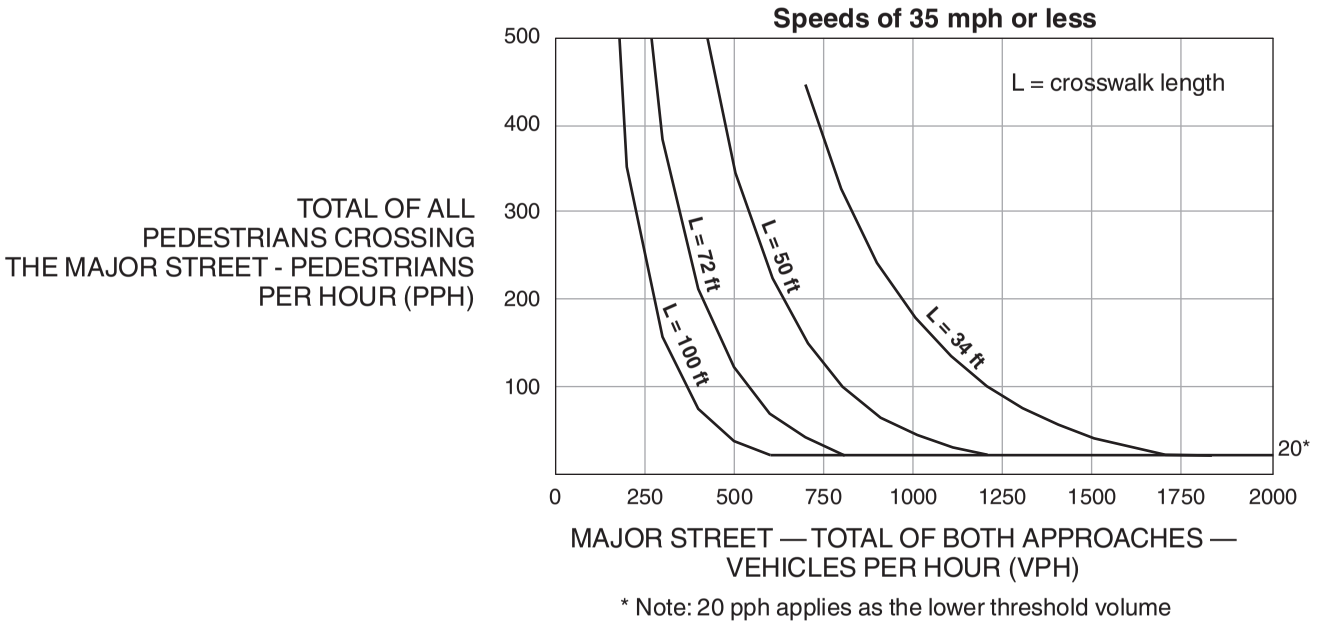
- **A. At least two pedestrian hybrid beacon faces shall be installed for each approach of the major street,**
- **B. A stop line shall be installed for each approach to the crosswalk,**
- **C. A pedestrian signal head conforming to the provisions set forth in Chapter 4E shall be installed at each end of the marked crosswalk, and**
- **D. The pedestrian hybrid beacon shall be pedestrian actuated.**

Guidance:

04 *When an engineering study finds that installation of a pedestrian hybrid beacon is justified, then:*

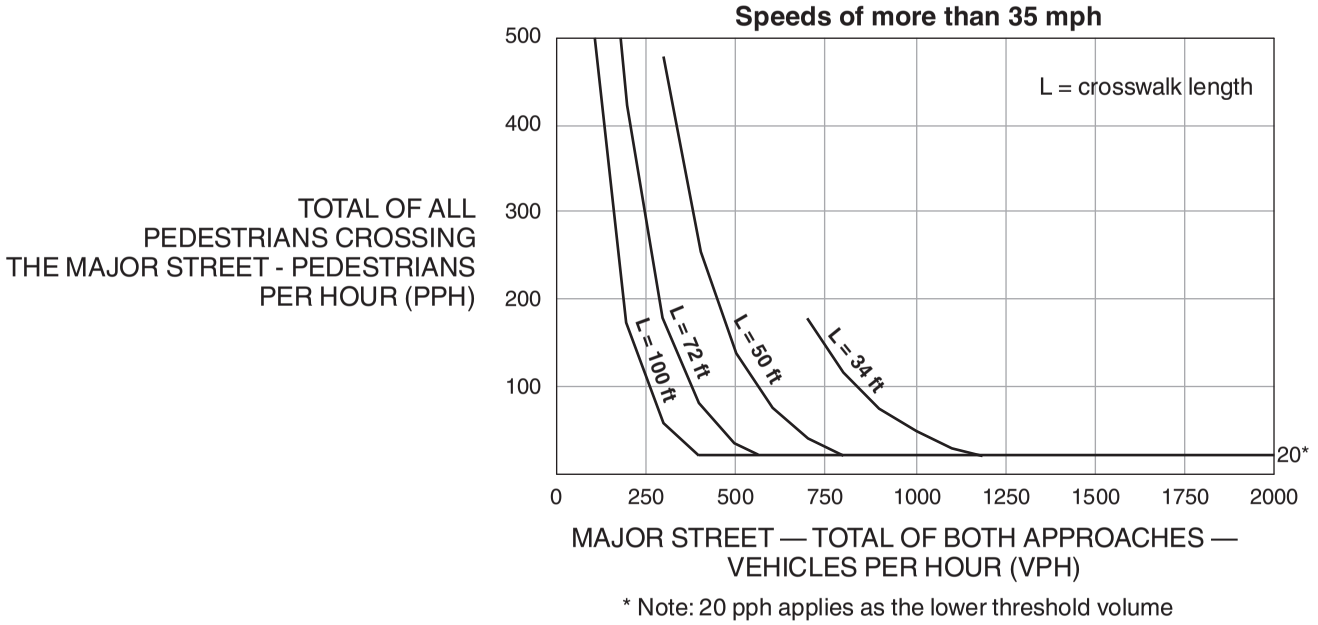
- *A. The pedestrian hybrid beacon should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs,*

Figure 4F-1. Guidelines for the Installation of Pedestrian Hybrid Beacons on Low-Speed Roadways



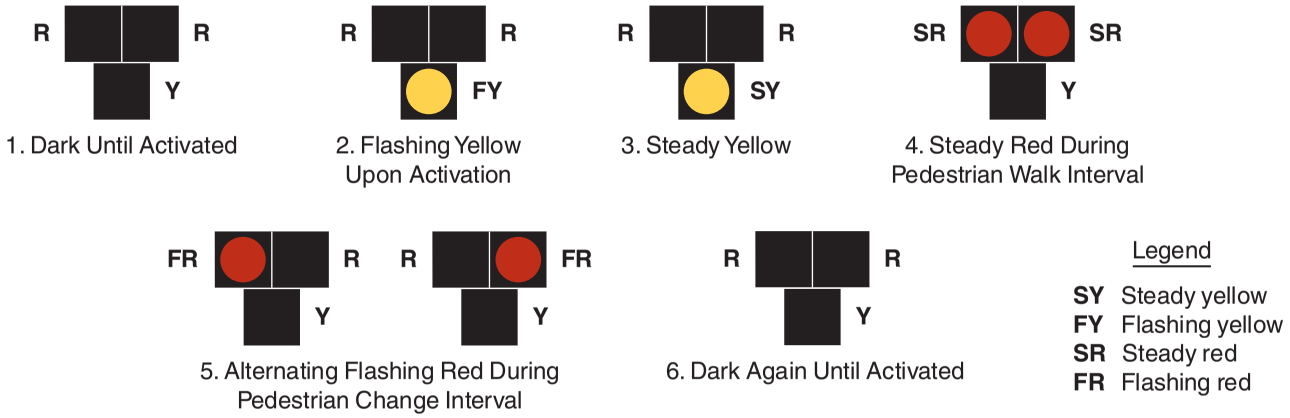
* Note: 20 pph applies as the lower threshold volume

Figure 4F-2. Guidelines for the Installation of Pedestrian Hybrid Beacons on High-Speed Roadways



* Note: 20 pph applies as the lower threshold volume

Figure 4F-3. Sequence for a Pedestrian Hybrid Beacon



B. Parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the marked crosswalk, or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance,

C. The installation should include suitable standard signs and pavement markings, and

D. If installed within a signal system, the pedestrian hybrid beacon should be coordinated.

05 *On approaches having posted or statutory speed limits or 85th-percentile speeds in excess of 35 mph and on approaches having traffic or operating conditions that would tend to obscure visibility of roadside hybrid beacon face locations, both of the minimum of two pedestrian hybrid beacon faces should be installed over the roadway.*

06 *On multi-lane approaches having a posted or statutory speed limits or 85th-percentile speeds of 35 mph or less, either a pedestrian hybrid beacon face should be installed on each side of the approach (if a median of sufficient width exists) or at least one of the pedestrian hybrid beacon faces should be installed over the roadway.*

07 *A pedestrian hybrid beacon should comply with the signal face location provisions described in Sections 4D.11 through 4D.16.*

Standard:

08 **A CROSSWALK STOP ON RED (symbolic circular red) (R10-23) sign (see Section 2B.53) shall be mounted adjacent to a pedestrian hybrid beacon face on each major street approach. If an overhead pedestrian hybrid beacon face is provided, the sign shall be mounted adjacent to the overhead signal face.**

Option:

09 A Pedestrian (W11-2) warning sign (see Section 2C.50) with an AHEAD (W16-9P) supplemental plaque may be placed in advance of a pedestrian hybrid beacon. A warning beacon may be installed to supplement the W11-2 sign.

Guidance:

10 *If a warning beacon supplements a W11-2 sign in advance of a pedestrian hybrid beacon, it should be programmed to flash only when the pedestrian hybrid beacon is not in the dark mode.*

Standard:

11 **If a warning beacon is installed to supplement the W11-2 sign, the design and location of the warning beacon shall comply with the provisions of Sections 4L.01 and 4L.03.**

Section 4F.03 Operation of Pedestrian Hybrid Beacons

Standard:

01 **Pedestrian hybrid beacon indications shall be dark (not illuminated) during periods between actuations.**

02 **Upon actuation by a pedestrian, a pedestrian hybrid beacon face shall display a flashing CIRCULAR yellow signal indication, followed by a steady CIRCULAR yellow signal indication, followed by both steady CIRCULAR RED signal indications during the pedestrian walk interval, followed by alternating flashing CIRCULAR RED signal indications during the pedestrian change interval (see Figure 4F-3). Upon termination of the pedestrian change interval, the pedestrian hybrid beacon faces shall revert to a dark (not illuminated) condition.**

03 **Except as provided in Paragraph 4, the pedestrian signal heads shall continue to display a steady UPRAISED HAND (symbolizing DONT WALK) signal indication when the pedestrian hybrid beacon faces are either dark or displaying flashing or steady CIRCULAR yellow signal indications. The pedestrian signal heads shall display a WALKING PERSON (symbolizing WALK) signal indication when the pedestrian hybrid beacon faces are displaying steady CIRCULAR RED signal indications. The pedestrian signal heads shall display a flashing UPRAISED HAND (symbolizing DONT WALK) signal indication when the pedestrian hybrid beacon faces are displaying alternating flashing CIRCULAR RED signal indications. Upon termination of the pedestrian change interval, the pedestrian signal heads shall revert to a steady UPRAISED HAND (symbolizing DONT WALK) signal indication.**

Option:

04 Where the pedestrian hybrid beacon is installed adjacent to a roundabout to facilitate crossings by pedestrians with visual disabilities and an engineering study determines that pedestrians without visual disabilities can be allowed to cross the roadway without actuating the pedestrian hybrid beacon, the pedestrian signal heads may be dark (not illuminated) when the pedestrian hybrid beacon faces are dark.

Guidance:

05 *The duration of the flashing yellow interval should be determined by engineering judgment.*

Standard:

06 **The duration of the steady yellow change interval shall be determined using engineering practices.**

Guidance:

07 *The steady yellow interval should have a minimum duration of 3 seconds and a maximum duration of 6 seconds (see Section 4D.26). The longer intervals should be reserved for use on approaches with higher speeds.*

APPENDIX - N

External Funding Opportunities List – Full List

Grant Funding Options for City of Rhome

Priority #	Name	Entity	Level	Type	Services	Qualifications	Grant Funding?	Grant Amount	Application Deadline	Contact Information	Resource
1	Local Parks Small Community Recreation (Local Parks Grants)	Texas Parks and Wildlife Department (TPWD)	State	Outdoor Park Amenities	Assists local units of government with the acquisition and/or development of public recreation areas and facilities throughout the State of Texas. Outdoor recreational facilities	- Population must be less than 20,000 - Grant funds are provided on a matching basis with the local applicant providing 50% of the project costs. - The match MUST be available at the time of application - Once funded, all grant assisted sites must be dedicated as parkland in perpetuity, properly maintained and open to the public.	Y	Up to $150,000	11/6	dan.reece@tpwd.texas.gov	https://tpwd-recgrants.intelligrants.com/Portal2.aspx?&sitID=14
2	Local Parks Non-Urban Outdoor Recreation (Local Parks Grants)	TPWD	State	Outdoor Park Amenities	Assists local units of government with the acquisition and/or development of public recreation areas and facilities throughout the State of Texas. Outdoor recreational facilities	- Population must be less than 500,000 - Grant funds are provided on a matching basis with the local applicant providing 50% of the project costs. - The match MUST be available at the time of application	Y	Up to $750,000	11/6	dan.reece@tpwd.texas.gov	https://tpwd-recgrants.intelligrants.com/Portal2.aspx?&sitID=15
3	Recreational Trails Grants	TPWD	State	Trails & Paths	Funds can be spent on both motorized and non-motorized recreational trail projects such as the construction of new recreational trails, improvements to existing trails, development of trailheads or trailside facilities, and assistance with acquiring trail corridors.	Based on application completion; contact Program Manager	Y	Reimbursement up to 80% of project cost with a maximum of $200,000 for non-motorized trail grants/maximum award of $400,000 for motorized trail grants	2/1	trey.cooksey@tpwd.texas.gov	https://tpwd-recgrants.intelligrants.com/Portal2.aspx?&sitID=16
4	Community Outdoor Outreach Program (CO-OP)	TPWD	State	Park Activities	Grant funding for programming that introduces under-served populations to environmental and conservation programs as wel as TPWD mission oriented outdoor activities.	Grants are available to tax-exempt organizations and local governments introducing non-traditional constituents to TPWD related outdoor recreation, conservation and environmental education programs.	Y	Up to $50,000	11/6	carly.blankenship@tpwd.texas.gov	https://tpwd-recgrants.intelligrants.com/Portal2.aspx?&sitID=15
5	Adventure Courses	KABOOM	Private/Non-profit	Teen Playground	This new type of playspace was developed in response to the demands of kids and communities looking to engage older kids and teenagers. Through our signature community-build model and with the leadership of our Project Managers, communities will design and build an amazing playspace aimed at kids and teens, aged 10 and older. Adventure course playspaces provide a fun, challenging option for physical activity.	Serve youth from low-income population and demonstrate the need for engaging space for older kids. Engage older kids and teenagers, 13-years and older, in the planning process. Work with the community, with guidance from a dedicated KABOOM! Project Manager, to fundraise toward the cost of equipment. Own the land on which you wish to build, or have a long-term lease and get permission from the landowner to construct an adventure course.	Y	Variable	Rolling Basis	grants@kaboom.org	https://kaboom.org/grants/adventure-courses
6	Multi-Sport Courts	KABOOM	Private/Non-profit	Sport Courts	Sports courts help communities address a lack of play opportunities for older youth that no longer play on playgrounds The interlocking tiles are easy to install and maintain. Sports courts provide communities with a wide variety of different sports using the same space— such as basketball, hockey, volleyball and many other games.	Serve youth from low-income population and demonstrate the need for an engaging space for kids and older youth to play sports. Work with the community, with guidance from a dedicated KABOOM! Project Manager, to fundraise toward the cost of equipment. Own the land on which you wish to build, or have a long-term lease and get permission from the landowner to construct a sports court. Demonstrate ability to recruit a team of parents, neighbors, and	Y	Variable	Rolling Basis	grants@kaboom.org	https://kaboom.org/grants/multi-sport-courts
7	Build it with KABOOM	KABOOM	Private/Non-profit	Playground	Receive a new, custom-designed playground Engage community members to work toward a common goal. Participate and lead a planning process to help you fundraise, build relationships, and develop media relations skills that will strengthen your community and can be used for future projects.	Serve a low-income and/or special needs community. Have no playground or need to replace an existing unsafe or outdated one. Work with the community, with guidance from a dedicated KABOOM! Project Manager, to fundraise toward the cost of equipment. Own the land on which you wish to build, or have a long-term lease and get permission from the landowner to construct a playground. Demonstrate ability to recruit a team	Y	Variable	Rolling Basis	grants@kaboom.org	https://kaboom.org/grants/build-it-with-kaboom
8	Creative Play Grants	KABOOM	Private/Non-profit	Play Equipment	Imagination Playground™ is an innovative design in play equipment that encourages creativity, communication, and collaboration in play. With a collection of custom-designed, oversized blue foam parts, Imagination Playground™ provides a changing array of elements that allow children to turn their playground into a space constantly built and re-built by their imagination.	Municipalities, schools, and child-serving nonprofit organizations are eligible for this opportunity. Applicant must: Demonstrate need for a Creative Play grant. Give evidence of available space and the ability to maintain the Imagination Playground™ in a Cart or Rigamajig®. Give anticipated impact that the grant will have on the community and increased play opportunities. Show demonstrated impact on low income areas and the	Y	Variable	Contact a KABOOM representative	apply@kaboom.org	https://kaboom.org/grants/creative-play
9	Texas Urban and Rural Conservation Project (TURCP)	Texas NRCS/USDA	State	Community Garden Infrastructure	Technical and financial assistance is provided to improve gardens for food production, rainwater harvesting systems, pollinator habitat for attracting and maintaining monarch butterflies and the establishment of high tunnels to extend the growing season of fruits and vegetables.	City or Township Governments, County Governments, For profit organizations other than small businesses, Native Americans (Tribal Governments),	Y	Grants up to $4,000 are available for community gardens. Grants up to $3,000 are available to establish pollinator habitat. Grants up to $6,500 are available to construct a high tunnel. Grants up to $5,000 are available to establish a rainwater harvesting system for a new or existing garden.	5/29	bertha.venegas@usda.gov, kristee.hall@wdc.usda.gov	https://www.nrcs.usda.gov/wps/portal/nrcs/detail/tx/programs/landscape/?cid=nrcseprd1458072
10	Community Development Block Grant (CDBG) for Rural Texas - Community Development Fund	Texas Department of Agriculture	State	Infrastructure, Park Amenities	The Community Development Fund is the largest fund category in the TxCDBG Program. This fund is available through a competition in each of the 24 state planning regions. Although most funds are used for Public Facilities (water/wastewater infrastructure, street and drainage improvements and housing activities), there are numerous other activities for which these funds may be used.	Non-entitlement cities (population less than 50,000) and counties (population less than 200,000), and not designated as eligible for the entitlement portion of the federal Community Development Block Grant Program (CDBG).	Y	Max Award: $275,000 - $800,000 (vaires by region)	2/1	CDBGapps@TexasAgriculture.gov	https://www.texasagriculture.gov/GrantsServices/RuralEconomicDevelopment/RuralCommunityDevelopmentBlockGrant(CDBG)/CDBGResources/Applications/CommunityDevelopmentFundApplicationGuide.aspx

Grant Funding Options for City of Rhome

11	CDBG Program for Rural Texas - Downtown Revitalization/Main Street Programs (DRP/MS)	Texas Department of Agriculture	State	Infrastructure, Park Amenities	Provides grant funds for public infrastructure to eliminate deteriorated conditions and foster economic development in historic main street areas and rural downtown areas.	Non-entitlement cities (population less than 50,000) and counties (population less than 200,000), and not designated as eligible for the entitlement portion of the federal Community Development Block Grant Program (CDBG). Visit site for more details.	Y	DRP $50,000/MS $500,000	9/1	CDBGapps@TexasAgriculture.gov	https://www.texasagriculture.gov/GrantsServices/RuralEconomicDevelopment/RuralCommunityDevelopmentBlockGrant%28CDBG%29/CDBGResources/Applications/DRPMS.aspx
12	CDBG Program for Rural Texas - Planning and Capacity Building Fund	Texas Department of Agriculture	State	Planning & Design Services Funding	An annual competitive grant program for local public facility and housing planning activities. Localities apply for financial assistance to prepare a "comprehensive plan" or any of its components.	Non-entitlement cities (population less than 50,000) and counties (population less than 200,000), and not designated as eligible for the entitlement portion of the federal Community Development Block Grant Program (CDBG).	Y	Up tp $55,000	3/1	CDBGapps@TexasAgriculture.gov	https://www.texasagriculture.gov/GrantsServices/RuralEconomicDevelopment/RuralCommunityDevelopmentBlockGrant(CDBG)/CDBGResources/Applications/PCBApplicationandGuide.aspx
13	Safe Routes to Schools-Infrastructure (SRTS) Program	Texas Department of Transportation (TxDOT)	State	Trails & Paths	TxDOT administers SRTS funds for locally sponsered infrastructure projects that facilitate walking and biking to school. TxDOT opened a combined call for projects for TA and SRTS funds.	SRTS projects may be located anywhere in the state regardless of population size. To be eligible for SRTS funds, projects must be located within public right of way within 2 miles of a public, charter, or private school serving K-8th grade students. Eligible project sponsors for SRTS infrastructure funds are political subdivisions of the state (e.g., cities, counties, school districts, local governments, etc.).	Y	Variable; SRTS funds are 100% federal funds, meaning no local match is required.	Call for Projects: Februrary 8, Preliminary Application Deadline: April 12, Detailed Application Submittal: August 15	https://www.txdot.gov/contact-us/form.html?id=tbp-email	https://www.txdot.gov/inside-txdot/division/public-transportation/bicycle-pedestrian.html
14	Transportation Alternatives Set-Aside (TA) Program	TxDOT	State	Trails & Paths	TxDOT administers TA funds for locally sponsored bicycle and pedestrian infrastructure projects TxDOT opened a combined call for projects for TA and SRTS funds.	A local government; communities less than 200,000 in population.	Y	TA funding provides 80% federal funds with a 20% minimum local match required. The local funding match is a cash match or a combination of cash and in-kind contributions provided by or through the project sponsor.	Call for Projects: Februrary 8, Preliminary Application Deadline: April 12, Detailed Application Submittal: August 16	https://www.txdot.gov/contact-us/form.html?id=tbp-email	https://www.txdot.gov/inside-txdot/division/public-transportation/bicycle-pedestrian.html
15	The Fruit Tree Planting Foundation Orchard Grant	The Fruit Tree Planting Foundation (FTPF)	International/ Non-Profit	Community Gardens	The Fruit Tree Planting Foundation (FTPF) is an award-winning international nonprofit charity dedicated to planting fruitful trees and plants to alleviate world hunger, combat global warming, strengthen communities, and improve the surrounding air, soil, and water.	Recipients must be nonprofits, NGOs, public schools, or government entities serving a charitable purpose.	Y	Variable	Rolling Basis	info@ftpf.org	https://www.ftpf.org/apply
16	Meet Me at the Park Program Play Space Grants	Disney and the National Recreation and Park Association (NRPA)	National	Amenity	This grant funding supports projects that increase access to play spaces in local parks for children and families.	Disney funds grants that NRPA awards to park and recreation agencies across the U.S. that submit the best ideas to help make outdoor play accessible to children and families in underserved communities.	Y	$30,000	Inquiries: Februray, Applications: May	Contact NRPA grants: cpittard@nrpa.org	https://www.nrpa.org/our-work/partnerships/initiatives/meet-me-at-the-park/
17	Community Facilities Direct Loan and Grant Program – Rural Communities	USDA Department of Rural Agriculture	Federal	Outdoor Amenities, Paths & Trails	This program provides affordable funding to develop essential community facilities in rural areas. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area, and does not include private, commercial or business undertakings. Public facilities such as town halls, courthouses, airport hangars or street improvements Community support services such as child care centers, community centers, fairgrounds or transitional housing	Rural areas including cities, villages, townships and towns including Federally Recognized Tribal Lands with no more than 20,000 residents according to the latest U.S. Census (2010). Priority is given to small communities with a population of 5,500 or less Low-income communities having a median household income below 80% of the state nonmetropolitan median household income.	Y	Variable low interest direct loans and grants	Applications are accepted year round; Rolling Basis	Texas: Edd Hargett, State Director Federal Building, Suite 102 101 South Main Temple, TX 76501 Voice: (254) 742-9700 Fax: (844) 496-8123 www.rd.usda.gov/tx	https://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program
18	Walmart Community Giving Program	Walmart	National	Amenity	Grants help to fund playground amenities.	Any K-12 public or private school can apply, plus some church and faith-based organizations with projects that specifically benefit the community as a whole	Y	$250 to $5,000	February to December	Walmart Super Center Phone: (940) 488-7015	https://walmart.org/what-we-do/strengthening-community/local-community-support
19	The Garden Grant Program	Whole Kids Foundation (Whole Foods)	Private	Community Gardens	Our Garden Grant program provides a $2,000 monetary grant to support a new or existing edible educational garden	K–12 Schools or Non-Profit Organizations in U.S./Canada	Y	$3,000	3/31	Grants@WholeKidsFoundation.org	https://www.wholekidsfoundation.org/programs/school-gardens-grant
20	Playground Wishes Granted	GameTime/ PlayCore Co.	Private	Playground	GameTime is helping your community bring play to more children and families by setting aside significant playground grant funds toward the purchase of new play systems. For a limited time, GameTime is offering up to 100% matching funds on eligible play systems. Grant funds are awarded based on need and on a first-come, first-served basis.	Grant funds are awarded based on need and on a first-come, first served basis.	Y	100% Match of Original Purchase* *GameTime grants can only be applied to additional GameTime purchases and only in conjunction with the original purchase. To qualify for a 100% matching grant, list price of the qualifying playground system must exceed $90,000 and payment in full must accompany your order.	8/30/2020	Form	https://www.gametime.com/playground-grant

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21	Shade Structure Program	American Academy of Dermatology	National	Amenity	Grants provide shade structures for local parks and playgrounds to make enjoying a sunny day a safe and enjoyable outing for all.	Applicants must demonstrate an ongoing commitment to sun safety within the organization or have a skin-cancer-awareness program in place for a minimum of one year before applying for funding. Be a non-profit organization, school, daycare, or city park.	Y	Up tp $8,000	Applications open: October 1, 2020	shadestructure@aad.org.	https://www.aad.org/public/public-health/shade-structure-grants
22	Community Assistance in Conservation and Outdoor Recreation	National Park Service (NPS)	Federal	Planning & Design Services	Strategic Planning Assistance pertaining to bike paths, a water trails, parks	Project applicants may be state and local agencies, tribes, nonprofit organizations, or citizen groups; must contact program manager of your region prior to final submission to discuss project (listed under contact info)	N	N/A	06/30 of Each Year	Intermountain Region: Ericka Pilcher, Program Manager Email: RTCA_Apps_IMR@nps.gov States Served: Arizona, Colorado, Montana, New Mexico, Oklahoma, Texas, Utah, Wyoming	https://www.nps.gov/orgs/rtca/apply.htm
23	Sustainable Materials Management Grant	NCTCOG	State	Functional Facilities/ Waste Services	Source Reduction and Recycling Litter and Illegal Dumping Cleanups and Community Cleanup Events Citizens' Collection Stations and "Small" Transfer Stations Educational and Training Projects	Cities, counties, public schools and school districts (excluding universities and other post-secondary institutions) within NCTCOG's 16-county region are eligible.	Y	Minimum Funding Request: $15,000, Maximum Funding Request: $200,000	January		https://www.nctcog.org/trans/funds/cfps/2020tacfp
24	The USTA Facility Assistance Program	US Tennis Association (USTA)	Private	Tennis	New construction or existing facility reconstruction of 36', 60' and 78' courts.	Start the process by completing the USTA Facility Assistance Form. Be actively engaged with the USTA Facility Assistance program (working with USTA-appointed project consultant, etc.). Any project completed prior to engaging the USTA is NOT eligible for funding. Meet specified industry standards for project as determined by the USTA Facility Assistance program's technical team. Demonstrate financial need and matching (up to 50 percent) of project funds	Y	Contribution of up to 50% of total project cost for a new court ($100,000 maximum)	Rolling Basis	USTA Facility Assistance Form	https://www.usta.com/en/home/organize/grants-and-assistance/national/about-usta-facility-assistance.html
25	Safe Places to Play Grant	US Soccer Foundation	National	Soccer	Grants to help support field lighting, irrigation, & synthetic turf construction	Land Ownership – application must own or hold a 10+ year lease on the field space 50% Funded – at the time of application, 50% of project funding must be in hand Project Timeline – project should have clear timeline, with plan to complete project within 1 year of potential grant award Non-Profit Status – applicants must be a non-profit entity (nonprofit organization, government, school, church) Soccer-Specific Play Space – field space must be majority-use soccer	Y	Variable	January 2, 2020 - Letter of Interest (LOI) open January 31, 2020 - Letter of Interest (LOI) due February 7, 2020 - Application deadline	ddube@ussoccerfoundation.org	https://ussoccerfoundation.org/grants/safe-places-to-play-grant-application-process/
26	USA Football Grant Program	USA Football	National	Football	Receive grants toward new field lighting, a new scoreboard, or upgrade equipment.	Based in the U.S. A tax-exempt organizations (501(c)(3) status) such as churches, individual schools or school districts, cities, or municipalities, etc	Y	Variable	January	grants@usafootball.com	https://usafootball.com/resources-tools/commissioner/grants/
27	MLB-MLBPA Youth Development Foundation Grants	MLB-MLBPA Youth Development Foundation	National	Baseball	Capital projects include: building and renovating fields and practice facilities and installing lighting (must be dedicated soley to baseball/softball), baseball/softball programs, and Education initiatives about baseball/softball.	N/A	Y	Variable	Rolling Basis	YDF@mlb.com	https://www.mlb.com/baseball-tomorrow-fund/how-to-apply
28	Globe Life Texas Rangers Baseball and Softball Grant Program	Texas Rangers Baseball Foundation	Regional	Baseball	This grant is designed to continue to build baseball and softball by providing funding for field renovations, equipment needs, uniforms and league development for teams through Arkansas, Louisiana, New Mexico, Oklahoma and Texas.	Provide baseball and/or softball to youth 18 years or younger Operate within the following one or more states: Arkansas, Louisiana, New Mexico, Oklahoma or Texas Be designated as 501(c)(3) not-for-profit organization as defined by the Internal Revenue code.	Y	Variable	6/30	817.533.1513	https://www.mlb.com/rangers/community/foundation/grant-program
29	Local Parks Non-Urban Indoor Recreation (Local Parks Grant)	TPWD	State	Indoor Park Amenities	Assists local units of government with the acquisition and/or development of public recreation areas and facilities throughout the State of Texas. Indoor recreational facilities	- Population must be less than 500,000 - Grant funds are provided on a matching basis with the local applicant providing 50% of the project costs. - The match MUST be available at the time of application	Y	$1 million	N/A	dan.reece@tpwd.texas.gov	https://tpwd-recgrants.intelligrants.com/Portal2.aspx?&sitID=16
30	The Citizens' Institute on Rural Design	National Endowment for the Arts /Housing Assistance Council/buildingcommunityWORKSHOP	Non-profit	Planning & Design Services	Offers local design workshops that address specific community challenges, and also create a new cohort learning program that will engage rural leaders; community capacity building.	All rural communities of 50,000 or less are eligible to apply; nonp	N	N/A	7/22	CIRD@bcworkshop.org	https://www.rural-design.org/apply

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32	Artists Lead! Matching Grant	Art Place/Ioby	Private/Non-profit	Art/ Placemaking	Flexible funding opportunity for artist-led creative placemaking projects; Such as: the project activates a commercial corridor local partners have identified needing attention; the project results in a vacant space being converted to a use the community wants; the project brings residents together around a theme that's important locally, perhaps to learn more about local food systems, or provide a social event for isolated community members.	Focus on a geographic community, like a neighborhood, town, or city. Be led by an artist (or group of artists) collaborating closely or working in partnership with other members of the community. Generate place-based outcomes that the community has expressed a need or desire for. Result in a physical or tangible output Be based in the United States or a U.S. Territory. Produce a shared community benefit or public good and not be aimed at private profit	Y	Up to $15,000 in match funding	7/24	ethany@ioby.org	https://ioby.org/artistslead/eligibility

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