

PARKS, RECREATION & OPEN SPACE



CITY OF
MURPHY

LIFE LIVED AT YOUR PACE



2017 COMPREHENSIVE MASTER PLAN

CITY OF MURPHY, TEXAS
August 2017

ACKNOWLEDGMENTS

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Executive Summary

Purpose of the Parks, Recreation & Open Space Master Plan

In today's active society, recreation opportunities are becoming more important to all age groups. With urban sprawl and development of rural land, creation of parks and preservation of open space should be major priorities for our cities and communities. Parks and open space also add economic value to local properties and an intangible value to the local quality of life. In order to preserve the open space and create parks, this Parks, Recreation & Open Space Master Plan has been written; it identifies recreation needs, pertinent demographic information, existing and future park needs, park priorities, and funding opportunities. This, in the long term, will provide Murphy citizens the benefits of recreation and preservation of open space.

Plan Development Process

The City determined that the Master Plan needed a complete rework and to be updated at least every five years. Subsequently City staff began the process of producing a new Parks, Recreation and Open Space Master Plan in May 2016. Meetings were held with the Murphy Parks & Recreation Department staff to examine collected needs, findings and preliminary recommendations. Beginning in June 2013, staff began to work with the Parks and Recreation Board to update items such as purpose and goals desires. To obtain a comprehensive and complete analysis of the City's park and recreation needs and park system, two methodologies were used for this evaluation: public hearing and standards-based analysis. This Master Plan provides the City both short-range implementation scheduling for existing parks and long-range planning for future park acquisition and development.

Goals

The following goals were initially established in the 2008 Parks and Recreation Master Plan. The Park and Recreation Board determined that, with the exception of an addition to goal five, all are still viable, and the goals were therefore reaffirmed for this park planning process.

Goal 1: Establish a premier parks system that is among the best in smaller communities in the Dallas/Ft. Worth area.

Goal 2: Create a park system that will improve the physical form and appearance of Murphy.

Goal 3: Provide a variety of recreation facilities and programs to meet the ultimate needs and desires of Murphy's growing population.

Goal 4: Preserve and enhance Murphy's open space and natural resources.

Goal 5: Implement existing trail plan to develop a comprehensive network of pedestrian and bicycle ways for hiking, jogging and cycling throughout as much of Murphy as is feasible.

Goal 6: Continue to maintain all of the Murphy parks and recreational facilities in a superior condition.

Goal 7: Create mechanisms to work with the public and private entities to provide resources to acquire develop and maintain parks, recreation facilities, services and open space.

Goal 8: Include a citizen participation process in all ongoing park planning and design, as well as updating of the Parks Master Plan.

Standard-Based Analysis

The Standard-Based Analysis approach to assessing future recreational needs follows established and recognized standards for assessing the quality of park land and the number of facilities that are required to meet the needs of a given population. One source for such standards is the National Recreation and Park Association (NRPA), which provides a base of input upon which to formulate or calculate local needs. The result of this Standard Bases Analysis is

provided for the City build out population of approximately 22,500 within Table 4 and for Table 5 which includes Homeowners associations in Murphy.

Park Land Analysis

Park land analysis is also evaluated on the basis of Murphy's build-out population, as shown in Table 5 and the inclusion of HOA amenity statistics in Table 6. This evaluation is a reliable guide and analysis for park land comparison. The acreage required per 1,000 populations varies for each park classification for long range planning, this is a useful tool for determining future park land acreage acquisition.

Existing Park Improvements

The focus of this section is on the development of existing parks. Recommended improvements are based on an analysis of existing facilities. Preliminary cost estimates have also been prepared for each park element or improvement. The costs are general for specific elements such as benches, playgrounds, picnic tables, etc. The costs are based on 2016 estimated construction costs. Items such as drainage improvements should be analyzed at the time of the proposed improvements as these items require a detailed site analysis, which is not included in the Parks, Recreation & Open Space Master Plan. Preliminary recommendations for improvements to existing parks include:

- Signage – Central Park and MCC, MAC;
- North Hill Park Phase III
- Travis Farm Park Expansion
- Water's Edge Park Renovation
- Extend Centralized Irrigation to complete – Mustang, Water's Edge, The Preserve, Creekside Trail, FM 544 and City Hall.

Future Park Land and Recreation Recommendations

Murphy is nearing its build out and land acquisition for neighborhood or community class parks has almost reached its maximum. Therefore, the City will have to make the most of their existing parks and preserve the open space within the Maxwell Creek Corridor.

Neighborhood Parks

The City has neighborhood parks in each planning area which serves the citizens of Murphy. Looking at the neighborhood park in conjunction with homeowners associations (H.O.A.) parks, there is adequate open space and park facilities that are in the neighborhood park classification throughout Murphy.

Community Parks

With the opening of Murphy Central Park in April 2013, Murphy park acreage almost doubled when compared to 2005. This Master Plan is an update from 2008 when there were only 5 developed parks and a total of 216 acres of developed and undeveloped park land. In 2014 with the opening of Murphy Central Park there are a total of 10 developed parks and close to 300 acres of maintained land. Murphy Central Park, with a total of 60 acres, serves as Murphy's largest and most central community park, followed by Timbers Nature Preserve Park at 35 acres and then North Hill Park at 12 acres.

Trail Recommendations

Trails are an important component of the future park system, as they serve recreational, transportation and linkage purposes. In Murphy, the transportation and linkage aspects of a City-wide trail system will serve a local and regional purpose. The City has the opportunity to connect trails in Murphy with several adjacent trail systems; to the west through the future Dart Rail Line, the city also could connect to the county wide trail systems. Murphy also has connected with Plano along the ONCOR easement and has future plans for a connection to Wylie along the same easement. These are to be partially funded by a Collin County grant.

Considerations as trails are developed should include:

- The type of trail;
- Trail surface;
- Trail width;
- Necessary vertical clearance;
- Slope limitations;
- Rules;
- Safety plan; and

- Signage.

Master Plan Priority Recommendations

The culmination of this Master Plan is three-fold: Table 7, the 10-Year Park Priority List, Table 8, the 10-Year City Priority List - Outdoor Facilities, and Table 9, the 10-Year City Priority List - Indoor Facilities. The priority of these park improvements is based on the needs assessment and meetings with City staff and Parks and Recreation Board as well as public input from town hall meetings. Annual review of the Master Plan by the City Staff, City Council members, Murphy Parks and Recreation Board members and citizens will allow analysis of each recommendation for acquisition, improvements, and new facilities to enhance the quality of Murphy Parks and Recreation System to maximum effect.

I. Introduction

Brief Historical Background

The first settlers arrived in Murphy in 1846. Land grants offered by the Peters Colony attracted these early settlers. The original name of the settlement was Old Decatur and later, Maxwell's Branch. In 1888 Williams Murphy provided the land for the St. Louis Southwestern Railway and depot. The town was renamed in his honor.

The first post office was established in 1891. From the late 1800's until the 1950's Murphy served as a shipping point for agricultural and livestock. As the metropolitan area of Dallas expanded in the early 1900's Murphy's importance as an agricultural center diminished and the population decreased to a low of 150 in the mid-1950s. As Dallas, Richardson and Plano grew in the 1960's and 1970's, Murphy transitioned into a thriving commuter community in Collin County.

The 1990's brought some growth to Murphy, but the major influx of population did not begin until the early 2000's. Murphy has seen the population rise exponentially from 1,600 in 1990 to 3,500 in 2000, and has almost increased six-fold since then to 20,500. The retail growth in Murphy has also increased rapidly since 2005 with the addition of several major anchor stores and small shopping centers as well. This growth has helped to increase the demand for park, recreation and open space needs.

Purpose of the Parks, Recreation & Open Space Master Plan

In today's active society, recreation opportunities are becoming more important to all age groups. With urban sprawl and development of rural land, creation of parks and preservation of open space should be major priorities for our cities and communities. Parks and open space also add economic value to local properties and an intangible value to the local quality of life.

In order to preserve this open space and create parks, an important component of Murphy's city planning efforts is the Park, Recreation & Open Space Master Plan. This Plan will identify recreation needs, pertinent demographic information, existing and future park needs, park priorities, and funding opportunities. This Murphy Parks, Recreation & Open Space Plan will assist City staff, the Parks and Recreation Board, and City Council in the selection of property and development of parks in a logical, methodologically based process. This, in the long term, will provide Murphy citizens the benefits of recreation and preservation of open space.

Plan Development Process

The previous Parks and Recreation Master Plan was prepared in 2008. The Parks and Recreation Master Plan was comprehensive in nature with an emphasis on park land and recreation needs. The Parks and Recreation Department staff, the Park Board, and City Council have acquired park land and developed several parks with the assistance of the Economic Development Corporation and the Texas Parks and Wildlife Department. However, due to current recreational trends and a growing population, there is now a need for a new document to guide park and recreation planning and development, leading to the creation of this Parks, Recreation, & Open Space Master Plan.

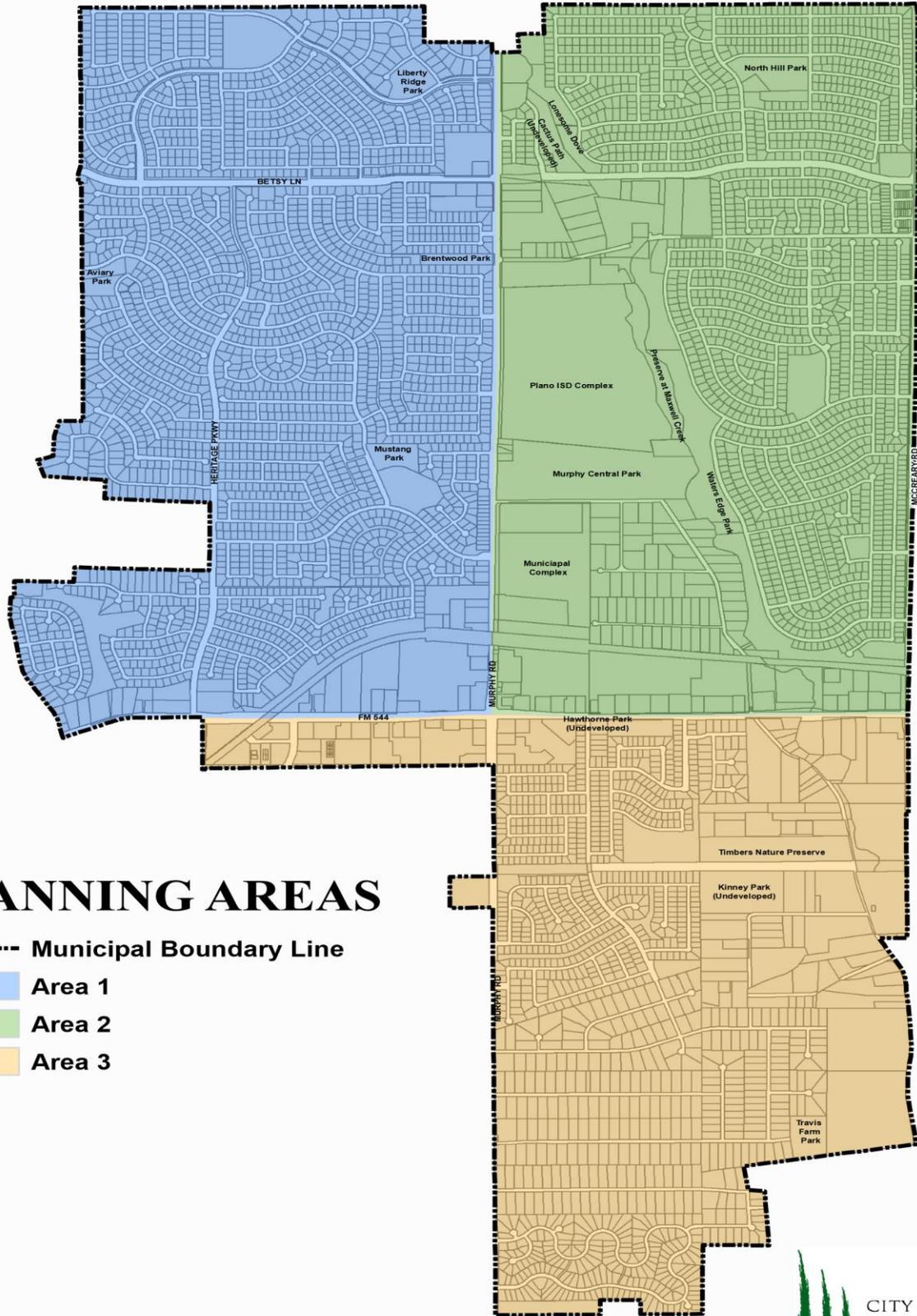
The City Council recognized the need to update the 2002 Park and Recreation Open Space Master Plan for a comprehensive analysis of the park system in Murphy, and employed a private consulting firm (Dunkin, Sims, Stoffels, Inc.) in 2008 to prepare the previous Parks, Recreation & Open Space Master Plan. The consultant worked with the City of Murphy Parks & Recreation Department staff and Parks and Recreation Board to develop the 2008 Master Plan.

This 2017 Master Plan was not developed using a consulting firm but instead has been thoroughly updated with the help of Staff, the Parks and Recreation Board, and the Murphy City Council.

Meetings were held with the Murphy Parks & Recreation Department staff to examine collected needs, findings and preliminary recommendations. To obtain a comprehensive and complete analysis of the City's park and recreation needs, and park system, two methodologies were used for the update: 2015 City Council Survey results and a standards-based analysis. Practice field reservations also yielded use numbers.

The time period of the financial plan, as set forth in Section IX of this Master Plan (specifically within the Implementation section) is 10 years. The prioritization listing contained in previous sections, specifically, Section VII and Section VIII, identify certain projections as high priorities for development, with the priorities based on satisfying a stipulated/recognized need. This Master Plan provides the City both short-range implementation scheduling for existing parks and long-range planning for future park acquisition and development.

The Park and Recreation Service Area and related geographic size that is addressed in this Master Plan is 5.65 square miles. The overall Park and Recreation Service Area is divided into three service areas, all of which are defined by the major thoroughfares which bisect the City. Refer to the Planning Areas Map on the following page for a graphic depiction of the service areas.



PLANNING AREAS

- Municipal Boundary Line
- Area 1
- Area 2
- Area 3



Goals & Objectives 2017 – 2027 - Goals for the Parks, Recreation and Open Space Master Plan

The following goals and objectives were established in the 2002 Parks and Recreation Master Plan prepared by Halff Associates, Inc. These goals were again amended in the 2008 Master Plan. In 2016, after each goal and objective was presented to the Parks and Recreation board; it was determined that all main goals were still viable, with only slight amendments made to the overall goals and objectives. Additional sub-goals and objectives were proposed for inclusion in the updated Parks and Recreation Master Plan in 2016 to make the document more comprehensive and inclusive of both parks and recreation areas of focus.

Goal 1: Establish/maintain a premier parks and recreation system that is among the best in smaller communities in the Dallas/ Ft. Worth area.

- 1.1 Establish and follow high standards for park acreage, parks and recreation facilities, and park distribution throughout the City. These will be set through the Master Planning process, and updated from time to time per the direction of the Parks and Recreation Board and as approved by the City Council.
- 1.2 Create seamless product delivery for parks, recreation services and special events to present a clear message.
- 1.3 Allocate adequate funding levels to provide a superior park system.

Goal 2: Cultivate a park system that will improve the physical form and appearance of Murphy.

- 2.1 Provide adequate landscaping and aesthetic elements in new parks as they are built, such as stone walls and pavement accents, large caliper trees, attractive pavilions and other elements.
- 2.2 Along major roads in the City, construct trail and pedestrian corridors, along with landscaping, trees, attractive lighting and streetscape furniture so as to promote the visual quality of Murphy.
- 2.3 Utilize landscape at key City portals and along selected

street medians to create a positive and attractive image of the City.

- 2.4 Encourage tree planting in parks, street frontage, and on private properties.
- 2.5 Develop high quality signage for all parks and major municipal facilities.

Goal 3: Provide a variety of recreation facilities and programs to meet the ultimate needs and desires of Murphy's changing population.

- 3.1 Implement a long-range program for final development of Murphy's parks and recreation system based upon the Murphy Parks, Recreation and Open Space Master Plan and subsequent updates or modifications to the Master Plan.
- 3.2 Provide recreational facilities that address the needs of all age groups, young and old, active and passive, and in all socio-economic and geographical categories.
- 3.3 Develop and maintain park lands in areas of the City with significant park land needs.
- 3.4 Preserve the ability to respond to unique acquisition or development opportunities as they arise, such as linear parks tracts, provided that they respond to key City-wide needs and goals.
- 3.5 Develop and implement program planning methods in both active and passive indoor/outdoor recreation.
- 3.6 Evaluate and ensure that all relevant demographic groups are represented in program and event planning.
- 3.7 Establish program and event objectives to determine success and effectiveness.

Goal 4: Preserve and enhance Murphy's open space and natural resources.

- 4.1 Acquire and preserve as much of the floodplain areas of the Maxwell Creek corridor as feasible, recognizing the corridor as the key greenbelt, linear park and open space preserve for the entire City.

- 4.2 Through the park planning process, identify and acquire other key natural space corridors and lands with unique natural qualities throughout the City.
- 4.3 Create and preserve green belt linkages in parks and along open spaces, creeks and drainage ways, bikeways, paths, and natural areas throughout the City and surrounding areas.
- 4.4 Establish funding mechanisms to acquire open space lands for protection through acquisition, purchase of easements, or outright dedication of floodplain lands where these are deemed to have open space value.

Goal 5: Pursue further implementation of existing trail plan to develop a comprehensive network of pedestrian and bicycle ways for hiking, jogging and cycling throughout as much of Murphy as is feasible.

- 5.1 Link all neighborhoods, schools, parks, major City facilities and retail areas throughout the City with a network of attractive walking and bicycling sidewalks and trails.
- 5.2 Provide recreational hiking, biking and jogging trails primarily through the development of linear parks.
- 5.3 Where appropriate, utilize utility easements and rights-of-way as linear park corridors for trail connections.
- 5.4 As much as feasible, integrate on-street bicycle corridors when renovating or expanding current thoroughfares.
- 5.5 Coordinate with other adjacent cities, the Plano and Wylie ISD's, Texas Parks and Wildlife Department, and other Federal, State and local governmental entities in efforts to preserve and enhance the waterways, green spaces, and natural areas in and around Murphy.

Goal 6: Continue to maintain all Murphy parks and recreational facilities in a superior condition

- 6.1 Provide City parks staff with the manpower and funding resources to maintain all parklands and facilities in a superior manner.
- 6.2 Provide additional operations and maintenance resources as new recreational facilities are developed and

- added to the Murphy parks system.
- 6.3 Improve the quality of operations and maintenance through:
 - Continued evaluation of the Parks Department's current operations
 - The utilization of private resources where feasible
 - 6.4 Implement renovation/improvement master plans for each park as they age over time, and identify a tentative schedule for phasing in improvements.
 - 6.5 Promote the use of native plant materials and xeriscape to reduce maintenance and irrigation costs in parks and on City properties.
 - 6.6 Continue to explore and implement innovative techniques to partner with other governmental, non-profit or private organizations to reduce the City's park maintenance burden.
 - 6.7 Use low-maintenance design techniques for future park properties.
 - 6.8 Develop, update, and/or renovate existing recreational facilities and amenities to meet the programming needs of the community.
 - 6.9 Evaluate standards to assess and correct safety related issues at existing parks, recreation facilities and programs.

Goal 7: Create mechanisms to work with public and private entities to provide resources to acquire, develop and maintain parks, recreation facilities, services and open space.

- 7.1 Encourage private cooperative through donations of park-land, labor, and financial contributions.
- 7.2 Establish a program where community and business groups and neighborhood associations can help improve and maintain parks, recreation and open space areas.
- 7.3 Establish a 501(c)3 park fund where donations for parks and recreation improvements may be provided by civic organizations and the private sector.
- 7.4 Encourage the assistance of the private sector in providing landscaping along private and public properties including public right-of-ways and medians.

- 7.5 Continue to foster a close working relationship between the City of Murphy and the Plano and Wylie Independent School Districts.
- 7.6 Expand and formalize a volunteer program.

Goal 8: Include a citizen participation process in all ongoing park planning and design, as well as updating of the Parks Master Plan

- 8.1 Periodically update the long-range plan and standards to reflect changing conditions in the City.
- 8.2 Encourage and provide multiple opportunities for citizens to provide input in development, maintenance, and operation of the City's parks, recreation and open space system. Utilize public meetings, workshops, regular meetings of the Parks Board, the Planning and Zoning Committee and City Council, periodic meetings with all Homeowner's associations, citizen surveys, social media, and regular meetings with key user groups.
- 8.3 Encourage and cultivate citizen input and expression of opinion as it relates to recreational needs.

II. Factors Influencing Planning for Parks

Transportation and Land Use

Murphy's total land area is 5.65 square miles. The City has approximately 46 acres (0.07 square miles) of land in its Extraterritorial Jurisdiction (ETJ). Although the final land use for these ETJ parcels has not been determined, it is assumed that these areas will not be developed as park land. This will not have significant impact on the park services provided by the City of Murphy.

F.M. 544 is the major east/west arterial which bisects the City into north/south planning areas. Traffic studies in July 2015 show that there are roughly 48,000 commuters that pass through Murphy along this thoroughfare. Murphy Road is the major north/south thoroughfare which provides primary vehicular ingress/egress for citizens of Murphy. Murphy Road also bisects the City into

east/west planning areas. The 2015 traffic study also noted that there were over 9600 vehicles that traveled this roadway daily. A majority of Murphy’s retail and commercial development is adjacent to F.M. 544. The remaining land use in Murphy is nonresidential.

Demographic Profile

The 2010 U.S. Census documented the population of Murphy to be 17,708. The City has experienced a high rate of growth since the 2010 Census, and the City of Murphy has estimated the build out population to be 22,500. The City is anticipated to experience intermittent growth making the maintenance of park and recreational facilities, and evaluation of services offered, imperative for the longevity of park amenities and programs.

Race & Age Composition

Table 1 illustrates the race and ethnic composition of the City of Murphy according to the City of Murphy. The table illustrates the diversity of the local population. The White/Caucasian group comprises the largest percentage, with the Asian/Pacific Islander category representing the second largest and the African American category the third largest.

TABLE 1 Estimated Race/Ethnicity Distribution - 2015 City of Murphy, Texas		
Race/Ethnicity	Number	Percent ⁽¹⁾
White/Caucasian	11,389	55.50%
African American	2,503	12.20%
American Indian	82	0.40%
Asian/Pacific Islander	5,479	26.70%
Other ⁽²⁾	369	1.80%
Two or More Races	718	3.50%
Total	20,520⁽²⁾	100.00%
Hispanic/Spanish Origin ⁽³⁾	1682	8.2%

Source: City of Murphy

(1) Percentages based on 2015 Forecast (Source: 2010 US Departments of Commerce Esri Forecast for 2015)

(2) Build out City Population = 22,500 (Source: 2010 Comprehensive Plan)

(3) Hispanic/Spanish Origin may be of any race and may be included in any category. It is therefore not included in the total, but is separately included.

The age composition of the population within a city can also provide insight into the types of park and recreation facilities and services the City may need to provide. As reflected in Table 2, 8.9 percent of Murphy’s population is under 5

years of age and 22.0 percent are between 5-14 years of age. This data can assist the City’s park planning efforts by programming specific recreation elements of each age group in the park system. Murphy also has its highest percentage of people in the Prime Labor Force (35-54 years old); people in this age group can play organized adult sports. The *Older Labor Force* and the *Elderly* groups also together comprise a significant percentage of the City’s population at 15.1 percent; these groups tend to utilize hike and bike trails and passive open space areas. Clearly, groups of all ages have recreational needs.

TABLE 2 Estimated Age Composition & Distribution 2015 City of Murphy, Texas		
Age Groups	Number	Percent ⁽¹⁾
School Age Children (0-4 years old)	1,824	8.90%
School Age Children (5-14 years old)	4,512	22.00%
School Age Children & Young Adults (15-24 years old)	2110	10.30%
New Family (25-34 years old)	1,761	8.60%
Prime Labor Force (35-54 years old)	7219	35.20%
Older Labor Force (55-64 years old)	1742	8.50%
Elderly (65+ years old)	1353	6.60%
Total	20,520	100.00%
Source: City of Murphy Note: The number column is calculated by using 2015 forecast percentages and multiplying by 20,520 residents. Minor adjustments have been made to the "School Aged Children" categories for clarification. (1) Percentages based on 2015 Actuals(Source: 2010 US Departments of Commerce Esri Forecast for 2015)		

Household Income

Household income for Murphy is illustrated in Table 3 (next page). Approximately 4.5 percent of the households in Murphy were in the range of \$24,999 or less. However, the highest percentage of households in Murphy in 2015 was within the \$150,000.00 or more income category.

TABLE 3
Estimated Household Income Distribution
City of Murphy, Texas

Income Level	Number	Percent ⁽¹⁾
Less than \$14,999	97	1.70%
\$15,000 to \$24,999	159	2.80%
\$25,000 to \$34,999	137	2.40%
\$35,000 to \$49,999	285	5.00%
\$50,000 to \$74,999	854	15.00%
\$75,000 to \$99,999	774	13.60%
\$100,000 to \$149,999	1,185	20.80%
\$150,000 or more	2,199	38.6%
Total	5,696 ⁽²⁾	100.00%

Source: City of Murphy

Note: The number column is calculated by using 2015 forecast percentages and multiplying by 5,696 households. (Number of households forecast housing units in 2010 US Census)

(1) All percentages are 2015 forecasts based on 2010 actuals (Source: 2010 US Departments of Commerce)

(2) 2010 Household = 5,696 Households (Source 2010 US Department of Commerce)

Parks, Recreation & Open Space Classification

To deliver a variety of recreational features in an efficient manner, some type of relationship defining system must be established among those facilities used for recreation. Guidelines and standards recommended by the National Recreation and Park Association (NRPA) have been followed by cities for many years to define a hierarchy for their park systems. The NRPA made major revisions to their recommendations for delivering park and recreation services in the publication, Parks, Recreation, Open Space and Greenway Guidelines, published in December 1995. The classification system has been changed slightly to more closely define a park space in relationship to its proposed use. The following analysis identifies the NRPA classification of parks, their description, location criteria within the community and criteria for size. Only the park classifications selected specifically for Murphy are defined in this section. Once established, these guidelines are then applicable for structuring the Murphy park system in an orderly manner responsive to the recreational demands being generated by the present and future population.

Neighborhood Park

The neighborhood park is considered to be the most important feature of a park system and is one of the major cohesive elements in neighborhood design. Its primary function is the provision of recreational space for the entire neighborhood which surrounds it. Space in the neighborhood park should be distributed between active and passive uses.

- a) The neighborhood park should be located near the center of a neighborhood area/park planning area and have a service area of approximately one-half mile to one-quarter mile.
- b) The size should be related to the service area population and the menu of activities chosen for placement in the park. Five (5) to ten (10) acres is the optimal size for this park.
- c) Safe and convenient pedestrian access is considered important to a neighborhood park location.
- d) Generally, the location should not be adjacent to a heavily traveled major or minor thoroughfare.
- e) When it is possible to combine an elementary or middle school with this type of park, the two features further enhance the identity of the neighborhood by providing a central location for recreation and education and a significant open space feature within the neighborhood.
- f) Facilities normally provided at a neighborhood park consists of:
 1. Playground equipment for small children.

2. A multiple purpose hard surfaced play area.
3. Space for court games, such as basketball, tennis, volleyball and in-line hockey in addition to walking/jogging trails.
4. Playfield space for non-organized competitive games such as baseball, football and soccer.
5. Passive space possibly for a pavilion with tables and grills, restrooms, drinking fountains and sitting areas.
6. Off-street parking is a consideration if users are beyond an acceptable walking distance or if users need to drive to access the park.
7. Water spray feature or spray ground or misting feature.
8. It is not desirable to light athletic facilities in a neighborhood environment since lighting is often objectionable to nearby residents; however, some lighting for security purposes should be incorporated into the park.
9. The allocation of space in the neighborhood park should be approximately 50 percent passive area and 50 percent active area. The above facilities are those generally considered for active space. The passive space should be used to develop the character of the park by creating an open landscaped setting with trails, sitting area, and picnic space. This park becomes an integral part of the neighborhood.

Community Park

A community park is larger in size than a neighborhood park and provides service to several neighborhoods or specific sections of the community. The community park is oriented primarily toward providing recreational opportunities not feasible in a neighborhood park. This type of park should be developed for both active and passive use.

- a) A community park serves several neighborhood areas, and should therefore be conveniently accessible by automobile and include provisions for off-street parking.
- b) The optimal size for the community park is between 40 and 150 acres. This size should be based on its intended use and the population residing in the service area. Natural features such as terrain, tree cover, flood prone areas, and water features are all factors to be considered in selecting and sizing this type of park.
- c) Activities provided should include both active and passive.

- d) Space for active uses associated with neighborhood parks including field and court games.
- e) Passive spaces more extensive than the neighborhood park for trails, natural areas, picnicking, and ornamental or natural landscape areas.
- f) A facility for cultural activities such as plays or concerts; possibly provide an amphitheater.
- g) Lighted and unlighted athletic fields or facilities may be placed in community parks provided careful thought is given to their design and location.
- h) A community park should be well removed from the residential environment due to the traffic, noise, and lights associated with the sports complex.
- i) Based on use, accessibility, and other requirements, the community park should be located in a non-residential area served by major thoroughfares.
- j) Although community parks are designed primarily for competitive play by both young people and adults, other features should be included in the complex. Among these are play apparatus, court game space, picnicking facilities, and trails.
- k) Support facilities in a sports complex include restrooms, multi-purpose building(s), and maintenance facilities.
- l) Parking is a major consideration for the sports complex. Spaces should be allocated to accommodate those currently participating, those lingering following the previous games and those arriving to participate in the next scheduled game.

Special Use Park

These parks or recreational spaces are identified by a single use, and fall into three categories:

- a) *Historical/Cultural/Social Sites* – which offer recreational opportunities because of their unique characteristics; such as the Murphy Community Center and the four Murphy Cemeteries which are designated as historical sites in Murphy. The Murphy Municipal Complex is classified as a special use park.

- b) *Recreational Facilities* – single purpose facilities such as a senior center, dog park, golf course, or marina.
- c) *Outdoor Recreational Facilities* – uses such as a tennis center, stadium, or possibly a special type of sports complex designed specifically for a single sport.

Open Space/Greenbelts

This classification applies to types of land which have characteristics either identifying them as undevelopable land or suitable for use as a component linking other park areas.

- a) These spaces are generally natural corridors along creek/flood prone areas or along easements containing a man-made feature. Maxwell Creek is the primary greenbelt in Murphy.
- b) There is no specific size for these spaces; however, establishing a minimum width is important to the function of the greenway, particularly if used as a location for a trail. This width should not be less than 50 feet. Where the greenway is on either side of a natural drainage course, a minimum of fifteen feet shall be provided for foot traffic or motorized vehicles performing maintenance along the greenway.

Regional Parks

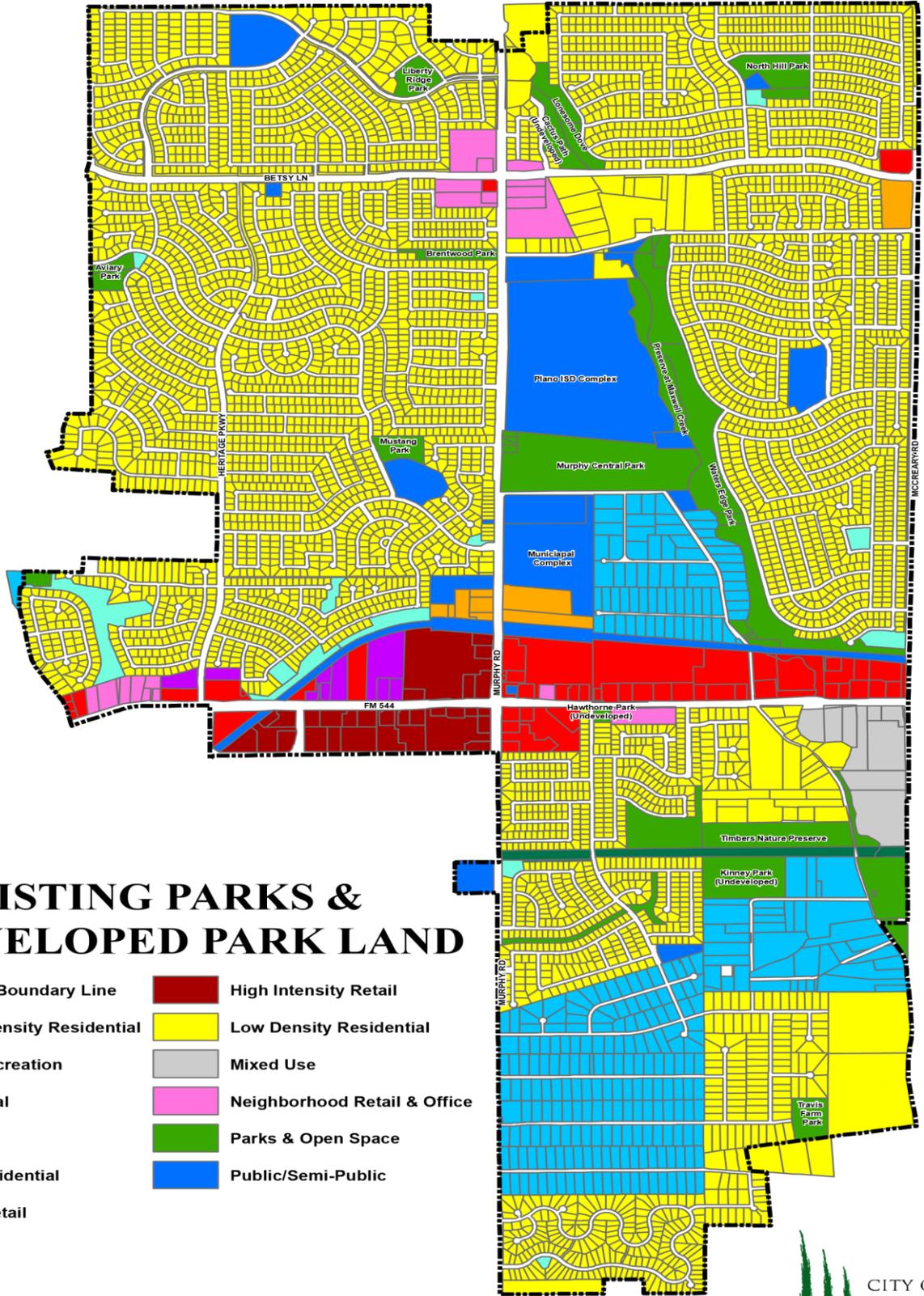
This classification applies to parks not owned and maintained by the City of Murphy, but parks within a ten mile radius that are easily accessible to Murphy Residents. Murphy will link its parks and greenbelts to other area parks with the new Collin County Regional Trail Plan.

- a) A regional park draws residents from other cities to the park. A prime example of this type of park system is Breckenridge Park in Richardson, Texas.
- b) Over 100 acres in size
- c) Activities hosted in athletic complexes
- d) Trail linkage

III. Inventory, Improvements & Recommendations for Developed Parkland

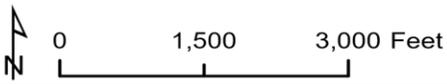
City of Murphy Existing Parks

The following information documents existing park and recreational facilities in Murphy. The listing, beginning on page 28, is a record of the existing parks, their size, opening date, remodel date, the NRPA park classification (describes their function within the City's park system), facilities, and any future development plans. The map on the next page shows the location of all City parks and undeveloped land for reference.



EXISTING PARKS & UNDEVELOPED PARK LAND

- | | |
|----------------------------|------------------------------|
| Municipal Boundary Line | High Intensity Retail |
| Medium Density Residential | Low Density Residential |
| Private Recreation | Mixed Use |
| Commercial | Neighborhood Retail & Office |
| Easement | Parks & Open Space |
| Estate Residential | Public/Semi-Public |
| General Retail | |



1003 Mustang Ridge Drive

Aviary Park

Inventory of Areas and Facilities

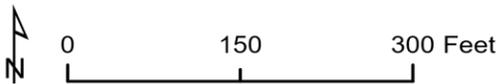
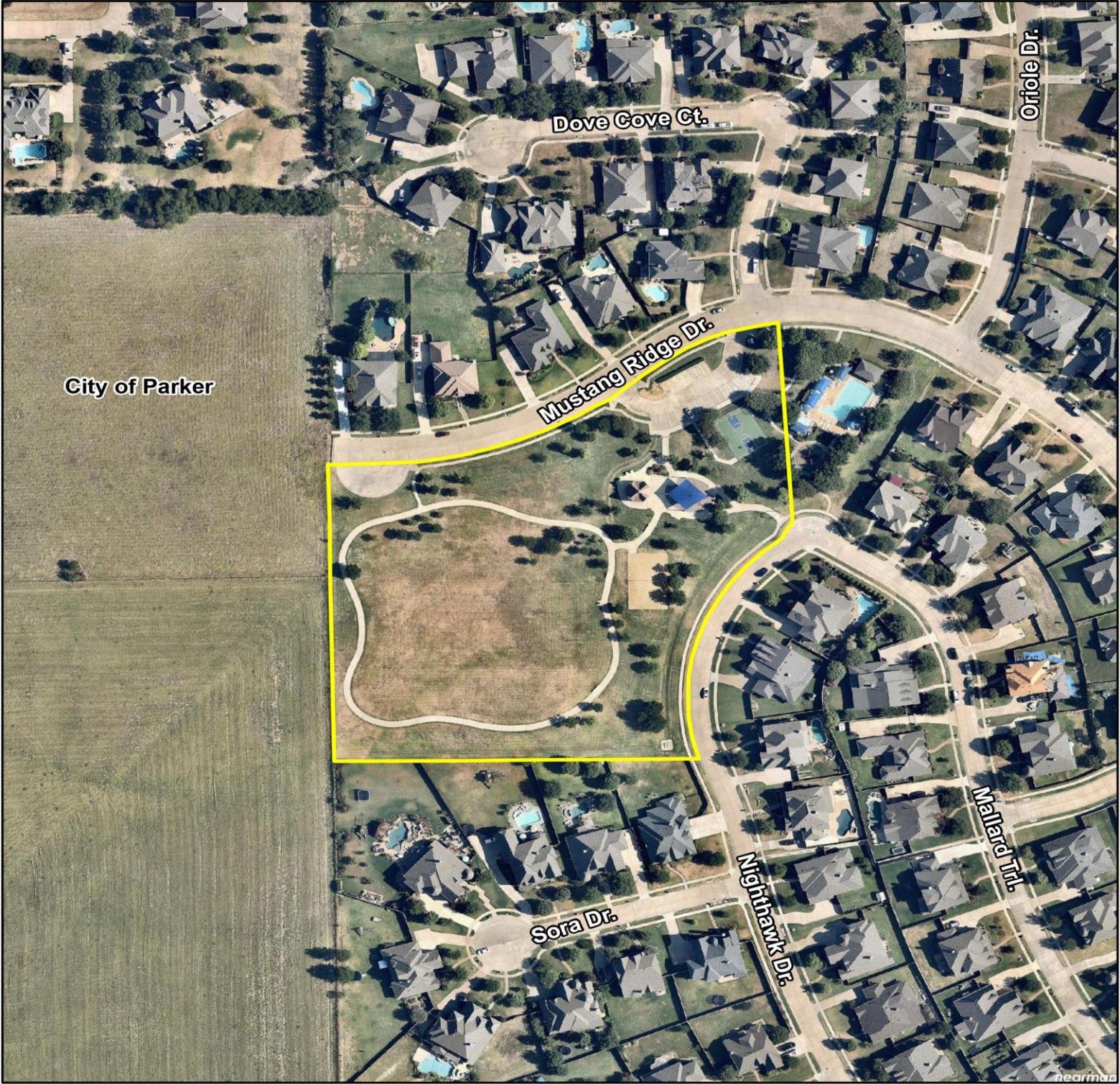
Park Size:	5 Acres
Subdivision:	The Aviary
Classification:	Neighborhood Park
Remodel Date:	October 2010

Park Facilities:

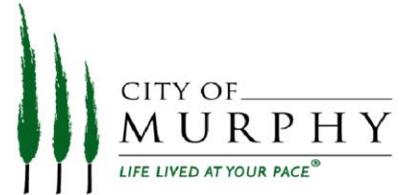
- 1 Park Entry Sign
- 1 Park Rules Sign
- 20 Parking Spaces (2 Handicap)
- 1 Pavilion w/Electric & 4 Picnic Tables
- 1 Stone Clad Grill
- 3 Park Benches
- 1 Covered Play Areas (5-12 yr.)
- 1 Drinking Fountain
- 1 Basketball Court
- 1 Volleyball Court
- Open space being used for practice fields
- 0.25 Mile Loop Walking Trail
- 1 Big Belly Unit (Recycle/Trash)
- 2 Waste Receptacles
- 2 Pet Waste Stations

Possible Future Park Improvements:





Aerial Photograph Date:
2016



902 Brentwood Drive

Brentwood Park

Inventory of Areas and Facilities

Park Size:	3.48 Acres
Subdivision:	Between Stratford Crossing & Daniel Crossing
Classification:	Neighborhood Park
Remodel Date:	October 2010

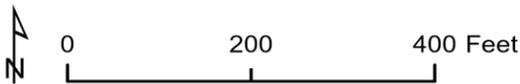
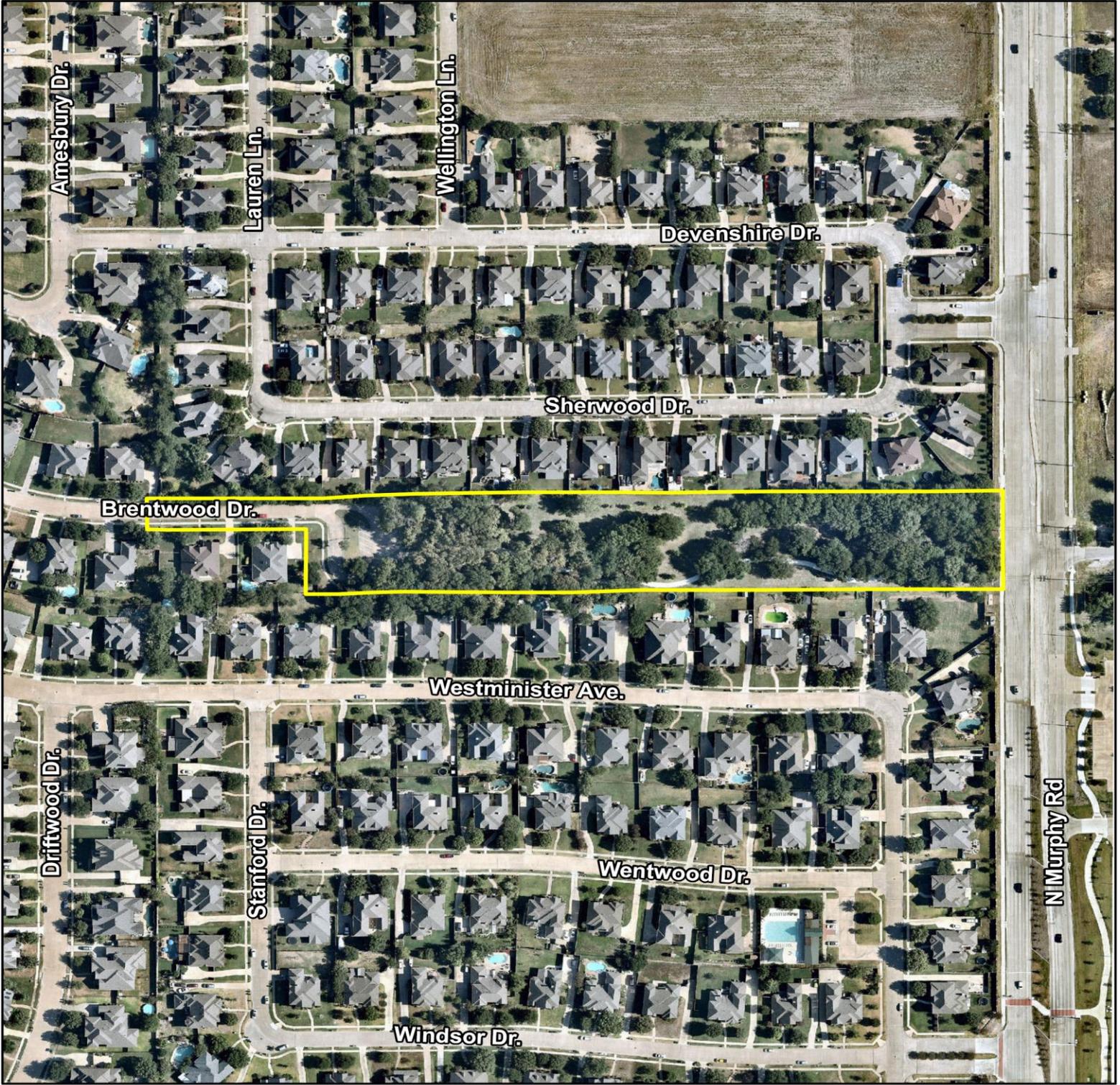
Park Facilities:

- 1 Park Rules Sign
- 10 Parking Spaces (1 Handicap)
- 1 Pavilion w/2 Picnic Tables
- 1 Standing Grill
- 2 Open Play Areas
- 1 Drinking Fountain
- 0.2 Mile Concrete Walking Trail (SRTS)
- 1 Big Belly Unit (Recycle/Trash)
- 2 Waste Receptacles
- 1 Pet Waste Stations

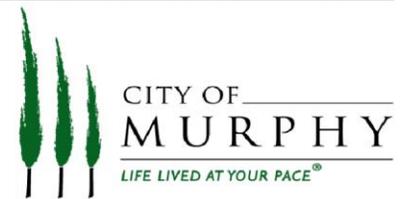
Possible Future Park Improvements:

- Decomposed Granite Trail to Complete Loop Trail
- Natural Signage
- Modular Play Areas/Natural Theme
- Split Rail Fence @ North Murphy Road





Aerial Photograph Date:
2016



201 Rolling Ridge Drive

Liberty Ridge Park

Inventory of Areas and Facilities

Park Size: 5.75 Acres
 Subdivision: Rolling Ridge Estates
 Classification: Neighborhood Park
 Remodel Date: October 2012

Park Facilities:

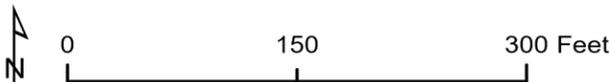
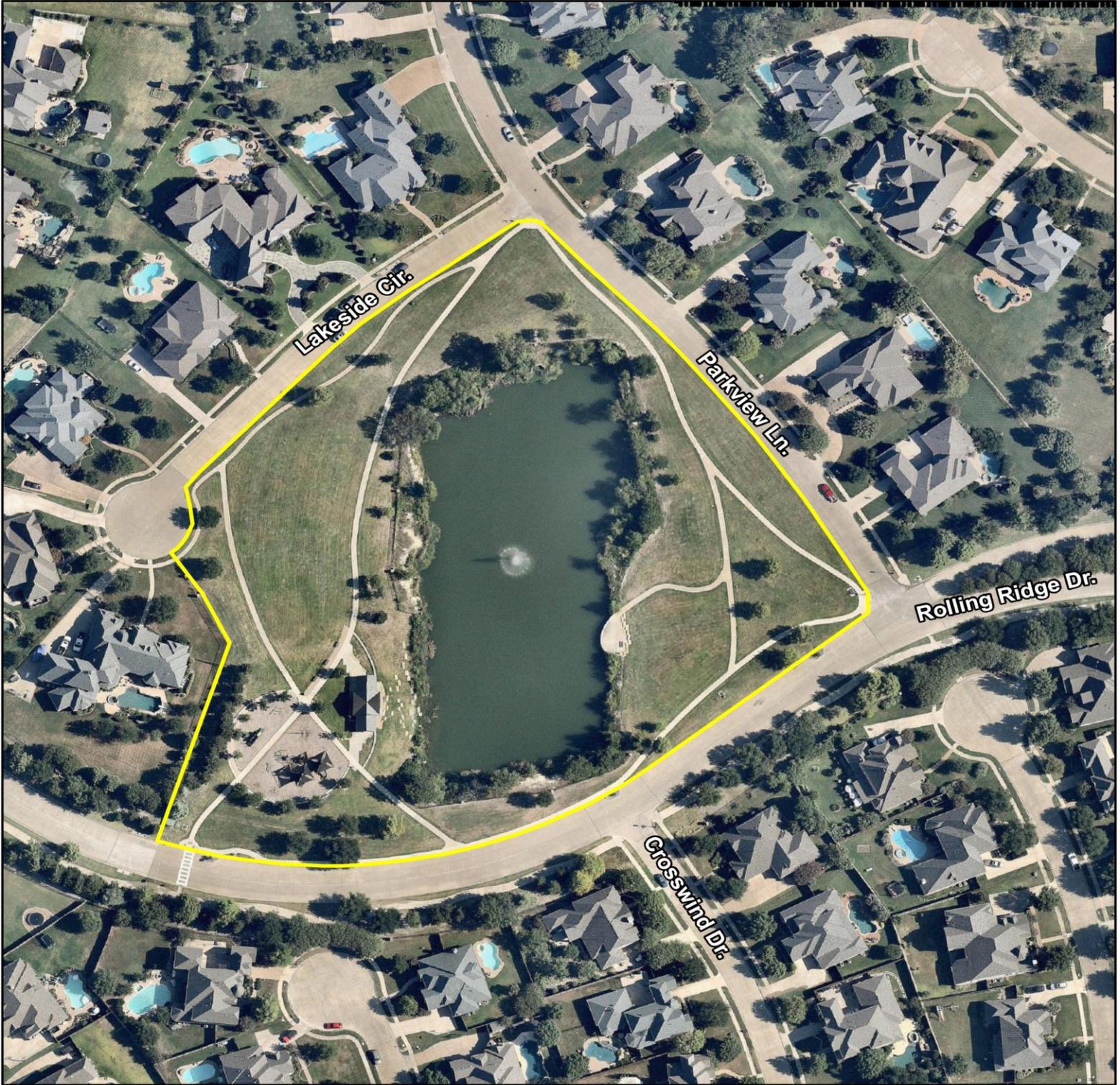
Curb Parking

- 1 Pavilion w/Electric and 4 Picnic Tables
- 8 Park Benches
- 1 Stone Clad Grill
- 2 Covered Playgrounds (2-5 yr. & 5-12 yr.)
- 2 Uncovered Swing Sets
- 1 Pond with Fountain and Aerators
- 1 Fishing Pier
- 1 Drinking Fountain
- Big Belly Unit (Recycle/Trash)
- 2 Waste Receptacles
- 0.4 Mile Loop Walking Trail

Possible Future Park Improvements:

- Park Entry Signage
- Park Rule Signage





Aerial Photograph Date:
2016



550 North Murphy Road

Murphy Central Park

Inventory of Areas and Facilities

Park Size: 60 Acres

Park Location: North of Municipal Complex
next to PSA Murphy

Classification: Community Park & Greenbelt

Open Date: April 2014

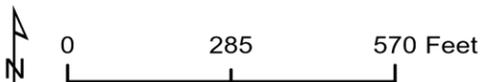
Park Facilities:

- 1 Pavilion w/Electric and 4 Picnic Tables
- Food Truck Court with 4 Picnic Tables and Places for 4 Food Trucks/Trailers
- 4 Picnic Tables in Plaza Area
- 4 Picnic Tables in Food Truck Court
- 3 Park Benches
- 1 Amphitheater
- 1 Spray Ground
- 1 Concession Building
- 1 Covered Playground (5-12 yr.)
- 1 Restroom Facility
- 2 Soccer Fields
- 1 Outdoor Learning Center w/4 Benches
- 4 Interpretive Signs
- Concrete Trails
- Nature Trails
- 1 Irrigation Pond
- 3 Big Belly Units (Recycle/Trash)
- 0.6 Mile Walking Trail

Possible Future Park Improvements:

- Explore additional playground options (i.e. community build, nature playground)
- Additional Practice Fields
- Fountain for pond
- Rule Sign (Park and Spray Ground)





Aerial Photograph Date: 2016



205 North Murphy Road

Murphy Community Center

Inventory of Areas and Facilities

Total Square Footage: 12,014 sq. ft.

Rooms for Rent/Use:

- 2 Multi-Purpose Wet Rooms
- 1 Lounge/Library
- 1 Dance Room
- 1 Gymnasium and Stage
- 1 Game Room



201 North Murphy Road

Murphy Activity Center

Inventory of Areas and Facilities

Total Square Footage: 5,950 sq. ft.

Room for Rent Square Footage: 3,040 sq. ft.

Possible Future Facility Improvements:

- Renovation of interior to better utilize space for programs and reservations



502 Mustang Ridge Drive

Mustang Park

Inventory of Areas and Facilities

Park Size: 5.10 Acres
 Subdivision: Glen Ridge Estates
 Classification: Neighborhood Park
 Open Date: Spring 2002

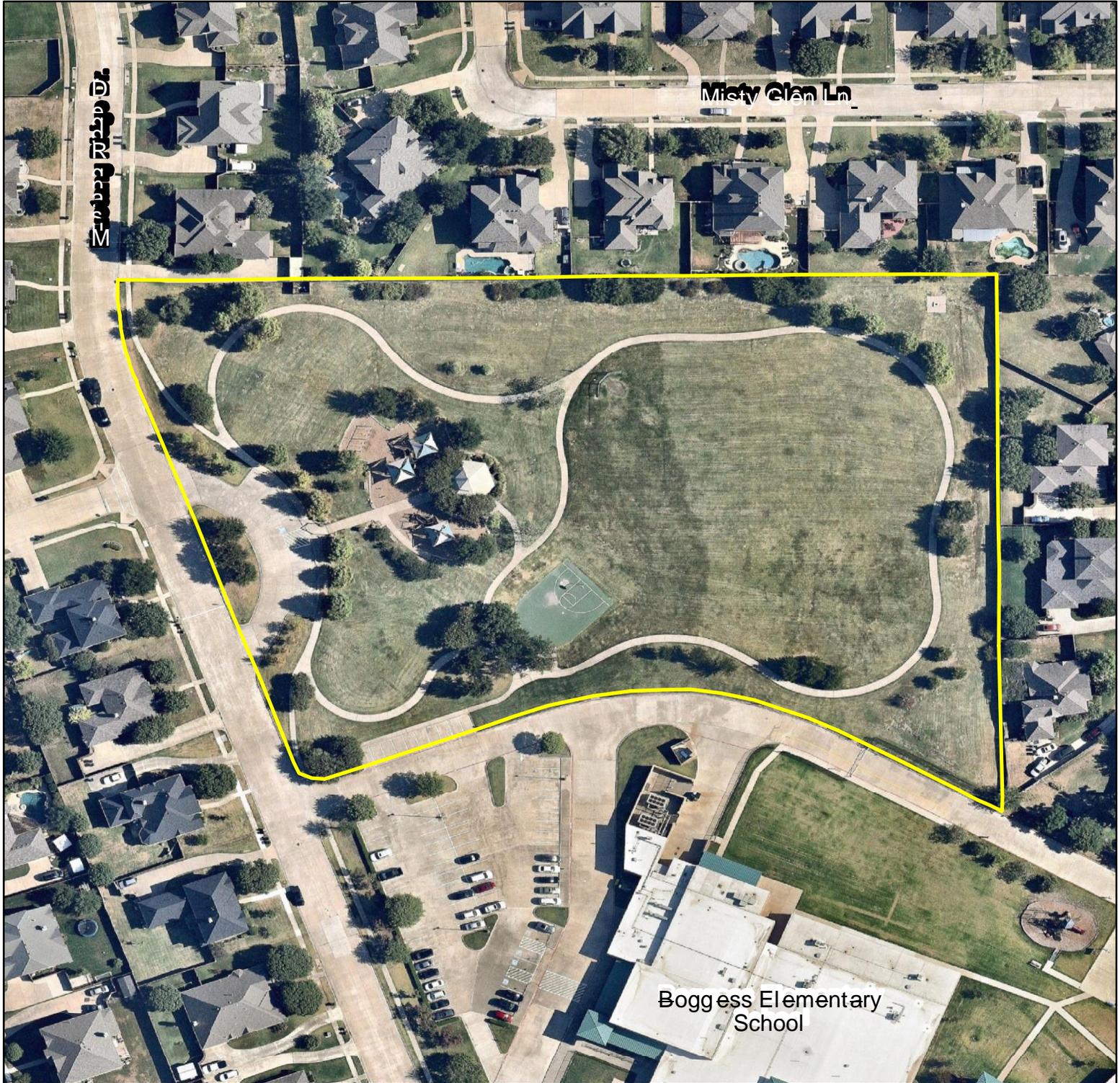
Park Facilities:

- 1 Park Entrance Sign
- 1 Park Rules Sign
- 12 Parking Spaces
- 1 Pavilion w/Electric and 4 Picnic Tables
- 4 Park Benches
- 2 Covered Playgrounds (2-5 yr. & 5-12 yr.)
- 2 Open Swing Sets
- 2 Waste Receptacles
- 1 Big Belly Unit (Recycle/Trash)
- 3 Pet Waste Stations
- 1 Standing Grill
- 1 Drinking Fountain
- 1 Basketball Court
- 1 Baseball Backstop
- 1 Bicycle Rack
- 0.3 Mile Loop Walking Trail

Possible Future Park Improvements:

Addition of Inclusive Play Equipment





Aerial Photograph Date:
2016



1302 Rodeo Drive

North Hill Park

Inventory of Areas and Facilities

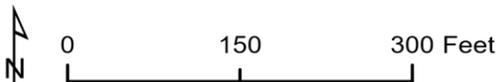
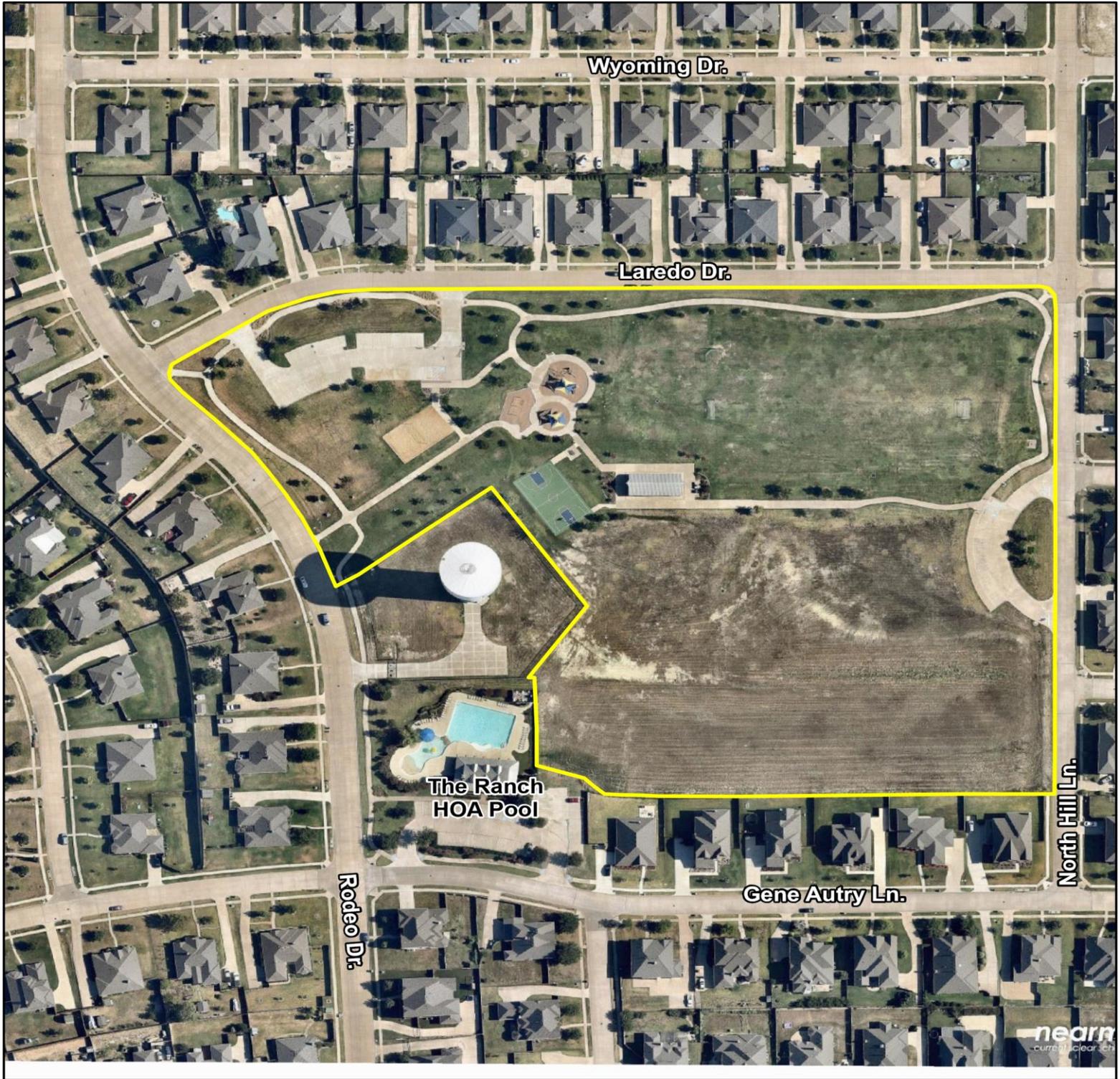
Park Size: 12 Acres
 Subdivision: Between The Ranch and Gables at North Hill
 Classification: Neighborhood Park
 Phase I: 2008
 Phase II: 2010
 Park Facilities:

- 1 Park Entry Sign
- 1 Park Rules Sign
- 55 Parking Spaces (4 handicap)
- 1 Stone Clad Grill
- 1 Stand Alone Picnic Table
- 2 Park Benches
- 1 Drinking Fountain
- 2 Covered Playgrounds (2-5 yr. & 5-12 yr.)
- 1 Uncovered Swing Set
- 1 Baseball Backstop
- 1 Basketball Court
- 1 Practice Soccer Field (2 goals)
- 1 Volleyball Court
- 1 Big Belly Unit (Recycle/Trash)
- 4 Waste Receptacles
- 2 Pet Waste Stations
- 0.5 Mile Walking Trail

Possible Future Park Improvements:

- Additional Practice
- Sidewalk connection from HOA to park
- Loop Trail
- Restroom Facilities
- Spray Ground/Splash Pad
- Lighting for volleyball court
- 2nd Volleyball Court





Aerial Photograph Date:
2016



670 North Murphy Road

The Preserve at Maxwell Creek & Maxwell Creek Trail

Inventory of Areas and Facilities

Park Size: 42 Acres
 Park Location: Behind Tom Kimbrough Stadium
 Classification: Neighborhood Park/Linear Park/Greenbelt
 Open Date: 2007

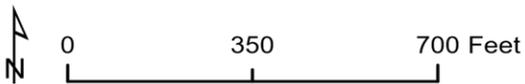
Park Facilities:

- 1 Park Entry Sign
- 1 Park Rules Sign
- Parking at PISD Stadium
- 1 Pavilion w/4 Picnic Tables
- 5 Park Benches
- 1 Stone Clad Grill
- 1 Baseball Backstop
- 1 Basketball Court
- 1 Outdoor Learning Center w/7 benches
- 0.2 Mile Decomposed Granite Walking Trail
- 2 Interpretive Signs
- 1 Big Belly Unit (Recycle/Trash)
- 2 Waste Receptacles
- 1 Pet Waste Station
- 1.66 Mile Hike and Bike Trail

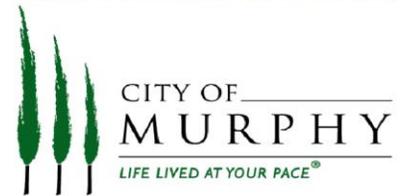
Possible Future Park Improvements:

- Installation of Emergency/Mile Markers





Aerial Photograph Date:
2016



502 Skyline Drive

Travis Farm Park

Inventory of Areas and Facilities

Park Size: 6.6 Acres
 Subdivision: Travis Estates
 Classification: Neighborhood Park
 Open Date: October 2010

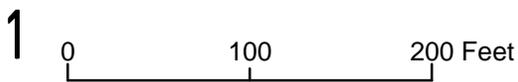
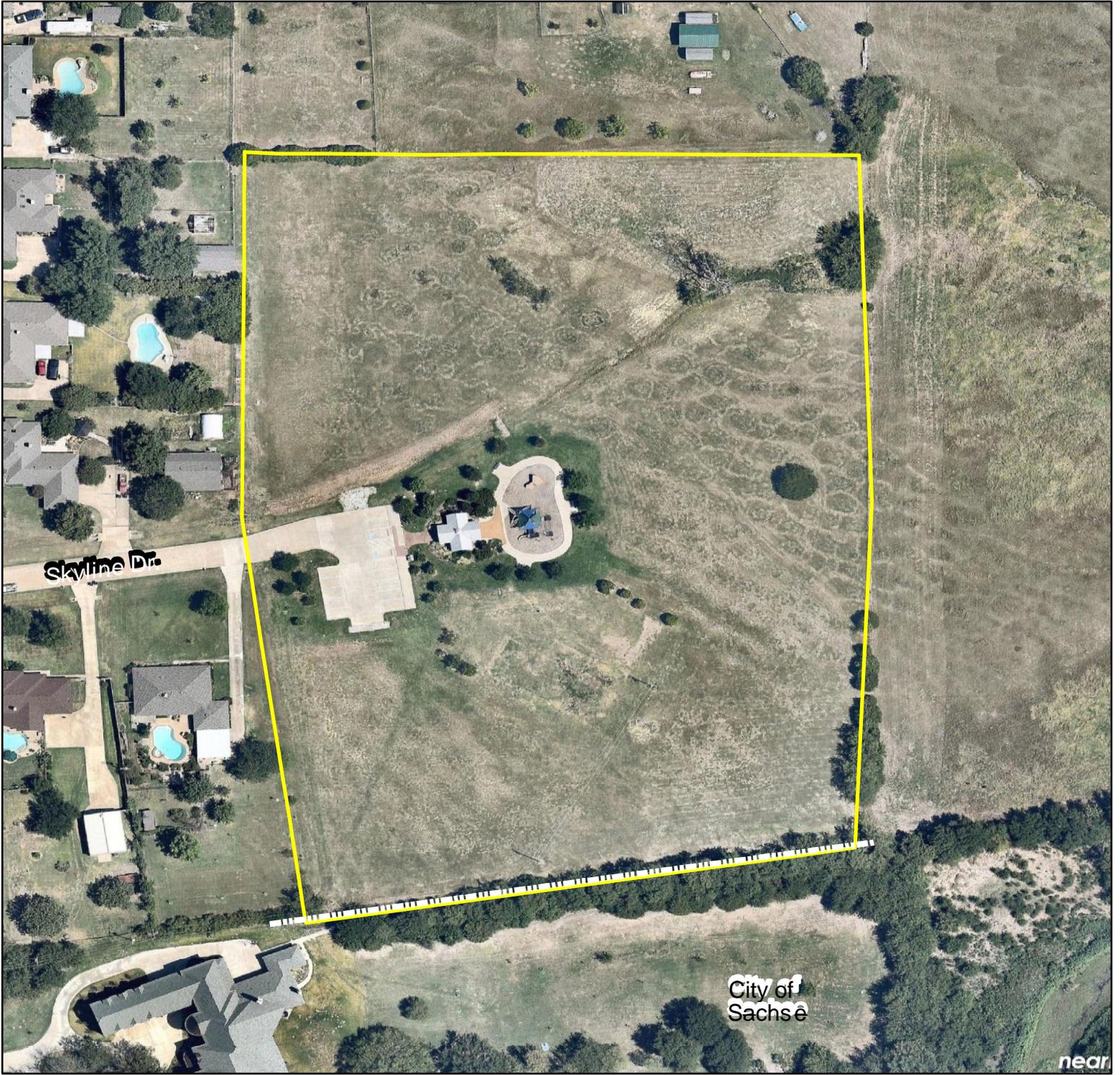
Park Facilities:

- 1 Park Rules Sign
- 16 Parking Spaces (2 handicap)
- 1 Pavilion w/Electric and 4 picnic tables
- 1 Standing Grill
- 3 Park Benches
- 1 Covered Playground (5-12 yr.)
- 1 Drinking Fountain
- 1 Big Belly Unit (Recycle/Trash)
- 1 Waste Receptacle
- 1 Pet Waste Station

Possible Future Park Improvements:

- Loop Walking Trail





Aerial Photograph Date:
2016



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MURPHY
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324 Pine Top Drive

Timbers Nature Preserve Park

Inventory of Areas and Facilities

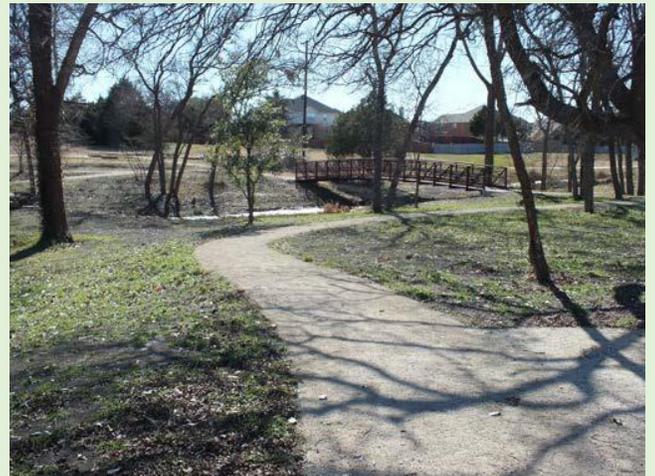
Park Size: 30 Acres
 Subdivision: The Timbers
 Classification: Neighborhood Park/Special Use
 Open Date: 2000
 Remodel Date: 2015/2016

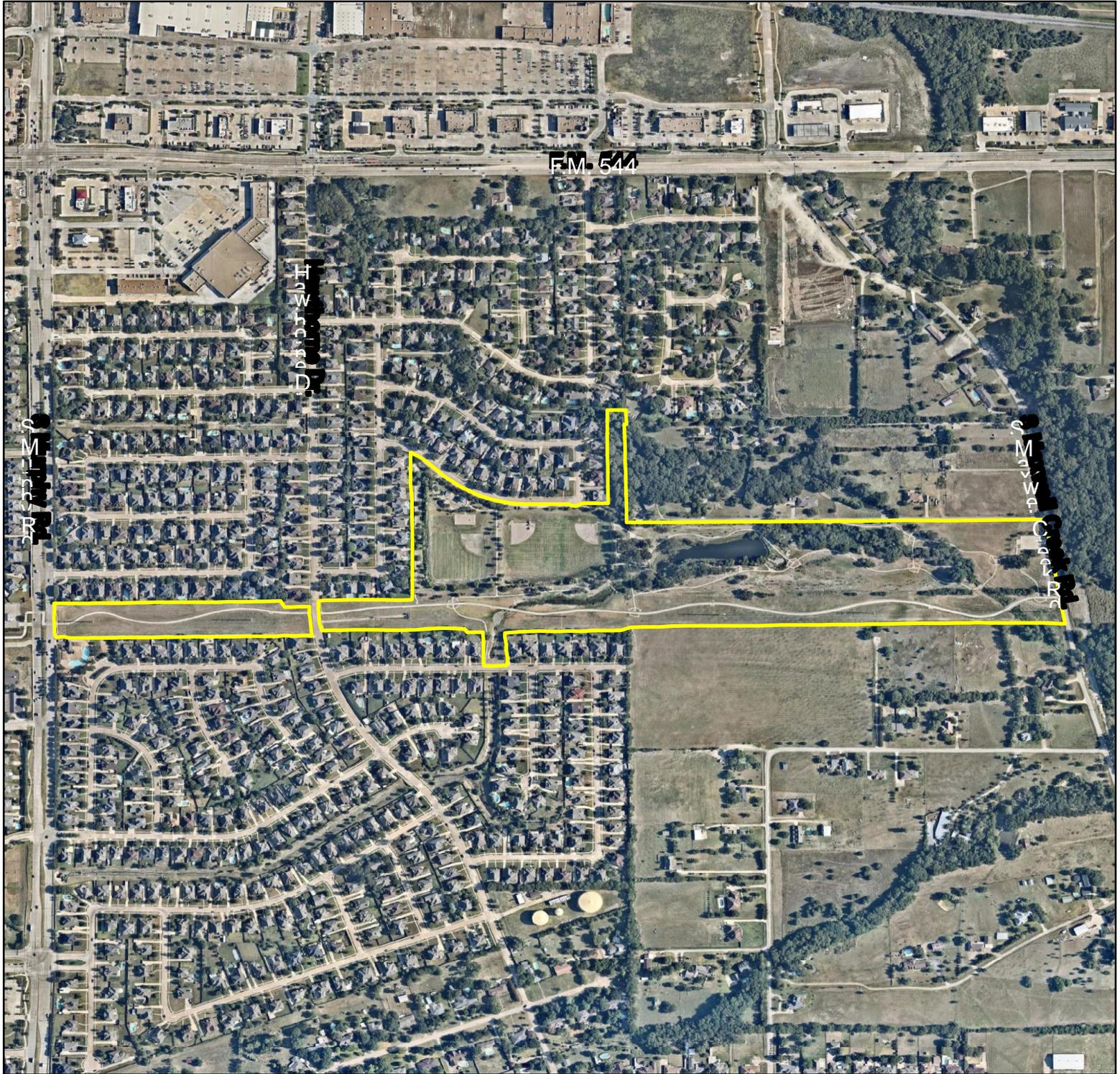
Park Facilities:

- 39 Parking Spaces (3 handicap) – Pine Top
- 17 Parking Spaces (2 handicap) – S. Maxwell Creek
- 1 Small Pavilion w/Electrical and 2 picnic tables
- 1 Large Pavilion w/Electrical and 5 picnic tables
- 3 Picnic Areas around Pond
- 2 Picnic Areas w/Grills
- 2 Trellis Seating Areas around Pond
- 1 Firepit
- 2 Stone Clad Grills
- 2 Drinking Fountains
- 1 Restroom Facility
- 2 Covered Playgrounds (2-5 yr. & 5-12 yr.)
- 1 Uncovered Swing Set
- 3 Exercise Stations
- 3 Baseball Backstops
- 1 Basketball Court
- 2 Soccer Fields
- 1 Mile Hike and Bike Trail in ONCOR Easement
- 1.25 Mile Soft Surface Trail
- 1 Big Belly Unit (Recycle/Trash)
- 6 Waste Receptacles

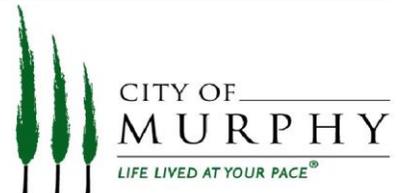
Possible Future Park Improvements:

- 2 Park Entrance Signs
- 2 Park Rules Signs
- Fishing Piers
- Additional Waster Receptacles
- Installation of Pet Waste Stations





Aerial Photograph Date:
2016



403 Waters Edge Way

Waters Edge Park at Maxwell Creek

Inventory of Areas and Facilities

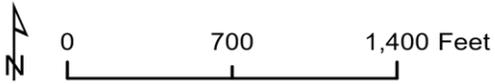
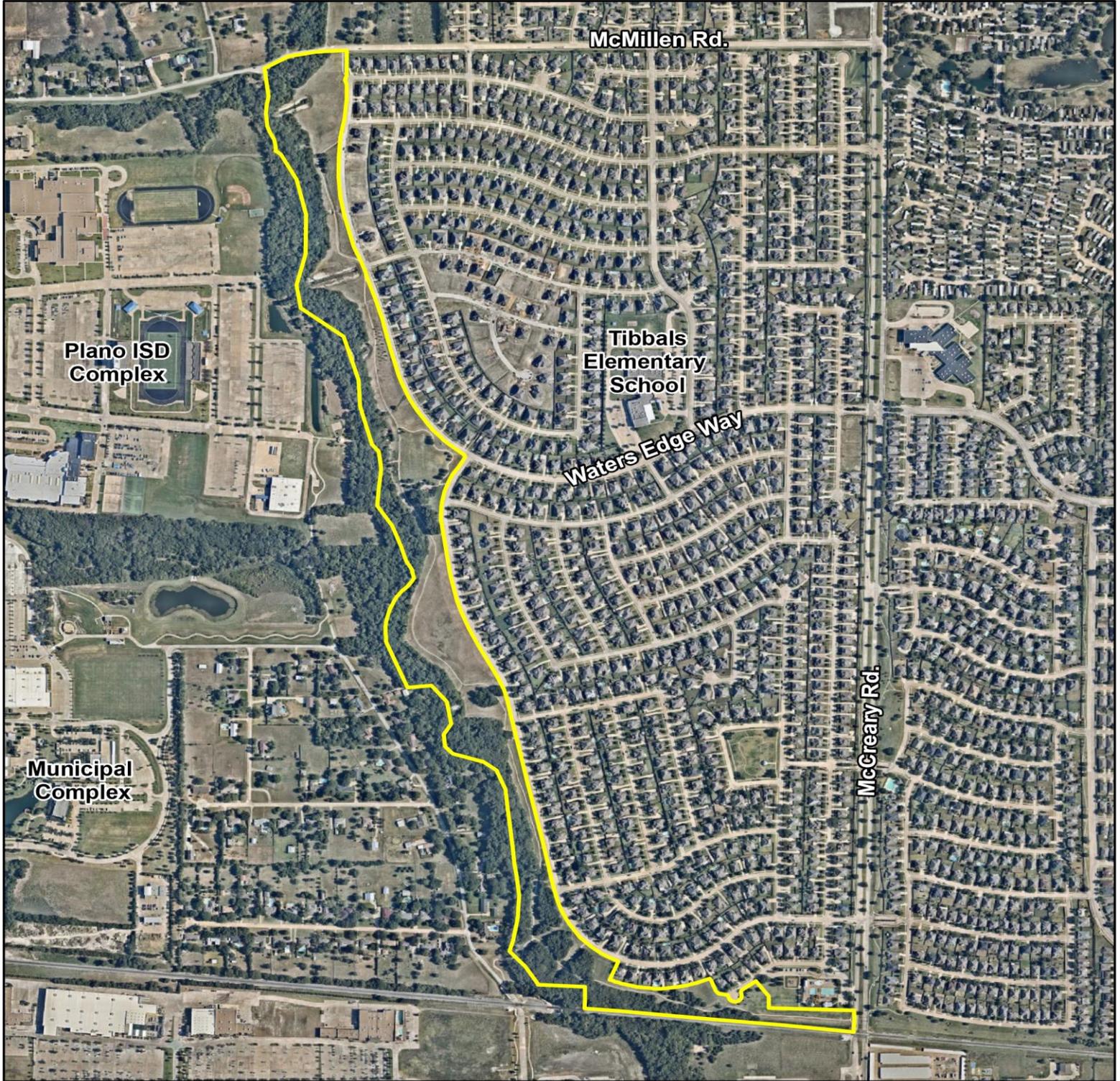
Park Size: 5.6 Acres
 Subdivision: Maxwell Creek Estates
 Classification: Neighborhood Park
 Open Date: 2004
 Park Facilities:

- 1 Park Entry Sign
- 1 Park Rules Sign
- Curb Parking
- 4 Picnic Tables
- 10 Park Benches
- 1 Uncovered Play Area – shaded
- 1 Drinking Fountain
- 3 Soccer Fields (6 goals)
- 1 Interpretive Sign
- 1 Big Belly Unit (Recycle/Trash)
- 7 Waste Receptacles
- 7 Pet Waste Stations
- 0.25 Mile Loop Walking Trail

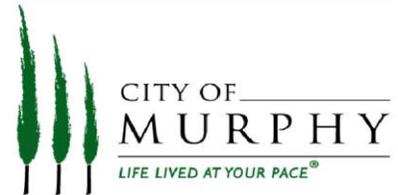
Possible Future Park Improvements:

- Rehab/Replace Playground
- Additional Practice Fields
- Additional Parking





Aerial Photograph Date:
2016



IV. INVENTORY, IMPROVEMENTS & RECOMMENDATIONS FOR UNDEVELOPED PARK LAND

City of Murphy Existing Undeveloped Park Land

The following information documents undeveloped park land in Murphy. The listing beginning below is a record of the existing spaces, their size, and any development plans that have been considered or approved as of June 2017.

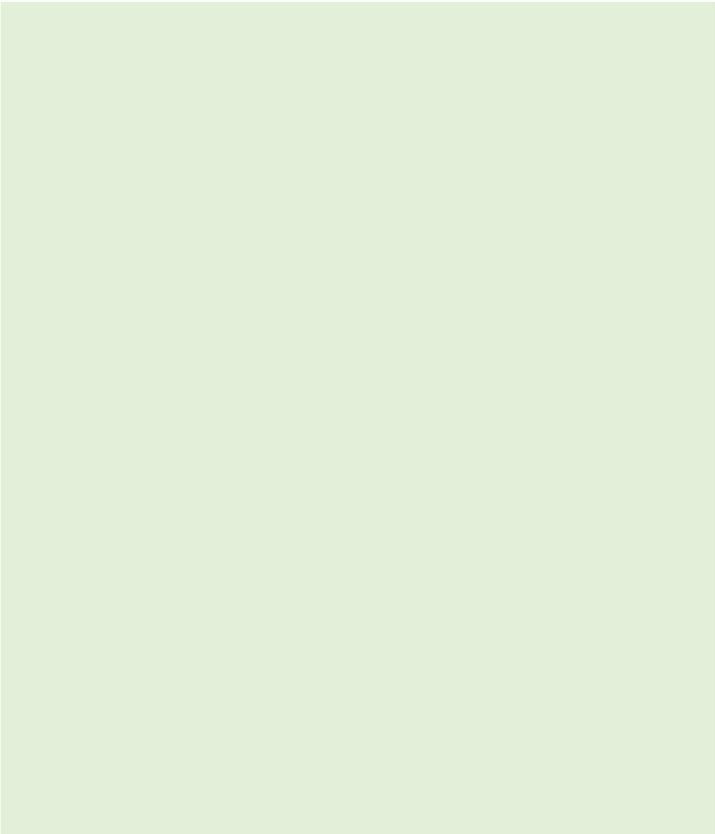
1225 Lonesome Dove Drive

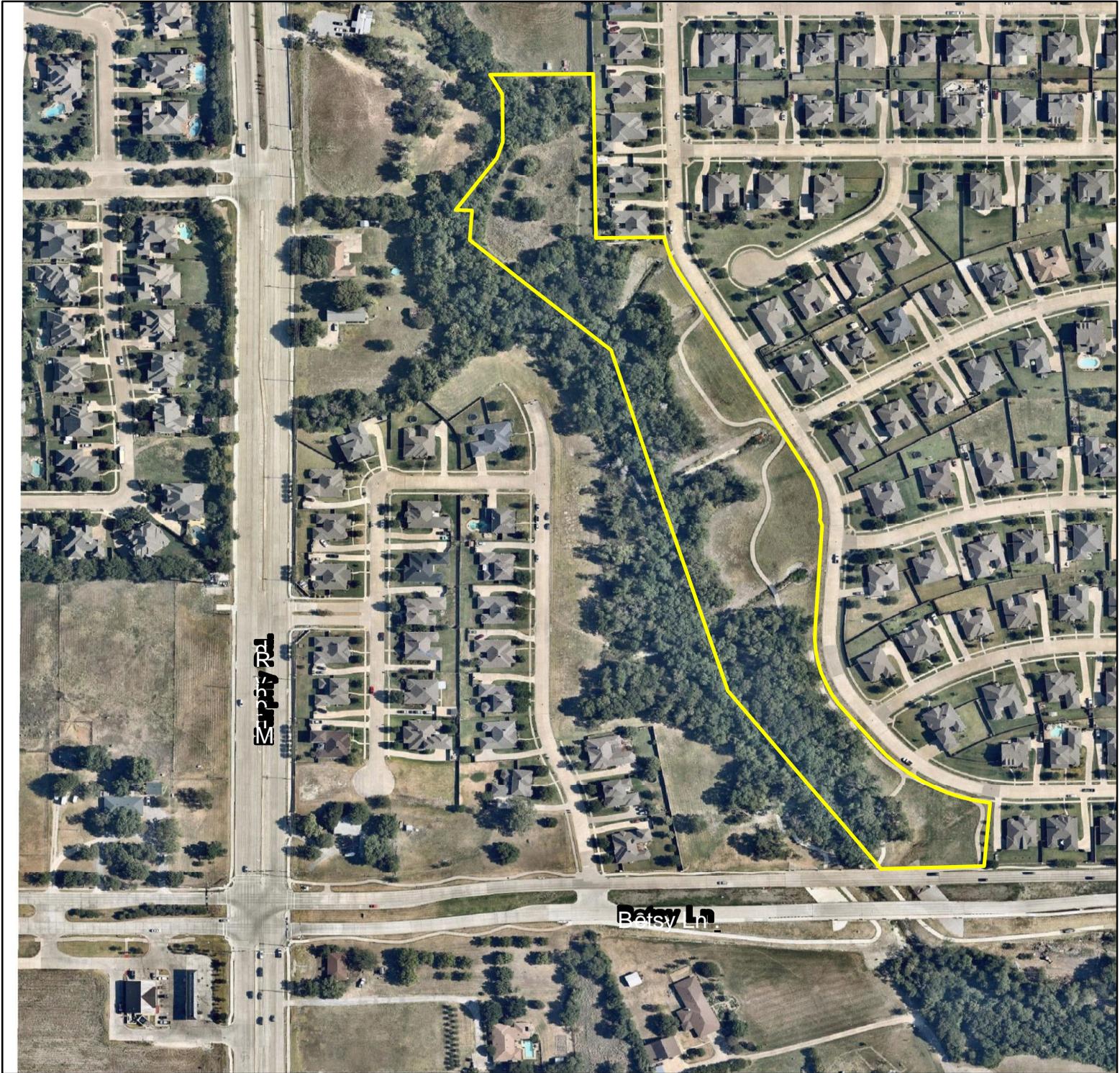
Lonesome Dove

Inventory of Areas and Facilities

- Park Size: 5 Acres
- Park Location: West of Lonesome Dove Road
- Subdivision: The Ranch
- Classification: Greenbelt
- Park Facilities:

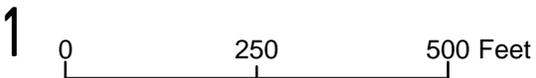
- 0.3 Mile Walking Trail
- UNDEVELOPED





Murphy Rd

Betsy Ln



Aerial Photograph Date:
2016



Undeveloped Sites for Consideration

Cactus Path - 6.2 acres

Hawthorne Park - 1.3 acres

Kinney Open Space - 16 acres

Cactus Path Property



Murphy Rd

Betsy Ln

1

0 250 500 Feet

Aerial Photograph Date:
2016

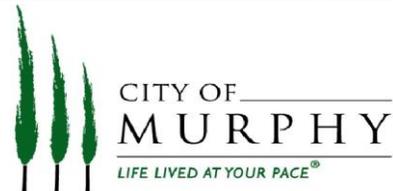


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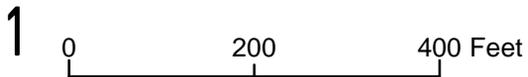
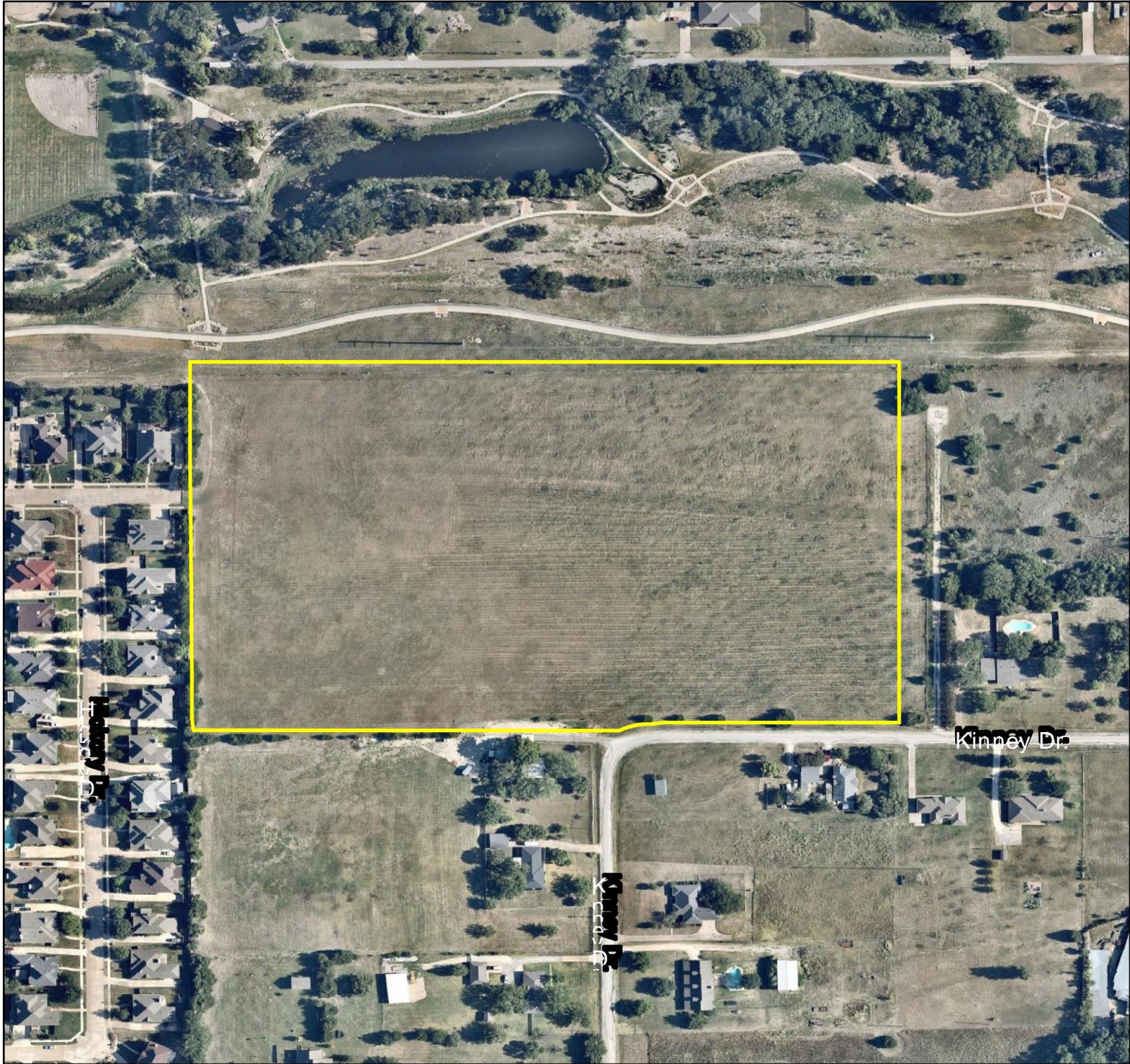
Hawthorne Property



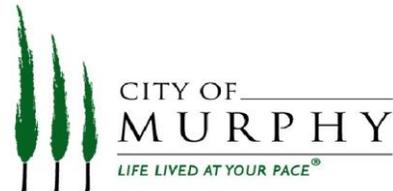
Aerial Photograph Date:
2016



Kinney Open Space



Aerial Photograph Date:
2016



V. City-Wide Trail System Plan

Collin County Regional Trail System

In 2012, the City of Murphy participated in a collaborative Multi-Jurisdictional Planning Effort to develop the Collin County Regional Trails Master Plan. This Master Plan exists with the primary goal of providing coordination and connectivity within the county for future trail development. The Regional Trail Master Plan (RTMP) reviewed existing planned trails in Collin County as well as developed a plan to connect all major trail corridors in the county; known as the Regional Trail System. Once the development plans were established, the RTMP then provided guidelines for implantation of development. These guidelines included recommendations in planning, designing, and maintenance of the Regional Trail System.

The following trail location is a trail that has been built that connects Murphy to other city's trail systems:

1. Along the ONCOR Easement between South Maxwell Creek Road and South Murphy Road.
 - a. This connects Murphy, to the west, with Plano's trail system and on into Breckenridge Park in Richardson.
 - b. This will eventually connect to the east and into Wylie and Sachse.

The following locations are trails in Murphy that are planned to connect to other city's trail systems:

1. Along Maxwell Creek at McCreary Road and along the KCS Railroad at McCreary Road.
 - a. This will connect Murphy, Wylie and Sachse.
 - b. While Murphy currently has no development plans for trails along the railroad, there is a hard surface (concrete) trail along Maxwell Creek.
2. Along McWhirter Road between Maxwell Creek and McCreary Road.
 - a. This will connect Murphy, Wylie and Parker.
 - b. Murphy currently has plans to develop hard surface trails along Maxwell Creek.

Inter-City Trail/Sidewalk Connection

Through Murphy's Development Codes and Subdivision Ordinance, the City has provided a network of sidewalks/trails within their subdivisions and adjacent thoroughfares. This network allows citizens the opportunity to walk from their residence to parks, retail areas, and other amenities in Murphy. The Trail Master Plan illustrates some of the typical routes pedestrians may use to access parks and other public/private amenities in Murphy.

Purpose of the Trail System Plan

First and foremost, the City-Wide Trail System Plan will serve as a planning tool for Parks and Recreation Staff and the Murphy Community Development Corporation. It will also serve to create a vision for a City-wide trails and greenway network and assist public and private entities who wish to contribute funds or resources to the development of the system. Another key purpose of the Trail Plan is to serve as a basis for coordinating with other City departments, to reduce conflicts with their development activities including installation of utilities, water quality, storm water runoff, planning services, and other activities.

Design Considerations

The following is a general discussion of the parameters associated with trail design and construction. The conclusion of this section contains recommendations for the design and construction of the proposed Murphy Trail System.

Types of Trails

Separated Trails – Separate trails and trail systems are provided for each type of trail user, e.g. bicyclist, pedestrian, skaters.

Multi-Use Trails – All trail user groups occupy the same trail or trail corridor. The physical design of the trail must be modified accordingly, to accommodate the demands of the expected user groups.

Trail Surfaces

Natural Surfaces – Are mostly restricted to natural or native parks. Typically this type of trail is limited in use due to weather or wet conditions.

Decomposed Granite – Decomposed granite is the surface at Maxwell Creek Park within the native area. The approximate

length is 0.2 miles. The surface is soft and excellent for walking and jogging. The surface should be in a self-contained park or neighborhood park. This type of trail within a neighborhood park is an excellent use for decomposed granite.

Concrete – While initially more expensive than other material choices, Concrete is the longest lasting trail surface with an expected life-span of 25 years or more. It requires the least maintenance of any trail surface material. Only saw cut expansion joints should be used to avoid differential settling due to freeze/thaw and wet/dry cycles. Concrete is suitable for poor sub-soil conditions, but is more expensive to repair. Non-skid medium broom finish is ideal for bicycle traffic. Concrete is less desirable for jogging paths.

Trail Widths

The recommended trail width varies and depends on the location and type of trail.

Maxwell Creek Corridor – The minimum trail width for trails in this corridor should be 10-12 feet.

Neighborhood Parks – The minimum trail width for trails in neighborhood parks should be six feet. Oftentimes the trails are self-contained within the boundaries of the park; therefore, a six foot minimum width is adequate. Although some of the existing trails in Mustang Park and Liberty Ridge Park are less than six feet, they still provide walking and jogging opportunities.

Thoroughfare Trails - Existing trails in the right-of-way of Murphy Road, Betsy Lane, McCreary Road, and FM 544 should be a minimum of 10 feet in width. Not all of the trails are 8-10 feet width; however, the trails still provide walking and jogging opportunities.

Vertical Clearance

The absolute minimum vertical clearance for multi-use trails is 8.2 feet, 9.5 feet is the minimum comfortable height. The vertical clearance may need to be greater

to permit passage of maintenance vehicles. Clearance under crossings and tunnels should be 10 feet for adequate vertical shy distance.

Longitudinal Slope (Grade)

Grades on off-street paths should be kept to a minimum, especially on long inclines. Grades greater than 5 percent are undesirable because the ascents are difficult for bicyclists and the descents cause some bicyclists to exceed the speeds at which they are competent. ADA guidelines stipulate that anything exceeding five percent (one foot rise in 20 horizontal feet) is a ramp and must be constructed with handrails, a maximum rise of 30 inches in a maximum length of thirty feet and must have a 60 inch by 60 inch landing at the base and the top. Therefore, to be in compliance with ADA guidelines, trail ramps cannot exceed an 8.33 percent slope (one foot rise in 12 horizontal feet).

Signs

Adequate signs and markings are essential on multi-use trails, especially to alert users of potential conflicts and to convey regulatory messages to both users and motorists at street intersections. In addition, guide signs, such as those indicating destination, direction, distance, route numbers and names of cross streets should be used in the same manner as they are on highways. Warning signs shall consist of the traffic control signage and devices indicated in the design guidelines.

Directional signage is imperative to facilitate user comfort and confidence, thereby, ensuring optimal use of the trail both from the standpoint of participation/occupancy levels and enjoyment level of the participants. At trail intersections, signage should be provided that indicated destinations of the various trail branches and a distance to each destination. The cardinal directions should also be indicated.

Within residential neighborhoods, in addition to the aforementioned signage, the pavement surface shall be demarcated in such a manner that trail users will be able to follow the trail routing through the neighborhood without becoming confused and possibly taking a wrong turn.

Spur trails linking neighborhoods to parks and schools shall have a definite indication at the trail terminus so trail users unsuspectingly traveling into neighborhoods are made aware that the trail system ends at that location. Provision of a map indicating the direction to the main branch of the trail would be beneficial at these locations.

Access Points

Although access to the trail will usually be available at every road crossing, the users of the trail should be encouraged to enter the trail at specific access points. By designating specific points of access, there may be an elimination of possible encroachment on private property, as well as, preventing possible congestion at busy road crossings.

Lighting

Lighting of the multi-use trail should be considered, especially if the off-street routes are intended for transportation purposes, many trail commuters may need to travel during poorly lit morning and evening hours. Fixed source lighting reduces conflicts along paths and at intersections. In addition, lighting allows the trail user to see the path direction, surface conditions and obstacles. Lighting should be considered through underpasses or tunnels and when night time security could be a problem. The standard horizontal illumination level is 5 lux (0.5 foot candle) by 22 lux (2 foot candles). Where special security problems exist, height illumination levels may be considered.

Traffic Control Devices

Pedestrian signalization designed to accommodate a one meter (3.2 feet) per second walking speed, should be provided at major streets where traffic volume and speed is high. ADA stipulated that where provided, buttons shall be raised or at least flush and a minimum of 1.9 centimeters (3/4 inch) in the smallest dimension. The force required to activate controls shall be no greater than 22.2N (5lbs.). Additionally, controls shall be located as close as possible to the curb ramp and, to the maximum extent feasible, shall permit operation from a level area immediately adjacent to the controls and a maximum of 122.7 centimeters (48.3 inches) high.

To provide clear visibility of pedestrians approaching intersection crosswalks at night, the approaches and all street corners should be illuminated. All intersection lighting should illuminate the crossing and waiting areas and/or create back lighting to make the pedestrian silhouette clearly visible on approach. All commercial, entertainment, school and other pedestrian traffic generating corridors and spaces should be well illuminated. Raised islands in crossings should be cut through level with the street or have curb ramps or other sloped area at both sides. There should be a level area 121.9 cm (48 inches) long

minimum and a minimum of 91.4 cm (36 inches) wide in the part of the island intersected by the crossings.

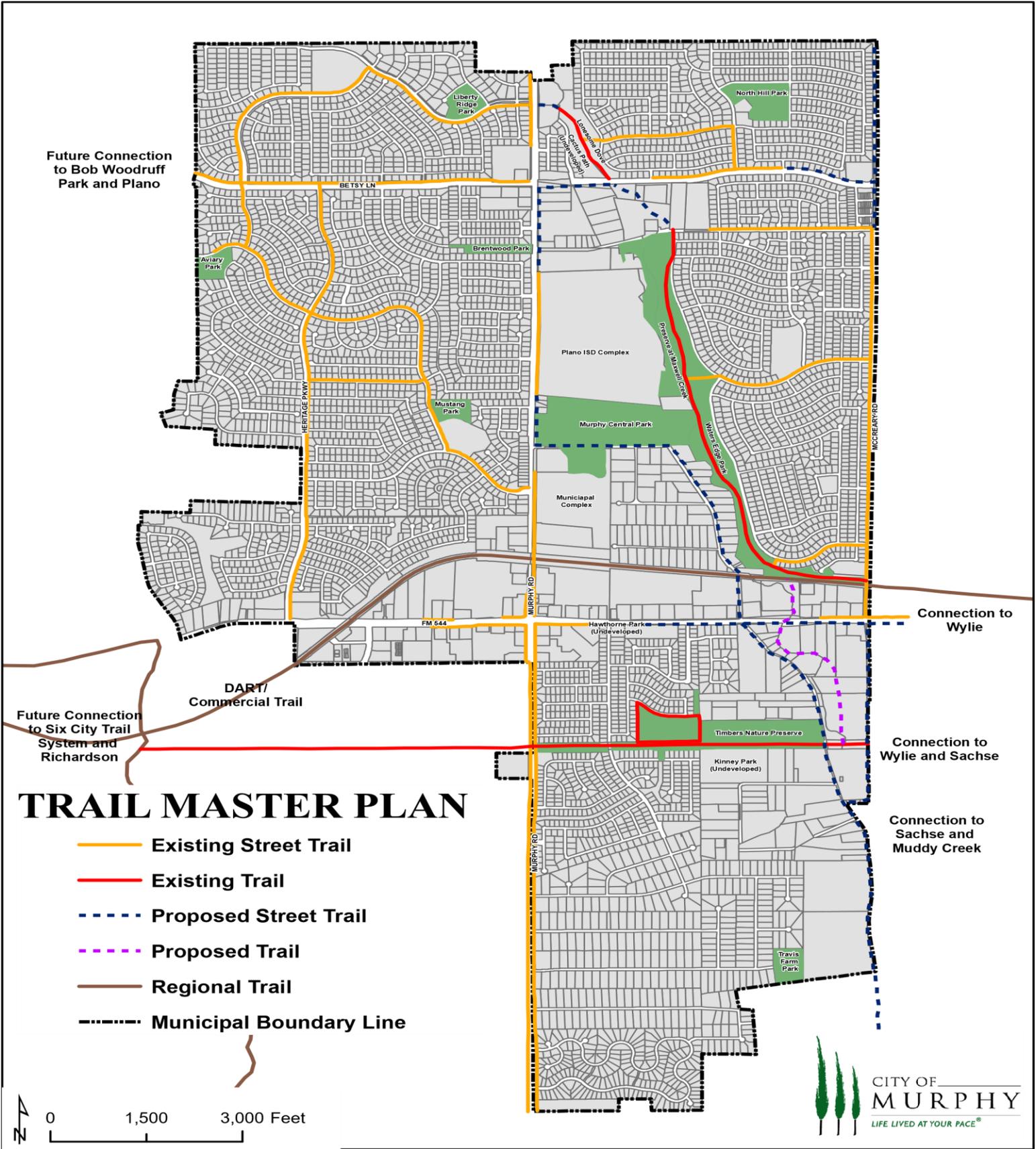
Thoroughfare and Intersection Crossings

There are several methods of crossing collector streets and major thoroughfares; at grade, overhead and below grade. The preferred alternative is to cross any major collector or thoroughfare, such as Murphy Road or FM 544, would be at an at-grade crossing, at a signalized intersection. The traffic signals stop oncoming traffic and allows for a safe crossing for pedestrian and trail users. Spur trails from the main trail should be used as necessary to achieve this. This is the safest and most economical method of crossing at a thoroughfare or collector.

Below Grade or Creek Drainage Structures – Below grade or creek drainage structures may be used for crossing under major thoroughfares. Using drainage structure is feasible provided the trail is elevated above the normal stream flow line. The trail will flood during heavy rain events and clean-up and restoration will be required. There are additional construction costs incurred with this method of crossing. The trail gradient or slope will have to accommodate the design guidelines established by the ADA, therefore adding to the construction cost.

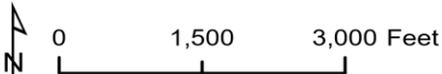
Tunnel Crossings – Tunnel crossings face the same issues as drainage structures with the exception of drainage and safety. Because the tunnel is generally constructed at a mid-point, drainage is an issue; water will have to be pumped or piped out. The tunnel also is a safety concern since it is concealed and could pose a danger to trail users.

Above Grade or Aerial Crossings – Aerial crossings would be the most expensive of the crossing alternatives. The crossing would have to provide height clearance for vehicles in traffic lanes and accommodate the disabled. Ramps or elevators would have to be constructed to meet ADA guidelines.



TRAIL MASTER PLAN

- Existing Street Trail
- Existing Trail
- - - Proposed Street Trail
- - - Proposed Trail
- Regional Trail
- Municipal Boundary Line



VI. Needs Assessment & Identification

General Assessment

The Needs Assessment phase of the plan process identifies the recreation needs and desires by using the public hearing process, standard-based analysis and park land analysis. This process is critical to the success of the Master Plan, as it ensures the needs of the citizens are addressed.

The City of Murphy currently provides park and recreational facilities in neighborhood parks, the Maxwell Creek corridor, as well as the Murphy Community Center. All of which provide unique recreational opportunities to the residents of Murphy.

During the plan development process it was determined that the City would not be able to provide a large community park for active athletic fields and play. However, our largest City park; Murphy Central Park, includes 60 acres, two athletic fields and is adjacent to Plano Sports Authority (PSA).

The Murphy Community Center (MCC) is the City's main source of indoor recreation and programming for our citizens. The MCC offers an indoor lounge/lending library, gymnasium, stage, game room, and 3 various size meeting/classrooms. The gymnasium can also be converted to host large meetings, conferences, and events.

The MCC had a class enrollment in 2016 of 5,224 and 37,624 rental/reservation patrons. Open gym visits totaled 30,204. The use of this facility has continued to grow since its opening in 2013.

In addition to indoor usage of the MCC, the Recreation Department is also responsible for reservations for pavilions and practice fields in all City-owned parks. In 2016, field usage was measured at 30,204 and pavilion usage totaled 1,754.

PSA is an indoor sports complex with eight basketball/volleyball courts and an indoor multi-use field.

In 2016, PSA Murphy participation was calculated at 41% of all children in the 75094 zip code (Murphy and Plano). This is translated to 15,714 total registrations at the facility, some of which may have been repetitive for differing sports. PSA also hosts numerous outside tournaments. All of this together totals over one million visitors a year to the facility.

Breakdown of registrations for PSA Murphy is as follows:

- Murphy 36.5%
- Wylie 23%
- Plano 27.7%
- Sachse 1.1%
- Other 2%

Children and adults in Murphy generally participate in leagues and athletic organizations in adjacent cities.

The construction of Timbers Nature Preserve (35 acres), and the adjacent ONCOR easement trail, has also served to meet the needs associated with additional baseball and soccer practice fields as well as more passive, natural space.

Public Hearing Process

The City of Murphy held one public hearing on April 10, 2017 to receive input from the citizens in regard to their park and recreation needs and desires. The meeting was attended by 24 members of the community with ages ranging from mid-twenties to senior citizens. The opportunity was given to voice their concerns verbally in open forum or to communicate them through a written questionnaire.

Comments varied over the full scope of parks and recreation. Continuing to conserve open space and natural settings was a major theme of the evening. Expansion of existing hike and bike trails was also mentioned as a desire of a vast majority of the group. Community gardens, dog parks, addition of more swing sets and inclusive play were all mentioned in the discussions.

The list on the next page is a summary of the desired recreational elements discussed at the hearing:

1. Trail System Connection	14. More Natural Trails
2. Dog Park	15. Additional Tree Planting at Parks
3. Disc Golf Course	16. North Hill Park a. More Walking Trails b. Connect Trails and Sidewalks c. More Planting
4. Kinney Park Development a. Proper use of open space b. Multi-purpose fields c. No lighting	17. Butterfly Garden
5. Veterans Tribute/Memorial	18. Motorcycle Rally Event
6. Additional Picnic Areas	19. Gaga Ball Pit
7. More Shaded Playgrounds	20. Special Needs Recreational Opportunities
8. Swings at Aviary Park	21. Interpretive Trails
9. BMX Track	22. Tennis Court Lighting at PISD
10. Zip Line	23. Volleyball Court Lighting
11. Walking Trails at Travis Farm Park	24. Widening of Linear Park Trail
12. Senior Activities a. Bocce Ball b. Shuffle Board	25. Plant Identification Signage on Trails
13. Recreation Programs Provided in Parks	26. Snow Hill

Standard-Based Analysis

This approach is used to assist in assessing the future recreational needs, and follows established and recognized standards for assessing the quantity of park land and the number of facilities that are required to meet the needs of a given population (*Table 4*).

TABLE 4 Park Facility Standard Analysis Ratio Using Build-Out Population of 22,500 City of Murphy, Texas			
Facility	NRPA Standards	Current Murphy Inventory	Recommendation Metroplex Standard ⁽²⁾
Basketball	1/5,000	4	1/4,000 = 5
Tennis Courts ⁽⁴⁾	1/2,000	0	1/4,000 = 5
Baseball/Softball Practice Fields	NS	6	1/3,000 = 8
Sand Volleyball	1/20,000	2	1/10,000 = 2
Soccer Practice Fields	NS	11	1/5,000 = 4
Playgrounds ⁽¹⁾	NS	13	⁽¹⁾
Picnic Tables	NS	63	1/300 = 75
Pavilions ⁽³⁾	NS	10	⁽³⁾
Trails	NS	7.72	As many as possible*
Recreation/Community Center	1/20,000	1	1/30,000

NS = No Standard
 NRPA = National Recreation and Parks Association
 * As many as possible in order to provide a comprehensive system of pedestrian trails that connect residential areas to parks, schools and open space

⁽¹⁾ One playground should be installed in each neighborhood, community and regional park.
⁽²⁾ The term "Metroplex" represents cities in the Dallas/Ft. Worth region
⁽³⁾ At least one pavilion should be installed in each neighborhood, community and regional park.
⁽⁴⁾ Joint use agreement between the City of Murphy and Plano Independent School District.

Facility-Recreation Standard

One source is the National Recreation and Parks Association (NRPA). The NRPA has functioned as a source of guidance for park standards and development for a number of years. The NRPA's standards are suggested to be a guide for determining park and open space needs. From community to community, differences will be found in the socio-economic and cultural characteristics, and in the climatic conditions. Therefore, the range of demands and preferences for recreational activities will vary with these differences. Obviously, these variances will directly influence a uniform standard for all locations. NRPA is very specific to point out that their data is to be used only as a guide to the development of local standards. Therefore, the NRPA provides input to the formation of local needs.

The recommended metroplex standard is an analysis of approximately twenty cities in the Dallas-Ft. Worth Metroplex. The standard is based on a city's population compared to their number of recreation facilities. These levels of service or ratios of population are generally accepted to meet the demand for a given recreation facility. Therefore, Table 4 illustrates an actual level of recreational service, in North Texas, based on population. The standard analysis has been prepared for the build-out population of 22,500 in Table 4.

Park Land Analysis

Park land analysis is also evaluated on the basis of Murphy's current population, as shown in Table 5 (next page). This is a city-wide analysis of park land within the City limits showing existing and what is suggested for a build-out population of 22,500.

Murphy's land use is primarily residential. A majority of the land is either existing residential or planned residential; with the exception of possible ETJ land being used for parks. The City is unable to acquire any additional neighborhood park land in the City. This evaluation is a reliable guide and analysis for park land comparison. The acreage required per 1,000 population varies for each park classification. For long range planning, this is a useful tool for determining future park land acreage acquisition.

As mentioned previously, the neighborhood park is an important aspect to the overall municipal park system. The ratio of 2.5 acres per 1000 population should not be confused with the minimum acreage size. The minimum acreage for a neighborhood park should be five acres for several important reasons. A

minimum of five acres provides enough land to develop playgrounds, small pavilions, etc. A smaller tract will limit the facilities and the recreational opportunities available to citizens. In the event that the City accepts smaller tracts of land, in the one acre to three acre range, the man-hours and equipment needed to maintain these parks will be time consuming and would also require an increase to the City’s maintenance budget. If possible, a minimum of five acre tracts is therefore recommended for neighborhood park development.

Table 5.1 (next page) is used to show the current Murphy parks inventory in comparison with our local and benchmark cities. Table 6 (next page) is to reference other amenities provided by our community homeowner’s associations (HOA).

TABLE 5
Park Land Acreage Analysis
City of Murphy, Texas

Park Type	Recommended Acres per 1,000	Existing Murphy Parks	Existing HOA Parks & Open Space	Current Murphy Totals	Acreage for Build-Out Population of 22,500
Neighborhood	2.5 acres	49.74 acres	24.24 acres	73.98 acres	56.25 acres
Community	5 acres	89.83 acres		89.83 acres	113 acres
Special	2 acres	39.27 acres		39.27 acres	45 acres
Open Space/Greenbelts	6-8 acres	82.22 acres		82.22 acres	158 acres
Totals		261.06 acres	24.24 acres	285.30 acres	372.25 acres

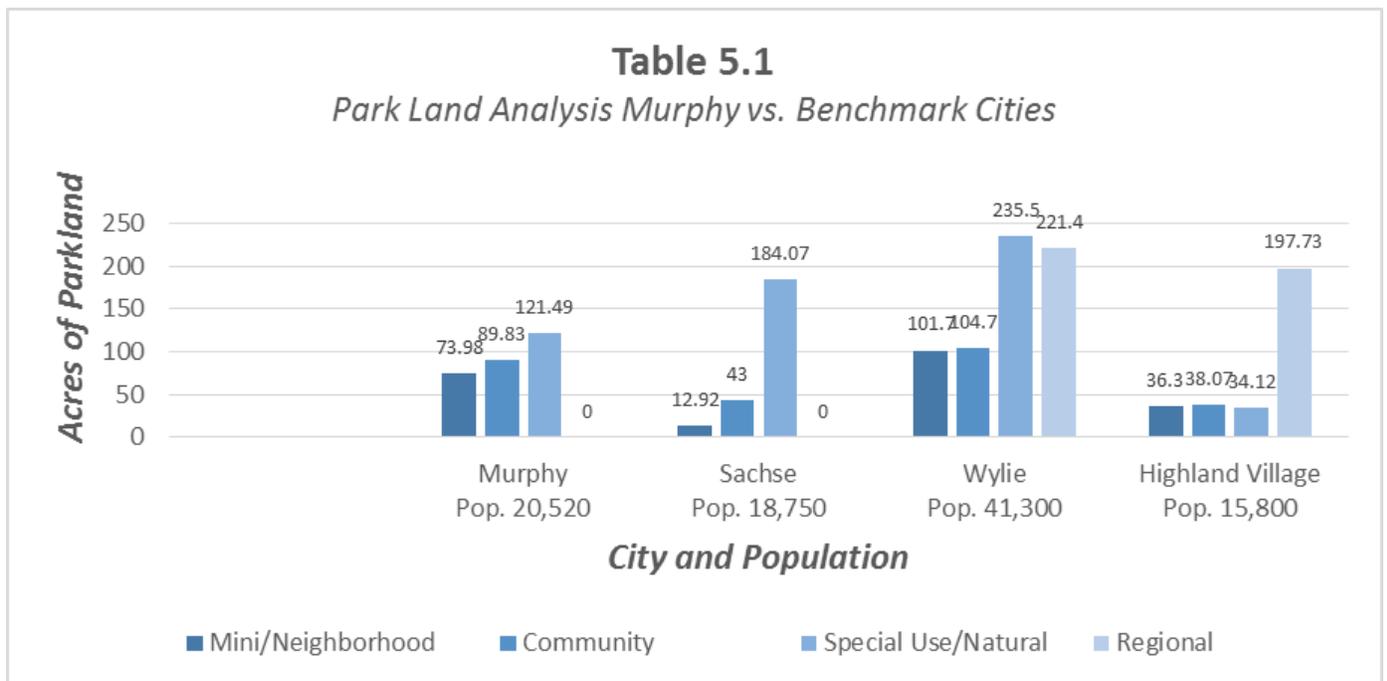
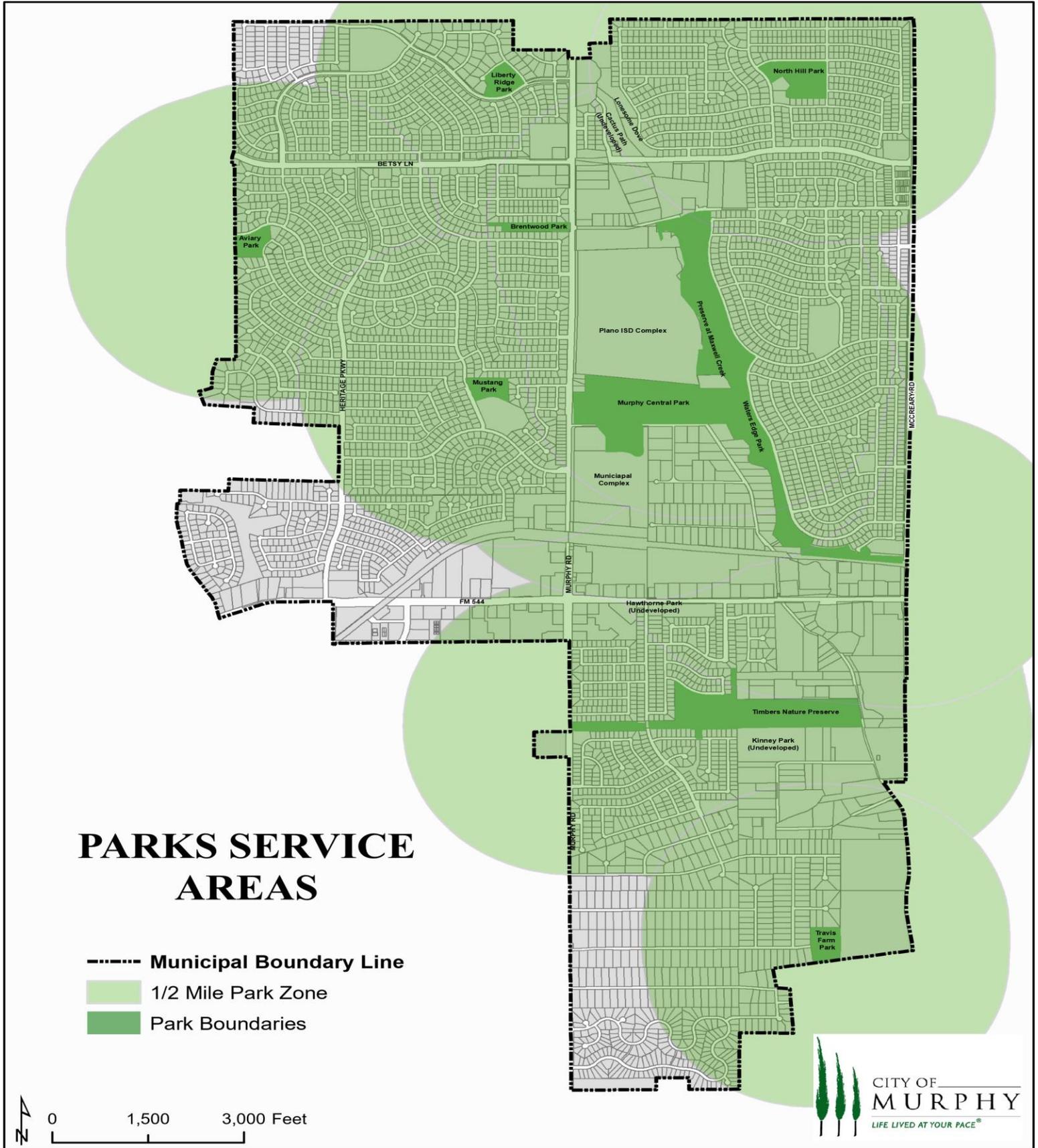


TABLE 6 Park Land Amenities - HOA Areas City of Murphy, Texas	
HOA Amenity	Quantity
Playgrounds	3
Clubhouse	2
Swimming Pool	8
Open Space/Greenbelts	10 acres
Soccer Practice Fields	4
Volleyball Courts	3



VII. 10-Year Park Priority List

Listed on the following page are the recommended park improvements for the next 10 year period. The recommendations are identified as Short-Term Priority (2017 to 2020, shown in yellow), Mid-Term Priority (2020 to 2023, shown in green) and Long-Term Priority (2023 to 2027, shown in blue). The priority of these park improvements is based on the needs assessment, meetings with City staff and the Parks and Recreation Board, and information obtained from the Community Survey in 2016.

TABLE 7 10 Year Park Priority List City of Murphy, Texas					
Priority	Park	Amenity	Timeframe	Funding Source	Estimated Cost
1	Maxwell Creek Corridor	Trail Development	2017-2020	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$1,000,000
2	North Hill Park	Phase III	2017-2020	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$1,100,000
3	Murphy Activity Center	Renovation - Addition of conference/meeting rooms, banquet room	2017-2020	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$550,000
4	Waters Edge Park Renovation	Playground Replacement (possible inclusive), Pavilion Addition, Additional Practice Fields, Parking	2017-2020	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$850,000
5	Maxwell Creek Corridor	Land acquisition between McMillen Road and Betsy Lane; Install trail linkage	2017-2020	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$1,500,000
Short-Term Goals 2017-2020 Total Costs					\$5,000,000
6	Kinney Park	Phase I	2020-2023	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$950,000 - \$1,750,000
7	Maxwell Creek Trail	Pursue land acquisition in Maxwell Creek corridor for trail development south of FM 544	2020-2023	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$500,000
8	Maxwell Creek	Complete recommended improvements; drainage	2020-2023	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$400,000
9	Travis Farm Park	Phase II Grading of field; installation of loop walking trail; irrigation; trail connection to McCreary Road	2020-2023	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$750,000
10	Central Park	Phase III Natural Playground/nature play areas; additional practice fields; community garden; gravel parking area on east end of park	2020-2023	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$1,000,000
Mid-Range Goals 2020-2023 Total Costs					\$3,600,000 - \$4,400,000
11	Central Park/PISD	Lighting of PISD Tennis Courts; joint use agreement with PISD	2023-2027	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$300,000
12	Municipal Complex	Recreation Center	2023-2027	Bonds, Grants, Park Dedication Fees, Private Donations, General Fund, HOA Partnerships	\$10,000,000 - \$15,000,000
Long-Term Goals 2023-2027 Total Costs					\$10,300,000 - \$15,300,000

VIII. 10 Year City Priority List

The 10-Year Action Plan/Priority List as outlined in Table 8 represents the culmination of the Parks, Recreation, & Open Space Master Plan. Table 8 and Table 9 represent the priority list of outdoor and indoor recreational facilities. This table is based on the needs assessment, discussion with the Murphy Parks and Recreation Board, and information from the 2016 Community Survey. It is the synoptic conclusion of the park master planning process. Annual review of the Master Plan by the City Staff, City Council members, Murphy Parks and Recreation Board members and citizens will allow the analysis of each recommendation for acquisition, improvements, and new facilities to enhance the quality of Murphy Parks and Recreation System to maximum effect.

TABLE 8
10-Year City Priority List - Recreational Outdoor Facility Development Listing
City of Murphy, Texas

Priority	Facility	Timing	Estimated Cost	Possible Funding Source
1	Walking Trails	2017-2026	\$300,000 per mile	Bonds, Grants, 4B, Private Donations
2	Picnic Tables	2017-2026	\$2,000 each	Bonds, Grants, 4B, Private Donations
3	Multi-use Fields	2017-2026	\$500,000	Bonds, Grants, 4B, Private Donations
4	Splash Park/Pad	2017-2026	\$250,000	Bonds, Grants, 4B, Private Donations
5	Park Benches	2017-2026	\$1,500 each	Bonds, Grants, 4B, Private Donations
6	Playgrounds	2017-2026	\$125,000	Bonds, Grants, 4B, Private Donations
7	Pavilion w/Picnic Area	2017-2026	\$150,000	Bonds, Grants, 4B, Private Donations

TABLE 9
10-Year City Priority List - Recreational Indoor Facility Development Listing
City of Murphy, Texas

Priority	Facility	Timing	Estimated Cost	Possible Funding Source
1	Indoor Jogging/Walking Track	2017-2026	Varies	Bonds, Grants, 4B, Private Donations
2	Weight/Workout Room	2017-2026	Varies	Bonds, Grants, 4B, Private Donations
3	Preschool Room &/or Babysitting Room	2017-2026	Varies	Bonds, Grants, 4B, Private Donations
4	Computer Room	2017-2026	Varies	Bonds, Grants, 4B, Private Donations

IX. Implementation

Identified within this section are the ways and methods of implementing the recommendations within this Parks, Recreation, and Open Space Master Plan. Critical to its implementation is the action plan, which should be developed annually by the City of Murphy.

Policies and Ordinances

The accuracy of these implementation mechanisms is dependent upon the proper coordination of input from contributing bodies including City officials, elected and appointed, City staff, the Plano and Wylie school districts, surrounding municipalities, sports groups, and most importantly the citizens of Murphy. All parties must communicate and work collectively toward common goals, only this will ensure the successful development of the Parks, Recreation, and Open Space Master Plan during review of proposed development plans with various entities involved.

Ordinances provide the legal framework for implementation of the Master Plan, and therefore, aid in park system development and protection. Outlined below are several ordinances directly related to park land acquisition and development:

Watershed Management & Drainage way Ordinances

Funding Sources

General Fund

Bonds

General Obligation Bonds

Revenue Bonds

Private Donations

Sales Tax Option (4B)

Grant-In-Aid Programs

Texas Recreation and Parks Account (TRPA) Program

Urban and Community Forest Challenge Grant

Public Improvement District (P.I.D.)

Tax Increment Financing District (T.I.F.)