



CITY OF IOWA COLONY, TX

PARKS AND RECREATION MASTER PLAN

Prepared By:
Burditt Consultants, LLC

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Parks and Recreation Master Plan

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IOWA COLONY

PARKS & RECREATION MASTER PLAN

“To accomplish great things, we must not only act but also dream. Not only plan but also believe.” -Anatole France

Executive Summary

Project Overview

Iowa Colony is experiencing rapid growth and development similar to that of many small communities in the Greater Houston Area. With this growth comes an increased demand for recreation including the need for parks, trails, recreation facilities, and open space. Iowa Colony currently has only one city-owned park, therefore most recreation facilities and amenities are provided by Home Owners Associations (HOAs) and private entities.

The Iowa Colony Parks & Recreation Master Plan seeks to provide a holistic approach to parks planning and allow the City to address urgent land acquisition needs, health and wellness objectives, community connectivity, outdoor recreation, conservation of ecosystems and natural resources, and developing a sense of community and gathering while proactively planning for future needs. It also allows for financing options to be explored for implementation of projects identified within the Plan.

Development of the Master Plan required the assessment of parks and open space provided by the City and other entities within the City with further analysis of input to be obtained from a variety of municipal leadership, user-organization leaders, activity groups, City staff (who operate and maintain facilities), and selected stakeholders.

This planning effort aims to evaluate existing parks and recreation facilities to determine opportunities for improvements and additions, as well as identify new park and facility opportunities to support the recreation needs of Iowa Colony residents. Burditt Consultants, LLC was engaged by the City to develop a Parks and Recreation Master Plan that addresses current and future recreation needs and

is influenced by stakeholder input. The following approaches were implemented in the development of the master plan:

Standards-Based Approach – utilizing traditional park standards and evaluation of current trends.

Demand-Based Approach - utilizing input from staff, Council, working groups, sports leagues, and the residents to identify current and future needs and desires.

Resource-Based Approach - leveraging available land, natural features, rights-of-way, and city facilities to enhance park and recreation opportunities.

The following studies were undertaken in the development of the master plan:

- Inventory of existing parks and facilities
- Evaluation of available growth and demographic data, trends and projections.
- Analysis of stakeholder input conducted by the City including survey input, public meeting results, & Parks Board input.
- Identification of Priority Projects
- Development of concepts for new and renovated facilities
- Probable cost estimation for priority projects
- Evaluation of cost impacts per household

Recreation Needs

Top priorities identified through the City's stakeholder outreach as follows:

Top 5 Outdoor Recreation Features

1. Hike and Bike Trails
2. Event Space
3. Open Space and Natural Areas
4. Outdoor Fitness Areas
5. Sports Courts and Fields

Top 5 Indoor Recreation Features

1. Classes and Classrooms
2. Fitness Equipment
3. Swimming Pool
4. Indoor Running Track
5. Rock Climbing Wall

Overall, residents had a very diverse range of interests for recreation. Numerous times there were mentions of the need for inclusive parks and playgrounds that don't just meet the requirements of the American Disabilities Act, but truly accommodate all users.

Priority Projects

A series of projects were identified that seek to meet the recreation needs for a growing community. The projects were developed into early conceptual designs to illustrate how selected recreation features can fit on a given site. Each concept is accompanied by a Opinion of Probable Cost that will help with budget planning should the City decide to move forward with a project. The following concepts are included in this plan:

- New Iowa Colony Town Center
- New 40-Acre Community Park
- New Mini-Park at Freedom Field
- Park Prototype
- Hike and Bike Trail Plan

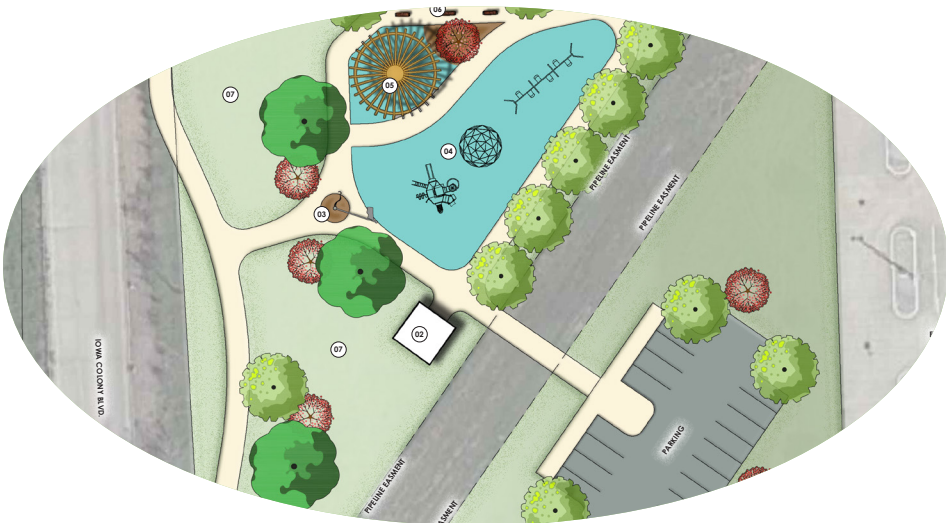
Executive Summary



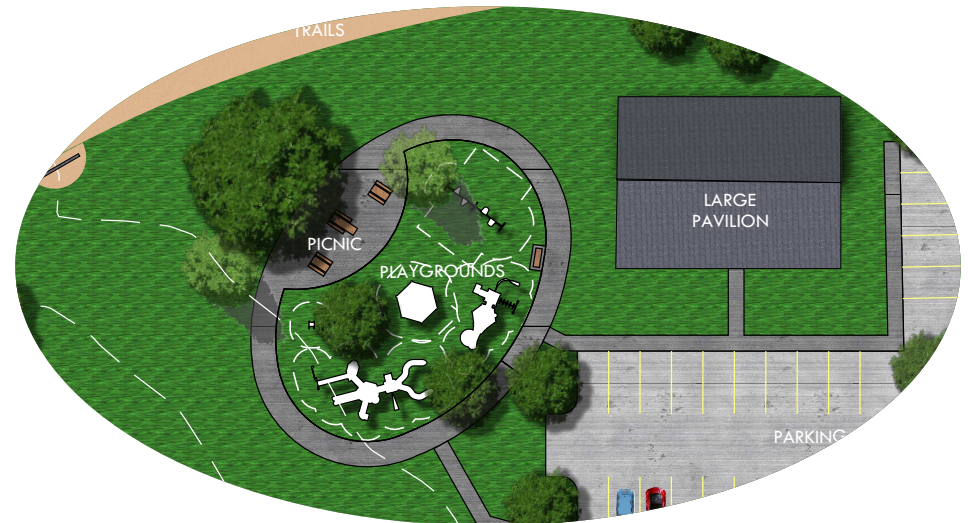
Iowa Colony Town Center



New 40-Acre Community Park



New Mini-Park at Freedom Field



Park Prototype - 5 Acre Community Park

*According to the
2022 NRPA Agency
Performance Review,
a typical park and
recreation agency with
a population less than
20,000 people has 12.9
acres of park land per
1,000 residents.*

Inventory & **Analysis**



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Project Overview

Introduction

The Benefits of Parks and Open Space

Parks and open space are key components contributing to the quality of life for any community. These elements of the public domain provide spaces for recreation and exercise, as well improve aesthetics and ecological services such as mitigating stormwater runoff, cleaning the air we breathe and providing wildlife habitat in the urban environment.

Studies have even shown that parks can increase the property values of homes in a community. “The real estate market consistently demonstrates that many people are willing to pay a larger amount for a property located close to parks and open space areas than for a home that does not offer this amenity,” writes John L. Crompton, a professor at Texas A&M University who has published extensive research on parks and recreation

Park Standards

Traditional park and recreation planning techniques have used standards established by the National Recreation and Parks Association (NRPA) to determine the quantity and type of amenities a city should provide. An example of such standards commonly provided by the NRPA is the overall recommendation for park acreage by population. The NRPA suggests a minimum of 6.25 to 10.5 acres of park land per 1,000 population. This standard would suggest that the City of Iowa Colony should provide 68 to 114 acres of park land for its residents.

Currently the City provides one park with a total of approximately 16.9 acres of developed park land and the residential developments provide 78.439 acres of additional park land. This combines to a total of 95.44 acres of total park land. This suggests that even when accounting for parks provided by and maintained by residential developments,

there still is a deficit of parks for current residents. With continued growth on the horizon, it will be important to acquire and develop additional parks in the future.

Traditionally the NRPA has recommended a set of standards for minimum numbers of specific park facilities according to population (e.g.: 1 soccer field per 1,000 population), however they recognize that communities have unique needs and standards need to be used as benchmarks rather than firm rules for determining the number of facilities needed.

Local Demand

The Demand Assessment phase of the planning process seeks to identify the types of parks, facilities, and amenities that are most desired by residents. Iowa Colony has a diverse population of all demographic groups with an equally diverse set of needs for recreation and quality of life.

To identify these needs, a series of online public surveys and community meetings were conducted to ask residents questions about what types of activities they currently participate in and what they would like to see added to their parks and facilities system in the future.

Planning Principles

The principles by which a master plan is developed serve as high-level guidance as priorities are identified and projects are recommended. The following are planning principles were used to steer the direction of the plan:

Planning Principles

- All residents and visitors should have unrestricted access to public park areas and recreational facilities regardless of their age, gender, race, income, cultural background, housing environment, or handicap;
- Public recreation should be highly coordinated with other organizations and programs, including Brazoria County, schools, civic clubs, athletic organizations, private entities, and others to avoid duplication and encourage cooperation;
- Public recreation should incorporate other public services such as education, health and fitness, transportation, and leisure;
- Facilities should be well planned and coordinated to ensure adequate adaptability to future needs and requirements;
- There should be an established process and procedure for acquiring land for future parks and recreational areas and facilities prior to development; and
- The design of spaces and facilities should encourage the most efficient utilization of land and will consider the needs, desires and opinions of the intended users.

Methodology

The Parks and Recreation Master Plan was developed using a three-fold technique that follows general methodologies accepted by TPWD for local park master plans and by the Department of the Interior for local park system Recovery Action Plans (RAP). The following approaches were implemented:

1. Standard-Based Approach – uses standards established by the City to determine the quantity of park facilities required to meet the City’s needs a given population. Standards are usually expressed as the quantity of park facilities needed to adequately serve every 1,000 citizens of the City.

Standards are established to provide the level of service that the City believes is most responsive to the amount of use and interests of its citizens. This plan establishes individual standards for the City.

2. Demand-Based Approach – uses public meetings, participation rates, league usage data, and surveys to determine how much the population uses and desires certain types of recreation facilities.

3. Resource-Based Approach – is based on the usefulness of available physical resources to provide recreation opportunities. For example, the City’s street rights-of-way, floodplains, and drainage corridors provide opportunities for trail connections.

All three methods are important in their own manner, but individually do not represent the entire picture. The assessment component of the project utilizes all three methods to determine what types of recreation facilities and park requirements are needed.

Typical assessments evaluate Level of Service (LOS). While this is important, we believe it is also critical to also understand and evaluate the Quality of Service. QOS evaluation requires intense community involvement and yields critical information of how the facility or park amenity is performing according to the expectations of citizens overall. Quality of Service is most easily identified through conversation. Engaging park users is the most direct method of understanding the user experience for a given facility.

As national guidelines and standards are based on demographic trends rather than specific local desires, they must be fine-tuned to meet local conditions. It is important to recognize that national standards are simply guidelines or benchmarks that are intended to serve as a starting point for park planning. Each city has its own unique geographic, demographic, and socio-economic composition, and as such, the arbitrary application of national standards, as is often done, would not necessarily meet the needs of Iowa Colony.

Inventory and Analysis

The inventory phase includes inspection of the City’s existing park to determine overall condition, maintenance needs, and opportunities for additions/improvements. Observations of site, equipment and facility conditions are noted.

In addition to the City’s facilities, recreational facilities provided by other entities are noted to identify service gaps, duplication of service and to gather a complete picture of recreation in Iowa Colony.

Demographics, Growth and Trends

A key component of any master plan is understanding patterns of growth in the community and region. Iowa Colony is a growing community that must take significant steps to keep up with the increased demand for parks and public spaces.

Priority Projects and Implementation

The results of data collection, analysis and stakeholder input result in the identification of priority projects for enhancement of Iowa Colony’s parks and recreation system.

Priority Projects have been studied to determine feasibility and probable costs to the level of detail appropriate at the conceptual level. Further study during a “design development” phase with a planning and design consultant will be needed to further vet the details, programming and costs for a given project.

Each priority project is accompanied by an Opinion of Probable Cost (OPC) that details the approximate cost for development of the park or facility. OPCs include site preparation, recreation features, structures, infrastructure, contractor mark-up, and contingencies.

Community Profile

Planning for the Future of Iowa Colony

The City of Iowa Colony is a rural suburb of Houston, approximately 20 miles south of downtown along State Highway 288. While the community was distinctly rural for decades, the recent growth has transformed Iowa Colony. The City’s 2010 census reported a total of 1, 170 residents, however that number grew to 8,174 by the 2020 census and is now estimate to be 10,833.

There are currently two master planned communities, Meridiana and Sterling Lakes/Sierra Vista, that provide high-quality homes, parks, and amenities. New developments are also currently planned to bring at least 5,000 new single family homes to Iowa Colony, thereby doubling the population.

Iowa Colony Residents

Residents of Iowa Colony are a diverse group with higher representation of almost all minorities than the national average. The age distribution of residents is relatively young, with the largest age group represented at 30 to 39 year of age (22.2%). Children and young adults up to 19 years of age represent at total of 32.1% of the population. This is typical of a community of young families, and they are typically avid users of parks.

Household income for residents in Iowa Colony is moderately higher than that of the Houston-The Woodlands-Sugarland Metro Area and Texas overall. 43.7% of households in Iowa Colony have an annual income of \$50,000 to \$100,000, and another 29.3% of households bring in between \$100,000 to \$200,000.



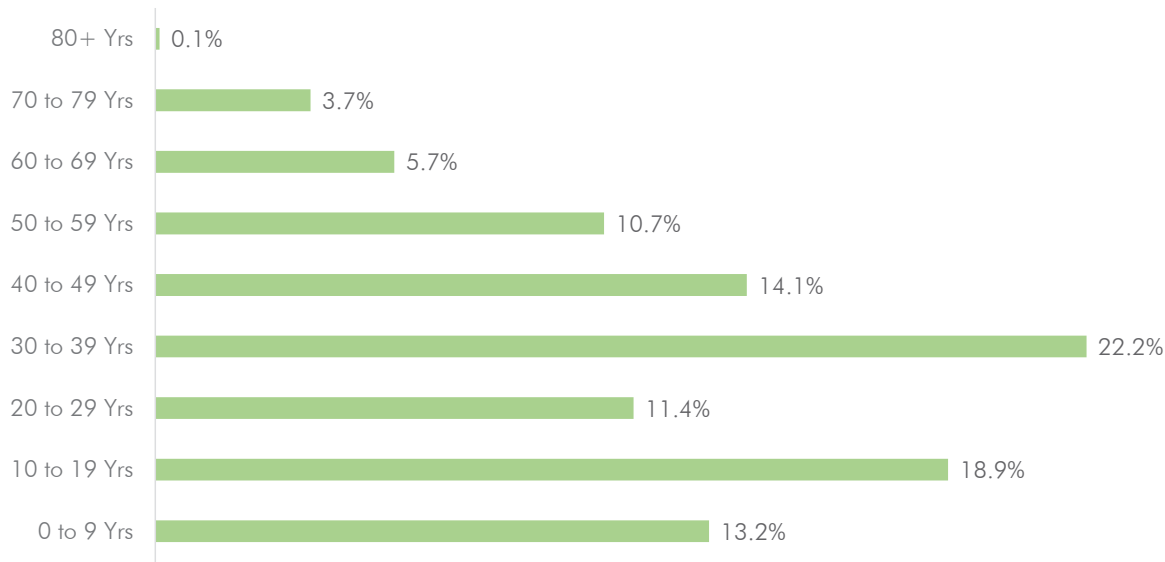
Amenity center at Meridiana. Photo credit: Rise Communities.

Single-family New House Construction Building Permits:

2021:	759 buildings,	average cost: \$282,300
2020:	796 buildings,	average cost: \$233,100
2019:	611 buildings,	average cost: \$156,400
2018:	509 buildings,	average cost: \$315,500
2017:	177 buildings,	average cost: \$250,000
2016:	17 buildings,	average cost: \$166,700
2015:	15 buildings,	average cost: \$166,700
2014:	12 buildings,	average cost: \$166,700
2013:	1 building,	cost: \$324,000

Source: <http://www.city-data.com/city/iowa-Colony-Texas.html>

Age Distribution in Iowa Colony (% of Population)



Source: 2021 U.S. Census American Community Survey

Household Income in Iowa Colony (% of Households)

Household Income	Iowa Colony	Houston-The Woodland-Sugarland Metro Area	Texas
Under \$50K	9.3%	34.8%	37.4%
\$50K to \$100K	43.7%	29.0%	29.9%
\$100K to 200K	29.3%	25.2%	23.9%
Over \$200K	17.7%	11.1%	8.8%

Iowa Colony Household Income. Source U.S.Census ACE 2021.

Race and Hispanic Origin in Iowa Colony (% of Population)

Race and Hispanic Origin	Iowa Colony	United States
White alone	39.80%	75.80%
Black or African American alone	37.40%	13.60%
American Indian and Alaska Native alone	0.20%	1.30%
Asian alone	7.10%	6.10%
Native Hawaiian and Other Pacific Islander alone	0.00%	0.30%
Two or More Races	11.90%	2.90%
Hispanic or Latino	25.80%	18.90%
White alone, not Hispanic or Latino	25.40%	59.30%

Source: U.S. Census Estimates July 2022

The Iowa Colony Parks System

Existing Parks and Recreation Facilities

Iowa Colony currently has one municipal park that was developed in conjunction with the Meridiana recreation amenities at Iowa Colony City Park. The park offers features and amenities that are open to the general public as well as a fitness center and aquatics center that are open to residents of Meridiana.

The City recognizes the need to expand the parks system to meet the growing demand for a wide range of recreational needs. The residential developments of Meridiana, Sierra Lakes, and Sierra Vista have provided high-quality parks and amenities within their communities that have established the standard for the quality of parks that will be expected by residents in the future.

Park	Owner	Access	Size (acres)	Trails (miles)	Multi-Purpose Field	Athletic Practice Field	Swimming Pool	Basketball Court	Volleyball Court	Playground	Picnic Areas	Tennis Court (resident-only)	Splash Pad	Shelter	Pickleball Court	Disc Golf Course	Ninja Warrior Course	Swingset	Baseball Diamond	Restrooms	Table Games	Seating	Dog Park	Fitness Equipment	Pickleball Court	Indoor Recreation
Iowa Colony City Park	City of Iowa Colony	Public	16.996	0.75		X		X	X	X	X								X	X		X				
Observation Park	Meridiana	Public, Resident-Only	5.182	0.47						X	X	X		X				X				X				
Challenger Park	Meridiana	Public	3.52	0.36						X					X	X	X							X	X	
Floating Bridge Park	Meridiana	Public	33.293	0.348						X	X															
Meridiana Park	Meridiana	Semi-Public	6.88	0.244			X				X		X	X						X	X	X	X	X		X
Lions Ball Park	Lions Club	Semi-Public	5.732	0.31															X							
Sterling Lakes Park	Sterling Lakes	Private	6.303	0.32			X			X	X		X	X				X		X		X				X
Sterling Lakes Park	Sterling Lakes	Private	1.045	0.16							X		X	X								X				
Sterling Lakes Dog Park	Sterling Lakes	Private	1.282	0.14										X								X	X			
Galileo’s Lab	Meridiana	Public	9.179	0.7						X	X											X				
Explorer’s Park	Meridiana	Public	3.404	0.33						X												X				
Green Paradise Park	Sterling Lakes	Private	2.2	0.13			X			X	X			X						X		X				X
Bending Green Park	Sterling Lakes	Private	0.419	0.08						X																
			95.44	4.342																						



Observation Park in Meridiana



Playground in Iowa Colony City Park



Ball fields at Lions Ball Park



Fishing pier at Galileo's Lab Park in Meridiana



Table tennis at the recreation center at Meridiana Park



Sierra Vista Bark Park



Playground at Floating Bridge Park in Meridiana



'Ninja Warrior' course at Challenger Park in Meridiana



Playground at Explorer's Park in Meridiana



Iowa Colony City Park

Detention Pond

Walking Path

Playground and
Picnic Area

Basketball Courts

Meridiana Amenity Center

Public Restrooms

Lions Ball Park

Meridiana
Elementary
School

Level of Service

The makeup of parks and recreation agencies varies greatly due to unique characteristics such as population density, demand for recreation, and available resources such as land, capital, and political will. As communities grow, the demand for parks and recreation facilities tends to increase as well.

Measuring Level of Service of a parks system provides an understanding of where ‘service gaps’ may exist with regard to parks, trails, amenities, and services. To measure Level of Service, the National Recreation and Parks Association (NRPA) collects nationwide data from parks and recreation agencies to serve as guidelines for communities to evaluate the type and number of facilities to provide for residents. Rather than serving as strict standards, the benchmarks should be used as a point of conversation as City staff, elected officials, planning groups, and other stakeholders plan for the future parks system.

Park Land and Facilities

These benchmarks typically provide a metric of park land, facilities, and services for a given population. For example, the 2022 NRPA Agency Performance Review reports that the typical park and recreation agency manage 10.4 acres of parkland for every 1,000 residents. Smaller agencies serving less than 20,000 residents typically have 12.9 acres of parkland per 1,000 residents.

In addition to park land, recreation facilities and amenities are also useful in understanding Level of Service. For instance, 95% of park and recreation agencies have playgrounds and 86% have basketball courts. The typical agency manages and/or maintains a total of 14.0 miles of trails for walking, running, hiking, and biking. These benchmarks are a useful starting point for evaluating Level of Service, and a great target to consider when developing a new parks system. However, the NRPA recommends that each agency consider local demand and resources rather than attempting to use these benchmarks as firm standards for Level of Service. The 2022 NRPA Agency Performance Review does not present park and recreation “standards”, nor do the benchmarks represent any standards against which every individual park and recreation agency should measure itself.

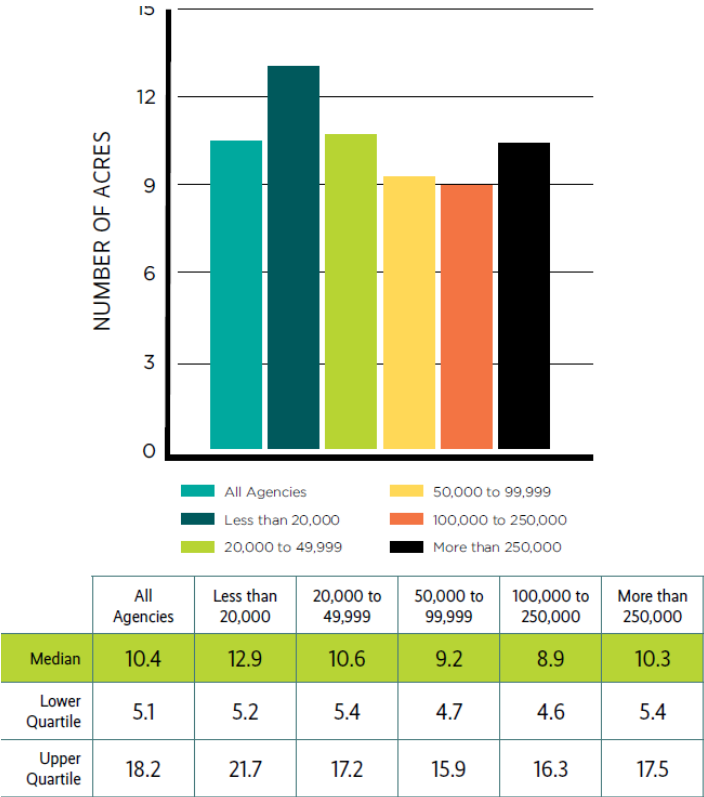
Staffing and Budget

As the City’s parks system develops, the need for personnel and operating expenses will increase. The NRPA reports that the typical established parks and recreation agency has 8.9 full-time equivalent staff (FTEs) for every 10,000 residents. For Iowa Colony’s current population (approximately 10,883), this would equate to a staff of 10 employees for maintenance and operation of a developed parks system.

For annual operating expenses, the NRPA reports that the typical agency spends \$93.01 per capita. For Iowa Colony, this would equate to an annual operating budget of \$1,012,227 once the parks and recreation system has matured. The current Parks and Recreation budget for the 2022-23 fiscal year for Iowa Colony is \$162,000, which equates to \$14.88 per capita and is primarily allocated to park maintenance and contractual services.

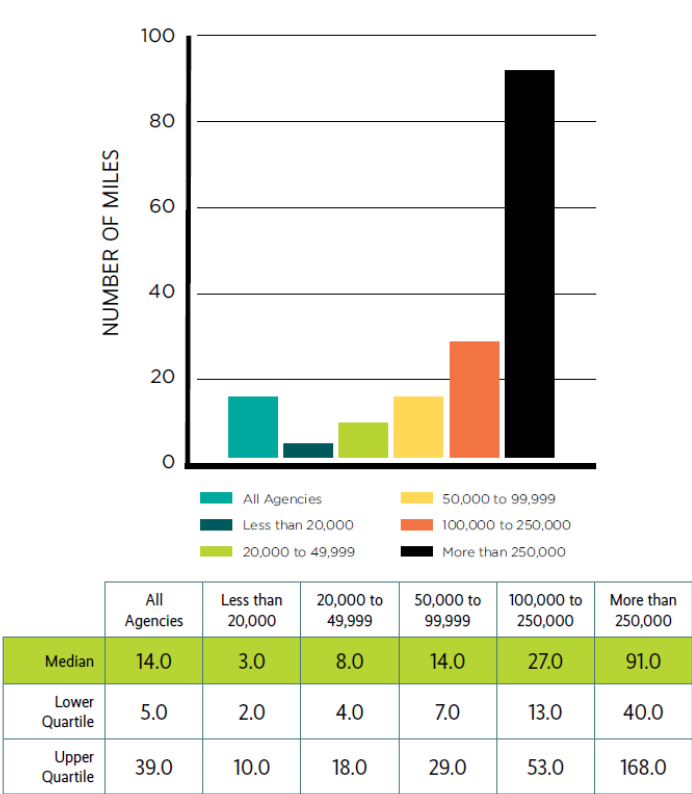
When looking at these benchmarks, it’s important to be reminded that a parks system develops over time, and requisite budgets and staff would be added gradually as needs arrive.

Acres of Park Land Per 1,000 Residents
(By Jurisdiction Population)



Source: 2022 NRPA Agency Performance Review.

Residents Per Park
(By Jurisdiction Population)



Source: 2022 NRPA Agency Performance Review.

10-Minute Walk Analysis

The Trust for Public Land and The “A park within 10 minute walk of home” concept was developed by the Trust for Public Land, Urban Land Institution, and National Recreation and Park Association.

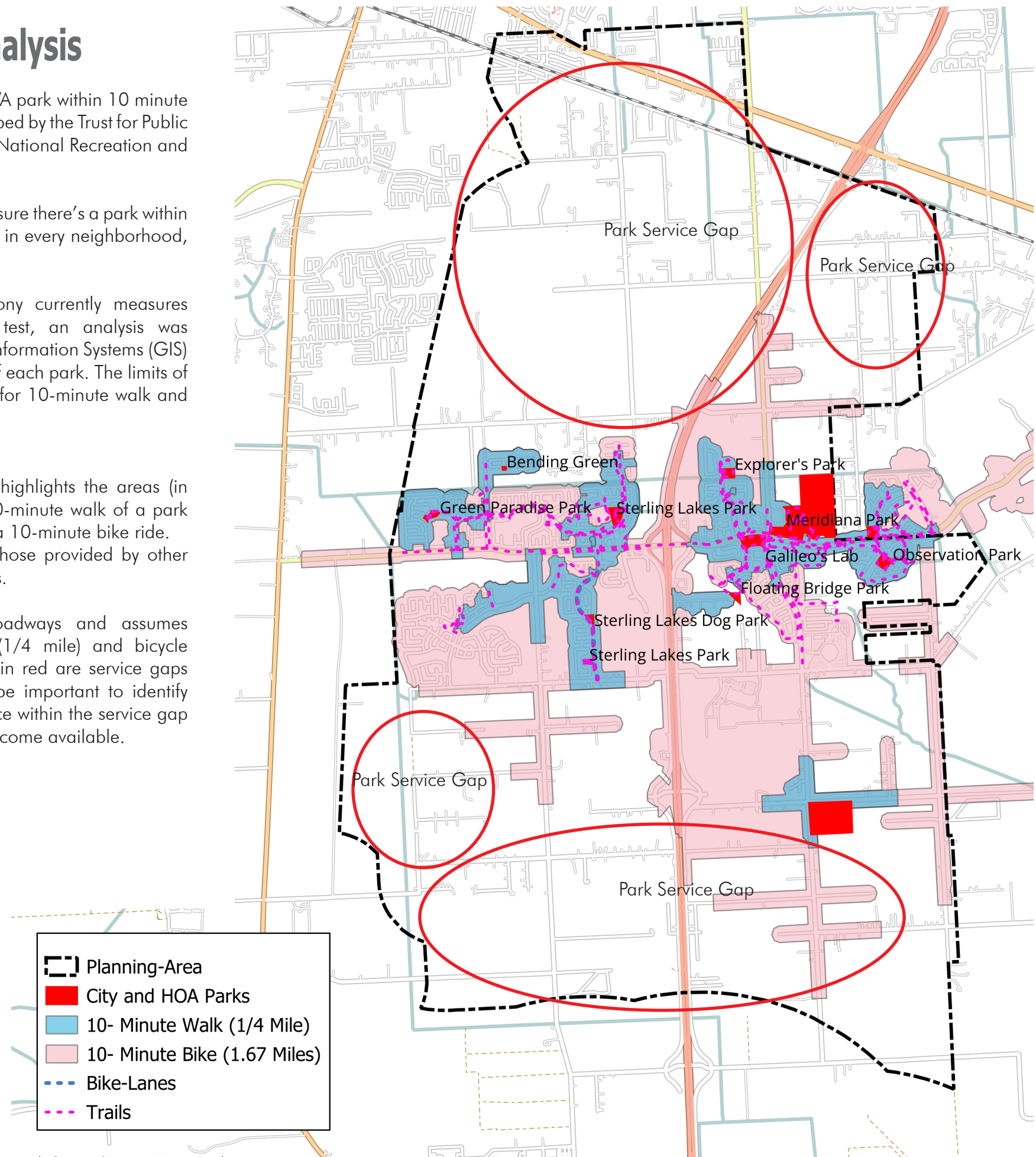
The goal of the movement is to “ensure there’s a park within a 10-minute walk of every person, in every neighborhood, in every city across America”.

To understand where Iowa Colony currently measures against the “10-Minute Walk” test, an analysis was conducted using the Geographic Information Systems (GIS) software to map the service area of each park. The limits of the service areas were calculated for 10-minute walk and 10-minute bike ride distances.

Park Service Gaps

The map on the following page highlights the areas (in BLUE) of Iowa Colony within a 10-minute walk of a park and areas in PINK that are within a 10-minute bike ride. City and HOA parks as well as those provided by other entities are included in the analysis.

The analysis utilizes existing roadways and assumes an average speed for walking (1/4 mile) and bicycle (1.67 miles) travel. Areas circled in red are service gaps where parks are needed. It will be important to identify opportunities to develop park space within the service gap areas when land and resources become available.



Demand **Assessment**



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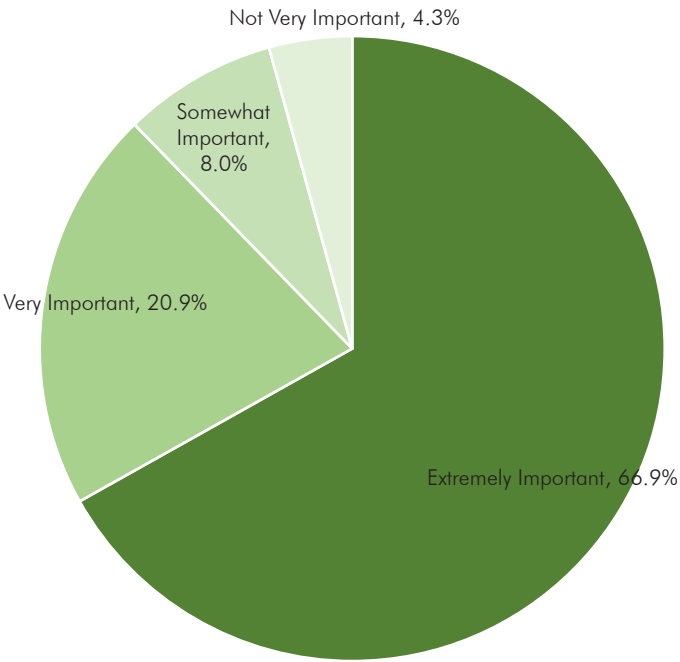
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Appendix

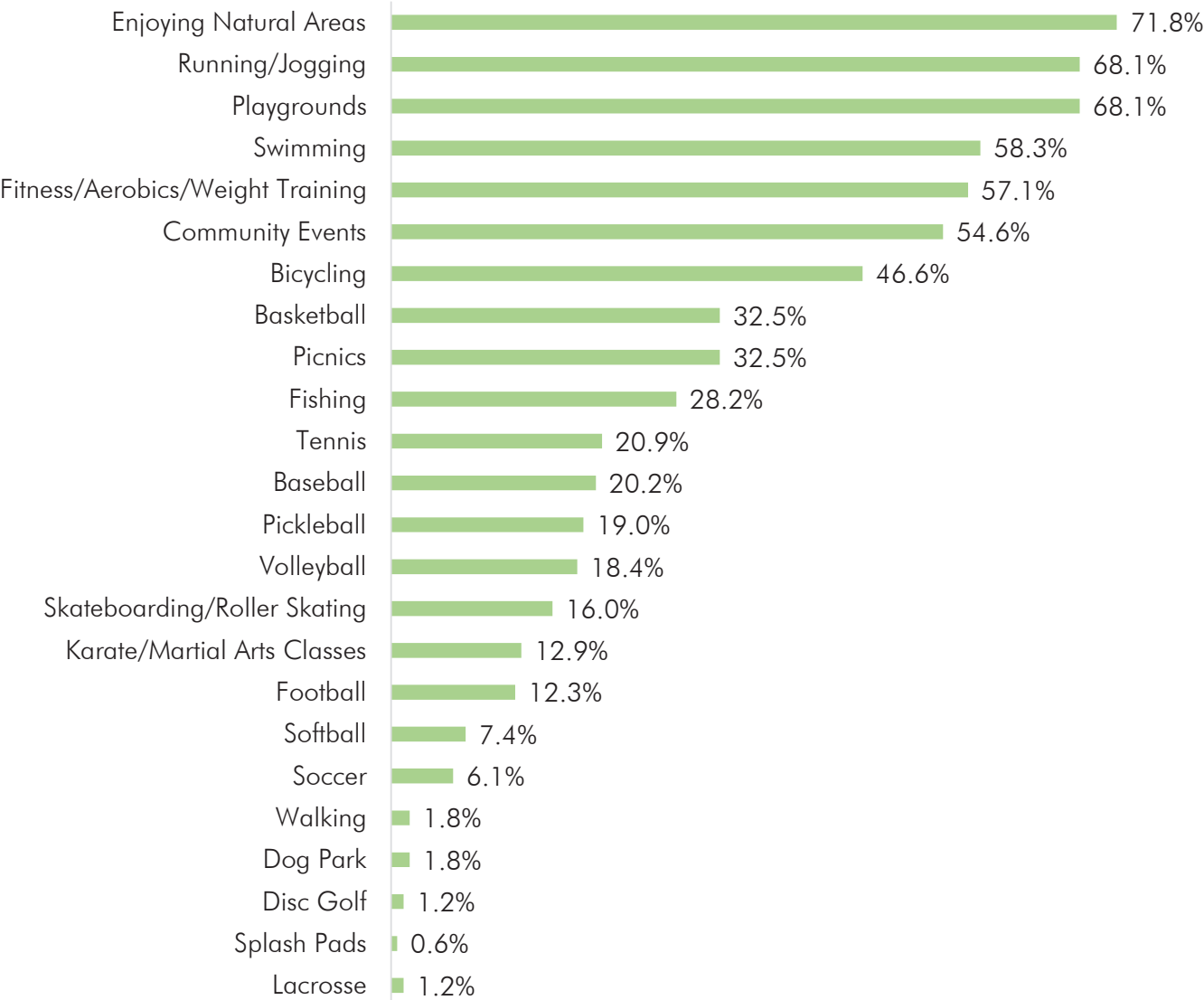
How important to your quality of life is having city parks, recreation, and open space facilities and amenities in Iowa Colony?

Online Resident Survey

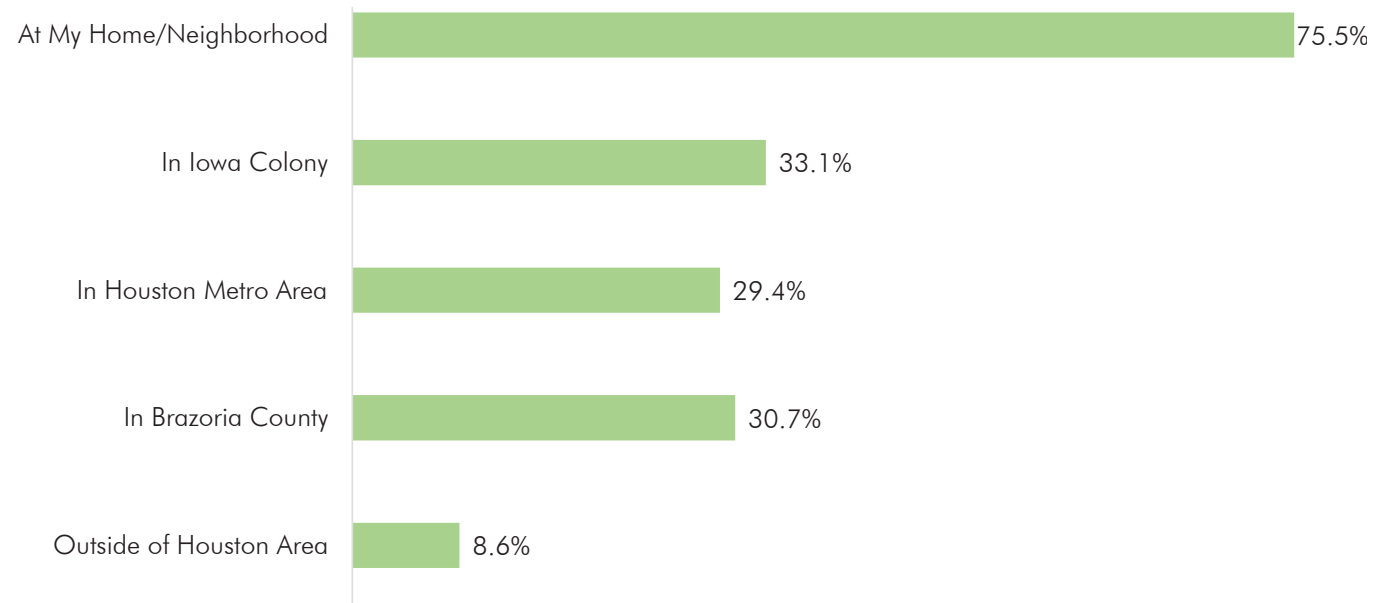
The City conducted an online survey to identify residents’ current recreational behaviors and needs for new parks, programs, facilities, and amenities. The survey was open from February 22, 2023 until August 10, 2023 and received a total of 165 responses. This level of survey participation yields a confidence level of approximately 80% with a margin of error of 7.57%.



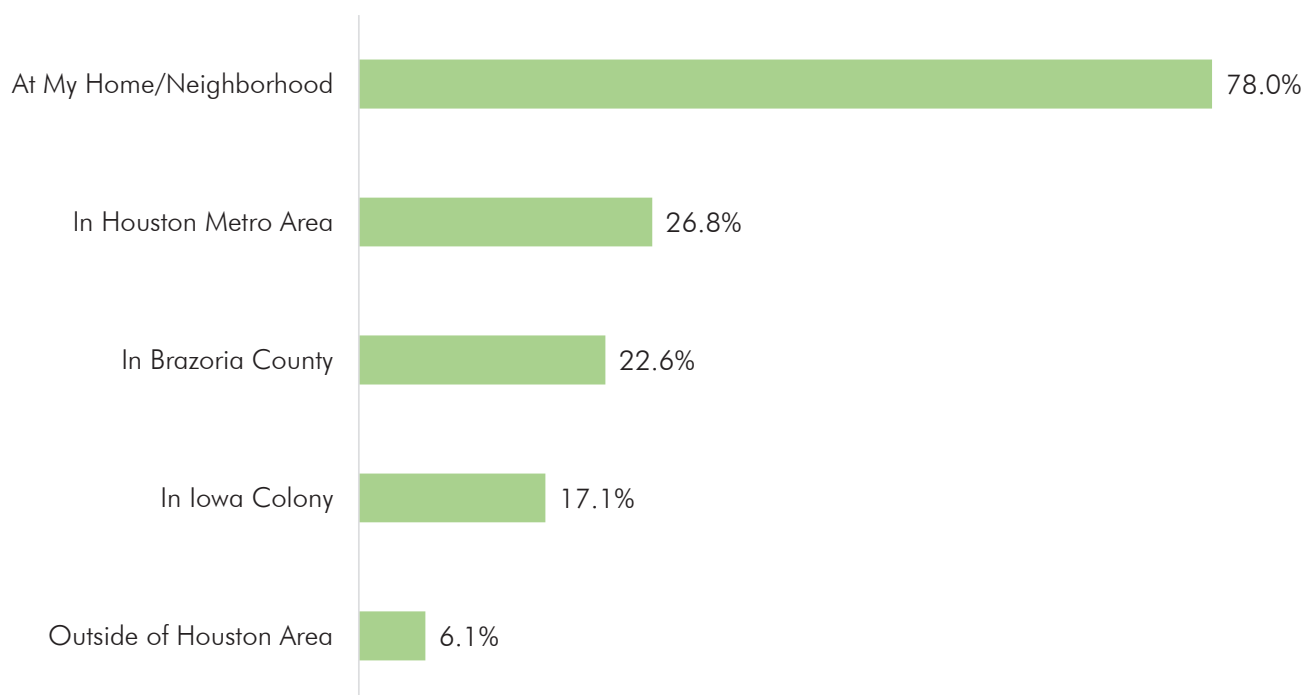
Have you or anyone in your household participated in any of the following activities in the last 12 months?



**Where do you currently spend most of your recreation time for
OUTDOOR activities?**

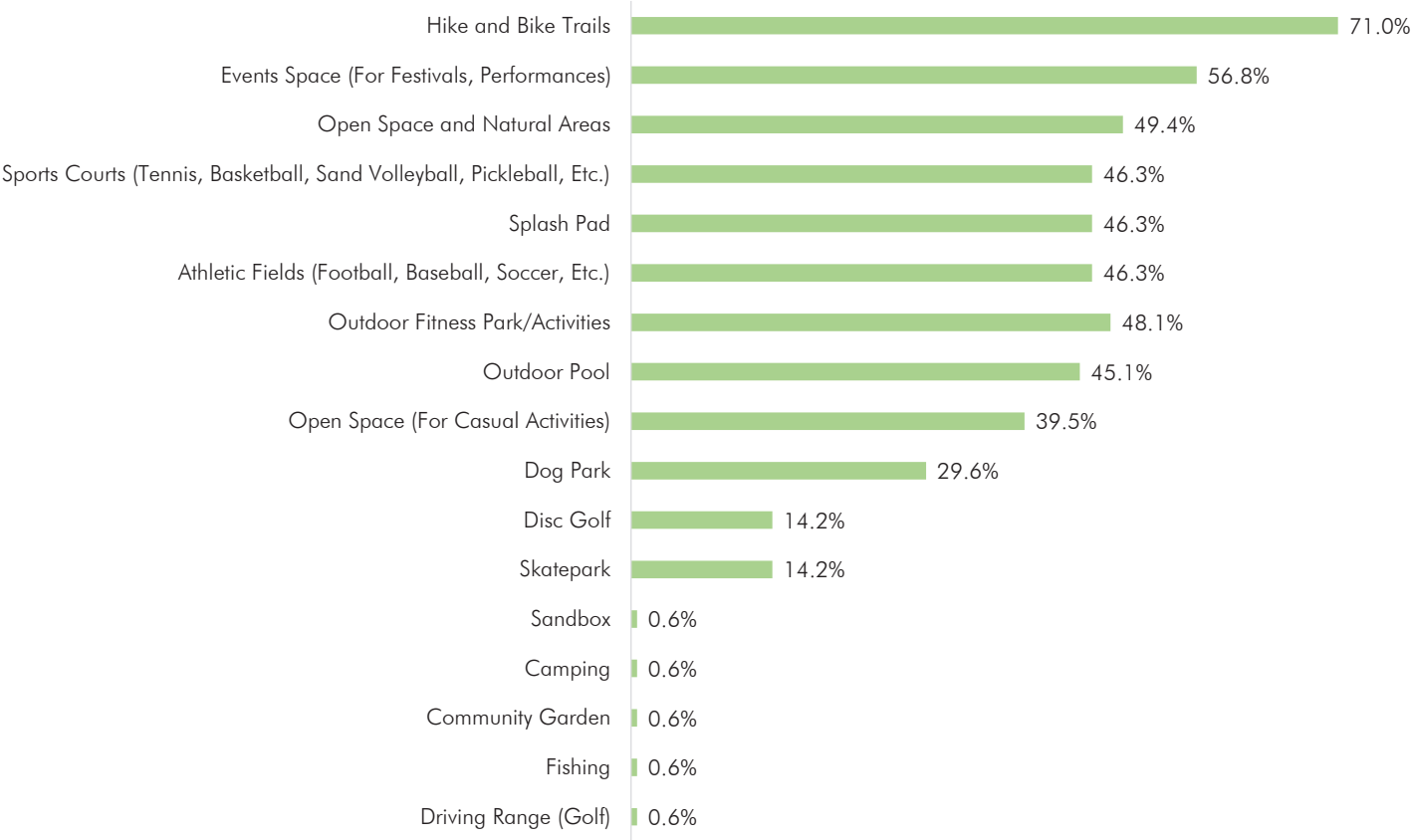


**Where do you currently spend most of your recreation time for
INDOOR activities?**

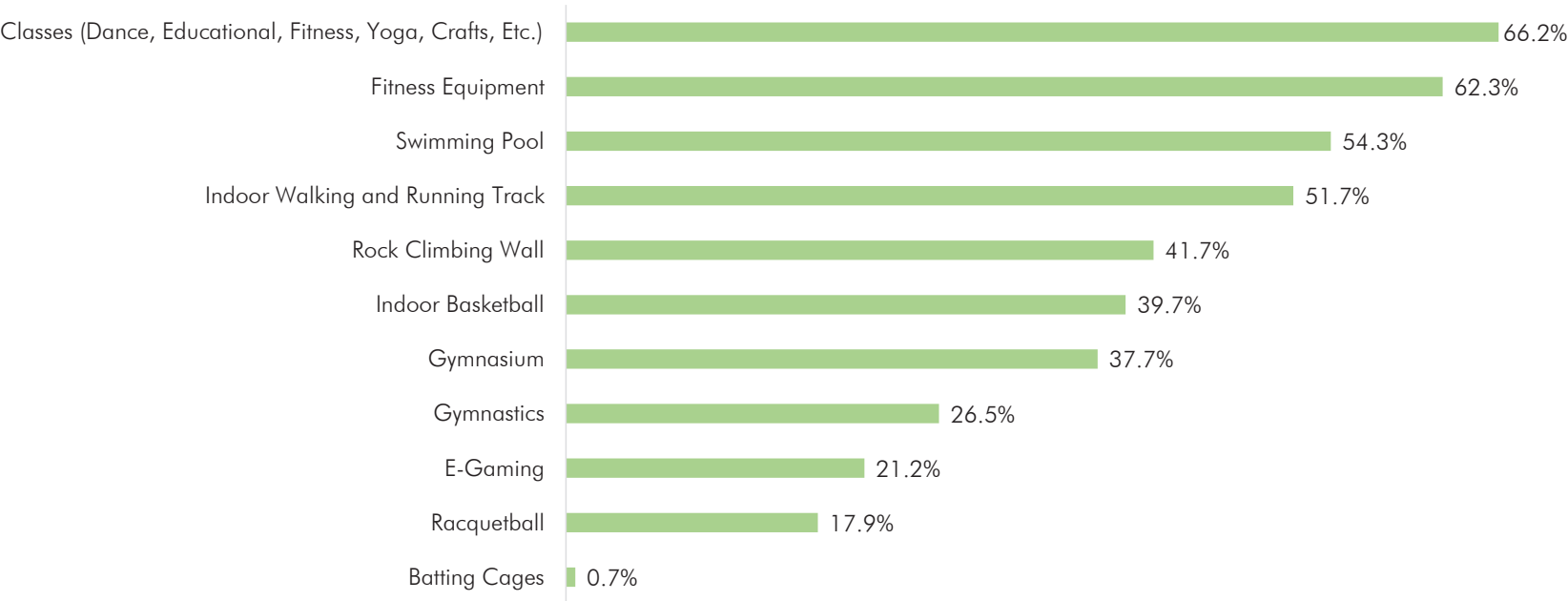


Online Resident Survey

What OUTDOOR activities would you or your family members like to participate in if offered in the future by the Iowa Colony parks system?



What INDOOR activities would you or your family members like to participate in if offered in the future by the Iowa Colony parks system?



What kind of community events you would like to see in Iowa Colony?

The survey responses indicate that the desired community events include concerts, festivals, farmers markets, food truck events, outdoor activities such as 5k runs and biking, holiday events, community service events, and events for children and seniors. There is also a desire for a community center, inclusive events, and a REAL farmers market. Some specific suggestions include a 4th of July celebration with fireworks, a food truck festival, and kickball tournaments. One respondent mentioned a desire for a beach, which may not be feasible in Iowa Colony.

High Priority:

- 4th of July event with live music, fireworks, and bringing communities together
- Festivals and Carnivals
- Farmers markets
- Live music events
- Community center for youth
- Inclusive events that aren't geared toward a specific neighborhood
- Outdoor concerts or music events with food trucks
- Multicultural festivals, fairs, concerts
- Music festival & or Food truck festival
- Celebration of Holidays

Medium Priority:

- 5k/biking/running events
- Easter, Christmas, and New Year events
- Movie nights with food trucks and games
- Kid events
- Parades
- Cook offs

Low Priority:

- Bingo
- Love the 4th of July event. More like it and bringing communities together.
- More indoor activities
- Community swimming lessons

- Music and the arts. Like a musical or play outdoors
- Fun Runs
- Pickleball Tournaments
- Kite fest / chess fest
- Kickball tournaments for preteens/teens/adults
- Zumba, yoga, dog park
- Baseball Little League

Other:

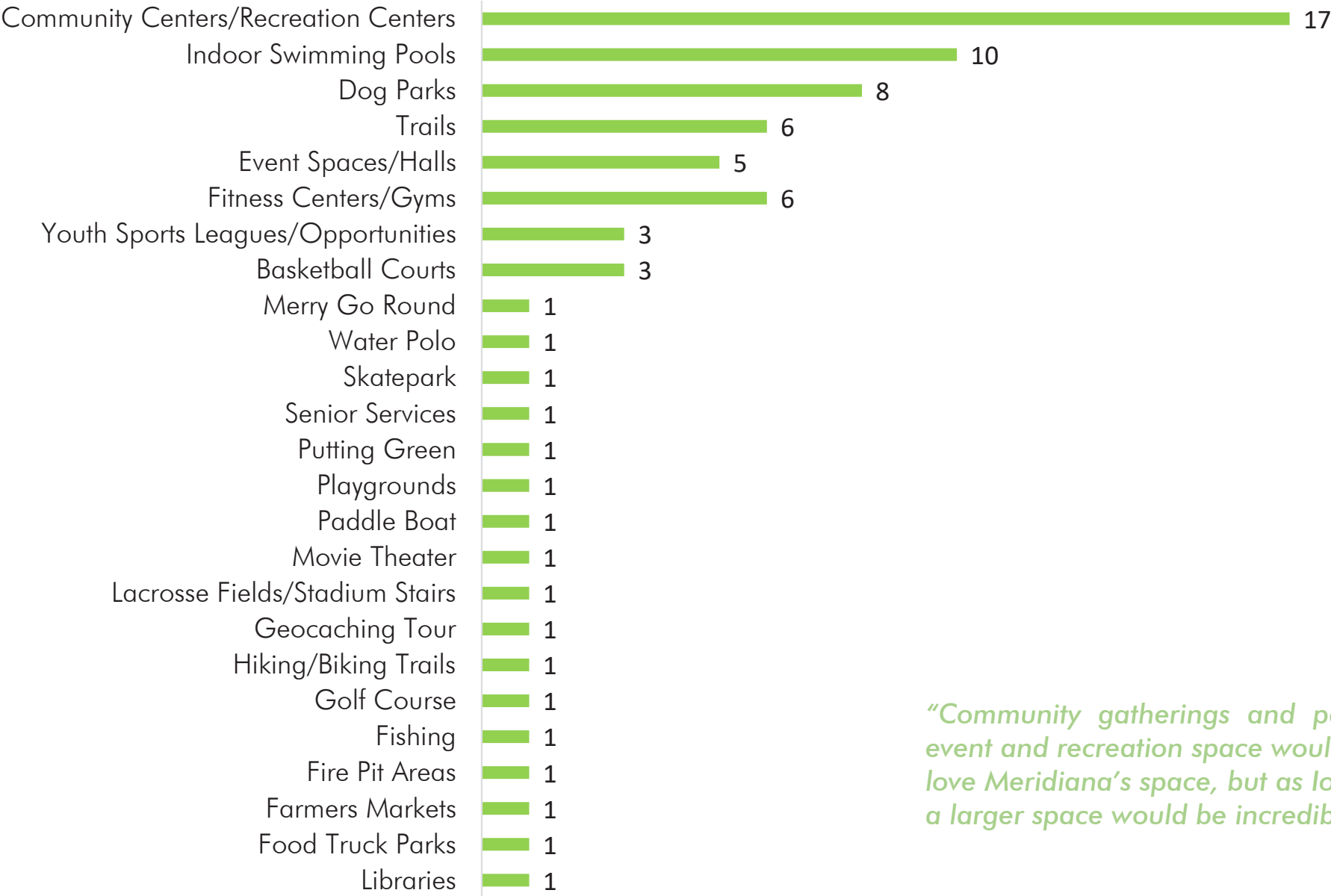
- Keep the 4th of July fireworks!!! Amazing.
- Stuff for special needs community
- A REAL farmers Market with locally grown fruits, vegetables, honey, and bread. None of those "markets" that only have arts and crafts and sponsored multilevel marketing vendors
- Fishing tournaments
- Soccer, fitness workout activities
- Events for the elderly
- Fitness events, gaming
- Huge festivals, sports leagues, concerts, things such as bbq cook offs
- New to the area so I'm open
- Art & crafts fairs, festivals: Halloween, 4th of July, etc.
- Coordinated Christmas lights, city wide garage sale, city egg hunt, city Christmas event.
- Classes
- Cake decorating, floral classes, gardening classes
- Fun Runs, cook offs
- Fairs, Carnivals
- More food truck events
- Arts/craft Fair
- Live music, bingo in the park, movies
- Community gatherings and parades, a central event and recreation space would be amazing. We love Meridiana's space, but as Iowa Colony grows, a larger space would be incredible.

- Sporting events for residents, concerts, food trucks
- BBQ COOKOFF
- Wine festival/holiday themed kids events/ small business fairs/district days

Note: The priority of events can vary depending on factors such as season, availability of resources, and community interests. This categorization is based solely on the survey responses provided.

Online Resident Survey

Are there any other recreation activities, facilities, or amenities that you and your family would like to have in Iowa Colony?



“Community gatherings and parades, a central event and recreation space would be amazing. We love Meridiana’s space, but as Iowa Colony grows, a larger space would be incredible.”
-Citizen Comment

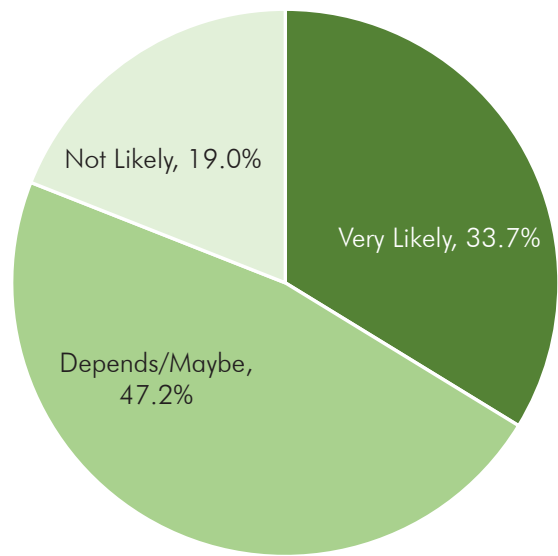
Do you or your family ever experience challenges with access to parks and recreation facilities based on ability, age, or background?

The responses can be further categorized into the following issues:

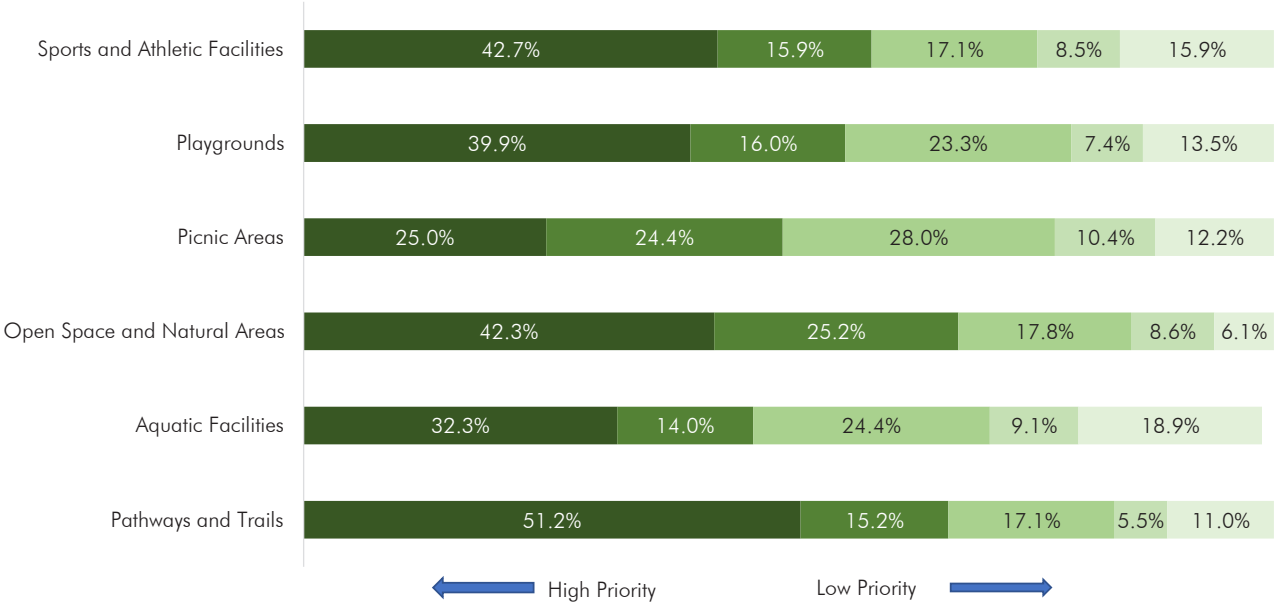
1. Limited or crowded facilities: This includes responses where the participants mentioned that certain facilities, such as basketball courts or tennis courts, were limited in number and often overcrowded, making it difficult for certain groups, such as young children or families, to access them.
2. Accessibility issues: This category includes responses that mention accessibility concerns for individuals with disabilities or special needs, such as the lack of ADA accessible parks or equipment.
3. Maintenance issues: Participants mentioned issues related to the maintenance of parks and recreation facilities, including unclean or vandalized facilities, broken equipment, and outdated playgrounds.
4. Safety concerns: Some participants mentioned safety concerns such as drug use, offensive language, or inappropriate behavior, making it uncomfortable or unsafe for families with young children to use the facilities.
5. Lack of facilities: Participants mentioned that there were no facilities nearby or in their neighborhoods, making it difficult to access parks and recreational activities.
6. Other concerns: Participants mentioned concerns such as the lack of parking, inadequate bathrooms, shade, and limited community access to certain fields or facilities.
7. *It is important to note that some responses may fall under multiple categories.

Online Resident Survey

Please tell us how likely you would be in favor of a tax-supported bond proposal to fund parks and recreation improvements in the future?

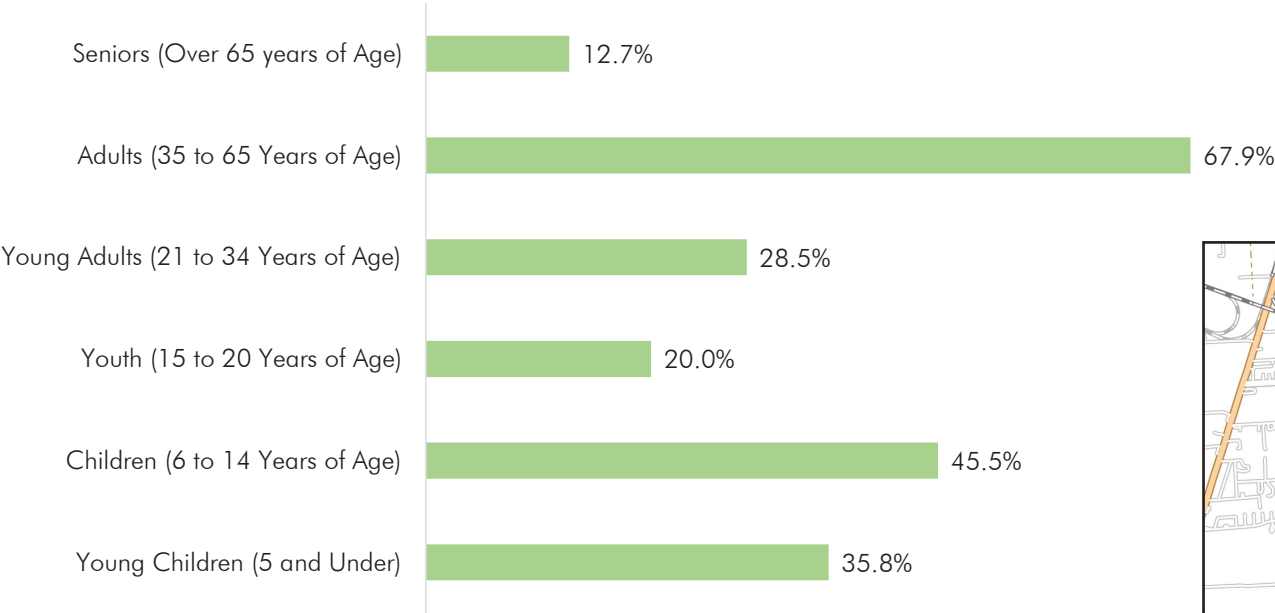


Please rate the priority for the following parks and recreation facilities for you and your family.

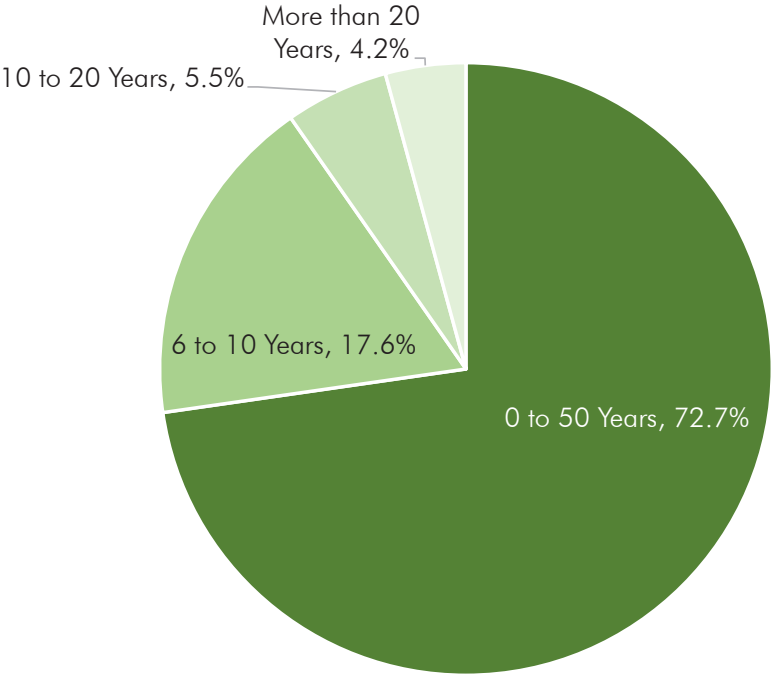


Demand Assessment 02

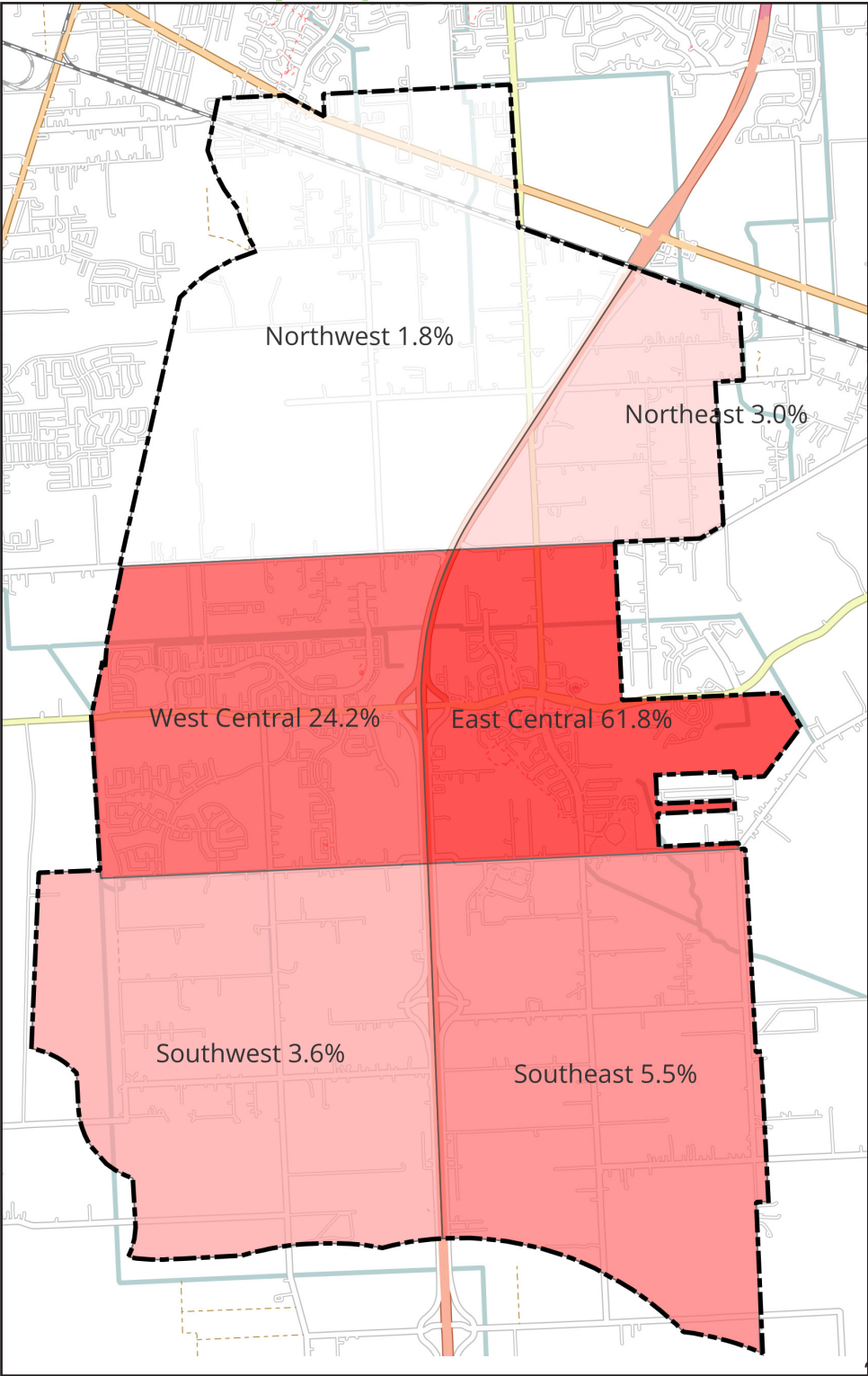
Please check all of the age groups which apply for your household:



How long have you lived in Iowa Colony?



Survey Response Locations



Online Youth Survey

Youth Surveys

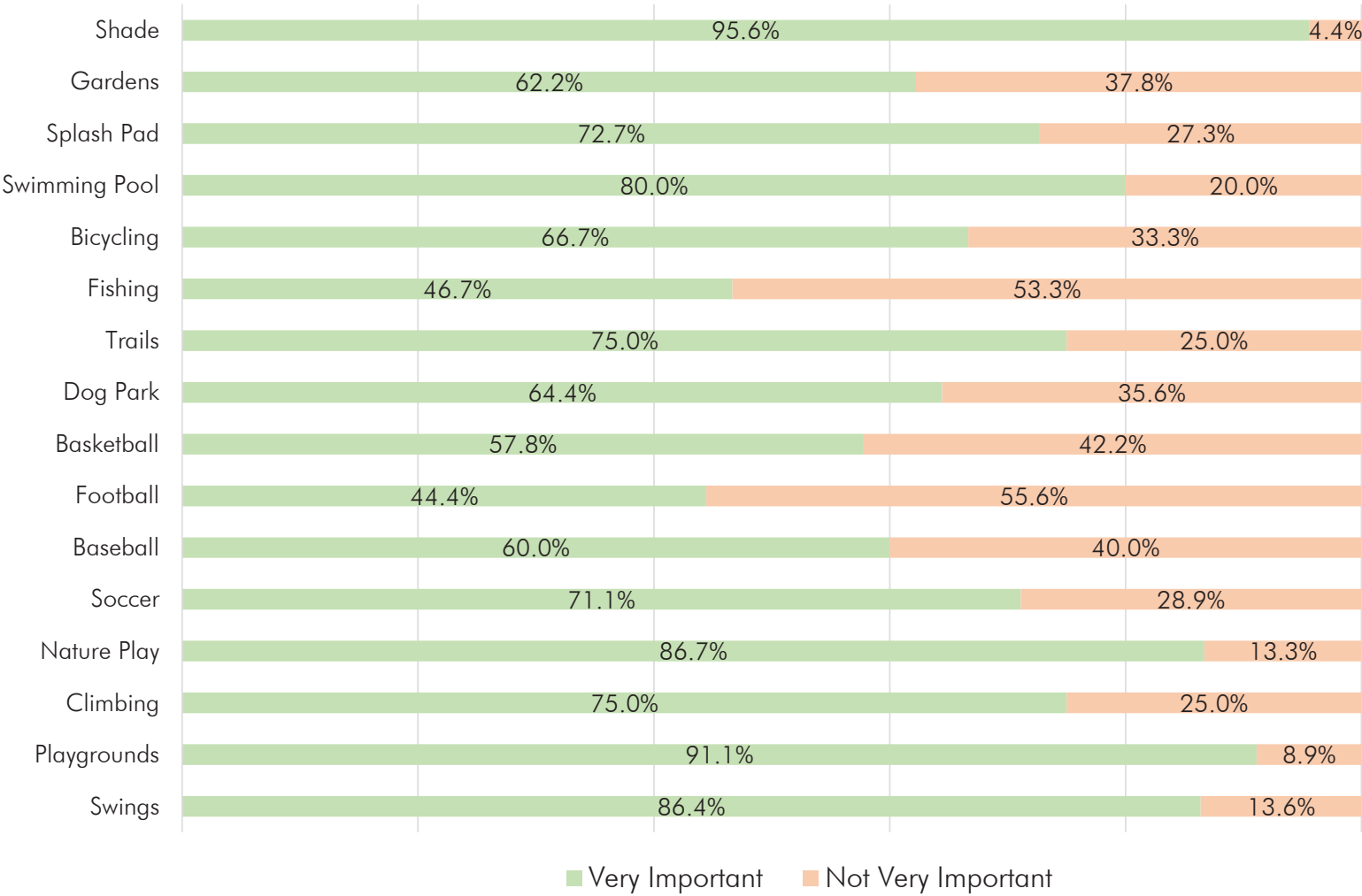
An often under-represented portion of a community during online surveys are the young people. It’s less common for children and teenagers to participate in public discourse, therefore two online surveys were created for distribution to local schools. The surveys targeted to groups of school grades: Kindergarten to 5th Grade and 6th Grade to 12th Grade.

Kindergarten to 5th Grade

A total of 45 responses were received from youth from Kindergarten through 5th Grade. The survey was formatted as a ‘visual preferences’ questionnaire whereby participants were asked how important selected features and activities were for a new park. Each topic was accompanied by a representative image with an option to select ‘Very Important’ or ‘Not Very Important’.

The results of the survey of elementary school children provide great insight into what they value the most in parks. At the top of the list of ‘Very Important’ features and activities were SHADE at 95.6%, followed closely by PLAYGROUNDS at 91.1%. SWINGS and NATURE PLAY also rated high at 86.4% and 86.7% respectively. Notably, the features and activities rated the least important were FOOTBALL at 44.4%, FISHING at 46.7%, and BASKETBALL at 57.8%.

If a new park is built, how important are the following activities?





Shade



Gardens



Splash Pad



Swimming Pool



Bicycling



Fishing



Trails



Dog Park



Basketball



Football



Baseball



Soccer



Nature Play



Climbing



Playgrounds



Swings

Online Teen Survey

A second youth survey was developed to identify recreation priorities for teenagers in Iowa Colony. The survey targeted youth from 6th Grade through 12th Grade and was comprised mostly of open-ended questions that gave participants room for creative responses. A total of 40 responses were received from teens ranging from 6th Grade to 11th Grade. The largest number of responses came from 7th and 8th graders, while none were received from 12th graders.

Teenagers in Iowa Colony have diverse recreational interests ranging from team sports to adventure sports, fitness activities, walking, bicycling, and more. This suggests the need to be creative with design of new parks to provide a rich array of passive and active recreation opportunities for the community.

What recreational activities do you enjoy doing in parks?

Sports Activities:

Basketball: 6 responses
Soccer: 4 responses
Baseball: 3 responses
Football: 2 responses
Volleyball: 3 responses
Tennis: 2 responses
Softball: 2 responses
Disc Golf: 1 response

Recreational Activities:

Swimming: 4 responses
Rock wall climbing: 1 response
Roller skating: 1 response
Dancing: 2 responses
Running: 3 responses

Exercise/Fitness Activities:

Running: 3 responses
Hiking: 1 response
Yoga: 3 responses
Working out: 2 responses
Weight room: 1 response

Playground Activities:

Swings: 2 responses
Slides: 2 responses
Monkey bars: 2 responses
Picnicking: 5 responses

Trail-Oriented Activities:

Walking/Hiking: 4 responses
Walking trails: 2 responses
Walking the dogs: 2 responses
Biking/Cycling: 3 responses
Mountain bike trail rides: 1 response
Bike trails: 2 responses

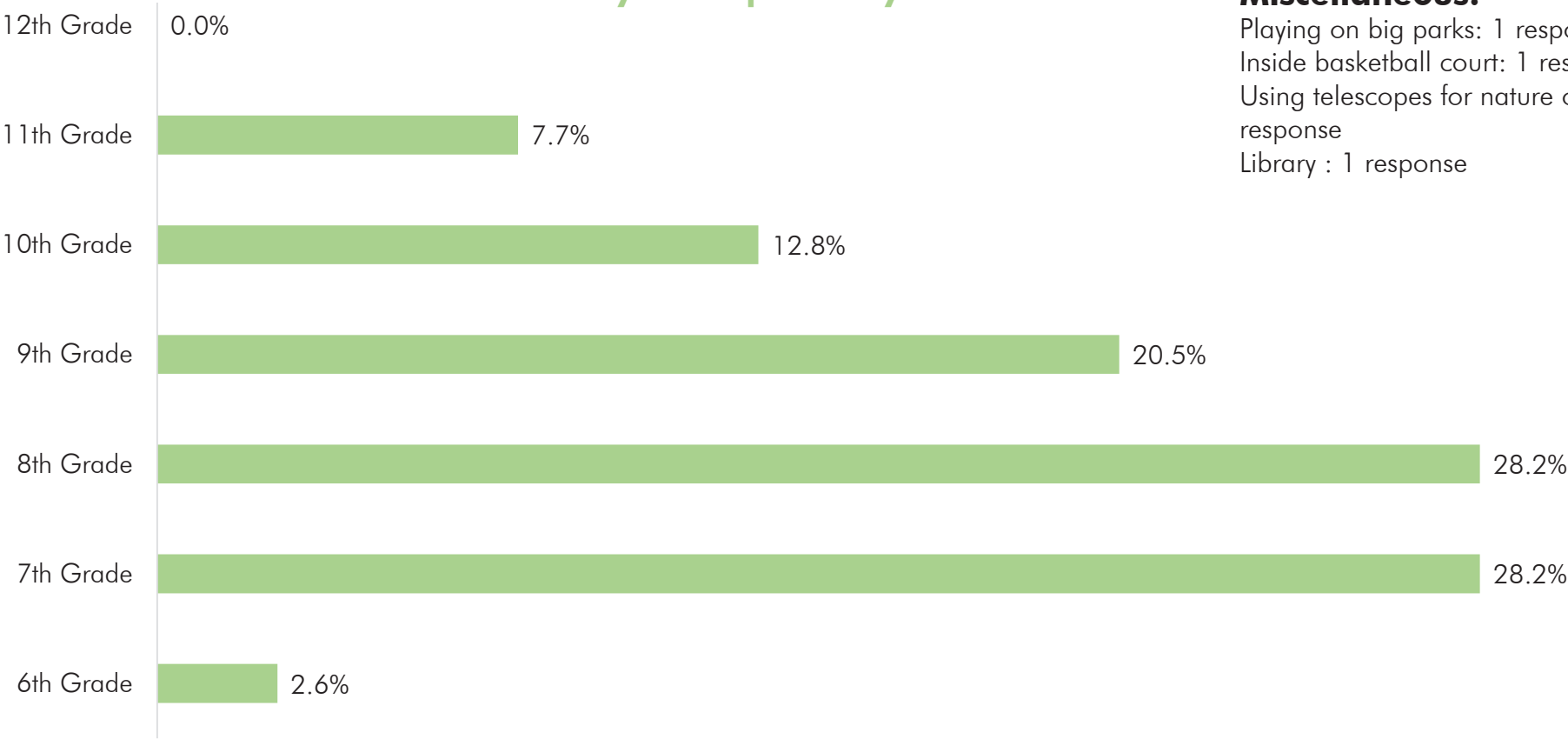
Bringing the community together:

Day or night market: 1 response
Yoga: 1 response
Picnic & movie nights: 1 response
Gardening: 1 response
Shows: 1 response
Festivals: 1 response
Creative Activities: 1 response
Community Events: 1 response
Drawing: 1 response

Miscellaneous:

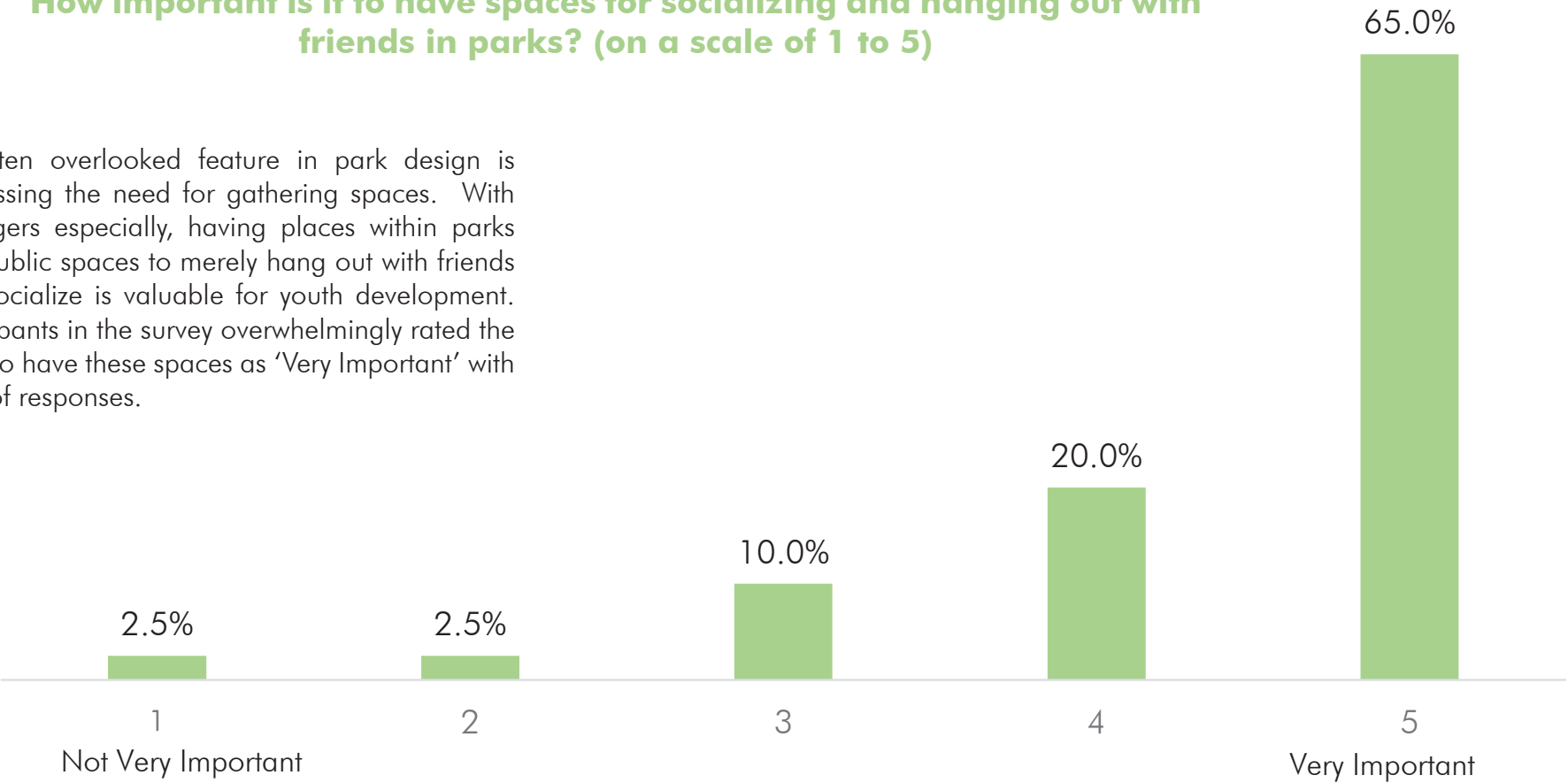
Playing on big parks: 1 response
Inside basketball court: 1 response
Using telescopes for nature observation: 1 response
Library : 1 response

Teen Survey Participation by Grade



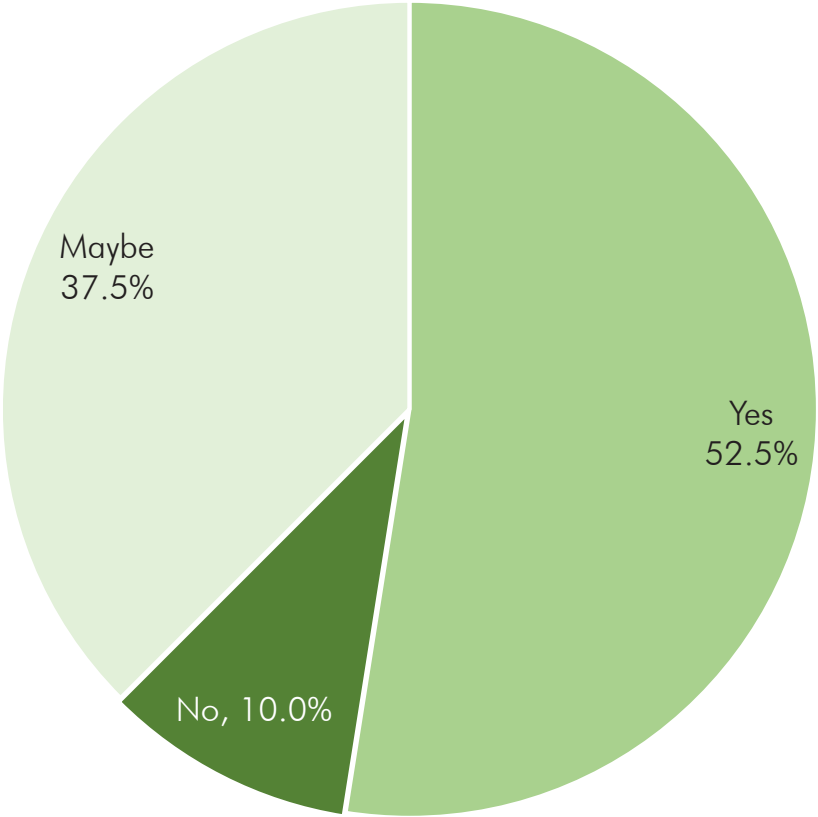
How important is it to have spaces for socializing and hanging out with friends in parks? (on a scale of 1 to 5)

An often overlooked feature in park design is addressing the need for gathering spaces. With teenagers especially, having places within parks and public spaces to merely hang out with friends and socialize is valuable for youth development. Participants in the survey overwhelmingly rated the need to have these spaces as ‘Very Important’ with 65% of responses.



Would you like to see more interactive and technology-based features in parks (e.g.: augmented reality games or outdoor fitness tracking)?

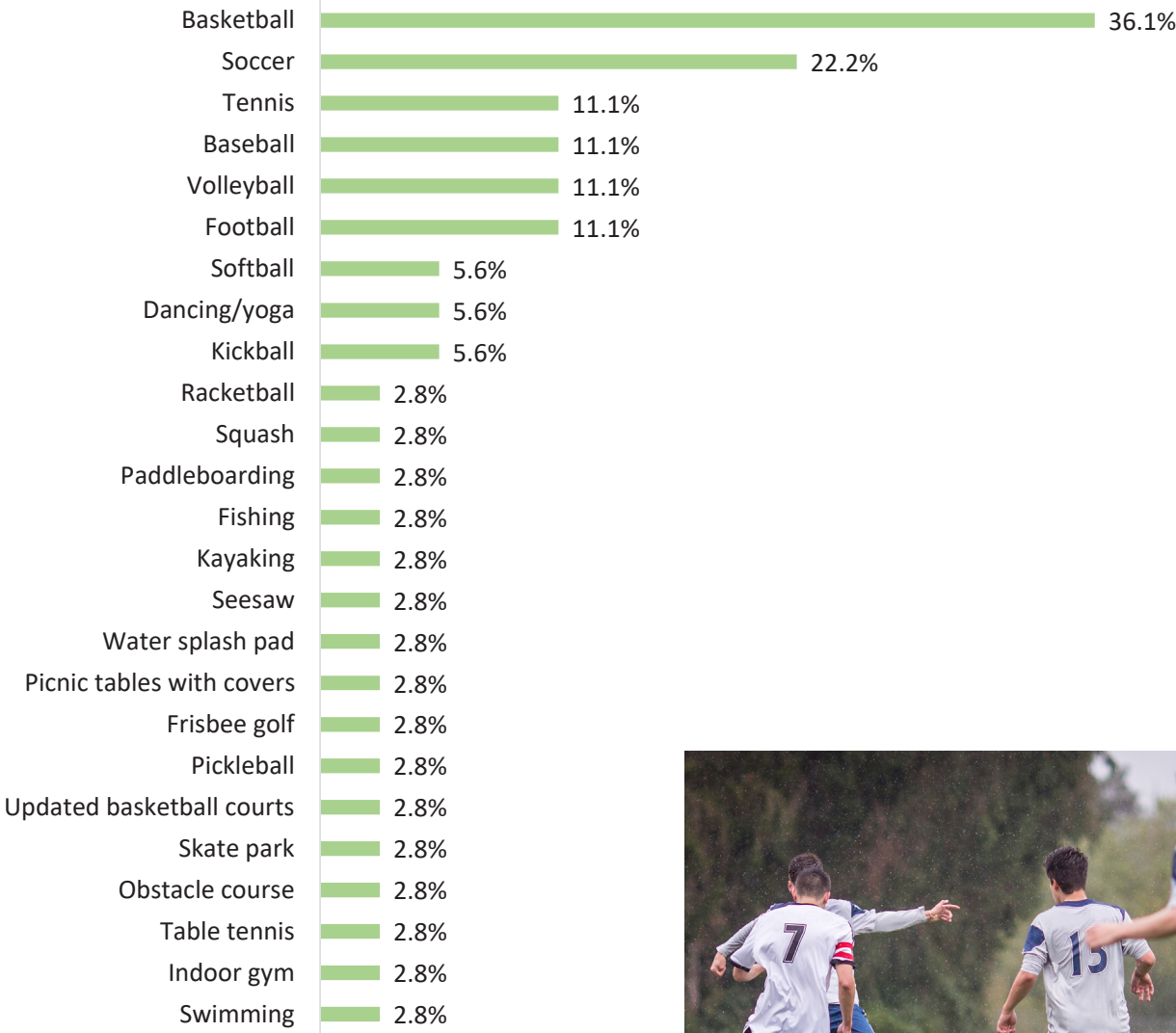
Parks and public spaces are changing with the times. No longer are picnic areas and playgrounds sufficient to meet the community’s needs. New technologies are finding their way into parks with features such as interactive games, fitness tracking/guidance, and other features. Over half of survey participants indicated they would be interested in such features.



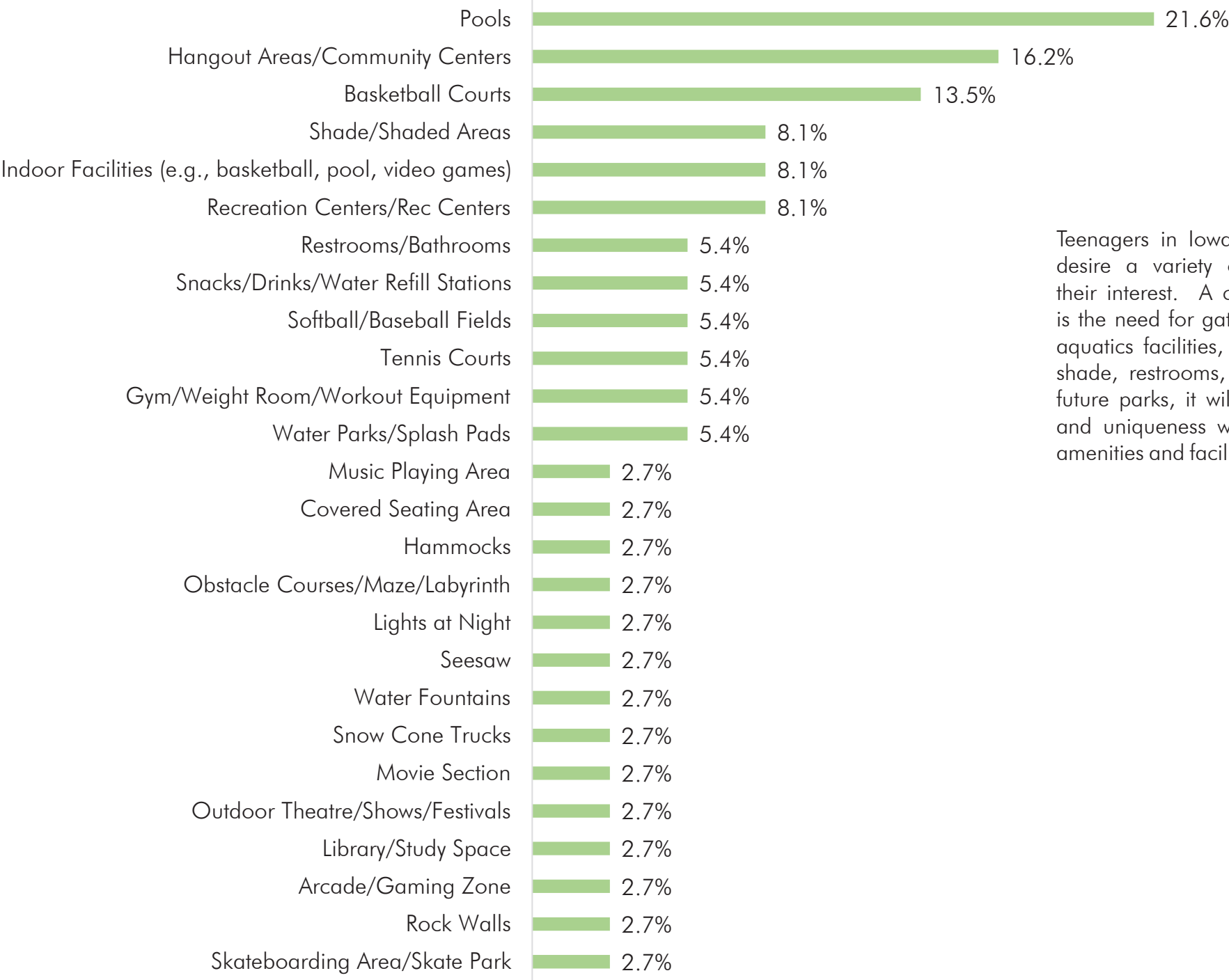
Online Survey

Sports, games, and other active recreation interests vary significantly among teenagers in Iowa Colony. Some of the most popular activities identified during the youth survey include Basketball, Football, Volleyball, Baseball, and Tennis.

Are there any specific sports or games you would like to have available in parks for teenagers?



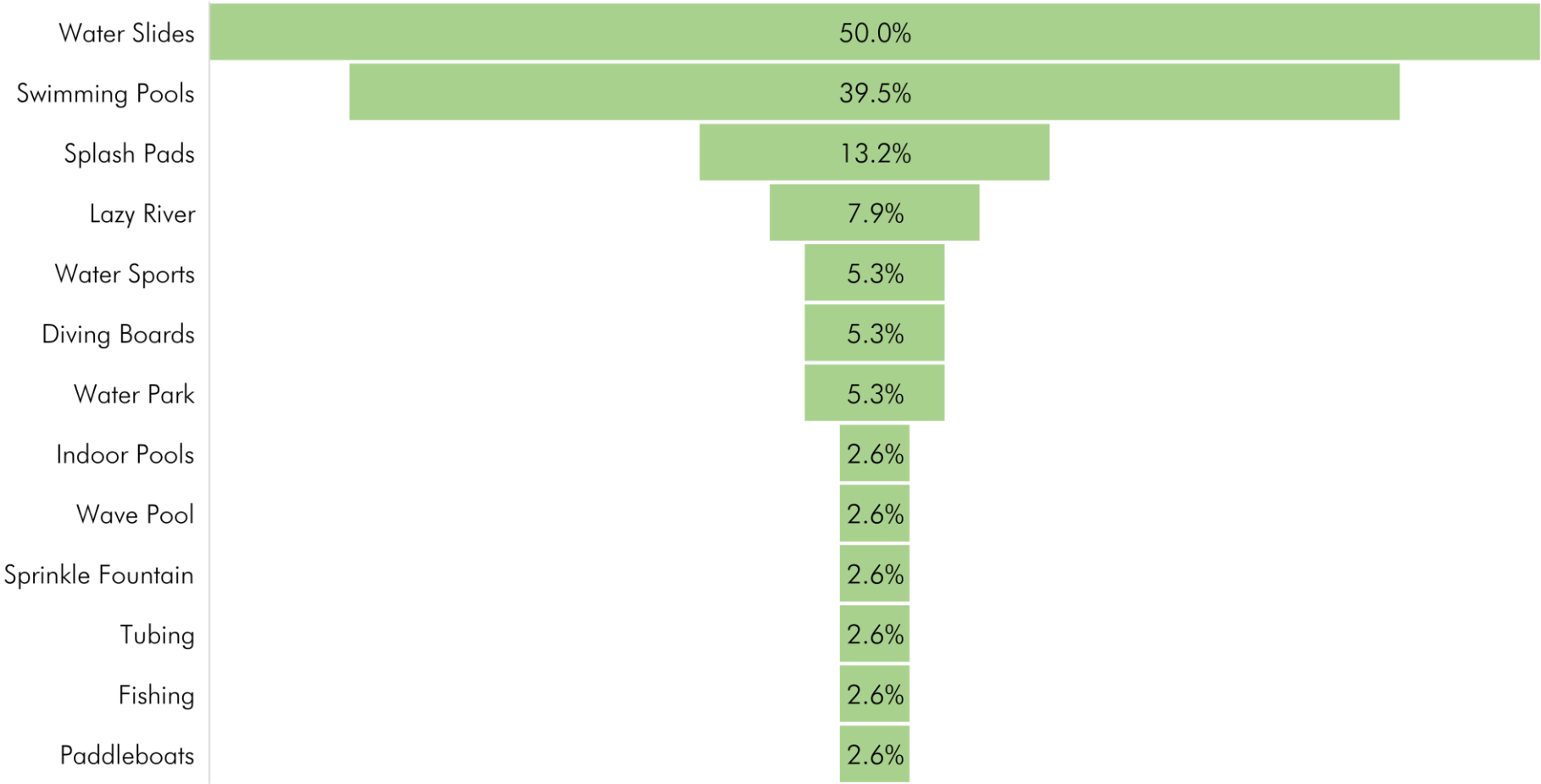
What types of amenities or facilities would make parks more appealing to teenagers?



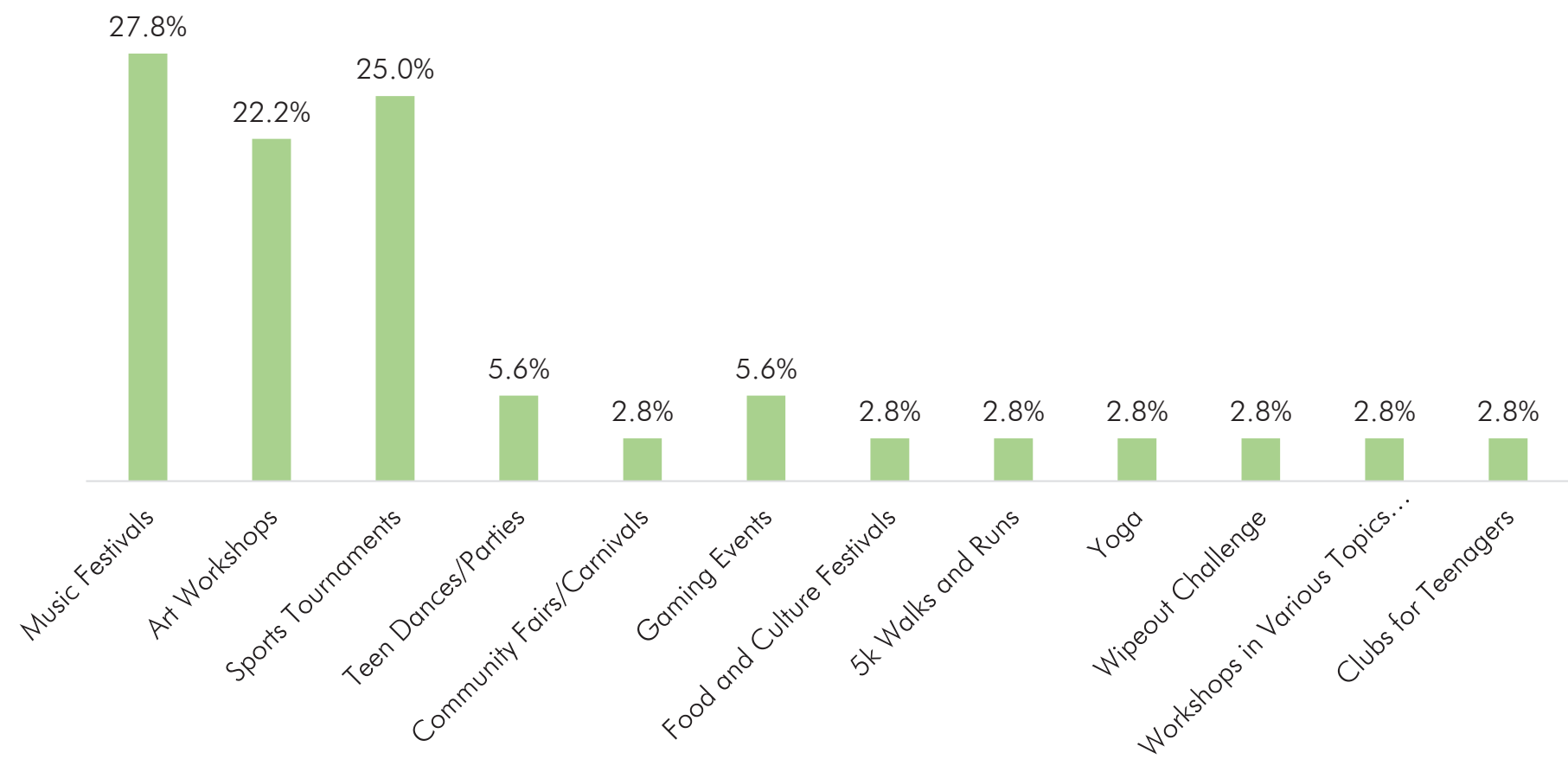
Teenagers in Iowa Colony are highly active and desire a variety of recreation choices to keep their interest. A common theme from the survey is the need for gathering spaces, athletic facilities, aquatics facilities, and comfort amenities such as shade, restrooms, and seating. During design of future parks, it will be important to seek diversity and uniqueness when programming the types of amenities and facilities that are included in the park.

Online Survey

Are there any water-related features or activities you would like to see in parks (e.g., swimming pools, water slides, or water sports)?

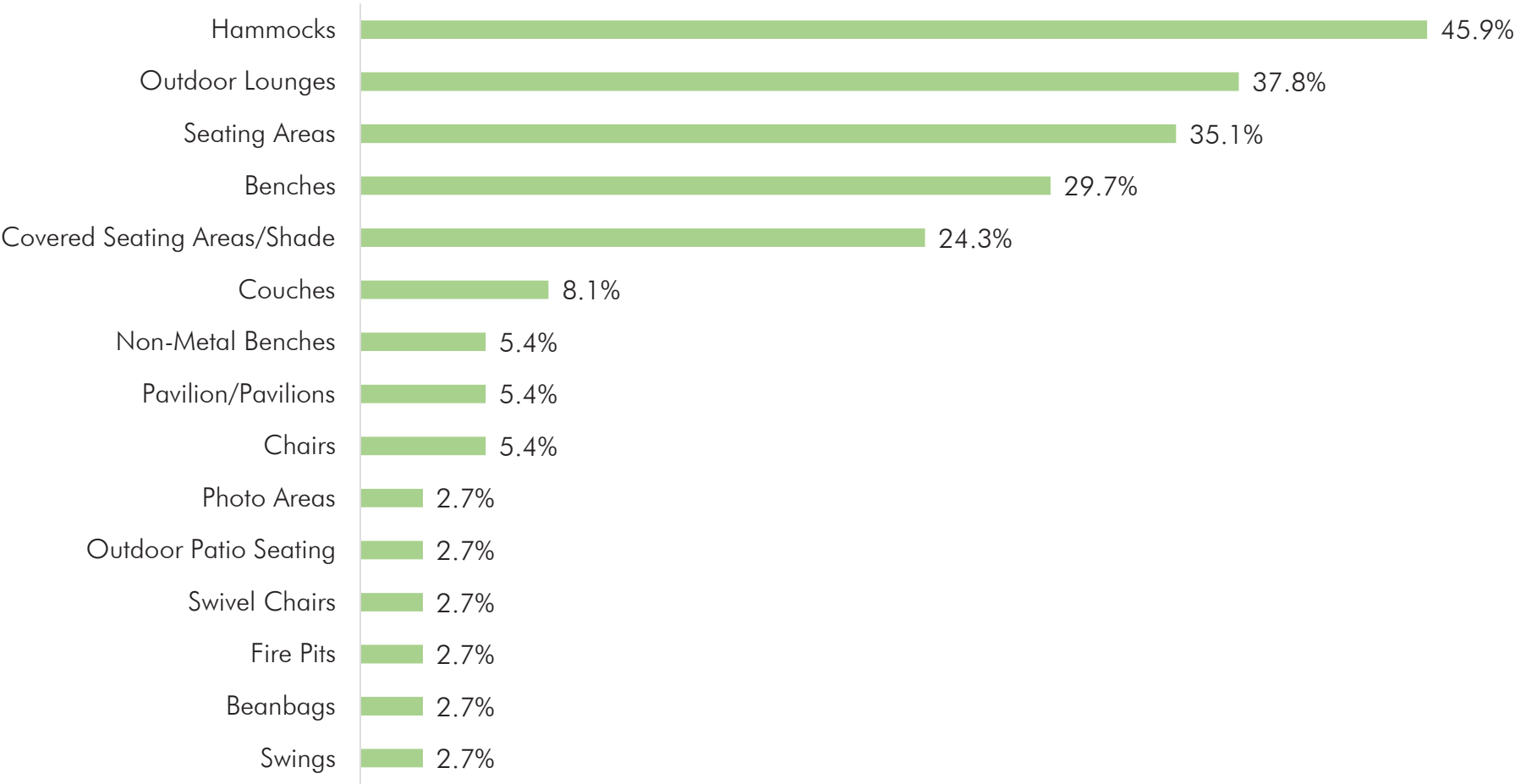


Are there any specific events or programs you would like to see organized in parks for teenagers (e.g., music festivals, art workshops, or sports tournaments)?



Online Survey

What seating options would you like to have in parks for relaxation or socializing with friends (e.g., seating areas, hammocks, or outdoor lounges)?



Is there anything else you would like to add or suggest to improve your experience in city parks as a teenager?

Trails and Outdoor Activities:

Trails in the woods along creeks for biking (like in Sugarland): 1 response
Areas to play board games outside: 1 response
Trails for bike riding, sidewalks for in-line skating or walking: 1 response
Skate area for both skateboarding and roller skating: 1 response

Amenities and Facilities:

Cafe or food-related establishment: 1 response
Shaded areas: 2 responses
Charging station at parks: 1 response
Library: 1 response
Sno-cones: 1 response

Safety and Security:

24-hour surveillance cameras: 1 response
Safe place for friends and I: 1 response

Social and Community Activities:

Events for teenagers to give something to do in the neighborhood: 1 response
Clubs: 1 response
Something I could do with my parents: 1 response

Lighting:

Add lights: 1 response



Parks Planning Workshop

A parks planning workshop was conducted on March 28th, 2023 at Iowa Colony City Hall. A total of 23 participants came to the event, including residents, City Council members, and City Staff.

The meeting format was a facilitated workshop whereby the consultants guided participants through a series of discussion topics. Participants sat in small groups and discussed each topic amongst their groups, and then each group presented their findings to the larger audience.

The comments from the public workshop suggest a wide range of desires and priorities for the parks and recreation system. After summarizing the comments, the following items emerge as the highest priority:

1. More Walking Trails: The community is interested in expanding the network of walking trails, which indicates a strong desire for outdoor recreational opportunities.
2. Library and Museum: The inclusion of a library and museum suggests a desire for educational and cultural facilities within the parks and recreation system.
3. Amphitheater: An amphitheater is desired, indicating a need for a space to host events, performances, and entertainment.
4. Community Space for Events: A community space is needed for hosting various events and gatherings, indicating a strong focus on bringing the community together.

5. Indoor Pool and Indoor Track: An indoor pool and track are desired, highlighting the importance of indoor recreational opportunities, especially in inclement weather.

6. Senior Events: Special events and facilities catering to senior citizens are desired, indicating a need for diverse programs and inclusivity for all age groups.

7. Multi-Generational Special Needs: Facilities and amenities for individuals with special needs are important to ensure inclusivity and accessibility.

8. Connections and Bike Trails: The community emphasizes the need for well-connected pathways, bike trails, and safe walking routes, which indicates a focus on accessibility and transportation alternatives.

9. Outdoor Movie Theater: An outdoor movie theater is desired, suggesting a demand for unique and social entertainment options.

10. Pickleball and Tennis Courts: The need for pickleball and tennis courts suggests a demand for active recreational activities.

11. Dog Parks: The inclusion of dog parks indicates a consideration for pet-friendly spaces and the needs of pet owners.

12. Fishing Areas and Boating Access: Fishing areas and boating access are desired, reflecting an interest in water-based recreational activities.

13. Community Gardens: The desire for community gardens indicates an interest in shared green spaces and potential opportunities for gardening and agriculture.

14. Accessible Facilities: The community emphasizes the importance of accessibility, with features like ramps, wide pathways, and lighting.

15. Quality of Life Amenities: The community expresses a desire to enhance the overall quality of life through diverse amenities and recreational offerings.

16. Unity and Community Gathering: A unified community is a priority, and facilities like amphitheaters, libraries, and information walls can play a role in bringing people together.

17. Information and Promotion: The need for information walls, kiosks, and promotion of future events suggests a desire for effective communication within the community.

18. Swimming Facilities: There's a demand for swimming facilities, including recreational and public pool options.

19. Youth and Family Programs: The demand for various camps, science programs, and activities highlights a desire to cater to the needs of youth and families.

20. Shaded Areas and Seating: The importance of shaded areas and ample seating indicates consideration for comfort and relaxation within the park spaces.

Demand Assessment 02



Walkability



01

**Inventory &
Analysis**

02

**Demand
Assessment**

03

Walkability

04

**Natural
Resources**

05

**Priority
Projects**

06

**Action
Plan**

07

Appendix

03 Walkability

Planning for Walkability

Defining Walkability

Walkability is defined in many ways, but is almost always based on three principles:

“Physical Access”

Refers to the infrastructure available to facilitate safe pedestrian travel to a destination. This can take the form of sidewalks, trails, open space and corridors.

“Places”

Refers to the presence of public destinations such as schools, work, shopping, food service, parks and other recreational activities.

“Proximity”

Refers to the walkable distance to destinations. An acceptable distance to a variety of destinations would be approximately one mile or 10 to 15 minute walk from a given location.

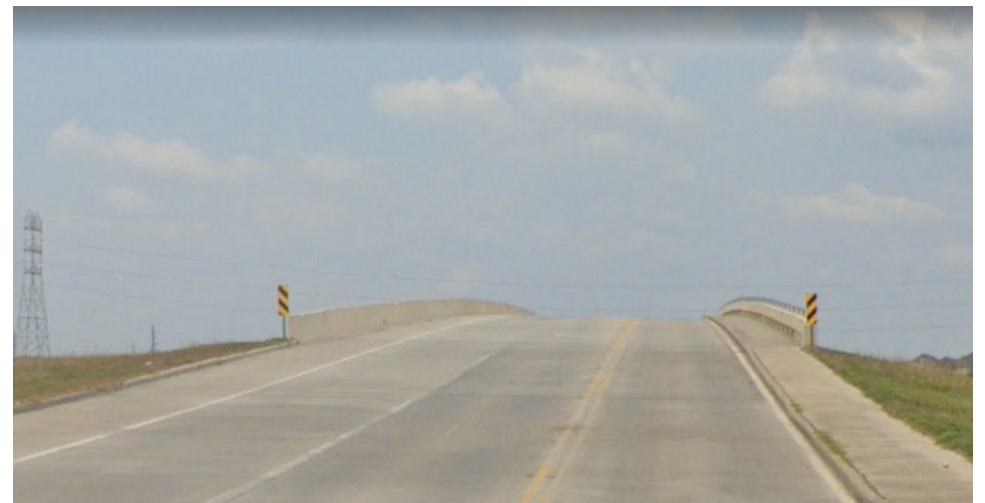
The Need

Iowa Colony is largely comprised of new residential subdivisions that were developed with trails and sidewalks along major thoroughfares and collector streets within the neighborhoods. These pathways connect homes to local parks and schools. The Sierra Vista subdivision also has bike lanes along Sierra Vista Blvd. to facilitate safe travel north to south through the neighborhood.

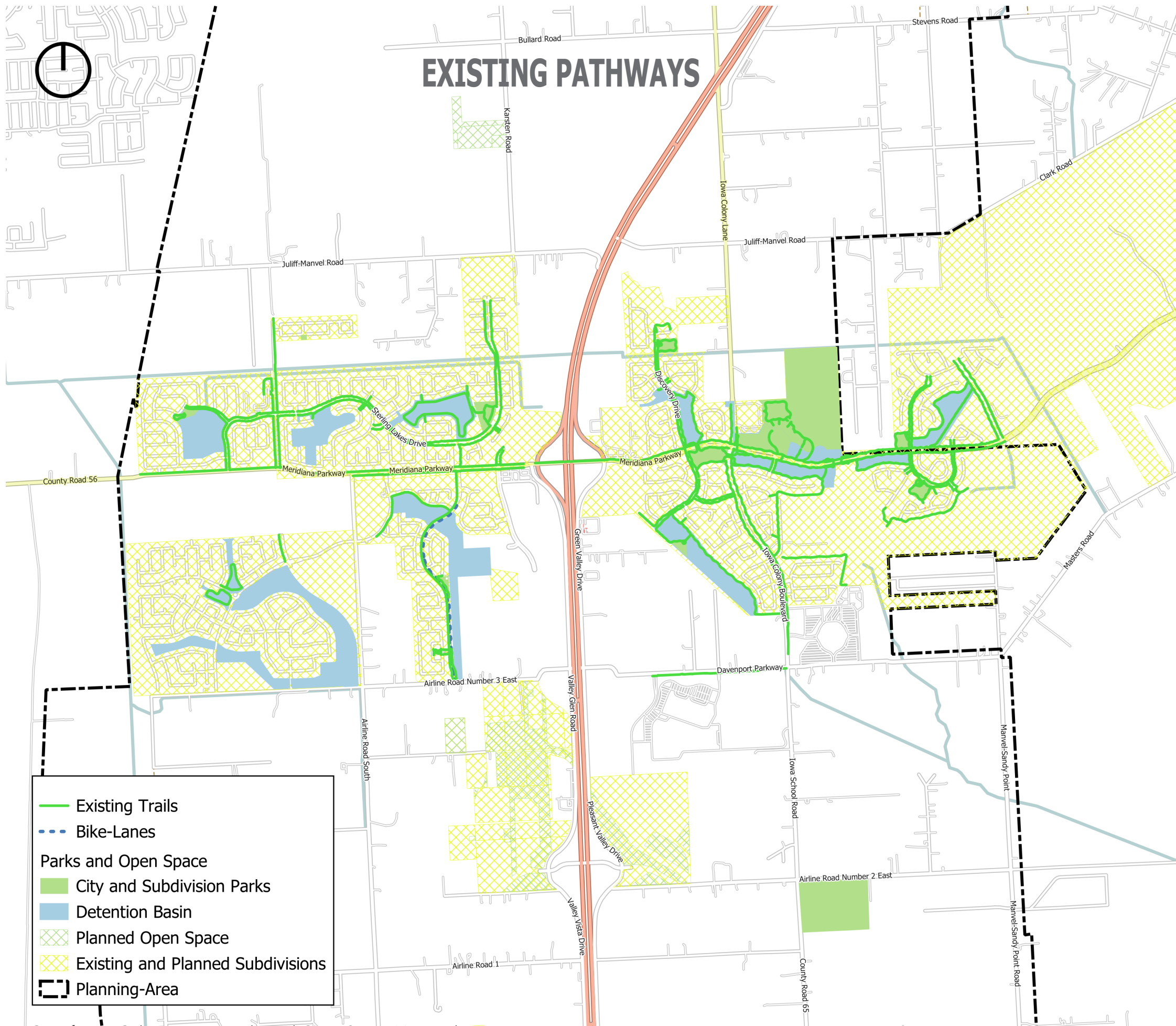
One of the most significant challenges to connectivity in Iowa Colony is how to connect the neighborhoods on the west side of State Highway 288 to the east side. The bridge across the freeway along Meridiana Pkwy. does include a sidewalk for pedestrian crossing, but it is not ideal for two-way traffic for bicycles and pedestrians.



The existing bike lane along Sierra Vista Boulevard runs from Davenport Parkway to Tyndall Mist Drive along both sides of the road.



The existing sidewalk along Meridiana Parkway bridge across State Highway 288.



Existing Pedestrian and Bicycle Activity

Understanding where residents are currently walking, running, and bicycling throughout Iowa Colony helps to identify where there may be gaps in infrastructure such as pathways, and bike lanes.

According to a survey of residents in Iowa Colony, 68.6% participated in running or jogging in the last 12 months. Another 47.2% reported bicycling in the last 12 months. When asked what type of outdoor activities they would like to participate in, 70.3% selected hike and bike trails. This indicates a clear need to support this type of recreation with appropriate off-street pathways and bike lanes.

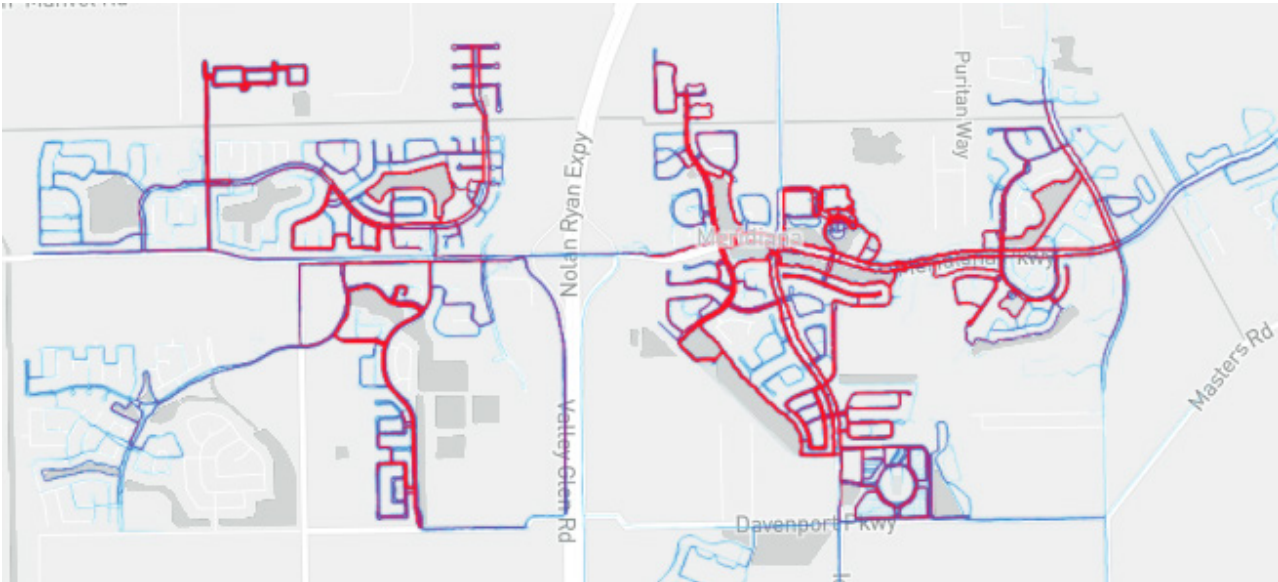
Crowd-Sourced Data

Smartphones, smartwatches, and activity trackers are part of our daily lives and provide countless tools for enhancing recreational experiences. Many people are using apps such as STRAVA on their smart devices to track their recreation and exercise activities on a regular basis. STRAVA aggregates these data and filters out anomalies to create an online map of user activity. Data are filtered to protect the privacy of users and eliminate data generated when users forget to turn off the app while driving. The results yield an interactive map of where users are walking, running, and bicycling in the community.

The STRAVA data paint a clear picture of where the most popular routes exist and help to plan for additional infrastructure to increase connectivity between neighborhoods, schools, shopping areas, and parks. The pedestrian activity is most frequent along the pathways within subdivisions, with minimal travel in between neighborhoods and public spaces. Bicycle activity is primarily along major thoroughfares and collector streets. Notably, east to west travel across SH288 is very limited due to the lack of available crossings.

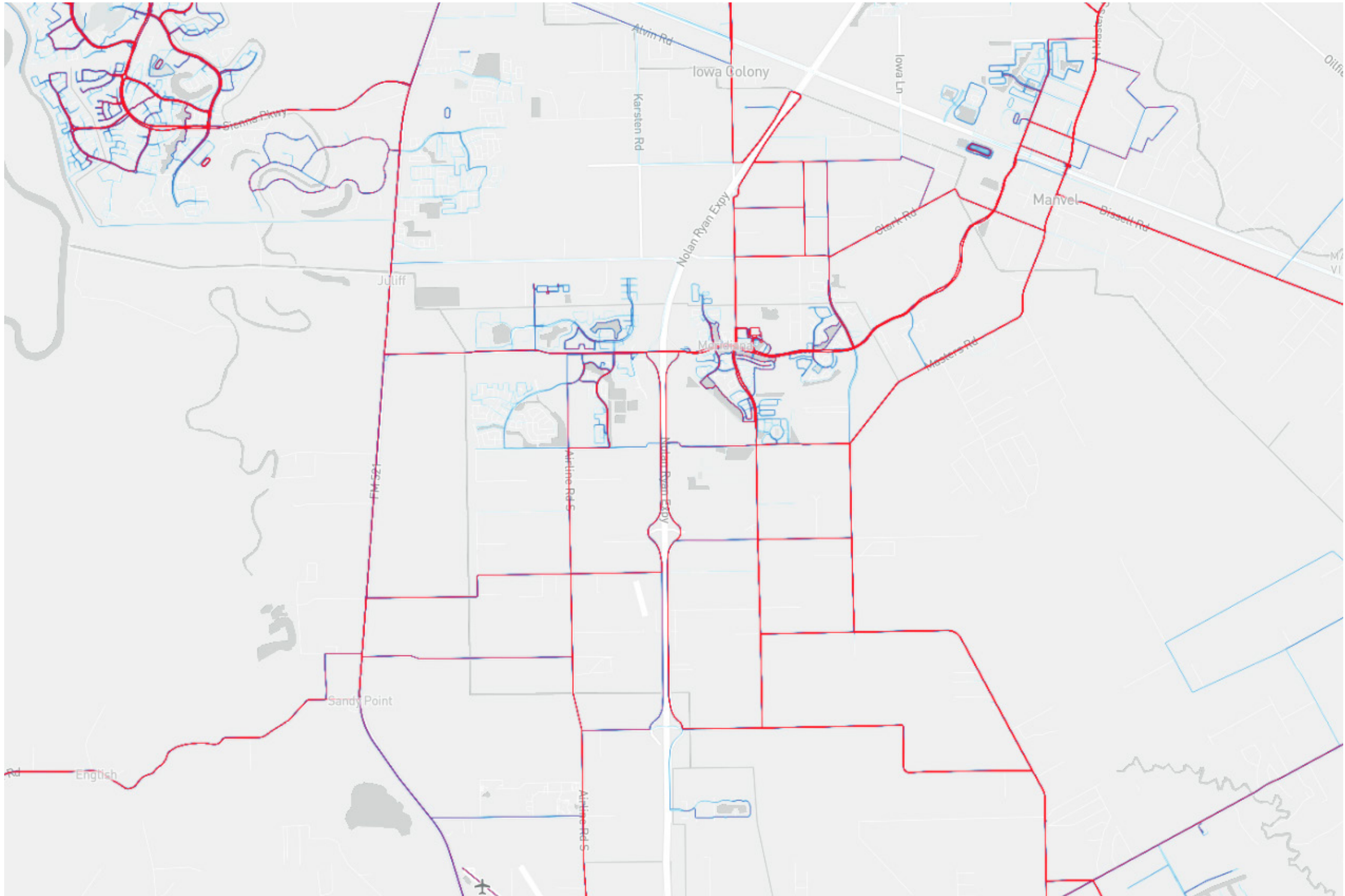


View of STRAVA pedestrian activity in the most developed areas of Iowa Colony. In the map below, blue areas show moderate activity and red areas show higher levels of pedestrian activity.



City of Iowa Colony, Texas - Parks and Open Space Master Plan

STRAVA Pedestrian and Bicycle Activity



Pedestrian and bicycle activity as tracked by STRAVA users in Iowa Colony.

Trail Opportunities

Planning new off-street trails, bike lanes, and other forms of pedestrian and bicycle transportation requires creative use of existing corridors such as roadways, creeks, bayous, drainage canals, easements, and rights-of-way to connect people to places.

GCWA Rights-of-Way

The Gulf Coast Water Authority operates approximately 400 miles of canals as a water supply for agricultural, industrial, and municipal customers. The GCWA canals running through Iowa Colony create an opportunity for significant connections across the community.

The GCWA has partnered with the City of Missouri City, TX to allow the City to create a recreational trail along a portion of their canal. The connects Independence Park, The Sta-Mo Sports Complex, the Missouri City Recreation Center, and numerous neighborhoods. It is wor



GCWA canal crossing Meridiana Parkway.



GCWA canal crossing at Iowa Colony Blvd.



Precedent example of a trail along a GCWA canal in Missouri City. The decomposed granite trail runs alongside Independence Park and the Recreation Center and connects several neighborhoods.

West Fork Chocolate Bayou

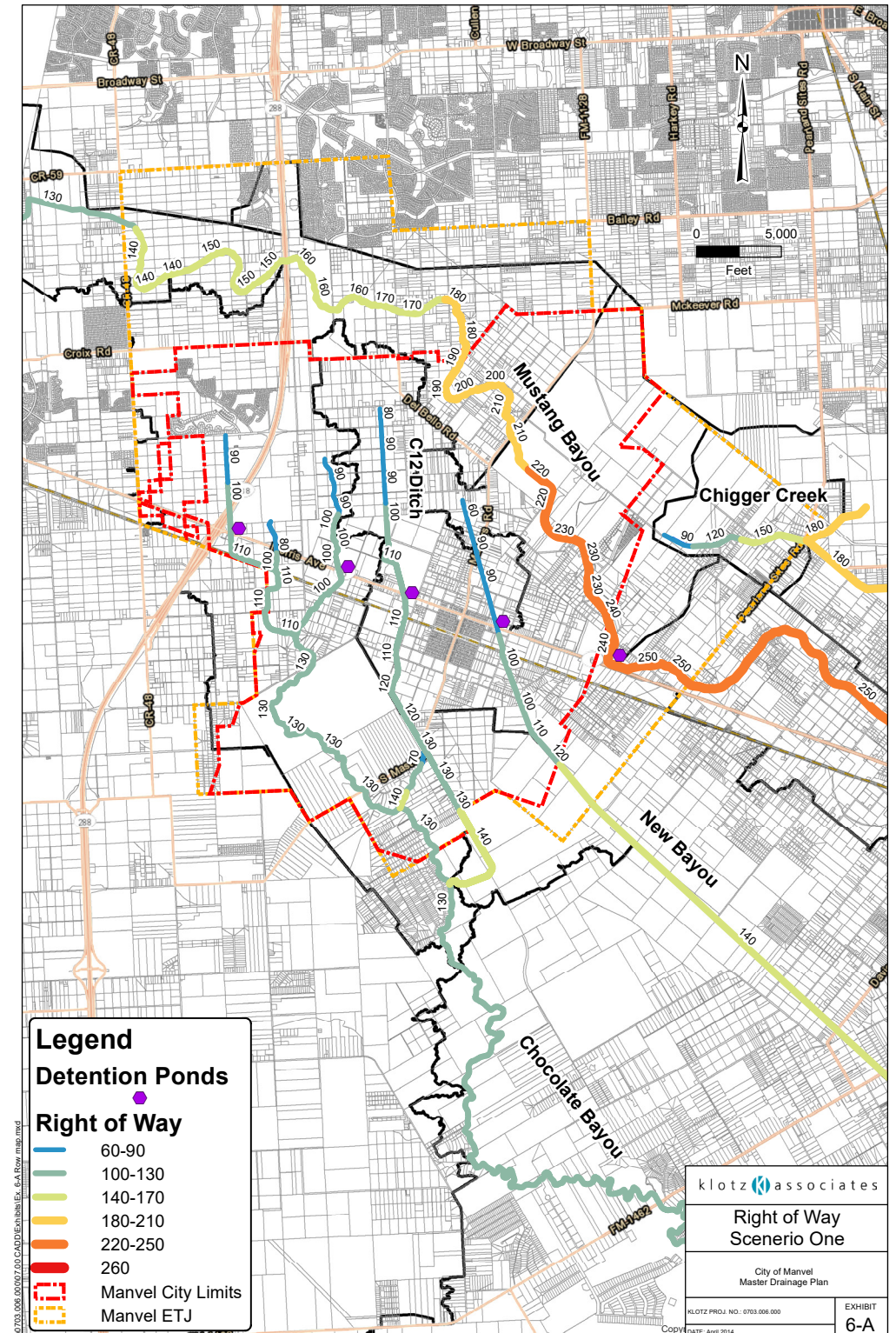
Natural waterways can provide some of the most enjoyable walking and bicycling experiences with development of trails along the corridors. West Fork Chocolate Bayou transects Iowa Colony from northwest to southeast through both agricultural and developed land. With most of the land in private ownership, development of trails along the bayou are not feasible without land acquisition. However, policies can be developed to facilitate easements and rights-of-way along drainage corridors for the purpose of managing stormwater drainage. These easements and rights-of-way can additionally be used for recreational trails.

Case Study

The City of Manvel developed a Master Drainage Plan that identifies rights-of-way along natural drainage corridors that will be dedicated to the City upon platting of new subdivisions. These rights-of-way are designated with ultimate widths necessary to accommodate stormwater flows in a future 'built out' community development scenario. A similar model could be applied to Iowa Colony



West Chocolate Bayou at Davenport Parkway.



Right-of-way dedications required by the Manvel Master Drainage Plan.

NORTHAVEN TRAIL BRIDGE – AT US 75 AND NORTHAVEN ROAD

PROJECT FACT SHEET

TEXAS DEPARTMENT OF TRANSPORTATION

OVERVIEW

The project will provide a safe connection between two bicycle/pedestrian trails in Dallas in order to extend recreational opportunities and reduce barriers to alternative methods of transportation. The project will join the Northaven Trail west of US 75 to existing trails and the regional trail system east of US 75. The project also will stand as a regional example of the positive benefits of appropriate location and design aesthetics for future bicycle and pedestrian trails and amenities.

The project includes an arched bridge over US 75 to connect the Northaven Trail to existing trails east of US 75.

PROJECT DETAILS

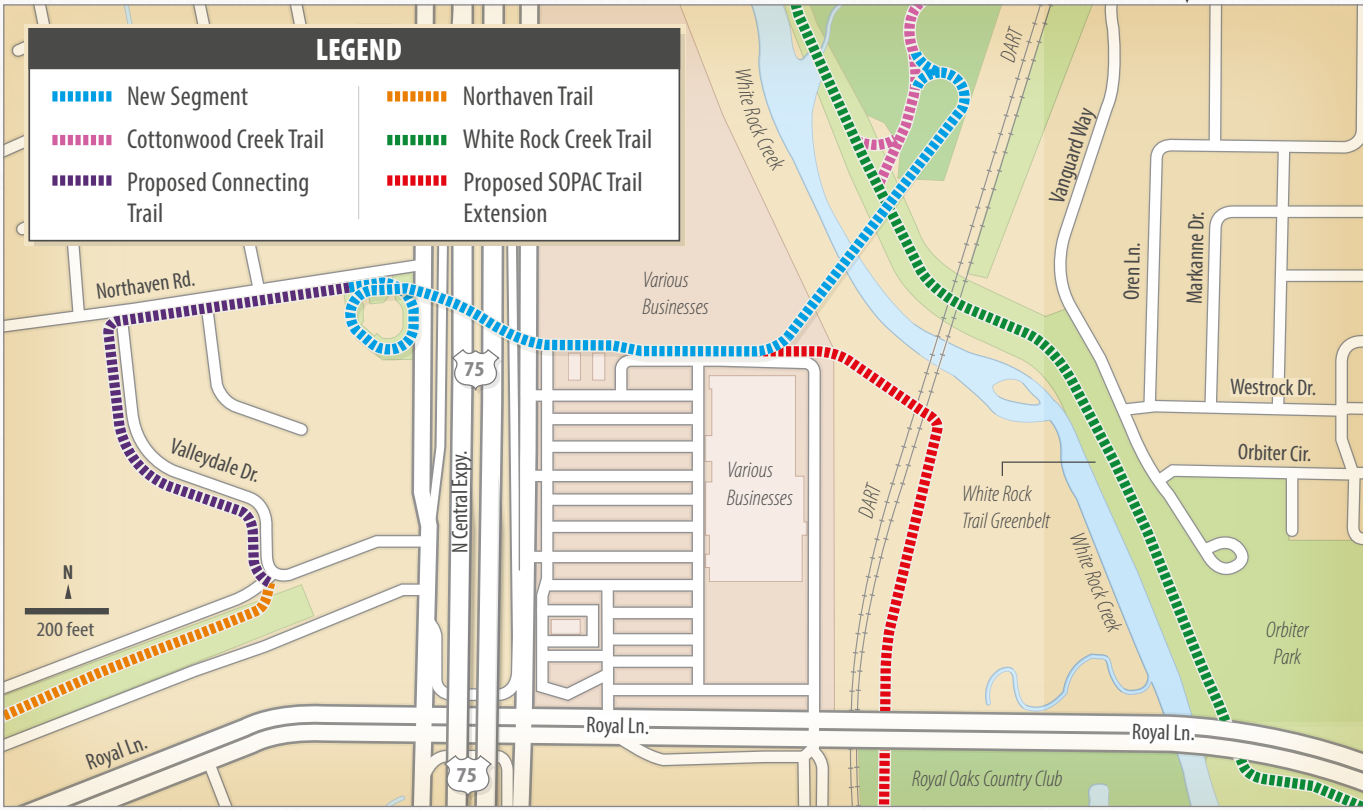
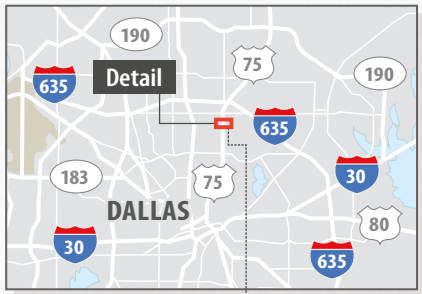
- Limits:** From Northaven Road to White Rock Creek Trail / Cottonwood Trail.
- Description:** Construct a bicycle/pedestrian bridge and approaches
- Length of Project:** Approximately 0.48 miles
- Project Let:** February 2021
- Project Start:** June 2021
- Est. Completion:** Summer 2023

PROJECTED FUNDING

Estimated Project Cost* \$9.3 M

*Subject to change.

TxDOT graphic



SOURCE: Texas Department of Transportation.

TxDOT graphic

FOR PROJECT RENDERINGS AND BRIDGE FAST FACTS: [SEE BACK PAGE »](#)

Trail Opportunities

Case Study - Freeway Crossing

The City of Dallas, Texas has a significant recreational trail network. One such area of town had four trails that converge at State Highway 75, a major freeway. The City worked with the Texas Department of Transportation (TxDOT) to develop a pedestrian bridge across 16 lanes of traffic to connect the trails. The project includes the arched bridge, approach ramp, trail connections, and a second bridge over White Oak Creek. The project's estimated cost is \$9.3 million and is currently under construction.



Walkability 03

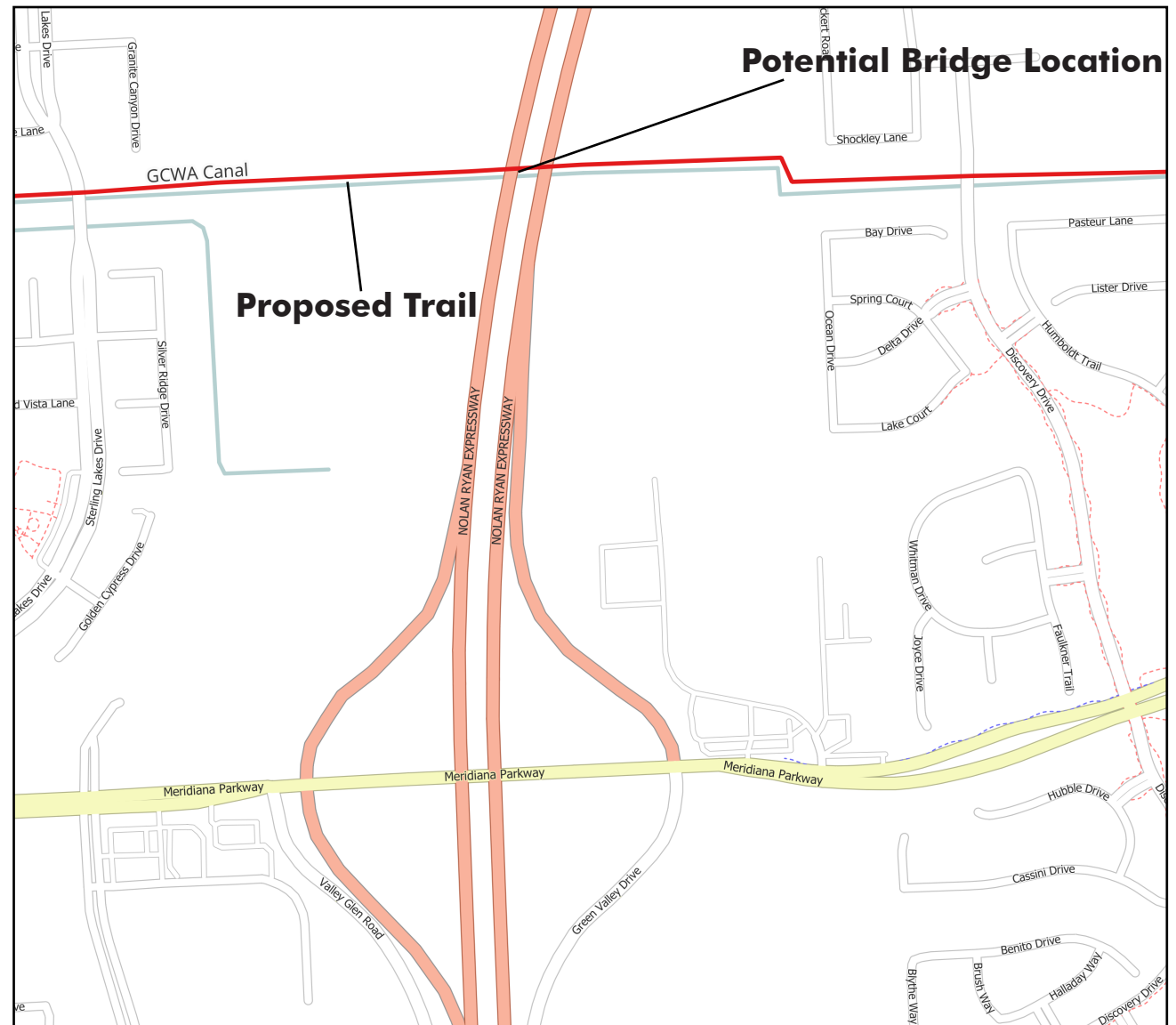


Renderings of the Northaven Bridge provided by TxDOT (above and below).

Rendering of Northaven Bridge approach ramp (TxDOT).



Bridge opportunity across State Highway 288 in Iowa Colony. The bridge would connect a proposed trail along the GCWA canal on both sides of the highway.



Proposed Trails

While the existing pedestrian infrastructure such as trails, sidewalks, and bike lanes have been provided by the master planned communities as amenities, there is still a need to bridge the gap between communities and to reach outlying areas of Iowa Colony. A series of trail opportunities have been identified that take advantage of existing and potential rights-of-way to expand recreation opportunities and connect people to parks, schools, and public spaces. The following recommendations from the City's 2020 Comprehensive Plan serve as guidance for identifying trail routes.

Comprehensive Plan Guidance:

1. Prepare a parks and trails master plan that meets Texas Parks and Wildlife Department requirements for grant eligibility.
2. Prepare a city limit and ETJ-wide master pedestrian trail plan to incorporate with future right-of-way construction and off-road trails provided by private development. Emphasis should be placed on trail locations that connect neighborhoods and community parks to each other.
3. Adopt a policy to re-visit the Parks and Open Space Plan on a bi-annual basis with the purpose to determine if a more detailed review is necessary. Incorporate new, updated information as an addendum to the most recently adopted Parks and Open Space Plan.
4. Utilize bayous as trail corridors.
5. Co-locate parks and detention facilities whenever possible.

Off-Street Trails

The proposed off-street trails take advantage of the GCWA canals, West Fork Chocolate Bayou, a segment along North Hayes Creek, and the detention pond at Iowa Colony City Park. Off-street trails seek to make cross-community connections through more natural environments, and could be constructed in a number of different materials.

Natural trails are typically single track hike and bike trails are located along heavier terrain, hard to develop lands such as streams and floodways.

Other choices for trail materials and construction include decomposed granite, gravel, concrete, or asphalt. Construction costs and maintenance requirements vary with each construction method. The proposed trails along GCWA canals and West Fork Chocolate Bayou will require access agreements or dedicated rights-of-way to achieve.

On-Street Trails

The trails available in Iowa Colony today are primarily on-street trails which run adjacent to roadways. The widths of the pavement are typically 6 feet, and most trails are along major thoroughfares and collector streets.

Proposed on-street trails include segments along Iowa Colony Blvd., County Road 63, and County Road 48. The trails are planned to connect neighborhoods, parks, and the future Iowa Colony Municipal Complex at the site of City Hall.

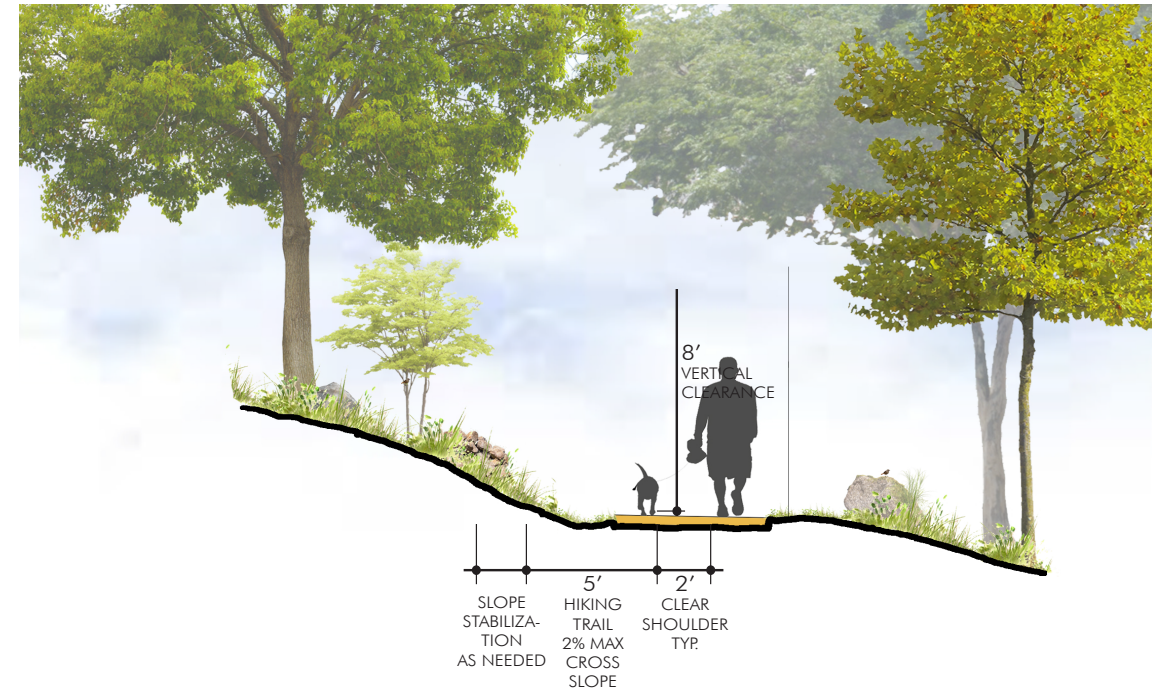
On-street trails can be constructed of decomposed granite or asphalt, but concrete is recommended for handling the higher volume of traffic expected and to reduce maintenance costs. Proposed widths should be a minimum of 6 feet, however ideally there should be an additional 6 feet of width to provide adequate space for bicycles and pedestrians. An alternative to the additional 6' for bicycles would be to add a bike lane to the roadway during the next reconstruction project for the given roadway.



Bike lane along Sierra Vista Blvd.

Off-Street & On-Street Trails

Two basic types of trails are proposed for the Iowa Colony Trail Network – on-street trails that run adjacent to the roadways and off-street trails that run throughout available greenways. While specific characteristics have been identified for the two different trail types, each corridor will be designed with consideration given to its unique topography, right-of-way, and site context. The ideal width for trails is 10 feet within an overall 20' pedestrian zone, but in areas of anticipated higher use; trails may be designed to 12 feet wide. In locations of constrained right-of-way, trails may be constructed as narrow as 6 feet in width.



Single Track hike and bike trails are located along heavier terrain, hard to develop lands such as streams and floodways. The trails are 3 to 6 feet in width and typically will be constructed of natural materials with stabilized slopes as needed.

- Typically natural surface
- Timber bridge and boardwalks
- Stone stabilization where needed
- Trail-head signage, wayfinding signage, mile markers



Prototypical trail section with ideal 20' wide pedestrian zone. Amenities may consist of 6' bike lane, 6' pedestrian lane, seating, lighting and buffer zones

Implementation

Developing a complete trail system in Iowa Colony will require different approaches for some each alignment depending on the right-of-way and funding source. Proposed trails along GCWA properties will require securing an access agreement with the owner. If a bridge is constructed over SH 288 to connect proposed GCWA canal trails, then coordination with TxDOT will be required.

Trails alignments along CR 63 and CR 48 may require adjustments to the open ditch stormwater system along those roadways to accommodate a trail, depending on the width of available right-of-way.

Funding trail improvements may require a variety of sources. A significant portion of the City's tax revenues each year are dedicated to Municipal Utility District #31 and the local Tax Increment Reinvestment Zone 2 (TIRZ 2). These financial tools were developed to fund the infrastructure needs for Iowa Colony's rapid growth, but have the effect of limiting available funds for parks and recreation improvements.

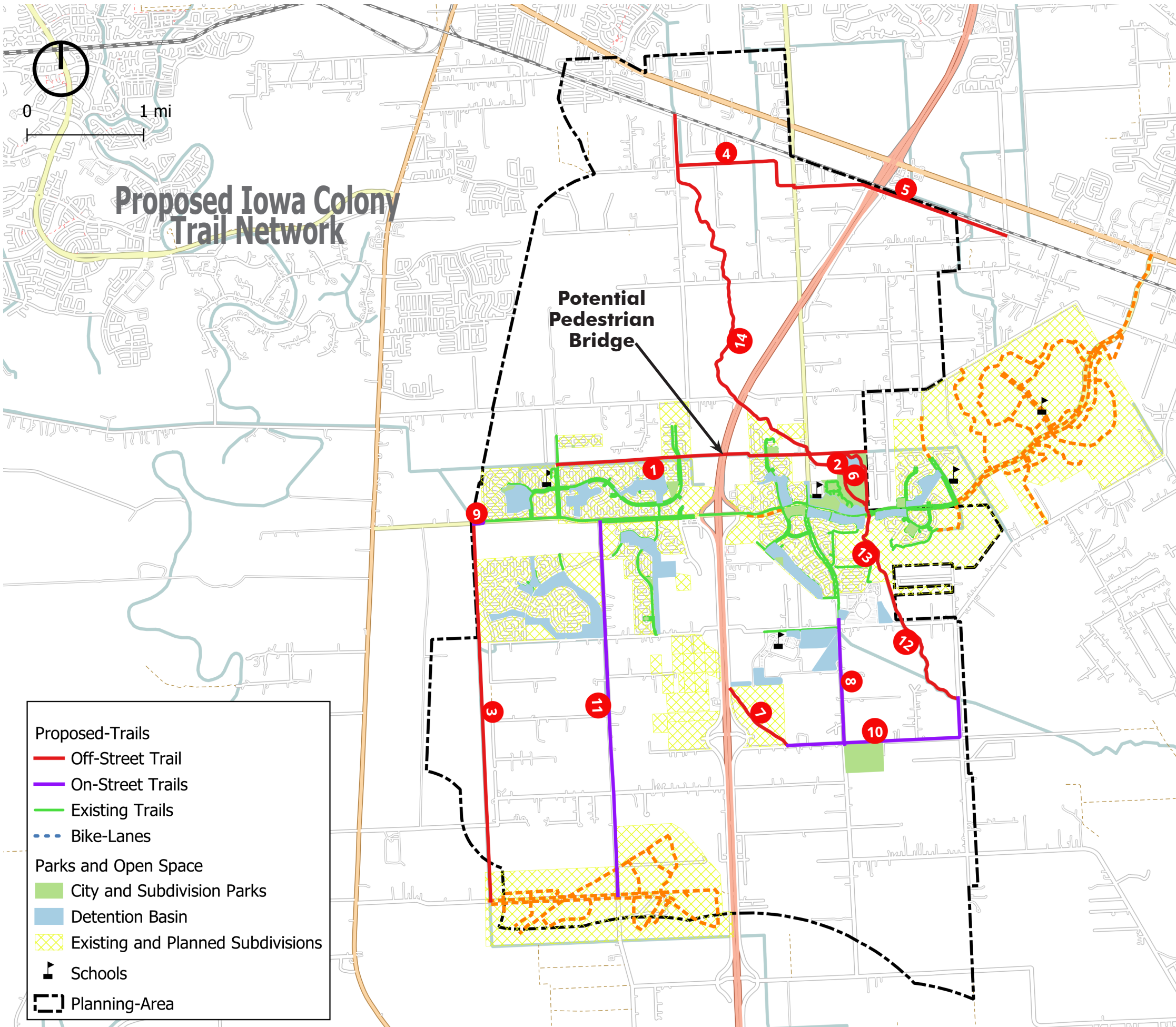
Other funding sources for parks and recreation may include voter-approved municipal bonds, general obligation bonds, and grants from outside source such as the Texas Parks and Wildlife Departments Local Parks Grants and the Texas Department of Transportation's Transportation Set-Aside Program. A list of available grant opportunities is provided in the Action Plan section of this document.

Proposed Trail Alignments

Segment ID	Trail Name	Type	Length (Miles)
1	GCWA Canal Trail	Off-Street Trail	2.17
2	GCWA Canal Trail	Off-Street Trail	0.49
3	GCWA Canal Trail	Off-Street Trail	3.24
4	GCWA Canal Trail	Off-Street Trail	1.62
5	GCWA Canal Trail	Off-Street Trail	1.91
6	Iowa Colony City Park Detention Trail	Off-Street Trail	1.22
7	North Hayes Creek Segment	Off-Street Trail	0.7
8	Iowa Colony Blvd Trail	On-Street Trails	1.07
9	GCWA Canal Connector	On-Street Trails	0.1
10	Airline Road Trail (CR 63)	On-Street Trails	1.81
11	CR 48 Trail	On-Street Trails	3.2
12	West Fork Chocolate Bayou Trail	Off-Street Trail	1.3
13	West Fork Chocolate Bayou Trail	Off-Street Trail	0.65
14	West Fork Chocolate Bayou Trail	Off-Street Trail	3.6

Approximate Trail Development Costs Per Mile

Materials	Trail Width in Feet				
	5'	6'	8'	10'	12'
Natural	\$79,200	\$95,040	\$126,720	\$158,400	\$190,080
Decomposed Granite	\$132,000	\$158,400	\$211,200	\$264,000	\$316,800
Gravel	\$132,000	\$158,400	\$211,200	\$264,000	\$316,800
Concrete	\$158,400	\$190,080	\$253,440	\$316,800	\$380,160
Asphalt	\$105,600	\$126,720	\$168,960	\$211,200	\$253,440



Proposed-Trails

- Off-Street Trail
- On-Street Trails
- Existing Trails
- Bike-Lanes

Parks and Open Space

- City and Subdivision Parks
- Detention Basin
- Existing and Planned Subdivisions
- Schools
- Planning-Area

Natural **Resources**



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Appendix

Natural Resources

Preserving Iowa Colony's Rural Heritage

Iowa Colony's landscape has changed significantly over the last decade. Once a rural, agricultural community, the area is now being transformed with master planned subdivisions and new commercial development. Outside of this development, the remaining land is comprised of agricultural lands, pasture, and rural residential homesteads.

The City's Comprehensive Plan identified some key characteristics of the community that residents would like to preserve as the City continues to grow:

- Rural atmosphere
- Small town feel
- Open space and country feel
- Quiet rural aspects

Maintaining these characteristics in the face of rapid development can be achieved in part by preserving open space within parks, trails, and drainage corridors.

The Comprehensive Plan also recommends development of a Master Drainage Plan which includes regional detention facilities for stormwater management. Regional detention facilities can make excellent opportunities for recreational open space that serve as wildlife habitat as well. Additional opportunities for both preserving open space while achieving the stormwater management goals.



Example of regional detention facility with recreational trails, wildlife habitat, and interpretive signage. The facility was developed in a joint effort with the Harris County Flood Control District and the City of Jersey Village, Texas.



View of pedestrian trails and interpretive signage at the Jersey Village regional detention facility.

Strategies

Low Impact Design (LID)

In a world of ever-decreasing natural resources and increasing development, it becomes important for the City to consider and adopt Low Impact Development (LID) techniques during design and construction of parks and facilities. Issues such as stormwater management, water quality, heat islands, and water conservation can be addressed through sound design principles.

Tools such as bio-retention of stormwater, bioswales, use of drought-tolerant native plant materials and rainwater harvesting can effectively be implemented in park and facility designs. Use of such tools are rapidly becoming a standard practice, and in some cases a requirement, in communities nationwide.

In addition to being a matter of good environmental stewardship, design and implementation of LID techniques in the City's projects can also improve the City's overall rating with the Federal Emergency Management Agency's (FEMA) Community Rating System. Improving the City's score with this system can result in discounted insurance rates city-wide.



Rainwater harvesting should be considered during the development of future pavilions. The above example captures rainwater from a pavilion roof top and stores it in a 5,000 tank for use in irrigation of the park landscape.



Permeable paving can be utilized for parking areas to reduce stormwater runoff impacts. Designs can incorporate bio-retention features that capture rain and allow it to percolate into the soil.



Use of native plants within landscape areas of parking lots can aid in removal of contaminants and sediments from stormwater prior to drainage into the watershed.



Bioswales, similar to drainage ditches, utilize selected vegetation to filter and slow down stormwater runoff prior to its drainage into the watershed. These bioswales can be designed using native vegetation adapted to the area, requiring minimal maintenance.

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New Iowa Colony Town Center

The City of Iowa Colony plans to develop a new municipal complex to become the home for a variety of public services including at a minimum the following:

- City Hall
- Municipal Court
- Administrative Offices
- Civic/Library Building
- Recreation Center

In addition to the structures and services on site, the goal of the project is to provide public space for community events and recreation. An early study conducted by McLemore Luong and Clark Condon provided a basic program of structures and precedent examples from other communities.

As a public space, this property was considered during the development of the Parks and Open Space Master Plan. A preliminary conceptual design was developed to study the space utilization, pedestrian and vehicle circulation, and recreation opportunities for the 50 acre site that is currently home to Iowa Colony City Hall and Fire Department.

A concept was developed that envisions the Town Center as destination for recreation and community events. The concept seeks a balance between practical needs such as parking, stormwater management, and government services.

The concept on the adjacent page features the following core elements:

- Recreation Center
- City Hall/Municipal Court
- Civic Center
- Fire Station
- Library
- Farmers Market
- Pavilion
- Event Lawn
- Detention/Amenity Pond
- Lookout Tower
- Inclusive Playground
- Trails



Precedent images from the Municipal Government Complex Study produced for the City of Iowa Colony.



The Co-Op District in Hutto, Texas features their new City Hall as the centerpiece of a mixed use development.

Priority Projects 05



New 40-Acre City Park

As a component of an agreement with a developer, the City will acquire a 40-acre parcel of land on Cedar Rapids Parkway, to the north of Sterling Lakes subdivision. The property is completely forested and is located adjacent to the Juliff Rifle and Pistol Range. The property presents the opportunity to significantly increase the amount of available park land in the community and provide a rich variety of recreational offerings.

The concept below orients most of the developed area of the proposed park near the road frontage while keeping the northern half of the property natural with only trails. Proposed features include the following:

- Shade Pavilion
- Pickleball Courts (4)
- Workout Equipment
- Basketball Courts (3)
- Game Tables (Ping Pong/Foosball)
- Hammock Grove
- Large Rentable Pavilion with Restroom
- Splash Pad
- Tennis Courts (2)
- Food Truck Station
- Playground (Ages 5-12)
- Playground (Ages 13+)
- Tree House and Nature Play
- Loop Trail





New Mini-Park at Freedom Field

A small parcel of undeveloped land located on the northeast corner of the intersection of Davenport Parkway and Iowa Colony Boulevard has been identified as a compatible site for a small park. The 2.3 acre property is adjacent to Freedom Field stadium and across the street from the new Iowa Colony High School. The site has a pipeline easement that bisects the property, thereby limiting many other uses for development. Passive recreation improvements are compatible with the location and site features.

A concept for a new mini-park was developed that includes an all-access inclusive playground, pavilion and seating area, restrooms, trees and landscaping, and parking.





**note: allowances for stormwater detention may be required, that will be site-specific and are not included in this prototype.*

Conceptual Site Plan - Prototypical 5-Acre Community Park

*not to scale

Prototypical 5-Acre Community Park

A Template for Growth Planning

As Iowa Colony continues to grow and develop, the need for additional park space will grow proportionally. This additional park space will either be acquired through park land dedication from private development, or through purchase of land using funds collected via the fee-in-lieu of park land dedication as dictated by City Ordinance. Without knowing yet which properties will be acquired in the future, it is helpful to have a model or template for what should be considered in a typical park of a given size. The specific features and amenities will vary with each park, however this prototype illustrates what might fit in the available space. An Opinion of Probable Cost is provided in the Action Plan portion of this document for use in future budget planning.

It is common for park land dedicated by developers to primarily consist of small neighborhood parks of 1 acre or less in size, distributed throughout the development. Larger parks will likely be developed by the City in the future. The drawing on the left is a concept for a prototypical 5-acre community park that would serve a range of activities and uses that are not provided by most smaller neighborhood parks.

Park Features

- Basketball Courts (2)
- Tennis (or Pickleball) Court
- Large Group Pavilion
- Parking (40 spaces)
- Playground (multi-age)
- Walking Path
- Multi-purpose Athletic Practice Field (football/ baseball/soccer)
- Small Pavilion
- Wildflower/Butterfly Garden/Nature Reserve



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Where to Begin

Project Prioritization

The Parks Master Plan identifies the priority projects and justification through stakeholder input. However, the timing of project implementation is largely a function of funding availability and the City's will to move forward on a given project.

City Council will likely use a municipal bond to fund any major improvements to the parks and recreation system. The system-wide goals for improvements include significant expenditures if all proposed projects were to be implemented. Given that not all items can be reasonably developed at one time, it is important to focus on the highest priority components listed above for implementation.

Options and Alternatives

The list of proposed projects for the parks and recreation system offer individual opportunities for addressing current and future demand of recreation facilities. Some projects can be combined into a single effort, thereby providing some economy during design, construction and land acquisition.

Project Design and Construction

When it comes to parks and recreation planning, identifying the needs of residents and developing a vision for the future parks system are important first steps. Once a project has been identified and approved for further study, the process of funding, design and construction can begin.

Following a decision to move forward on a priority project, the City will need to engage a qualified design team to further program the details of the project.

The Design Development phase of this process will allow the City to further refine the important details that bring the park and recreation project to life. This process will include several iterations of projected costs, revisions and refinements that ultimately will be turned into construction documents. It is important during to continue to gather input from stakeholders during this process to ensure that key details are not left out.

Construction documentation, bidding and construction of the project is the phase where it will be important to have the right team for the job. Quality construction documents followed by strict adherence to the drawings during construction administration will ultimately determine the quality of the end result. All too often great projects are turned over to a general contractor to be completed with insufficient supervision, resulting in poor performance, change orders and added costs. The City will need the designer to act as an advocate for the City throughout the construction process to ensure success.

Funding Sources

Debt Issuances & Other Instruments

There are various debt instruments available to cities to support capital improvements including parks, trails, land conservation, and recreation facilities. Different requirements exist for each type of instrument. Some require or may require an election while others do not. The length of time for the financing differs with the type of instrument.

The primary instruments local governments use are ad valorem tax-backed financing such as General Obligation Bonds, Certificates of Obligation, and Tax Notes, and Revenue Bonds backed by a pledge of project revenues.

Hotel/ Motel Occupancy Tax

These are proceeds from local hotel occupancy tax revenues received during the year. Expenditures from this fund are restricted, but could fund the following:

- Tourism/Special Events-Paying for advertising, solicitations and promotions that attract tourists and convention delegates to the City or its vicinity.
- Public Art-Expenditures that promote the arts
- Wayfinding-Signage directing tourists to sights and attractions that are visited frequently by hotel guests to the municipality.

Grant Opportunities

As the City continues with improvements and additions to the parks system, funding is often the key player in the decision making process. The following are a variety of State and Federal grant programs available to aid cities in the enhancement of parks and recreation facilities and other public space projects.

Community Development Block Grants

Potential funding: up to 80% of project cost or maximum of \$200,000

The Department of Housing and Urban Development (HUD) provides assistance to communities across the nation for a wide range of activities through the Community Development Block Grants Program. These funds are often distributed to individual communities by the state as match-grants to fund projects supporting economic development and improved quality of life. Texas Parks and Wildlife Department awards grants from this program annually to develop and enhance parks and open space.

Transportation Equity Act (SAFETEA-LU) - Recreation Trails Program

The Transportation Safety Act, also known as the Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users (SAFETEA-LU), provides for the distribution of funds from the Federal Highway Administration (FHWA). The Federal Highway Administration is the largest source of funding for shared use paths, trails and related projects. The Recreational Trails Program, an assistance program to FHWA, distributes funds for a range of activities including:

- Maintenance and restoration of existing trails.
- Development and rehabilitation of trailside and trailhead facilities and trail linkages.
- Purchase and lease of trail construction and maintenance equipment.
- Construction of new trails (with restrictions for new trails on Federal lands).
- Acquisition of easements or property for trails.
- Assessment of trail conditions for accessibility and maintenance.
- Development and dissemination of publications and operation of educational programs to promote safety and environmental protection related to trails (including supporting non-law enforcement trail safety and trail use monitoring patrol programs, and providing trail-related training) (limited to 5 percent of a State's funds).
- State administrative costs related to this program (limited to 7 percent of a State's funds).

TRPA Grants Program

Local Parks: \$750,000 (50% Match)

Recreational Trails: \$300,000 (80% Match)

- The Texas Recreation and Parks Account (TRPA) is funded by a portion of Texas sales tax received on select sporting goods. These

grants are awarded to applicants annually at varied levels depending on project type and available resources for the funding cycle. These funds are administered by the Texas Parks and Wildlife Department's Recreation Grants Branch for programs including the following:

- Outdoor Recreation
- Indoor Recreation (facility)
- Small Community
- Regional
- Community Outdoor Outreach Program
- Recreational Trails

Land and Water Conservation Fund

The Land and Water Conservation Fund is a program of the National Park Service that provides matching grants to local governments for acquisition of park land and development of park facilities. On August 4, 2020 the Great American Outdoors Act was signed into law. The bill provides \$900 million in permanent and dedicated annual funding for the Land & Water Conservation Fund (LWCF) and invests up to \$9.5 billion to address priority repairs in our national parks and other public lands. An example project in Texas is the Wimberley Blue Hole Regional Park Hays County, which received \$1,909,500 in funding from the LWCF.

Department of Transportation TIGER

TXDOT has funding annually which can assist local communities in constructing transportation facilities within the community. Expenditures from this fund are restricted, but could fund the following:

- *Community Connections*-Paying for sidewalks, trails and bike land development in the community.

Wells Fargo

Wells Fargo Community Giving program in Texas can assist communities with community development,

arts and culture and civic engagement projects. Expenditures from this fund could be used to fund the following:

- *Public Art*-Paying for public art acquisition and installation.
- *Bike Facilities*-Expenditures related to installing bike racks, parking, repair stations and storage facilities for bicycles.
- *Park Projects*-Expenditures related to the development of park and recreation facilities open to the public.

Kaboom!

Kaboom! is an organization which supports playground projects in the US. Expenditures from this fund could be used to fund the following:

- *Playgrounds*-Paying for playground acquisition and installation.
- *Planning*-Expenditures related to playground planning activities involving the community.

People For Bikes

The People For Bikes is a non-profit which funds bicycle infrastructure. Expenditures from this fund could be used to fund the following:

- *Community Connections*-Paying for bike paths, lanes, trails and bridges.
- *Bike Facilities*-Expenditures related to installing bike racks, parking, repair stations and storage facilities for bicycles.

Texas Commission on the Arts

These funds are for the purpose of promoting the Arts in Texas. Expenditures could fund the following:

- *Public Art*-Expenditures that promote the arts which include art acquisition, installation and/or programs and events.

National Endowment for the Arts

These funds are for the expansion of art in communities, specifically strengthening of communities through art. Expenditures from this fund could be used to fund the following:

- Public Art and Events-Paying for art pieces, acquisition and/or programs and events which promote the arts in a community.

Joint Use Agreement with Schools

Opening schoolyards and school playgrounds outside of school hours is one approach to addressing parks and recreation facility deficits that is growing in popularity around the country.

This arrangement is usually implemented with a joint-use agreement with schools and the local government entity. Studies suggest that challenges to shared use include additional cost, liability protection, communication among constituencies interested in sharing space, and decision-making about scheduling and space allocation.

The Center for City Park Excellence at the Trust for Public Land conducted research on joint-use agreements from 20 of the largest US cities and analysed the best practices within those agreements, available at <https://www.parkology.org/>.

Parkland Dedication Ordinance

The City of Iowa Colony, Texas has a Parkland Dedication Ordinance to provide recreational areas in the form of neighborhood parks regional parks, and trail systems, as a function of subdivision development in the City and the City's Extraterritorial Jurisdiction. This ordinance requires that new subdivisions provide parkland as a component the development to ensure adequate recreation space and amenities are available to meet increased demand from new residents. The premise is that the cost for new parks should be borne by the ultimate residential property owners who shall be the beneficiaries of the parks and facilities.

The Parkland Dedication Ordinance offers an alternative to dedication of land, whereby developers may elect to pay a fee in lieu of land dedication that will be deposited into a fund for purchase of parkland and subsequent development of the parks and facilities.

As the City has grown and property values in the area have increased significantly, the City of Iowa Colony recognizes the need to re-assess the current fees to determine if they are sufficient for purchase of parkland in the current marketplace. This study seeks to evaluate the methodology for establishing fees and make recommendations for increases if deemed appropriate. Any increases in fees must be accompanied by a fair and reasonable methodology for calculation that is defensible.

As with most parkland dedication ordinances, the Iowa Colony's ordinance offers an opportunity for developers to pay a fee in lieu of parkland dedication Neighborhood Parks. Currently that fee amounts to \$350 per Dwelling Unit for any residential development for which a subdivision plat is required. In addition to land dedication, or a fee in lieu of land dedication, developers must contribute an additional four hundred fifty dollars (\$450) per dwelling unit for the development of Regional Parks. The fee for regional park development is deposited into the City's Regional Park Fund.

As a component of the development of the Parks and Open Space Master Plan, an analysis was conducted to review the current fees-in-lieu of land dedication and make recommendations for updates in light of rising property values. A complete report is available in the Appendix.

Opinion of Probable Costs



IOWA COLONY TOWN CENTER

8/15/2023

Preliminary Opinion of Probable Costs (OPC)

#	Item / Description	Qty	Unit	Unit Rate	Range	
					Low	High
1	General Conditions				\$ 5,582,307	\$ 6,822,819
1.1	Mobilization, Maintenance & Insurance	1	allow	5%	\$ 4,613,477	\$ 5,638,694
1.2	Clearing and Tree Removal	1	allow	0%	\$ 46,135	\$ 56,387
1.3	Traffic Control, Surveying, Safety Plan	1	allow	1%	\$ 922,695	\$ 1,127,739
2	Infrastructure Site Work				\$ 22,369,344	\$ 27,340,309
2.1	Mass Grading, Site Work & Erosion Control	1	allow	14%	\$ 9,436,525	\$ 11,533,531
2.2	Detention (+/-10 acres @ 8' deep)	14,000	cy	\$ 270	\$ 4,677,750	\$ 5,717,250
2.3	Parking (+/-500 sp)	500	allow	\$ 5,900	\$ 3,650,625	\$ 4,461,875
2.4	Water Infrastructure (domestic and waste)	1	allow	3%	\$ 2,271,756	\$ 2,776,591
2.5	Internal Roadways/Drives	110,000	sf	\$ 12.50	\$ 1,701,563	\$ 2,079,688
2.6	Site Electrical Service Allowance	1	allow	\$ 500,000	\$ 618,750	\$ 756,250
2.7	Tree Preservation	1	allow	\$ 10,000	\$ 12,375	\$ 15,125
3	Structures				\$ 63,831,488	\$ 78,016,263
3.1	City Hall/Mun. Court	40,000	sf	\$ 450	\$ 22,275,000	\$ 27,225,000
3.2	Civic Center	20,000	sf	\$ 300	\$ 7,425,000	\$ 9,075,000
3.3	Recreation Center	30,000	sf	\$ 400	\$ 14,850,000	\$ 18,150,000
3.4	Library	20,000	sf	\$ 350	\$ 8,662,500	\$ 10,587,500
3.5	Farmers Market/Rentable Space	20,000	sf	\$ 250	\$ 6,187,500	\$ 7,562,500
3.6	Open Air Pavilion	15,000	sf	\$ 175	\$ 3,248,438	\$ 3,970,313
3.7	Restrooms	1	ea	\$ 350,000	\$ 433,125	\$ 529,375
3.8	Picnic Shelter	2	ea	\$ 28,000	\$ 69,300	\$ 84,700
3.9	Overlook Tower	1	ea	\$ 250,000	\$ 309,375	\$ 378,125
3.10	Amphitheater	1	ea	\$ 300,000	\$ 371,250	\$ 453,750
4	Hardscapes				\$ 4,831,200	\$ 5,904,800
4.1	Concrete Pathways	22,000	sf	\$ 7.00	\$ 190,575	\$ 232,925
4.2	Concrete Plazas	50,000	sf	\$ 7.00	\$ 433,125	\$ 529,375
4.3	Water Feature (stormwater capture)	1	allow	\$ 150,000	\$ 185,625	\$ 226,875
4.4	Site Furniture Allowance	1	allow	\$ 500,000	\$ 618,750	\$ 756,250
4.50	Pavers Allowance	50,000	sf	\$ 25.00	\$ 1,546,875	\$ 1,890,625
4.6	Inclusive Playscapes	1	allow	\$ 1,000,000	\$ 1,237,500	\$ 1,512,500
4.70	Gateways/Wayfinding Signage	1	allow	\$ 500,000	\$ 618,750	\$ 756,250
5	Landscape/Irrigation (allowance)				\$ 1,237,500	\$ 1,512,500
5.1	Trees/Shrubs/Groundcover	1	allow	\$ 1,000,000	\$ 1,237,500	\$ 1,512,500
Subtotal					\$ 97,851,838	\$ 119,596,691
Construction Escalation Q2 - 2023 to FY2024					\$ 4,403,333	\$ 5,381,851
Total Project Cost with Range					\$ 102,255,171	\$ 124,978,542
<i>Burditt Consultants has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions. Burditt Consultants cannot and does not guarantee that proposals, bids or actual construction will not vary from opinion of probable costs.</i>						

Opinion of Probable Costs



NEW 40-ACRE COMMUNITY PARK

8/15/2023

Preliminary Opinion of Probable Costs (OPC)

#	Item / Description	Qty	Unit	Unit Rate	Range	
					Low	High
1	General Conditions				\$ 432,743	\$ 528,908
1.1	Mobilization, Maintenance & Insurance	1	allow	5%	\$ 240,413	\$ 293,838
1.2	Clearing and Tree Removal	1	allow	3%	\$ 144,248	\$ 176,303
1.3	Traffic Control, Surveying, Safety Plan	1	allow	1%	\$ 48,083	\$ 58,768
2	Infrastructure Site Work				\$ 1,432,229	\$ 1,750,502
2.1	Mass Grading, Site Work & Erosion Control	1	allow	14%	\$ 455,763	\$ 557,044
2.2	Parking (56 sp)	56	allow	\$ 5,900	\$ 408,870	\$ 499,730
2.3	Water Infrastructure (domestic and waste)	1	allow	3%	\$ 109,721	\$ 134,103
2.4	Internal Roadways/Drives	22,000	sf	\$ 13	\$ 340,313	\$ 415,938
2.5	Site Electrical Service Allowance	1	allow	\$ 50,000	\$ 61,875	\$ 75,625
2.6	Tree Preservation	3,000	allow	\$ 15	\$ 55,688	\$ 68,063
3	Structures				\$ 759,825	\$ 928,675
3.1	Picnic Shelter	4	ea	\$ 16,000	\$ 79,200	\$ 96,800
3.2	Small Pavilion	1	ea	\$ 120,000	\$ 148,500	\$ 181,500
3.3	Large Pavilion	1	ea	\$ 430,000	\$ 532,125	\$ 650,375
4	Hardscapes				\$ 2,554,324	\$ 3,121,951
4.1	Concrete Pathways	10,800	sf	\$ 7.00	\$ 93,555	\$ 114,345
4.2	Hiking Trails	1	mi	\$ 250,000	\$ 309,375	\$ 378,125
4.3	Basketball Courts	3	ea	\$ 85,000	\$ 315,563	\$ 385,688
4.4	Tennis/Pickleball Courts	2	ea	\$ 120,000	\$ 297,000	\$ 363,000
4.5	Site Furniture Allowance	1	allow	\$ 150,000	\$ 185,625	\$ 226,875
4.6	Volleyball Courts	4	allow	\$ 8,000	\$ 39,600	\$ 48,400
4.7	Playgrounds	1	allow	\$ 300,000	\$ 371,250	\$ 453,750
4.8	Spraygrounds	1	allow	\$ 450,000	\$ 556,875	\$ 680,625
4.9	Nature Playground/Tree house	1	allow	\$ 230,000	\$ 284,625	\$ 347,875
4.10	Decomposed Granite	1000	sf	\$ 6.50	\$ 8,044	\$ 9,831
4.11	Gateways/Wayfinding Signage	1	allow	\$ 25,000	\$ 30,938	\$ 37,813
4.12	Pedestrian Bridges	1	ea	\$ 50,000	\$ 61,875	\$ 75,625
5	Landscape/Irrigation (allowance)				\$ 61,875	\$ 75,625
5.1	Trees/Shrubs/Groundcover	1	allow	\$ 50,000	\$ 61,875	\$ 75,625
Subtotal					\$ 5,240,995	\$ 6,405,661
Construction Escalation Q2 - 2022 to FY2023					\$ 235,845	\$ 288,255
Total Project Cost with Range					\$ 5,476,840	\$ 6,693,916
Burditt Consultants has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions. Burditt Consultants cannot and does not guarantee that proposals, bids or actual construction will not vary from opinion of probable costs.						

Opinion of Probable Costs

Priliminary Opinion of Probable Costs (OPC)

#	Item / Description	Qty	Unit	Unit Rate	Range	
					Low	High
1	General Conditions				\$ 64,121	\$ 78,370
1.1	Mobilization, Maintenance & Insurance	1	allow	5%	\$ 45,800	\$ 55,978
1.2	Clearing and Tree Removal	1	allow	1%	\$ 9,160	\$ 11,196
1.3	Traffic Control, Surveying, Safety Plan	1	allow	1%	\$ 9,160	\$ 11,196
2	Infrastructure Site Work				\$ 213,110	\$ 260,468
2.1	Mass Grading, Site Work & Erosion Control	1	allow	5%	\$ 35,145	\$ 42,955
2.2	Parking (18 sp)	18	allow	\$ 5,900	\$ 131,423	\$ 160,628
2.3	Water Infrastructure (domestic and waste)	1	allow	2%	\$ 14,058	\$ 17,182
2.4	Internal Roadways/Drives	1,300	sf	\$ 13	\$ 20,109	\$ 24,578
2.5	Site Electrical Service Allowance	1	allow	\$ 10,000	\$ 12,375	\$ 15,125
3	Structures				\$ 168,300	\$ 205,700
3.1	Picnic Shelter	1	ea	\$ 16,000	\$ 19,800	\$ 24,200
3.2	Restroom	1	ea	\$ 120,000	\$ 148,500	\$ 181,500
4	Hardscapes				\$ 497,475	\$ 608,025
4.1	Concrete Pathways	6,000	sf	\$ 7.00	\$ 51,975	\$ 63,525
4.5	Site Furniture Allowance	1	allow	\$ 30,000	\$ 37,125	\$ 45,375
4.7	Playgrounds	1	allow	\$ 300,000	\$ 371,250	\$ 453,750
4.11	Gateways/Wayfinding Signage	1	allow	\$ 10,000	\$ 12,375	\$ 15,125
4.12	Flag Plaza	1	ea	\$ 20,000	\$ 24,750	\$ 30,250
5	Landscape/Irrigation (allowance)				\$ 37,125	\$ 45,375
5.1	Trees/Shrubs/Groundcover	1	allow	\$ 30,000	\$ 37,125	\$ 45,375
Subtotal					\$ 980,131	\$ 1,197,937
Construction Escalation Q2 - 2022 to FY2023					\$ 44,106	\$ 53,907
Total Project Cost with Range					\$ 1,024,236	\$ 1,251,845
Burditt Consultants has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions. Burditt Consultants cannot and does not guarantee that proposals, bids or actual						

Preliminary Opinion of Probable Costs (OPC)						
#	Item / Description	Qty	Unit	Unit Rate	Range	
					Low	High
1	General Conditions				\$ 243,748	\$ 297,914
1.1	Mobilization, Maintenance & Insurance	1	allow	5%	\$ 135,415	\$ 165,508
1.2	Clearing and Tree Removal	1	allow	3%	\$ 81,249	\$ 99,305
1.3	Traffic Control, Surveying, Safety Plan	1	allow	1%	\$ 27,083	\$ 33,102
2	Infrastructure Site Work				\$ 877,728	\$ 1,072,779
2.1	Mass Grading, Site Work & Erosion Control	1	allow	14%	\$ 247,128	\$ 302,046
2.2	Parking (40 sp)	40	allow	\$ 5,900	\$ 292,050	\$ 356,950
2.3	Water Infrastructure (domestic and waste)	1	allow	3%	\$ 59,494	\$ 72,715
2.4	Internal Roadways/Drives	8,440	sf	\$ 13	\$ 130,556	\$ 159,569
2.5	Site Electrical Service Allowance	1	allow	\$ 60,000	\$ 74,250	\$ 90,750
2.6	Site Lighting	10	ea	\$ 6,000	\$ 74,250	\$ 90,750
3	Structures				\$ 700,425	\$ 856,075
3.1	Picnic Shelter	1	ea	\$ 16,000	\$ 19,800	\$ 24,200
3.2	Small Pavilion	1	ea	\$ 120,000	\$ 148,500	\$ 181,500
3.3	Large Pavilion	1	ea	\$ 430,000	\$ 532,125	\$ 650,375
4	Hardscapes				\$ 973,388	\$ 1,189,696
4.1	Concrete Pathways	8,314	sf	\$ 7.00	\$ 72,020	\$ 88,024
4.2	Basketball Courts	2	ea	\$ 85,000	\$ 210,375	\$ 257,125
4.3	Tennis/Pickleball Courts	1	ea	\$ 120,000	\$ 148,500	\$ 181,500
4.4	Site Furniture Allowance	1	allow	\$ 40,000	\$ 49,500	\$ 60,500
4.5	Playgrounds	1	allow	\$ 300,000	\$ 371,250	\$ 453,750
4.6	Workout Stations	2	ea	\$ 5,000	\$ 12,375	\$ 15,125
4.7	Educational Signage	1	allow	\$ 12,000	\$ 14,850	\$ 18,150
4.8	Decomposed Granite	1812	sf	\$ 6.50	\$ 14,575	\$ 17,814
4.9	Gateways/Wayfinding Signage	1	allow	\$ 25,000	\$ 30,938	\$ 37,813
4.10	Multi-Purpose Field	39600	sf	\$ 1	\$ 49,005	\$ 59,895
5	Landscape/Irrigation (allowance)				\$ 156,767	\$ 191,604
5.1	Trees/Shrubs/Groundcover	1	allow	\$ 95,000	\$ 117,563	\$ 143,688
5.2	Athletic Field Irrigation (grading, grass seeding, backstop)	39600	sf	\$ 1	\$ 39,204	\$ 47,916
Subtotal					\$ 2,952,055	\$ 3,608,068
Construction Escalation Q2 - 2023 to FY2024					\$ 132,842	\$ 162,363
Total Project Cost with Range					\$ 3,084,898	\$ 3,770,431
Burditt Consultants has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions. Burditt Consultants cannot and does not guarantee that proposals, bids or actual construction will not vary from opinion of probable costs.						

Appendix

- Analysis of Parkland Dedication Ordinance Fees
- Reasons to Build a Disc Golf Course in Iowa Colony - Jim Wiehoff, Resident



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Appendix

Analysis of the Parkland Dedication Ordinance Fees
Iowa Colony, Texas

Prepared By:
Paul S. Howard, Planner
Burditt Consultants, LLC

April 25, 2023
On Behalf Of:
City of Iowa Colony, Texas



Abstract

The City of Iowa Colony, Texas has a Parkland Dedication Ordinance to provide recreational areas in the form of neighborhood parks regional parks, and trail systems, as a function of subdivision development in the City and the City's Extraterritorial Jurisdiction. This ordinance requires that new subdivisions provide parkland as a component the development to ensure adequate recreation space and amenities are available to meet increased demand from new residents. The premise is that the cost for new parks should be borne by the ultimate residential property owners who shall be the beneficiaries of the parks and facilities.

The Parkland Dedication Ordinance offers an alternative to dedication of land, whereby developers may elect to pay a fee in lieu of land dedication that will be deposited into a fund for purchase of parkland and subsequent development of the parks and facilities. As the City has grown and property values in the area have increased significantly, the City of Iowa Colony recognizes the need to re-assess the current fees to determine if they are sufficient for purchase of parkland in the current marketplace. This study seeks to evaluate the methodology for establishing fees and make recommendations for increases if deemed appropriate. Any increases in fees must be accompanied by a fair and reasonable methodology for calculation that is defensible.

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1 Introduction

The City of Iowa Colony, Texas has a Parkland Dedication Ordinance as a component of the City's Unified Development Code to provide recreational areas in the form of neighborhood parks regional parks, and trail systems, as a function of subdivision development in the City Limits and its Extraterritorial Jurisdiction (ETJ). This ordinance requires that new subdivisions provide parkland as a component of the development to ensure adequate recreation space and amenities are available to meet increased demand from new residents. The premise is that the primary cost of purchasing, developing, or improving parks should be borne by the landowners of residential property who, by reason of the proximity of their property to such parks, shall be the primary beneficiaries of such facilities.

The Parkland Dedication Ordinance offers an alternative to dedication of land, whereby developers may elect to pay a fee in lieu of land dedication that will be deposited into a fund for purchase of parkland and subsequent development of the parks and facilities. As the City has grown and property values in the area have increased significantly, the City of Iowa Colony recognizes the need to re-assess the current fees to determine if they are sufficient for purchase of parkland in the current marketplace. This study seeks to implement a methodology for establishing fees that is based on current park level of service and current taxable value of land within the jurisdiction and make recommendations for increases if deemed appropriate. Any increases in fees must be accompanied by a fair and reasonable methodology for calculation that is defensible.

2 Background

Municipal ordinances for parkland dedication have been in use in the United States since 1923, with the earliest known ordinance passed by the State of Montana in 1919. In Texas, such ordinances date back to 1955 (City of Corpus Christi), with many more municipalities following suit in subsequent years. To understand the efficacy of these ordinances for providing adequate parkland to meet growing

demand in communities, a study was conducted by Distinguished Professor Dr. John L. Crompton of Texas A&M University’s Department of Recreation, Park, and Tourism Sciences (Parkland Dedication Ordinances in Texas: A Missed Opportunity?, AgriLIFE Extension Texas A&M System, 2010). The study evaluated the parkland dedication ordinances of 48 Texas cities to identify the following:

- 1. Type of parks for which they provided;
- 2. Inclusion or exclusion of nonresidential development;
- 3. Inclusion or exclusion of subdivisions in the ETJ;
- 4. Methods for calculating land requirement;
- 5. Methods for calculating structure of fees-in-lieu of parkland dedication;
- 6. Fees for park development;
- 7. Congruence with precedent court opinions and case law regarding the constitutionality of parkland dedication ordinances in Texas.

Parkland dedication ordinances have been implemented in numerous cities across the state with varied approaches to determining the land dedication requirements, fees in lieu of land dedication and park development fees. Dr. Crompton has concluded that many of these cities do not provide a systematic approach to requirement calculations, rather they are assessing arbitrary land requirements and fees that do not have a basis in the true park level of service experienced by the community and fees based on actual land values or development costs. This analysis seeks to identify a replicable methodology that adheres to the principal of rough proportionality between .

3 Methodology

3.1 Calculating Parkland Requirement

The Parkland Dedication Ordinance is established to provide recreational areas in the form of neighborhood parks, regional parks, and trail systems as a function of subdivision development in the City

and the City's extraterritorial jurisdiction. This ordinance requires that new subdivisions provide parkland as a component of the development to ensure adequate recreation space and amenities are available to meet increased demand from new residents. The current ordinance requires a dedication of parkland to meet a minimum park Level-Of-Service (LOS) at a ratio of one (1) acre of parkland per fifty-four (54) Dwelling Units (DUs). It is unclear how the ratio of one acre per fifty-four Dwelling Units was derived, therefore a metric based on the current park level of service should be established. The premise of a parkland dedication ordinance is that the cost for new parks should be borne by the ultimate residential property owners who shall be the beneficiaries of the parks and facilities.

The Parkland Dedication Ordinance offers an alternative to the dedication of land, whereby developers may elect to pay a fee in lieu of land dedication that will be deposited into the Parkland Dedication Fund for purchase of parkland and subsequent development of the parks and facilities. This study establishes a methodology for determining the Fee in lieu of parkland dedication that can be regularly updated as land acquisition costs increase.

3.2 Calculating a Fee in lieu of Parkland Dedication

As with most parkland dedication ordinances, the Iowa Colony's ordinance offers an opportunity for developers to pay a fee in lieu of parkland dedication Neighborhood Parks. Currently that fee amounts to \$350 per Dwelling Unit for any residential development for which a subdivision plat is required. In addition to land dedication, or a fee in lieu of land dedication, developers must contribute an additional four hundred fifty dollars (\$450) per dwelling unit for the development of Regional Parks. The fee for regional park development is deposited into the City's Regional Park Fund. [3].

The current fee structure for parkland dedication, like that of many other cities, appears to be arbitrarily determined, and therefore may be subject to challenge by developers and/or the courts. The U.S. Supreme Court case *Dolan vs City of Tigard* (512 U.S. 374, 1994) determined that a parkland

dedication ordinance must have a “rough proportionality” between conditions imposed on the developer and the demand on the parks system from the projected development.

3.4 Methodology

Establishing Market Value for Land Acquisition

There are numerous ways to determine property values, with actual purchase price being the most precise. While actual costs are the most precise, it is difficult to establish a universal fee that can be fairly applied across the jurisdiction from individual sale prices without knowing other factors related to the sale such as site conditions, market bubbles, land swaps, developer agreements, etc. A more effective method is to take advantage of the Brazoria County Appraisal District’s (BCAD) current tax roll. BCAD provides information on land parcels in spatial data format that can be analyzed utilizing geographic information systems (GIS) software. The fee in lieu of parkland dedication will be determined by the cost per acre of land within Iowa Colony. BCAD tax rolls can be queried to determine the total acreage and value of land within the City Limits and ETJ. The following steps should be taken to build the geographic database for analysis:

Develop Geographic Database

1. Acquire the latest Extraterritorial Jurisdiction (ETJ) boundary for the City of Iowa Colony in spatial data format such as shapefile, geopackage, geodatabase, or similar. The boundary should include all area within the City Limits as well as the ETJ.

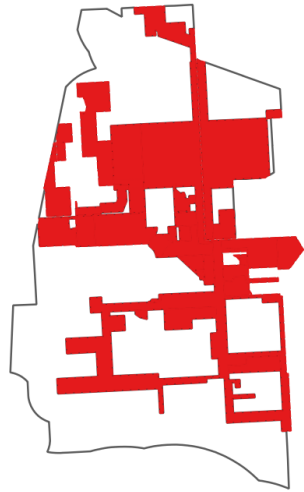


Figure 1: City Limits and ETJ of Iowa Colony.

2. Acquire the latest parcel boundary layer in spatial data format (polygon).
3. Acquire the latest Certified Property Data July 2022 from BCAD in tabular form (.csv)
4. Join the Certified Property Data table to the parcel boundary layer by "Parcel ID" (R#####).
5. Select the parcels within the boundary of the City Limits and ETJ.

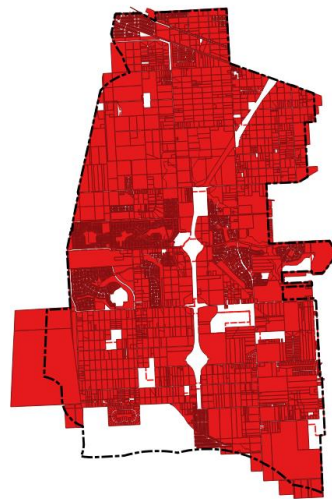


Figure 2: Iowa Colony parcels clipped to ETJ boundary. (note: only includes parcels within the jurisdiction that have appraised values in the BCAD database. Some parcels cross the ETJ boundary and were included).

Identify Quantity and Value of Land within the Jurisdiction

1. Calculate the total acreage of all selected parcels. In the example shown in *Figure 2* there are a total of 14,948.0 acres of land within the jurisdiction (that have reported values).
2. Summarize the total sum of “Market Land Value” (land_seg_mkt_val) as listed in the Certified Property Data. In the example for 2022 there is a total value of \$674,531,680 of land.
3. Calculate the total cost per acre of undeveloped land by dividing the total value by the total acreage. In the example for 2022, this yields an average cost per acre of \$45,125.
$$\$674,531,680 / 14,948.0 \text{ [acres]} = \$45,125 \text{ [average cost per acre]}$$

Calculating the Fee in lieu of Parkland Dedication – Neighborhood Parks

Land Requirements: The current level of service required by the Iowa Colony parkland dedication ordinance is one (1) acre per fifty-four (54) Dwelling Units (Dus). This level of service requirement appears to be arbitrary in its determination and is therefore difficult to defend as ‘roughly proportional’ to the level of service residents currently experience from neighborhood parks provided by the City and HOAs. A more appropriate method is to calculate the current level of service in terms of total acres of parkland and the current population. This can be accomplished by following calculations:

1. Determine total acres of developed parkland within City Limits and ETJ:
 - a. City Parks – 16.97 acres
 - b. HOA Parks – 75.82 acres
 - c. Total Parkland – 92.82 acres
2. Determine current population characteristics:
 - a. Census Estimate July 2021 – 10,883
 - b. Average Persons Per Household (PPH) from 2017-2021 (Census) = 3.11
3. Determine Current Parkland Level of Service:
 - a. Level of Service = People per Acre of Parkland = (*population / park acres*) = 117
 - b. Dwelling Units per Acre of Parkland = (*Level of Service / PPH*) = 37.7

Fee in lieu of Land: Based on the above calculations, the City of Iowa Colony currently experiences a parkland Level of Service of 1 acre of parkland per 37.7 Dwelling Units. To calculate the fee per DU, the average cost per acre of land is divided by the DU requirement for parkland as follows:

Neighborhood Parkland Fee in Lieu of Dedication

\$45,125 / 37.7 DUs = \$1,197 Per DU

4 Determining Park Development Fees

The cost of parkland is not only a function of land acquisition but also the cost of developing the parkland. To estimate the development cost for a neighborhood park, Burditt Consultants reviewed a selection of past park master planning projects from recent years to identify an average cost per acre for park development. The review included a total of 62 park projects within 11 cities. The sample projects included a wide range of park types, sizes, and proposed improvements. The intent was to identify an average development cost, when there is a vast range of possible development scenarios for future parks. The Opinions of Probable Cost for each sample project were adjusted to account for cost escalation/inflation from the time of publishing to the present. The adjusted costs were then averaged to obtain an average cost of \$489,247 per acre. To derive the park development fee on a per-dwelling-unit basis, the following assumptions and calculations were used:

1. The average cost of development of a park is - \$489,247 per acre.
2. One park currently serves 989 people, based on a total city population of 10,883 being served by 11 parks (*10,883 people / 11 parks*) (count includes City and HOA parks).
3. It costs \$495 per person (*\$489,247/989 people*) to develop an acre of parkland.
4. It costs \$1,538 per household (*\$495 cost per person X 3.11 persons per household*).

Parkland Dedication and Development Fee Summary

Fee In Lieu of Land Dedication

\$1,147 PER DWELLING UNIT

Park Development Fee

\$1,538 PER DWELLING UNIT

5 Conclusions

The methodology described above illustrates an approach to parkland dedication and fee requirements that are more defensible and more equitable for the community in terms of maintaining the park level-of-service currently expected by residents from parks provided within the jurisdiction. The City should update these fees periodically to reflect changes in the market cost of land and the development cost of parks.

6 References

[1] Parkland Dedication Ordinances in Texas: A Missed Opportunity?, Dr. John L. Crompton, AgriLIFE Extension Texas A&M System, Texas A&M University’s Department of Recreation, Park, and Tourism Sciences 2010

[2] An Analysis of Parkland Dedication Ordinances in Texas, Journal of Park and Recreation Administration, Spring 2010. Volume 28, Number 1, pp. 70-102.

[3] City of Iowa Colony Unified Development Code (adopted May 15, 2017)

Reasons to Build a Disc Golf Course in Iowa Colony

Presented by Jim Wiehoff, Iowa Colony resident and PDGA member #234000

Disc Golf Is Affordable and Accessible

There are more than 11,500 disc golf courses in the world, and 60% of them are in public parks. On top of that, 91% of all disc golf courses are free to play. That means all you need is a single disc, which can be purchased for less than \$15, and you're ready to play.



Disc Golf Promotes Health and Well-Being

Disc golfers average 6,500 steps (3.25 miles) during an 18-hole round. That means players are outside and can cover more than half of their American Heart Association-recommended daily step count in under two hours, all while honing the mental focus that golf requires.

Disc Golf Serves More of the Community

Disc golf is one of the fastest growing recreational sports in the United States. More than 70 players can fit on an 18-hole disc golf course at one time if they play in traditional groups of four. With the average round taking 1 hour and 40 minutes to complete, that means more than 550 players a day can access a course depending on seasonal conditions.

That number is far higher than the capacity of tennis courts, basketball courts, and other sports facilities that often require more money to install. A set of 18 disc golf baskets can be purchased for about \$8,000, and even with labor and other costs a new course can be installed for as low as \$30,000.



A statement from a resident in attendance at the Iowa Colony Parks Master Plan Open House, September 26, 2023:

"I very much like the plans and ideas presented tonight. These will be great additions to our community. I would like to see a pro-level Disc Golf course similar to Briscoe Park in Alvin. There is a thriving Disc Golf community that is ready to help.

Disc Golf courses are inexpensive to build and maintain. It's an easy and affordable sport to learn. Disc golfers often spend time and money at shops and restaurants near course locations. Thank You!"
- Jim Wiehoff - Meridiana

Contact Info: Cell: 713-303-0603 Email: jimjamz2@me.com

Sources: Professional Disc Golf Association and UDisc Scoring Application Reports 2021

Reasons to Build a Disc Golf Course in Iowa Colony

Presented by Jim Wiehoff, Iowa Colony resident and PDGA member #234000

Disc Golf Stimulates the Local Economy

When disc golfers come to town, they spend more than just time on the course. The Peoria, Illinois Convention and Visitors Bureau sees more than \$1 million in direct economic impact every summer from the Ledgestone Insurance Open, while Columbia, Missouri's Mid-America Open nets more than \$150,000.

It doesn't just have to be with big events, though: Ben Smith, a course designer in Canada, found that a single course brought in more than \$11,000 in annual economic impact for its small municipality of Hillborough – in less than six months and with fewer than 700 rounds scored on UDisc. In the United Kingdom, course designer Richard Hatton reported in 2017 that disc golfers were willing to travel up to four hours to visit a new disc golf course.

If you build it, they will come – and they'll bring money.

Disc Golf Repurposes Underutilized Spaces

Disc golf courses can exist in spaces that may have no other practical purpose. They can fit in long narrow land areas or places with rough terrain unsuitable for other uses. Disc golf course equipment (concrete tee pads and metal signs and baskets) are tolerant of extreme weather and flooding that might damage other facilities. This means spaces along bayous, utility easements, and other difficult to develop land areas can be ideal for disc golf courses.



Disc Golf is Low in Maintenance and Environmental Impact

Once established, a disc golf course generally only requires regular mowing for routine maintenance. Unlike ball or soccer fields, disc golf courses can have longer intervals between mowing since short grass is not a necessity for play. Local disc golf leagues frequently have volunteer days to help maintain courses, remove tree debris, and perform course improvement activities. Disc golf courses thrive in natural areas since trees and undeveloped terrain are considered positives for a course rather than something that needs to be removed or remediated. Disc golfers like hikers are well acquainted with the principle of pack it in-pack it out so even areas without trash receptacles are kept clean.

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Sources: Professional Disc Golf Association and UDisc Scoring Application Reports 2021

Reasons to Build a Disc Golf Course in Iowa Colony

Presented by Jim Wiehoff, Iowa Colony resident and PDGA member #234000

Local Example – Briscoe DGC in Alvin, Tx.

A local example for reference is the disc golf course at Bob Briscoe Park in Alvin. Briscoe DGC is a state-of-the-art disc golf course with 18 tournament quality holes, concrete and paver tee pads, and paved walking trails. It is the only fully lighted course in the greater Houston area making it very popular for league and tournament play and also when daylight hours are short in the winter months.



My Own Experience as a Disc Golfer

My son and I began playing as a way to spend time together and get good exercise. We have since observed that the greater Houston area has a thriving disc golf community that frequently travels around the town and state for tournaments and new places to play. I personally have played courses all over Houston and in most cases also spend money in the local restaurants, stores, and gas stations.



It's a great game that is literally open to all ages and skill levels and I am passionate about seeing it continue to grow. I am happy to support Iowa Colony in any way I can in moving towards a new disc golf course in our community. Thank you!

Contact Info: Cell: 713-303-0603 Email: jimjamz2@me.com

Sources: Professional Disc Golf Association and UDisc Scoring Application Reports 2021

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