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PRECINCT 2 PARKS AND TRAILS PLAN

SEPTEMBER 2021 DRAFT

ADRIAN GARCIA
COMMISSIONER

PARKS AND TRAILS PLAN
Harris County Precinct 2

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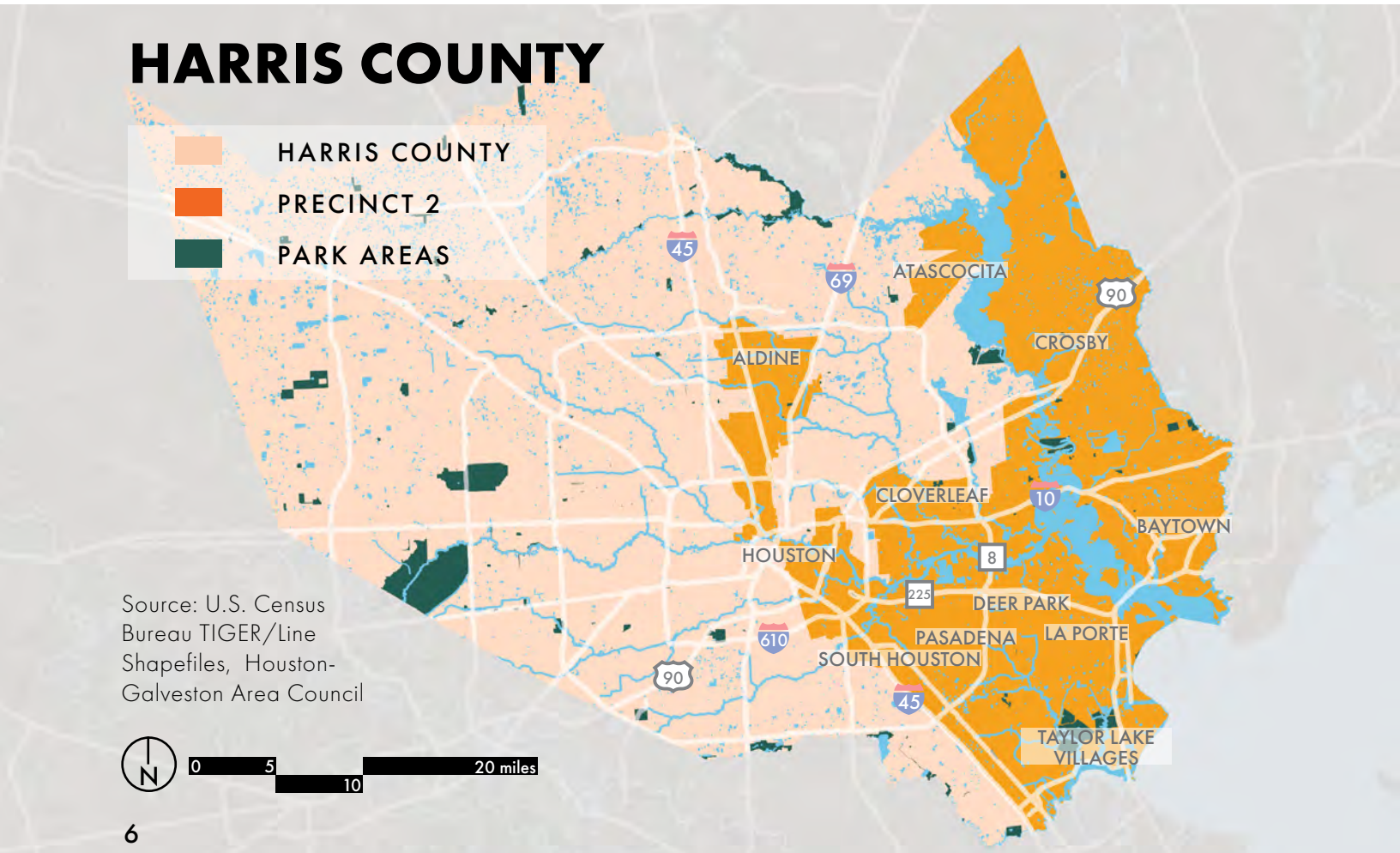
[LETTERS OF SUPPORT]

EXECUTIVE SUMMARY

WHY A PARKS AND TRAILS PLAN?

Parks and trails are essential for healthy, thriving communities and impact the quality of life for residents. In order to ensure that open spaces in the Precinct meet the community's needs for years to come, Harris County Precinct 2 Commissioner Adrian Garcia's office worked with community members and key stakeholders to develop a long-term vision and a near-term plan for priority investments in parks and trails. This report is the culmination of those efforts.

Now more than ever, parks are a vital resource for all residents. Parks and trails in Precinct 2 provide opportunities for communities to safely come together, play, exercise, and connect with nature.



Source: U.S. Census Bureau TIGER/Line Shapefiles, Houston-Galveston Area Council

Through a collaborative process involving in-depth community engagement, research, and analysis, the Precinct 2 Parks and Trails Plan outlines how the parks and trails system will best serve the diverse communities in Precinct 2. The Plan is designed to be not only a report but a set of guidelines for Precinct 2 and its partners to use for ongoing adaptive planning and management. The Plan sets priorities for the next five years; however, the Design Guidelines can be used much further into the future for planning efforts. The Precinct 2 Parks and Trails Plan is designed to help make decisions on a range of different scales from a single park to a neighborhood and even to Precinct wide networks.

The Precinct 2 Parks and Trails Plan focuses on parks owned by Harris County in Precinct 2, and it does not include municipal or private parks in the analyses and recommendations. The plan has six main chapters that are summarized here:

1. **State of the Outdoors:** Summarizes the existing context of Precinct 2, and outlines the methodology for undergoing the Park Assessments and the Suitability Analysis for the Precinct. The complete State of the Outdoors report is located in Appendix B.
2. **Engagement:** Outlines the engagement process and touches on the key takeaways from the community as they relate to parks and trail resources in the Precinct.
3. **Goals and Objectives:** Combines the community stakeholder engagement and extensive analysis undergone in the State of the Outdoors report to develop goals and objectives for parks and trails improvements and additions.
4. **Recommendations - Parks and Trails System:** Discusses the Precinct 2 system-wide recommendations for parks and trails. This chapter also discusses key partnerships and summarizes some financing and grant opportunities for parks and trails.
5. **Recommendations - High Priority Parks:** Discusses the recommendations for Tier 1 and Tier 2 High Priority Parks that were carefully selected based on the analysis and on neighborhood needs.
6. **Design Guidelines and Case Studies:** Outlines the design guidelines for the Precinct and case study examples of these guidelines in action.

The Precinct 2 Parks and Trails Plan also lays the groundwork for applying to grant programs with the Texas Parks and Wildlife Department (TPWD) and other programs. The Plan follows the guidelines for park master plans established by the TPWD and is shown in the table below.

TPWD Requirement	PT 2 Parks and Trails Plan Chapter
Introduction	Executive Summary & [1] State of the Outdoors
Goals and Objectives	[3] Goals and Objectives
Plan Development & Public Input Process	[2] Engagement
Area & Facility Concepts & Standards	[4 & 5] Recommendations & [6] Design Guidelines & Case Studies
Inventory of Area Facilities	[1] State of the Outdoors & Appendix B
Needs Assessment & Identification	[1] State of the Outdoors & Appendix B
Plan Implementation and Prioritization of Needs	[4 & 5] Recommendations
Proof of Adoption	Appendix A: Proof of Adoption

PRECINCT 2 STATE OF THE OUTDOORS

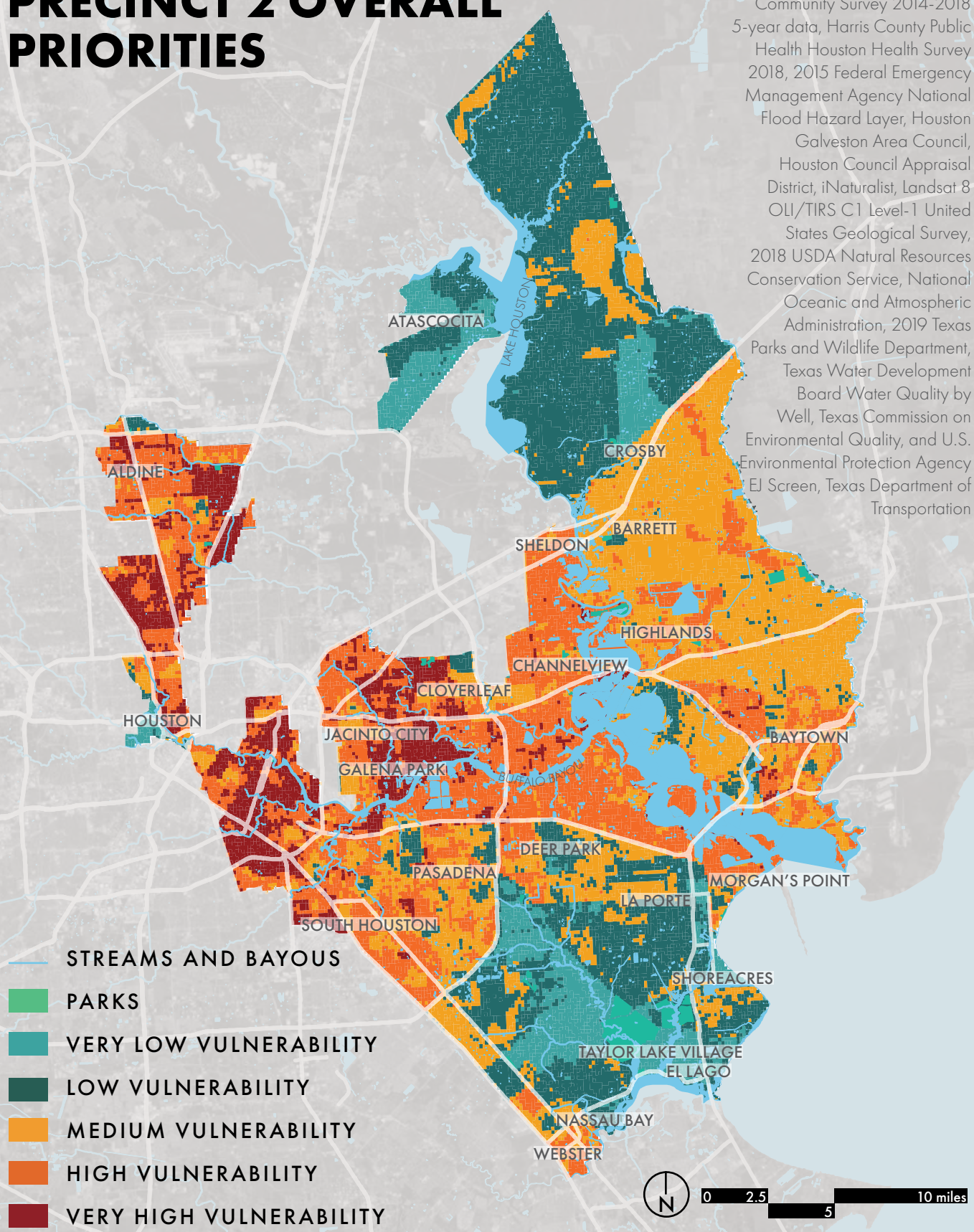
The State of the Outdoors provides the existing conditions and baseline analysis for Precinct 2. The chapter delves into the Precinct's history; demographics; environmental context; operational practices; indicators of socioeconomic disparities, environmental exposures, and community health; and the present state of the parks and trails.

The State of the Outdoors also summarizes the parks assessment process and the results of the suitability analysis. The entire report can be found in Appendix B of this document. A summary of key findings of the State of the Outdoors are listed below:

STATE OF THE OUTDOORS KEY TAKEAWAYS:

- Residents of Precinct 2 experience **high rates of poverty and low educational privilege** compared to Harris County as a whole. These disparities are reflected in health outcomes, indicating a greater need for parks and trails.
- Populations are expected to increase in Precinct 2 in the next 25 years, with **large amounts of growth expected in northern parts of the Precinct.** Plans for future parks and trails will need to account for these shifts in growth and demand.
- Precinct 2 is **rich in natural assets**, but has been **impacted by the industrial legacy** of the area. The parks and trails in the area can provide spaces for humans and wildlife, and bring more nature into Precinct 2.
- The existing valuable environmental features of Precinct 2 are important to **preserve and protect**.
- In-person **parks assessments were conducted at all parks** within Precinct 2 to assess the quality of parks in terms of park access, park features, supportive facilities, safety and maintenance, aesthetics, and other key elements. The parks were assigned scores for quality based on the assessments.
- A suitability analysis was conducted based on available data, which looked at indicators of **socioeconomic vulnerability, community health, environmental risk, and park needs.** The resulting Overall Priorities Map shows areas across those four indicators with the highest need for park investments.

PRECINCT 2 OVERALL PRIORITIES



Sources: US Census American Community Survey 2014-2018 5-year data, Harris County Public Health Houston Health Survey 2018, 2015 Federal Emergency Management Agency National Flood Hazard Layer, Houston Galveston Area Council, Houston Council Appraisal District, iNaturalist, Landsat 8 OLI/TIRS C1 Level-1 United States Geological Survey, 2018 USDA Natural Resources Conservation Service, National Oceanic and Atmospheric Administration, 2019 Texas Parks and Wildlife Department, Texas Water Development Board Water Quality by Well, Texas Commission on Environmental Quality, and U.S. Environmental Protection Agency EJ Screen, Texas Department of Transportation

PRECINCT 2 ENGAGEMENT

Reflecting community voice in the Precinct 2 Parks and Trails Plan was an essential part of the planning process. Precinct 2 residents were reached via surveys, PhotoVoice interviews, focus groups, intercept surveys, speak-outs, walking tours, social media, and in-person flyering throughout the life of the project. To ensure community input is representative of the diversity of Precinct 2, including geographical, ethnic/race, income, and age diversity, Tecolotl led a grassroots community engagement in Precinct 2, with a particular focus on Latinx and Spanish-speaking communities. With 48% of Precinct 2 residents identifying as Spanish speakers, engagement was a bilingual process, with the website, surveys, and other engagement materials communicated in both English and Spanish. The Precinct 2 Parks and Trails Plan had two phases of engagement, the first phase being July through October of 2020, and the second phase being October 2020 through October 2021. Below are the key concerns and desired park and trail amenities expressed by engagement participants. The key concerns and the desired amenities from the engagement process were used to develop the goals and objectives, the park recommendations, and the Design Guidelines.

KEY CONCERNS:

- **Access for People with Disabilities:** Parks and trails should be available to people of varying abilities and existing spaces currently have barriers to accessibility.
- **Safety:** Parks and trails should be safe and welcoming to everyone.
- **Maintenance:** Parks and trails maintenance should be distributed equally throughout the Precinct and be at a higher standard.
- **Environmental Quality:** Parks and trails should be sited away from areas that have direct exposure to environmental hazards, but when sited correctly these areas serve as vital places for exercise and clean air.
- **Connectivity:** Parks and trails should be connected to the community in many different ways to increase ease of use.

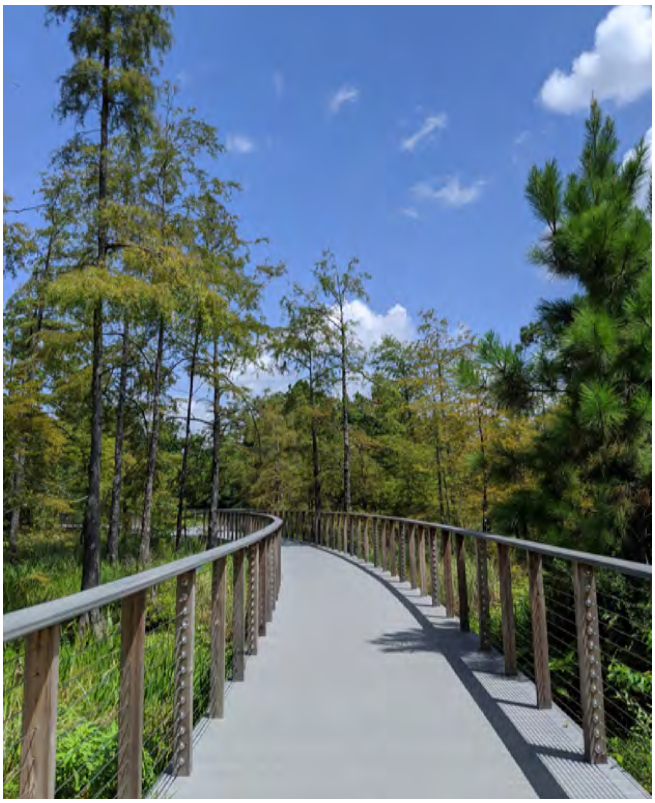
DESIRED AMENITIES:

- **Visible celebration of LGBTQ& and Latinx culture**
- **Public art**
- **Vendors and food options**
- **Trees for heat reduction**
- **Programming for all ages and cultures in various languages**
- **Evening programming**
- **Emergency buttons ("blue lights")**
- **Trail markers**
- **Educational signage and spaces**
- **Farmers markets**
- **Health and educational programming for people of all ages**

PRECINCT 2 GOALS AND OBJECTIVES

The engagement highlighted key themes that were developed into goals and more detailed objectives for Precinct 2 trails and parks. Seven high-level goals were developed, each with corresponding objectives that provide more detailed contextualization. Overall, the goals and objectives provide a path toward a Precinct 2 Park and Trails Plan that nurtures inclusivity, increases access for all, with special attention towards increased longevity and strong networks of care across the Precinct, regardless of scale or location. The goals and objectives are summarized here and can be reviewed in more detail in Chapter 3 - Goals and Objectives.

These goals and objectives were further developed and expressed in the Recommendation, Design Guidelines, and Case Studies that follow this part of the planning process.



Atascocita Hike and Bike Trail. Source: Asakura Robinson.

PRECINCT 2 PARKS AND TRAILS ARE:

- **SAFE** - Ensure that parks and trails are safe and comfortable spaces for everyone.
- **ACCESSIBLE & CONNECTED** - Increase access and connectivity to parks and trails.
- **HEALTHY** - Create spaces that promote an active and holistically healthy lifestyle.
- **CULTURALLY RELEVANT** - Provide park amenities that match local needs.
- **ENGAGING** - Increase programming opportunities, including for sports, music, older adults/seniors, and youth; marketing and communications.
- **ENVIRONMENTALLY RESILIENT** - Create and improve landscapes that are adapted to the local ecology and can withstand or recover from changing conditions.
- **ECONOMICALLY RESILIENT** - Ensure that there are adequate financial and volunteer resources to support an exceptional park system in Precinct 2.

RECOMMENDATIONS: PARKS AND TRAILS

The Precinct 2 parks and trails system-wide recommendations are divided into four main Chapters: New Park and Trail Opportunities, Trails and Bike Connections, Partnerships, and Financing and Grant opportunities. These Chapters are summarized below and can be reviewed in more detail in Chapter 4 - Recommendations: Parks and Trails.

- **New Parks and Trails Opportunities:** One way to enhance the park and trail amenities of Precinct 2, especially in areas of high need, is to consider working with public land partners that have vacant land and/or consider private land acquisition. There are around 22 thousand acres of vacant land (both public and private) in Precinct 2. Of that 4,865 acres are within High Vulnerability communities, and approximately 2,418 acres are within Very High Vulnerability communities.
- **Trails and Bike Connections:** Priority bikeways and trails projects were selected based on meeting six prioritization criteria: Social Vulnerability Index Score, Community Health Index Score, Vision Zero High-Injury Network, Park Access, School Access, and Transit Access. In addition, two geographic filters were considered: unincorporated areas, and bayous, drainage channels, and utility corridors in incorporated areas. Based on the prioritization strategy each trail and bikeway project was labeled as a Short Term project or Long Term project.
    - » **Short Term Projects** require lighter intervention (such as a retrofit of an existing street) or will not need a major investment like a bridge.
    - » **Long Term Projects** will require greater intervention (such as street reconstruction, major trail projects) or may require significant investments like new drainage infrastructure or grade-separated crossings.
- **Partnerships & Financing/Grants:** Developing and leveraging strategic partnerships can help the Precinct acquire more park and trail areas, and help develop unique programming and stewardship opportunities. Creative suggestions, such as partnering with health care organizations and developing public-private partnerships are discussed in more detail in Chapter 5. In terms of parks and trails financing, some of the more conventional strategies include options such as leveraging sales tax, developing a municipal management district, creating tax increment reinvestment zones (TIRZ), utilizing grants with the Land and Water Conservation Fund (LWCF), and the SPARK Schoolyard Park Program. Other strong financing options for parks include:
    - » Parkland Dedication Ordinances
    - » General Obligation Bonds for Parks
    - » FEMA Hazard Mitigation Grants
    - » Texas Parks and Wildlife Department Grants

More specific park financing recommendations for High Priority Parks are located in Chapter 5.

RECOMMENDATIONS: HIGH PRIORITY PARKS

Fifty-three parks and open spaces throughout Precinct 2, with a range of conditions, were analyzed in this planning effort. Some sites were undeveloped parcels, and others were highly used parks with a long history in the community. A tiered approach was taken to prioritize parks planning and funding strategies for the next five years. Tier 1 and Tier 2 categories were created by reviewing park assessments, suitability analysis and risk factors in communities through data-mapping, community engagement, and input from Precinct 2 staff. Each park was then given a Report Card and ranked. The goal of the tier system was to understand how to improve parks conditions and foster a healthy lifestyle for all Precinct 2 residents and park visitors.

Our recommendations for improving parks are nuanced and dependent on key factors such as park needs throughout different communities. As an example, when there is a neighborhood with high urban heat, strategies to increase permeable surfaces and shade are recommended. Overall, the tiered system provides Precinct 2 an opportunity to have a focused strategy in the immediate term to enhance parks that require attention. Recommendations for Tier 1 and Tier 2 parks are summarized below. Detailed Report Cards and recommendations can be found in Chapter 5 - Recommendations: High Priority Parks.

Tier 1 PARKS include 11 parks (3 of them along Halls Bayou Hike and Bike Trail) that were determined to be in most urgent need of short-term improvements within the next 1-3 years.

Tier 2 PARKS include 20 parks that were determined to be in need of improvements within the next 5 years.

TIER 1 & TIER 2 PARK RECOMMENDATION SUMMARY

The recommendations for Tier 1 and Tier 2 Parks reinforce the goals and objectives that were co-created with the community. Some of the common recommendations that apply to parks spaces include improving or introducing trail connections throughout the park and to adjacent spaces, and considering installing bridges were appropriate. In addition to connector trails, there is a need to install new bike racks to support active transportation to and from parks. The recommendations include providing intentional park seating, lighting, fencing, and signage, especially entrance signage that support wayfinding and safety in the park. Increasing planting areas to provide evaporation cooling, shade, and habitat, especially increasing canopy coverage over trails and paths, is another common recommendation. Assuring that parks and trails are universally accessible and include ADA-compliant picnic tables, accessible paths, trails, crosswalks, and restrooms is recommended throughout the district. Similarly, action should be taken to provide changing tables for all restroom types including men's, women's, and gender-neutral facilities. Finally, recommendations also suggest some signature park amenities and features such as nature-based playgrounds, green stormwater infrastructure, and educational environmental signage.

**The recommendations are an overview meant for guidance and future planning. Additional site conditions, and further investigation and analysis should be done during the implementation phases for each project.*

DESIGN GUIDELINES AND CASE STUDIES

The Design Guidelines and Case Studies are a culmination of the planning process for the Precinct 2 Parks and Trails Plan. Based on the seven community and stakeholder informed Goals and Objectives (Safe, Accessible & Connected, Healthy, Culturally Relevant, Engaging, Environmentally Resilient, and Economically Resilient), 4 major design themes were developed as a framework for improving Precinct 2 Parks and Trails. Design Guidelines were developed for each of these themes to provide guidance on parks improvement and implementation. The themes are summarized below.

- **COMMUNITY-FOCUSED:** Precinct 2 parks can provide cultural programming that brings communities together. In addition, parks can be sources of economic development through small ventures such as food trucks, markets, and concessions. Overall this theme promotes community wellness, safety, health, and a stronger sense of place by focusing on Placemaking, Economic Development, and Safety to achieve parks that are more community-focused.
- **RESILIENT AND VIBRANT:** Precinct 2 can use native plantings, green infrastructure, and land restoration strategies to support ecological and community health as well as for sustainable stormwater management.
- **COHESIVE AND COMFORTABLE:** Precinct 2 can have guidelines for benches, shade structures, trash receptacles, and other site furnishings in parks and along trails. These guidelines will provide a cohesive look to Precinct 2 parks, as well as ensure accessibility for all visitors.
- **ACTIVE:** Accessible and connected biking and walking trails can facilitate movement to, from, between, and within Precinct 2 parks.

With these themes and associated Design Guidelines, 5 Case Study parks/trails were selected for further design. All 5 areas are Tier 1 parks that demonstrate a high need for investment in the near term of 1-3 years.

THE 5 CASE STUDY SITES ARE:

- **Halls Bayou Hike and Bike Trail, including**
  - » **Mary Withers Park**
  - » **Bretshire Park**
  - » **Pinewood Village Park**
- **North Shore Park**
- **Channel View Sports Complex**
- **James Bute Park**
- **Dad's Club Sports Complex**

PRECINCT 2 PARKS AND TRAILS PLAN

DESIGN GUIDELINES

CONCLUSION

Through a collaborative process involving in-depth community engagement, research, and analysis, the Precinct 2 Parks and Trails Plan outlines how the parks and trails system will best serve the diverse communities in Precinct 2. The approximately 1.5-year planning process involved:

1. Learning about the **State of the Outdoors** of the Precinct through existing conditions research, park assessments, and a geospatial suitability analysis;
2. Hosting in-depth community **Engagement** throughout the process to learn from the expertise of the Precinct 2 constituents;
3. Setting visionary **Goals and Objectives** for the parks and trails within the Precinct;
4. Developing system-wide **Recommendations** for the parks and trails within Precinct 2;
5. Developing high priority park **Recommendations** for Tier 1 and Tier 2 parks in the Precinct; and
6. Creating **Design Guidelines** and applying those to 5 **Case Study** Tier 1 parks through the development of schematic designs proposals.

The Precinct 2 Parks and Trails Plan focuses on near term improvements within the next 1-3 years and more longer term improvements taken in a 5 year time range. However, this plan and the materials developed through the process can be used as toolkits/guides for parks and trails creation and improvement far into the future.

1. STATE OF THE OUTDOORS SUMMARY

PRECINCT 2 IN CONTEXT

Precinct 2, led by Commissioner Adrian Garcia, represents the eastern side of Harris County, and includes 15 municipalities and approximately 23% of Harris County's population as a whole.[1]

The Precinct has a strong sense of cultural heritage, with half of residents being of Mexican origin and 48% identifying as Spanish Speakers.[2] [3] A full quarter of Precinct 2 residents were born outside of the United States, indicating the Precinct's status as a destination for immigrants.[4]

However, despite its cultural vibrancy, the Precinct also has high rates of poverty and lower levels of educational privilege when compared to the County as a whole. Nearly 20% of residents are living under the poverty level as of 2018 (compared to 16% for all of Harris County), and 28% of Precinct 2 residents 25 years and older do not have a high school diploma, compared to 19% for Harris County.[5] [6]

ETHNICITY

86%

OF HISPANIC RESIDENTS IN PRECINCT 2 ARE OF MEXICAN ORIGIN*

*RESIDENTS OF MEXICAN ORIGIN ACCOUNT FOR 50% OF PRECINCT 2'S RESIDENTS

Data Source: U.S. Census Bureau, 2014-2018 ACS 5-year Estimates, "B03001: HISPANIC OR LATINO ORIGIN BY SPECIFIC ORIGIN."

Image source: Hugo L, "Flag of Mexico," February 23, 2020, https://bit.ly/2C7yrlw

PRECINCT 2 RACE AND ETHNICITY

Race/ Ethnicity	Count	Percent
Hispanic or Latino	629,121	60.3%
White, not Hispanic	279,034	26.7%
Black or African American	94,478	9.1%
American Indian or Indigenous American	2,094	0.2%
Asian or Pacific Islander	26,450	2.6%
Other	12,569	1.2%

Data Source: U.S. Census Bureau, 2014-2018 ACS 5-year Estimates, "Table B03002: Hispanic or Latino Origin by Race."

1 United States Census Bureau, "DP05: ACS Demographic and housing estimates," 2018 ACS 5-Year Estimates.
2 United States Census Bureau, "B03001: Hispanic or Latino Origin by Specific Origin," 2018 ACS 5-Year Estimates.
3 United States Census Bureau, "S1601: Language spoken at home," 2018 ACS 5-Year Estimates.
4 United States Census Bureau, "B05012: Nativity in the United States," 2018 ACS 5-Year Estimates.
5 United States Census Bureau, "S1701: Poverty status in the past 12 months," 2018 ACS 5-Year Estimates.
6 United States Census Bureau, "B15003: Educational attainment for the population 25 years and over," 2018 ACS 5-Year Estimates.

POVERTY

19%

OF PRECINCT 2 RESIDENTS ARE LIVING UNDER THE POVERTY LEVEL*

*COMPARED TO 16% FOR ALL OF HARRIS COUNTY

Data Source: U.S. Census Bureau, 2014-2018 ACS 5-year Estimates, "S1701: Poverty status in the past 12 months."

Image source: Karolina Grabowska, "Crop anonymous financier planning budget writing numbers in notebook," May 07, 2020, https://bit.ly/38gLigL

EDUCATION

28%

OF PRECINCT 2 RESIDENTS DO NOT HAVE A HIGH SCHOOL DIPLOMA*

*COMPARED TO 19% FOR ALL OF HARRIS COUNTY

Data Source: U.S. Census Bureau, 2014-2018 ACS 5-year Estimates, "B15003: EDUCATIONAL ATTAINMENT FOR THE POPULATION 25 YEARS AND OVER."

Image source: Pragyan Bezbaruah,"Two Girls Doing School Works," December 23, 2018, https://bit.ly/2BThw5v

PEOPLE OF COLOR

73%

OF PRECINCT 2 RESIDENTS ARE PEOPLE OF COLOR*

*COMPARED TO 70% FOR ALL OF HARRIS COUNTY

Data Source: U.S. Census Bureau, 2014-2018 ACS 5-year Estimates, "DP05: ACS Demographic and housing estimates."

Image source: mentatdgt, "Woman Falling In Line Holding Each Other," July 01, 2018, Pexels, https://bit.ly/38cXnUd

NATIVITY

25%

OF PRECINCT 2 RESIDENTS ARE BORN OUTSIDE THE US*

*COMPARED TO 26% FOR ALL OF HARRIS COUNTY

Data Source: U.S. Census Bureau, 2014-2018 ACS 5-year Estimates, "B05012: nativity in the united states."

Image source: Filipe Leme, "Photo of Smiling Baby Boy in Denim Outfit Sitting on Grass," September 28, 2018, Pexels, https://bit.ly/2NBMbqK

EXISTING PARKS

Harris County Precinct 2 has had multiple planning processes. The Precinct 2 Parks and Trails Plan builds upon these previous efforts to bring forth a strong and shared vision through additional research and community engagement.

The last publicly available inventory or park amenities for Precinct 2 was created in 2001, and it was followed by the 2003 Master Plan for Parks, Recreation, and Open Spaces by Harris County.

The 2003 Master Plan surveyed and interviewed County staff and Precinct Parks and Recreation Department staff to determine priorities, and identified the following[7]:

1. Land acquisitions / park expansion
2. Trails (natural and hard surface)
3. Nature / Conservation areas
4. Soccer Fields
5. Football Fields
6. Skate Park

The 2003 Master Plan also found that municipal master plans within Harris County indicated that hike and bike trails were frequently cited as one of the most publicly desired amenities in the region. As part of its recommendations, the Master Plan also made recommendations for new trials.

The 2020 Parks and Trails Plan will update these priorities of parks and trail users today through a public survey, while also making recommendations around new and ongoing needs. The survey for the Plan, which launched in July of 2020, asks users to identify their priorities for amenities and programming.

7 Harris County, Texas, "Master Plan for Parks, Recreation and Open Space, phase two," 05.20.03, available at https://www.eng.hctx.net/Portals/33/Publications/park_plan_2.pdf

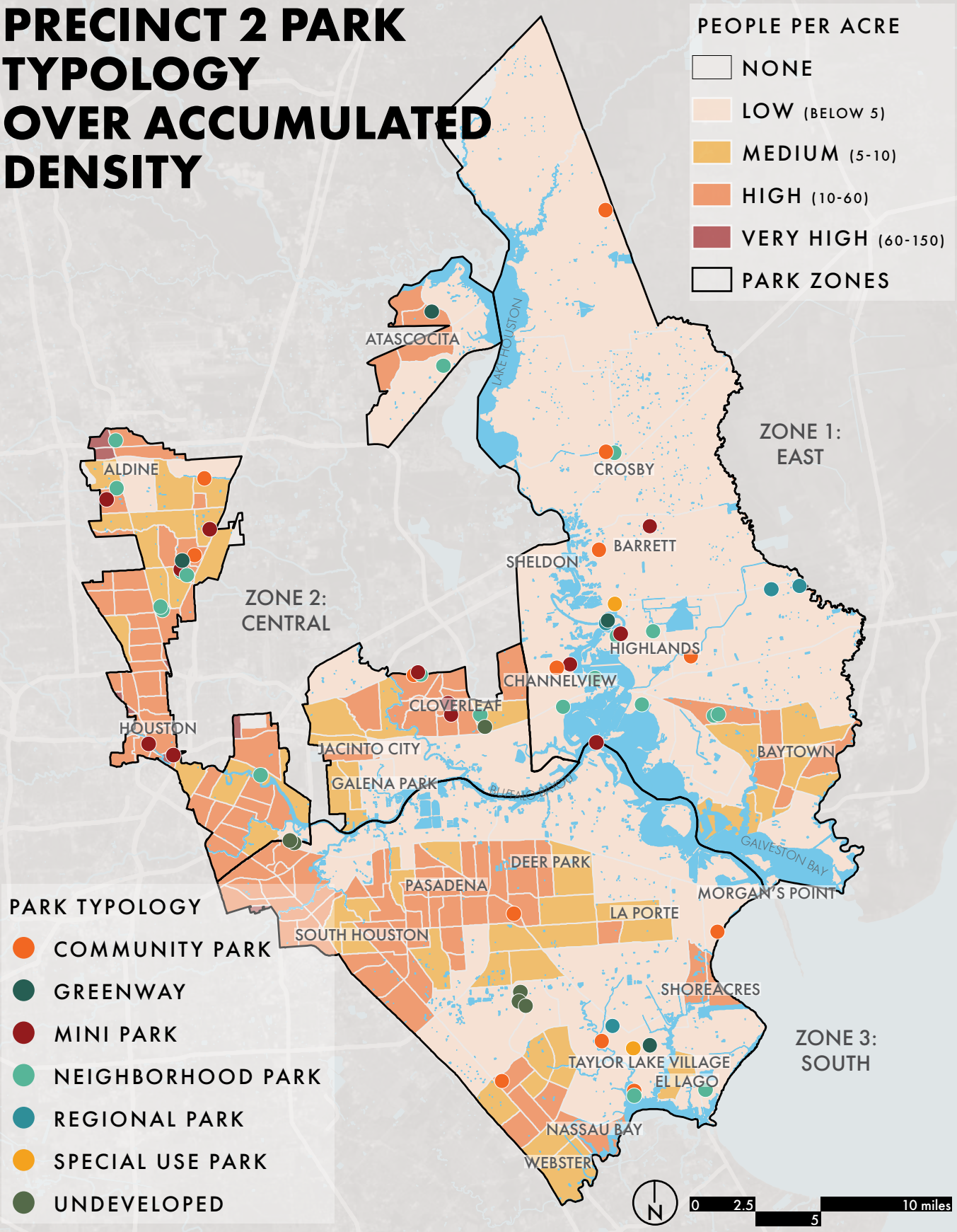
PARK TYPOLOGIES

The 2003 Master Plan distinguished six park classifications shown in the table below. Definitions were not provided for each typology outside of the information shown in the table. Community parks (20), neighborhood parks (17), and mini parks (9) are the most prevalent in Precinct 2.

HARRIS COUNTY 2003 PARK MASTER PLAN: PARK CLASSIFICATION MATRIX

Typology	Size (acres)	Service Area (miles)	Population Served	Typical Facilities
Mini Park	less than 5	1/4	500-2,500	playground, lawn, benches, special features
Neighborhood Park	5-25	1/2	2,000-10,000	playground, picnic, shelters, courts, fields, restrooms, parking
Community Park	25-150	2	10,000-50,000	tennis, sports fields, picnic, shelters, trails, pools, recreation centers, open space, restrooms, parking
Regional Park	150&	10	Urban Area	tennis, sports fields, lakes, swimming, camping, trails, bridle paths, golf, natural area, restrooms, parking
Greenway	N/A	N/A	N/A	planting, trails, benches, information kiosk, telephones, exercise course, drinking fountains
Special Use	N/A	N/A	N/A	n/a

PRECINCT 2 PARK TYPOLOGY OVER ACCUMULATED DENSITY



MEETING PRESENT AND FUTURE PARK AND TRAIL NEEDS

In order to understand the community's need for parks, this report examines places where people live, work, and study, as well as places where those activities are projected to increase in the future.

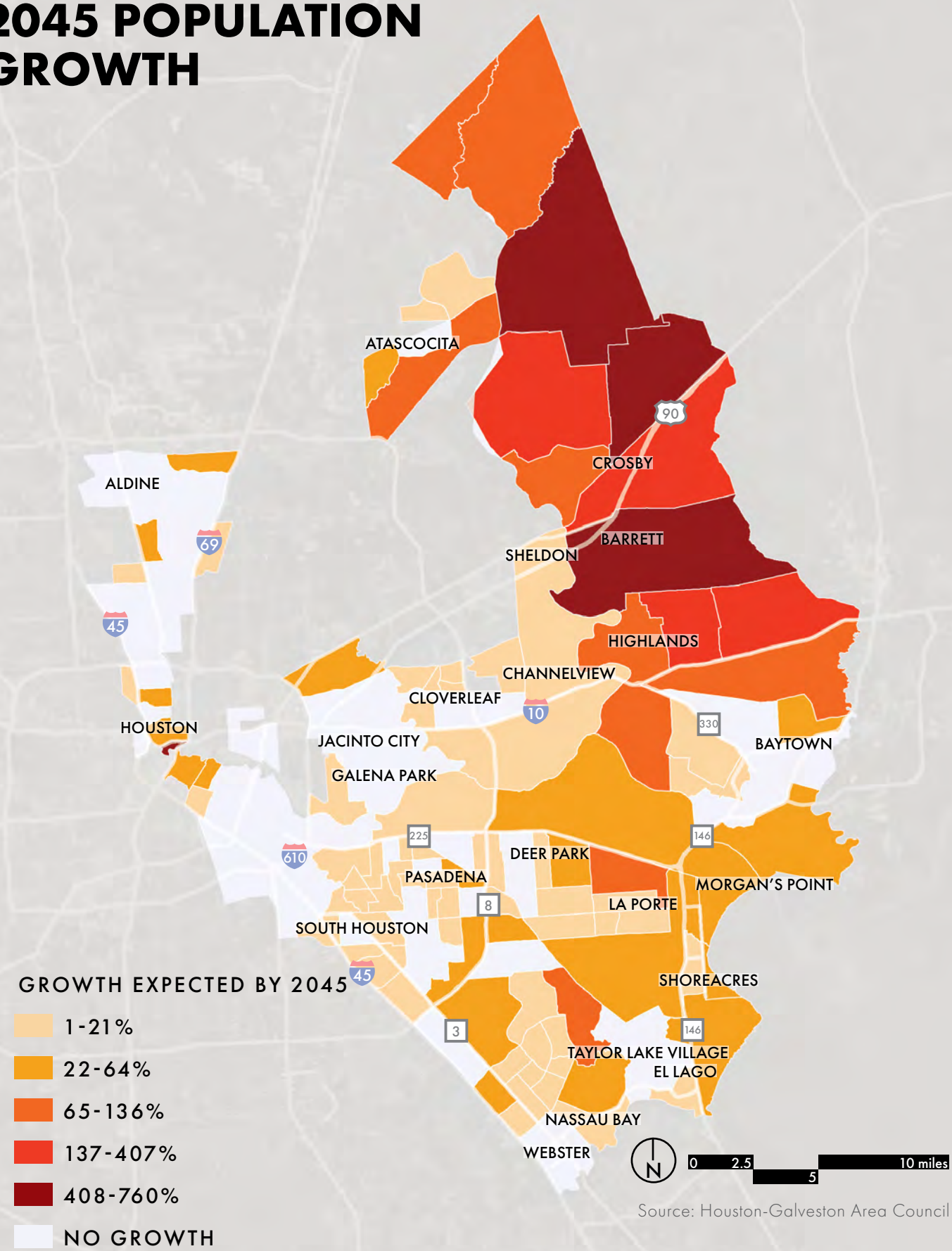
Accumulated density, mapped on the previous page, identifies dynamic places in Precinct 2 where people are living, working, and learning. These locations highlight areas for strategic investments in parks and open spaces. Accumulated density was created by combining data on jobs, population size, and school enrollment. The places that have been identified as high density contain a higher accumulation of jobs, people, and schools per acre. These are areas where investments in parks and open space have significant impact; these high density areas are relatively smaller with larger populations. For example, there is a block group in Houston that is 1% the geographic size of a block group in Barrett with almost the same size population. Notably high density locations in Precinct 2 include Aldine and Houston.

FUTURE NEEDS

In order to understand future needs for parks and trails, 2045 population projection data was taken from the Houston-Galveston Area Council's estimates for regional growth.[8] The data shows that growth is expected in the northern part of Precinct 2, with Crosby, Barrett, and the Highlands, as well as unincorporated parts of the Precinct forecasted to increase growth by anywhere between 65% and 760%. These growth projections require a careful balance between development of infrastructure including parks and trails, and the need for conservation and nature-based recreation.

8 H-GAC, "Regional Growth Forecast, 2018 release," available at http://www.h-gac.com/regional-growth-forecast/default.aspx

2045 POPULATION GROWTH

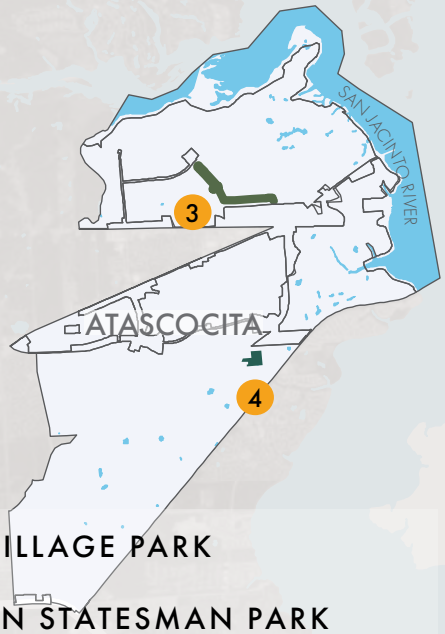


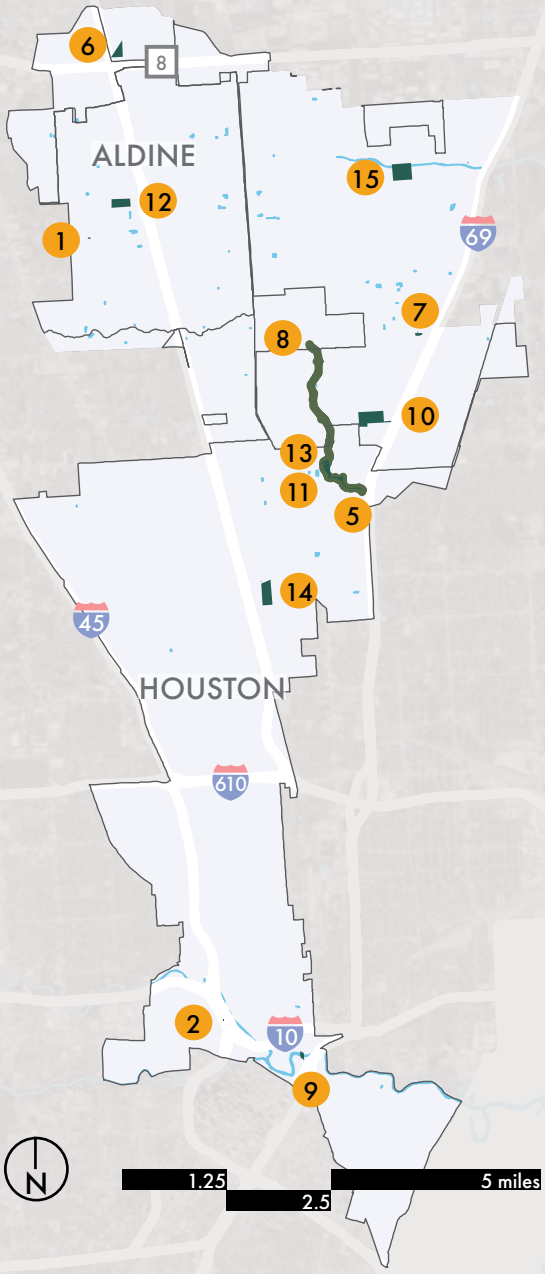
Source: Houston-Galveston Area Council

MAP EXTENT 1- PARKS

BACKGROUND

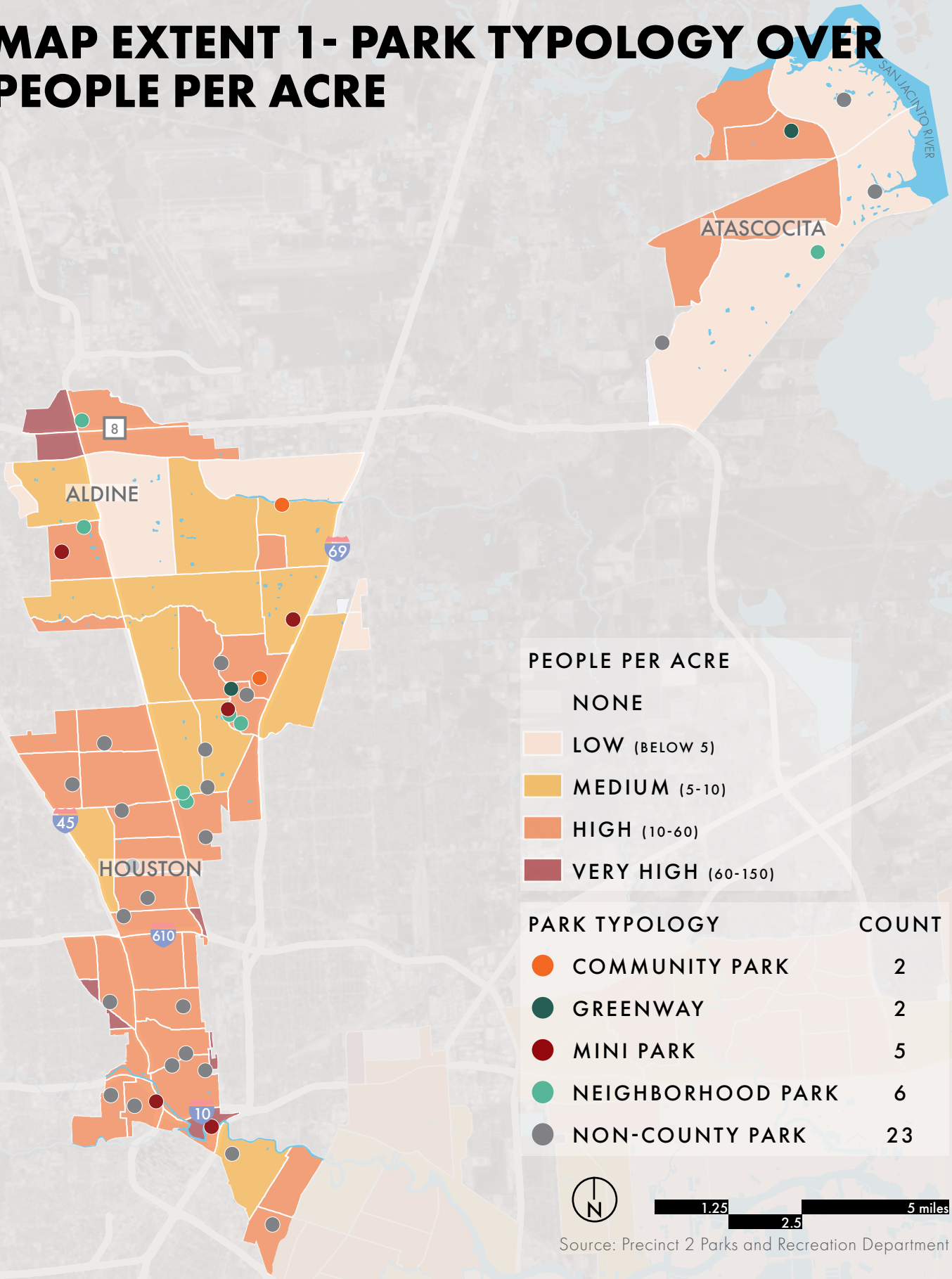
Map Extent 1 contains 15 parks ranging in size from 0.1 to 30.6 acres. This extent additionally contains a 2.3-mile greenway, Halls Bayou Hike & Bike Trail. The Atascocita Hike & Bike Trail will soon open in the extent as well, with an expected one-mile length. The majority of parks are situated near Aldine and Houston within the intersections of Route 69, Route 8, and Hardy Toll Road.





1. ALDINE VILLAGE PARK
2. AMERICAN STATESMAN PARK
3. ATASCOCITA HIKE & BIKE TRAIL
4. ATASCOCITA PARK
5. BRETSHIRE PARK (PART OF HALL'S BAYOU)
6. DOW #1 PARK
7. GERBER PARK
8. HALLS BAYOU HIKE & BIKE TRAIL
9. JAMES BUTE PARK
10. JAMES DRIVER PARK
11. MARY WITHERS PARK (PART OF HALL'S BAYOU)
12. PEP MUELLER PARK
13. PINEWOOD VILLAGE PARK (PART OF HALL'S BAYOU)
14. VETERANS MEMORIAL PARK
15. W. E. BILL CROWLEY PARK

MAP EXTENT 1- PARK TYPOLOGY OVER PEOPLE PER ACRE



PEOPLE PER ACRE

- NONE
- LOW (BELOW 5)
- MEDIUM (5-10)
- HIGH (10-60)
- VERY HIGH (60-150)

PARK TYPOLOGY	COUNT
COMMUNITY PARK	2
GREENWAY	2
MINI PARK	5
NEIGHBORHOOD PARK	6
NON-COUNTY PARK	23

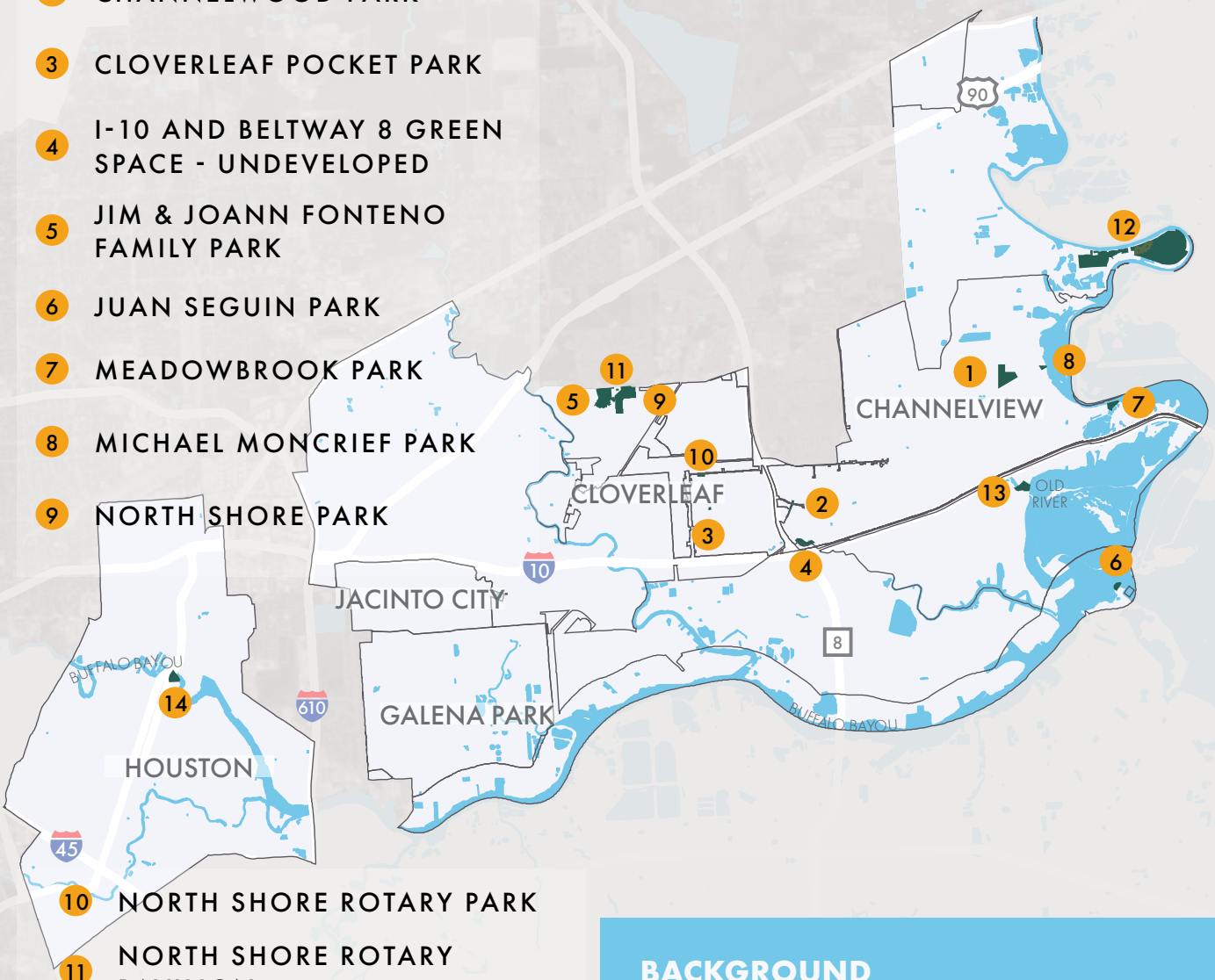
N

1.25 2.5 5 miles

Source: Precinct 2 Parks and Recreation Department

MAP EXTENT 2 - PARKS

1. CHANNELVIEW SPORTS COMPLEX
2. CHANNELWOOD PARK
3. CLOVERLEAF POCKET PARK
4. I-10 AND BELTWAY 8 GREEN SPACE - UNDEVELOPED
5. JIM & JOANN FONTENO FAMILY PARK
6. JUAN SEGUIN PARK
7. MEADOWBROOK PARK
8. MICHAEL MONCRIEF PARK
9. NORTH SHORE PARK
10. NORTH SHORE ROTARY PARK
11. NORTH SHORE ROTARY PAVILION
12. RIO VILLA NATURE TRAIL
13. RIVER TERRACE PARK
14. YOLANDA BLACK NAVARRO BUFFALO BEND PARK



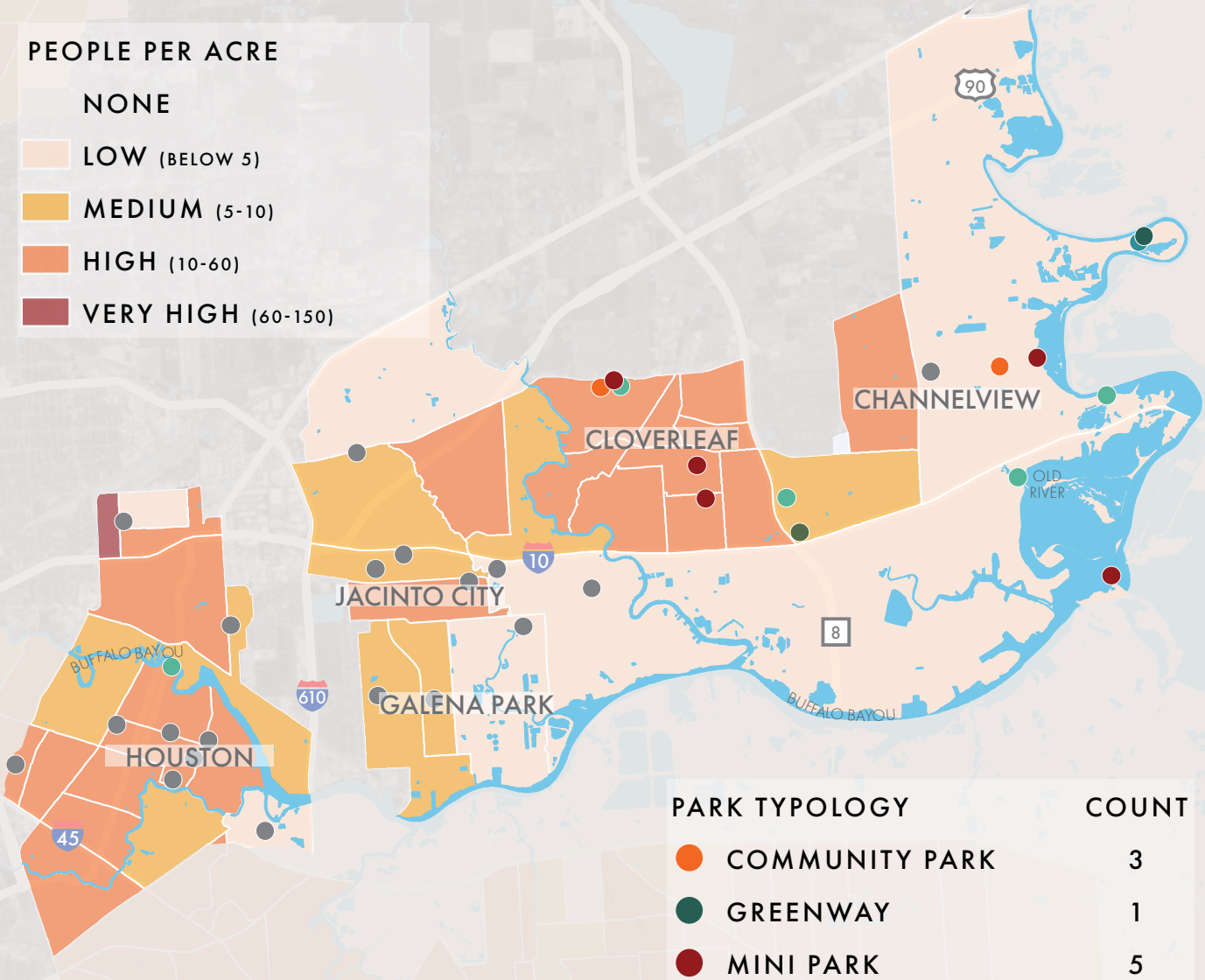
N

1.25 2.5 5 miles

BACKGROUND

Map Extent 2 contains 14 parks ranging in size from 1.0 to 46.4 acres. The Rio Villa Park, however, comprises the Rio Villa Nature Trail within its park; the park is 215.3 acres and the trail length is 1.1 miles. The majority of parks in this extent situate around Cloverleaf.

MAP EXTENT 2 - PARK TYPOLOGY OVER PEOPLE PER ACRE



PARK TYPOLOGY	COUNT
COMMUNITY PARK	3
GREENWAY	1
MINI PARK	5
NEIGHBORHOOD PARK	4
REGIONAL PARK	1
UNDEVELOPED	1
NON-COUNTY PARK	19

N

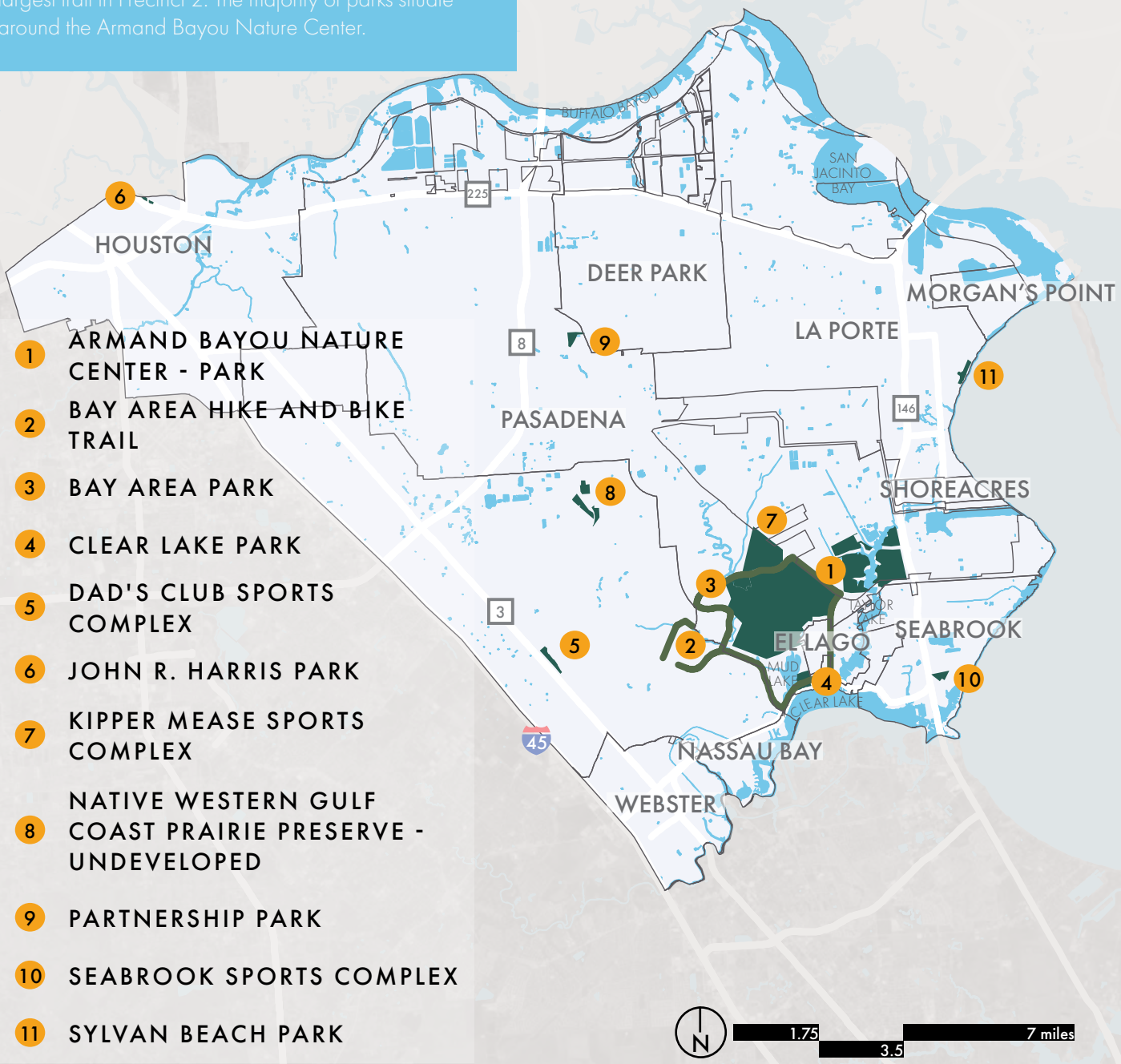
1.25 2.5 5 miles

Source: Precinct 2 Parks and Recreation Department

MAP EXTENT 3 - PARKS

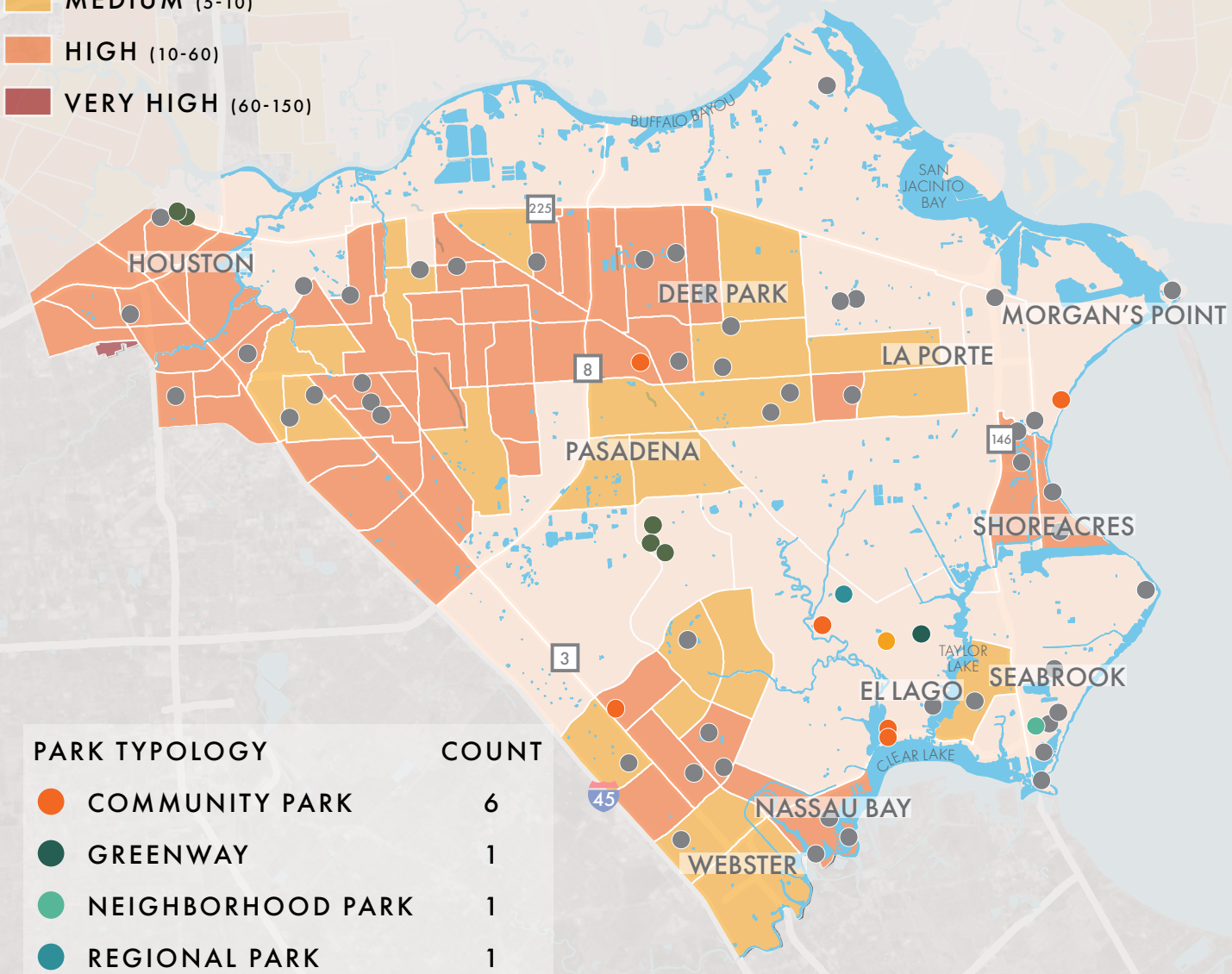
BACKGROUND

Map extent 3 contains 11 parks ranging in size from 7.98 to 2,234 acres. The Armand Bayou Nature Center is the largest park land in this extent, with the second largest park having an acreage of nearly 300 acres. The extent also contains one trail, the Bay Area Hike and Bike Trail, with a length of 5.2 miles, the largest trail in Precinct 2. The majority of parks situate around the Armand Bayou Nature Center.

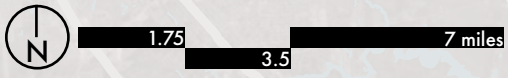


1. ARMAND BAYOU NATURE CENTER - PARK
2. BAY AREA HIKE AND BIKE TRAIL
3. BAY AREA PARK
4. CLEAR LAKE PARK
5. DAD'S CLUB SPORTS COMPLEX
6. JOHN R. HARRIS PARK
7. KIPPER MEASE SPORTS COMPLEX
8. NATIVE WESTERN GULF COAST PRAIRIE PRESERVE - UNDEVELOPED
9. PARTNERSHIP PARK
10. SEABROOK SPORTS COMPLEX
11. SYLVAN BEACH PARK

MAP EXTENT 3 - PARK TYPOLOGY OVER PEOPLE PER ACRE

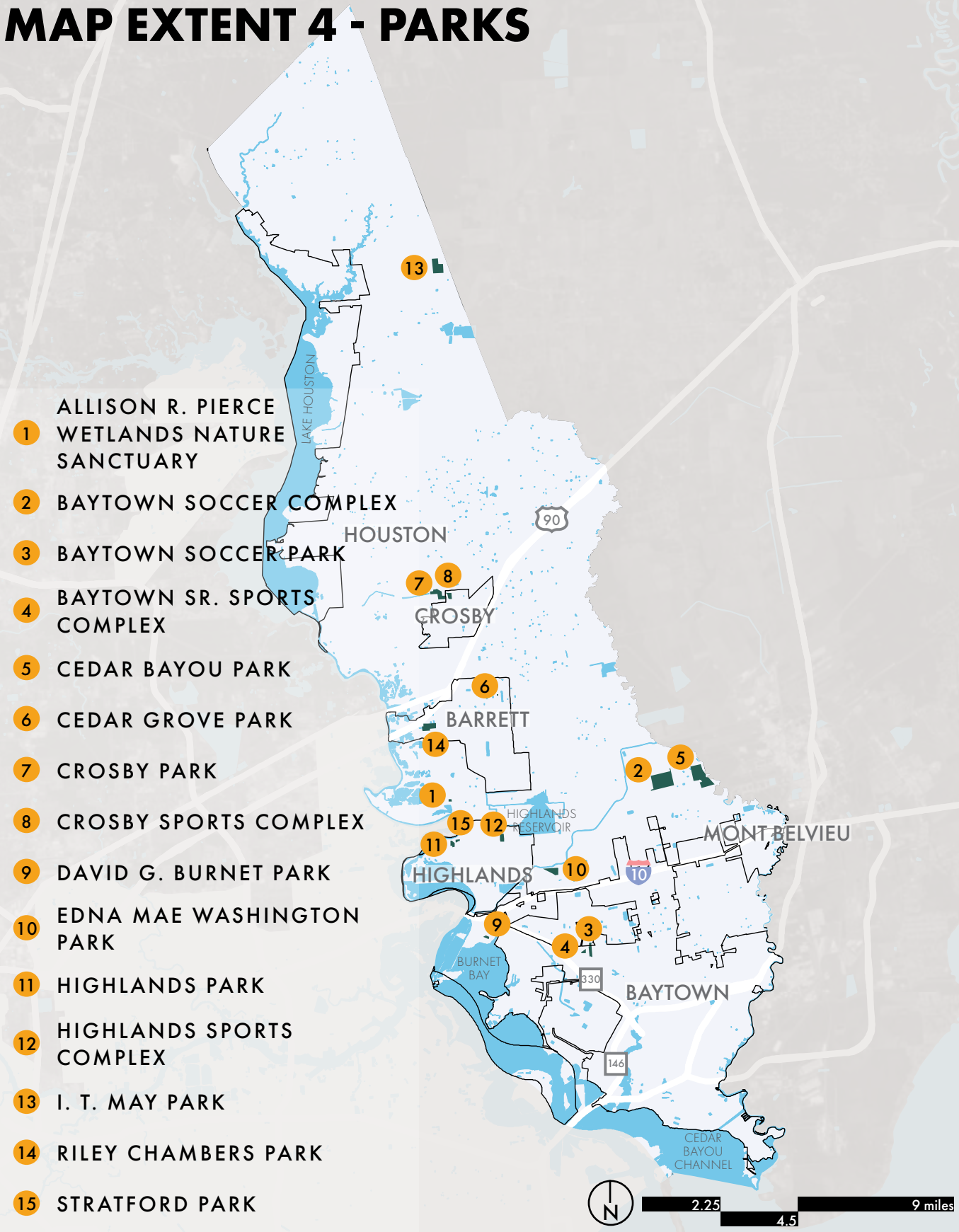


PARK TYPOLOGY	COUNT
COMMUNITY PARK	6
GREENWAY	1
NEIGHBORHOOD PARK	1
REGIONAL PARK	1
SPECIAL USE PARK	1
UNDEVELOPED	2
NON-COUNTY PARK	50



Source: Precinct 2 Parks and Recreation Department

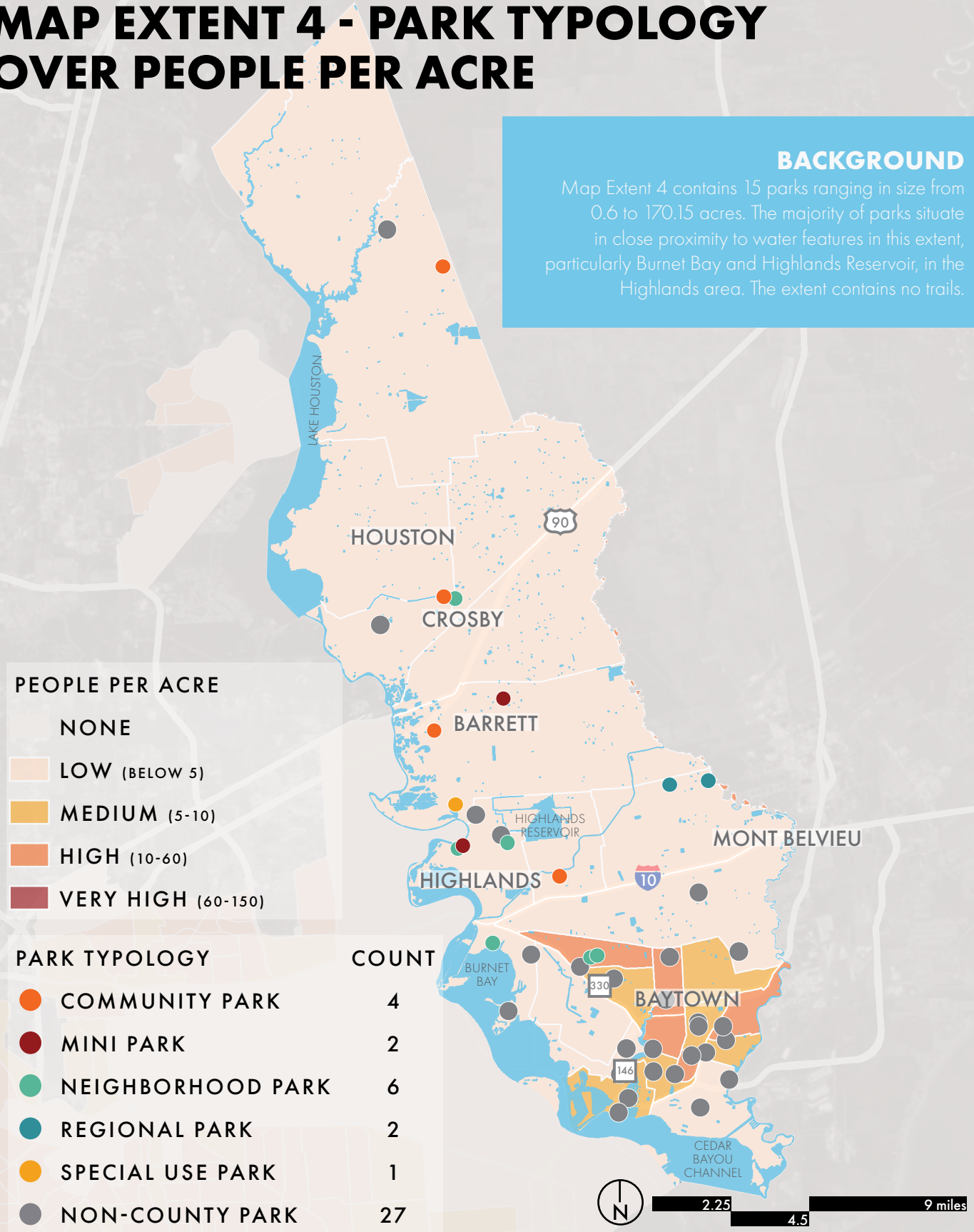
MAP EXTENT 4 - PARKS



MAP EXTENT 4 - PARK TYPOLOGY OVER PEOPLE PER ACRE

BACKGROUND

Map Extent 4 contains 15 parks ranging in size from 0.6 to 170.15 acres. The majority of parks situate in close proximity to water features in this extent, particularly Burnet Bay and Highlands Reservoir, in the Highlands area. The extent contains no trails.



PEOPLE PER ACRE

- NONE
- LOW (BELOW 5)
- MEDIUM (5-10)
- HIGH (10-60)
- VERY HIGH (60-150)

PARK TYPOLOGY	COUNT
COMMUNITY PARK	4
MINI PARK	2
NEIGHBORHOOD PARK	6
REGIONAL PARK	2
SPECIAL USE PARK	1
NON-COUNTY PARK	27

Source: Precinct 2 Parks and Recreation Department

ENVIRONMENTAL CONTEXT

The environmental context of Houston, and specifically Precinct 2, is one of contrast. On one hand, the area is rich in natural heritage sitting at the intersection of the great and western prairies, the southern forests and the Gulf of Mexico providing overlapping environmental conditions that foster rich biodiversity. However, striking a balance between the natural assets and the important industrial legacy of the area has been a challenge. Approximately 40 percent of the nation's petrochemical production capacity is located in the Houston metro area, earning the region the nickname, "Energy Capital of the World." These industrial facilities, growth, and development has degraded environmental quality in some areas of Precinct 2.

In communities with environmental challenges, the addition of parks, open space, and trails can provide critical ecosystem services. These areas allow the more natural environmental processes to occur, like water filtration, carbon sequestration, and soil building. They can support wildlife, including pollinators and migratory species. Green spaces can help regulate local climate and reduce pollutants in the air and water. Lastly, parks are essential to health and quality of life by enhancing physical, mental, and social well-being of the communities they support. Refer to Appendix B for the full environmental context of Precinct 2. The key takeaways for the section include:

- **Ecoregions:** Understanding your local ecoregions is critical for performing landscape management and restoration activities within the Precinct 2 park system. Ecoregions can provide an idea of what plant species and communities the site supported historically and what it is capable of supporting in the future.
- **Wildlife:** Even small natural areas can provide refuge for resident and migratory wildlife. Using conservation principles within the Precinct 2 park system can help provide spaces for humans and wildlife by bringing more nature into the city.
- **Hydrology:** Treat water as an asset. Streams, bayous and wetlands within parks can provide many critical services to ecosystems. Consider highlighting these features as recreational opportunities while also balancing the critical environmental role they play in the watershed.
- **Environmental Quality:** Urban areas are dominated by hard, impervious cover. Parks, natural areas, and urban trees provide pervious cover that allows stormwater filtration. If designed with this in mind, they can treat water and reduce flooding while also providing a park amenity.
- **Tree Canopy:** Parks, open space, and urban trees can have a big impact on environmental conditions. The urban tree canopy can help cool the surrounding areas through shade and the effects of evapotranspiration.
- **Urban Heat:** Hot urban conditions affect air quality and can take a toll on human health. Parks and natural areas can help people feel more comfortable by reducing the ambient air temperatures. Vegetation plays an important, positive role in atmospheric purification and air pollutant reduction.
- **Environmental Contamination:** Understanding the quality of natural resources in and around the Precinct 2 parks can help determine what amenities should be within a park and what should be avoided. In addition, there may be opportunities for cleaning up sites and developing new park space in the future.
- **Climate Change & Resilience:** Parkland and open space in Precinct 2 can play a role in resilience efforts for the region. These areas can be designed, updated, and expanded with resilience in mind.

There are valuable environmental areas in Precinct 2 that already provide important ecosystem services, these are discussed in the following pages.

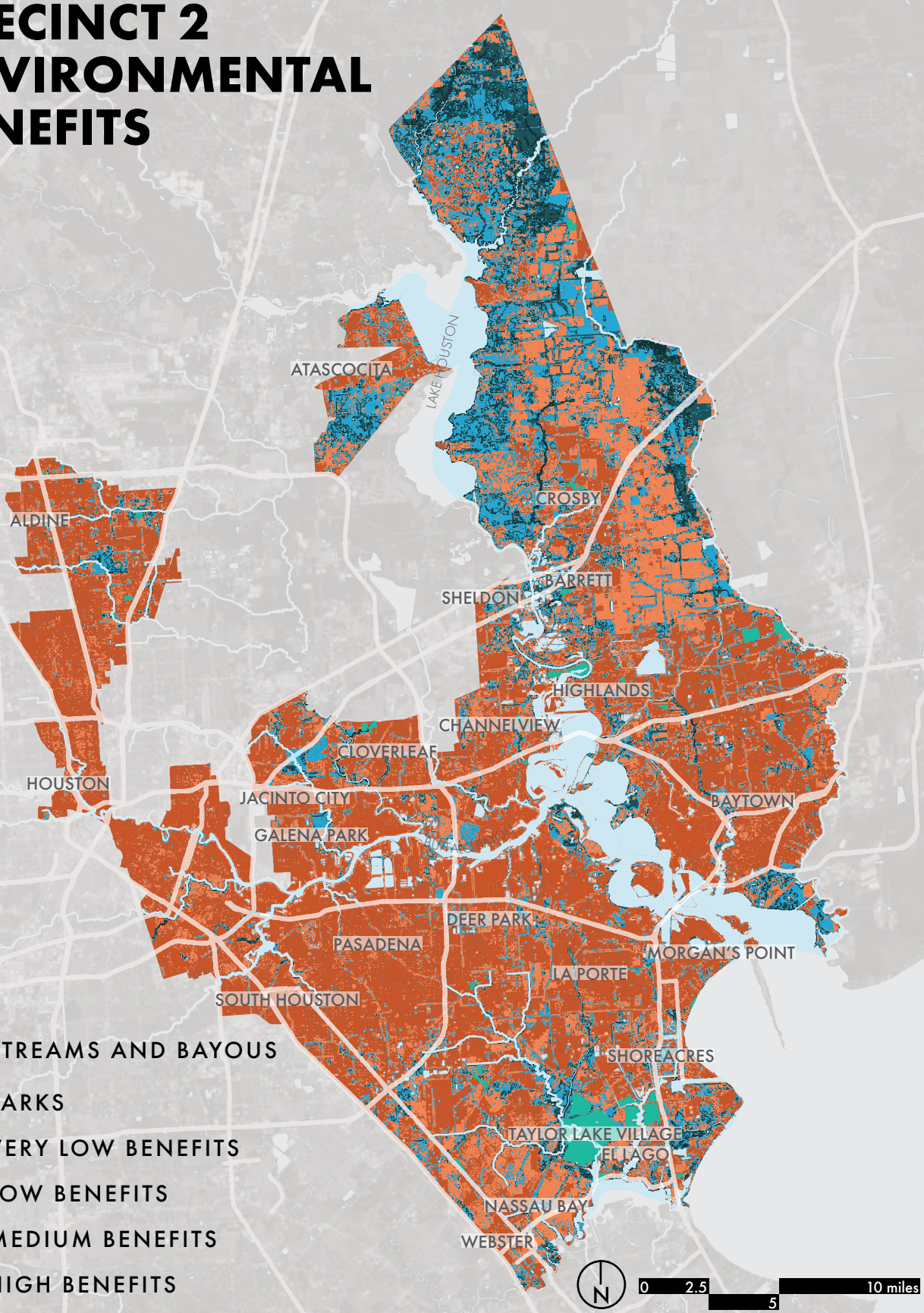
VALUABLE ENVIRONMENTAL FEATURES

Environmental benefits reflect areas that are important for supporting and maintaining wildlife habitats and local ecosystems across Precinct 2. This map includes wetlands, streams and bayous, species richness, low light pollution, and a habitat map. While the environmental risk map on the following page identifies areas that are high risk, this map identifies the areas with high benefits. This means that areas closest to existing natural features receive a higher value score. The areas with the highest environmental benefits are areas along the bayous, around Armand Bayou Nature Center, and surrounding Lake Houston. **This map does not indicate that the red areas have no environmental benefits, but simply that the dark blue areas have several factors making them important areas to protect.**

VALUABLE ENVIRONMENTAL FEATURES

Variable Name	Stated Objective	Subweight	
Wetlands	Identifies areas that are within a 200-foot buffer of wetlands.	0-66 ft.	5
		66-133 ft.	4
		133-200 ft.	3
Streams and Bayous	Identifies areas that are within a 200-foot buffer of streams and bayous	0-66 ft.	5
		66-133 ft.	4
		133-200 ft.	3
Species Richness	Identifies areas with high biodiversity.	1-33.4	1
		33.5-65.8	2
		65.9-98.2	3
		98.3-130.6	4
		130.7-163	5
Low Light Pollution	Identifies areas that are not sources of major light pollution.	46-47	1
		47-53	2
		53-58	3
		58-61	4
		61-63	5
Habitat Map	Identifies potential habitat patches and corridors including right-of-ways, vacant land, park trails, and vegetation.	0-4	1
		4-8	2
		8-12	3
		12-16	4
		16-20	5

PRECINCT 2 ENVIRONMENTAL BENEFITS



- STREAMS AND BAYOUS
- PARKS
- VERY LOW BENEFITS
- LOW BENEFITS
- MEDIUM BENEFITS
- HIGH BENEFITS
- VERY HIGH BENEFITS

PARK ASSESSMENTS

METHODS

A park assessment team consisting of six landscape designers from Asakura Robinson visited all listed parks in Precinct 2 of Harris County in pairs to complete a park assessment for 47 parks and 7 undeveloped properties. The majority of the assessments were completed in July and August of 2020 with a few completed in September.

The assessments were completed by using a tool originally developed by The Trust for Public Land for the Travis, Bastrop, and Caldwell Healthy Parks Plan and other strategic planning efforts. This tool was modified by the parks assessment team to fit the specific goals and needs of the assessment efforts in Precinct 2. The park assessment tool used a numerical scoring system to evaluate park access, park features, supportive facilities, safety and maintenance, aesthetics, health, and culture and accessibility.

Completing the parks assessment. Source: Asakura Robinson.

Completing the parks assessment. Source: Asakura Robinson.

Nuance in park assessment scoring can arise from park assessors evaluating park features differently due to their personal background and perceptions. In order to reduce subjectivity between park assessors, a list of definitions to accompany each number for each scoring criterion was developed (See Appendix C). This comprehensive list was used in conjunction with the parks assessment tool to assign scores.

The park assessments do not provide an exhaustive look at the functions of a park. These assessments are meant to be used as a baseline to evaluate physical park facilities and existing conditions. For a more comprehensive analysis, the assessment scores should be paired with evaluations of how users interact with park amenities, surrounding land uses, park connectivity, and other important site and system-wide factors.

WEIGHTED SCORING

The park assessment tool has criteria separated into seven categories: park access, park features, supportive facilities, safety and maintenance, aesthetics, health, and culture and accessibility. The scores from each category were weighted before determining the overall park score; this was done in order to highlight park aspects that are more prioritized and are recommended to have more analysis and action. Park access, safety and maintenance, and health were the three categories to receive the highest weighting of a value of three. These three categories were weighted most highly because they were determined to have the greatest potential for impact on Precinct-wide park access and equity, in alignment with the plan's goals.

An average score for each of the seven criteria was calculated and then weighted as follows to yield an overall park score: park access (x3), safety and maintenance (x3), health (x3), culture and convenience (x2), supportive facilities (x1), aesthetics (x1), and park features (x1). For each criterion, all parks had the possibility of achieving a perfect score of 5.0 on a scale of 1.0–5.0, in which:

- 5.0 = abundant, well provided, very attractive, excellent condition, no concerns, and other similar characterizations.
- 1.0 = scarce, very unappealing, very concerning, and other similar characterizations.
- If a park did not have an element listed in the criteria, e.g, no drinking fountains present, it received a score of "N/A."

All the scores shown in the assessments are the average combined scores of the two project team members who conducted the park assessments.

TIER 1 PARKS SCORE COMPILATION

Park Name	Score
Halls Bayou Hike & Bike Trail	2.13
Pinewood Village Park	1.9
Betshire Park	Not Scored
Mary Withers Park	Not Scored
Baytown Soccer Park	1.63
North Shore Park	2.84
Channelview Sports Complex	2.02
W.E. Bill Crowley Park	3.33
Baytown Soccer Complex	2.35
James Bute Park	2.08
Dad's Club Sports Complex	2.43
Kipper Mease Sports Complex	3.16

KEY FINDINGS

PARK ACCESS

Park access was scored based on existing external and internal park access for pedestrians and vehicles. Connections to transportation networks as well as connectivity of internal park features were key evaluation metrics. Overall, access to parks is observed to have a strong vehicular focus with a lack in pedestrian-based infrastructure. Many parks have solely a vehicular entrance with no sidewalk or other pedestrian entry infrastructure at all. When there is a sidewalk at the entry of a park, in many situations, this sidewalk does not connect to a larger pedestrian transportation network as there are no sidewalks on streets adjacent to or beyond the park.

Assessors noted that many parks have large parking lots near the entries which can obstruct views to the park as well as contributing to unsafe pedestrian conditions and increased heat island effect. Most of these parking lots did feature accessible parking; however, accessible routes beyond the parking lot were not always clearly marked or available. Some paths created difficulties for accessibility due to their material or condition (i.e. large cracks in a sidewalk).

In almost all parks, there was inadequate or no bicycle parking available, as well as no existing or safe bicycle route to access the park. There was also very minimal bus access to parks, largely due to bus services not being widely available in the proximity to the parks. However, when a bus stop was present nearby a park, there was often not an adequate accessible route from the bus stop to the park.

Parking Lot at Kipper Mease Sports Complex. Source: Asakura Robinson.

PARK FEATURES

The park features category evaluated existing condition, quality, and function of existing park features such as performance spaces, picnic shelters, skate parks, and other recreational and educational features. Park features in Precinct 2 have been observed to be in good overall condition, with some features showing some age. There are some features that are dated, but instances of new features having been installed recently as well. Throughout all parks, picnic tables and trash receptacles are consistent features that are present and in good condition. Most parks are clean and maintained; maintenance is observed to be regular, and in many cases, the maintenance crew was present during the time of park assessments.

Throughout most parks, accessibility to park features was observed to be in poor condition whether due to the feature itself not being inclusive or due to there being no accessible route to the park feature. Where accessible routes were present, they often focused on specific mobility disabilities rather than a range of accessibility needs. Accessible features are also sometimes separated into a specific park zone rather than being incorporated throughout the park as a whole, which could lead to feelings of ostracization for park users who need accessible features.

Cloverleaf Pocket Park. Source: Asakura Robinson.

SUPPORTIVE FACILITIES

Supportive facilities are important aspects of parks. This category scored existing restrooms, drinking fountains, and trash receptacles on their condition, presence, and ability to support safe and enjoyable park experiences. In Precinct 2 parks and trails, park assessors observed that, overall, there are a decent amount of restrooms and drinking fountains per park size. Smaller parks, such as pocket parks, usually do not require restroom facilities. Some of these restrooms could use some updated appliances to be more comfortable and usable.

Drinking fountains were generally present throughout the park system, but there are still many parks without drinking fountains. When they are present there could still be improvements in locating fountains in highly active park areas and adding accessible features. A major observation for the entire park and trail system is that restroom facilities are lacking from trails and could greatly enhance trail visitors' experience.

Dad's Club Sports Complex. Source: Asakura Robinson.

SAFETY AND SERIOUS MAINTENANCE CONCERNS

Safety and maintenance concerns were scored based on how well conditions support physical safety of visitors, including presence or absence of illicit activity as well as how well park design lends itself to clear viewsheds. Across all parks that were assessed in Precinct 2, major safety concerns include a lack of pedestrian safety along and around roadways (internal and external), a lack of pedestrian-scaled lighting, and a lack of directional signage. Many parks do not have entrances that are safe for pedestrians because there are typically no crosswalks present. In many cases there is no sidewalk at the entrance or along internal roads which encourages pedestrians to walk on the road. There is a general lack of traffic calming measures and pedestrian-friendly design within parks that have internal roadways. In parks that have lighting, it is generally focused at the entrance, at the parking lot, and at any athletic fields if present. Lack of lighting along pathways can create unsafe feelings for park visitors, and, conversely, lighting that is inappropriately bright can be uncomfortable for visitors as well.

Directional signage was also lacking from most of the assessed parks. Most parks have only a sign that consists of park name and park rules. These signs are almost always only written in English. Increased directional and wayfinding signage within parks could greatly enhance feelings of comfort for park visitors. A positive observation that applied to most parks in Precinct 2 is that there were very minimal instances of graffiti, litter, and vagrancy.

Entrance to Michael Moncrief Park. Source: Asakura Robinson.

AESTHETICS

Park aesthetics were scored based on existing physical quality, perceived attractiveness, and system-wide consistency of park features such as planting and signage. Parks in Precinct 2, as an entire system, appear to have a mix of older and newer structures and features, but on the whole are observed to be a bit dated. There is a lack of consistency in condition of park features both in the parks system and within individual parks. All parks are noted to have signage that lacks in visual appeal, with a few key exceptions such as Juan Seguin Park and David G. Burnet Park. As a general observation for the entire park system, landscape vegetation was found to be lacking in diversity, as predominantly turf and some trees were present.

Picnic area at James Driver Park. Source: Asakura Robinson.

Halls Bayou Hike and Bike Trail. Source: Asakura Robinson.

HEALTH

Health was scored by availability of park users to engage in activities for physical, mental, and social health which are facilitated by park features such as recreation opportunities, mature trees, and gathering areas. Parks create a wealth of opportunities for visitors to increase their own mental and physical health. In addition to providing opportunities for exercise, studies have shown that spending time in nature can reduce stress.[9] In most parks, turf and some trees dominant the plant palette. Increasing plant diversity may increase the positive health and wellbeing impacts gained through exposure to nature,[10] as well as helping to screen any unpleasant views that may be adjacent to the park.

Given Houston's weather, which averages over 99 days per year with temperatures of 90 degrees Fahrenheit or more,[11] shade is extremely important to extend the usable hours of parks and to protect against heat stroke. While many parks in Precinct 2 do have large trees and sometimes shelters that provide shade, overall there is a need to increase shade in parks, especially at trails, picnic areas, and other very highly used locations.

Park use is often focused on a particular age group. Additional opportunities for recreation activities for multiple age groups (specifically adults and elderly people) could lend to parks that are more widely available as places to go to recharge physical and mental health.

9 Hunter, MaryCarol R.; Brenda W. Gillespie; Sophie Yu-Pu Chen. "Urban Nature Experiences Reduce Stress in the Context of Daily Life Based on Salivary Biomarkers." Frontiers in Psychology. (2019).

10 Aerts, Raf; Olivier Honnay, An Van Nieuwenhuse. "Biodiversity and human health: mechanisms and evidence of the positive health effects of diversity in nature and green spaces." British Medical Bulletin. (2018).

11 Visit Houston. "Houston Weather." Houston First Corporation. (2021). https://www.visithoustontexas.com/travel-planning/weather/

CULTURE AND ACCESSIBILITY

Culture and accessibility was evaluated largely based on park features that tie into local cultural context such as art features. This category also scored physical accessibility concerns such as inclusivity of playgrounds. Aside from a few parks that served as exceptional examples of utilizing historical and cultural context, most parks in Precinct 2 do not speak to the specific locations in which they exist. Architecture in the parks was not observed to have a reflection of local culture, and art in the parks system was very minimal.

Accessibility in the parks was observed to be lacking on a whole, specifically in that playgrounds do not often have opportunities for people with limited mobility and certainly do not have opportunities for people with visual, auditory, or other disabilities. Park assessors also observed that there were not many accessible routes within parks and almost always lacked wayfinding signage which could increase accessibility and comfortability for park users.

Historical marker at Juan Seguin Park. Source: Asakura Robinson.

HIKE AND BIKE TRAILS

Trails were scored based on existing physical condition, presence of supportive features (signage, restrooms, shade), and physical accessibility. In general, most trails lack directional and interpretative signage for safety, additional information such as maps and wayfinding, and consistent width for pedestrian and cyclists, although conditions vary. For example the Bay Area hike and bike trail is composed of different segments of asphalt pavement, concrete pavement or on-street bike lane. The intended loop is not completely connected and pavement conditions can be improved along Bay Area Blvd. since asphalt is failing in some areas. Many curb ramps do not comply with accessibility standards and need improvement. Many asphalt paved trails need renovation or pavement improvements due to cracks, settlement or other factors that affect comfort and accessibility. Trails like the Bay Area Hike and Bike Trail lack shade or resting areas. In general, trails lack lighting for safety and nighttime use. Both Atascocita and Rio Villa Nature Trails are more suitable for hiking than biking. Both trails are in good condition but are not designed to be bicycle facilities due to the material used (decomposed granite on Rio Villa Nature Trail) or blind spots and limited width (Atascocita).

*NOTE: general findings related to trails were done taking into account existing conditions. It is understood that the Bay Area Hike and Bike Trail is undergoing new construction and observations made during summer 2020 may be improved upon completion of the project.

Bay Area Hike and Bike Trail. Source: Asakura Robinson.

SUITABILITY ANALYSIS

Suitability analysis - the mapping of important resources, hazards, demographic information, and health disparities - is a key element of the Parks and Trails Plan.

The mapping team is using Geographic Information Systems (GIS) and its spatial analysis tools to combine and prioritize available datasets, informed by community engagement, to identify priority areas for investments. The mapping process is determining priority areas based on four key indices, which are then combined to create an overall priority map. The four indices are:

1. **Socioeconomic Vulnerability:** Identifies areas where factors that contribute to socioeconomic vulnerability are high
2. **Community Health:** Identifies areas where community health disparities are high
3. **Environmental Vulnerability:** Identifies areas where environmental risks may be high
4. **Park Need:** Identifies areas where close-to-home access to high-quality parks is low

THE SUITABILITY ANALYSIS FRAMEWORK

The suitability analysis includes much more than just an assessment of existing parks and recreation facilities. The analysis uses a framework based on social and environmental determinants of health. This framework recognizes that a variety of factors beyond personal choices impact health outcomes. These include socioeconomic and cultural factors, the built environment, access to health care, and vulnerability to environmental hazards.

Using this framework, the mapping team identified over 60 variables from research and best practices that impact the social and environmental determinants of health, which were then grouped into the four indexes: Socioeconomic Vulnerability, Community Health, Environmental Risk, and Park Need.

SOCIOECONOMIC VULNERABILITY INDEX

Studies have shown that close-to-home access to parks and green space improves physical and mental health outcomes for everyone, but especially for socioeconomically vulnerable community members. Access to parks gives residents more options for physical activity, improves environmental conditions, reduces stress, and supports stronger social connections. All of these benefits are particularly critical for socioeconomically vulnerable residents.

Socioeconomic indicators have the most negative impacts on health outcomes. Increasing access to green space for all population groups, especially vulnerable groups of children, the elderly, and deprived people, can improve previous economic, social, and funding disparities. For example, lower income people are more likely to rent in poor living conditions, or live in a space without access to yard space; and have limited disposable income for recreation and physical fitness. Access to quality, close-to-home public recreation and open space improves these disparities.

COMMUNITY HEALTH INDEX

Poor health outcomes are often the result of many different social determinants of health. Factors that negatively impact health outcomes include economic vulnerability, social isolation, barriers to accessing health care resources and healthy food, exposure to environmental hazards, and lack of access to parks and green space. Residents living close to parks and green space have been shown to have lower rates of major diseases including heart disease, diabetes, and asthma.[12] See the Community Health Data used starting on page 49.

ENVIRONMENTAL RISK INDEX

Environmental conditions impact not only the ability of community members to spend time in parks, but also the quality of that experience. Poor air quality, flooding, and excessive heat create conditions that make it difficult or even dangerous to be outside. Tree canopy cover provides relief from heat as well as creates wildlife habitat and reduces greenhouse gases. Healthy ecosystems and protected natural areas provide better locations for parks and open space, unless strategic investments and improvements over time can alleviate the vulnerability of the site. See the Environmental Risk Data used starting on page 54.

PARK NEED INDEX

Access to parks directly impacts health. The availability of high-quality parks and safe accessible routes to these parks determine whether community members can experience the physical and mental health benefits of parks. Sidewalks and local roads are important for providing pedestrian access to parks, especially for community members without cars. Even in areas within a 10-minute walk of a park, safe pedestrian accessibility may still be an issue. Areas will be identified as high Park Need if the areas are not within a 10-minute walk or a driving radius of parks, if the areas do not have safe routes to parks, and if the areas have a high density of daytime population and a high density of key destinations. See the Park Need Data used starting on page 59.

12 Morris, Amy and Sarah Thomas, "The Economic, Health, and Social Benefits of Conservation: A Report Prepared on behalf of The Coalition for Our Natural Interest" Our Natural Interest, 2018.

METHODOLOGY

Suitability analysis mapping is a highly iterative process, responding to numerous data inputs, including raw datasets, research and input from the client team, Task Force, and community members. The Task Force is made up of community members and experts representing local agencies, nonprofits, research institutions, and community organizations. The Task Force will inform the mapping process through an online survey identifying their Index and variable priorities. The larger community will inform the mapping process through an online survey by identifying their top amenity priorities.

SUBWEIGHTING

The suitability analysis helps policymakers determine the best locations for public investments using a set of variables. The geographic datasets that comprise the variables are first converted to raster data. This enables each raster cell to be assigned a value based on a standardized system (e.g. 0-5, with 0 representing no suitability and 5 representing high suitability). The standardized range allows complex variables to be directly compared against each other, allowing the variables to be stacked, or added together. The diagram below illustrates the stacking process.

This process of reassigning the dataset's complex values to the standardized range is called subweighting, which identifies high-priority geographic areas for each variable.

Asakura Robinson determines the subweighting based on the site's regional statistics, advice from regional experts, and ongoing environment and community health research. Much of the regional expertise and research has been compiled over time, and can also be altered throughout the suitability analysis's process, based on ongoing feedback from the client.

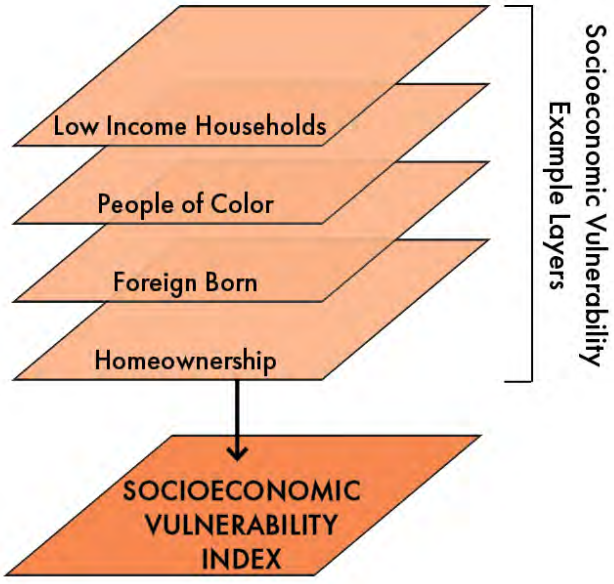
SOCIOECONOMIC VULNERABILITY METHODOLOGY

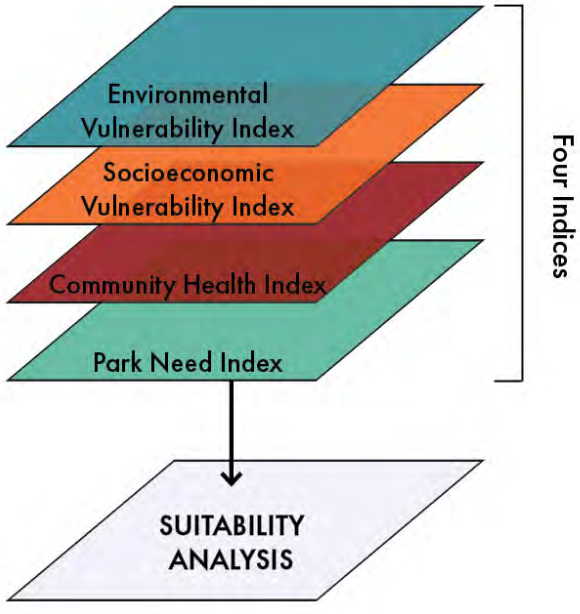
Fifteen variables comprised the Socioeconomic Vulnerability Index shown in the table on pages 45-46. American Community Survey 5-Year (2014-2018) datasets were analyzed to identify a threshold of vulnerability based on regional statistics and best practices in public health related research. Any percentage of the population below the threshold were not considered vulnerable, so they received a 0. Any percentage of the population above the threshold were distributed into three interval ranges, sometimes equal ranges, sometimes not, to determine subweight on a 3-5 scale shown in the table to the right. The map on page 44 shows Precinct 2 census tracts that meet the vulnerability ranking of 3, 4, or 5 for low-income households - that is, the census tracts with more than 10% of its household facing low-income status were given a 3, 4, or 5. This is an example map showing one variable out of the 15 variables that are later stacked into the Socioeconomic Vulnerability Map on page 64.

VULNERABILITY SCALE

Ranking	Description
0	No Vulnerability; did not meet threshold
1	Very Low Vulnerability; did not meet threshold
2	Low Vulnerability; did not meet threshold
3	Moderate Vulnerability
4	High Vulnerability
5	Very High Vulnerability

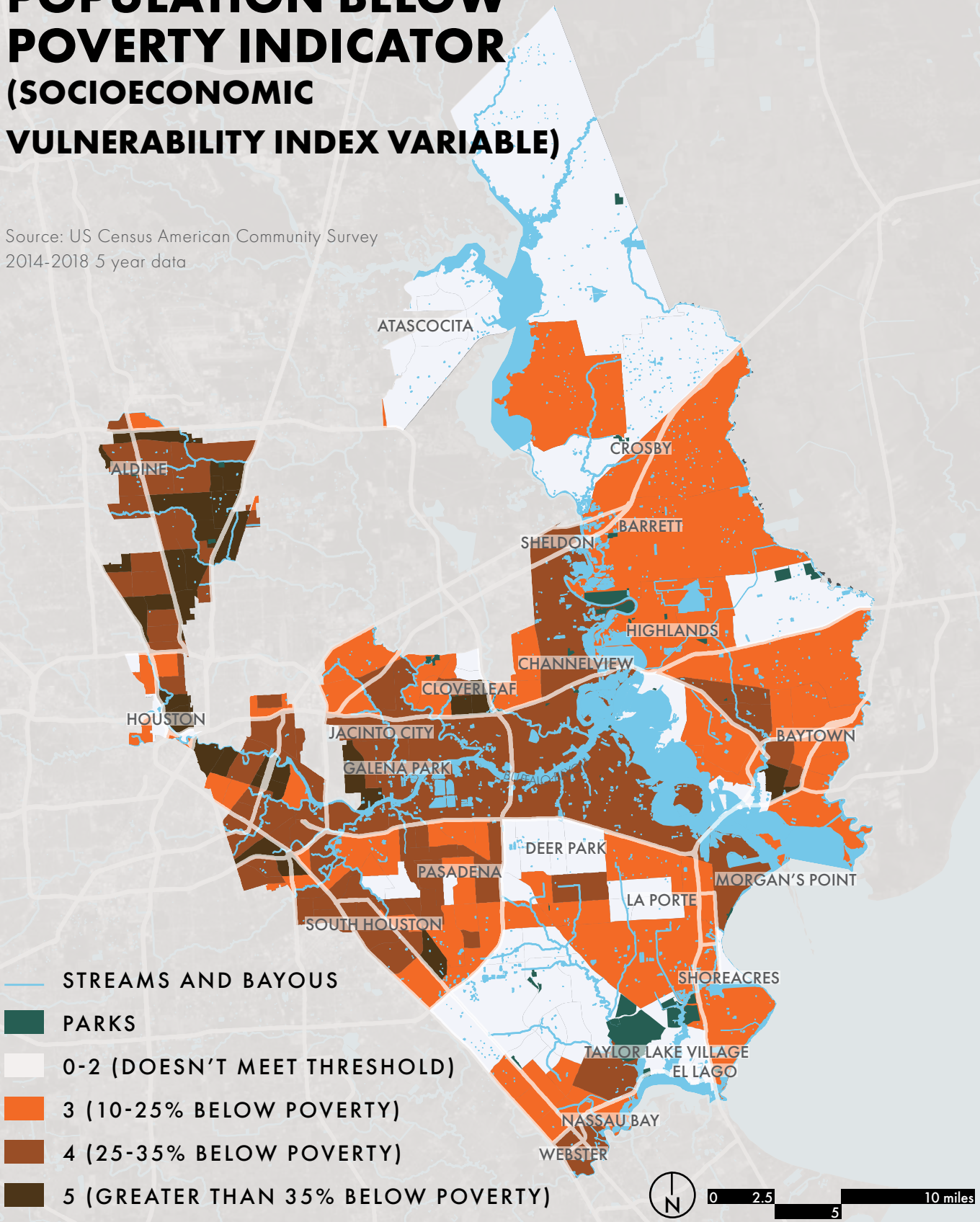
STACKING PROCESS





POPULATION BELOW POVERTY INDICATOR (SOCIOECONOMIC VULNERABILITY INDEX VARIABLE)

Source: US Census American Community Survey
2014-2018 5 year data



SOCIOECONOMIC VULNERABILITY DATA

Variable	Stated Objective	Subweight		No. of Census Tracts
Below Poverty Level	Identify vulnerable populations based on those below poverty.	<10%	0	27
		10-25%	3	88
		25-35%	4	45
		35%<	5	20
Less than High School	Identifies vulnerable populations based on the percent of people age 25 and older in a census tract that do not have a high school diploma.	<15%	0	58
		15-30%	3	29
		30-45%	4	64
		45%<	5	49
Disconnected Youth	Identifies vulnerable populations based on the percent of youth (16-19) who do not have a high school diploma, and are unemployed and not in the labor force in a census tract.	<1%	0	121
		1-10%	3	49
		10-15%	4	20
		15%<	5	10
Single Parent Households	Identifies vulnerable populations based on percent of single parent families (with own children under the age of 18) in a census tract.	<10%	0	35
		10-20%	3	92
		20-30%	4	53
		30%<	5	20
Linguistic Isolation	Identifies vulnerable populations based on the percent of people in a block group living in linguistically isolated households. A linguistically isolated household is a household in which all members age 18 years and over speak a language other than English and also speak English "less than very well."	<15%	0	114
		15-30%	3	55
		30-45%	4	22
		45%<	5	9
People of Color	Identifies vulnerable populations based on the percent of total population in a tract that are not white, plus are Hispanic or Latino of any race.	<40%	0	28
		40-60%	3	27
		60-80%	4	27
		80%<	5	118
Population under Age 19	Identifies vulnerable populations based on percent of people in a census tract under the age of 19.	<15%	0	4
		15-25%	3	53
		25-35%	4	125
		35%<	5	18
Populations with Disabilities	Identifies vulnerable populations based on the percent of total civilian non-institutionalized population in a tract that has a disability.	<5%	0	12
		5-10%	3	91
		10-15%	4	74
		15%<	5	23
Households without Cars	Identifies vulnerable populations based on the percent of occupied housing units with no car available.	<4%	0	94
		4-15%	3	88
		15-20%	4	13
		20%<	5	5

Source: US Census American Community Survey 2014-2018 5 year data; Houston-Galveston Area Council 2045 Regional Growth Forecast

SOCIOECONOMIC VULNERABILITY DATA (CONT'D)

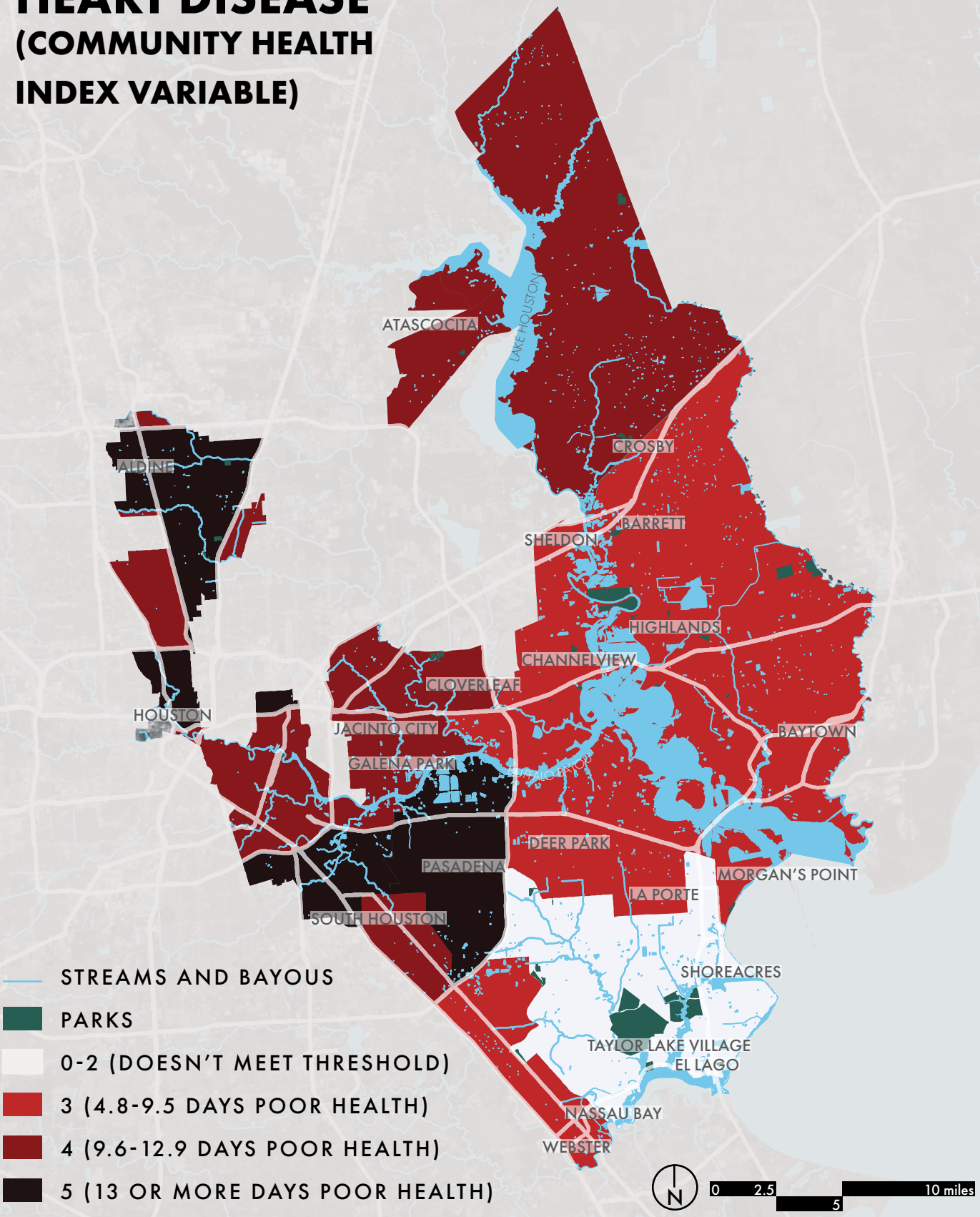
Variable	Stated Objective	Subweight		No. of Census Tracts
Population Over Age 64	Identifies vulnerable populations based on percent of people in a census tract over the age of 65.	<5%	0	12
		5-10%	3	98
		10-15%	4	68
		15%<	5	22
Homeownership	Identifies vulnerable populations based on the percent of renter households in a census tract.	<10%	0	12
		10-35%	3	58
		35-65%	4	98
		65%<	5	32
Population under Age 5	Identifies vulnerable populations based on percent of people in a census tract under the age of 5.	<5%	0	32
		5-7.5%	3	55
		7.5-10%	4	67
		10%<	5	46
Foreign Born	Identifies vulnerable populations based on the percent of populations who are foreign born in a census tract.	<10%	0	24
		10-25%	3	66
		25-40%	4	86
		40%<	5	24
Population Growth Projection	Identifies vulnerable sites based on forecasted household population growth in a census tracts.	<65%	0	183
		65-137%	3	9
		137-407%	4	4
		408%<	5	4
Jurisdictional Boundaries	Identified vulnerable populations that live outside jurisdictional boundaries. This included Municipal boundaries, Management Districts, TIRZs, MUDs, and Extraterritorial jurisdictions.	3	0	N/A
		2	3	N/A
		1	4	N/A
		0	5	N/A

COMMUNITY HEALTH METHODOLOGY

The Health Insurance Portability and Accountability Act (HIPAA) prevents health data from being shared at the residential scale to preserve privacy. Therefore, the health data used for this analysis is at the PUMA scale, or Public Use Microdata Areas. Similarly to the Socioeconomic Vulnerability data, the Community Health variables' datasets were divided into three intervals after a suitability threshold was identified. The intervals were then assigned a subweight score on a 0-5 scale, as described in the table on page 61. Any interval less than the threshold received a subweight of 0. The Community Health Data table startingon page 49 describes the 27 variables collected and analyzed for the Community Health Index with their respective vulnerability descriptions and interval subweight scores.

The map on page 48 shows Precinct 2 PUMAs that meet the vulnerability ranking of 3, 4, or 5 for populations with heart disease, as described in the Community Health Data table. This is an example map of one out of the 27 variables that are later stacked into the Community Health Map on page 65.

HEART DISEASE (COMMUNITY HEALTH INDEX VARIABLE)



COMMUNITY HEALTH DATA

Variable	Stated Objective	Subweight		No. of Census Tracts
Days of Poor Physical Health	Identifies vulnerable population based on reported 16-30 days physical health not good (at least half the month)	<4%	0	0
		4%-10%	3	6
		10%-13%	4	8
		13%<	5	4
Days of Poor Mental Health	Identifies vulnerable population based on reported 16-30 days mental health not good (at least half the month)	<3%	0	0
		3%-8.5%	3	3
		8.5%-13%	4	11
		13%<	5	4
Adult BMI - overweight	Identifies vulnerable population based on adults with a BMI category as overweight	<16%	0	0
		16-30%	3	4
		30-40%	4	12
		40%<	5	2
Adult BMI - obese	Identifies vulnerable population based on adults with a BMI category as obese	<22%	0	0
		22-30%	3	3
		3040%	4	11
		40%<	5	4
Diabetes	Identifies vulnerable population with a diabetes diagnosis	<10%	0	4
		10-15%	3	6
		15-20%	4	4
		20%<	5	4
Cancer	Identifies vulnerable population with a cancer diagnosis	<4%	0	1
		4-8%	3	11
		8-10%	4	5
		10%<	5	1
Heart Attack	Identifies vulnerable population with a heart attack diagnosis	<2%	0	0
		2-5%	3	9
		5-8%	4	6
		8%<	5	3
Heart Disease	Identifies vulnerable population with a coronary heart disease diagnosis	<1%	0	0
		1-3%	3	6
		3-5%	4	6
		5%<	5	6
Stroke	Identifies vulnerable population with a stroke diagnosis	<5%	0	10
		5-7.5%	3	6
		7.5-8.5%	4	0
		8.5%<	5	2

Source: Harris County Public Health Survey 2018

COMMUNITY HEALTH DATA (CONT'D)

Variable	Stated Objective	Subweight		No. of Census Tracts
Blood Pressure	Identifies vulnerable population with a high blood pressure diagnosis	<20.1%	0	0
		20.1-28%	3	5
		28-33%	4	8
		33%<	5	5
COPD	Identifies vulnerable population with a Chronic Obstructive Pulmonary Disease diagnosis	<2%	0	5
		2-4%	3	6
		4-6%	4	5
		6%<	5	2
Adult Asthma	Identifies vulnerable adult population currently with asthma	<22%	0	0
		22-40%	3	2
		40-50%	4	2
		50%<	5	14
Child Obesity	Identifies vulnerable population of children between the ages of 12-17 years considered obese	<10%	0	8
		10-20%	3	4
		20-30%	4	0
		30%<	5	6
Child Overweight	Identifies vulnerable population of children between the ages of 12-17 years considered overweight	<5%	0	7
		5-20%	3	5
		20-30%	4	4
		30%<	5	2
Child Asthma	Identifies vulnerable children population currently with asthma	<10%	0	5
		10-13%	3	6
		13-19%	4	6
		19%<	5	1
Serious Psychological Distress	Identifies vulnerable population of adults based on a SPD score of over 13	<5%	0	6
		5-6.5%	3	2
		6.5-9.5%	4	4
		9.5%<	5	6
Mental Health Need	Identifies vulnerable population based on adults who reported a need to see a doctor or other professional in the past 12 months due to problems with your mental health, emotions, nerves, or your use of alcohol or drugs?	<10%	0	2
		10-18%	3	8
		18-22%	4	5
		22%<	5	3
Mental Health Visits	Identifies vulnerable population based on adults who reported seeing a doctor or other professional in the past 12 months due to problems with your mental health, emotions, nerves, or your use of alcohol or drugs?	<8%	0	2
		8-10%	3	6
		10-12%	4	3
		12%<	5	7

COMMUNITY HEALTH DATA (CONT'D)

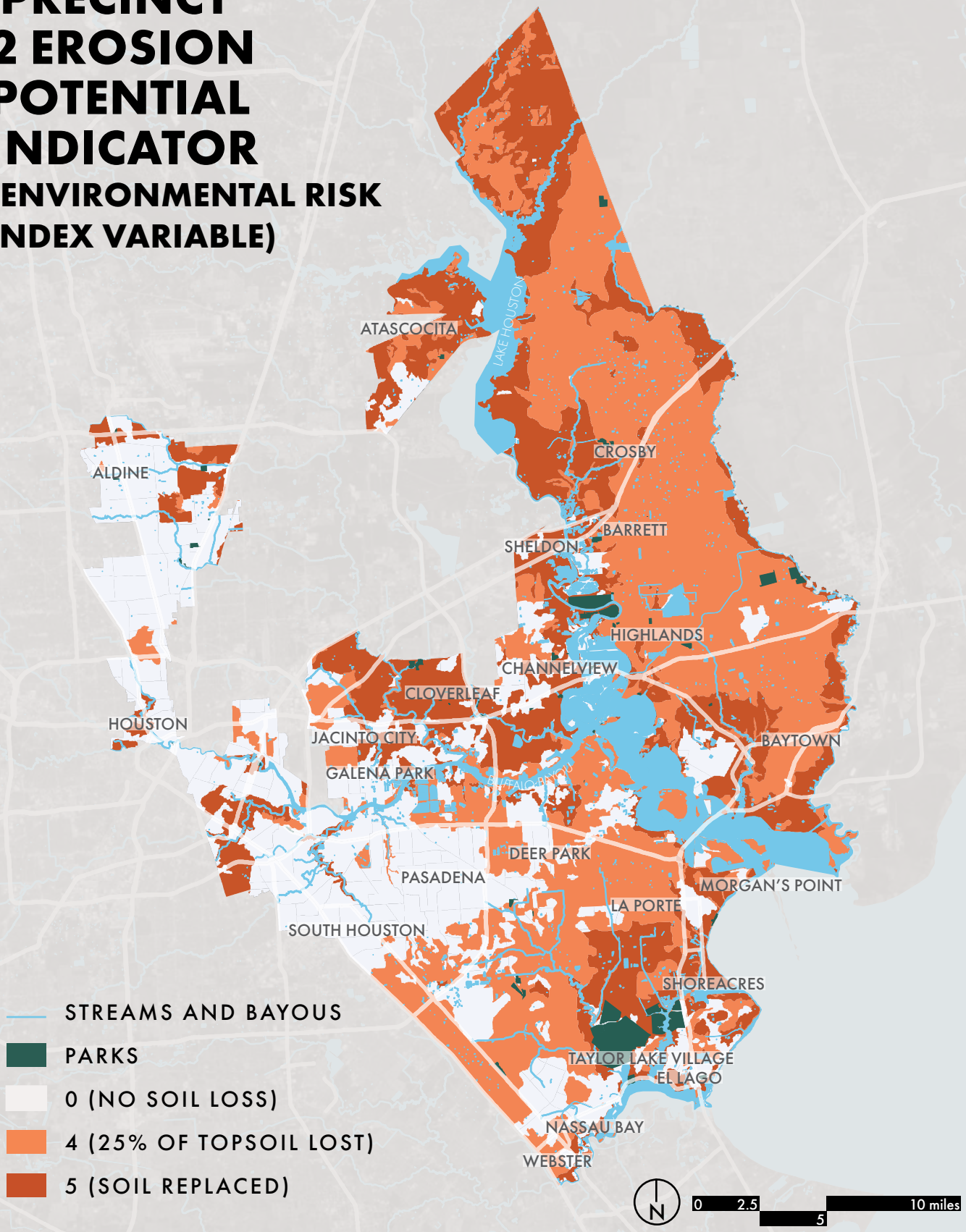
Variable	Stated Objective	Subweight		No. of Census Tracts
Cigarette Smoking	Identifies vulnerable population based on those reporting daily cigarette smoking	<15%	0	1
		15-25%	3	5
		25-35%	4	9
		35%<	5	3
E-Cigarette Smoking	Identifies vulnerable population based on those reporting daily e-cigarette smoking	<10%	0	12
		10-13%	3	3
		13-15%	4	2
		15-19%	5	1
Physical Activity Recommendation	Identifies vulnerable population who do not meet the recommended weekly aerobic activity hours of 2.5 hours moderate or 1.25 hours vigorous physical activity per week	<13%	0	5
		13-19%	3	7
		19-23%	4	2
		23%<	5	4
Alcohol Consumption	Identifies vulnerable population based on binge drinking (i.e., 5 drinks/day for men and 4 drinks/day for women); used 4 drinks/day	<10%	0	1
		10-20%	3	6
		20-28%	4	8
		28%<	5	3
Child Physical Activity	Identifies vulnerable population children who completed less than one hour of physical activity in a given week	<5%	0	6
		5-10%	3	9
		10-15%	4	1
		15%<	5	2
Fresh Produce Availability	Identifies vulnerable population based on their neighborhood's lack of fresh fruits and vegetables available for purchase	<10.3%	0	0
		10.3-20%	3	3
		20-30%	4	11
		30%<	5	3
Outdoor and Neighborhood Noise	Identifies vulnerable population based on report of "very much" for noise botherance	<3%	0	8
		3-6%	3	5
		6-12%	4	1
		12%<	5	0
Relationships with Neighbors	Identifies vulnerable population based on those who talk or visit with their immediate neighborhoods never	<13%	0	0
		13-20%	3	4
		20-30%	4	9
		30%<	5	5
Confide with Others	Identifies vulnerable population based on those who do not have any person whom they can share confidences or discuss a difficult decision	<5%	0	9
		5-8%	3	4
		8-10%	4	2
		10%<	5	3

ENVIRONMENTAL RISK METHODOLOGY

Environmental conditions not only impact the ability of community members to spend time in parks, but also the quality of that experience and of the ecosystem. Poor air quality, flooding, and excessive heat create conditions that make it difficult or even dangerous to be outside. Tree canopy cover provides relief from heat as well as creating wildlife habitat and reducing greenhouse gases, so a lack of tree canopy can be detrimental to the health of the community and of the surrounding environment. Physical proximity within or next to these vulnerable areas are given subweights of high vulnerability (scores of 5), with varying sizes of buffer rings away from the vulnerable site receiving progressively lower subweights of vulnerability (scores of 4, 3, 2, and then 1). These distances were determined by best practices and research within the public health field. Any areas outside the buffers of vulnerability were given the subweight of 0, i.e. not vulnerable. The Environmental Risk table on pages 54-55 describes the 12 variables collected and analyzed for the Environmental Risk Index with their respective vulnerability descriptions and interval subweight scores.

The map to the right shows Precinct 2's environmental sites that meet the vulnerability ranking of 3-5 for the Erosion Potential variable, as described in the Environmental Risk table. This is an example map of one variable out of the 12 variables that are later stacked into the Environmental Risk Map on page 66.

PRECINCT 2 EROSION POTENTIAL INDICATOR (ENVIRONMENTAL RISK INDEX VARIABLE)



ENVIRONMENTAL RISK DATA

Variable	Stated Objective	Subweight	
Floodzone	Identify sites that are in floodways, the 100-year floodplain, and the 100-year floodplain estimates based on FEMA floodzone classifications	Floodway	0
		100-year floodplain	4
		500-year floodplain	5
Trucks and Highways	Identify areas that are within a 200 foot buffer of roads and highways	0-66 ft	3
		66-133 ft	4
		133-200 ft	5
Erosion Potential	Identify areas based on erosion potential	Deposition	5
		25% top soil lost	4
Industrial Facilities	Identify areas within 500 feet of industrial facilities	400-500 ft	1
		300-400 ft	2
		200-300 ft	3
		100-200 ft	4
		0-100 ft	5
Poor Water Quality	Identify areas that have been found to have reduced water quality based on well depth and usage.	De-watering or Industrial	2
		Irrigation or Unused	3
		Plugged or Destroyed	4
		Public Supply or Domestic	5
Poor Air Quality	Identify areas that have been found to have high rates of ozone(ppb), particulate matter(mg/m^3), and diesel(mg/m^3).	0	1
		1-4.9	2
		4.9-7.9	3
		7.9-10.9	4
		10.9-14	5
Superfund Sites	Identify areas that are within a 500 foot buffer of a Superfund site	400-500 ft	1
		300-400 ft	2
		200-300 ft	3
		100-200 ft	4
		0-100 ft	5
Brownfields	Identify areas that are within a 500 foot buffer of a brownfield	400-500 ft	1
		300-400 ft	2
		200-300 ft	3
		100-200 ft	4
		0-100 ft	5

Variable	Stated Objective	Subweight	
Urban Heat Islands	Identify sites that are higher in temperature than the average temperature of the study area	75°-76°	1
		76°-78°	2
		78°-80°	3
		80°-81°	4
		81°&	5
Gaps in Tree Canopy Cover	Identify sites that are lacking tree canopy based on percent tree canopy cover.	80-100%	1
		60-80%	2
		40-60%	3
		20-40%	4
		0-20%	5
Soil Contamination	Identify sites that have contaminated soil based on sites part of the innocent owner program, that have leaking petroleum storage tanks, and landfills as well as current land use.	Unknown or Other	0
		Industrial	3
		Vacant or Developable	4
		Commercial, Educational, Residential, or Water.	5
Sea Level Rise	Identify which areas are at risk based on sea level rise projections.	8 ft &	1
		6-8 ft	2
		4-6 ft	3
		2-4 ft	4
		1-2 ft	5

PARK NEED METHODOLOGY

The availability of high-quality parks and safe accessible routes to these parks determines whether community members can experience the physical and mental health benefits of parks. Local roads with sidewalks are important for providing pedestrian access to parks, especially for community members without cars.

The Park Need Index is a combination of variables that are important for examining park access in Precinct 2. This analysis considers access to all public parks, including County-owned, City-owned, and school parks that are accessible to the public. For each park, a half-mile walk service area or "walkshed" is generated using a walkable road network dataset. A person who lives in one of these 10-minute walksheds is considered to have good close-to-home park access, i.e low park need.

This same methodology is run again, but ran considering park typology and the amenities within the park. Park typology defines a park by its size and function and is summarized in the table below. This analysis starts with half-mile walksheds for pocket parks and neighborhood parks, and driving service areas of various sizes for community, regional, and regional & parks. Service areas, which are dependent on park typology, increase in distance because more residents are serviced as park size increases and park amenities increase.

PARK TYPOLOGY AND SERVICE AREA

Park Type	Acreage	Service Area
Pocket	<1	0.25 miles
Neighborhood	1-15	0.5 miles
Community	15-30	2 miles
Regional	30-200	5 miles
Regional &	200&	10 miles

Each park service area was not created by using its center point or boundary, but rather, they were built based on "access points"-- the actual locations where residents are likely to enter a park. For the purpose of this analysis, access points were created at the intersection of the road network and the park's 60 foot buffer. The results from this methodology produce numerous park service areas, and these service areas will overlap with each other. For example, some residents may live within one service area, and others may live within multiple. The more service areas that overlap, the higher level of park access that a resident has, as shown in the diagram to the right. Areas that fall outside multiple service areas, or outside of any at all, are prioritized as having the greatest park need.

While the bulk of this analysis considered physical access to parks, additional factors influence accessibility to parks. Households without access to a personal vehicle were considered because it exposes potential limitations on park access. In addition, accumulated density, key destinations, sidewalk availability, and road classifications were analyzed as they provide a more nuanced analysis of park need and park access.

The following criteria breaks down the variables analyzed and how they were prioritized within the Park Need Map:

1. **Walking:** A half-mile walkshed was generated for all parks in the analysis regardless of park typology.
2. **Walking and Driving:** A half-mile walkshed was generated for pocket and neighborhood parks. Community, regional, and regional plus parks were analyzed using service areas that reflected the associated driving distances to each.
3. **Park Amenities:** Through an online survey, residents of Precinct 2 prioritized water fountains, recreation centers and senior centers, swimming pools, sports fields, pathways, bathrooms, ramps, parking, playgrounds, and seating as highly desired amenities, which received a half-mile walkshed in the analysis. These amenities received walksheds because they are highly prioritized amenities.

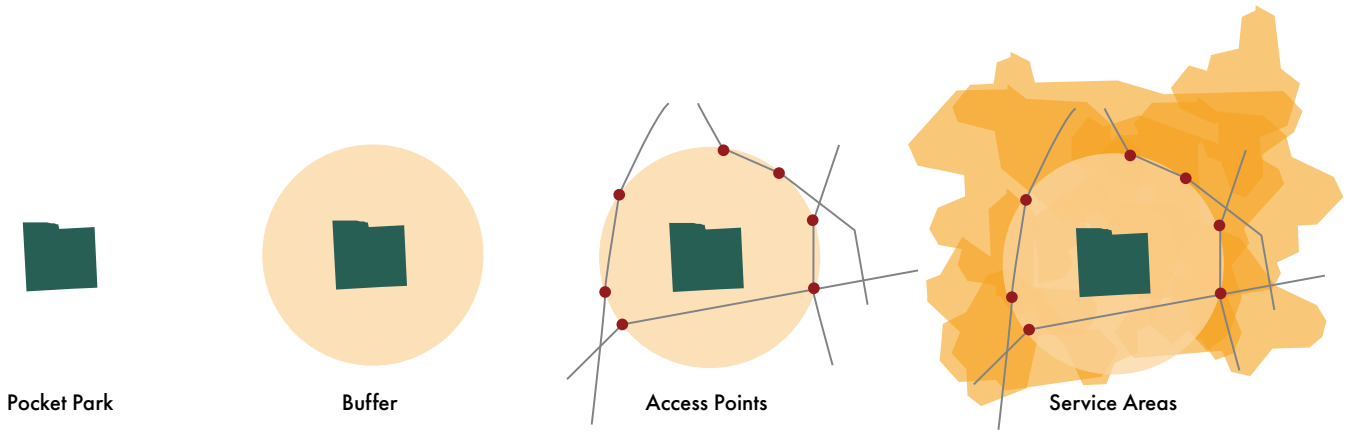
4. **Accumulated Density:** Population density can indicate whether a park is overcrowded, and can impact the quality of amenities. Daytime population, such as employee density and school population, was added with residential density. High preference for park investment is given to areas where accumulated density is higher.

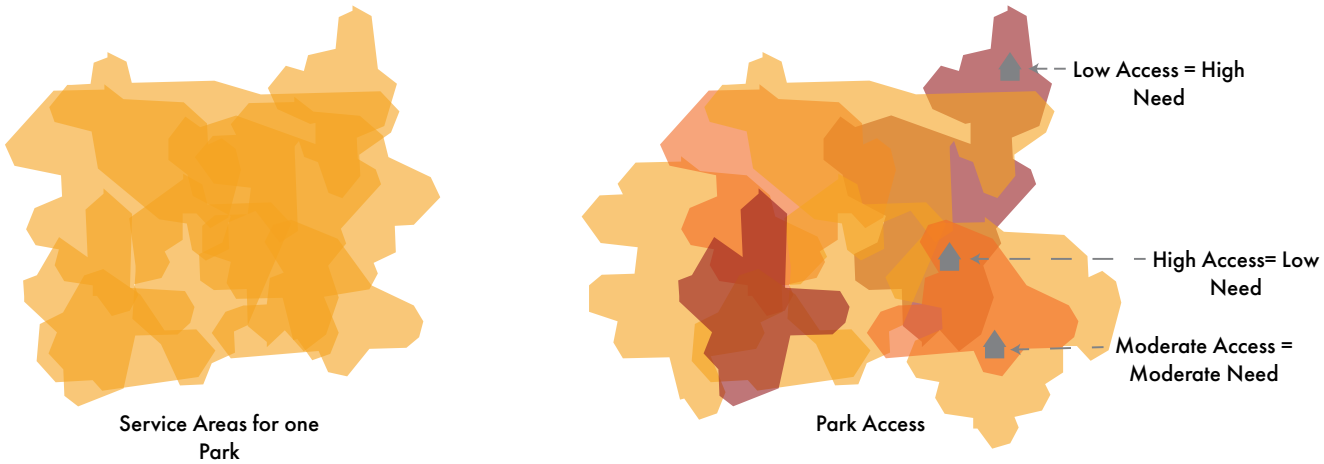
5. **Key Destinations:** High preference for park investment is also given to areas of key destinations. Locations for key destinations, such as retail or childcare centers, were captured in the Accumulated Density methodology. Locations of Civic Land Uses were added here, which includes museums and historic assets.

6. **Active Transit Accessibility:** Road classifications and sidewalk availability greatly impact park access because they create safe or hazardous travel conditions. Areas with local roads (small right of way and slower speed limits) were given higher priority for park investment. Areas with a higher sidewalk-to-road ratio were also given higher priority for park investment. These two were included so that future investment is not directed near high speed roads or highways, or to areas with low sidewalk connectivity.

7. **Households without cars:** Preference for park investments was given to areas with a higher percentage of households without cars.

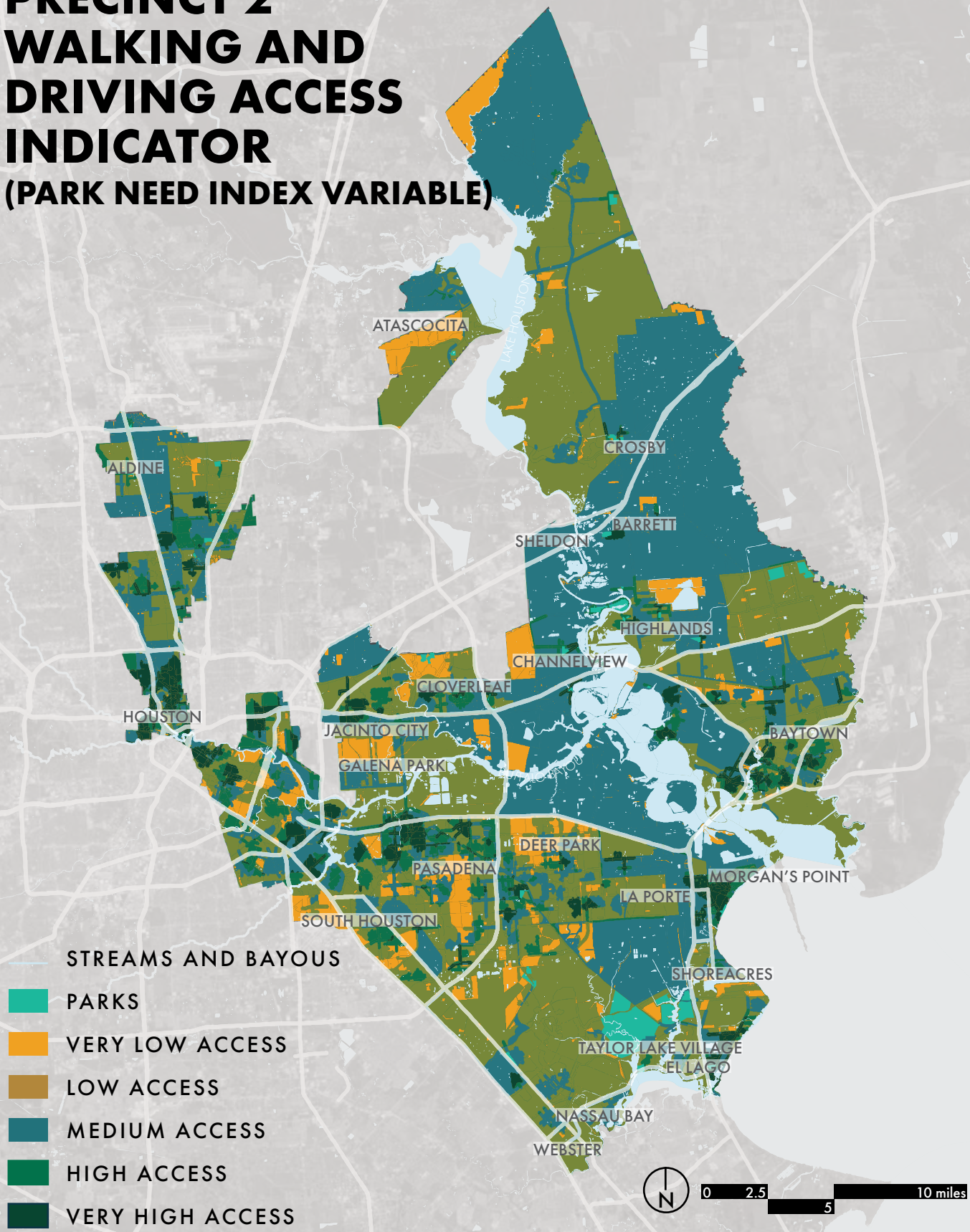
SERVICE AREA OVERLAP METHODOLOGY





PRECINCT 2 WALKING AND DRIVING ACCESS INDICATOR

(PARK NEED INDEX VARIABLE)



PARK NEEDS DATA

Variable	Stated Objective	Subweight	
Sidewalk Ratio	Identifies ratio of sidewalks to streets in a given census tract.	<5	1
		5-15	2
		15-30	3
		30-50	4
		50<	5
Walking: All Public Parks	Half-mile walkshed generated regardless of park type.	5	3
		4	4
		3	5
Walking and Driving	Half mile walkshed generated for pocket and neighborhood parks. Driving for community, regional, and regional&. Pocket parks: are <1 acre and have a service area of 0.25 miles Neighborhood parks: are 1-15 acres and have a service area of 0.5 miles Community parks: are 15-30 acres and have a service area of 2 miles Regional parks: are 30-200 acres and have a service area of 5 miles Regional& parks: are >200 acres and have a service area of 10 miles	5	0
		4	1
		3	2
		2	3
		1	4
		0	5
Priority Amenities	Half-mile walkshed generated around prioritized park amenities. Amenities identified in the Precinct 2 survey included water fountains, recreation centers and senior centers, swimming pools, sports fields, pathways, bathrooms, ramps, parking, playgrounds, and seating.	9-10	1
		7-8	2
		5-6	3
		3-4	4
		1-2	5
Road Classifications	Identifies the different road classifications, with arterial, collector, and local roads ranked from worst to best.	Interstate	1
		Principal Arterial	2
		Minor Arterial	3
		Major Collector	4
		Minor Collector	5
Households without cars	Identifies vulnerable populations based on the percent of households without cars in a census tract.	<4.5%	0
		4.5%-15%	3
		15%-20%	4
		20%<	5
Key Destinations	Identifies key civic institutions across the Precinct based on Governmental Land Use.	1	5
Accumulated Density	Identifies areas where people are living and working. Comprised of School Attendance, Number of Jobs, and Population per acre.	<5	1
		5-10	2
		10-60	3
		60-150	4
		150<	5

INDICATOR GROUP WEIGHTING

In determining the highest-priority geographic areas for investment in parks and recreation space, the suitability analysis can treat each variable equally, or give certain variables more importance than others. The prioritization of variables against each other is called weighting. Weights are assigned through percentages, where 0% means no prioritization, and 100% means highest prioritization. All of the percentage weights must add up to 100%.

This weighting process was informed by a group of local experts in the Task Force who can speak to the overall and relative importance of each variable, especially within local context and potential development interventions in Precinct 2. The Task Force and client team were given the opportunity to provide weighting preferences through an online survey in September 2020. The final weights, detailed in the tables to the right, were the average score from the responses.

In order to simplify the voting process, the consultant team grouped indicators of 2 or more based on similar outcomes. The tables to the right detail the groups, which were advertised to the survey respondents when making their preferences.

SOCIOECONOMIC VULNERABILITY INDICATOR GROUP WEIGHTS RESULTS

The survey of our Task Force indicate the group's lowest priority is Social Cohesion (19%), and the highest priority is Economic Stability (28.4%). There is a 9.6% difference between the two.

SOCIOECONOMIC INDICATOR GROUP WEIGHTS

Group Name	Indicator	Weight
Economic Stability	Homeownership	28.4%
	Households Below Poverty Level	
	Single Parent Households	
Education Stability	Disconnected Youth	26.4%
	Less than high school education	
Equal Access	Jurisdictional Boundaries	26.3%
	Population Growth projection	
	Population under age 19	
	Population under age 5	
	Households without cars	
	Population over age 64	
	Populations with disabilities	
Social Cohesion	Foreign Born	19%
	Linguistic Isolation	
	People of color	

COMMUNITY HEALTH INDICATOR GROUP WEIGHTS RESULTS

The survey results indicate the group's lowest priority is again, Social Cohesion (14.6%), and the highest priority is Physical Health (26.4%). There is a 11.8% difference between the two.

COMMUNITY HEALTH INDICATOR GROUP WEIGHTS

Group Names	Indicator	Weight
Physical Health	Adult BMI - overweight	26.4%
	Child physical activity	
	Child overweight	
	Days of Poor Physical Health	
Mental Health	Days of Poor Mental Health	22.1%
	Mental health need	
	Mental health visits	
	Serious Psychological Distress	
Risk Factors	Alcohol consumption	19.6%
	Cigarette smoking	
	E-Cigarette smoking	
	Fresh produce availability	
	Physical activity recommendation	
Chronic Illness	Adult Asthma	17.4%
	Blood pressure	
	Cancer	
	Child asthma	
	COPD	
	Diabetes	
	Heart Attack	
	Heart Disease	
	Child obesity	
	Adult BMI - obese	
	Stroke	
Social Cohesion	Confide with others	14.6%
	Outdoor and neighborhood noise	
	Relationships with neighbors	

ENVIRONMENTAL RISK INDICATOR GROUP WEIGHTS RESULTS

The survey results indicate the group's lowest priority is Soil and Water Quality (22.2%), and the highest priority is Flooding (29.7%). There is a 7.5% difference between the two.

ENVIRONMENTAL RISK INDICATOR GROUP WEIGHTS

Group Names	Indicator	Weight
Flooding	Flood Zone	29.7%
	Sea Level	
Heat	Gaps in Tree Canopy Cover	24.4%
	Heat Islands	
Air Quality	Truck Routes and Highways	23.8%
	Industrial Facilities	
	Air Quality	
Soil Quality and Water Quality	*Brownfields*	*22.2%*
	Erosion Potential	
	Superfund Sites	
	Soil Contamination	
	Poor Water Quality	

PARK NEED INDICATOR GROUP WEIGHTS RESULTS

The survey results indicate the group's lowest priority is Quality (26.6%), and the highest priority is Access (36.8%). There is a 10.2% difference between the two.

PARK NEED INDICATOR GROUP WEIGHTS

Group Names	Indicator	Weight
Access	Walking and Driving	36.8%
	Walking: All Public Parks	
	Households without cars	
	Priority Amenities	
Safety	Road Classifications	36.6%
	Sidewalk Availability	
Quality	Accumulated Density	26.6%
	Key Destinations	

INDEX WEIGHTING

This Index Weighting process was also informed by the group of local experts in the Task Force and client team who were given the opportunity to provide weighting preferences through an online survey in September 2020. Based on the input from the weighting survey, results indicate the group's lowest priority is the Environmental Risk Index (21.9%), and the highest priority is the Park Need Index (29.5%). There is a 7.6% difference between the two.

INDEX WEIGHTS

Index	Weights
Park Need Index	29.5%
Socioeconomic Vulnerability Index	25.1%
Community Health Index	23.5%
Environmental Risk Index	21.9%

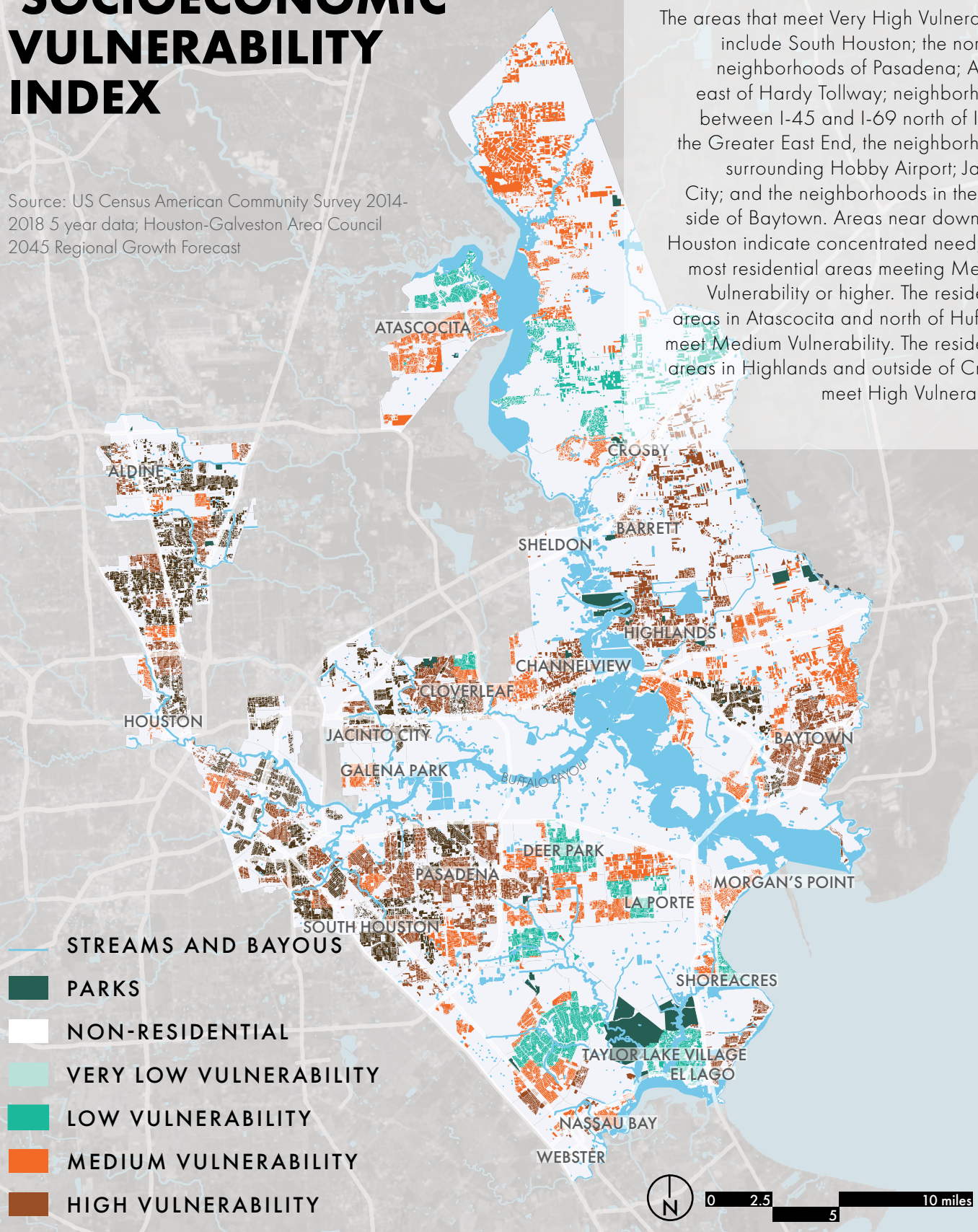
RESULTS

The following pages show the results of the suitability analysis for socioeconomic vulnerability, community health, environmental risk, park need, and overall priorities.

SOCIOECONOMIC VULNERABILITY INDEX

Source: US Census American Community Survey 2014-2018 5 year data; Houston-Galveston Area Council 2045 Regional Growth Forecast

The areas that meet Very High Vulnerability include South Houston; the northern neighborhoods of Pasadena; Aldine east of Hardy Tollway; neighborhoods between I-45 and I-69 north of I-610; the Greater East End, the neighborhoods surrounding Hobby Airport; Jacinto City; and the neighborhoods in the west side of Baytown. Areas near downtown Houston indicate concentrated need, with most residential areas meeting Medium Vulnerability or higher. The residential areas in Atascocita and north of Huffman meet Medium Vulnerability. The residential areas in Highlands and outside of Crosby meet High Vulnerability.

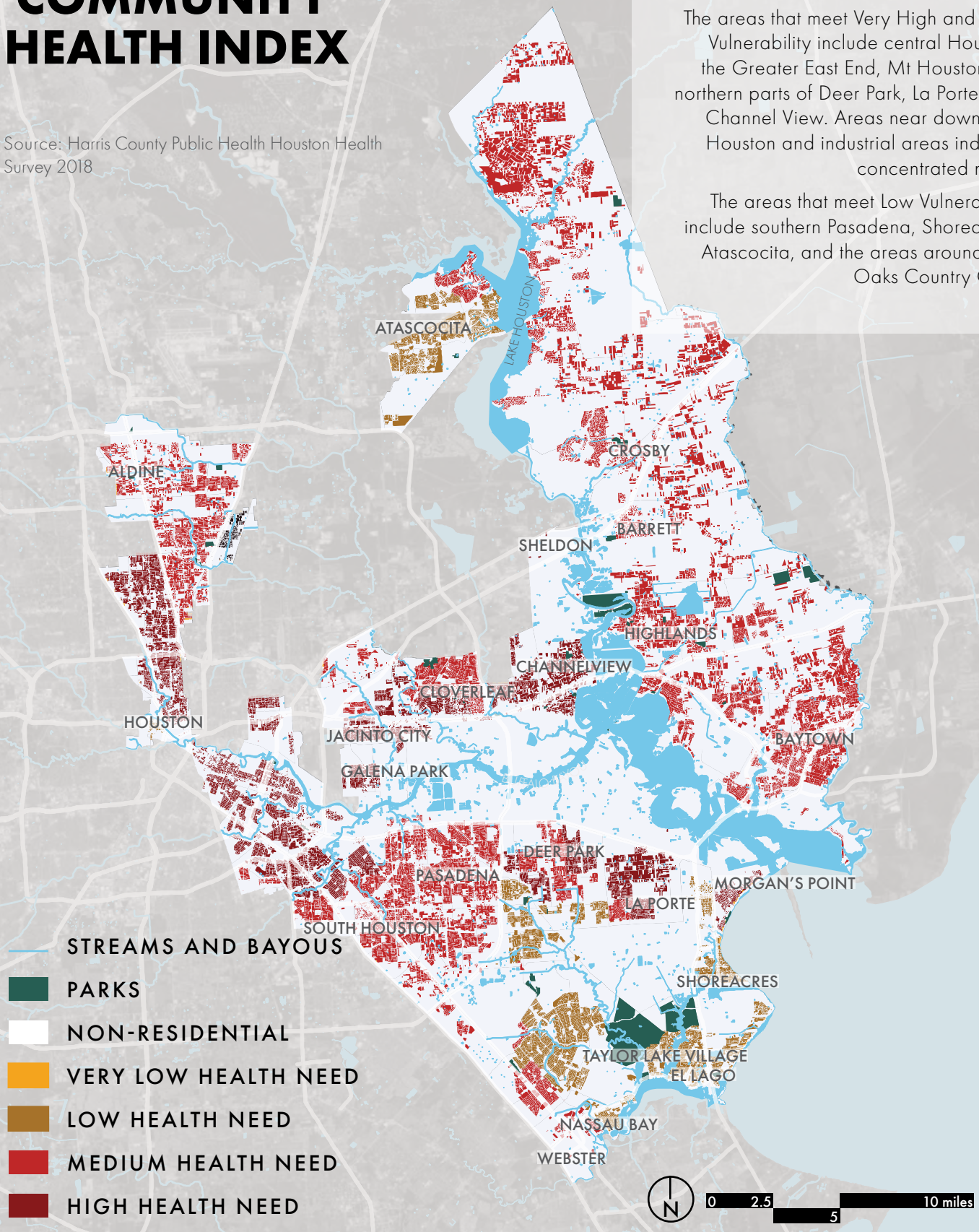


COMMUNITY HEALTH INDEX

Source: Harris County Public Health Houston Health Survey 2018

The areas that meet Very High and High Vulnerability include central Houston, the Greater East End, Mt Houston, the northern parts of Deer Park, La Porte, and Channel View. Areas near downtown Houston and industrial areas indicate concentrated need.

The areas that meet Low Vulnerability include southern Pasadena, Shoreacres, Atascocita, and the areas around Bay Oaks Country Club.



- STREAMS AND BAYOUS
- PARKS
- NON-RESIDENTIAL
- VERY LOW HEALTH NEED
- LOW HEALTH NEED
- MEDIUM HEALTH NEED
- HIGH HEALTH NEED
- VERY HIGH HEALTH NEED

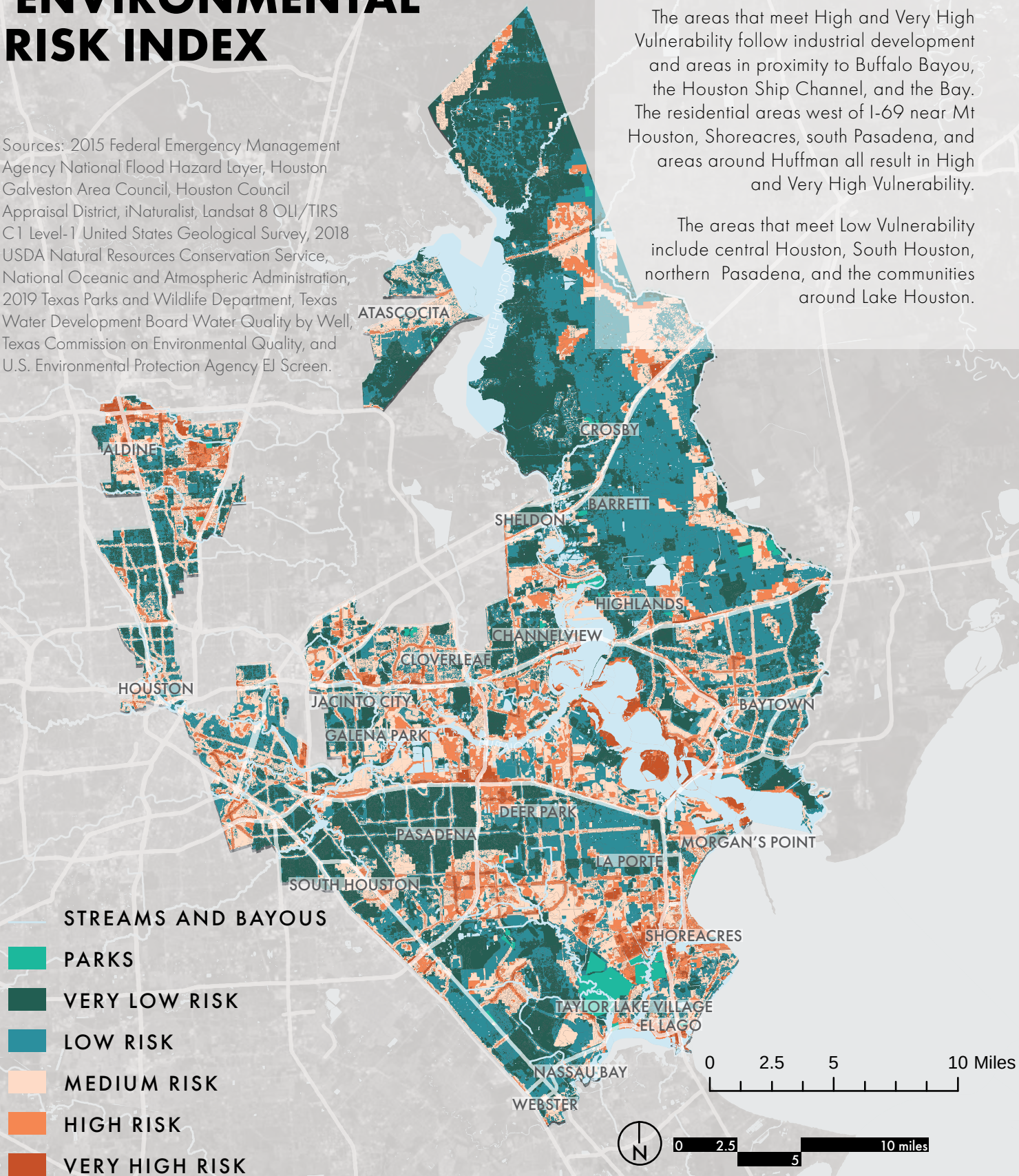
DRAFT SEPTEMBER 2021

ENVIRONMENTAL RISK INDEX

Sources: 2015 Federal Emergency Management Agency National Flood Hazard Layer, Houston Galveston Area Council, Houston Council Appraisal District, iNaturalist, Landsat 8 OLI/TIRS C1 Level-1 United States Geological Survey, 2018 USDA Natural Resources Conservation Service, National Oceanic and Atmospheric Administration, 2019 Texas Parks and Wildlife Department, Texas Water Development Board Water Quality by Well, Texas Commission on Environmental Quality, and U.S. Environmental Protection Agency EJ Screen.

The areas that meet High and Very High Vulnerability follow industrial development and areas in proximity to Buffalo Bayou, the Houston Ship Channel, and the Bay. The residential areas west of I-69 near Mt Houston, Shoreacres, south Pasadena, and areas around Huffman all result in High and Very High Vulnerability.

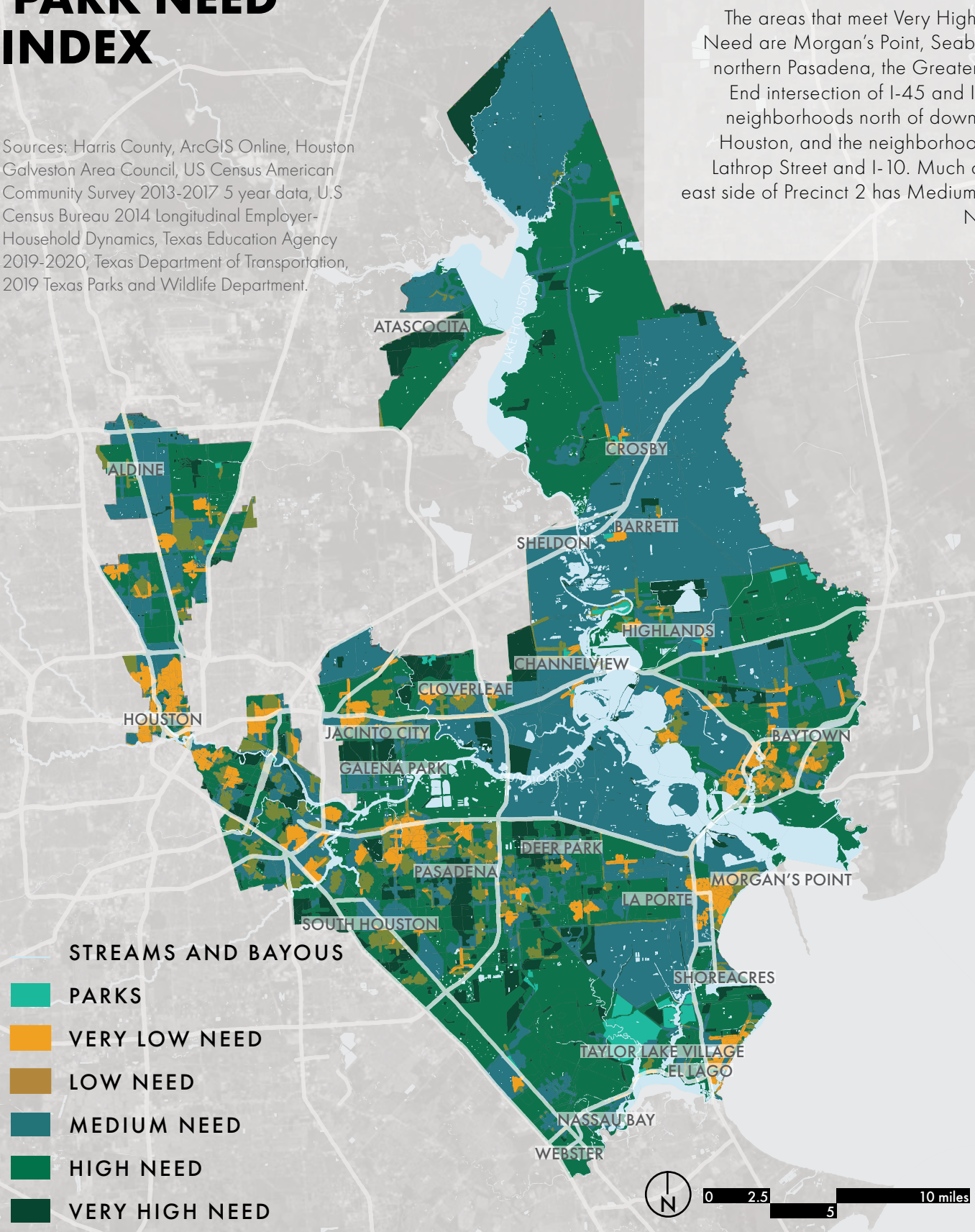
The areas that meet Low Vulnerability include central Houston, South Houston, northern Pasadena, and the communities around Lake Houston.



PARK NEED INDEX

Sources: Harris County, ArcGIS Online, Houston Galveston Area Council, US Census American Community Survey 2013-2017 5 year data, U.S Census Bureau 2014 Longitudinal Employer-Household Dynamics, Texas Education Agency 2019-2020, Texas Department of Transportation, 2019 Texas Parks and Wildlife Department.

The areas that meet Very High Park Need are Morgan's Point, Seabrook, northern Pasadena, the Greater East End intersection of I-45 and I-610, neighborhoods north of downtown Houston, and the neighborhoods at Lathrop Street and I-10. Much of the east side of Precinct 2 has Medium Park Need.



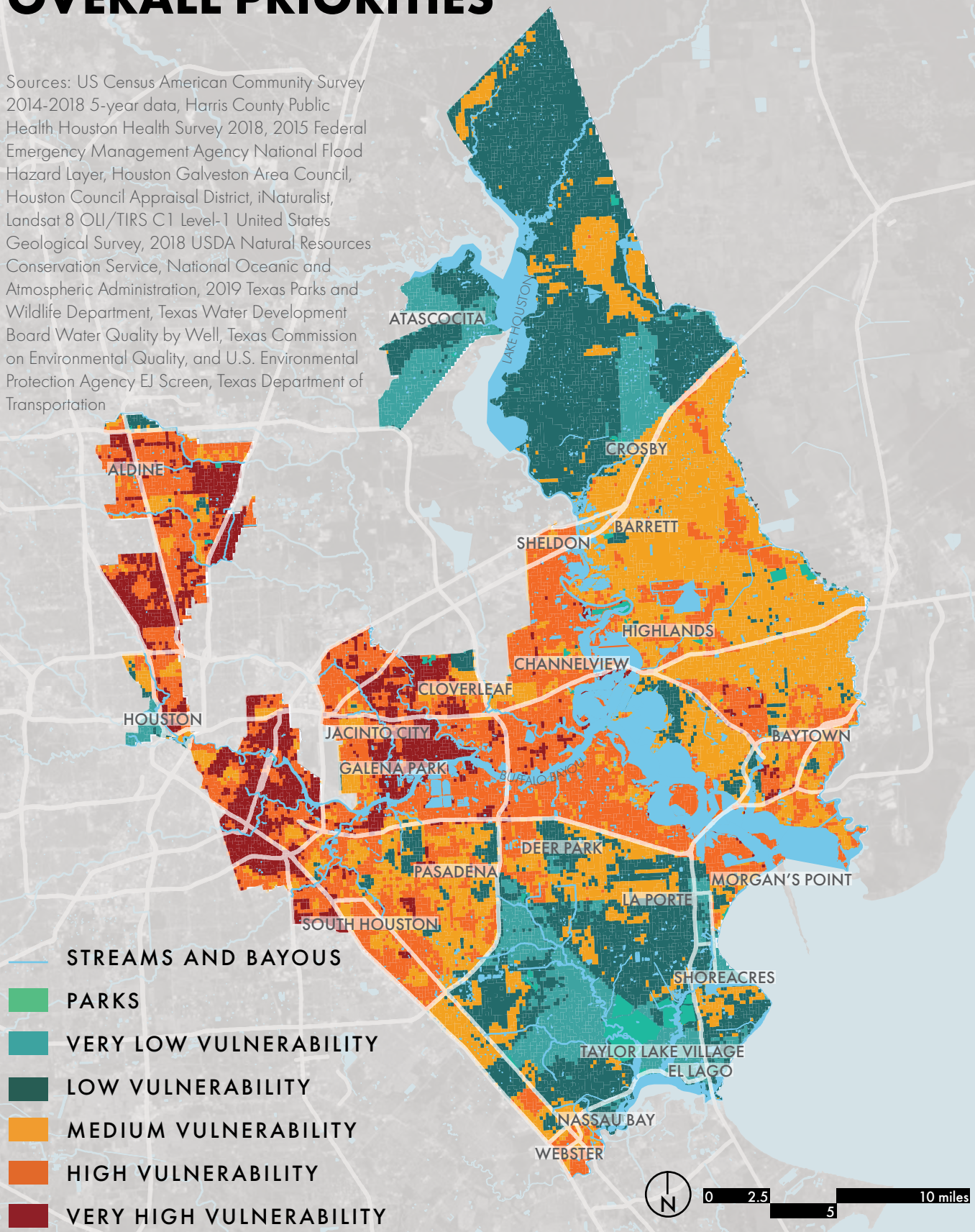
OVERALL PRIORITIES MAP

The overall priorities map shows areas across the four indices with the highest need for park investments. Investments in these areas would make the greatest impact toward reaching the Precinct's health, equity, and environmental goals. Areas of Very High Vulnerability are highlighted on the next page with justification for their accumulated high values.

The Overall Priorities Map informed the selection of the top ten Tier 1 Parks. Each Precinct 2 park received a score based on the accumulated results in the Overall Priority Map. These parks were carefully assessed to measure their overall quality and amenities. More information about those "Park Assessments" can be found in Chapter 5 of this report. The Overall Priorities Map will later inform the sites for investment effort in the recommendation phase on the Plan.

OVERALL PRIORITIES

Sources: US Census American Community Survey 2014-2018 5-year data, Harris County Public Health Houston Health Survey 2018, 2015 Federal Emergency Management Agency National Flood Hazard Layer, Houston Galveston Area Council, Houston Council Appraisal District, iNaturalist, Landsat 8 OLI/TIRS C1 Level-1 United States Geological Survey, 2018 USDA Natural Resources Conservation Service, National Oceanic and Atmospheric Administration, 2019 Texas Parks and Wildlife Department, Texas Water Development Board Water Quality by Well, Texas Commission on Environmental Quality, and U.S. Environmental Protection Agency EJ Screen, Texas Department of Transportation



2. ENGAGEMENT

STAKEHOLDER ENGAGEMENT

In order to make recommendations that meet the needs of the many different communities of Precinct 2, the planning process included a robust community engagement strategy. The community engagement opportunities included virtual and non-virtual events and initiatives across different points of the project process to maximize meaningful participation.

The engagement process sought to engage multiple groups of residents across different platforms. Due to the social distancing measures necessitated by the COVID-19 pandemic, many of the engagement strategies were modified to allow for virtual online engagement. The Parks and Trails Plan had two phases of engagement, the first phase was from July through October of 2020, and the second phase being October 2020 through October 2021.

Because 48% of Precinct 2 residents identify as Spanish speakers,[13] engagement was a bilingual process, with the website, surveys, and other engagement materials communicated in both English and Spanish. The engagement process accommodated community needs and continued to evolve with the pandemic.

To ensure an inclusive participation process, Tecolotl (formerly known as Antena Houston) conducted engagement targeted for Spanish speakers, including interviews, survey completion assistance, PhotoVoice engagement outreach, and an all-Spanish virtual event in addition to provision of translation at public workshops and stakeholder meetings.

48% OF PRECINCT 2 RESIDENTS ARE SPANISH SPEAKERS

DATA SOURCE: U.S. CENSUS BUREAU, 2014-2018 ACS 5-YEAR ESTIMATES, "S1601: LANGUAGE SPOKEN AT HOME."

IMAGE SOURCE: HELENA LOPES, "MEN'S WHITE BUTTON-UP DRESS SHIRT," JULY 12, 2015, PEXELS, HTTPS://BIT.LY/3IJRECA

13 United States Census Bureau, "S1601: Language spoken at home," 2018 ACS 5-Year Estimates.

The engagement effort included the following initiatives:

- Website and social media bulletin announcements
- Virtual community events and Q&A sessions with Commissioner Adrian Garcia in Spanish and English
- The formation and kickoff of the Parks and Trails Taskforce
- 3 Task Force Meetings
- The formation and kickoff of the Community Planners Program including 2 Community Planners Meetings
- An online Community Survey in Spanish and English
- #Pct2ParksAndTrails social media campaign and yard sign engagement
- 15 stakeholder interviews
- 24 Focus groups:
  - 7 geographic groups:
    - Crosby and Channelview
    - Baytown, Lynchburg, Barrett, La Porte
    - Channelview
    - Huffman, Crosby, Atascocita
    - Pasadena, Deer Park
    - Webster, Seabrook, Clear Lake
    - Greater Northside

Commissioner Adrian Garcia introducing the project.

A public Kick-Off meeting was held on August 31over Zoom.

Version 1 of the yard sign.

An example of the weekly social media posts.

- 2 parks-specific groups:
  - Channelview Sports Complex
  - Crowley Park
- 10 topic-specific groups:
  - Community Resilience
  - Culture & Programming
  - Immigrant Workers & Their Families
  - People with Disabilities & Their Families
  - LGBTQ& Community
  - Healthy Living
  - Heat & Nature
  - Programming
  - Safety
  - Implementation
- 5 Design Guidelines topics:
  - Placemaking & Economic Development
  - Recreation & Trails
  - Nature & Green Infrastructure
  - Safety
  - Site Furnishings
- PhotoVoice campaign to engage Precinct 2 youth
- "Story Time: Our Parks and Trails" public workshop
- 3 walking tours of parks:
  - Halls Bayou Park & Trail (Bretshire Park & Pinewood Park)
  - North Shore Park
  - Baytown Soccer Park

Flyer for Public Workshop #1.

Flyer fto advertize the PhotoVoice activity.

THE STORY TIME PUBLIC WORKSHOP

The first public meeting was facilitated as a resident-driven storytelling event. Fifty-three people attended the live event, and an additional 19 participants viewed the event recording for a total of 75 participants. The meeting encompassed a poetry story slam, a collection of photovoice submissions, and a live mapping session. Two local Precinct 2 artists, poet and artist-activist Stalina Villarreal and poet laureate of the City of Houston Deborah D.E.E.P. Mouton recited their story relating to parks and trails. Villarreal performed in Spanish, in honor of the latinx heritage of Precinct 2, and Mouton performed in English.

PhotoVoice, a campaign of visual art submissions from community youth speaking to their relationship with Precinct 2 parks and trails were also presented, and top submissions were announced, along with cash prizes.

After hearing the artists perform and seeing the PhotoVoice submissions, attendees were invited to open an interactive map hosted on coUrbanize to share their own stories. The map provided the following prompts:

- I have a memory here to share.
- I have an idea for this park!
- In my dream this park would...
- I wish there was a park here.
- Other comments

The session concluded with a Q&A and final curtain call for the artists who performed at the event.

PhotoVoice submission by Valerie Sorto.

PhotoVoice submission by Sergio Ridroguez.

WHAT WE HEARD

Notes were compiled for the engagement events and can be seen in Appendix E. From the notes and interaction with residents, the planning team developed an understanding of residents' needs pertaining to parks and trails in the area.

KEY CONCERNS

As the planning team spoke with residents and community stakeholders through interviews, focus groups, and other events, consistent concerns around topics such as safety, maintenance, and other issues began to emerge. Below, we discuss the key concerns identified through conversations at engagement events, interactive maps, and survey data.

ACCESS FOR PEOPLE WITH DISABILITIES

The Project Team conducted a focus group with people with disabilities and their families. During this focus group and at other points of engagement, park users brought up barriers to accessibility.

Examples discussed included inaccessible entrances, pathways, and equipment; difficulty sharing trails and equipment with people without visible disabilities; aggressive vehicles; and safety concerns for people with a mobility disability who may be stranded if they are unable to access their phones due to a lack of signal or battery power.

SAFETY

Safety was an issue that came up in almost every focus group conducted, and it was brought up from a multitude of perspectives.

Safety from crime was brought up frequently. Residents and park users were concerned about drug use, unhoused people, and off-leash dogs. People frequently suggested more lighting for parks, particularly in and around restroom facilities and parking lots.

People who identify as LGBTQ& cited safety from harassment as a concern as well. Several people mentioned the need to feel like they were welcomed through visible representations of the LGBTQ& community.

"ME AND SOME OF THE OTHER GIRLS HAVE TO GO RUNNING OR EXERCISE AT THE PARK SUPER EARLY BEFORE THE SUN EVEN GOES OUT, THAT WAY WE'RE LESS LIKELY TO RUN INTO SOMEONE WHO'S GONNA HARASS OR YELL AT US."

- Notes from a focus group with Organization of Trans Latinas in Texas (OLTT)

MAINTENANCE

Residents and stakeholders discussed maintenance frequently, and many pointed to it as an equity issue. There is a perception that parks in lower-income communities receive less care and maintenance. Maintenance was also linked to concerns around safety, as user groups cited rusty and broken equipment as a concern. The need for maintenance and cleaning of bathrooms was also frequently brought up.

ENVIRONMENTAL QUALITY

Air and water quality was brought up as a concern. Stakeholders stressed the need to limit direct exposure to infrastructure such as highways, trains, and pipes to keep people from harmful hazards and obstacles.

Precinct 2 communities are also at the frontlines of the changing climate, and some are still in recovery from Harvey. For some communities that may live near refineries, chemical plants, and recycling plants, park spaces were cited as a vital place for exercise and clean air.

The need for trees was brought up as well as a way to mitigate the heat island effect. Stakeholders pointed to the need for the use of local native plants and plants that were representative of the cultural diversity of the communities served by parks.

CONNECTIVITY

Residents and stakeholders frequently brought up connectivity as a key element to a park. At Community Planner meetings and focus groups, residents mentioned that some parks do not physically connect to surrounding neighborhoods or nearby trails. Several residents commented that they would be more likely to walk or bike to a park if there were trails or sidewalks that allowed them to do so.

Public transit came up as well, as many of the smaller cities and unincorporated areas of Precinct 2 do not have great access to buses or trains. Households without cars may be unable to access parks in these areas without improvements to public transit and/or pedestrian and bike infrastructure.

"THERE ARE RESIDENTS IN PRECINCT 2 WHO ARE STILL IN RECOVERY FROM HARVEY, AND THE PANDEMIC IS LIKELY EXACERBATING AIR QUALITY AND RESPIRATORY ISSUES. PARKS AND GREEN SPACES ARE CRUCIAL."

- Notes from an Interview with Bakeyah Nelson, former executive director of Air Alliance

DESIRED AMENITIES

The initial phase of public engagement focused on a community-wide survey that was distributed in English and Spanish and received 937 responses. Much of the survey focused on the level of importance of installing specific amenities ranging from "Not At All Important" to "Very Important." A composite "desirability score" was calculated using the responses.

The results of the survey questions can be seen in the "Desired Amenities" table. The amenity with the highest desirability score was cleaner restrooms, followed by better-maintained drinking fountains. This indicates the perceived need by users for enhanced maintenance of existing facilities.

Trails appear to be a high priority for users based on the survey, as more paved pathways, more biking trails, and more unpaved trails had the third, fourth, and sixth highest desirability scores, respectively.

Importantly, the survey indicated a mixed desirability for additional sports facilities such as pickleball courts (ranked last in desirability) and soccer fields (highest ranked out of sports facilities, but ranking 17th out of 25th with a -290 desirability score).

This may be due to the fact that sports facilities appeal to a narrow set of users who participate in the sport. In contrast, facilities with wider user groups, such as playgrounds, splash pads, outdoor exercise equipment, and picnic areas and BBQs received a much higher desirability score and ranking.

Cleaner restrooms were the # 1 desired amenity according to the community-wide survey. Source: Asakura Robinson.

DESIRED AMENITIES

Rank	Amenity	Desirability Score
1	Cleaner restrooms	720
2	Better-maintained drinking fountains	550
3	More paved pathways	537
4	More biking trails	485
5	Additional restrooms	463
6	More unpaved trails	412
7	Increased lighting for fields and courts	371
8	Additional drinking fountains	311
9	Expanded/enhanced playgrounds	295
10	Additional pavilions/ covered spaces for gathering	274
11	More splash pads and water features	236
12	More outdoor exercise equipment	184
13	Additional picnic areas and BBQs	152
14	Increased parking for fields and courts	99
15	Additional dog Parks	-6
15	Additional fishing areas	-6
17	Additional soccer fields	-290
18	Additional volleyball courts	-299
19	Additional softball/ baseball fields	-301
20	Additional tennis courts	-302
21	Skateboard park	-316
22	Additional basketball courts	-319
23	Frisbee golf course	-377
24	Golf course	-515
25	Additional pickleball courts	-522

Listed below are additional amenities which community stakeholders identified at focus groups, interviews, and other engagement events:

- Visible celebration of LGBTQ& and Latinx culture to let people know they are welcome there
- More public art
- Vendors and food options
- More trees for heat reduction
- More programming for all ages and cultures in various languages
- Evening programming
- Emergency buttons ("blue lights")
- Trail markers so that people can locate themselves in emergency situations
- Educational signage and spaces
- Farmers markets
- More health and educational programming for people of all ages

LGBT Memorial at Hudson River Park.
Source: Hudsonriverpark.org.

ACCESSIBILITY CONSIDERATIONS

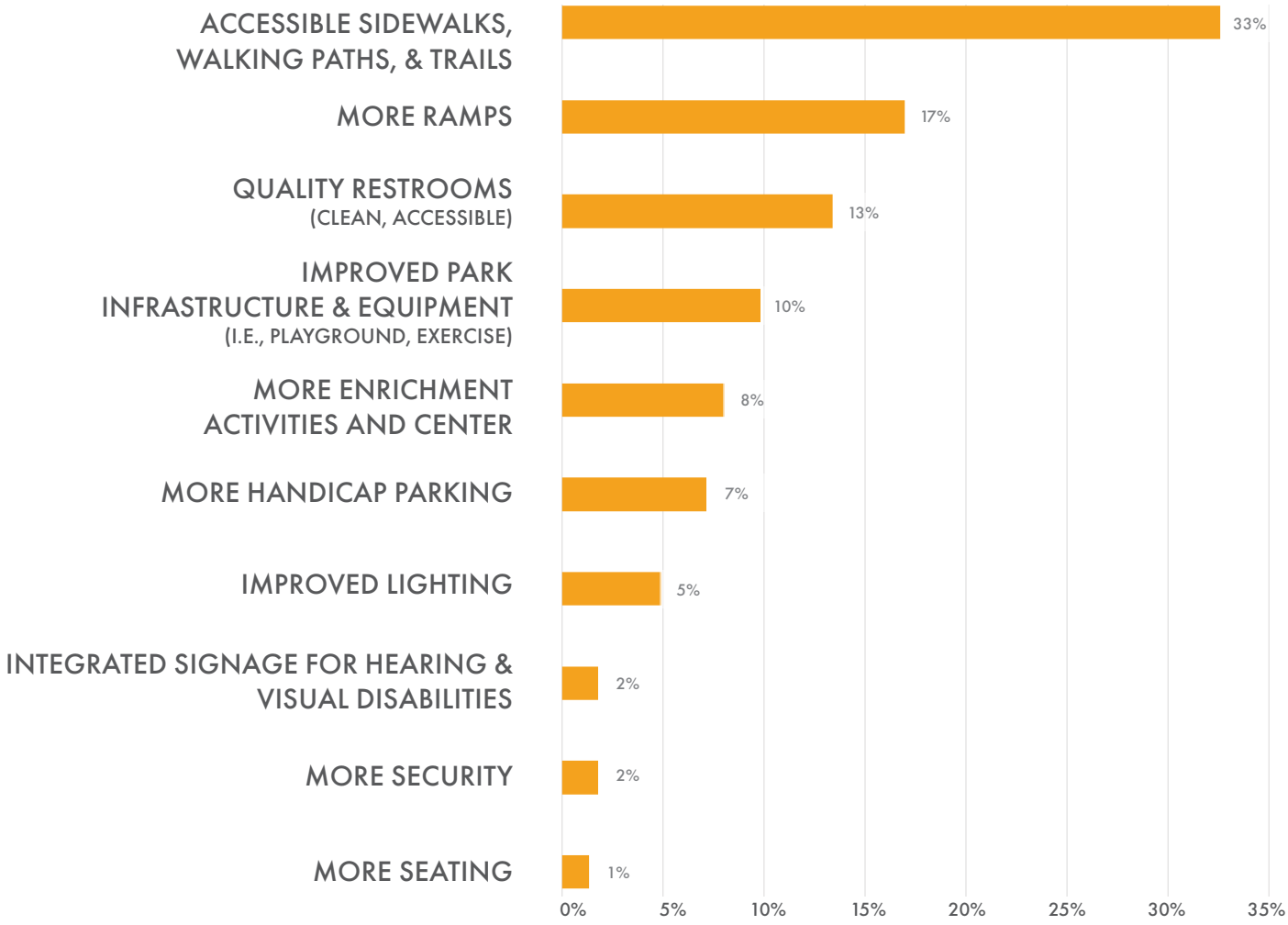
Within the community survey, respondents with a disability and their families were asked to select the three most important improvements that could be made to their community parks to improve access for people with disabilities. The highest ranked amenity was "Accessible sidewalks, walking paths, and trails," receiving a wide margin of votes and nearly double the amount of votes received for the second highest ranked amenity of more ramps. Specifically, people asked for paths with adequate width and smoothness, as well as generally more accessible pathways.

Listed below are additional desirable amenities identified at the focus group with people with disabilities and their families:

- Bathrooms that are accessible for people using wheelchairs
- Brighter colors on pavement and streets for people with visual impairments
- Accessible playgrounds that are inclusive of people who use wheelchairs
- Guided tour programs for people with disabilities
- Using concrete instead of gravel or mulch for swing areas so parents with disabilities can participate
- Adaptable exercise equipment
- Park entryways that are wheelchair-accessible
- Signage encouraging people to share the park with people with disabilities
- Information on the Precinct's website on what accessible amenities there are so people can gauge accessibility before going to the park

Additional information on all engagement events and input regarding specific parks can be seen in Appendix E.

MOST POPULAR ACCESSIBILITY PRIORITIES



"THE WALKWAYS HAVE PARTS WHERE THERE IS NO CONCRETE, SO I MUST GO THROUGH THE GRASS. WHEN IT RAINS, I HAVE TO ASK SOMEONE TO HELP ME BECAUSE IT IS SLIPPERY AND I GET STUCK."

- Notes from a focus group with people with disabilities and their families

3. GOALS AND OBJECTIVES

INTRODUCTION

The Precinct 2 Parks and Trails Plan Goals and Objectives were created after extensive research, analysis, and community and stakeholder engagement, as outlined in the previous chapters. This chapter discusses the Goals and Objectives, and identifies the overlap across the topics and the connection between objectives that will help to achieve an overall vision for Precinct 2. For example, these goals and objectives take into account that many community members emphasize the importance of park and trail safety, but also see importance in promoting the ecological health of our ecosystems. Therefore, when addressing lighting, goals and objectives balance safety needs with an understanding of the potential ecological implications of lighting in sensitive environmental areas. Overall, the goals and objectives provide a path toward parks and open space management that nurtures inclusivity, increases access for all, with a special attention towards increased longevity and strong networks of care across all Harris County Precinct 2 Parks and Trails, regardless of scale or location. This chapter discusses the overall parks and trails goals, organized into seven main topics listed to the right.

Safety for multiple modes of transit, Source: City of Houston

PRECINCT 2 PARKS AND TRAILS ARE:

1. **Safe:** Ensure that parks and trails are safe and comfortable spaces for everyone.
2. **Accessible & Connected:** Increase access and connectivity to parks and trails.
3. **Healthy:** Create spaces that promote an active and holistically healthy lifestyle.
4. **Culturally Relevant:** Provide park amenities that match local needs.
5. **Engaging:** Increase programming opportunities,including for sports, music, older adults/seniors, and youth; marketing and communications.
6. **Environmentally Resilient:** Create and improve landscapes that are adapted to the local ecology and can withstand or recover from changing conditions.
7. Ensure that there are adequate financial and volunteer resources to support an exceptional park system in Precinct 2.

While this chapter focuses at a high level on Goals and Objectives, more detailed guidelines for the on-the-ground implementation of many of these objectives can be found in the Design Guidelines Chapter.

Nurturing stewardship through community gardening, Source: Asakura Robinson

GOALS AND OBJECTIVES

1. SAFE: Ensure that parks are safe and comfortable spaces for everyone.

When There are many components that make up increased safety for parks and trails users; signage, maintenance and lighting, pedestrian and bike safety, and programming all facilitate increased safety. Signage that promotes safety can come in many forms including the addition of strategically placed signage, upgrades to deteriorating signage, and ensuring the signage is multilingual, with an emphasis on Spanish, Vietnamese and English. In addition, signage along trails for wayfinding help users understand the distance between major landmarks, exits, restrooms, and water fountains. Generally, signage upgrades should be prioritized where hazards may exist such as in areas where people should be prevented from eating fish from Bayous, and where there are high chances of children playing near pipelines or other potentially hazardous areas. Safety related to lighting include areas that need lighting coverage, not just where parks have structured activities, but for walking or jogging paths. Safety for multi-modal transit users includes identifying opportunities for improved infrastructure, traffic calming elements that reduce crossing times at key park entrances, and narrower car lanes with room for cycling infrastructure. Lastly, programming that promotes safety can be encouraged by increasing the scale of existing programs through support from park staff, local organizations, and key partnerships. Also, identifying community special events that can support local economic development and promote activation at different times of day, such as nighttime can promote safety. Overall, these examples encourage safety, and should also consider accessibility and connectivity, which is the emphasis of the next paragraph.

Multi-lingual park signage, Source: Wikimedia Commons by Hugo L. González

Lighting should be dark-sky compliant and provide comfortable visibility for pedestrians. Source: Landscape Forms.

1. SAFE Ensure that parks are safe and comfortable spaces for everyone		
Objective Number		**Design Guidelines Section(s)**
1.1 Signage		
1.1.1	Clearly post additional and replace deteriorating signs regarding rules and programs that pertain to safety in multiple languages (English, Spanish, Vietnamese) that are educational and engaging. Use internationally recognized symbols to overcome language differences.	Community-Focused, p. 30, 44; Cohesive & Comfortable, p 82
1.1.2	Create clear signage along trails so people are able to orient themselves relative to cross-streets, especially in emergency situations	Community-Focused, p 45; Cohesive & Comfortable, p 96
1.1.3	Create flexible signage kiosks or community announcement boards for timely updates related to safety, programming, and other planned seasonal activities.	Community-Focused, p. 30, 32
1.1.4	Place clear signage to indicate that pedestrians and bikes are prioritized over vehicular traffic	Active, p. 102
1.1.5	Provide signage for people with visual impairment	Cohesive & Comfortable, p. 82
1.2 Maintenance and Lighting		
1.2.1	Develop a maintenance plan to ensure parks receive adequate care and remain visually inviting and usable	Throughout; Cohesive & Comfortable p. 78
1.2.2	Ensure park lighting is appropriate for night time activities (where applicable) and make sure all lighting is dark skies compliant	Community-Focused, p 46; Cohesive & Comfortable, p. 86
1.2.3	Ensure that facilities including bathrooms are well-lit, maintained and clean	Community-Focused, p 46
1.3 Pedestrian and Bike Safety		
1.3.1	Promote lower vehicular speeds to prioritize pedestrian comfort on adjacent streets	Community-Focused p 16, 44, 46; Active, p. 104
1.3.2	Combine narrow road widths with other traffic calming measures on vehicular access roads in parks as well as on adjacent streets	Active, p. 104
1.3.3	Utilize available space for greater separation between pedestrians and vehicles. When possible locate trails off of busy thoroughfares and on parallel streets with less traffic.	Community-Focused, p 46; Active, p. 100, 101
1.3.4	Ensure sidewalks exist for easy access to enter parks safely	System-wide, p. 13; Active, p. 104
1.4 Programming		
1.4.1	Host safety audit walks at different times of the day with community organizations to identify ways to improve safety	Community-Focused, p. 22, 46
1.4.2	Partner with community members and organizations to organize community walks to increase a sense of safety	Community-focused, p. 47

2. ACCESSIBLE & CONNECTED:

Increase access and connectivity to parks and trails.

While ensuring parks are safe is critical to make sure residents benefit from the parks in their communities, it is also important to ensure parks are designed with accessibility and connectivity in mind. In this plan, accessibility and connectivity are considered in three different ways: (1) Accessibility through signage and wayfinding; (2) Accessibility throughout parks and trails for people with disabilities, including people who use a wheelchair, people with low-vision or blindness, and people within the deaf and hard of hearing community; and, (2) Accessibility and connectivity to parks and trails in terms of physical connections, programming opportunities, and hours of operation. Accessibility for different people with disabilities is specifically addressed by the Americans with Disabilities Act and is further expanded upon in the Design Guidelines Chapter. Within a park, renovations that focus on creating multiple paths to connect key amenities, including creating gradually sloped paths that meet the needs of those in wheelchairs, is critical. Accessibility through signage is an important component to address especially when considering connectivity and lastly, beyond accessibility within a park's boundaries, accessibility to parks from surrounding neighborhoods should also be a key consideration. Identifying opportunities for key connections and entrances, major pedestrian, recreational trails, and public transit become opportunities to strengthen connectivity and access for all Precinct 2 parks users.

Multi-modal connections to parks can increase accessibility for a multitude of users. Source: Darren Baker

Accessible equipment. Source: Allana Wesley White

2. ACCESSIBLE & CONNECTED Increase access and connectivity to parks and trails		
Objective Number		**Design Guidelines Section(s)**
2.1 Signage		
2.1.1	Create unified and consistent wayfinding and branding signage in Spanish and English for both pedestrians and cars	Community-Focused, p. 44; Cohesive & Comfortable, p. 111
2.2 Accessibility To and Within Parks		
2.2.1	Ensure every park entrance and pathways are ADA accessible	System-Wide, p. 13
2.2.2	Connect park entrances to existing adjacent pedestrian transportation networks	Cohesive & Comfortable, p. 17
2.2.3	Identify adjacent pedestrian transportation networks that should be improved with a focus on connections between parks and nearby neighborhoods.	Cohesive & Comfortable, p. 17, 18
2.2.4	Walking paths within parks should connect to all major park amenities, including restrooms, playgrounds, athletic fields, picnic tables, etc.	System-Wide, p. 13; Community-Focused, p. 14
2.2.5	Work with the public transit authorities (METRO and Harris County Transit) to expand bus routes to parks	Active, p. 122
2.2.6	Provide a minimum of 1 bicycle rack at every park that is safely accessible by bike	Active p. 23, 105; Community-Focused, p. 46
2.2.7	Ensure that there are pedestrian-oriented park entrances and install treatments to prioritize pedestrians over car traffic to facilitate walkability between parks and surrounding neighborhoods.	Community-Focused, p. 44
2.3 Connectivity between Parks		
2.3.1	Identify segment gaps within existing trail networks	Community-Focused p. 42
2.3.2	Identify areas with low access to parks where a new park should be developed	Overall Priorities Map, p. 11
2.3.3	Work with local government leadership and staff to identify opportunities to connect Precinct 2's parks and trails system to municipal parks and trails	Active, p. 98
2.3.4	Develop safe and accessible pedestrian and bike networks that connect parks to nearby residential areas, schools, community centers, parks, and job centers.	Community-Focused, p. 42
2.3.5	When possible locate trails off of busy thoroughfares and on parallel streets with less traffic.	Active, p. 101

3. HEALTHY: **Create spaces that promote an active and holistically healthy lifestyle.**

Accessibility and Connectivity have a role in strengthening health outcomes of neighborhoods, and ensuring fitness elements within parks are accessible across all ages promoting intergenerational relationship building. The goal of creating spaces that promote an active and holistically healthy lifestyle takes on many facets including: (1) promoting fitness, (2) limiting exposure to harm, (3) promoting mental health, (4) developing parks as community health and resource hubs, (5) creating parks as sites for youth leadership, and (6) helping to stop the spread of COVID-19. In addition to increasing park space to reduce the spread of illnesses, there is a focus on addressing sites that pose risks to communities, such as brownfield and Superfund sites,[14] and highly industrial areas. Improving air and soil quality in highly industrial areas with vacant parcels can include remediating soils and increasing vegetation, developing clear paths to remediation of sites from available funding sources, and clarifying the process and science amongst community leaders and residents. Promoting health also includes developing hubs for community health and resources, including *promotores de salud* programs.[15] Supporting youth leadership and programming to encourage the next generation of leaders related to health, equity, planning and open space development is an essential way to support long term growth of Precinct 2 communities.

Environmental stewardship group activities can provide a setting that supports mental and environmental health. Source: Peter Stoop

Native plant restoration. Source: PXFuel

14 There are 5 listed active Superfund sites in the Environmental Protection Agency (EPA) Superfund Website that are in Harris County, and they have a range of prioritization from the EPA. https://cumulis.epa.gov/supercpad/CurSites/srchrslt.cfm?start=1

15 More information about Community Health Workers in Houston can be found here: http://www.houstonstateofhealth.com/promisepractice/index/view?pid=3989

3. HEALTHY Create spaces that promote an active and holistically healthy lifestyle		
Objective Number		**Design Guidelines Section(s)**
3.1 Fitness		
3.1.1	Improve existing parks by renovating and adding outdoor fitness amenities and athletic fields where they are needed most; start with improvements to high-priority parks	Active, p. 114
3.1.2	Identify areas where there is the highest need for active transportation and build additional walking and biking trails within and between parks	Overall Priorities map, p. 11
3.1.3	Increase the frequency and diversity of free or low-cost fitness programming in parks	Community-Focused, p. 30
3.1.4	Work with schools to develop fitness programs for students and families	Ongoing, not in DG
3.1.5	Expand and promote sports leagues and tournaments that have a low barrier for participation	Ongoing
3.2 Limit Exposure to Harm		
3.2.1	Expand tree canopy to improve air quality and mitigate urban heat	Resilient & Vibrant, p. 51, 61, 66
3.2.2	Explore funding opportunities and programs to remediate brownfields, landfills, and Superfund sites and establish native ecosystems; where pollution is no longer a threat to human health, turn former brownfields into parks	Resilient & Vibrant, p. 18
3.2.3	Prioritize native landscape restoration and tree planting rather than amenities and programming in parks near polluting industries; parks programming should be limited to trails and other brief activities to minimize risk	Resilient & Vibrant, p. 63, 68-71
3.2.4	Improve local air quality by converting to manual, electric and/or low-emitting equipment where possible	Overall, not in DG
3.2.5	Establish policy that prohibits maintenance that burns fossil fuels on low air quality days	Overall, not in DG
3.2.6	Reduce trash and dumping in parkland and natural areas by: - Providing more places for the community to throw away trash - Monitoring and emptying trash cans regularly - Monitoring areas where dumping debris or trash occur - Empowering the community to call the appropriate authorities when they see offenses - Working with the County as a whole, including other Precincts, to explore unified efforts to increase recycling and pilot composting opportunities in parks and along trails and greenways	Cohesive & Comfortable, p. 85
3.2.7	Provide sound barriers and buffers through landscaping or amenities to allow for nature-oriented spaces insulated from sources of noise and air pollution like highways and trains.	Active, p. 96
3.2.8	Create stock ponds fisheries for communities that recreational fish and consume fish caught from natural areas.	Ongoing effort
3.2.9	Avoid developing parks, amenities, and programming in close proximity to sources of pollution, including highways, chemical plants, and storage sites of toxic substances	Ongoing effort, Overall priorities p. 11

3. HEALTHY Create spaces that promote an active and holistically healthy lifestyle		
Objective Number		**Design Guidelines Section(s)**
3.2.10	Install air quality monitoring stations at parks and tie it to a notification system so residents know when air quality is bad	Resilient & Vibrant, p. 51
3.3 Mental Health		
3.3.1	Partner with a local mental health agency and stewardship organizations to create programming that promotes relaxation, focus, and awareness	Overall
3.3.2	Work with local healthcare providers to develop a Park Prescription / Park Rx Program to increase physical activity and improve mental health	Overall
3.3.3	Work with health professionals and service providers to support social prescribing and proactively make parks a venue for social gathering	Overall
3.3.4	Host volunteer groups for environmental stewardship opportunities to increase opportunities for social gatherings	Community-Focused, p. 22; Resilient & Vibrant, p. 64
3.3.5	Design and construct amenities for social gatherings and social play, such as gazebos, covered eating areas, and barbecue pits.	System-Wide, p. 22
3.3.6	Partner with healthcare providers in the development of parks and green space, design, and programming, and measure the impact of parks on wellbeing	Overall
3.3.7	Partner with healthcare providers to develop and maintain public green spaces at or in very close proximity to health facilities to enhance programming partnerships	Overall
3.4 Parks as Community Health and Resource Hubs		
3.4.1	Utilize parks as community nutrition hubs that provide fresh and affordable food (e.g., community gardens, farmers markets, food Rx programs)	Overall
3.4.2	Develop resilience hubs that support preventative care, distribute resources and information, and protect community members from extreme weather conditions	Overall
3.5 Parks as Sites for Youth Leadership		
3.5.1	Partner with local organizations to develop programming and projects that support local youth stewardship	Overall
3.5.2	Increase opportunities for nature play and nature learning by reducing the amount of turf/lawn areas and replacing them with native landscapes	Community-Focused, p. 38; Active, p. 111
3.5.3	Provide programming that cultivates youth leadership and ownership of public spaces	Overall, Community-Focused, p. 30
3.6 Stopping the Spread of COVID-19		
3.6.1	Install temporary signage encouraging social distancing and the wearing of masks	Overall
3.6.2	Facilitate a hands-free environment in park restrooms with automated sinks, soaps, and dryers	Cohesive & Comfortable, p. 82

4. CULTURALLY RELEVANT:
Provide park amenities that match local needs.

Building off of strengthening health outcomes, ensuring parks are culturally relevant and meet the needs of its constituents and park users is critical. This includes supporting programming that meets the needs and supports local residents, ensuring a diverse and representative park workforce, and finding opportunities in programming to promote and support local talent, and leadership. Finally, promoting design amenities within parks and along trails that incorporate the surrounding community's culture and identities let people know they are welcome and belong in the green spaces within Precinct 2.

Parks can be spaces for culturally relevant programming. Source: Asakura Robinson

4. CULTURALLY RELEVANT Provide park amenities that match local needs		
Objective Number		**Design Guidelines Section(s)**
4.1 Park Workforce		
4.1.1	Park workforce that is representative of Precinct residents	Overall
4.2 Programming		
4.2.1	Encourage the formation of park support groups through community groups and schools where parks are underutilized	Community-Focused, p. 22; Resilient & Vibrant, p. 64
4.2.2	Plan culturally and linguistically targeted activities, events, information, and outreach	Community-Focused, p. 34
4.2.3	Provide culturally appropriate and educational craft nights	Community-Focused, p. 34
4.2.4	Provide culturally relevant programming on how to grow and cook foods that are culturally applicable to local communities	Community-Focused, p. 34
4.3 Programming		
4.3.1	Post signs in multiple languages (Spanish and Vietnamese) about the cultural history of parks and their surrounding neighborhoods	Commuinty-Focused, p. 3o
4.3.2	Engage local artists to create culturally specific art around park spaces	Commuinty-Focused, p. 32
4.3.3	Design amenities that incorporate the surrounding community's culture and identities to let people know they are welcomed there	Commuinty-Focused, p. 34; Cohesive & Comfortable, p. 79-80

5. ENGAGING: Increase programming opportunities, including for sports, music, older adults/ seniors, and youth; marketing and communications.

As mentioned in previous paragraphs, programming and amenities that can promote intergenerational health is imperative. In addition, understanding key populations surrounding parks, such as higher youth populations, or areas with higher senior populations should be considered when renovations and park expansions are undertaken. Identifying opportunities where park marketing and virtual engagement can be increased Precinct 2-wide can help students understand the resources, services, and activities they can access. Other ways to engage youth include programming in coordination with the Independent School District (ISD) in Houston. Finding methods of integrating curriculum and place-based learning through parks can be an influential method of connecting youth and families to the surrounding ecosystem around them, both social and environmental.

Lastly, understanding the ways that parks can promote community development, and complement affordable housing development and increasing density throughout Precinct 2 is an important part of ensuring equity and access are central to development adjacent to parks and open spaces. Finally, understanding how parks can integrate key community public resources such as libraries or other public goods can be a way to integrate multiple governmental departments.

Engagement activities targeting youth. Source: Asakura Robinson

Youth engaged in a park clean up project. Source: Keep Texas Beautiful

5. ENGAGING Increase programming opportunities, including for sports, music, older adults/seniors, and youth; marketing and communications		
Objective Number		**Design Guidelines Section(s)**
5.1 Engaging Amenities		
5.1.1	Provide amenities suitable for at least 3 age groups in parks with playground equipment	Active, p. 111
5.1.2	Provide interactive play elements, including opportunities for nature play, at parks with playground equipment	Community-Focused, p. 38; Active, p. 111
5.1.3	Provide amenities and programing opportunities suitable for art or cultural performances	Community-Focused, p. 32, 33
5.1.4	Provide flexible spaces for art installations	Community-Focused, p. 30
5.1.5	Establish collaboration with art organizations and local artists to provide art related activities in parks	Community-Focused, p. 30
5.1.6	Find opportunities to include art in pre-existing or planned infrastructure (for example electricity boxes, paved surfaces, etc.)	Community-Focused, p. 30-33
5.1.7	Create and enhance connections between parks to increase engagement throughout the system	Overall
5.1.8	Pair programming with new signage	Overall
5.2 Virtual Engagement and Park Marketing		
5.2.1	Provide a series of online courses and activities tailored to a variety of parks and experiences	Overall
5.2.2	Develop a marketing and communication campaign that incorporates digital and analog material for distribution at all major parks	Overall
5.2.3	Work with local business and/or organization to organize virtual scavenger hunts that encourage people to explore new parks and spaces	Overall
5.2.4	Research an application for the parks to publicize events and have a calendar of events and activities for every park	Overall
5.2.5	Communicate the social and mental benefits of parks as well as the other activities outside of fitness that can be done in parks.	Overall; Community-Focused p. 30-47; Active, p. 108
5.3 Youth Engagement through ISDs		
5.3.1	Collaborate with schools to develop outdoor recreation programs that are explicitly geared towards developing skill and comfort in nature	Overall; Active p. 111
5.3.2	Create a bucket list of park activities for students to check off across Precinct 2 parks	Overall

5. ENGAGING Increase programming opportunities, including for sports, music, older adults/seniors, and youth; marketing and communications		
Objective Number		**Design Guidelines Section(s)**
5.4 Community Engagement		
5.4.1	Work with local business and/or organization to organize virtual scavenger hunts that encourage people to explore new parks and spaces	Overall
5.4.2	Host interactive art in the park nights	Community-Focused, p. 46
5.4.3	Design community-led art installations	Community-Focused, p. 30-31
5.4.4	Provide culturally appropriate and educational craft nights	Overall
5.4.5	Engagement targeted to all groups: Continued involvement of kids, young adults, adults, and seniors	Overall; Community-Focused, p. 30
5.4.6	Include communities who speak languages other than English and Spanish (for example Vietnamese)	System-Wide, p. 16, 22
5.4.7	Incorporate educational signage in natural areas that engages park users in learning about the ecosystem	System-Wide, p. 14, 22

Tree-planting led by local sports team. Source: Asakura Robinson

6. ENVIRONMENTALLY RESILIENT: Create and improve landscapes that are adapted to the local ecology and can withstand or recover from changing conditions.

Considering community development as outlined in the previous paragraph, should also be about understanding the human and non-human communities. Looking toward environmental resilience means contextualizing community risks in terms of flood resilience, supporting and restoring critical ecosystems along major corridors and along Bayous, and looking to sustainability as contributors to park longevity. Promoting opportunities for stewardship and relationship building across communities can help in not only promoting social cohesion but also nurturing ecosystem health.

Parks can be a habitat for wildlife. Source: Asakura Robinson.

6. ENVIRONMENTALLY RESILIENT Create and improve landscapes that are adapted to the local ecology and can withstand or recover from changing conditions.		
Objective Number		**Design Guidelines Section(s)**
6.1 Protect and Restore		
6.1.1	Protect and restore native ecosystems, including prairie, wetland, coastal, riparian and woodland habitats	Resilient & Vibrant, p. 63, 65
6.1.2	Protect water resources and aquatic habitats	Resilient & Vibrant, p. 64
6.1.3	Incorporate native or adapted vegetation	Resilient & Vibrant, p. 56
6.1.4	Incorporate native plant communities with vertical diversity where appropriate	Resilient & Vibrant, p. 63
6.1.5	Support pollinators & other insects important to the ecosystem	Resilient & Vibrant, p. 55
6.1.6	Increase tree canopy cover, diversity, and age range	Resilient & Vibrant, p. 97
6.1.7	Ensure dark skies compliance of all parks throughout the Precinct	Resilient & Vibrant, p. 98

6. ENVIRONMENTALLY RESILIENT Create and improve landscapes that are adapted to the local ecology and can withstand or recover from changing conditions.		
Objective Number		**Design Guidelines Section(s)**
6.2 Build Flood Resilience		
6.2.1	Decrease impervious cover where possible	Resilient & Vibrant, p. 54
6.2.2	Incorporate porous, light colored materials for all trails and ground level improvements	Resilient & Vibrant, p. 60
6.2.3	Incorporate green infrastructure or Low Impact Development strategies in parks, as possible	Resilient & Vibrant, p. 49
6.2.4	Consider floodplain buy-out areas for community gardens	Resilient & Vibrant, p. 41
6.3 Implement Sustainable Practices		
6.3.1	Reduce water use for irrigation, especially potable water	Resilient & Vibrant
6.3.2	Reduce use of chemicals for M&O where possible	Ongoing, not in DG
6.3.3	Support staff training opportunities in sustainable M&O and land management	Ongoing, not in DG
6.4 Work with the Community		
6.4.1	Promote environmental awareness and educational opportunities	Community-Focused, p. 44

Curbside Farmer's Market, Source: Pixabay/CC0 Public domain:

7. ECONOMICALLY RESILIENT:

Ensure that there are adequate financial and volunteer resources to support an exceptional park system in Precinct 2.

Understanding the tiers of funding available for maintenance can help contextualize and shape how to prioritize interventions outlined throughout this plan, and identify how changes should always consider maintenance dollars required from 1 year after intervention, to 5 - 10 years after improvements and interventions. This can help make decisions for stronger, safer, and healthier parks. Identifying opportunities where programming can support long term maintenance is an important part of economic resilience, whether that's through establishing entities to access additional funds through non-profit organizations such as, "Friends of Precinct 2 Parks," or other relevant organizations that can manage specific portions of parks, such as community gardens, in efforts to complement existing funding available to governmental agencies towards supporting maintenance priorities. The economic health of parks can be supported by events that nurture and prompt sustained volunteerism. This volunteerism can come from strengthening relationships and providing programming as outlined in the engaging section of this chapter to support in addressing maintenance priorities. In addition, looking to support local economic development means encouraging small businesses to be part of not only groundbreaking events, or grand opening events, but annual events that gather entrepreneurs to encourage more visitors attending parks, and increase potential Earned Income for local residents. Taking this task on would mean being mindful of ensuring critical amenities remain accessible and economic barriers to entry and participation are reduced. Overall, economic resilience means identifying where local entrepreneurship can be highlighted and showcased to be beneficial to park operations and local businesses simultaneously.

Market at the Park supporting local artisans, chefs and entrepreneurs, Source: Asakura Robinson

7. ECONOMICALLY RESILIENT Ensure that there are adequate financial and volunteer resources to support an exceptional park system in Precinct 2		
Objective Number		**Design Guidelines Section(s)**
7.1 Maintenance		
7.1.1	Prioritize maintenance for existing assets	General note, ongoing
7.1.2	Create protocol for how long an amenity needing service can remain closed	General note to review product warranties of last installed project amenities for specific notes and explanations
7.1.3	Identify areas for maintenance reduction, such as decreasing driveway widths to reduce pavement maintenance needs	General note, ongoing
7.1.4	Identify areas for native planting that require less water and maintenance	Resilient & Vibrant, p. 63
7.1.5	Identify opportunities to reduce water and energy use through technology upgrades	General note, ongoing
7.1.6	Incorporate rainwater capture to reduce water use for irrigation	Resilient & Vibrant, p. 62
7.1.7	Wherever possible, establish partnerships for cost sharing	Overall
7.2 School Partnerships		
7.2.1	Increase partnerships with schools for cost sharing	Overall
7.2.2	Advocate for accessible SPARK parks that are open to the public outside of school hours	Overall
7.2.3	Prioritize SPARK parks in areas of high and very high park need	Overall
7.2.4	Advocate for school park enhancements	Overall
7.3 Sustained Volunteerism		
7.3.1	Create a "Friends of the Park" system to assist with other community needs (outreach, community gardens, maintaining trails, etc.)	Community-Focused, p. 24
7.3.2	Create volunteer programs for park stewardship, such as "It's My Park Day"	Community-Focused, p. 47; Resilient & Vibrant, p. 64

7. ECONOMICALLY RESILIENT Ensure that there are adequate financial and volunteer resources to support an exceptional park system in Precinct 2		
Objective Number		**Design Guidelines Section(s)**
7.3.3	Expand marketing and matching programs for volunteers	General note, ongoing
7.3.4	Partner with local service organizations (like the Girl Scouts) and corporate organizations to increase park volunteer hours for maintenance and upkeep	General note, ongoing
7.3.5	Identify residents who can act as community/park ambassadors to help with organizing volunteer groups, outreach, fundraising, community gardens, and maintenance	Ongoing
7.4 Visitor Spending and Earned Income		
7.4.1	Establish opportunities for facility rental	Community-Focused, p. 40
7.4.2	Establish opportunities for vendors (farmers market, food trucks, etc.)	Community-Focused, p. 40; Cohesive & Comfortable
7.4.3	Establish opportunities for potential revenue from visitors (parking fees, bike rentals, kayak rental, etc.)	Ongoing
7.5 Economic Ecosystem		
7.5.1	Rent out planting beds for local food production	Community-Focused, p. 53
7.5.2	Partner with local organizations and non-profits to establish and manage community gardens	Ongoing; Community-Focused, p. 53

4. RECOMMENDATIONS: PARKS & TRAILS SYSTEM

INTRODUCTION

This section focuses on Precinct 2 parks and trails system-wide recommendations. It is divided into four main sections: New Park and Trail Opportunities, Trails and Bike Connections, Partnerships, and Financing and Grant opportunities. The New Park Opportunities focuses on vacant public and private land available for potential acquisition in high to very high vulnerability areas where parks and trails are needed most. The Trail and Bike Connections take into account recent pedestrian and bike planning and existing trail systems in Precinct 2. With this information, our system-wide approach investigates high-priority areas where trail connections could make the biggest impact in the precinct. The Partnership section discusses key public partnerships that can be leveraged to provide a joint amenity to communities in the area. It also talks about other key local players in the parks and trail development realm. Lastly, the Financing and Grants section focuses on local, state, and federal opportunities. While this chapter focuses on system-wide recommendations, the section that proceeds this discusses park-specific recommendations.

NEW PARK OPPORTUNITIES

One way to enhance the park and trail amenities of Precinct 2, especially in areas of high need, is to consider working with public land partners that have vacant land and/or consider land acquisition of private parcels. The purpose of the following maps is to identify vacant public land and focus areas of land acquisition within the Very high vulnerability, and High vulnerability areas of Precinct 2. The public vacant land category considered the following land ownership: State of Texas, Harris County, City of Houston or other Precinct 2 City, and local nonprofits. A full list of the public landowner can be viewed on page 100. The vacant public land parcels are shown in the different zones within Precinct 2: West, Central, South, and East. The private vacant land is not shown on the map, however, we key out a few cities within Precinct 2 that have higher rates of private vacant land in Very high vulnerability and High vulnerability areas in the precinct. Another opportunity for parks is existing community center land. For example, the Grayson Community center in Cloverleaf is being evaluated to convert part of the parking lot into a park space.

HIGH VACANT LAND DENSITIES IN HIGH & VERY HIGH VULNERABILITY AREAS

Zone of Precinct 2	City or Area	High vulnerability Vacant Land	Very high vulnerability Vacant Land
West	City of Houston	196 acres	348 acres
	Aldine	196 acres	119 acres
Central	City of Houston	400 acres	857 acres
	Channelview	509 acres	92 acres
East	Highlands	334 acres	1 acre
	City of Baytown	450 acres	91 acres
South	City of Houston	412 acres	331 acres
	City of Pasadena	201 acres	98 acres

ALL VACANT LAND

There are around 22 thousand acres of vacant land (both public and private) in Precinct 2. Of that 4,865 acres are within High vulnerability communities, and approximately 2,418 acres are within Very high vulnerability communities. The vacant land opportunities are spread across the precinct, but we did find some concentrations in certain areas that are discussed in more detail in the private vacant land section.

PUBLIC & NONPROFIT VACANT LAND

Precinct-wide, approximately 5% of the vacant land is publicly owned by either the State of Texas, Harris County, City of Houston, or other Precinct 2 City, and local nonprofits. Of that, 192 acres are in the High vulnerability communities, and 114 acres are in the Very high vulnerability areas. The Central Zone of Precinct 2 has the highest amount of publicly owned vacant lands within the High and Very high vulnerability areas at an approximate total of 120 acres. The supporting maps further show the public vacant land within the High and Very high vulnerability areas within each zone of Precinct 2. Other types of public land exist that were not included in this analysis, including for example land owned by a TIRZ or by METRO. These lands are not meant to be excluded from any recommendations; rather, we have focused on the public land types that we believe will be most fruitful for future park development.

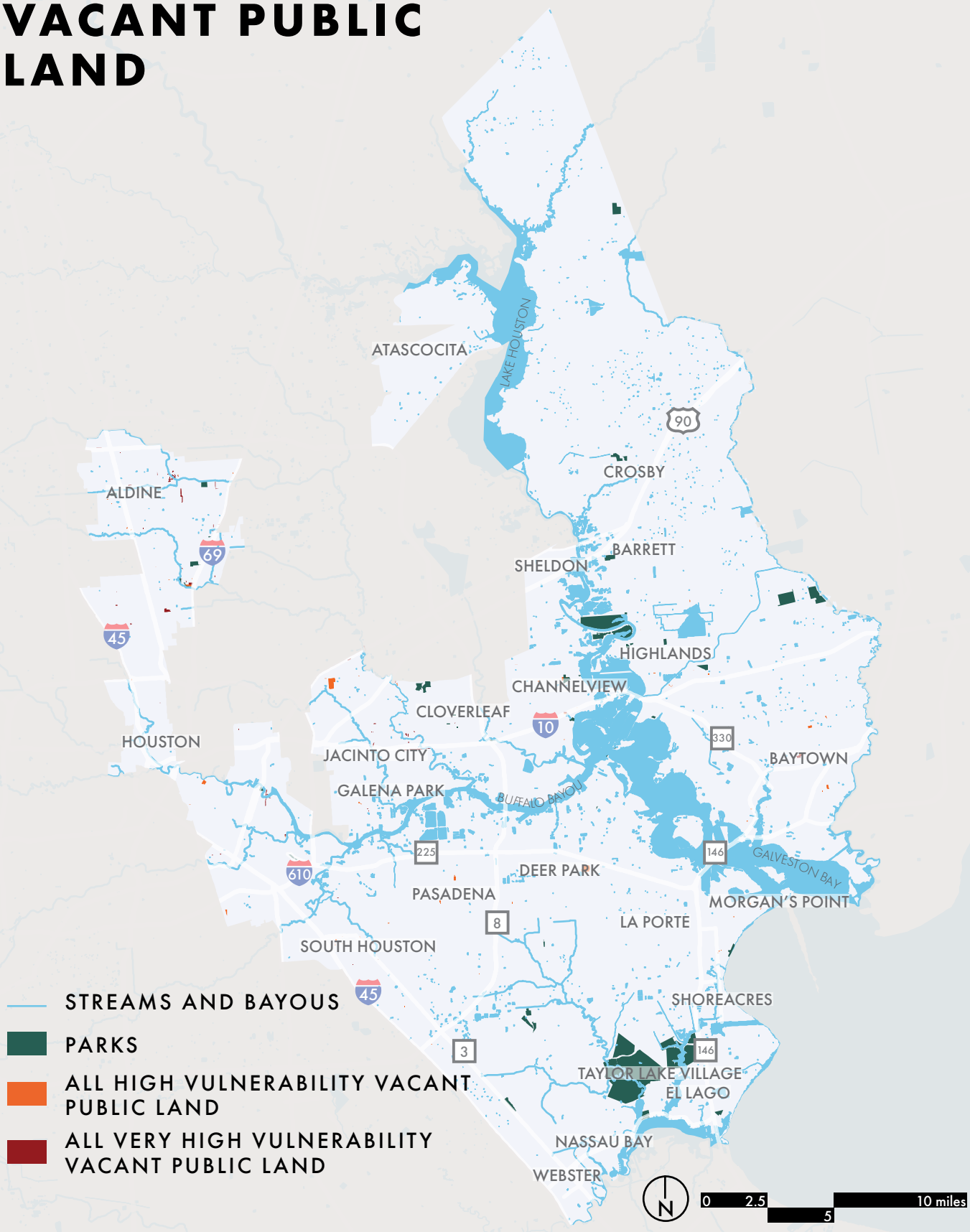
PRIVATE VACANT

There is more privately-owned vacant land within Precinct 2 than publicly owned vacant lands. There are approximately 4,674 acres of privately-owned vacant land in High vulnerability areas, and 2,305 acres in Very high vulnerability communities. The precinct, in partnership with the County and other public entities, should pursue the acquisition of land, especially in high-priority areas. Based on visual assessments of each zone within Precinct 2, the corresponding table on page 99 highlights neighborhoods, towns, and city areas that have higher rates of private and public vacant lands within High and Very high vulnerability areas.

VACANT PUBLIC & NONPROFIT LAND OWNERS

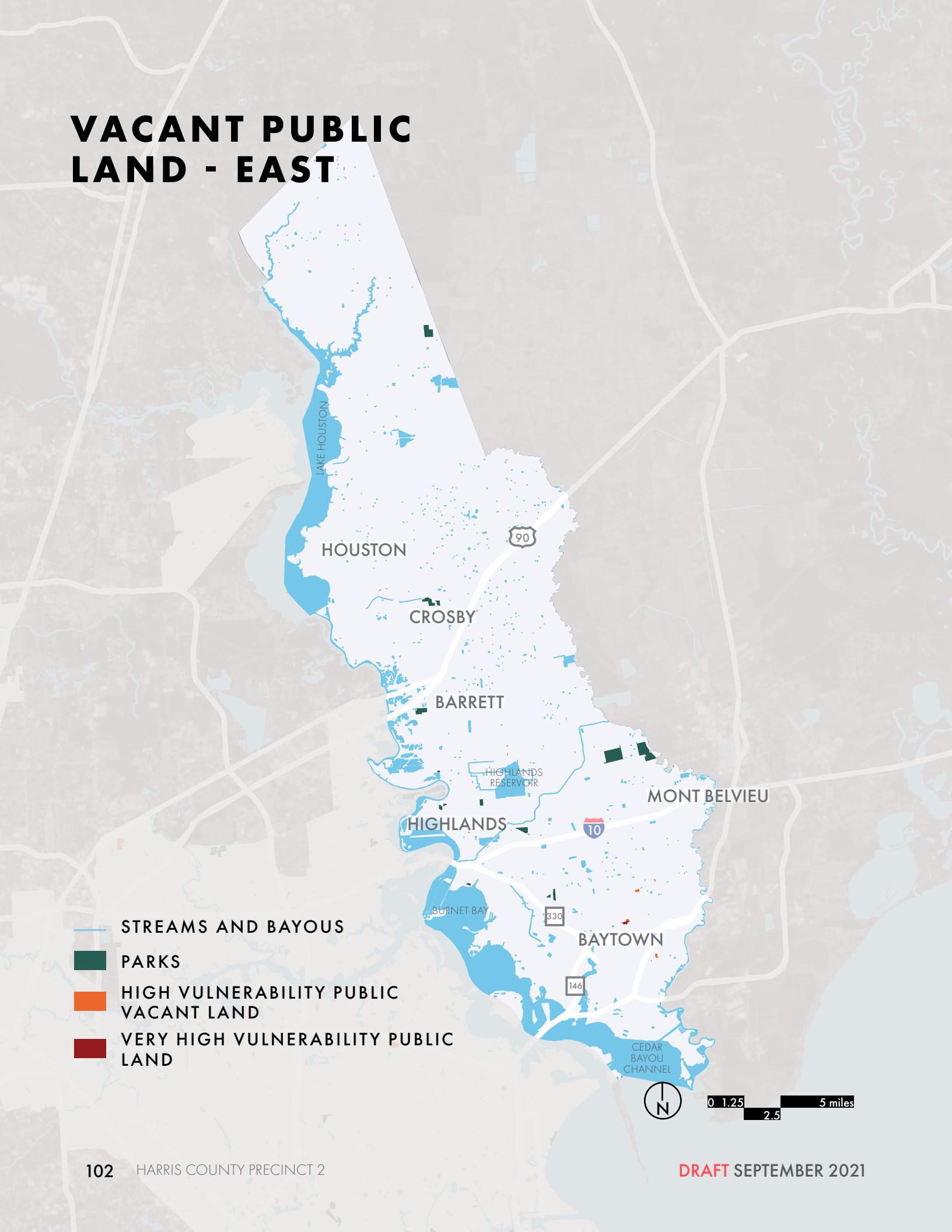
Public Entity	Vacant Public Land Owner
State	State of Texas
	Texas Department of Transportation
	State Department of Highways
	State Department of Highways and Public Transportation
Harris County	Harris County
	Harris County Flood Control District
	Harris County Water Districts
	Harris County Water Control and Improvement District
	Harris County Municipal Utility District
	Harris County Fresh Water Supply District
	Harris County Toll Road Authority
	Harris County Energy Services District
Cities	City of Houston
	Houston Community Health Centers
	Port of Houston Authority
	Houston Independent School District
	Houston Community College System
	Houston Community Health Center
	City of South Houston
	City of Baytown
	City of Baytown Street
	City of Deer Park
	City of Galena Park
	City of Hope
	City of La Porte
	City of La Porte et al
	City of Laporte
	City of Morgans Point
	City of Pasadena
	City of Seabrook
	City of Shoreacres
	City of Taylor Lake Village
	City of Webster
Non-profits	Houston Parks Board
	Houston Audubon Society

VACANT PUBLIC LAND

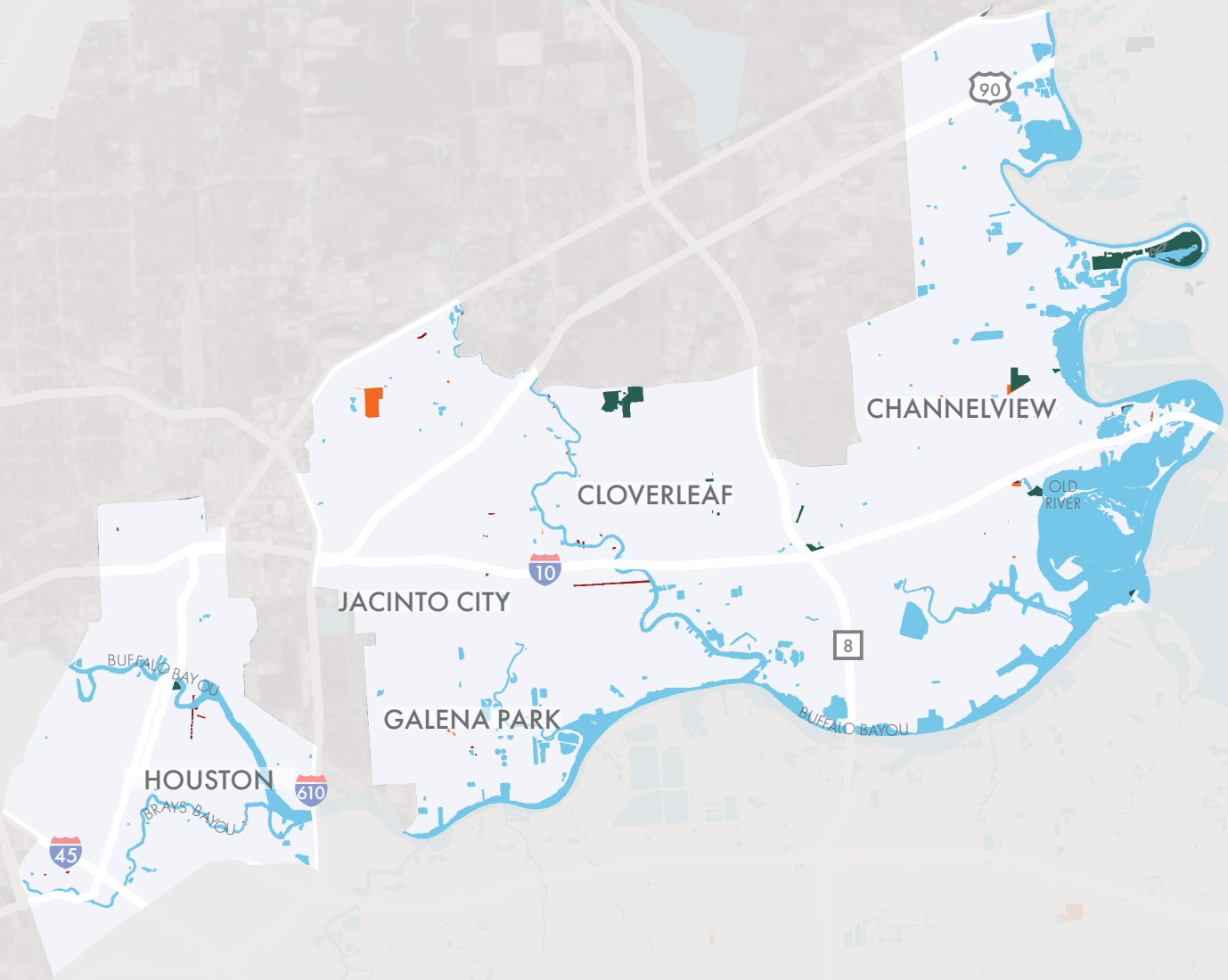


Source: U.S. Census Bureau TIGER/Line Shapefiles, Houston-Galveston Area Council

VACANT PUBLIC LAND - EAST



VACANT PUBLIC LAND- CENTRAL



STREAMS AND BAYOUS

PARKS

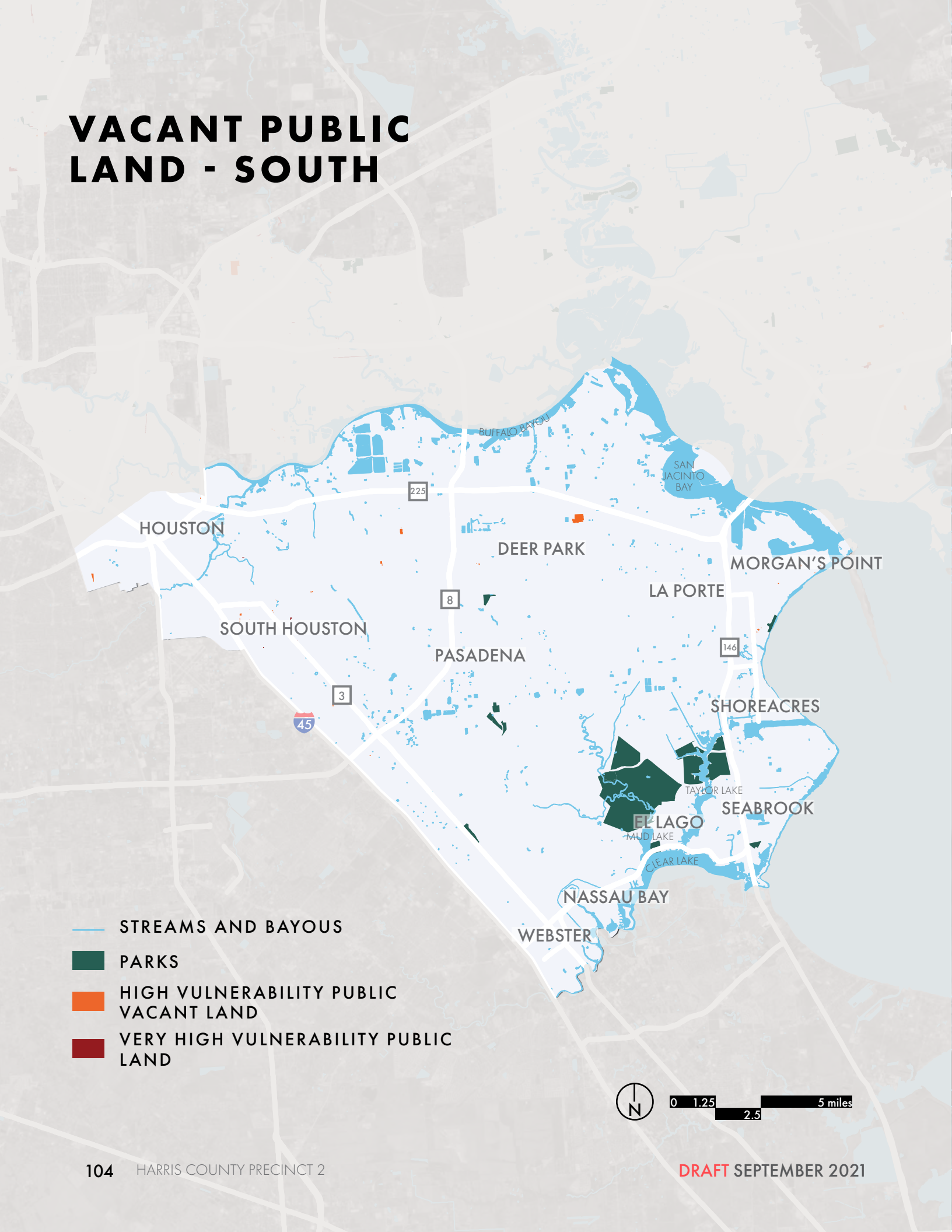
HIGH VULNERABILITY PUBLIC VACANT LAND

VERY HIGH VULNERABILITY PUBLIC LAND

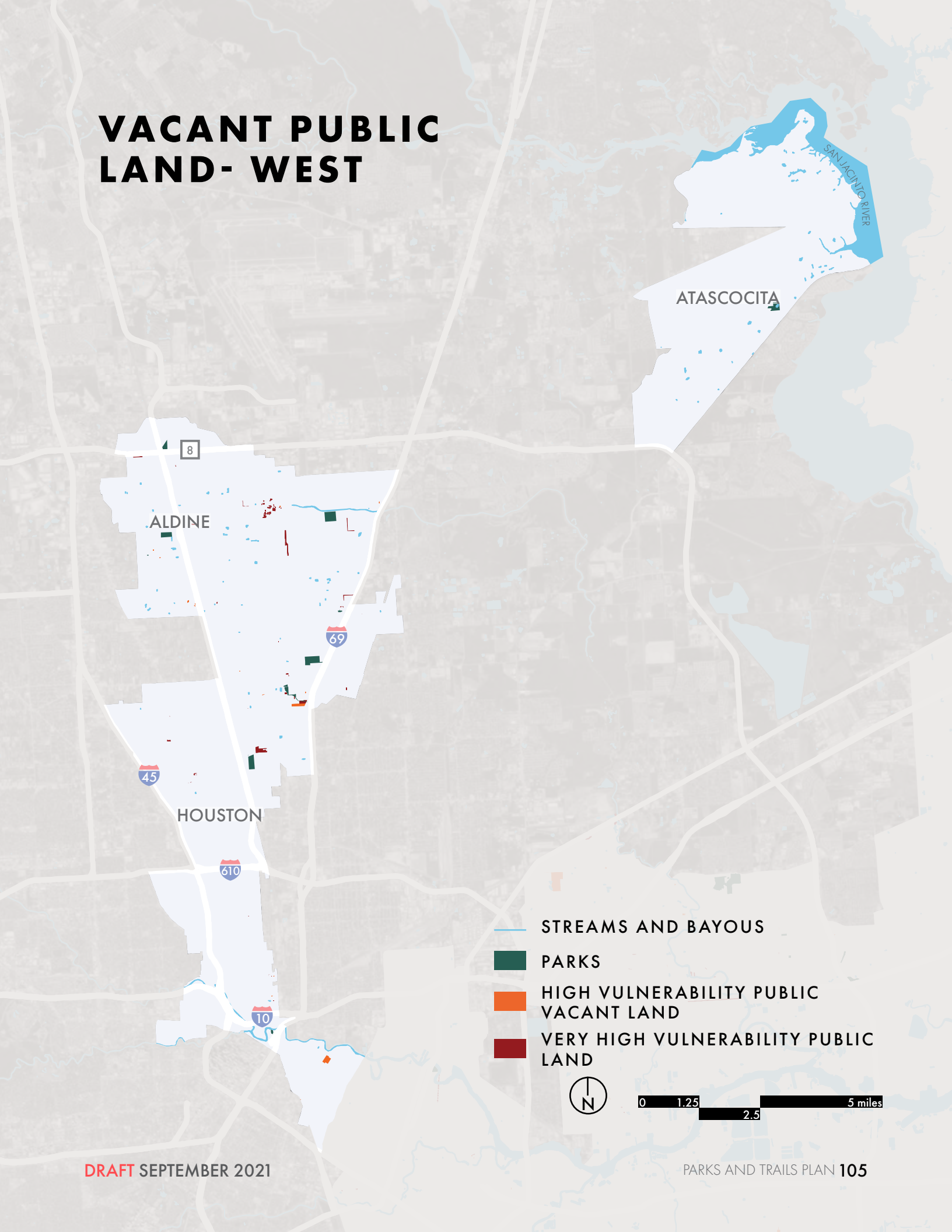
N

0 1.25 2.5 5 miles

VACANT PUBLIC LAND - SOUTH



VACANT PUBLIC LAND- WEST



PRIORITY BIKEWAYS & TRAILS

Under the leadership of Commissioner Adrian Garcia, Harris County Precinct 2 has prioritized planning for all types of mobility -- particularly in unincorporated communities. These Precinct-led planning processes are built upon community feedback and identify holistic mobility improvements that include networks of bikeways and trails.

When combined with previous plans such as the City of Houston Bike Plan and community area plans in neighborhoods like Channelview, Northshore, and Aldine, the Precinct's recommendations represent a broad network of potential bikeway and trail projects that have received community support and can be used as inputs into the Precinct's CIP list and the Harris County Transportation Plan. This chapter evaluates these existing bikeway and trail recommendations to select feasible projects that best meet the goals of the Precinct and are uniquely suited for implementation by the Precinct. Prioritized projects are assigned an implementation strategy that includes a recommended bikeway facility type and the level of intervention necessary for the project, as well as other considerations that would impact design and construction.

GUIDING PRINCIPLES: PROJECT SELECTION

The candidate bikeway and trail projects were compiled from the previous and recent community plans provided by the Precinct (see the table on pages 119-121). Three principles serve as the foundation for selecting the priorities among the existing recommendations. Priority projects should:

Help achieve the Precinct's mobility goals.

The Precinct's focus on community planning has highlighted the importance of safe, comfortable, and accessible mobility choices for residents across the Precinct. Local planning efforts like the East Aldine Livable Centers Study include stated goals such as "Create a connected community core that allows for safe places to walk, bike, take transit, and drive." Plans for Northshore and Channelview incorporate reimagined street designs that create new, improved accommodations for people walking and biking. These goals are also reflected in this Plan that prioritizes safety, accessibility, connectivity, and health. Projects were selected based on their alignment with the Precinct's overarching mobility goals.

Complement the current investments by the Precinct.

The Precinct is already making bold investments in bikeways and trails to improve safety and access for its residents. The Call for Partners in spring 2021 identified partners who can share costs on community-supported capital projects across the Precinct in fiscal year 2021-2022. The resulting list of funded projects includes many projects such as bikeways in the East End and trails along a portion of Carpenter's Bayou. The selected priority projects for this plan complement these existing investments by connecting to and extending the Precinct's growing network.

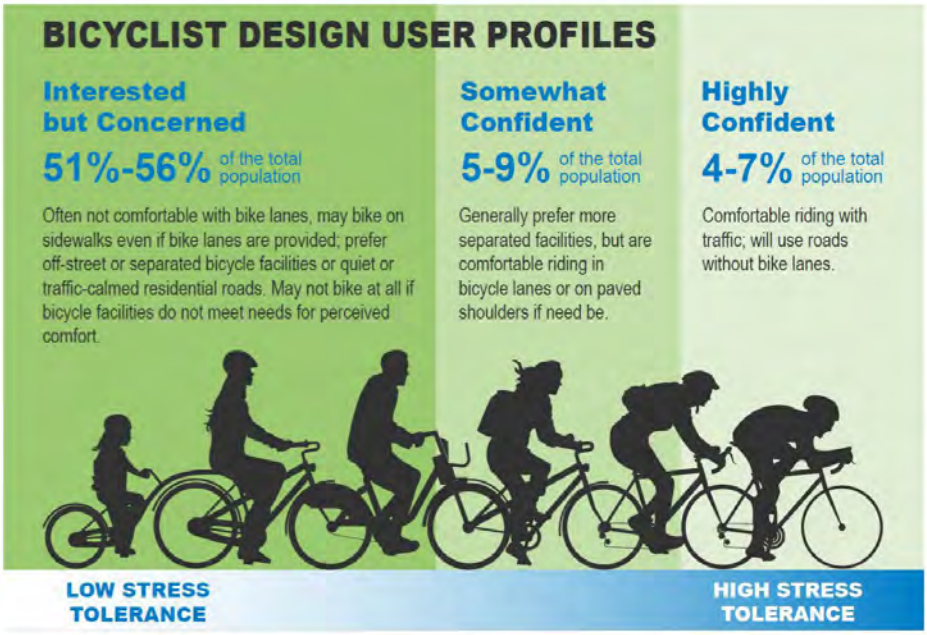
Rely on the Precinct as the logical lead implementing agency.

Precinct 2 spans more than 500 square miles and includes a variety of communities with a range of implementation capacities. Selected priority projects represent those for which the Precinct is the logical lead implementer. Unincorporated areas in the Precinct such as Channelview, East Aldine, and others rely on the County as the main funder and project manager for mobility investments, making the Precinct the logical lead implementing agency for projects in those places.

Incorporated cities in the Precinct like the City of Pasadena, City of Houston, and areas with special purpose districts may benefit from a partnership through the Precinct's annual call for partnership projects. Still, for bikeways and trails along bayous, drainage channels, and utility easements, the County may be the logical lead implementing agency even in incorporated communities.

GUIDING PRINCIPLES: BIKEWAY DESIGN

The recommended projects in this plan should serve a broad range of people, from younger children to experienced road cyclists. Portland State University conducted surveys of adults to categorize people based on their comfort riding a bicycle. This research groups people who bike into three distinct categories, as shown in the figure below. A minority of people consider themselves "Highly Confident" (comfortable riding a bike in nearly all traffic situations), or "Somewhat Confident" (prefer separated bike facilities but able to navigate most traffic situations if necessary). Most people, however, fall into the "interested but concerned" category. "Interested but concerned" bicyclists are excited to ride their bikes but have concerns about finding a safe route separated from traffic, especially where typical vehicle volumes are high and vehicle speeds are fast (e.g., greater than 30 mph). Recommended projects from this plan should be designed to create a safe and comfortable ride for this group of people.



Percentages only reflect adults who have a stated interest in bicycling and therefore do not total 100%. Source: NACTO 2017.

Selecting the right bikeway facility depends on the roadway context. The following sections discuss several options for bikeway facilities in different roadway contexts.

TRAILS

Trails in a park or along a bayou provide a low-stress experience because they are completely separated from traffic by definition. Trails also offer the opportunity to expand access and improve safety for people walking as well as people biking.

Trails allow for a low-stress experience for multimodal users. Source: TEI.

SEPARATED BIKEWAYS

For roads with high vehicle speeds and/or volumes, **separated bikeways** provide physical protection between people biking and vehicle traffic. This protection improves the real and perceived safety for people biking by reducing the opportunity for conflict between vehicles and bikes. Separation strategies include precast concrete curbs, flexible posts, planters, or other types of barriers. On roads with plenty of available right-of-way, the ideal bikeway facility may be a wide shared-use path outside of the existing travel lanes that can be shared by people walking and biking.

Separated bikeways improve real and perceived safety for people biking. Source: TEI.

SHARED STREETS

On roadways with low speeds and volumes, **shared street** designs can reduce vehicle speeds and increase the visibility of people biking. Shared street design elements include speed cushions, paint to indicate that the roadway is shared, and other strategies to support slow driving speeds.

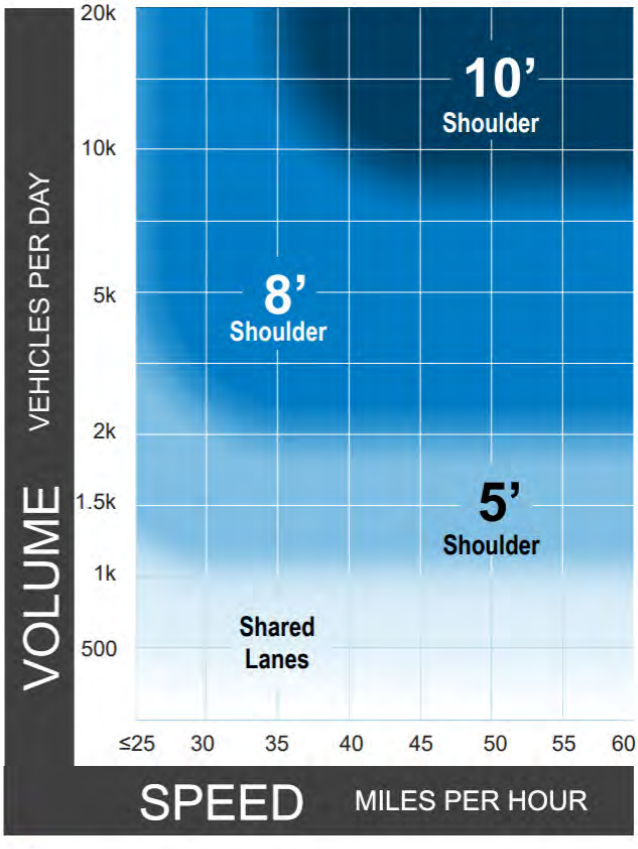
For all facility types, special care is required to provide safe crossings at roadway intersections and major barriers like rail lines.

Two examples of shared streets. Source: TEI.

RURAL CONTEXTS

Much of the unincorporated portion of Precinct 2 is rural with very low development density. Some priority projects are located on two-lane rural roadways with a 20'-21' paving section and no shoulders. Except where traffic volumes are quite low, (less than 1,000 trips per day), 5-10' shoulders would be recommended in the Federal Highway Administration Bikeway Selection Guide (see figure below) as well as typical AASHTO roadway design standards for rural roadways. Even where volumes are low, a shoulder may still be the ideal strategy on roadways with high operating speeds and a large percentage of freight truck traffic. Where speeds and volumes are appropriate and there is adequate street space, advisory shoulder treatments could be considered; these treatments may require approval of a Request to Experiment by FHWA prior to implementation.

RECOMMENDED SHOULDER WIDTHS ON RURAL ROADWAYS



Notes

1 This chart assumes the project involves reconstruction or retrofit in constrained conditions. For new construction, follow recommended shoulder widths in the AASHTO Green Book.

2 A separated shared use pathway is a suitable alternative to providing paved shoulders.

3 Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.

4 If the percentage of heavy vehicles is greater than 5%, consider providing a wider shoulder or a separated pathway.

IDENTIFYING CANDIDATE PROJECTS

Existing trail and bikeway recommendations are drawn from local and regional mobility plans. Several of these community plans are funded and led by Precinct 2. Bikeway and trail recommendations were gathered from the plans shown in the table below.

PRIORITIZATION APPROACH

Six criteria were used to determine the recommendations that best align with the Precinct's mobility goals. Taken together, the criteria identify areas in the Precinct with social and health inequities, unsafe roadways, and destinations to prioritize connections.

RECENT COMMUNITY PLANS

Plan	Agency	Year
Barrett Community Plan	Harris County Precinct 2	2021
Bay Area Trails	Harris County Precinct 2	2021
Baytown Hike & Bike Plan	City of Baytown	2021
Channelview Community Plan	Harris County Precinct 2	2021
East Aldine Livable Centers Study	East Aldine Management District	2021
East End Bike Plan	East End District, Harris County Precinct 2	2021
Hike & Bike Deer Park Plan	Harris County Precinct 2	2021
Houston-Galveston Area Council (H-GAC) 2035 Regional Bikeway Plan	H-GAC	2007
Houston Bike Plan	City of Houston	2015
Northshore Community Plan	Harris County Precinct 2	2021
Pasadena Healthy Parks Plan	City of Pasadena	2020
State of the Outdoors	Harris County Precinct 2	2021
Southeast Harris County Subregional Study *Note: At the time of this report's writing, the Southeast Harris County Subregional Study is being kicked off, and the Precinct should continue to coordinate the processes to ensure alignment between this effort and the mobility study.*	Houston-Galveston Area Council	2021-2022

SOCIAL VULNERABILITY INDEX (SVI)

Source: Centers for Disease Control and Prevention (CDC), 2018

Criteria: Does the project pass through a census tract with an SVI score above 0.50?

The CDC developed the SVI (for Housing Type & Transportation) using Census data for five social factors. SVI identifies census tracts with populations that face social and economic disparities and was used by the Harris County Flood Control District to target funding for stormwater projects. SVI includes measures of households with no vehicles, multi-unit structures, group quarters, crowding, and mobile homes to determine places with high vulnerability. Bikeways and trails constructed in places with high SVI scores will prioritize projects in places with high-need to expand mobility options for residents.

Six Prioritization Criteria

- Social Vulnerability Index
- Community Health Index
- Vision Zero High-Injury Network
- Park Access
- School Access
- Transit Access

Geography Filter

- Unincorporated areas
- Bayous, drainage channels, and utility corridors in incorporated areas

COMMUNITY HEALTH INDEX (CHI)

Source: Precinct 2 State of the Outdoors, 2021

Criteria: Does the project pass through an area with Moderate to Very High health need (groups 3-5 in the State of the Outdoors)?

The State of the Outdoors identifies high-need areas in Precinct 2 to build and improve park space for residents and visitors. To identify these areas, the plan uses the CHI to locate places with health disparities such as a high prevalence of chronic illness like diabetes, poor mental and physical health, and social factors like social cohesion with neighbors. Bikeways and trails in areas with Moderate to Very High health need will expand physical activity opportunities and offer new amenities that improve quality of life.

VISION ZERO HIGH-INJURY NETWORK

Source: Harris County Vision Zero Action Plan, 2021

Criteria: Does the project intersect or align with a street in the County's Vision Zero High-Injury Network?

Harris County developed a Vision Zero Action Plan to develop strategies to eliminate traffic fatalities and serious injuries in the County. As part of the planning process, the plan includes a Vision Zero High-Injury Network with the top 6% of street segments that account for 60% of all serious injury and fatal crashes from 2014 to 2018. Bikeway and trail projects alongside or crossing streets on the High-Injury Network present opportunities to improve safety for all roadway users in those locations.

PARK ACCESS

Source: Precinct 2 State of the Outdoors, 2021

Criteria: Does the project pass within 1/2 mile of a park?

Recent planning efforts by the Precinct emphasize the importance of access to high-quality parks for residents. Bikeways and trails that connect to parks can improve quality of life by making recreation and physical activity more convenient and accessible.

SCHOOL ACCESS

Source: National Center for Education Statistics, 2019-2020 School Year, Public Schools

Criteria: Does the project pass within 1/2 mile of a public school?

Direct and comfortable connections to walk and bike to school are critical for student safety. Bikeways and trails that connect schools and neighborhoods increase the likelihood that young people will get more physical activity and better serve students that are already getting to school without a car.

TRANSIT ACCESS

Source: METRO, Harris County Transit 2021

Criteria: Does the project pass within 1/2 mile of a transit stop?

Convenient access to transit broadens the range of destinations within reach for residents. Bikeways and trails connecting to transit stops, Park & Rides, and Transit Centers make it safe for transit riders to access their destination and expand the number of people METRO and Harris County Transit can effectively serve.

GEOGRAPHY FILTER

Criteria: Is the project in unincorporated Harris County, along a bayou, drainage channel, or utility corridor?

Precinct 2 is well-positioned to play a leadership role for mobility projects in unincorporated Harris County and along bayous, drainage channels, and utility corridors. Projects meeting these geographic criteria were selected as priorities. Other projects may be best implemented as partnership projects with other jurisdictions. Projects along Harris County Flood control channels may also be attractive opportunities for the Precinct to invest in a connected bikeway and trail network.

ASSIGNING AN IMPLEMENTATION STRATEGY

Projects that meet all six criteria* and satisfy the geography filter are considered priority projects for the Precinct. These priority projects were each assigned an implementation strategy which may include:

- The extent of intervention needed to create a high-comfort bikeway (i.e., street reconstruction or retrofit),
- Recommended facility type,
- Challenges such as major barriers,
- The potential for project segmenting,
- The potential for partnerships with other agencies.

Based on the implementation strategy, each project is labeled as a Short Term Precinct Priority (orange on the map), or Long Term Precinct Priority (purple on the map). Short Term projects should require lighter intervention (such as a retrofit of an existing street or a trail in a CenterPoint easement) or will not need a major investment like a bridge. Long Term projects will require greater intervention (such as street reconstruction, major trail projects) or may require significant investments like new drainage infrastructure or grade-separated crossings.

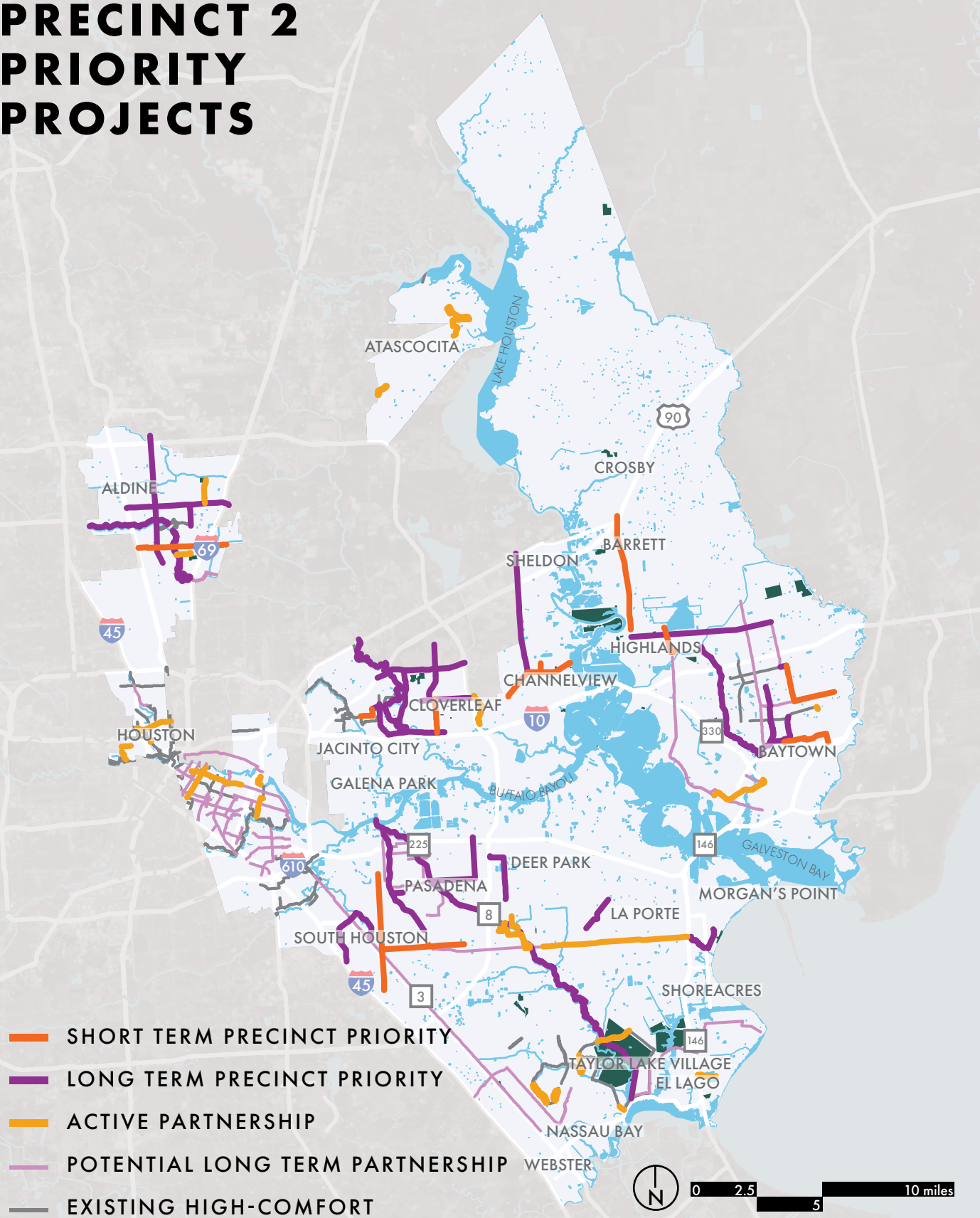
*Projects in areas without transit access that meet the remaining five criteria were also included as priority projects.

PROJECTS MEETING 6 CRITERIA (OR 5 IN AREAS WITHOUT TRANSIT ACCESS)

The maps on pages 114 -118 show the priority projects categorized by Short Term or Long Term feasibility. The maps also includes existing high comfort bikeways (shown in gray on the map), active Precinct 2 partnerships (shown in gold on the map) where the Precinct is jointly funding implementation of new bikeways and trails, and potential partnership projects (shown in light purple on the map). They show how proposed projects help to form a more connected network in Precinct 2. Potential partnership projects include those that meet 5 or 6 of the screening criteria but are within another jurisdiction or incorporated area. These could be high potential locations for future Precinct 2 partnership applications.

In addition to the Short- and Long-Term projects, the Precinct added several Regional Connectors to the list of priorities. These projects were selected based on their ability to bridge gaps between other priorities to create a more cohesive network of bikeways and trails throughout the Precinct. These projects are shown in _____ on the maps.

PRECINCT 2 PRIORITY PROJECTS



Source: U.S. Census Bureau TIGER/Line Shapefiles, Houston-Galveston Area Council

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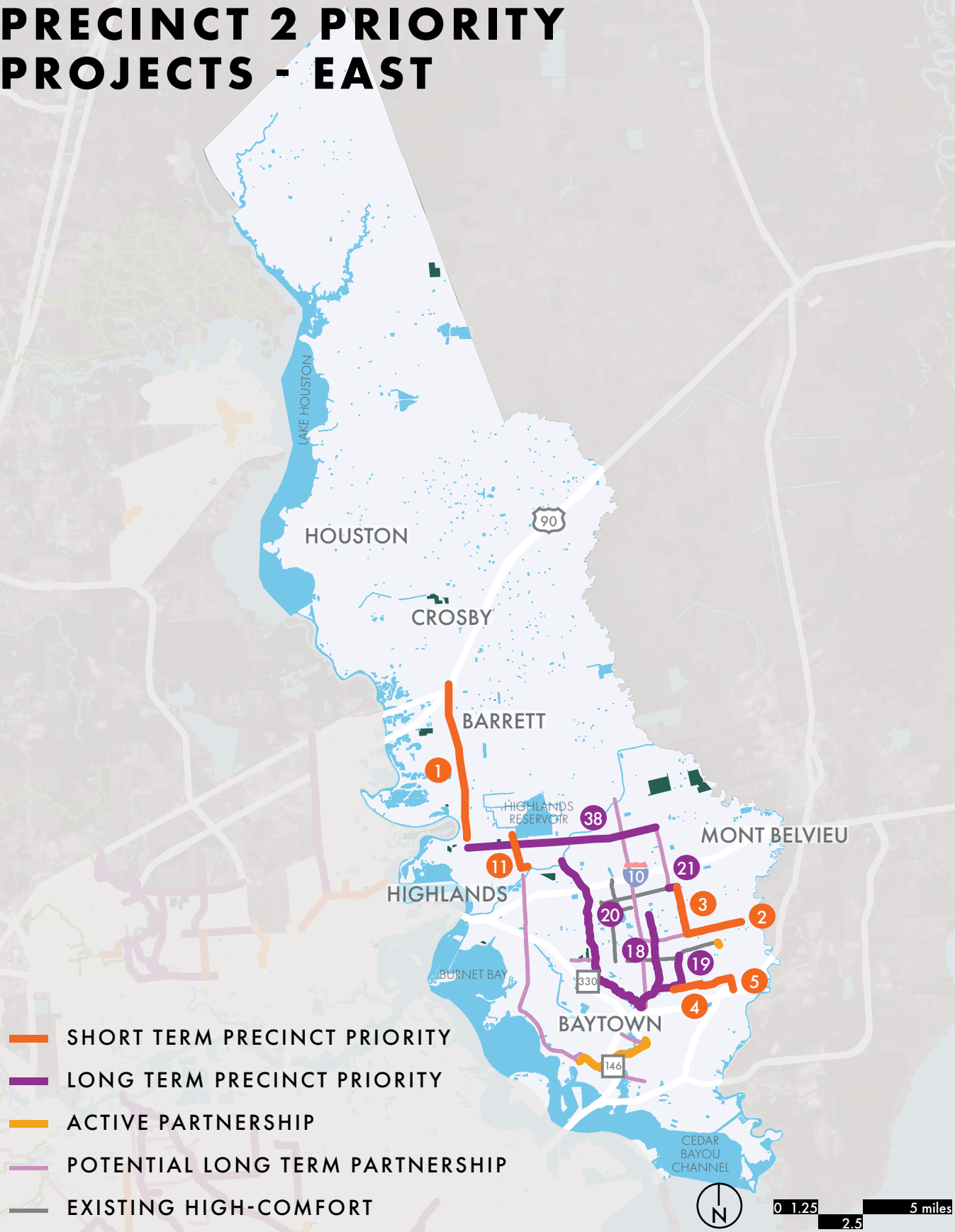
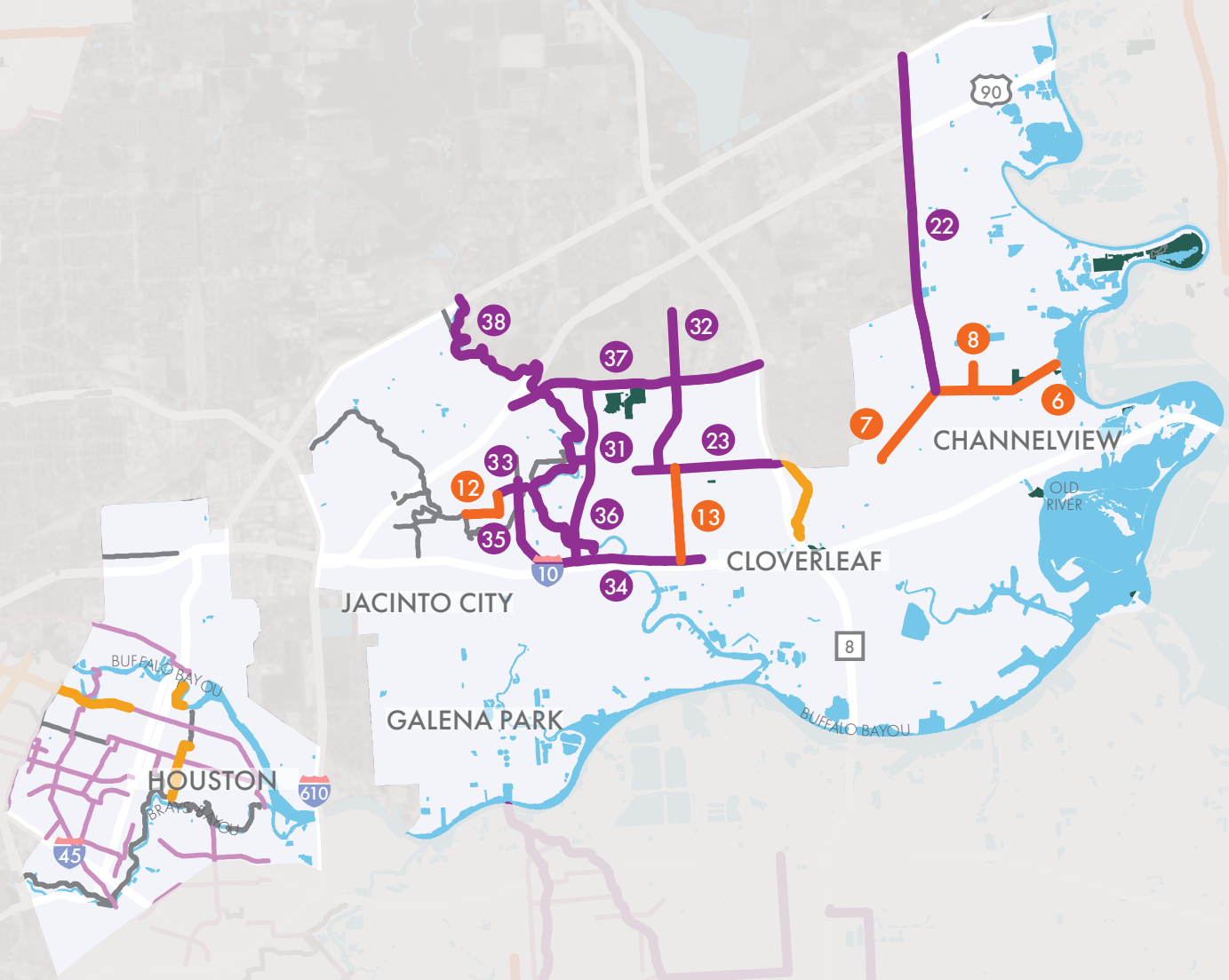
PRECINCT 2 PRIORITY PROJECTS - EAST



PRECINCT 2 PRIORITY PROJECTS - CENTRAL

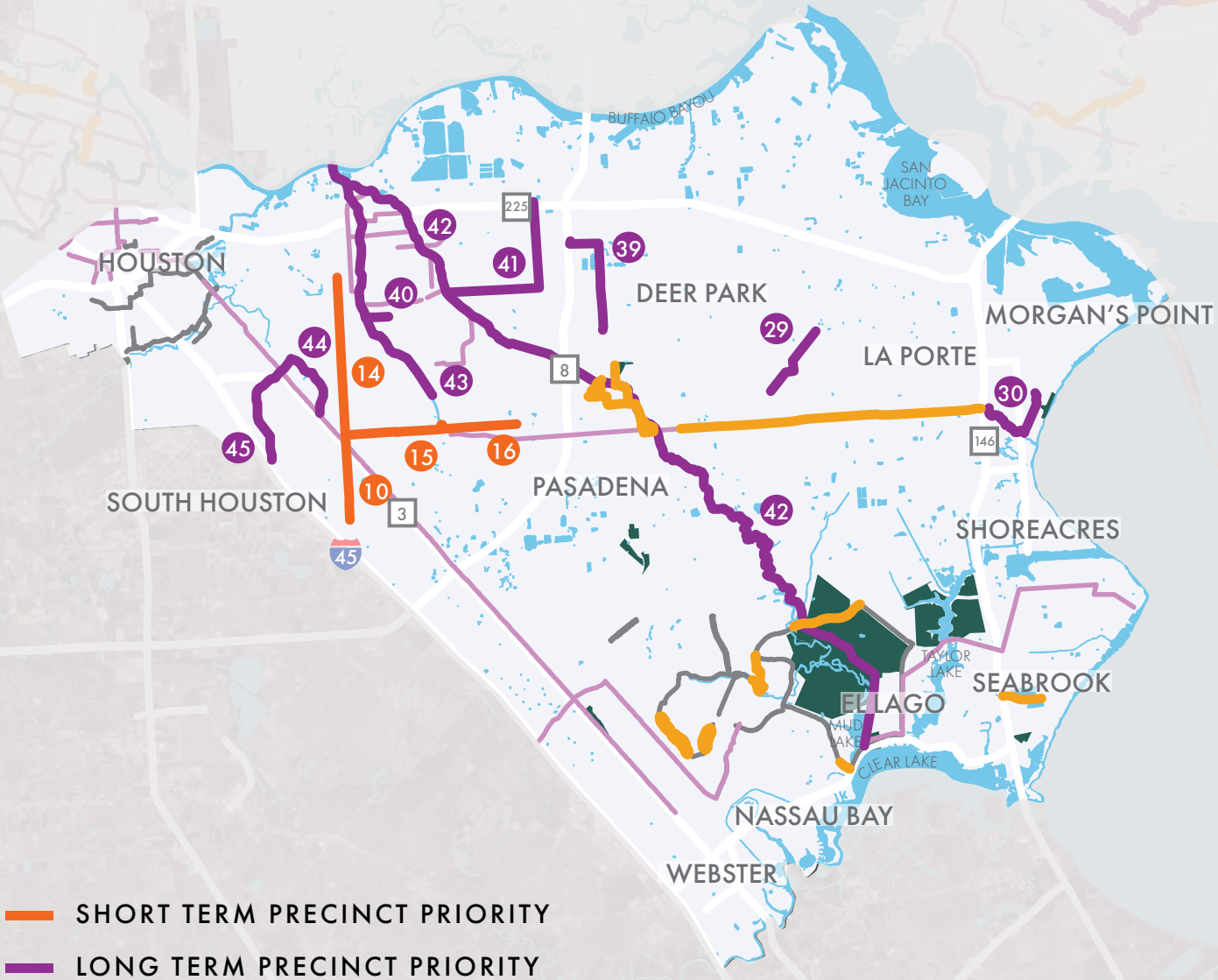


- SHORT TERM PRECINCT PRIORITY
- LONG TERM PRECINCT PRIORITY
- ACTIVE PARTNERSHIP
- POTENTIAL LONG TERM PARTNERSHIP
- EXISTING HIGH-COMFORT

N

0 1.25 2.5 5 miles

PRECINCT 2 PRIORITY PROJECTS - SOUTH



SHORT TERM PRECINCT PRIORITY

LONG TERM PRECINCT PRIORITY

ACTIVE PARTNERSHIP

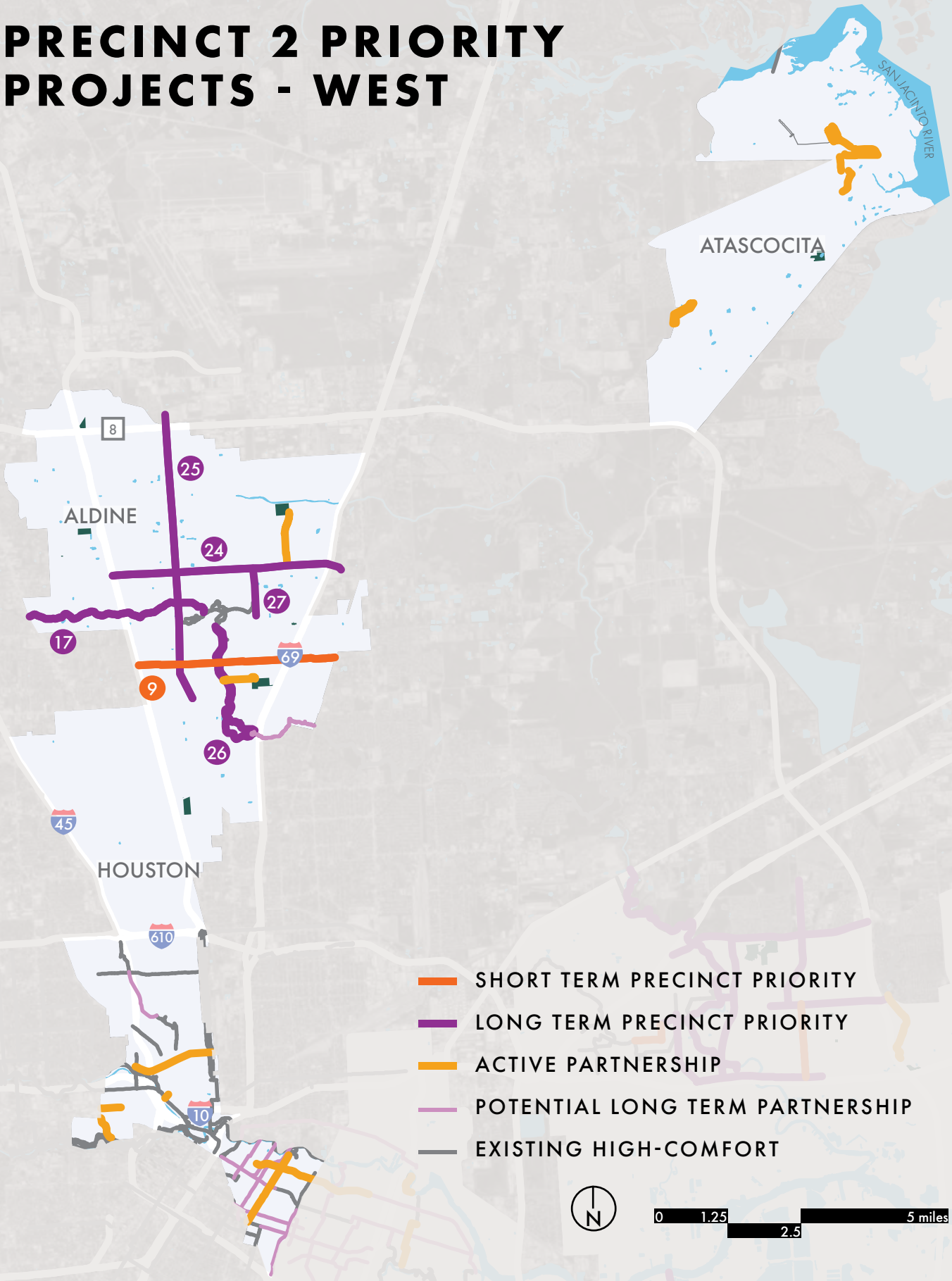
POTENTIAL LONG TERM PARTNERSHIP

EXISTING HIGH-COMFORT

N

0 1.25 2.5 5 miles

PRECINCT 2 PRIORITY PROJECTS - WEST



PROJECTS MEETING 6 CRITERIA (OR 5 IN AREAS WITHOUT TRANSIT ACCESS)

	Project	Priority	Extent From	Extent To	Facility Type	Source Plan	Mileage	Area
1	Crosby Lynchburg Rd/N Main St	Short Term	US 90	E Houston St	On-street retrofit	H-GAC	4.4	Barrett/ Highland Park
2	Cedar Bayou Lynchburg Rd	Short Term	Barkaloo Rd	Raccoon Dr	Shared street	Baytown	1.6	Baytown
3	Barkaloo Rd	Short Term	HCFCD Channel Q112-06-00	Cedar Bayou Lynchburg Rd	Shared street	Baytown	1.4	Baytown
4	Centerpoint Utility Corridor	Short Term	N Main St	RR	Trail	Baytown	0.8	Baytown
5	Centerpoint Utility Corridor	Short Term	RR	Lanier Dr	Trail	Baytown	1.3	Baytown
6	Bear Bayou Dr	Short Term	Sheldon Rd	Park Dr	Shared street	Channelview	1.7	Channelview
7	Ashland Blvd	Short Term	Woodforest Blvd	Sheldon Rd	Shared street	Channelview	1.2	Channelview
8	Becker Ave	Short Term	Wood Dr	Bear Bayou Dr	Shared street	Channelview	0.3	Channelview
9	Hopper Rd	Short Term	Hardy Rd	Hirsch Rd	On-street retrofit	East Aldine	3.4	East Aldine
10	Centerpoint Utility Corridor	Short Term	Galveston Rd/ Missouri Pacific RR	S Shaver St	Trail	City of Houston	1.4	Houston (Edgebrook)
11	Thompson Rd	Short Term	Houston St	Jones Rd	Shared street	H-GAC	1.3	Highlands
12	Crystalwood Dr, Cool Mist Dr	Short Term	Herman Brown Park	Woodforest Blvd	Shared street	Northshore	0.7	Northshore
13	Evanston St	Short Term	Holly Park Dr	IH 10	Shared street	Northshore	1.3	Northshore
14	Centerpoint Utility Corridor	Short Term	W Ellaine Ave	Ave N/ Centerpoint Utility Corridor/ Missouri Pacific RR	Trail	Pasadena	3.0	Pasadena
15	Centerpoint Utility Corridor	Short Term	7th St/ Centerpoint Utility Corridor	Vince Bayou	Trail	Pasadena	1.9	Pasadena
16	Centerpoint Utility Corridor	Short Term	Vince Bayou	Preston Ave	Trail	H-GAC	1.3	Pasadena
17	Halls Bayou	Long Term	Airline Dr	Keith Weiss Park Trail	Trail	H-GAC	3.3	Aldine, East Aldine
18	E Fork Goose Creek	Long Term	Goose Creek	Archer Rd	Trail	Precinct 2, Baytown	3.0	Baytown

PROJECTS MEETING 6 CRITERIA (OR 5 IN AREAS WITHOUT TRANSIT ACCESS) CONT'D

	Project	Priority	Extent From	Extent To	Facility Type	Source Plan	Mileage	Area
19	HCFCD Channel O105-04-00	Long Term	E Fork Goose Creek	Blue Heron Pkwy	Trail	Baytown	1.6	Baytown
20	Goose Creek	Long Term	Battlebell Rd	SH 146	Trail	Baytown	5.5	Baytown
21	HCFCD Channel Q112-06-00	Long Term	N Main St	Barkaloo Rd	Trail	Baytown	0.2	Baytown
22	Sheldon Rd	Long Term	Beaumont Hwy	Bear Bayou Dr	Shared-use path	Precinct 2	4.5	Channelview
23	HCFCD Channel N110-00-00	Long Term	West Canal	Carpenters Bayou	Trail	H-GAC	2.0	Cloverleaf
24	Aldine Mail Route Rd	Long Term	Hardy Rd	Easthampton Dr	Reconstruction	East Aldine	3.9	East Aldine
25	Aldine Westfield Rd	Long Term	Greens Bayou	Little York Rd	Reconstruction	East Aldine	4.9	East Aldine
26	Halls Bayou	Long Term	Jensen Dr	HCFCD Channel P118-19-00	Trail	East Aldine	5.1	East Aldine
27	HCFCD Channel P118-19-00	Long Term	Aldine Mail Route Rd	Mount Houston Rd	Trail	H-GAC	0.8	East Aldine
28	Wallisville Rd	Long Term	N Main St (Highlands)	N Main St (Baytown)	Shared-use path	Precinct 2	5.4	Highlands/ Baytown
29	Utility Corridor	Long Term	Carlow Ln	H St	Trail	H-GAC	1.5	La Porte
30	HCFCD Channel F216-00-00	Long Term	Fairmont Pkwy/ SH 146	San Jacinto St/ Fairmont Pkwy	Trail	Precinct 2 - Bay Area	1.8	La Porte
31	Woodforest Blvd	Long Term	Greens Bayou	Normandy St	Bridge retrofit	Northshore	0.2	Northshore
32	Uvalde Rd	Long Term	New Forest Pkwy	Holly Park Dr	Median narrowing to add bike lanes	Northshore	2.2	Northshore
33	Woodforest Blvd	Long Term	Cool Mist Dr	Maxey Rd Trail	Median narrowing to add bike lanes	Northshore	0.4	Northshore
34	IH 10 Frontage (WB)	Long Term	Federal Rd	Freeport Blvd	Shared-use path	Northshore	2.1	Northshore

PROJECTS MEETING 6 CRITERIA (OR 5 IN AREAS WITHOUT TRANSIT ACCESS) CONT'D

	Project	Priority	Extent From	Extent To	Facility Type	Source Plan	Mileage	Area
35	Maxey Rd	Long Term	Woodforest Blvd	IH 10	Shared-use path	Northshore	1.3	Northshore
36	Normandy St	Long Term	Wallisville Rd	IH 10	Shared-use path	Northshore	2.4	Northshore
37	Wallisville Rd	Long Term	Maxey Rd	BW 8	Shared-use path	Northshore	3.5	Northshore
38	Greens Bayou	Long Term	"Beaumont Hwy	Maxey Rd Trail	Median narrowing to add bike lanes	Northshore	0.4	Northshore
39	HCFCD Channel G105-01-00, HCFCD Channel G105-00-00	Long Term	BW 8	Red Bluff Rd	Trail	H-GAC	2.2	Pasadena
40	HCFCD Channel I110-00-00	Long Term	Vince Bayou	Shaver St	Trail	H-GAC	0.4	Pasadena
41	HCFCD Channel I101-03-00/HCFCD Channel G108-00-00	Long Term	Little Vince Bayou	SH 225	Trail	Pasadena	3.3	Pasadena
42	Little Vince Bayou/Armand Bayou	Long Term	Ship Channel	E NASA Pwky	Trail	Pasadena	17.6	Pasadena
43	Vince Bayou	Long Term	Little Vince Bayou	Spencer Hwy	Trail	Pasadena	4.5	Pasadena
44	Berry Bayou	Long Term	HCFCD Channel C106-03-00	HCFCD Channel C106-08-00	Trail	H-GAC	1.3	South Houston
45	HCFCD Channel C106-03-00	Long Term	Berry Bayou	IH 45	Trail	H-GAC	2.2	South Houston, Houston (Edgebrook)

Notes:

- *Design for shared street projects should consider vehicle speed and volumes on roadways to ensure that the final facility type can be implemented as high-comfort.*
- *Consider future improvements where the existing sidepath is narrow (less than 10 feet).*
- *Project design will need to consider crossings at barriers like bayous, highways/freeways, and rail crossings. Segmenting the projects may be required.*

PARTNERSHIPS

Developing and leveraging strategic partnerships can help the Precinct acquire more park and trail areas, and can help develop unique programming and stewardship opportunities. Cost sharing with other public organizations around land acquisition can be a great strategy for providing public park space to communities in need. Based on the public vacant land available in Precinct 2, a few organizational partnerships to prioritize include: the Houston Parks Board, Harris County, Harris County Flood Control District, and the City of Houston. Where possible, organizational goals can be aligned to prioritize acquisition and improvements in the High and Very high vulnerability communities.

Developing and maintaining private partnerships can be a powerful tool for providing ongoing funding for parks and trails, and allow private organizations opportunities to support the community. Where possible, build strong programs and partnerships that ensure that local industry plays a key role in supporting and funding local parks. The Precinct and other implementers should consider ways to leverage a network of industry partners that care about the community, the wellbeing of their workforce, and the environmental conditions within Precinct 2.

There also are opportunities to leverage financing for parks and trails by encouraging the development of public private partnerships that support a common goal. This organization strategy can leverage private sector investment and local philanthropy to support projects when public funding is not immediately available. This often allows projects to be completed on a faster timeline without the major burdens experienced through a typical government process. That being said, a robust public outreach plan will be a critical component of any partnership strategy. Thus, even in a public private partnership opportunity, the voices of the community must be heard and the process should be kept as transparent as possible. The Houston Parks Board (HPB) for instance, is working on their Beyond the Bayous program and there may be opportunities to leverage HPB's work in Precinct 2 by aligning goals and prioritizing projects.

Park programming is another way to partner with other departments and organizations in the area to deliver meaningful events for the community. The image above shows an Earth Day program that was put on by Waterloo Greenway, a nonprofit that works with the City of Austin to develop a series of trails and parks along Waller Creek. Source: Asakura Robinson

In general, parks, trails, and green spaces are essential to health and quality of life by enhancing physical, mental, and social well-being of the communities they support. With this in mind, many health care organizations and funders are supporting projects that enhance the environmental conditions within our Cities. Consider developing or expanding partnerships with the local and regional hospitals, community health centers, and public health agencies and health funders. The methodology used in the Precinct 2 Parks and Trails plan prioritizes park amenities in areas of highest need, including looking at health vulnerability of communities within the Precinct.

Beyond financial support, partnerships can also provide programming, maintenance, and stewardship efforts. This can take the form of internal departmental partnerships which leverage existing programs to provide opportunities to strengthen programming for the community. In addition, partnerships can be pursued with local nonprofits to develop creative programming and/or and stewardship opportunities including adopt-a-park efforts, park clean-up days, and restoration leadership opportunities.

Park and trail adoption and clean up days can be supported by developing programs in house, or partnering with local nonprofits that have similar goals.Source: Asakura Robinson

FINANCING & GRANTS

There are many different approaches to parks and trails financing available depending on the project's goals. In addition to general funds, partnerships can be leveraged with a municipal management district, tax increment reinvestment zones (TIRZ), or municipalities, or grants can be utilized with the Land and Water Conservation Fund (LWCF), and the SPARK Schoolyard Park Program. In addition, the following section provides financing suggestions for the high priority parks. Some of the stronger park financing options for the Precinct are outlined below in more detail and include:

- Parkland Dedication Ordinance
- General Obligation Bonds for Parks
- FEMA Hazard Mitigation Grants
- Texas Parks and Wildlife Department Grants

In areas of the Precinct where there is proposed growth, especially development that will increase the resident population, developers or builders can be required to dedicate a portion of the land and/or pay a fee that the local government can use to acquire and create new park and trail infrastructure through a Parkland Dedication Ordinance. These ordinance structures allow for areas to grow without putting further burden on the current park and trail amenities. Another benefit of these ordinances is that they do not require voter approval.

Any entity that can set a development impact fee should be able to enact this type of ordinance. There are already cities in the Houston metropolitan area that have adopted Parkland Dedication Ordinances including Pearland, Deer Park, and parts of Houston. These fees can also be managed through the creation of a legally distinct Park District. Municipalities may be able to enact Park Districts in their extra-territorial jurisdiction (ETJ), which may be another route to implementation. All versions of a Parkland Dedication Ordinance in Texas allow either a land dedication or a payment-in-lieu.

If planned correctly, and aligned with current bond obligations, another way to fund parks and trails is with City or County general obligation bonds. Bonds do require voter approval, and are successful when planned during times that do not significantly increase property taxes. In general, Texas voters have supported bonds that focus on parks, trails, and conservation.

In some cases, the FEMA Hazard Mitigation Grants could be a mechanism for acquiring new property that supports both natural floodplain functions, and recreation goals. This would be an ideal opportunity to pursue with the Harris County Flood Control District (HCFCD) and the Houston Parks Board (HBP). There are three main programs associated with the FEMA grant structure: the Pre-Disaster Mitigation Program (PDM), the Hazard Mitigation Grant Program (HMG) after a disaster has occurred, and the annual Flood Mitigation Assistance Program (FMA).

Finally, the Texas Parks and Wildlife Department (TPWD) offers a few different recreational grant programs that align with the organization's mission. This planning document can help provide the necessary requirements for these grant opportunities. To the right is a table outlining the TPWD requirement and the associated document chapter that meets the particular requirement.

TPWD administers the following recreational grant programs: Boating Access Grants, Clean Vessel Act (CVA) Grants, the Community Outdoor Outreach Program (CO-OP) Grants, Local Parks Grants, Recreational Trails Grants, and Target Range Grants. CO-OP Grants, Local Parks Grants, and Recreational Trails Grants are described below. The CO-OP Grants, Local Park Grants, and Recreational Trails Grants are the most aligned with Precinct 2 needs.

- The CO-OP Grants are from $5,000-$50,000 for local governments and nonprofits that focus on environmental and conservation programming for under-served populations. Grants are available to tax exempt organizations and local governments introducing communities to TPWD related outdoor recreation, conservation, and environmental education programs.
- The Local Park Grants program offers a 50% matching grant on a reimbursement basis to eligible applicants for the acquisition and/or development of public recreation areas, and associated facilities in Texas. The grant assistance only goes to projects that are dedicated as parkland in perpetuity, are properly maintained, and are open to the public on a regular basis.
- The Recreational Trails Grants are part of the National Recreational Trails Fund and approved by the Federal Highway Administration. This reimbursable grant can be up to 80% of the total project costs with a maximum amount of $200,000 award to a project.

TPWD GRANT REQUIREMENTS

TPWD Requirement	PT 2 Parks and Trails Plan Chapter
Introduction	Executive Summary & [1] State of the Outdoors
Goals and Objectives	[3] Goals and Objectives
Plan Development & Public Input Process	[2] Engagement
Area & Facility Concepts & Standards	[4 & 5] Recommendations & [6] Design Guidelines & Case Studies
Inventory of Area Facilities	[1] State of the Outdoors & Appendix B
Needs Assessment & Identification	[1] State of the Outdoors & Appendix B
Plan Implementation and Prioritization of Needs	[4 & 5] Recommendations
Proof of Adoption	Appendix A: Proof of Adoption

5. RECOMMENDATIONS: HIGH PRIORITY PARKS

INTRODUCTION

There are 53 parks and open spaces throughout Precinct 2 with a range of conditions analyzed as a part of this plan. Some park sites analyzed were undeveloped parcels, and others were highly used parks with a long history in the community. The goal of our analysis was to understand how to improve existing conditions of parks and foster a healthy lifestyle for all Precinct 2 residents and park visitors, while providing the Precinct with a focused strategy to prioritize parks in areas of higher need in the near-term.

In pursuit of this goal, the client team developed a prioritization method to identify parks most in need of near-term improvements. Priority parks were identified by calculating and then ranking the difference between the Vulnerability Scores from the Overall Priority Map and the Park Assessment scores. Using this method, lower-quality parks in more vulnerable areas were identified. The results of this ranking system are shown in the "Nexus" column in the tables on pages 130 and 153-154, and in Appendix D. Park ranks were combined with input from Precinct 2 staff and input from the community to generate a list of priority parks that should receive the first round of investments and improvements. Priority parks are grouped into two tiers, and near-term planning and funding strategies are recommended for parks in each tier.

Tier 1 parks require support for improvements in the next 1-3 years, whereas Tier 2 Parks should undergo efforts for funding within 5 years to improve the quality of life for residents within Precinct 2. A list of Tier 1 parks can be found on page130 and a list of Tier 2 parks can be found on pages 153-154.

Recommendations for improving parks are dependent on key factors such as conditions throughout different communities in Precinct 2. For example, in a community with a high urban heat , strategies to increase permeable surfaces and shade are recommended. Recommendations for Tier 1 parks are paired with general recommendations related to the type of funding needed to improve the park conditions, the possible funding streams to pursue, potential partners that can support funding strategies, and the type of professional services required to complete renovations, expansions, or new park development. Recommendations for Tier 2 parks are paired with high and low cost estimates for completing the recommended improvements. Recommendations are supported by community engagement, summarized in Chapter 2, and outlined in full in Appendix E, and data analysis. All recommendations require additional site condition assessments and further investigation and analysis prior to the implementation phases of each project. Recommendations for each site in this chapter are applied to 5 case studies of Tier 1 Parks in Chapter 6.

The following section will introduce the Park Report Cards, followed by report cards and detailed recommendations for each Tier 1 and Tier 2 park.

PRIORITY PARK REPORT CARDS

Park Report Cards provide detailed information on the qualitative and quantitative elements that went into selecting Priority parks. Each Report Card contains scores based on the Suitability Analysis and the Park Assessments as well as the overall priority rank. The overall priority rank indicates how great the difference is between the Suitability Analysis and the Park Assessments.

Suitability Analysis scores reflect the degree to which a park is in a vulnerable area according to each of the four indices: socioeconomic vulnerability, community health, environmental risk, and park access, which together form the combined vulnerability score. The highest score a park can receive is 100%, indicating that the park is extremely high need or vulnerable.

Park assessments are scored from zero to five with five reflecting high park quality and zero reflecting low park quality. Parks were scored based on park access, park features, supportive facilities, safety and maintenance, aesthetics, health,culture and accessibility, and trails. These scores were combined to generate an overall park assessment score.

REPORT CARD STRUCTURE

The Park Rank is based on the difference between the Combined Vulnerability Score and the Combined Park Assessment Score. Parks with the greatest difference between the two, i.e. the most vulnerable with the poorest park quality, rank higher.

Parks were assessed based on the list of features to the right, and given a score out of 5. Each bubble represents 1 point.

HALLS BAYOU HIKE & BIKE TRAIL

7525 TIDWELL ROAD
HOUSTON, TEXAS
WEST ZONE
2.3 MILES
LINEAR PARK

PARK RANK #4

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	73%
Community Health	82%
Environmental Vulnerability	39%
Park Access	61%
Combined Suitability Analysis Score	83%

SUITABILITY ANALYSIS

Halls Bayou Hike and Bike Trail is located in a block group that has very low social cohesion, low physical health, and high rates of chronic illness. In addition, the area has poor air quality and is located near an interstate.

PARK ASSESMENTS

Park Access	1.50
Park Features	2.50
Supportive Facilities	3.25
Safety and Maintenance	2.41
Aesthetics	2.50
Health	2.46
Culture and Accessibility	1.40
Trails	2.20
Combined Park Assessment Score	2.16

●=1 ◐=.5

PARK ASSESMENTS

This portion of the trail at times is bordered by wooded and vegetated areas that provide shade but also harbor some illicit behaviors. The trail itself is in fair conditions with some instances of damage, and there are very few connections to the adjacent neighborhood. The trail does not have many, if any, amenities such as benches or lighting.

The Combined Suitability Score is based on a suitability analysis that measured vulnerability across four indices. Scores are out of 100%. Each bubble represents 20%.

This box gives a more detailed explanation of vulnerability reflected in Suitability Analysis scores shown above.

This box gives a more detailed explanation of the Park Assessment scores to the left.

TIER 1 PARKS

The following section provides site-specific recommendations for the 11 Tier 1 Parks that were determined to be in most urgent need of short-term improvements. A list of Tier 1 parks is found on the following page. The list below outlines some common recommendations found across many Tier 1 parks.

TIER 1 GENERAL RECOMMENDATION SUMMARY

- Improve and introduce trail connections with new materials and new paths
- Provide seating opportunities throughout parks
- Increase lighting throughout sites that are compliant with the Dark Sky Ordinance
- Increase signage
- Increase planting areas
- Provide more shade structures and canopy coverage throughout walking paths and other key park amenities
- Provide more or new ADA Compliant Picnic Tables
- Install new bike racks
- Install new or improve existing restrooms with universal accessibility as well as accessible pathways to get into the restrooms.
- Provide changing tables for all restroom types, men's women's, gender neutral restrooms
- Introduce nature-based playgrounds
- Introduce or improve shade pavilions at key sports fields

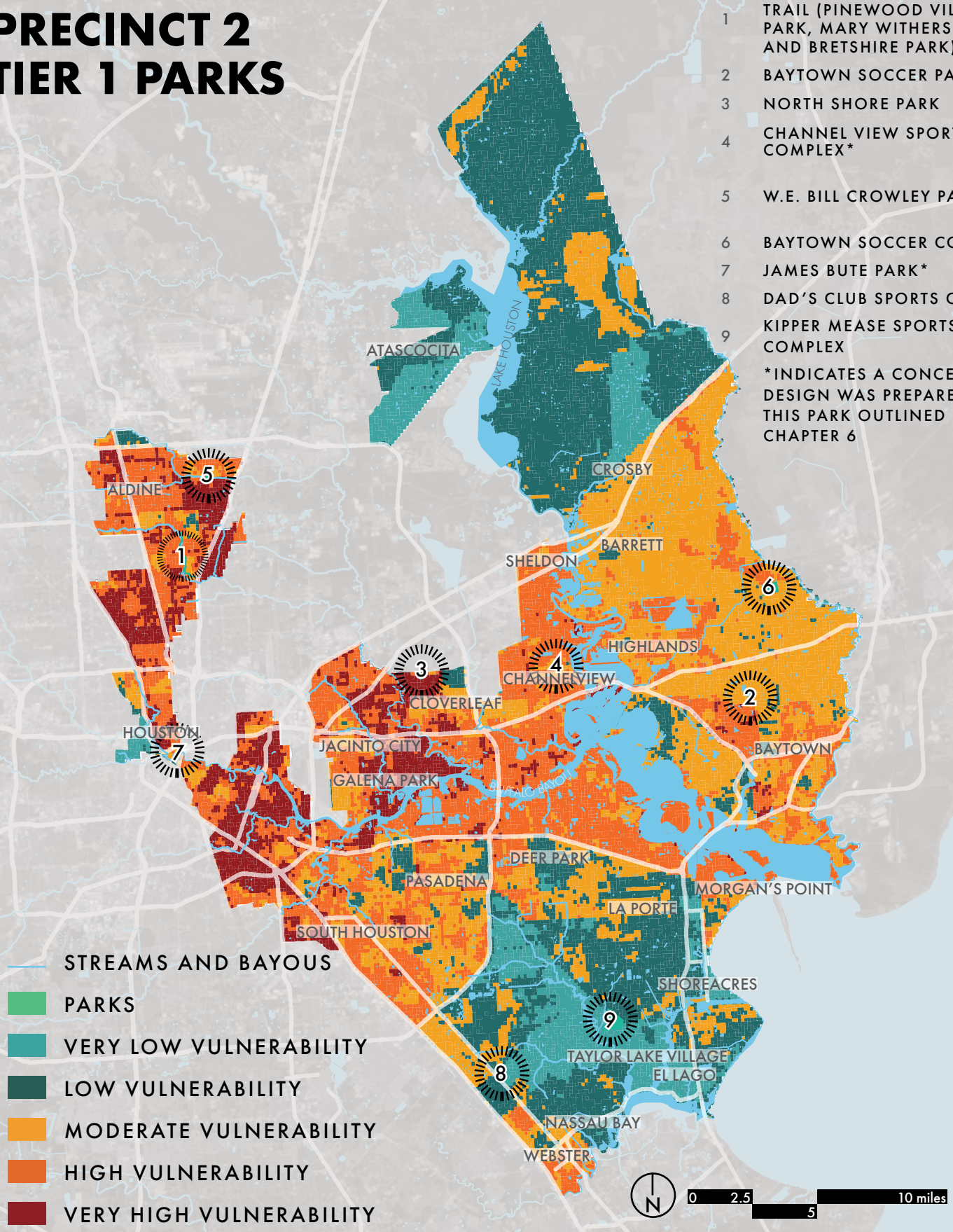
TIER 1 PARKS

Park Name	Acreage	Zone	Typology	Suit-ability Score*	Park Assessment Score	Nexus	Address	City
Halls Bayou Hike and Bike Trail**	2.3 miles	Central	Linear Park	8.27	2.13	**6.14**	7525 Tidwell Road	Houston
Pinewood Village Park	2.86	Central	Mini Park	8.54	1.87	**6.67**	2800 Briarwick Ln.	Houston
Bretshire Park	6.5	Central	Neighborhood Park	8.05	Not Scored	**8.05**	Foy Ln at Marzelle St.	Houston
Mary Withers Park	6	Central	Neighborhood Park	8.15	Not Scored	**8.15**	10600 Shady Ln.	Houston
Baytown Soccer Park	16	East	Neighborhood Park	8.34	1.63	**6.71**	4700 Village Ln.	Baytown
North Shore Park**	46.4	Central	Neighborhood Park	8.1	2.81	**5.9**	Wallisville Rd	Unincor-porated
Channelview Sports Complex**	31.3	East	Community Park	7.95	2	**5.95**	16434 Wood Dr	Unincor-porated
W.E. Bill Crowley Park	30	Central	Community Park	8.95	3.3	**5.65**	5100 Lauder	Houston
Baytown Soccer Complex	154.77	East	Regional Park	7.47	2.35	**5.12**	9600 N. Main St.	Baytown
James Bute Park**	1.5	Central	Mini Park	7.23	2.05	**5.18**	512 McKee St.	Houston
Dad's Club Sports Complex**	39.8	South	Community Park	6.51	2.42	**4.09**	Village Evergreen Trail	Houston
Kipper Mease Sports Complex	297.7	South	Regional Park	6.07	3.16	**2.91**	10500 Red Bluff	Pasadena

** Suitability Scores highlight the combination of socioeconomic vulnerability, health disparity, environmental risk, and lack of park access that contribute to overall community vulnerability in an area. Suitability scores in this table have been normalized on a 10 point scale to be combined into Nexus scores as shown. Park Assessment Scores indicate the quality of existing infrastructure in each park, the higher the number, the higher quality the infrastructure is.*

***Indicates a conceptual design was prepared for this park outlined in Chapter 6*

PRECINCT 2 TIER 1 PARKS



HALLS BAYOU HIKE & BIKE TRAIL

PARK RANK #4

7525 TIDWELL ROAD
HOUSTON, TEXAS
WEST ZONE
2.3 MILES
LINEAR PARK

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	73%
Community Health	82%
Environmental Vulnerability	39%
Park Access	61%
Combined Suitability Analysis Score	83%

SUITABILITY ANALYSIS

Halls Bayou Hike and Bike Trail is located in a block group that has very low social cohesion, low physical health, and high rates of chronic illness. In addition, the area has poor air quality and is located near an interstate.

PARK ASSESMENTS

Park Access	1.50
Park Features	2.50
Supportive Facilities	3.25
Safety and Maintenance	2.41
Aesthetics	2.50
Health	2.46
Culture and Accessibility	1.40
Trails	2.20
Combined Park Assessment Score	2.16

● =1 ◖=.5

PARK ASSESMENTS

This portion of the trail at times is bordered by wooded and vegetated areas that provide shade but also harbor some illicit behaviors. The trail itself is in fair conditions with some instances of damage, and there are very few connections to the adjacent neighborhood. The trail does not have many, if any, amenities such as benches or lighting.

HALLS BAYOU HIKE & BIKE TRAIL

BRETSHIRE PARK

FOY LN. AND MARZELLE ST.
HOUSTON, TX
CENTRAL ZONE
6.5 ACRES
NEIGHBORHOOD PARK

PARK RANK N/A

MARY WITHERS PARK

10600 SHADY LN.
HOUSTON, TX
CENTRAL ZONE
6 ACRES
NEIGHBORHOOD PARK

PARK RANK N/A

PINEWOOD VILLAGE PARK

2800 BRIARWICK LN.
HOUSTON, TX
CENTRAL ZONE
2.86 ACRES
MINI PARK

PARK RANK #2

HALLS BAYOU HIKE AND BIKE TRAIL RECOMMENDATIONS (INCLUDES BRETSHIRE, MARY WITHERS, AND PINEWOOD VILLAGE PARKS)

Total estimated improvement cost: $5,828,343 - $8,601,742

Project	Funding Streams	Potential Grants and Partnerships	Expected Professional Design Services
Convert entire trail to concrete	CIP; Mobility, General	Houston Parks Board, Local Philanthropy (i.e. Houston Endowment, Kinder Foundation, Jacob & Terese Hershey Foundation), TPWD, NRPA, National Center for Safe Routes to School	Civil Engineering
Add secondary gravel paths designated for walking groups	CIP Mobility, General	Houston Parks Board, Local Philanthropy (i.e. Houston Endowment, Kinder Foundation, Jacob & Terese Hershey Foundation), TPWD, NRPA	Civil Engineering, Landscape Architecture
Add benches along trail	CIP; General	Local Philanthropy (e.g. Houston Endowment, Kinder Foundation, Jacob & Terese Hershey Foundation), TPWD, NRPA, urban furnishing vendors (e.g. Landscape Forms, others)	Landscape Architecture
Add restrooms at Pinewood Village Park	CIP; General		Engineering, Architecture
Add wayfinding, mile markers, and consistent branding that fits within Precinct-wide branding standard. Include multiple languages to match population	CIP; General	NRPA, TPWD, Local Philanthropy	Signage/ Wayfinding consultant
Enhance connections to neighborhood (especially on northern section) through designed trailheads	CIP; Mobility, General	TxDOT, Engineering Department	Civil Engineering, Landscape Architecture
Add pedestrian bridge across Halls Bayou	CIP; Mobility, General	People for Bikes grants	Engineering, Landscape Architecture
Add dark sky compliant, pedestrian pole lighting	CIP; General		Engineering, Landscape Architecture, Lighting Consultant
Enhance accessibility to existing pedestrian bridges through addition of sidewalks from street to trail and to bridge	CIP; General		Civil Engineer, Landscape Architect
Restore riparian ecology along the bayou through a combination of grow zones, seeding, and planting. Employ the same methods to install vegetative swales to address drainage issues in park areas such as Pinewood.	CIP; Mobility, General	NFWF, FEMA Flood Mitigation Assistance Grant Program, USACE, USFWS, USDA	Civil Engineering, Landscape Architecture
Install bike racks	CIP; General	People for Bikes grants	N/A

Project	Funding Streams	Grants and Partnerships	Expected Professional Design Services
Add flexible programmed areas such as: food truck park, other concessions or other economic boosters; farmers market, community garden	CIP; General	LISC Houston Grants, Local Community Garden Organizations (Urban Harvest, Plant it Forward), Campbell Soup Foundation, USDA Rural Development Loan and Grant Program	Engineering, Landscape Architecture
Work with urban foresters and designers to create a maintenance/clearance pruning plan in Mary Withers Park to increase visibility (i.e. remove all invasive species, preserve all trees larger than 6" caliper, etc); create formal circulation through Mary Withers to increase public presence and use.	CIP; General, Environmental	Houston Parks Board, Local Philanthropy (i.e. Houston Endowment), TPWD, NRPA	Engineering, Landscape Architecture, Urban Forester
Create programming for public health education and support	General Operations/ Programming/ Other; General	Local fitness groups, Local Philanthropy	N/A
Work with local artists and students to add public art to encourage conversation and gathering, add destinations	CIP; General	Local Artists, National Endowment for the Arts, Local Philanthropy, LISC Houston, Artplace America, Entergy Open Grant Program	Artists, Landscape Architecture
Add native tree canopy along the bayou trail	CIP; General, Environmental	Trees for Houston, The Fruit Tree Planting Foundation, Local Philanthropy	Landscape Architecture, Urban Forester

BAYTOWN SOCCER PARK

4700 VILLAGE LN.
BAYTOWN, TEXAS
EAST ZONE
16 ACRES
NEIGHBORHOOD PARK

PARK RANK #1

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	76%
Community Health	76%
Environmental Vulnerability	48%
Park Access	64%
Combined Suitability Analysis Score	83%

SUITABILITY ANALYSIS

Baytown Soccer Park is located in a census tract that has very low economic and educational stability. In addition, the area is at high risk of flooding and is located near a freeway, which impacts air quality.

PARK ASSESMENTS

Park Access	2.79
Park Features	2.00
Supportive Facilities	1.00
Safety and Maintenance	7.57
Aesthetics	1.90
Health	4.57
Culture and Accessibility	3.00
Combined Park Assessment Score	1.63

PARK ASSESMENTS

Baytown Soccer Park is a single use park with several soccer fields. There are some supportive amenities such as a restroom, field lighting, and a few picnic tables. Some of the tables are shaded, and there are bleachers at some of the fields. Pedestrian accessibility is lacking both within the park and adjacent as there are limited internal paths and no sidewalk on the adjacent road.

BAYTOWN SOCCER PARK RECOMMENDATIONS

Total estimated improvement cost: $2,069,877 - $3,045,481

Project	Funding Streams	Potential Grants and Partnerships	Expected Professional Design Services
Redesign parking lot to accommodate new pavement, exploring permeable options. Include landscaped areas in parking lot with trees and green infrastructure strategies (linked to permeable paving).	CIP; Mobility, General, Environmental	Engineering Dept., Local Philanthropy, TPWD, NRPA, EPA Green Infrastructure Grants	Civil Engineering, Landscape Architecture
Add sidewalk along Village Ln.	CIP; Mobility, General	Engineering Dept., Local Philanthropy	Civil Engineering, Landscape Architecture
Add pedestrian connection from Village at Baytown Apartment complex to park	CIP; Mobility, General		Civil Engineering, Landscape Architecture
Increase tree canopy along all edges of the park	CIP; General, Environmental	Trees for Houston, The Fruit Tree Planting Foundation, Local Philanthropy	Landscape Architecture
Provide shade pavilions and shaded seating areas to all soccer fields	CIP; General	Local Philanthropy , USA Shade Grants, ADD Grants, The Shade Foundation	Engineering, Architecture, Landscape Architecture
Provide loop trail in periphery of park to foster exercise and provide an amenity to other users.	CIP; General	TPWD, NRPA, Local Philanthropy	Civil Engineering, Landscape Architecture
Add dark sky compliant, pedestrian pole lighting	CIP; General	TPWD, NRPA, Local Philanthropy	Engineering, Landscape Architecture, Lighting Consultant
Install a community garden near main entry or Eastern edge of the athletic fields and start a program to engage the community	CIP; General	Local Community Garden Organizations (Urban Harvest, Plant it Forward), Campbell Soup Foundation, USDA Rural Development Loan and Grant Program	Landscape Architecture
Seed northern edge of park with coastal prairie seed mix for buffer along park and northern detention basin	CIP; General, Environmental		Landscape Architecture
Update restrooms to include changing tables in men's, women's, and gender neutral restrooms. Update restrooms to be universally accessible.	CIP; General		Engineering, Architecture
Enhance entrances to the park with monumental signage and native planting.	CIP; General, Environmental	People for Bikes grants	Landscape Architecture, Signage and Wayfinding Consultant, Engineering

NORTH SHORE PARK

14440 WALLISVILLE RD.
HOUSTON, TX
CENTRAL ZONE
46.4 ACRES
NEIGHBORHOOD PARK

PARK RANK #8

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	74%
Community Health	84%
Environmental Vulnerability	41%
Park Access	75%
Combined Suitability Analysis Score	87%

SUITABILITY ANALYSIS

North Shore Park is in a block group with very low physical and mental health as well as low social cohesion. The park is at risk of flooding and soil erosion. It also has low walking access.

PARK ASSESMENTS

Park Access	1.86
Park Features	3.50
Supportive Facilities	3.33
Safety and Maintenance	3.31
Aesthetics	3.00
Health	3.42
Culture and Accessibility	2.07
Combined Park Assessment Score	2.84

PARK ASSESMENTS

North Shore Park has a variety of recreation opportunities, and has mature trees buffering several of its edges. Accessibility and pedestrian safety were concerns as sidewalks and other safety measures were lacking along internal roads that dominated park circulation patterns. Some variety in aesthetic and age of amenities was observed.

NORTH SHORE PARK RECOMMENDATIONS

Total estimated improvement cost: $605,169 - $2,989,411

Project	Funding Streams	Potential Grants and Partnerships	Expected Professional Design Services
Enhance internal pedestrian safety through increased sidewalks and paths, traffic calming, and crosswalks	CIP; General	Local Philanthropy, TPWD, NRPA	Civil Engineering, Landscape Architecture
Increase pedestrian access through sidewalks at the park entrance	CIP; Mobility, General	Local Philanthropy, TPWD, NRPA, National Center for Safe Routes to School	Civil Engineering, Landscape Architecture
Increase pedestrian access through additional neighborhood pedestrian entrances on southwest along Thornhill Oak Dr. and Northeast corner of the site	CIP; Mobility, General	Harris County Engineering, TxDOT	Civil Engineering, Landscape Architecture
Add wayfinding, mile markers, and consistent branding that fits within Precinct-wide branding standard. Include multiple languages to match population	CIP; General	Local Philanthropy, NRPA	Landscape Architecture, Signage and Wayfinding Consultant, Engineering
Improve drainage and erosion issues along Big Gulch as well as riparian ecology through bioswales with native plants	CIP; General, Environmental	Local Philanthropy, TPWD, NRPA, EPA Green Infrastructure Grants	Engineering, Landscape Architecture
Make Big Gulch water channel a prominent ecological feature by restoring riparian edge condition through a combination of grow zones, seeding, and planting. Balance ecological restoration with social features	CIP; General, Environmental	Local Philanthropy, TPWD, NRPA, EPA Green Infrastructure Grants	Landscape Architecture
Make Big Gulch water channel a prominent social feature by adding a boardwalk and other opportunities to interact with the water that have a low impact on ecology. Incorporate educational components into this nature trail area.	CIP; General, Environmental	Local Philanthropy, TPWD, NRPA	Engineering, Landscape Architecture
Enhance visibility of park entrance with additional landscape	CIP; General, Environmental		Landscape Architecture
Buffer north end of park from street (especially if there are added amenities on the north side relating to the water)	CIP; General, Environmental		Landscape Architecture
Install bike racks at key areas	CIP; General	People for Bikes grants	N/A
Provide park programming for fitness, demonstration on how to use equipment (fitness classes, yoga, etc.)	General Operations/ Programming/ Other	Local fitness groups and organizations	N/A
Add more trees inside the park to increase shade	CIP; General, Environmental	Trees for Houston, The Fruit Tree Planting Foundation, Local Philanthropy	Landscape Architecture, Urban Forester
Add structures and features that complement the pavilions of Jim and Joann Fonteno Family Park (connected visually)	CIP; General, Environmental	Local Philanthropy , USA Shade Grants, ADD Grants, The Shade Foundation	Engineering, Architecture, Landscape Architecture

CHANNELVIEW SPORTS COMPLEX

16434 WOOD DR.
CHANNELVIEW, TX
EAST ZONE
31.3 ACRES
COMMUNITY PARK

PARK RANK #9

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	63%
Community Health	88%
Environmental Vulnerability	30%
Park Access	50%
Combined Suitability Analysis Score	79%

SUITABILITY ANALYSIS

Channelview Sports Complex is located in a block group with high chronic illness. The complex has low tree canopy, is experiencing high heat, and has experienced some degree of soil erosion. The complex also has moderate walking access.

PARK ASSESMENTS

Park Access	1.21
Park Features	3.00
Supportive Facilities	2.33
Safety and Maintenance	2.75
Aesthetics	2.38
Health	1.94
Culture and Accessibility	1.42
Combined Park Assessment Score	2.02

PARK ASSESMENTS

This sports complex is a single use, gated park that features baseball diamonds and some supportive facilities like bleachers and restrooms. There are picnic tables scattered throughout the park but often do not have accessible routes. The supportive facilities and baseball fields appear to be in good condition, but variety of recreation opportunities at this park are low. Overall, accessibility to and within the park is limited and the gates on the park appear to be closed at some times, restricting access.

CHANNELVIEW SPORTS COMPLEX RECOMMENDATIONS

Total estimated improvement cost: $1,494,231 - $6,066,451

Project	Funding Streams	Potential Grants and Partnerships	Expected Professional Design Services
Enhance all park entrances through signage and planting	CIP; General, Environmental	Local schools, local group volunteering programs	Landscape Architecture, Signage and Wayfinding Consultant, Engineering
Add paths to access all park amenities (like existing picnic areas)	CIP; General, Environmental	TPWD, NRPA	Civil Engineering, Landscape Architecture
Add dark sky compliant, pedestrian pole lighting	CIP; General, Environmental	TPWD, NRPA	Engineering, Landscape Architecture, Lighting Consultant
Locate additional shade structures, concrete picnic tables on decomposed granite pads near athletic fields as a supportive use	CIP; General, Environmental	Local Philanthropy , USA Shade Grants, ADD Grants, The Shade Foundation, NRPA	Engineering, Architecture, Landscape Architecture
Enhance park use by adding a walking loop trail	CIP; General, Environmental	TPWD, NRPA, Local Philanthropy	Civil Engineering, Landscape Architecture
Incorporate a playground near sports fields and walking loop with additional trees for shade	CIP; General, Environmental	Kaboom Grants, NRPA	Civil Engineering, Landscape Architecture
Add more trees inside the park to increase shade	CIP; General, Environmental	Trees for Houston, The Fruit Tree Planting Foundation, Local Philanthropy	Landscape Architecture
Increase park access by adding pedestrian entrances, either add pedestrian gates or remove the segment of perimeter fence needed for pedestrian entry	CIP; General, Environmental		Civil Engineering, Landscape Architecture
Alleviate drainage issues in lawn areas through use of bioswales and detention areas planted with native plants	CIP; General, Environmental	Local Philanthropy, TPWD, NRPA, EPA Green Infrastructure Grants	Civil Engineering, Landscape Architecture
Designate a formalized soil storage area for athletic field replacement soil, on site with screening and vehicular access	General Operations/ Programming/ Other		N/A
Update restrooms to include changing tables in men's, women's, and gender neutral restrooms. Update restrooms to be universally accessible.	CIP; General, Environmental		Engineering, Architecture
Update concessions areas to have supportive amenities such as shaded seating nearby	CIP; General		Engineering, Architecture
Enhance aesthetics on concessions buildings through maintenance and retrofitting facilities (i.e. painting, rust on the roof of southern structure)	General Operations/ Programming/ Other		N/A
Formalize roadway with permeable paving and bioswales along length with breaks for connectivity.	CIP; General, Environmental, Mobility	Engineering Dept., Local Philanthropy, TPWD, NRPA, EPA Green Infrastructure Grants	Civil Engineering, Landscape Architecture
Enhance partnership between Little League Board and Precinct to raise funds, complete new projects, and complete maintenance	General Operations/ Programming/ Other	Little League, other sport groups in the area	N/A
Add a covered shelter connected to the existing circulation through accessible paths that can be used as flexible space. This space could be used for farmers market, performances, and other community events.	CIP; General	Local Philanthropy , USA Shade Grants, ADD Grants, The Shade Foundation	Engineering, Architecture

W.E.B CROWLEY PARK

5100 LAUDER ST.
HOUSTON, TX
CENTRAL ZONE
30 ACRES
COMMUNITY PARK

PARK RANK #11

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	89%
Community Health	82%
Environmental Vulnerability	33%
Park Access	63%
Combined Suitability Analysis Score	90%

SUITABILITY ANALYSIS

W.E. Bill Crowley Park is located in a block group with high chronic illness, high risk factors, and low social cohesion. There is very low social cohesion, economic stability, and educational stability.

PARK ASSESMENTS

Park Access	3.07
Park Features	3.75
Supportive Facilities	3.67
Safety and Maintenance	4.05
Aesthetics	3.35
Health	3.23
Culture and Accessibility	2.12
Trails	3.83
Combined Park Assessment Score	3.33

PARK ASSESMENTS

The park features a variety of exercise, playground, and picnic opportunities, all among the canopy of mature trees. The park has an excellent variety of uses, with a loop trail and baseball fields as well, but it is not integrated into existing transportation networks and poses challenges for pedestrian access.

W.E. "BILL" CROWLEY PARK RECOMMENDATIONS

Total estimated improvement cost: $1,020,039 - $5,089,866

Project	Funding Streams	Potential Grants and Partnerships	Expected Professional Design Services
Develop a tree management strategy for this park, including successional tree planting initiative. This plan should be developed with an urban forester.	General Operations/ Programming/ Other; General, Environmental	Urban Forester, TPWD	Urban Forester
Address drainage issues on athletic courts through updating grade of courts and installing vegetated bioswales near courts. Address drainage issues at open lawn areas through vegetated bioswales.	CIP; General, Environmental	Baseball Tomorrow Fund/ Major League Baseball Field Maintenance Education Program, Local baseball groups	Civil Engineering, Landscape Architecture
Add shade structures and plant trees to increase shade of benches	CIP; General	Local Philanthropy , USA Shade Grants, ADD Grants, The Shade Foundation	Engineering, Architecture, Landscape Architecture
Add benches and tables near exercise and sports areas to increase diversity and integration of uses	CIP; General	NRPA, furnishing vendors	Landscape Architecture
Add bioswale of native plantings from park that leads into Greens Bayou and/or adjacent detention basins to handle drainage	CIP; General, Environmental	Engineering Dept., Local Philanthropy, TPWD, NRPA, EPA Green Infrastructure Grants	Civil Engineering, Landscape Architecture
Enhance connection to Greens Bayou by extending park trail to bayou's edge, adding tree and riparian planting; coordinate with Greens Bayou Coalition to install a kayak launch	CIP; General, Environmental	Houston Parks Board (Bayou Greenways), TPWD, NRPA	Civil Engineering, Landscape Architecture
Enhance internal pedestrian safety through increased sidewalks, traffic calming measures, and crosswalks	CIP; General	NRPA, TPWD	Civil Engineering, Landscape Architecture
Enhance safety of park entrance through addition of a traffic light and/or realignment of intersection	Other; Mobility, General	TxDOT, Engineering Department	Civil Engineering, Landscape Architecture
Increase pedestrian and bicycle access by adding a shared use path along the entry road to the park	CIP; Mobility, General	People for Bikes Grants, USDT, Engineering Department, TxDOT	Civil Engineering, Landscape Architecture
Add a restroom that is more centrally-located in the park	CIP; General		Engineering, Architecture
Add universally-designed swing and playground elements for children of a range of abilities and ages to be able to participate in all activities.	CIP; General	Kaboom Grants, Local Philanthropy, Christopher & Dana Reeve Foundation	Civil Engineering, Landscape Architecture
Add ADA accessible paths to playgrounds and swings, tennis courts and other amenities	CIP; General	United States Tennis Association (USTA) Facility Services Program, NRPA	Civil Engineering, Landscape Architecture
Add designated parking area for maintenance vehicles so that moving vehicles are not near pedestrian paths	CIP; General		Civil Engineering
Provide park programming for fitness, demonstration on how to use equipment (fitness classes, yoga, etc.)	General Operations/ Programming/ Other; General	Local fitness groups and organizations	N/A

BAYTOWN SOCCER COMPLEX

PARK RANK #25

9600 N. MAIN ST.
BAYTOWN, TX
EAST ZONE
154 ACRES
REGIONAL PARK

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	52%
Community Health	79%
Environmental Vulnerability	27%
Park Access	71%
Combined Suitability Analysis Score	75%

SUITABILITY ANALYSIS

Baytown Soccer Complex is in a block group with high chronic illness, low social cohesion, and high risk factors. It has moderate flood risk as it's in a floodplain. This park also has low park access and moderate safety.

PARK ASSESMENTS

Park Access	1.69
Park Features	N/A
Supportive Facilities	3.00
Safety and Maintenance	3.45
Aesthetics	3.00
Health	2.27
Culture and Accessibility	2.33
Combined Park Assessment Score	2.35

PARK ASSESMENTS

This soccer complex is a single use park that does not offer a variety in recreation opportunities, but all soccer fields appear to drain well and several have concrete paths to access the fields. There are no seating or shade amenities at the fields, however. The entry to this park is dominated by vehicular features, such as a long entry drive and a large parking lot.

BAYTOWN SOCCER COMPLEX RECOMMENDATIONS

Total estimated improvement cost: $1,609,572 - $2,269,710

Project	Funding Streams	Potential Grants and Partnerships	Expected Professional Design Services
Incorporate pedestrian and bike access to entrance of park for future connection along N. Main St.	CIP; Mobility, General	People for Bikes Grants, USDT, Engineering Department, TxDOT	Civil Engineering, Landscape Architecture
Add accessible trail to connect to and around detention pond to incorporate a jogging loop around the park that connects all amenities	CIP; General, Environmental	TPWD, NRPA, Local Philanthropy	Civil Engineering, Landscape Architecture
Add secondary accessible paths connecting all soccer fields	CIP; General	TPWD, NRPA, Local Philanthropy	Civil Engineering, Landscape Architecture
Provide shade pavilions and shaded seating areas to all soccer fields	CIP; General	TPWD, NRPA, Local Philanthropy, US Soccer Foundation Grants	Engineering, Architecture, Landscape Architecture
Provide sidewalk or pedestrian connection from parking to restroom area	CIP; General	TPWD, NRPA, Local Philanthropy	Civil Engineering, Landscape Architecture
Add pedestrian-scaled, dark sky compliant internal park lighting on new trail loop.	CIP; General	TPWD, NRPA	Engineering, Landscape Architecture, Lighting Consultant
Add picnic tables and pavilions at detention pond edge.	CIP; General	TPWD, NRPA, Local Philanthropy, USA Shade Grants, US Soccer Foundation Grants	Engineering, Architecture, Landscape Architecture
Update restrooms to include changing tables in men's, women's, and gender neutral restrooms. Update restrooms to be universally accessible.	CIP; General		Engineering, Architecture
Plant detention pond banks through a combination of grow zones, seeding, and planting to reduce erosion and foster native ecology	CIP; General, Environmental		Landscape Architecture

JAMES BUTE PARK

512 MCKEE ST.
HOUSTON, TX
CENTRAL ZONE
1.5 ACRES
MINI PARK

PARK RANK #24

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	44%
Community Health	86%
Environmental Vulnerability	35%
Park Access	43%
Combined Suitability Analysis Score	72%

SUITABILITY ANALYSIS

James Bute Park is located in a block group with very high chronic illness, very low mental health, high risk factors, and very low social cohesion. Additionally this complex expereinces very low educational stability.

PARK ASSESMENTS

Park Access	1.70
Park Features	N/A
Supportive Facilities	0.00
Safety and Maintenance	2.76
Aesthetics	2.25
Health	1.84
Culture and Accessibility	3.75
Trails	2.50
Combined Park Assessment Score	2.08

PARK ASSESMENTS

James Bute Park features an open lawn and asphalt loop trail in poor condition. The park is adjacent to the Buffalo Bayou and connects to the Bayou Trail. The park has views of Downtown Houston, but there are some safety concerns due to unpleasant adjacent construction sites, disrepair of the park's internal trail, and people living under the nearby bridge.

JAMES BUTE PARK RECOMMENDATIONS

Total estimated improvement cost: $373,295 - $667,125

Project	Funding Streams	Potential Grants and Partnerships	Expected Professional Design Services
Replace existing trail. Build new trail and explore paving options that include multiple surface options. Materials to consider include: concrete, rubber track surfacing material, and asphalt lined with concrete curbs to maintain clean edge.	CIP; General	TPWD, NRPA, Buffalo Bayou Partnership, Local Philanthropy	Civil Engineering, Landscape Architecture
Provide secondary accessible paths to connect to all amenities within park	CIP; General	TPWD, NRPA, Buffalo Bayou Partnership, Local Philanthropy	Civil Engineering, Landscape Architecture
Provide workout stations or other amenities that foster active lifestyle and foments exercise	CIP; General	Kaboom Grants, NRPA, Local Philanthropy	Civil Engineering, Landscape Architecture
Incorporate infrastructure for gathering, such as a sheltered seating area	CIP; General	TPWD, NRPA, Local Philanthropy, USA Shade Grants, US Soccer Foundation Grants	Engineering, Architecture, Landscape Architecture
Stabilize Buffalo Bayou Edge through a combination of grow zones, seeding, and planting.	CIP; General, Environmental	Buffalo Bayou Partnership, Houston Parks Board, USACE, Flood Control, TPWD	Civil Engineering, Landscape Architecture
Provide accessible connection to Buffalo Bayou Trail	CIP; General, Environmental	Buffalo Bayou Partnership, Houston Parks Board, USACE, Flood Control, TPWD	Civil Engineering, Landscape Architecture
Remove unused/deteriorated concrete pads within park	CIP; General		Civil Engineering, Landscape Architecture
Plant additional trees along trails	CIP; General, Environmental	Trees for Houston, The Fruit Tree Planting Foundation, Local Philanthropy , Buffalo Bayou Partnership	Landscape Architecture
Provide dark sky compliant, pedestrian pole lighting	CIP; General	TPWD, NRPA, Buffalo Bayou Partnership, Local Philanthropy	Engineering, Landscape Architecture, Lighting Consultant

DAD'S CLUB SPORTS COMPLEX

VILLAGE EVERGREEN TRAIL
HOUSTON, TX
SOUTH ZONE
39.8 ACRES
COMMUNITY PARK

PARK RANK #38

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	48%
Community Health	68%
Environmental Vulnerability	38%
Park Access	67%
Combined Suitability Analysis Score	65%

SUITABILITY ANALYSIS

Dad's Club Sports Complex is in a block group with low mental health and a census tract with low cohesion. The complex has low erosion and contamination, high urban heat, and moderate park access.

PARK ASSESMENTS

Park Access	2.04
Park Features	N/A
Supportive Facilities	3.17
Safety and Maintenance	3.63
Aesthetics	2.19
Health	2.6
Culture and Accessibility	1.92
Combined Park Assessment Score	2.43

PARK ASSESMENTS

Dad's Club Sports Complex is a large park with several soccer and baseball fields. There are some supportive amenities such as lighting, restrooms, and bleachers. The park has fair internal circulation and accessibility, but it is segmented into several disconnected zones. While the only park use is athletics, there is some variety of opportunity with the presence of less common fields such as Pee-Wee baseball fields and a pony arena.

DAD'S CLUB SPORTS COMPLEX RECOMMENDATIONS

Total estimated improvement cost: $1,158,536 - $8,492,838

Project	Funding Streams	Grants and Partnerships	Expected Professional Design Services
Convert concrete swales to vegetated swales or bioswales with native plants	CIP; General, Environmental	Local Philanthropy, TPWD, NRPA, EPA Green Infrastructure Grants	Civil Engineering, Landscape Architecture
Plant more trees throughout the site and along paths.	CIP; General, Environmental	Trees for Houston, The Fruit Tree Planting Foundation, Local Philanthropy	Landscape Architecture
Provide shade pavilions and shaded seating areas to all soccer fields	CIP; General	Local Philanthropy , USA Shade Grants, ADD Grants, The Shade Foundation, Baseball Tomorrow Fund/ Major League Baseball Field Maintenance Education Program, US Soccer Foundation Grants	Engineering, Architecture, Landscape Architecture
Increase access and comfort for spectators by adding accessible pathways to athletic fields and seating accommodations	CIP; General	NRPA, TPWD, US Soccer Foundation, other soccer and baseball organizations	Civil Engineering, Landscape Architecture
Improve park visibility through entrance signage and planting, be sure all entrances have sidewalks that can be accessed by pedestrians. Be sure that signage fits within Precinct-wide branding standards.	CIP; Mobility, General, Environmental		Landscape Architecture, Signage and Wayfinding Consultant
Update restrooms to include changing tables in men's, women's, and gender neutral restrooms. Update restrooms to be universally accessible.	CIP; General		Engineering, Architecture
Add internal wayfinding signage in multiple language to match population. Be sure that signage fits within Precinct-wide branding standards.	CIP; General		Landscape Architecture, Signage and Wayfinding Consultant, Engineering

KIPPER MEASE SPORTS COMPLEX

10500 RED BLUFF
PASADENA, TX
SOUTH ZONE
297 ACRES
REGIONAL PARK

PARK RANK #46

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	46%
Community Health	57%
Environmental Vulnerability	25%
Park Access	70%
Combined Suitability Analysis Score	61%

SUITABILITY ANALYSIS

Kipper Mease Sports Complex is located in a block group with low mental health and a census tract with very low social cohesion. The complex is at flood risk and has moderate soil erosion and contamination.

PARK ASSESMENTS

Park Access	2.73
Park Features	N/A
Supportive Facilities	3.17
Safety and Maintenance	4.23
Aesthetics	3.55
Health	2.38
Culture and Accessibility	2.50
Combined Park Assessment Score	3.16

PARK ASSESMENTS

Kipper Mease Sports Complex is a single use park with several baseball fields and supportive amenities such as bleachers and restrooms. The park is connected to the Kipper Mease Walking Path and is bordered by mature trees on several sides, but there are few mature trees within the park.

KIPPER MEASE SPORTS COMPLEX RECOMMENDATIONS

Total estimated improvement cost: $297,380 - $786,935

Project	Funding Streams	Potential Grants and Partnerships	Expected Professional Design Services
Provide additional pedestrian connection from parking to ball fields	CIP; Mobility, General	TPWD, NRPA	Civil Engineering, Landscape Architecture
Provide pedestrian connection to hike and bike trail along Red Buff Road	CIP; Mobility, General	People for Bikes grants, NRPA, TPWD	Civil Engineering, Landscape Architecture
Increase tree shade canopy over impervious areas within or around all parking areas	CIP; General, Environmental	Trees for Houston, The Fruit Tree Planting Foundation, Local Philanthropy	Civil Engineering, Landscape Architecture
Identify and establish areas for non-mown native vegetation	CIP; General, Environmental		Landscape Architecture
Install bike racks	General	People for Bikes grants	N/A
Add signage and wayfinding, park map, and consistent branding that fits within Precinct-wide branding standard. Include multiple languages to match population	CIP; General		Landscape Architecture, Signage and Wayfinding Consultant
Incorporate a nature type playground adjacent to parking lot with additional trees for shade	CIP; General	Kaboom Grants, Local Philanthropy, Christopher & Dana Reeve Foundation	Civil Engineering, Landscape Architecture
Provide accessible sidewalk connecting to playground and picnic areas	CIP; General	TPWD, NRPA	Civil Engineering, Landscape Architecture
Install ADA compliant Picnic Tables with Decomposed Granite Pad	CIP; General	TPWD, NRPA	Civil Engineering, Landscape Architecture
Install shade structure to all existing bleachers (Total 6)	CIP; General	Local Philanthropy , USA Shade Grants, ADD Grants, The Shade Foundation, Baseball Tomorrow Fund/ Major League Baseball Field Maintenance Education Program	Engineering, Architecture
Update restrooms to include changing tables in men's, women's, and gender neutral restrooms. Update restrooms to be universally accessible.	CIP; General		Engineering, Architecture

TIER 2 PARKS

The following section outlines recommendations for each of the 20 Tier 2 park sites paired with each park's Report Card. A list of Tier 2 parks appears on the following pages.

Common recommendations found across many Tier 2 parks are listed below.

TIER 2: GENERAL RECOMMENDATION SUMMARY

- Improve connections between trails and other parks, as well as main intersections throughout park sites
- Add crosswalks to enter park sites that are universally accessible
- Install new or improve existing restrooms with universal accessibility as well as accessible pathways to get into the restroom.
- Provide changing tables for all restroom types, men's women's, gender neutral restrooms
- Install bike rack especially at parking areas
- Increase tree canopy coverage and shade options
- Provide educational signage related to landscape types and natural systems throughout park sites
- Provide vegetated swales at parking locations for improved water quality
- Provide signage for wayfinding and mile markers consistent with branding for Precinct 2 standards
- Improve mobility connections and bridges, or replace bridges where appropriate
- Use different materials for major trails
- Improve parking areas
- Add dog-waste stations
- Celebrate and improve park entrances and park name signage
- Improve fencing at parks

TIER 2 PARKS

Park Name	Acreage	Zone	Typology	Suit-ability Score*	Park Assessment Score	Nexus	Address	City
Yolanda Black Navarro Buffalo Bend Park	11.7	Central	Neighborhood Park	10.20	2.77	**7.43**	2300 S/Sgt. Macario Garcia Dr.	Houston
Meadowbrook Park	13	East	Neighborhood Park	9.54	2.2	**7.34**	17410 River Road	Channelview
Jim and Joann Fonteno Family Park	37.4	Central	Community Park	10.22	2.91	**7.31**	14350 1/2 Wallisville Rd	Houston
Pep Mueller Park	13	Central	Neighborhood Park	9.50	2.42	**7.08**	14750 Henry Road	Houston
Rio Villa Park	215.3	East	Regional Park	9.70	2.7	**7.00**	Wallisville Rd. and Rio Villa Dr.	Houston
Aldine Village Park	0.3	Central	Mini Park	9.42	2.46	**6.96**	642 Corvette Lane	Houston
Cloverleaf Pocket Park	1	Central	Mini Park	9.85	2.93	**6.92**	825 Beacon St.	Houston
Gerber Park	1.5	Central	Mini Park	9.78	2.98	**6.80**	4735 Gaston	Houston
River Terrace Park	13.9	East	Neighborhood Park	9.20	2.51	**6.69**	16560 Market Street	Channelview
Baytown Sr. Sports Complex	6.27	East	Neighborhood Park	8.96	2.35	**6.61**	4500 Hemlock	Baytown
Stratford Park	4.8	East	Mini Park	8.80	2.24	**6.56**	715 Stratford	Highlands
Dow #1 Park	9	Central	Neighborhood Park	8.61	2.12	**6.49**	15401 Greendale Drive	Houston
Cedar Bayou Park	170.15	East	Regional Park	7.98	1.67	**6.31**	9600 Hadden Rd.	Baytown
Edna Mae Washington Park	28.99	East	Community Park	9.17	2.92	**6.25**	7613 Wade Road	Baytown

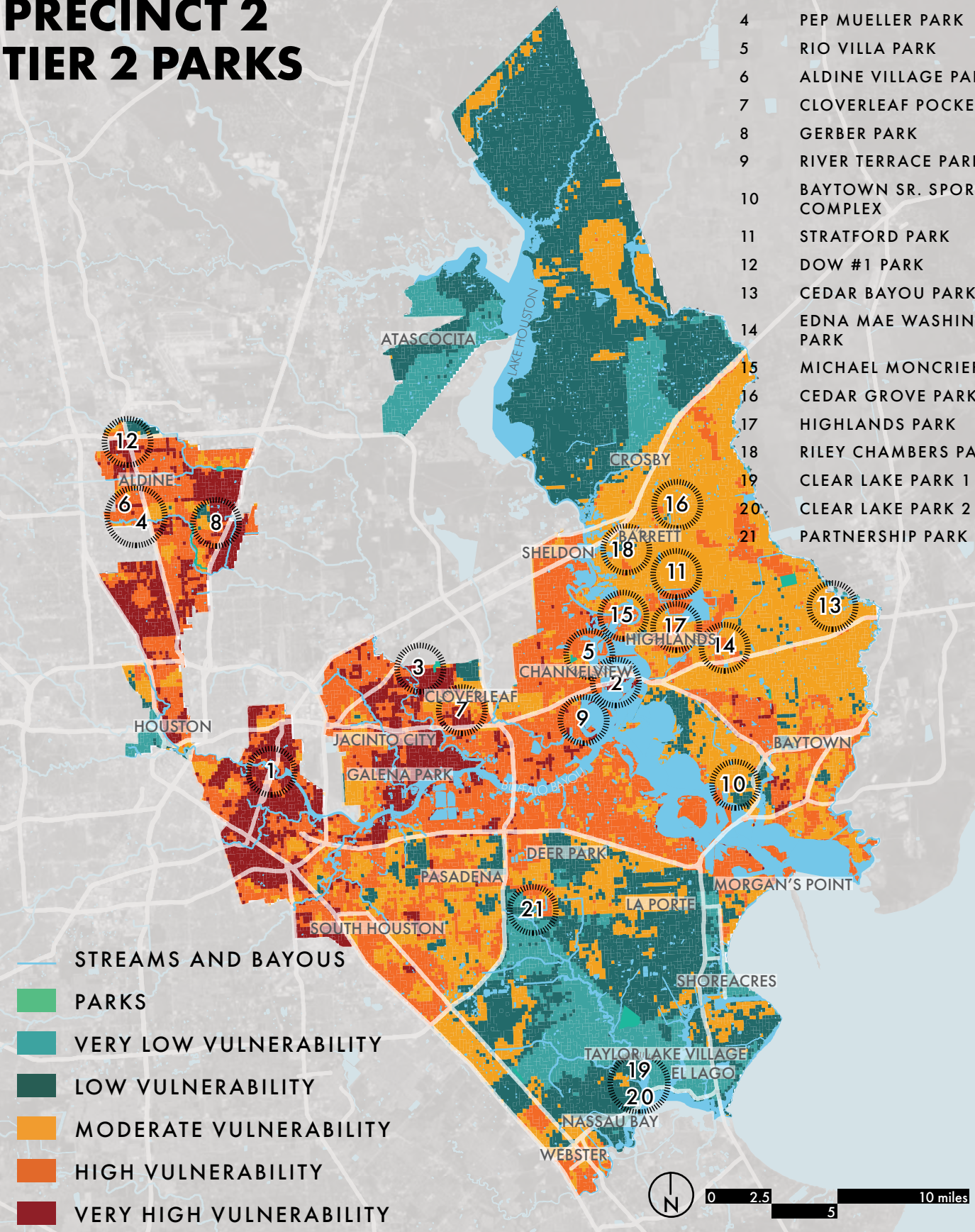
** Suitability Scores highlight the combination of socioeconomic vulnerability, health disparity, environmental risk, and lack of park access that contribute to overall community vulnerability in an area. Suitability scores in this table have been normalized on a 10 point scale to be combined into Nexus scores as shown. Park Assessment Scores indicate the quality of existing infrastructure in each park, the higher the number, the higher quality the infrastructure is.*

TIER 2 PARKS CONTINUED

Park Name	Acreage	Zone	Typology	Suit-ability Score*	Park Assessment Score	Nexus	Address	City
Michael Moncrief Park	3.4	East	Mini Park	8.84	2.6	**6.24**	16800 Bear Bayou	Channelview
Cedar Grove Park	0.6	East	Mini Park	8.64	2.98	**5.66**	13405 Maudeas	Cedar Grove
Highlands Park	12.8	East	Neighborhood Park	8.91	3.04	**5.87**	604 Highland Wood	Highlands
Riley Chambers Park	40.4	East	Community Park	8.75	3.22	**5.53**	808 1/2 Magnolia	Crosby
Clear Lake Park 1	59	South	Community Park	6.84	3.57	**3.27**	Nasa Road 1	Pasadena
Clear Lake Park 2	0	South	Community Park	6.91	3.57	**3.34**	Nasa Road 1	Pasadena
Partnership Park	28	South	Community Park	7.52	3.11	**4.41**	5150 Red Bluff Road	Pasadena

** Vulnerability Scores highlight the combination of socioeconomic vulnerability, health disparity, environmental risk, and lack of park access that contribute to overall community vulnerability in an area. Park Assessment Scores indicate the quality of existing infrastructure in each park, the higher the number, the higher quality the infrastructure is.*

PRECINCT 2 TIER 2 PARKS



1. YOLANDA BLACK NAVARRO BUFFALO BEND PARK
2. MEADOWBROOK PARK
3. JIM AND JOANN FONTENO FAMILY PARK
4. PEP MUELLER PARK
5. RIO VILLA PARK
6. ALDINE VILLAGE PARK
7. CLOVERLEAF POCKET PARK
8. GERBER PARK
9. RIVER TERRACE PARK
10. BAYTOWN SR. SPORTS COMPLEX
11. STRATFORD PARK
12. DOW #1 PARK
13. CEDAR BAYOU PARK
14. EDNA MAE WASHINGTON PARK
15. MICHAEL MONCRIEF PARK
16. CEDAR GROVE PARK
17. HIGHLANDS PARK
18. RILEY CHAMBERS PARK
19. CLEAR LAKE PARK 1
20. CLEAR LAKE PARK 2
21. PARTNERSHIP PARK

YOLANDA BLACK NAVARRO BUFFALO BEND PARK

PARK RANK #3

2300 S/SGT. MACARIO GARCIA DR.
HOUSTON,TX
CENTRAL ZONE
11.7 ACRES
NEIGHBORHOOD PARK

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	77%
Community Health	90%
Environmental Vulnerability	43%
Park Access	70%
Combined Suitability Analysis Score	88%

●=20% ◖=10%

SUITABILITY ANALYSIS

Yolanda Black Navarro Buffalo Bend Park is located in a census tract with low economic and educational stability. In addition it has very high chronic illness, high risk factors,very low urban heat, and very low air quality.

PARK ASSESMENTS

Park Access	2.03
Park Features	N/A
Supportive Facilities	3.08
Safety and Maintenance	3.92
Aesthetics	3.25
Health	3.31
Culture and Accessibility	2.55
Combined Park Assesment Score	2.80

●=1 ◖=.5

PARK ASSESMENTS

Situated along the Buffalo Bayou, this park features detention ponds and a striking shade structure. Many trees in the park are very young and do not yet provide shade to the walking loop trail.

YOLANDA BLACK NAVARRO BUFFALO BEND PARK RECOMMENDATIONS

Total estimated improvement cost: $432,338 - $753,444

Project
Keeping in line with Buffalo Bayou Partnership's Buffalo Bayou East Master Plan, enhance park connections to the neighborhood by adding a trailhead for future connection to Hidalgo Park (Master Plan page 129)
Keeping in line with Buffalo Bayou Partnership's Buffalo Bayou East Master Plan, create additional park features by extending concrete park path under Wayside Drive Bridge (Master Plan page 129)
Keeping in line with Buffalo Bayou Partnership's Buffalo Bayou East Master Plan, create additional park features by adding "picnic grove" at the end of new path under Wayside Drive Bridge (Master Plan page 129)
Keeping in line with Buffalo Bayou Partnership's Buffalo Bayou East Master Plan, add riparian habitat through a combination of grow zones, seeding, and planting, near picnic grove under Wayside Drive Bridge (Master Plan page 129)
Keeping in line with Buffalo Bayou Partnership's Buffalo Bayou East Master Plan, add trailhead near picnic grove under Wayside Drive Bridge (Master Plan page 129)
Keeping in line with Buffalo Bayou Partnership's Buffalo Bayou East Master Plan, add parking area near picnic grove under Wayside Drive Bridge (Master Plan page 129). Design parking area to incorporate permeability and green infrastructure practices while being able to handle flooding events.
Install bike racks at parking area.
Add seating under pavilion
Add educational signage (to enhance existing signage) about ecology of ponds, riparian edges, unmown park areas, and bat houses
Add shade along internal park paths by planting trees, especially trees that will be flood tolerant.
Add dark sky compliant, pedestrian pole lighting along concrete path (not gravel path near wetland). It is recommended to maintain Buffalo Bayou Park standard lighting for consistency
Add accessible sidewalk along 69th Street that connects to pedestrian entrance
Add crosswalk across 69th St at Avenue W
Add restroom near parking area

MEADOWBROOK PARK

17410 RIVER ROAD
CHANNELVIEW,TX
EAST ZONE
13 ACRES
NEIGHBORHOOD PARK

PARK RANK #5

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	63%
Community Health	89%
Environmental Vulnerability	46%
Park Access	62%
Combined Suitability Analysis Score	83%

●=20% ◖=10%

SUITABILITY ANALYSIS

Meadowbrook Park is located in a block group with very high chronic illness, moderate mental health,moderate air quality, and is outside a 500 foot buffer of a highway.

PARK ASSESMENTS

Park Access	0.93
Park Features	3.50
Supportive Facilities	2.25
Safety and Maintenance	3.46
Aesthetics	1.70
Health	2.43
Culture and Accessibility	1.68
Combined Park Assessment Score	2.23

●=1 ◖=.5

PARK ASSESMENTS

This park is located between Bear Lake and Lake Sandy in Channelview, TX. There are many accessibility concerns as there are currently no paved paths. The park features three ponds and is dotted with picnic tables.

MEADOWBROOK PARK RECOMMENDATIONS

Total estimated improvement cost: $311,392 - $876,695

Project
Convert internal path to concrete to increase accessibility
Add vegetated swale to north side parking area, repave parking area to reduce local drainage and maintenance issues
Add accessible parking spots to parking lots and accessible connections to internal park path
Enhance all park entrances through significant signage and planting
Increase pedestrian safety by adding a crosswalk at the road that bisects the park or consider closing internal road to expand trail system to northeast pond
Install ramps and other accessible connections to park features (picnic shelters, observation deck, parking lots)
Install native planting at the edges of the ponds to enhance ecology and wildlife habitat. Plant areas near picnic shelters can be mowed and maintained more regularly than other areas near the water's edge
Add wayfinding signage
Add dark sky compliant, pole lighting at parking areas
Add path, shade structure, and seating to existing concrete pad. Add nature play area to create destinations within the park
Increase shade through tree planting
Add path connection around southern end of the park to provide visual connection to Lake Sandy
Expanded Meadowbrook Park Total Estimated Improvement Cost: $1,211,808 - $2,104,136
Add trails in the expanded portion of the park and connect it to the existing pathways in Meadowbrook park.
Improve the riparian edge condition along the south west side and north side of the expanded portion of the park through a combination of grow zones, seeding, and planting.

**NOTE: This estimate does not include land acquisition, and demolition of structures and roads. It does not consider any environmental remediation needed for the expanded portion of the park. This expansion can range in cost depending on design but can be estimated in 11.5 million dollars or more.*

JIM AND JOANN FONTENO FAMILY PARK

PARK RANK #6

14350 1/2 WALLISVILLE RD
HOUSTON,TX
CENTRAL ZONE
37.4 ACRES
COMMUNITY PARK

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	75%
Community Health	84%
Environmental Vulnerability	37%
Park Access	74%
Combined Suitability Analysis Score	88%

●=20% ◖=10%

SUITABILITY ANALYSIS

Jim and Joann Fonteno Family Park is located in a census tract with high educational stability. It's located in a block group with moderate chronic illness and very low physical health. Additionally, it has moderate air quality and very low walking access.

PARK ASSESMENTS

Park Access	1.57
Park Features	4.00
Supportive Facilities	3.83
Safety and Maintenance	3.24
Aesthetics	3.83
Health	3.39
Culture and Accessibility	2.38
Trails	3.06
Combined Park Assessment Score	2.94

●=1 ◖=.5

PARK ASSESMENTS

This park is directly adjacent and connected to North Shore Park. It features a large parking lot that is shared with Harris County municipal buildings. A main feature of the park is a wooded area with walking trails throughout, as well as signature shade structures in the wooded area and near adjacent playgrounds.

JIM AND JOANN FONTENO FAMILY PARK RECOMMENDATIONS

Total estimated improvement cost: $534,452 - $1,368,294

Project
Add signage for park at entrance with existing courthouse signage, add planting
Add vegetated swales with trees in parking lot to increase drainage and shade
Add trees within parking lot to reduce impervious cover and provide shade
Asphalt demolition for tree planting
Add vegetated strip along the eastern property line to divide courthouse to park
Add accessible sidewalk along Wallisville Road to connect the entrance to Bella Vista Apartments and Sheffield Head Start Center; sidewalk should connect from the street all the way to parking lot and pedestrian amenities
Add accessible swing and playground elements for children of a range of abilities and ages to be able to participate in all activities.
Add trees and planting around bicycle parking areas
Add educational signage about natural systems that are present in the park (creek, forest preserve, wetland, "Fern Dell," "Beautyberry Glen," "Pine and Perennial Woods," "Demonstration Garden," etc)
Add additional signage to the pump track to explain uses
Add wayfinding, mile markers, and consistent branding that fits within Precinct Two brand standards. Include multiple languages to match population
Formalize overlook areas with educational and wayfinding signage
Enhance visitor experience to the pavilion through additional trees and planting nearby
Stabilize gravel paths to reduce erosion
Add sidewalk along western edge of parking to provide accessibility and connect to all park areas from parking
Create urban prairie landscape at western edge of parking

PEP MUELLER PARK

14750 HENRY ROAD
HOUSTON,TX
CENTRAL ZONE
13 ACRES
NEIGHBORHOOD PARK

PARK RANK #10

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	66%
Community Health	82%
Environmental Vulnerability	55%
Park Access	64%
Combined Suitability Analysis Score	82%

●=20% ◐=10%

SUITABILITY ANALYSIS

Pep Mueller Park is located in a census tract with very high economic stability and very low social cohesion. Additionally it is located in a bloc group with high chronic illness, high mental health, very low air quality, and is completely in a floodplain.

PARK ASSESMENTS

Park Access	1.87
Park Features	4.50
Supportive Facilities	2.67
Safety and Maintenance	2.78
Aesthetics	2.55
Health	2.54
Culture and Accessibility	1.46
Combined Park Assessment Score	2.44

●=1 ◐=.5

PARK ASSESMENTS

Pep Mueller Park is a 13 acres park located in the northern section of Houston, Texas. It has a covered basketball court, four baseball fields, a playground, and a picnic area. When you enter the park, the vast parking lot makes the entrance less aesthetically pleasing. In few portions, the park lacks shade, resting points, and accessible pathways. People tend to walk over the turf due to the lack of walkways to the baseball fields. The restroom and baseball fields can benefit from additional maintenance or renovation.

PEP MUELLER PARK RECOMMENDATIONS

Total estimated improvement cost: $889,945 - $1,604,559

Project
Identify and establish areas for non-mown area around the baseball fields. Provide 5-10 feet mow strip behind baseball field fence.
Improve entrance landscape with native and sustainable planting.
Provide additional trees along all sidewalks adjacent to the baseball fields.
Improve drainage on the north and south side of the park by conversion of existing grassed swales to native vegetated swales.
Add accessible concrete pathways to connect all park amenities with each other, minimum of 6 feet width.
Install shade structure to all existing bleachers (Total 8 structures)
Add dark sky compliant, pedestrian pole lighting along sidewalks connecting to playground and common amenities between fields.
Convert concrete to planting areas with trees at intermediate locations (every 15 parking stalls minimum) in the parking lot to reduce impervious areas.
Reduce entry aisle to two traffic lanes instead of four (4) and provide center planted median to reduce impervious cover and increase tree canopy.
Update restrooms to include changing tables in men's, women's, and gender neutral restrooms. Update restrooms to be universally accessible.
Add benches facing the existing basketball court.
Aerate soil within baseball fields and reseed to improve grass
Incorporate a nature type playground adjacent to restroom and concession area.
Provide workout stations that will foster active lifestyle

RIO VILLA NATURE TRAIL

WALLISVILLE RD. AND RIO VILLA DR.
HOUSTON,TX
EAST ZONE
215.3 ACRES
REGIONAL PARK

PARK RANK #12

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	67%
Community Health	84%
Environmental Vulnerability	45%
Park Access	58%
Combined Suitability Analysis Score	84%

●=20% ◐=10%

SUITABILITY ANALYSIS

Rio Villa Park is located in a census tract with moderate economic and educational stability. It's in a block group with moderate mental health and risk factors. Additionally it has moderate air quality, very low urban heat, and is partially at risk of sea level rise.

PARK ASSESMENTS

Park Access	1.61
Park Features	3.00
Supportive Facilities	3.50
Safety and Maintenance	3.35
Aesthetics	2.90
Health	3.05
Culture and Accessibility	2.46
Combined Park Assessment Score	2.74

●=1 ◐=.5

PARK ASSESMENTS

This nature trail traverses a predominantly wooded area that is surrounded on three sides by the San Jacinto River. The trail is shaded by mature trees and has a sense of privacy. There are few supporting amenities, but there is a small parking area, boat launch area, and observation deck.

RIO VILLA NATURE TRAIL RECOMMENDATIONS

Total estimated improvement cost: $84,637 - $200,044

Project
Formalize the entry trailhead with an accessible entrance and other trailhead amenities.
Add a portable restroom or composting toilet at the trailhead
Update the existing boat ramp to include accessible boardwalk feature.
Update the existing observation deck to replace warped and missing boards
Add two benches to the existing deck.
Add information or educational signs related to pollution, flooding, wetlands, wildlife habitat and ecology at boat ramp, observation dock and throughout the trail.
Update park map sign to fit into Precinct Two brand standards and add park map sign at boat ramp and observation deck.
Add wayfinding, mile markers, and consistent branding that fits within Precinct Two brand standards. Include multiple languages to match population
Add gravel to trails where gravel has been displaced. Create a regular maintenance schedule with additional maintenance visits after flooding events to clean debris and silt from trails
Enhance entrance to the park with significant signage and native planting.
Add three to four benches throughout the trail system (near proposed educational signs) to create rest areas.

ALDINE VILLAGE PARK

642 CORVETTE LANE
HOUSTON,TX
CENTRAL ZONE
0.3 ACRES
MINI PARK

PARK RANK #13

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	66%
Community Health	83%
Environmental Vulnerability	49%
Park Access	62%
Combined Suitability Analysis Score	82%

●=20% ◖=10%

SUITABILITY ANALYSIS

Aldine Village Park is located in a census tract with high economic stability and very low social cohesion. It's in a block group with high chronic illness and low physical health. It has very low air quality, low urban heat, and is partially in a floodplain.

PARK ASSESMENTS

Park Access	2.19
Park Features	4.50
Supportive Facilities	2.50
Safety and Maintenance	3.47
Aesthetics	2.29
Health	2.05
Culture and Accessibility	1.42
Combined Park Assessment Score	2.52

●=1 ◖=.5

PARK ASSESMENTS

Aldine Village Park is a pocket park located at the corner of Corvette Lane and Sellers Road in the northern section of Houston, Texas. It has a covered playground, two picnic shelters, and a looped pathway. There is no pathway leading to the play area and this encourages people to walk over the turf frequently. The Park does not have any plant diversity. Lack of shade along the looped pathway makes it difficult for people to use it during the daytime.

ALDINE VILLAGE PARK RECOMMENDATIONS

Total estimated improvement cost: $68,936 - $124,630

Project
Add additional shaded picnic pavilion with wood structure and metal roof on concrete pad (to match existing)
Add native landscape buffer along west, south and eastern edges of the park
Provide dark sky compliant, pedestrian pole lighting along main path of park
Enhance entrance to the park with improved signage and native planting (on Corvette Ln and Sellers Rd).
Provide secondary pathways leading to playground area.
Provide additional seating areas around playground path.

CLOVERLEAF POCKET PARK

825 BEACON ST.
HOUSTON,TX
CENTRAL ZONE
1 ACRE
MINI PARK

PARK RANK #14

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	50%
Community Health	38%
Environmental Vulnerability	87%
Park Access	85%
Combined Suitability Analysis Score	85%

●=20% ◖=10%

SUITABILITY ANALYSIS

Cloverlead Pocket Park is located in a census tract with very low economic stability and low educational stability. It has very low urban heat, is outside of a floodplain, and has moderate air quality.

PARK ASSESMENTS

Park Access	2.39
Park Features	3.50
Supportive Facilities	2.67
Safety and Maintenance	4.05
Aesthetics	3.06
Health	3.08
Culture and Accessibility	1.92
Combined Park Assessment Score	2.97

●=1 ◖=.5

PARK ASSESMENTS

Nestled into a neighborhood, this small park has a nice playground that is well shaded by shade sails and has a good variety in play options. There are also some mature trees and picnic tables at this park.

CLOVERLEAF POCKET PARK RECOMMENDATIONS

Total estimated improvement cost: $159,959 - $421,324

Project
Add sidewalks around park perimeter to create accessible entry points on the three sides of the park that are bordered by neighborhood streets.
Install at least one pedestrian swale crossing on each side that connects to an internal accessible path system.
Add internal accessible connections to all park features.
Add significant entrance signage with enhanced planting to make the park name and entrance visible and create a welcoming character. Design sign to fit within branding standards of Precinct Two.
Add landscape planting, including native flowers and shrubs at park entrance and other prominent locations to enhance park character and provide habitat pockets. Add planting at utility areas to provide additional screening.
Convert drainage swales to vegetated swales by installing native planting.
Add educational signage relating to vegetated swales.
Replace the existing portable restroom with a permanent restroom structure.
Add shade trees on the south and east side of the park to supplement existing canopy in the center of park. Avoid planting trees under utility lines where conflict could occur.

GERBER PARK

4735 GASTON
HOUSTON,TX
CENTRAL ZONE
1.5 ACRES
MINI PARK

PARK RANK #16

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	91%
Community Health	82%
Environmental Vulnerability	30%
Park Access	55%
Combined Suitability Analysis Score	85%

●=20% ◐=10%

SUITABILITY ANALYSIS

Gerber Park is located in a census tract with low economic stability and very low educational stability. It is located in a block group with high chronic illness and high risk factors. It has very low air quality, low urban heat, and has moderate to low walking access.

PARK ASSESMENTS

Park Access	2.60
Park Features	4.00
Supportive Facilities	3.25
Safety and Maintenance	3.50
Aesthetics	3.40
Health	3.05
Culture and Accessibility	1.80
Combined Park Assessment Score	2.99

●=1 ◐=.5

PARK ASSESMENTS

Gerber Park is a neighborhood park located along Gaston Street in the northern section of Houston, Texas. It has amenities like a covered basketball court, a pavilion, picnic areas, two playgrounds, and a walking/jogging trail. There are no ADA parking spaces that follow the standards. The picnic tables are not accessible to wheelchair users. Park is accessible until 10 pm, but it doesn't have outdoor lighting for its playgrounds and walking/jogging trail. There is a lack of native vegetation in the park.

GERBER PARK RECOMMENDATIONS

Total estimated improvement cost: $135,278 - $228,280

Project
"Enhance pedestrian access from Collins Street by: 1. Removing gate and add bollards to prevent vehicular access. 2. Replacing existing 16 ft wide asphalt drive with a 10 ft wide concrete path that serves as walk or maintenance vehicle access. 3. Providing native shrubs and perennials to provide privacy to adjacent houses and enhance aesthetic quality of entrance. 4. Providing entry sign at Collins Street entrance to complement the existing significant sign along Gaston Street entrance."
Pave parking areas along Gaston Street and identify ADA accessible parking at the parking adjacent to entry sign.
Add dark sky compliant, pedestrian bollard lighting along entrance from Collins Street and along main path inside park.
Add benches along loop path around playground and basketball court. Benches to be mounted on concrete pad with at least one bench/pad combination to allow for ADA companion seating.
Replace picnic table at northeast corner of basketball court with ADA compliant picnic table
Provide a native vegetation buffer along swale to the south to provide separation from vehicular traffic.

RIVER TERRACE PARK

16560 MARKET STREET
CHANNELVIEW,TX
EAST ZONE
13.9 ACRES
NEIGHBORHOOD PARK

PARK RANK #17

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	66%
Community Health	88%
Environmental Vulnerability	54%
Park Access	54%
Combined Suitability Analysis Score	80%

●=20% ◖=10%

SUITABILITY ANALYSIS

River Terrace Park is located in a census tract with low economic stability and moderate educational stability. It's in a block group with very high chronic illness, moderate mental health, and moderate risk factors. It is partially within 100 feet of a highway and has high sea level rise risk.

PARK ASSESMENTS

Park Access	1.75
Park Features	3.50
Supportive Facilities	2.33
Safety and Maintenance	3.30
Aesthetics	2.05
Health	2.52
Culture and Accessibility	2.41
Combined Park Assessment Score	2.53

●=1 ◖=.5

PARK ASSESMENTS

This park has heavy shipping and industrial use directly adjacent, and many pedestrian features have accessibility concerns, traffic conflict concerns, or both. The general condition of park features such as playgrounds and trails is low, with many maintenance concerns.

RIVER TERRACE PARK RECOMMENDATIONS

Total estimated improvement cost: $2,338,541 - $3,617,034

Project
Add internal paths to form accessible connections to all park features, especially large picnic structure.
Update site furnishings to furnishings consistent with Precinct Two design guidelines.
Replace existing asphalt trail with concrete and connect this trail to a new walking trail on the north side of the bayou. Be sure this trail connects to park entrances
Close internal drive off of Lakeside Drive, add tree planting
Enhance entrances to the park with significant signage and native planting.
Add wayfinding, mile markers, and consistent branding that fits within Precinct Two brand standards. Include multiple languages to match population
Add trees throughout the park and along trails to enhance park character and increase shade.
Screen adjacent industrial and shipping land uses through planting, fencing, or a combination of both
Add accessible swing and playground elements so children with a range of abilities and ages will be able to participate in all activities.
Add crosswalks, speed bumps, and other traffic calming measures on internal streets to increase pedestrian safety.
Replace existing pedestrian bridge with an accessible pedestrian bridge across the bayou
Increase shade canopy over impervious areas within or around all parking areas
Redesign south entry drive/roundabout to reduce impervious surfaces and replant with native grasses and native planting, allowing access to new trails and park amenities.
Add a permanent restroom
Add supportive amenities for playground including benches and trees for shade
Install detention areas with native planting to help mitigate flood events and provide wildlife habitat.
Add a sidewalk along Market St.
Restore riparian edge condition along the north side of the bayou through a combination of grow zones, seeding, and planting
Add a boardwalk and observation deck with seating along the vegetated area of north side of the bayou to enhance trail system experience and provide sunset viewing areas
Add native planting/flowering mix along Launch Rd and Market St to provide diversity of plants and improve character of entrance.

BAYTOWN SR. SPORTS COMPLEX

4500 HEMLOCK
BAYTOWN,TX
EAST ZONE
6.27 ACRES
NEIGHBORHOOD PARK

PARK RANK #18

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	76%
Community Health	76%
Environmental Vulnerability	48%
Park Access	60%
Combined Suitability Analysis Score	78%

●=20% ◖=10%

SUITABILITY ANALYSIS

Baytown Sr. Sports Complex is located in a census tract with low economic and educational stability. The block group it's in has moderate physical and mental health. It has low urban heat and is partially in a floodplain.

PARK ASSESMENTS

Park Access	1.12
Park Features	3.00
Supportive Facilities	3.00
Safety and Maintenance	3.14
Aesthetics	2.06
Health	2.48
Culture and Accessibility	2.25
Combined Park Assessment Score	2.34

●=1 ◖=.5

PARK ASSESMENTS

Baytown senior sports complex is a softball facility with two fields, a restroom, and a maintenance shed. There is a lack of accessibility in this complex as it does not have a surfaced parking lot, nor it has any ADA parking. The restroom needs a permanent ramp for ADA standard requirements. Some amenities like benches and bleachers seem old, especially if thinking comfort for the elderly population.

BAYTOWN SENIOR SPORTS COMPEX RECOMMENDATIONS

Total estimated improvement cost: $445,962 - $760,512

Project
Identify and establish areas for no mow native vegetation
Plant more trees throughout the site and along paths.
Increase tree canopy along all edges of the park
Add vegetated swales with native planting on the edges of parking to capture stormwater
Add signage and wayfinding, park map, and consistent branding that fits within Precinct Two brand standards. Include clear large text to match population
Install shade structures to all existing bleachers
Update restrooms to be universally accessible.
Redesign parking lot to accommodate new pavement, ADA parking and ramps. Include planting areas in parking lot with trees and green infrastructure strategies.
Provide additional pedestrian connections from parking to ball fields, especially ADA paths.
Provide loop trail in periphery of park to foster exercise and provide an amenity to other users.
Enhance park entrance through significant signage and native planting
Replace chain link fence along north and west sides of the park

STRATFORD PARK

715 STRATFORD
HIGHLANDS,TX
EAST ZONE
4.8 ACRES
MINI PARK

PARK RANK #19

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	69%
Community Health	78%
Environmental Vulnerability	31%
Park Access	61%
Combined Suitability Analysis Score	76%

●=20% ◖=10%

SUITABILITY ANALYSIS

Stratford Park is located in a census tract with moderate economic stability and high educational stability. It's in a block group with moderate mental and physical health. It has moderate air quality, very low urban heat, and is outside of a floodplain.

PARK ASSESMENTS

Park Access	2.00
Park Features	2.50
Supportive Facilities	2.50
Safety and Maintenance	3.12
Aesthetics	1.72
Health	2.16
Culture and Accessibility	1.57
Combined Park Assessment Score	2.26

●=1 ◖=.5

PARK ASSESMENTS

A medium sized community park, features include a full size baseball field, newly installed play structure, and a variety of small barbeque grills and pavilions. Play equipment, park furnishings, and restroom facilities appear to be dated and lacking in maintenance. Additionally, the adjacent neighborhood shares a fenced border, which in many places has fallen into disrepair. The park has street parking for neihgborhood residents, and a nicely shaded connection to the adjacent public library.

STRATFORD PARK RECOMMENDATIONS

Total estimated improvement cost: $302,502 - $684,687

Project
Enhance park safety by replacing the chain link fence on the south and west sides to screen park for users and residents.
Increase shade by tree installation throughout park
Provide wayfinding signs at both entrances of park, one adjacent to library and one at entry path from parking to the east of the park.
Enhance park entrances with native planting.
Add native planting/flowering mix to vegetated swale along Stratford St. to provide diversity of plants and improve character of entrance.
Add secondary paths to access all park amenities, focusing on baseball field and connection to library.
Add ADA compliant path between main path and picnic pavilions.
Add dark sky compliant, pedestrian pole lighting around playground trail loop and proposed trail connecting to baseball field.
Install shade structure to the existing bleacher (Total 1 structure).
Replace existing concrete picnic tables with ADA compliant picnic tables
Add benches along the play area and new proposed secondary paths.
Update restrooms to include changing tables in men's, women's, and gender neutral restrooms. Update restrooms to be universally accessible.
Add dog waste stations.

DOW #1 PARK

15401 GREENDALE DRIVE
HOUSTON,TX
CENTRAL ZONE
9 ACRES
NEIGHBORHOOD PARK

PARK RANK #22

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	68%
Community Health	66%
Environmental Vulnerability	61%
Park Access	57%
Combined Suitability Analysis Score	75%

●=20% ◐=10%

SUITABILITY ANALYSIS

Dow #1 Park is located in a census tract with low economic stability and high educational stability. It's in a block group with low chronic illness and very high mental health. It is partially within 100 feet of a highway and is completely in a floodplain. It has low walking access.

PARK ASSESMENTS

Park Access	1.52
Park Features	N/A
Supportive Facilities	2.50
Safety and Maintenance	2.85
Aesthetics	1.80
Health	2.53
Culture and Accessibility	2.40
Combined Park Assessment Score	2.13

●=1 ◐=.5

PARK ASSESMENTS

The park features small and large baseball fields, a T-ball field, a football field, a playground and picnic area. ADA accessible restrooms are available.

DOW #1 PARK RECOMMENDATIONS

Total estimated improvement cost: $594,831 - $1,101,848

Project
Redesign interior parking area to include perimeter curb and new pavement
Add linear planting strip with trees between interior parking and exterior parking along Greendale Street.
Enhance entrance to the park with improved entry sign and native planting
Add wayfinding signage in multiple languages to match population. Signage to match Precinct Two brand standards.
Provide pedestrian access at main entrance with new sidewalk
Increase access and comfort for spectators by adding accessible pathways to athletic fields and seating accommodations
Redesign area at front of concession building by eliminating pavement and adding planting areas.
Add picnic tables at new entrance public space at front of concession building.
Add accessible paths to connect playground area and baseball fields
Add sidewalk to connect playground parking to pedestrian bridge on Greendale Street
Add sidewalk at north side of pedestrian bridge
Plant trees along all proposed paths where feasible
Update restrooms to include changing tables in men's, women's, and gender neutral restrooms. Update restrooms to be universally accessible.
Identify and establish areas for no-mow native vegetation
To improve the condition of this park and its character, consider the state of the existing buildings. The perception is that the buildings are outdated, and in some cases, dangerous. If replacement of buildings is cost prohibitive, consider making renovations to older buildings by replacing damaged wood and painting. This would require some structural analysis and additional professional services outside this project's scope of work.
It was observed that the chain link fence along the edges of the park is outdated and rusted. Evaluate the need for chain link fence along internal areas of the park and replacement of exterior chain link fence along the eastern edge of the park. Remove chain link that is not needed.
Stabilize and level bollards along the entry driveway.
Consider retaining a professional design team (Landscape Architect and Civil Engineer) to develop site and landscape design that reconfigures the entrance drive, vehicular, and pedestrian circulation to and from the parking areas. The current conditions of the entry drive do not allow users to have pedestrian access and major renovations would be needed.
Relocate trash receptacles from the entrance to the proposed pedestrian paths. This will reduce clutter at the entrance of the park
Evaluate conditions of soccer field to improve drainage and turf area

CEDAR BAYOU PARK

9600 HADDEN RD.
BAYTOWN,TX
EAST ZONE
170 ACRES
REGIONAL PARK

PARK RANK #23

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	29%
Community Health	26%
Environmental Vulnerability	35%
Park Access	75%
Combined Suitability Analysis Score	69%

●=20% ◖=10%

SUITABILITY ANALYSIS

Cedar Bayou Park is located in a census tract with economic and educational stability. It's in a block group with moderate physical and mental health, It has high air quality, very low urban heat, and very low walking access.

PARK ASSESMENTS

Park Access	0.67
Park Features	1.00
Supportive Facilities	3.00
Safety and Maintenance	2.14
Aesthetics	1.86
Health	2.20
Culture and Accessibility	1.00
Trails	2.13
Combined Park Assessment Score	1.67

●=1 ◖=.5

PARK ASSESMENTS

This large rural park encompasses 170 acres of mostly natural/ undeveloped land. There are multiple mulch foot paths used by the archery club. These foot paths and archery ranges are enveloped in dense canopy, along with one path situated under a large utility easement. At the center of the park, the archery club operates storage sheds, restrooms, and pavilions. Access to the park is restricted to archery club events, with a locked gate on a gravel road. The park was in a state of poor maintenance, both the facilities and natural areas. Vegetation was thick and overgrown, and was home to wildlife and insects.

CEDAR BAYOU PARK RECOMMENDATIONS

Total estimated improvement cost: $773,159 - $1,444,838

Project
Enhance entry to the park with concrete or asphalt apron driveway apron.
Update existing internal caliche/gravel road with asphalt or concrete road to improve accessibility.
Redesign parking lot to accommodate new pavement, exploring permeable options. Provide ADA designated parking with concrete pavement and connected to pedestrian network.
Add wayfinding signage in the park in keeping with Precinct Two brand standards.
Add a permanent restroom
Provide accessible route connecting parking lot to ceremonial grounds and practice range area.

EDNA MAE WASHINGTON PARK

PARK RANK #26

7613 WADE ROAD
BAYTOWN,TX
EAST ZONE
28.9 ACRES
COMMUNITY PARK

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	69%
Community Health	79%
Environmental Vulnerability	33%
Park Access	55%
Combined Suitability Analysis Score	79%

●=20% ◐=10%

SUITABILITY ANALYSIS

Edna Mae Washington Park is located in a census tract with high educational stability and moderate social cohesion. It is in a block group with moderate mental and physical health. It has high air quality, is outside of 500 feet of a highway, and very low walking access.

PARK ASSESMENTS

Park Access	2.89
Park Features	4.00
Supportive Facilities	3.00
Safety and Maintenance	3.27
Aesthetics	3.11
Health	3.12
Culture and Accessibility	1.71
Trails	2.50
Combined Park Assessment Score	2.93

●=1 ◐=.5

PARK ASSESMENTS

Edna Mae Washington Park is a community park with a wide variety of uses. The park is coupled with a community center, large covered basketball court, baseball fields, multiple play structures, and a rodeo arena in the back. Concrete trails connect the sports fields, play structures, and community center. Components of the park have begun to be upgraded, including the play structures, shade structures, and a new splash pad. Other amenities are outdated in need of maintenance. Parking is abundant, but lacks adequate shade and lighting.

EDNA MAE WASHINGTON PARK RECOMMENDATIONS

Total estimated improvement cost: $860,808 - $1,958,086

Project
Provide a minimum of four benches to the Basketball Pavilion or four benches on each long side of the court (8 total)
Add accessible paths to picnic areas, baseball fields and connection between parking lot and larger loop path
Provide accessible path connecting to Game Hut for people with disabilities
Provide ADA compliant table to Game Hut for people with disabilities
Enhance overflow parking on north side with trees and native planting areas within the parking lot
Increase tree canopy along the edges of parking lots to the east and south of the park
Add trees around the perimeter of the new splash pad
Convert previously mowed turf areas to seeded native prairie grass and wildflowers, specifically in fields between the loop path on the west side, between baseball fields and tennis courts, and in turf areas between paths around the central playground/basketball court
Create no mow zones to cut down on maintenance, specifically on the far north and south edges along parks perimeter fencing.
Enhance existing grass drainage swales along the southern edge, through the middle of the park along baseball field, and along the overflow parking with vegetated swales including native planting.
Add shade structures over older play structure (south) to match new play area (north)
Provide trees along the southern side of South Playground area
Enhance pedestrian trail connection, lighting, and signage at rodeo area in back of the park

MICHAEL MONCRIEF PARK

16800 BEAR BAYOU
CHANNELVIEW,TX
EAST ZONE
3.4 ACRES
MINI PARK

PARK RANK #27

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	63%
Community Health	89%
Environmental Vulnerability	31%
Park Access	45%
Combined Suitability Analysis Score	77%

●=20% ◖=10%

SUITABILITY ANALYSIS

Michael Moncrief Park is located in a census tract with moderate economic stability and social cohesion. It is in a block group with very high chronic illness and moderate mental health. It has moderate air quality and partially in a floodplain and partially at high sea level rise risk.

PARK ASSESMENTS

Park Access	1.32
Park Features	3.25
Supportive Facilities	3.08
Safety and Maintenance	3.62
Aesthetics	2.17
Health	3.17
Culture and Accessibility	2.14
Combined Park Assessment Score	2.65

●=1 ◖=.5

PARK ASSESMENTS

This park features a small playground, picnic area, and observation deck to overlook Bear Lake. There are some mature trees that help screen the park from adjacent residences. The park does not have a sign and or accessible pedestrian access from the street.

MICHAEL MONCRIEF PARK RECOMMENDATIONS

Total estimated improvement cost: $206,981 - $545,160

Project
Add entry signage
Add native planting at entry for an enhanced entry character.
Add a more visually appealing fence to enhance welcoming character of the park
Add sidewalk and pedestrian gate for a pedestrian, accessible entrance
Replace concrete picnic tables with updated fixtures, similar in character to the pavilions to maintain consistency
Add benches throughout the park
Introduce native plants and convert grass swale to vegetated swale
Add educational signage along new vegetated swale
Add seating on observation deck
Restore water's edge planting condition along Bear Lake through a combination of grow zones, and planting
Add additional accessible pathways to make a walking loop around park perimeter, make accessible connections to more picnic tables and grills
Add accessible swing and playground elements for children of a range of abilities and ages to be able to participate in all activities.
Add permanent restroom
Add trees and native planting to parking lot
Add signage in keeping with Precinct Two brand standards to show connections and proximity to nearby parks

CEDAR GROVE PARK

13405 MAUDEAS
CEDAR GROVE,TX
EAST ZONE
0.6 ACRES
MINI PARK

PARK RANK #35

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	67%
Community Health	77%
Environmental Vulnerability	30%
Park Access	49%
Combined Suitability Analysis Score	75%

●=20% ◖=10%

SUITABILITY ANALYSIS

Cedar Grove Park is in a census tract with moderate economic and educational stability. It's in a block group with high chronic illness and moderate physical and mental health. It has high air quality, very low urban heat, and is outside of a floodplain.

PARK ASSESMENTS

Park Access	3.08
Park Features	3.50
Supportive Facilities	2.50
Safety and Maintenance	3.82
Aesthetics	3.44
Health	2.98
Culture and Accessibility	1.58
Combined Park Assessment Score	3.02

●=1 ◖=.5

PARK ASSESMENTS

Situated between 2 neighborhood roads, this pocket park features updated play equipment, shade structures, and abundant tree canopy cover. The play equipment promotes equitable use for all abilities, and provides a unique color branding. The park also features a mini basketball court, restrooms, and a grill station.

CEDAR GROVE PARK RECOMMENDATIONS

Total estimated improvement cost: $83,915 - $152,750

Project
Enhance entry along Cedar Grove Dr with entry sign, shade, and water tolerant planting within vegetated swale.
Add pedestrian scale lighting at entrances of the park.
Add additional temporary restroom near the existing one.
Improve the parking lot by re-striping, including ADA parking access aisle
Provide bike rack at main entrance of park.
Replace existing concrete picnic tables with new picnic tables, ensure accessibility
Remove existing picnic pavilions. Add two picnic tables and one shade structure.
Replace metal picnic table under the existing pavilion with an ADA compliant picnic bench.

HIGHLANDS PARK

PARK RANK #29

604 HIGHLAND WOOD
HIGHLANDS,TX
EAST ZONE
12.8 ACRES
NEIGHBORHOOD PARK

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	69%
Community Health	78%
Environmental Vulnerability	34%
Park Access	60%
Combined Suitability Analysis Score	77%

●=20% ◖=10%

SUITABILITY ANALYSIS

Highlands Park is located in a census tract with moderate educational stability and high educational stability. It's in a block group with high chronic illness and moderate mental health. It has moderate air quality, very low urban heat, and is outside of a floodplain.

PARK ASSESMENTS

Park Access	2.93
Park Features	4.00
Supportive Facilities	3.00
Safety and Maintenance	3.49
Aesthetics	3.15
Health	3.12
Culture and Accessibility	2.03
Trails	2.75
Combined Park Assessment Score	3.04

●=1 ◖=.5

PARK ASSESMENTS

This large neighborhood park shares a lot with the Highlands Community Center. It features a looped path around the perimeter of the park, a large play structure, a new splash pad, and separated tennis and basketball courts. The separation of the tennis and basketball courts across the parking lot and road create a safety concern for pedestrians. Access to the park is unclear, as the park is behind the community center, and parking is combined with the community center. Many amenities have recently been upgraded; however, others are in need of maintenance.

HIGHLANDS PARK RECOMMENDATIONS

Total estimated improvement cost: $263,171 - $468,542

Project
Enhance entrances to the park with significant signage and native planting at intersection of Highland Woods Dr and N 7th St.
Enhance pedestrian safety between north area of park to the southern basketball and tennis courts by providing a sidewalk along main entry drive to parking and crosswalk at intersection of Highland Woods Dr. and N 7th Street.
Add planting areas with trees throughout parking to provide shade and reduce heat island effect
Add dark sky compliant, pedestrian pole lighting around loop path on the parks perimeter, around playground and field
Enhance existing grass drainage swales along Highland Woods Dr. with vegetated swales including native planting
Give more variety in recreation by adding park programming for fitness with signage for use.
Identify and establish areas for no mow native vegetation

RILEY CHAMBERS PARK

808 1/2 MAGNOLIA
CROSBY,TX
EAST ZONE
40.4 ACRES
COMMUNITY PARK

PARK RANK #36

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	66%
Community Health	77%
Environmental Vulnerability	29%
Park Access	56%
Combined Suitability Analysis Score	76%

●=20% ◖=10%

SUITABILITY ANALYSIS

Riley Chambers Park is in a census tract with moderate economic and educational stability. It's in a block group with moderate mental and physical health. It has high air quality, very low urban heat, is partially in a floodplain, and has low walking access.

PARK ASSESMENTS

Park Access	2.88
Park Features	3.75
Supportive Facilities	3.33
Safety and Maintenance	3.77
Aesthetics	3.89
Health	3.32
Culture and Accessibility	2.38
Trails	3.04
Combined Park Assessment Score	3.24

●=1 ◖=.5

PARK ASSESMENTS

Riley Chambers Park is 35.4 acres and contains one baseball field, two football fields, one basketball court, a half-mile jogging trail, two playgrounds, an amphitheater, a barbeque pavilion, picnic areas, a riding arena, two restrooms, parking near these amenities, and two community centers. There are a variety of amenities in this park that attracts all age groups. The playgrounds and pathways leading to them are not inclusive and lacks standard accessibility. There is a lack of native vegetation in the park. The Amphitheater seems old. There is a lack of lighting in the internal portions of the park.

RILEY CHAMBERS PARK RECOMMENDATIONS

Total estimated improvement cost (does not include equine facility): $18,456,001 - $18,752,245

Project
Improve internal pedestrian connectivity in the park by adding concrete pathways from the existing amphitheater to the playgrounds, and concrete sidewalks, ramps and crosswalks from west side of the park to the fields on the right.
Add concrete pathways to existing picnic pavilions to increase accessibility.
Replace existing concrete picnic tables with new furnishings and larger concrete pad to provide accessibility and comfort.
Add trees to the walking/hiking pathway to provide shade and buffer noise coming from the water treatment facility on the west side of the park.
Add dark sky compliant, pedestrian pole lighting along proposed internal pathways and pathway connecting playgrounds
Enhance existing drainage swales with native planting to reduce bank erosion and enhance aesthetic experience.
Regrade and update pathways near play areas to be ADA compliant
Replace some standard swing seats with inclusive swing seats.
Provide shade structure for the existing bleachers near the baseball field (Total 2 structures)
Provide bike racks adjacent to fields and playground area.
Restripe ADA parking areas adjacent to amphitheater to include appropriate access aisles and comply with Texas Accessibility Standards and ADA Standards.
Maintain existing amphitheater structure by cleaning roof structure and refinishing wood elements.
Expand the park in the north to add an equine facility.*

**Provided by Harris County Precinct 2, design and planning underway*

CLEAR LAKE PARK 1

NASA ROAD 1
PASADENA,TX
SOUTH ZONE
59 ACRES
COMMUNITY PARK

PARK RANK #50

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	37%
Community Health	55%
Environmental Vulnerability	49%
Park Access	60%
Combined Suitability Analysis Score	59%

●=20% ◖=10%

SUITABILITY ANALYSIS

Clear Lake Park 1 is in a census tract with high economic stability and very high educational stability and social cohesion. It has low chronic illness and high physical health. It has very high air quality, low urban heat, and is partially at very high sea level rise risk.

PARK ASSESMENTS (CLEAR LAKE PARKS 1 AND 2 WERE ASSESSED AS ONE PARK)

Park Access	3.33
Park Features	3.75
Supportive Facilities	3.67
Safety and Maintenance	4.39
Aesthetics	3.25
Health	3.37
Culture and Accessibility	3.21
Trails	3.15
Combined Park Assessment Score	3.57

●=1 ◖=.5

PARK ASSESMENTS

The park is divided by E Nasa Parkway into two zones one to the North and one to the South. The Northern zone is composed by sportfield amenities, the Bay Area Community Center, the Bay Area Museum and a more natural edge along Mud Lake with picnic areas, playground, workout stations and a rowing club. In general, most facilities are in good condition, but it lacks accessible connections throughout the fields and around parking areas for safe pedestrian access, and shade for human comfort.

CLEAR LAKE PARK 1 RECOMMENDATIONS

Total estimated improvement cost: $1,072,672 - $1,608,625

Project
Add accessible path along outer and inner edges of main parking loop
Add interior/secondary walking paths throughout the fields
Enhance pedestrian accessibility by adding crosswalks connecting the accessible path along outer and inner edges of main parking loop
Add a new concrete path by the edge of the lake to connect to the existing boat house
Add pedestrian lighting along the trails near the play area and the boat house
Repair damaged light fixtures throughout the park
Provide shade trees along the accessible path near the outer edges of main parking loop, the trails accessing the boat house, and the secondary trails inside the fields.
Replace concrete parking spaces with planting area and a tree for every 10 parking space adjacent to the central fields
Add drinking fountains with ADA capability near the restroom at the baseball field
Update restroom at baseball field area to include changing tables in men's, women's, and gender neutral restrooms. Update restrooms to be universally accessible.

CLEAR LAKE PARK 2

NASA ROAD 1
PASADENA,TX
SOUTH ZONE
ACREAGE INCLUDED IN CLEAR LAKE PARK 1 ABOVE COMMUNITY PARK

PARK RANK #48

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	37%
Community Health	55%
Environmental Vulnerability	56%
Park Access	57%
Combined Suitability Analysis Score	60%

●=20% ◖=10%

SUITABILITY ANALYSIS

Clear Lake Park 2 is in a census tract with high economic stability and very high educational stability and social cohesion. It's in a block group with low chronic illness and mental health. It has very high air quality and very low urban heat.

PARK ASSESMENTS (CLEAR LAKE PARKS 1 AND 2 WERE ASSESSED AS ONE PARK)

Park Access	3.33
Park Features	3.75
Supportive Facilities	3.67
Safety and Maintenance	4.39
Aesthetics	3.25
Health	3.37
Culture and Accessibility	3.21
Trails	3.15
Combined Park Assessment Score	3.57

●=1 ◖=.5

PARK ASSESMENTS

The Southern zone at the edge of Clear Lake is composed by larger picnic pavilion, Playground areas, Restrooms, a splash pad, fishing piers and boat launch. Although in fair condition, the park lacks shade and pedestrian access to the edge of the lake.

CLEAR LAKE PARK 2 RECOMMENDATIONS

Total estimated improvement cost: $476,008 - $877,237

Project
Add pedestrian access from E. Nasa Parkway to include accessible sidewalk and pedestrian gate
Add walking pathway and seating areas by the edge of the lake and connect to the existing amenities
Add one tree for every 10 parking spaces at the boat launch parking.
Rejoin disconnected pathways to recommended pathway near water edge
Add picnic tables, benches, and shade structures (if applicable) near water edge
Provide additional shade trees throughout the park along existing and recommended trail connections
Update restrooms to include changing tables in men's, women's, and gender neutral restrooms. Update restrooms to be universally accessible.
Add picnic tables for pavilions throughout the park
Add Kayak/canoe launch area

PARTNERSHIP PARK

PARK RANK #43

5150 RED BLUFF ROAD
PASADENA,TX
SOUTH ZONE
28 ACRES
COMMUNITY PARK

SUITABILITY ANALYSIS

Socioeconomic Vulnerability	54%
Community Health	59%
Environmental Vulnerability	40%
Park Access	58%
Combined Suitability Analysis Score	65%

●=20% ◐=10%

SUITABILITY ANALYSIS

Partnership Park is in a census tract with moderate economic stability and social cohesion. It's in a block group with low chronic illness and high physical health. It has moderate to high park access, moderate air quality, low urban heat, and is completely in a floodplain.

PARK ASSESMENTS

Park Access	2.87
Park Features	3.25
Supportive Facilities	3.33
Safety and Maintenance	4.02
Aesthetics	3.06
Health	2.82
Culture and Accessibility	2.40
Trails	3.00
Combined Park Assessment Score	3.11

●=1 ◐=.5

PARK ASSESMENTS

Partnership Park is composed of two large detention ponds with walking/jogging trails, picnic areas, some benches, a playground and restroom facilities. In addition the park has a dogpark to the Northeast of the property. In general the conditions of the park elements are good, however the biggest observations were lack of shade along trails, the existing parking is large, with limited shade and making the park uncomfortable during hot summer months and impacting the aesthetic character of the park. Pedestrian access from the main streets around the park are limited and not well connected.

PARTNERSHIP PARK RECOMMENDATIONS

Total estimated improvement cost: $1,547,299 - $1,714,473

Project
Partnership Park amenities are in good condition; decomposed granite trails, playground area and dog park are fairly new and do not require much attention at this time. However, the park is extremely hot during summer due to the lack of shade and large amount of impervious cover in the parking area. As a former residential development, parking was in high demand. As a park, there is no need for such a large parking area, which increases the heat island effect and stormwater runoff in the site. Re-use of this square footage could also increase the type of amenities, such as fitness stations along trails, mile markers, and additional picnic or seating areas.
Modify the parking to reduce impervious cover and provide additional planting area. Demolish the row of parking adjacent to the residential complex to the east of the park and add planting area with trees.
Replace concrete parking spaces with planting area and a tree for every 10 parking spaces adjacent to the park.
Provide trees along existing decomposed granite trails within all areas of the park, including dog park
Add a drinking fountain with pet and ADA features along the southern detention pond trail.
Add picnic tables at north of Southern detention pond.
Provide better pedestrian access by adding sidewalk connections along Denkman St and Glenwood Dr. Also add a sidewalk along south east side of the southern detention pond.
Add a DG pathway north side of the existing playground with connections to the existing trails.
Enhance pedestrian accessibility by adding a crosswalk near the intersection of Denkman St and Inca Dr.
Create no mow zones and add native habitat to the park by planting native prairies and wildflowers on the east and north side of the southern detention area and north side of the northern detention area

6. DESIGN GUIDELINES SUMMARY + CASE STUDIES

INTRODUCTION

In addition to this Precinct 2 Parks and Trails Plan document, a standalone Design Guidelines Toolkit was developed that can be used by the Harris County Precinct 2 Parks Department and partners to guide future expansions, renovations, and new park development. This chapter summarizes what is included in the Design Guidelines standalone document.

The previous Goals and Objectives Chapter outlines how parks should be more: Safe, Accessible + Connected, Healthy, Culturally Relevant, Engaging, Environmentally Resilient, and lastly, Economically Resilient. These 7 goals helped provide a framework for how Precinct 2 Parks and Trails can achieve this using 4 major Design Guidelines themes including:

- **Community-Focused:** This section focuses on how Precinct 2 parks can provide cultural programming that brings communities together. It also references the ways parks can be sources of economic development through small ventures such as food trucks, markets, and concessions. Overall it looks to promote community wellness, safety, health, and a stronger sense of place by focusing on Placemaking, Economic Development and Safety to achieve parks that are more community-focused.
- **Resilient and Vibrant:** This section provides guidelines on how Precinct 2 can use native plantings, green infrastructure, and land restoration strategies to support ecological and community health as well as for sustainable stormwater management.
- **Cohesive and Comfortable:** This toolkit focuses on standards for benches, shade structures, trash receptacles, and other site furnishings in parks and along trails. These guidelines will provide a cohesive look to Precinct 2 parks, as well as ensure accessibility for all visitors.
- **Active**: This section describes how accessible and connected biking and walking trails can facilitate movement to, from, between, and within Precinct 2 parks.

COMMUNITY FOCUSED-DESIGN PROCESS

- **Placemaking** is manifested through many features including Parking Lots, Trailheads, Paths, Playgrounds, among other key amenities for parks. Overall, supporting efforts to uplift unique neighborhood characteristics is the overarching recommendation provided in this section. Identifying how park features, park programming, and park elements can help users understand the context of the community, neighborhood, or even eco-region they are in informs this placemaking theme.
- **Economic Development** is also a pivotal way to uplift communities as well as the Park Department toward economic resilience. Our recommended guidelines focused on how Pop-up Markets, Fresh Food Markets, Rental Kiosks, Programming, and Park concessions can support in strengthening communities and the Parks Department toward the 7 Goals and Objectives outlined in previous chapters.
- **Safety** is supported at parks in many ways to influence Pedestrian Safety, Bicycle Safety. There are both built and programmatic elements that can increase safety throughout Precinct 2 parks.

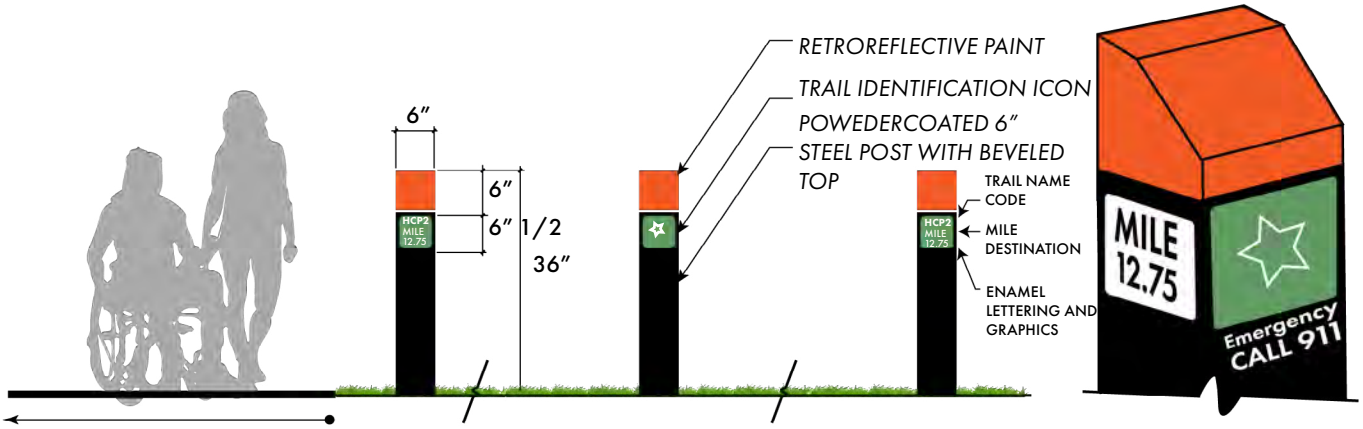
Park at Palm Center. Source; Asakura Robinson

Third Ward Mini-Mural. Source: Copyright © Mini Murals. Brought to you by UP Art Studio

The first round of watering newly planted vegetables at the Park at Palm Center's Community Garden Source: Asakura Robinson

Outdoor air market with mobile vendors and activities. Source: Daví de la Cruz

Kayak launch. Source: State of Michigan, Department of Natural Resrouces Kayak Launch



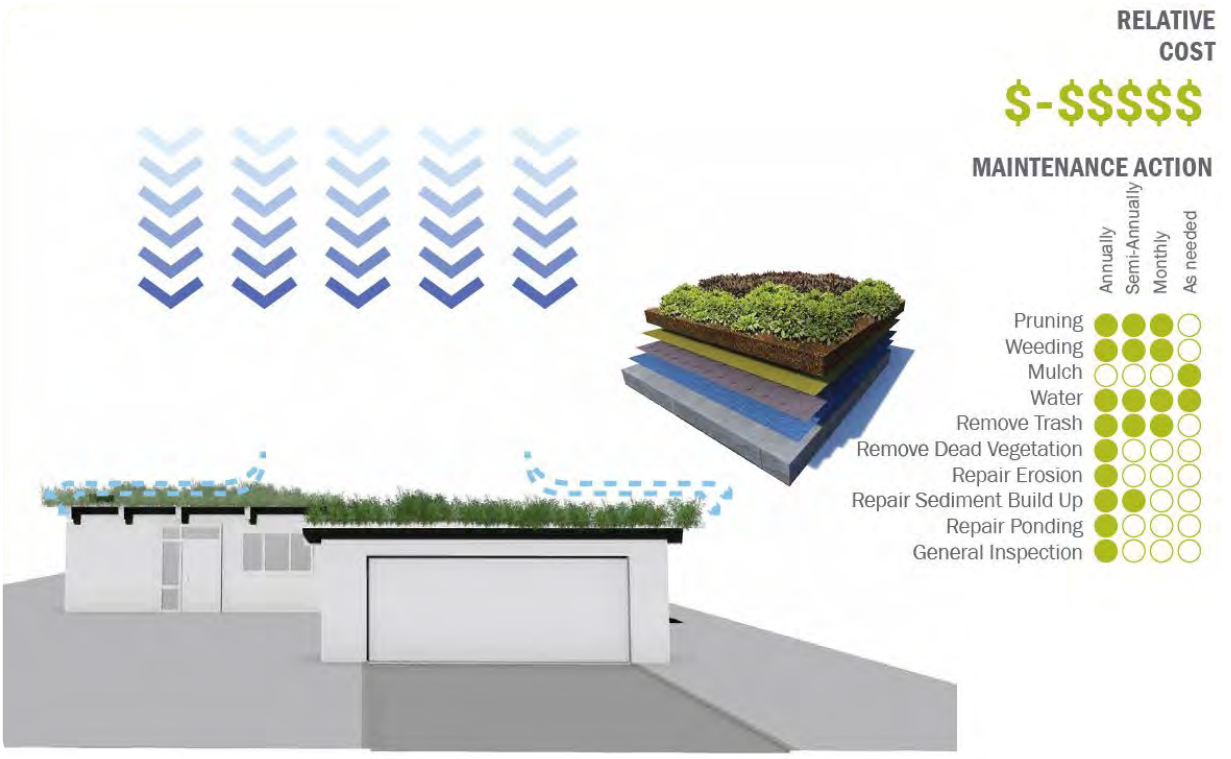
Elevation: Not drawn to scale

RESILIENT AND VIBRANT

Green Infrastructure can be implemented in both small and large scales to promote resilience and vibrancy throughout Precinct 2 parks. In order to determine this, considerations related to park acreage and whether or not stormwater runoff is received is a key part to determining the scale of green infrastructure needed for Precinct 2 Parks.

In addition, the document also outlines Planting Guidelines such as dimensions and locations of plants and trees along trails, species recommendations, as well as palettes and plant communities from grasses, to shrubs, to forbs and vines.

Example of Low Impact Development that infiltrates stormwater flowing off a parking lot.
Source: Tomkins County



Green roof. Source: Houston-Galveston Area Council

Porous asphalt. Source: waternow.org

Pocket prairie. Source: The Nature Conservancy

Porous pavers. Source: Center for Neighborhood Technology

Joe-Pye Weed
Source: Ladybird Johnson Wildflower Center

Marsh restoration. Source: Houston Chronicle

Buffalo Bayou. Source: David Lloyd

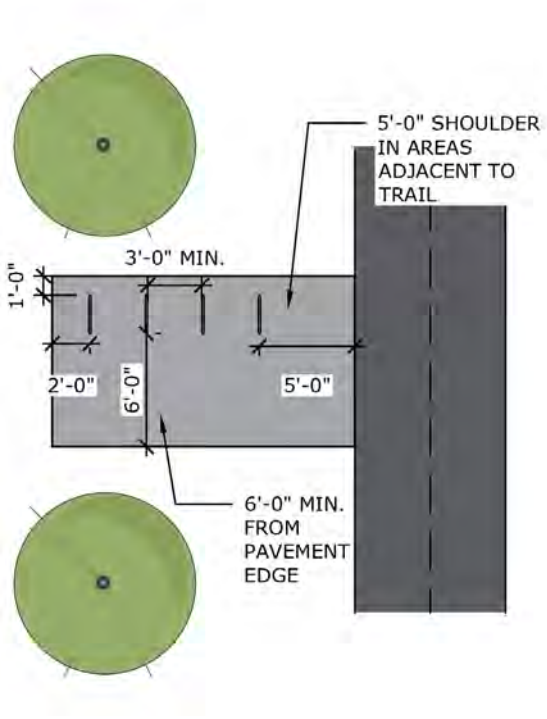
COHESIVE AND COMFORTABLE

As part of the Cohesive and Comfortable section, we provide recommendations on the types of site furnishing that can promote accessibility, programming, and universal design. In addition to site furnishings such as benches, tables, bike racks and trash receptacles, we also provide recommendations to include Handwashing Stations, Emergency First Aid Stations, Dog Waste Stations, Wayfinding and Signage, as well as Drinking Water Fountains and Lighting. In addition, there was a focus on Water Access through several amenities such as boat ramps, boardwalks, and floodable hardscapes to integrate landscape into the systems surrounding it. Lastly, parking recommendations are made to ensure accessibility and comfort for park-users.

Key Bike Rack. Source: Landscape Forms

Accessible Picnic Table
Source: Anova Furnishings

Bench
Source: Buffalo Bayou



Bicycle Parking Layout, Not to Scale

Slope pole light. Source: Landscape Forms

Mesa Structure. Source: Classic Recreation Systems

White Oak Bayou Trail. Source: Houston Bike Plan

Eastern Glades. Source: Houston Public Media

Levy Park vegetated parking screen. Source: Asakura Robinson

ACTIVE

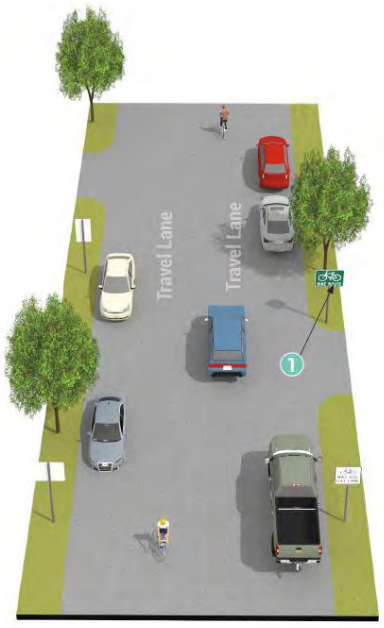
Active Transportation can be encouraged more thoroughly at Precinct 2 Parks, we outline specifically how this can be done through added facilities, improved intersections, off-street bike paths, on-street facilities such as bike-lanes. In addition to promoting Active Transportation, looking to encourage exercises at parks as well is critical to promoting health at all Precinct 2 Parks.

Active Recreation can be encouraged through the improvement of Sports Fields, Playgrounds and the myriad of types of playground that exists, as well as fitness equipment can support with encouraging social and physical health in communities.

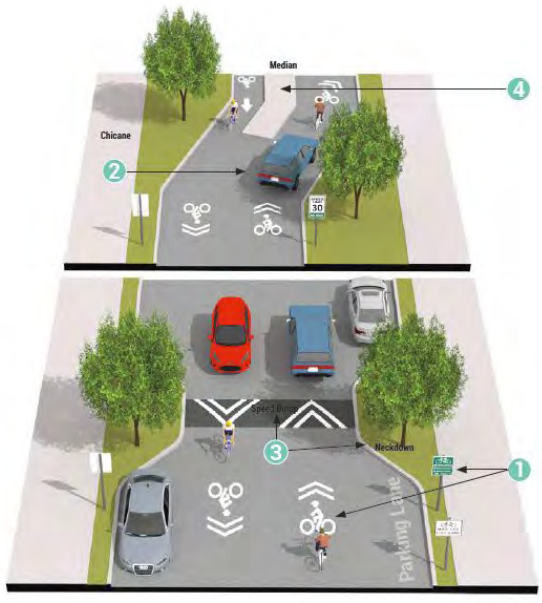
Trail Guidelines is the remaining portion in this section that looks to provide specific recommendations on trail width and relationship to pedestrian paths. Cross Section Graphics help support the ideas presented, as well as presenting the typologies of paths such as Main Trails, Secondary Trails and Tertiary Trails that can support circulation, safety, and movement within and throughout park sites. While accessibility is brought up in multiple sections throughout this standalone document, we look to identify additional features that promote accessibility, as well as provide a specific section related to universal design outlining how and why this should be implemented throughout park sites.

White Oak Bayou Shared Use Trail. Source: Asakura Robinson

A pocket park half-court. Source: Southerland Shire



Neighborhood Shared Street. Source: HBP



Neighborhood Bikeway. Source: HBP

Wheelchair Accessible Swing. Source: Rolling Without Limits

RRFB. Source: TAMU Transportation Institute

Geothals Park Nature Playground. Source: Gary Paulson

Regional Park with varying sizes of fields. Source: Greater Bridgeport

Hoop rack with city logo. Source: DERO

Grid bike rack. Source: DERO

CASE STUDIES

INTRODUCTION

The following sections will demonstrate how the Design Guidelines are intended to be applied to parks in Precinct 2. To illustrate the application of the Design Guidelines, five Tier 1 parks were selected to receive a conceptual design. These designs, along with explanations of history, context and character, are found on the following pages.

The five Tier 1 Case Study parks include:

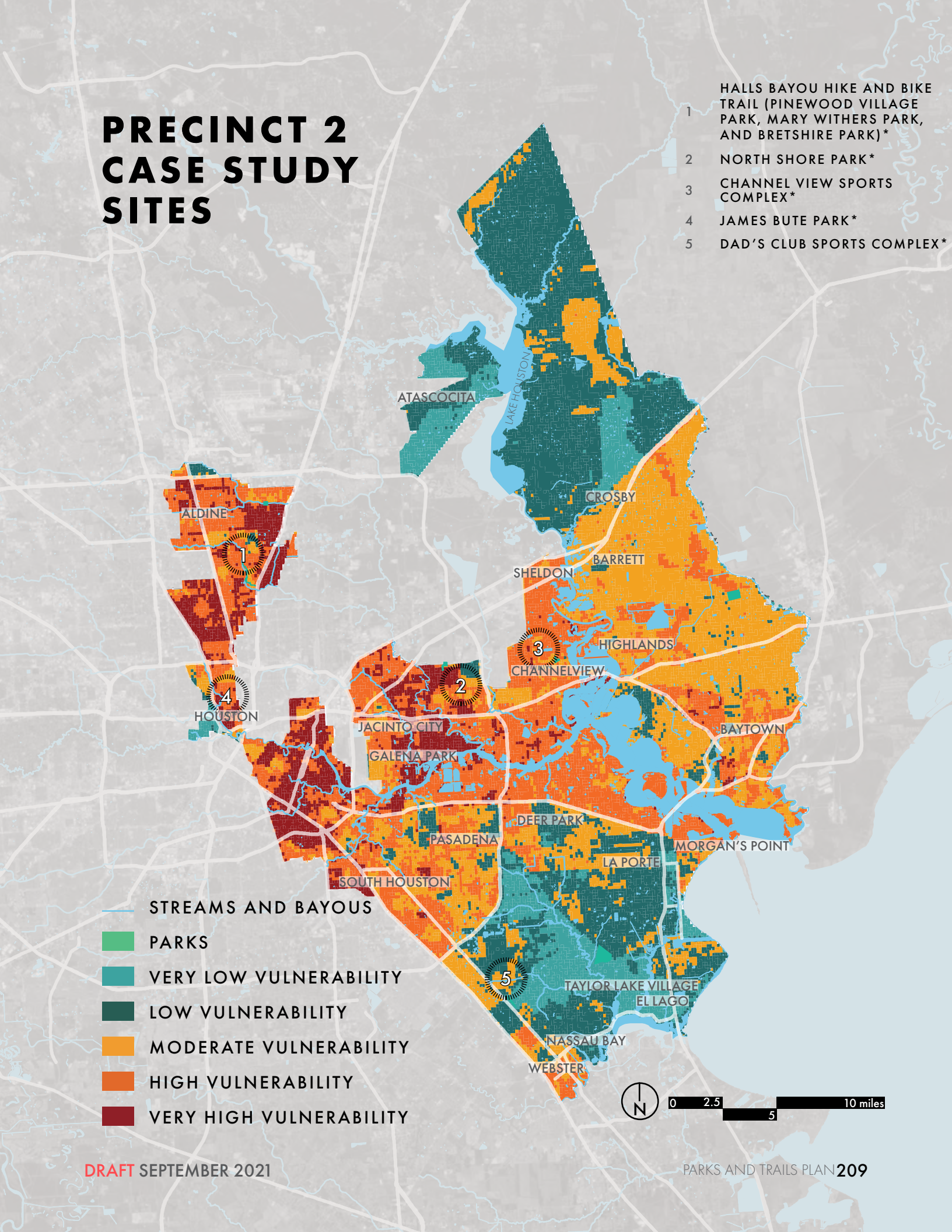
- Halls Bayou Hike and Bike Trail
    - » Mary Withers Park
    - » Bretshire Park
    - » Pinewood Village Park
- North Shore Park
- Channel View Sports Complex
- James Bute Park
- Dad's Club Sports Complex

CASE STUDY LAYOUT OVERVIEW

In order to provide background and connections to the 5 chosen sites within Precinct 2, each case study will include:

- **Location and History:** an overview and orientation to the park site; a general history of site development and adjacent historic land uses
- **Existing Conditions and Character:** a summary of the report cards generated in previous sections to outline why this park was chosen and how this site's conditions and character affect the proposed design
- **The Proposed Design:** key elements from the plan including descriptions; application of the Design Guidelines
- **Goals and Objectives:** Relevance to Design Decisions for the site
- **Connections Between Parks:** outline circulation and connectivity of different sites
- **Known Land Use and Coordination:** history and recommendations related to potential partnerships; consideration for coordination for future renovations, expansions, or park additions accounting for suggested alternatives and design

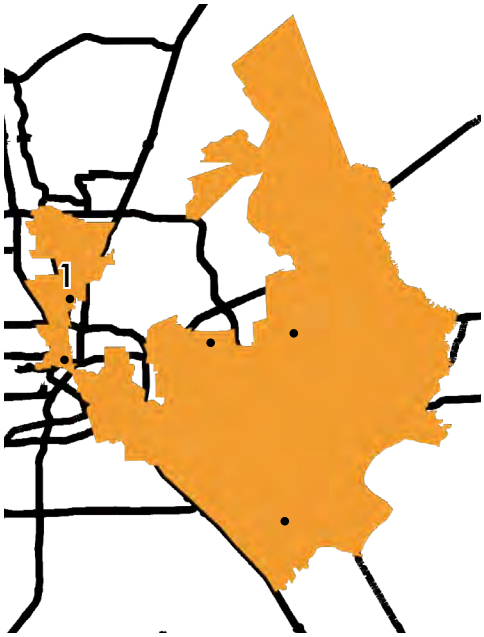
PRECINCT 2 CASE STUDY SITES

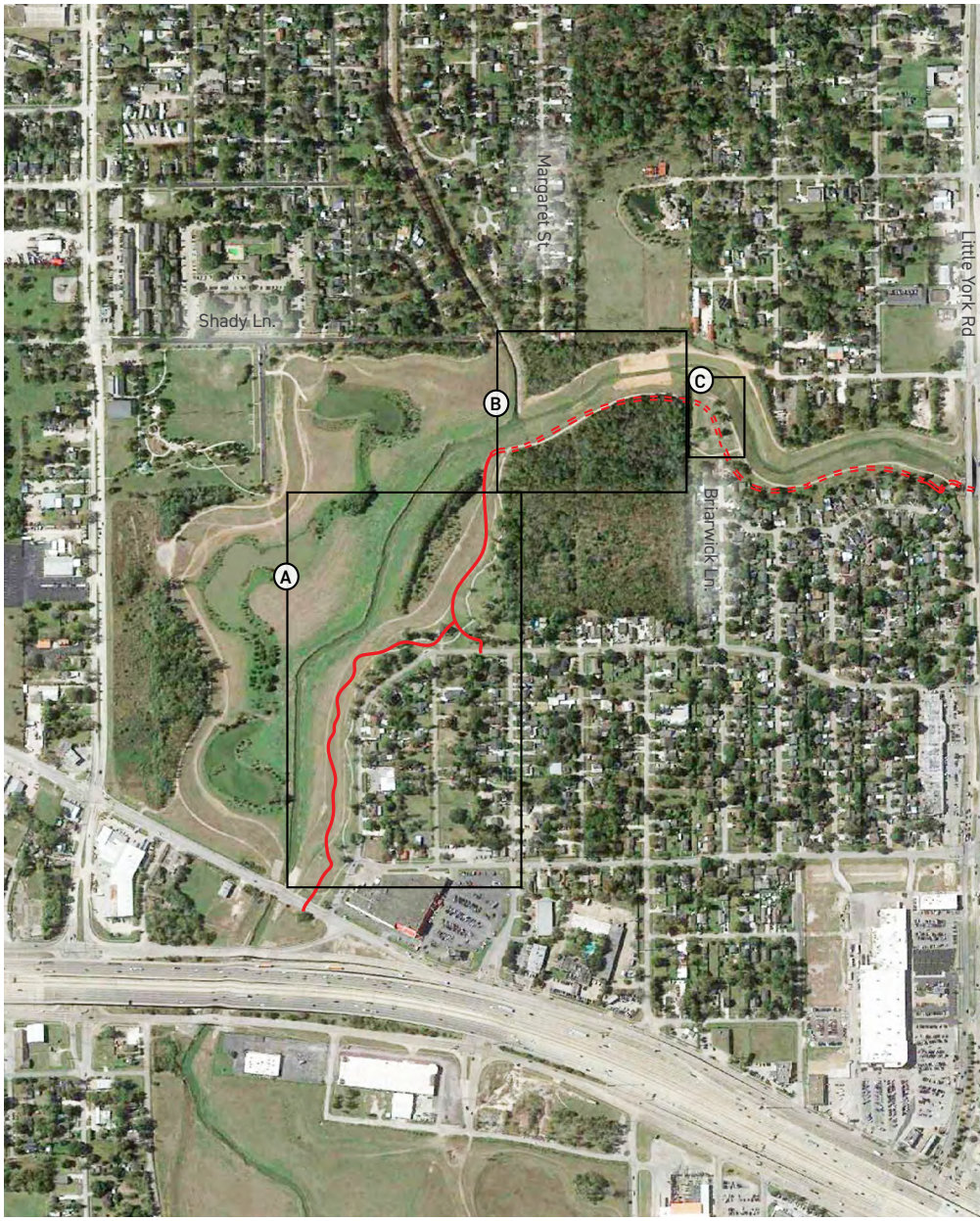


DRAFT SEPTEMBER 2021

CASE STUDY 1: HALLS BAYOU HIKE AND BIKE TRAIL

PINEWOOD VILLAGE, MARY WITHERS, AND BRETSHIRE PARKS





(A) Bretshire Park (See Enlargement Plan A)
(B) Mary Withers Park (See Enlargement Plan B)
(C) Pinewood Village Park (See Enlargement Plan C)

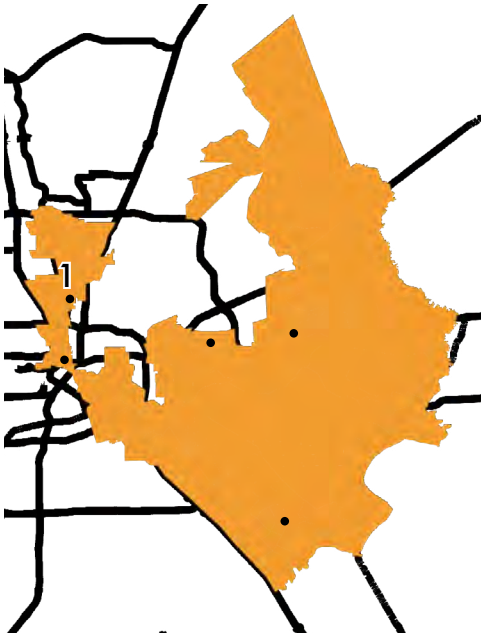
Existing Sidewalk
Proposed Sidewalk

EXISTING CONDITIONS

0 400' 800' 1600'

CASE STUDY 1: HALLS BAYOU HIKE AND BIKE TRAIL

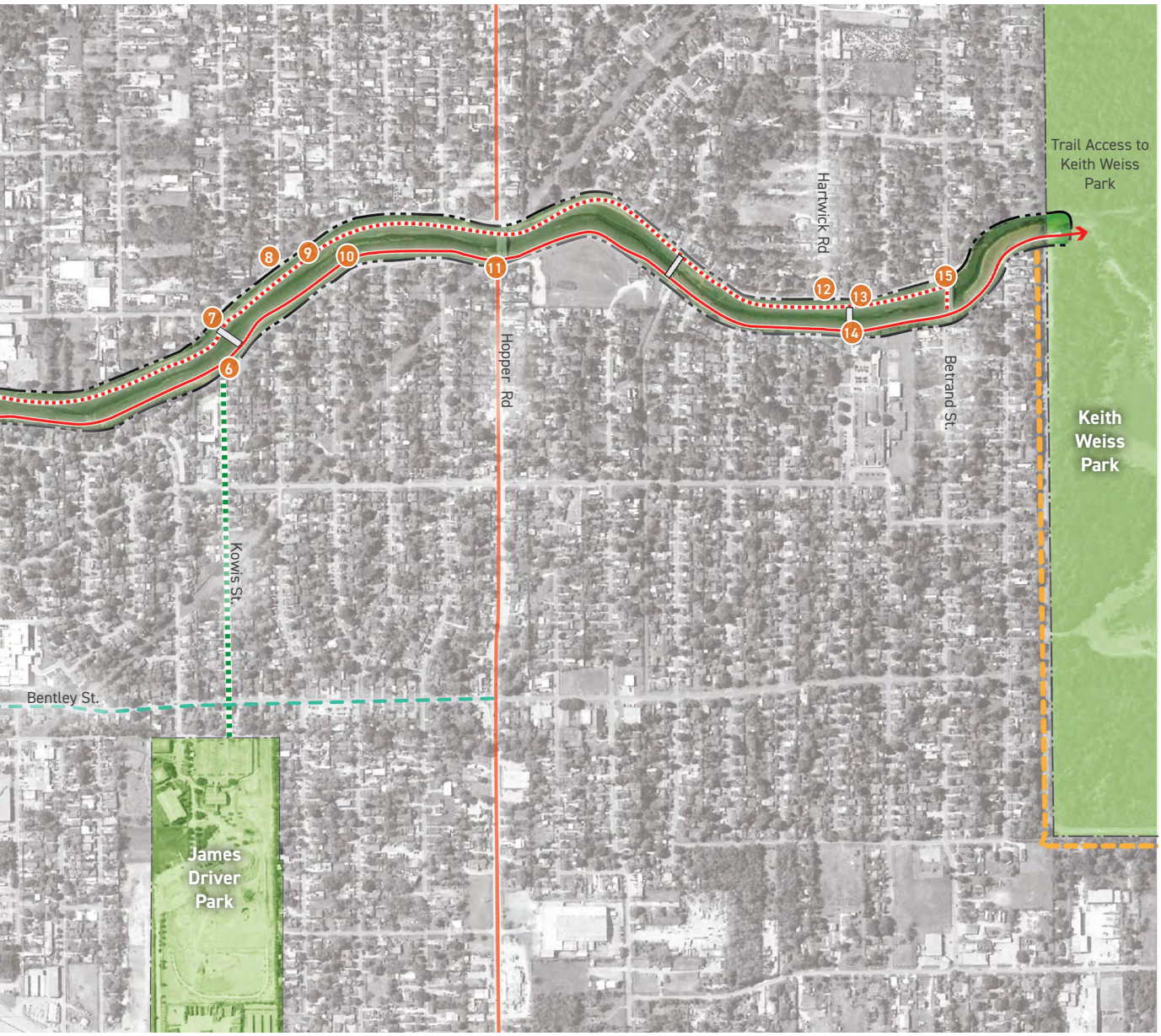
PINEWOOD VILLAGE, MARY WITHERS, AND BRETSHIRE PARKS



1. Trail access from Shady Lane Park
2. Trail access from Margaret Street
3. Trail access from Briairwick Lane
4. Proposed pedestrian bridge
5. Trail access and enhanced pedestrian road crossings
6. Proposed bike and pedestian connection along Kowis Street., refer to ongoing Kowis St. Project.
7. Improve pedestrian access to existing pedestrian bridge
8. Pedestrian connection to intersecting street
9. Provide concrete trail on the west side of the Bayou.(10ft wide min.)
10. Replace existing concrete trail. (
11. Trail entry from
12. Proposed acces
13. Improve pedest existing pedestr

0 400' 800' 1600'

EXISTING CONDITIONS



g asphalt trail with 10ft wide min.)

Hopper Rd

s to Hartwick Rd.

rian access to rian bridge

14 Access to Worsham Elementary School

15 Provide trail access to bridge

(A) Bretshire Park (See Enlargement Plan A)

(B) Mary Withers Park (See Enlargement Plan B)

(C) Pinewood Village Park (See Enlargement Plan C)

Existing Pedestrian Bridge

Proposed Pedestrian Bridge

Existing Concrete Trail

Replace existing asphalt trail with concrete trail

Proposed Concrete Trail

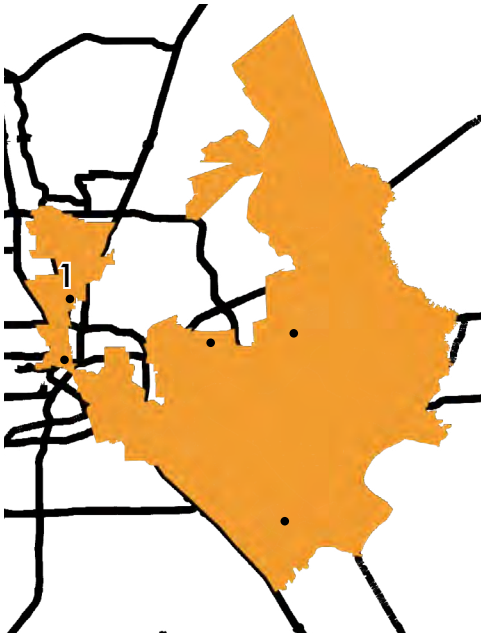
Proposed trail adjacent to street R.O.W

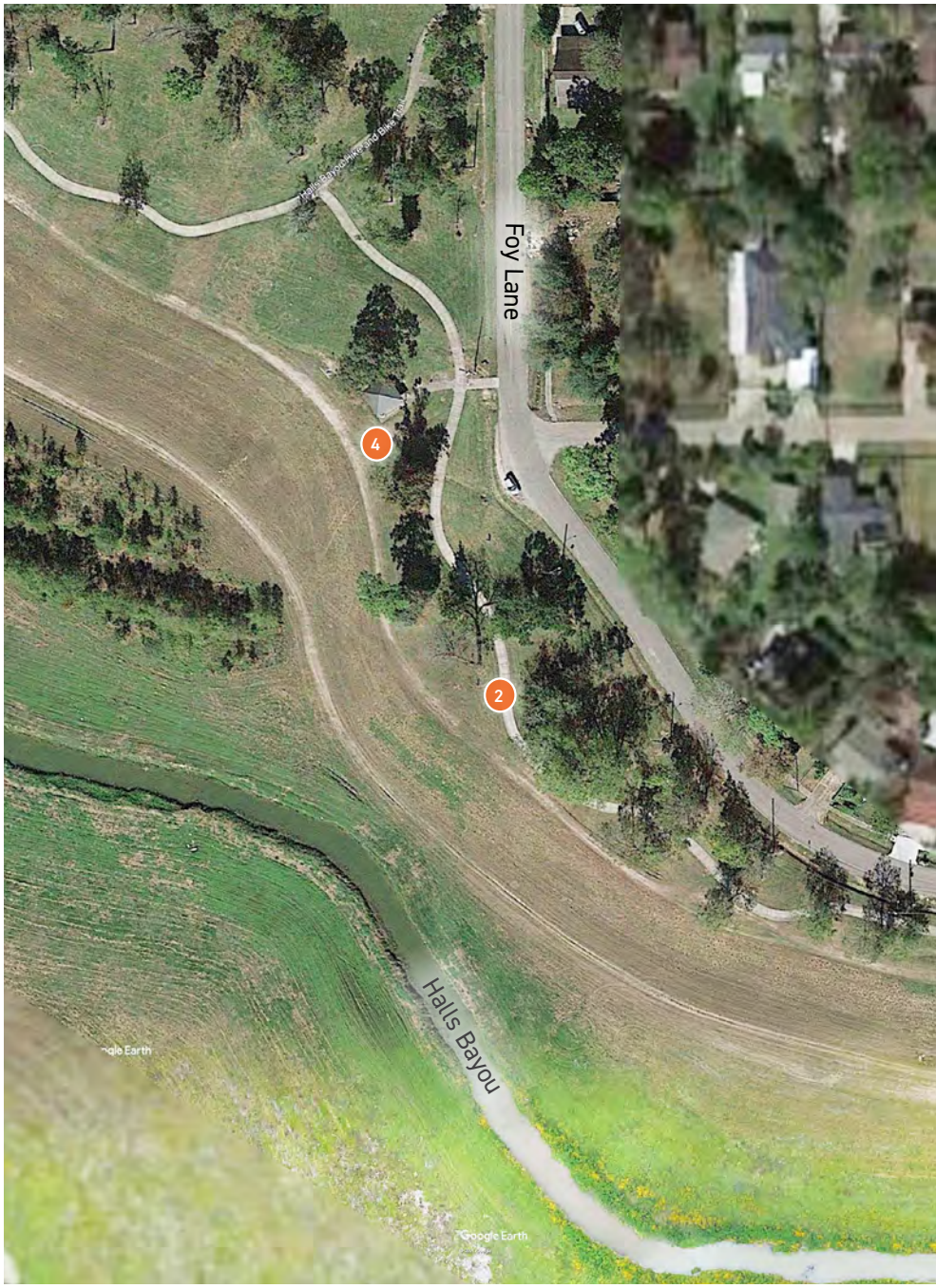
Proposed Trail By Others

Ongoing Kowis St. Project

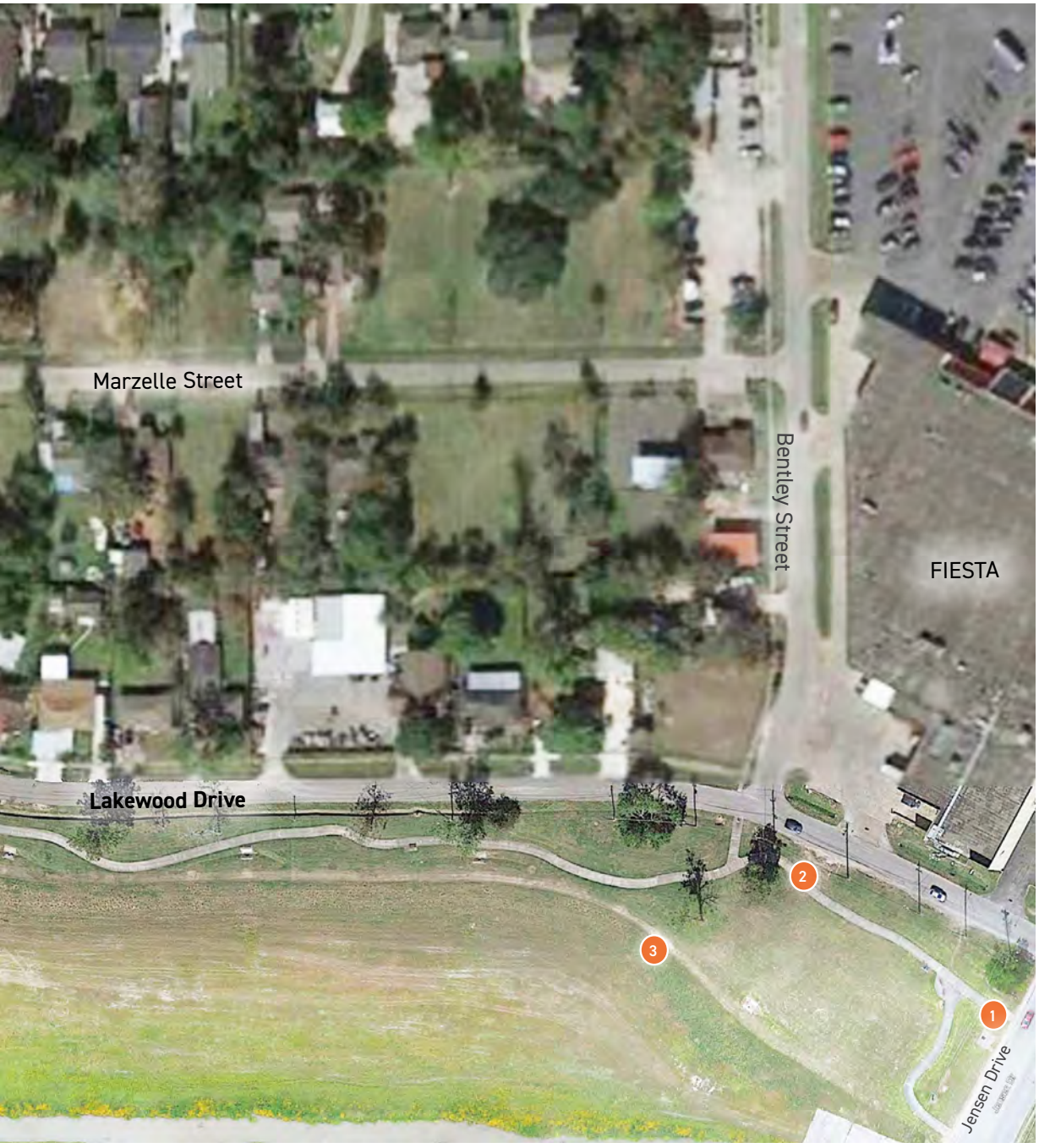
Tier 1 Connections/ Proposed Sidewalk Improvements

BRETSHIRE PARK (ENLARGEMENT PLAN A)





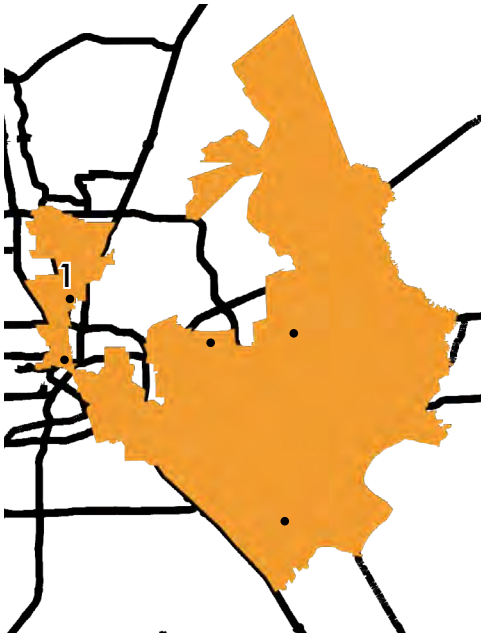
EXISTING CONDITIONS



LEGEND

1. Park Entrance
2. Concrete Trail
3. Maintenance Trail
4. Picnic Pavilion

BRETSHIRE PARK (ENLARGEMENT PLAN A)



CONCEPTUAL PLAN

LEGEND

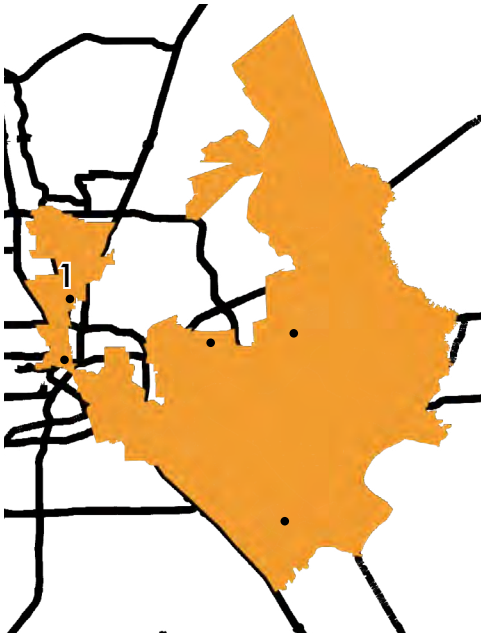
- 1 Enhanced Park Entrance
- 2 Proposed Street Parking
- 3 Food Trucks/Open-air Market
- 4 Open Lawn
- 5 Native Vegetation
- Existing Trees
- Proposed Tree 1
- Proposed Tree 2
- Proposed Tree 3
- Existing Bench
- Proposed Bench
- Existing Picnic Pavilion
- Proposed Picnic Pavilion
- Existing Concrete Trail
- Crosswalk
- Proposed Pedestrian Trail (8' wide concrete)
- Secondary Pedestrian Trail (6' Wide Concrete)
- Project Boundary

Note

Coordinate with Harris County Flood Control District for acceptable equipment and furnishings within floodway.

0 125' 250'

BRETSHIRE PARK (ENLARGEMENT PLAN A)



Open Lawn

Proposed Picnic Pavilion

Crosswalk

Bench

Nativ

PRECEDENT IMAGES

Food Trucks

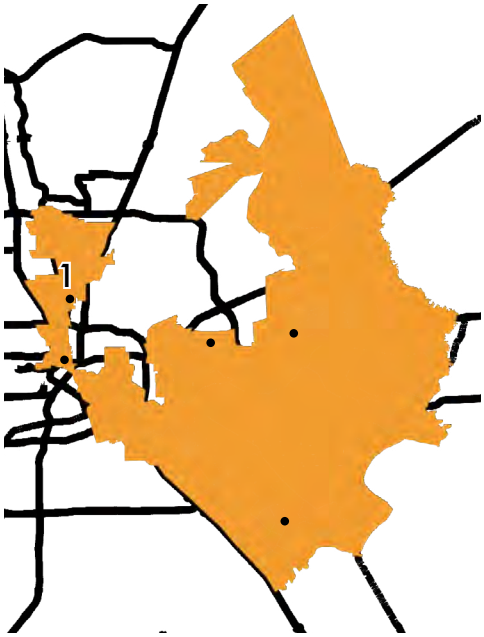
Open-air Market

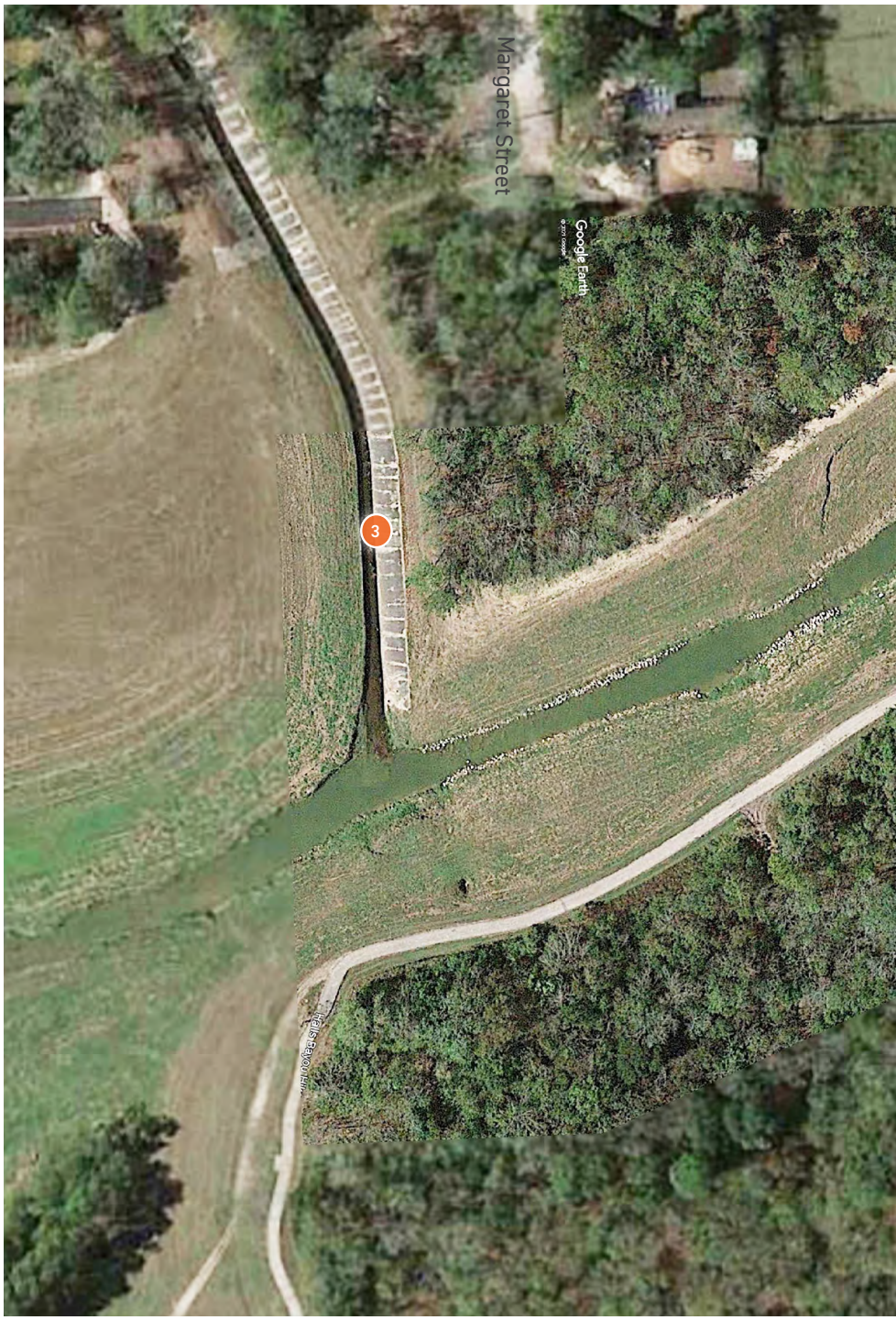
ve Vegetation

Concrete Pathway

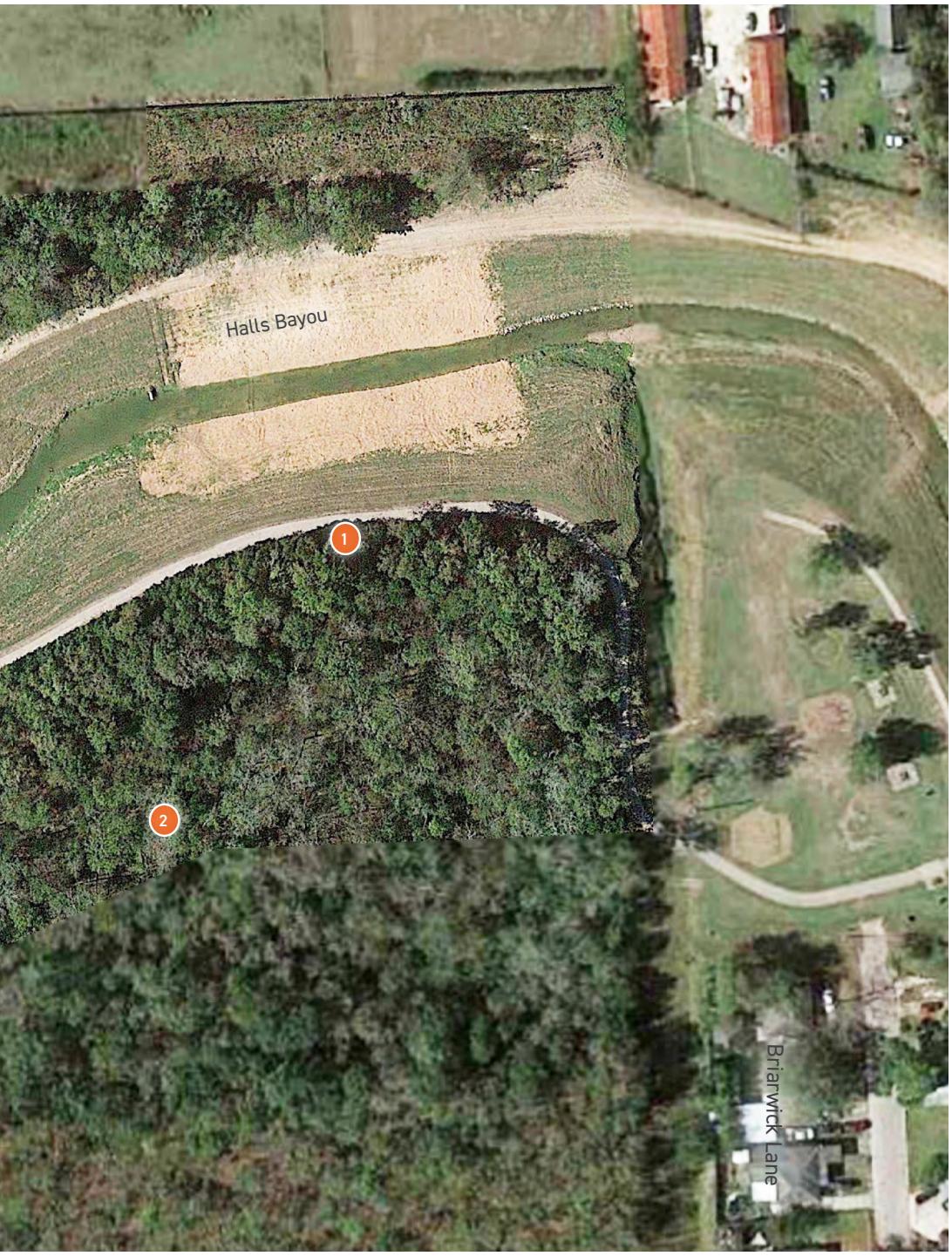
Street Parking

MARY WITHERS PARK (ENLARGEMENT PLAN B)





EXISTING CONDITIONS

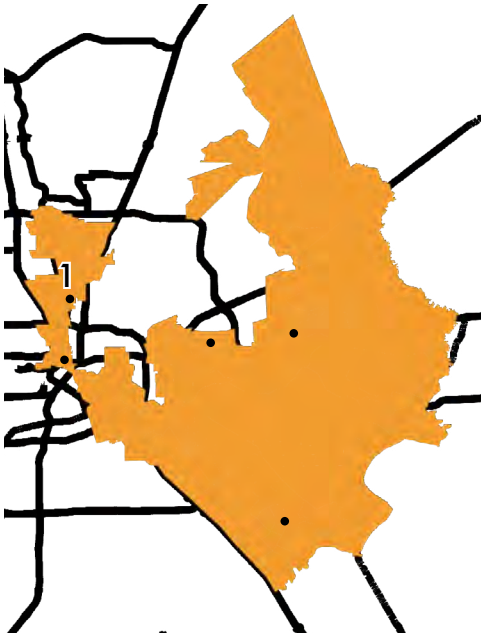


LEGEND

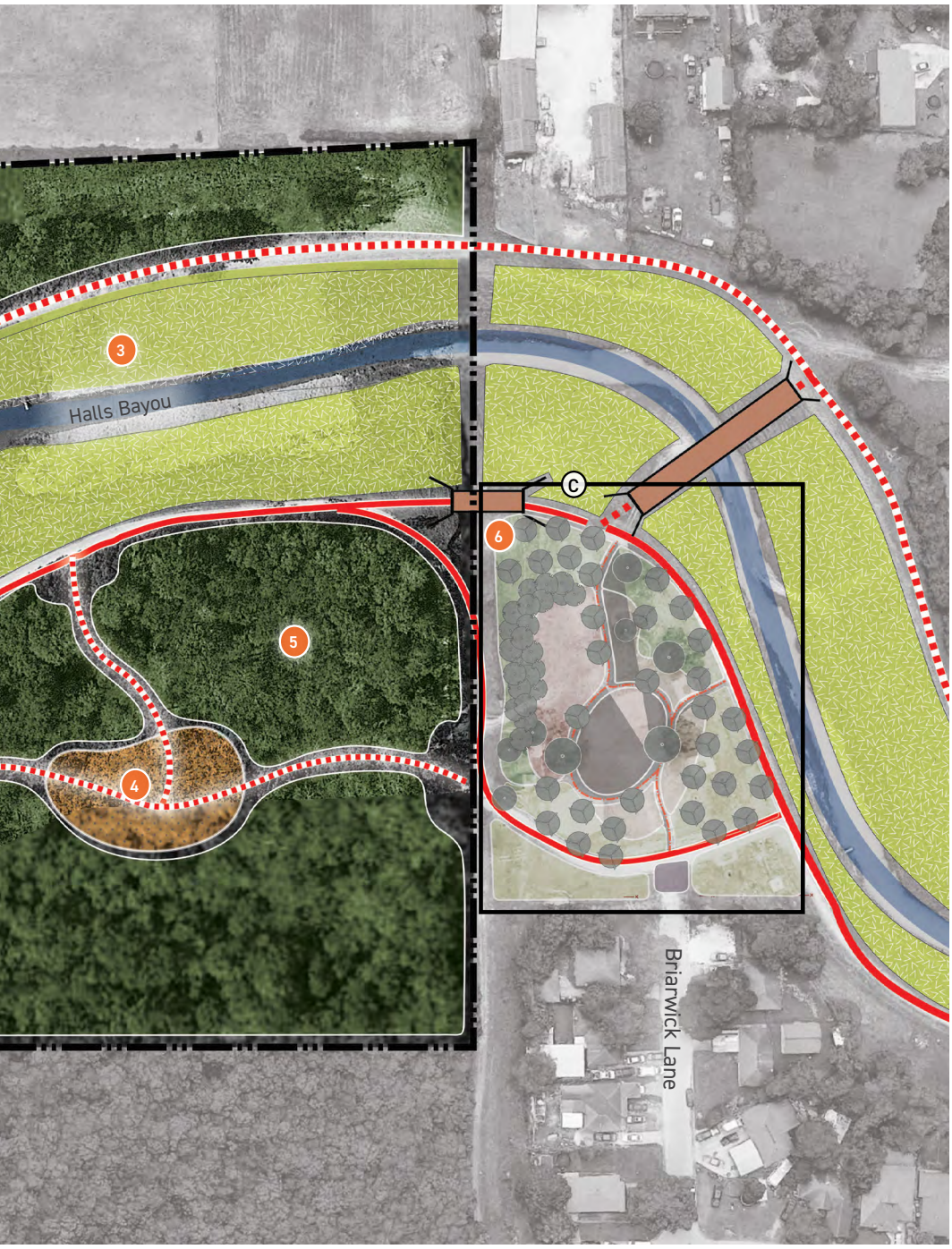
1. Asphalt Trail
2. Wooded Area
3. Erosion Challenges Identified

0 125' 250'

MARY WITHERS PARK (ENLARGEMENT PLAN B)



CONCEPTUAL DESIGN



LEGEND

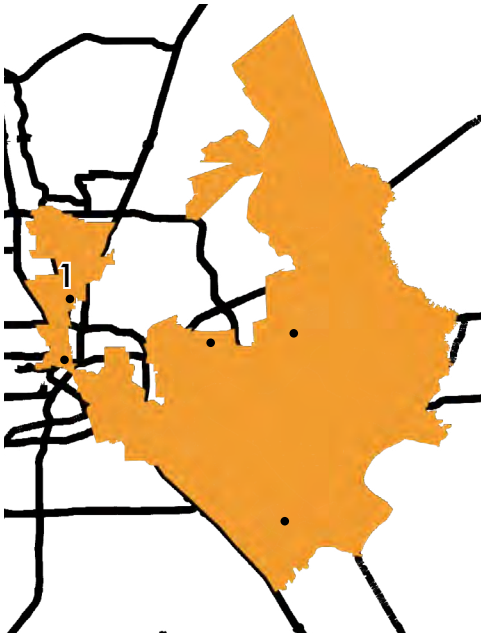
- 1 Trail head at Margaret Street
- 2 Overlook
- 3 Bank Stabilization
- 4 Selective Clearing Area
- 5 Existing Forested Area
- 6 Pedestrian Bridge
- Replace asphalt trail with concrete trail (10' wide min.)
- Proposed Pedestrian Trail (10' wide concrete)
- Secondary Pedestrian Trail (8' Wide Concrete)
- C Pinewood Village Park (See Enlargement Plan C)
- Project Boundary
- Tier 1 Connections

Note

Coordinate with Harris County Flood Control District for acceptable equipment and furnishings within floodway.

0 125' 250'

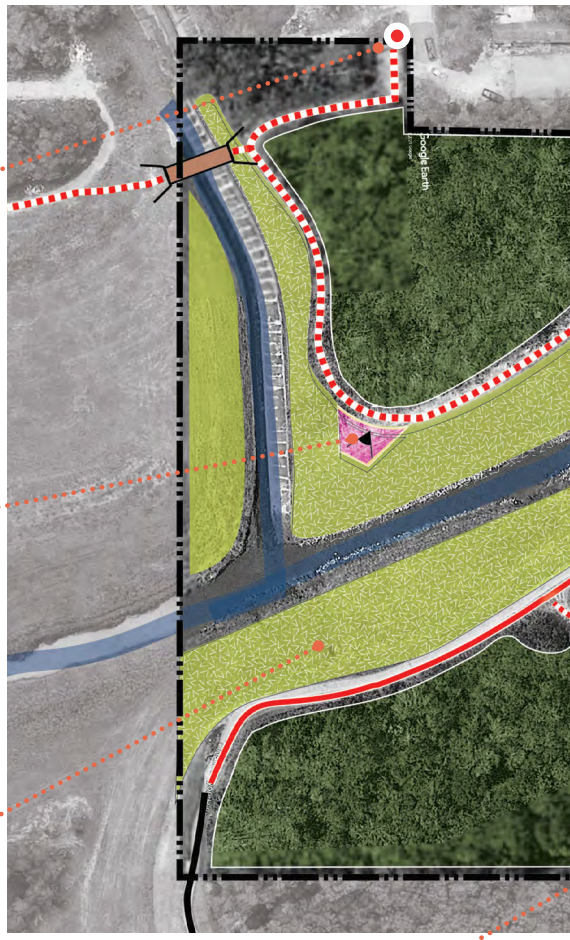
MARY WITHERS PARK (ENLARGEMENT PLAN B)



Trail Head

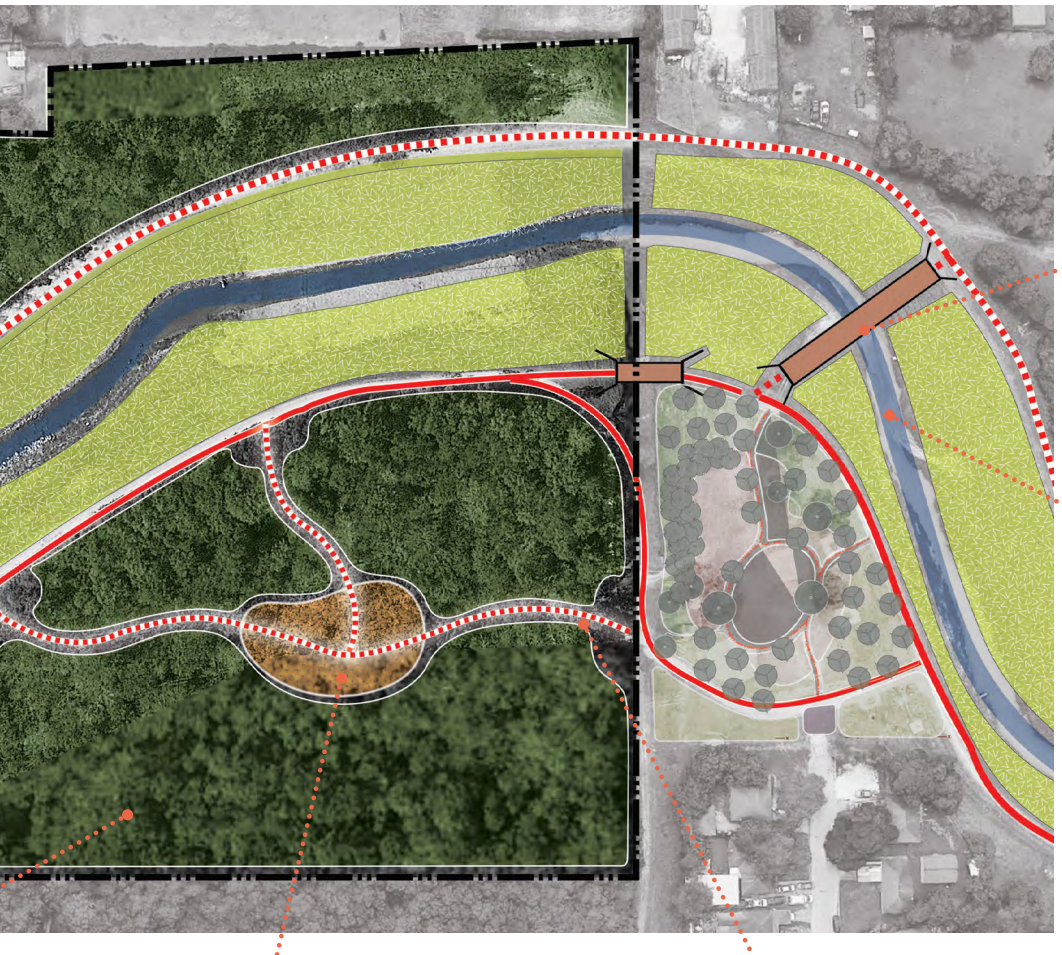
Overlook

Vegetated Bank Stabilization



Existing Forest Area

PRECEDENT IMAGES



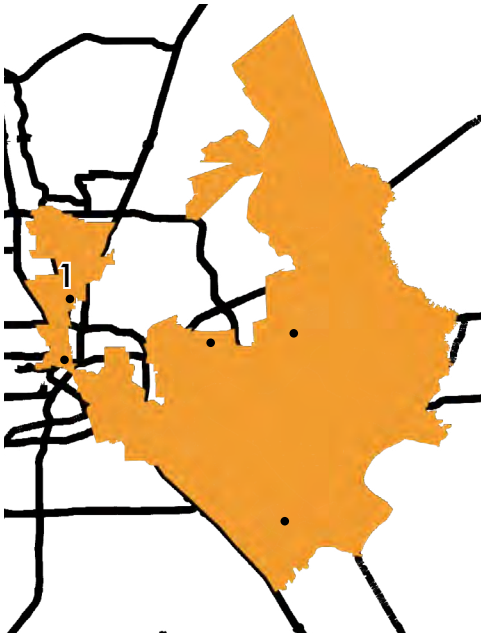
Pedestrian Bridge

Restored Bayou

Selective Clearing

Concrete Pathway

PINEWOOD VILLAGE PARK (ENLARGEMENT PLAN C)



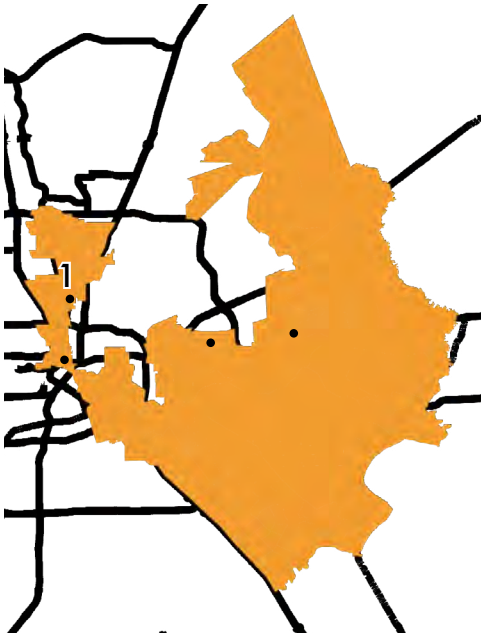
EXISTING CONDITIONS

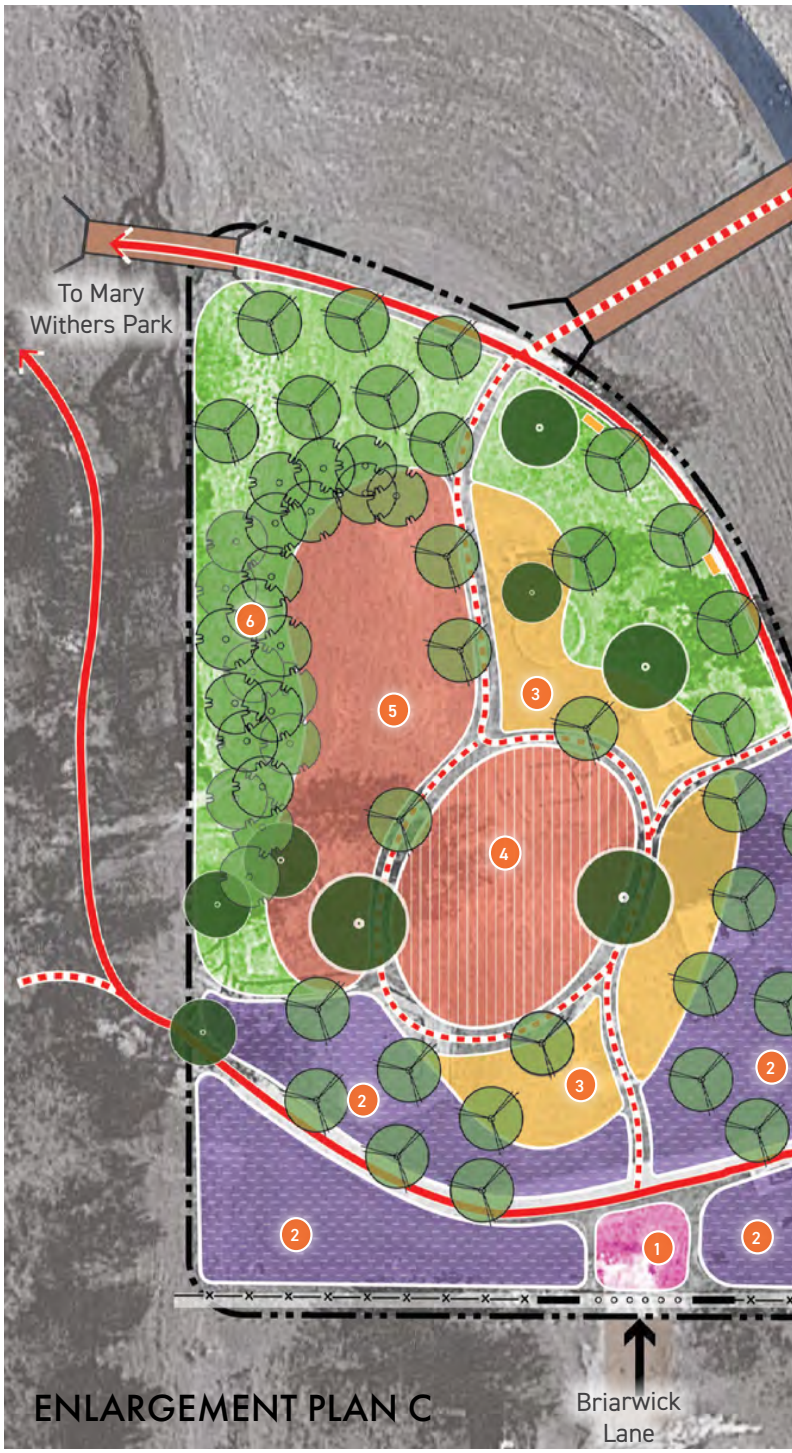
LEGEND

1. Park Entry from Briarwick Lane
2. Exisiting Trail
3. Picnic Tables
4. Swing Sets
5. Existing Drainage

0 50' 100'

PINEWOOD VILLAGE PARK (ENLARGEMENT PLAN C)





CONCEPTUAL PLAN

LEGEND

1. Enhanced entrance with pedestrian gate and entry signage
2. Prairie Planting Area
3. Picnic Area
4. Playground
5. Adventure Play Area
6. Tree Buffer Zone

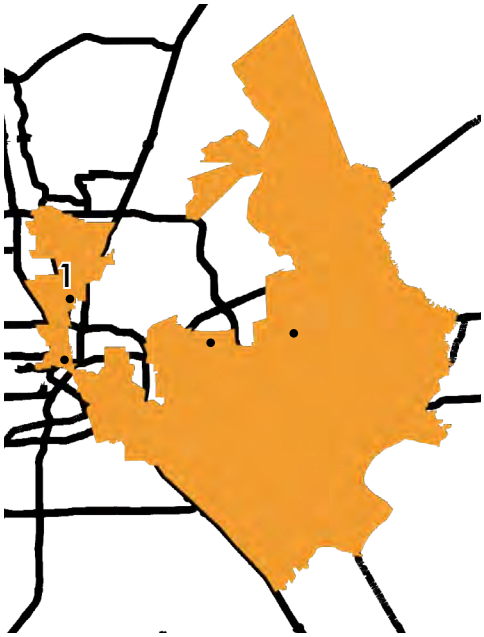
- Existing Trees
- Proposed Tree 1
- Proposed Tree 2
- Proposed Bench
- Replace asphalt trail with Concrete trail
- Proposed Pedestrian Trail (6' wide concrete)
- Fence
- Bollards
- Proposed Pedestrian Bridge
- Project Boundary

Note

Coordinate with Harris County Flood Control District for acceptable equipment and furnishings within floodway.

0 25 50' 100'

PINEWOOD VILLAGE PARK (ENLARGEMENT PLAN C)

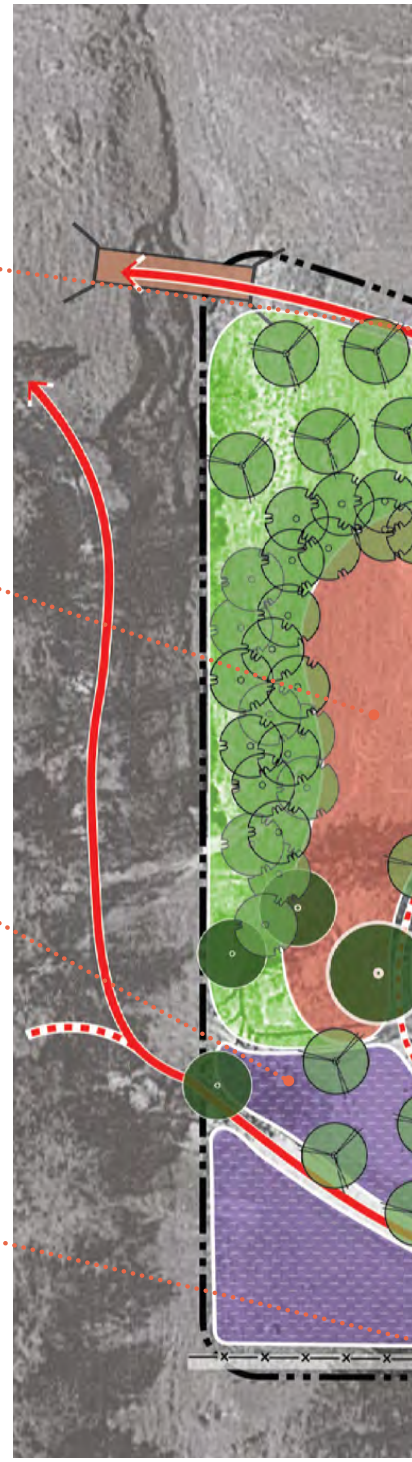


Tree Buffer

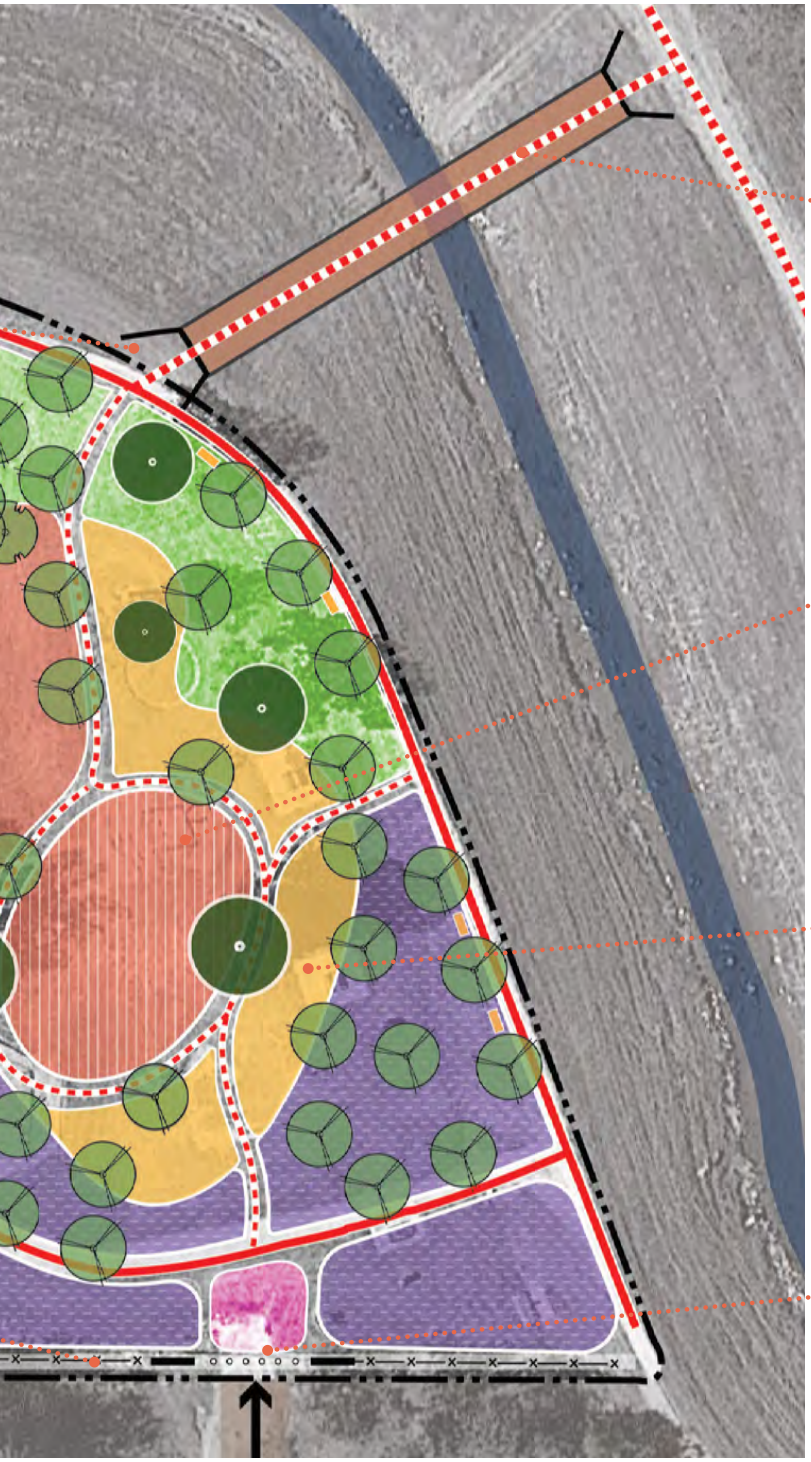
Adventure Play Area

Prairie Planting

Fence



PRECEDENT IMAGES



Pedestrian Bridge

Playground

Picnic Area

Bollard

LOCATION AND HISTORY

Mary Withers Park, Pinewood Village Park and Bretshire Park and Trail are connected by the Halls Bayou Bike and Trail. The Hally Bayou is known for flooding and an ongoing hazard for local stakeholders. Flooding has been a recurring reality, from Tropical Storm Allison in 2001, to Hurricane Harvey in 2017. Over 20,000 homes have been impacted by flooding along the Halls Bayou and its connecting tributaries, since 1989. Harris County Flood Control District is actively providing bonds, investments, and support for improvements to address this reality along the Halls Bayou Watershed. Mary Withers Park and Pinewood Village Park a is at a Neighborhood Park scale, whereas Bretshire Park is considered a mini-park

EXISTING CONDITIONS AND CHARACTER

The segment of the trail within Precinct 2 is 2.3 long linking Keith Weiss Park to the North and Jensen Drive to the South. Access to the park from adjacent neighborhoods is challenging since entrances are difficult to identify and due the lack of sidewalks and accessible routes to bridges and other entrances. Within the trail it is difficult to navigate due to the lack of signage and wayfinding. There are three parks within the trail; Pinewood Village, Mary Withers and Bretshire Park which have no clear boundaries. Only Pinewood Village has picnic tables and playground elements, while Bretshire Park has a shade structure with picnic table in fair condition, but vagrancy was perceived. Mary Withers is not defined nor has any amenities. The trail path's width is 9ft on average, below the recommended minimum width of 10ft for a shared use path. Materials vary from concrete along the segment between Jensen Drive and the start of Mary Withers Park to asphalt along the rest of the trail up to Keith-Weiss Park to the North. The asphalt segment is visibly damaged in several areas and would be beneficial to upgrade to a concrete trail to enhance safety and accessibility. Lighting was not perceived and there were areas where stray dogs were seen, creating a perception of lack of safety.

THE PROPOSED DESIGN

DESIGN GUIDELINE APPLICATION

- **Community Focused:**
    - » Placemaking
        - * Art and cultural programming opportunities
    - » Playgrounds
    - » Nature Play
    - » Economic Development opportunities
        - * Markets, food trucks
    - » Safety
- **Resilient and Vibrant:**
    - » Native Planting
- **Cohesive and Comfortable:**
    - » Furnishings
    - » Shade Structures
- **Active:**
    - » Off-street bike facilities
    - » Connection to On-street bike facilities
    - » Playgrounds
    - » Various trail typologies

CONCEPT DESIGN NARRATIVE

The Halls Bayou Trail concept plan focuses on two scales. At a master plan level, the plan seeks to increase connectivity along the bayou from Jensen Drive to Keith-Wiess Park by providing trail improvements along the eastern edge of the bayou by converting the existing trail from asphalt to concrete. It proposes an additional trail along the western bank of the bayou to connect with Shady Lane Park and along the neighborhood to the west. In addition it proposes trail access at key street intersections and the improvement or addition of pedestrian bridges. These improvements would allow for better connectivity in the area that would align with existing and proposed improvement projects along key streets.

At a smaller scale, the concept plan focuses on the three parks within this segment of Halls Bayou: Bretshire Park, Mary Withers Park and Pinewood Village Park.

Bretshire Park is the gateway to Halls Bayou at this location. The plan proposes improvements at the intersection of Jensen Dr. to attract users and provide a comfortable and diverse experience. Three key aspects were considered:

- **Access:** To bolster pedestrian safety and comfort, pedestrian crosswalks are proposed at the intersection of Jensen Drive, Bentley Street and Marzelle Street. Parallel parking would be added at key locations along Lakewood Drive to support access to the park. A secondary trail would allow people walking to be separated from high speed bicycle traffic and experience the trail at different locations.
- **Program:** At the intersection of Jensen Drive, a flexible outdoor space can provide opportunities for outdoor markets or events. Additional Picnic Pavilions would foster social interaction and family gatherings.
- **Diversity of Landscape**: Additional trees are recommended to provide shade and comfort along the trails. In addition, zones of prairie restoration are proposed along the top of bank areas to foster ecosystem diversity and enrich the experience of the users.

Mary Withers Park: Currently this park has no program or formal trail system. The concept plan proposes selective clearing in the wooded areas in order to provide accessible trails and an experience that focuses on nature and exploration. A large clearing area in the center of the park would allow for seating areas and provide a sense of safety to users. A bank stabilization vegetation strategy is recommended to reduce erosion along the banks. This strategy shall coordinate with Harris County Flood Control District to discuss potential of trees or other types of plantings.

The **Pinewood Village Park** concept plan focuses on access, play areas and comfort. First, access from Briarwick Lane should be improved so that pedestrian access is welcoming and safe. By providing bollards in place of the existing gate, the park can feel open and welcoming. A new fence can delineate the park and separate from private properties, providing a sense of privacy for residents and a sense of safety to park users. A new playground would be located at the center of the park, surrounded by picnic or gathering areas to the north and an adventure play area to the south. Two bridges are proposed, one crossing Halls Bayou to provide access from the neighborhood to the west, and another crossing the smaller canal to the south to form a loop trail connecting to Mary Withers and Bretshire Park. Additional trees would provide shade for users.

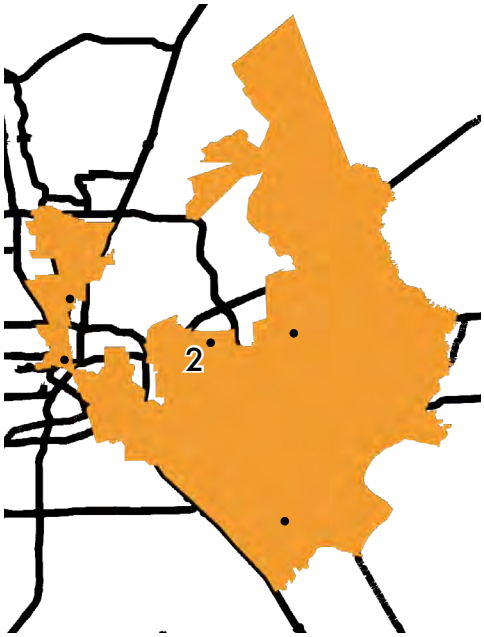
CONNECTIONS BETWEEN PARKS

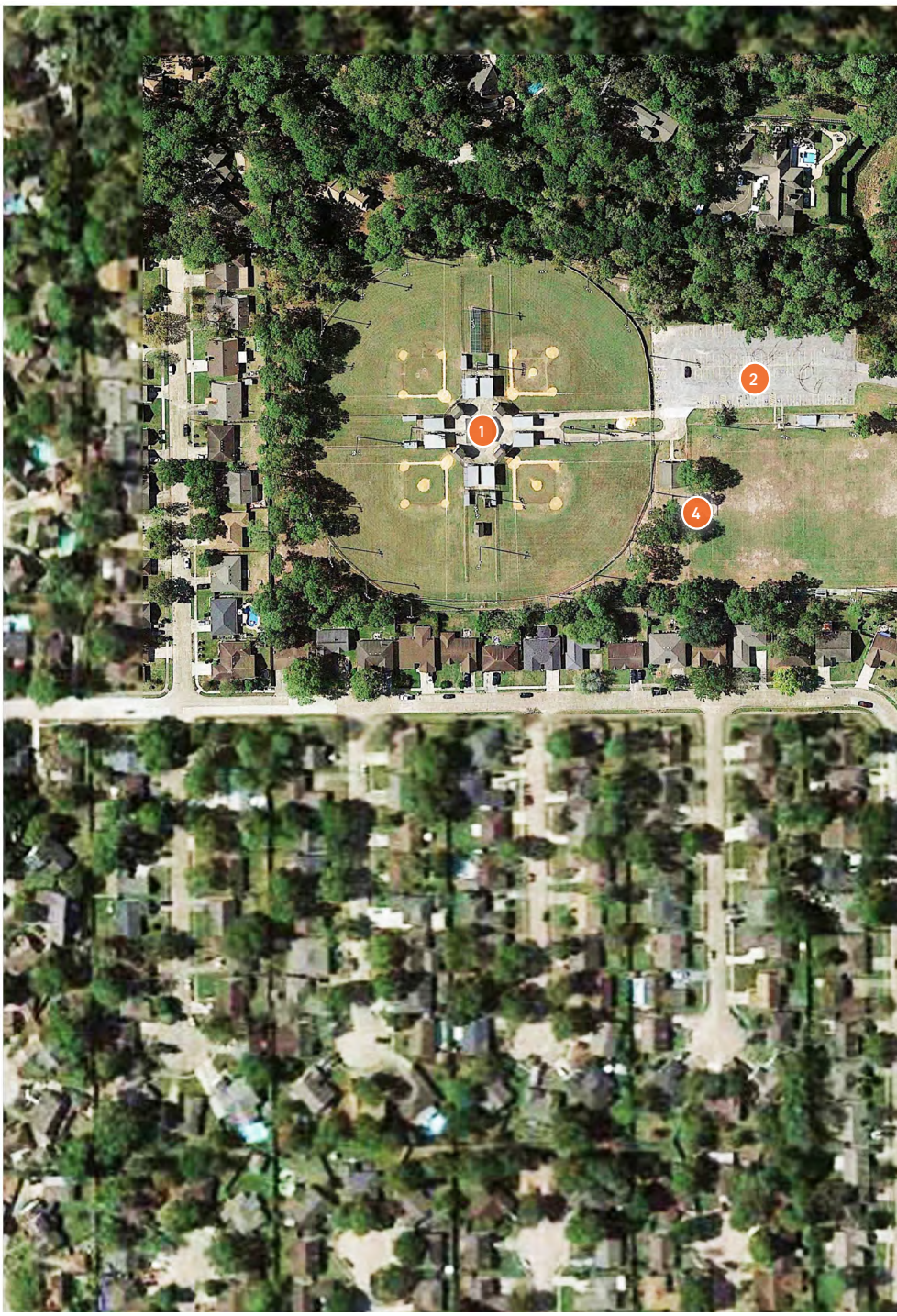
While not part of the conceptual designs, Shady Lane Park is just to the south of the three parks discussed. Shady Lane Park is much more developed with amenities offerings for local Precinct 2 residents.

KNOWN LAND USE AND COORDINATION CONSIDERATIONS

This network of parks is part of an important amenity that is overseen by the Harris County Flood Control District, which should be an important stakeholder as any improvements are identified. This area has seen an addition of 635 acres of stormwater infrastructure toward detention from the Flood Control District. Their team should be involved for any and all future implementation considerations.

CASE STUDY 2: NORTH SHORE PARK



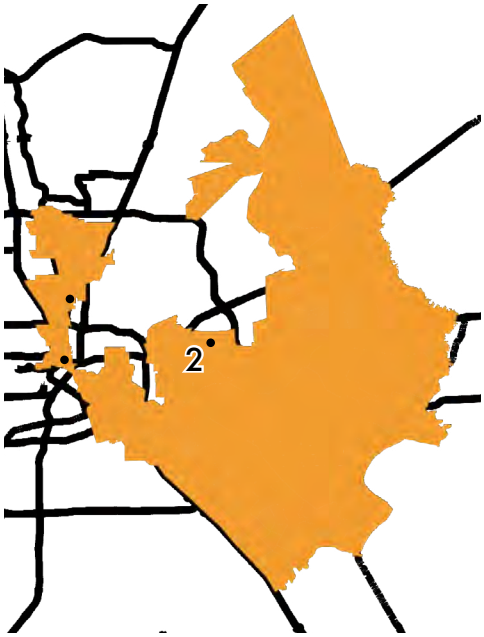


EXISTING CONDITIONS

LEGEND

1. Existing Sports Fields
2. Parking
3. Picnic Area
4. Restroom Facilities

CASE STUDY 2: NORTH SHORE PARK



CONCEPTUAL DESIGN

LEGEND

- 1 Mowed Lawn Area
- 2 Native Grass Slopes
- 3 Vegetated Swale
- 4 Modified Parking Lot Layout
- 5 Parking lot Planting Island
- 6 Existing Trees to Remain
- Existing Trees
- Proposed Tree 1
- Proposed Tree 2
- Proposed Tree 3
- Big Gulch
- Proposed Entrance Signage
- Check Dam/Weirs
- Existing Trail
- Proposed Bike Trail Entrance
- Proposed Pedestrian Trail (6' wide concrete)
- Replace Existing Dirt trail with Decomposed Granite
- Proposed Decomposed Granite Trail
- Project Boundary
- Proposed Trail By Others
- Tier 1 Connections

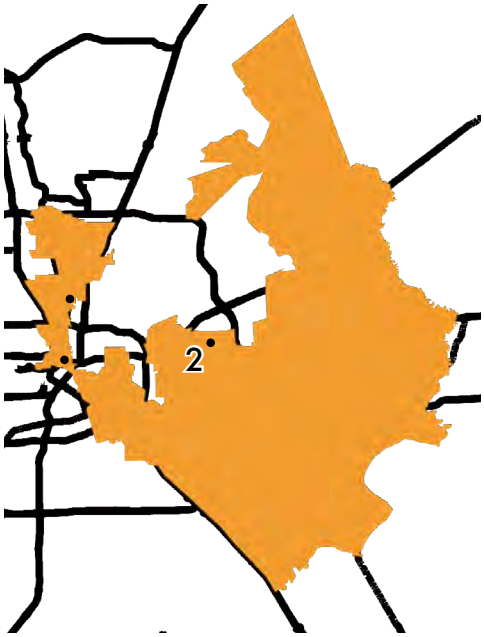
Notes:

Pedestrian/Dark sky compliant Lighting shall be included along all paths.

Check dams shall be designed to allow for appropriate flow of water and eliminate stagnant water for a prolonged period of time

0 75' 150' 300'

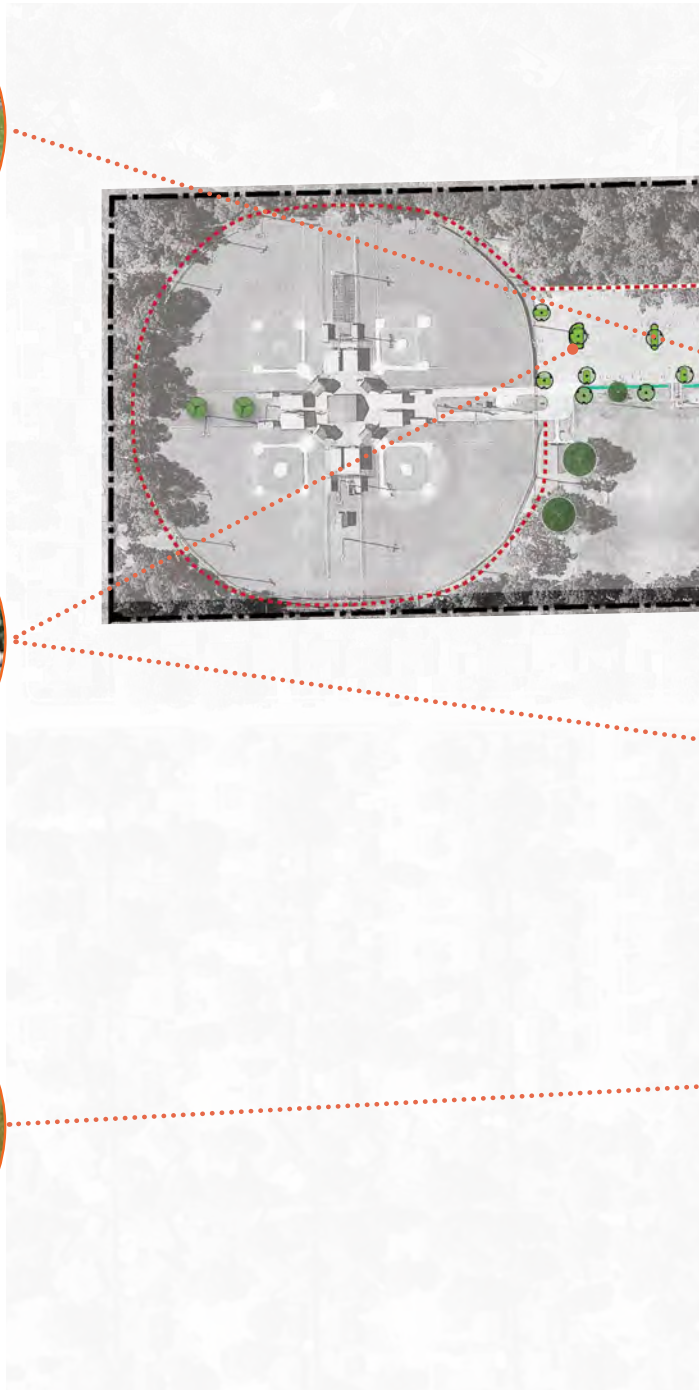
CASE STUDY 2: NORTH SHORE PARK



Vegetated Swale

Planting Island

Native Grass Slopes



PRECEDENT IMAGES

Decomposed Granite Trail

Mowed Lawn Area

Proposed Concrete Pedestrian Trail

Check Dams/Weirs

Check Dams/Weirs

LOCATION AND HISTORY

North Shore Park is located along a tributary known as Big Gulch that feeds into Greens Bayou. This park is surrounded by low-density housing, complementing the amenities at the Jim and Joann Fonteno Family Park. North Shore Park is not to be confused with North Shore Park which is a different park next to Lake Woodlands, in Northern Houston. While there is a pavilion offered by this park, it's separated by the Big Gulch. Nonetheless, the range of sport field offerings are an important asset to the region, as a neighborhood park.

EXISTING CONDITIONS AND CHARACTER

North Shore Park consists of athletic fields, a concrete loop trail, a playground, and several supportive facilities such as picnic tables and a restroom. Access to this park scored low due to the lack of pedestrian infrastructure to enter the park, and the vehicular circulation that dominated the park's interior. Large internal roads without sidewalks also contributed to concerns that impacted the safety score. This park has a variety of features that can be used by people of varying ages, and it is bordered by mature trees on several sides which create a feeling of being in nature, contributing to a higher score in the health category. The park did not have any notable relationships to local art or culture, and the overall aesthetics were fair but could be improved through consistency of park features. For example, the playground was much newer and featured different colors than other park features.

THE PROPOSED DESIGN

DESIGN GUIDELINE APPLICATION

- **Community Focused:**
  - » Safety
- **Resilient and Vibrant:**
  - » Small Scale Green Infrastructure
    - * Vegetated Filter Strip
    - * Vegetated Swale
    - * Pervious Paving (proposed parking layout)
    - * Native Planting
- **Cohesive and Comfortable:**
  - » Furnishings
  - » Water Access
  - » Parking
  - » Lighting
- **Active:**
  - » Off-Street Bike Paths
  - » Connection to On-Street Bike Facilities
  - » Active Recreation
    - * Fields
    - * Playgrounds

CONCEPT DESIGN NARRATIVE

North Shore Park has multiple existing assets including sport fields, a playground, picnic areas and the Big Gulch. The concept plan seeks to increase connectivity between these amenities by providing additional sidewalk and trail connections. In addition, vegetated swales are proposed along North Shore Channel Drive to expand drainage strategies that incorporate natural systems and promote natural infiltration.

The park's biggest natural asset is the Big Gulch that runs along the northern edge. The plan proposes the expansion of the trail system along this gulch and proposes increasing opportunities to get closer to the water by providing a series of weirs or check dams to expand parks capacity of managing stormwater. These weirs would slow water flow but would not allow for water to pond for prolonged periods of time. A native landscape strategy would expand the park's biodiversity and aesthetic character while reducing erosion challenges or mowing maintenance needs.

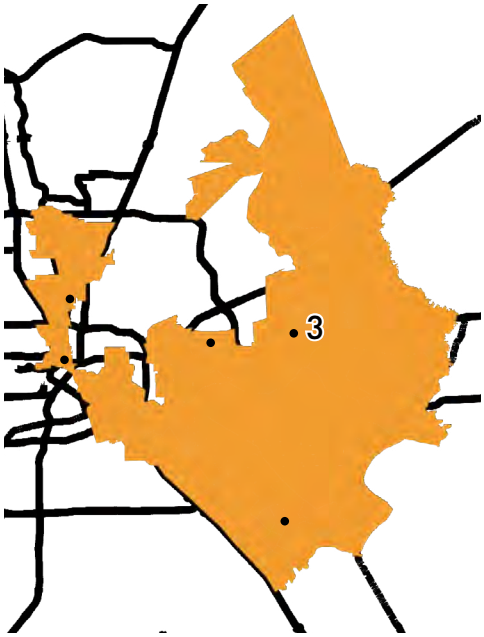
CONNECTION BETWEEN PARKS

North Shore Park is connected through the main thoroughfare, Wallisville Rd. With amenities such as bike lanes, it becomes critical to accommodate cyclists visiting or arriving at the site.

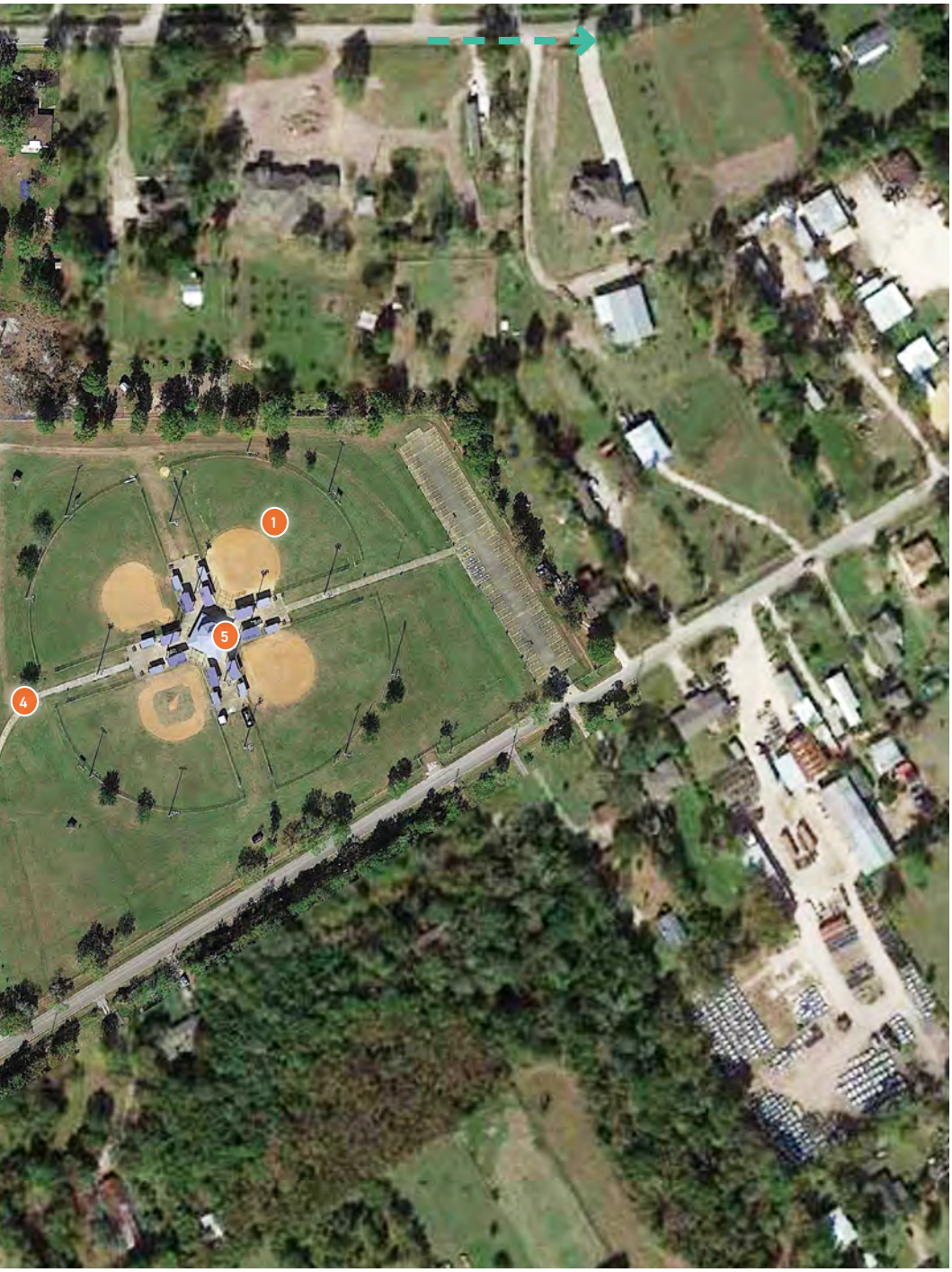
KNOWN LAND USE AND COORDINATION ISSUES

This site is surrounded by a mix of commercial, multi-family residential, as well as single family homes throughout the immediate vicinity of the park site. In addition, coordination and engagement with local soccer leagues will help drive success of renovations and possible expansions at this site.

CASE STUDY 3: CHANNELVIEW SPORTS COMPLEX



EXISTING CONDITIONS

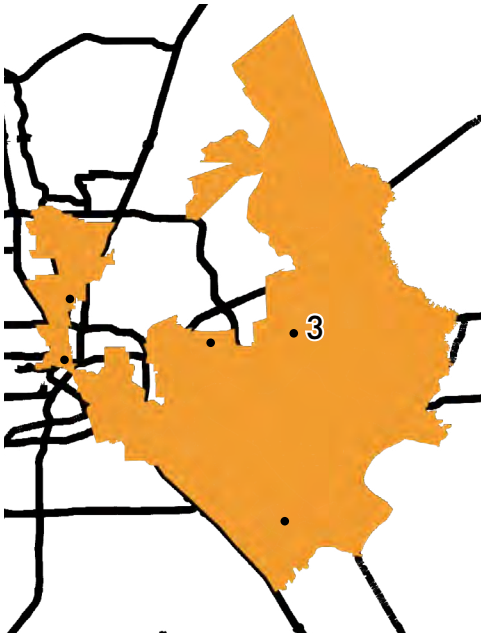


LEGEND

1. Existing Sports Fields
2. Parking
3. Picnic Area
4. Existing Pathway
5. Restroom Facilities

0 100' 200' 400'

CASE STUDY 3: CHANNELVIEW SPORTS COMPLEX



CONCEPTUAL DESIGN

0 100' 200' 400'

LEGEND

- 1 Open Lawn
- 2 Picnic Area
- 3 Adventure Play Area
- 4 No Mow Zone
- 5 Mowed Area
- 6 Vegetated Swale
- 7 Rain Garden
- 8 Proposed Asphalt Road Upgrade
- 9 Modified Parking Layout
- 10 Permeable Surfaces
- 11 Tree Buffer Zone
- Existing Trees
- Proposed Tree 1
- Proposed Tree 2
- Proposed/Improved Entrance Signage
- Primary Pedestrian Trail
- Secondary Pedestrian Trail
- Decomposed Granite Trail
- Project Boundary
- Tier 1 Connections

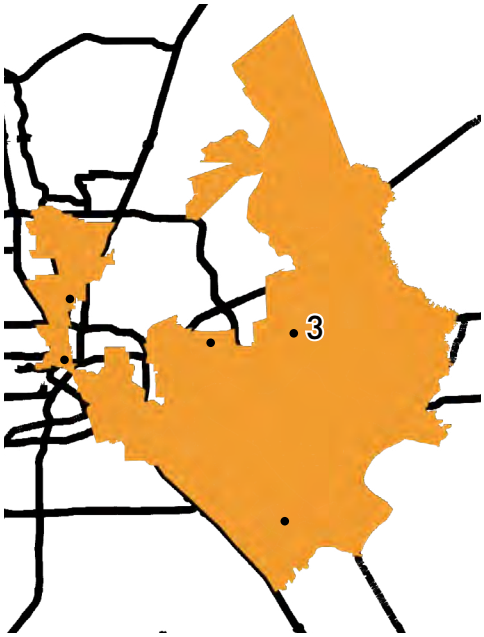
Note additional improvements not shown on plan:

Update restrooms to include changing tables in men's, women's, and gender neutral restrooms. Update restrooms to be universally accessible.

Update concessions areas to include shaded seating and complete required maintenance on buildings.

Add a covered shelter connected to the existing circulation through accessible paths that can be used as flexible space. This space could be used for farmers market, performances, and other community events.

CASE STUDY 3: CHANNELVIEW SPORTS COMPLEX



Permeable Surfaces

Rain Garden

Tree Buffer Zone

Open Lawn

PRECEDENT IMAGES

Adventure Play Area

Mowed Areas

No Mow Zone

Vegetated Swale

Picnic Area

LOCATION AND HISTORY

Channel View Sports Complex is just a few miles west of San Jacinto River and Bear Lake.

EXISTING CONDITIONS AND CHARACTER

Channelview Sports Complex is a gated sports facility that consists of 8 baseball diamonds and supportive facilities such as bleachers, concession areas, and a few picnic tables. Overall access to the park scored low due to lack of sidewalks to enter the park, and many facilities within the park lacking accessible connections. The park features were in fair condition, but it is important to note that this is a single use park and does not have opportunities for any use other than baseball. This also means that there is very low diversity of use for visitors of different ages. Park aesthetics scored fairly; the overall look of the park was not derelict but it was not intriguing or exciting. There were no notable cultural amenities, and overall accessibility was low.

THE PROPOSED DESIGN

DESIGN GUIDELINE APPLICATION

- **Community Focused:**
    - » Placemaking
        - * Playgrounds
        - * Economic Development
            - Food Trucks
            - Concessions
    - » Safety
- **Resilient and Vibrant:**
    - » Small Scale Green Infrastructure
        - * Vegetated Filtration Strip
        - * Vegetated Swale or Bioswale
        - * Rain garden
        - * Pervious Pavement
        - * Native Planting
- **Cohesive and Comfortable:**
    - » Site Furnishings
    - » Shade Structures
    - » Lighting
    - » Parking
    - » Parking Buffers
- **Active:**
    - » Connection to On-street bike facilities
    - » Active Recreation
        - * Sport Fields
        - * Playground
        - * Trail typologies

CONCEPT DESIGN NARRATIVE

The concept plan for Channelview Sport Complex seeks to expand the park's amenities, aesthetic character and connectivity. Some of the park's most prominent features are the existing vegetated swales. The plan proposes using these swales as an amenity to showcase different planting palettes and as an organization element for the trails throughout the park. These new trails define zones that allow for different uses. At the core of the park, a system of rain gardens would expand the park's detention capacity and serve as a natural amenity with native vegetation. A new playground and picnic area adjacent to the southern parking diversifies the uses. The picnic area is strategically located adjacent to the parking to support potential food truck opportunities or other vendors.

To reduce maintenance needs and diversify the experiences throughout the park, a series of mown and unmown areas are identified. To the North, it is recommended that the parking is modified to organize traffic patterns, increase safety, provide shade and potentially decrease impervious surfaces through the use of a permeable paving system.

CONNECTION BETWEEN PARKS

Channel View Sports Park is within proximity to Moncrief Park, a waterside park. There is no distinct separate trail connecting these parks, aside from a main thoroughfare Bear Bayou Dr, and Wood Dr

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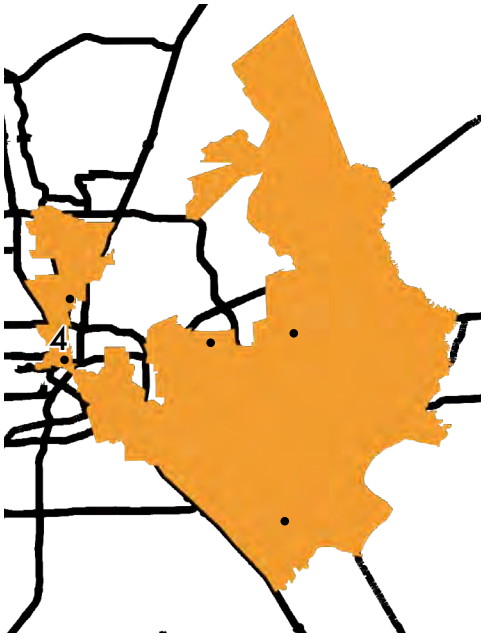
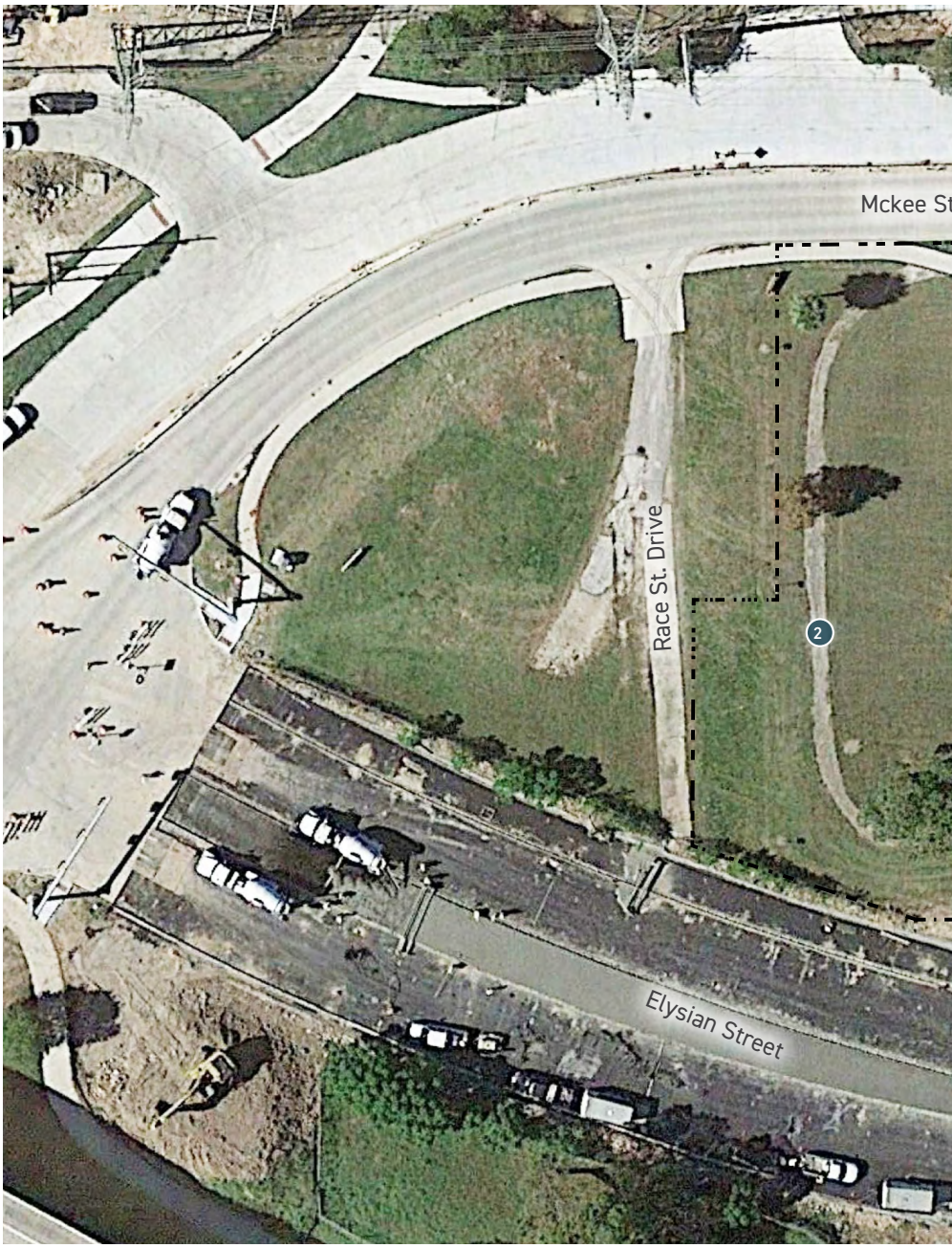
KNOWN LAND USE AND COORDINATION ISSUES

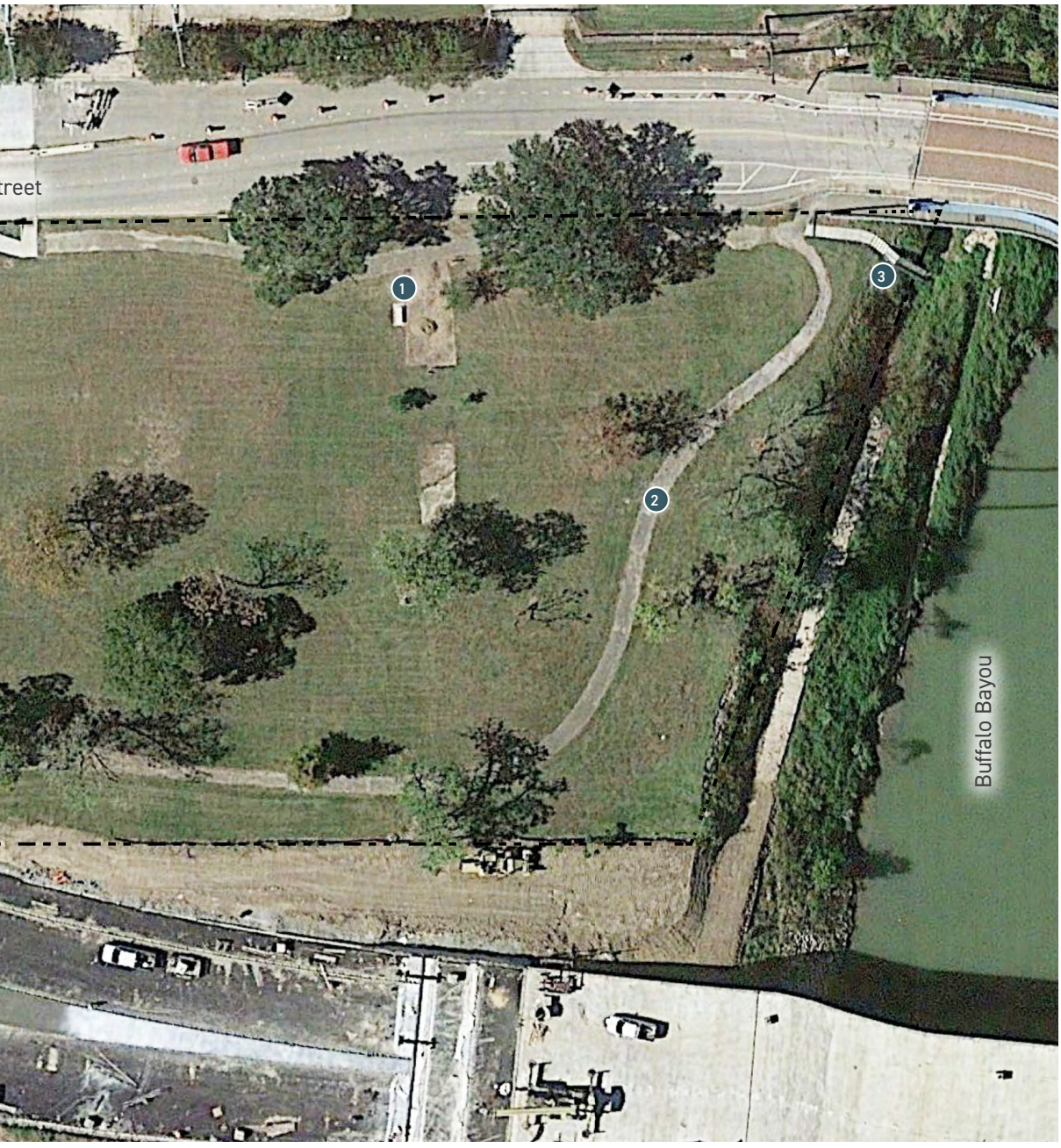
This park is surrounded immediately by two industrial lots and mostly single family lots.

CASE STUDY 4: JAMES BUTE PARK





EXISTING CONDITIONS



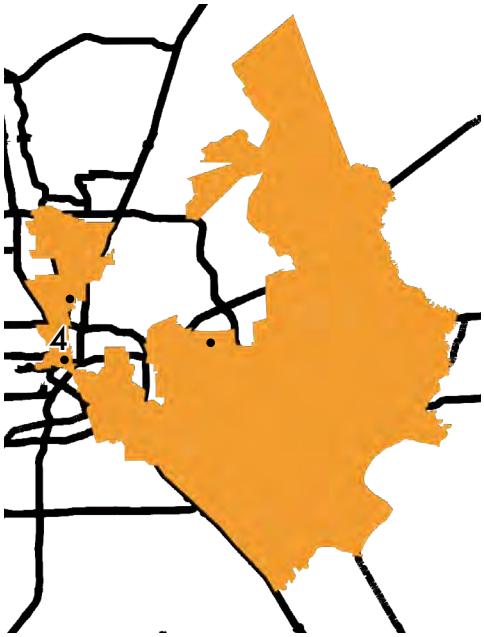
LEGEND

1. Historic Markers
2. Existing trail
3. Access to Bayou

Existing Park outline

0 30' 60' 120'

CASE STUDY 4: JAMES BUTE PARK



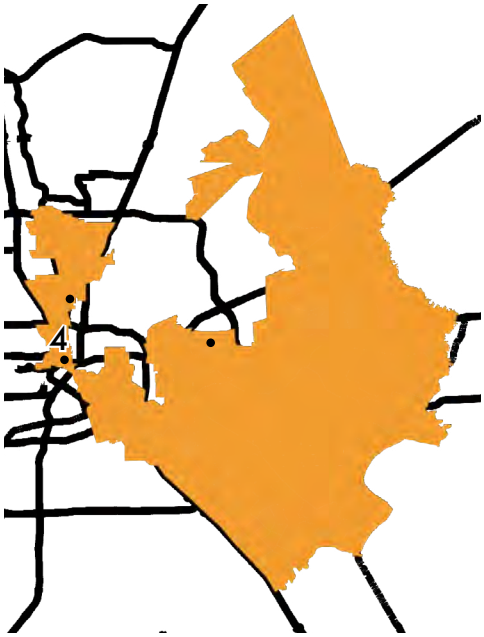
CONCEPTUAL PLAN

LEGEND

- 1 Open Lawn
- 2 Picnic Shelter
- 3 Picnic Area
- 4 Vegetated Swale
- 5 Swale Crossing
- 6 Concrete Path and Trail
- 7 Decomposed Granite Path
- 8 Pavilion Structure + Restrooms
- 9 Elevated Deck
- 10 Tree Grove
- 11 Large Picnic Table
- 12 Vegetative Buffer
- 13 Kayak/Canoe Launch
- 14 Entry Sign
- Existing Trees
- Proposed Tree 1
- Proposed Tree 2
- Proposed Tree 3
- Proposed Ornamental Tree
- Proposed Palm Tree
- Bench
- Historic Bench Marker
- Historical Street Posts
- Historical Marker
- Buffalo Bayou Trail
- Existing Bike lane/trail
- Project Boundary
- Project Scope
- Information Sign
- Art Installation

0 30' 60' 120'

CASE STUDY 4: JAMES BUTE PARK

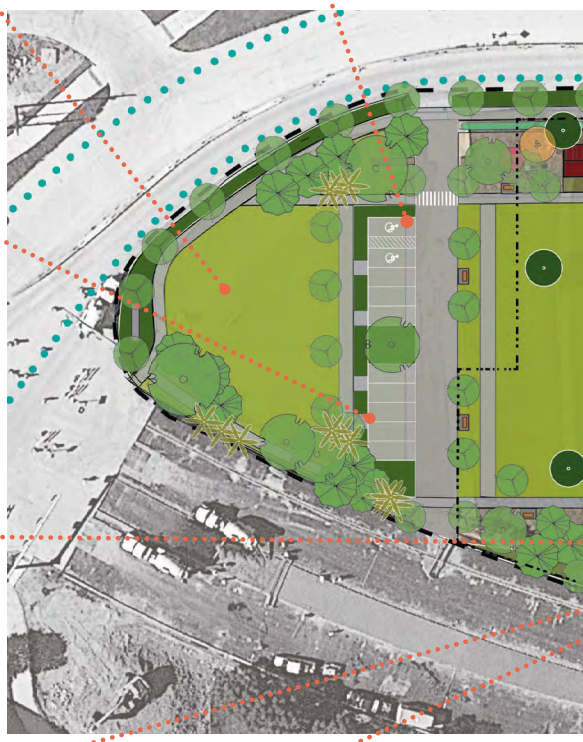


Open Lawn

Decomposed Granite Path

Picnic Are

Bench



Picnic Shelter

Swale Crossing

Vegetated Swale

Public A

PRECEDENT IMAGES

a

Historical Street Posts

Historical Markers

Large Picnic Table

Concrete Path

Kayak Launch

Art

Pavilion

Tree Grove

Vegetative Buffer

LOCATION AND HISTORY

James Bute Park is immediately adjacent to the Buffalo Bayou. A portion of this site is in a flood hazard area which will influence conceptual design recommendations. This site was previously known as the McKee Street Bridge Habitat. This park is located between a main thoroughfare, and a minor collector street.

EXISTING CONDITIONS AND CHARACTER

James Bute Park features an open lawn and asphalt loop trail in poor condition. The park is adjacent to the Buffalo Bayou and connects to the Bayou Trail. The park has views of Downtown Houston, but there are some safety concerns due to unpleasant adjacent construction sites, disrepair of the park's internal trail, and people living under the nearby bridge.

THE PROPOSED DESIGN

DESIGN GUIDELINE APPLICATION

- **Community Focused:**
  - » Placemaking
  - » Art
  - » Cultural Programming
  - » Historic Interpretation
  - » Safety
- **Resilient and Vibrant:**
  - » Small Scale Green Infrastructure
    - * Vegetated Swales or bioswales
- **Cohesive and Comfortable:**
  - » Site furnishings
  - » Parking (can include permeable pavement alternatives)
  - » Water Access
  - » Lighting
- **Active:**
  - » Connections to On-Street Bike Facilities
  - » Connections to Off-Street Bike Facilities

CONCEPT DESIGN NARRATIVE

James Bute Park concept plan builds upon the history of the site. Historically this site was home to Frost Town, an early settlement of the city of Houston. The design layout pays homage to the historic layout of the settlement by highlighting the settlemet's streets at the site's two main access points, and naming the access points after streets. Race St. Drive provides access to a small parking lot to the south of the park, while Arch St. Promenade provides pedestrian access to the north of the site, connecting to the main attraction, a multipurpose building or set of buildings housing restroom facilities and a pavilion structure for outdoor performances or events. Arch St. Promenade would also serve as the main location to house existing historical markers on the site.

At the center of the site a large open lawn serves as a flexible space for outdoor play, enjoyment of events or other activities. At the East and western edges of the site a series of spaces following the historic lot lines of Frost Town provide spaces for art, picnic areas and the potential for outdoor markets. Vegetated swales run along these edges, promoting green infrastructure, education and biodiversity. The bridges crossing these swales are an ideal opportunity to honor the families that once lived here by engraving their names on the surface material.

The Park would also be connected to Buffalo Bayou Park by providing a concrete trail at the northernmost edge increasing accessibility to other areas of the City and the water's edge. James Bute Park can serve as an example of honoring the past, fostering connections to the environment and providing placemaking opportunities for the community.

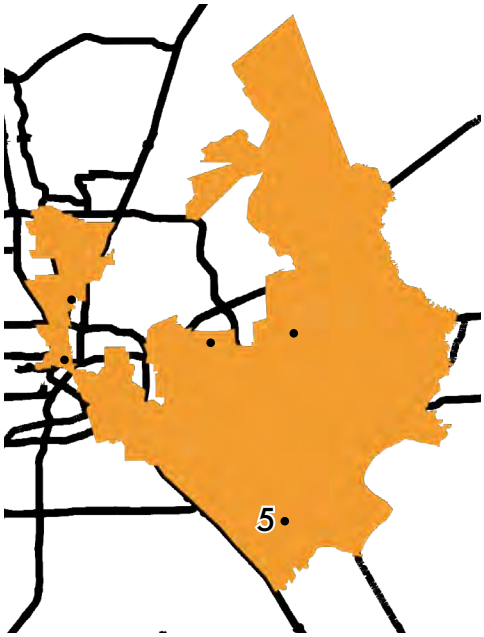
CONNECTIONS BETWEEN PARKS

The Bayou and the Bayou Greenway are two major points that connect a network of canoe launches and parks along the Bayou. Identifying how James Bute support a strong connection to the Bayou will be important for future residents and the habitats supported at this site.

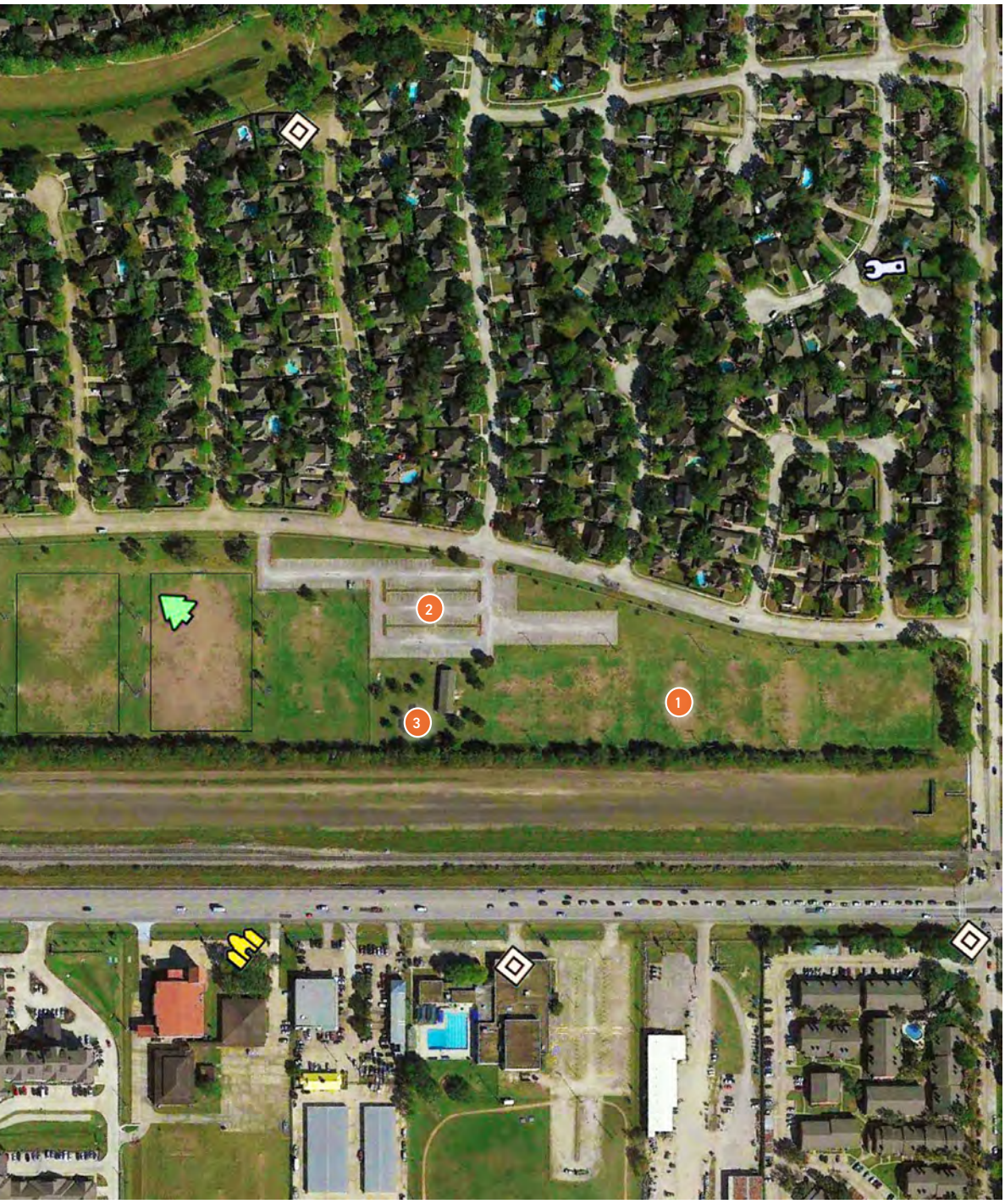
KNOWN LAND USE AND COORDINATION CONSIDERATIONS

Most of the surrounding area are utility easements, as well as undeveloped parcels near major freeways.

CASE STUDY 5: DAD'S CLUB SPORTS COMPLEX



EXSISTING CONDITIONS

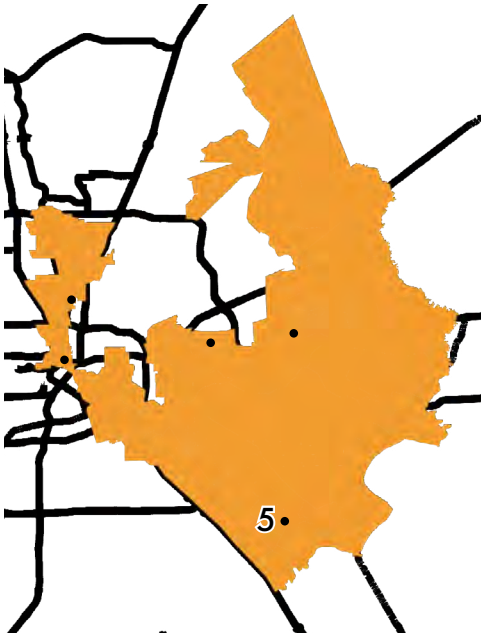


LEGEND

1. Existing Sports Fields
2. Parking
3. Restroom Facilities
4. Existing Pathway

0 125' 250' 500'

CASE STUDY 5: DAD'S CLUB SPORTS COMPLEX



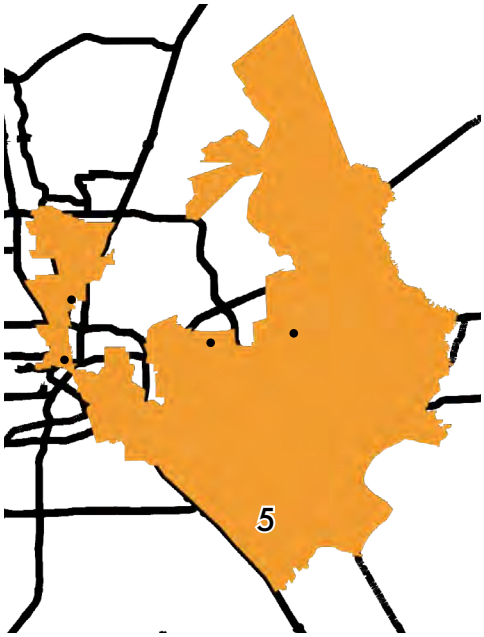
CONCEPTUAL DESIGN

LEGEND

- 1 Main Entrance Pond
- 2 Board Walk
- 3 Tree Buffer/Linear Park
- 4 Park Entrance Renovation (Landscaping and Signage)
- 5 Overflow Parking Lot (Pervious)
- 6 Picnic Area
- 7 Vegetated Swale
- 8 Adventure Play Area
- 9 Tree Buffer Zone
- Existing Trees
- Proposed Tree 1
- Proposed Tree 2
- Proposed/Improved Entrance Signage
- Bench
- Pavilion
- Shade Structure
- Existing Sidewalk
- Proposed Sidewalk
- Pedestrian Trail (6' wide concrete)
- Decomposed Granite Trail
- Project Boundary
- Proposed Trail By Others

0 125' 250' 500'

CASE STUDY 5: DAD'S CLUB SPORTS COMPLEX



Boardwalk

Main Entrance Pond

Tree Buffer Zone

Picnic Area

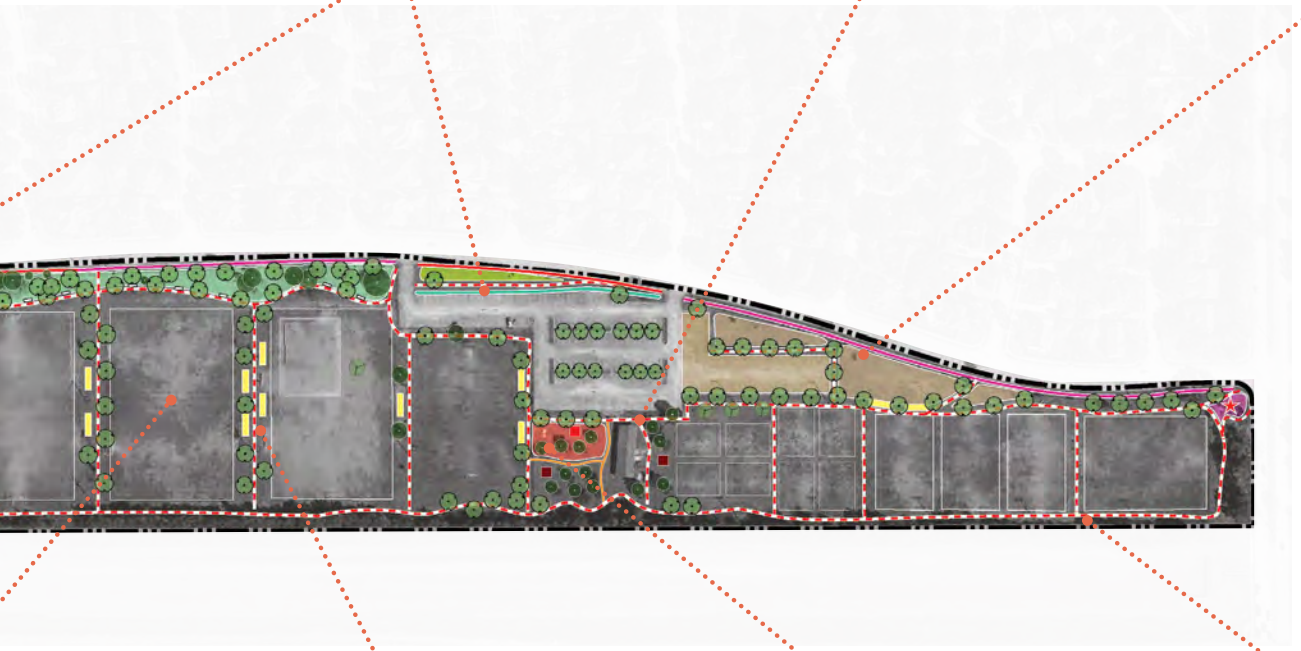
Fields

PRECEDENT IMAGES

Vegetated Swale

Proposed Concrete Pedestrian Trail

Permeable Surfaces (Parking Optional)



Shade Structure

Adventure Play Area

Pedestrian Trail

LOCATION AND HISTORY

Dad's Club Sports Complex is surrounded by single family homes to the south east, and commercial uses along the north, with major educational facilities directly adjacent to the site.

EXISTING CONDITIONS AND CHARACTER

Dad's Club Sports Complex is a large park with several soccer and baseball fields. There are some supportive amenities such as lighting, restrooms, and bleachers. The park has fair internal circulation and accessibility, but it is segmented into several disconnected zones. While the only park use is athletics, there is some variety of opportunity with the presence of less common fields such as Pee-Wee baseball fields and a pony arena.

THE PROPOSED DESIGN

DESIGN GUIDELINE APPLICATION

- **Community Focused:**
  - » Placemaking
  - » Playgrounds
  - » Nature Play
- **Resilient and Vibrant:**
  - » Small Scale Green Infrastructure
    - * Bioretention basin
    - * Vegetated Filtration Strip
    - * Vegetated Swale
    - * Pervious Paving
    - * Native Planting
- **Cohesive and Comfortable:**
  - » Site Furnishings
  - » Shade Structures
  - » Boardwalks
  - » Parking
- **Active:**
  - » Connection to On-street bike facilities
  - » Active Recreation
    - * Sport Fields
    - * Playgrounds
    - * Trail Typologies

CONCEPT DESIGN NARRATIVE

The concept plan for Dad's Club Park seeks to expand the park's amenities, aesthetic character and connectivity. Two main entrances are identified. The one at the intersection with Pineloch Dr. provides pedestrian and bicycle access to the park. The other main entrance is located at the intersection of Village Evergreen Trail and Crescent Landing Dr. This entrance uses the existing detention pond as the main attraction while entering the park, by modifying the pond's edges and planting palette it serves as a natural amenity. A boardwalk expands the experience of people accessing the park.

At the northern edge of the park a new "Linear Park" would provide the community with additional amenities that go beyond the use of baseball or soccer fields. By providing picnic areas, new sidewalk and trail connections, this area can be used by the community that does not want to use the fields.

A system of trails is recommended to provide pedestrian circulation throughout the park, the fields and new park amenities. Two playground areas provide an opportunity for adventure play while diversifying the amenities for users.

It is recommended that new shaded picnic areas are added throughout the park and trees are planted along trails to increase comfort and reduce heat island effect.

CONNECTION BETWEEN PARKS

While there are no specific connections between parks in the area, the clearest pedestrian and bicycle connections are along Crescent Landing Dr. and into the Bay Knoll Greenbelt Sign.

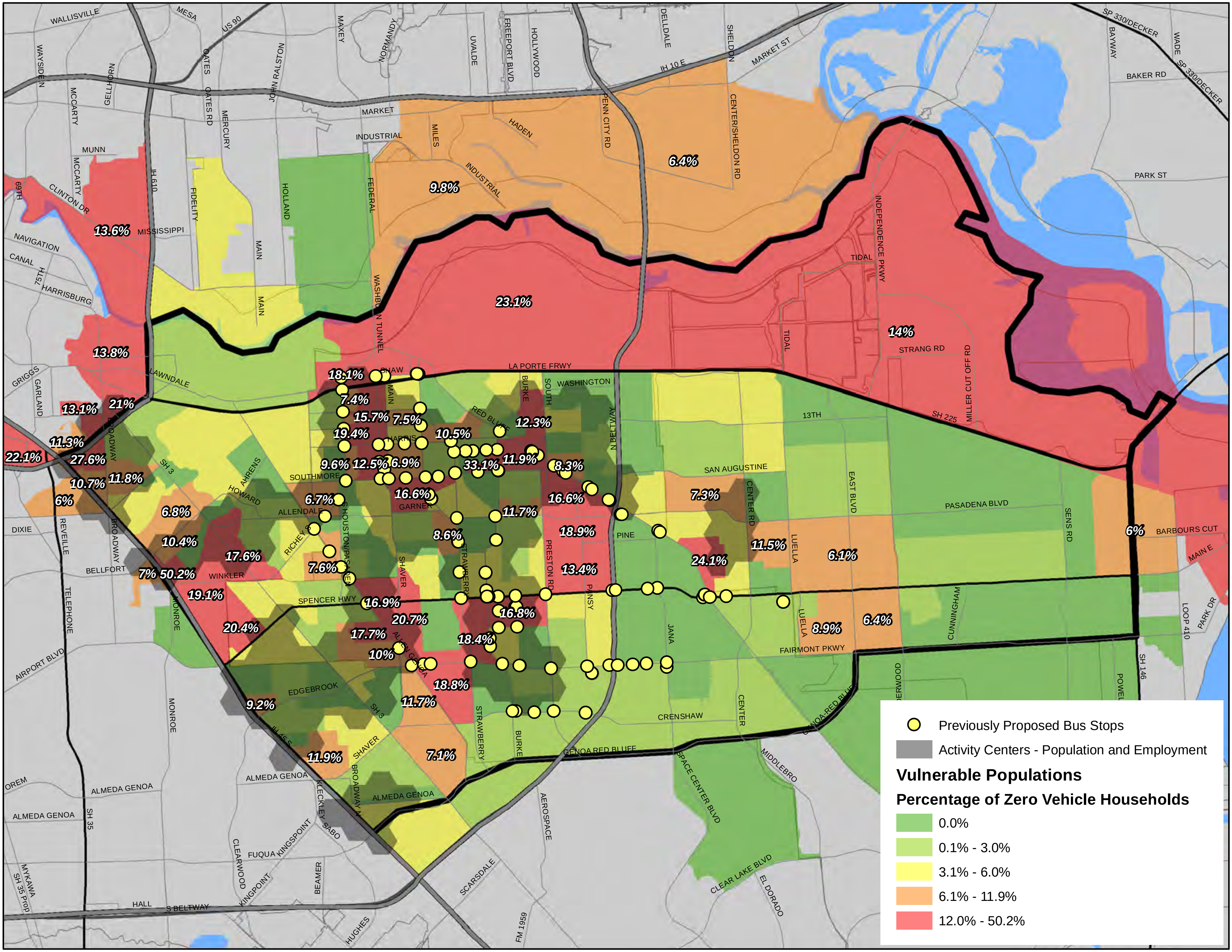
KNOWN LAND USE AND COORDINATION CONSIDERATIONS

Although this site is not directly within the floodplain, this site should support in reducing runoff and flooding. The site is surrounded by single family homes to the north, a Major thoroughfare to the south, along with public buildings to the south. Directly northwest, there is vacant land registered as public/institutional land, additional research should determine suitability for expansion and public use.

ADRIAN GARCIA
COMMISSIONER

PARKS AND TRAILS PLAN
Harris County Precinct 2

DRAFT SEPTEMBER 2021


Previously Proposed Bus Stops
Activity Centers - Population and Employment
Vulnerable Populations
Percentage of Zero Vehicle Households
0.0%
0.1% - 3.0%
3.1% - 6.0%
6.1% - 11.9%
12.0% - 50.2%
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FREEPORT BLVD
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DELLDALE
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SP 330/DECKER
BAYWAY
WADE
BAKER RD
MARKET
INDUSTRIAL
MILES
HADEN
PENN CITY RD
CENTER/SHELDON RD
PARK ST
MUNN
CLINTON DR
MISSISSIPPI
NAVIGATION
CANAL
HARRISBURG
FIDELITY
HOLLAND
FEDERAL
MAIN
WASHBURN TUNNEL
INDEPENDENCE PKWY
TIDAL
STRANG RD
MILLER CUT OFF RD
LA PORTE FRWY
SH 225
SHAW
WASHINGTON
13TH
SAN AUGUSTINE
PASADENA BLVD
BARBOURS CUT
MAIN E
RED BLUFF
HARRIS
SOUTHMORE
GARNER
ALLENDALE
HOWARD
AHRENS
RICHEY
SH 3
BROADWAY
REVEILLE
DIXIE
BELLFORT
WINKLER
SPENCER HWY
SHAVER
STRAWBERRY
PRESTON RD
PANSY
PINE
LUELLA
EAST BLVD
SENS RD
CUNNINGHAM
FAIRMONT PKWY
JANA
LOOP 410
PARK DR
SH 146
TELEPHONE
AIRPORT BLVD
MONROE
EDGEBROOK
CRENSHAW
CENTER
GENOA RED BLUFF
MIDDLEBRO
SPACE CENTER BLVD
ALMEDA GENOA
KLECKLEY
SABO
AEROSPACE
SH 35
CLEARWOOD
FUQUA
KINGSPOINT
BEAMER
SCARSDALE
CLEAR LAKE BLVD
EL DORADO
HALL
S BELTWAY
HUGHES
FM 1959
MYKAWA
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OATES RD
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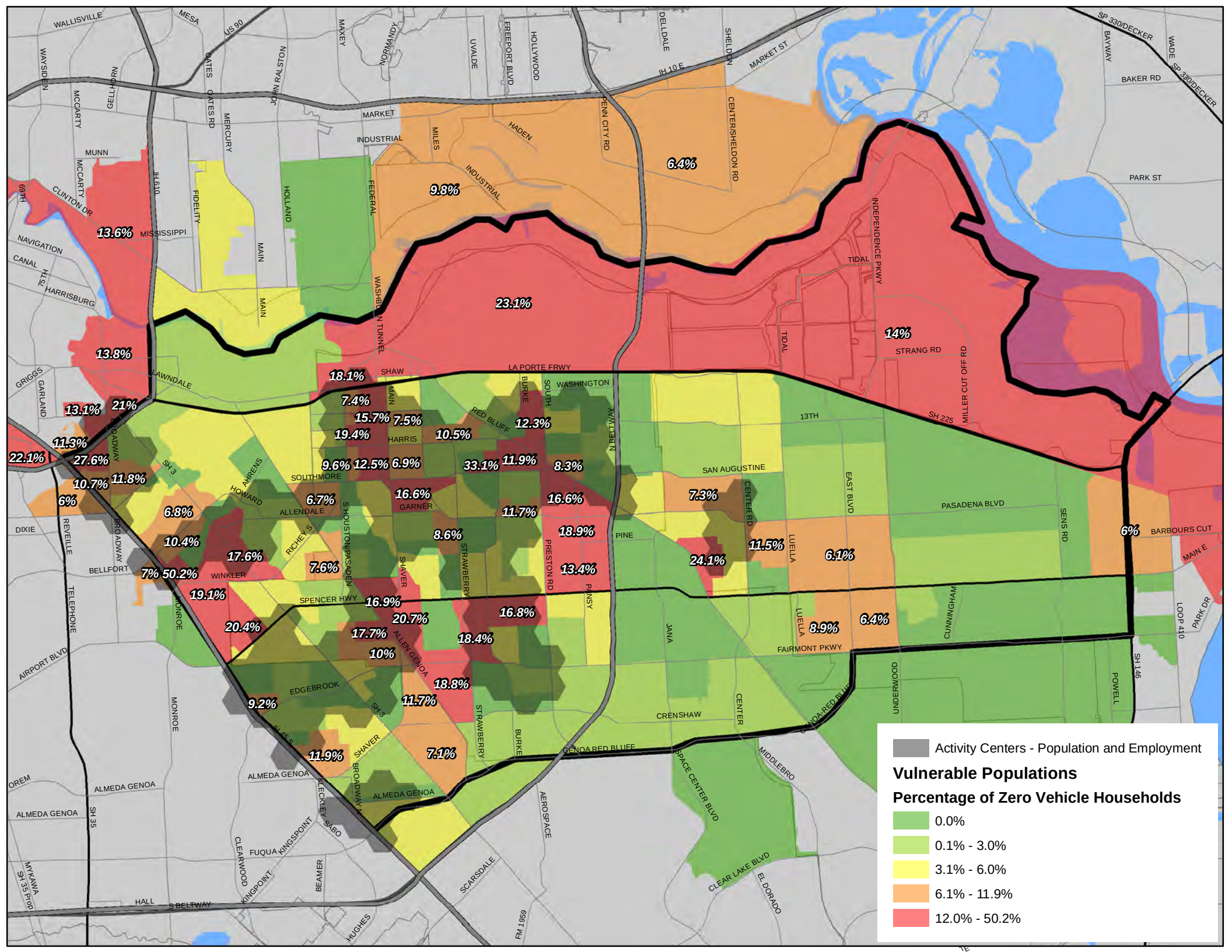
N BELTWAY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