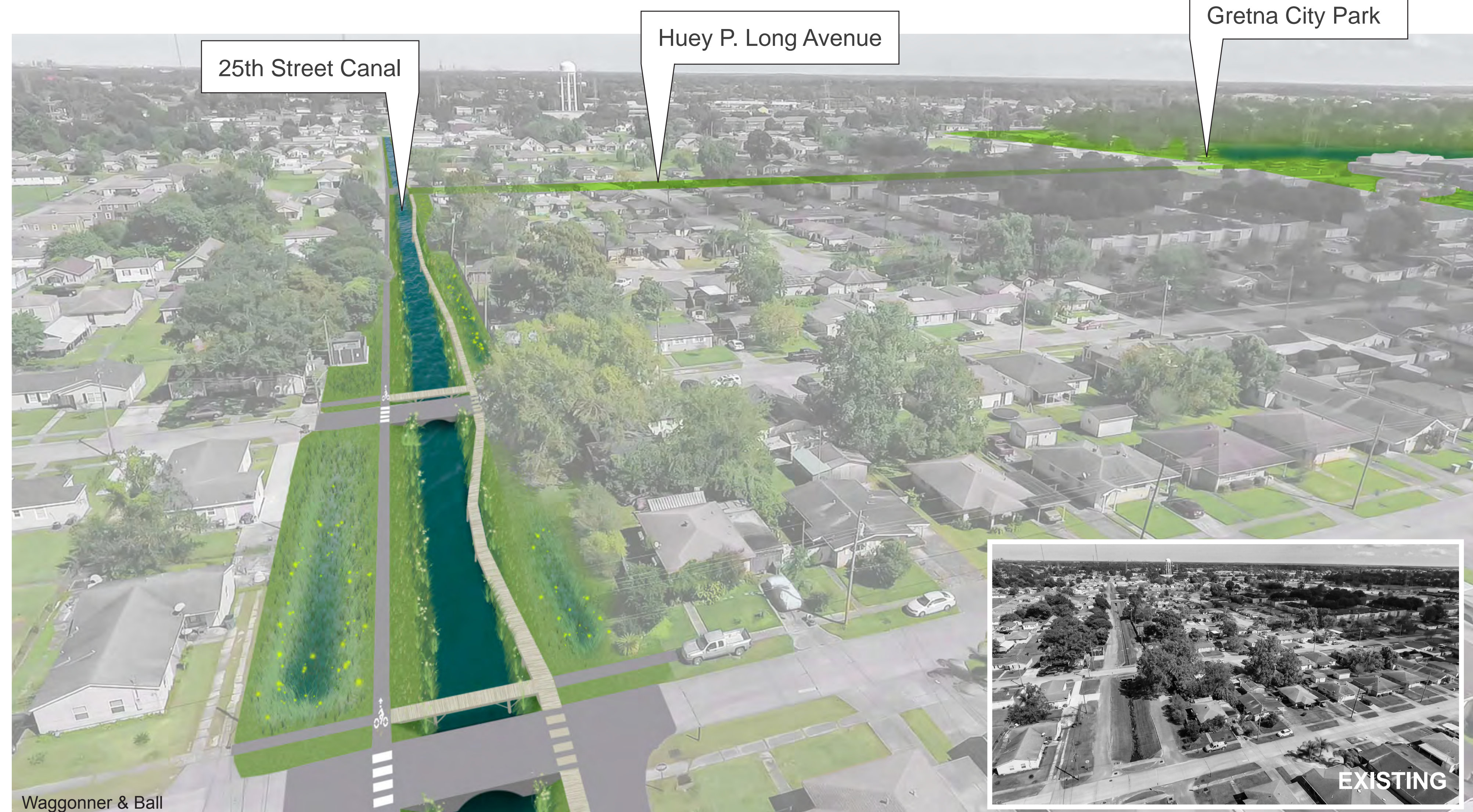


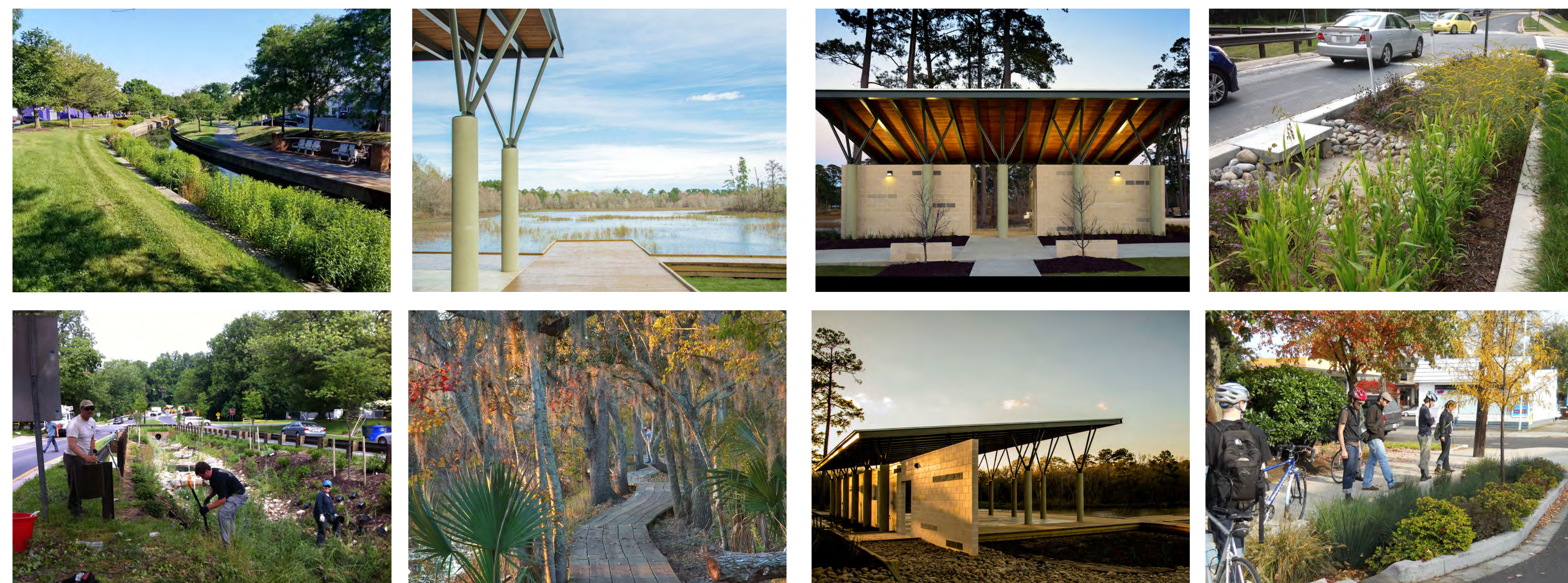


Gretna City Park Plan

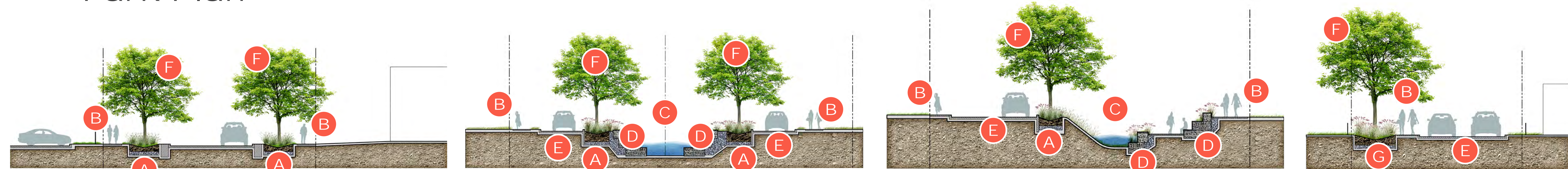


25th Street Canal Aerial View

Improvements include reconstructed roadways, bioswales, pervious crosswalks, and street trees. Canal improvements include a widened channel with stabilized canal edges.



Precedent Images of 25th Street Canal



Section A Section B Section C Section D

- A

6'-0" Urban Bioswale with Trees and Native Plants

B

5'-0" Pedestrian Pathway

C

Widened Canal Channel (Typ. Water Level 3'-0", Max. Water Level 7'-0")

D

Gabion Terrace Walls as New Canal Edge

E

Reconstruct Existing Roadway

F

Street Trees and Native Plants in Stormwater Mangement Facilities

G

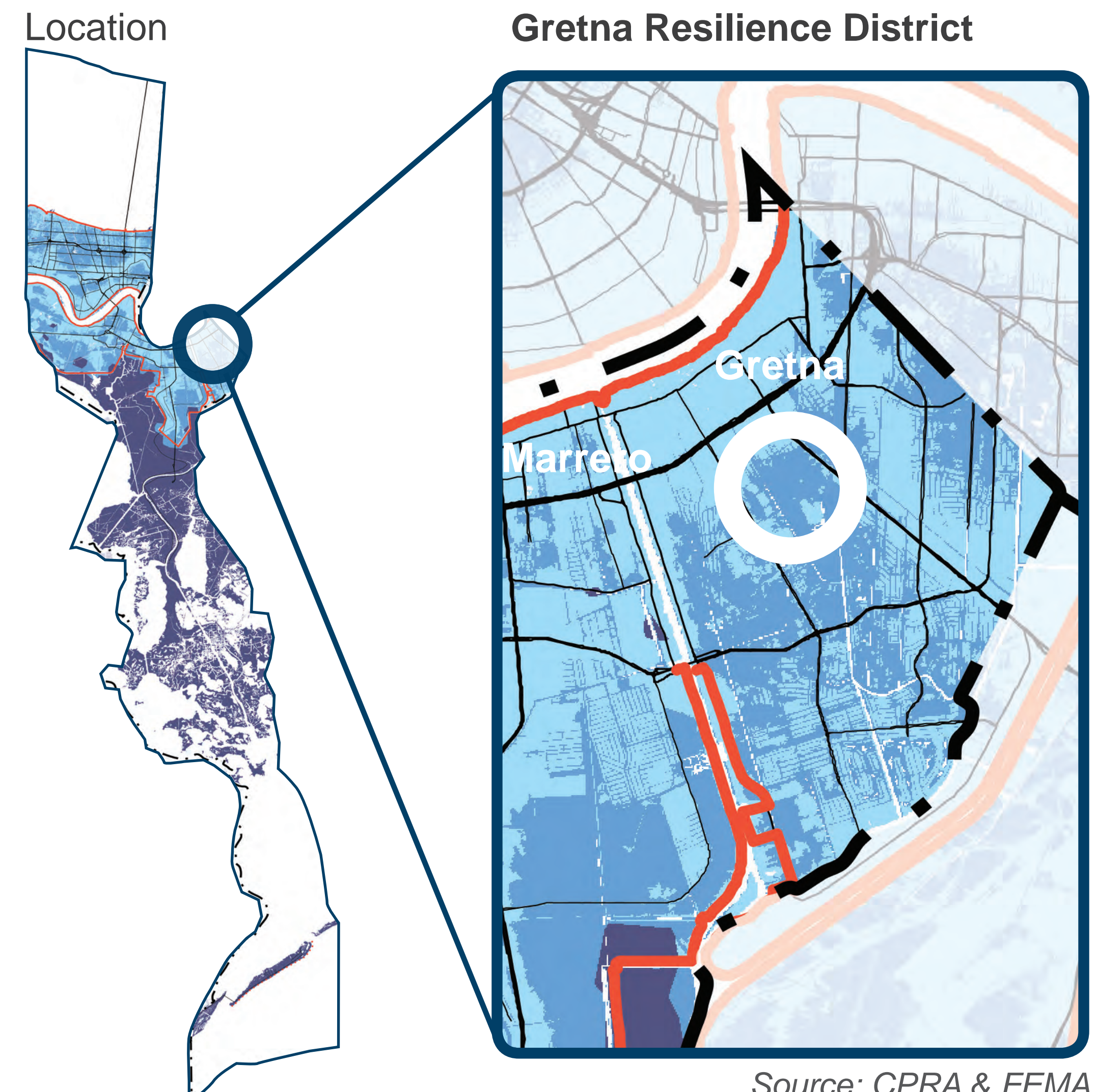
12'-0" Bioretention Cell

PROPOSAL

Gretna City Park and the 25th St. Canal are two major components of the Gretna Resilience District, an initiative that aims to address flood risk reduction and provide quality of life enhancements. Improvements to the park include greater stormwater retention, enhanced entryways, pathways, and signage, additional seating and pavilions, and the installation of a tiered dock that will connect visitors to the water. The canal improvements include green infrastructure features to increase capacity and conveyance of stormwater in an area with a high concentration of repetitively flooded homes and businesses. In addition, the canal enhancements include the creation of recreational amenities for biking, walking, and interactive community spaces.

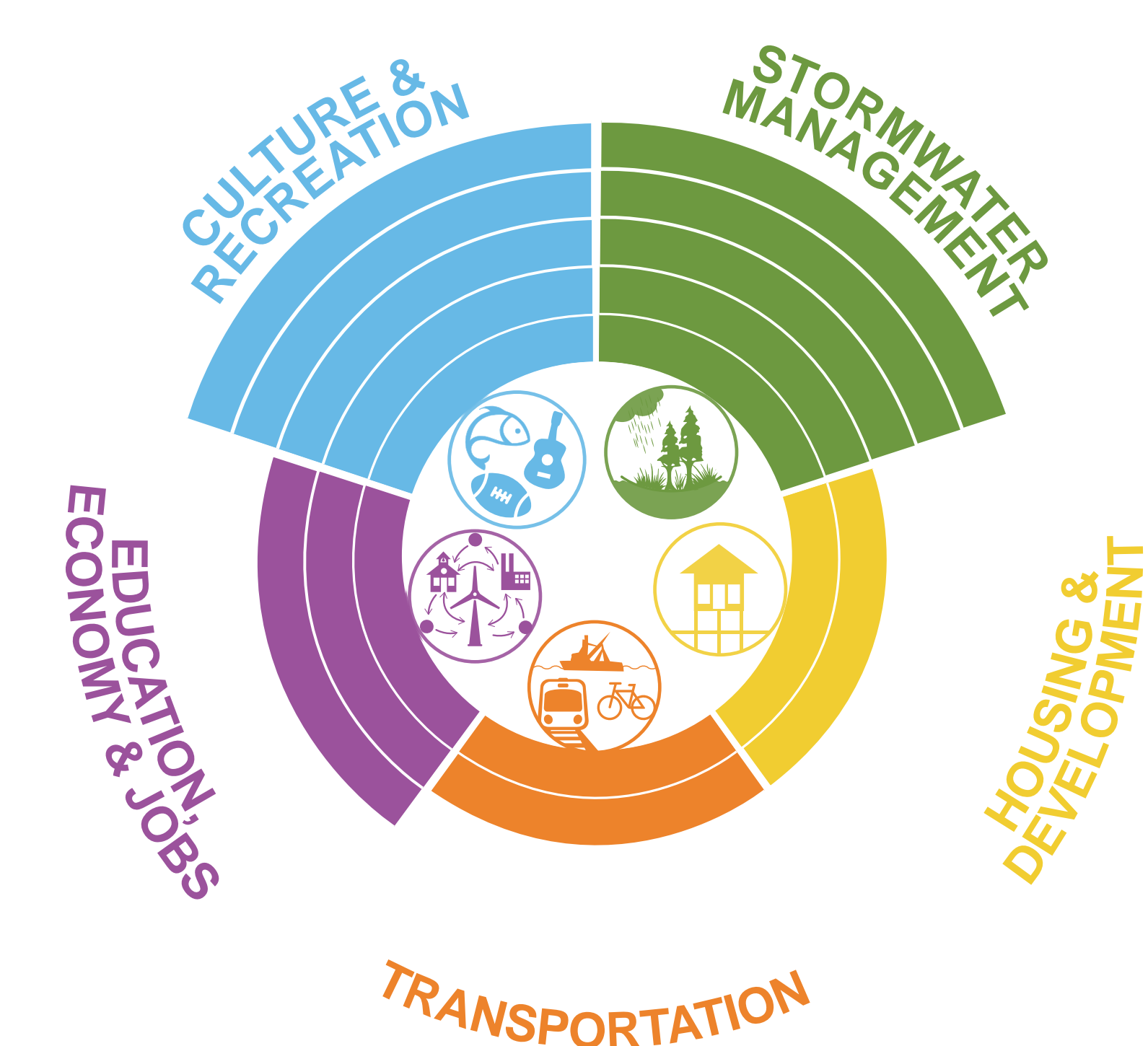
Key Info

Project Area	Gretna City Park - approx. 78 acres Street & Canal - approx. 4,800 L.F.
LA SAFE Investment	Up to \$6 million
Estimated Project Cost	Gretna City Park - \$4.5M 25th Street Canal - \$3.0M Huey P. Long Ave. - \$1.4M Total (w/ design & contractor fees) - \$11.5M
Partners	FEMA (FMA, PDM); Jefferson Parish; City of Gretna; JPPSS; Tulane Regional Urban Design Center
Location	Gretna Resilience District



Source: CPRA & FEMA

Community Benefits



- 

Park and canal improvements to increase stormwater retention capacity and reduce flooding risk to streets, houses, schools, & businesses.
- 

Improves housing stock and property values by reducing flood risk and enhancing the park, encouraging development and neighborhood revitalization.
- 

Creates greater community connectivity, walkability, bikeability.
- 

Educational signage and programming about stormwater management will be included in City Park and will support jobs to rent recreational equipment (kayaks, canoes, paddleboards) and manage facilities.
- 

Provides spaces for many types of recreation, increases community connectivity and access to amenities, and provides aesthetic enhancements improving quality of life.

COMMENTS



Elmwood West Drive Green Street and Parking Retrofits

- 1 Tree lined bioswale, 12 feet wide
- 2 Tree lined bioswale, 7 feet wide
- 3 Parking lot with pervious pavers
- 4 Traffic circle at intersection

BEFORE



Bioswale, path, bridge, and parking



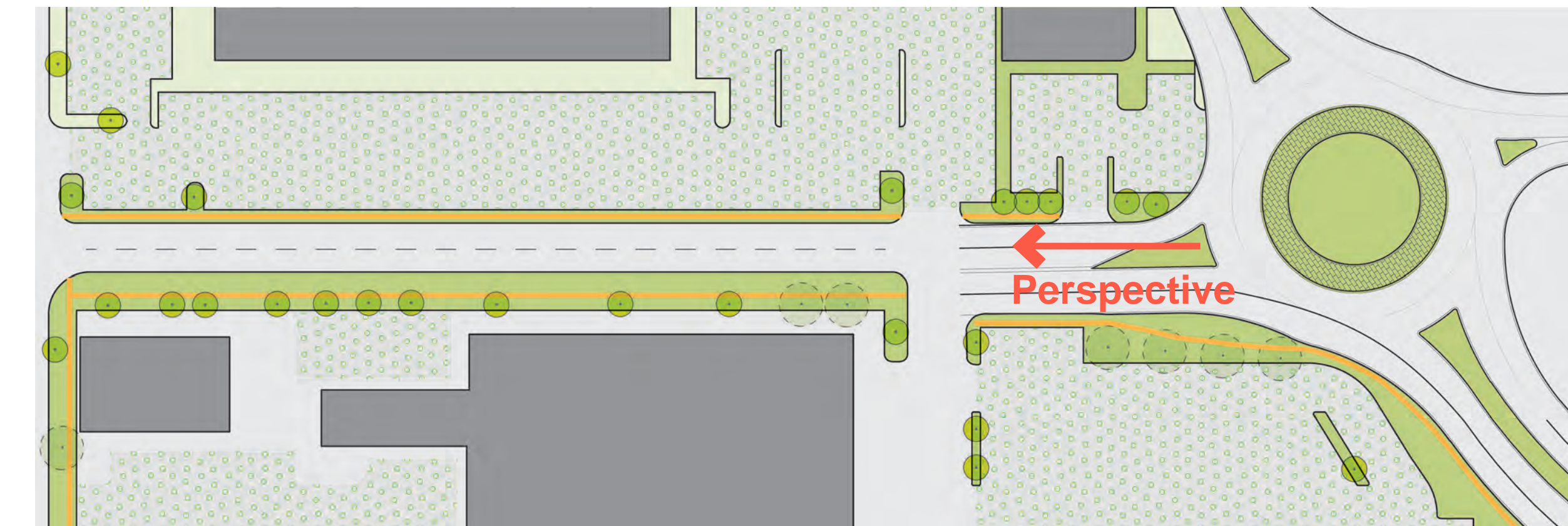
Pervious paving system absorbs rainfall and reduces heat



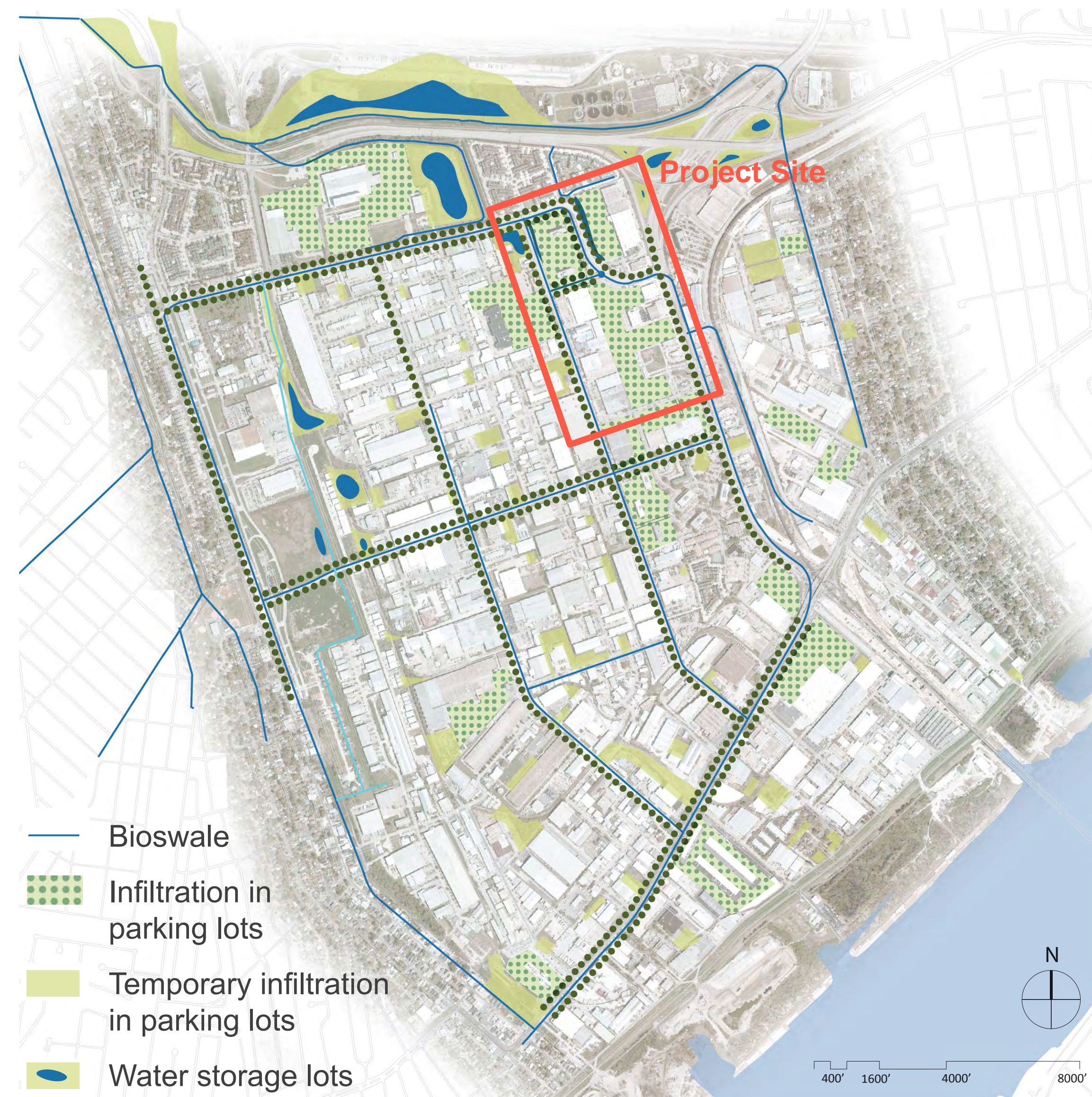
Crossing a rain garden in a lot



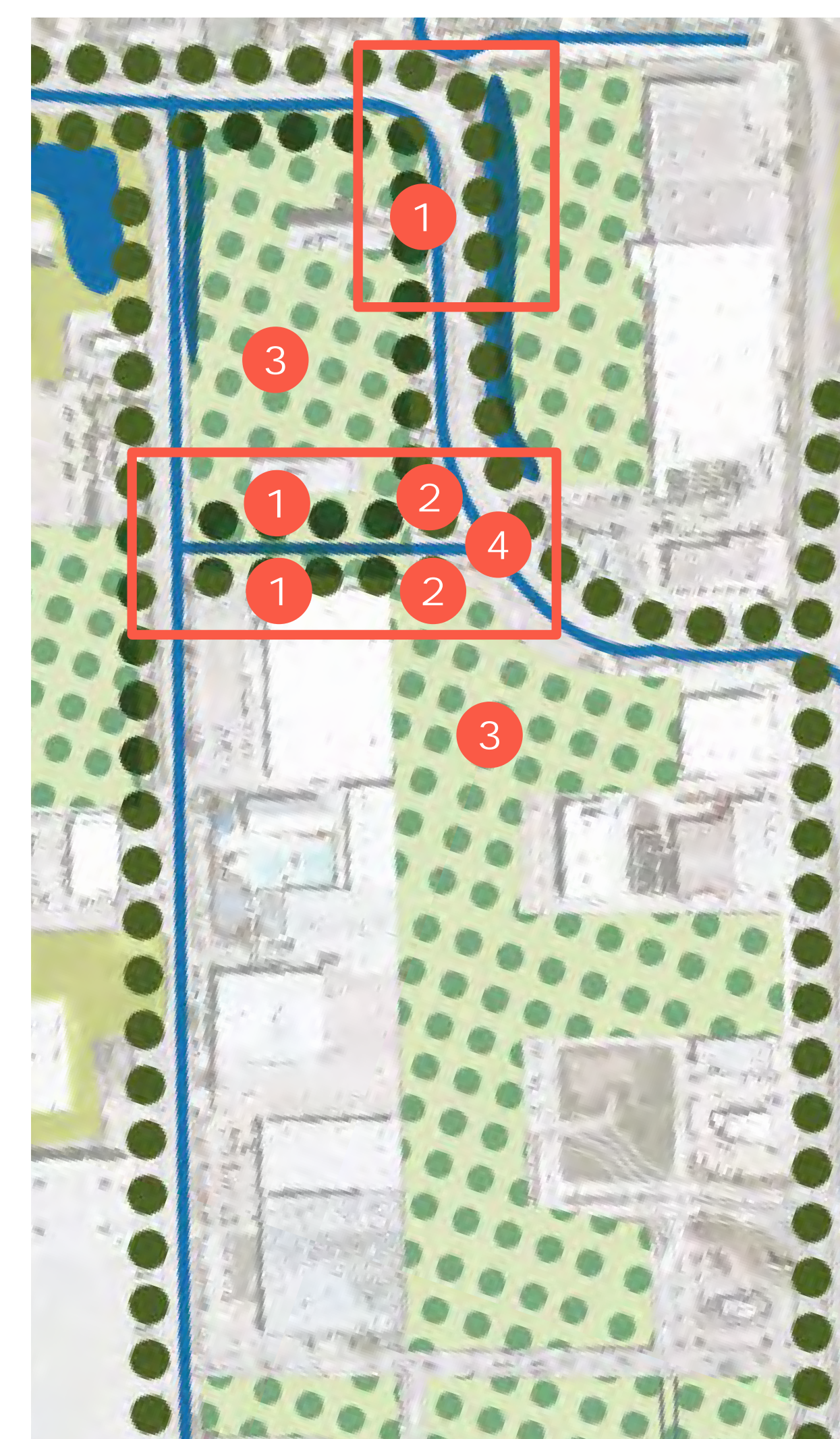
Bioswale between parking spaces



Elmwood West Green Streets
Tree lined bioswales, new sidewalks, and pervious parking



Future Vision for Elmwood District
Green Streets, Parking Retrofits, and Water Storage



Plan of Project Area
Green Street and Parking Retrofits



Parking Retrofits
Yenni Building site and Citrus Blvd.

- Tree lined bioswale
- Pervious parking
- Gutter across roadway
- Existing tree
- New tree
- Pedestrian bridge
- Sidewalk

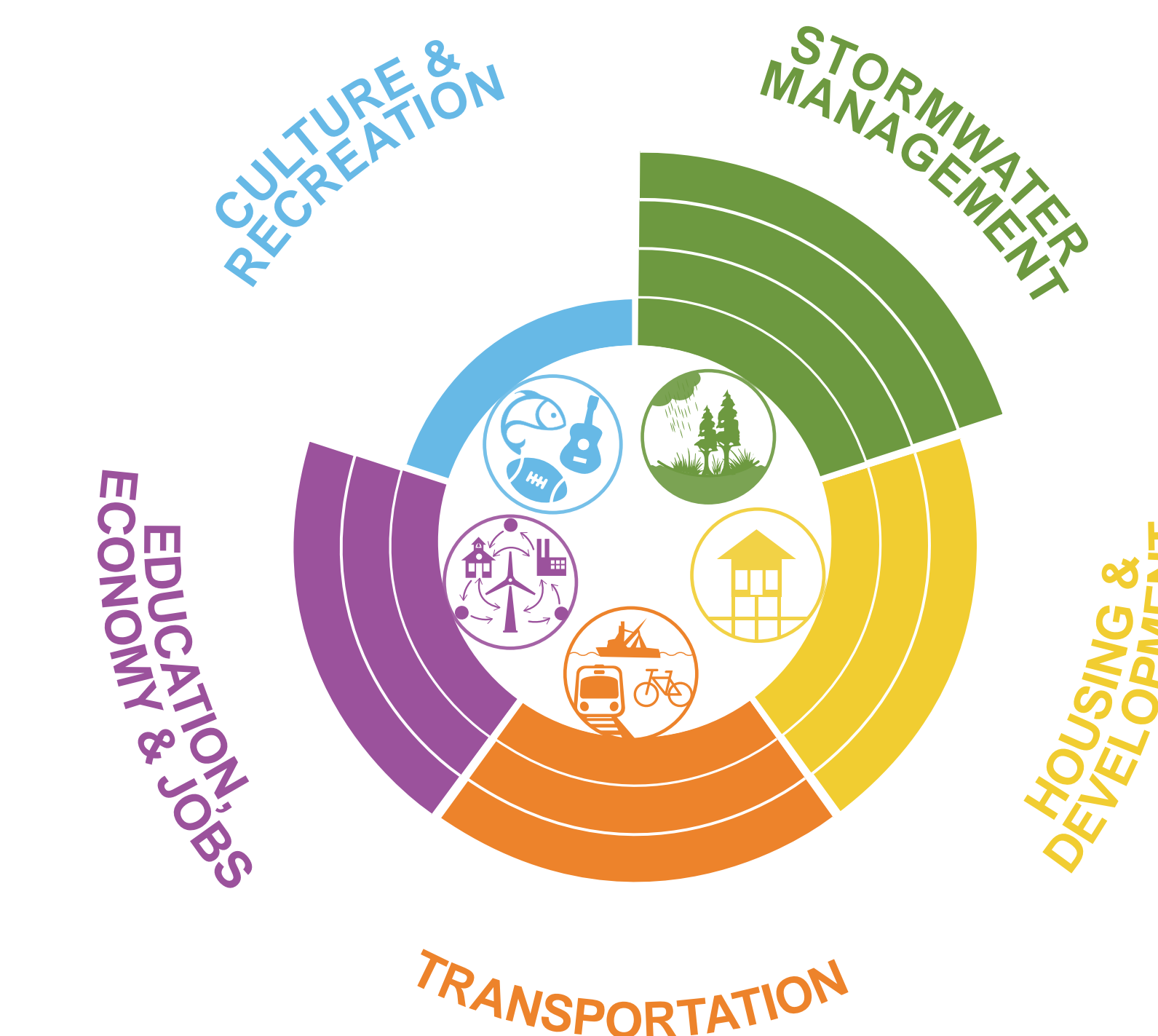
PROPOSAL

Once called Elmwood Park and now a heavily paved commercial district, Elmwood is the source of much of the flooding from runoff that occurs within its boundaries but also throughout the riverside portions of Jefferson Parish. Re-Green Elmwood is a long-term strategy that peels back pavement where possible and transforms street edges, rights of way, and parking lots into an interconnected network of water storage spaces. The set of proposed pilot project options kicks off this vision with smart retrofits in both public and private land that add value to retail and commercial developments, while limiting flooding within the district and beyond.

Key Info

Project Area	46 acres
LA SAFE Investment	\$1.5 - \$6 million
Estimated Project Cost	Public Parking Retrofits - \$2.4M Elmwood W. Green Street - \$1.0M Private Parking Retrofits - \$4.6M Traffic Improvements - \$1.4M
Partners	Jefferson Parish; Tax Incentive Financing; Private Developer
Location	Elmwood Business District

Community Benefits



Pervious paving, green space, vegetation, and underground detention components drain and filter stormwater and reduce flooding. The tree canopy and greenspaces reduce heat island effect.



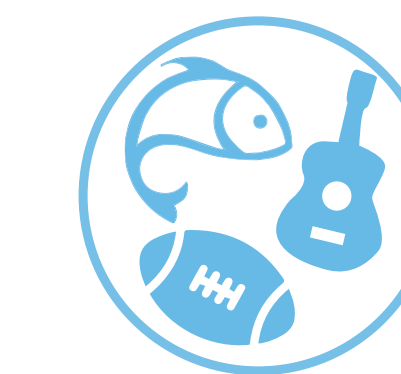
Increases demand for private redevelopment in Elmwood, including adjacent mixed-use renovation of old Kmart site with 280 residential units.



Sidewalks and green space increase pedestrian walkability, safety and connectivity. Signalized intersections and traffic calming improve circulation and decrease delays.

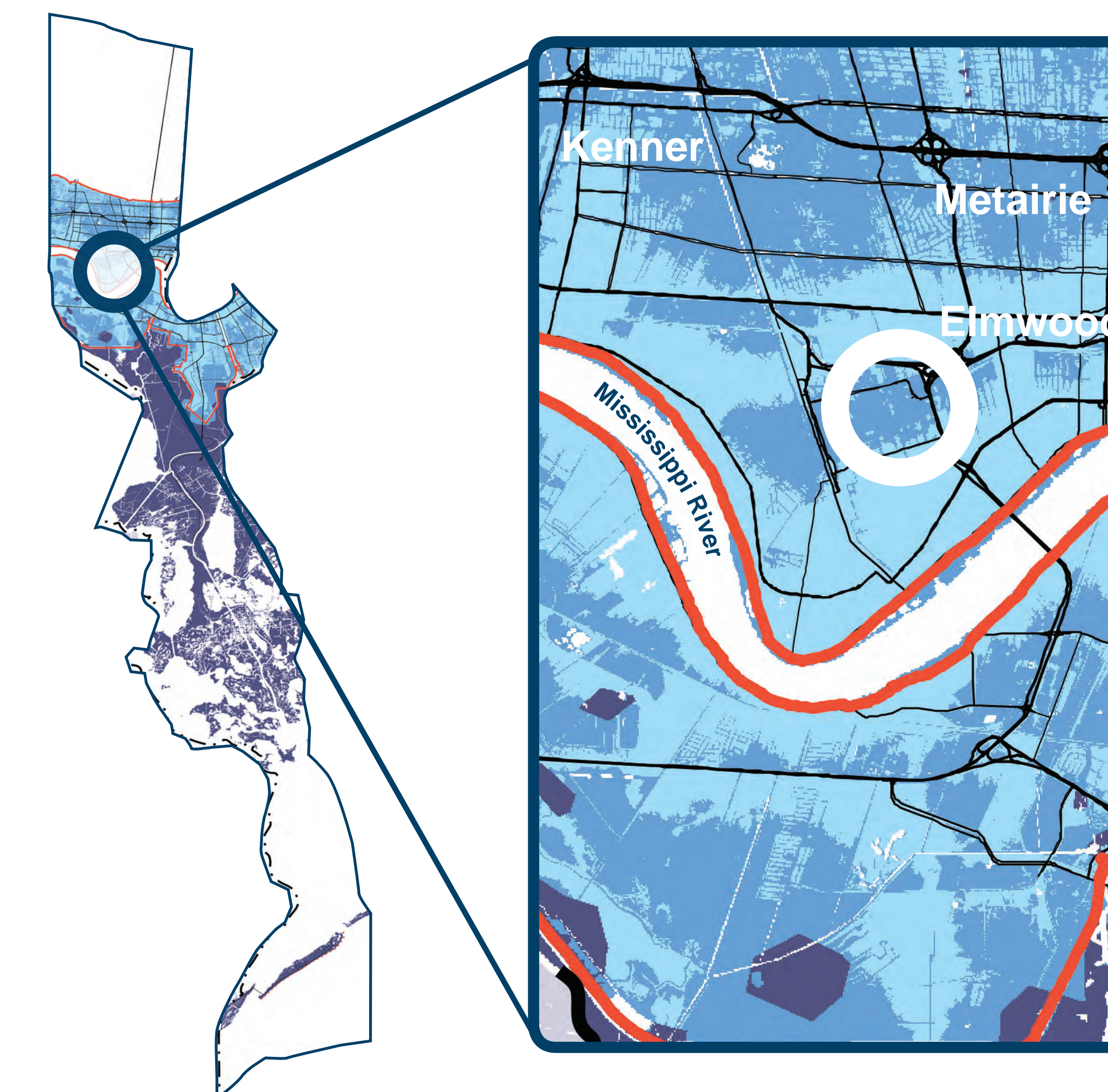


Improvements will enhance neighboring businesses and promote new investment; signage will educate residents about the value of green infrastructure.



Re-introduction of natural green features such as bioswales and tree canopy will promote walkability and begin the transition to a mixed use area with cultural and recreational amenities.

COMMENTS



C LOUISIANA WETLANDS EDUCATION CENTER



WHLC Architecture

The Master Plan:

Phase I: Create a Multipurpose Resource Facility (complete)

Phase II: Construction of a Wetlands Education Center and Replica of a Fishing Village

Phase III: Expansion of Amenities and Cultural Activities at the Fishing Village

Left: Phase II: Wetlands Education Center

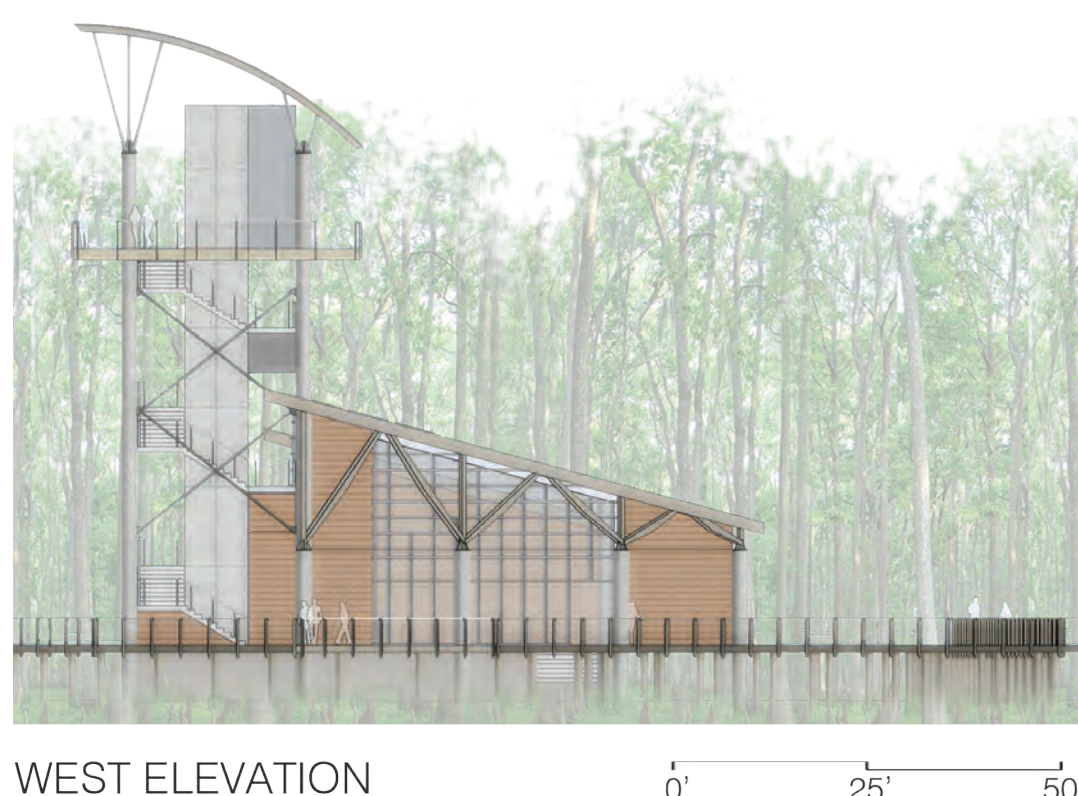
Phase II: Wetlands Education Center and Replica Fishing Village

1. Wetlands Education Center will include:

- Combination classroom and film theater with seating for approximately 80 students.
- Small meeting rooms for private research.
- Multiple restoration, preservation, and adaptation displays with emphasis on wetland ecosystems.
- Several interactive and static galleries and exhibits, including turtles, spiders, baby alligators, etc.
- Large observation windows, an outdoor observation deck and an observation tower.
- Gift shop and first aid station.

2. Extension of the existing elevated wooden Walking Trail through the cypress swamp, including various docks, observation platforms and picnic areas.

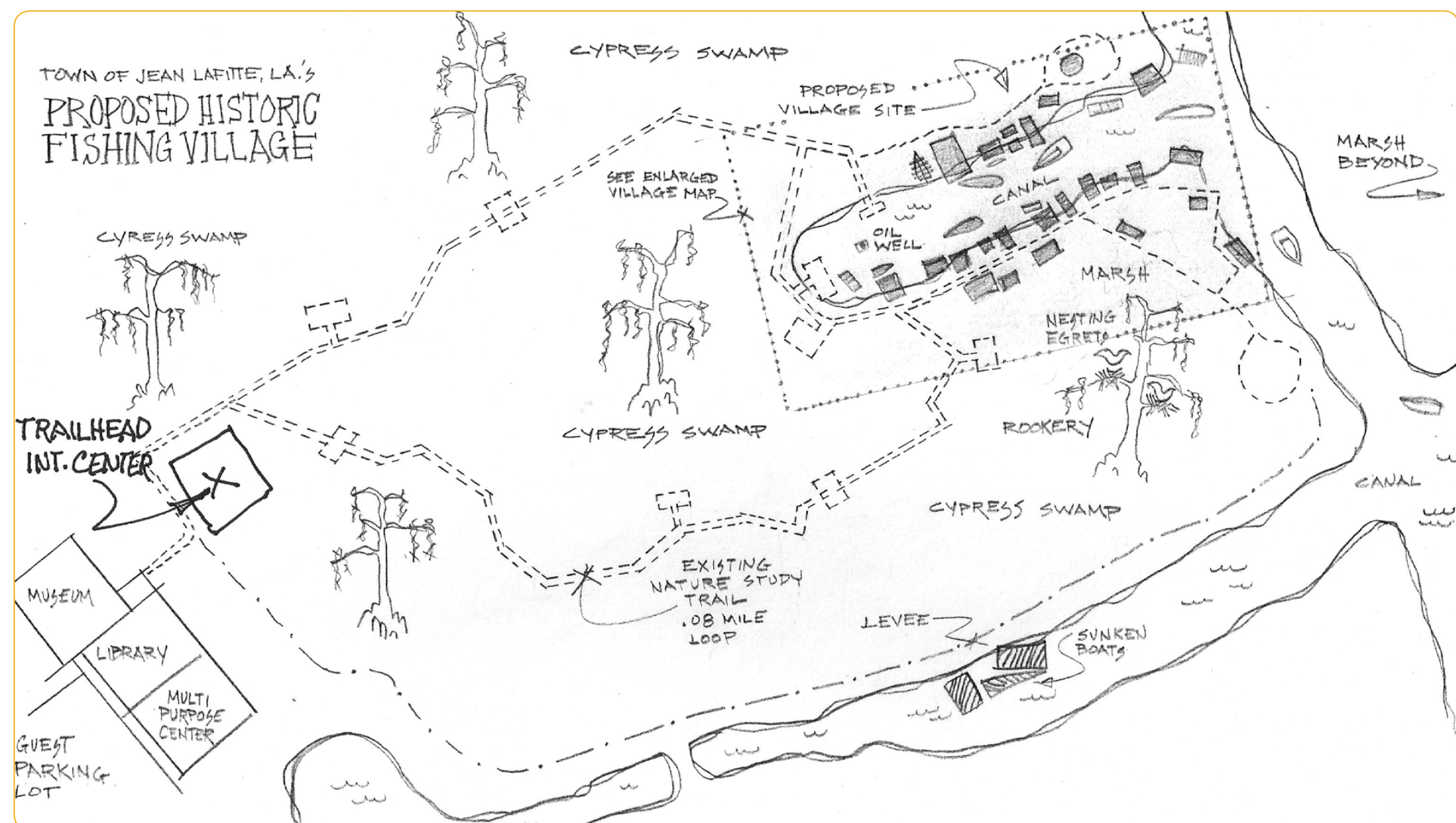
3. Construction of the Fishing Village, including rental cabins, outdoor classrooms, tour boat and water taxi dock.



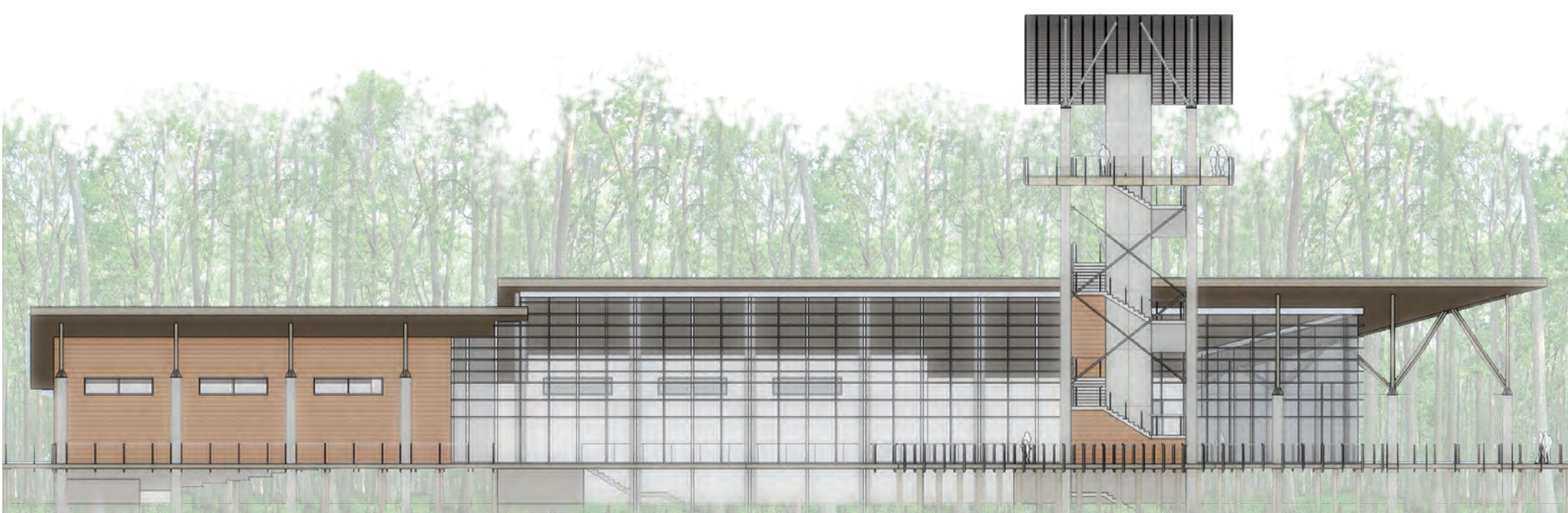
WEST ELEVATION



EAST ELEVATION



Drawing by Welldone, LLC



NORTH ELEVATION

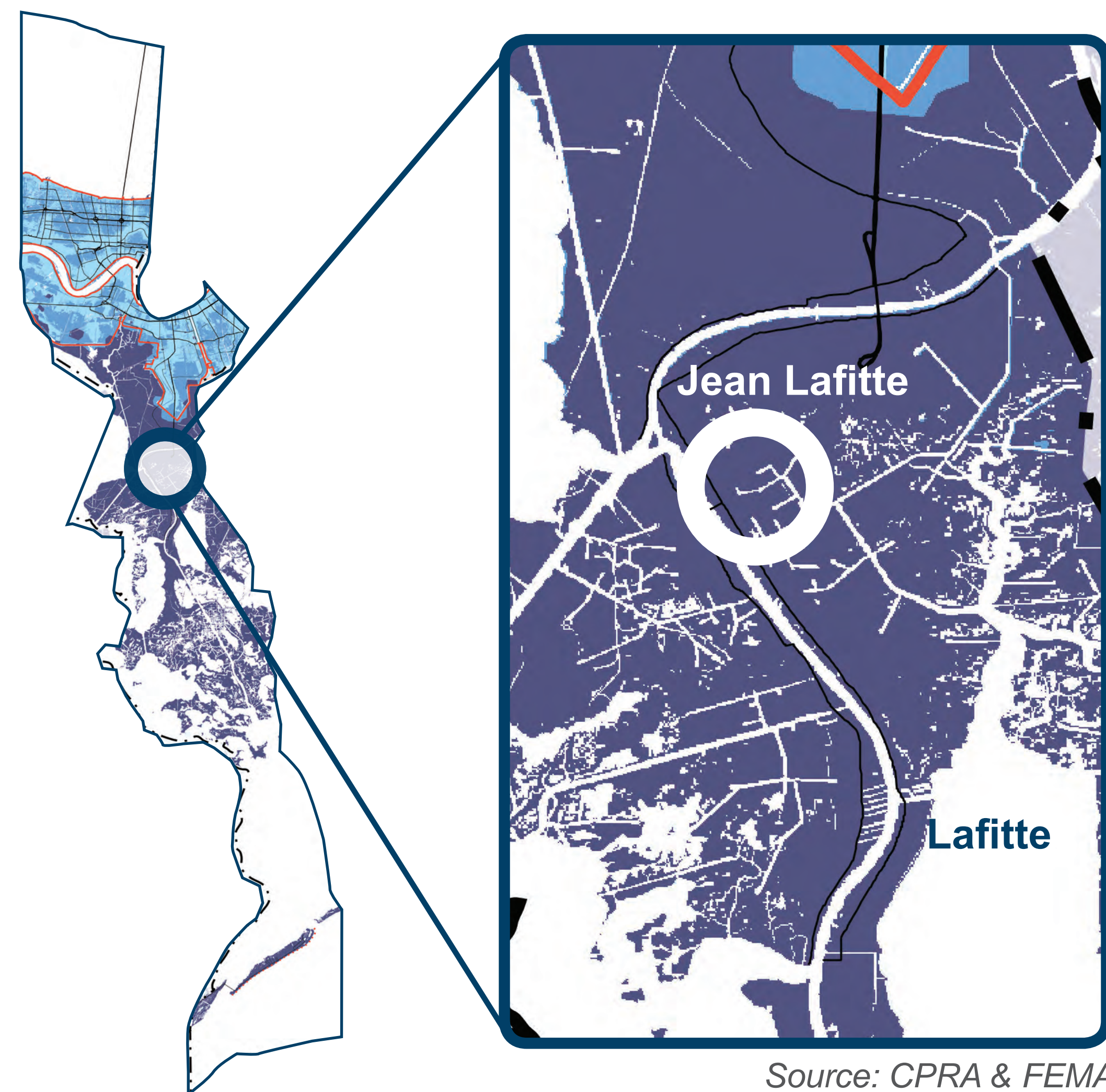
Architectural design and renderings by WHLC Architecture

PROPOSAL

LA SAFE has emphasized the value of educating our coastal population about current and future environmental conditions and the effects of flood risk. The Louisiana Wetlands Education Center will be an educational asset serving students and families in the region, with programming for all ages, including a research outpost and meeting location for agencies and institutions. The Center will promote preservation, conservation, and adaptation related to wetland ecosystems, using its location in the Lafitte area as an outdoor classroom. Future phases would include an expanded fishing village to learn about coastal community traditions, a treetop ropes course, water taxis to Grand Isle, kayak and canoe rental and overnight cabins. The Center is complementary to the existing Lafitte Fisheries Market, and adjacent to the Auditorium, Nature Trail and Multi-Purpose Facility and Museum. Under this proposal, LA SAFE will potentially provide funding toward the Center's construction.

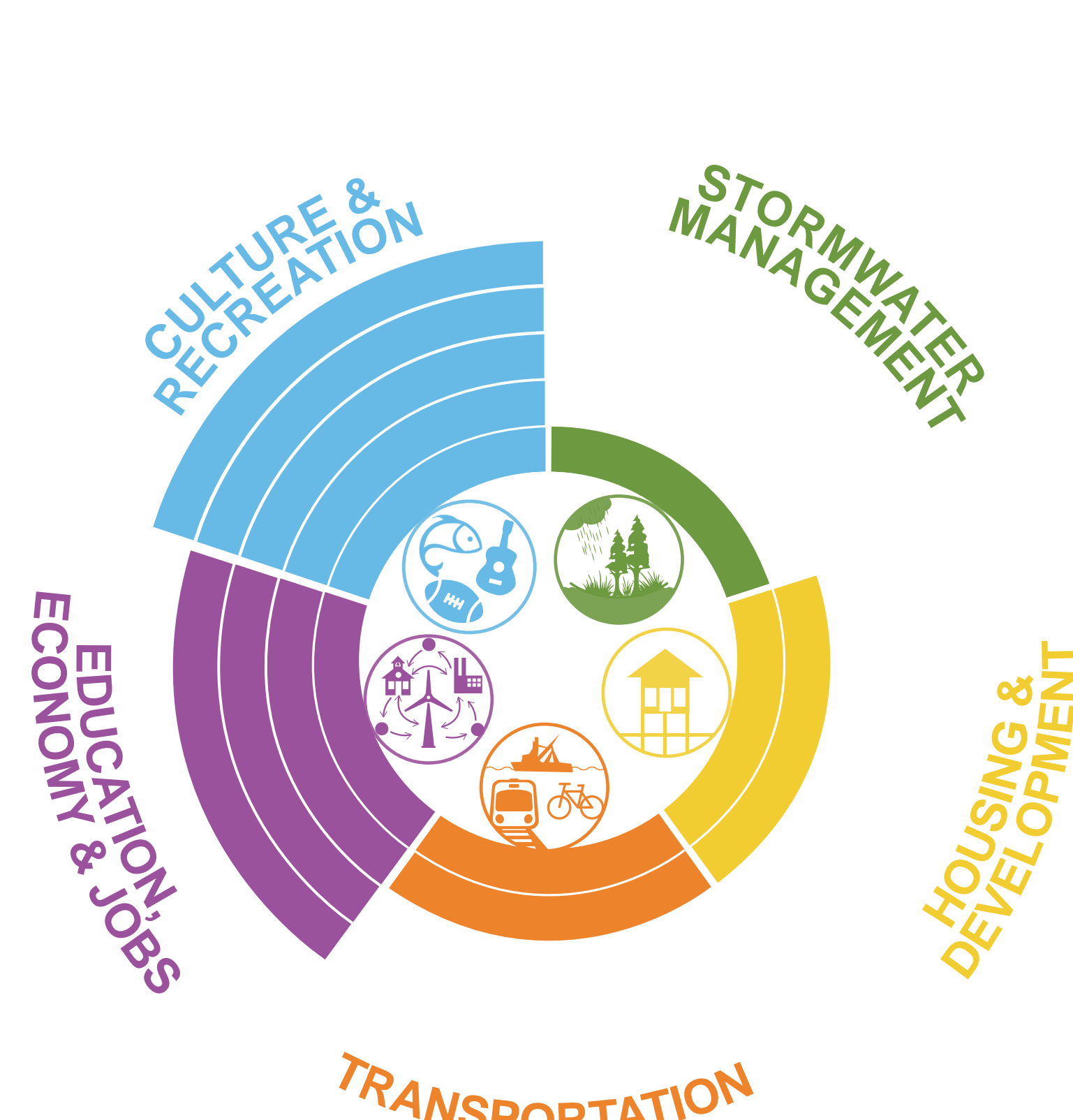
Key Info

LA SAFE Investment	Up to \$6.5 million
Estimated Project Cost	Up to \$12.1 million
Partners	Town of Jean Lafitte
Location	Jean Lafitte



Source: CPRA & FEMA

Community Benefits



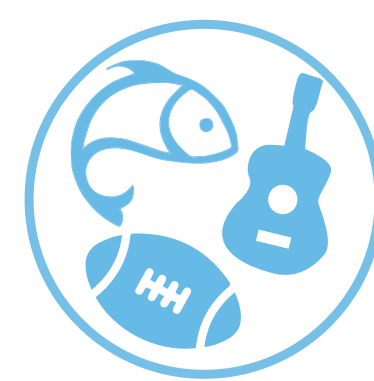
Building designed to model development suitable to high risk areas.



Master plan includes water taxis, tour boats, and trips to destinations like Grand Isle. Boardwalks and trails provide access to wetland ecosystems.



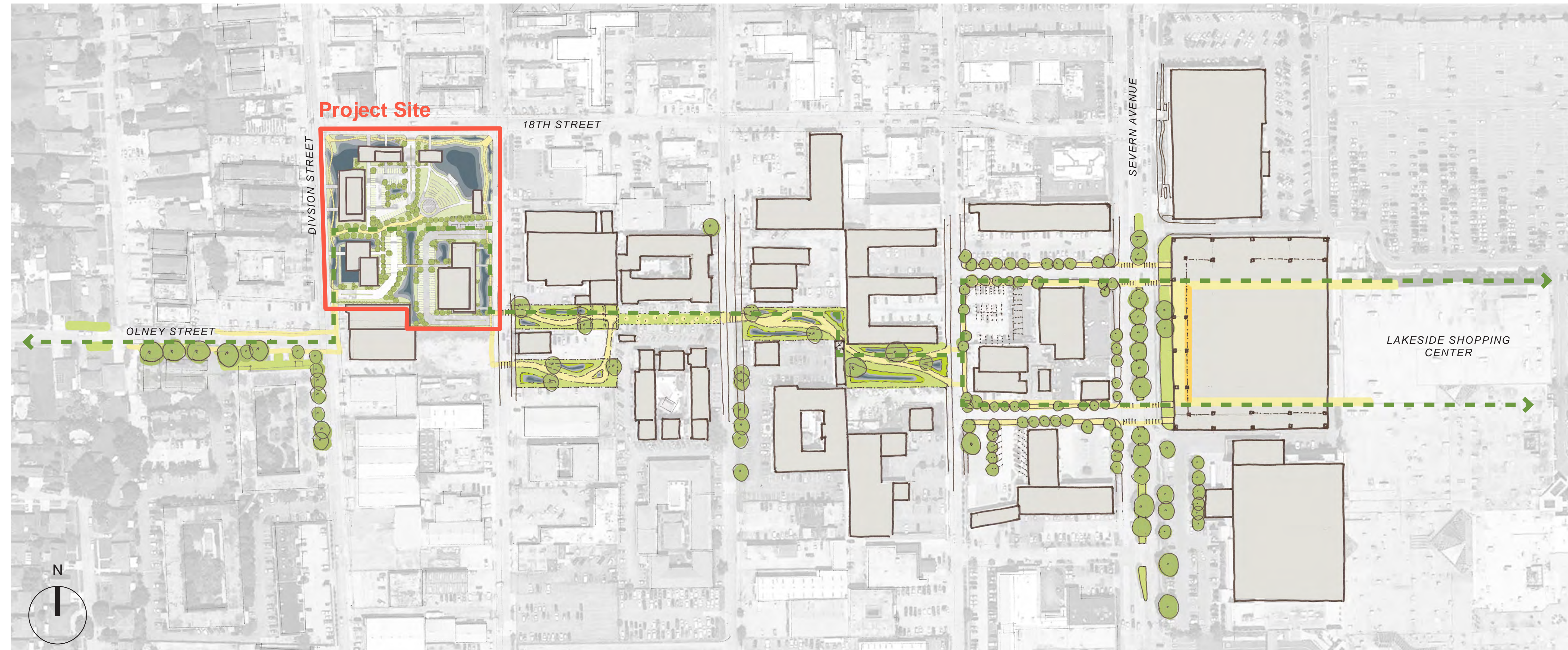
Provides educational opportunities for all ages, focusing on the ecology and culture of wetland areas. The center will provide jobs for science educators and local craftspeople to demonstrate traditional techniques.



Provides a recreational destination connected to nature, including boardwalks, trails and outlook decks. Cultural programming includes traditional boatmaking, netmaking, duck carving, storytelling and other interactive exhibits.

COMMENTS

D FAT CITY GREEN BLOCK



Perimeter bioswales are planted with native plants. During wet conditions curb cuts allow water to run off from the streets into bioswales.



Planted bioswales within the block store water during rain events.



Pervious pavers in parking spaces help to absorb rainfall runoff.

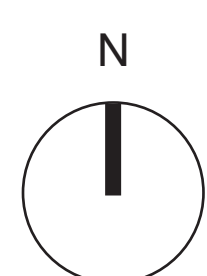
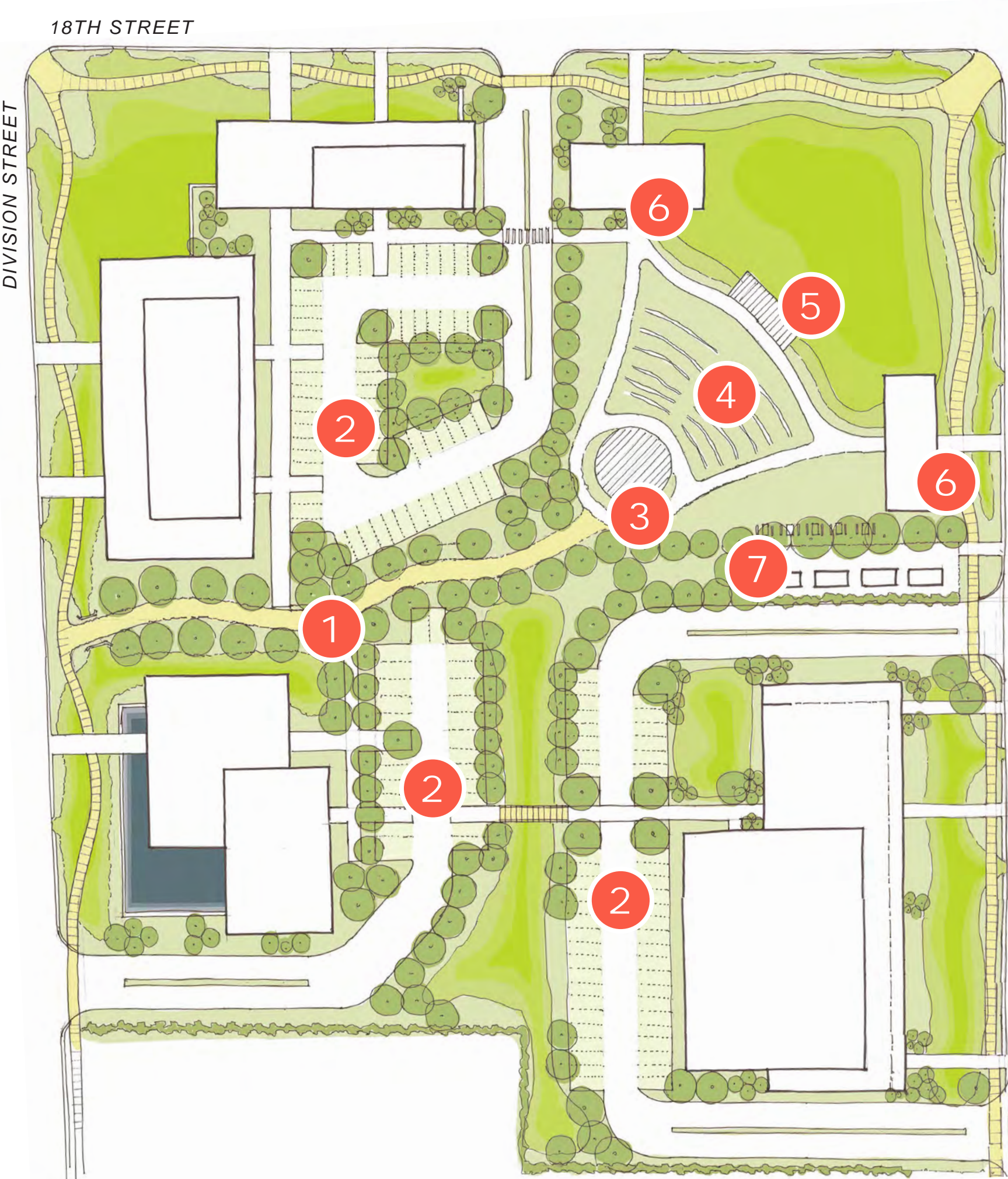


The park serves as a play area during dry conditions, and provides large-scale storage during rain events.



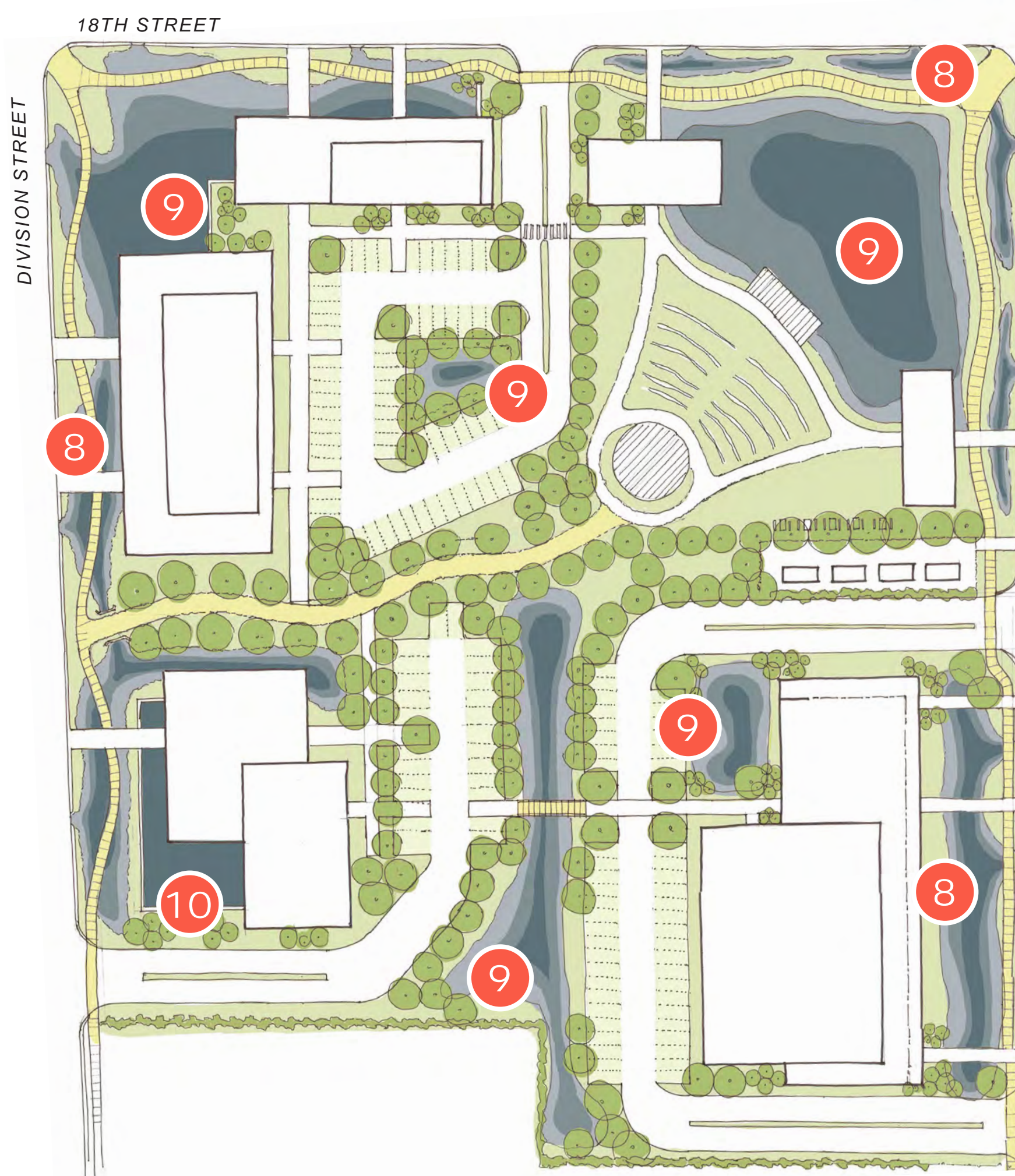
Long-Term Vision

A long-term vision for Fat City includes repaving all surfaces with pervious pavers to help reduce flooding within the district and alleviate flooding in surrounding neighborhoods. Currently, approximately 45% of the total surface area in Fat City is impervious.



Dry Condition

Bioswales and retention ponds are dry, providing visual relief throughout the district with native grasses, wildflowers, and other plantings.



Rain Event

During a rain event, bioswales and retention ponds provide stormwater storage. Elevated businesses remain accessible via boardwalks.

Plan View

Planned development includes a library, police station with first floor retail, and additional retail buildings. LA SAFE proposes to add green infrastructure. Buildings should be elevated, allowing planted bioswales and retention ponds across the block to fill with water during a rain event. Boardwalks and pervious pavers allow complete accessibility as the ponds fill with water.

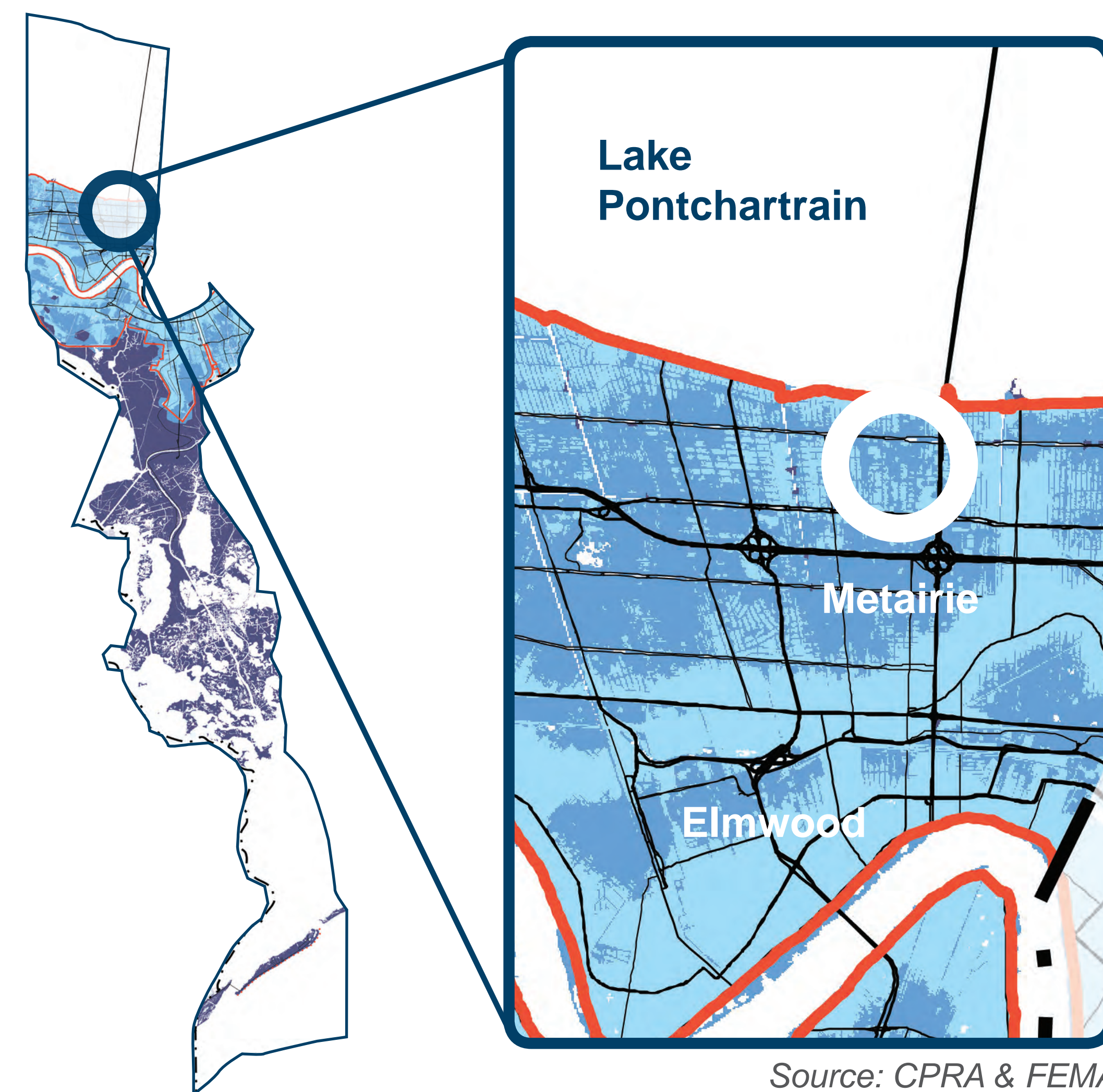
- | | |
|--|--------------------------------------|
| 1 Pedestrian Sidewalks around Block; Promenade through Center of Block | 6 Retail Pavilions |
| 2 Parking Lot with Pervious Pavers | 7 Food Truck Parking and Picnic Area |
| 3 Open Pavilion for Stage or Educational / Recreational Programs | 8 Curb Cuts and Perimeter Bioswales |
| 4 Terraced Lawn for Seating or Play Area | 9 Bioswales and Retention Ponds |
| 5 Platform for Performances or Educational / Recreational Programs | 10 Reflecting Pool |

PROPOSAL

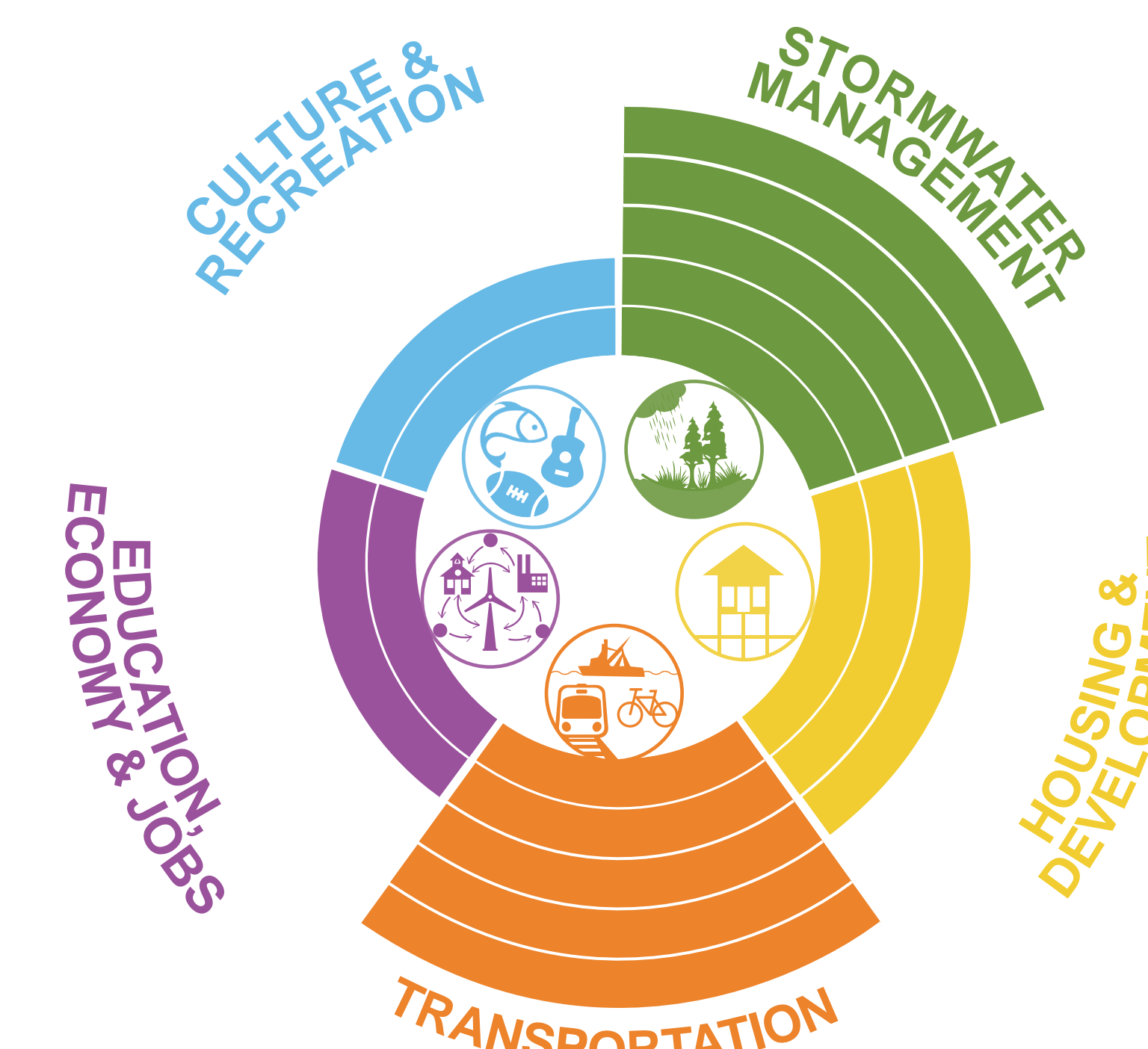
Envisioning a future with heightened flood risk, it will be important to implement large-scale stormwater strategies within urban and suburban environments. The Green Block strategy complements redevelopment efforts in Fat City at 18th and Hessmer, contributing to neighborhood revitalization efforts and mitigating localized flooding. Development plans call for a phased approach that includes public amenities and greenspace designed to manage stormwater and create recreation space. Driven by investments in public services and as part of a larger redevelopment strategy throughout Fat City, the green block strategy provides a framework that can be replicated and scaled up or down throughout the parish.

Key Info

Project Area	4 acres (Green Block)
Estimated Project Cost	\$3.7 million (Development); \$1.9 million (Pathways)
Partners	Jefferson Parish, Jefferson Parish Sheriff's Office, Jefferson Parish Library
Location	Fat City, Metairie



Community Benefits



Reduce risk of street flooding in Fat City, protecting local businesses and housing; Use green infrastructure to manage stormwater, mitigating additional subsidence.



Develop a public service hub, including a sheriff substation, library and stormwater management park.



Create safe, comfortable walking, bicycling, and public transportation corridors.



Support Fat City neighborhood revitalization, increasing property values and tax revenue; Invest in stormwater management, making area more attractive for commercial and retail development.



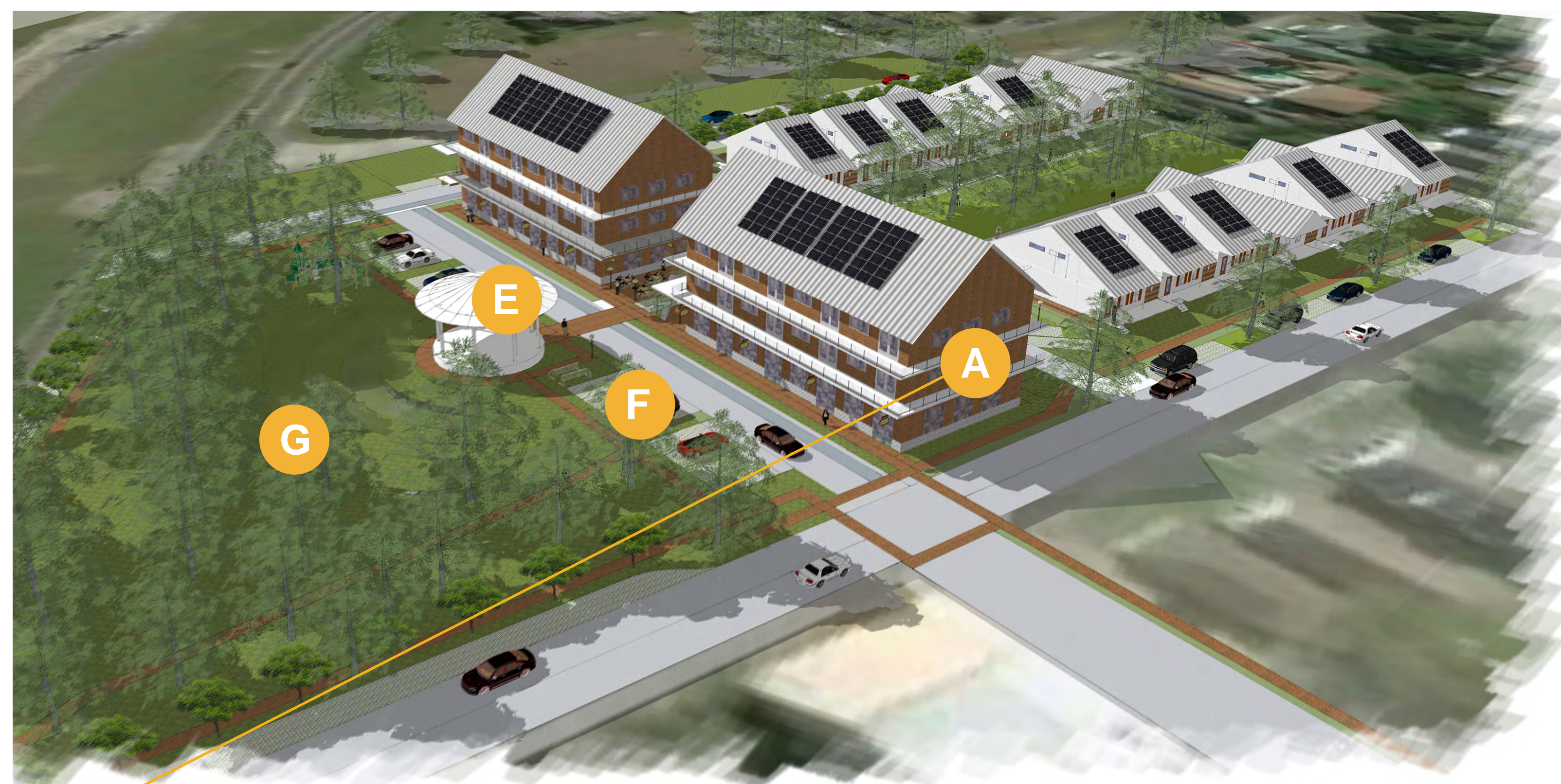
Expand access to greenspace in an urban neighborhood; Create a sense of place by investing in a public service hub.

COMMENTS

E MIXED-USE HOUSING DEVELOPMENT IN WESTWEGO

Low Risk Example Historic Westwego

Existing Housing Density: 3.4 units per acre
Shown Density: 12.5 units per acre (excluding park)
Increasing density promotes businesses and preserves green space.



Moderate Risk Example Central Lafourche Parish

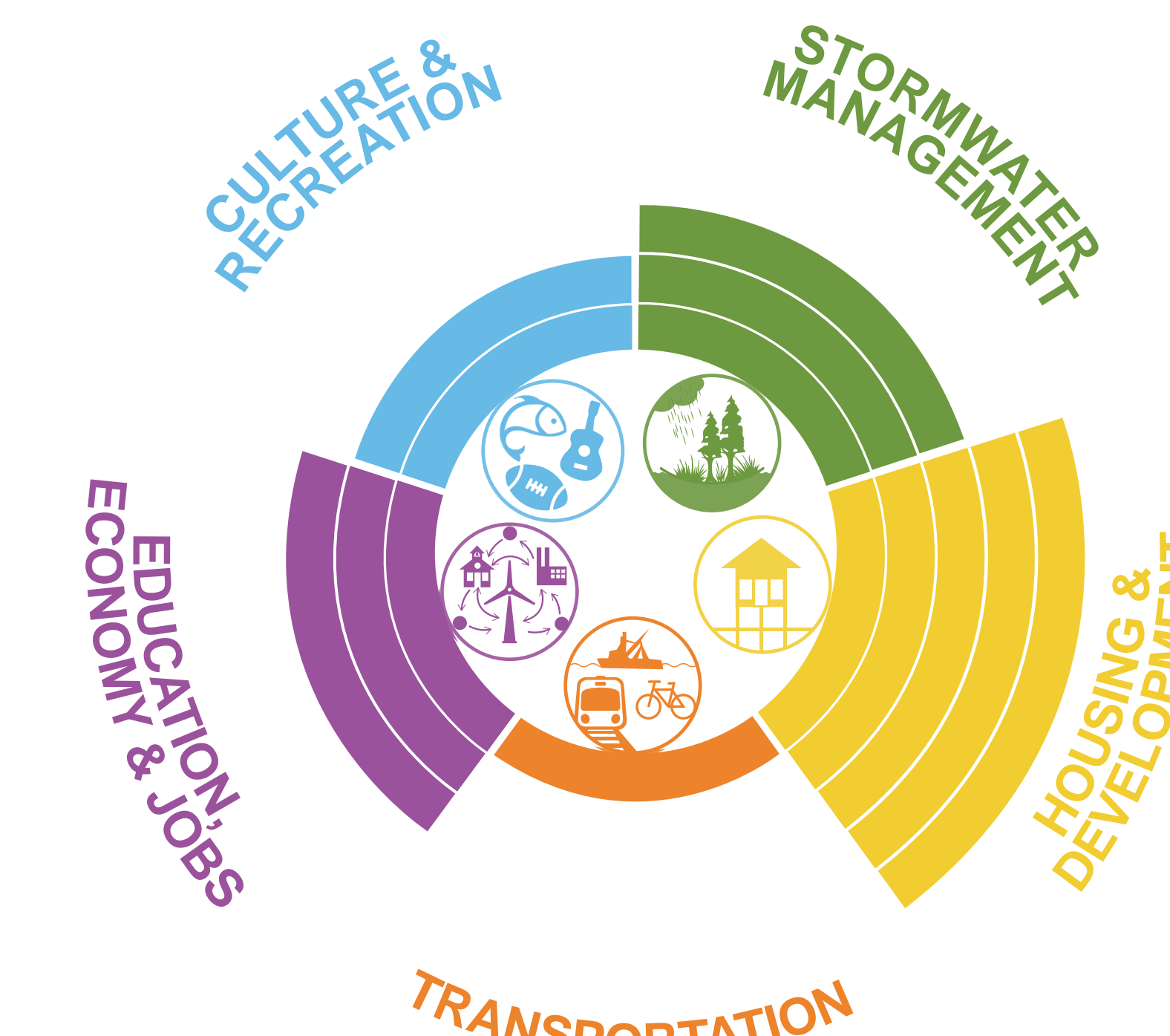
Existing Housing Density: 2.1 units per acre
Shown Density: 8 units per acre
Increasing density preserves more land for stormwater management.



PROPOSAL

Low flood risk areas are well positioned to receive population and economic growth. Higher density, affordable, residential and mixed-use developments should be prioritized. LA SAFE has identified historic downtown Westwego for this type of development. This project will incorporate ground-floor commercial space for neighborhood amenities like restaurants or cafes as well as approximately 30 housing units. Landscaping and shared green space will manage stormwater while adding beauty to the surrounding neighborhood. As people move from high-risk to low-risk areas, high quality mixed-use development is a key strategy to maintain housing affordability, revitalize neighborhoods and preserve green space.

Community Benefits



Manage all stormwater on site using bioswales, trees, green-space, and permeable materials.



Create approximately 30 affordable housing units and neighborhood businesses.



Provide safe sidewalks, bike access, and bus stop seating (if applicable).



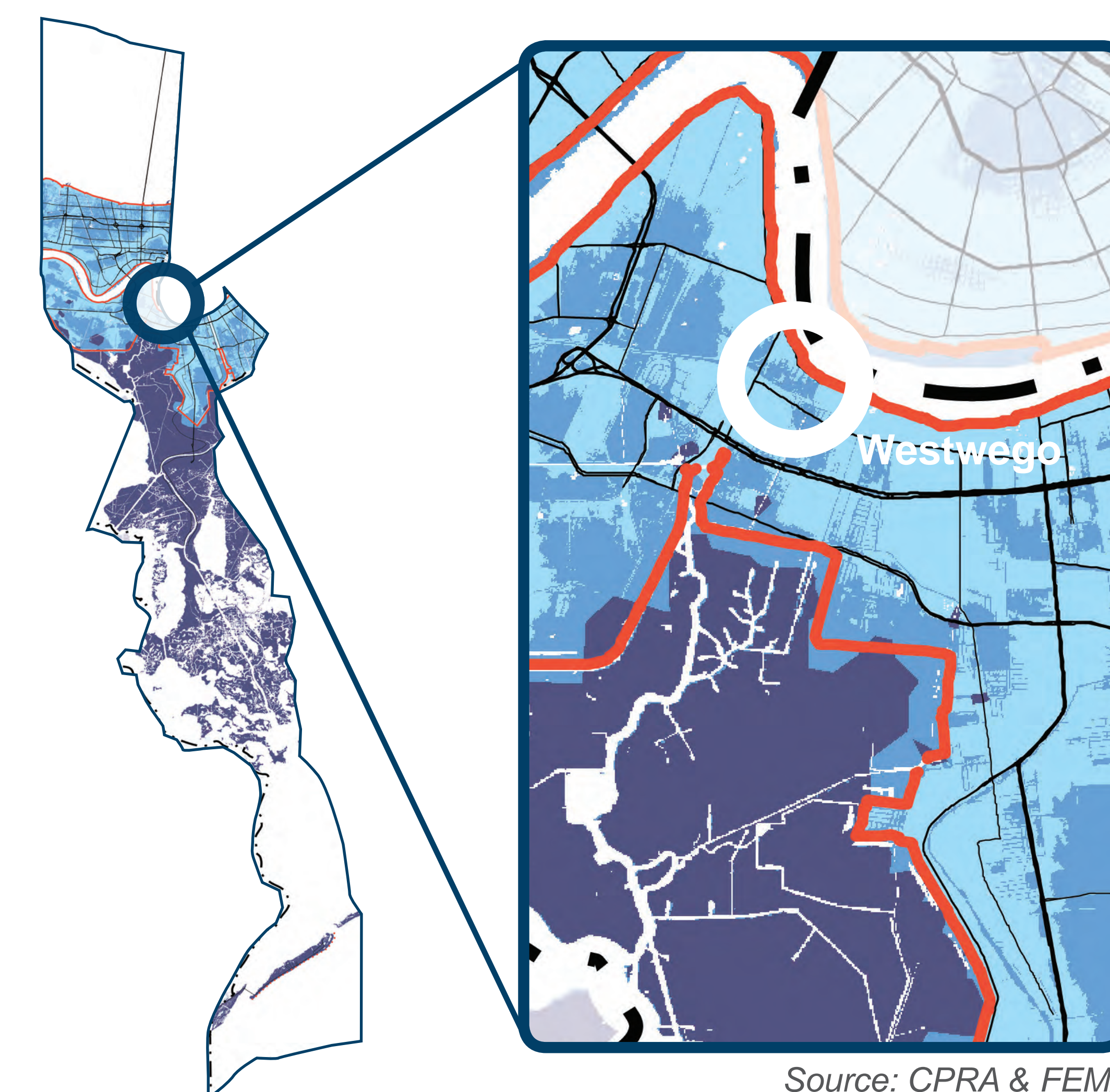
Create local jobs at restaurants, cafes, or retail shops.



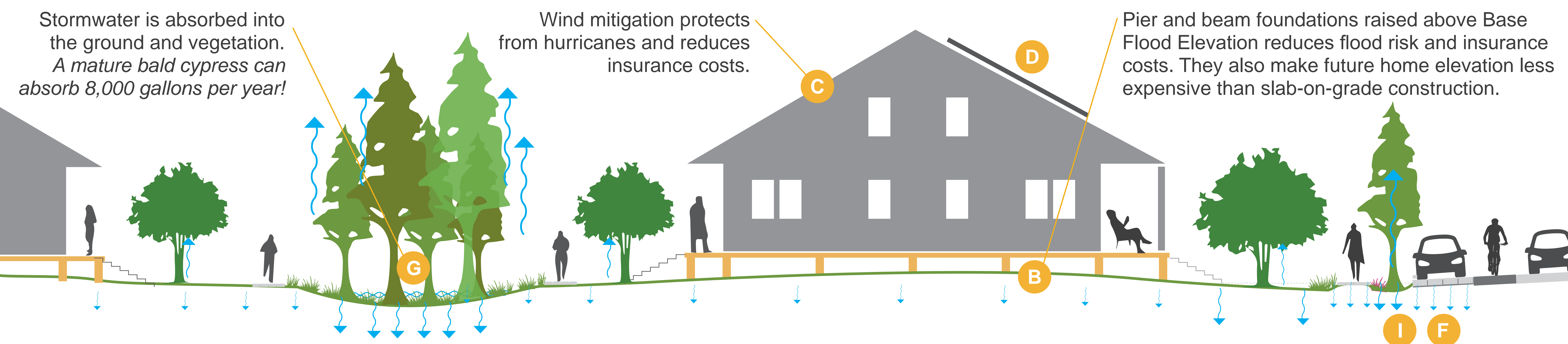
Provide outdoor community space and pavilion for markets, concerts, and other community events.

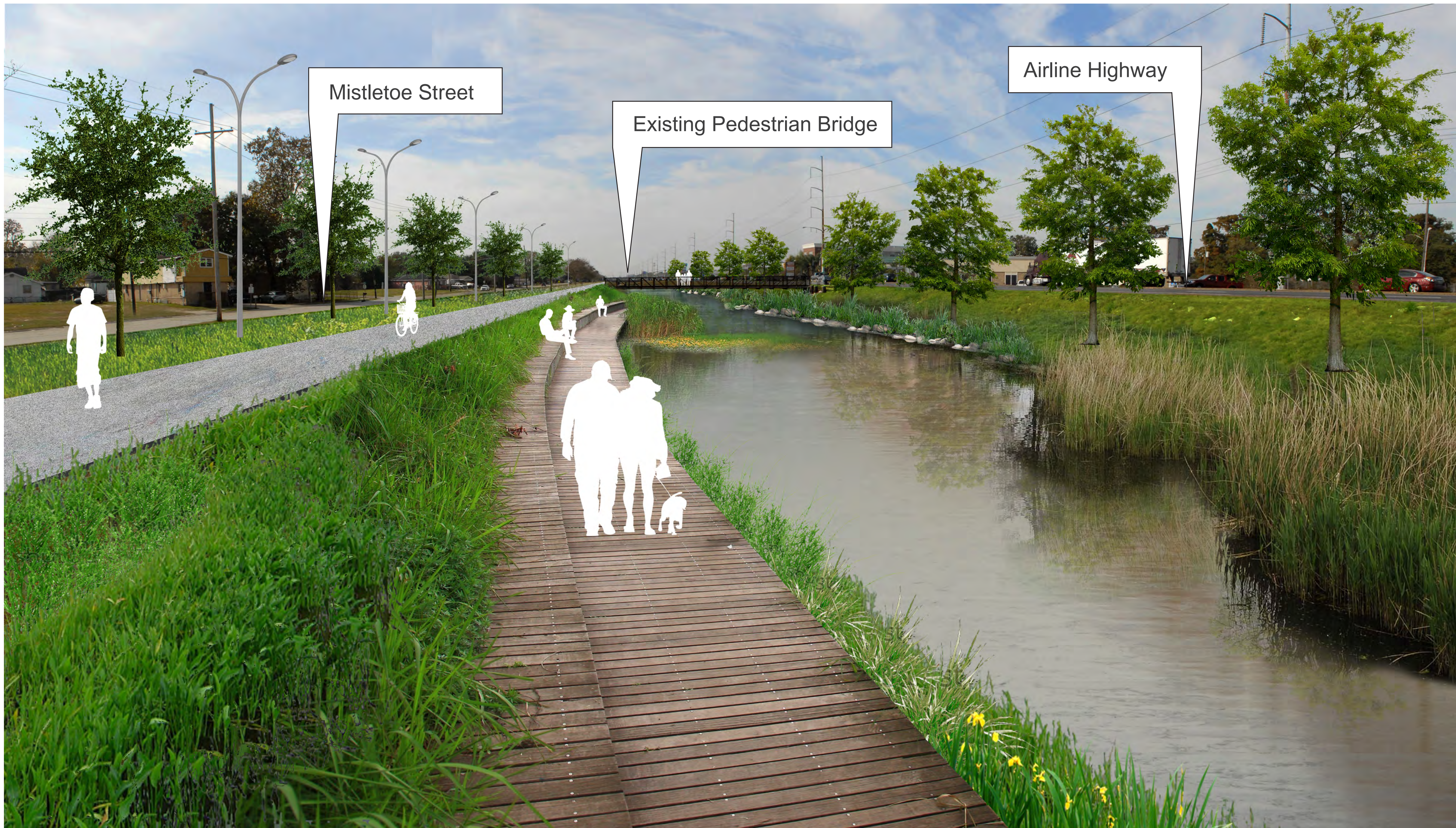
Key Info

Housing Units Created	Approx. 30 units
Commercial Space	Approx. 10,000 sf
LA SAFE Investment	\$4-6 million
Estimated Project Cost	\$10-12 million
Partners	Private Developer
Location	Historic Westwego

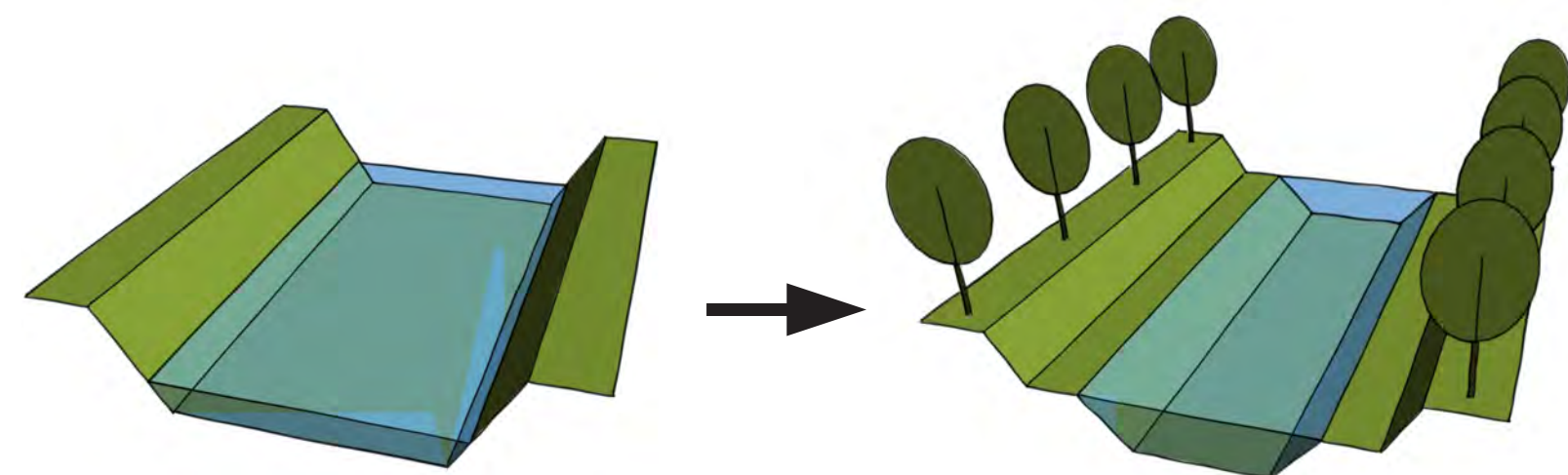


COMMENTS





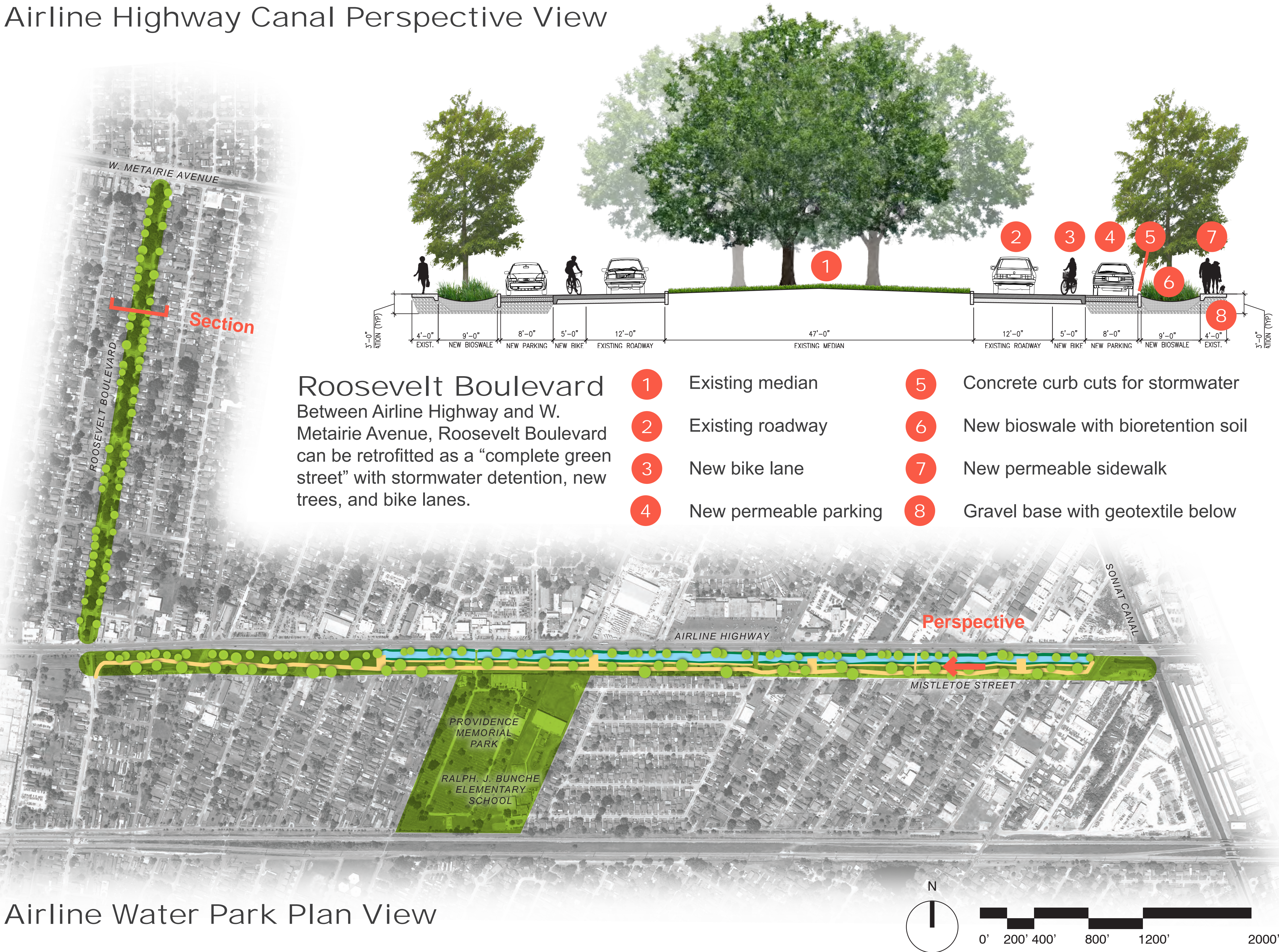
Airline Highway Canal Perspective View



Airline Highway Canal Retrofit
Between Roosevelt Boulevard and the Soniat Canal, the existing canal along Airline Highway can be reshaped to have sloped planted sides, a wider flood plain, and a higher water level on dry days.



Existing canal along Airline Highway.

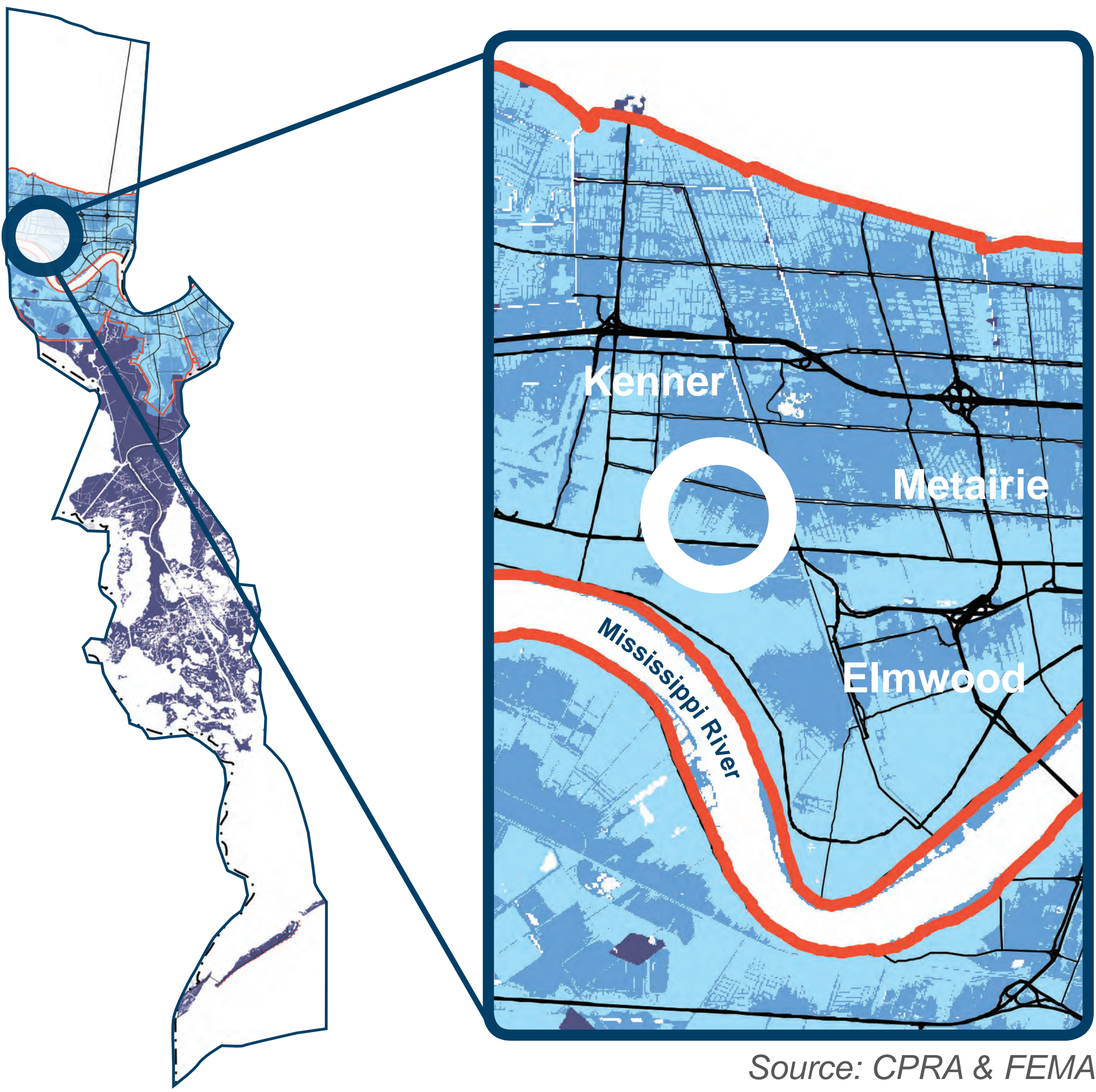


PROPOSAL

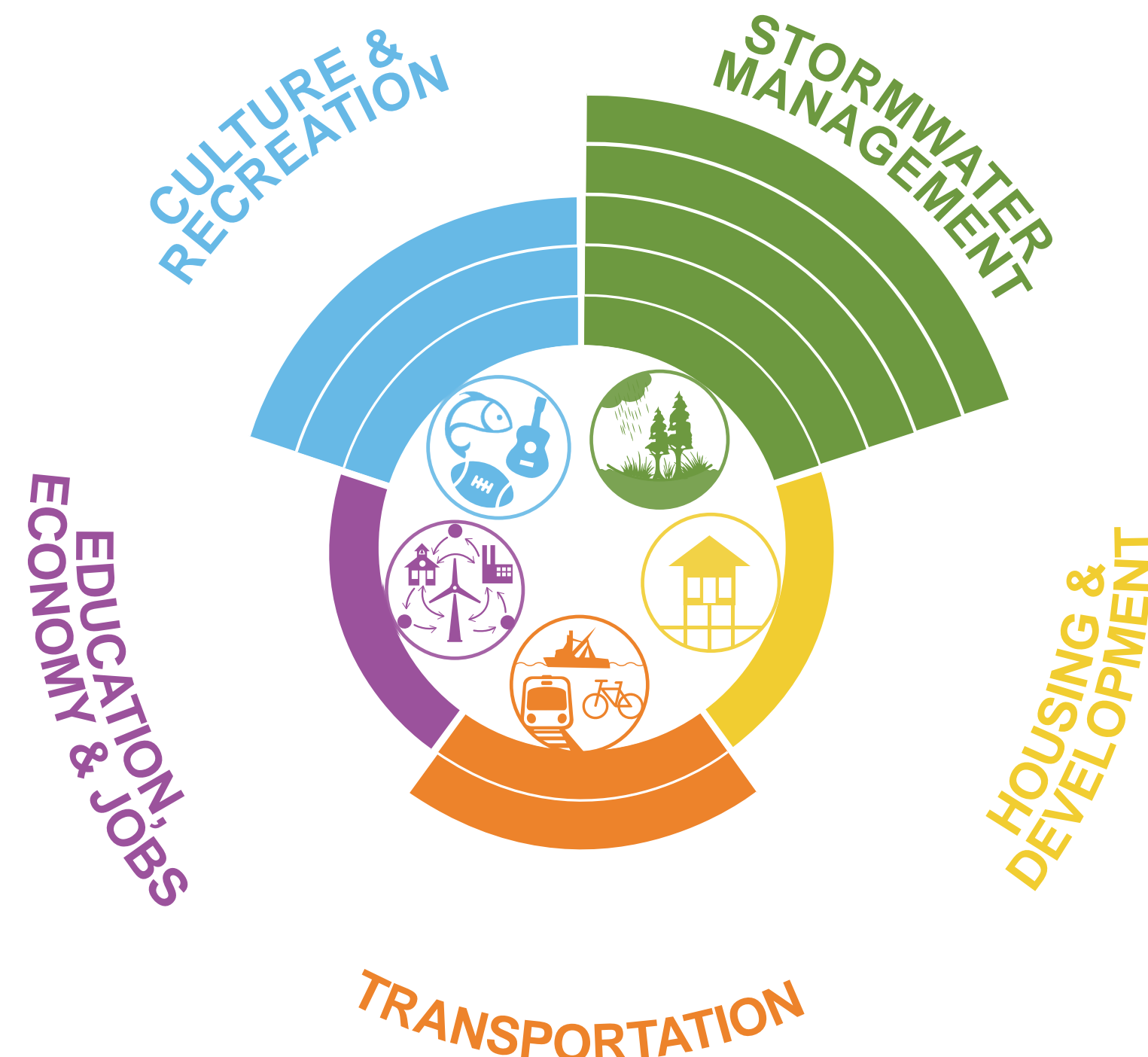
Envisioning a future with heightened flood risk, it will be important to implement large-scale stormwater strategies within urban and suburban environments. Situated in an area ripe for redevelopment and adjacent to a major roadway (and evacuation route), the Airline Water Park introduces an elongated community space adjacent to Airline Hwy. between the Soniat Canal and Roosevelt Blvd. The park provides stormwater management features, offers recreational opportunities, and supports complementary community revitalization efforts for an area of Jefferson Parish adjacent to concentrations of underserved residents.

Key Info

Project Area	Airline Hwy - 8,000 L.F. Roosevelt Blvd - 3,500 L.F.
LA SAFE Investment	\$6 million
Estimated Project Cost	Airline Hwy - \$9.0M Roosevelt Blvd - \$3.9M
Partners	Jefferson Parish
Location	Airline Drive between Soniat Canal and Roosevelt Blvd.



Community Benefits

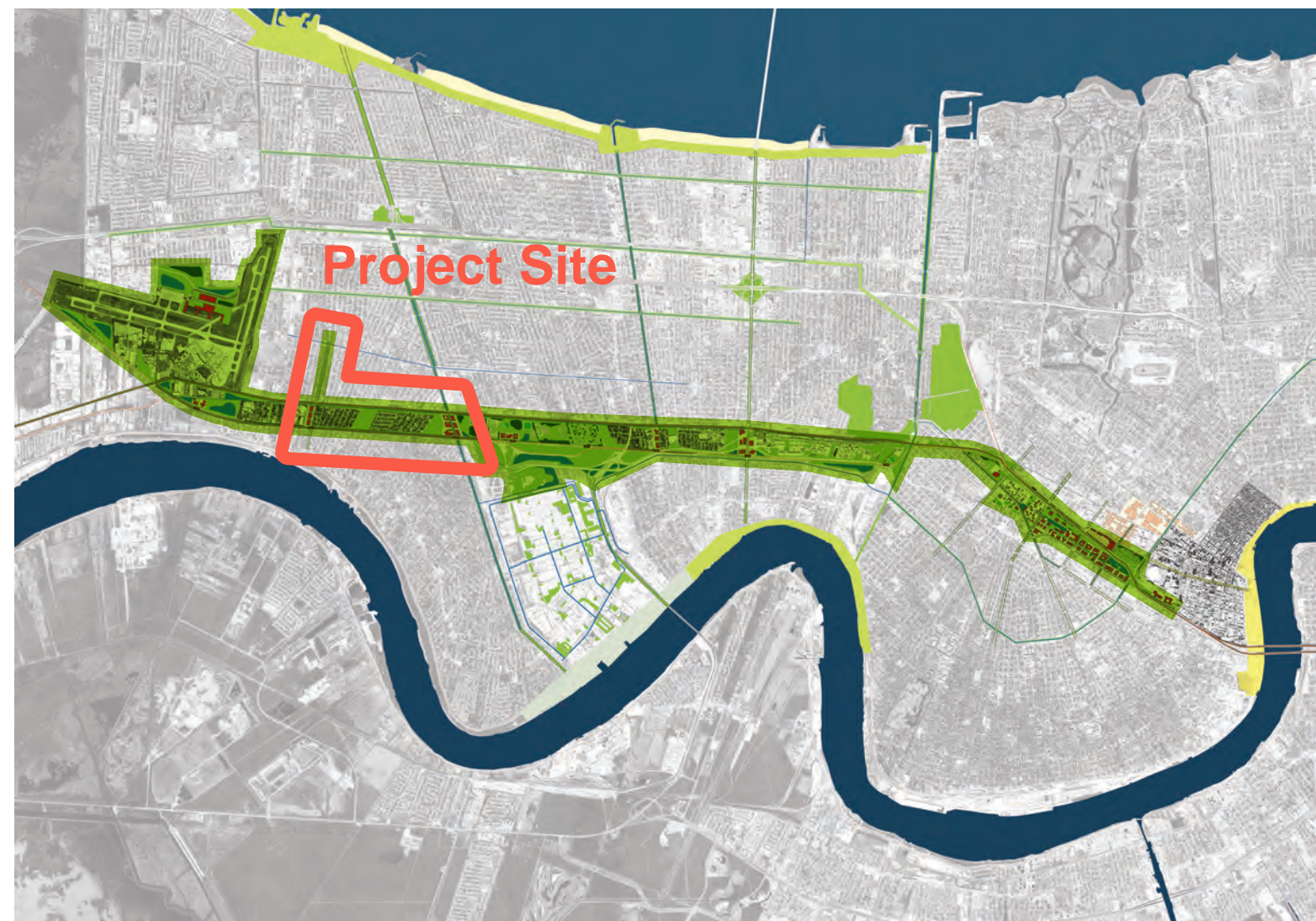


- Incorporates green infrastructure components into recreational areas to alleviate street flooding, slow and detain runoff from Airline Hwy. Key elements include bioswales, rain gardens, and increased tree canopy.
- Supports holistic community revitalization efforts in surrounding neighborhoods and for businesses along Airline Highway.
- Provides neighborhood access points to increase community connectivity, promote walkability.
- Supports economic development revitalization efforts along Airline Hwy. by providing a community space; provides educational opportunities through signage at the park.
- Creates a new public amenity enhancing quality of life in the surrounding area and provides park space within a heavily-developed area.

COMMENTS



Precedent image of the Westersingel Canal in Rotterdam. The lower path (left) can safely flood during extreme rainfall.



Vision: A Regional Park
These improvements to Roosevelt Boulevard and the Airline Highway canal could be the first step in a long-term vision of a regional park stretching from Louis Armstrong Airport to downtown New Orleans.