Welcome to the 2023 FRPA Conference!

August 28 - 31, 2023 | Orlando, FL

Resilient Parks & Communities:

Addressing Resiliency Through Design

DIX·HITE

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LEARNING OBJECTIVES

1. Design park spaces to multi-task for maximum benefit environmentally, socially, and economically.

2. Understand the importance of Parks as Green Infrastructure to address Community Resilience.

3. Designing parks to adapt to inland flooding and storm surge.

Schedule

9:15-10:00 Course Content
10:00-10:15 Q & A

- Introduction
- Case Study One: Solary Park
- Case Study Two: Crest Lake Park

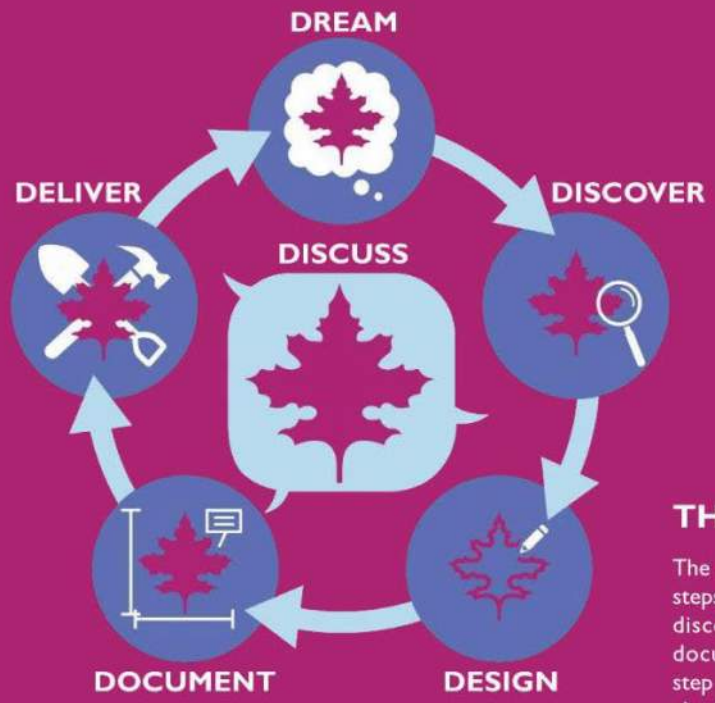
OUR PROCESS

Collaborative, insightful, and curious - who we are is how we work.

We're true believers in the power of the design process. To help clients meet their goals, we apply the "6D" approach: a transparent and scalable process that engages the entire design team in collectively identifying opportunities and constraints.

These steps provide a framework for project management, ensuring that outcome matches the intent and that the results fulfill the vision. As details of the project are uncovered, we adapt our approach to meet specific goals, deliverables, and timeframes.

Dix.Hite team members hold the 6D method integral to the firm's culture and creativity and have applied it successfully to numerous design projects.



THE 6D PROCESS

The name, "6D," refers to the steps in the process: dream, discover, design, discuss, document and deliver. Each step of the way, progress is checked against the dream, helping ensure that the outcomes meet the intent and that the results fulfill the vision.

DREAM

At the outset of the project, the Dix.Hite team seeks input from the client and stakeholders to understand needs and aspirations. We uncover the "why" of the project and identify common goals and potential solutions that will inform the design responses. The dream can be elicited through a variety of tools, including kickoff meetings, stakeholder surveys, public meetings, workshops or charrettes. Each remaining step of the 6D process is validated against the dream to ensure the final outcome meets the vision.

DISCOVER

During this phase, we collect and document the physical, environmental and cultural context that influences the study area. We create digital base data, observe existing conditions and document elements that may inform the next design phase. A SWOT analysis of strengths, weaknesses, opportunities and threats is often created to illustrate the findings. This phase ideally includes an evaluation of funding opportunities.

DESIGN

With the dream identified and existing conditions and opportunities understood, design begins. Potential solutions are communicated through diagrammatic plans, reports, graphics or other deliverables that address programmatic and spatial relationships, while taking into account critical path permit issues, schedule, existing policies and budget parameters.

DOCUMENT

The conceptual design is advanced to plans, sections, details and outline specifications. The team coordinates across disciplines to create one cohesive document submittal. This may include a statement of probable cost, updated permit schedule or phasing strategies.

DELIVER

The Dix.Hite team is committed to implementation and provides services to help clients navigate bidding, permitting, and construction. We take great professional pride in being with clients from the initial visioning session all the way through ground breaking and grand opening.

DISCUSS

Critical to the success of the process, this step validates the options. The design team, client and stakeholders come back together to review the design solutions and collaborate on modifications. This step occurs continually throughout the process.

re·sil·ience

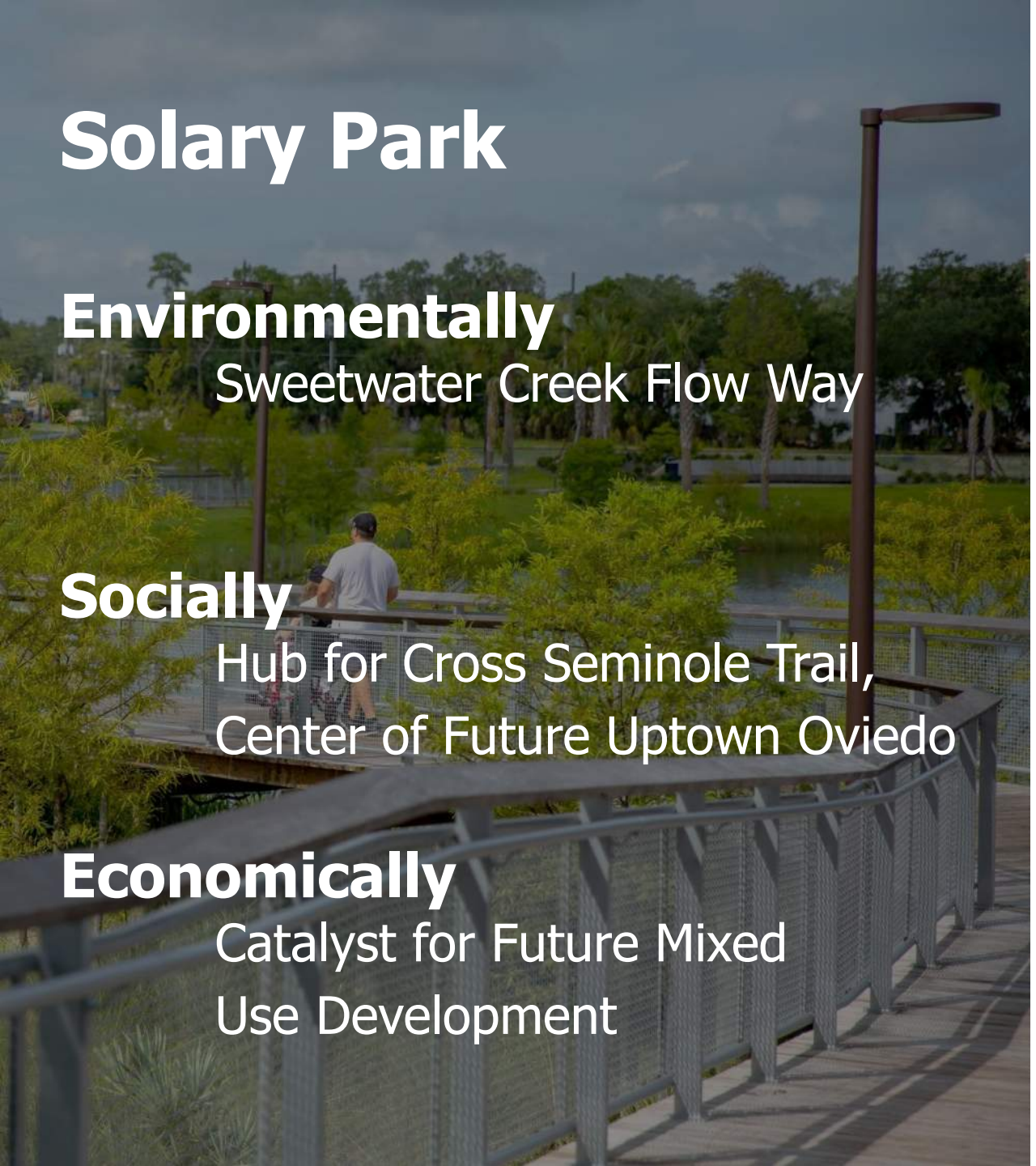
/rəˈzilēəns/

noun

1. the capacity to withstand or to recover quickly from difficulties; toughness.
"the remarkable resilience of so many institutions"

2. the ability of a substance or object to spring back into shape; elasticity.
"nylon is excellent in wearability and resilience"


Environmentally
Socially
Economically



Solary Park

Environmentally

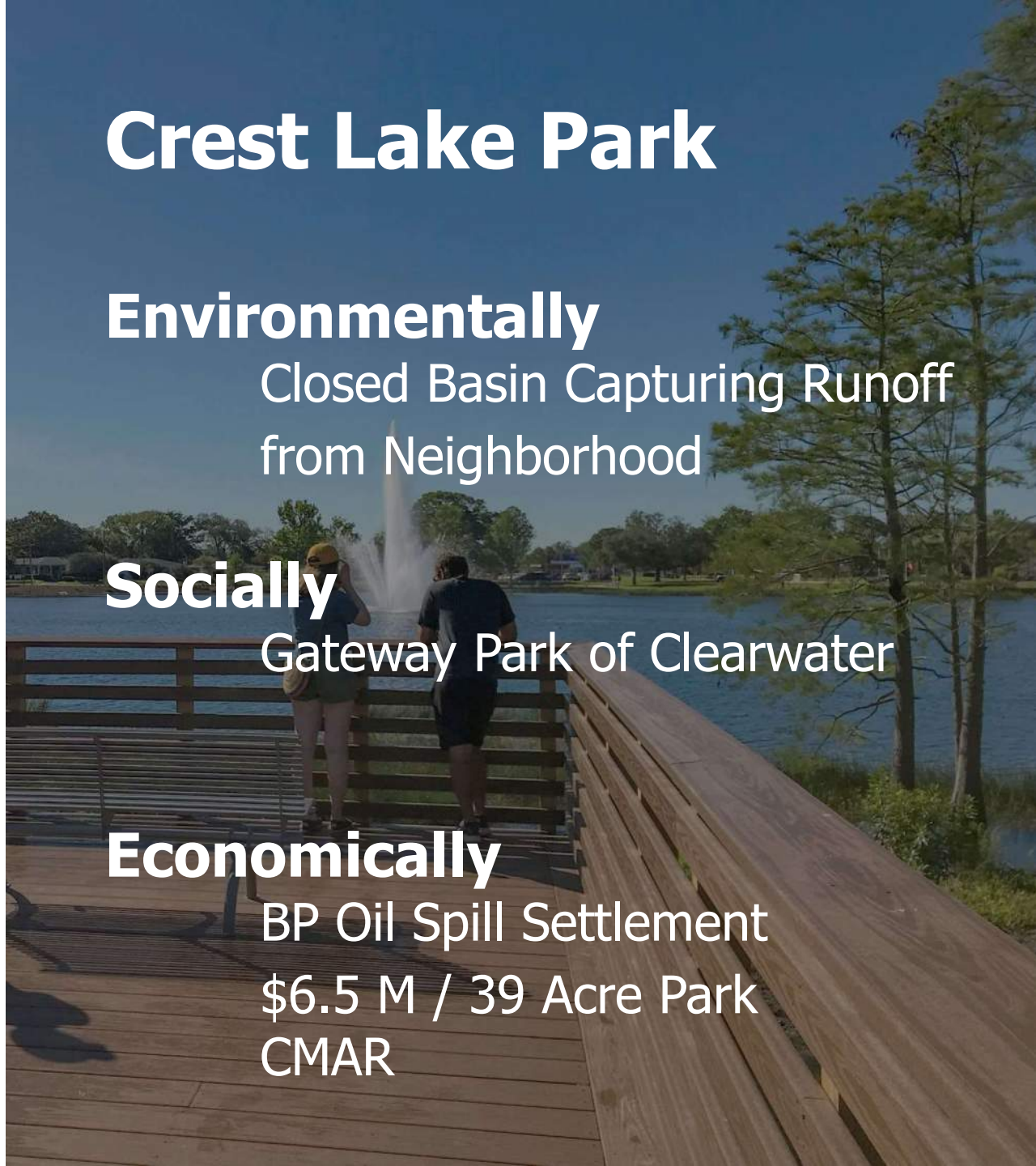
Sweetwater Creek Flow Way

Socially

Hub for Cross Seminole Trail,
Center of Future Uptown Oviedo

Economically

Catalyst for Future Mixed
Use Development



Crest Lake Park

Environmentally

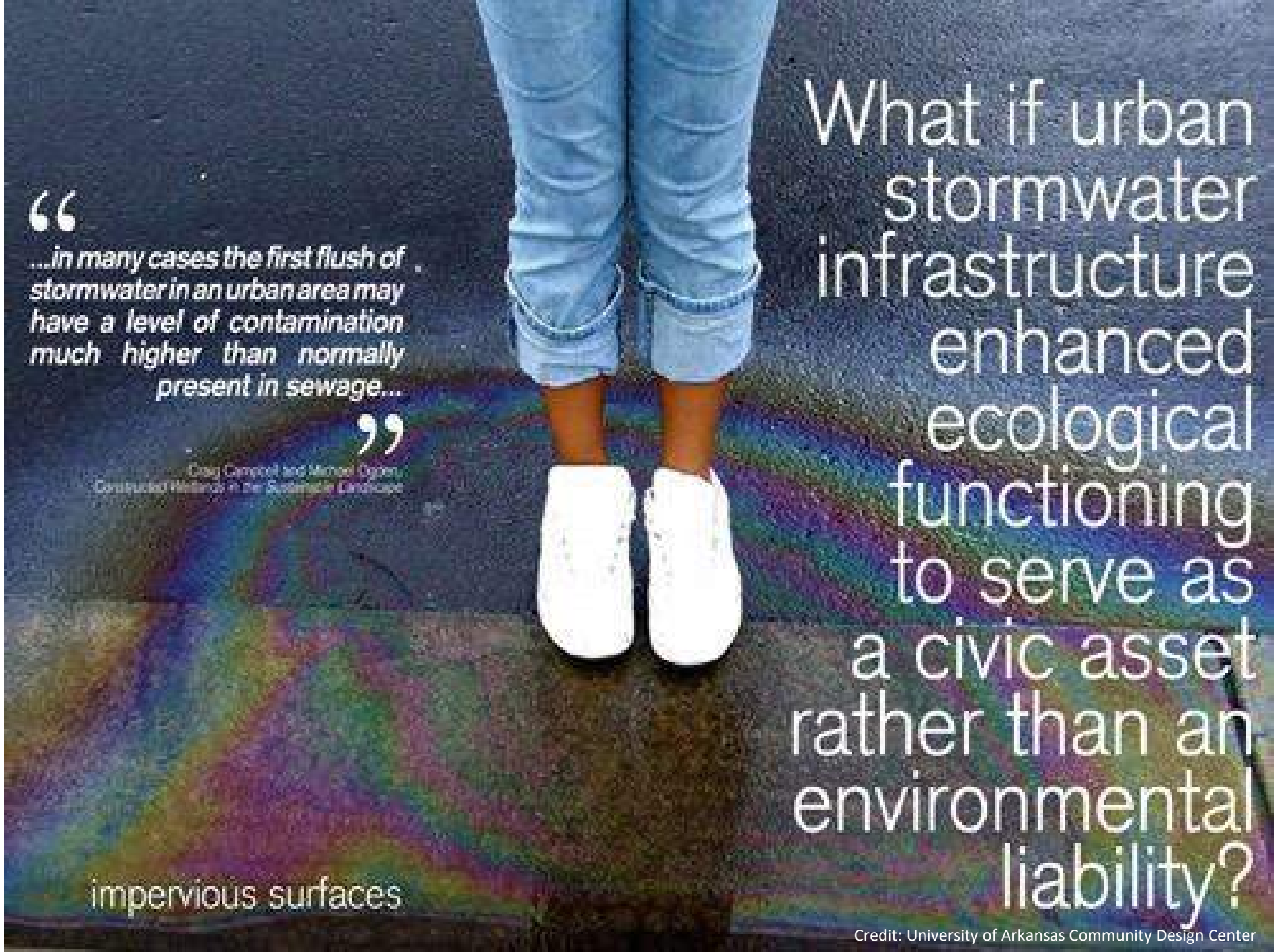
Closed Basin Capturing Runoff
from Neighborhood

Socially

Gateway Park of Clearwater

Economically

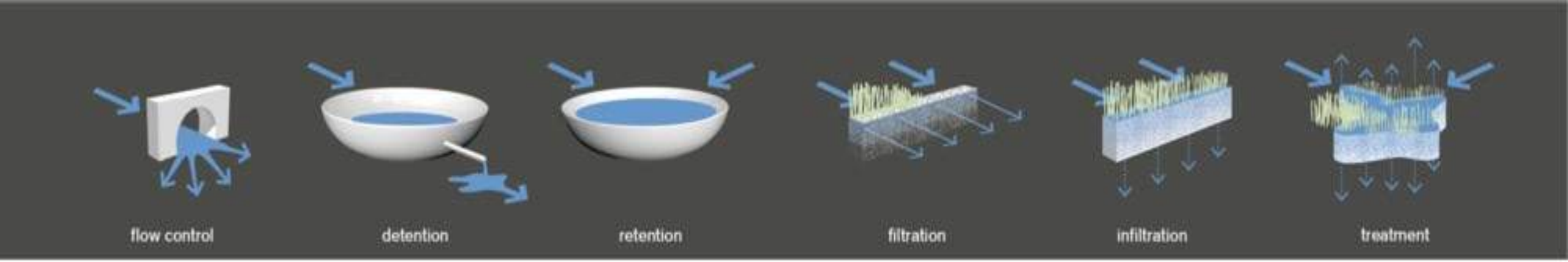
BP Oil Spill Settlement
$6.5 M / 39 Acre Park
CMAR



Credit: University of Arkansas Community Design Center

mechanical

biological



slow → spread

flow control: The regulation of stormwater runoff flow rates.

detention: The temporary storage of stormwater runoff in underground vaults, ponds, or depressed areas to allow for metered discharge that reduce peak flow rates.

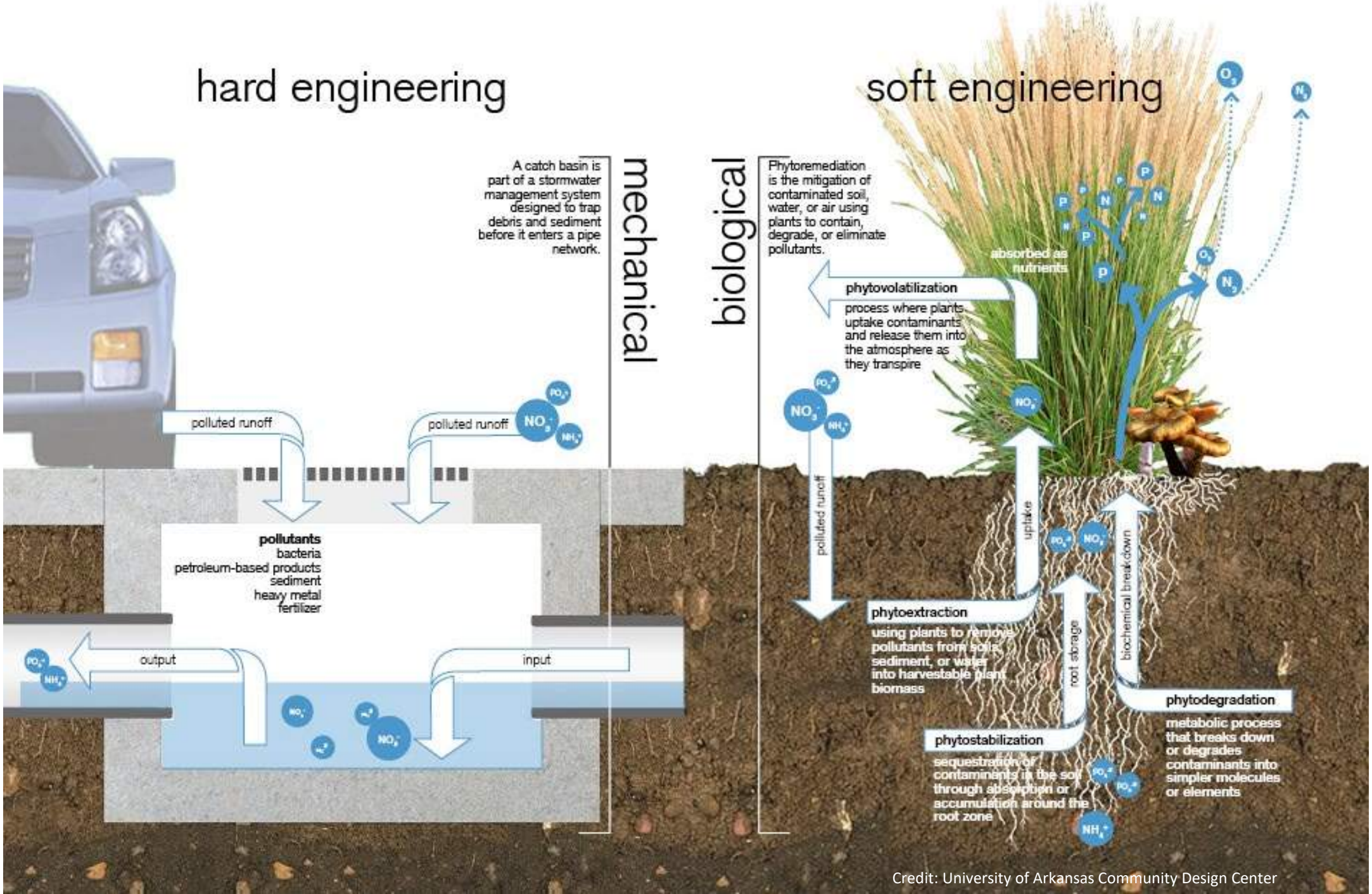
retention: The storage of stormwater runoff on site to allow for sedimentation of suspended solids.

filtration: The sequestration of sediment from stormwater runoff through a porous media such as sand, a fibrous root system, or a man-made filter.

infiltration: The vertical movement of stormwater runoff through soil, recharging groundwater.

treatment: Processes that utilize phytoremediation or bacterial colonies to metabolize contaminants in stormwater runoff.

Credit: University of Arkansas Community Design Center



Credit: University of Arkansas Community Design Center

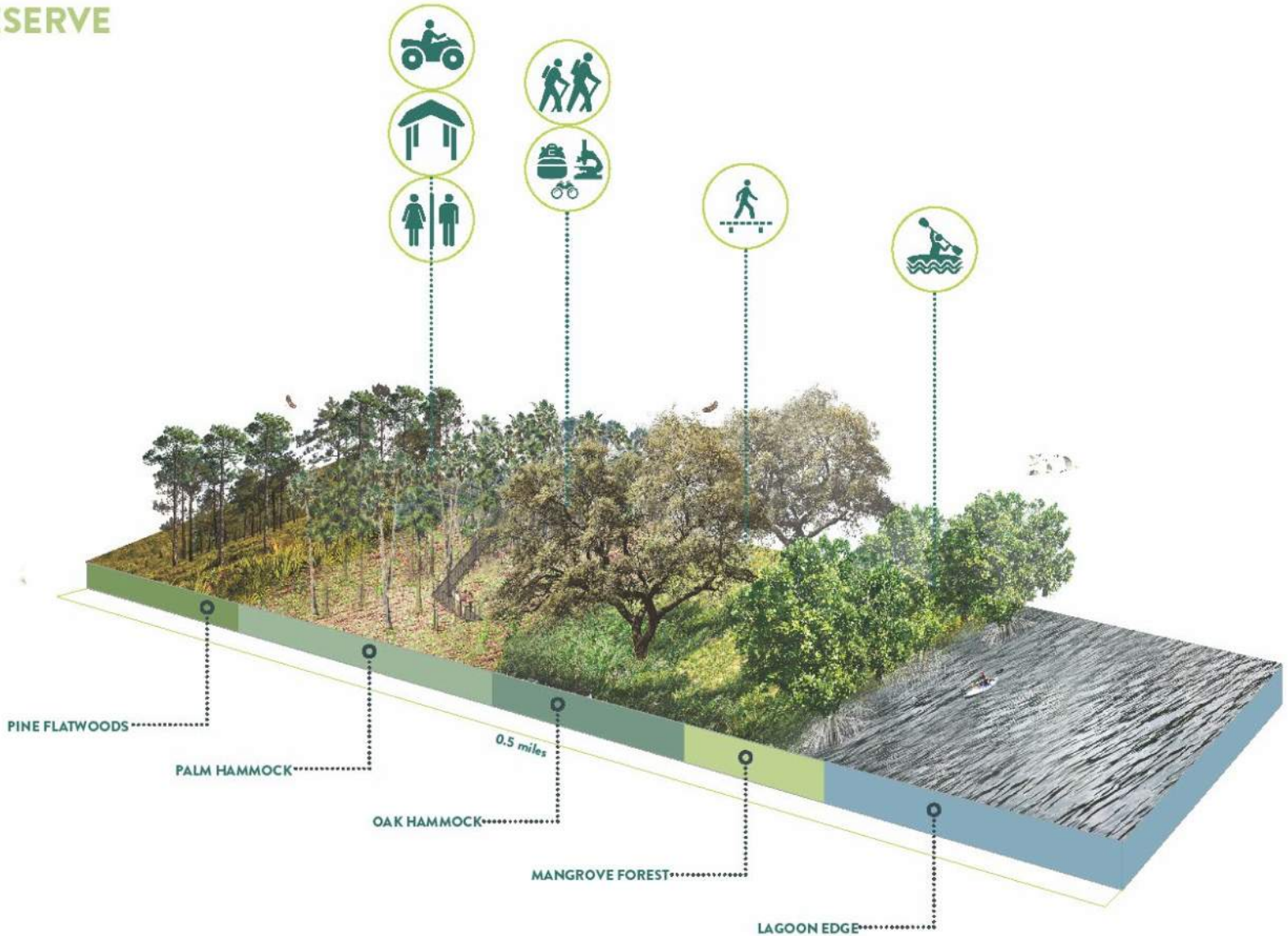
Publix at Hamlin, Winter Garden, FL

Lakewalk at Hamlin, Winter Garden, FL

Starkey Ranch, Pasco County, FL

The Landings, Jacksonville, FL

TRANSECTING
THE COASTAL OAKS PRESERVE

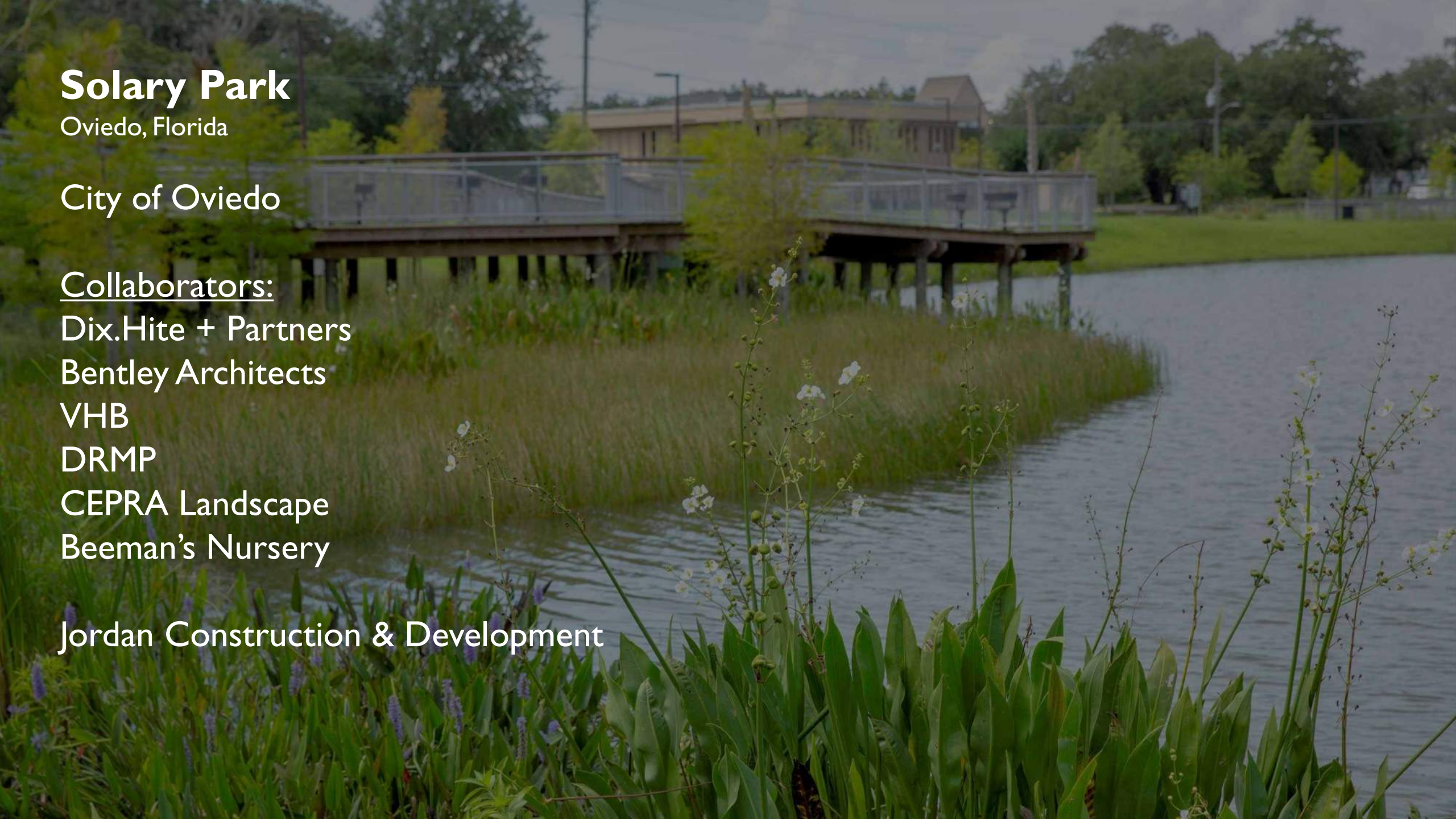


Coastal Oaks Preserve, Vero Beach, FL

Solary Park

Oviedo, Florida

- Collaborative effort between Parks and Public Works with close cooperation with FDOT and Cross Seminole Trail (funding)
- 9-acre park with $5M Budget, which included $1M for arsenic remediation
- Built on City staff's idea of combining FDOT required stormwater and city's need for stormwater as a catalyst for future development
- Led to urban redevelopment plan for Uptown Oviedo
- Collaborated with engineering team to balance capacity and treatment in a dynamic manner
- Won Florida Stormwater Association Award for Stormwater Excellence



Solary Park

Oviedo, Florida

City of Oviedo

<u>Collaborators:</u>
Dix.Hite + Partners
Bentley Architects
VHB
DRMP
CEPRA Landscape
Beeman's Nursery

Jordan Construction & Development

STORMWATER**PARK**

CONCEPT A

RE-IMAGINE

Geneva Street is reimagined as a festival street with a residential/mixed use development defining the eastern edge. This scheme attempts to keep much of the existing property lines intact while creating an impetus and incentive for parcel redevelopment towards the park. A new retail/restaurant parcel at the roundabout creates an anchor/arrival from the north. Sweetwater Creek is re-directed to the west and becomes an artful conveyance along a new street off of 434.

COMPARABLE IMAGERY

OBJECTIVES

BANK MOVES TO CORNER OF 419 AND 426.

SWEETWATER CREEK MUST REMAIN A SEPARATE ENTITY DUE TO JURISDICTIONAL LIMITATIONS.

ALL OTHER STORMWATER MAY BE COMBINED INCLUDING BANK REQUIRED RETENTION.

ALL EDGES OF THE PARK ARE NAVIGABLE AND REMAIN PUBLIC.


TRAILHEAD
CREEK WALK
INTERACTION AREA


DEERE

Solary Park, Oviedo, FL

Day one after Hurricane Ian.

Solary Park, Oviedo, FL

Six weeks after Hurricane Ian and one week post Tropical Storm Nicole.

Solary Park, Oviedo, FL

Day one after Hurricane Ian.

Solary Park, Oviedo, FL

Six weeks after Hurricane Ian and one week post Tropical Storm Nicole.

SCAN ME

TO SEE SOLARY PARK THRIVING POST HURRICANE SEASON

Crest Lake Park Restoration

Clearwater, Florida

- Joined the Project following the Master Planning process
- Worked with the City to evaluate the process to date and challenges/expectations associated with the budget
- Funded by BP oil spill settlement –
  $6.5 Million Budget / 39 Acre Park!
- Incorporated LID strategies to treat stormwater coming to the Lake from the surrounding communities
- Collaborated with City on RFP/Interview process for Construction Manager at Risk
- Collaborated with City and CMAR to provide a showcase park, built on budget and on time

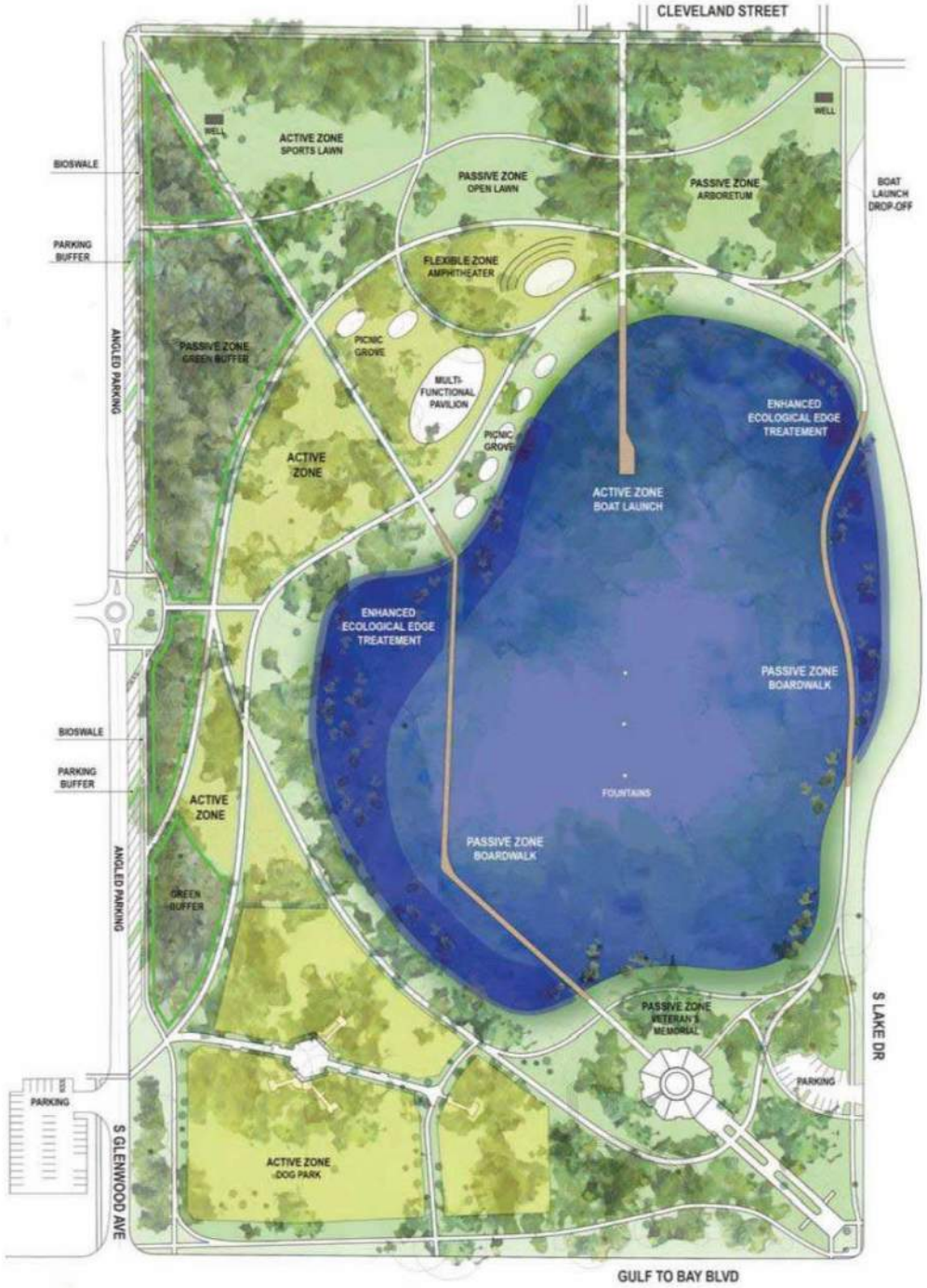
Crest Lake Park Restoration

Clearwater, Florida

City of Clearwater

<u>Collaborators:</u>
Dix.Hite + Partners
Kimley-Horn
Florida Design Consultants
Exum & Associates
KPI Engineering
Freeport Fountains
Pro Turf Irrigation
Leesburg Concrete

Wharton Smith Construction



MASTER PLAN GOALS

- PROTECTION AND ENHANCEMENT OF THE LAKE'S EDGES BY CREATING ENLARGED WETLAND EDGES AND BALD CYPRESS GROVES

- INTEGRATION OF THE LAKE WITH THE PARK, WHILE NOT OVERDEVELOPING THE PARK

- INCREASE WATER ACCESS WHILE IMPROVING THE ECOLOGY OF THE LAKE, ESPECIALLY HABITAT FOR BIRDS

- CREATE SEVERAL OPTIONS TO STROLL AROUND THE LAKE

- CREATION OF ACTIVE ZONES, PASSIVE ZONES AND FLEXIBLE ZONES

Crest Lake Park
PUBLIC ANALYSIS

MEETING 0001 LOCATION: 407 S Saturn Ave. Clearwater FL, 33755 MEETING DATE: 10/06/2016

Page 5

- Display the name of park better.
- Re-landscape large concrete planters.
- No community center, this is a neighborhood zoned residential.
- Small neighborhood passive park. Not to bring in too much traffic.
- Community center will attract unwanted loitering.
- Splash fountains for kids are a liability.
- Enforce stronger litter laws.
- 100 year capsule.
- Possibility of expanding park on the other side of Drew Street (north of park).
- Concern that wooden structure, such as boardwalks, will require continual maintenance.
- Water festival
- Shade structures.
- No large parking, keep neighborhood in mind.

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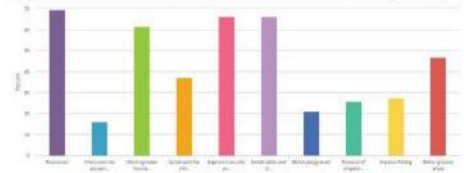
Graphs from Survey

1. In 2013, the City conducted a survey to find out what improvements residents thought were needed in Crest Lake Park. Below are the nine items that were identified then. Place a check mark in front of the items you are in agreement with.



Value	Percent	Count

W ARCHITECTURE & LANDSCAPE ARCHITECTURE, LLC

MEETING 002 LOCATION: Crest Lake Park MEETING DATE: 01/09/2017

Page 4

ITEM	DESCRIPTION	STATUS	ACTION BY	DUE
4.02	One person suggested that nobody interrupts another person, that way we can hear everyone out and efficiently move along. There was a unanimous vote to agree.			
4.03	**Table 1:** - There was a bald eagle in the park today. - Bathrooms are needed. - LakeLine is the best.			

LOCATION: Crest Lake Park MEETING DATE: 01/09/2017

STATUS ACTION BY DUE

- Connection of Memorial Plaza and sculpture garden.
- Picnic area in the Lakeline near water.
- Amphitheater location in Lakeline.
- Boat dock near Oak Lined Path.

Cons:

- Boat dock near the memorial.
- In Lakeline the picnic area is too close to the water.

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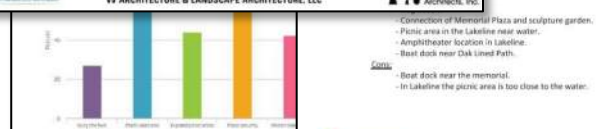


Value		

Additional comments:

ZONE 1 (FLEXIBLE PARK)

- Nice, grassy, wide open field for games and sports and picnicking (ex. Largo Central Park) (2).
- Pavilion for community center- not enclosed building
- Covered pavilions with grills for picnics, birthdays (3).
- Covered pavilion for music groups to play. (2)
- Place for special events/festivals – farmers market, arts and crafts (4).
- Hot dog or drink stand by playground. (2).
- Heavily landscaped walk or picnic area.
- Sand volleyball courts.

W ARCHITECTURE & LANDSCAPE ARCHITECTURE, LLC

meeting 2 | public analysis

MEETING DATE: 01/09/2017

THE LAKELINE

W ARCHITECTURE & LANDSCAPE ARCHITECTURE, LLC



PICNIC PAVILIONS



PERMANENT SHADE STRUCTURES WITH TEMPORARY MARKET



OBSERVATION PAVILIONS



FABRIC SHADE STRUCTURES



PATHWAYS



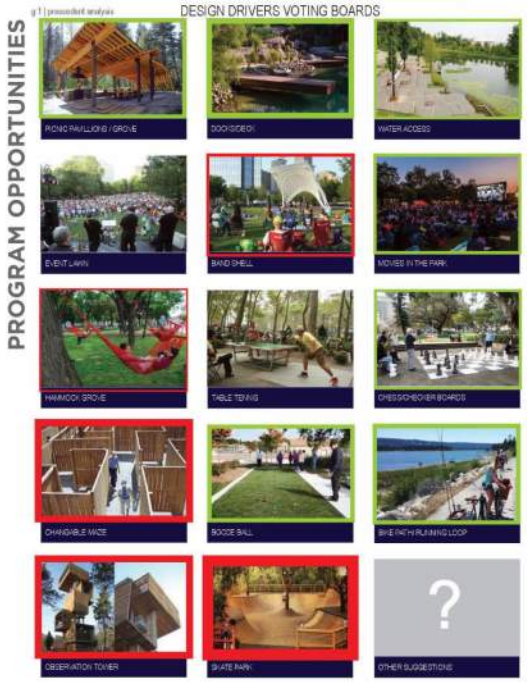
SHADING WITH SEATING

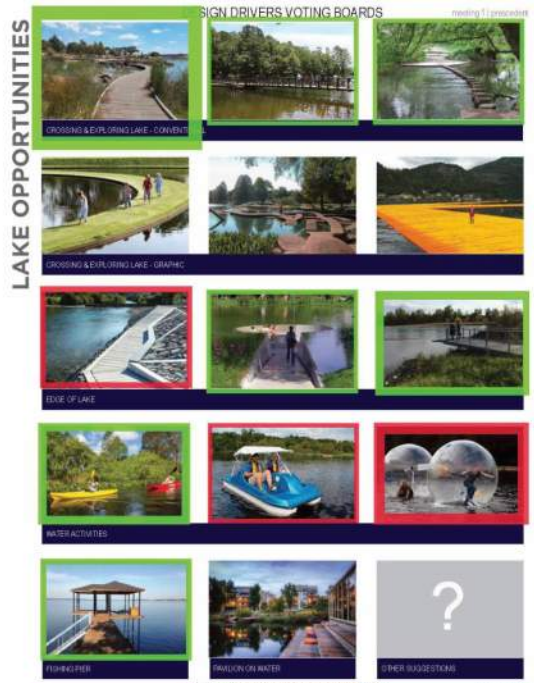


SEATING



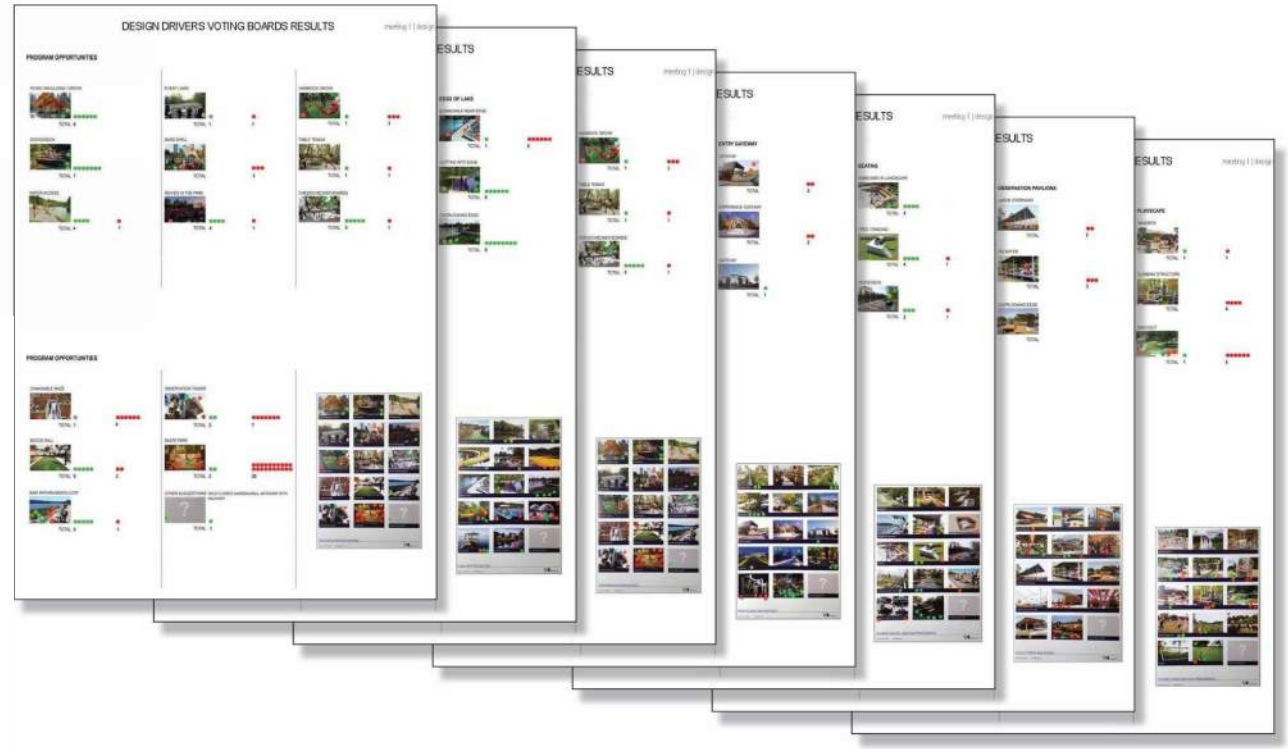
PEDESTRIAN & BIKE PATHS


DESIGN DRIVERS VOTING BOARDS
PROGRAM OPPORTUNITIES
PICNIC PAVILLIONS / GROVE
DOG'S DEEP!
WATER ACCESS
EVENT LAWN
BAND SHELL
MOVIES IN THE PARK
HAMMOCK GROVE
TABLE TENNIS
CHESS/CHECKER BOARDS
CHANGEABLE MICE
BOCCE BALL
BIKE PATH/ RUNNING LOOP
OBSERVATION TOWER
SKATE PARK
OTHER SUGGESTIONS


DESIGN DRIVERS VOTING BOARDS
LAKE OPPORTUNITIES
CROSSING & EXPLORING LAKE - CONVENTI
CROSSING & EXPLORING LAKE - GRAPHIC
EDGE OF LAKE
WATER ACTIVITIES
FISHING PIER
PAVILION ON WATER
OTHER SUGGESTIONS


DESIGN DRIVERS VOTING BOARDS
FLEXIBLE PARK AND PLAY
WATER FEATURES
PLAYSCAPE
PLAYSCAPE
PASSIVE LANDSCAPE
SPORTS
OTHER SUGGESTIONS

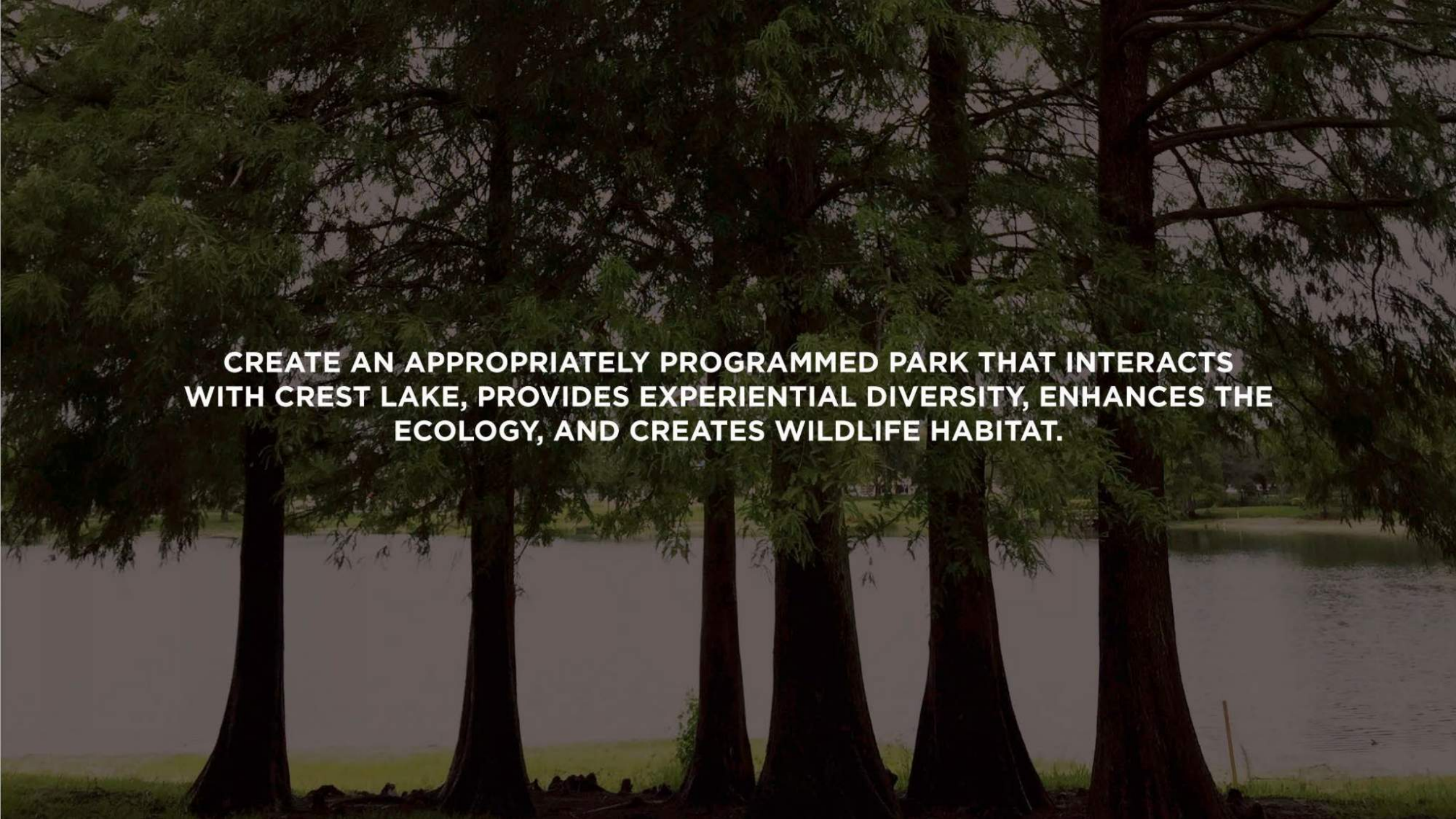

DESIGN DRIVERS VOTING BOARDS
STRUCTURES AND SHADE
PICNIC PAVILIONS
PERMANENT SHADE STRUCTURES WITH TEMPORARY MARKET
OBSERVATION PAVILIONS
FABRIC SHADE STRUCTURES
CAFE
CONCESSIONS CONNECTED WITH WATER
OTHER SUGGESTIONS


DESIGN DRIVERS VOTING BOARDS RESULTS
PROGRAM OPPORTUNITIES
PROGRAM OPPORTUNITIES

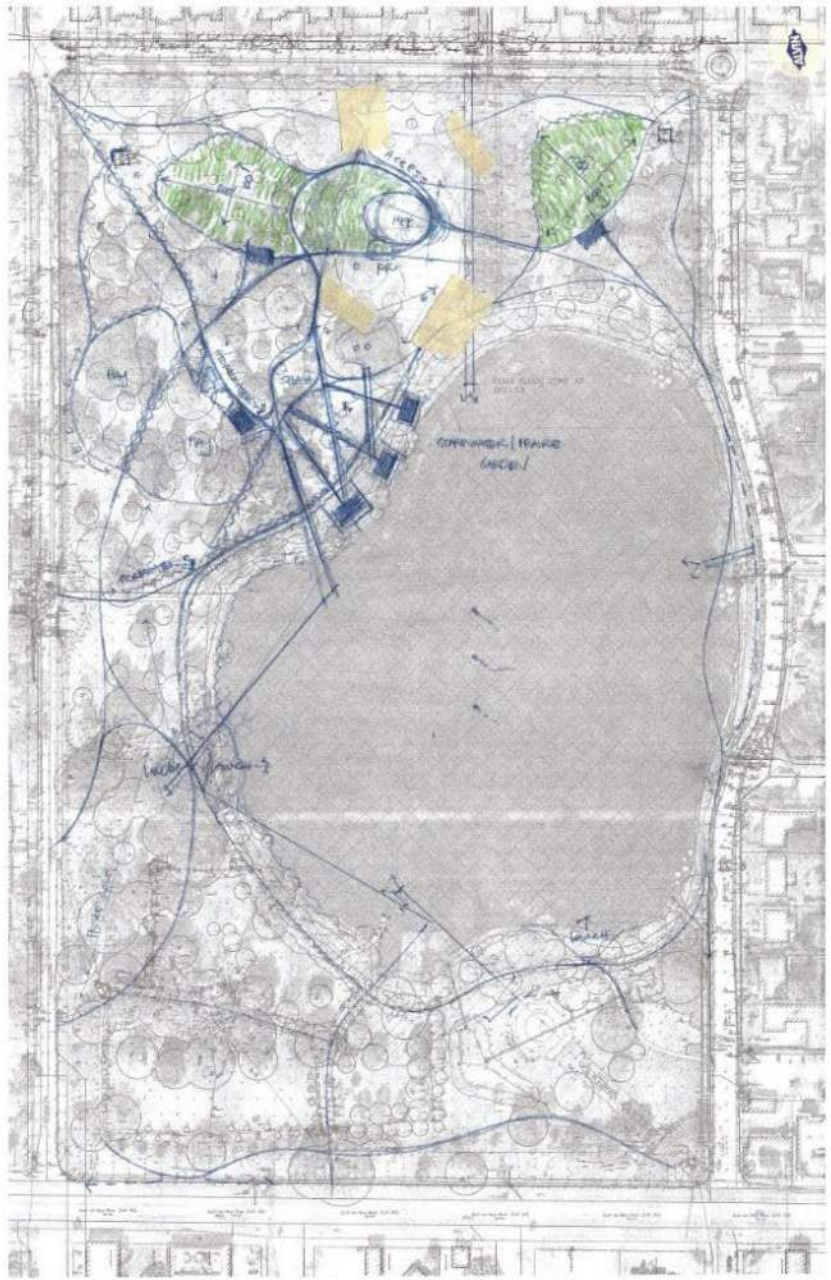

STOP

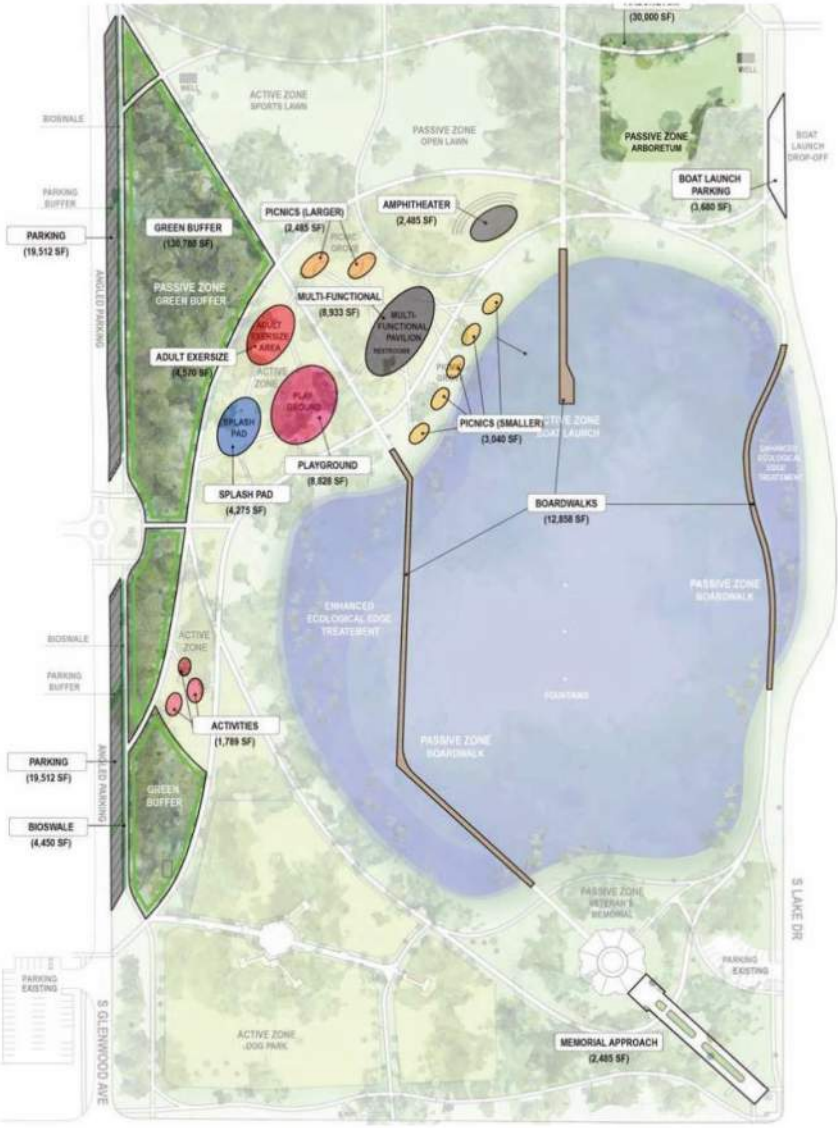

JD-11

OPPORTUNITIES AND CONSTRAINTS

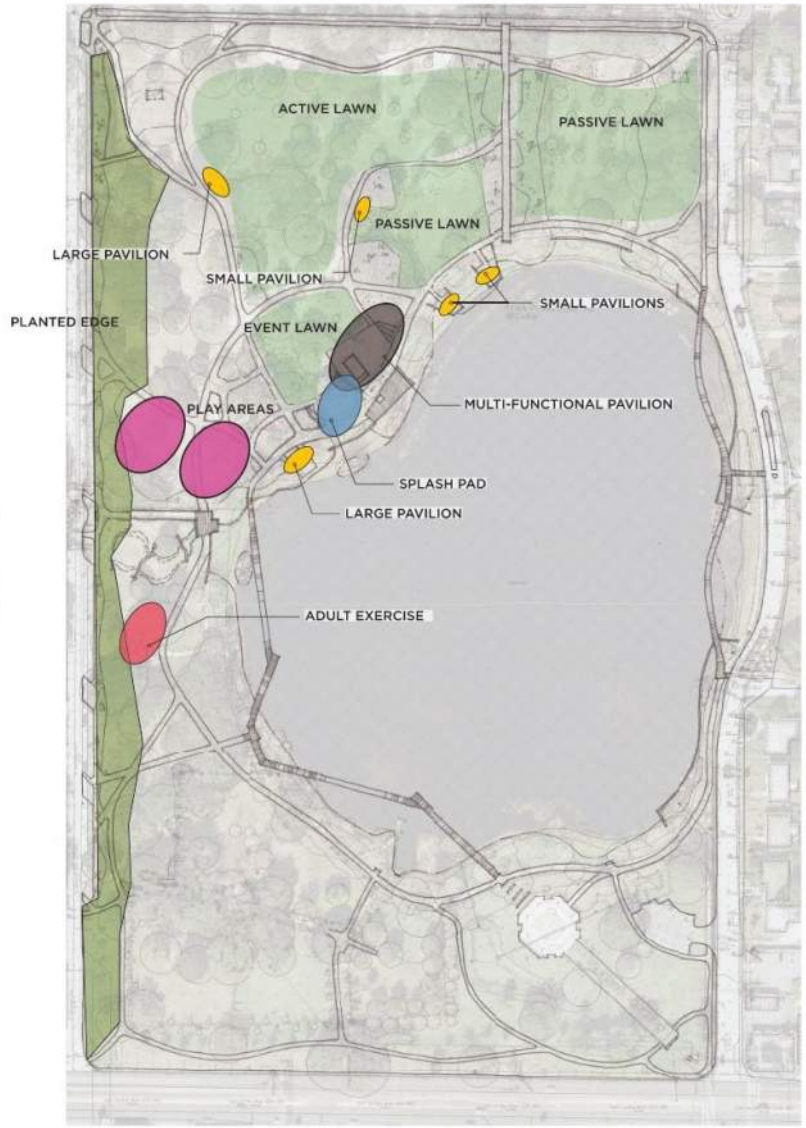


CREATE AN APPROPRIATELY PROGRAMMED PARK THAT INTERACTS WITH CREST LAKE, PROVIDES EXPERIENTIAL DIVERSITY, ENHANCES THE ECOLOGY, AND CREATES WILDLIFE HABITAT.





CONCEPTUAL MASTER PLAN



SCHEMATIC SKETCH PLAN

H

WHITFIELD PARK
3.1 ACRES | $1.77 MILLION | $.57M/ACRE

HOMESTEAD PARK
4.3 ACRES | $1.8 MILLION | $.42M/ACRE

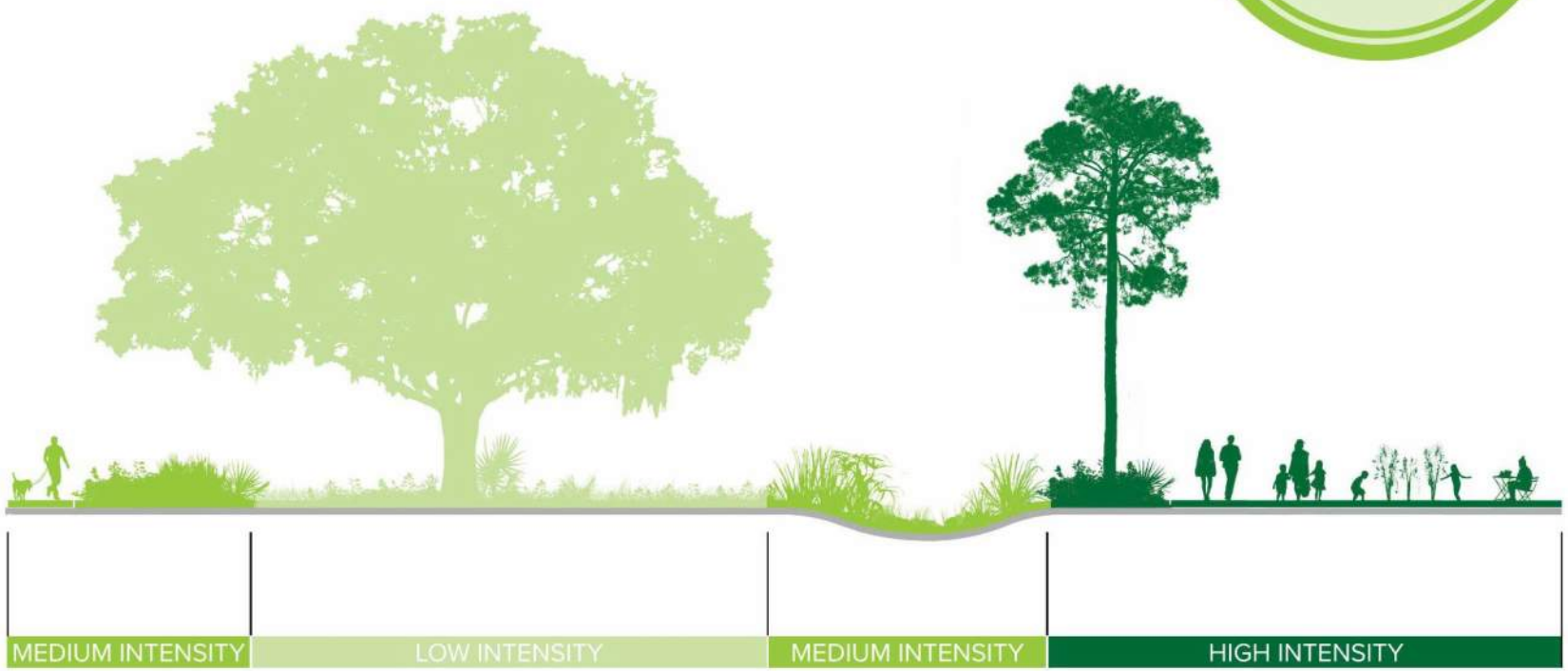
CENTER LAKE PARK
7 ACRES | $6.5 MILLION | $.93M/ACRE

REITER PARK
7.5 ACRES | $4.6 MILLION | $.66M/ACRE

DESIGN APPROACH

COST TO INTENSITY (PARK CONSTRUCTION AND PROGRAMMING RELATIONSHIPS)

DEFINE AREAS OF HIGH INTENSITY ZONES (PROGRAMMING AND AESTHETICS), ESTABLISH EDGES AND RELATIONSHIPS TO THRESHOLD ZONES WHICH SERVE TO BLEND AND DISGUISE LOW INTENSITY AREAS.



COST TO INTENSITY (PARK CONSTRUCTION AND PROGRAMMING RELATIONSHIPS)

TOTAL PARK AREA: 39 ACRES
(LAKE AREA) - 12 ACRES
TOTAL LAND AREA: 27 ACRES

4 ACRES X $1 MILLION
9 ACRES X $5.00/SF
14 ACRES < $1/SF
= $6.5 MILLION

DESIGN APPROACH

LETTING THE CANOPY TELL THE STORY

14.5 AC UNDER CANOPY


CLEVELAND STREET
CREST LAKE
GLENWOOD AVENUE
LAKE DRIVE
GULF TO BAY BOULEVARD
NORTH

PRIMARILY NON-NATIVE/NATIVE SPECIES WITH SELECT HISTORIC SPECIES

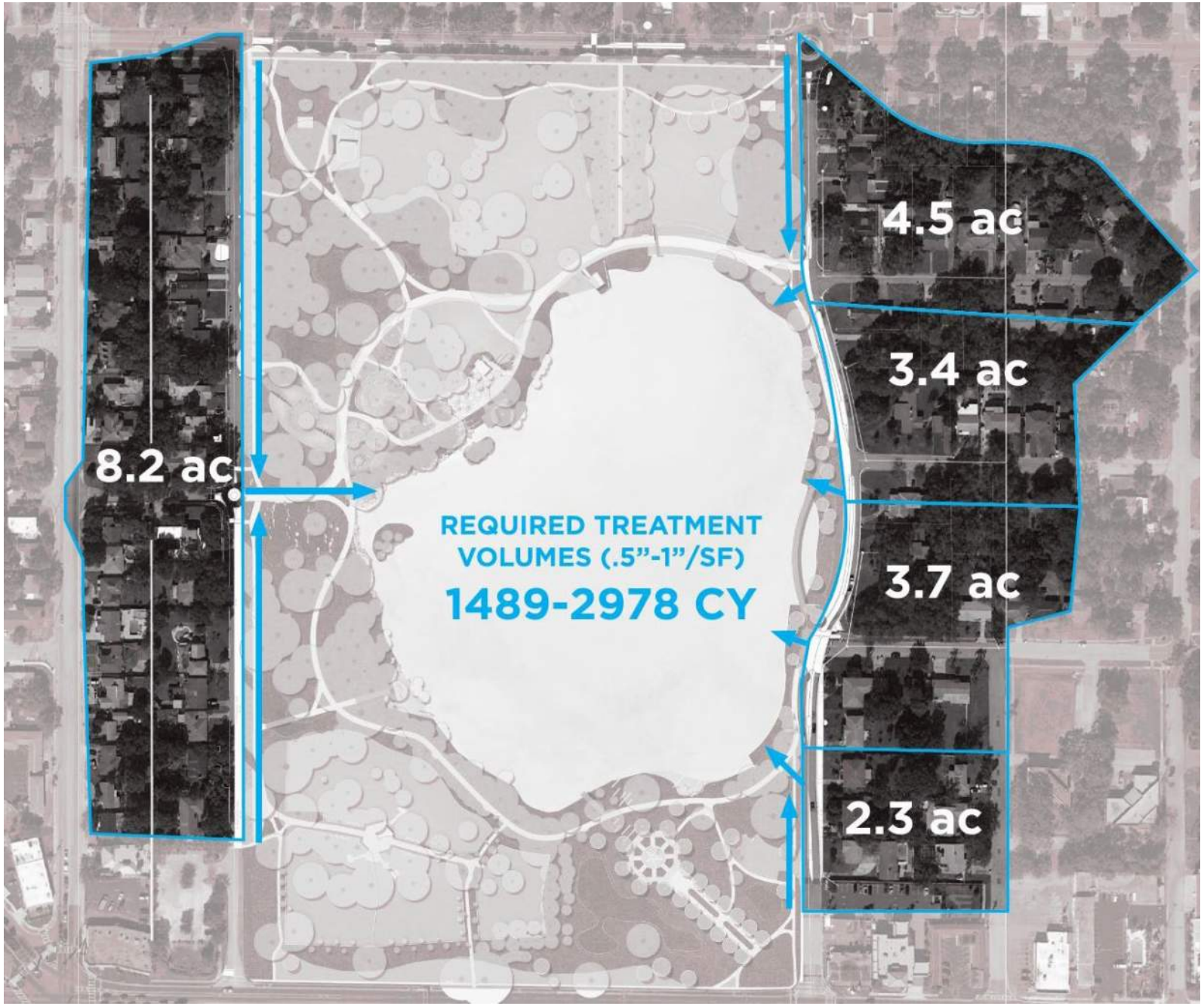
NATIVE WITH SELECT HISTORIC SPECIES

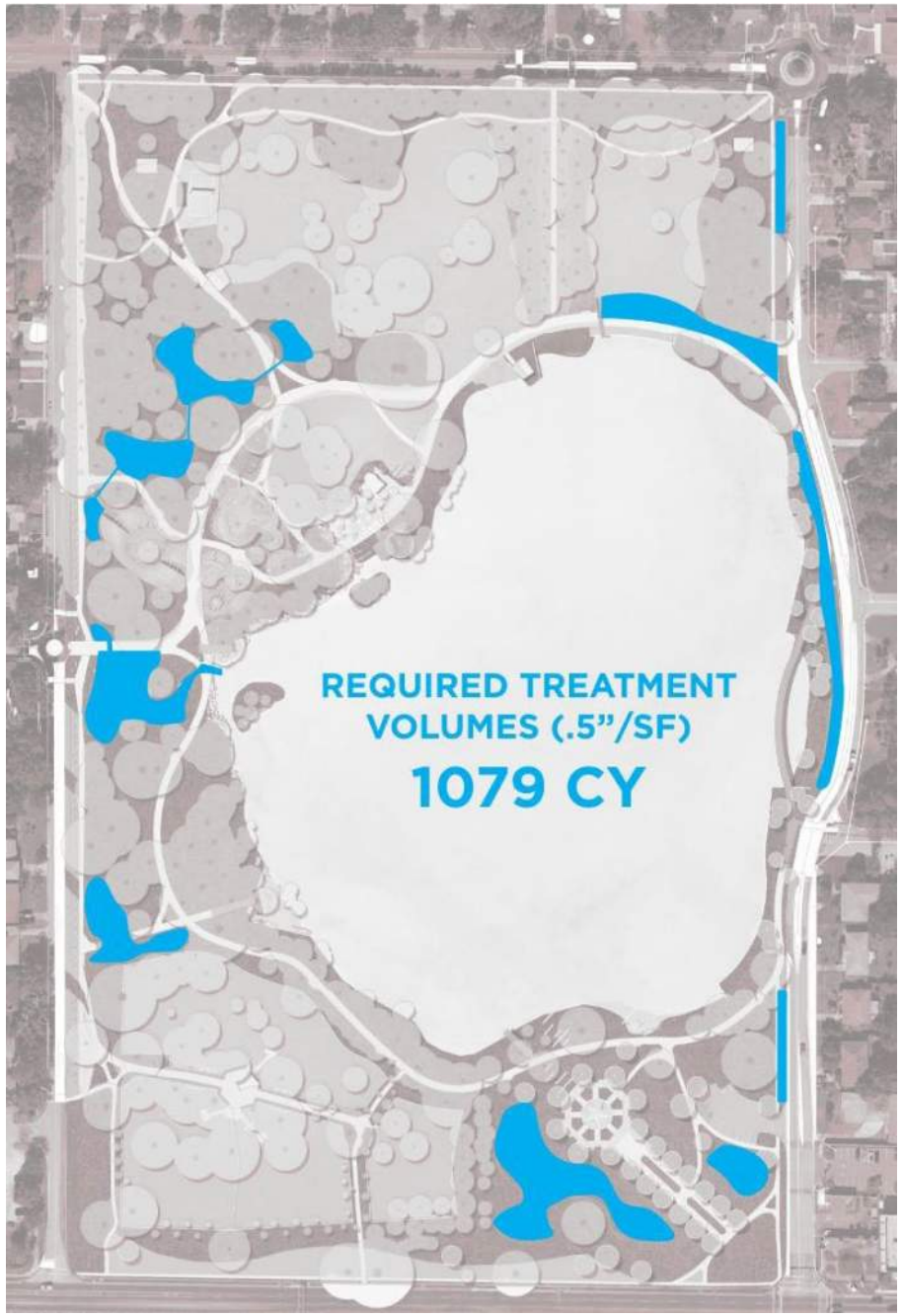
HIGH USE LAWN (ZOYSIA/BERMUDA)

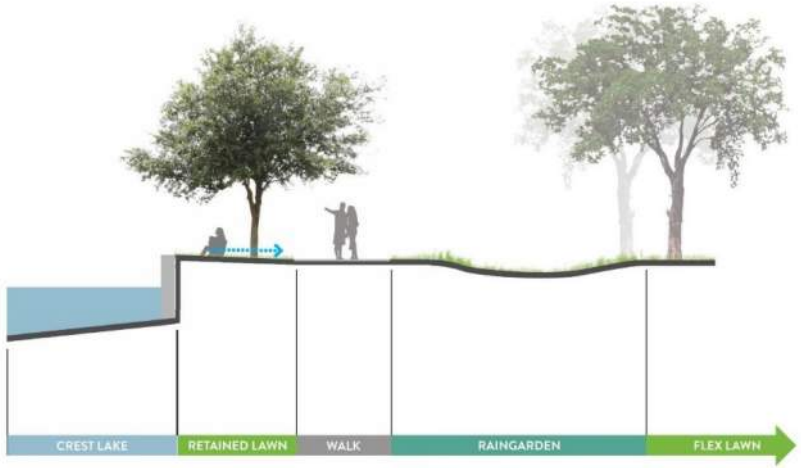
PASSIVE USE LAWN (BAHIA)

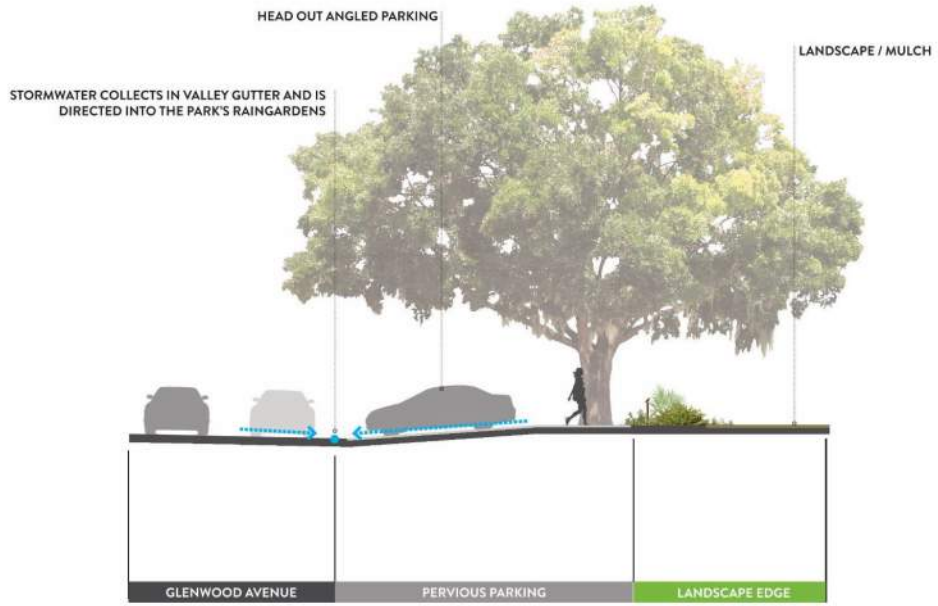
NATIVE WITH SELECT HISTORIC SPECIES

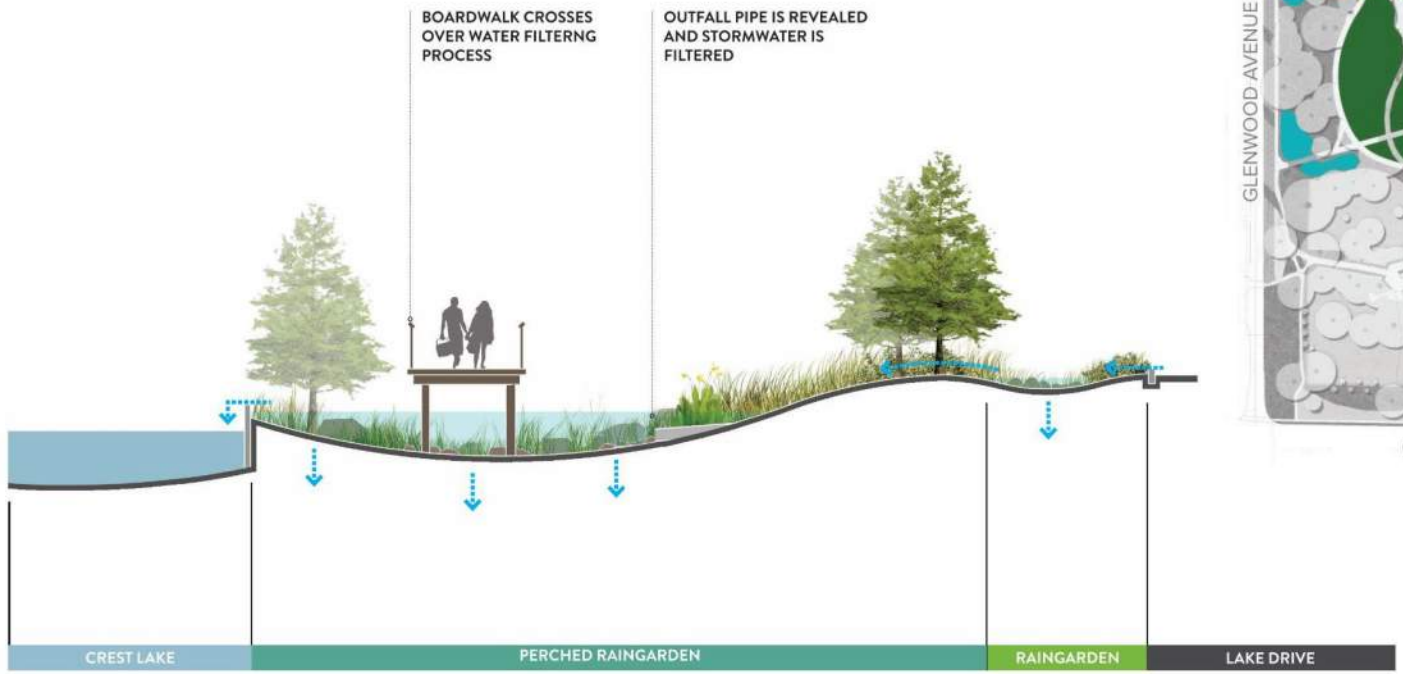
PRIMARILY MULCH WITH SELECT HISTORIC SPECIES


8.2 ac
4.5 ac
3.4 ac
3.7 ac
2.3 ac
REQUIRED TREATMENT VOLUMES (.5"-1"/SF)
1489-2978 CY


REQUIRED TREATMENT VOLUMES (.5"/SF)
1079 CY


CREST LAKE
RETAINED LAWN
WALK
RAINGARDEN
FLEX LAWN


HEAD OUT ANGLED PARKING
LANDSCAPE / MULCH
STORMWATER COLLECTS IN VALLEY GUTTER AND IS DIRECTED INTO THE PARK'S RAINGARDENS
GLENWOOD AVENUE
PERVIOUS PARKING
LANDSCAPE EDGE


BOARDWALK CROSSES OVER WATER FILTERNG PROCESS
OUTFALL PIPE IS REVEALED AND STORMWATER IS FILTERED
CREST LAKE
PERCHED RAINGARDEN
RAINGARDEN
LAKE DRIVE


CLEVELAND STREET
CREST LAKE
GLENWOOD AVENUE
LAKE DRIVE
GULF TO BAY BOULEVARD


STORMWATER
AT CREST LAKE PARK
CLEVELAND ST
FRANKLIN ST
S GLENWOOD DR
CREST LAKE
HELP US!

SCAN ME

TO SEE THE RAIN GARDENS AT CREST LAKE PARK IN ACTION


LITTORAL HABITATS
AT CREST LAKE PARK
LIFECYCLE OF A DRAGONFLY

CHECK IN QR CODE

Thank You!

Chris Hite, FSLA
Kody Smith, PLA
Sheeba West, PLA
Contact: chite@dixhite.com
ksmith@dixhite.com
swest@dixhite.com

FRPA
FLORIDA RECREATION & PARK ASSOCIATION

For more information about the Florida Recreation and Park Association visit frpa.org