

North Houston BMX Bike Park

Houston, TX

North Houston Bike Park encompasses more than 22 acres, centrally located between Downtown Houston, The Woodlands, and Kingwood, Texas.

The Greater Greenspoint Redevelopment Authority hired OJB to design this one-of-a-kind, world-class bike park following the completion of the ten-acre North Houston Skate Park which lies directly to the north. The creation of this area has already provided a benefit to the local community and impacted development in the neighboring region.

The focus for the North Houston Bike Park is to provide something for everybody, whether it's novice or expert riders, visitors, or spectators. Programming for the park will include a BMX track, a welcome center, 25,000 SF of concrete bike bowls, a performance pavilion with large event lawn, an urban riding plaza, large and small pump tracks, a tot track, a dirt jumps track, and off-road trails with break-out areas for various skill work.

Promenades run from the north to the south, framing the event lawn and creating a variety of pedestrian gathering spaces. Bike activity happens to the east and west of the promenades ensuring an active experience for all visitors.

OJB has incorporated sustainable elements into the space-efficient design. The starting ramp sits atop the park's 2,500-SF Welcome Center. Another unique element is the pedestrian bridge which is situated on top of rideable planters and allows visitors to traverse the bike bowls. Visitors can take advantage of this distinctive vantage point with birds-eye views of the riders below as well as tree-top sightlines extending to the south end of the park.

North Houston Bike Park hosted the 2020 UCI BMX World Championships.

Client

Greater Greenspoint Redevelopment Authority

Size

22 acres

Dates

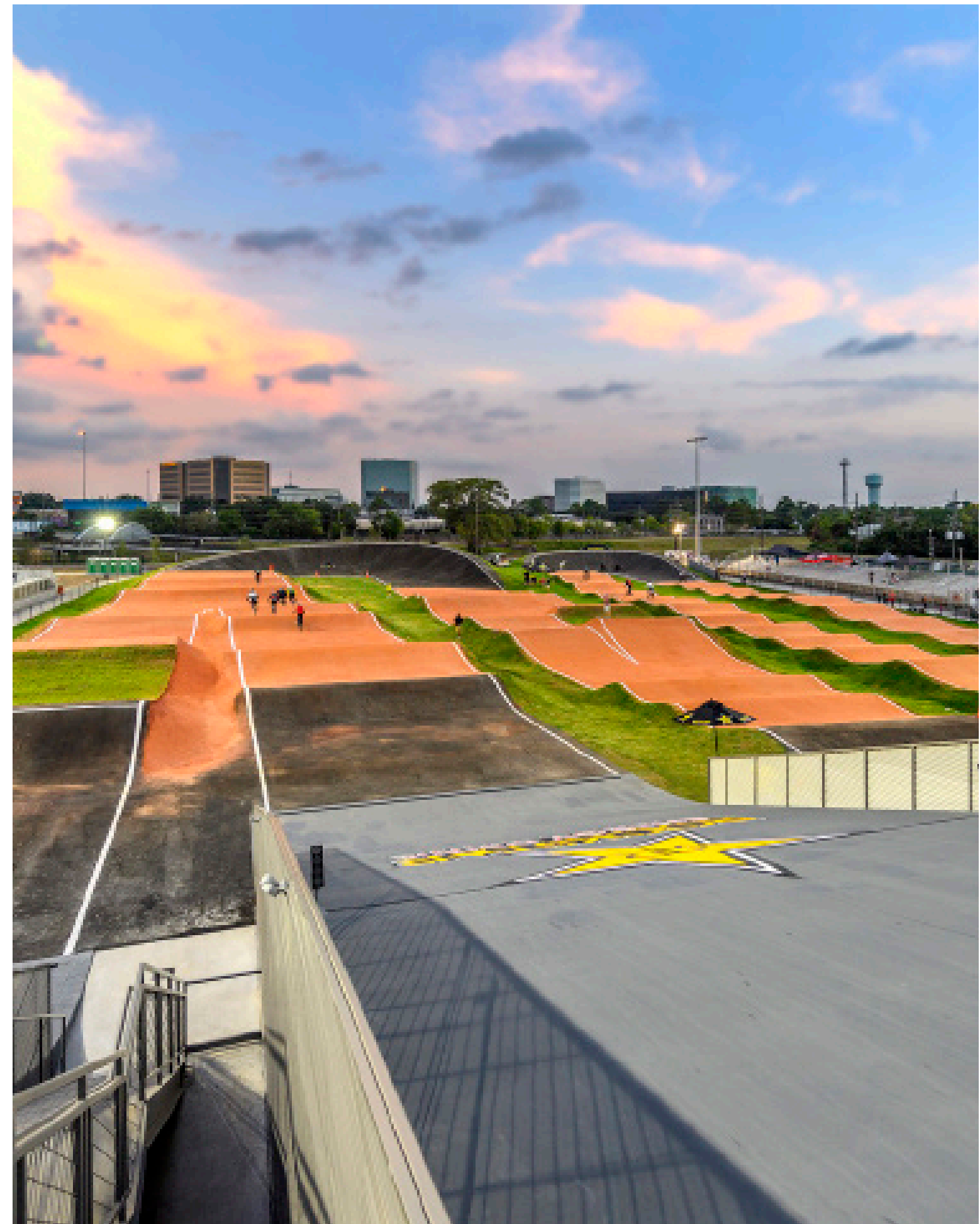
2014 - 2019

Cost

\$25 Million

Team

Endrestudio
Brett Zamore Design
Walter P.Moore
Wylie Consulting Engineers
Stantec
SITE Design Group
Minor Design
Carter Design Group
Jones | Carter





Primary entrance

Primary entrance

Underground detention to flow into bayou

Series of rain gardens

Rain gardens along secondary walking paths

Secondary entrance

Rain garden

Secondary entrance

Rain gardens along secondary walking paths

Underground detention to flow into bayou

Flow of detention and natural water into bayou

Secondary entrance

Rain garden

Secondary entrance

Secondary entrance

Flow of water down bayou

Flow of detention and natural water into bayou

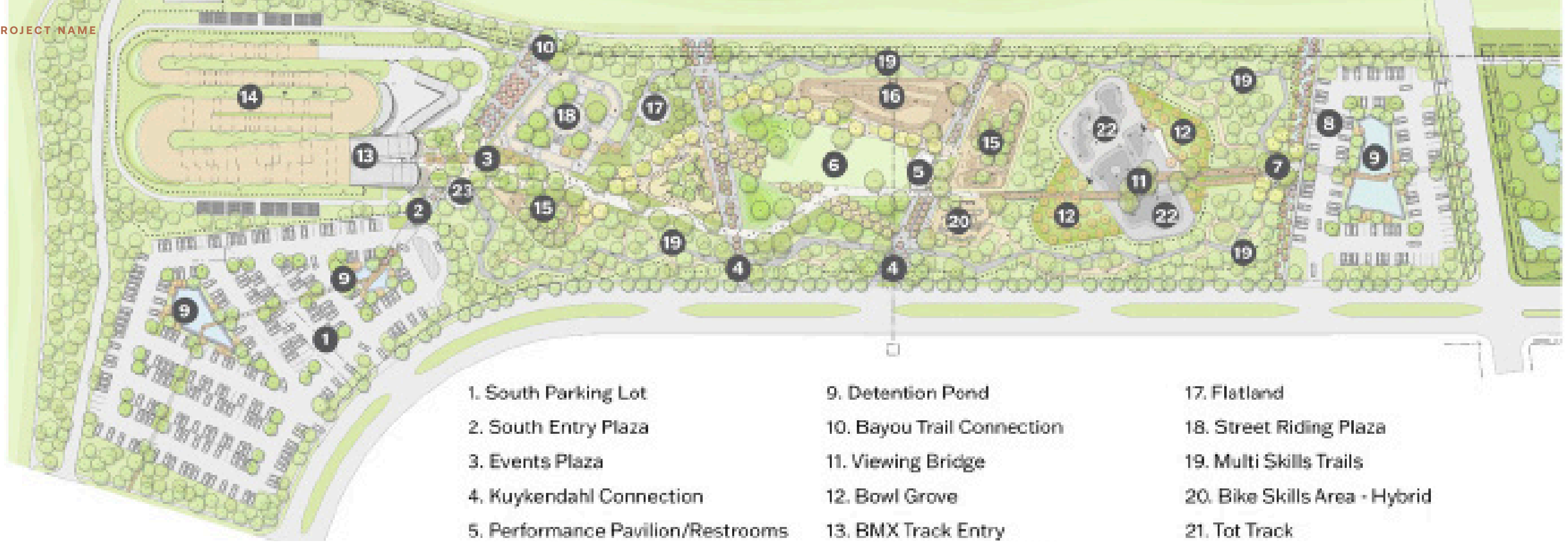
Primary entrance

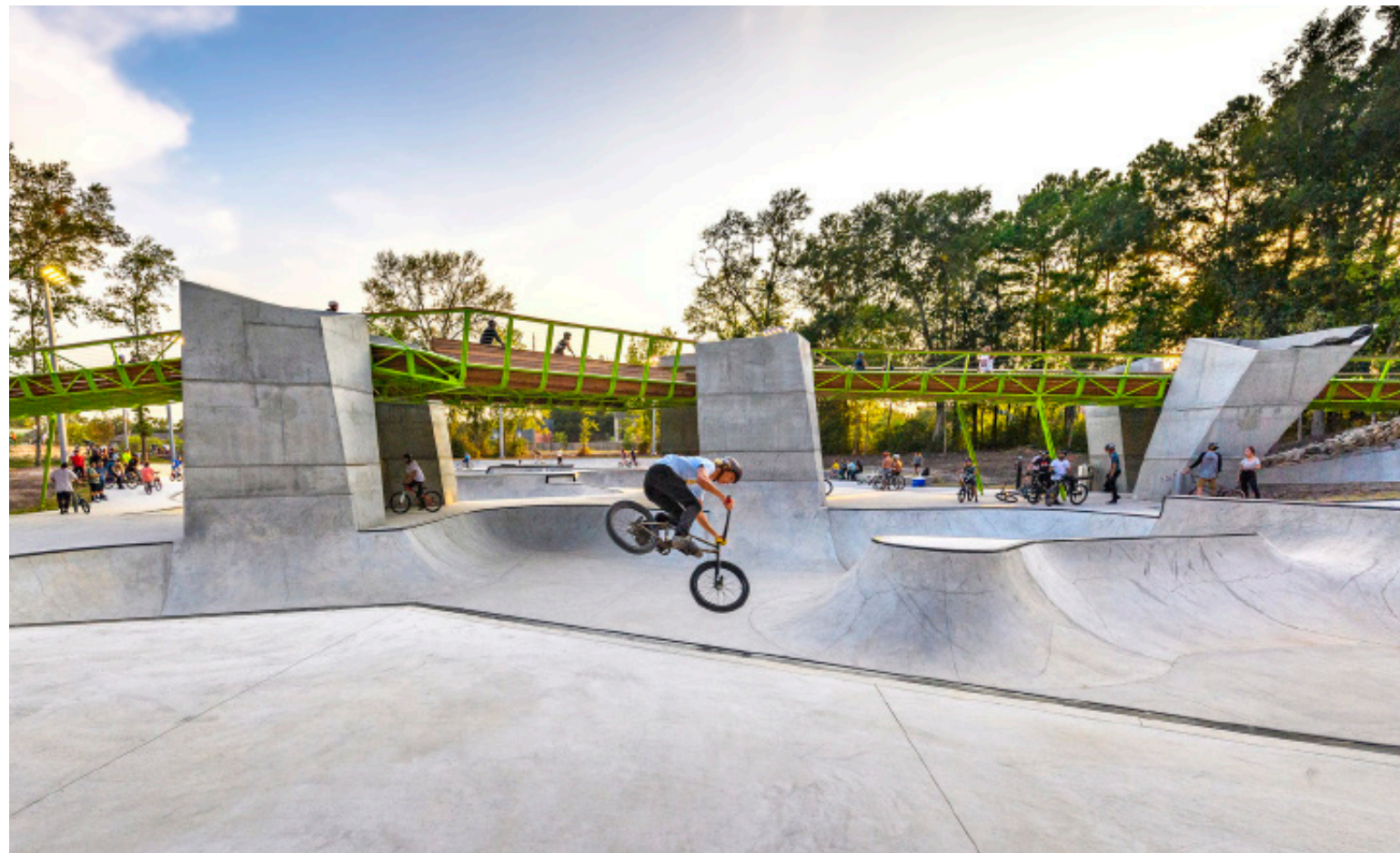
OJB

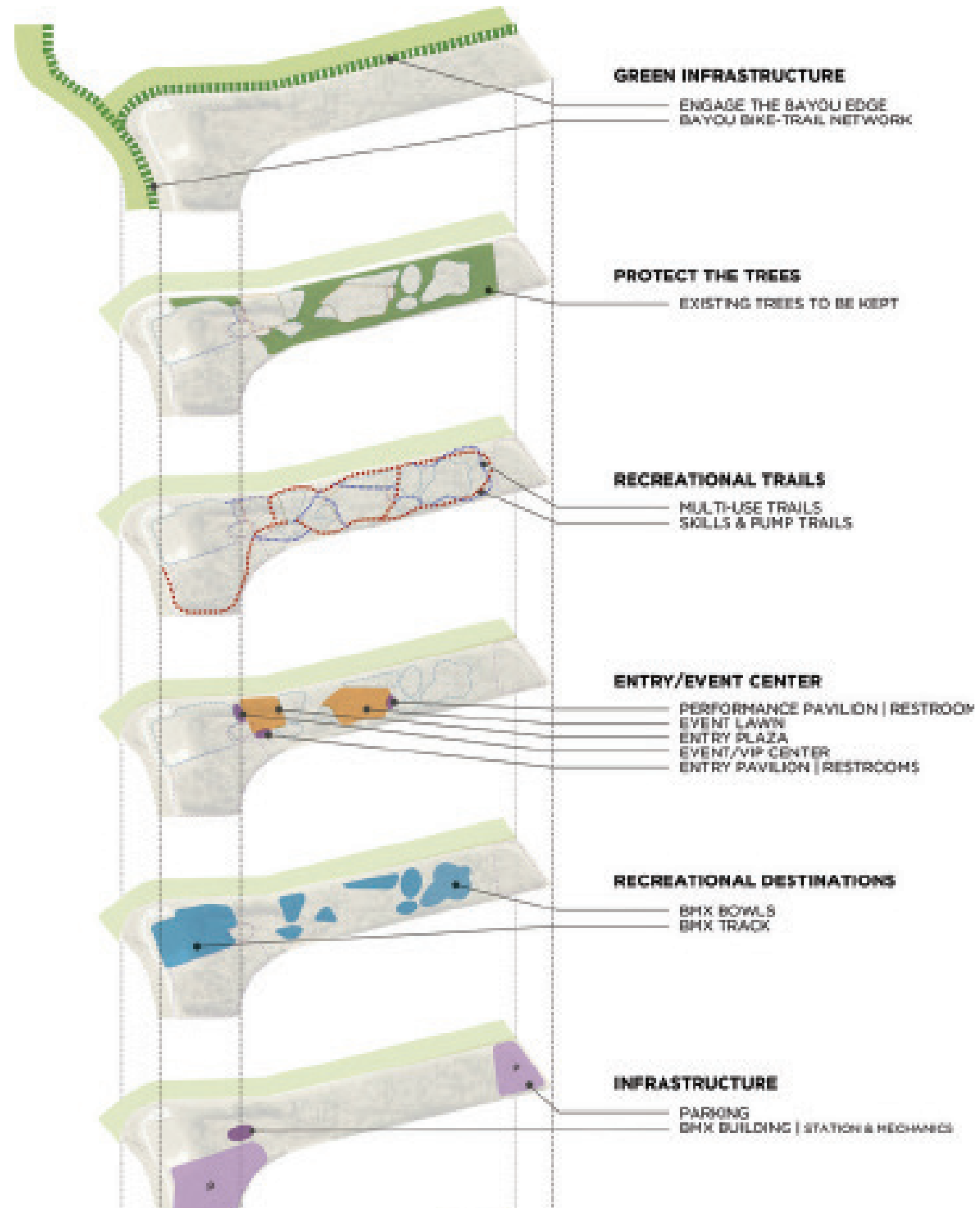
Client













Sustainability

Designed in a flood plain, the 100% permeable parking lot allows for 3 feet of water storage, exceeding the city's detention requirements for stormwater management.



LAND

Once a wastewater treatment plant allowed to grow over as a first tier successional plot, the project redevelops a site into a public amenity.



WATER

Located in a flood plain, all buildings are raised one foot above the flood plain and the site is designed to mitigate runoff.

A bioswale collects stormwater and creates a richly planted space in the landscape. The planting and slope of the swale removes silt and pollution from the water before it infiltrates into the ground source.

The project required 2.1 acre feet of detention. This is zoned to the parking lot, with one foot allocated for water storage under the gravel pave. The open air space in the gravel is about 40% of the volume. By putting the detention requirement under the gravel parking versus a detention pond, a larger portion of trees could be saved on-site and there was a cost savings of more than one million dollars. This also keeps the park useable and active during seasons of frequent storms.

Trees have the potential for intercepting 250,000 gallons of water which is the equivalent to the water usage for 250 American residents for one day *



ECONOMICS

The project is predicted to be a catalyst for growth.

51% of the planting requires no irrigation or maintenance, offering savings.

The park created jobs, with three full time employees managing the park along with 24-hour security.



PLANTING

The project controls and manages the invasive Chinese Tallow trees, which once covered the site.

Reference communities informed the planting design. Sweetgum trees located on-site inspired the selection for more Sweetgums.

800+ trees were saved.

500 trees were planted.

90% of the trees planted are native to the region, including: Sweet Gum, Live Oak, Red Oak and Bald Cypress.

Plants are allowed to go from seed to flower life.

The project avoids annual planting.



SOCIAL

The project connects to over 150 miles of trails as part of the Bayou Greenway. The bayou system reaches almost every type or neighborhood in Houston. Having a free, outdoor activity space for fitness, education, and community gathering becomes a tremendous resource.

With an adaptable, multipurpose room and a community center within the park, the bike park plans to offer educational programs and community gatherings. The programming staff is excited about courses, such as bike maintenance, as a tool for gathering the community together.

The track is certified for national and international competitions by the Olympics, UCI (Union Cycle Internationale) and USA BMX.



CARBON, ENERGY & AIR

The trees sequester 30,000 pounds of carbon annually, which offsets 3.6 cars per year **

Exposure to environmental tobacco smoke is removed through prohibited smoking on-site.

*The tree average for water interception is 500 gallons. American's use an average of 100 gallons of water per day (EPA's water trivia facts).

**120 pounds of CO2 per tree annually (This number is based on an average from the National Tree Benefits Calculator) One car produces an average of 8,320 pounds of CO2 per year (The Code of Federal Regulations - 40 CFR 600.113).