

THIS PROJECT IS PART OF PRECINCT ONE'S COMMITMENT TO INVESTING IN OUR COMMUNITY AND IMPROVING RESIDENTS' LIVES.



El Franco Lee Park Wetland Enhancements

BACKGROUND

The City of Houston and Harris County Precinct One (Precinct One) jointly acquired a 365 acre tract of land that historically served as a rice farm. An agreement between the Harris County Precinct One, City of Houston, and U.S. Fish and Wildlife Service (USFWS) designated approximately 100 acres of the 365 acre site as a mitigation site for construction that occurred during the expansion of Houston's Intercontinental Airport.

Originally developed as a rice irrigation reservoir, the area was redeveloped as a bird sanctuary with a focus on providing accommodations for migratory birds. Since the 1980's the pond has spontaneously evolved and the surrounding wetland attracts migratory birds along with local wildlife. Water is supplied to the ponds and wetland area via rainfall and supplemented by diverting water from the adjacent Clear Creek.

As development encroached towards the boundaries of the designated conservation area, additional protective measures became necessary to support conservation

efforts, improve the ability to shelter this resource, and provide additional public access.

The Coastal Impact Assistance Program (CIAP) grant project, funded with oil and gas revenues and managed by the USFWS, provided the resources to increase the viewing opportunities of the wetland area. The two mile perimeter trail traverses varied riparian, coastal prairie and wetland terrain while also providing a respite from the surrounding development.

The project includes a 1,100 foot boardwalk over the wetland, two observation towers to enhance wetland viewing, a butterfly garden and waystation, along with educational signs and accessories such as covered areas and benches located along the trail.

CHALLENGES

The Houston area experienced a devastating drought during the same time that the project was under design. The design occurred after the drought of 2011 when it appeared that the areas designated as wetland were incorrect. Ironically, the drought lifted once construction started; there were daily rain

disciplines + services

Planning, Design, Sustainability
Landscape Architecture
Architecture
Civil Engineering
H&H Engineering
Structural Engineering

client

Harris County Precinct One

location

Houston, Texas

APWA Public Works 2018
National Project of the
Year, Structures less
than \$5M

ACEC Texas 2018 Silver
Medal Winner - Water
Resources, Engineering
Excellence Awards

Texas Chapter, APWA,
2017 Project of the Year,
Structures less than \$5M

disciplines + services

Planning, Design, Sustainability
Landscape Architecture & Architecture
Civil, H&H, & Structural Engineering

The whole objective involved keeping the area available for people to use and respecting the wildlife at all times.



waystation, learning area, a water feature, sampling research pier, and a second observation tower. Huitt-Zollars was supportive in providing additional design and details quickly as these new features were added to the project and the project deadlines. Items from the original scope were added under different amendments, and the project ultimately incorporated all items as well as additional enhancements.

events during construction of the boardwalk and access trail. The wet conditions were challenging and inconvenient to work with because of the low wetland environment, which was inconvenient to access. The first observation tower and sampling pier were actually constructed in flooded conditions. The perimeter trail, second observation tower, and butterfly garden were also completed during the rainy season.

high priority that all construction teams exhibit great respect for the environment, and protect the El Franco Lee Park wetland.

ADVANCED DESIGN SOLUTIONS

The project objectives of the El Franco Lee Park Wetland Enhancements involved: providing access to natural resources, enhancing the area to reduce invasive plants, increase aesthetics, and educating park patrons about this unique and critical habitat.

Huitt-Zollars' construction observation role created added flexibility to support the overall project and provided cost savings in project management. Additionally this role provided a vehicle for technical oversight of all construction quickly, as needed, in order to monitor contractors and ensure the design was properly implemented.

The budget was very tight for the amount of work originally defined. Huitt-Zollars worked with the client to prioritize the requested project features into the project. Throughout the course of the project, Precinct One diligently pursued additional grant funding. This affected the project because any additional improvements could not be designed before acceptance of the official award. This required extreme flexibility from everyone involved, with very quick completion for each separate amendment. A second observation tower was approved in the last amendment was designed and constructed in less than two months!

Additional grant amendments provided additional funding and deadline extension until the final grant deadline of December 2016. The added funding and extended project deadline resulted in benches, informational signage, a monarch butterfly

It was a high priority that all construction teams exhibit great respect for the environment, and protect the El Franco Lee Park Wetland. Sensitive control was instituted throughout the project in order to decrease environmental disturbances and protect nesting areas. The construction teams proactively kept interference with the natural environment to a bare minimum.

This project has enhanced wildlife-viewing opportunities, increased knowledge and support of the environmental features throughout the wetland, and created long-term conservation benefits.

It is critical during environmental construction projects to remain highly aware that all equipment functions properly and diligence is maintained to protect the environment from any contamination that could originate from equipment. It was a

