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# Mandeville Wetlands Restoration Project

July 14, 2022



- The project is located south of the cypress swamp between Galvez Canal and Massena Canal.
- Sunset Point Park is used for picnics and fishing and has unused parking.
- Lakeshore Dr. used for many types of recreation but has limited parking.



- The historic cypress swamp in Mandeville is **degrading, and the trees are rapidly dying off.**
- It is the only natural feature between 2 hardened shorelines.
- The cypress swamp is eroding due to focused wave energy at the shoreline.
- Cypress trees are **difficult to reestablish** once lost.

- This project will address the wave conditions onsite and significantly reduce the erosion at the cypress shoreline.
- This project marries coastal protection and restoration features into a recreational and resiliency benefit for the entire community.





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# Coastal Project Features and Benefits

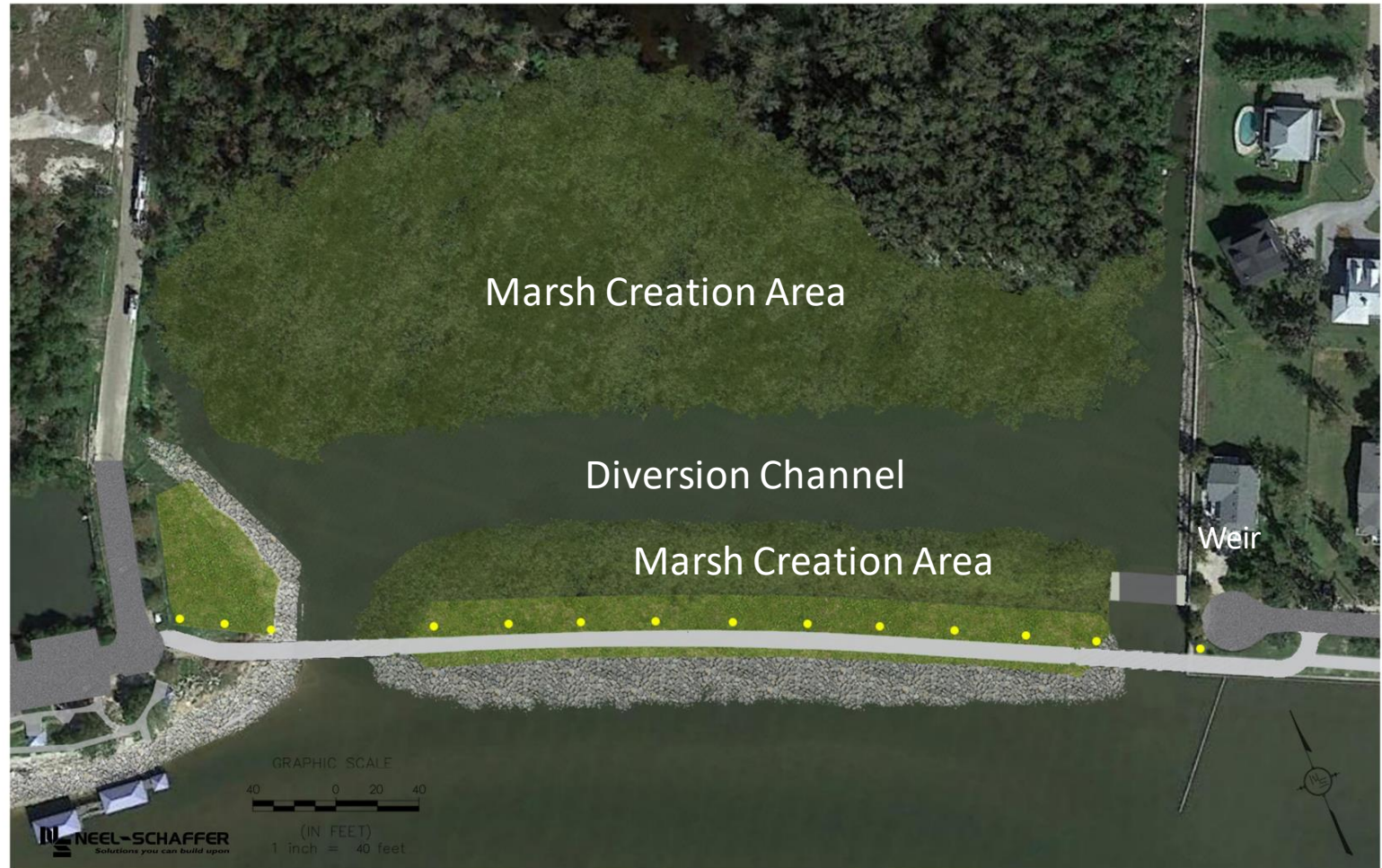


- Shoreline Protection Features include:
  - Shoreline Protection Berm
  - 2 Precast Concrete Bridges across the Galvez and Massena channels.
  - Shoreline Protection Revetment (riprap) along the berm's Lake Pontchartrain shore face for protection from wave energy.





- Restoration Protection Features:
  - Marsh Creation platform near cypress swamp and along the northern shoreline of the berm.
  - Diversion Channel with stone lining and a flow control weir to provide water quality benefits.





- Shoreline Protection Benefits include:
  - The project **reduces the wave energy conditions** at the cypress swamp.
  - Additionally, the project **reduces storm surge** for the neighborhood Hermitage on the Lake just north of the project.
    - Through the LOMR process, the City of Mandeville could petition to remove Hermitage from the Velocity Zone on the FEMA maps after construction.





- Environmental Benefits include:
  - The project will **improve water quality** entering Lake Pontchartrain through urban runoff **sediment capture** within the swamp.
  - **Increase flow of freshwater** through the cypress swamp will improve the habitat.
  - Reuse of dredged material for marsh creation **maintains natural seed and existing wetland plant diversity.**
  - The project will **increase essential fish habitat** through wetland benching and plant growth.
  - The calmer waters will attract wildlife to the area and **restore the natural environment.**



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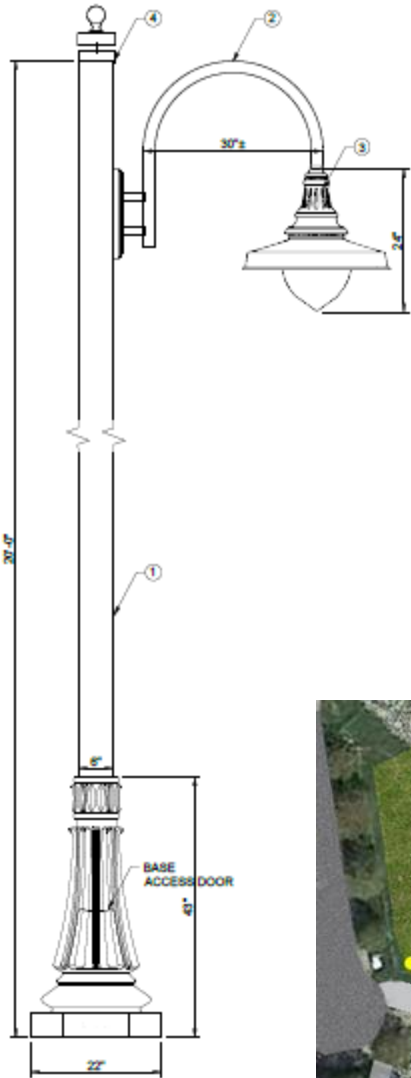
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# Recreational Project Features and Benefits



- Recreational Features and Pedestrian Connectivity:
  - Pedestrian connection from Sunset Point Park to Lakeshore Drive.
  - Pedestrian Pathway on shoreline protection berm.
  - Streetlighting along the pedestrian pathway.
  - Gates at each bridge for structure closure during storm events.



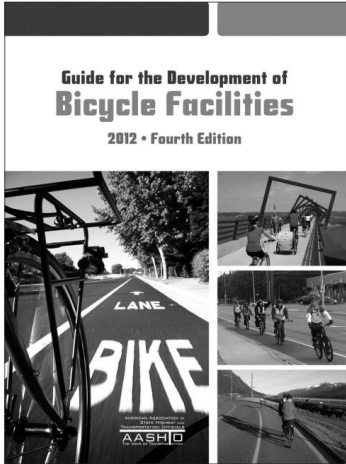


- Recreational Features and Pedestrian Connectivity:
  - Pathway lighting extends from Sunset Park to Lakeshore Dr.
  - Lights nearest Lakeshore Dr. will be fitted with factory installed shields to limit light transmission towards houses.

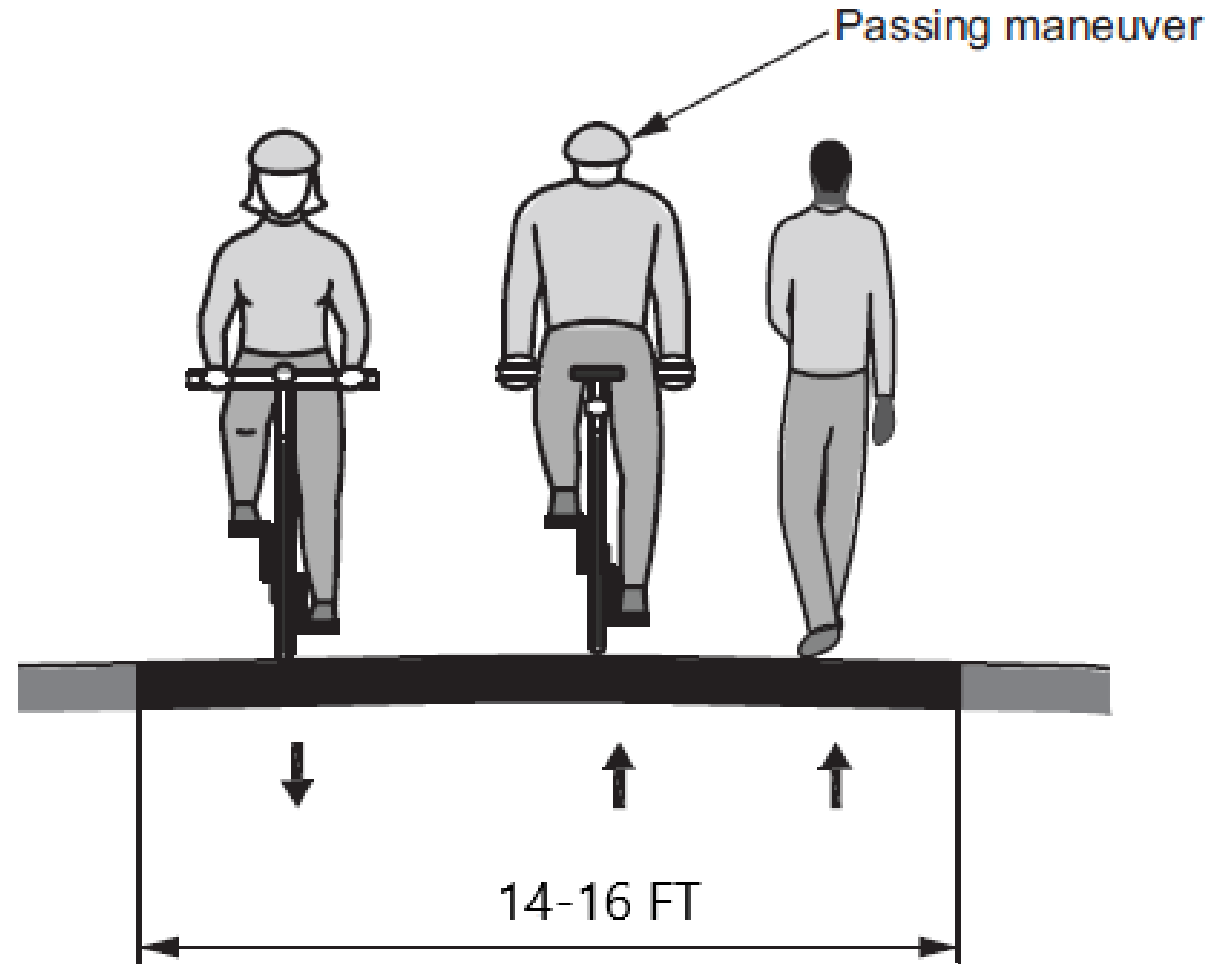


- Recreational Features and Pedestrian Connectivity:
  - Addition of a shared-use path between the end of Lakeshore Dr. around the playground at West Beach Blvd.
  - Widening of the existing path from the end of West Beach Blvd to Carondelet St. to create a full shared-use path.
  - Connection of Pathway to Roadway for emergency use.





- Shared-Use Paths are intended for a variety of users including:
  - Bicyclist
  - Inline & Roller Skaters
  - Skateboarders
  - Pedestrians with stroller and/or dogs
- The path along Lakeshore Dr. will be 14ft wide along seawall to allow for passing maneuvers for bicyclists and walkers.
- The pathway on the berm will be 16-ft. with 1-ft. shoulders on each side to provide additional passing room and recovery.





- A new shared-use path will widen the existing concrete splash pad and walkway from 3-8 ft to 14-ft.

- By connecting Sunset Point & Lakeshore Dr., the project will provide **shared parking** and increased access **within the community**.
- Bicycles and pedestrians will be able to **move through** the natural environment **with space for passing**.
- The project is a **walkable distance** from Mandeville Elementary school **for environment related field trips**.
- The project increases the **park atmosphere and footprint** of the Mandeville Lakefront.







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# Project Implementation

- Construction Duration
  - Construction expected to take 9-12 months
  - Berm and Bridge work expected to be completed first with the largest influx of equipment and material
  - Shared-Use Path and Marsh Creation likely to be complete simultaneously
- Advertising and Bidding is scheduled to begin between late summer to early fall.

- Construction material staging area located in Sunset Point Park.
- Local & Construction traffic only on Lakeshore Dr. west of West Beach Parkway.
- Significant portion of construction could be performed through land based or marine based methods.
  - This diversifies the bidder pool which provides **competitive bid pricing**.



- Costs are currently estimated to near \$4.75M due to increase fuel costs, steel and concrete price increases, and labor shortages.

## 95% Opinion of Probable Construction Cost

BASE BID - BERM, BRIDGES, & PATHWAY TO LAKESHORE DR. TOTALS	\$4,425,436.87
SIDEWALK ALONG LAKEFRONT PACKAGE TOTALS	\$158,835.60
LIGHTING PACKAGE TOTALS	\$158,550.00
TOTAL PROJECT SUB-TOTALS	\$4,516,973.78
5% CONTINGENCIES	\$225,848.69
<b>TOTALS</b>	<b>\$4,742,822.47</b>

- St. Tammany Parish Government has pledged \$1-MIL in GOMESA funding for project.

# Questions

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