



7 April 2021  
 To: Mayor and City Council members  
 Update to drainage and sanitary sewer work in existing neighborhood for continued public investment. Prepped to bid this summer. Clay

# Willowcrest Subdivision Drainage Improvements

## Willowcrest Subdivision Sanitary Sewer

Is It In Budget?		Is It On Schedule?		Community Benefit
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<i>Improve drainage and sanitary sewer in Willowcrest Subdivision</i>
<b>Project Phase?</b>				
Engineering/Design				

### Highlights:

- 30% plan comments have been addressed and 75% plans have just been received for review
- The Hydrology & Hydraulic (H&H) models have been completed.
- Final draft drainage plan completed and in review with engineering
- Coordination efforts: The Willowcrest project shares a drainage basin with the Mimosa Acres drainage project by the City, the recently completed Mykawa Trunk Storm sewer project (BDD4), and the Mykawa road widening project (City). Differing modeling methodologies between design teams have led to challenges matching results. The challenges to eliminate possible adverse drainage effects on adjacent projects have been resolved and have resulted in the need for additional detention in the form of an off-site detention pond
- Project Team is continuing to coordinate with BDD4 with detention pond design
- Sanitary sewer design complete

### Budget Info:

#### Drainage:

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
Certificates of Obligation				-
Certificates of Obligation				-
General Obligation Bonds	2020	2,086,000		2,086,000
General Obligation Bonds			13,840,000	13,840,000
W/S Revenue Bonds				-
Impact Fee - Debt				-
Other Funding Sources				-
<b>Total Funding Sources</b>		<b>2,086,000</b>	<b>13,840,000</b>	<b>15,926,000</b>

Expenditures	To Date	Future	Total
PER			-
Land	50	800,000	800,050
Design	966,603		966,603
Construction		11,825,554	11,825,554
Construction Management/Inspection			-
Construction Materials Testing		297,500	297,500



			-
<b>Total Expenditures</b>		<b>966,653</b>	<b>12,923,054</b>
<b>Project Contingency</b>	<b>13%</b>		<b>2,036,293</b>
<b>Project Balance</b>			-

**Sewer:**

<b>Funding Sources</b>	<b>Series</b>	<b>To Date</b>	<b>Future</b>	<b>Total Budget</b>
General Revenue - Cash				-
Certificates of Obligation				-
Certificates of Obligation				-
General Obligation Bonds				-
System Revenue - Cash		240,000		240,000
W/S Revenue Bonds	2020B	1,300,000		1,300,000
Impact Fee - Debt				-
Other Funding Sources				-
<b>Total Funding Sources</b>		<b>1,540,000</b>	-	<b>1,540,000</b>

<b>Expenditures</b>	<b>To Date</b>	<b>Future</b>	<b>Total</b>
PER			-
Land			-
Design	185,350		185,350
Construction		1,284,350	1,284,350
Construction Management/Inspection			-
Construction Materials Testing		25,000	25,000
FF&E			-
<b>Total Expenditures</b>	<b>185,350</b>	<b>1,309,350</b>	<b>1,494,700</b>

<b>Project Contingency</b>	<b>3%</b>		<b>45,300</b>
<b>Project Balance</b>			-

**Schedule Info:**

	<b>Base Line</b>	<b>Current</b>
<b>Design Start</b>	August-19	August-19
<b>Bid Start</b>	September-20	June-21
<b>Construction Start</b>	August-21	
<b>Proposed Construction Completion</b>	November-23	

**Rain Days: N/A**

**Upcoming Work Items:**

- 75% plan set received March 29<sup>th</sup> currently under City review.
- Currently working on the appraisal report for the detention property. Approximately 2-3 weeks for completion. Next step in acquisition will be negotiations once the appraisal report is completed. Will present an offer to the property owner. Negotiation phase will take approximately 30-45 days if an



agreement is reached. Otherwise will move to the next acquisition phase of condemnation adding another 2-3 months to acquire.

- Coordinate with Communications to schedule a neighborhood public meeting to be held once the 75% plans are finalized.
- Coordinate needed relocates with franchise utilities
- Design Engineer will continue to 100% plans once City review is complete, the Technical Review Committee will be convened to complete the 100% Bid Set.

**Project Manager:** Jameson Appel

**Construction Manager:** Michael Collins

**Designer:** Cobb Fendley & Associates, Inc

**Contractor:** N/A

**Scope:** The project area, located in Willowcrest Subdivision, is bounded by Cherry Street, Woody Road, W. Plum Street, and Mykawa Road. This 2019 Bond project will provide drainage improvements which include upsizing the existing storm sewer to convey the 3-year storm event, rerouting storm sewer, and utilizing the conveyance that flows north along Mykawa Road. Pavement affected by the installation of the storm sewer will be removed and replaced. Work also includes replacing damaged and outdated sanitary sewer lines and pavement improvements, including improvements to driveways and sidewalks. This project will rehabilitate the sanitary sewer collection system located within the subdivision. There is approximately 12,500 LF of pipe and 40 plus manholes.

**Justification:** Several homes in this neighborhood have a history of repetitive loss despite its location outside of the FEMA mapped flood hazard zone. Most of the flooding problems can be associated with an undersized storm sewer system. This was an area identified in the Harvey Drainage Assessment Report as a local drainage improvement project. This subdivision was built in the 1970s and has been identified as an area with high infiltration and intrusion (I & I). The system is located in the backyards of the homes and is difficult to maintain. The project will evaluate best method to rehab or replace existing pipe that will reduce the I & I. The manholes will then be repaired and recoated to reduce rainfall intrusion.

**Previous Memos:** 07/25/19, 04/09/20, 09/10/20





Project Location Map:



**CITY OF PEARLAND**  
Willowcrest Subdivision Drainage Improvements

- Willowcrest
- Mimosa Acres



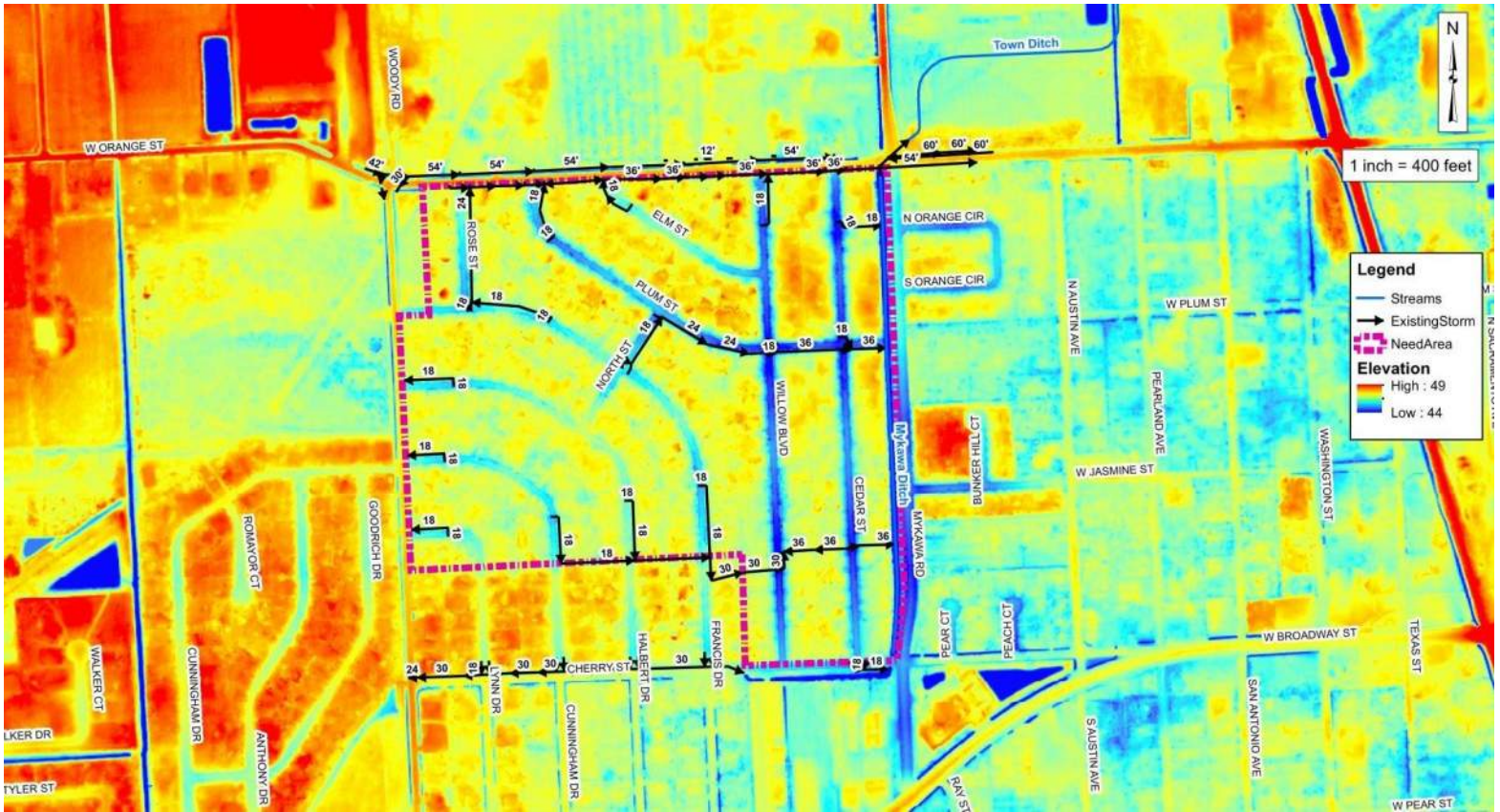
1 inch = 300 feet  
JULY 2019  
GIS DEPARTMENT

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.





Elevation Map:





**Project Photos:**

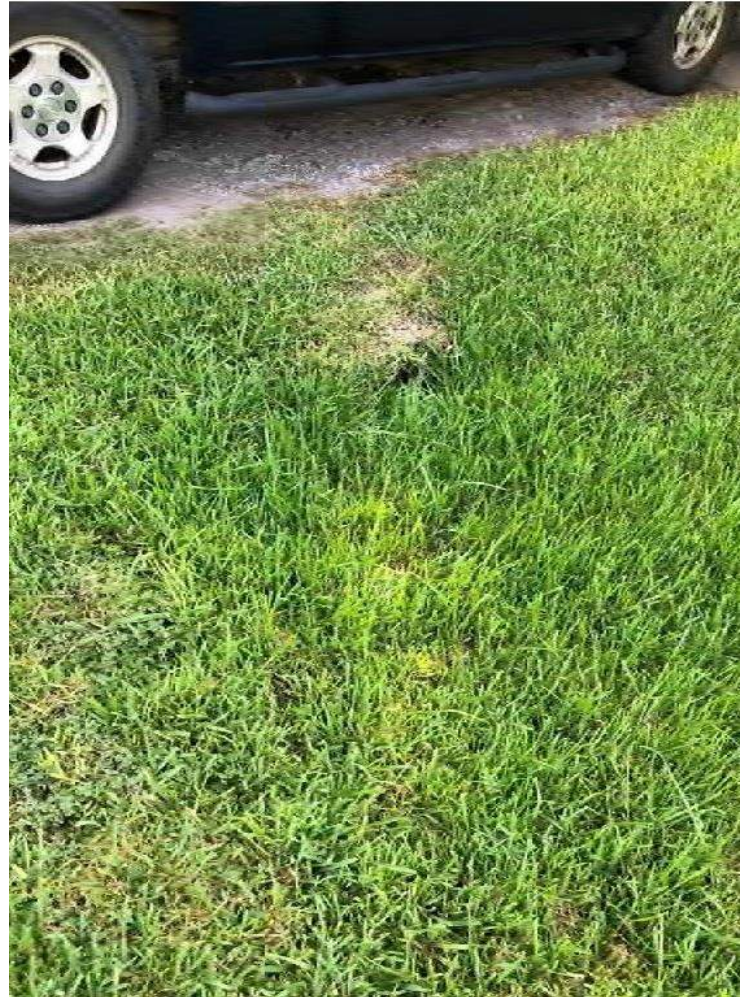


**Roadside ditch at the corner of Orange Street and Woody Road**





**Culvert crossing at the corner of  
Cherry Street and Mykawa Road**



**Overgrown driveway culvert along  
Woody Road**