

# South Howard Flood Relief Project

Capital Improvement  
Projects

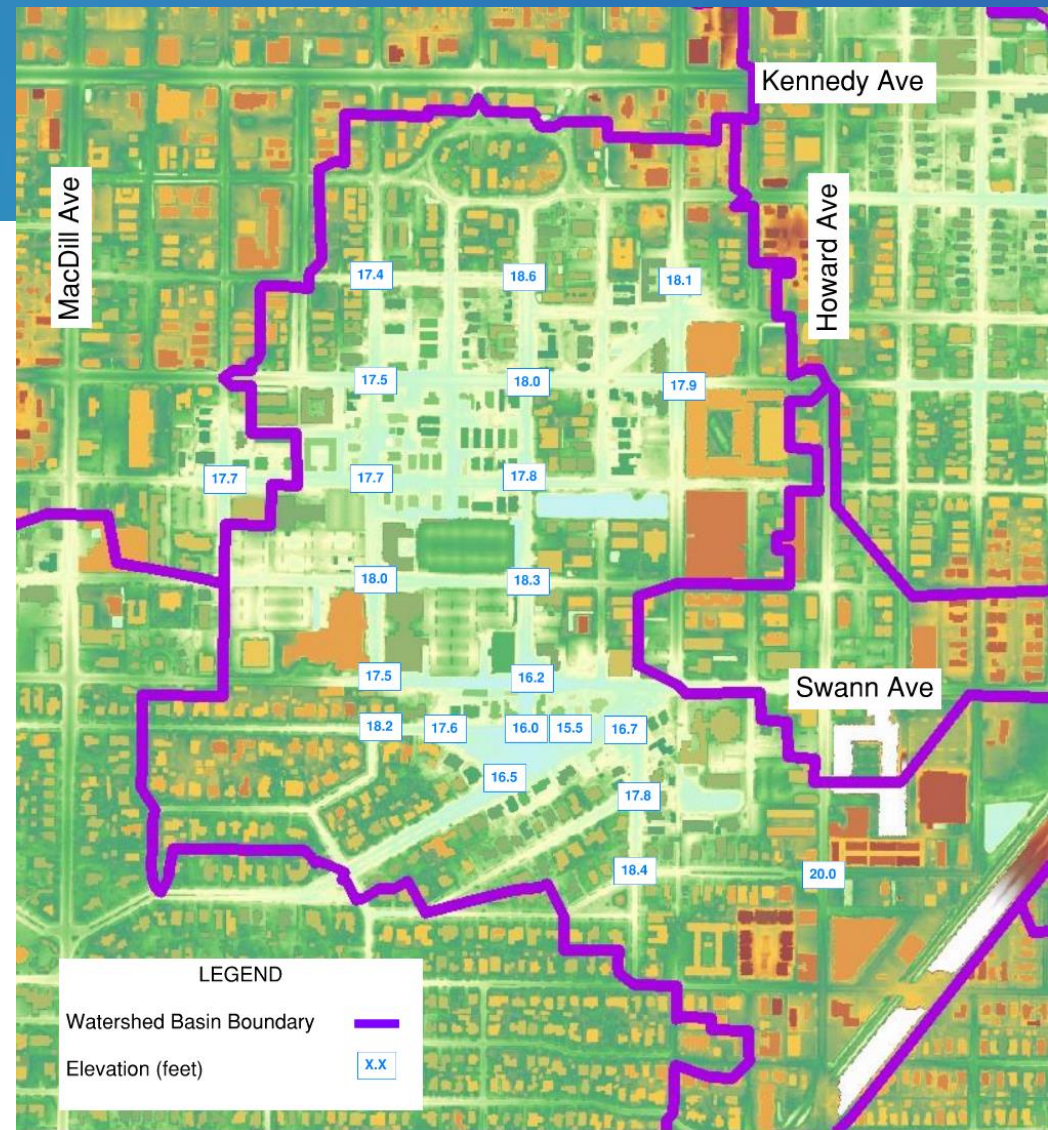
Stormwater Engineering  
Division  
Mobility Department

*City of*  
**Tampa**  
Florida



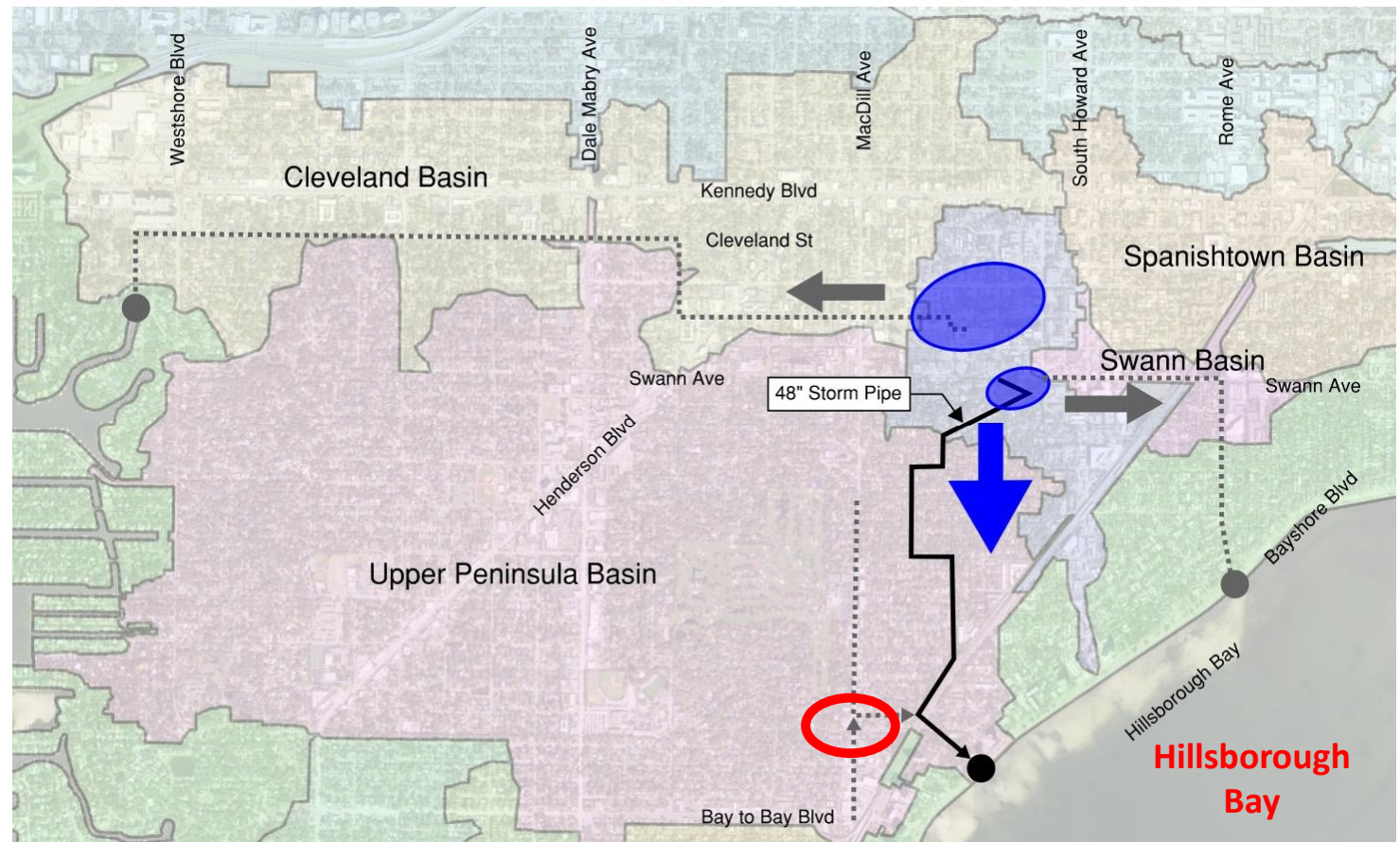
# Problem Description

- Water flows down hill to low street elevations
  - Palma Ceia Pines: 17.5-18.5
  - Parkland Estates: 15.5-17.5
- Current 48" storm pipe is undersized
- To relieve structural flooding, we need **five times (5X) more capacity than existing system**
  - 5'x10' Box Culvert or
  - 25-acre pond



# Basin Stormwater System Overview

- Flooding occurs in low areas at the most remote point of several drainage basins
- Primary drainage: 48" Pipe
- Secondary drainage: 3-mile Cleveland System to Tampa Bay



# Three Primary Stormwater Solution Methods

## 1. Pipes/Culverts

- Most resilient & long-term cost-efficient solution
- No operational cost, minimal maintenance cost
- Flood relief benefit can extend to surrounding areas

## 2. Ponds

- Very resilient solution
- Requires large storage volumes to be an effective
- Very expensive in urban setting due to large land needs
- Only localized flooding relief benefit

## 3. Pumps

- Least resilient solution
  - Requires backup power; operational failure risk
- High operational costs
- Requires extensive preventative maintenance



# Summary of Alternatives

- 11 Pipe/Culvert
- 3 Pipe/Culvert with Pond
- 5 Pump Station with Force Main
- 2 Miscellaneous

PARKLAND ESTATES STORMWATER IMPROVEMENTS ANALYSIS				
ALTERNATIVE	PRIOR STUDY	TYPE	ROUTE	INFEASIBILITY ISSUES
JMT Alternative 1	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard	Cost, Safety/Constructability Issues, Property Issues
JMT Alternative 1A	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard (with detention pond)	Cost, Safety/Constructability Issues, Property Issues
JMT Alternative 2	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard, S. Desoto	Cost, Time Delays, Permitting, Property Issues
JMT Alternative 2A	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard, S. Desoto (with detention pond)	Cost, Time Delays, Permitting, Property Issues
JMT Alternative 3	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Albany, W. Hills, S. Albany	Project Costs, Safety/Constructability Issues
JMT Alternative 3A	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Albany, W. Hills, S. Albany (with pond)	Project Costs, Safety/Constructability Issues
JMT Pump Station	1	Force Main	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard, S. Desoto	Operation/Maintenance Costs, 15-Year Pump Replacement Costs
Dewberry Alternative 2	2	Gravity	W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard, S. Desoto	Cost, Depth of Construction, Time Delays, Permitting, Property Issues
Dewberry Pump Alternative	2	Force Main	W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Albany, W. Watrous, S. Gunby	Impacts to Trees (Grand Oaks), Narrow Right-of-Way
COT Adjust Zom Pond Weir	3	N/A	W. Horatio between S. Audubon and S. Armenia	No Significant Impact on Flood Stages
COT Redirect Flow	3	N/A	To Existing Cleveland Street Basin	Existing Basin Overtaxed with Numerous Downstream Flooding Issues
COT New Gravity Outfall	3	Gravity	W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Georgia, W. Mississippi, S. Moody, W. Stroud, S. Howard	Impacts to Trees (Grand Oaks), Narrow Right-of-Way
BES Concept	3	Gravity	See above	See above
COT Upgrades	3	Gravity	South of Morrison/Marti Intersection	No Significant Impact on Flood Stages with Reasonable Construction Costs
COT Add Parallel 60" Pipe	3	Gravity	Eastern Boundary of Palma Ceia Park Adjacent to Crosstown Expressway	No Significant Impact on Flood Stages, Adverse Downstream Impacts
COT Adjust Weir Elevations	3	Gravity	Junction Chamber West Side of Crosstown Expressway/ Upstream of Rubideaux Outfall	No Significant Impact on Flood Stages, Adverse Downstream Impacts
COT Pump Station	3	Force Main	Parkland Estates Park to Downstream System at Marti/Morrison Intersection	Adverse Downstream Impacts During Larger Storm Events
COT Pump Station	3	Force Main	To Existing Swann Pond Drainage Basin on Rome	Pond Already Overtaxed with Bayshore and Rome Intersection Flooding
JMT Parallel Gravity Outfall	4	Gravity	S. Marti, W. Neptune, S. Habana	No Significant Impact on Flood Stages, Adverse Downstream Impacts
JMT Pump Station	5	Force Main	W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Georgia, W. Mississippi, S. Moody, W. Stroud, S. Howard	Benefits Limited to Parkland Estates Only, Operation/Maintenance
JMT Preferred Alternative	Current	Gravity	W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Howard	



# Two Additional Segments for Analysis

- City conducted preliminary public outreach
- Two additional segments will be analyzed during design based on public input
  - Swann
  - Bristol
  - Morrison

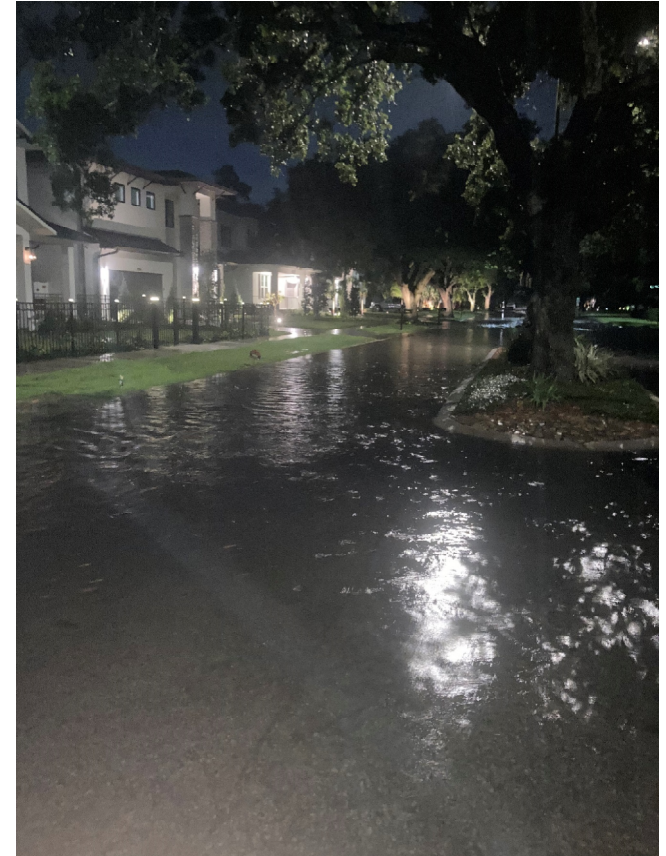


# Project Expectation & Design Goal

1. Relieve structural flooding for 100-year event: and

2. Relieve street flooding for:

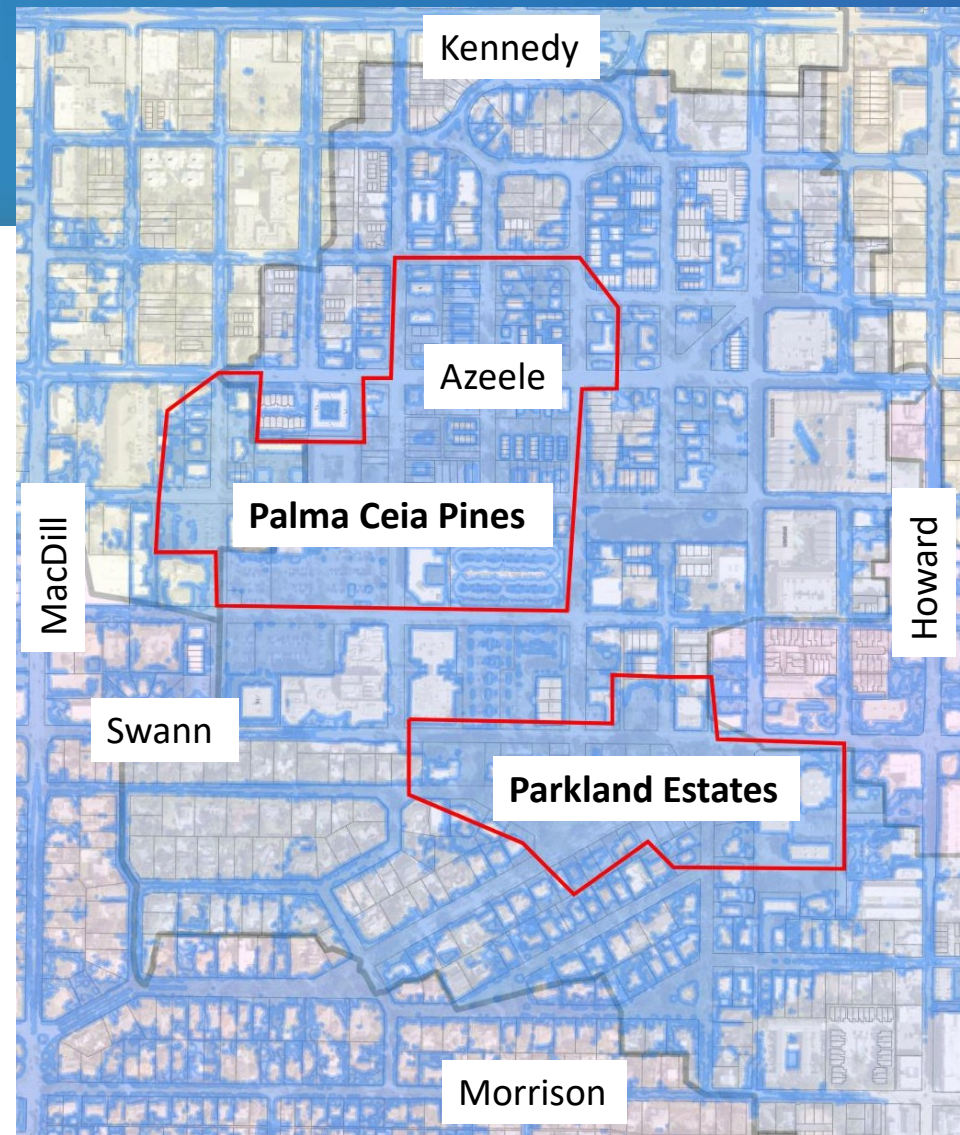
- Parkland Estates
- Palma Ceia Pines
- Additional neighborhoods





# Hurricane Milton Effects

- **150-250** flooded structures
- Streets flooded for **13-16 hours**
- **Hospital inaccessible**



# Benefits Beyond Flood Relief

- All new streetscape on South Howard
- New roadways in and near project area
- New, upgraded utilities
- Improved water quality discharges to the Bay
- Established stormwater spine for future flooding resolutions



# Schedule & Budget

- **Preliminary Schedule (contingent on City Council approval):**

- Modeling & Final Route: Dec. 2024 to Apr. 2025
- Design Phase: Mar. 2025 to Spring 2026
- Early works Construction: Begin Summer 2025
- Major construction: Spring 2026 to Summer 2029

- **Budget:**

- Stormwater Engineering Division \$39,000,000
- THEA \$11,000,000
- Water Department Upgrades \$4,500,000
- FDEP Resilient Florida Grant \$10,000,000
- **TOTAL BUDGET: \$64,500,000**



## Questions?

- For more information:
  - [www.tampa.gov/projects/sw40007](http://www.tampa.gov/projects/sw40007)
  - SouthHowardFloodRelief@gmail.com