



Stormwater Projects / Program Report

Tampa City Council Update

No. 7 - July 19, 2018

A) Major Capital Improvements

Projects 1-5 regional multi-year flooding relief projects for the City of Tampa. Each project fact sheet includes a description, location map, and timeline status. Each of these projects is in various stages of development and will continue for a number of years, due to the complexity and comprehensive nature of the project. Project 6 incorporates the Miscellaneous Neighborhood Projects that typically have a six (6) months or less construction timeline and each have their own fact sheet.

Project List CIP = \$251,285,000

1. Upper Peninsula Flooding Relief
2. North Tampa Closed Basin Flooding
3. Cypress Street Outfall Extension
4. Southeast Seminole Heights Flooding Relief
5. Lower Peninsula Flooding Relief
6. Miscellaneous Capital Improvements

B) Stormwater Capital Improvement Bond Program Report

C) Stormwater Service Assessment Program \$14,000,000



Section A Major Capital Improvements

1. Upper Peninsula Flooding Relief

(Dale Mabry Trunkline)

City Project #: 1001017

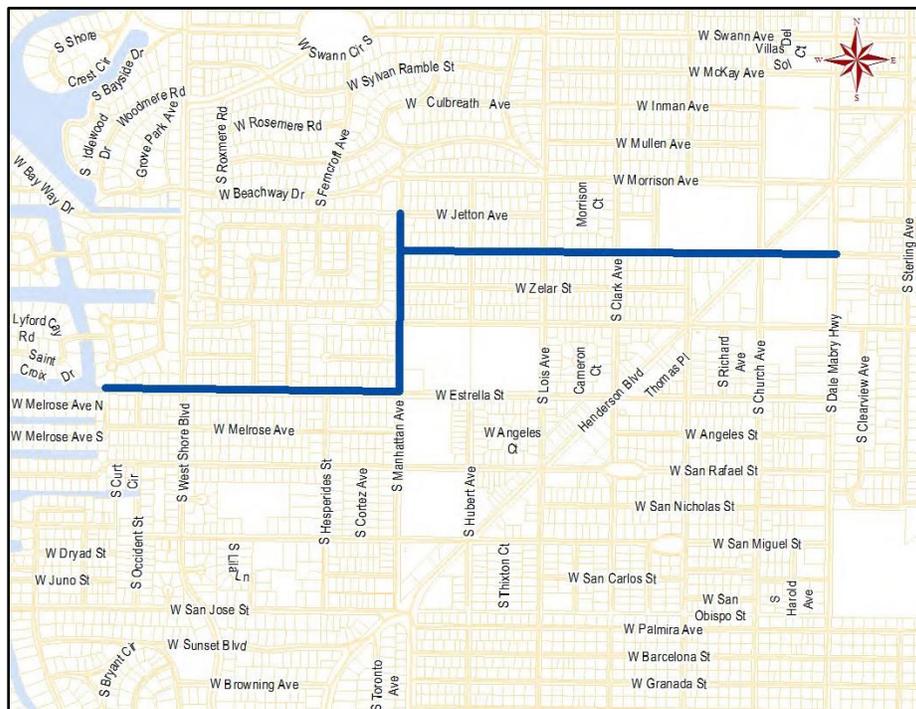
Project Description:

Upper Peninsula Regional Stormwater Improvements is a multi-year flooding relief project covering approximately 3400 acres of South Tampa from Kennedy Boulevard southward to Euclid Avenue. Stormwater Engineering Division has developed a stormwater model and comprehensive study of the project area, with the goal of providing incremental improvements to the stormwater infrastructure. The main benefit of the project is to provide targeted relief in flood prone areas to address public safety.

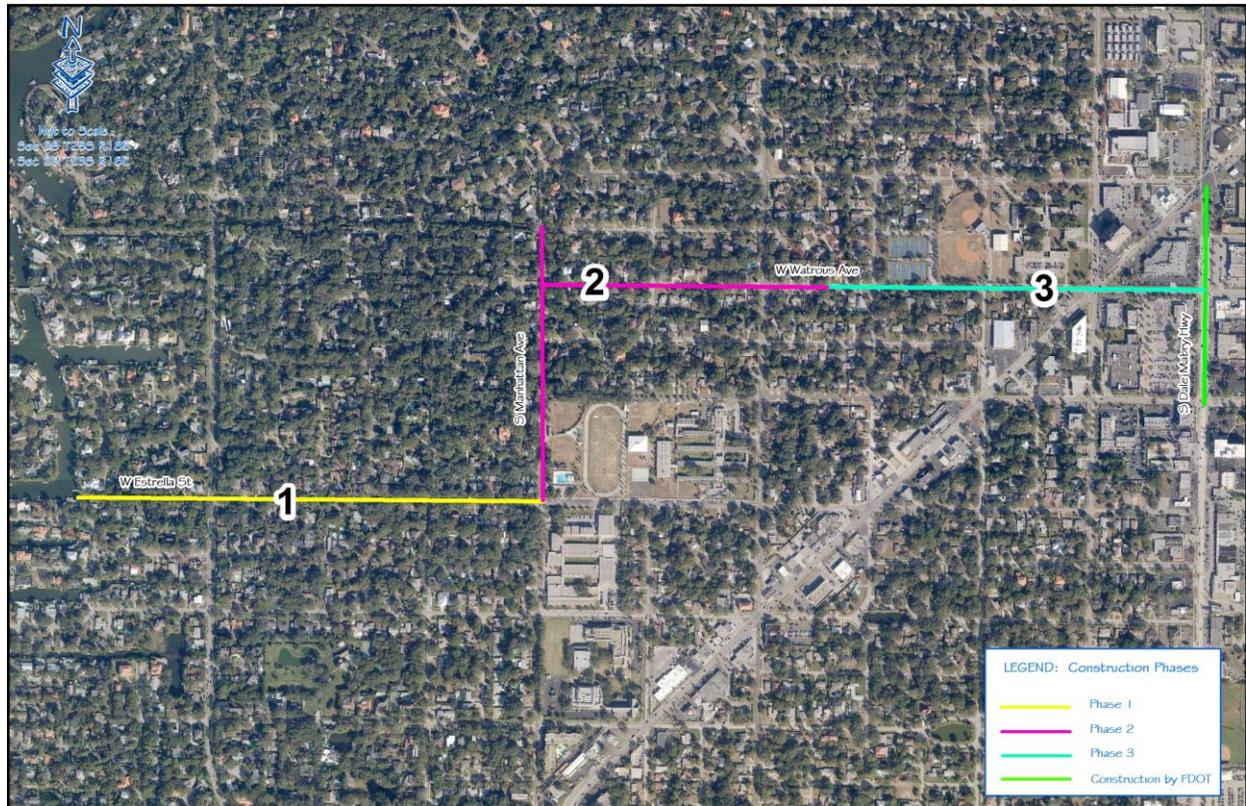
This project will alleviate the severe chronic flooding along Dale Mabry Highway between Henderson Blvd and Neptune Street. The highway is part of the primary evacuation route for South Tampa. Existing pipes will be connected to the trunkline thereby providing basin wide flooding relief.

Dale Mabry Trunkline project consists of the construction of a box culvert from Dale Mabry/Henderson/Neptune to a new outfall at Estrella Street. The system will also interconnect to improvements along the Watrous Canal, thus providing two outfalls for flooding relief.

Location Map:



Dale Mabry Trunkline Project Phases



Summary of Project Costs:

| Phase | Firm | Amount | Funding Source | Schedule | |
|--------------|------------------|--------|----------------|----------|--------|
| | | | | Start | Finish |
| Design/Build | Kimmins selected | \$37M | COT/SWFWMD | FY17 | FY20 |
| | | | | | |

Timeline:

- Design and permitting has been completed.
- The GMP in the amount of \$32M has been approved by City Council, construction started June 25, 2018.



2. North Tampa Closed Basins Flooding Relief

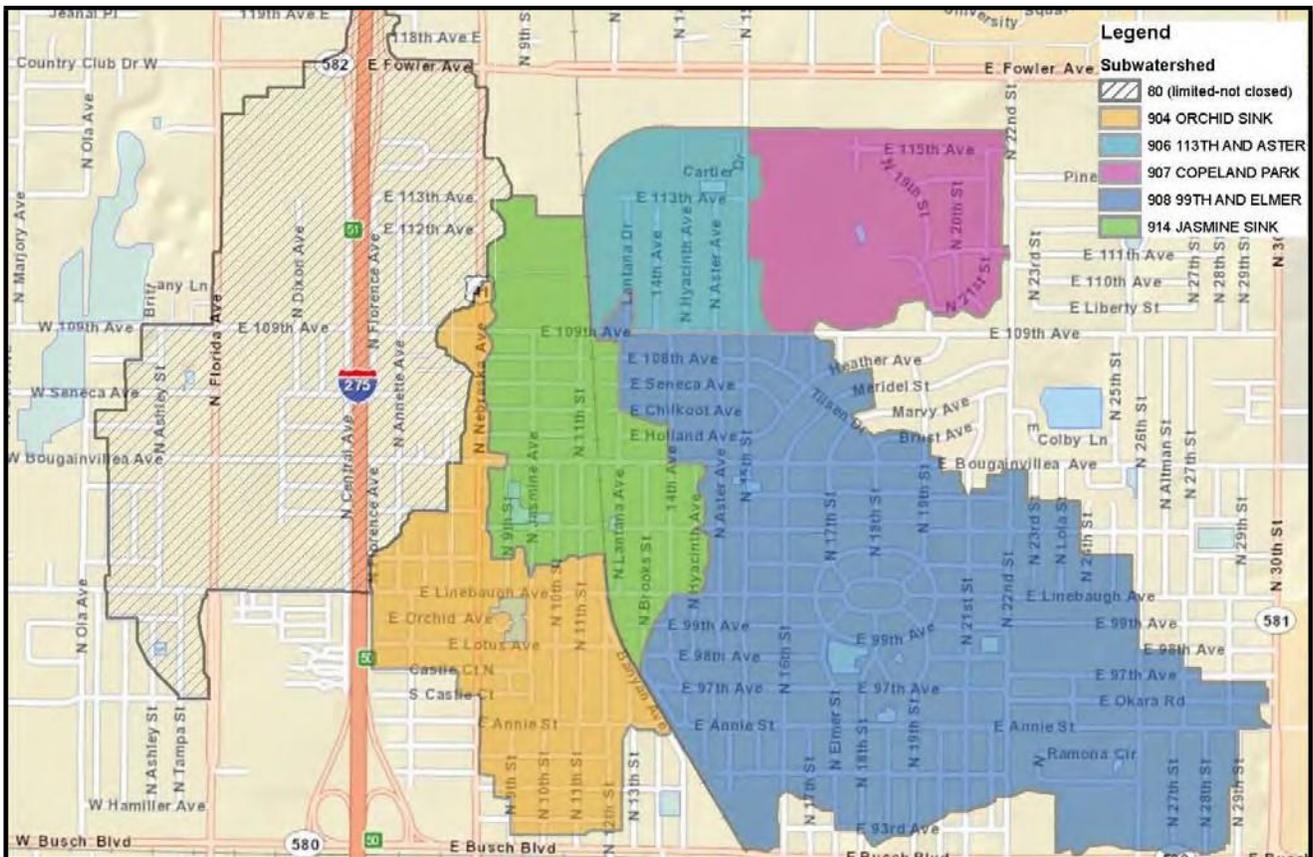
City Project #: 0000403

Project Description:

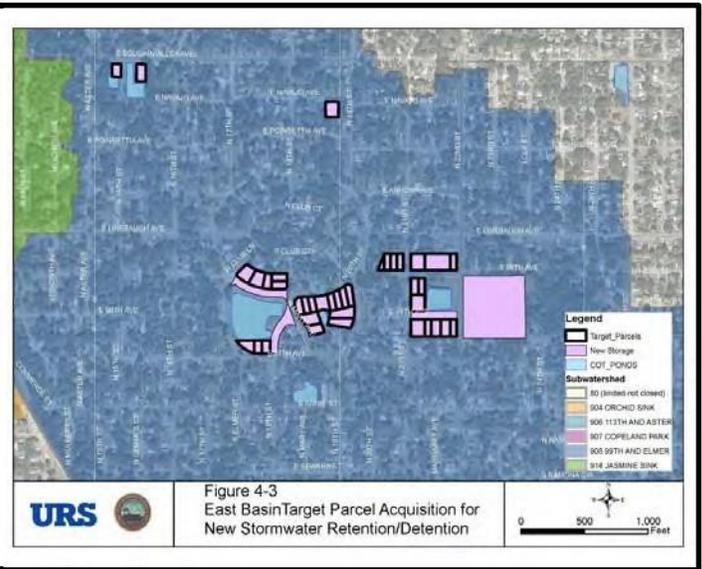
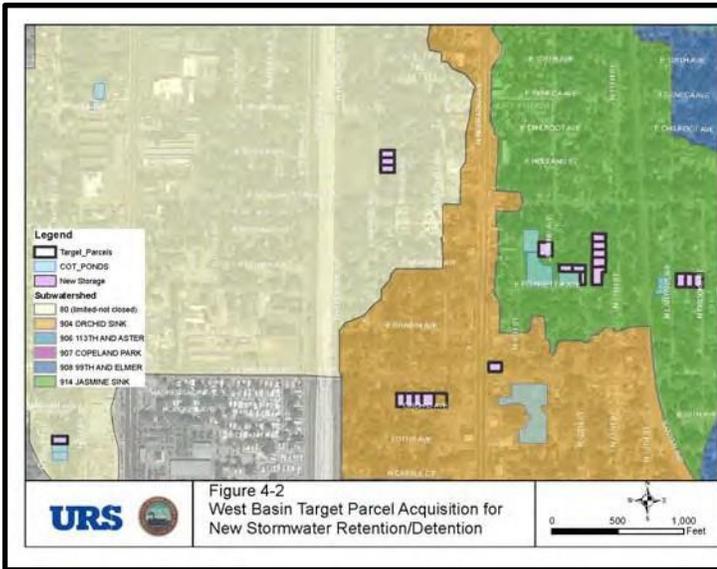
Portions of the northern part of the City of Tampa flood periodically due to their location within closed drainage basins and the absence of drainage infrastructure to provide relief. The North Tampa Closed Basins (NTCB) study area is generally bounded by Fowler Avenue on the north, 30th Street on the east, Busch Boulevard on the south and Florida Avenue on the west and includes several individual closed basins that comprise a portion of the springshed for Sulphur Springs, which is located on the north bank of the Hillsborough River just west of Nebraska Avenue. These areas rely primarily on discharge to groundwater through sinkholes, whose receiving capacity has been observed to be unreliable due to sedimentation/clogging, high groundwater levels or possible collapse of subsurface conveyances.

Based on a model and study of the closed basin area, properties are targeted for acquisition and will serve as future stormwater ponds. The project consists of property acquisition in the area experiencing the most severe flooding. Approximately 40 properties have been identified.

Location Map:



Property Acquisition Maps:



Summary of Project Costs:

| Phase | Firm | Amount | Funding Source | Schedule | |
|----------------------|----------|------------|----------------|----------|--------|
| | | | | Start | Finish |
| Property Acquisition | In-House | \$1M/ Year | COT | FY16 | FY20 |
| Construction | In-House | \$2M | COT | FY20 | FY21 |
| | | | | | |

Timeline:

- The City of Tampa Real Estate Division is in the process of acquiring the properties as identified by Transportation and Stormwater Services Department’s North Tampa Closed Basin Study.
- The Real Estate Division is currently working with multiple potential sellers. Six properties have been approved by City Council and five properties are being negotiated by the Real Estate Division.
- Property acquisition to be completed in FY20.
- Construction in FY20-FY21 with In-House Construction Crew.

Cypress Street Outfall:



Summary of Project Costs:

| Phase | Firm | Amount | Funding Source | Schedule | |
|--------------|------|--------|----------------|----------|--------|
| | | | | Start | Finish |
| Design/Build | RFQ | \$30 M | COT/SFWMD | FY17 | FY20 |

Timeline:

- Design/build contractor Woodruff & Sons has been selected.
- The PO for the design & permitting in the amount of \$2.7M has been approved by City Council.
- Design and Permitting has begun.
- The target construction start date is March 2019.



4. Southeast Seminole Heights Flooding Relief

City Project #: TBD

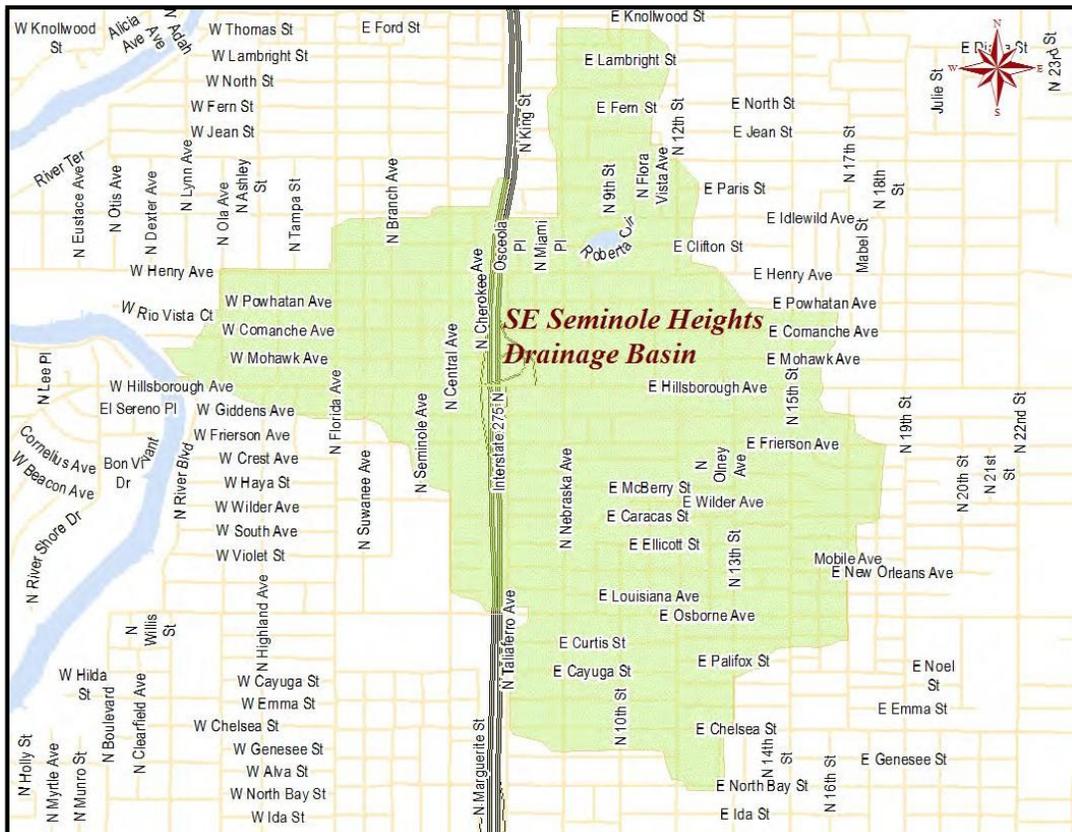
Project Description:

The Southeast Seminole Heights Drainage Basin encompasses 779 acres of urban area that discharges into the Hillsborough River south of the dam. The basin area extends northerly from E Chelsea Street east of I-275 freeway to E Diana Street and easterly to N 18th Street. To the west of I-275, the basin narrows and extends from Giddens Avenue to E North Street. The Basin is part of a historic Tampa neighborhood that had its beginnings in the early 1900's.

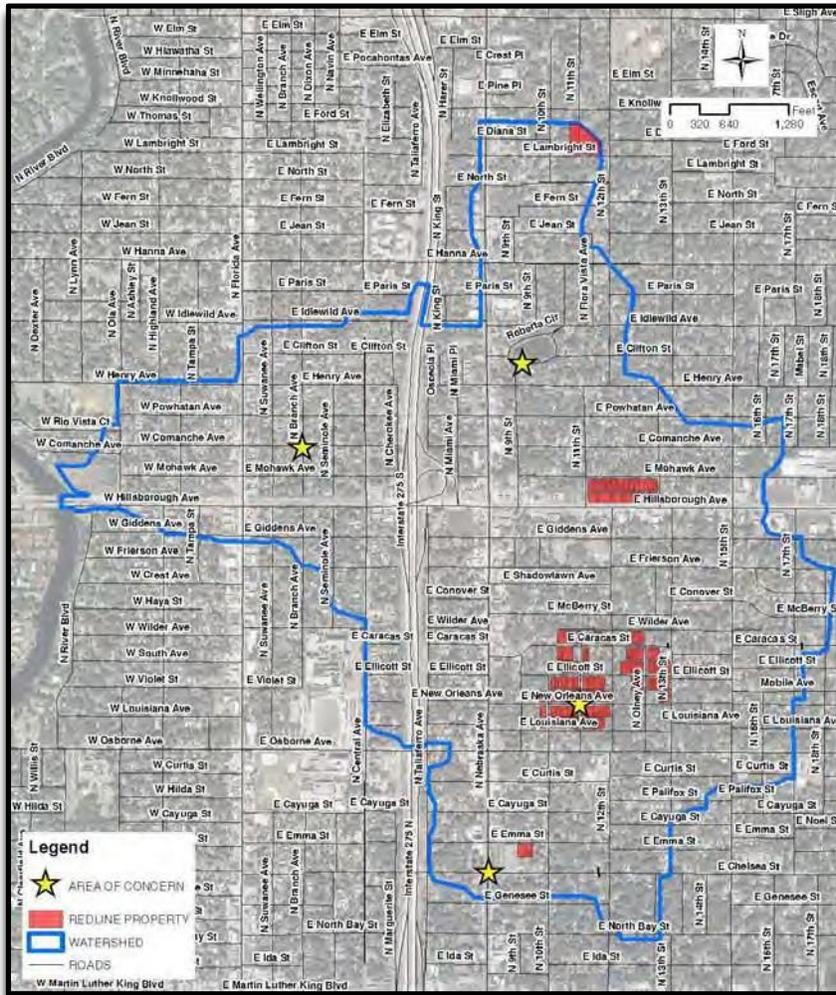
Southeast Seminole Heights Basin has numerous flooding locations, failing and undersized conveyance systems throughout the basin. A recent drainage study identified several potential stormwater improvement projects to alleviate flooding.

A feasibility study will be performed to assess the potential drainage improvement projects as recommended in the previous drainage study. Individual improvement projects will subsequently be designed and constructed throughout the basin areas to improve drainage conditions.

Location Map:



Areas of Flooding Concern:



Summary of Project Costs:

| Phase | Firm | Amount | Funding Source | Schedule | |
|-----------------------|------|--------|----------------|----------|--------|
| | | | | Start | Finish |
| Planning Study | LWES | \$90K | COT | FY16 | FY16 |
| Feasibility Study | FDC | \$45K | COT | FY17 | FY18 |
| Design & Construction | TBD | \$30M | COT/SWFWMD | FY19 | FY23 |

Timeline:

- Planning and drainage study was completed in FY16.
- The Feasibility Study should be completed in July.
- The RFQ for the design/build should advertise in August.
- The design and permitting will occur in FY19.
- Construction Phase will begin in FY20.
-



5. Lower Peninsula Flooding Relief

City Project #: 1000178

Project Description:

A regional watershed model is needed to provide a baseline for capital project improvement planning and design. The area has numerous flooding locations, failing and undersized conveyance systems throughout the 6,000 acre watershed.

The purpose of the project is to develop a baseline for capital improvement planning and design that provides conceptual solutions to frequent flooding associated with undersized stormwater pipes and relic ditch systems in the region. It is the City's desire to pursue cooperative funding from the South West Florida Water Management District (SWFWMD) for these improvements; therefore, the watershed study must meet SWFWMD's requirements for funding.

Location Map:



Summary of Project Costs:

| Phase | Firm | Amount | Funding Source | Schedule | |
|-----------------------|------------------|--------|----------------|----------|--------|
| | | | | Start | Finish |
| Planning Study | Applied Sciences | \$650K | COT/SWFWMD | FY16 | FY18 |
| Ph1 Feasibility study | RFQ | \$200k | COT | FY19 | FY20 |
| Ph1 Design | RFQ | \$3M | COT/SWFWMD | FY20 | FY20 |
| Ph1 Construction | RFQ | \$30M | COT/SWFWMD | FY21 | FY23 |

Timeline:

- The existing condition model has been completed, and the consultant is working on potential solutions.
- The Ph1 Feasibility Study will begin in FY19 and finish in FY20.
- The Ph1 Design will occur in FY20.
- The Ph1 Construction will begin in FY21 and finish in FY23.



6. Miscellaneous Capital Improvement

Project Status

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Construction timelines are typically six (6) months or less for neighborhood projects. For additional project descriptions, please see the project fact sheets following this project status report.

| PROJECT STATUS KEY | |
|--------------------|---|
| | Design |
| | Design Complete and In Construction Queue |
| | Under construction |
| | Construction Complete |

| STATUS | DISTRICT | ESTIMATE |
|---|----------|-----------|
| Projects Assigned to Construction Contracts | | |
| 1. Woodlyn at Parkland Flooding Relief | 4 | \$130,000 |
| 2. Knights between Lynwood and MacDill | 4 | \$200,000 |
| 3. Fair Oaks and MacDill | 4 | \$100,000 |
| 4. Carrington at Everina | 4 | \$200,000 |
| 5. Howard Flooding Relief | 4 | \$200,000 |
| 6. Ardson Pl. & Palm Dr. | 4 | \$50,000 |
| 7. Palm Dr. East of Ysabella | 4 | \$50,000 |
| 8. Mary Sinkhole Rehabilitation | 7 | \$100,000 |
| 9. 2511 N. Riverside Flooding Relief | 5 | \$50,000 |
| 10. N River Blvd Outfall | 6 | \$60,000 |
| 11. W St. Isabel from Gomez to Habana Flooding Relief | 6 | \$75,000 |

| Awarded – projects being scheduled | | |
|--|----------|-------------|
| 12. Swann Ave: Howard to Gomez flooding relief | 4 | \$800,000 |
| 13. 47 th and Frierson Pond PH II | 5 | \$660,000 |
| 14. Howard: Swann to Morrison Flooding Relief | 4 | \$600,000 |
| 15. 2nd St.: Interbay to Bay | 4 | \$200,000 |
| 16. Wyoming flooding relief PH II | 4 | \$325,000 |
| 17. Anita Subdivision PH I Drainage Improvements | 4 | \$540,000 |
| 18. 4218 Riverside Dr. Pipe Relocation | 6 | \$100,000 |
| 19. Annual CIPP Rehabilitation | Citywide | \$400,000 |
| 20. Annual Box Culvert Rehabilitation | Citywide | \$650,000 |
| 21. Orchid Sink Rehabilitation | 6 | \$500,000 |
| 22. 7th Ave. & 37th St. Flooding Relief | 5 | \$1,000,000 |

| STATUS | DISTRICT | ESTIMATE |
|--|----------|-----------|
| Projects Assigned to Transportation and Stormwater Services Department In-House Crews | | |
| 23. 2908 S Westshore Flooding Relief | 4 | \$100,000 |
| 24. Idell St. Roadway Improvements PH II | 5 | \$75,000 |
| 25. Forest Hills Pond at Lake Eckles | 7 | \$100,000 |
| 26. Wyoming Flooding Relief PH I | 4 | \$150,000 |
| 27. Concordia Pond | 4 | \$125,000 |
| 28. Virginia Park Ph3, Lois from Bay to Bay to Palmira | 4 | \$75,000 |
| 29. Virginia Park Ph3, Clark from Bay to Bay to Palmira | 4 | \$75,000 |
| 30. Hilda: North Blvd to Clearfield | 6 | \$50,000 |
| 31. New Orleans/11th St. Pond | 5 | \$100,000 |
| 32. Seneca Pump Station Site Improvements | 7 | \$100,000 |
| 33. Gomez Alley between Kennedy & North A | 4 | \$75,000 |
| 34. Binnicker at 4 th St. | 4 | \$50,000 |
| 35. Albany: Barclay to Marinana | 7 | \$100,000 |
| 36. Neptune/Treasure PID | 6 | \$75,000 |
| 37. 3911 Swann Ave. | 6 | \$50,000 |
| 38. 1510 W Park Ln. | 6 | \$50,000 |
| 39. Rambla Flooding Relief | 7 | \$100,000 |
| 40. 45 th St. north of Hillsborough Flooding Relief | 6 | \$150,000 |
| 41. Paloma Place Flooding Relief | 4 | \$75,000 |
| 42. Emma and Seminole Flooding Relief | 6 | \$100,000 |
| 43. Iowa Ave. – Sheridan to Sherwood | 4 | \$75,000 |
| 44. W Jetton Ave. between Armenia & Moody_ | 4 | \$125,000 |

| Projects Bid through CAD | | |
|--|---|-------------|
| 45. 43rd Street Outfall Regional Drainage Improvements, PH III | 5 | \$5,000,000 |
| 46. 30th St. Outfall | 5 | \$600,000 |
| 47. Forest Hills Park Improvements | 7 | \$500,000 |
| 48. Robles Park Pump Station Replacement | 5 | \$1,200,000 |
| 49. Rogers Park Drainage Improvements | 5 | \$500,000 |
| 50. Poinsettia Pump Station Rehabilitation | 7 | \$1,400,000 |
| 51. Eastridge Pump Station Rehabilitation | 7 | \$700,000 |
| 52. Copeland Park Pumping Station | 7 | \$375,000 |
| 53. Anita Subdivision Drainage Improvements Ph II | 4 | \$800,000 |

Woodlyn at Parkland Flooding Relief

FY2017, District 4

Estimated cost: \$130K

- **Project Description:**

The project consists of removing some trees and re-contouring the roadway.

- **Justification:**

Flooding occurs at S Woodlyn Drive and Parkland Blvd due to improper grading and heaving of pavement caused by tree roots.

Project Map



Knights Between Lynwood and MacDill

Flooding Relief FY2017, District 4

Estimated cost: \$200K

- **Project Description:**

Install a stormwater collection system to drain the street.

- **Justification:**

Pavement grading and new development have affected the conveyance of runoff to the existing stormwater system.



Fair Oaks and MacDill

Flooding Relief FY2017, District 4

Estimated cost: \$100K

- **Project Description:**

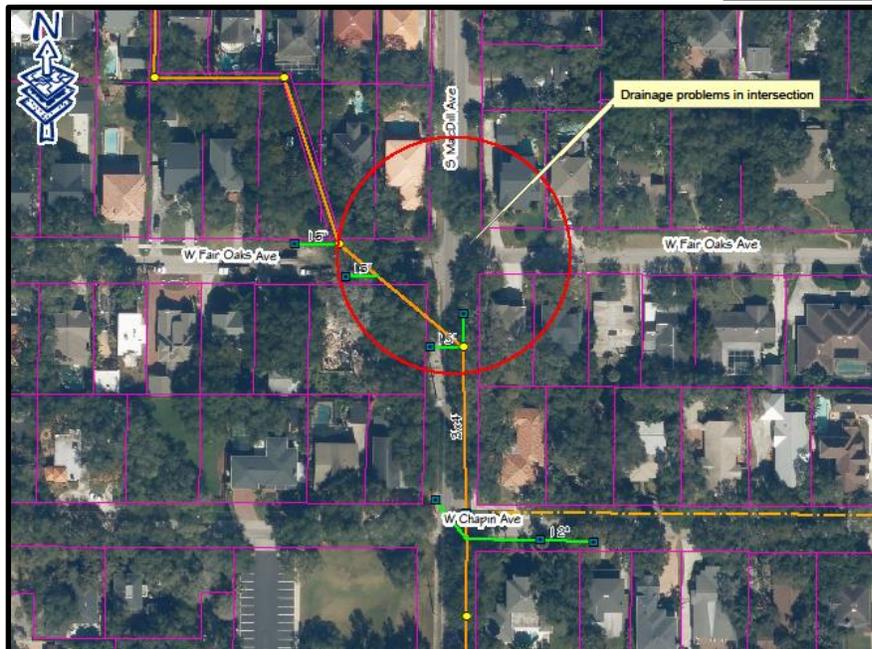
The proposed project consists of re-contouring of the existing pavement to improve conveyance of storm flows.

- **Justification:**

This section of Fair Oaks Ave. has frequent flooding due to improper grading. This project will improve conveyance to relieve flooding.



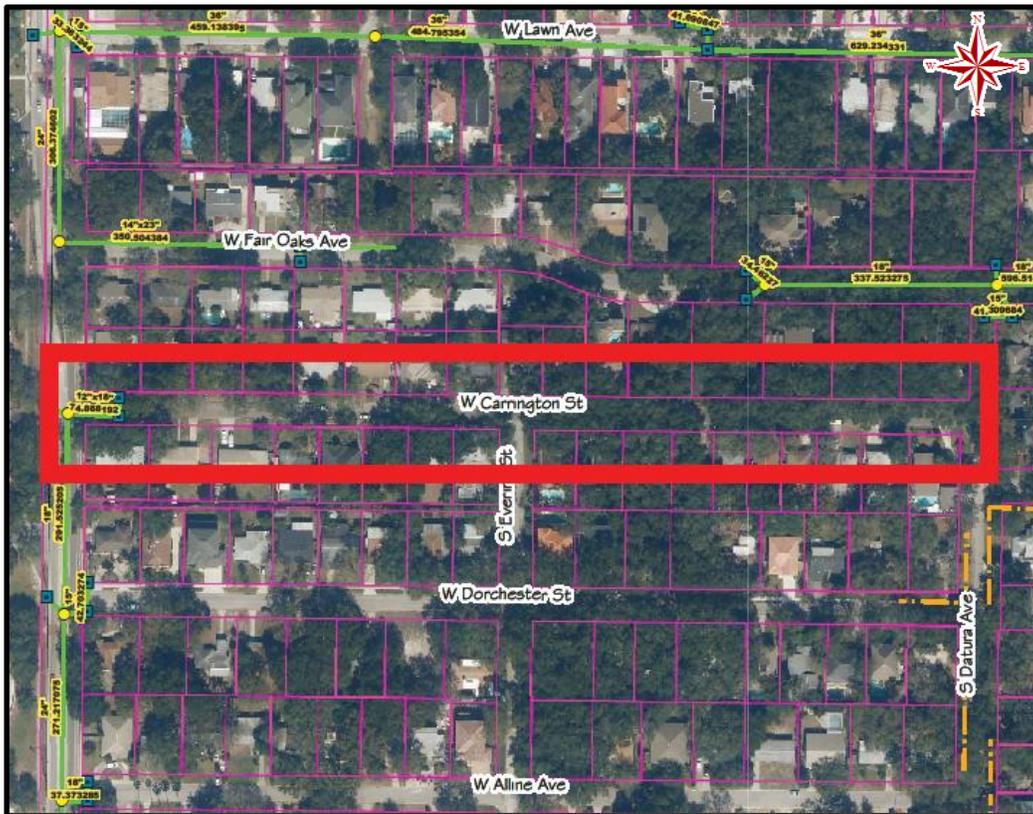
Project Map



Carrington at Everina
Flooding Relief FY2017, District 4
Estimated cost: \$200K

- **Project Description:**
The project consists of the regrading of the existing asphalt pavement to improve the drainage
- **Justification:**
The project reduces the flooding affecting residential properties and roadways.

Project Map



Howard Flooding Relief

FY 2017, District 4

Estimated cost: \$200K

- **Project Description:**

An inlet will be installed at the corner of Howard Ave. and Marjory Ave. Surface runoff will be pumped to an existing inlet at Watrous Ave. and Howard Ave. Project also includes resurfacing Howard Ave. to improve drainage.

- **Justification:**

Flooding occurred at the intersection of Howard Ave. and Marjory Ave. due to inadequate drainage capacity. The proposed project will reduce the localized flooding.

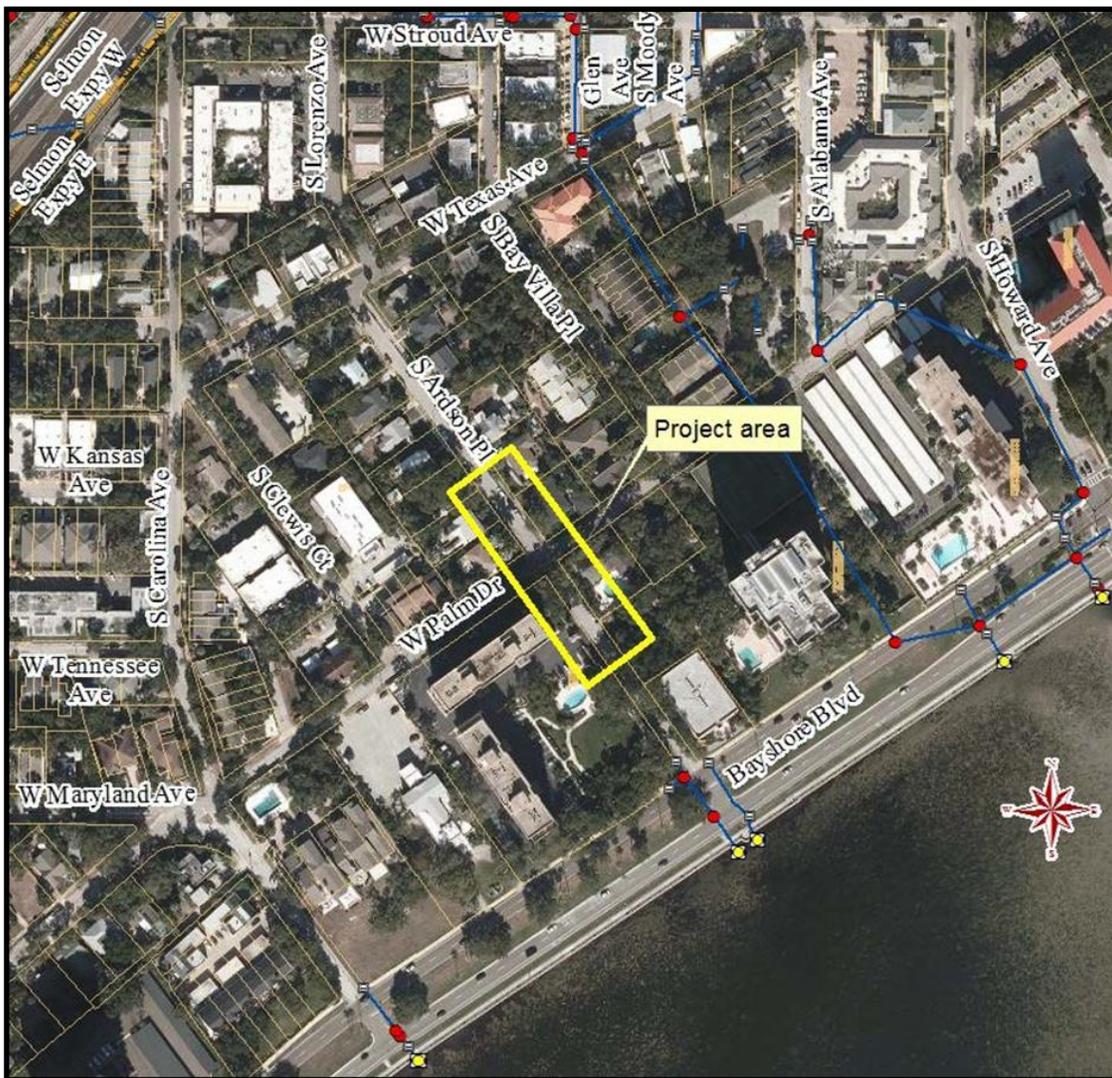
Project Map



Ardson Pl. & Palm Dr. Flooding Relief FY2017, District 4 Estimated cost: \$50K

- **Project Description:**
The project consists of regrading of the roadway.
- **Justification:**
This intersection experiences flooding due to improper grading. The project will improve conveyance to relieve localized flooding in the intersection.

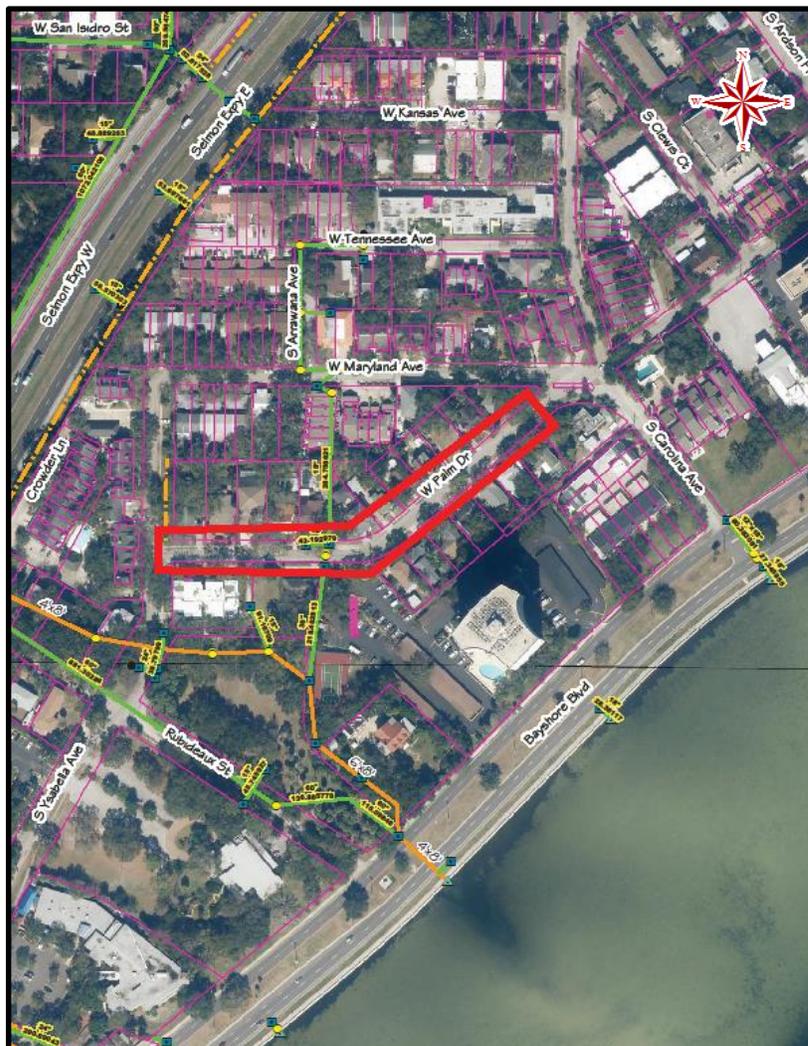
Project Map



Palm Dr. East of Ysabella Flooding Relief FY2017, District 4 Estimated cost: \$50K

- **Project Description:**
Modifications to the existing surface water management system to improve the conveyance of runoff to the existing stormwater system.
- **Justification:**
Frequent flooding from blocked drainage due to pavement overlays. Regrading and resurfacing will improve conveyance to relieve flooding.

Project Map



Mary Sinkhole Rehabilitation

Flooding Relief FY2017, District 7

Estimated cost: \$100K

- **Project Description:**

The project consists of replacing the failed 24-inch influent pipe, removing trash and debris from the sink, and stabilizing the embankment.

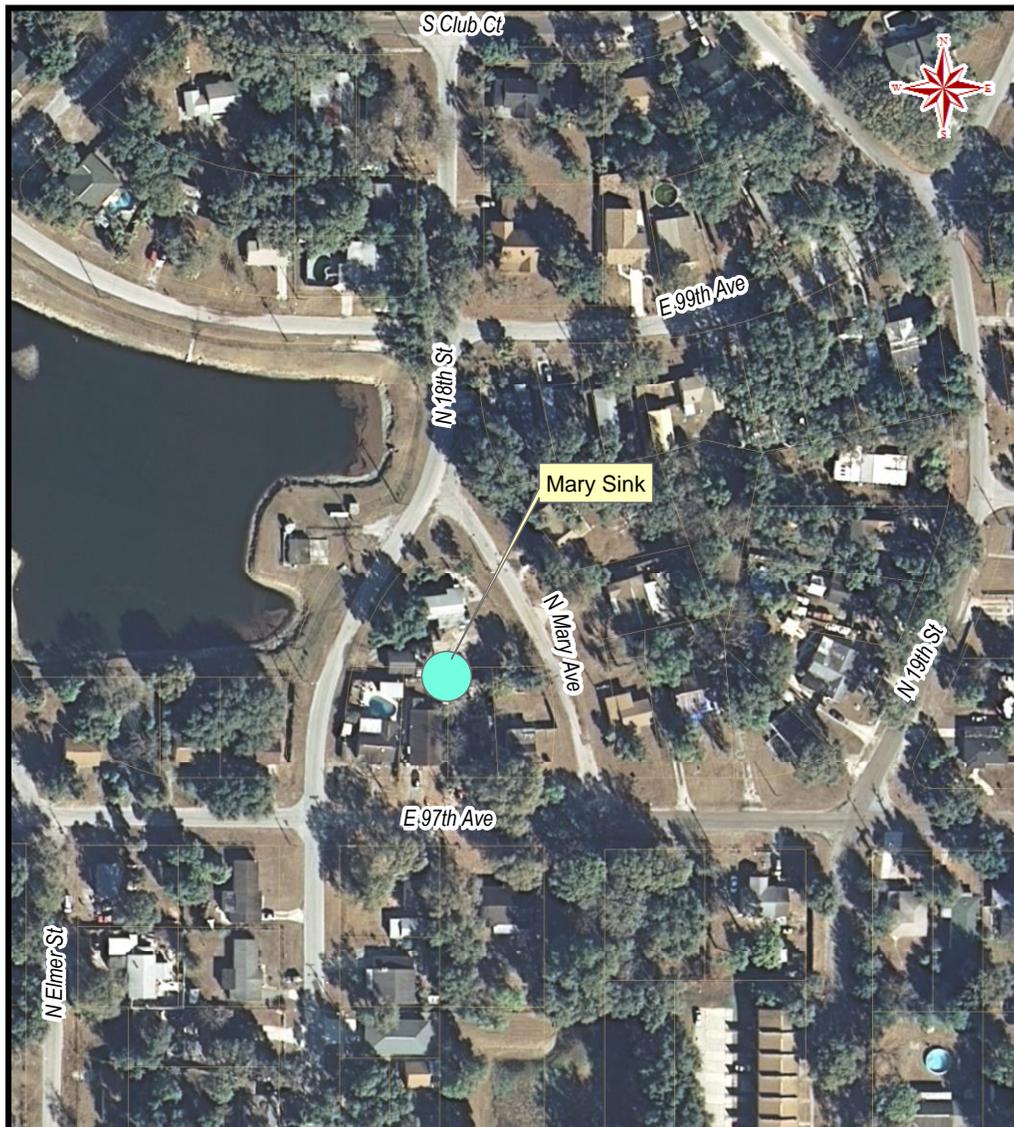
- **Justification:**

Sinkhole currently is filled with debris and the influent pipe failed.

- **Related Issues:**

Within the North Tampa Closed Basin

Project Map



2511 N Riverside Flooding Relief

Flooding Relief FY2018, District 5

Estimated cost: \$50K

- **Project Description:**

The project consists of removal of existing pipes and inlets, construction of new pipes and inlets, cutting sea wall and sealing opening, and roadway restorations.

- **Justification:**

The existing pipes and inlets are failing.

Project Map



N River Blvd Outfall Flooding Relief

Flooding Relief FY2018, District 6

Estimated cost: \$60K

- **Project Description:**

This project will install new piping system to collect and convey the surface runoff into the adjacent Hillsborough River. The project consists of construction of new pipes and inlets, regrading along the property lines, and construction of a new outfall.

- **Justification:**

The existing drainage system in the area is inadequate and results in localized flooding in the area.

Project Map



W St. Isabel from Gomez to Habana Flooding Relief

Flooding Relief FY2018, District 6

Estimated cost: \$75K

- **Project Description:**

The proposed project will replace the existing ditch system with new pipes and inlets.

- **Justification:**

Development in the vicinity utilizes drainage ditches to collect and convey surface runoffs. Over the years, the ditch system has deteriorated and causes localized flooding

Project Map



Swann Ave: Howard to Gomez Flooding Relief

FY 2017, District 4

Estimated cost: \$400K

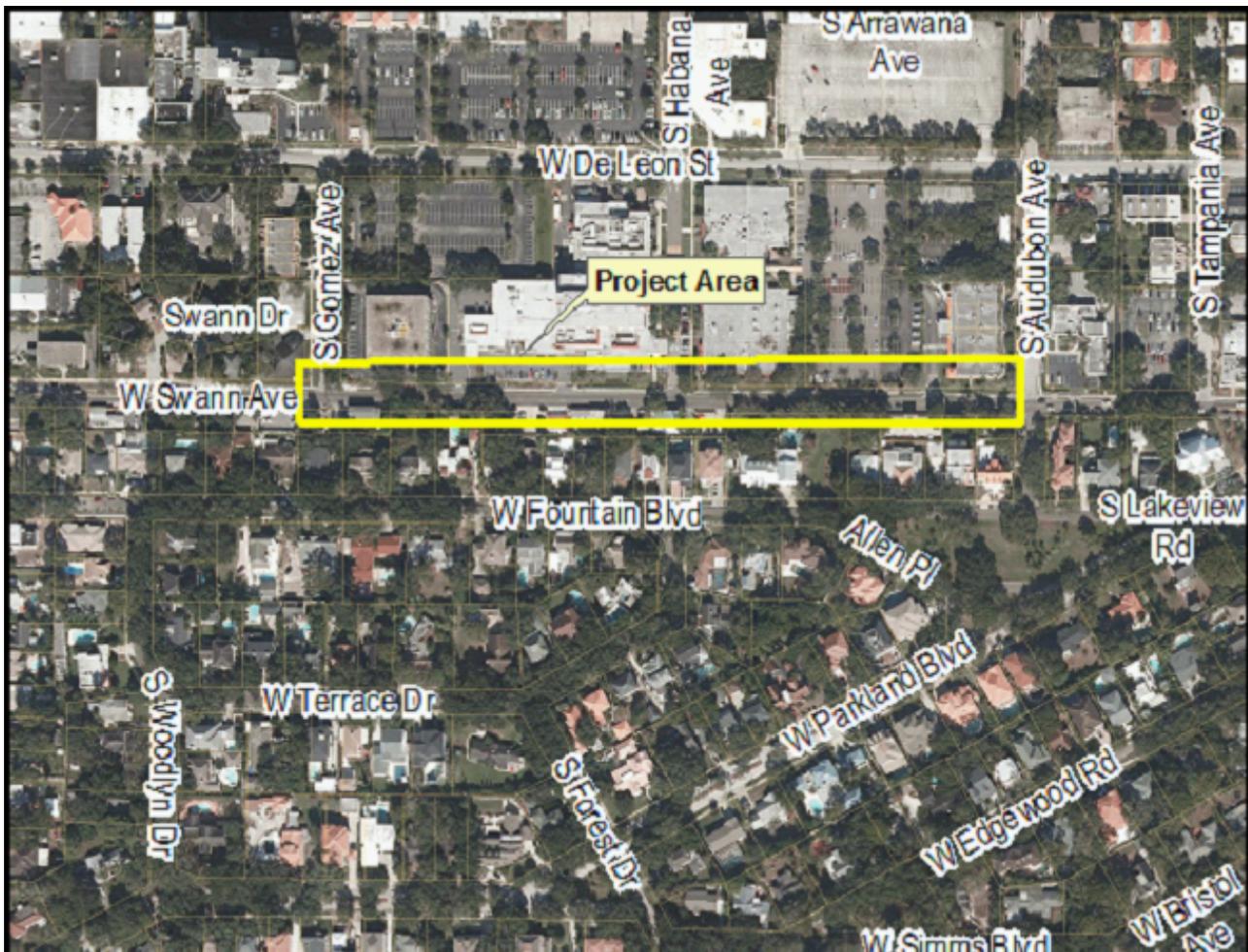
- **Project Description:**

The project will construct a stormwater conveyance system to relieve the flooding on Swann Ave. from Gomez Ave. to Audubon Ave. in the vicinity of the Memorial Hospital.

- **Justification:**

Flooding occurs along Swann Ave. between Gomez Ave. and Audubon Ave. This project will alleviate the localized flooding.

Project Map



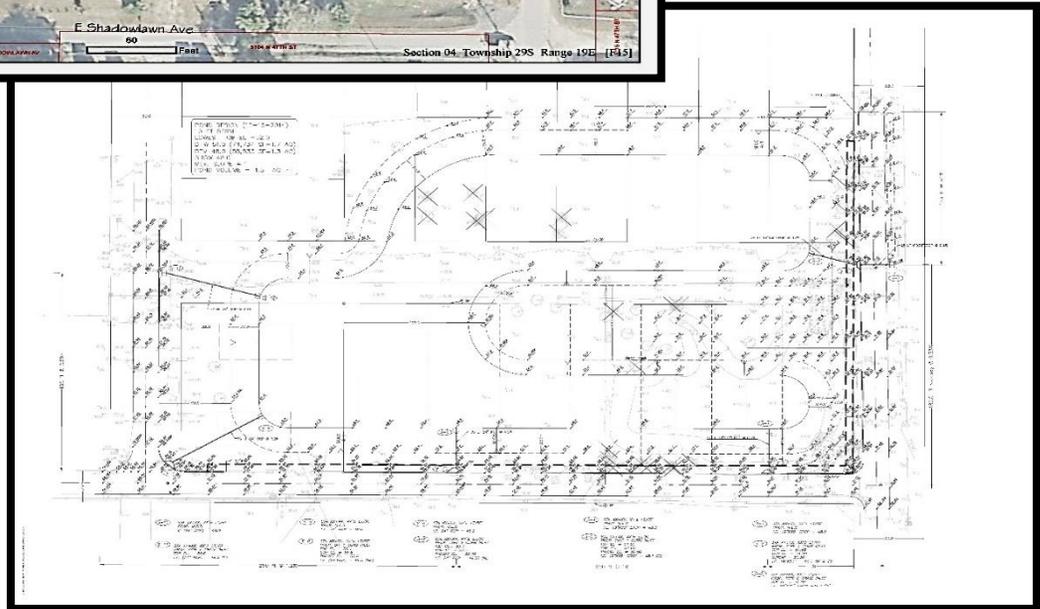
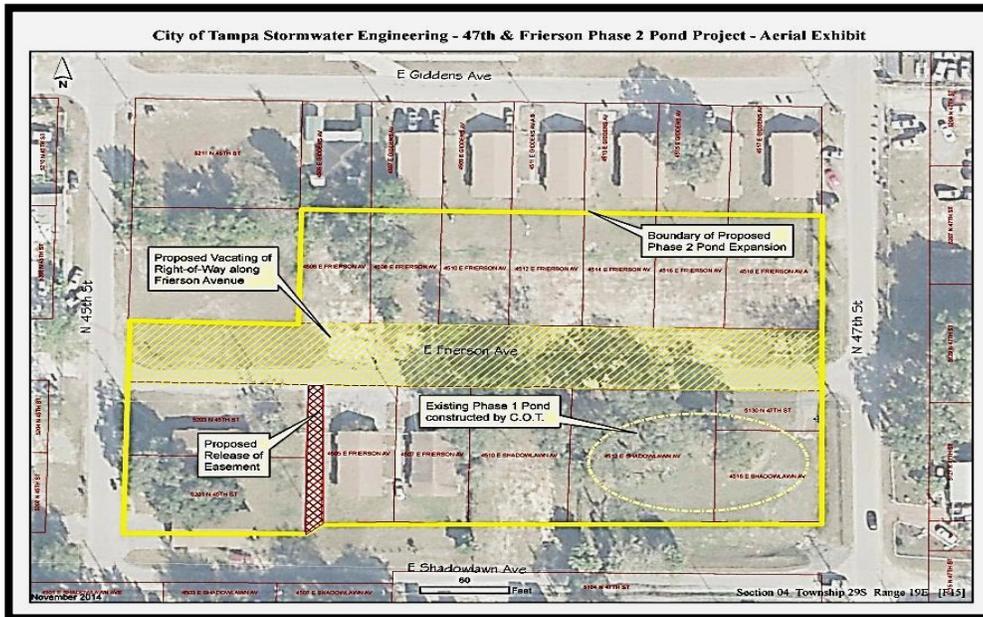
47th and Frierson Pond PH II

Flooding Relief FY2017, District 5

Estimated cost: \$660K

- **Project Description:**
City has completed land acquisition phase and Frierson Ave will be completely vacated between 47th St and 45th St.
- **Justification:**
Due to closed basin and lack of drainage system, the City will be expanding drainage capacity in the Frierson Ave & 47th Street area to help alleviate flooding problems. Besides pond expansion in Phase 2, roadway repaving and re-routing of water system will be part of the pond construction work.
- **Related Issues:**
Existing pond built in phase 1 will be expanded in Phase 2.

Project Map



Howard: Swann to Morrison– Flooding Relief PH II

FY2017, District 4

Estimated cost: \$600K

- **Project Description:**

Roadway re-grading from Morrison to Swann and potential construction of a surface water management system in coordination with roadway surfacing.

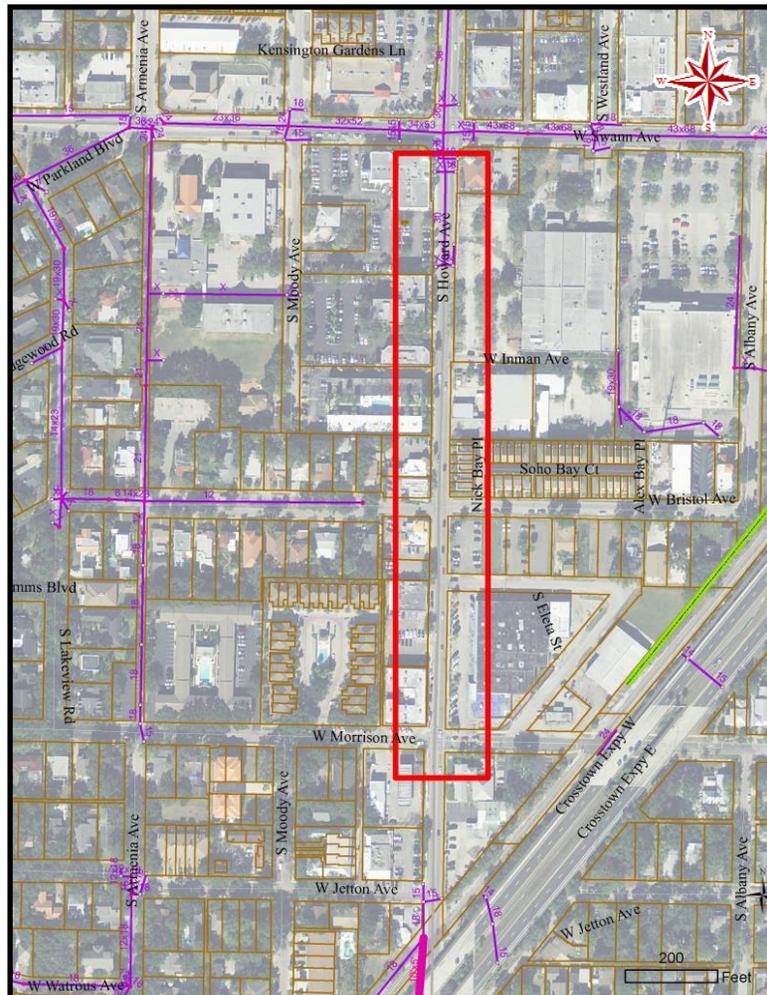
- **Justification:**

Ponding occurs in the travel lanes due to poor grading associated with pavement overlay. The project is needed to convey runoff and relieve the ponding.

- **Related Issues:**

Design and construction will be accomplished in coordination with the Transportation paving project.

Project Map



2nd Street: Interbay to Bay

Flooding Relief FY2017, District 4

Estimated cost: \$200K

- **Project Description:**

New Drainage system to be proposed along 2nd Street to connect to box culvert along W. Bay Ave.

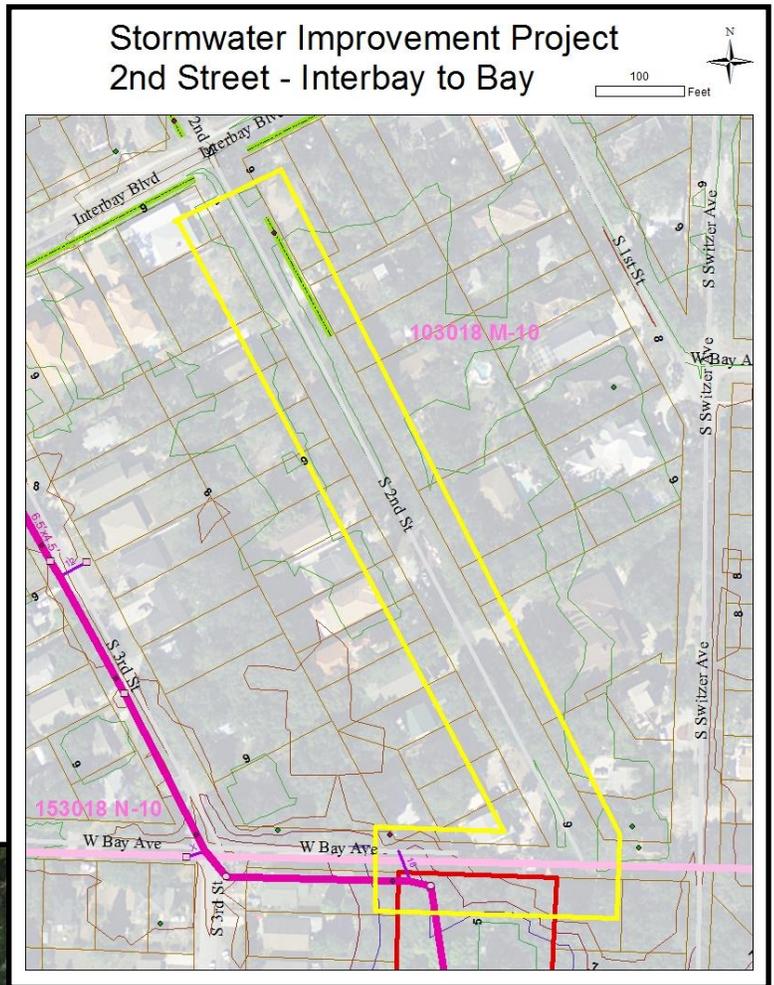
- **Justification:**

Severe Street flooding along S 2nd Street between Interbay Blvd to W Bay Ave.

- **Related Issues:**

S. 2nd Street dead ends before W. Bay Ave.
Easement may be required to connect to existing box culvert along W Bay Ave.

Project Map & Photo



Wyoming Flooding Relief PH II

Flooding Relief FY2017, District 4

Estimated cost: \$325K

- **Project Description:**

This project will upgrade the drainage system on 2nd St. and provide a connection to box culvert at 3rd St.

- **Justification:**

Development in the vicinity of Wyoming/Bernie Avenue utilizes a system of drainage ditches to convey runoff to Interbay Blvd. The ditch system has been compromised by discontinuous driveway culverts and lack of system on Interbay Blvd.

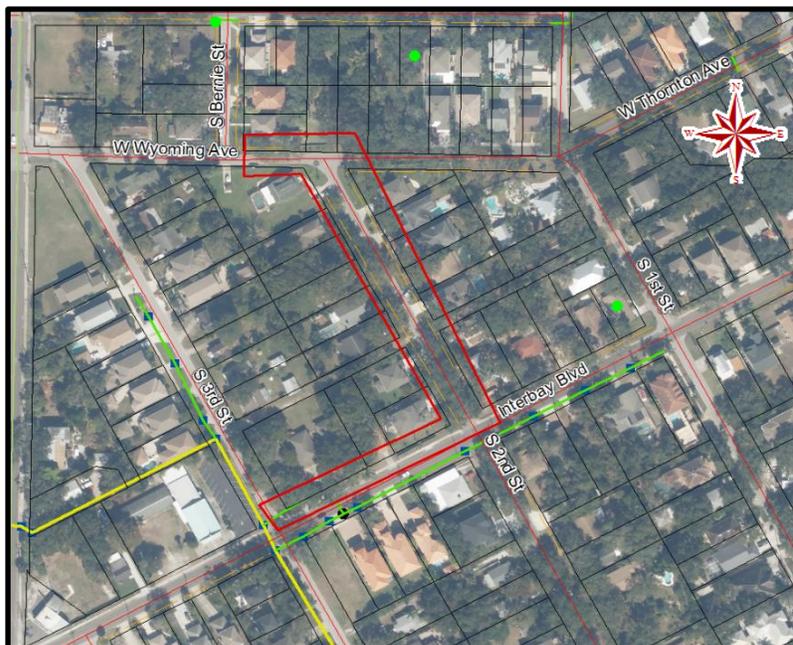
- **Related Issues:**

This project is a continuation of Wyoming/Trilby Phase I.



Project photos

Project Map



Anita Subdivision PH I Drainage Improvements

Flooding Relief FY2020, District 4

Estimated cost: \$540K

- **Project Description:**

Consultant will evaluate the current drainage patterns and identify areas where ponding occurs. City crews will reestablish the relic ditches and correct the driveway culverts.

- **Justification:**

This neighborhood was developed with ditches draining to a collection system that discharged the stormwater to a system on Westshore Blvd. Over the years the ditches have been filled and driveway culverts have been installed improperly.

Project Map



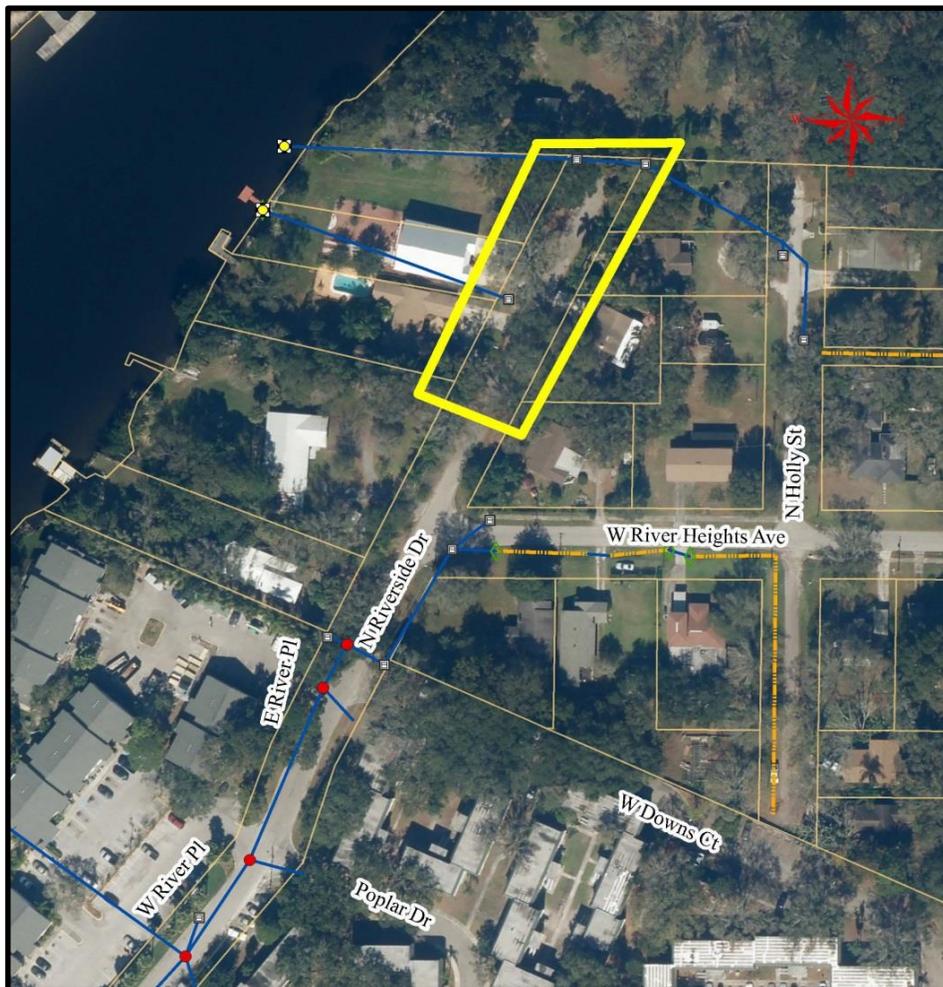
4218 Riverside Dr. Pipe Relocation

FY 2017, District 6

Estimated cost: \$100K

- **Project Description:**
The Project will replace/reroute the pipe under structure and the failing pipe.
- **Justification:**
Aging pipe under structure and failing pipe reported by residents in the area. The proposed project will enhance public safety and improve drainage in the area.

Project Map

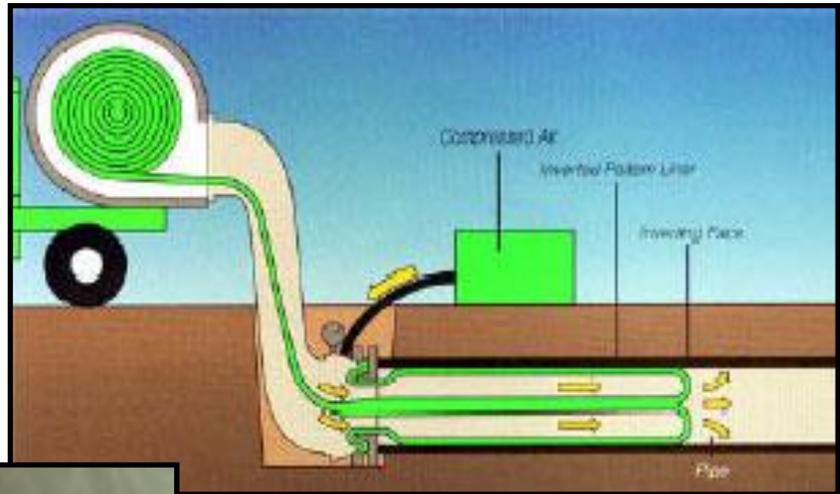


Annual C.I.P.P. Rehabilitation

FY2018, Citywide

Estimated cost: \$400K

- **Project Description:**
The scope of work includes labor, materials, and equipment to rehabilitate gravity stormwater pipes from 12-inch to 48-inch diameter by installation of cured-in-place pipe liner.
- **Justification:**
The project provides rehabilitation of deteriorated stormwater pipe systems.



Project Photos



Annual Box Culvert Rehabilitation

FY2018; Citywide

Estimated cost: \$650K

- **Project Description:**

Create an annual contract to address the repairs in a timely fashion as they become evident.

- **Justification:**

The City has numerous box culverts that are over 75 years old. These structures need remedial work to repair spalled concrete and joint leaks.

- **Related Issues:**

Repair major culverts within roadways prior to resurfacing or rebuilding the roads.



Project Photos

Orchid Sink Rehabilitation

Flooding Relief FY2018, District 6

Estimated cost: \$500K

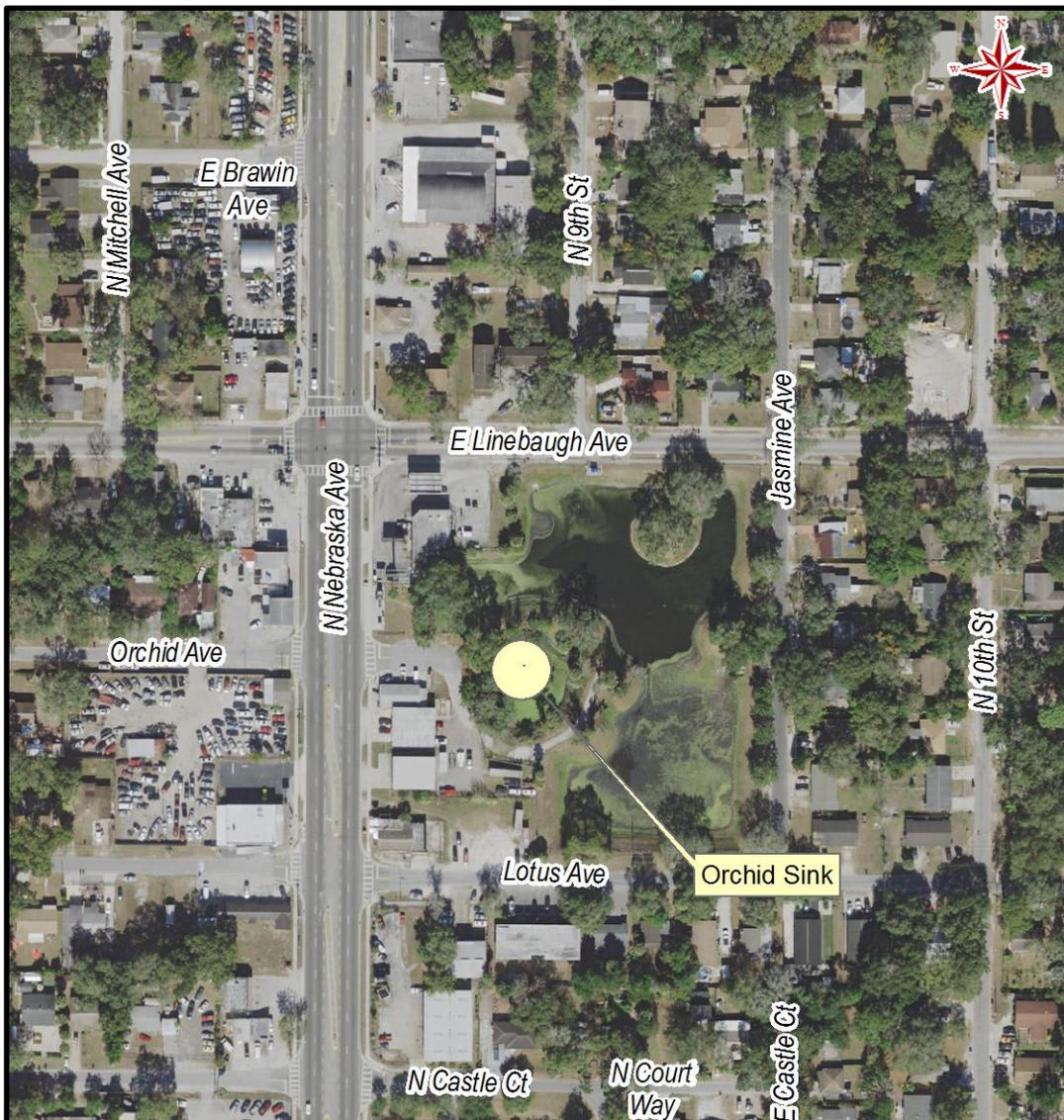
- **Project Description:**

The project consists of removing trash and debris from the sink and stabilizing the embankment.

- **Justification:**

Orchid sink, which serves as outfall for runoffs from the neighboring area, currently is clogged with trash and debris. This project will re-establish the sinkhole connectivity.

Project Map



7th Ave. and 37th St. Flooding Relief

FY2017, District 5

Estimated cost: \$1M

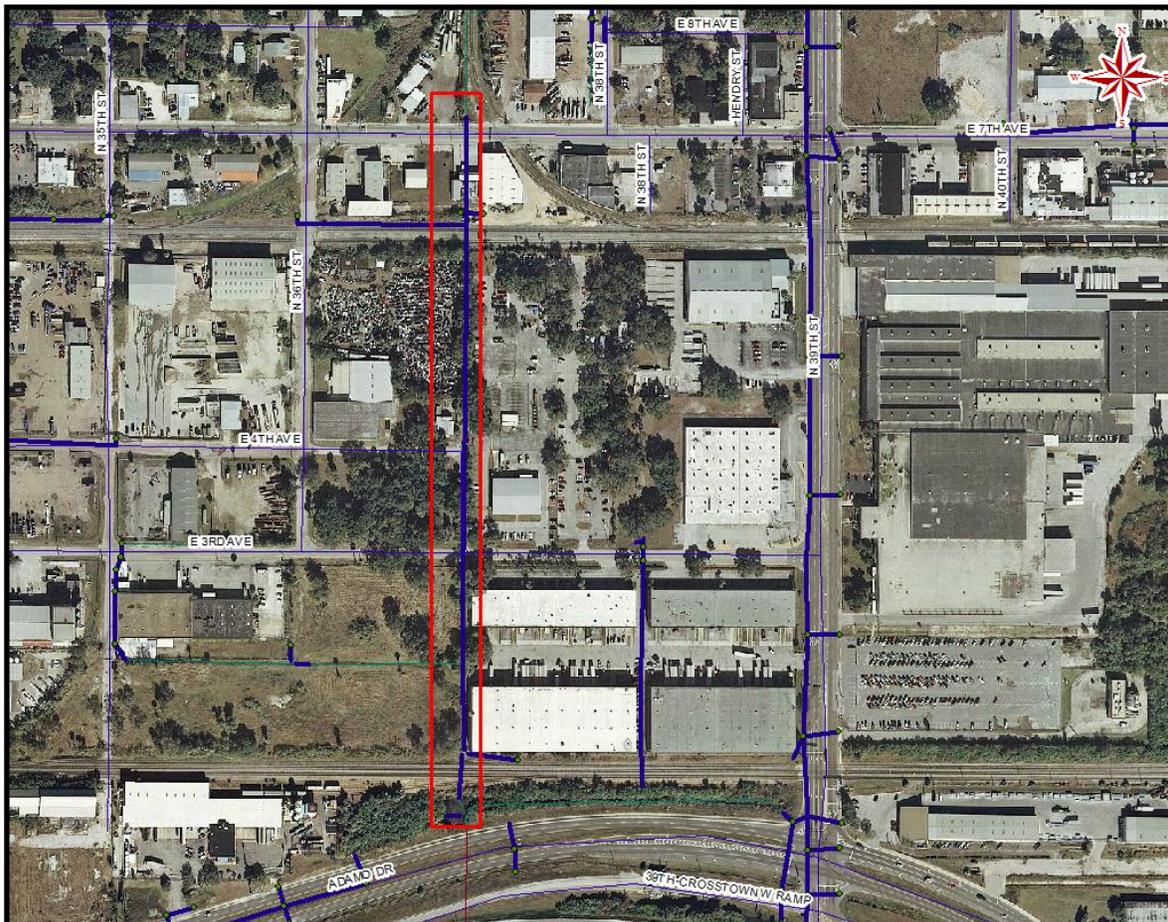
- **Project Description:**

The project consists of the removal of the existing 24" inch pipe from just north of 7th Avenue to the box culvert under Adamo Drive and replacing with a 48" inch or equivalent pipe.

- **Justification:**

Chronic severe flooding occurs along 7th Avenue between 36th and 37th Street, affecting commercial properties and the roadway. The existing line is undersized for the contributing basin and has a diminished capacity due to root intrusion and cracks.

Project Map



2908 S Westshore Flooding Relief

Flooding Relief FY2017, District 4

Estimated cost: \$100K

- **Project Description:**

The project consists of installation of a trench drain system to alleviate flooding at a low lying area at 2908 S. Westshore.

- **Justification:**

The location has inadequate surface water conveyance due to roadway super elevation resulting in frequent yard and street flooding. The project is desirable because it will provide relief for localized flooding.

Project Photo



Project Map



Idell St. Roadway Improvements PH II

Flooding Relief FY2017, District 5

Estimated cost: \$75K

- **Project Description:**

Construction of new ditch system discharging to the Hillsborough River.

- **Justification:**

Phase 2 of Idell Street Roadway improvements which will provide for a new outfall into the River. Stormwater in-house construction crews will be responsible for installing the new outfall via ditch to the River.

- **Related Issues:**

Site located at 1911 E. Mulberry.

Project Map

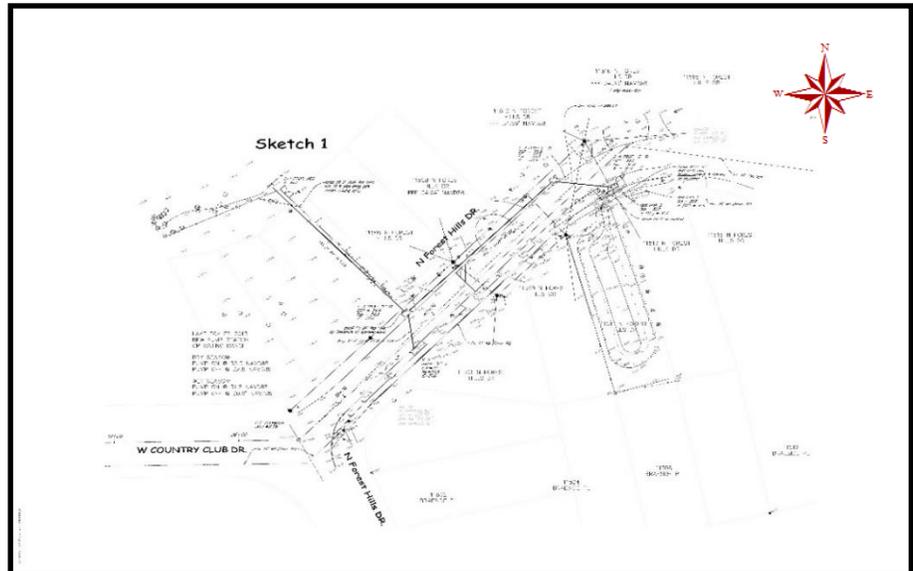


Forest Hills Pond at Lake Eckles

Flooding Relief FY2017, District 7

Estimated cost: \$100K

- **Project Description:**
Proposing drainage system in the ROW to provide conveyance of flood water to Lake Eckles.
- **Justification:**
The surrounding street and the resident at 11513 N Forest Hills Drive has been experiencing flooding during rain events.
- **Related Issues:**
The existing stormwater pump station has been completely rebuilt recently, which is the discharge mechanism for Lake Eckles.



Project Design & Photo



Wyoming Flooding Relief PH I

Flooding Relief FY2017, District 4

Estimated cost: \$150K

- **Project Description:**

This project will evaluate the entire neighborhood and provide a solution to reduce flooding and convey water to existing system on Leila and Elkins Ave.

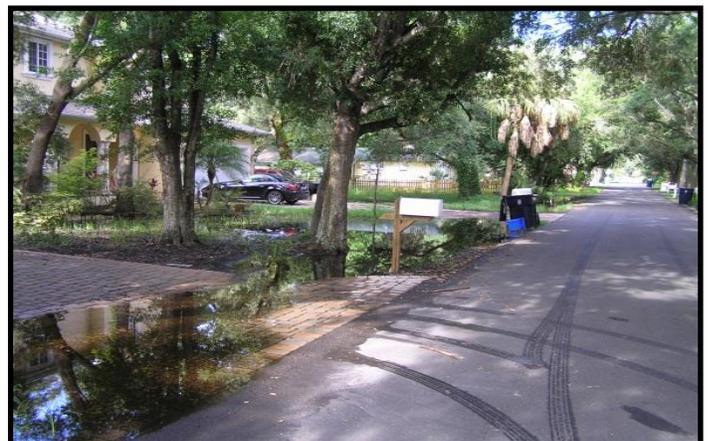
- **Justification:**

Development in the vicinity of Wyoming/Trilby/Thornton Avenue utilizes a system of drainage ditches to collect runoff. The ditch system has been compromised by roots of large trees and improper installation of culverts.

- **Related Issues:**

This project will be phased over two years.

Project Map



Project Photos

Concordia Pond

Flooding Relief FY2017, District 4

Estimated cost: \$125K

- **Project Description:**
Four parcels have been acquired to construct a drainage pond to provide additional drainage system capacity before discharge to box culvert in adjacent CSX corridor.
- **Justification:**
During heavy rain events, several parcels at corner of Concordia and Kensington experience flooding due to outdated drainage system.
- **Related Issues:**
CSX drainage connection permit will be obtained before construction.

Project Map



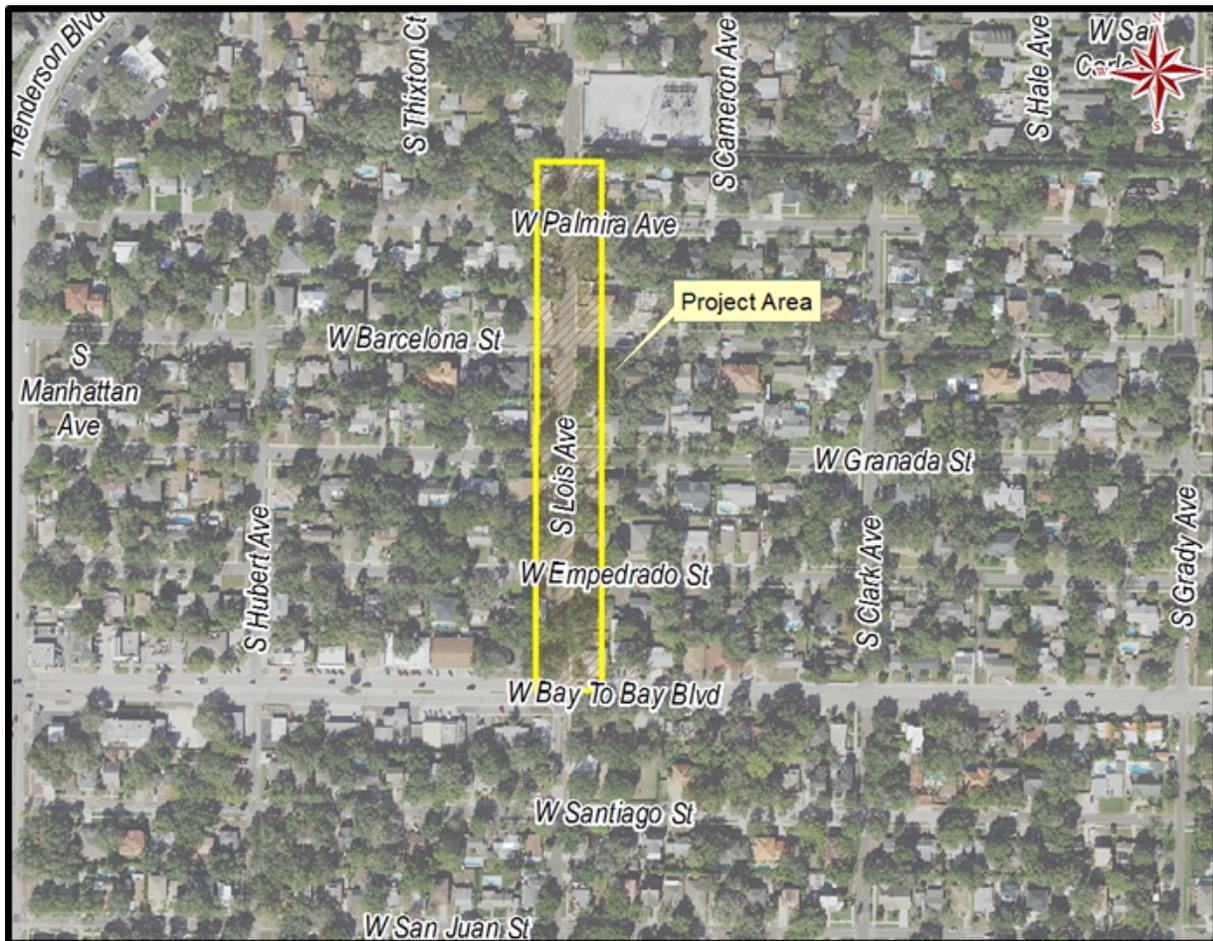
Virginia Park PH3, Lois from Bay to Bay to Palmira

Flooding Relief FY2017, District 4

Estimated cost: \$75K

- **Project Description:**
The project consists of regrading of the roadway to improve drainage.
- **Justification:**
Localized flooding occurs at intersections along S. Lois Ave. The proposed project will alleviate the flooding.

Project Map



Virginia Park PH3, Clark from Bay to Bay to Palmira

Flooding Relief FY2017, District 4

Estimated cost: \$75K

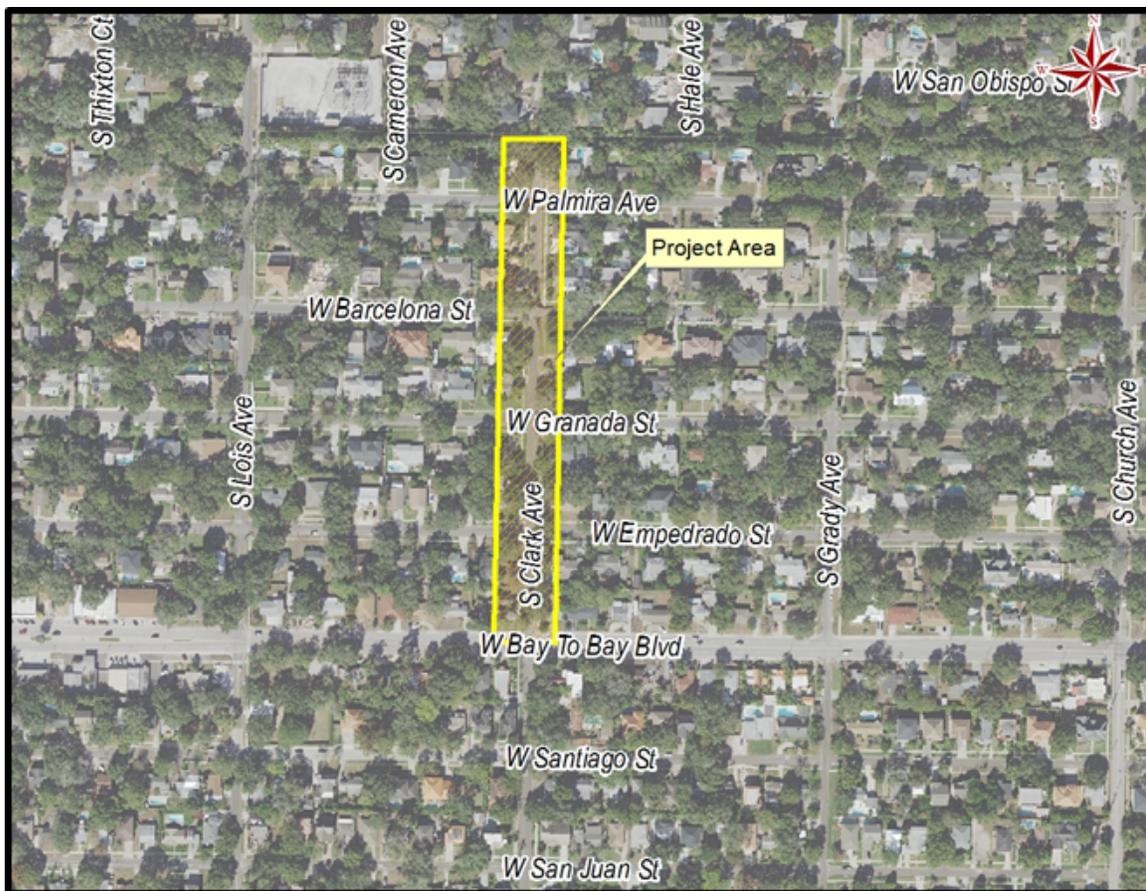
- **Project Description:**

The project consists of regrading of the roadway to improve drainage.

- **Justification:**

Localized flooding occurs at intersections along S. Clark Ave. The proposed project will alleviate the flooding.

Project Map



Hilda: North Blvd to Clearfield

FY 2017, District 6

Estimated cost: \$50K

- **Project Description:**
New inlets and pipes will be installed and connected to the existing system on Clearfield Ave.
- **Justification:**
Flooding occurred on W Hilda St. between North Blvd and Clearfield Ave. due to inadequate drainage capacity. The proposed project will alleviate the localized flooding.

Project Map



New Orleans / 11th Street Pond

FY2017, District 5

Estimated cost: \$100K

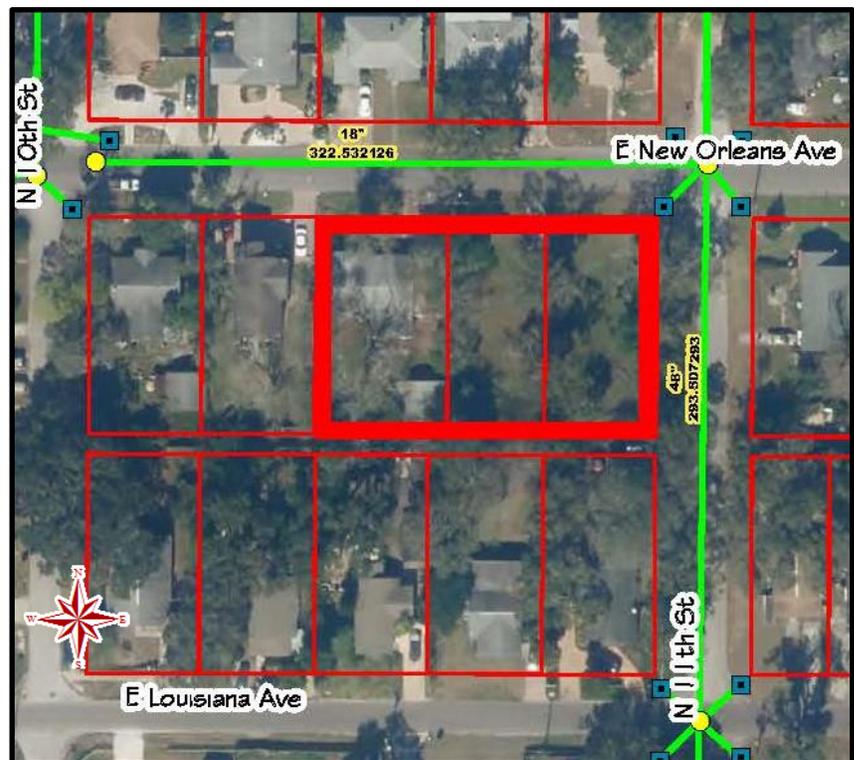
- **Project Description:**

The project consists of the construction of a dry pond to retain runoff and alleviate flooding in the neighborhood.

- **Justification:**

Frequent roadway flooding due to an existing low capacity system. The excess of runoff needs to be stored before the system can drain.

Project Map



Project Photo



Gomez Alley between Kennedy & North A.

Flooding Relief FY2019, District 4

Estimated cost: \$75K

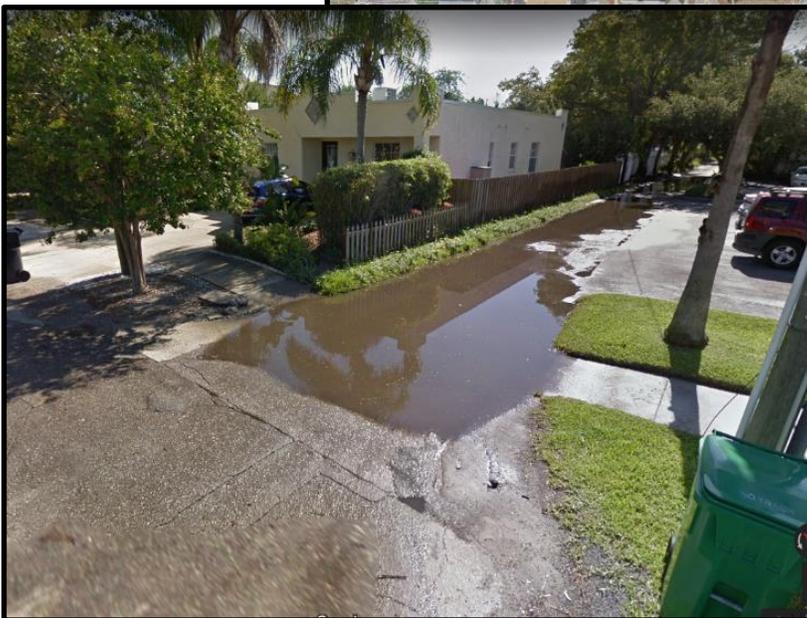
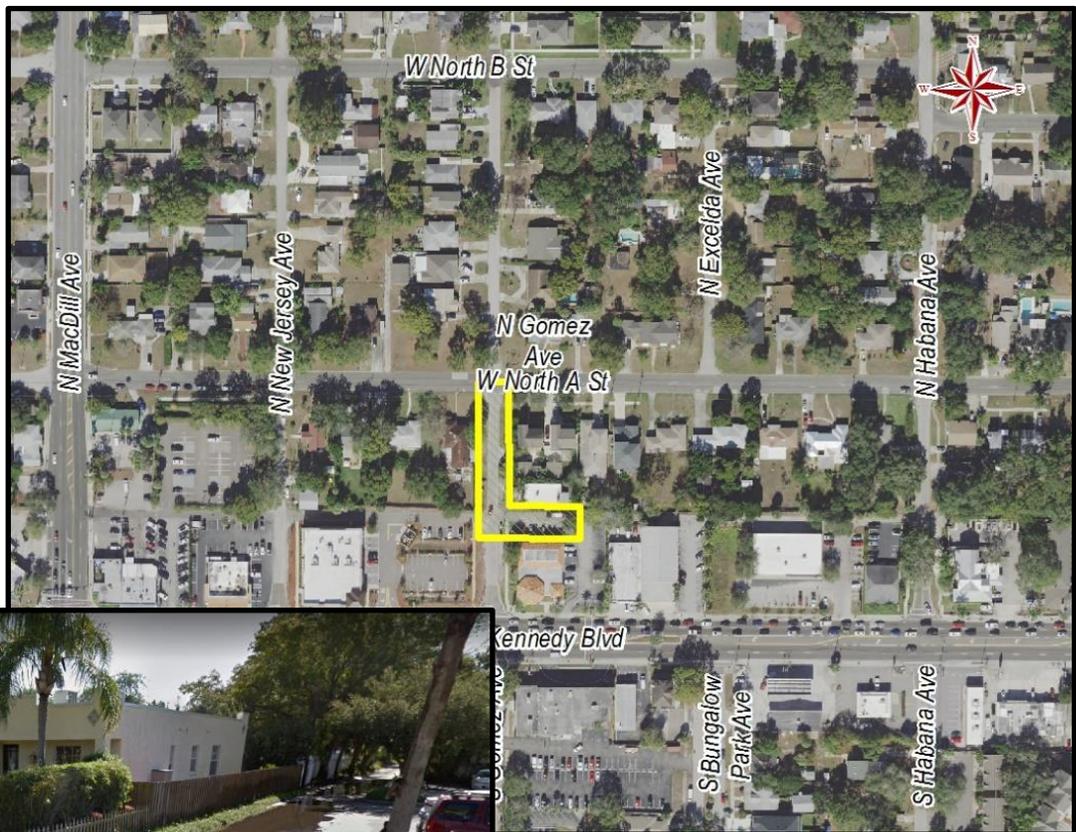
- **Project Description:**

The project consists of construction of new inlets and pipes connecting to the existing drainage system on W North A Street and regrading of the roadway as needed.

- **Justification:**

Localized flooding occurs in the low lying Gomez alley area. The proposed project will alleviate the flooding.

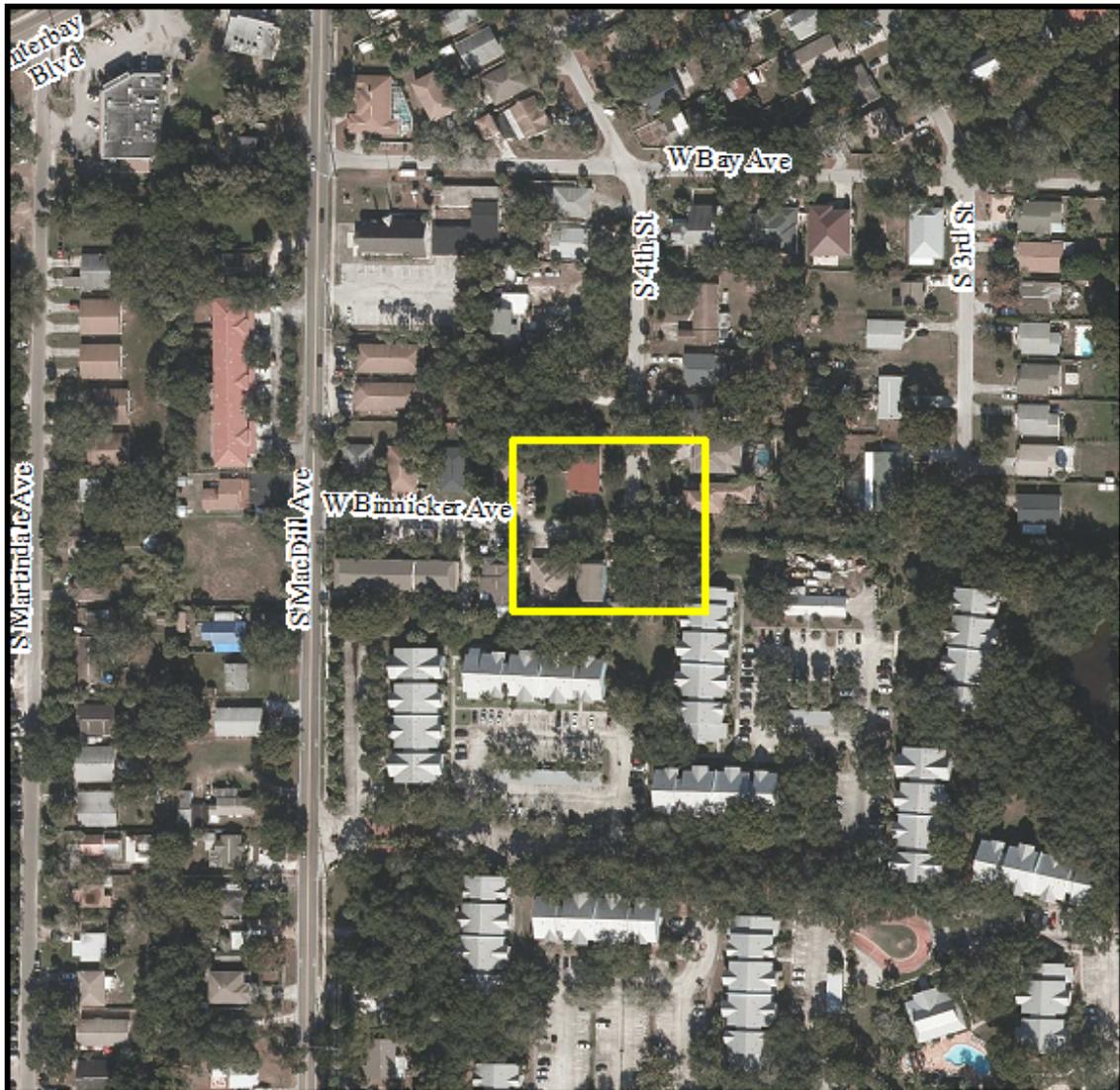
Project Map



Binnicker at 4th St.
Flooding Relief FY2018, District 4
Estimated cost: \$50K

- **Project Description:**
The project consists of construction of new pipes and inlets and regrading of the roadway as needed.
- **Justification:**
Localized flooding occurs at intersection of W Binnicker Ave and S 4th St. The proposed project will alleviate the flooding.

Project Map



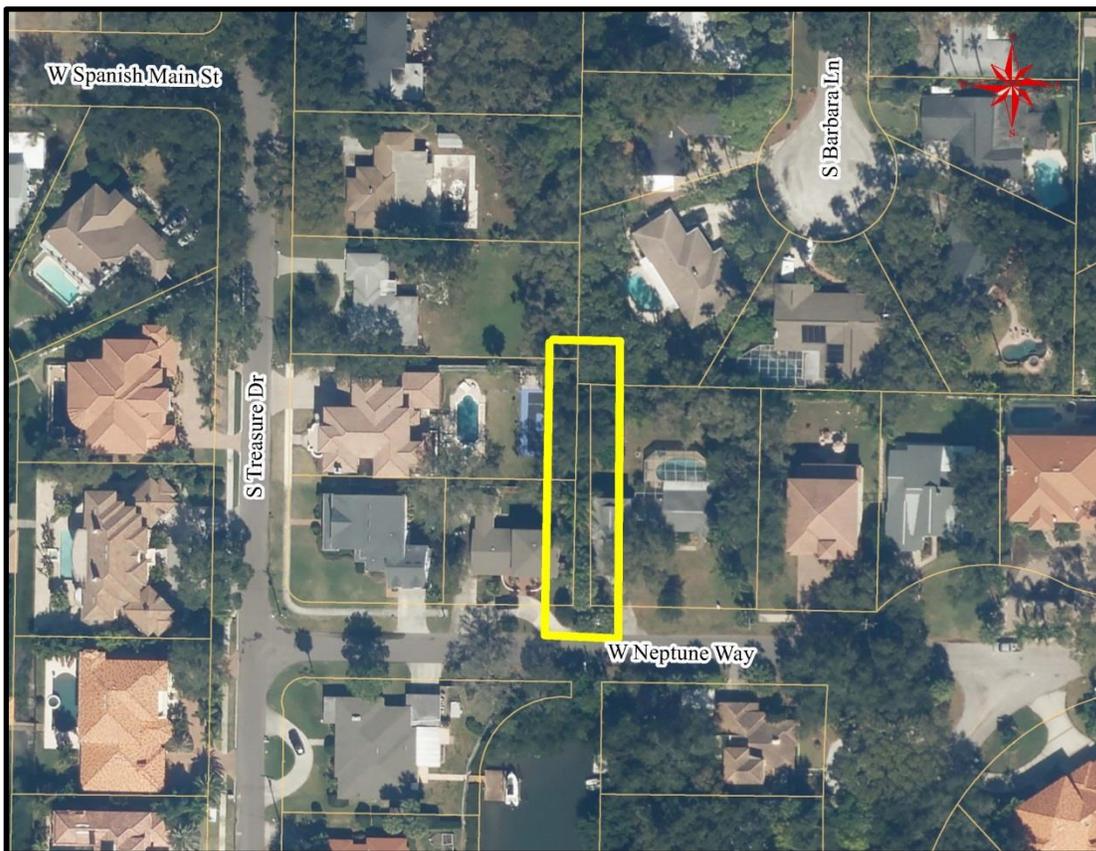
Neptune/Treasure PID

FY2018, District 6

Estimated cost: \$75K

- **Project Description:**
The proposed project will pipe in the existing ditch with a shallow swale.
- **Justification:**
The ditch is eroded and in need of restoration. The proposed project will prevent further erosion and enhance public safety.

Project Map



3911 Swann Ave.

FY2018, District 6

Estimated cost: \$50K

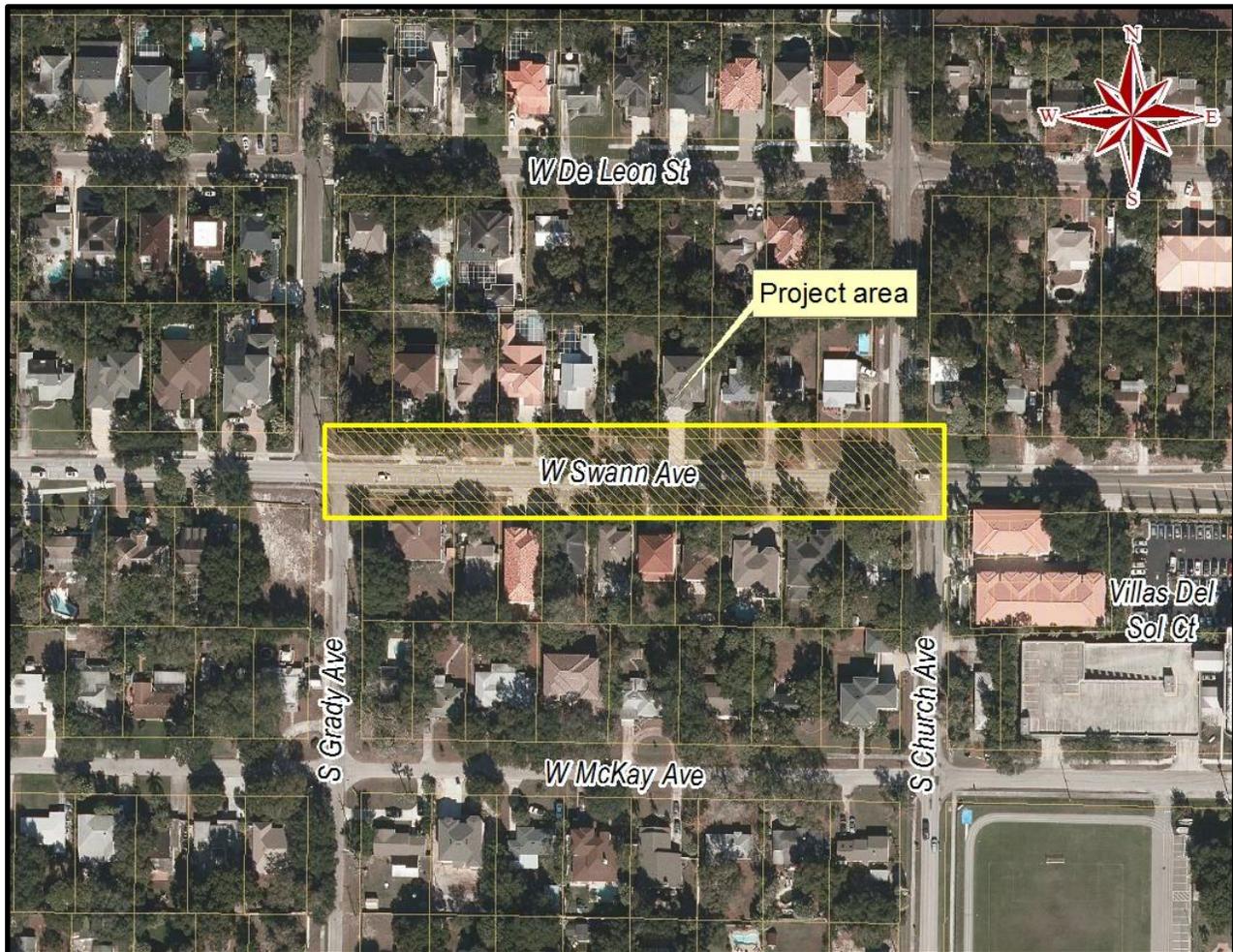
- **Project Description:**

The proposed project consists of converting some existing manholes to inlets.

- **Justification:**

Low lying areas on the street experience street and yard flooding. This project will alleviate the localized flooding.

Project Map



1510 W Park PID

FY2017, District 6

Estimated cost: \$50K

- **Project Description:**
The proposed project will pipe in the existing ditch.
- **Justification:**
The ditch is eroded and had been repaired multiple times in the past. The proposed project will enhance public safety and reduce maintenance cost.

Project Map



Rambla Flooding Relief

FY2018, District 7

Estimated cost: \$100K

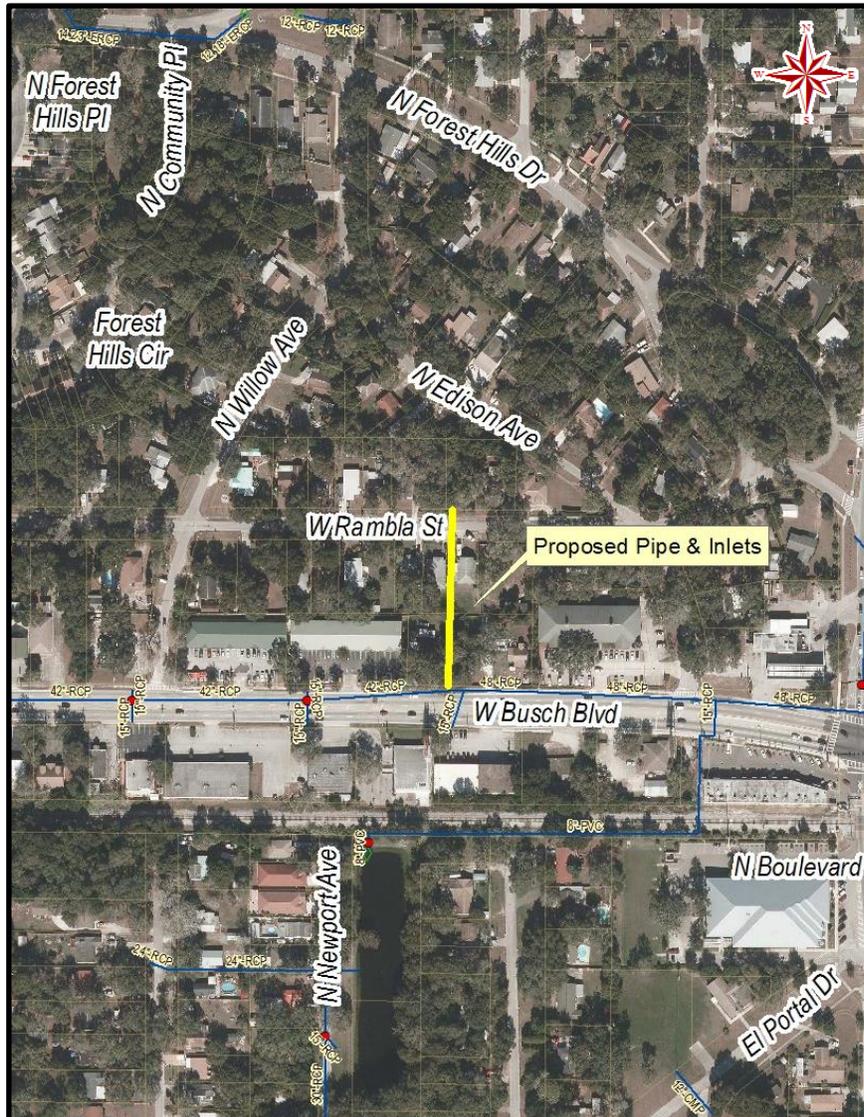
- **Project Description:**

The proposed project will consist of construction of new inlets and pipes connecting to the existing drainage system.

- **Justification:**

Properties on Rambla St. between Edison Ave. and Willow Ave. experience chronic flooding. The project will alleviate the flooding in the area.

Project Map



45th St. North of Hillsborough Flooding Relief

FY2019, District 6

Estimated cost: \$150K

- **Project Description:**

The proposed project will replace the temporary pump with a permanent pump station to alleviate the neighborhood flooding.

- **Justification:**

Currently a temporary pump is utilized to drain the low-lying N 45th St. area north of E Hillsborough Ave. This project will provide a more reliable system to better alleviate the flooding in the area.

Project Map



Paloma Place

Flooding Relief FY2018, District 4

Estimated cost: \$75K

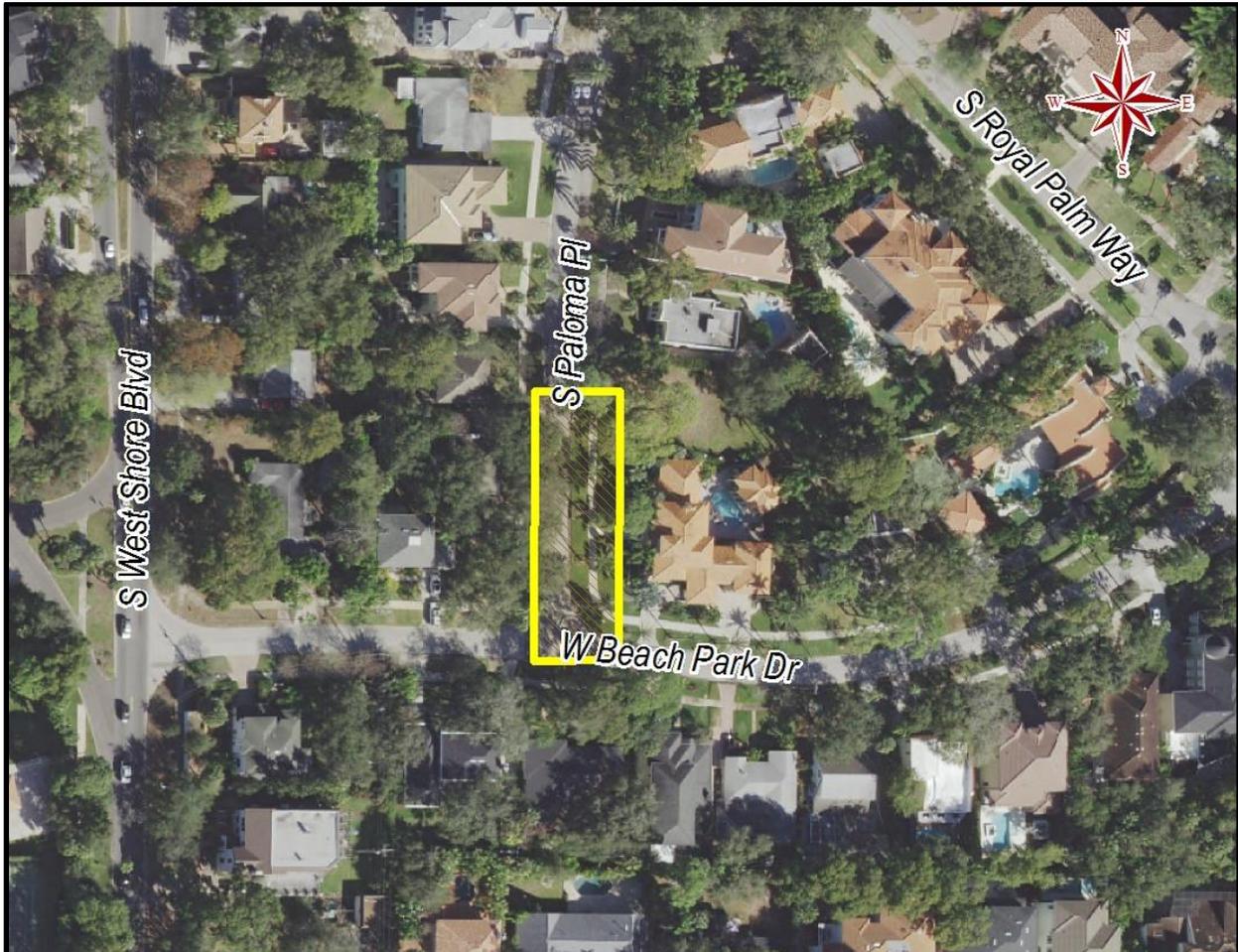
- **Project Description:**

The proposed project consists of replacing the failed pipe and construction of new inlets to alleviate the localized flooding in the area.

- **Justification:**

Flooding occurred in the area due to failed pipe. The proposed project will reduce the localized flooding.

Project Map



Emma St. and Seminole Ave.

Flooding Relief FY2019, District 6

Estimated cost: \$100K

- **Project Description:**

The project consists of construction of new pipes and inlets and regrading of the roadway as needed to alleviate the flooding in the area.

- **Justification:**

The proposed project will reduce the localized flooding.

Project Map



Iowa Ave. – Sheridan to Sherwood

Flooding Relief, FY2018, District 4

Estimated cost: \$75K

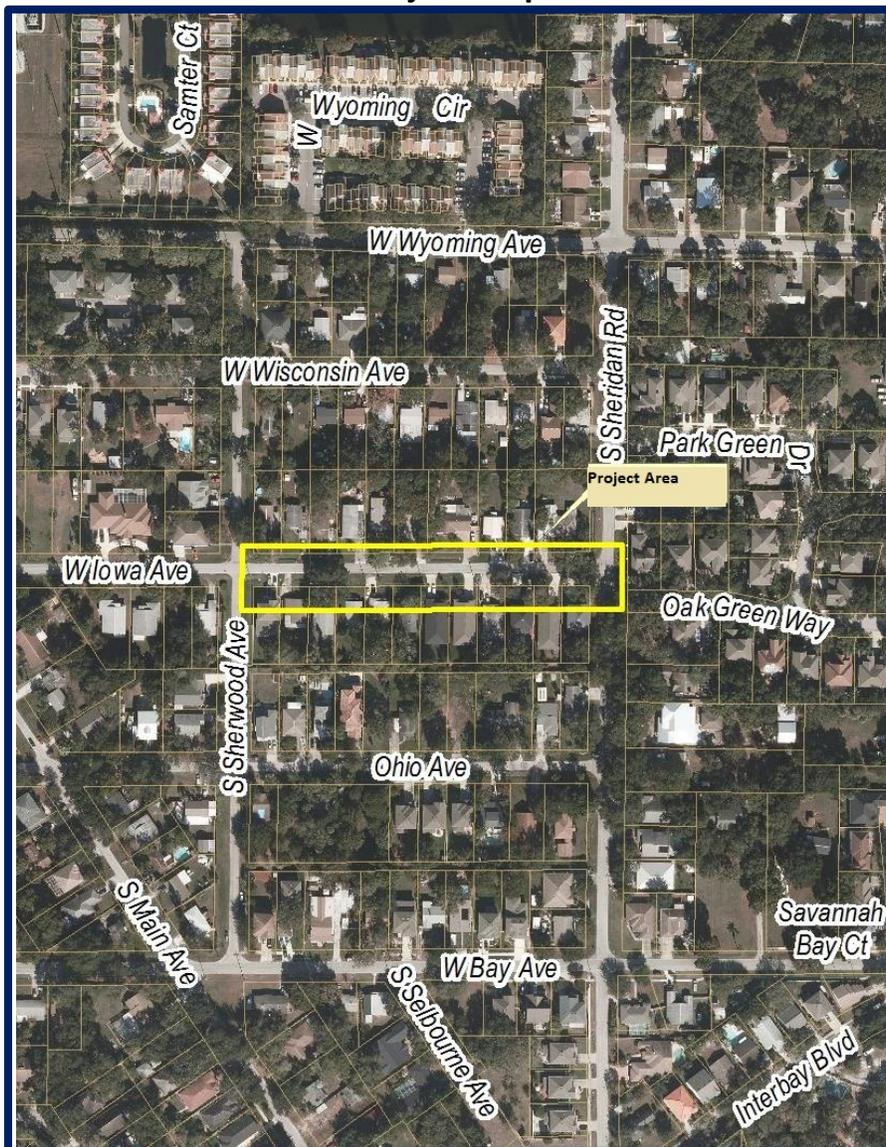
- **Project Description:**

The proposed project will replace/upgrade the system to improve drainage in the area.

- **Justification:**

Development in the vicinity utilizes a system of drainage ditches and pipes to convey runoff. The ditch system has been eroded and some of the pipes and other structures have failed and in need of restoration or replacement.

Project Map



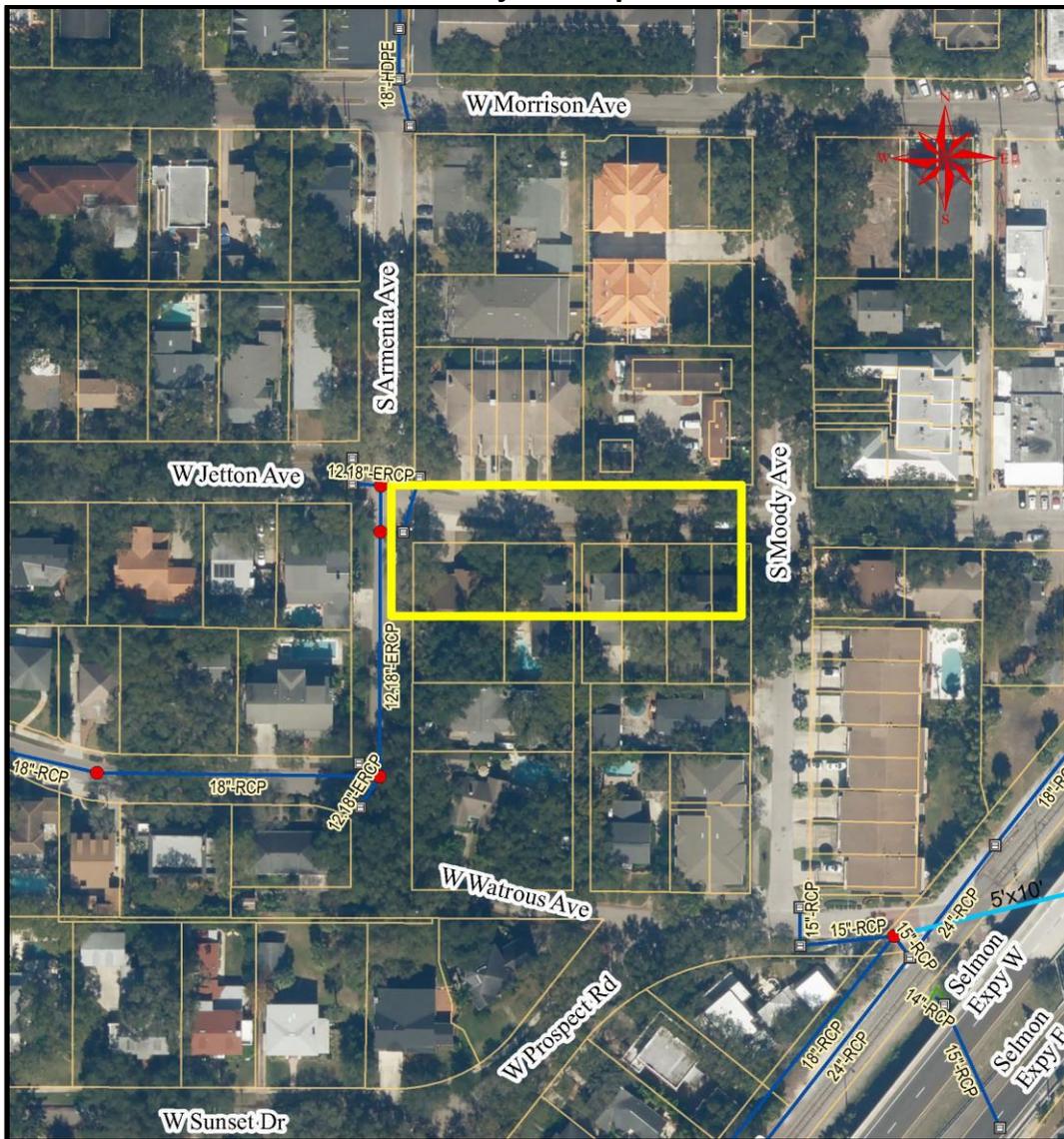
W Jetton Ave. between Armenia & Moody

Flooding Relief FY 2017, District 4

Estimated cost: \$125K

- **Project Description:**
Storm pipe and inlet system will be installed and connected to the existing stormwater system to reduce flooding in the area.
- **Justification:**
Flooding complaint reported from residents on 2400 block Jetton Ave. The proposed project will alleviate the localized flooding.

Project Map



43rd Street Outfall PH III

Regional Drainage Improvement - FY2017, District 5

Estimated cost: \$5M (City Share \$2.5M)

- **Project Description:**

The project consists of the construction of a 48-inch RCP pipe from the Phase 2 regional stormwater pond to the 43rd Street Outfall just upstream of McKay Bay. Additionally, a culvert upgrade will be constructed at the terminus of the 43rd Street ditch to reduce flooding on adjacent properties.

- **Justification:**

The project provides a new secondary outfall to convey runoff from the Phase 2 regional pond to the 43rd Street Outfall. Phase 3 improvements provide additional flood relief for properties and roadways that are severely impacted.

Project Map



30th Street Outfall

FY 2017, District 5

Estimated cost: \$600K

- **Project Description:**

Stormwater has acquired the property on the east side of the outfall. The intent is to enlarge the discharge channel and, if necessary construct a larger outfall structure to accommodate future pipes.

- **Justification:**

Existing 60-inch diameter stormwater pipe outfalls to Hillsborough River at 30th St., causing continual erosion of adjoining properties. City crews have installed rip-rap to fortify the banks, but erosion has persisted.

- **Related Issues:**

Several stormwater pump stations utilize the existing outfall pipe and expanding the channel will allow for the extension of force mains directly to the river.

Project Map



Forest Hills Park Improvements

FY2017, District 7

Estimated cost of Stormwater Share: \$250K

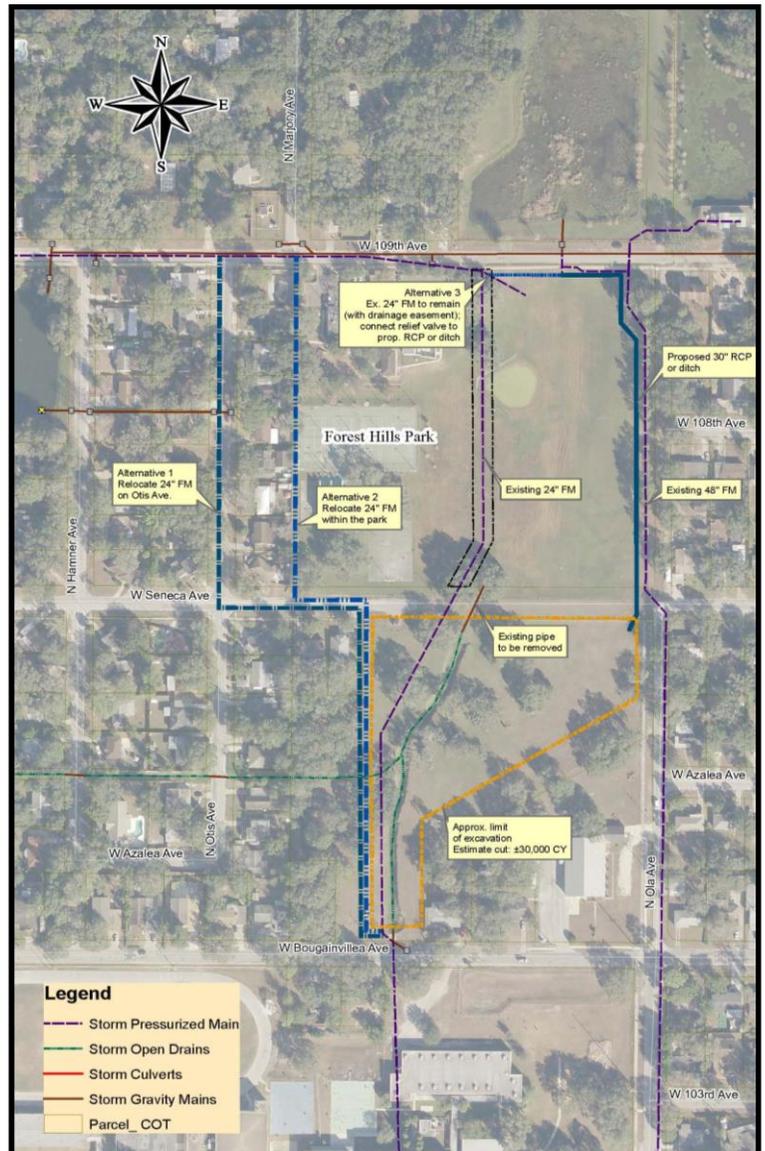
- Project Description:**

The scope of this project is to design a pond on the southern portion of the property and a stormwater collection system for the field area which will convey runoff to the pond. The pond will require a pumped outfall. The basin analysis shall include the outfall rate for future design of a pumping station by others. Topographic survey will be needed to evaluate what elevation the field can be raised to without impacting abutting properties and to evaluate the disposition of the tennis courts. Surface improvements may include new tennis courts or other recreational facilities and additional parking. Parks and Rec is co-funding this design with Stormwater Engineering as Stormwater will be a co-funding participant for the construction project. Stormwater has also identified the need to construct a piping system on the south side of 109th Ave., to convey emergency bypass flow, and to continue the piping system along the east side of the property to collect and convey runoff from 108th Ave. and Seneca Ave..

Project Map

- Justification:**

The Parks Department has an existing baseball field located in a low area that holds water during the rainy season causing it to be unusable. Parks would like to raise the low lying areas to provide for a dry playing field during the summer months. Stormwater is providing funding and assistance to relocate the low area.



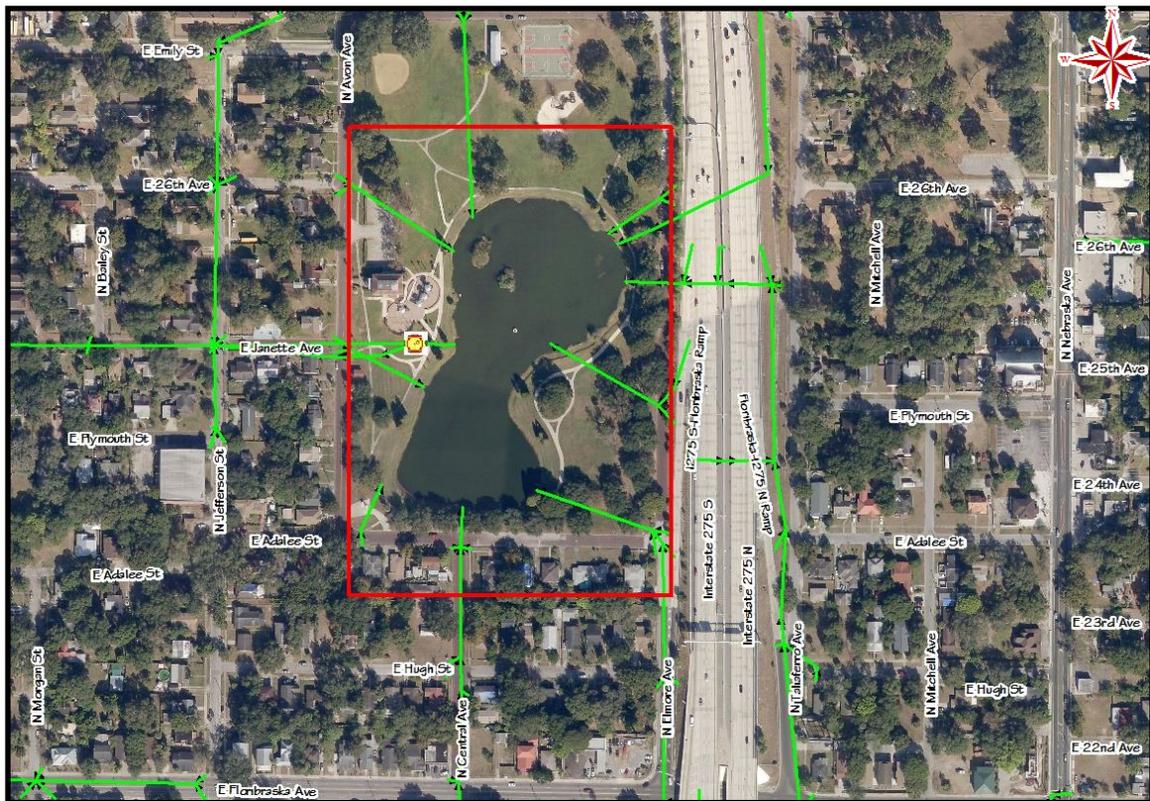
Robles Park Pump Station Replacement

FY2017, District 5

Estimated cost: \$1.20M

- **Project Description:**
Pump station will be replaced with more efficient pumping equipment.
- **Justification:**
This is an aging facility with ongoing maintenance concerns. Older pump station needs rehab to improve flooding relief.

Project Map



Rogers Park Drainage Improvement

Flooding Relief FY2018, District 5

Estimated cost: \$ 500K

- **Project Description:**

The project consists of replacing/relocating the failed 24 inch pipe and construction of new inlets and new outfall to the river.

- **Justification:**

Recent TV inspection has shown several areas of failed pipe, cave-ins, and root intrusions. Current pipe location is inaccessible due to railroad spur.

- **Related Issues:**

Need to coordinate with the Water Department's reconstruction of the railroad spur.

Project Map



Poinsettia P.S. Rehabilitation

Flooding Relief FY2018, District 7

Estimated cost: \$1.4M

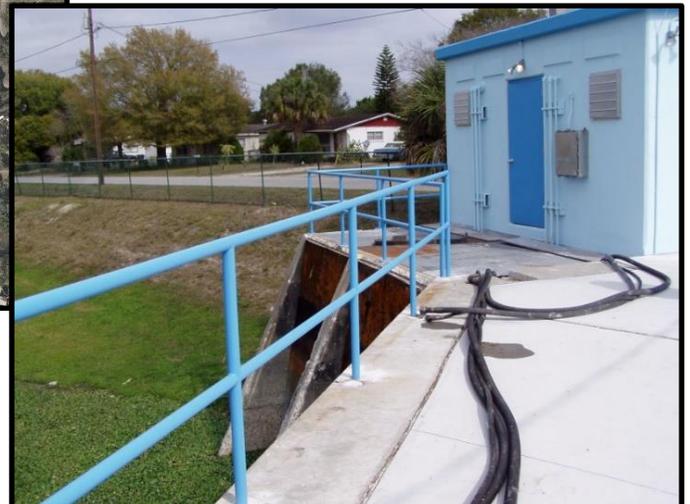
- **Project Description:**

This project consists of removal of the failed hydraulically driven pumps and the installation of two new electric submersible pumps and motor controls. New pumps will match the existing flow and provide a more energy efficient system.

- **Justification:**

The Poinsettia Pump station was equipped in 1988 with hydraulically driven pumps and augmented with additional pumping capacity in 2005 and 2010. When the Donut Pond Pump Station was activated in 2015 upstream of this location, demand at this station was reduced.

Project Map



Eastridge P.S Rehabilitation

Flooding Relief FY2018, District 7

Estimated cost: \$700 K

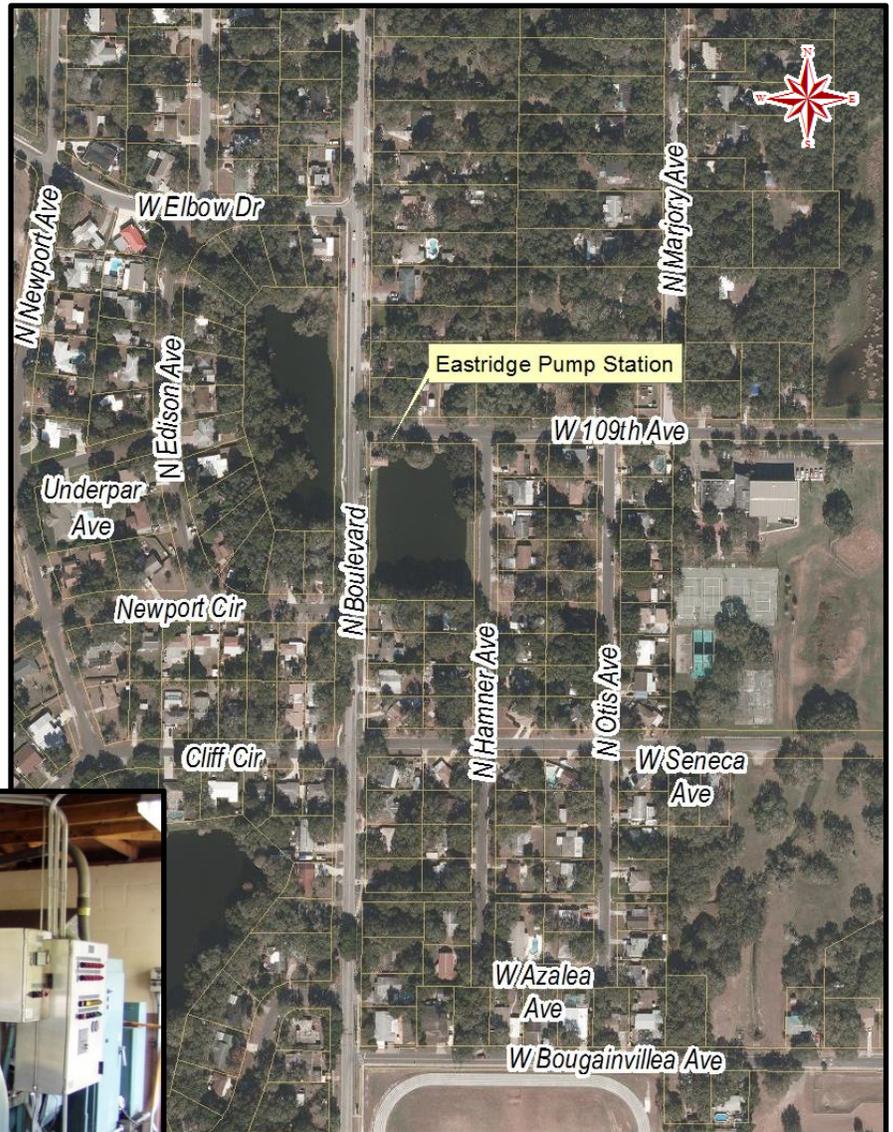
- **Project Description:**

The project consists of removal of the hydraulically driven pump and installation of two electric submersible pumps and motor controls to provide redundancy.

- **Justification:**

The Eastridge Pump Station was constructed in 1983 with a single hydraulically driven pump. Repairs and maintenance has increased in the past five years.

Project Map



Copeland Park

Flooding Relief FY2018, District 7

Estimated cost: \$375K

- **Project Description:**

The project consists of construction of a new pump station and force main connecting to the existing drainage system on N 22nd St. at Colby Ln area.

- **Justification:**

Currently a temporary pump is utilized to drain the low-lying area in Copeland Park. The proposed project will replace the temporary pump with a permanent pump station and provide a more reliable system to better alleviate the flooding in the area.

Project Map





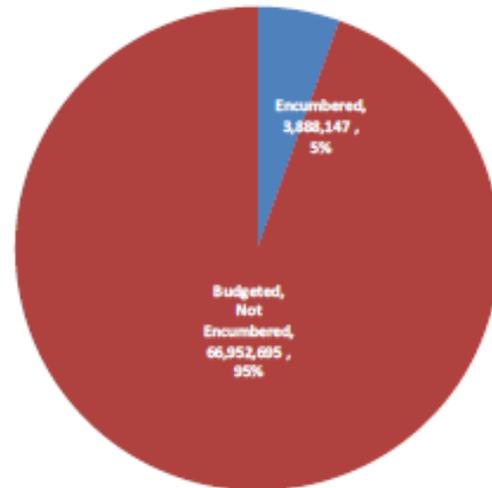
Section B

Stormwater Capital Improvement Bond Program Report

**City of Tampa
Budget Office
Stormwater Assessment Revenue Bonds, Series 2018
As of May 31, 2018**

Available Funding for Projects:

| | |
|---------------------------------------|-----------------|
| Bond Proceeds | \$97,782,033 |
| Underwriters & Other Fees | (706,444) |
| Bank Note Refunding | (26,220,000) |
| Transfer to Capital Project Fund | 70,855,589 |
| | |
| Amount Expended to Date | (14,746) |
| Unused Fees | 81,377 |
| Remaining Bond Proceeds | 70,922,219 |
| | |
| Accounts Payable | 0 |
| Encumbered | 3,888,147 |
| Budgeted, Not Encumbered | 66,952,695 |
| Available for Projects ⁽¹⁾ | \$81,376 |



Spend-Down Schedule:

| | | |
|-----------|------|--------------|
| 6 months | 10% | \$7,085,559 |
| 12 Months | 45% | \$31,885,015 |
| 18 Months | 75% | \$53,141,692 |
| 24 Months | 100% | \$70,855,589 |

Percentage Spent - May 2018 0%
 Bond Issuance Date 4/26/2018

Project Details:

| Project Name | Project Number | Budget | Actuals | Encumbrance | Balance |
|---|----------------|-------------|---------|-------------|-------------|
| 43rd Street Outfall Regional Drainage Improv Ph III | 1000151 | \$4,432,398 | \$0 | \$12,611 | \$4,419,787 |
| Cypress Street Outfall Pipeline Extension | 1000176 | 19,775 | 0 | 0 | 19,775 |
| Upper Peninsula Flooding Relief, Ph. II - Vasconia | 1000178 | 3,665,949 | 0 | 301,866 | 3,364,083 |
| Orchid Sink Rehabilitation | 1000384 | 579,008 | 0 | 174,935 | 404,073 |
| Watrous Ditch Rehabilitation | 1000386 | 89,867 | 0 | 9,238 | 80,630 |
| Edison Avenue | 1000571 | 108,156 | 0 | 0 | 108,156 |
| Kensington Avenue | 1000573 | 39,273 | 0 | 0 | 39,273 |
| 30th Street Outfall | 1000580 | 40,000 | 0 | 0 | 40,000 |
| Box Culvert Rehabilitation | 1000581 | 1,013,607 | 0 | 422,840 | 590,767 |
| Neptune Lagoon | 1000582 | 129,484 | 0 | 0 | 129,484 |
| Howard Avenue Flooding Relief Swann to Jetton | 1000749 | 645,762 | 0 | 0 | 645,762 |

| Project Name | Project Number | Budget | Actuals | Encumbrance | Balance |
|--|----------------|---------------------|-----------------|--------------------|---------------------|
| Lower Peninsula Watershed Plan | 1000750 | 1,859,316 | 0 | 74,731 | 1,784,585 |
| Ditch Rehabilitation | 1000751 | 1,149,721 | 0 | 92,844 | 1,056,877 |
| Southeast Seminole Heights Flood Relief | 1000773 | 11,500,000 | 0 | 0 | 11,500,000 |
| Upper Peninsula Watershed Drainage Imprv | 1001017 | 16,873,600 | 2,787 | 76,277 | 16,794,536 |
| Cypress Street Outfall Regional Stormwater | 1001018 | 14,500,000 | 0 | 2,173,917 | 12,326,083 |
| 99th Avenue Pumping Station | 1001164 | 925,000 | 0 | 0 | 925,000 |
| 6901 Sparkman Flooding Relief | 1001165 | 325,000 | 0 | 0 | 325,000 |
| Hamilton Creek Water Quality Improvements | 1001169 | 500,000 | 0 | 0 | 500,000 |
| Rogers Park Drainage Improvements | 1001170 | 431,442 | 0 | 0 | 431,442 |
| Lamb Canal Rehabilitation | 1001171 | 1,500,000 | 0 | 0 | 1,500,000 |
| North Tampa Closed Basins FY2018 - FY2022 | 1001173 | 4,232,906 | 6,550 | 625 | 4,225,731 |
| Failed Pipe CIPP FY2018 - FY2022 | 1001175 | 2,462,031 | 0 | 412,525 | 2,049,506 |
| In House Flooding Relief/Failed Pipe Replacement | 1001176 | 1,649,338 | 0 | 1,130 | 1,648,208 |
| Stormwater Improv Annual Contract FY2018-FY2022 | 1001177 | 1,000,056 | 0 | 0 | 1,000,056 |
| Consultants and Land Acquisition FY2018 - FY2022 | 1001218 | 1,183,900 | 5,410 | 134,608 | 1,043,882 |
| Grand Total | | \$70,855,589 | \$14,746 | \$3,888,147 | \$66,952,695 |

⁽¹⁾ Remaining balance from issuance costs



Section C

Stormwater Service Assessment Program Report

Tampa City Council Update No. 7 - July 2018

Maintenance activities are reported based on service level frequency. Below is a list of the primary maintenance categories that are being tracked. Along with service level cycle times, we have also provided maintenance statistics for the quarter.

| Operations and Maintenance Activities | Pre Fee Service Levels | Fee Target Service Levels | 3 rd Quarter FY18 & Year-to-Date Service Levels |
|---------------------------------------|---|---------------------------------|--|
| Ditches | 10-Year Cycle | 7-Year Cycle | 7.7-Year Cycle (3 rd Qtr.) 7.0-Year Cycle (Y.T.D) |
| Ponds | Minimal | 3-Year Cycle | 3-Year Cycle (3 rd Qtr.) 3-Year Cycle (Y.T.D) |
| Pipes | 10-Year Cycle | 7-Year Cycle | 3.8-Year Cycle (3 rd Qtr.) 3.8-Year Cycle (Y.T.D) |
| Outfalls | 15-Year Cycle | 5-Year Cycle | 10.8-Year Cycle (3 rd Qtr.) 3.7-Year Cycle (Y.T.D) |
| Pumps | Low Preventative Maintenance | Annual Preventative Maintenance | 1-Year Cycle |
| Street Sweeping | 90-Day Cycle | 60-Day Cycle | 69-Day Cycle (3 rd Qtr.) 55-Day Cycle (Y.T.D) |
| Operations and Maintenance Activities | 3 rd Quarter Maintenance Statistics | | |
| Ditches | 32,108 linear feet of ditches maintained with 11,570 tons removed, 441,765 linear feet of ditch mowed monthly | | |
| Ponds | 12.67 tons of trash and illegal dumping have been disposed of, there have been 21 herbicide treatments to various ponds, no harvesting activities were conducted, 123 stormwater ponds mowed monthly, 1,875 linear feet of pond fence repaired. | | |
| Pipes | 184,600 linear feet of storm drain pipe inspected and maintained, 2,855 storm drain inlets and manholes inspected and maintained with 509 tons of debris removed. 343 linear feet of box culvert cleaned with 428 tons removed. | | |
| Outfalls | 21 outfalls maintained. | | |
| Pumps | Preventative Maintenance Services provided to seven (7) of the thirteen (13) stormwater pump stations. | | |
| Street Sweeping | 4,184 curb miles were swept, approximately 882 tons of debris removed. Cycle times have gone up this quarter due to new employee rotations in to the sweeping group. Training is ongoing. | | |

Ditch North of W. Bougainvillea Ave Near W. Seneca Ave.

Before



After



Ditch Bank Washouts at 2101 W Sitka Ave.

Before



After



N. Albany Avenue just south of W. Waters Avenue

Before



After

