

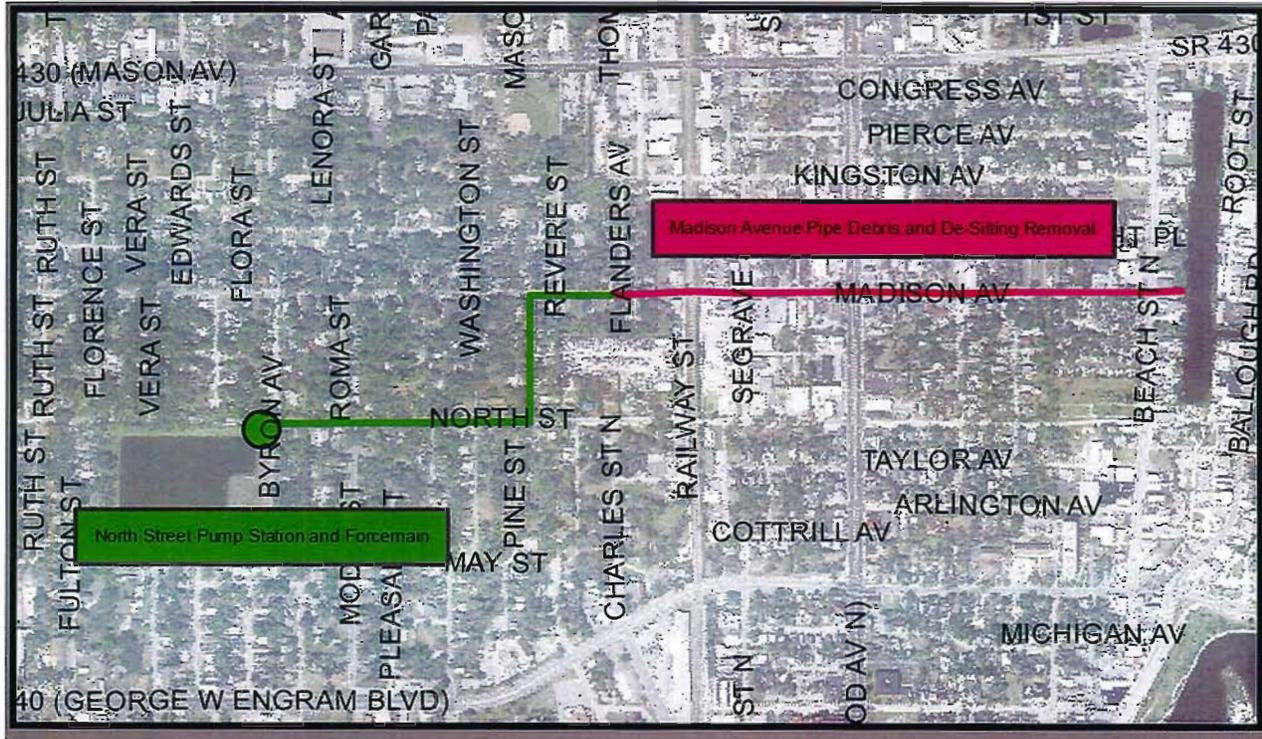
Nova Canal Basin Local Stormwater Projects

Date: 4/6/2010



**(Area generally bounded by Mason, Nova,
Beville and Ridgewood)**

Madison Avenue De-silting & Debris Removal / North Street Pond Emergency Pump and Forcemain



The Madison Ave. Desilting project consists of cleaning the Madison Avenue Stormwater System from the L5 Canal to Root Pond. The culverts and structures are located within the existing road right-of-way, the culverts range in size from 12" up to 38" x 60" arch culverts. The material to be removed from these structures shall consist of typical roadway litter, silt, debris, vegetation, soil, rock or any type of blockage in the pipe or culvert to provide maximum drainage capacity. This is approximately 1 mile of storm water pipe to be cleaned and videoed to determine pipe condition and needs. The project went to City Commission on December 16, 2009 for acceptance of the low bid. The contractor started construction on March 22, 2010. Construction contract duration is 70 days.

The North Street Pond project consists of a pump and force main discharge from the North Street Pond to the Madison Avenue pipe. This pipeline will be used for emergency conditions to provide an outfall for North Street pond when it is unable to discharge to the Nova Canal system as a result of high tides in the canal. The City proposes the purchase of a 12" portable pump and the force main will be constructed by City crews. The bid award is scheduled to be presented to the City Commission for approval on April 7, 2010. Estimated time to complete permitting and construction is one year.

North and Mark Stormwater Improvements



The civil plans are at 100% design and the St. Johns River Water Management District permit was received December 3, 2009. Impacts to the wetlands and uplands on the site were mitigated by placing a conservation easement on city owned land with the District's appropriate wetland and upland acreages. Currently the City is adding safety and aesthetic features to the project design including fountains, an irrigation pump station for proposed landscaping and lighting. Bidding is anticipated in late Spring – early Summer.

Lane Street Stormwater Improvements



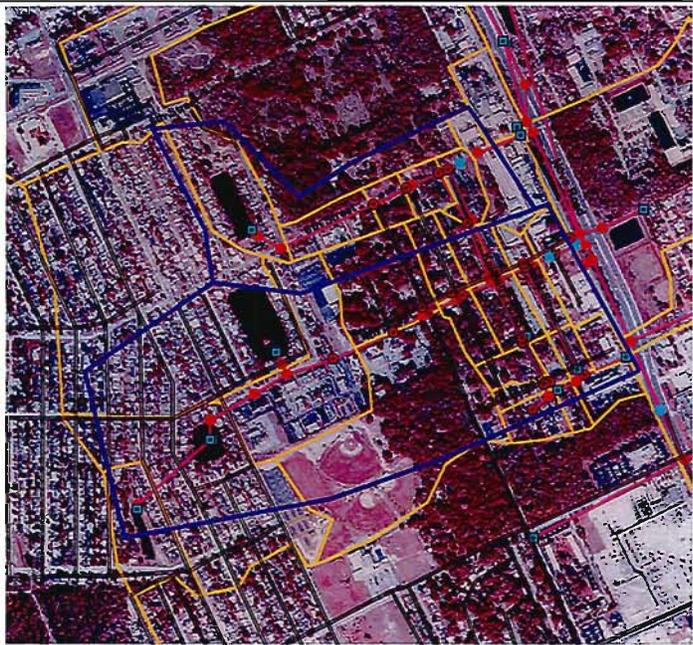
This project is in the conceptual planning stage. The roadway currently has no stormwater conveyance system in place. A small property acquisition was required, which was just recently finalized, in order to connect a proposed piping system from Lane Street into the existing system located on Garden Street.

This project will discharge to the North Street Pond via existing connection from Garden Street system.

Status:

Survey work to start by mid-May 2010. The project will be designed and permitted by the Utilities Department. Additional properties may need to be acquired for retention ponds to alleviate the stormwater ponding in the area.

Kennedy Road, 3rd, 4th, and 6th Street Stormwater Improvements



4th Street at Flag Street



4th Street and Kennedy Road



Kennedy Road, 3rd, 4th and 6th Streets are a “stormwater problem area” located in the northern portion of the City on the west side of Nova Road. The area was originally identified as problem area B-1 in the 1989 Stormwater Master Plan (SWMP). The street elevations in the area are low and are inundated with excess runoff that cannot enter the Nova Canal. The area is in the 5-year through the 100-year floodplains. There are 5 buildings in the area with finished floor elevations below the peak stage for the 100-year storm event. Four of the structures are located on Kennedy Street and one is located on 3rd Street. The lowest finished floor elevation is located at 1044 Kennedy, which is on FEMA’s repetitive loss list.

This project will provide water quality treatment in an area where none currently exists. The conveyance system improvements shall consist of piping the open ditches with upsized pipes to lower the peak stage for the 100-year flood. This project will also improve public safety by eliminating the open ditches along 3rd Street, 4th Street and 6th street. Most relevant to the Kingston community this project will reduce flow into the Nova Canal during flood events with backflow prevention devices.

The design consultant was given the notice to proceed on January 12, 2010. Survey and geotechnical work has been completed. Pre-application meetings with St. Johns Water Management District and the Florida Department of Transportation have been completed to expedite the permitting process. 30% design drawings have been submitted by the consultant and review comments have been supplied by City staff.

South Street Stormwater Improvements



This project consists of replacing the existing corrugated metal (CMP) stormwater pipes under South Street from US 1 to the river with new reinforced concrete pipes. The existing double 93" x 64" corrugated metal pipes are currently failing causing a collapse of the South Street ROW and potentially endangering public health and safety. This conveyance system is the only gravity outfall to the Halifax River for the Butts Park Drainage Basin. During the week of the May storms, the roadway experienced five (5) failures.

•Status:

- Project has been designed, bid, and awarded to the contractor. The funding is through a low interest state revolving loan. The contractor started work Wednesday March 17, 2010.
- A neighborhood meeting to discuss the project with the property owners on South Street was held on March 16, 2010.
- Construction contract duration is 240 days

**Nova Canal Basin
Midtown Stormwater
Remediation and Flood Control**



Three Phases are recommended by the preliminary design report

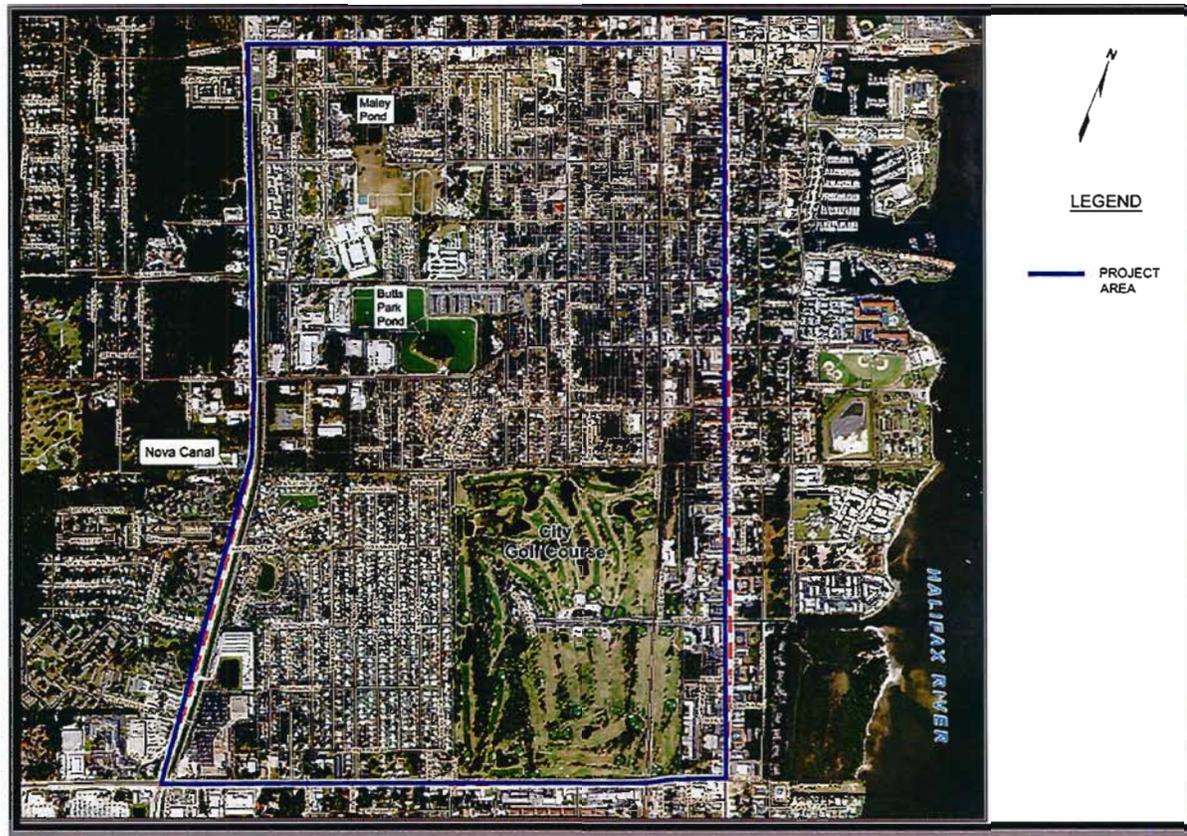
City Commission approved the PDR and authorized the consultant to design Phase I of the project on March 17, 2010.

Phase I includes, Backflow preventers on Nova Canal, new and upgraded pump station and conveyance to the South street outfall and to Butts Park and Maley Ponds.

Phase II New pump stations at Butts Park and Municipal Golf Course with pond on the golf course and ditch and force main outfall down the Wilder cut.

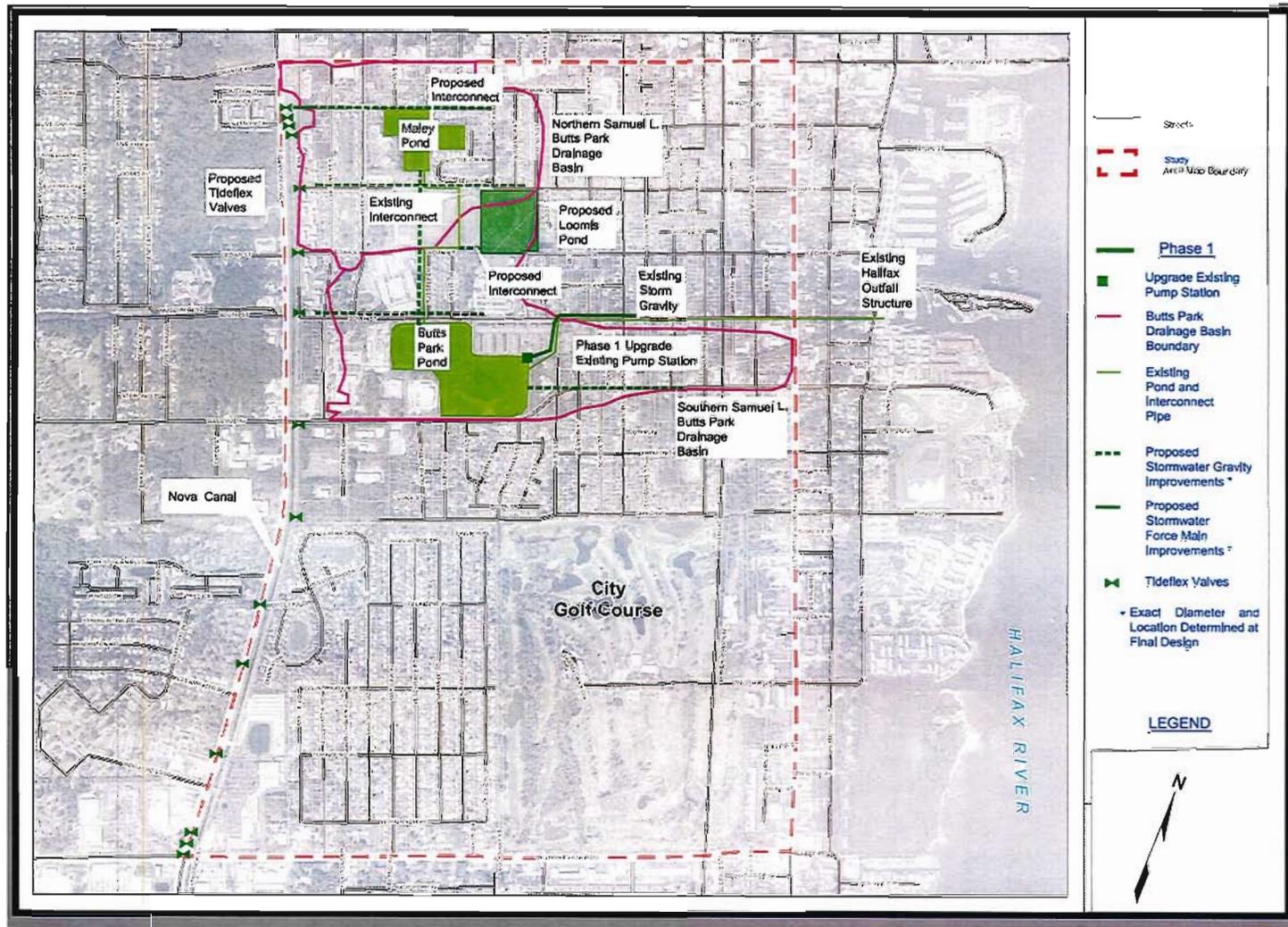
The Final phase is adding the Fairview Estates/Woodcliff drainage to be conveyed to the golf course and pumped out the Wilder cut.

Mid-Town Stormwater Remediation and Flood Control

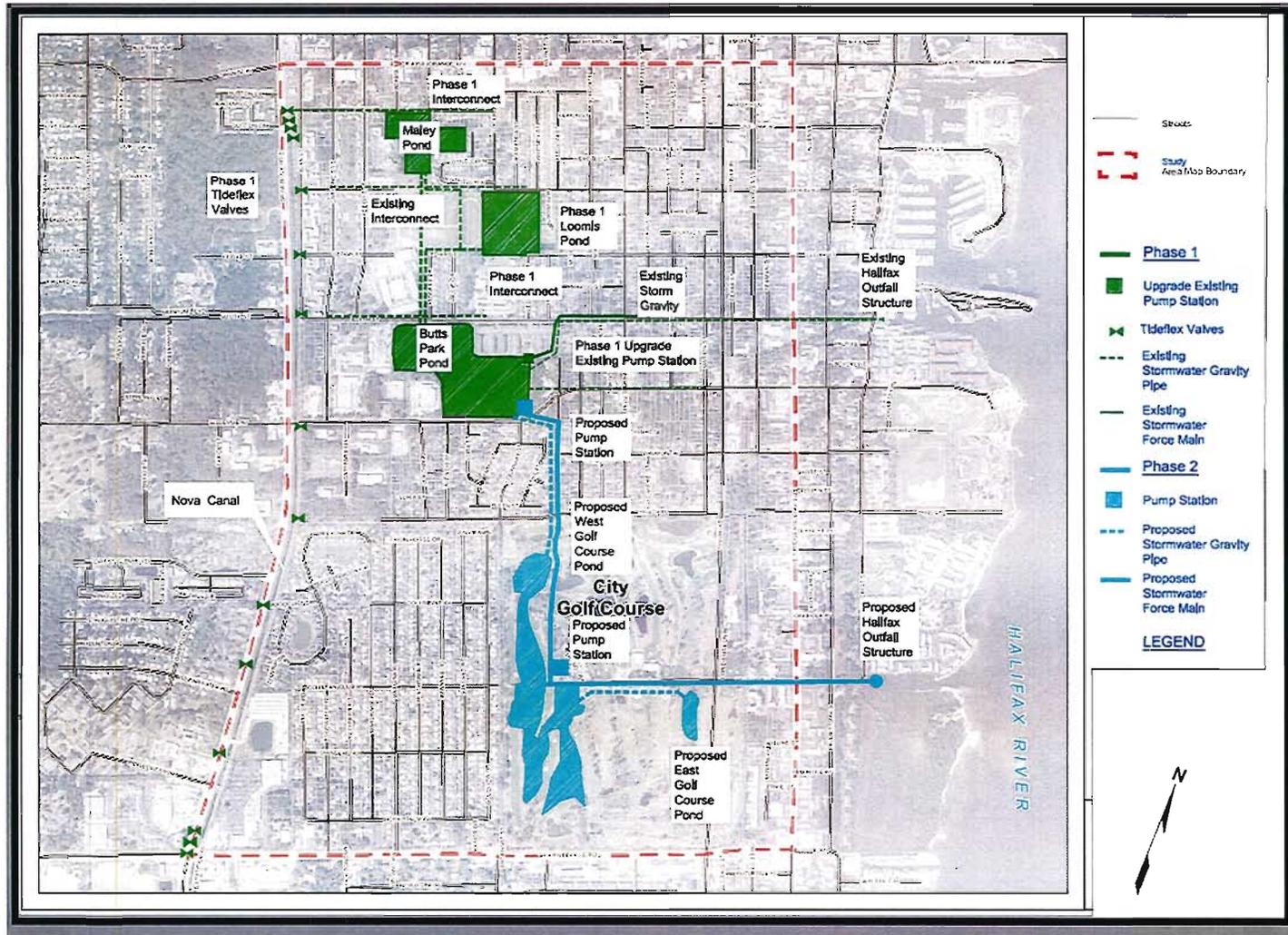


Phased approach has been developed for this area. Each phase builds on previous phase to achieve a higher level of flood protection for the area. The project consists of three (3) phases.

Phase 1 – Improvements to the Butts Park Drainage Basin



Phase 2 – Proposed Golf Course Pond/Forcemain Outfall at Wilder Ave.



PHASE 1 – \$6,876,000

- Improve Existing Stormwater Pump Station at Pond Butts Park Pond Including:
 - Existing Pump Station Upgrade/Expansion
 - Improve Gravity Pipe Outfall
- Improve Maley Pond/Butts Park Pond and Collection System Including:
 - Improve Pond(s) Embankment
 - Provide Additional Conveyance Pipe Improvements to Ponds
- Install Tideflex Valves at Interconnections to Nova Canal to Prevent Backflow into the Samuel L. Butts Park Drainage Basin, Fairway Estates and Woodcliff Drainage Basin.
- Construct a New Pond (approx. 11 acres) - Identified Best Location
- The City Commission approved the Preliminary Design Report and Authorized the Design of Phase 1 on March 17, 2010. Design will take approximately 12 months.

PHASE 2 - \$34,006,000

- Stormwater Flood Control by Pumping from Butts Park Pond to the Halifax River via New Attenuation Pond at City Golf Course
- Construct New interconnected Pond(s) located at the City's Golf Course.
- Construct a Pump Station and Force Main from Butts Park Pond to a New Halifax River Discharge located down Wilder Ave.
- Construct Pump Station and Force Main from the City Golf Course Pond and Manifold into the Force Main Discharging into Halifax River.
- Construct a interconnection between the Butts Park Pond and the golf course pond with isolation valves.

PHASE 2 - \$35,452,000

- Stormwater Flood Control at the Fairway Estates and Woodcliff Drainage Basin and Drainage Modifications to Divert Flow from the Nova Canal.
- Construction of Inlets and Storm Sewers to Intercept Stormwater at the Fairway Estates and Woodcliff Drainage Basin.
- Construction of a gravity discharge from the stormwater intercept at the Fairway Estates and Woodcliff Drainage Basin into the proposed golf course pond.

TOTAL - \$76,334,000