

**MIDTOWN STORMWATER MASTER PLAN – WESTSIDE CANAL IMPROVEMENTS
FDEP GRANT AGREEMENT G0399 – CITY’S CIP SW #016**

INTRODUCTION: Current federal regulations of water pollutants trace their legal roots to the Federal Water Pollution Control Act of 1972. Commonly known as the Clean Water Act (CWA), this law gave the federal government expansive authority to improve water quality in the United States by regulating pollutants. The law was needed to address hundreds of years of water pollution, which had led our waterways to be full of pollutants and bacteria to the point that they could no longer sustain life and

became a source of hazardous materials. The CWA has led to major improvements in water quality.

Since a 1987 amendment to the act added measures to address nonpoint pollutants, extensive work has been done to improve our nation’s waters (Figure 1: The Hydrologic Cycle), but 55% of our streams are still impaired according to the Environmental Protection Agency (EPA).

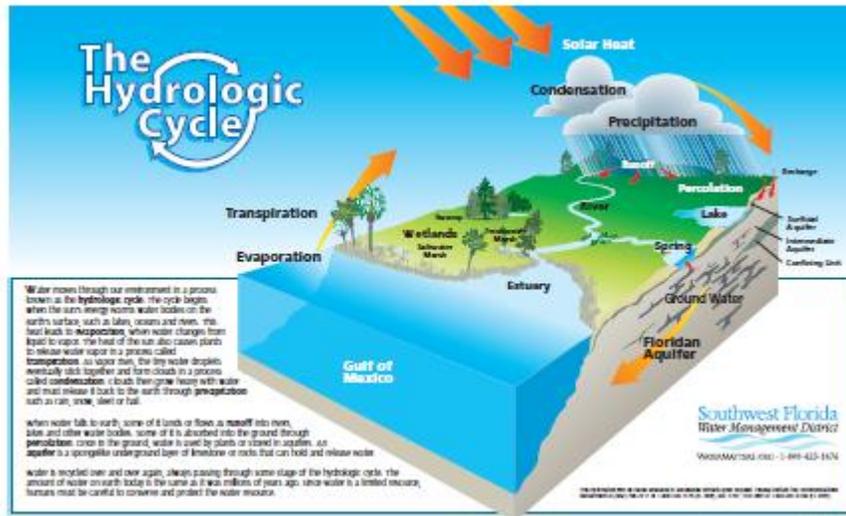


Figure 1 – The Hydrologic Cycle

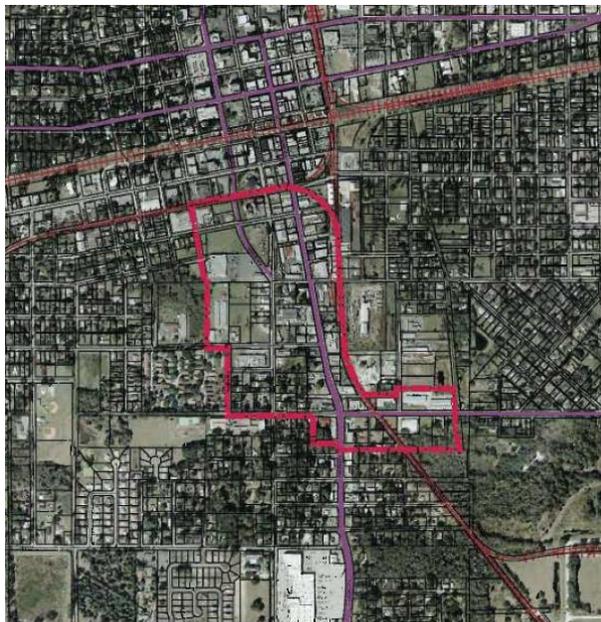


Figure 2: Midtown – Aerial Map

Plant City, Florida experienced significant growth from 1997 through the spring of 2007. Most of this growth occurred in a typical residential subdivision pattern. City leaders have recognized that an opportunity now exists to encourage some of the City’s future development to take place within an area near downtown known as Midtown (Figure 2: Aerial Map).

Midtown today is a collection of under-utilized assets. With the right policies, projects, and programming, Midtown has the potential to become a pedestrian-oriented development offering a variety of residential, retail, office, (Figure 3: Street View) and recreation spaces such as Village Green Park (Figure 4:Village Green Park). City leaders ultimately decided that the first step toward redevelopment should be to identify options and community preferences for Midtown’s environment.



Figure 3: Midtown – Conceptual Street View



Figure 4: Village Green - Park View

PROJECT BACKGROUND: In 2007 the Midtown Redevelopment Vision Plan was adopted to implement redevelopment within the Midtown area that comprises approximately 95 acres.

The Plan calls for investing in a better road network, improving stormwater drainage, and creating an attractive “village green” type park.

The goal is to create a more vibrant pedestrian-oriented area, where the City’s initial infrastructure investment stimulates private development of new residential buildings and businesses. The City developed the Midtown Stormwater Master Plan and obtained related permits to accommodate the treatment of stormwater runoff generated by the proposed land uses. However, an additional treatment facility focused on nutrient removal and overall pollution reduction will need to be constructed to accommodate stormwater treatment for the post-development conditions.

To meet these goals, the City suggested converting the existing stormwater retention pond located on Ball Street adjacent to Westside Canal into a stormwater treatment facility focused on nutrient removal and overall pollution reduction for the post-development conditions. The City designed the treatment facility, secured the required SWFWMD permit, and applied for federal grant funds. In 2013 the City’s proposed project was awarded funding by Florida Department of Environmental Protection (FDEP) on behalf of the Environmental Protection Agency (EPA) .The project involves construction of a new stormwater management system to provide water quality improvement for runoff generated by the Midtown upstream basin that conveys through the Westside Canal to Mill Creek, and afterwards drains into the Hillsborough River. The total cost of this project is \$700,000. The project comprises five tasks: Design/Permitting; Construction; Educational Component; Water Monitoring Program; and, Final Project Report to FDEP. The overall project timeline encompasses the third quarter of 2014 through the second quarter of 2017.

PROJECT DESCRIPTION: The Westside Canal Improvements project is located in Plant City on the south side of Ball Street near its intersection with Hunter Street. The project consists of constructing a diversion structure and installing 750 linear feet of 24” underground drainage piping from Warren Street along the east side of Hunter Street to control structures located within the expanded four-acre retention pond that is built with an aquatic littoral shelf to provide additional water quality treatment and removal of pollutants. An additional 350 linear feet of the canal will be enclosed into 38”x60” drainage pipes (Figure 5: Westside Canal – Project Map) and Hunter Street roadway restoration and new sodding will be provided for safety and aesthetic improvements that will be paid for with additional matching funds to the FDEP grant from Hillsborough County Community Development Block Grant.

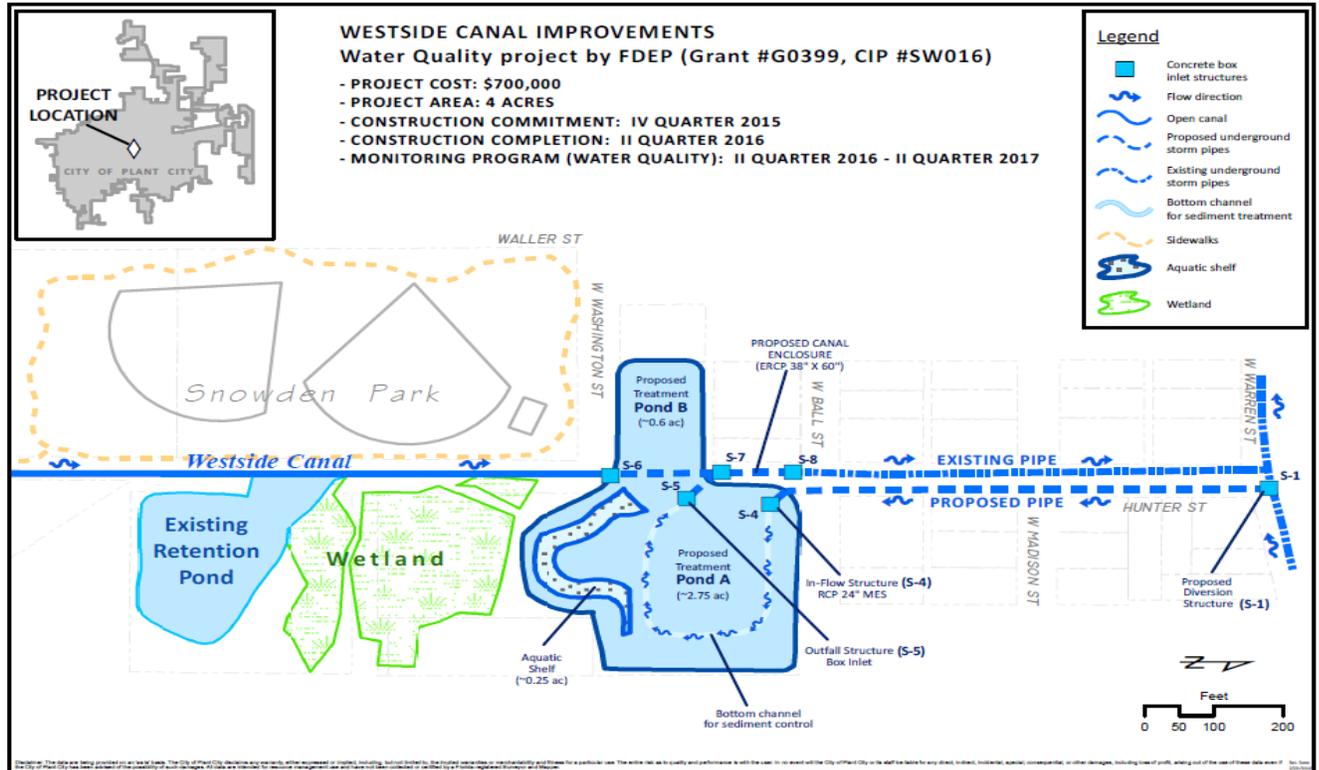


Figure 5: Westside Canal – CIP #SW016 Project Map

PROJECT PROGRESS IN SITE PHOTOS: On August 24, 2015 the City Commission awarded the Westside Canal construction project to Kamminga & Roodvoets, Inc. On October 15, 2015 a pre-construction meeting was held, at which time the Notice To Proceed was issued to the contractor. Construction started on October 26, 2015 and will be completed by March 1, 2016 on budget and on schedule.

Start of construction by installation of erosion control and protective turbidity devices (November 2015)



Pond Excavation in progress... (November – December 2015)



Canal Enclosures by 38"x60" ERCP... (November – December 2015)



Installation of 750 LF of 24" RCP underground drainage pipes along Hunter Street (December 2015 – January 2016)



Hunter Street is restored by milling and resurfacing getting new asphalt and new marking (January 2016)



Sodding work around the pond in progress (January - February 2016)



Pond is complete (February 2016)



Site Inspection to accept the project
(February 2016)



Thank you for taking a virtual tour of our project!!!

Tatyana F. Austin, CIP Project Manager
City of Plant City, Engineering Department
February 2016

ACKNOWLEDGEMENTS

SPECIAL THANKS FOR COLLABORATION ON THIS PROJECT TO:

- Florida Department of Environmental Protection (FDEP)
- Environmental Protection Agency (EPA) FDEP/NPS
- South-West Florida Water Management District (SWFWMD)
- US Department of Housing and Urban Development
- Applied Sciences, Inc (ASCI) - City's Project Consultant: Derek Doughty, EOR; Robert Wronski, PM
- Kamminga and Roodvoets, Inc - Project Contractor: Jim Barnes, Project Manager

Special "Thank you" to the City of Plant City's various departments and employees who contributed their time, knowledge and other resources to this project:

- City Manager's Office: Bill McDaniel, Assistant City Manager; Karen Collins, Community Services Director.
- Engineering Department: Mike Schenk, City Engineer; Charles Clark, Senior Inspector; Zack Knezevic, GIS Coordinator; Kirill Gorivenko, Project Coordinator; and Maria Myers, Administrative Assistant.
- General Services: Mark Emery, Superintendent
- Parks and Recreation: Jack Holland, Director
- Water Resource: Al Miller, WRM Superintendent; Sharon Spires, Pretreatment Coordinator; Mark Woodward, Water Conservation Coordinator.
- Streets, Storm & Traffic Department (SS&T): Don Rainard, Superintendent; Millie Stewart, Aquatic Foreman; Jabier Guardiola, Construction Foreman.