



# PUBLIC WORKS DEPARTMENT



*SEMINOLE COUNTY*  
FLORIDA'S NATURAL CHOICE

# PUBLIC WORKS DEPARTMENT

The Public Works Department provides a comprehensive program of services to manage and maintain the transportation and stormwater infrastructure of Seminole County.

The Public Works Department is comprised of the following 11 programs:

- Capital Projects Delivery Program
- Development Review Engineering Program
- Engineering Professional Support Program
- Facilities Program
- Land Management Program
- Fleet Management Program
- Mosquito Control Program
- Public Works Business Office
- Roads-Stormwater Repair and Maintenance Program
- Traffic Operations Program
- Water Quality Program

## DIVISION HIGHLIGHTS

### ENGINEERING

- Completed the Sterling Park Elementary Sidewalk Rehabilitation Project;
- Repaired and improved Howard Avenue and Canal Street road embankment to prevent future erosion;
- Extended the southbound lane at the intersection of Markham Woods Road and SR 434 by 300 feet to improve traffic flow;
- In partnership with the St. John's River Water Management District (SJRWMD), and the Florida Department of Transportation (FDOT), the Lake Jessup Nutrient Reduction Facility (NuRF) was created to reduce pollutant runoff into Lake Jessup. This project began operation in July and will remove up to 2,137 pounds (82%) of total phosphorus and 4,675 (43%) of total nitrogen per year; and
- Pedestrian Signals with Rapid Rectangular Flashing Beacons were installed along Seminole Trail intersections, including EE Williamson Road, Orange Boulevard, and Markham Road

### ROADS & STORMWATER:

- Staff received and completed 4,275 work orders;
- Nearly 150,000 square feet of damaged sidewalk were removed and replaced;
- Pipelining was completed for 24 pipe segments, totaling 2,931 feet. Major project areas included: Poinciana Road at Albert/Ardmore; Hunter's Trail; Shale Court; Bunker Lane; Frances Drive; Lori Loop Holly Hock Drive; Longbranch Road; Avon Glade Place;

Park Road; and Vihlen Road. A stormwater structure on Springs Villa Road was rehabilitated; and

- Community Service workers provided nearly 5,000 hours of labor, including removing litter from County right-of-ways, sod installation and cleaning curbs.

### TRAFFIC ENGINEERING:

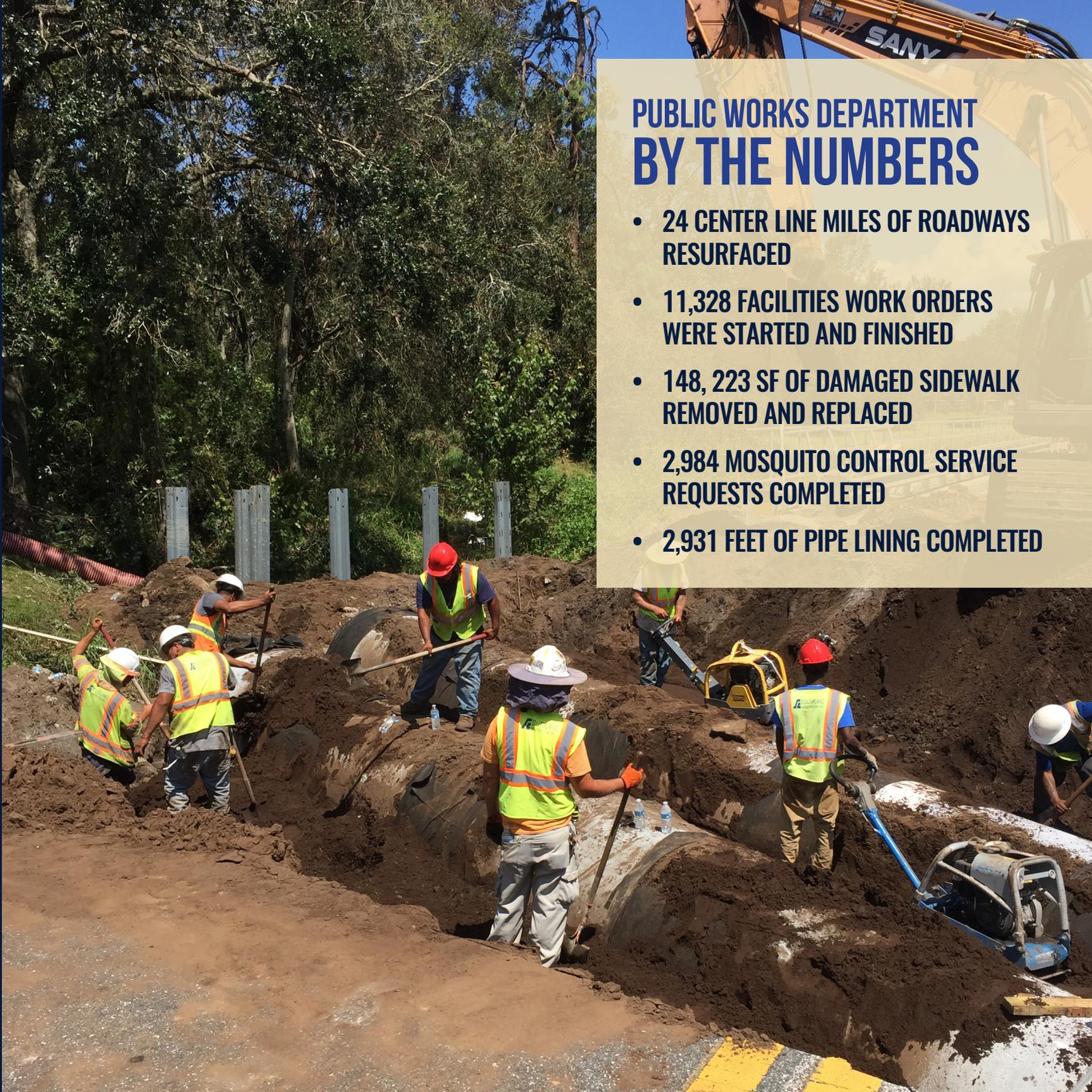
The Traffic Engineering Division continues to improve the safety and flow of traffic throughout the county by working with our regional partners and utilizing state-of-the-art technology. Signal Performance Metrics (SPM), which employ advanced traffic signal controllers to evaluate signal timings and better manage traffic flow along busy arterial roadways, continued to be a focus. Seminole County was the first agency in Florida to initiate this cutting-edge system, which is currently in operation on all 384 signals within the county. Traffic Engineering worked directly with FDOT District 5 to migrate the system for oversight, which will allow the system eventually expand across the District

In partnership with MetroPlan, a master plan of Intelligent Transportation Systems (ITS) was completed for the tri-county region. ITS is an operational system that combines and manages various technologies to improve the operating capabilities of the overall transportation system. ITS activities include technologies such as adaptive signal control, bluetooth travel time readers, incident detection and management, signal performance metrics, and transit signal priority.



# PUBLIC WORKS DEPARTMENT BY THE NUMBERS

- 24 CENTER LINE MILES OF ROADWAYS RESURFACED
- 11,328 FACILITIES WORK ORDERS WERE STARTED AND FINISHED
- 148, 223 SF OF DAMAGED SIDEWALK REMOVED AND REPLACED
- 2,984 MOSQUITO CONTROL SERVICE REQUESTS COMPLETED
- 2,931 FEET OF PIPE LINING COMPLETED



## **TRAFFIC ENGINEERING (CONTINUED):**

A \$12M grant from the Federal Highway Administration was awarded to the region to advance several ITS technologies aimed at improving safety and easing congestion. The County is working with the University of Central Florida and FDOT on various technologies, such as pedestrian/bicycle collision avoidance systems, adaptive signal and train crossing control, real-time multi-modal information and decision making systems, as well as connected and autonomous vehicles.

## **WATERSHED MANAGEMENT:**

### **Lake Management:**

- The Lake Jesup/Sweetwater Creek Project, funded through the Florida Department of Environmental Protection's Black Hammock Grant, allowed for treatment and removal of 125 acres of invasive vegetation and funded design, permitting and construction of the Lake Jesup/Salt Creek Restoration project;
- A SJRWMD cost share grant supported herbicide treatment of 250 acres of invasive vegetation at the Lake Jesup North Shore;
- Eighty-four acres of Spring Lake was treated for in-lake alum through a Municipal Services Benefit Unit;
- Wekiva River Park at Wilson's Landing Park was given canoe access;
- Seven community volunteer lake restoration events took place, including Lake Burkett, Lake Howell, Lake Tuskawilla, Sweetwater Cove Lakes, Soldiers Creek Pond, Buttonwood Pond, and Myrtle Lake;
- The Lake Asher Restoration Project, which included five acres of vegetation and sediment removal, was completed. This project was funded by a legislative appropriations for the Wekiva Basin;
- Sixty-five acres of North Horseshoe Lake were treated for hydrilla;
- In conjunction with the Florida Department of Environmental Protection, citizen activist groups, and commercial interests, measures were added to protect our waterways through management of fertilizer; and
- Three new Aquatic Weed Control MSBU's were adopted, allowing for Seminole County to treat Lake Asher, Grace Lake and English Estates Pond.

## **MOSQUITO CONTROL:**

- Seminole County received \$1.2 million in funding from the State to support Zika mitigation. New equipment utilized for Zika mitigation was added, including large capacity spray tankers, a buffalo turbine larviciding unit and additional fogging units;
- Nearly 3,000 mosquito control service requests were generated and completed;
- Mosquito Control conducted 7,177 larvicide applications;
- Fogging activities covered over 9,100 miles, treating nearly 370,000 acres; and
- In response to abnormally high rainfall amounts occurring in June, aerial services treated over 22,000 acres the evening of August 12. Following Hurricane Irma, aerial services treated over 49,000 acres between two missions.

## **FACILITIES:**

- Facilities Maintenance staff improvements to several county buildings, including: the Lillie Greene Community Center; the Black Hammock Trail bathroom; the Chuluota House, shed, and restroom; the Geneva maintenance building; the Markham Trail bathroom; the Sanlando picnic and tennis area bathrooms; the Softball Complex office; the Sylvan Lake bathroom, maintenance and picnic areas and racquetball courts; the John E. Polk Jail; and select Seminole County Fire Department facilities;
- Parking lot striping was completed at the Criminal Justice Center, Overlook Park, and the Softball Complex;
- Roofing maintenance or replacement was conducted at the Little Greene Community Center, Big Tree Park Pavilion #2, the Juvenile Detention Center, and Fire Station 36;
- Fire alarms were installed at the Little Greene Community Center and at the Seminole County Historical Museum; and
- A series of minor construction projects providing improvements to fire houses, including Fire Station 16, Fire Station 24, and Fire Station 36.

**SERV VOLUNTEERS HELP CLEAN AND RESTORE SEMINOLE COUNTY'S NUMEROUS WATERWAYS**

