

# Engineering and **Public Works**

FY 2018 Programs and Services David Ricks, P.E. **County Engineer** 26 SEPTEMBER 2018

## **Department Overview**

	Budget	Positions
Total Budget	\$52,226,110	440
Total Revenues	(\$13,417,475)	
Total Gas Tax	(\$27,394,000)	
Total Ad Valorem	\$15,414,635	368
Executive Office and Administrative Services Net Ad Valorem	\$2,054,140	19





## **Road and Bridge**

	Budget	Positions
Total Budget	\$22,391,207	187
Revenues and Gas Tax	(\$13,730,454)	
Net Ad Valorem	\$8,660,753	187
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### Road Section

- Annual Resurface / Pathway and Minor Construction Office
- Maintenance
  - 3,500 lane miles of paved roads
  - 40 lane miles of shell rock roads
  - 4 miles of milling roads
  - 190 miles of asphalt pathways
  - 2,250 miles of concrete sidewalks
  - mow 2,500 acres of Road right of way
  - Countywide Stormwater Drainage System
    - North and South Sand
       Transfer Pumping Stations

### Bridge Section

- Bridge Tending
  - Staffs the Bascule Bridges with Bridge Tenders 24 hours a day 7 days a week
- Maintenance
  - 8 Bascule Bridges over the Intracoastal Waterway
  - one Swing Bridge at Point Chosen
  - 304 various types of fixed structures
  - Guardrails
  - Sidewalks/Pathways
  - L-2 Stormwater Pump Station





# Traffic Engineering and Operations

	Budget	Positions
Total Budget	\$22,026,505	132
Revenues and Gas Tax	(\$18,665,369)	
Net Ad Valorem	\$3,361,136	132

- Intelligent Transportation System
  - real time control and monitoring of 850 traffic signals, 166
     CCTV installations and other ITS devices connected over 500 miles of fiber-optic communications network



- Roadside Vendor Program
- Traffic Calming Program
- Annual Pathway Program

- Designing, installing, and maintaining
  - Signalization of more than 1,100 traffic signal devices and over 70 coordinated signal systems
  - Pavement markings
  - Signing





- Traffic Analysis and Performance Standards
  - Major road construction projects
  - Land development
  - Site planning
  - Transportation planning
- Street Lighting
- Traffic Accident Records





### EXISTING ITS INFRASTRUCTURE



## Land Development

	Budget	Positions		FY 2017
Total Budget	\$1,936,828	16	Public Hearing Applications	170
Revenues	(\$1,150,000)		Development Review Office	182
Net Ad Valorem	\$786,828	16	Applications	
Permitting	<ul> <li>Zoning</li> </ul>		Permits Issued	819
<ul> <li>Construction, maintenance</li> </ul>	, Engine	eering review of g applications	Abandonments Reviewed	28
encroachments and landscaping within County maintained road rights of wa			Plats Recorded	50
maintained road rights of w Platting	Aband	loning plats, roads asements; Due	Plats Reviewed for Technical Compliance	53

 Platting and approval of construction plans for residential and commercial subdivisions proposed within unincorporated areas of the County for conformance to current criteria

 Per Article 11, staff has 30 days to review submittals and return to developer





## **Streetscape Section**

	Budget	Positions
Total Budget	\$3,622,150	14
Revenues and Gas Tax	(\$3,070,371)	
Net Ad Valorem	\$551,779	14

- Maintain 72 Irrigation Pump stations and 5 Telemetry control towers.
- Remove over 50 Tons of trash from Public Road and Public Property per year through an annual landscaping contract.
- Maintain a 13 acre tree farm allowing the County to accept tree donations for use in our beautification programs and for tree rehabilitation purposes.



- Maintain 150 miles of beautified median landscaping on County thoroughfare roads.
- Maintain 44 miles of beautified median landscaping on Florida State Highway systems through reimbursable agreements.
- Maintain over 10,700 beautification trees
  - Sequester over 100 tons of Carbon per year
  - Provided the net cooling effect of 85,000 room sized air conditioners operating 20 hours a day.
- Florida Green Building Coalition practices
  - All 72 irrigation pump stations equipped with rain 'cutoff' sensors and are equipped with flow sensors which are monitored and logged for water usage (shallow aquifer withdrawal) and time of operations.
  - Uses reclaimed water for irrigation where available.
  - All Construction Coordinators, Irrigation Techs, Crew Chief and Professionals are trained in "Florida Friendly" Practices.
  - Landscape Architectural and Environmental support for other Divisions and Sections of Engineering Department, as well as ERM and Planning Zoning & Building.

# **Roadway Production**





	Budget	Positions
Total Budget	\$3,002,324	52
Revenues and Gas Tax	(\$3,002,324)	
Net Ad Valorem	\$0	0

 Division has 142 projects which are presently under design, Right-of-Way Acquisition or Construction.

### Five Year Road Program

- Design/Study 63 active projects
- Right-of-way -216 parcels in the acquisition process
- Construction 40 Projects under construction at a cost of \$57 million providing 20 lane miles of additional roadway.

### Sections

- Thoroughfare Roads
- Right-of Way Acquisition
- Land Survey

- Contracts
- Special Projects
- Local Roads

## **Construction Coordination**





	Budget	Positions
Total Budget	\$990,708	20
Revenues and Gas Tax	(\$990,708)	
Net Ad Valorem	\$0	0

- Ensures that County, State, and required standards and specifications are applied and adhered to for the construction of:
  - Thoroughfare roads
  - Bridges
  - Minor street improvements
  - Housing and Economic Sustainability projects
- Monitors construction within County-permitted subdivisions, and within County rights-of-way for compliance with plans, specifications, and permit requirements.

Туре	Number of Projects	Total Budget
Active Construction	19	\$41,821,711
Bid Projects (Upcoming)	7	\$25,210,378
Total	26	\$67,302,089



### FIVE YEAR ROAD PROGRAM ESTIMATED COSTS

•FY 2018	\$60,660,000
•FY 2019	\$95,981,000
•FY 2020	\$71,060,000
•FY 2021	\$42,590,000
•FY 2022	<u>\$43,430,000</u>
AL (FY18- FY22)	<u>\$313,721,000</u>

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### COUNTYWIDE CONSTRUCTION PROJECTS MAP (FY 18)





#### Engineering & Public Works Department

### NORTH COUNTY CONSTRUCTION PROJECTS MAP (FY 18)





### CENTRAL COUNTY CONSTRUCTION PROJECTS MAP (FY 18)





#### Engineering & Public Works Department SOUTH COUNTY CONSTRUCTION PROJECTS MAP (FY 18)

Projects	
1 Atlantic Ave. and Florida's Turnpike	
15 Glades Rd. and Butts Rd.	
30 Lyons Rd., Clint Moore Rd. to N. of LWDD L-39 Canal	
38 Palmetto Park Rd., SW 7th Ave. to SW 5th Ave.	
44 Sandalfoot Blvd./SR 7 over LWDD E-1 Canal	
50 S.W. 3rd. St./SR 7 over LWDD E-1 Canal	
67 Linton Blvd. and S. Federal Hwy.	Windlo Re 2 Windlo Re 2 W Venato
68 Palmetto Park Rd. & Boca Rio Rd.	

# **Engineering Sales Tax Projects**

Bridges \$43.4 m (27) Roads (Resurfacing) \$77.6 m (121) Roads (Restriping) \$9.0 M (many) Pathways \$ 5.0 M (8) Signals & Signal Systems \$ 15.0 M (17) Street Lighting (many) \$ 12.0 M CR 880 Canal Bank Stabilization \$ 5.0 m Belvedere Road Canal Piping \$ 1.0 M Drainage (Pipe Repairs) \$ 3.0 m (4) Drainage (Improvements) \$ 25.0 M (8)

TOTAL \$ 196.0 m



# Engineering Sales Tax for FY 2018

#### Bridge Design

- Wabasso Dr. over LWDD L-2 Canal
- Belvedere Rd. over E-3 Canal
- Prosperity Farms Rd over SFWMD C-17
   Canal

Road Restriping – various locations countywide

**Drainage Pipe Replacements** – various locations countywide

**Streetlighting** (replace high pressure sodium with LED) – various locations countywide

#### Signals

- Blue Heron Blvd & Riviera FS #2
- Boynton Beach Blvd & Seacrest Blvd
- School Zone System upgrade
- Upgrade Video Detection

#### **Road Resurfacing**

- Cannon Gate (residential roads)
- Congress Ave: Lake Ida Rd to Summit Dr
- Congress Ave: Miner Rd to S of Hypoluxo Rd
- Community Dr: Haverhill Rd to Military Trl
- Duda Extension: CR 880 to Gator Blvd
- Military Trl: Hypoluxo Rd to Lake Worth Rd
- Military Trl: South County Line to Palmetto Park Rd
- Northlake Blvd: Military Trl to Beeline Hwy
- Okeechobee Blvd: Sem Pratt Whitney Rd to Royal Palm Beach Blvd
- Lawrence Rd: Boynton Beach Blvd to Lantana Rd
- Randolph Siding Rd: 110<sup>th</sup> to Jupiter Farms Rd
- Old Boynton Rd: Knuth Rd to Congress Ave
- Pratt Whitney Rd: Indiantown Rd to N County Line
- Sam Center Rd: CR 880 to Gator Blvd
- Summit Blvd: Military Trl to Congress Ave
- Golf Rd: Military Trl to Congress Ave
- 2 miles of CR 880
- 2 miles of Browns Farm Rd

