

## **Environmental Services (Engineering)**

#### Goals

To coordinate various engineering services for the City. These services include design and construction of land development and capital improvement projects, construction inspections, infrastructure improvements, traffic studies, flood plain administration, and long-range infrastructure planning. Environmental Services (Engineering) ensures that all applicable federal, state, and local regulatory requirements associated with the delivery of these services are adhered to.

#### Objectives

Continue to evaluate the condition of all of the public roads in the City and schedule for milling and resurfacing of the roads as funds permit.

Continue the computerized mapping of all private sewer-pumping stations throughout the City.

Continue to clean the drainage system as needed for all projects older than 15 years.

Continue doing all necessary inspections and applications for the National Pollutant Discharge Elimination System (NPDES) permit for the City.

#### **Major Functions and Activities**

Environmental Services (Engineering) deals with construction activities of residential, commercial, industrial, and other subdivisions in the City for the design and construction of water and sewer infrastructure, roads, parking lots, grading and drainage systems, waterways, blasting, walkways, street lighting, traffic control devices, landscaping, and other related activities.

All design and construction plans for regulated engineering projects are submitted to the Division by developers or builders seeking plan approval and permitting. Once such plans are approved, construction permits are processed.

Inspection, documentation, and approval for all construction activities of all water, sewer, paving, and drainage systems, and landscaping throughout the City to ensure that the work done is executed in compliance with approved plans and code requirements.

Responsible for the design, bidding process, construction supervision, and payments for all municipal projects funded by the City including water and sewer infrastructure, roads, drainage systems, sidewalks, and landscaping.

Investigation and resolution of concerns received from residents related to utilities, drainage problems, sidewalks, roads and traffic engineering, and landscaping, etc.

Issuance of Flood Insurance Elevation Certifications. Provide related information to the public and insurance companies.

Act as a liaison with other governmental engineering and regulatory agencies.

Produce and maintain various mapping and plan systems including, Computer-Aided Drafting Design (CADD) maps, as-built drawings, utility atlas and field drawings, and general engineering plans associated with various elements of the City infrastructure.

Provide for the field location of the City-owned underground infrastructure per the requirements of the Sunshine One-Call System as mandated by Florida State Statutes.

Provide engineering support services to other divisions and departments within the City.

#### **Budget Highlights**

Maintenance activities include the inspection and cleaning of the drainage systems on an as-needed basis.

Continue to generate and update computerized base maps of new projects, the drainage system, and private sewer lift stations to ensure that these important facilities operate at their design parameters.

Continue to perform traffic studies as requested by residents and by the Police Department.

Conduct inspections of private developments for compliance with signage and marking requirements of the traffic enforcement agreements that the City has signed with these developments.

Inspections of all construction projects to ensure that they meet the sedimentation and erosion control requirements of the NPDES permit for the City.

#### 2009-10 Accomplishments

Completed plans and permits for and oversaw the milling and resurfacing of Dykes Road between SW 3rd St. and NW 12th St. and the milling and resurfacing of the following roads:



### **Environmental Services (Engineering)**

- NW 6th St. from NW 98th Ave. to NW 99th Way
- NW 4th St. from NW 98th Ave. to NW 99th Way
- NW 3rd St. from NW 98th Terr. to NW 99th Way
- NW 98th Terr. from NW 3rd St. to NW 4th St.
- NW 99th Way from NW 3rd St. to NW 6th St.
- NW 7th St. from West railway line
- NW 98th Ave. to the cul-de-sac

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- NW 111th Terr. from NW 17th Court to NW 18th Pl.
- NW 111th Ave. from NW 17th Court to NW 18th Pl.
- NW 17th Ct. from NW 111th Ave. to NW 111th Terr.
- NW 18th Pl. from NW 111th Ave. to NW 111th Terr.

Continued to repair city sidewalks, construct new sidewalks and provide pedestrian ramps at various locations throughout the City.

Continued to inspect street lights at night to ensure proper operation throughout the City.

Continued to inspect commercial parking lots throughout the City to ensure compliance with the parking lot maintenance ordinance.

Continued to operate the tree removal program to ensure compliance with the recently modified landscape ordinance.

Completed the construction of the sidewalks on NW 196th Avenue and Pembroke Road authorized by the \$535,000 traffic enhancement stimulus grant.

Completed the construction of the parking lot for Studio 18 in the Pines artist colony at Senator Howard C. Forman Human Services Campus.

Completed the construction of the dual north bound left turn lanes at Pines Boulevard and Hiatus Road.

# Environmental Services (Engineering) Performance Measures <sup>8-5</sup>

Indicator	2007-08		2008-09		2009-10	2010-11
	Actual	Goal	Actual	Goal	Goal	Goal
Outputs						
Permits issued	180	100	101	200	100~	100
Linear feet of traffic guardrail installed	100	300	0	300	200~	0~
Linear feet of sidewalk replaced	17,787	2,500	5,250	6,000	6,000	5,000
Linear feet of curbing installed +	0 *	500	0	1,000 ^	1,000	0~
Inspections conducted	2,872	7,000	2,952	7,000	3,000~	3,000~
Utility location tickets processed	5,856	7,000	4,950	7,000	5,000~	5,000~
Effectiveness						
% of projects designed, bid, and constructed on time and on budget	100%	100%	100%	100%	100%	100%
% completion of the computerized base map for the drainage system in the eastern portion of the City	70%	70%	70%	80%	70%	75%
Efficiency						
Inspections conducted per Engineer Inspector	2,909	1,550	1,240	1,200	1,200	1,200

+ Output reflects new curbing installed, which is not needed as much as replacement of damaged sidewalks.

^ Based on one to two large jobs per year.

 $\sim$  The reduced fiscal year 2009-10 and 2010-11 Output Goals reflect a combination of limited activity in new construction and budgetary constraints.

## Environmental Services (Engineering) - Expenditure Summary



Expenditure Category	2007-08 Actual	2008-09 Actual	2009-10 Budget	2010-11 Budget
Personnel Services	notual	Notuci	Dudget	Duuget
Salary	441,521	387,296	367,946	198,245
Benefits	274,351	200,324	201,336	127,840
Personnel Services Subtotal	715,872	587,620	569,282	326,085
Operating Expenses				
Other Contractual Services	4,453	4,547	26,962	86,994
Travel Per Diem	-	-	250	-
Communication and Freight Services	604	352	500	1,000
Rentals and Leases	141	124	500	500
Repair and Maintenance Services	13,382	22,575	22,500	22,500
Office Supplies	3,587	1,969	2,500	3,000
Operating Supplies	20,702	12,425	12,222	14,222
Publications and Memberships	-	250	128	128
Operating Expenses Subtotal	42,868	42,242	65,562	128,344
Total	758,740	629,862	634,844	454,429

Position T	itle	2007-08 Actual	2008-09 Actual	2009-10 Budget	2010-11 Budget
12189 Landsca	ape Technician	2	1	-	-
12500 City Eng	gineer	0.5	0.5	0.5	-
12597 Supervi	sor Of Landscape Service	2	-	-	-
12667 Chief Er	ngineering Inspector	1	1	1	1
12679 Clerical	Spec I	1	-	-	-
12770 Enginee	er Inspector	2	2	1	1
12774 Enginee	er	-	-	-	0.5
12831 CADD C	perator	1	-	-	-
13681 P/T Cler	rk Spec II	1	-	-	-
Total	Full-time	9.5	4.5	2.5	2.5
	Part-time	1	-	-	-