

ENGINEERING DEPARTMENT

ADMINISTRATION

Engineering
Services/
Transportation

Engineering
Tech Services

Engineering
Services/
Stormwater

Field Services

Real Estate

Engineering
Services/
Utilities

ENGINEERING DEPARTMENT SUMMARY

MISSION STATEMENT

The primary mission of Engineering is to provide a well-designed, high-quality community through development and implementation of policies, standards, ordinances, and infrastructure. To accomplish this mission, we will be responsive, innovative, professional, and will strive for excellence in delivery of service to the public.

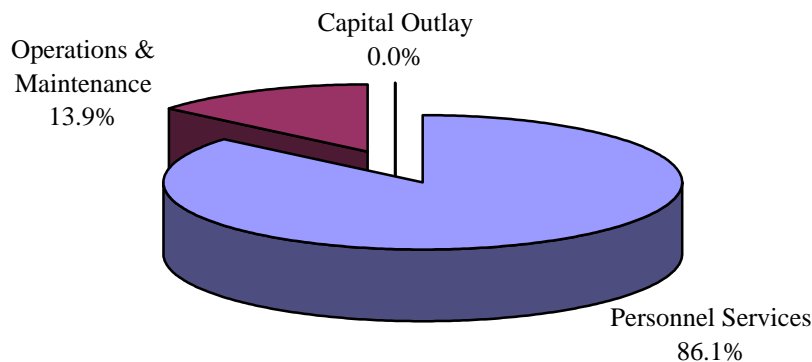
DIVISIONS WITHIN ENGINEERING

- Engineering Services/Transportation
- Engineering Tech Services
- Engineering Services/Stormwater
- Engineering Services/Utilities
- Development Inspections
- Survey/Real Estate

OTHER DEPARTMENTS CONTRIBUTING TO ENGINEERING

- Administration
- Finance
- Fire
- Technology Services
- Parks, Recreation, and Cultural Resources
- Police
- Public Works/Utilities
- Legislative

ENGINEERING DEPARTMENT FY 2005 BUDGET BY CATEGORY



ENGINEERING DEPARTMENT

Additional information about the Engineering Department may be obtained by calling Tim Bailey, P.E., Director of Engineering, at (919) 469-4030, through e-mail at tim.bailey@townofcary.org or by visiting the Town's website at www.townofcary.org.

TOWN OF CARY GOALS AND INITIATIVES

Town Focus Areas	Focus Area I: Community Planning					Focus Area II: Infrastructure				Focus Area III: Financial Condition			Focus Area IV: Municipal Services			
Town Goals	Achieve a well-planned community using innovative and proactive planning approaches and techniques.					Ensure that roads, water and wastewater facilities, parks, and other infrastructure exists for the existing citizens and for the future needs identified in the comprehensive plan.				Achieve a stable and strong financial position by accurately estimating, prudently allocating, and managing financial resources.			Achieve a high level of service to the citizens in a prompt, reliable, responsive, and cost-effective manner.			
Town Initiatives (pages 2 and 3 of this document contain full descriptions of each Town Initiative)	Growth Management	Long Range Water Resources	Housing Program	Comprehensive Planning	Land Use Plan	Environmental Concerns	Infrastructure and Level of Service Standards	Fiscal Plan	Water, Wastewater, Transportation Infrastructure	Broad Band Technology Services	Long Term Financial Plan	Performance Measurement	Short Term Financial Planning	Review Operations	Cost Consciousness and Sustained Service Provision	Public Involvement
Departmental Goals and Initiatives	1,2 3,4 5	1, 2, 5	4	1, 2, 3 3	2, 3, 4	1,2 3,5	1,2,3, 5	1,5	1,2,3 4,5	1	1,2, 4		1,2,4	2,3	1,2,4	1,3 4

DEPARTMENTAL GOALS AND INITIATIVES

Capital Improvements Projects

1. Provide or coordinate design, project management and construction administration services for a majority of the Town's capital improvements projects, including streets, sidewalks, traffic signals, water distribution system projects, sanitary sewer collection system projects, treatment plants, parking lots, buildings and parks.

Engineering Studies

2. Address community issues related to public infrastructure problems beyond routine maintenance with outcomes ranging from overall policy changes to unique solutions.
3. Examples of investigations related to past development activities include neighborhood/cut-through traffic issues, traffic signal studies, flooding problems, sight distance, and roadway safety.

Development Activities

4. Involves planning, review and inspection for water, sanitary sewer, transportation, and stormwater systems through implementation of standard specifications or master plans.
5. Includes a range of issues such as floodplain management, street lighting, development agreements and the maintenance of infrastructure records.

FY 2004 ACCOMPLISHMENTS

- Davis Drive – Completed design, permitting, property acquisition and bidding. Began construction.
- Began construction of the North Cary Water Reclamation Facility.
- Began construction of several projects which convey wastewater to the Durham County Water Reclamation Facility.
- Completed annual projects for water line rehabilitation, sewer line rehabilitation, PW/UT manhole lining, sidewalks, street improvements, and sewer line video assessments.
- Led the effort to reduce impact fees.
- Completed a bike lane plan and marked several miles of bike routes.
- Began construction of the Speight Branch Interceptor and Greenway project.
- Designed several utility plans for annexed areas.
- Began construction of NW Maynard Road widening.
- Updated Standard Specifications and Details.
- Began a Stormwater Quality Sampling Program.
- Completed a Stormwater Inventory of central part of Town of Cary.
- Completed construction of Louis Stephens and Morrisville Parkway - Phase I.
- Managed many construction projects such as Town Hall Expansion. Sears Farm Park, Traffic Signal System Project.
- Completed the Wastewater Master Plan and began the Water Quality Study.
- Started design of the West Cary Regional Pump Station.
- Purchased over half of the property needed for the Town Center Area Plan (TCAP) Park.
- Began construction of Panther Creek High School utilities.
- Completed design for McCrimmon Parkway Extension.
- Acquired 90 properties for Tryon Road Widening - Phase I.

KEY PERFORMANCE OBJECTIVES

- Ensure project bids received are within 5% of the engineer’s post-design estimate.
- Ensure that final construction cost of capital improvements projects is within 5% of the bid cost for items in the original scope of work.
- Ensure total project cost is within 15% of the original budget.
- Resurface 3% of Town streets annually.
- Begin design on all projects the same fiscal year funding is allocated.
- Construct 15,000 feet of sidewalk annually.

KEY PERFORMANCE MEASURES

<u>Performance Measure</u>	<u>Actual FY 2003</u>	<u>Estimated FY 2004</u>	<u>Projected FY 2005</u>
Engineer’s post-design estimate is within 5% of bid prices received	78	85	95
% of projects with change orders less than 5%	65	85	95
Pre-design budget estimate is within 15% of total project cost	60	75	75
% of streets resurfaced	3.1	2.3	1.0
% of CIB* projects started design within FY funded	86	90	70
Feet of sidewalk constructed	31,300	9,000	5,000

* CIB refers to the Capital Improvements Budget

KEY WORKLOAD INDICATORS

<u>Workload Indicator</u>	<u>Actual FY 2003</u>	<u>Estimated FY 2004</u>	<u>Projected FY 2005</u>
Number of bids	23	20	15
Number of CIB projects completed	19	20	10
Number of miles resurfaced/number of miles maintained	10.5/339	8/345	3.5/350
Number of Engineering CIB projects funded	49	56	29
Value of Engineering projects completed	12,000,000	20,000,000	43,000,000
Value of bids awarded	65,000,000	40,000,000	50,000,000
Value of Engineering CIB projects funded	43,230,722	80,000,000	18,500,000
Value of street resurfacing	2,500,000	1,470,000	500,000
Number of development plans reviewed	70	100	140
Number of development plans constructed	60	100	130
Number of properties acquired	98	200	300

ACTIVITY HISTORY

Fund Number: 10-5500					
<u>Activity</u>	<u>Actual FY 2001</u>	<u>Actual FY 2002</u>	<u>Actual FY 2003</u>	<u>Estimated FY 2004</u>	<u>Budget FY 2005</u>
Personnel Services	\$2,474,458	\$2,728,106	\$3,062,418	\$3,540,381	\$3,705,889
Operations and Maintenance	\$712,113	\$610,573	\$466,820	\$639,493	\$598,922
Capital Outlay	\$73,258	\$56,597	\$31,312	---	---
Total	\$3,259,829	\$3,395,276	\$3,560,550	\$4,179,874	\$4,304,811
Authorized FTEs	38	51	51	52	53

* Development Review division was divided up between Planning Administration and Engineering as of FY2001 which explains such a large increase in expenses shown here between FY2000 and FY2001.

SIGNIFICANT BUDGET AND SERVICE LEVEL CHANGES BEYOND CURRENT LEVELS

- Hire two positions to begin operation of the traffic signal system.
- Add a large format copier, scanner, plotter to enhance management of large plans, as well as provide electronic conversion capability.