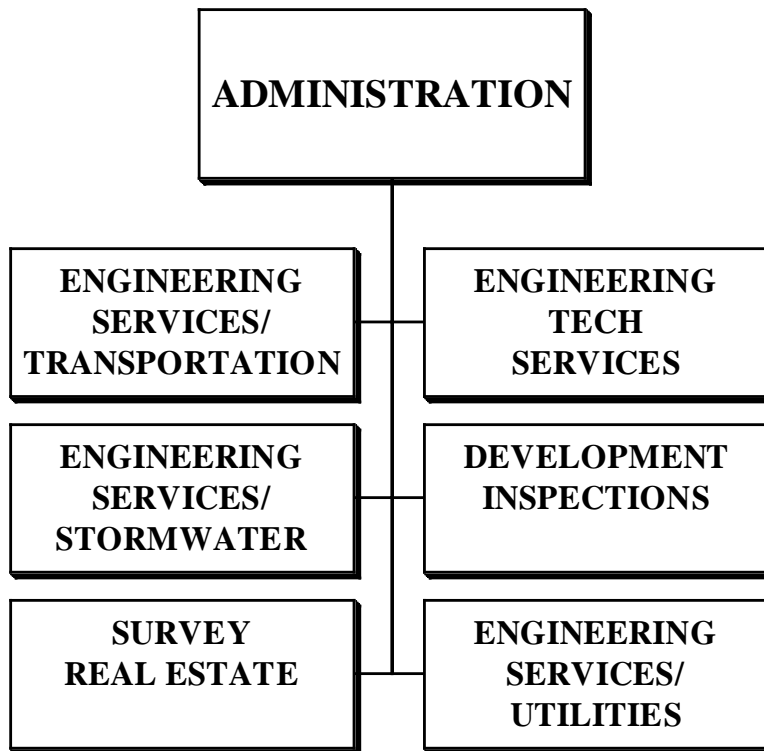


ENGINEERING DEPARTMENT



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.

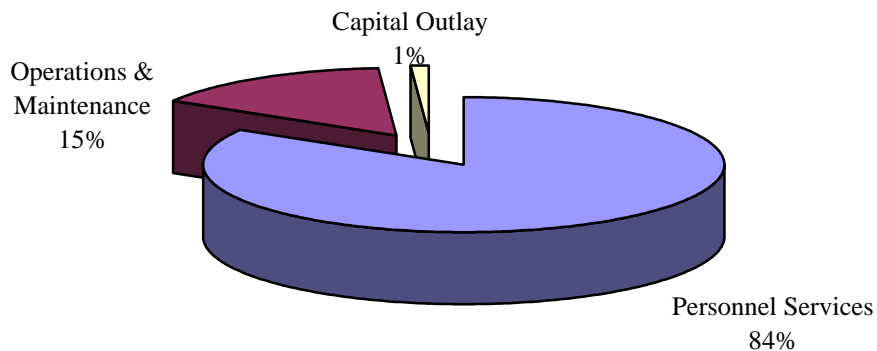
DIVISIONS WITHIN ENGINEERING

- 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 2003 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 or through e-mail at tbailey@ci.cary.nc.us.

PROGRAM DESCRIPTIONS

Capital Improvements Projects

- Provides or coordinates 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

- Addresses community issues related to public infrastructure problems beyond routine maintenance with outcomes ranging from overall policy changes to unique solutions.
- 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

- Involves planning, review and inspection for water, sanitary sewer, transportation, and stormwater systems through implementation of standard specifications or master plans.
 - Includes a range of issues such as floodplain management, street lighting, development agreements and the maintenance of infrastructure records.
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FY 2002 ACCOMPLISHMENTS

- Designed, bid and began construction of the North Cary Water Reclamation Facility Expansion.
 - Completed the Cary/Apex Water Treatment Plant Expansion to 40 MGD.
 - Completed Walnut Street Realignment and Widening.
 - Completed SE Maynard Road Widening.
 - Completed design of Davis Drive Widening.
 - Completed construction of two elevated water storage tanks and one ground storage tank.
 - Completed Thomas Brooks Park Phase I.
 - Completed the Total Life Center.
 - Began construction of Town Hall Expansion.
 - Completed annual projects for street resurfacing, sidewalks, water and sewer rehabilitation, and traffic calming.
 - Completed the Walnut Street Corridor Study.
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KEY PERFORMANCE OBJECTIVES

- Ensure project bids received are within 5% of the engineer's post-design estimate.
 - Ensure that final construction cost of capital improvement 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.
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KEY PERFORMANCE MEASURES

<u>Performance Measure</u>	<u>Actual FY 2001</u>	<u>Actual FY 2002</u>	<u>Projected FY 2003</u>
Engineer's post-design estimate is within 5% of bid prices received	36	71	80
% of projects with change orders less than 5%	76	85	80
Pre-design budget estimate is within 15% of total project cost	46	62	70
% of streets resurfaced	2	2	2.5
% of CIB* projects started design within FY funded	63	70	80
Feet of sidewalk constructed	31,200	11,300	12,000

* CIB refers to the Capital Improvements Budget

KEY WORKLOAD INDICATORS

<u>Workload Indicator</u>	<u>Actual FY 2001</u>	<u>Actual FY 2002</u>	<u>Projected FY 2003</u>
Number of bids	22	17	20
Number of CIB projects completed	12	13	20
Number of miles resurfaced/number of miles maintained	7/320	7/332	7/340
Number of Engineering CIB projects funded	51	47	50
Value of Engineering projects completed	37,194,500	71,500,000	30,000,000
Value of bids awarded	15,400,000	18,000,000	30,000,000
Value of Engineering CIB projects funded	42,100,000	75,000,000	60,000,000
Value of street resurfacing	929,000	975,000	1,020,000
Number of development plans reviewed	60	86	90
Number of development plans constructed	20	85	90
Number of properties acquired	N/A	103	150

ACTIVITY HISTORY

Fund Number: 10-5500					
<u>Activity</u>	<u>Actual FY 1999</u>	<u>Actual FY 2000</u>	<u>Actual FY 2001</u>	<u>Estimated FY 2002</u>	<u>Budget FY 2003</u>
Personnel Services	\$934,195	\$1,159,032	\$2,474,458	\$2,907,409	\$3,047,234
Operations and Maintenance	\$156,626	\$192,274	\$712,113	\$695,611	\$556,620
Capital Outlay	\$20,679	\$187,280	\$73,258	\$57,912	\$43,309
Total	\$1,111,500	\$1,538,586	\$3,259,829	\$3,660,932	\$3,647,163
Authorized FTEs	18	29	38	51	53

SIGNIFICANT BUDGET AND SERVICE LEVEL CHANGES BEYOND CURRENT LEVELS

- With the open space effort, additional property acquisition will be required. The acquisition section of Engineering is already extremely busy with the increase in capital projects over the years. A Real Estate Specialist position is budgeted to purchase property for the open space program, park land, and greenways.
 - A Survey Technician position is budgeted in the survey unit. Two crews rarely can operate independently and efficiently due to employee turn over and allowed absence for vacation and sick leave. This additional position will allow both two-person crews to produce each day.
 - Phase III of a three-phase project will begin to move towards a paperless office for the Engineering Department. Phase III will scan large documents received.
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