

# Professional Engineer Development Program

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Counties Annual Conference  
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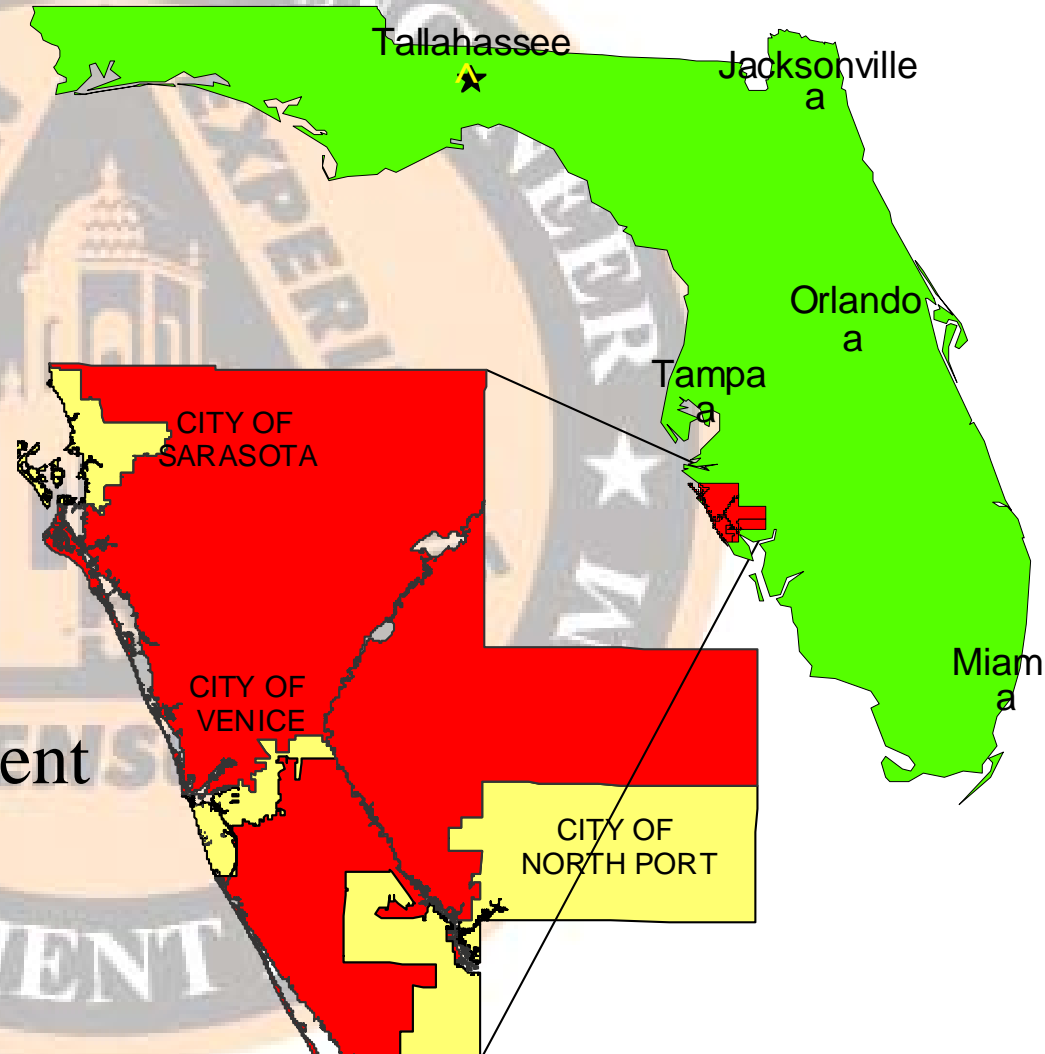
# Sarasota County

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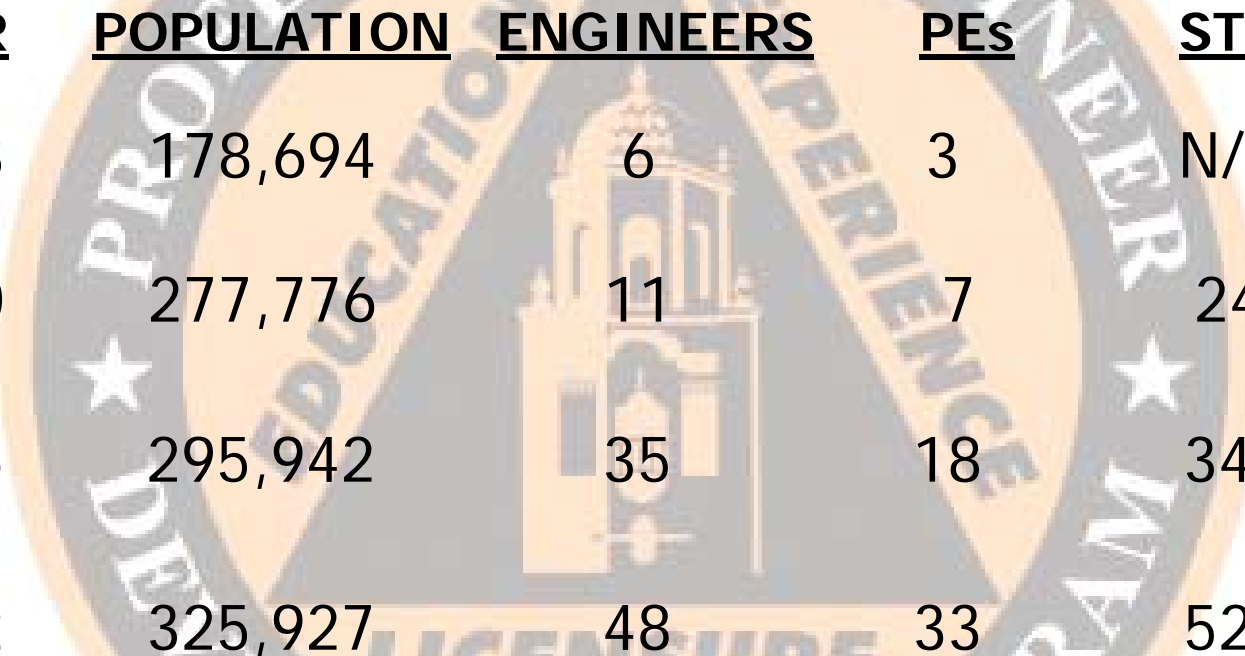


# Sarasota County, FL

- Location
- Demographics
- Sarasota County Government
- Public Works Business Center
- The Professional Engineering Development Program (PEDP)



# Public Works Staffing

The background of the slide features a large, faint watermark of the Professional Engineer Seal of the State of South Carolina. The seal is circular with an orange border. Inside, there is a blue triangle containing a white illustration of a classical building with columns and a dome. The words "PROFESSIONAL ENGINEER" are written in a circular path around the triangle, and "LICENSURE" is written below it. The words "DEVELOPMENT PROGRAM" are written along the bottom arc of the seal.

<u>YEAR</u>	<u>POPULATION</u>	<u>ENGINEERS</u>	<u>PEs</u>	<u>STAFF</u>
1978	178,694	6	3	N/A
1990	277,776	11	7	245
1995	295,942	35	18	349
2002	325,927	48	33	523

# Historical Information



- Flooding, Population, and Development Issues 1987-1993
- 1991 - Dr. John C. Goodknight, PE, PhD Transportation Director
  - Recognized the County needed additional staffing and professionalism to provide service to citizens
  - Emphasis on developing internal organizational growth and development
- Heightened emphasis on infrastructure concerns after the flooding of over 200 homes in 1992

# Action Plan

- **Objective**: Create an organization where the leadership and talent necessary for sustainability would be from internal staff rather than relying on external factors. Focusing on **Licensure** through **Education** and **Experience**.

## **Obstacles**

- Positions for additional engineering staff
- Human Resources, Administration
- Recruiting staff

## **Solutions**

- ✓ Reclassification of open positions for Engineers
- ✓ Strong emphasis as part of a vision to better diversity.
- ✓ Recruitment from state universities

# Acceptance

- 14 successful Graduates: 12 still employed with Sarasota County.

## Excitement + Enthusiasm = Excellence

- Skills that create a dynamic program, committees, self government, open doors
- Developing a professional relationship. (Respect, Reliability, Responsibility)
- Spirited motivation by assigning tasks in increasing difficulty



## Commitment

- Upper management support
- Funded position for entire program, Non-competitive performance incentives.
- Involvement from graduates with several currently in management

# Professional Engineer Development Program

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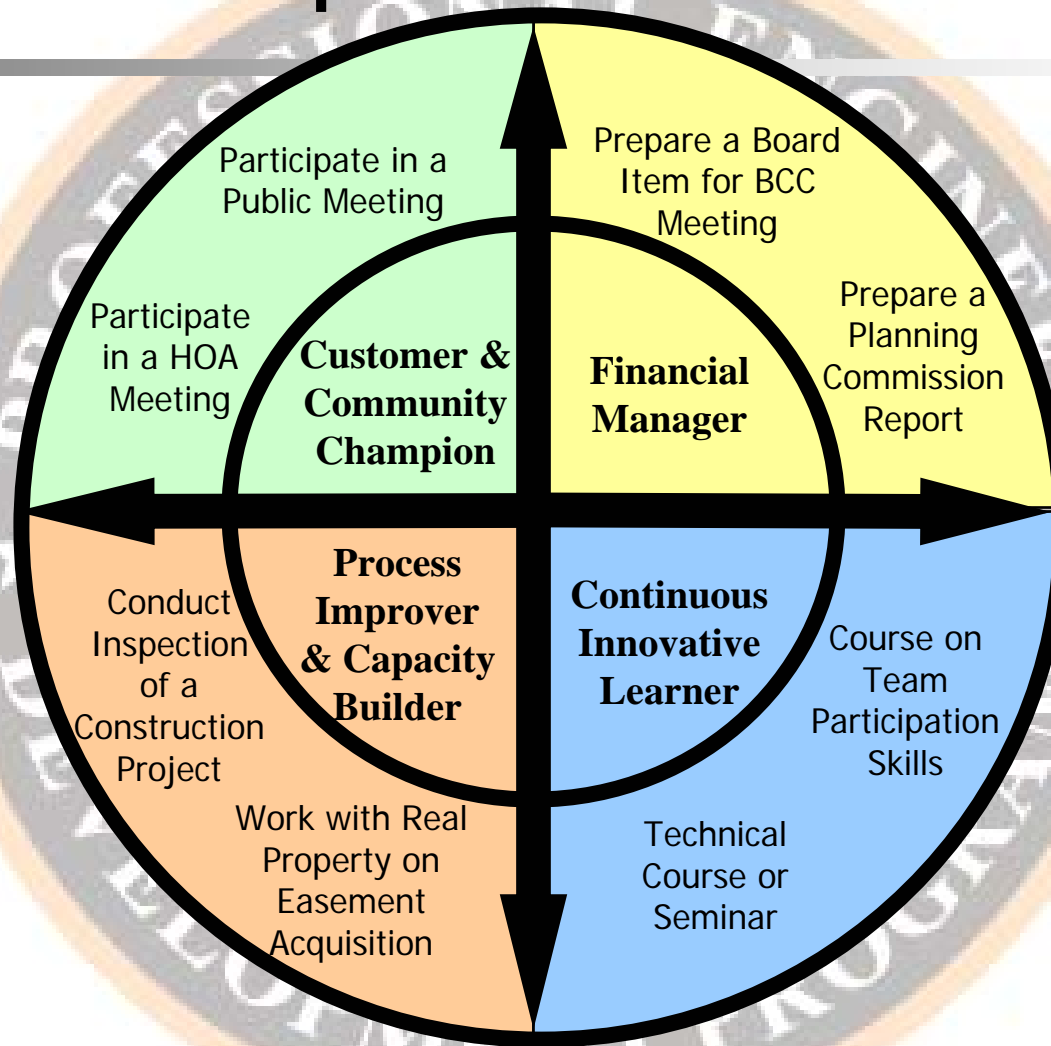
## Overview

- Core Competencies
- Checklist
- Rotations
- Promotions
- Benefits
- Recruitment
- Community Involvement
- Awards
- Presentations
- Observations

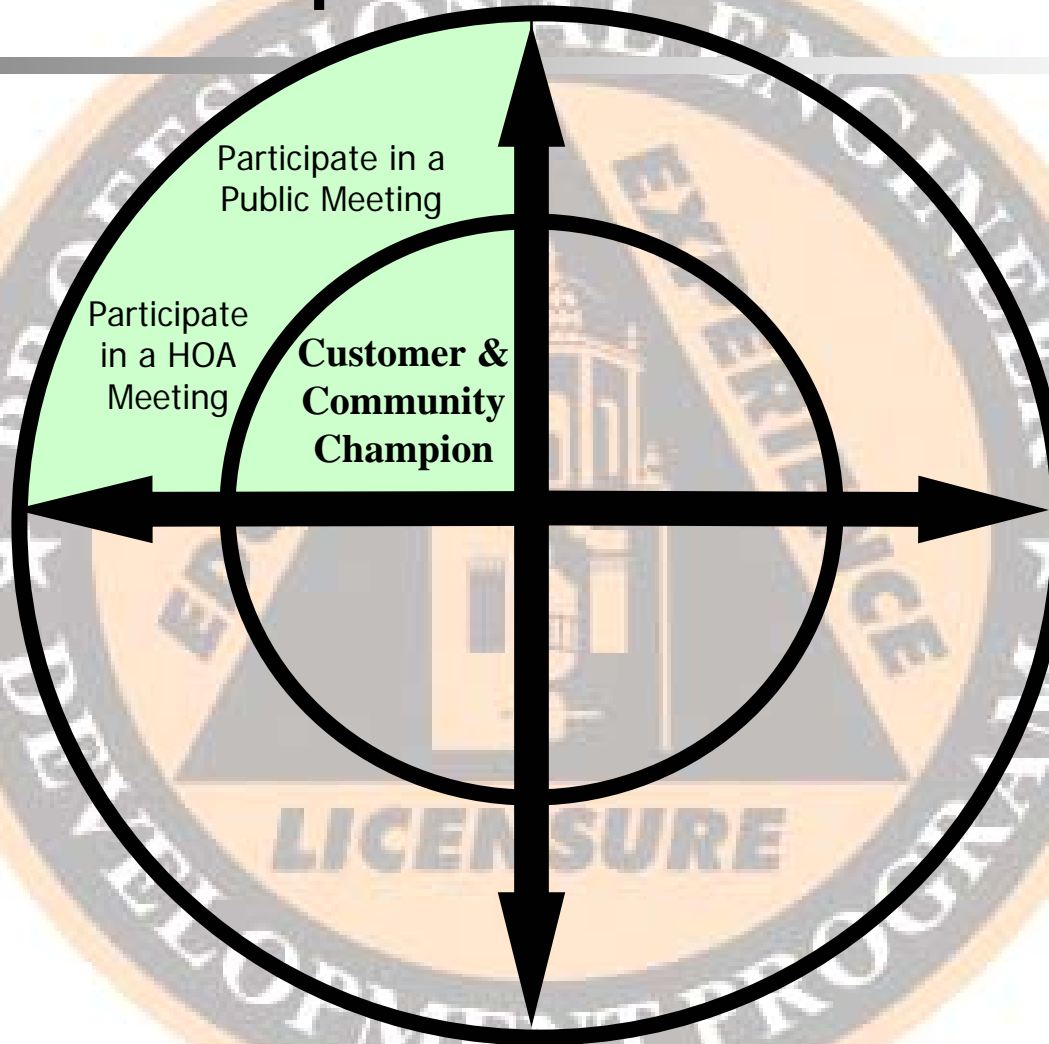


# Core Competencies

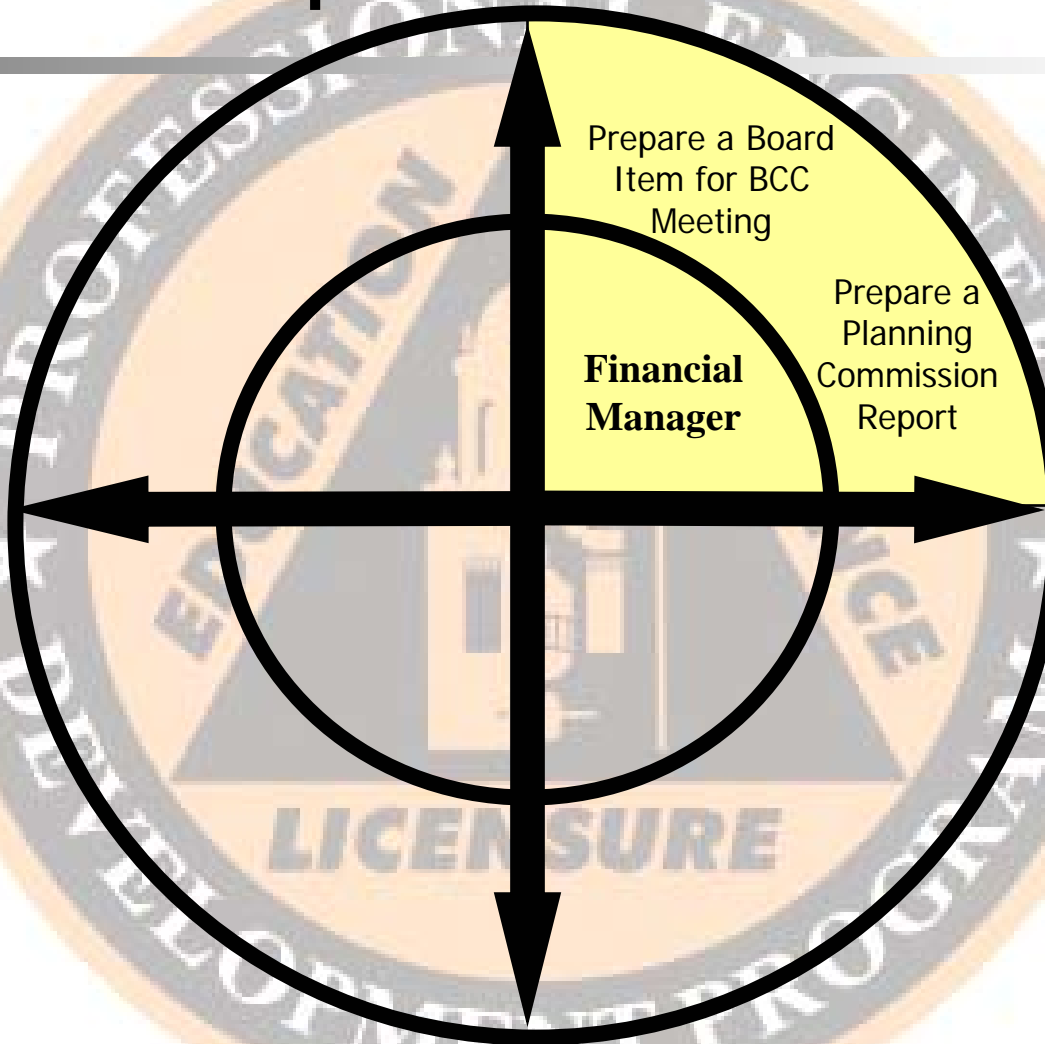
Reflects  
Sarasota  
County's Core  
Competencies



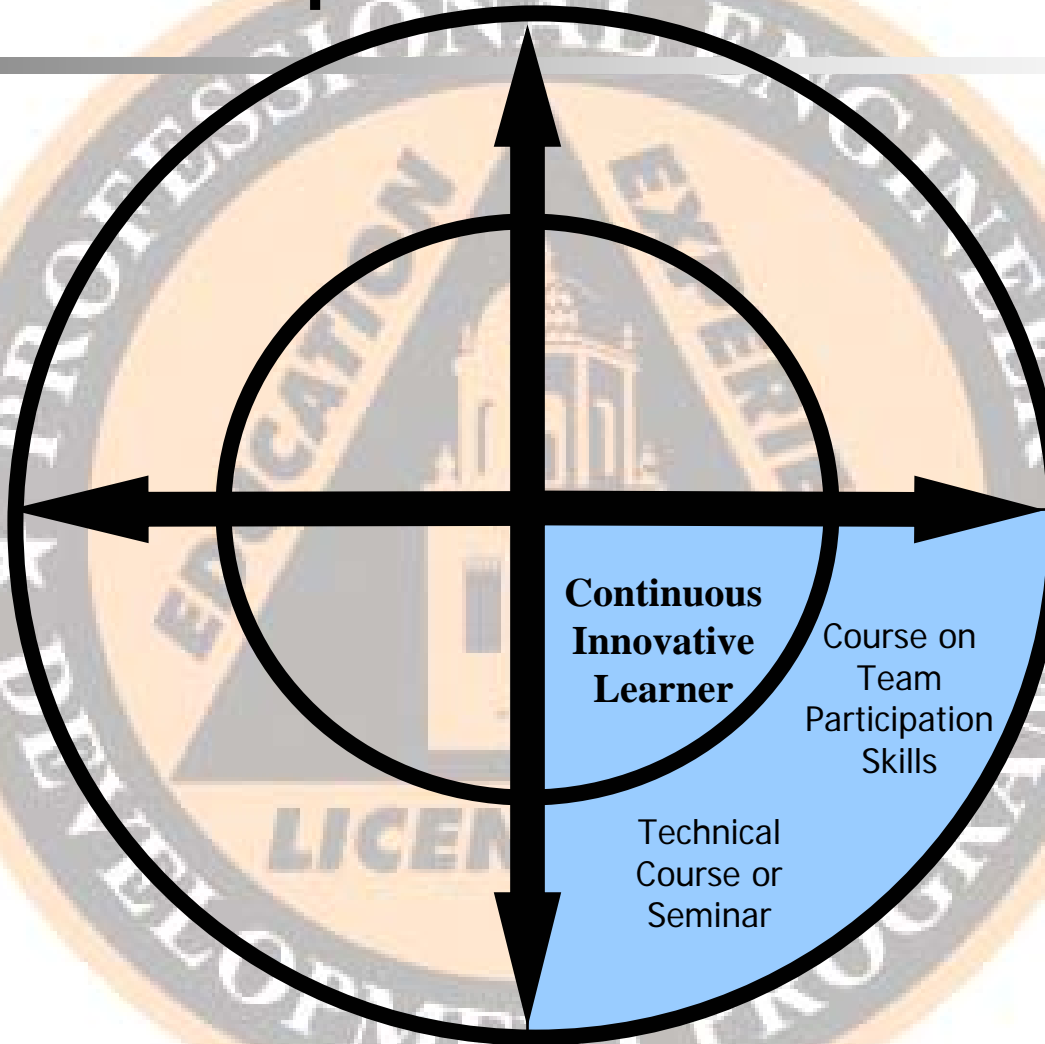
# Core Competencies



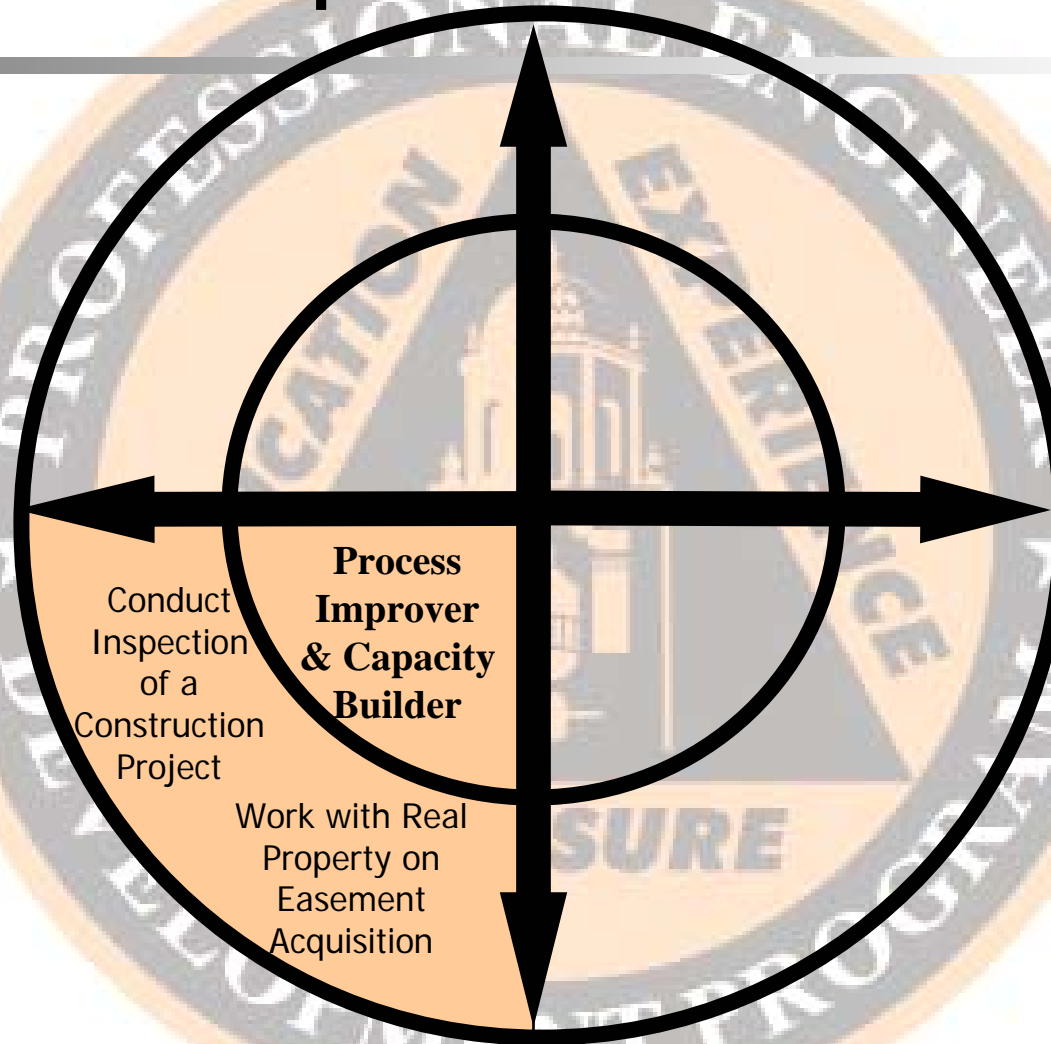
# Core Competencies



# Core Competencies



# Core Competencies



# Checklist

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Engineer Trainee Phase - 24 Months Maximum					Senior Engineer	
Time (months)	0-6	6-12	12-18	18-24	R	R
Initial	2/23/2004	2/23/2004	2/23/2004	2/23/2004	R	R
Final					Date: _____	Date: _____
	Initial: _____	Initial: _____	Initial: _____	Initial: _____	Initial: _____	Initial: _____
Courses	T	T	T	T	T	T
	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____
	Initial: _____	Initial: _____	Initial: _____	Initial: _____	Initial: _____	Initial: _____
	T	T	T	T	T	T
	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____
	Initial: _____	Initial: _____	Initial: _____	Initial: _____	Initial: _____	Initial: _____
	EIT License: _____			Promoted to Senior: _____	T	PE License: _____
	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____
	Initial: _____	Initial: _____	Initial: _____	Initial: _____	Initial: _____	Initial: _____

R-1 Writing Skills  
 R-2 Presentation Skills  
 R-3 Customer Service Skills  
 R-4 Team Participation Skills  
 R-5 Technical Service  
 R-6 Ethics  
 T-1 Work with Survey/Mapping on a GIS Map  
 T-2 Conduct an Inspection of a Construction Project  
 T-3 Conduct an Inspection of a Capital Maintenance Project  
 T-4 Prepare a Board Item and Attend a BCC Meeting  
 T-5 Prepare a Planning Commission Report and attend a Planning Commission Mtg  
 T-6 Participate in an Advisory Committee  
 T-7 Participate in a Design  
 T-8 Participate in a Public  
 T-9 Conduct an inspection  
 T-10 Participate in a Home  
 T-11 Attend a Meeting  
 T-12 Review a project and  
 T-13 Permit a Project from  
 T-14 Work with Real Prop  
 T-15  
 T-16  
 T-17  
 T-18 Other acceptable item

- On-the-Job and Formal Training
- Divided into two "Phases", Trainee and Senior
- First two years more intensive
- Trainee tasks and courses must be complete for advancement to Senior
- Example: 2-Years of Employment, must have 9 (of 12) tasks and 3 (of 5) courses to receive a pay increase and promotion

# Checklist Training

## On-the-Job Training

- Items for various rotation assignments
- Participants are actively involved in the tasks
- 12 out of 16 items must be completed for promotion to Professional Engineer
- Encourages development of skills in Project Management, Design, Permitting and Construction Inspection
- Develops people skills, networking, interagency communication and technical expertise



# Checklist Training (con't)

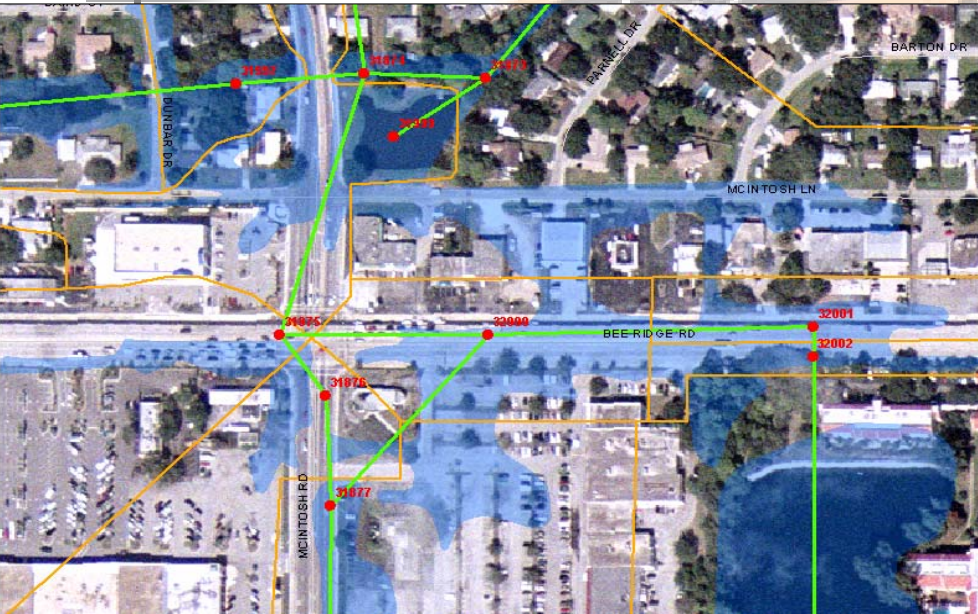
## Formal Training

- Courses offered by Sarasota County's Organizational Employee Development department
- Encourages participation in technical seminars
- Requires courses in Writing, Presentation, Customer Service and Team Participation

# Checklist Implementation

- Employees receive checklist from PEDP Committee when hired
- Merit increases are based on checklist milestones at 6, 12, 18, 24, 36 & 48 months
- Program director must approve each completed task

# Available Rotations



## Stormwater Management

- Watershed modeling
- CIP design management
- Infrastructure and environmental planning

- ## Drainage Operations
- Customer service requests
  - Design & construction of stormwater maintenance projects



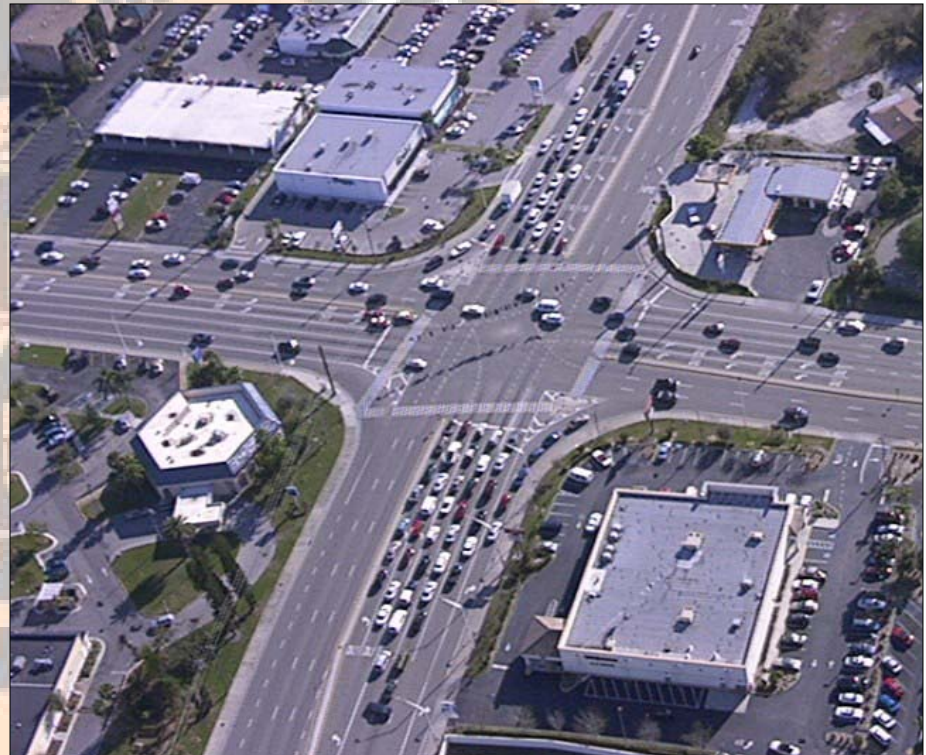
# Available Rotations

## Transportation Planning

- Rezone & special exception reports
- Plat/street vacations
- Analyze/perform traffic impact studies

## Traffic Operations

- Provide support for O&M of traffic control devices
- Evaluate crash/count data,
- Review all traffic plans for local & state compliance



# Available Rotations

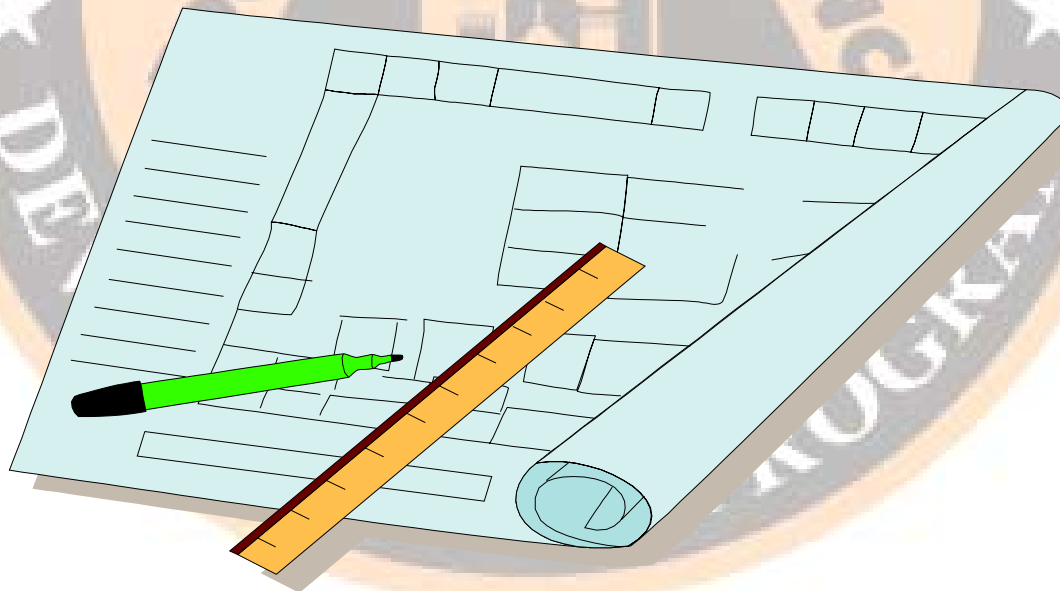
## Developmental Services

### Transportation Planning

- Reviews projects for access management & adequacy of existing/proposed traffic facilities

### Stormwater

- Reviews projects for water quality & quantity and the function of the 100yr floodplain



# Available Rotations



## Road & Bridge

- Structure inspection, repair & maintenance
- Project design & construction management

## Road Program

- Manage design and construction of road CIP projects

# Promotions

## Engineer Trainee

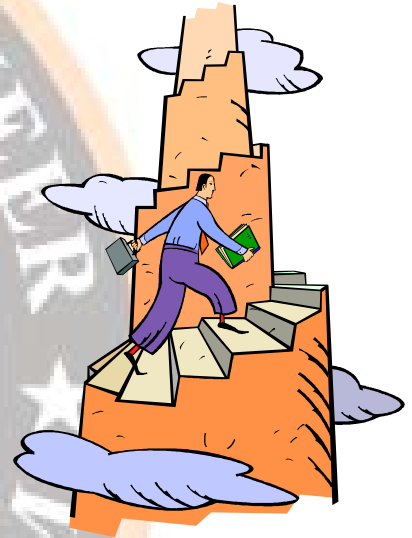
- 6-month merit increases for first 18 months
- Must pass E.I. Exam (Condition of Employment)

## Senior Engineer

- Non-Competitive Promotion (24 months)
- Merit increase if requirements are met

## Professional Engineer

- Non-Competitive Promotion & merit increase
- Must pass Professional Engineer exam (PE)
- Must complete all Program Requirements



# Program Benefits

- No “Pigeon-Holing”.
- The rotating engineer is a beneficial, productive employee.
- New job training. The trainee becomes the trainer.
- Interoffice/agency networking.
- PE/EI review courses
- Quarterly PEDP meetings
- Creates an extremely well rounded, diverse engineer that knows public works



# PEDP Committee

- Made up of volunteer participants who have been in the program for a minimum of 1 year
- Liaison between upper management and program participants
- Set up and conduct quarterly meeting for all program participants and supervisors
- Organize recruiting and hiring for engineers and interns
- Provide mentoring

# Recruitment

- Job Fairs: Universities within the State of Florida
  - Resume Selection
  - Campus, Phone and On-Site Interviews
  - Recommendation to Upper Management
- Website: [www.scgov.net](http://www.scgov.net)
  - Search Keyword: Professional Engineer

# Community Involvement

- Outreach Program
- Active Participation in Professional Associations



- National Engineering & Public Works Week
- Charity Events through APWA, ASCE and FES

# Program Awards

- Florida Engineering Society:
  - Best Engineering Development Program  
2000 & 2003



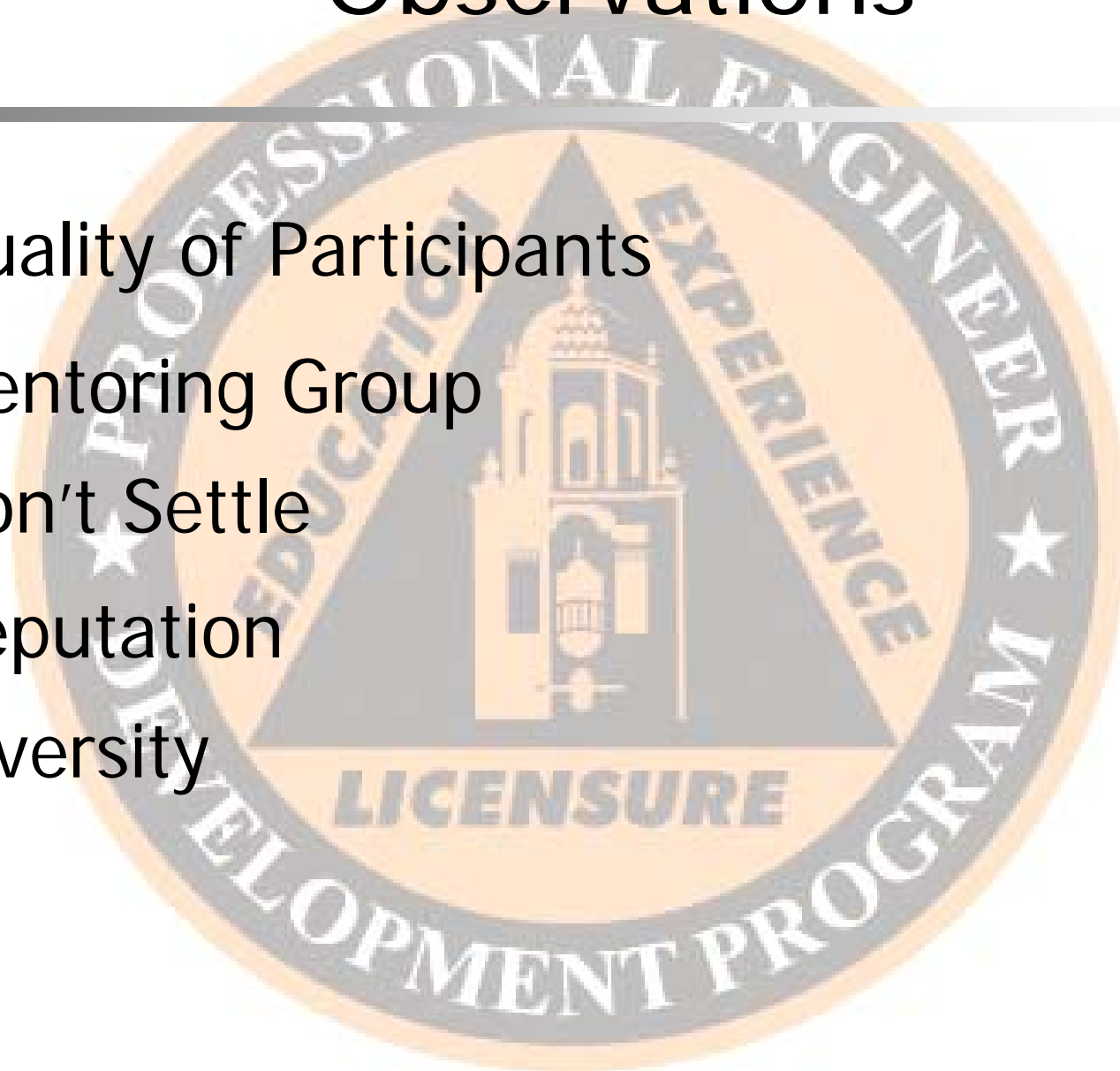
# Presentations

- Florida Association of Counties Annual Conference
- FES, APWA Local Chapters
- APWA State Convention
- APWA International Congress



# Observations

- Quality of Participants
- Mentoring Group
- Don't Settle
- Reputation
- Diversity



# Observations (cont.)

- Future PW Directors
- Success = Declension
- Personal Development Opportunities
- Fun





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# QUESTIONS?

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