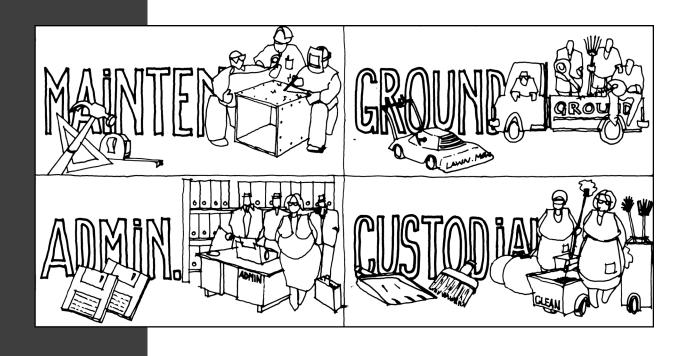


# **Organizational Structures of Maintenance and Operations Departments**

The organizational formation of maintenance and operations departments at Florida's 67 school districts and 28 community colleges is as varied as the institutions themselves. With some of the largest school and community college systems in the country, the state's educational institutions are constantly evolving. Growth in enrollment and an aggressive school development program continue to be major contributors to ever-expanding physical plants and facilities-related staff required to maintain them. One of the most critical areas for success in managing Florida's burgeoning educational facility inventory is the structure and composition of the maintenance and operations teams at the local level.

Although conventional hierarchical paradigms, such as the line and staff model, are used widely, in many instances it is giving way to changes in organizational structures that are influenced by redefined institutional missions, new developments in the educational learning process, evolving individual and group dynamics, expanding service requirements, restructured internal and external relationships, available funding, the need for greater flexibility, and the impacts of informational technology.

# **Organizational Plan**



In developing new organizational plans for maintenance and operations departments or modifying existing ones, administrators should be aware of the myriad circumstances that must be taken into consideration. While the ultimate objective is to create the "best" organizational structure that is required to maintain a particular educational facility, administrators should not be overly concerned with creating an "ideal" structure that fits all needs. Given the dynamics of maintenance and operations functions and the rate of change occurring in physical plants, it is likely that any organizational plan that is proven to be effective today may have to be modified within a year's time to reflect added responsibilities, new priorities, and changes in work procedures. Based on these circumstances, one criterion that is essential for defining the organizational structure of a maintenance and operations department is the ability to accurately define the overall scope of work required to adequately maintain a facility.

Maintenance and operations departments at educational facilities must be managed in a professional manner, administratively orderly and flexible enough to adapt to changing or expanding responsibilities. As essential service organizations in support of the educational

delivery process, these departments are in many ways similar to related entities in the private sector. However, the "bottom line" for educational facility maintenance and operations organizations is results that can be measured in the following ways:

- Uninterrupted and smooth operations
- Utilitarian and serviceable conditions
- Customer satisfaction
- Prudent management practices
- Extended life of the physical plant assets

Until the early 1980's, most community colleges and school districts functioned with central maintenance and operations units. This approach proved to be far more effective in providing a broad range of services that were required at educational facilities with single and multiple campuses. Although a number of school districts and community colleges use an alternative approach today, in many instances centralization may allow for better oversight of several key administrative responsibilities, including general departmental and personnel management, procurement and purchasing, budgeting, payroll, long-range planning, and work authorizations. Some of the other benefits of centralized maintenance and operations organizational approaches realized by school districts and community colleges are as follows:

- Can allow for greater control of all aspects of operations and act as a clearinghouse for all work orders.
- Allow for the dissemination of more uniform sources of data and information throughout the entire organization.
- Minimize the occurrence of duplicated effort or services.
- Allow for better response to emergency situations and natural disasters, and the management of crisis situations.
- Allow for better control functions associated with supplies, equipment, and inventories.
- Provide better logistical support for a variety of basic or recurring services.

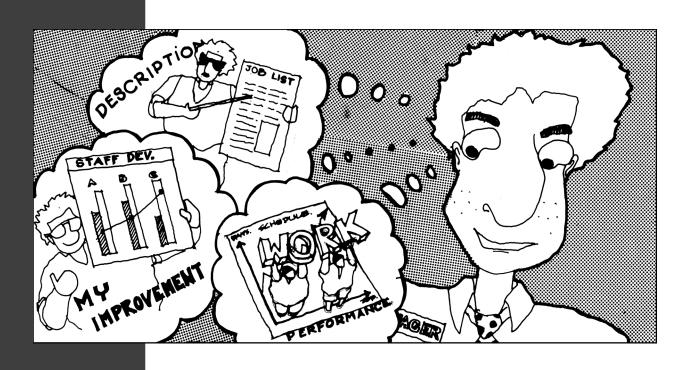
During the last 20 years, operations and maintenance organizations have increasingly been organized around decentralized approaches or modified versions of a centralized approach. Decentralized approaches generally occur in two forms: provision of services through a "zone" or "area" approach, or a complete replication of functions at different facilities. Most medium to large school districts in the state of Florida use centralized organizational structures with zone and area maintenance shops. Under this scenario, individual shops provide services for any number of elementary, middle, secondary, and

technical/vocational schools within a designated zone. The actual size of each shop and the range of services each provides will vary widely from district to district. Two of the most common factors that will determine this are zone size/requirements and the availability of specialized labor/trades people. Where school facilities are widely dispersed, maintenance units (as opposed to operations/custodial units) may operate from a control center that is conveniently located within the zone or area. This is often referred to as a "modified plant" approach.

Many of the state's community colleges with multiple campuses have maintenance and operations units that are organized under a decentralized "plant" or "satellite" structure. In this case, each campus functions with an independent maintenance and operations unit that provides a minimum number of required support services. In many instances, the basic organizational plan for individual facilities is replicated to a certain extent, but is mainly structured to meet the specific needs of a particular plant or satellite campus. At larger community colleges where the distances between campuses and the travel time from a central location are excessive, this has proven to be a viable approach. Some of the other benefits that have been realized from this approach are as follows:

- It places personnel closer to the source of work minimized travel times from central location.
- It allows for better worker productivity and a reduction in non-productive time.
- It reduces the overall number of maintenance vehicles needed.
- It allows for faster response to work order priorities, emergencies, and crisis situations.

# **Personnel Management/Policies**



School districts and community colleges employ a variety of personnel in support of the educational process. Given the large and growing number of staff positions at each institution involved in maintenance and operations functions, educational facilities have become local employment centers in their own right. As a result of these circumstances, school facility administrators should adopt and enforce a set of standard policies that address a broad range of personnel matters. These policies should reflect the objectives of the institution's central administration or Board and address, among others, the following issues:

- Conditions/terms of employment
- Job descriptions
- Training/staff development
- Benefits
- Promotions/raises
- Employee behavior

The Florida Department of Education and the governing boards of community colleges and school districts require administrators to comply with all applicable state and federal laws,

statutes, regulations, and guidelines for hiring maintenance and operations personnel. As these laws are amended, maintenance and operations administrators should be notified by their institution's personnel department regarding new legal requirements, policies, and practices.

When additional personnel policies are established at the department level, maintenance and operations administrators are responsible for submitting them to the central administration at their institution for formal adoption. All personnel policies should be reviewed on an annual basis by the appropriate administrative staff to ensure compliance with current laws and regulations.

All staff members must be provided with written copies of their institution's and maintenance and operations department's personnel policies during their first week on the job. If training, testing, or certification is required for a particular job, or as part of a staff development program, the appropriate policies and procedures should also be conveyed to affected staff. Where employee training has been adopted as a standard personnel policy, administrators should inform their respective central administrations of its benefits in terms of cost reductions, greater operating efficiencies, and increased worker productivity.

The following chart identifies most of the standard personnel policies used by maintenance and operations departments at Florida's educational facilities. While this is not meant to be an exhaustive list, it should provide guidelines for defining the scope of policies, procedures, and practices needed as a basis for good personnel management.

Personnel Issues	Administrative Policies
Work hours/schedule	All maintenance and operations personnel should be aware of the unit's established work schedule and the hours they are expected to be on the job. In such instances where personnel work regular or different shifts, they should be fully aware of the schedule for their assigned work periods and how they interface with preceding and subsequent shifts.

Personnel Issues	Administrative Policies
Attendance	In addition to regular work schedules, maintenance and operations staff should be informed of job attendance above and beyond normal work hours. This includes overtime, evenings, holidays, and emergency situations. Distinctions between essential and non-essential personnel should be made so employees will know when critical services are to be provided and who will provide them.
Job descriptions	All staff positions within a school or community college facility maintenance and operations department should be clearly defined by a job description. The job description should, at a minimum, provide an adequate understanding of the following:
	<ul> <li>Job titles and classifications</li> <li>Job duties/responsibilities</li> <li>Required qualifications, knowledge, skills, and abilities</li> <li>Terms of employment</li> <li>Other relevant information</li> </ul> In order to keep job descriptions current with
	requirements and changes related to maintaining and operating educational facilities, these descriptions should be reviewed and updated on an annual basis.

Personnel Issues	Administrative Policies
Job performance standards	In addition to job descriptions for individual staff positions, maintenance and operations managers must also provide staff members with a list of criteria that will be used in evaluating individual performance. Supervisors should establish a formal system that determines workload, work quality, task completion time frames, and other standards of job performance.
Promotion and advancement	Each staff member must be fully informed of the opportunities for promotion and provided an equal opportunity for advancement within their respective departments. Where specific criteria or skills are necessary for promotion, employees must be made aware of what the basis for consideration is. In every instance, procedures for determining promotion and advancement must be in accordance with the established policies of the school district or community college and comply with any other relevant state or federal requirements.
Staff development	Maintenance and operations administrators should have policies in place that acknowledge the importance of their staff as a vital asset. These policies should support efforts to afford each staff member the opportunity to develop their full potential within the organizational structure of their respective departments. (See also sections 5.3 Custodial Staffing; 6.4 Maintenance Staffing; and 9.8 Staff Training.)

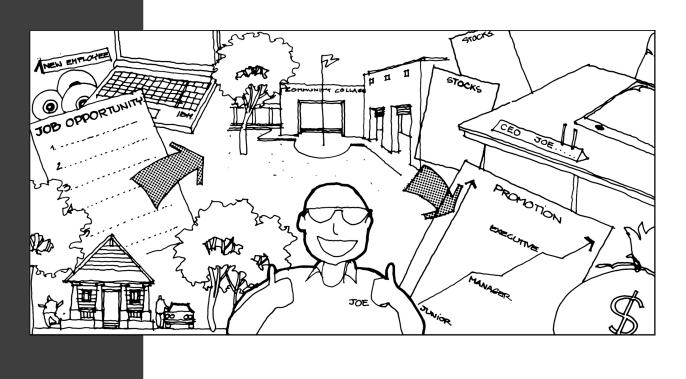
Personnel Issues	Administrative Policies
Job safety	Each maintenance and operations unit shall publish and disseminate to each employee a set of clearly defined standards and procedures that pertain to workplace and general school safety. Where applicable, these standards shall be in direct compliance with any state or federal guidelines.

Figure 4.1: General List of Personnel Issues Requiring Administrative Policies (specific to maintenance and operations departments).

The following list identifies additional personnel issues that require administrative policies. Most of these issues are reflected in standard personnel policies established by the central administration at each school or community college.

- Institutional rules
- Equal opportunity
- Military service
- Leave of absence
- Jury duty
- Vacation
- Holidays
- Sick leave
- Employee benefits
- Continuing education/training
- Employee conduct
- Grievances
- Disciplinary actions

# **Staff Recruitment and Retention**



In addition to providing the services necessary to ensure smooth operations at educational facilities, management of human resources is also an area that is critical to the success of a maintenance and operations organization. Human resource management starts with the actual staff needed for carrying out the Department's mission and is further linked to the objectives identified in its strategic plan.

Increasingly, facility managers and administrators have to deal with a scarcity of skilled labor needed to fill the ranks of maintenance and operations departments. Both recruitment and retention of essential personnel at educational facilities are hampered by the fact that maintenance and operations departments are in direct competition with the private sector. To overcome any disadvantages this situation presents, administrators must rely on proven strategies and other creative methods that will ensure a competent and capable workforce is retained for the department.

#### **Guidelines for Recruitment and Retention**

In order to meet the ever-changing demands of maintaining and operating Florida's educational facilities, administrators will have to supplement standard practices with creative methods for recruiting and retaining a skilled labor force. As the strength of the local economy in host communities manifests itself through increased employment opportunities, better salaries, and benefits, administrators will be faced with the daunting challenge of tapping into tight labor markets for certified tradespeople, as well as unskilled laborers. Organizing a workforce that is capable, dependable, and loyal requires administrators to be proactive and have in place a multi-faceted strategy for addressing this issue in an effective manner. Some aspects of a much broader approach may include the following measures:

- Define job descriptions for "multi-skilled" employees who are capable of performing different tasks on an as-needed basis.
- Establish employee incentive and rewards program (above and beyond ordinary promotions).
- Establish internal employee improvement programs tied to increased training and job responsibilities define a tangible value for such a program.
- Promote the tangible value of incentive packages and job security.
- Step up recruitment efforts during slow economic periods in the private sector.
- Engage in personnel/position sharing between different facilities where possible.

In a broader sense, administrators should approach staff training programs as an investment in employee development and use them as an incentive to recruit and retain staff. Job advancement, stability, and career development should also be touted as workplace advantages in strategic recruitment efforts. While a reasonable degree of employee turnover is a common workplace phenomenon, administrators should be constantly aware of its specific causes. Where an inordinate amount of turnover can be attributed to "in-house" circumstances, administrators should assess the situation as quickly as possible to determine what, if any, measures are necessary to prevent further erosion of the workforce.

## **School Facilities**



Currently there are over 2,500 public schools in the state of Florida, with new ones coming on-line annually. Even though these facilities share a common purpose and have many similarities, not all are the same. Aside from how they are used, their location, and their respective design configurations, three of the most critical issues pertaining to maintenance and operations organizations are facility size, physical conditions, and combined service requirements. Along with others, these criteria are directly related to the department's staff composition, and its organizational structure. Given the diverse nature of the state's school districts and the types of facilities they operate, maintenance and operations departments are generally organized around the following functional categories:

- Maintenance
- Custodial
- Grounds
- Technical services
- Administrative/support

## Organizational Structures for School Facilities of Varying Sizes

Maintenance and operations departments within the state's school districts vary significantly in composition. The organizational structure of these departments is primarily based on the number and types of facilities within a particular district. In addition to these, the organization of certain departments may also be influenced by other factors, such as the geographic distribution of facilities and the range of services required. The administrative and staff organization of these departments should include a personnel hierarchy with general job descriptions and levels of responsibilities clearly defined. Because of the varying sizes of Florida's school districts and physical plants, and the associated differences in service requirements, it is impractical to assume that the same departmental structure would work for any two or more districts. While there may be similarities in many staff positions, each district's maintenance and operations requirements will dictate a "district-specific" organizational structure. The following chart will help identify some of the key personnel required in most school district maintenance and operations departments; however, additional staff may be required depending on local circumstances.

Personnel	General Job Description
Department administrator/director	Chief administrative and budget officer of the maintenance and operations organization and is responsible for establishing departmental policies and procedures, implementing a range of required services, and ongoing stewardship of educational facilities.
Assistant department administrator/director	Second administrative officer for the department is primary liaison with area/zone supervisors and responsible for coordinating overall work effort and other priority services.

Personnel	General Job Description
Area/zone supervisors	Mid-level managers responsible for administering maintenance and operations functions for a specified number of school facilities within a defined geographic area.
Building maintenance, custodial, and grounds supervisors	Mid-level managers responsible for coordinating trades, custodial, and grounds personnel, as well as routine and work order services.
Trades, shift supervisors, and foremen	First-line staff managers responsible for supervising maintenance and operations work crews on a daily basis.
Tradespeople, engineers, custodians, groundskeepers	Staff persons responsible for completing various types of maintenance, operations, and grounds-related tasks.
Administrative staff	Staff persons responsible for coordinating a variety of administrative and office-related duties central to departmental operations.
Specialized/technical personnel	Staff persons responsible for specialized tasks associated with such functions as procurement, vehicle maintenance, security, technical services, etc.

Figure 4.2: Staff Positions for Maintenance and Operations Departments in School Districts.

Although specific job titles and the actual number of positions may vary from district to district, the above chart reflects the minimum range of staff positions necessary to keep school facilities in good working order. To arrive at the actual number of staff members needed for each position, the organizational charts that follow should be used in conjunction with the staffing formulas defined in sections 5.3 Custodial Staffing, 5.7 Staffing and Workload Formulas for Grounds Departments, and 6.5 Staffing Formulas for Maintenance Tasks.

The following charts are suggested organizational structures for maintenance and operations departments in different size school districts. The charts are directly related to these school district size classifications:

- Small district: average full-time equivalent (FTE) population up to 20,000 students.
- Medium-size district: average full-time equivalent (FTE) population of 20,000 to 50,000 students.
- Large district: average full-time equivalent (FTE) population of 50,000 or more students.

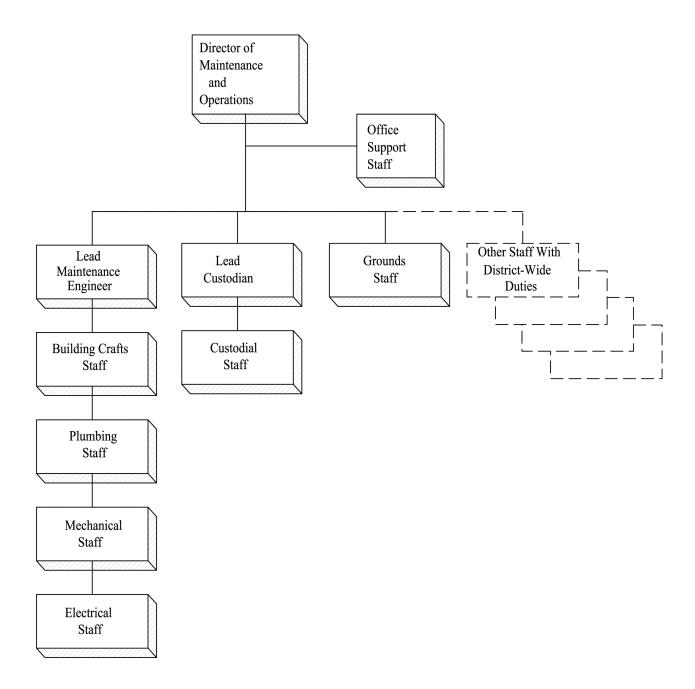


Figure 4.3: Organizational Chart for a Maintenance and Operations Department at a Small School District.

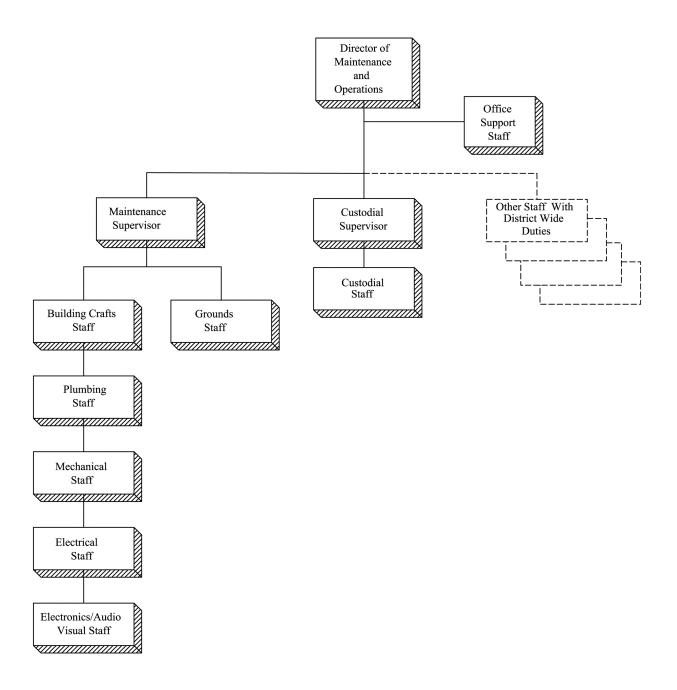


Figure 4.4: Organizational Chart for a Maintenance and Operations Department at a Medium-Size School District.

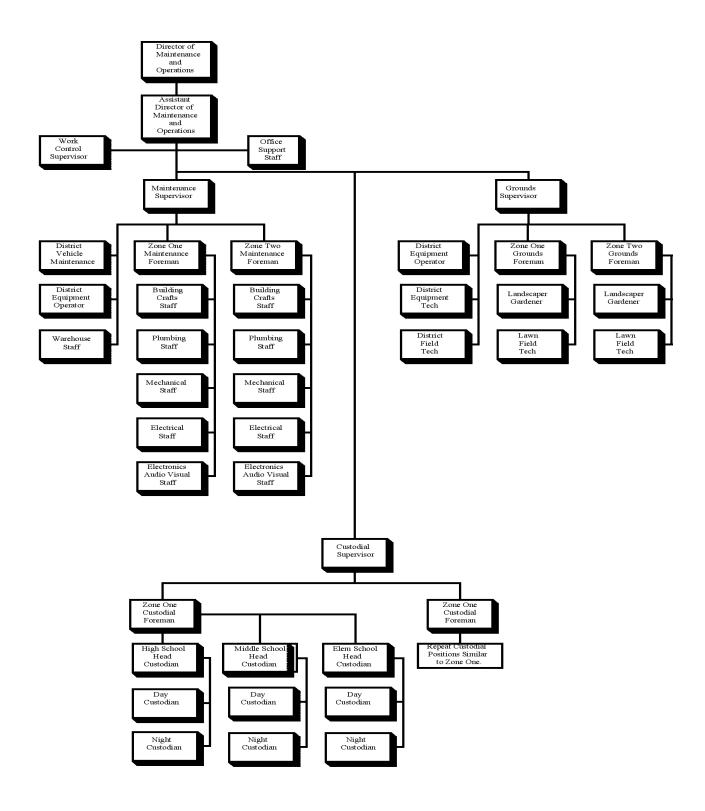
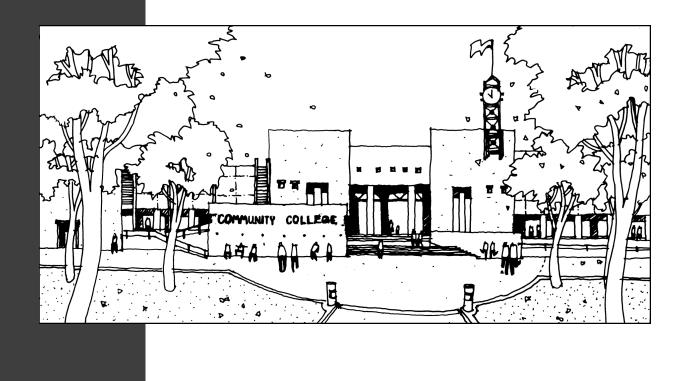


Figure 4.5: Organizational Chart for a Maintenance and Operations Department at a Large School District.

# **Community Colleges**



## Organizational Structures for Community Colleges of Varying Sizes

The organization of maintenance and operations departments at community colleges is generally based on institutional size, campus structure, and physical plant requirements. Throughout the state of Florida, most community colleges operate with multiple or satellite campuses. In many instances, satellite campuses are smaller than the main campus and may share facilities with another educational entity. Although maintenance and operations requirements may be somewhat reduced in these situations, the department may still have ongoing service requirements at the shared facility.

Single-campus community colleges in Florida are almost non-existent given the rate of growth of campuses statewide. Where they currently exist, they generally have centralized maintenance and operations functions. The organizational structure of maintenance and operations departments at these facilities is based on the size of the physical plant, the diversity of buildings, grounds and equipment, and other specific needs of the individual facility.

Multi-campus community colleges in Florida function with both centralized and decentralized (satellite) maintenance and operations departments. This situation usually depends on the proximity of one campus to another and the cost of duplicating services and staff at each location. The organizational structure and composition of departments at institutions that replicate functions at each site will also vary according to the size of individual campuses, building diversity, the extent of grounds features, the amount of specialized equipment, and other location-specific service requirements.

For both single and multi-campus community colleges, maintenance and operations departments should maintain staffing levels that are adequate for each campus with positions, general job descriptions, and levels of responsibilities clearly defined. The following chart identifies several positions that reflect the minimum types of personnel needed to maintain Florida's many multiple and single-campus community college facilities.

Personnel	General Job Description
Department administrator/director	Chief administrative and budget officer of the maintenance and operations organization. Is responsible for establishing departmental policies and procedures, implementing range of required services, and ongoing stewardship of all community college facilities.
Assistant department administrator/director	Second in-charge administrative officer for the department is primary liaison with satellite campus supervisors and responsible for coordinating overall work effort and other priority services.
Campus supervisor	Chief administrator responsible for managing all maintenance and operations functions at a satellite campus.

Personnel	General Job Description
Building maintenance, custodial, and grounds supervisors	Mid-level managers responsible for coordinating trades, custodial, and grounds personnel, as well as routine and work order services.
Trades, shift supervisors, and foremen	First-line staff managers responsible for supervising maintenance and operations work crews on a daily basis.
Tradespeople, engineers, custodians, groundskeepers	Staff persons responsible for completing various types of maintenance, operations, and grounds-related tasks.
Administrative staff	Staff persons responsible for coordinating a variety of administrative and office-related duties central to departmental operations.
Specialized/technical personnel	Staff persons responsible for specialized tasks associated with such functions as procurement, vehicle maintenance, security, technical services, etc.

Figure 4.6: Community College Maintenance and Operations Staff Positions.

The following charts suggest organizational structures for maintenance and operations departments at community colleges. They identify some of the key personnel that are necessary to provide the range of services required in maintaining the state's community college physical plants. They should also serve as a guide to help better define the basic maintenance and operations department organizational structure. To arrive at the actual number of staff members needed for each position, these charts should be used in conjunction with the staffing formulas defined in sections 5.3 Custodial Staffing, 5.7 Staffing and Workload Formulas for Grounds Departments, and 6.5 Staffing Formulas for Maintenance Tasks.

The following charts are suggested organizational structures for maintenance and operations departments in different size community colleges. The charts are directly related to these community college size classifications:

• Small size community college: Under 1,000,000 net square feet of building area.

- Medium-size community college: Between 1,000,000 and 1,700,000 net square feet of building area.
- Large size community college: Over 1,700,000 net square feet of building area.

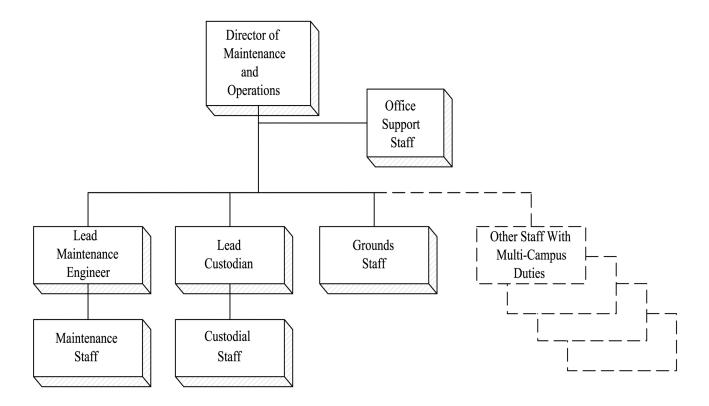


Figure 4.7: Organizational Chart for a Maintenance and Operations Department at a Small Community College Facility.

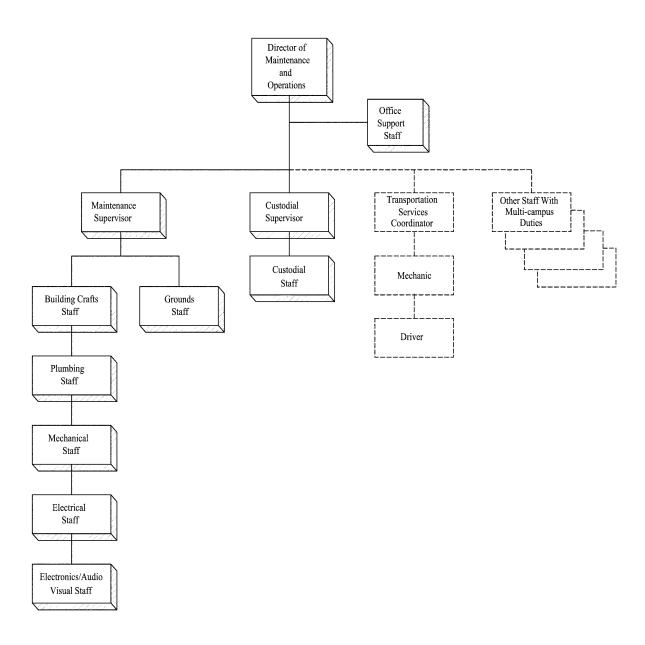


Figure 4.8: Organizational Chart for a Maintenance and Operations Department at a Medium-Size Community College Facility.

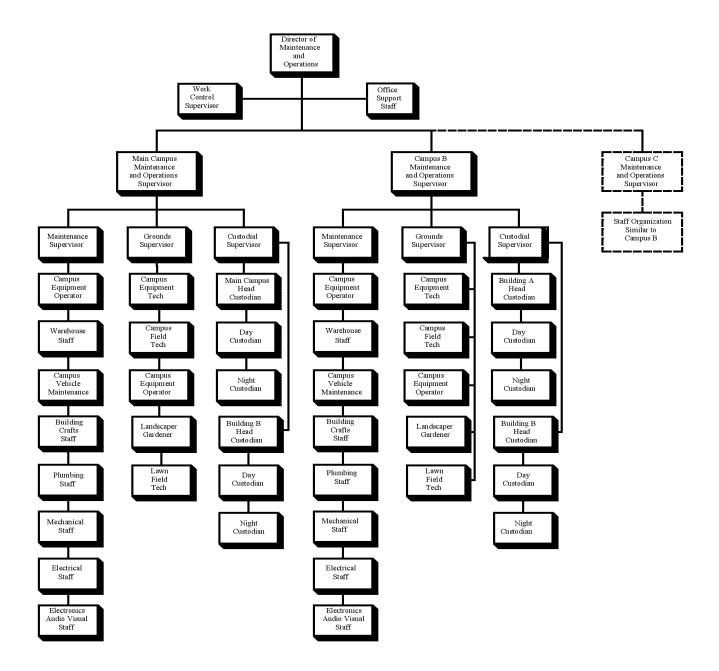


Figure 4.9: Organizational Chart for a Maintenance and Operations Department at a Large Community College Facility.