



MANAGER OF RESEARCH AND DEVELOPMENT

FC: EF159
PB: 10

PC: 940
BU: 95
August 2002

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

DEFINITION

Directs, manages, supervises and coordinates the activities and operations of the Research and Development Division including the development of systems to enhance District operations; coordinates assigned activities with other divisions, departments and outside agencies; provides highly responsible and complex administrative support to the Chief Engineer; and performs related duties as assigned.

CLASS CHARACTERISTICS

This single position class manages a division responsible for developing and implementing new systemwide projects that are highly technologically advanced and have significant impact on District operations. The incumbent is accountable for accomplishing division goals and objectives and for furthering District goals and objectives within general policy guidelines. This class is distinguished from the Chief Engineer in that the latter has overall responsibility for all divisions in the Maintenance and Engineering Department.

EXAMPLES OF DUTIES-Duties may include, but are not limited to, the following:

1. Assumes management responsibility for assigned services and activities of the Research and Development Division including the development of systems intended to enhance District operations.
2. Manages and participates in the development and implementation of goals, objectives, policies and priorities for assigned programs; recommends and administers policies and procedures; revises policies and procedures as necessary.
3. Monitors and evaluates the efficiency and effectiveness of service delivery methods and procedures; recommends, within departmental policy, appropriate service and staffing levels.
4. Plans, directs, coordinates and reviews the work plan for assigned staff; assigns work activities, projects and programs; reviews and evaluates work products, methods and procedures; meets with staff to identify and resolve problems.
5. Manages the development of requests for proposals; oversees the contractor or consultant selection process; negotiates contracts.

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6. Approves final plans, specifications and cost estimates from proposals; oversees implementation of consultant services; reviews work of consultants.
7. Integrates technological advances and information into long and short term projects; provides program recommendations to management.
8. Monitors developments and legislation related to assigned area of responsibility; evaluates impact upon district operations; recommends and implements equipment, practice and procedural improvements.
9. Selects, trains, motivates and evaluates personnel; provides or coordinates staff training; works with employees to correct deficiencies; implements discipline and termination procedures.
10. Oversees and participates in the development and administration of the division's annual budget; participates in the forecast of funds needed for staffing, equipment, materials and supplies; monitors and approves expenditures; implements adjustments.
11. Serves as the liaison for the research and development division with other divisions, departments and outside agencies; negotiates and resolves sensitive and controversial issues.
12. Serves as staff on a variety of boards, commissions and committees; prepares and presents staff reports and other necessary correspondence.
13. Provides responsible staff assistance to the Chief Engineer.
14. Conducts a variety of organizational studies, investigations and operational studies; recommends modifications to research and development programs, policies and procedures as appropriate.

QUALIFICATIONS

Knowledge of:

Operational characteristics, services and activities of a transportation research and development program.

Principles and practices of transportation engineering.

Design and operating characteristics of systems used in transportation equipment.

Principles and practices of electronic and control engineering in transit systems equipment.

Principles and practices of program development and administration.

Methods and techniques of statistical analysis.

Principles and practices of budget preparation and administration.

Principles of supervision, training and performance evaluation.

Related Federal, State and local laws, codes and regulations.

Skill in:

Overseeing and participating in the management of a comprehensive research and development program.

Selecting, supervising, training and evaluating staff.

Programming a variety of computer software including technology simulation programs.

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Participating in the development and administration of division goals, objectives and procedures.

Preparing and administering large program budgets.

Preparing clear and concise administrative and financial reports.

Analyzing problems, identifying alternative solutions, projecting consequences of proposed actions and implementing recommendations in support of goals.

Researching, analyzing and evaluating new service delivery methods and techniques.

Interpreting and applying Federal, State and local policies, laws and regulations.

Communicating clearly and concisely, both orally and in writing.

Establishing and maintaining effective working relationships with those contacted in the course of work.

MINIMUM QUALIFICATIONS

Education:

A Bachelor's degree in electrical engineering, electronics engineering, computer science or a closely related field from an accredited college or university.

Experience:

Five (5) years of full-time equivalent verifiable professional research and development experience which must have included at least two (2) years of administrative and supervisory responsibility.

Substitution

Additional professional experience as outlined above may be substituted for the education on a year-for-year basis. A college degree is preferred.

WORKING CONDITIONS

Environmental Conditions:

Office environment; exposure to computer screens.

Physical Conditions:

Requires maintaining physical condition necessary for walking, standing or sitting for prolonged periods of time.

EEOC Code:01