

***Nothing in this job description restricts management's right to assign or reassign duties and responsibilities to this job at any time.***

**FUNCTIONAL DUTIES** Serves as Project Director, Metrorail Phase 2 Package A for the Dulles Corridor Metrorail Project (Project) in the Office of Engineering, Metropolitan Washington Airports Authority (Airports Authority). Exercises functional responsibility for the management and control of all planning, design, and construction of Phase 2 Package A for the Project. Ensures, with assistance from others, that all functional responsibilities are legally/regulatory compliant, transparent, ethical, teamwork- and customer service-oriented and are executed so as to meet the Project schedule. Performs related functions.

Through subordinate organizations, staff, and consultants or personally and in collaboration with the Vice President for Dulles Corridor Metrorail Project, Vice President for Engineering, and other executives and key staff throughout the Airports Authority:

--Directs all planning, design and construction of the Dulles Corridor Metrorail Project Phase 2 Package A (Project Package A). Supervises and serves as Contracting Officer's Technical Representative for the Project Package A design-build contractor [Capital Rail Constructors (CRC)]. Coordinates and works closely with the Project Director, Metrorail Phase 2 Package B and design-build contractor (Hensel Phelps) and the Phase 2/Package S design-build contractor (Atlantic Contracting and Material Company). [Package A requirements include all work necessary to design-build the Silver Line from the Phase 1 endpoint to Virginia Route 772. Package B requirements include rail tracks and supporting infrastructure for the maintenance and storage of railcars; railcar service and inspection facilities, including the yard control tower; transportation and police facilities, including railcar boarding platforms and canopies; maintenance of way facility; materials warehouse facility; rail systems and equipment for traction power, train control, and communications; roadway construction and improvements; drainage and stormwater management facilities; and utility connections and relocations. Package S requirements include removal of approximately 1.3 million cubic yards of soil currently stockpiled at the Maintenance Facility site; transport and permanent placement of this soil at up to four different locations on the Washington Dulles International Airport property; restoration of the maintenance facility site to a condition that supports the construction of the Phase 2 Package B maintenance facility at this location; and construction, maintenance and restoration of haul roads within specified limits as necessary to accommodate the soil relocation.]

--Works at strategic and tactical levels, seeking to help develop and implement integrated Project Package A systems and processes that are technically excellent, practical and cost-effective.

--Ensures, with assistance and within delegated authority, legally/regulatory compliant, transparent, ethical, teamwork-oriented and customer service-oriented execution of all functional responsibilities. Ensures staff coordination across subordinate units/teams, such as project administration and controls, project development, project administration, and risk management and project controls, and effective sequencing of work.

--Works with various stakeholders, including the Vice President for Dulles Corridor Metrorail , Deputy Vice President for Engineering, Deputy Vice President for Engineering (Aviation

Enterprise), and the Vice President for Engineering, to help ensure coordination with the Engineering and Maintenance Department at Washington Dulles International Airports (IAD) for team work in the best interests of the Airports Authority concerning IAD on-property impact (Airport, Dulles Access Highway and Dulles Toll Road) of Project planning and design-build activities. Key stakeholders include Building Permits/ Environmental for permits, temporary certificates of occupancy and certificates of occupancy; and Design Manager, for assessing impacts to airport infrastructure from the rail project. [Approximately 75 percent of Phase II activities 'touch' IAD property.]

--Ensures (in coordination with staff, advisors, design-build contractors and others) that all work under assigned functions complies with (a) legal/regulatory requirements, such as building codes, safety codes, environmental regulations [including the National Environmental Policy Act (NEPA) and Environmental Impact Statement (EIS) requirements], US/Virginia Occupational Safety and Health Administration (OSHA/VOSHA) requirements, Americans With Disabilities Act (ADA) accessibility standards, Federal Transit Administration (FTA) requirements, Transportation Infrastructure Finance and Innovation Act (TIFIA) regulations, and other grant funding/loan-reporting processes, (b) professional requirements/standards, such as engineering design and construction principles, and generally-accepted project scheduling and control processes, and (c) other pertinent requirements/standards/guidelines, such as Airports Authority human resource (HR) management and procurement guidelines.

--Seeks to establish or facilitate operations, programs and projects that are comprehensive, integrated and forward-looking. Establishes broad policy guidance for subordinate entities (departments/teams) and personnel. Oversees program/service development and monitors daily project operations/administration in assigned functional areas as well as administrative/logistical support of these entities that are provided by other units/entities, such as the Office of Human Resources, the Department of Procurement and Contracts and the Department of the Controller. Ensures compliance with Department of Procurement and Contracts policies and other Airports Authority policies. Provides feedback regarding policies and develops supporting tools to track compliance and standardize actions required by these policies.

--Communicates and interacts effectively with internal and external business contacts, including but not limited to, the Airports Authority's Board of Directors (or Committees thereof), the President and Chief Executive Officer (CEO), the Executive Vice President and Chief Operating Officer (COO), Airports Authority vice presidents, and managers and supervisors; key program officials; consultant-contractor managers/employees, subordinates; Washington Metropolitan Area Transit Authority (WMATA); and Federal and state regulators. Purposes of contacts include making formal presentations, identifying problems, defining issues and interests, developing responses, and ensuring effective coordination (from initial planning and requirements definition to project close out) with stakeholders.

--Sets the example in ethics and integrity for the units/teams led. Works with peer directors/managers, subordinate managers and others in creating an organizational culture that fosters high standards of ethics, integrity, organizational responsibility and commitment to public service.

--Stays abreast of developments in regulatory requirements affecting the assigned functional domains; and of major issues affecting the Project (such as emerging issues in rail design and construction as they may pertain to construction and the close out of Phase 2).

--Uses a computer and various software, such as but not limited to: (a) modern office suite software for planning, scheduling, communicating (email), word processing, spreadsheet applications, presentations, etc., (b) specialized Enterprise Resource Planning (ERP) software for budgeting, accounting, requisitioning, project planning, etc., and (c) specialized engineering software (such as Primavera P6) for project management, engineering applications, etc.

--Operates a motor vehicle on the Airport's complex (landside and airside) and on Project sites to attend meetings, make site visits, and perform related functions.

-- \*Performs related work, as assigned or on own initiative.\*

**MANAGERIAL AND SUPERVISORY DUTIES** In the context of directing assigned programs, operations and personnel of the Project:

Organizational Planning Establishes goals. Develops program plans and milestones. Assigns priorities. Develops policies and procedures. Projects budget requirements and allocates available resources.

Program Direction Communicates organizational goals. Keeps employees and other managers informed. Develops and establishes review and control systems to assist in achieving goals and results. Reviews costs, manages fiscal resources and maintains control over assigned Airports Authority resources and assets.

Human Resource Management Selects, assigns and develops employees. Delegates and assigns work. Evaluates employee performance and administers human resource management programs established by the Airports Authority. Ensures the application of EEO principles and adheres to EEO requirements.

Program Evaluation Reviews program quality and progress toward achieving goals and program results on a periodic basis. Takes corrective actions to maintain work progress on schedule, improve employee performance or modify program goals or operations, as appropriate.

*Critical features of this job are described under the headings below. They may be subject to change through reasonable accommodation or otherwise.*

## **MINIMUM QUALIFICATIONS (MQs)**

To be rated qualified for this job, an applicant must meet both of the MQs listed below at the time of vacancy announcement closure.

1. A Bachelor's Degree in Engineering or an equivalent combination of education, experience and training that totals 4 years.

2. Ten years of progressively responsible experience (with emphasis in civil and structural engineering with specialized experience in heavy rail engineering and construction) that includes substantive work in the range of DUTIES in this job description, including: (a) conceiving, planning and organizing work, and deploying and managing resources (human, financial, equipment, etc.) for engineering and planning/design/construction projects of major scope, complexity and cost – such projects exceed a cost of \$500 million and require supervision of safety and quality professionals among other characteristics; (b) defining and assessing the ‘big picture’ of current and future engineering and construction wants and needs from both programmatic and project perspectives; (c) managing multiple related projects; and (d) identifying interdependencies and interactions in engineering functional domains and construction, such as infrastructure planning or development that crosses the specialties of civil, environmental and mechanical engineering across the continuum of heavy rail planning-design-construction.

A fully equivalent combination of education and training beyond what is needed to satisfy MQ 1 above may be substituted for up to two years of these ten years of experience. For example, a master’s degree in Engineering or Construction Management may be substituted for two years of experience.

3. Licensure as a Professional Engineer (PE) in the Commonwealth of Virginia or ability to obtain licensure within 180 days from the date of the Final Offer Letter. A qualified candidate who is selected, but lacks licensure by Virginia, must obtain licensure from the Virginia Department of Professional and Occupational Regulation within 180 days of the date of the Final Offer Letter.
4. Education, experience or training indicating the ability to perform successfully as a second level supervisor such as the ability to plan/assign/review work, deploy personnel, monitor work operations, obtain effective results and perform a full array of supervisory personnel functions.

### **PREFERRED QUALIFICATIONS**

The qualifications listed below (if any) are preferred and may be considered in the selection process, but they are not required to be rated qualified for this job.

1. Progressive civil engineering management and leadership experience in a complex, multi-project work environment dealing with a broad range of stakeholders.
2. Experience managing and coordinating engineering projects within a public sector environment.

### **KNOWLEDGE, SKILLS, ABILITIES AND OTHER FACTORS (KSAOs)**

The following KSAOs are required for successful performance of this job and are a basis for rating and ranking applicants who are found to meet the MQs. *Local, Federal, airport industry or*

*Airports Authority specific bodies of knowledge listed below may be acquired on the job, typically; ability to rapidly acquire them is required at the time of vacancy announcement closure.*

1. Knowledge of executive and administrative management functions, policies and procedures (as cover planning, budgeting, contracting and the like); of EEO principles and requirements; and of supervisory principles, altogether to manage assigned functions, programs and operations and to supervise subordinate supervisors and staff. This includes knowledge of Airports Authority-specific executive and administrative management functions.
2. Comprehensive professional knowledge of the concepts, principles and practices of engineering (especially civil and structural engineering), as well as extensive knowledge of architecture and commercial-industrial construction, with strong emphasis on planning, design and construction of a heavy rail project, and of related engineering disciplines (such as environmental engineering), altogether to envision, determine feasibility of, analyze/control costs of, and otherwise strategically direct and tactically oversee Project Package A, to directly supervise subordinate managers engaged in these functions, and to perform related functions. This body of knowledge includes but is not limited to:
  - Knowledge of quality assurance, of project controls (e.g., scheduling, costing, estimating and reporting), of market data (such as contracting costs and materials costs) and of cost management (including management of change orders and claims) in engineering and construction to ensure Project Package A deliverables are high quality, on time, within budget and meet other critical objectives.
  - Knowledge of budgeting, accounting and finance sufficient to review initial project cost estimates as well as cost modifications associated with changes in requirements or budgets, to understand and report work progress in conjunction with budget use, and to perform related functions, all at the level of a construction executive. This includes knowledge of grants and loans, other financial instruments used to fund the Project Package A, and applicable grant and loan processes.
3. Knowledge of business administration principles sufficient to discuss changes, trends and impacts with a wide variety of stakeholders and to interact successfully with consultants (including A&E firms), general contractors, and others who are concerned with profit/loss issues.
4. Knowledge of information management systems sufficient to retrieve and report on project progress and costs (this includes skill in using electronic document control systems); and knowledge of the Airports Authority's specific ERP system and standalone systems for these purposes.
5. Knowledge of technical aspects of bid analysis; and knowledge of Airports Authority-specific contracting procedures, its solicitation process and special policies related to the contracting of engineering or construction work.

6. Knowledge, at the managerial level required by the DUTIES in this job description, of key regulatory requirements/standards/guidelines applying to a wide variety of major engineering and construction projects, such as FTA and TIFIA requirements, EPA (NEPA, EIS and environmental permitting) requirements, ADA public facility accessibility requirements, and OSHA/VOSHA standards to ensure Project Package A compliance with Federal, state, local and Airports Authority requirements and standards.
7. Skill in problem solving to select, organize and logically process relevant information (verbal, numerical or abstract) to solve a problem. This includes skill in recognizing subtle aspects of problems, identifying relevant information, dealing with divergent, concrete or abstract variables, making balanced recommendations and decisions, and exercising mature judgment. Examples include developing or approving and using cost/service/other metrics to analyze and evaluate productivity and recommend or approve new policies and procedures to increase productivity, improve response times, improve other aspects of customer service, etc., while controlling costs; identifying and analyzing applications of technology to help solve engineering and planning/design/construction problems or improve engineering and planning/design/construction work processes, including evaluation of new work control systems; and leading people in 'difficult' or dynamic times by adjusting approaches to fit the circumstances.
8. Skill in oral communication to understand verbal information (including facts, assertions and arguments) and to express such information verbally so that others will understand and, at times, be convinced or persuaded. This includes skill in listening 'actively' and encouraging effective oral communication by others, such as subordinates, internal stakeholders (at higher, peer and lower echelons) and external stakeholders (such as funding agencies, regulators, public/special interest groups and the general public), and skill in making formal presentations on high 'visibility' and highly sensitive or controversial engineering and planning/design/construction projects. Purposes include exchanging routine and non-routine factual information, meeting and reaching consensus with others, and influencing, convincing or persuading them concerning 'high stakes' projects, and supervising subordinates.
9. Skill in written communication to understand written information, draw inferences, form hypotheses and develop logical arguments, and to express such information in writing so that others will understand and, at times, be convinced or persuaded. This includes skill in reading and reviewing information to stay abreast of advances of engineering and design/construction technology and management, to understand wants/needs/perspectives of various stakeholders, and to understand technical data and administrative information, as well as skill in preparing routine memoranda and drafting or reviewing technical documents.
10. Interpersonal skills to interact with business contacts in a businesslike, customer service-oriented manner.
11. Skill in using a computer and (a) modern office suite software (such as MS Office) to plan, schedule, communicate, word process, prepare and develop reports, and perform research (Internet use, as in searching for performance information and keeping up with technology); (b) enterprise systems/software for requisitioning, budgeting, time and attendance, payroll, and

other functions; and (c) specialty systems/software such as Primavera used on the Project.

12. Commitment to ethics and integrity in public service to ensure ethical and transparent team operations, set the example for integrity within the areas of functional responsibility and perform related functions.

13. Ability and willingness to work under pressure, maintain emotional self-control and provide executive-level engineering and construction leadership during critical situations.

**RESPONSIBILITY** Is responsible for all systems, plans, programs, policies and operations/services under his/her direction, as assigned by the Executive Project Director and the Vice President for Engineering. Strategic and tactical leadership effects include delivery of high quality, on time and within budget assigned Project Package(s) and other deliverables.

Reports to the Vice President Dulles Corridor Metrorail Project (Supervisor) who assigns functions and priorities and makes special assignments. Most work comes to the incumbent through established work flows and by special assignment. Some work is effectively levied by special reports or requirements (such as internal audits, law/regulation changes, environmental studies, etc.); other work is self-generated due to new technology, 'best practices' and other catalysts. Independently plans strategically and tactically, ensures continuous assessment of wants and needs for engineering and planning/design/construction, fosters continuous improvement in programs, policies, procedures and services, solves problems that are technically or administratively complex (such as identifying ways and means of integrating or improving technologic advances into project planning, design and construction, weighing costs and benefits, solving engineering management problems having multiple variables that transcend functional domains, and controlling costs while improving quality) and highly sensitive (such as deftly handling special issues that may present paradoxes). Keeps the Supervisor and other parties, informed. Seeks guidance on highly sensitive issues. Regularly makes key recommendations or decisions to meet current and future challenges that have potential for critical impact on compliance with legal/policy requirements, effectiveness and practicality of projects, deployment of people to meet Project Package A engineering needs, and more. Regularly makes key technical and administrative decisions regarding program actions that may have major impact on the Project Package A and key budgetary (assigned budget only) decisions. Work is expected to be timely, accurate and thorough in terms of identification of issues, consideration of options and effectiveness of recommendations/decisions. Typically, work is reviewed periodically in terms of fulfillment of program goals and objectives and effectiveness of advice, as well as quality, quantity, timeliness, customer service and specific performance management goals and measures.

Guidelines include, but are not limited to, Dulles Corridor Metrorail Project funding sources (such as Federal/State loans/grants and Dulles Toll Road revenue), restrictions and reporting requirements; a wide array of regulatory requirements, such as environmental regulations and reporting requirements, building codes, fire codes, life safety codes, etc.; design and design-build project management techniques and software; professional engineering principles and technical manuals; the ADA regarding accessibility of public facilities; specific design, design-build and construction contracts; requirements of project sponsors (grantees), such as the FTA and the Federal Highway Administration and their special emphasis contracting programs; the Airports

Authority's procurement/contracting processes and its special emphasis programs (such as LDBE and DBE/WBE participation), EEO requirements and other administrative requirements and support program policies and processes; and general references, such as dictionaries and style manuals. Some of these guidelines leave gaps. Others allow for wide discretion. The incumbent uses judgment and initiative to assess implications of issues, develop solutions and make recommendations or decisions providing an effective response that appropriately balances competing technical, administrative, budgetary and other types of demands.

**EFFORT** The work is primarily sedentary and typically requires light physical effort. Incumbent may sit for extended periods while doing deskwork. Moves about to coordinate work, attend meetings and perform similar functions. Regularly opens/closes file drawers, transports materials weighing up to 20 pounds, such as binders and program documents, and performs similar physical activities. Exchanges information by telephone routinely. Expresses oneself clearly during formal presentations to groups. Regularly reviews documents containing small print. Uses a computer, a calculator, and other office machines. In driving, operates vehicle using judgment in consideration of weather, traffic and other factors.

**WORKING CONDITIONS** Works mainly in an office setting which is adequately lighted, ventilated and temperature controlled, but occasionally performs work in other business locations and at field sites (i.e., where construction is in progress). Is subject to the demands of critical Airports Authority and Dulles Corridor Metrorail Project business issues in a fast-paced environment, such as directing multiple, unrelated projects and balancing competing wants/needs of various stakeholders at varied echelons within the context of changing priorities, budget constraints, schedule disruptions and other factors over which one may have little control.

**OTHER SIGNIFICANT JOB ASPECTS** Licensure as a Professional Engineer (PE) in the Commonwealth of Virginia must be maintained.