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

**DUTIES** Serves as a Construction Project Cost Estimator in the Project Controls and Management (PCM) Department of the Office of Engineering (Office) at either Ronald Reagan Washington National Airport (DCA) or Washington Dulles International Airport (IAD), Metropolitan Washington Airports Authority (Airports Authority). Provides in-the-field, cost estimating functions including, but not limited to, independent cost estimates, cost impact analysis, cost analysis, and cost forecasting in support of the planning and management of the Airports Authority's Aviation Capital Construction Program (CCP), Aviation Capital Operating and Maintenance Investment Program (COMIP), Dulles Corridor Capital Improvement Program (CIP) and Dulles Corridor Repair and Rehabilitation Program (R&R). Performs related functions.

--Prepares independent cost estimates for project change notices; evaluates and/or validates contractor's proposed project change costs; and supports the Contracting Officer and Contracting Officer's Technical Representative in negotiations, as necessary.

--Coordinates directly with consultant architectural and engineering (A/E) estimators and construction contractors in the preparation and verification of the accuracy of all A/E Design to Estimates (DTEs), initial construction bid estimates, and construction change notice cost estimates. May visit construction site to visually examine the proposed construction change(s).

--Provides direct oversight and review to consulting estimators in the preparation of independent cost estimates related to project development, construction change orders, and budget development.

--Coordinates with and works with Office of Engineering's Design Department and Construction Department managers, project administrators, and staff to coordinate and support reporting requirements to senior and Airports Authority management.

--Coordinates with the Construction Department, Airports Authority staff, and project control staff to determine the cost and schedule impact(s) related to change control on capital projects. This includes reviewing contract documentation and contract modifications to determine scope of work and scope changes to help quantify the budget and schedule impacts of associated changes.

--Coordinates with the Procurement and Contracts Department to quantify and define the cost and schedule requirements of procurement requests and activities associated with compiling and reviewing Requests for Proposals (RFPs) and RFP responses from bidders.

--Prepares and briefs the Vice President for Engineering and the Airport Managers on matters relating to construction budget estimates and independent cost estimates, construction and design change notice estimates, and various cost benefit analyses in support of budgetary decisions.

--Performs statistical analyses in support of construction change cost estimates by developing

comprehensive risk analysis for all construction change cost estimates. Quantifies risk by basing cost estimates on work scope, how work fits into the overall project scope, and in context of labor time and associated materials market factors.

--Quantifies project risks to help develop an adequate level of contingency on the associated projects, and provides narrative explanations for risk levels and associated factors impacting the project's risk rating.

--Collects, coordinates, and prepares supporting documentation and cost data with Airports Authority Office Vice Presidents and senior management in support of annual budget preparation to the CEO and Authority Board of Directors.

--Works with the Office of Engineering's Design Department and Planning Department and various Airports Authority Offices to create and review Life Cycle Cost Estimates (LCCE) and associated documentation, Independent Cost Estimates, Cost Benefit Analyses (CBA) and Analyses of Alternatives (AoA) to support Aviation Capital Construction Program (CCP) and Aviation Capital Operating and Maintenance Investment Program (COMIP) management requirements for annual budget preparation.

--Maintains knowledge of industry expert forecasts as well as current economic indicators to support accurate cost estimating and cost forecasting in support of Airports Authority projects including, but not limited to, Producer Price Indexes (PPIs) for Construction Materials and Components, wage and benefit indicators on construction labor, and other econometric indicators that impact potential estimating assumptions.

--Communicates and interacts effectively with internal and external business contacts including, but not limited to, other members of the unit/team, other Airports Authority employees (such as executives, managers, supervisors, professionals, and support staff), and vendors/ consultants/tenants/contractors.

--Uses a computer and (a) modern office suite software (such as MS Office) to communicate (email), plan, schedule, word process, prepare presentations and graphics, manipulate data (spreadsheets and databases), and research (Internet use); (b) enterprise software for requisitioning, time and attendance reporting, and other functions; and (c) specialty systems/ software used in the Office such as Primavera P6 software and Master Integrated Schedule.

--Operates a vehicle airside and landside, on and off the airport complex, to attend meetings, visit jobs sites and contractors, and perform related functions.

\*Performs other duties as assigned.\*

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 all the MQs listed below at the time of vacancy announcement closure.

- 1. A bachelor's degree in any field which provides a strong foundation for successful performance of the DUTIES in this job description, or an equivalent combination of education, experience and training that totals four years.
- 2. Five years of <u>progressively responsible</u> experience including (a) skill in analyzing and estimating the cost of large scale design and heavy construction projects; and (b) knowledge and skill in using cost estimating tools and/or software.

A fully equivalent combination of education, experience and training beyond what is needed to satisfy MQ1 may be substituted for two of these five years of experience provided the education, experience and training provide evidence of the knowledge, skills, and abilities in MQ2. One example is a master's degree in any field that provides a strong foundation for successful performance of the DUTIES in this job description may be substituted for two of the five years of experience.

## PREFERRED QUALIFICATIONS

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

- 1. A Bachelor's Degree in Engineering or Construction Management.
- 2. Certification as a Certified Estimating Professional (CEP) from AACE International or a fully equivalent certification in this domain which includes estimating and analyzing costs.

## 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 engineering, with emphasis on civil (horizontal) and structural (vertical) engineering and knowledge of engineering or construction project management altogether at sufficient levels to incorporate project costs and schedule impacts into detailed analysis of project cost estimating and business analysis.
- 2. Knowledge of project cost accounting (e.g., scheduling, costing, estimating, and reporting) in engineering and construction work to provide project cost and schedule impacts.

- 3. Knowledge of A/E project management practices, standards, industry forecasts, and knowledge of economic indicators altogether to ensure that project costs are quantified and priced in accordance with current and forecasted future market conditions/indicators.
- 4. Knowledge of the Airports Authority's Design Manual and its specific planning-designconstruction continuum, procurement and project management processes, A/E project financing/accounting procedures, and knowledge of the Airports Authority's Enterprise Resource Planning (ERP) and project estimating software and related processes to perform the assigned estimating and analysis functions.
- 5. Skill in problem solving to select, organize, and logically process relevant information (verbal, numerical, or abstract) to solve a problem. This includes the ability to recognize subtle aspects of problems and identify relevant information. Examples include skill in applying a variety of mathematical formulae to civil engineering, structural engineering, and other construction management issues; and skill in reviewing the proposals, drawings, specifications, invoices, recommendations, and other work of resident engineers, construction contractors, and vendors.
- 6. Skill in oral communication to understand verbal information (including facts, descriptions, ideas, concepts, conflicting arguments, and assertions) and to express such information verbally so that others will understand, and in certain circumstances, be convinced or persuaded. This includes skill in encouraging effective oral communication by others, such as effective dialogue with Airport Managers, contractors, and staff of the Office of Engineering.
- 7. Skill in written communication to understand written information (including facts, descriptions, ideas, concepts, arguments, and assertions) and to express such information in writing so that other others will understand and, in certain circumstances, be convinced or persuaded. This includes expressing information in writing and skill in reviewing the written work of others such as A/E consultants, contactors, and project managers.
- 8. Skill in using a computer and (a) modern office suite software (such as MS Office) to communicate (email), plan, schedule, word process, prepare presentations and graphics, manipulate data (spreadsheets and databases), and research (Internet use); (b) enterprise software for requisitioning, time and attendance reporting, and other functions; and (c) specialty systems/software used in the Office such as Primavera P6 software and Master Integrated Schedule.
- 9. Interpersonal skills to interact effectively with business contacts in a businesslike, customer service-oriented manner.

**RESPONSIBILITY** Is responsible for developing independent project change cost estimates and validating presented cost estimates for the Airports Authority's Aviation Capital Construction Program (CCP), Aviation Capital Operating and Maintenance Investment Program (COMIP), Dulles Corridor Capital Improvement Program (CIP) and Dulles Corridor Repair and Rehabilitation Program (R&R). Work ensures that estimated project change costs are in line with

existing or future market costs.

Reports to Manager, Project Controls and Management (Supervisor). Most work flows to the incumbent as a result of assigned functions and processes. Supervisor provides broad objectives and policy guidance for recurring assignments; special assignments may be assigned on an ad hoc basis to support management initiatives relating to shifting needs or requirements. The incumbent typically plans work steps independently with little direct oversight while staying in close communication with Supervisor to allow for discussion of unexpected issues or developments. Supervisor reviews incumbent's work upon completion, in terms of quality, quantity, timeliness, customer service, teamwork, adherence to requirements, and other factors, including attainment of specified performance management goals and objectives.

Guidelines include, but are not limited to, Federal and Virginia regulations and programs affecting grants; Airports Authority programs, guidelines, policies and procedures on contracting, facility construction, etc.; building codes and other technical standards applying to construction projects; generally-accepted standards concerning constructability and maintainability and standard procedures of the construction industry and various building trades; engineering references; specific design contracts, etc. The incumbent uses judgment and initiative to work efficiently, within the scope of established guidelines, engineering principles and practices, and Airports Authority project management processes; when guidelines conflict, the incumbent must select and apply the most appropriate guidelines.

**EFFORT** Work is primarily sedentary and typically requires light physical effort as in opening/closing file drawers, lifting and carrying files/building plans, etc. Incumbent may sit for extended periods while performing desk work. Regularly uses a computer, telephone, and other electronic equipment. May require review of architectural and design drawings with hard to read print or numbers. In driving, operates vehicle using judgment based on traffic, weather, and other factors.

**WORKING CONDITIONS** Works primarily in an adequately lighted, ventilated and temperature controlled office setting. When visiting job sites is subject to adverse weather conditions, dust and dirt, and must exercise care and wear a hard hat and other personal safety gear, as required. May be subject to job demands such as having to achieve tight project schedules within strict budgets and balancing the at-times competing interests of the Airports Authority and other entities.

#### **OTHER SIGNIFICANT JOB ASPECTS** None