



Office of Human Resources
Engineer-Architect Specialist - CE2340
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General Statement of Duties

Performs specialized and advance engineering or architectural work involving project management on the most complex citywide projects, specialized department level studies and evaluation of engineering systems and methods or acts as a technical advisor on citywide engineering functions.

Distinguishing Characteristics

Performs specialized, advanced professional engineering or architectural work in one or more of the following areas: 1) project management work on complex, multifaceted projects from inception to completion including the management and coordination of projects that have city-wide impact and requires a global, strategic understanding of city agencies and city policies, standards, and systems; 2) identifies the department's engineering or architectural needs by initiating analytical studies to improve operating efficiency and meet city, federal, and state regulatory mandates; 3) responsible for engineering quality control involving all components of the department's complex engineering programs; 4) monitors, evaluates, and modifies existing department engineering programs, systems, and processes for optimum efficiency and changing objectives and participates in strategic planning activities; 5) functions as the city-wide technical expert in one or more functional areas.

This class is distinguished from the Project Manager II that performs advanced professional level project management work on complex, multifaceted projects from inception to completion including the management and coordination of projects that have city-wide impact and requires a global, strategic understanding of city agencies and city policies, standards, and systems. Additionally, some Engineer Senior positions will work on the same type of complex, multifaceted projects as a Project Manager II; however, the distinguishing difference is that an Engineer Senior possesses a professional license and works on projects that require the project manager to have a professional license.

An Engineer-Architect Specialist is distinguished from an Engineer-Architect Supervisor that performs professional and supervisory work over professional engineers or architects and develops, implements, and evaluates engineering plans, work processes, systems, and procedures to achieve annual goals and objectives, and makes budgetary and resource allocation decisions.

Essential Duties

Performs project management work by managing, coordinating, and directing large, complex, multi-disciplinary development, redevelopment, and capital improvement projects including project initiation, development, production/execution, and closing/maintenance and project coordination with city departments, elected officials, affected community and business organizations, and other internal/external stakeholders.

Conducts studies and surveys of department programs/projects, evaluates collected information/data and existing programs/projects to determine cost effectiveness/benefits and whether program/project objectives are being met, prepares systematic and objective conclusions using study data, and recommends corrective actions based upon departmental policies, sound engineering principles, and city, federal, and state regulatory mandates.

Confers with managers and other engineering or architectural professionals to discuss current objectives and problems regarding existing engineering programs, identifies the existence and causes of inefficient engineering methods, practices, and applications, and makes recommendations for appropriate corrective action, policy changes, and/or program improvement.

Determines the department's current and projected engineering or architectural needs through participation in strategic planning activities in conjunction with top level managers and other leaders in the department and participates in the development and implementation of goals, objectives, policies, priorities, and programs. .

Coordinates and prioritizes programs/projects with other city departments, counties/jurisdictions, and other relevant agencies/parties and serves as a liaison for the department to negotiate and resolve sensitive and controversial issues.

Functions as the city's technical subject matter expert in one or more functional areas, recommends alternative engineering applications based on changing conditions or new developments in the field, and investigates the feasibility and cost of implementing updated engineering/architectural methods, techniques, and/or processes.

Prepares reports and makes presentations to City Council and other stakeholders regarding programs/projects, policy, and planning issues, anticipates any repercussions, and responds to stakeholder concerns and questions.

Serves as a technical and/or subject matter expert and provides training and mentoring to other staff members in the areas of project development, project design, project specification preparation, project management, contract management, quality control, and/or work program implementation.

Performs other related duties as assigned.

Employees may be re-deployed to work in other capacities in their own agencies or in other City agencies to support core functions of the City during a City-wide emergency declared by the Mayor.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.

Competencies

Decision Making – Specifies goals and obstacles to achieving those goals, generates alternatives, considers risks, and evaluates and chooses the best alternative to make a determination, draw conclusions, or solve a problem.

Influencing/Negotiating – Persuades others to accept recommendations, cooperate, or change their behavior; works with others towards an agreement; negotiates to find mutually acceptable solutions.

Oral Communication – Expresses information to individuals or groups effectively; taking into account the audience and nature of the information; makes clear and convincing oral presentations; listens to others, attends to nonverbal cues and responds appropriately.

Project Management – Manages all aspects of one or multiple projects through initiating, planning, executing, monitoring, and closing project, complying with established control systems and rules. Monitors processes, progress, and results. Determines objectives, sets priorities, delegates work, and provides others with a clear direction. Works with others towards an agreement that may involve exchanging specific resources or resolving differences.

Strategic Thinking – Formulates objectives and priorities, and implements plans consistent with the long-term interests of the organization in a global environment. Capitalizes on opportunities and manages risks.

Working with People - Shows respect for the views and contributions of other team members. Shows empathy, listens, supports, and cares for others, and reconciles conflict

Written Communication – Composes, reviews, edits, and issues written materials for diverse audiences and communicates purpose in a succinct and organized manner that is appropriate for context, time, and place.

Knowledge & Skills

Knowledge of the scientific principles, methods, and processes used to conduct a systematic and objective inquiry including study design, collection, analysis, interpretation of data, and reporting of results.

Knowledge of planning, coordination, and execution of business functions, resource allocation, and production.

Knowledge of the principles and methods of cost-benefit analysis including the time value of money, present value concepts, and quantifying tangible and intangible benefits.

Knowledge of the concepts, principles, and theories of engineering and their practical applications.

Knowledge of the concepts, principles, theories, and practices used in planning, design, construction, and maintenance of buildings, or other structures taking into consideration aesthetic and functional concerns.

Knowledge of the materials, methods, systems, and tools used to construct objects, structures, and buildings.

Knowledge of functions, principles, methods, and techniques of public planning including those related to community planning, outdoor recreation planning, and natural resource management such as demand forecasting, environmental impact analysis, financial forecasting, and land use planning and zoning.

Knowledge of the principles, methods, and tools for conducting performance assessment to enhance and validate project performance and user acceptance.

Level of Supervision Exercised

Matrix manages and coordinates the work of consultants and contractors and other employees who are assigned to specific projects and may perform lead work or supervises subordinate technical staff.

Education Requirement

Bachelor's Degree in Engineering or Architecture.

Experience Requirement

Three (3) years of experience at the type and level of a Senior Engineer or Senior Architect.

Education & Experience Equivalency

No substitution of experience for education is permitted.

Additional appropriate education may be substituted for experience requirements.

Licensure & Certification

By position, requires a valid Driver's License at the time of application.

Requires registration as a Professional Engineer (PE) by the Colorado State Board of Registration for Professional Engineers at the time of application. Or requires registration as an Architect by the Colorado State Board of Registration at the time of application.

Registration in another state will be accepted in lieu of this requirement, provided that the applicant has Colorado registration at completion of probation.

Licenses and certifications must be kept current as a condition of employment.

Working Environment

Pressure due to multiple calls and inquiries.
Subject to many interruptions.
Subject to varying and unpredictable situations.
Subject to long irregular hours.

Level of Physical Demand

1-Sedentary (0-10 lbs.)

Physical Demands

(Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs.):

Accommodation: Ability to bring objects into focus.
Balancing: Maintaining equilibrium.
Carrying: Transporting or moving an object.
Color vision: Ability to distinguish and identify different colors.
Depth Perception: Ability to judge distances and space relationships.
Eye/Hand/Foot Coordination: Performing work through using two or more body parts or other devices.
Feeling: Perceiving attributes of objects by means of skin receptors, communication, or otherwise.
Field of Vision: Ability to sharply detect or perceive objects peripherally.
Fingering: Picking and pinching, through use of fingers or otherwise.
Handling: Seizing, holding, grasping, through use of hands, fingers, or other means.
Hearing: Perceiving and comprehending the nature and direction of sounds.
Lifting: Moving objects weighing no more than 10 pounds from one level to another.
Reaching: Extending the hands and arms or other device in any direction.
Repetitive motions: Making frequent or continuous movements.
Sitting: Remaining in a stationary position.
Talking: Communicating ideas or exchanging information.
Vision Far Acuity: Ability to perceive or detect objects clearly at 20 feet or more.
Vision Near Acuity: Ability to perceive or detect objects at 20 inches or less.

Background Check Requirement

Criminal Check
Education Check
Employment Verification
Licenses/Certification
By position, Motor Vehicle Record

Assessment Requirement

None

Probation Period

Six (6) months.

Class Detail

Pay Grade: EX-16

FLSA Code: Y

Established Date: 9/21/2018

Established By: LS

Revised Date: 10/29/2023

Revised By: AD

Class History: Revised pay grade as a result of CN1791