Transportation Engineer Executive

Definition
Administers a statewide engineering program; develops policies and makes operating decisions for a division, which impact department-wide operations; manages diverse programs and oversees the coordination of functions with internal and external customers and stakeholders; performs related work as required.

The work examples and competencies listed below are for illustrative purposes only and not intended to be the primary basis for position classification decisions.

Work Examples
Supervises and evaluates the work of subordinates; recommends personnel actions related to selection, disciplinary procedures, performance, leaves, grievances, work schedules, and assignments; administers personnel policies and procedures.

Directs and administers statewide engineering programs employing managers and engineers; oversees the coordination of office functions within the department and with other state agencies, cities, and counties; provides technical engineering expertise.

Assists the department director in achieving program objectives; provides recommendations and technical information for division director in program and management areas; participates in long-range planning and in problem resolution.

Prepares office budget of salary, staffing, and equipment, including the flexibility to adjust positions to workload; manages resources to ensure achievement of objectives.

Represents the division and department with the media, the public, and federal, state, and local governments in the program areas administered.

Oversees the development and implementation of transportation program standards, policies and procedures to ensure quality and safety of transportation projects and activities; participates on committees and task forces to identify priorities and ensure uniformity of standards and quality of projects and programs; provides leadership in current trends and innovative technical engineering methods.

Competencies Required
Knowledge:

- Engineering and Technology – Practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.

- Design – Design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.
• Administration and Management – Business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

• Transportation – Principles and methods for moving people or goods by air, rail, sea, or road, including the relative costs and benefits.

• Building and Construction – Materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.

• Mathematics – Arithmetic, algebra, geometry, calculus, statistics, and applications.

• Customer Service – Principles and processes for providing customer services, including customer needs assessment, meeting quality standards for services, and evaluating customer satisfaction.

• Personnel and Human Resources – Principles and procedures for personnel recruitment, selection, training, compensation and benefits, labor relations and negotiation, and personnel information systems.

Abilities:

• Deductive Reasoning – Apply general rules to specific problems to produce answers that make sense.

• Information Ordering – Arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).

• Oral Comprehension – Listen to and understand information and ideas presented through spoken words and sentences.

• Problem Sensitivity – Tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.

• Written Comprehension – Read and understand information and ideas presented in writing.

• Mathematical Reasoning – Choose the right mathematical methods or formulas to solve a problem.

Skills:

• Complex Problem Solving – Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

• Critical Thinking – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.

• Speaking – Talking to others to convey information effectively.

• Judgment and Decision Making – Considering the relative costs and benefits of potential actions to choose the most appropriate one.

• Operations Analysis – Analyzing needs and product requirements to create a design.

• Reading Comprehension – Understanding written sentences and paragraphs in work-related documents.

• Coordination – Adjusting actions in relation to others' actions.

• Mathematics – Using mathematics to solve problems.
• Systems Analysis – Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.

• Monitoring – Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

• Management of Personnel Resources – Motivating, developing, and directing people as they work, identifying the best people for the job.

• Management of Material Resources – Obtaining and seeing to the appropriate use of equipment, facilities, and materials needed to do certain work.

Minimum Qualification Requirements
Applicants must meet at least one of the following minimum requirements to qualify for positions in this job classification:

1) All of the following (a and b):
   a. Licensure as a professional engineer; and
   b. Six years of full-time professional work experience in transportation engineering or civil engineering, one year of which must have included supervisory/managerial responsibilities.

2) All of the following (a, b, and c):
   a. Licensure as a professional engineer; and
   b. Five years of full-time professional work experience in transportation engineering or civil engineering, one year of which must have included supervisory/managerial responsibilities; and
   c. Graduation from an accredited college or university with a master’s degree in chemical, civil, construction, environmental, materials, structural, or transportation engineering; engineering management; or a field closely related to transportation engineering.

3) Current, continuous experience in the state executive branch that includes one year of full-time work as a Transportation Engineer Administrator.

Notes
Prior to appointment, applicants must possess active licensure as a professional engineer by the Iowa Engineering & Land Surveying Examining Board.

Effective date: 09/20 SA