CLASS TITLE: STATE BRIDGE ENGINEER

CLASS DEFINITION:

GENERAL STATEMENT OF DUTIES: Within the Department of Transportation, to oversee the administration, development, management and operation of all Bridge Management Division engineering programs including Bridge Management, Bridge Inspection, OSOW Permits, Bridge Preservation and Bridge Ratings, and other programs as assigned; to serve as the State Bridge Engineer and the State Structures Engineer; to oversee the field and engineering operations of such programs; to ensure bridge and structural management systems of the State’s Transportation Improvement Plan (STIP) are in place to allow for the effective oversight of transportation engineering programs; to coordinate program activities with other units and to evaluate their effectiveness; to perform highly difficult and responsible administrative work of a professional civil engineering nature; to plan, program, design and implement the bridge infrastructure asset management program within scope, on schedule, on budget and to the highest quality; to serve as Chief Engineer for Infrastructure in their absence; and to do related work as required.

SUPERVISION RECEIVED: Works under the administrative direction of the Chief Engineer for Infrastructure with considerable latitude for the exercise of initiative and independent judgment; work is reviewed through conferences, productivity assessments and submitted reports for compliance with departmental policies and objectives, laws, rules and regulations.

SUPERVISION EXERCISED: Plans, organizes, directs, coordinates and evaluates the work of a subordinate professional, technical and support staff engaged in carrying out major divisional engineering programs.

ILLUSTRATIVE EXAMPLES OF WORK PERFORMED:

Within the Department of Transportation, to oversee the administration, development, management and operation of all Bridge Management Division engineering programs, including Bridge Management, Bridge Inspection, OSOW Permits, Bridge Preservation and Bridge Ratings, and other programs as assigned.

To serve as the State Bridge Engineer and the State Structures Engineer.

To oversee the field and engineering operations of such programs.

To ensure bridge and structural management systems of the State’s Transportation Improvement Plan (STIP) are in place to allow for the effective oversight of transportation engineering programs.

To coordinate program activities with other units and to evaluate their effectiveness.

To perform highly difficult and responsible administrative work of a professional civil engineering nature.

To plan, program, design and implement the bridge infrastructure asset management program within scope, on schedule, on budget and to the highest quality.

To serve as Chief Engineer for Infrastructure in their absence.

To perform highly difficult and responsible administrative work of a professional civil engineering nature in directing all engineering and technical activities within the bridge management divisional programs.

To review, discuss, approve or reject any specifications or changes in designs and specifications.

To consult with the Chief Engineer and provide advice on matters of policy, special projects, design techniques and matters affecting the state’s bridge engineering programs.

To coordinate program planning and development for asset preservation with other governmental agencies, including the Department of Administration, the United States Department of Transportation (USDOT), Federal Highway Administration (FHWA) and local municipal public works agencies.

To oversee subordinate supervisory personnel and regularly inform them of changes to departmental policies and the latest developments or trends in bridge management practices and industry standards.

To assess and make periodic reports on activities concerning the efficiency of work performed and progress
in bridge program activities.

To oversee employees responsible for staff training and orientation in order to facilitate knowledge of industry standards, promote compliance and meet the numerous demands of the programs.

To assist the Chief Engineer in the formulation of divisional policy and procedures.

To evaluate present programs as to their effectiveness and efficiency in attaining their objectives and to prepare future plans and budget allocations based on this evaluation.

To make recommendations to the Chief Engineer on program planning and implementation, design techniques, budget requirements and staffing needs.

To make recommendations to the Chief Engineer on new bridge, other structural assets (such as tunnels, retaining walls, culverts, sign structures, high mast light poles and dams), and/or engineering programs and to plan, implement, administer and operate such programs as necessary to meet departmental needs.

To coordinate program planning and development with other divisions such as the Offices of Stormwater Management, Highway and Bridge Management Operations, Project Management, Traffic Safety, and other state agencies and local municipalities.

To regularly review existing laws, proposed legislation, rules and regulations involving programs of the Division and make recommendations to the Chief Engineer.

To evaluate present projects as to their effectiveness and efficiency in attaining their objectives; to prepare future plans and budget allocations based on this evaluation.

To make recommendations to the Chief Engineer on design techniques to be utilized.

As required, to assist in the negotiations of labor contracts with the several bargaining units, and the adjudication of labor grievances personnel administration activities.

To do related work as required.

REQUIRED QUALIFICATIONS FOR APPOINTMENT:

KNOWLEDGE, SKILLS AND CAPACITIES: A thorough knowledge of the principles, practices and techniques pertaining to engineering bridges and related structures; a thorough knowledge of the fundamentals involving bridge project management activities including design, planning, maintenance, public works, environmental protection and related engineering problems and techniques peculiar to this state; a high-degree of organizational skill and administrative ability; a thorough knowledge of administrative principles and techniques commonly used in directing and coordinating a state bridge engineering program; a thorough knowledge of bridge management and ratings principles, methods, practices, standards and organization; a thorough knowledge of the principles, practices and techniques of management and public administration; the ability to apply institutional knowledge in the administration, control and coordination of several engineering and engineering support sections; a thorough knowledge of the organizational structure and functions of public transportation; the ability to develop, inspect and evaluate complex engineering plans using commonly accepted planning and analytical techniques; a fundamental knowledge of engineering computations, analyses and presentations; a thorough knowledge of federal and state laws relating to transportation administration, engineering and enforcement programs; a working knowledge of general and cost accounting procedures as well as government finance policies and procedures; a familiarity with planning and analytical techniques; the ability to evaluate the effectiveness of programs and to recommend changes to make them effective; the ability to evaluate the effectiveness of programs, identify problems and work creatively to improve them; the ability to develop and maintain effective working relationships with private, public, press and elected officials; the ability to plan, organize, review and evaluate the work of a staff of professional, technical, support and other employees; and related capacities and abilities.

EDUCATION AND EXPERIENCE:

Education: Possession of at least a bachelor’s degree from an ABET accredited program at a college or university of recognized standing with specialization in Civil Engineering; and

Experience: A minimum of seven years (7) years of responsible employment as a Managing Engineer or its equivalent or as a registered professional civil engineer in a responsible lead or supervisory position in a
specialized engineering program such as: bridge inspection, bridge ratings, or bridge preservation or other comparable level bridge/civil engineering program within a public agency or in the private sector.

**SPECIAL REQUIREMENT:** At the time of appointment, must possess a Certificate of Registration as a Professional Engineer (PE) issued by the Rhode Island State Board of Registration for Professional Engineers, or a State licensing board which offers reciprocity with the State of Rhode Island, and must maintain such certification as a condition of continued employment.

Class Created: December 20, 2020