**STATE OF SOUTH DAKOTA CLASS SPECIFICATION**

**Class Title: Transportation Lead Project Engineer** **Class Code: 40854**

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## A. Purpose:

Provides work direction and engineering expertise for assigned professional positions in developing and implementing transportation projects to construct, reconstruct, rehabilitate, maintain, and enhance the state's transportation system and to ensure projects are completed with accuracy and in a timely manner.

## B. Distinguishing Feature:

Transportation Lead Project Engineers provide work coordination and direction and engineering expertise to a minimum of four professional positions, at least one of which is a Transportation Project Engineer, and manage assigned transportation projects.
Transportation Project Engineers are assigned transportation projects to manage, and work independently with minimal supervision.
Engineering Supervisors supervise a minimum of ten positions and provide administrative direction over assigned engineering activities.

## C. Functions:

*(These are examples only; any one position may not include all of the listed examples nor do the listed examples include all functions which may be found in positions of this class.)*

1. Provides work direction and interpretation of engineering standards and department guidelines to other professional staff to create cost-effective and constructible transportation projects.
   a. Troubleshoots problems and develops solutions which comply with standards.
   b. Provides technical assistance to team members, contractors, other public agencies, and consultants.
   c. Monitors subordinates' work to ensure correctness and compliance.
   d. Reviews plans and notes discrepancies, coordinates reviews among agencies, and resolves interagency problems.
   e. Recommends updates to engineering standards, program policies, and procedures.

2. Organizes and prioritizes assigned transportation projects, and schedules and directs personnel to ensure deadlines are met and projects are completed on schedule.
   a. Determines procedures, personnel, and equipment required for assigned projects.
   b. Conducts meetings and public hearings to provide project information to contractors and other affected persons.
   c. Conducts final detailed reviews and inspections of assigned projects and authorizes final documentation.

3. Distributes assigned project work to team members according to their skill levels, sets and monitors deadlines for work to be accomplished, and verifies accuracy and completeness of work to facilitate the flow of work through the unit.

4. Manages self-assigned projects by developing designs, reviewing plans, and administering construction contracts to ensure assigned transportation projects are completed as scheduled.

5. Performs other work as assigned.

**D. Reporting Relationships:**

Reports to an administrative engineer. Does not supervise but provides daily work direction and technical expertise to technicians, draftsmen, and engineers.

**E. Challenges and Problems:**

Challenged to direct and coordinate a variety and number of projects with varying degrees of difficulty, in some cases over an extensive geographical area, assigned to professional positions with different levels of expertise. This is difficult because incumbents must acquire and maintain knowledge of each project, coordinate personnel and equipment among projects, ensure compliance with state and federal requirements, and deal with unexpected outside influences. Further challenged to accomplish self-assigned projects while overseeing the work of others.

Problems include plan, design, data, or analytical errors; evaluating and approving project changes; scheduling activities; changes in engineering practices that affect assigned work; and coordinating specialty crews among projects.

**F. Decision-making Authority:**

Decisions include determining the level of direction needed for assigned team members; whether consultants' and contractors' work is in compliance; when project changes are needed and whether alternatives comply with state and federal guidelines; priority of assigned projects; whether to accept techniques or materials that deviate from standards; whether projects are complete and payment should be made; and recommendations for revisions to standards, specifications, procedures, and policies.

Decisions referred include projects assigned to the team; final approval of completed work; final approval of policies, procedures, standards and specifications; and authorization of payment.

**G. Contact with Others:**

Daily contact with assigned professionals to provide work direction and monitor progress; with the public, other agencies, and landowners to explain project effects and discuss concerns; weekly contact with federal officials to discuss project progress and determine compliance with federal standards; and frequent contact with other offices and staff to obtain environmental and archaeological permits and specialized engineering advice, and to coordinate work.

**H. Working Conditions:**

Works in a typical office environment and on construction sites and may be exposed to weather and environmental conditions, high traffic and heavy equipment, and hazardous materials and situations.

## I. Knowledge, Skills, and Abilities:

Knowledge of:

- the theories, principles, and practices of civil engineering;
- personnel management sufficient to assign and direct the work of other professional positions;
- the technical phases of civil engineering such as surveying, hydraulics, materials, and design;
- the exact sciences such as mathematics, physics, and chemistry;
- applicable state and federal laws and rules;
- department procedures and practices;
- computer applications.

Ability to:

- provide work direction and technical expertise to other professional positions;
- evaluate and understand the professional skills of assigned team members and assign work accordingly;
- prepare, interpret, and use civil engineering plans, maps, specifications, and technical reports;
- perform mathematical computations as they apply to engineering planning, design development, and construction;
- operate a computer;
- communicate sufficiently to convey information to the public, contractors, consultants, and local governments.