

HIGHWAY MATERIALS DESIGNER M56710

DESCRIPTION OF OCCUPATIONAL WORK

Under limited supervision, reviews and analyzes highway construction plans and performs other technical paraprofessional engineering work on assigned projects, to identify constructability, phasing, design, and quantities for complex and special highway construction projects; may lead the work of others; performs related work as required.

DISTINGUISHING CHARACTERISTICS: (A position is assigned to this class based on the scope and level of work performed as outlined below.)

EXAMPLES OF WORK: (A position may not be assigned all the duties listed, nor do the listed examples include all the duties that may be assigned.)

Determines the quantity of materials needed for assigned projects, including resurfacing projects with complete or partial rebuild, or with full depth asphalt concrete placement; projects with various construction phasing; or projects that combine resurfacing with new and/or existing Portland cement concrete pavements and/or curb and gutter, or concrete joint and panel repair.

Receives or initiates work assignments; schedules, assigns, and coordinates their work in accordance with established requirements to assist supervisory staff in the timely accomplishment of the assigned workload.

Analyzes available project information and determines specific design details and notes to be used on plans.

Checks the calculations and detailed drawings on plans prepared by co-workers, consultants, and others to ensure completeness, accuracy and adherence to standard specifications, special contract provisions and constructability.

Communicates with co-workers, designers, consultants, contractors, the Federal Highway Administration and highway staff in various state and local agencies to interpret plans or guidelines, provide guidance on estimating pay items, make recommendations, solve problems, and explain construction concepts.

Researches, retrieves, and organizes preliminary data necessary for use by pavement design engineer during the pavement design process.

Conducts on-site inspection trips to active projects to gather information and/or review project conditions; troubleshoots construction problems including concrete or base construction problems; provides information and corrective action advice to construction staff.

Assesses and improves materials design practices by reviewing construction projects.

KNOWLEDGE, SKILLS, AND ABILITIES REQUIRED: (These are needed to perform the work assigned.)

Knowledge of: construction of projects including engineering and geometrics, state and federal guidelines, policies, and regulations regarding construction of highways; functions and uses of highway construction equipment; agency software applications used such as Microstation.

Skill in: operating the agency's computer terminals, personal computers, camcorders and cameras; oral communications resolving issues involving highway design.

Ability to: perform mathematical design calculations required for complex construction projects; detect errors, discrepancies, and omissions through examination of detailed drawings and calculations; analyze special and complex construction projects to determine design accuracy and constructability; guide and instruct highway and materials designers.

MINIMUM QUALIFICATIONS: (Applicants will be screened for possession of these qualifications. Applicants who need accommodation in the selection process should request this in advance.)

Three years of experience in preparing design plans, sampling, and testing materials, writing construction specifications, applying construction standards, and/or conducting inspections relative to highway or other civil engineering projects. OR Post-high school coursework/training in the design field mentioned above may substitute for two of the three years' experience required. Equivalent combinations of experience or coursework in the areas listed may substitute on a year-for-year basis.

SPECIAL NOTES:

State agencies are responsible to evaluate each of their positions to determine their individual overtime eligibility status as required by the Fair Labor Standards Act (FLSA).

Some positions may require overnight travel.

Possession of a valid driver's license may be required.

Established: 05/02

Note: Classification-specification is subject to change. Please refer to the Nebraska State Personnel Job Specification website at <https://das.nebraska.gov/personnel/classcomp/jobspecs/jobspecs.html> to ensure this represents the most current copy of the description.

The following is a summary of changes made to this class specification.

Section	Change Description	Effective Date
Minimum Qualifications	Revised MQs	5/6/24