

**State of Michigan
Civil Service Commission**
Capitol Commons Center, P.O. Box 30002
Lansing, MI 48909

Position Code 1. TRALSPL2B72R

POSITION DESCRIPTION

This position description serves as the official classification document of record for this position. Please complete the information as accurately as you can as the position description is used to determine the proper classification of the position.

2. Employee's Name (Last, First, M.I.)	8. Department/Agency TRANSPORTATION CENTRAL OFFICE
3. Employee Identification Number	9. Bureau (Institution, Board, or Commission) Bridges and Structures
4. Civil Service Position Code Description TRANSPORTATION ENG LIC SPL 2	10. Division Structure Project Division
5. Working Title (What the agency calls the position) Assistant Bridge Unit Design Engineer	11. Section Structure Design Section
6. Name and Position Code Description of Direct Supervisor NADJARIAN, JOHN V; ENGINEER MANAGER LICENSED-3	12. Unit Bridge Design #2
7. Name and Position Code Description of Second Level Supervisor KOPPER, KYLE C; ENGINEER MANAGER LICENSED-4	13. Work Location (City and Address)/Hours of Work 425 W. Ottawa Street, Lansing, MI 48933 / M-F, 7:30am-4:30pm (hours may vary)

14. General Summary of Function/Purpose of Position

This position functions as the Assistant Bridge Unit Design Engineer responsible for assisting in the management of the plan development process of projects, performing the more complex and unusual design projects prepared by the unit, and assisting with project coordinator oversight duties for consultant design projects during absences or high workloads. Projects vary from complex to simple and include bridge rehabilitation, reconstruction, and replacement. This position assists the Bridge Design Unit Manager in monitoring, coordinating, and assigning appropriate resources within the unit. It is also responsible for mentoring and training of unit staff and providing feedback and guidance to supervisor and others in the unit. This position serves as the technical expert and provides assistance to unit staff to ensure quality control, quality assurance, and consistency in carrying out bridge design projects. Position is also responsible for responding to and resolving complex and unusual design related construction issues; reviewing, preparing, analyzing, and completing reports for accuracy and taking appropriate actions; providing estimates; preparing special provisions; and attending meetings and public hearings. This position assists in the plan development process of projects of varying complexity, prepared by contracted consultant design professionals, when additional resources are needed to meet the unit's project deadlines.

15. Please describe the assigned duties, percent of time spent performing each duty, and what is done to complete each duty.

List the duties from most important to least important. The total percentage of all duties performed must equal 100 percent.

Duty 1

General Summary:

Percentage: 35

Responsible for the management of multiple projects to ensure schedules and costs meet the expected goals of the projects assigned to the unit. Assists the Region Bridge Design Engineer by reviewing scope of work and budget and developing initial design schedule for bridge rehabilitation, bridge replacement, and new bridge construction projects to be prepared by in-house staff or via innovative contracting procedures. Tracks and maintains schedules utilizing MDOT's management software.

Performs all project management duties for Unit projects as delegated by Unit Supervisor.

Individual tasks related to the duty:

- Investigates, evaluates, and implements new design specifications and changes to design and methodology.
- Maintains and revises network for assigned projects utilizing the Planisware Schedules. Monitors and assists Supervisor to complete project programming responsibilities on assigned projects utilizing JobNet and Phase Initiator (PI).
- Develops an estimate of the person hours required to perform the identified work in the scoping document.
- Assists in development of overall in-house project work plans. Tracks and monitors the plans to ensure progress toward meeting the schedule requirements.
- Monitors activities on multiple projects ranging from complex to simple to ensure effective operation and progress. Clarifies expected responsibilities and identifies target dates of critical states of plan preparation. Ensures work is done in conformance with design standards and practices, staying within the contract schedule and budget, and assembles the bids letting package.
- Communicates project status to Supervisor and MDOT management through project data.
- Reviews final project plans and specifications for final project turn in for letting.
- Reviews alternative designs, when appropriate, and makes recommendations to management.
- Assists with oversight of junior Engineers design work to make sure that it is in accordance with all MDOT Bridge Design guidelines and specifications.
- Reviews design-build plans and assists with review of bridge plans and specifications for bridge projects built using innovative contracting procedures.
- Reviews, prepares, analyzes, and completes reports for accuracy and takes appropriate actions on bridge design projects.
- Makes recommendations to the Unit Supervisor on the unit's assigned workload. Provides guidance in monitoring, organizing, and coordinating work of design unit personnel.
- Provides guidance in the training of personnel in the unit in the various phases of bridge design and plan preparation and reviews their work.
- Advises the Unit Supervisor on the progress being made to ensure compliance with production schedules.

Duty 2

General Summary:

Percentage: 35

Serves as the technical expert and provides guidance to unit staff on all design related areas pertaining to all projects assigned by supervisor. Performs the more complex and unique design projects (e.g., structures with curved girders, complex staging, multiple complex utilities that are to be considered during the design phase, uneven spans/configurations, new materials etc.) in addition to preparing performance measures of assigned tasks, quality control review and direction for completing other projects assigned to the unit. Functions as the unit's technical expert for all software and resources associated with development of bridge projects.

Individual tasks related to the duty:

- Performs the more complex and unique design projects/tasks.
- Prepares cost comparisons of alternative design studies and prepares engineer estimates for projects.
- Reviews plans, special designs, and utility conflicts for coordination with the unit's projects.
- Attends and facilitates meetings such as project kick off meetings, scope verification meetings, on-site reviews, utility meetings, plan review meetings, and Final Project Coordination (FPC) meetings. Implements recommendations into project plans.
- Uses design computer programs including Bridge Design System (BDS), Leap Bridge Concrete, Leap Bridge Steel, MDX, and MicroStation.
- Investigates, evaluates, and makes recommendations for implementation and use of computer programs.

- Participates in task groups and committees as an expert in bridge design when requested by the Department. Assists with development and coordination of training programs for bridge design engineers and other related staff. Trains, assists, and makes recommendations to unit design engineers using various computer programs.
- Provides reviews and bridge technical expertise for projects administered by the Innovative Contracting Unit.
- As assigned by supervisor, conducts quality assurance/quality control (QA/QC) of plans, specifications, and proposals of bridge design projects created by the unit. Assists Unit Supervisor in finalizing QA/QC for assigned in-house projects.
- Reviews draft scope of work document, develops an initial schedule, and provides feedback to Bridge Program Engineer and Region Bridge Engineer prior to and during programming.
- Assists with review of bridge plans and specifications for bridge projects administered by the Innovative Contracting Unit.

Duty 3

General Summary:

Percentage: 25

Performs consultant coordination.

Individual tasks related to the duty:

- Assists in the administration of consultant work that is needed to support the completion of the unit's projects.
- Communicates with the consultant to keep the project on schedule.
- Prepares Requests for Proposals, schedules, and scopes for projects.
- Prepares an evaluation of the consultant's performance on the project. This includes assembling of any intermediate performance documents that were developed during the project progress.
- Provides technical assistance to consultants and serves as liaison between consultant and MDOT. Addresses project deficiencies to the consultant.
- Reviews and approves progress payment invoices to ensure requests for payment correlate to work performed.

Duty 4

General Summary:

Percentage: 5

Other duties as assigned.

Individual tasks related to the duty:

- Other duties as assigned.

16. Describe the types of decisions made independently in this position and tell who or what is affected by those decisions.

Must remain current with changes in engineering technology. Must have the ability to answer or arrive at solutions to most engineering questions and problems raised by members of the bridge design unit; ability to deal tactfully with unit staff, supervisors, the public, and officials of outside agencies; and ability to lead, manage, and motivate others. Development of special provisions or special details when standard plans or specifications do not apply. Developing scope of work documents based on project concept statements.

17. Describe the types of decisions that require the supervisor's review.

Unique situations with no past policy or when existing policy is unclear. Assistance in mitigating controversies. Revision of program schedule.

18. What kind of physical effort is used to perform this job? What environmental conditions in this position physically exposed to on the job? Indicate the amount of time and intensity of each activity and condition. Refer to instructions.

Work involves transporting heavy or bulky loads; extended periods of time working from a computer; and heavy workloads working with specific deadlines. Occasional field reviews of proposed or active road/bridge construction projects require traversing various types of terrain and exposure to dirt, fumes, heavy and high-speed traffic, or adverse weather conditions. Ability to review plans or perform field related duties. Ability to travel statewide to field visits and project offices is required, with possible overnight stays. Position may require availability outside normal working hours based on operational needs.

19. List the names and position code descriptions of each classified employee whom this position immediately supervises or oversees on a full-time, on-going basis.

Additional Subordinates

20. This position's responsibilities for the above-listed employees includes the following (check as many as apply):

N	Complete and sign service ratings.	N	Assign work.
N	Provide formal written counseling.	N	Approve work.
N	Approve leave requests.	N	Review work.
N	Approve time and attendance.	N	Provide guidance on work methods.
N	Orally reprimand.	N	Train employees in the work.

22. Do you agree with the responses for items 1 through 20? If not, which items do you disagree with and why?

Yes.

23. What are the essential functions of this position?

This position functions as the Assistant Bridge Unit Design Engineer responsible for assisting in the management of the plan development process of projects, performing the more complex and unusual design projects prepared by the unit, and assisting with project coordinator oversight duties for consultant design projects during absences or high workloads. Projects vary from complex to simple and include bridge rehabilitation, reconstruction, and replacement. This position assists the Bridge Design Unit Manager in monitoring, coordinating, and assigning appropriate resources within the unit. It is also responsible for mentoring and training of unit staff and providing feedback and guidance to supervisor and others in the unit. This position serves as the technical expert and provides assistance to unit staff to ensure quality control, quality assurance, and consistency in carrying out bridge design projects. Position is also responsible for responding to and resolving complex and unusual design related construction issues; reviewing, preparing, analyzing, and completing reports for accuracy and taking appropriate actions; providing estimates; preparing special provisions; and attending meetings and public hearings. This position assists in the plan development process of projects of varying complexity, prepared by contracted consultant design professionals, when additional resources are needed to meet the unit's project deadlines.

24. Indicate specifically how the position's duties and responsibilities have changed since the position was last reviewed.

25. What is the function of the work area and how does this position fit into that function?

Position functions as the bridge unit design engineering specialist responsible for assisting in the management of the plan development process of projects varying from complex to simple for bridge rehabilitation, bridge replacement, or new bridge construction.

26. What are the minimum education and experience qualifications needed to perform the essential functions of this position.

EDUCATION:

Possession of a Bachelor of Science degree in engineering.

EXPERIENCE:

Transportation Engineering Licensed Specialist 13

Four years of professional experience equivalent to a Transportation Engineer, including two years equivalent to a Transportation Engineer P11 or one year equivalent to a Transportation Engineer 12 or Transportation Engineer Licensed 12.

KNOWLEDGE, SKILLS, AND ABILITIES:

Ability to:

- Effectively communicate.
- Organize and delegate the work on several projects.

Knowledge of:

- MDOT and American Association of State Highway and Transportation Officials (AASHTO) bridge design standards and guidelines.
- Planisware (PPMS), JobNet, and PI and their functions.

CERTIFICATES, LICENSES, REGISTRATIONS:

- Possession of a registered professional engineering license as required by the State of Michigan.
- Possession of a valid driver's license is preferred.

NOTE: Civil Service approval does not constitute agreement with or acceptance of the desired qualifications of this position.

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Supervisor

Date

TO BE FILLED OUT BY APPOINTING AUTHORITY

Indicate any exceptions or additions to the statements of employee or supervisors.

None

I certify that the entries on these pages are accurate and complete.

KELSEA COLE

9/8/2025

Appointing Authority

Date

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Employee

Date