

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

<b>Position Code</b> 1. TRAENGEE12R
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## 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.

<b>2. Employee's Name (Last, First, M.I.)</b>	<b>8. Department/Agency</b> TRANSPORTATION CENTRAL OFFICE
<b>3. Employee Identification Number</b>	<b>9. Bureau (Institution, Board, or Commission)</b> Bureau of Development
<b>4. Civil Service Position Code Description</b> Transportation Engineer-E	<b>10. Division</b> Design Division
<b>5. Working Title (What the agency calls the position)</b> Transportation Engineer, Bridge - Standards	<b>11. Section</b> Quality Assurance Section
<b>6. Name and Position Code Description of Direct Supervisor</b> ZOKVIC, VLADIMIR; ENGINEER MANAGER LICENSED-3	<b>12. Unit</b> Design Standards Unit
<b>7. Name and Position Code Description of Second Level Supervisor</b> SHULICK, MARK A; ENGINEER MANAGER LICENSED-4	<b>13. Work Location (City and Address)/Hours of Work</b> 425 W. Ottawa Street, Lansing, MI 48933 / M-F 7:30 a.m. - 4:30 p.m. (Hours may vary)

**14. General Summary of Function/Purpose of Position**

This position is responsible for maintaining up-to-date compliant bridge design practices and policies and providing quality technical and procedural instructions to designers of the Michigan Department of Transportation (MDOT) bridge network. This position assists in the development of bridge design standards, manuals, and guides for use in the design of state and federal bridge projects, and gathers historical guidance in the use, development, and interpretation of these publications.

**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: 60**

Responsible in the production and maintenance of bridge design standards, informational and instructional material.

**Individual tasks related to the duty:**

- Recommend and prepare revisions to the statewide specialist including national specifications, changes to MDOT policies and grammatical updates to the Bridge Design Standard Plans, Bridge Design Manual, and Bridge Design Guides.
- Review suggestions for revisions to Bridge Design Standard Plans, Bridge Design Manual, and Bridge Design Guides submitted by MDOT design personnel and other agencies and provide input on the suggestions to the statewide specialist.
- Review and make recommendations relevant to the American Association of State Highway and Transportation Officials (AASHTO) specification changes in MDOT design procedures.
- Assist in reviews from internal experts and the Federal Highway Administration (FHWA) for approval of revisions to standard plans. Provide recommendations to statewide specialists.
- Participate in the process of creating the monthly announcements of newly revised reference material. Provide updated materials and draft descriptions of changes for review by statewide specialist. This includes the Bridge Design Manual, special details, and standard plans.

**Duty 2**

**General Summary:**

**Percentage: 20**

Gather and provide technical information/design on MDOT and National bridge standards and policies, provide designers with project specific technical documentation and details, and assist with maintaining and organizing historical archives of the evolution of bridge design standards, manuals, and guides.

**Individual tasks related to the duty:**

- Provide design analysis for typical and conventional structural problems (e.g., monolithic glare screens) that arise in the design phase.
- Ensure compliance with AASHTO Load and Resistance Factor Design (LRFD) and other national standards and specifications by reviewing various publications (e.g., AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications, American Railway Engineering and Maintenance-of-Way Association Specifications (AREMA), Accelerated Bridge Construction (ABC) techniques, etc.).
- Respond to bridge related questions submitted to the bridge resource email box.
- Provide typical and conventional design details (e.g., why the spacing of a railing reinforcement cannot be altered, how to interpret rebar/reinforcement spacing tables) to contractors, consultants, academics, and other occasional inquirers.
- Provide information for research projects as they relate to MDOT Bridge Design practices such as history of a bridge topic, MDOT railing development, reinforcement spacing, concrete strengths and types, etc.
- Provide designers with miscellaneous bridge details that exist and are not included in standard plans for railings, expansion joints, and beam details.
- Assist with maintaining bridge design standards, manual, guides, and historical files.
- Propose improvements to guides and policies that are under consideration for revisions.

**Duty 3**

**General Summary:**

**Percentage: 10**

Participate in technical and non-technical training, meetings, seminars, and conferences to aid in career development and preparation for registration as a Professional Engineer.

**Individual tasks related to the duty:**

- Actively engage in discussions about career goals, technical interests, and career development needs.
- Participate in technical training provided by MDOT and the State of Michigan Learning Center.
- Participate in leadership, professional practice, and other training provided by MDOT and the State of Michigan.
- Develop technical knowledge with the goal of becoming a Registered Professional Engineer.
- Attend seminars, conferences, meetings, or training as required.
- Participate at various meetings related to bridges and within the section. These could include various technical teams with the Bureau of Bridges and Structures (BOBS), as well as unit and section meetings.
- Participate on technical committees or teams.

**Duty 4**

**General Summary:**

**Percentage: 10**

Other duties as assigned, which may include, but are not limited to:

**Individual tasks related to the duty:**

- Attend field construction projects to evaluate unit standards, guides and manuals for use and constructability.
- Assist other areas of the Quality Assurance Section in times of backlog.
- Crosstrain within the Section to manage and share knowledge.
- Assist the unit Supervisors with any special assignments.
- Other miscellaneous duties as assigned by the Supervisor.

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

This position uses engineering judgement to make independent decisions on incorporating pertinent engineering design publications and current industry practices in design situations where the information is clearly defined. This affects the integrity and consistency of design practice. Decisions are basic or based on past precedents.

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

- When release of revisions to standards, manuals or guides substantially impact department policy and require management prior approval.
- When revisions require specialized review by department committees or experts.

**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 may be performed in an office or field locations. Travel may be required occasionally. This position requires extensive use of a computer. Due to the nature of some of the updates and reporting requirements, there may be instances that demand the delivery of information in short time frames. 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):**

- |   |  |
|---|--|
| <input type="checkbox"/> Complete and sign service ratings. | <input type="checkbox"/> Assign work.  |
| <input type="checkbox"/> Provide formal written counseling. | <input type="checkbox"/> 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 is responsible for maintaining up-to-date compliant bridge design practices and policies and providing quality technical and procedural instructions to designers of the MDOT bridge network. This position assists in the development of bridge design standards, manuals, and guides for use in the design of state and federal bridge projects, and gathers historical guidance in the use, development, and interpretation of these publications.

**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?**

The Standards Unit functions as a central publisher of technical design practices, policies, and procedures in the development of project design plans. This position assists in producing and publishing the instructional standards and guidance to internal and consultant bridge designers who develop project plans and specifications.

**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.

Possession of a bachelor of science degree in civil engineering, preferred.

**EXPERIENCE:**

**Transportation Engineer 9**

No specific type or amount is required.

**Transportation Engineer 10**

One year of professional engineering experience involved in transportation systems and programs equivalent to a Transportation Engineer 9.

**Transportation Engineer P11**

Two years of professional engineering experience involved in transportation systems and programs equivalent to a Transportation Engineer, including one year equivalent to a Transportation Engineer 10.

**Alternate Education and Experience**

**Transportation Engineer 9 - 12**

Possession of a registered professional engineer license as required by the State of Michigan may be substituted for 6 months of experience at the Transportation Engineer 9-12 levels. This substitution may only be used once for any employee for qualification of appointment or early reclassification.

**KNOWLEDGE, SKILLS, AND ABILITIES:**

- Basic engineering knowledge.
- Knowledge of structural design preferred.
- Ability to clearly communicate technical instructional material.

**CERTIFICATES, LICENSES,  
REGISTRATIONS:**

N/A

*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.***

ASHLEY PARSONS

2/28/2025

\_\_\_\_\_  
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