State of Michigan
Civil Service Commission

Capitol Commons Center, P.O. Box 30002
Lansing, MI 48909

Position Code
1. TRAENGAE62R

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)** Bureau of Development
4. Civil Service Position Code Description Transportation Engineer-A	**10. Division** Design Division
5. Working Title (What the agency calls the position) Assistant to Geometric Design Unit Leader	**11. Section** Design Production Section
6. Name and Position Code Description of Direct Supervisor GEDAOUN, IMAD R; ENGINEER MANAGER LICENSED-3	**12. Unit** Geometrics Design Unit
7. Name and Position Code Description of Second Level Supervisor MILLER, NATHAN J; STATE ADMINISTRATIVE MANAGER-1	**13. Work Location (City and Address)/Hours of Work** 425 W. Ottawa Street, Lansing, MI 48933 / M-F, 7:30am-4:30pm (or as approved by supervisor)

14. General Summary of Function/Purpose of Position

This position serves as the recognized resource Assistant Geometric Design Unit Leader responsible for milestone reviews on roadside safety hardware projects. Milestone reviews are conducted at several different stages of project development, such as base plans, preliminary plans, final project coordination plans, etc. Roadside safety hardware includes, but is not limited to, highway impact attenuators, barrier endings, and guardrails.

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: 70**

Serve as the recognized resource Assistant Geometric Design Unit Leader responsible for milestone reviews on roadside safety hardware projects.

Individual tasks related to the duty:

- Assist Geometric Design Unit Leader to ensure quality control, quality assurance, and consistency in executing roadside safety hardware deliverables, including design plans and standard and special details.
- Respond to and resolve complex and unusual design-related issues related to roadside safety milestone reviews. Complex and unusual design-related issues could include guardrail connections between proposed and existing installations, installations on curves, longitudinal and lateral space constraints, other geometric constraints, etc.
- Support Regions, Transportation Service Center's (TSCs), and external consultants and contractors in delivering the Department's roadside safety hardware program and supporting field and design staff development. This position will examine all projects containing roadside safety hardware at milestone review meetings to ensure that the design is compliant with the established standards. If not, this position will work with the designer to determine what steps need to be taken to ensure compliance or mitigate any adverse effects.
- Advise internal and external designers on roadside safety hardware related decisions (e.g., such as the best treatment for shielding an object) at milestone review meetings.
- Provide recommendations to internal and external designers on the inclusion of guardrail in Department projects for replacement based on existing condition, compliance with current standards, and the nature of the work being proposed.

Duty 2

General Summary: **Percentage: 20**

Research, analyze, and make recommendations to the Geometric Design Unit Leader on new and innovative solutions to roadside safety for implementation on Department projects.

Individual tasks related to the duty:

- Investigate and evaluate new roadside safety hardware solutions and make recommendations to the Geometric Design Unit Leader and Roadside Safety Engineer Specialist on potential adoption and acceptance on Department projects.
- Research roadside safety hardware solutions and determine compliance with Department and Federal Highway Administration (FHWA) standards.
- Communicate with Region and TSC personnel, along with consultants and industry partners, regarding roadside safety issues and corrective actions.
- Troubleshoot existing geometrics constraints when roadside safety hardware does not fit the existing environment.
- Determine the need for and schedule on-site roadside safety barrier inspections as warranted.

Duty 3

General Summary: **Percentage: 10**

Special assignments, miscellaneous responsibilities, and other duties as assigned.

Individual tasks related to the duty:

- Assist on research projects as necessary.
- Perform trending and data analytics on roadside safety barrier performance.
- Support and coordinate with the Roadside Safety Engineer Specialist the guardrail inventory and other efforts as requested by the Geometric Design Unit Leader.
- Participate on internal and external committees and industry organizations, such as the Department's Barrier Advisory Committee (BAC), American Association of State Highway and Transportation Officials (AASHTO), Michigan Infrastructure Transportation Association (MITA), and the Transportation Research Board.
- Serve as a resource for roadside safety hardware for contractors for installation and maintenance purposes.
- 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.

Review design plans at milestone submittal meetings and make roadside safety hardware recommendations based on the project needs. These recommendations can impact the overall safety, costs, and operations on projects.

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

- Consult with supervisor in cases pertaining to decision making.
- Whenever new policies, standards, and/or guides are proposed for roadside safety equipment.
- Decisions that may impose major impacts on the Department.
- Decisions that may have a significant impact on Division/Department budgets.
- Decisions where MDOT policy is unclear, needs clarification, or cannot be followed.

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 in an office environment, sitting at a desk and computer for extended periods of time, which may involve repetitive movement.
- Being mobile during on-site reviews requiring engineering measurements.
- Statewide travel with occasional overnight stays may be required.
- Field investigations may involve being in adverse weather, walking on rough/uneven terrain, and working near high-speed traffic.

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?

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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 work area provides technical support in all aspects of roadside design and safety, including roadside safety hardware. This position functions as the assistant to the Geometric Design Unit Leader by providing expertise to the unit in matters related to milestone reviews on roadside safety hardware projects.

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 is preferred.

EXPERIENCE:

Transportation Engineer 12
Three years of professional engineering experience involved in transportation systems and programs equivalent to a Transportation Engineer, including one year equivalent to a Transportation Engineer P11.

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:

Knowledge of:

- Engineering principles and practices used in analyzing traffic safety databases.

Ability to:

- Make mathematical computations.
- Read and interpret engineering plans, specifications, and technical reports.
- Maintain records and prepare reports and correspondence related to the work.
- Communicate effectively with others, verbally and in writing is essential.
- Be self-motivated and disciplined.
- Seek new concepts in order to assist in the establishment of procedures and priorities where none previously existed.
- Make appropriate and apply sound engineering decisions.

CERTIFICATES, LICENSES, REGISTRATIONS:

Possession of a valid driver's license is required.

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 4/14/2023

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**