State of Michigan
Civil Service Commission

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

Position Code
1. TRAENGAE86R

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 Field Services
4. Civil Service Position Code Description TRANSPORTATION ENGINEER-A	**10. Division** Transportation Systems Management and Operations (TSMO)
5. Working Title (What the agency calls the position) Intelligent Transportation Systems Infrastructure Engineer	**11. Section** Intelligent Transportation Systems (ITS)
6. Name and Position Code Description of Direct Supervisor GORMAN, JOSEPH V; ENGINEER MANAGER LICENSED-3	**12. Unit** ITS Architecture and Region Support
7. Name and Position Code Description of Second Level Supervisor FIRMAN, JASON D; ENGINEER MANAGER LICENSED-4	**13. Work Location (City and Address)/Hours of Work** 8885 Ricks Road, Lansing, MI 48917 / M-F 7:30am-4:30pm (hours may vary)

14. General Summary of Function/Purpose of Position

This position serves as an engineer for Intelligent Transportation Systems (ITS) field infrastructure integration in the department's statewide ITS Program. The position oversees the development of specifications and procedures to ensure successful device integration into Michigan Department of Transportation's (MDOT) ITS Applications; coordinates with projects in all MDOT regions to monitor compliance with integration standards, and is the liaison with the Department of Technology, Management, & Budget (DTMB) regarding ITS field devices. This position works closely with MDOT Transportation Operation Centers (TOCs) and central office ITS staff to troubleshoot system operations issues related to ITS infrastructure interactions with the field network or ITS applications and develop innovations for use statewide.

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:** **40**

ITS Project Development, Implementation for Cost Effectiveness.

Individual tasks related to the duty:

- Assesses design plans and technical memos for adherence to ITS design practices and develops recommendations for communication or device alternatives to aid in constructability or decrease project cost.
- Updates ITS special provisions as needed based on constructability issues and changes in technological maturity; adds or removes special provisions from special provisions library as necessary. Identifies the need for and directs the creation of unique special provisions to address project specific issues.
- Addresses problems identified during plan review by providing ITS design direction to consultants and project managers. Coordinates with other central office units to resolve multidisciplinary issues such as utility conflicts, structural modifications, or roadside safety.
- Develops Frequently Used Special Provisions for statewide use. Reviews special provisions for constructability and adherence to applicable industry standards. Remediates or rejects non-conformant specifications and provides project manager with comments necessary for resubmission. Completes approval process for conformant special provisions.
- Oversees the integration of ITS Field Infrastructure from statewide maintenance, projects, and pilot activities into MDOT's ITS Systems.
- Serves as technical support for integration procedures and activities during project implementation Statewide.
- Determines and documents deployment, operational and maintenance needs of various ITS components.
- Provides technical guidance related to infrastructure capacity and capability to consultant team(s) performing ITS designs/studies in the regions, to ensure products being developed meet the requirements of the regions and MDOT, as well as maintains statewide consistency.
- Reviews proposed projects and Call for Projects (CFP) documents for unidentified integration needs, produces detailed costs estimates of engineering and infrastructure resources needed to fulfill identified needs**.**
- Leads ITS integration, operations, and research activities as needed.

Duty 2

General Summary: **Percentage:** **30**

ITS Field Operations, Project Coordination.

Individual tasks related to the duty:

- Coordinates response to device outages, investigates device configuration and operation in available systems to determine root cause, provides recommended action for resolution to appropriate parties at MDOT, DTMB, or consultant staff.
- Oversees system interfaces proposed by projects. Works with project staff, other MDOT staff, and/or the Department of Technology, Management, and Budget (DTMB) to ensure new interfaces comply with State of Michigan policies and are compatible with existing systems.
- Oversees vendor contracts by creating RFPs, developing cost estimates, reviewing vendor proposals, coordinating the vendor selection and contract award process, resolving contract issues, negotiating with vendors on contract changes, acceptance of vendor work, recommending vendor payment invoices, and preparing vendor performance evaluations. Utilizes department management systems to coordinate resources and tasks to maximize efficiency and effectiveness of the project team and to ensure the assigned project tasks and deliverables are completed on time and within budget as in the approved scope.
- Serves as a Project Manager on ITS related research projects. Develops research statements, requests for proposals and selects research team for safety related projects or conducts internal research on topics of interest to the department.
- Facilitates coordination between the ITS Program Office and DTMB in areas of device integration, network capacity and capability by assessing problems, identifying stakeholders, developing action plans, and implementing agreed upon solution.
- Identifies areas of process alignment between ITS projects and DTMB processes that would improve project quality and delivery. Develops implementation plan for identified areas of alignment.
- Provides guidance to project teams and DTMB on device capability and operation in matters related to proposed security enhancements.
- Works closely with DTMB Agency Services staff to identify and mitigate potential field device impacts resulting from proposed changes to the ITS field Network or ITS Applications.

Duty 3

General Summary: **Percentage:** **15**

ITS Field Infrastructure Operations, ITS device research and development.

Individual tasks related to the duty:

- Researches new devices or operational paradigms that have potential to improve MDOT's ability to conduct traffic operations. Forecasts future needs, estimates implementation costs, and determines if new technology should be used. Develops performance measures for post implementation studies.
- Manages the development of functional requirements and specifications of new ITS products needed to ensure project and programmatic goals are met.
- Develops, implements, and manages tests for new devices designed to assess compatibility with other ITS Infrastructure and Applications.
- Assesses testing needs and recommends specific services, equipment and products needed for the ITS laboratory for procurement.
- Participates in multi-state peer exchanges and pooled fund studies.

Duty 4

General Summary: **Percentage:** **10**

Supports the continued operations of ITS Applications.

Individual tasks related to the duty:

- Leads efforts to rectify device operation issues within ITS Applications, while working closely with the ITS Maintenance contractor, Application Vendor, DTMB, and other ITS Program Office staff.
- Determines device related impacts to ITS applications based on proposed project systems engineering documentation. Works with project team, other unit engineers, or application business owner to resolve.
- Collaborates with manager and subject matter experts on the review of new policies and determination of impacts to ITS Application operations.
- Leads efforts to enter and unify device integration across all ITS Applications.

Duty 5

General Summary: **Percentage:** **5**

Other duties assigned.

Individual tasks related to the duty:

- Assists with other duties in support of ITS Program Operations.

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

- Decisions are made independently while adhering to guidelines, policies, and procedures.

- Personal judgment based upon prior experiences based on prior direction.

- Whenever possible, identify, recommend, and implement improvements in the work methods and materials utilized in the position.

- Decisions impacting project delivery while adhering to approved project specific systems engineering documentation.

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

- When there is a need for interpretation of MDOT guidelines, policies, or procedures; or when an existing policy is unclear.

- When a decision may be required from executive level, personnel matters, assistance in mitigating controversies, or revision of a program schedule.

- Decisions impacting statewide programs.

- Establishment of program objectives.

- Decisions impacting budgets.

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.

Moving in and around an office setting, including extensive use of a computer. Ability to travel to projects and offices statewide. Traversing uneven terrain, including roadway slopes and transporting materials up to 25 lbs. Working near traffic, including in and out of traffic. 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 serves as an engineer for Intelligent Transportation Systems (ITS) field infrastructure integration in the department's statewide ITS Program. The position oversees the development of specifications and procedures to ensure successful device integration into Michigan Department of Transportation's (MDOT) ITS Applications; coordinates with projects in all MDOT regions to monitor compliance with integration standards, and is the liaison with the Department of Technology, Management, & Budget (DTMB) regarding ITS field devices. This position works closely with MDOT Transportation Operation Centers (TOCs) and central office ITS staff to troubleshoot system operations issues related to ITS infrastructure interactions with the field network or ITS applications and develop innovations for use statewide.

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?

This position serves as the senior engineer for Intelligent Transportation Systems (ITS) field infrastructure integration in the department's statewide ITS Program. As a senior engineer the position will oversee advanced level engineering tasks related to the development of specifications and procedures to ensure successful device integration into MDOTs ITS Applications; coordinates with projects in all MDOT regions to monitor compliance with integration standards, and is the liaison with the Department of Technology, Management, & Budget (DTMB) regarding ITS field devices. This position works closely with MDOT Transportation Operation Centers (TOCs) and central office ITS staff to troubleshoot complex, multi-disciplinary system operations issues and develop innovations for use statewide.

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 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.

Ability to:

- Use personal computers and departmental software programs.
- Make mathematical computations.
- Interpret engineering plans, specifications, and technical reports.
- Maintain records prepare reports and correspondence related to the duties.
- Communicate effectively with others.
- Maintain favorable public relations.
- Comply with Guidance Document 10118 - Personal Protective Equipment (PPE) Policy.

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.

N/A

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

CHRISTINA TIJERINA 6/3/2025

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**