

**State of Michigan
Civil Service Commission**

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

Position Code

1. TRALSPL2C32R

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) Highway Operations |
| 4. Civil Service Position Code Description TRANSPORTATION ENG LIC SPL 2 | 10. Division University Region |
| 5. Working Title (What the agency calls the position) Senior ITS Specialist | 11. Section Development |
| 6. Name and Position Code Description of Direct Supervisor PALMER, STEPHANIE R; ENGINEER MANAGER LICENSED-3 | 12. Unit Traffic and Safety |
| 7. Name and Position Code Description of Second Level Supervisor SORENSEN, SAMUEL; ENGINEER MANAGER LICENSED-4 | 13. Work Location (City and Address)/Hours of Work 4701 W. Michigan Ave., Jackson, MI 49201 / Mon - Fri; 7:00 am - 3:30 pm (hours may vary) |

14. General Summary of Function/Purpose of Position

This position is responsible for Intelligent Transportation Systems (ITS) program management, project scoping, project design, and systems engineering and management. This position responds to and solves complex/unusual ITS related project issues; prepares reports, estimates, and technical specifications; attends meetings and public hearings; and directly works with the region Traffic Safety and Operations (TS&O) Engineer, the Statewide Transportation Operation Center (STOC) Engineer, Traffic Operations Engineer, and ITS Program Office serving as the technical expert in ITS design, installation, systems engineering, telecommunications, Connected Vehicle (CV), and electrification. This position also assists in training Region and Transportation Service Center (TSC) design, construction, and operations staff and provides feedback, mentoring, and guidance to others in the region TS&O Unit.

This position requires possession of a valid driver's license to perform field reviews and inspections of projects.

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: 20

Serve as the region technical expert coordinating with multiple programs and funding sources to ensure adequate funding of ITS projects and initiatives. Coordinate construction of ITS with Region's rehabilitation and reconstruction (R&R), bridge, and Capital Preventive Maintenance (CPM) program.

This duty requires possession of a valid driver's license to perform field reviews and inspections of projects.

Individual tasks related to the duty:

- Program, obligate, and ensure assigned projects are on track and properly funded.
- Engage with STOC operations, ITS Program Office, University Region, TSC's, and others for ITS needs determination and prioritization for annual Call-For-Projects, ensuring that the projects submitted meet the highest needs of the stakeholders. Prepare, or oversee the preparation of, the necessary projects submittals including scoping, cost estimates, and project justification.
- Secure funding for projects utilizing the rules and regulations governing funding sources such as Congestion Mitigation and Air Quality (CMAQ), ITS Template, R&R, Operations, etc.
- Align decisions with the Michigan Department of Transportation (MDOT) mission, statewide ITS Strategic Plan, University Region Strategic Plan, Region ITS Architecture, and customer needs.
- Develop and maintain the Planisware networks for assigned projects. Utilize available MDOT proprietary applications such as JobNet, Phase Initiator (PI), Planisware, etc. to program, document, and monitor project tasks, budgets, and schedule.
- Track and report on funding and schedule of ITS projects in all templates and make adjustments to effectively utilize all available funding.
- Maintain, track, implement, and update as needed the region ITS Architecture.
- Participate in Region Project Status Team and other meetings to provide technical knowledge and ensure coordination of ITS projects with other projects in the region.
- Participate in ITS statewide stakeholders' meetings

Duty 2

General Summary:

Percentage: 20

Manage or oversee complex consultant-designed ITS projects. Administer consultant contracts for the performance of project tasks during all phases of ITS, CV, and electrification projects regionwide.

Serve as a technical expert providing guidance on assigned projects and other technical projects within the region. Perform quality control and quality assurance reviews in conjunction with ITS Program Office, University Region, and TSC staff. Provide feedback to consultants and MDOT staff to ensure projects are completed in consistency with MDOT's Design and Construction Standards.

Individual tasks related to the duty:

- Prepare contract documents for assigned projects including scope of service, selection documents, invoices, and evaluations.
- Work with MDOT project managers to effectively manage the work of consultants and others to ensure completion of project tasks.
- Schedule, attend, and facilitate project milestone meetings such as Concept of Operations and plan review meetings.
- Investigate, evaluate, and implement new design specifications and changes to design and methodology.
- Serve as the point of contact for project inquiries from stakeholders for assigned projects.
- Maintain organized project records of correspondence, design documents, and other pertinent project information.
- Advise MDOT project managers on the development of concept statements, project alternatives, scope of work, and preliminary cost estimates for ITS and communications network tasks that are contained within projects in other templates (such as Road or Bridge). Provide the technical expertise for completing these tasks.
- Develop and update Special Provisions in conjunction with ITS program office.
- Communicate project status to MDOT management as needed.
- Approve final project plans, specifications, and estimates for construction letting.
- Sign title sheet as project manager of project, as applicable. This requires a State of Michigan Professional Engineer's License.
- Solve complex/unusual design related construction issues and prepare reports, estimates, and special provisions consistent within the region and in line with statewide policies and procedures.
- Represent the ITS Unit and the Region in building positive working relationships between MDOT and external stakeholders. Ensure regional and statewide alignment.

Duty 3

General Summary:

Percentage: 20

Serve as the technical lead and provide guidance to region TS&O and other region/TSC staff on all ITS project related issues. Provide technical expertise for others to perform the more complex and unique design projects and lead region ITS related programs. Prepare performance measures of assigned tasks, quality control review and direction on completing other assigned projects.

Individual tasks related to the duty:

- Provide technical expertise for design and specifications of ITS infrastructure such as Dynamic Message Signs, Cameras, Microwave Vehicle Detectors, Communication towers, radios, fiber optics communication lines, and CV applications.
- Serve as the region expert regarding information technology and telecommunication requirements necessary for the operations of ITS. Coordinate the region's efforts as the department further expands into areas of CV, electric vehicles, and electrification.
- Serve as the point of contact for project inquiries from stakeholders and the media for assigned projects.
- Maintain organized project record of correspondence, design workspace, and other pertinent project information.
- Identify and resolve utility conflicts.
- Establish pay item unit prices using MDOT resources and approval methods.
- Prepare cost estimates.
- Determine and develop a project Progress Clause.
- Identify and handle design related issues and develop practical solutions including interpreting and utilizing survey and field data.
- Coordinate and develop training programs for region staff on ITS.
- Provide oversight and training of region staff responsible for the maintenance of the ITS and STOC systems. Provide recommendations to STOC Manager on best practices and process improvements.
- Function as recognized expert for ITS project issues throughout the region.

Duty 4

General Summary:

Percentage: 20

Review, analyze, interpret, and take appropriate actions on technical documents and specifications based on established departmental standards and procedures. Examples of such documents and specifications include Shop Drawings, Construction Methodologies, Acceptance Testing Procedures, and Equipment Specifications.

Individual tasks related to the duty:

- Develop and/or review feasibility studies, concept of operations, high-level designs, system validation plans, and system verification plans.
- Develop and/or review detailed design specifications, interface specifications, subsystem verification plans, integration plans, and Acceptance Plans.
- Develop and/or review device delivery and installation plans, transition plans, and system validation procedures.
- Support the development of Operations and Maintenance plans and procedures and system modernization plans.
- Review shop drawings for adherence to plans, specifications, and project scope.
- Research device performance and specification to ensure performance within intended environment.
- Provide technical support to construction offices on ITS projects.
- Attend project meetings such as pre-construction meetings, progress meetings, contractibility reviews, etc.
- Troubleshoot design-related field issues using engineering abilities, past experience, and knowledge to investigate the issue, discuss with others, and determine a solution.
- Document lessons learned and seek to implement in other projects.

Duty 5

General Summary:

Percentage: 10

With the oversight of supervisor, monitor, coordinate, and assign tasks to staff as appropriate and based on operational needs to ensure workflow is efficient and production schedules are met. Mentor and train staff.

Individual tasks related to the duty:

- Make necessary and immediate recommendations on the unit's assigned workload.
- Monitor assigned tasks for effective performance. Provide prompt feedback, as necessary.
- Provide guidance on organizing and coordinating work.
- Provide guidance and recommendations for staff's training for effective ITS project delivery.
- Mentor staff within the region and TSCs to participate in knowledge management in the ITS, communications, and transportation technology areas.
- Review road and bridge programs for coordination opportunities.
- Coordinate with road, bridge, and permits staff for effective project delivery.
- Provide guidance in keeping project records and tracking tasks' status.
- Advise supervisor on production schedules.
- Coordinate and/or provide related training to staff within the region and TSCs.

Duty 6

General Summary:

Percentage: 10

Other duties as assigned.

Individual tasks related to the duty:

- Manage other contracts for non-project related services, as needed
- Perform cost-benefit analysis as requested.
- Perform technical reviews of ITS equipment, program, or ideas.
- Participate in local or statewide initiatives.
- Participate in regional and statewide business teams and committees to ensure alignment in program delivery and policy implementation.
- Participate in national research and committees to share and acquire best practices.
- 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.

Decisions relative to engineering principles and practices consistent with MDOT, Federal Highway Administration (FHWA), and American Association of State Highway Transportation Officials (AASHTO) standards and guidelines. Interpretation of MDOT policies and guidelines concerning program management and project management issues.

These decisions will affect project management processes, scope, budget, and timeliness of project delivery and co-workers, contractors, and the public.

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

Any decision when MDOT or FHWA standards, practices, legal requirements, or policies are in question or the issue is unclear; when extras, overruns, and scope changes are required; when ITS or technical issues are complex or outside of employee's technical knowledge or affect the state-wide system; or when a decision may be required from the executive level. Consultant/vendor selections.

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.

This position is a combination of office work and field work. Transporting materials up to 25 pounds, remaining stationary for extended periods of time, traversing uneven terrain and/or steep slopes, driving long distances, moving in and out of traffic, and driving on freeway shoulder and congested surface roads. Occasional overnight travel may be necessary. This position may involve work in inclement weather and where traffic may be hazardous. This position requires possession of a valid driver's license. 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. |
| <input type="checkbox"/> Approve leave requests. | <input type="checkbox"/> Review work. |
| <input type="checkbox"/> Approve time and attendance. | <input type="checkbox"/> Provide guidance on work methods. |
| <input type="checkbox"/> Orally reprimand. | <input type="checkbox"/> 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 Intelligent Transportation Systems (ITS) program management, project scoping, project design, and systems engineering and management. This position responds to and solves complex/unusual ITS related project issues; prepares reports, estimates, and technical specifications; attends meetings and public hearings; and directly works with the region Traffic Safety and Operations (TS&O) Engineer, the Statewide Transportation Operation Center (STOC) Engineer, Traffic Operations Engineer, and ITS Program Office serving as the technical expert in ITS design, installation, systems engineering, telecommunications, Connected Vehicle (CV), and electrification. This position also assists in training Region and Transportation Service Center (TSC) design, construction, and operations staff and provides feedback, mentoring, and guidance to others in the region TS&O Unit.

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 TS&O Unit is responsible for the traffic safety program, traffic signals, the WMTOC, system mobility, and the development, construction support, System Engineering, operations, and maintenance of ITS and transportation technologies in the University Region. This position is an ITS Engineering Specialist that is responsible for ITS program management, project design and construction, and Systems Engineering in the region.

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:

Knowledge of:

- System Engineering in ITS, program funding sources and criteria, Standard Specifications for Construction (especially those specific to ITS, telecommunications, traffic signals, and related infrastructure), ITS devices and their maintenance requirements, and the Michigan Manual of Uniform Traffic Control Devices.
- Principles and practices of transportation engineering.
- Transportation control, operations, design and system integration.
- State, federal, and local laws relating to ITS.
- Information Technology requirements for the operations of ITS.

Ability to:

- Read, interpret, and prepare engineering plans, specifications, and technical reports.
- Design, plan, coordinate, and expedite work projects.
- Organize, evaluate, and present information effectively.
- Instruct and communicate with others.

Maintain favorable partnerships and public relations.

CERTIFICATES, LICENSES, REGISTRATIONS:

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

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

Appointing Authority

12/12/2025

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