

**State of Michigan
Civil Service Commission**

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

Position Code

1. TRALSPL2

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 (BFS)
4. Civil Service Position Code Description Transportation Eng Lic Spl 2	10. Division Transportation Systems Management & Operations (TSMO)
5. Working Title (What the agency calls the position) Statewide Traffic Signal Operations & ITS Specialist	11. Section Intelligent Transportation Systems (ITS) Operations
6. Name and Position Code Description of Direct Supervisor FIRMAN, JASON D; ENGINEER MANAGER LICENSED-4	12. Unit Central Signal Control System (CSCS)/New Products
7. Name and Position Code Description of Second Level Supervisor BODELL, JASON R; ENGINEER MANAGER LICENSED-5	13. Work Location (City and Address)/Hours of Work 8885 Ricks Road, Lansing MI 48917 / 7:30 am. - 4:30 pm M-F, (hours may vary)

14. General Summary of Function/Purpose of Position

This position functions as the Statewide Traffic Signal Operations & ITS Specialist, specializing in integrating Traffic Incident Management (TIM), Signals with Statewide Operations Center (STOC), other state Transportation Operation Centers (TOCs) and developing partnerships with local agencies to respond to incidents, work zones and special events. This position provides technical expertise with traffic signal timing and operations and partners with Traffic Signal Unit to develop procedures and guidance documents for statewide consistency. In addition, the position provides support of the CSCS and the integration with the traffic operation centers and provides training to Michigan Department of Transportation (MDOT) and local agencies' maintenance electricians, and TOCs on software applications and implementations. This position requires a valid driver's license to perform field inspections and testing.

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: 50

This position serves as the Statewide Traffic Signal Operations & ITS Specialist responsible for coordinating, monitoring and managing the deployment of real time traffic signal operations and integration with TOC's to ensure statewide alignment. This duty requires a valid driver's license to perform field inspections and testing.

Individual tasks related to the duty:

- Lead Real-Time Signal Operations alignment teams with TOCs, Signals Unit, and region stakeholders.
- Integrate CSCS with STOC and develop alignment with signals unit.
- Coordinate and develop procedures with STOC on real time traffic signal operations.
- Monitor advanced signal control and monitoring technologies including Signal Performance Measures, Signal Analytics and adaptive technologies. Identify efficiencies of signal timings and adjust to ensure desired effect of changes (e.g. incidents, work zones, etc.).
- Develop and maintain guidance and policy documents on the implementation of real time traffic signal operations.
- Provide expertise in Real-Time Traffic Signal Operations to Region/Transportation Services Center (TSC) stakeholders.
- Provide guidance, performance measurement, quality control review and direction regarding traffic signal timing and operations to ensure statewide alignment. This includes developing ways to show system performance, reviewing how other TOCs are implementing, making adjustments as needed, and developing guidance documents for others.
- Work with stakeholders in developing traffic signal plans for incidents, work zones and other events.
- Develop and produce after-action reviews to ensure goals and performance measures are being met.
- Develop performance measures for real time traffic signal operations and traditional retiming projects.
- Develop and review traffic analysis for real-time traffic signal operations and traditional signal retiming project using Synchro.
- Continuously review current processes and look for ways to improve services to internal and external customers.
- Oversee the development, implementation and measurement of strategic goals and initiatives.
- Coordinate between STOC and Region Maintenance Electrician workforces.
- Oversee the deployment of signal timing via CSCS and ensure QA/QC of system for any real-time signal operations efforts.
- Research innovations and emerging technologies and incorporate into Signal Operations as appropriate.

Duty 2

General Summary:

Percentage: 25

Serve as a resource regarding complex ramp metering and traffic timing.

Individual tasks related to the duty:

- Utilize available data to determine congested corridors statewide and identify mitigation strategies.
- Monitor and maintain ramp metering timing.
- Record and follow ramp metering record keeping/document retention.
- Assist and support regions for real time traffic timing changes to ramp metering.
- Partner with TIM to develop planned and unplanned events.
- Partner with Traffic Signals to develop procedures and guidance as needed.
- Provide leadership integrating with West Michigan and Southeast Michigan Traffic Operations Centers in promoting and helping to implement real time traffic signal operations for statewide consistency.
- Monitor and support the advancement of the Mi-Time training and Train-the-Trainer.
- Assist in incident management planning sessions, meetings, exercises, de-briefing meetings, etc.
- Provide data and input to department staff concerning traffic incidents, alternate routing, etc.

Duty 3

General Summary:

Percentage: 20

Assist in the statewide procurement contracts that support Region forces. Assist in training MDOT and local agency maintenance electricians on CSCS and secondary software applications.

Individual tasks related to the duty:

- Assist the CSCS contract to ensure MDOT maximizes the benefits of the program including providing delivery support, approving invoices, ensuring the system requirements meet operational needs, etc.
- Assist ongoing delivery of CSCS at MDOT and local agency-maintained signals.
- Assist in reviewing signal timing permits for special event timing deployments and other CSCS initiatives.
- Assist CSCS Users assigning roles/responsibilities and upkeep of user access/credentials.
- Test and implement CSCS version updates.
- Provide training to MDOT and local agency personnel on CSCS.
- Assign duties for data needs, reports of CSCS operations and performance measures to CSCS and TOC staff.
- Mentor and train TIM/TOC staff of CSCS operations and how they can implement them in their Mi-Time training and daily operations.
- Monitor the work of staff and provide leadership in the development of quality assurance and improvement standards and TOC consistencies and timeliness.
- Support outreach efforts to stakeholders and leverage business area needs to optimize the utilization of CSCS.
- Serve as a resource for regions, local agencies, TOCs, etc. regarding signal operations with CSCS. This includes researching and monitoring Advance Signal Control and/or Monitoring Technologies, in both Signal Performance Measures and Adaptive technologies to remain current and make recommendations for system improvements.

Duty 4

General Summary:

Percentage: 5

Other duties as assigned.

Individual tasks related to the duty:

- Prepare and review correspondence, reports, and studies related to unit programs and initiatives.
- Provide ongoing liaison services with the Region and TSC operations personnel.
- Perform related duties as directed by the Section Manager and Division Administrator.
- Manage and/or assist in various research projects.
- Make technical presentations at various meetings, seminars and workshops.

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

This position is critical in reducing congestion on state trunk line and determining when and how to implement traffic signal timing in real time to address work zones, incidents and/or special events.

This position also develops performance measures that help the TOCs make decisions on improving traffic flow.

This position is the technical lead in the creation of real time signal changes procedures and guidance documents.

This position directly impacts the mission of MDOT in providing the highest quality integrated transportation services for economic benefit and improved quality of life.

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

When decisions require deviations from departmental or division policies or procedures.

Politically sensitive issues.

Equipment and budget requests, action plan and implementation recommendations.

Decisions that may have a significant financial impact on division/bureau 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.

Operating a computer for extended periods of time. Statewide travel with occasional overnight stays is required. Field investigations may involve being in adverse weather, traversing rough, uneven terrain and working in close proximity to high-speed traffic. Position may require availability outside normal working hours based on operational needs. This position requires a valid driver's license to perform field inspections and testing.

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 Statewide Traffic Signal Operations & ITS Specialist, specializing in integrating Traffic Incident Management (TIM), Signals with Statewide Operations Center (STOC), other state Transportation Operation Centers (TOCs) and developing partnerships with local agencies to respond to incidents, work zones and special events. This position provides technical expertise with traffic signal timing and operations and partners with Traffic Signal Unit to develop procedures and guidance documents for statewide consistency. In addition, the position provides support of the CSCS and the integration with the traffic operation centers and provides training to Michigan Department of Transportation (MDOT) and local agencies' maintenance electricians, and TOCs on software applications and implementations. This position requires a valid driver's license to perform field inspections and testing.

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

New position.

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

This unit is responsible for policies, procedures, and standards for operational issues related to the overall integrated transportation system. This section provides services to other divisions, bureaus, other DOTs, local agencies, businesses, the public internal and external customers.

This position serves as the Statewide Traffic Signal Operations & ITS Specialist responsible for coordinating, monitoring and managing the deployment of real time traffic signal operations and integration with TOCs to ensure statewide alignment.

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 Bachelor of Science in Civil Engineering preferred.

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:

- Traffic engineering principles and practices.
- Performance measures; what the data represents, how to use the data, the limitations of the data.
- Current MDOT workflow practices in relation to signal timing permit development, signal timing deployment, and verification of signal operations remotely.
- Traffic signal operations including expertise in signal controller programming, CSCS software, Synchro, and MMUTCD signal timing requirements.

Skills:

- Advanced Excel abilities.

Ability to:

- Promote and maintain favorable public relations, manage programs and deployments.
- Convey complex technical information regarding TOC programs and traffic analysis tools.

CERTIFICATES, LICENSES, REGISTRATIONS:

Possession of a registered professional engineer license as required by the State of Michigan.

Possession of 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

8/19/2025

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