

State of Michigan  
Civil Service Commission

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

Position Code

1. TRALSPL2A65R

## 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> Highway Operations
<b>4. Civil Service Position Code Description</b> TRANSPORTATION ENG LIC SPL 2	<b>10. Division</b> University Region
<b>5. Working Title (What the agency calls the position)</b> Region Soils Engineer	<b>11. Section</b> Region Construction
<b>6. Name and Position Code Description of Direct Supervisor</b> WALTER, SCOTT J; ENGINEER MANAGER LICENSED-3	<b>12. Unit</b> Construction
<b>7. Name and Position Code Description of Second Level Supervisor</b> PALMER, STEPHEN J; ENGINEER MANAGER LICENSED-4	<b>13. Work Location (City and Address)/Hours of Work</b> 4701 W. Michigan Ave., Jackson, MI 49201 / 7:00-4:30 Mon-Fri (Hours may vary)

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

The Region Soils Engineer is the University Region's lead geotechnical authority, responsible for solving complex soils and pavement challenges, overseeing soils investigations, completing pavement designs, and ensuring compliance with state and federal standards. The role provides expert guidance on foundations, retaining systems, slope stability, settlement, soil erosion and sedimentation control (SESC), and post-construction pavement and soils issues, while also managing consultant contracts and supporting Life Cycle Cost Analysis. This licensed Professional Engineer serves as a key resource for Transportation Service Center's (TSCs), uses specialized geotechnical software, collaborates with internal and external partners, and provides training and technical support across all project phases. This position requires possession of a valid driver's license to perform daily field inspections and reviews.

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**

Serve as the region soils resource providing geotechnical and pavement engineering expertise during the development and design of projects.

**Individual tasks related to the duty:**

- Coordinate assignments of region soils staff, engineers-in-training, and/or consultants on soils surveys and investigations.
- Review, prepare, analyze, interpret and approve detailed geotechnical plans and specifications. Provide recommendations and calculations relative to site specific soil/pavement conditions and materials which conform to geotechnical/pavement engineering principles and practices.
- Provide recommendations for spread footing, drilled shaft foundation, slope stability, and other miscellaneous geotechnical issues. Use computer software and databases to support recommendations.
- Provides technical assistance on geotechnical concerns throughout the region and recommend new policies or procedures to ensure complaints and challenges are addressed and do not reoccur.
- Plan, direct, and analyze data from pavement and geotechnical investigations performed by Michigan Department of Transportation (MDOT) and consultant forces. Participate in soil borings, pavement coring, Dynamic Cone Penetrometer testing, Falling Weight Deflectometer, soil and aggregate sampling, pavement management surveys, peat delineation/muck soundings and other geotechnical investigations as required.
- Develop design plan quantities to provide treatment of unsuitable subsurface conditions for roadways, bridge foundations, and other miscellaneous highway features/facilities. Typical examples involve subgrade undercutting, use of geosynthetics/underdrain, swamp treatment, peat excavation, dewatering, etc.
- Assist in the design and development of Michigan Department of Environment, Great Lakes, and Energy (EGLE) permits, erosion control plans, and wetland mitigation projects.
- Develop and manage a consultant contract for soils investigation assistance.
- Gather information required to perform Life Cycle Cost Analysis.

**Duty 2****General Summary:****Percentage: 40**

Investigate construction sites to evaluate adequacy of pavement and geotechnical designs and provide corrective recommendations where needed for area of coverage. Function as Region level resource for complex geotechnical issues encountered during construction and mobilize appropriate resources if needed to resolve problem.

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

**Individual tasks related to the duty:**

- Coordinate assignments of region soils staff and/or consultants to ensure adequate inspection coverage for all projects within the University Region. Provide guidance and training as necessary to ensure compliance with statewide policies and procedures.
- Conduct pavement subgrade inspections to identify frost susceptible materials, unstable subgrade conditions and high ground water and seepage areas and recommend corrective treatment.
- Conduct soil foundation inspections to evaluate the adequacy of design. Conduct investigations for spread footings / drilled shafts for bridges, culverts, freeway signs, strain poles, tower lighting, and other miscellaneous foundations.
- Investigate and prepare recommendations on global stability, erosion and density issues during the construction of highway embankments or excavations.
- Field review construction sites to evaluate safe angle of repose for slopes or necessary sheeting and shoring on excavations for safety in accordance with Michigan Occupational Safety and Health Administration (MIOSHA) regulations.
- Review contractor submitted temporary sheeting designs for adequacy.
- Conduct site inspections to review and recommend adequate soil and erosion measures on construction projects.
- Attend project meetings on an as needed basis to evaluate and recommend geotechnical solutions for soils related construction issues.
- Participate and serve on the Region Construction Business Team.
- Project level and Regionwide review of proposed geotechnical components such as temporary earth retention for part-width construction, bridge cofferdams, foundation interactions, etc.

**Duty 3****General Summary:****Percentage: 10**

Provide geotechnical and construction recommendations related to Operations/Maintenance and Permits as requested for area of coverage. Function as Region level resource for complex geotechnical issues related to Operations/Maintenance or Permits projects.

**Individual tasks related to the duty:**

- Review permit applications regarding utilities, pavements, drainage structures and other facilities for acceptable geotechnical engineering, construction practices, and conformance to MDOT standards. Make recommendations for modification to permits, where needed, to meet acceptable practices and standards.
- Respond to requests by maintenance engineers and make recommendations for the treatment of pavement distress areas, frost heaves, settlements, drainage issues, erosion and sedimentation issues, slope failures, or any miscellaneous maintenance issue. When necessary, organize investigations into the cause and extent of the issues listed above. Make recommendations for the use of special materials incorporated in maintenance improvement projects.
- Provide Region level resource duties for any of the above, as requested by Unit leader or other engineers within area.
- Provide recommendations for permit reviews or maintenance/operations requests which deal with complex geotechnical issues.
- Monitor the retaining walls as may be needed and report areas of concern to the University Region Geotechnical Supervisor.
- Work with Lansing Bridge Field Services as the University Region contact for the inspection of existing earth retaining structures.

**Duty 4****General Summary:****Percentage: 10**

Other miscellaneous duties as assigned.

**Individual tasks related to the duty:**

- As assigned by the supervisor, perform the duties described in this position description in other areas outside the assigned geographical area.
- Provide quality assurance/quality control (QA/QC) for work products of others within the unit.
- Assist local governmental units in evaluating and solving soil engineering related issues when requested.
- Provide technical assistance to others in the unit on use of Geotechnical software.
- Outline and review conformance with MDOT procedures and policy with private consultants under contract to perform geotechnical investigations. Serve as consultant project manager or assist in contract management as required.
- Assist Lansing Construction & Technology personnel in compiling Regionwide geotechnical or material performance data.
- Complete special assignment as directed by the Region's Soils & Materials Engineer.
- Serve on MDOT research panels or work groups as required.
- Make presentations, draft reports, or lead teams and meetings as required.
- Whenever possible, identify, recommend and implement improvements in the work methods and materials utilized in the position.

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

The position independently makes technical, safety-critical decisions throughout project scoping, design, and construction. These decisions include determining acceptable soils and materials, approving or rejecting marginal or variable field conditions, and selecting appropriate geotechnical methods based on inspection data, engineering principles, cost impacts, and public-safety considerations. The position approves geotechnical plans, ensuring decisions made are consistent and in line with statewide policies and procedures. The role also decides how to resolve unexpected subsurface issues, choose corrective actions, and guide construction teams when conditions differ from plans. These decisions directly affect project designers, construction staff, contractors, project schedules and budgets, long-term pavement and structure performance, and ultimately the safety of the traveling public.

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

Decisions requiring the supervisor's review are those that go beyond the position's independent technical authority and involve broader policy, procedural, or program-level impacts. While the role independently makes critical engineering judgments about soils, materials acceptance, and construction-phase solutions, the supervisor reviews decisions when they may conflict with MDOT policies or standards, when soils-related recommendations could cause significant construction delays, cost overruns, or contract extras, or when the issue affects overall project delivery strategy. These supervisory reviews ensure alignment with regional priorities, budget constraints, and agency procedures, and they directly affect project managers, design and construction engineers, contractors, and the region's program schedule.

**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.**

The physical demands of the job involve a mix of field and office work, requiring the ability to work outdoors in all weather conditions, travel throughout the region, and spend long periods remaining in a stationary position. Field duties include working around heavy construction equipment, navigating uneven terrain, and performing tasks such as moving equipment, operating hand augers, and collecting soil or pavement samples, which require good physical conditioning, coordination, and awareness around moving machinery. The role also involves routine office activities such as computer and phone use, along with occasional overnight travel. 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?**

The Region Soils Engineer is the University Region's lead geotechnical authority, responsible for solving complex soils and pavement challenges, overseeing soils investigations, completing pavement designs, and ensuring compliance with state and federal standards. The role provides expert guidance on foundations, retaining systems, slope stability, settlement, soil erosion and sedimentation control (SESC), and post-construction pavement and soils issues, while also managing consultant contracts and supporting Life Cycle Cost Analysis. This licensed Professional Engineer serves as a key resource for Transportation Service Center's (TSCs), uses specialized geotechnical software, collaborates with internal and external partners, and provides training and technical support across all project phases. This position requires possession of a valid driver's license to perform daily field inspections and reviews.

**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 provides the region-wide technical expertise for all pavement engineering, soil engineering, and SESC 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:

- Transportation engineering, geotechnical and pavement design standards, construction practices.

Skills:

- Strong independent problem-solving skills.

Ability to:

- Take initiative, and the judgment to apply advanced engineering principles in complex situations.
- Use common software tools for analysis and documentation.
- Perform complex engineering calculations and interpret technical standards and regulations.
- Manage consultant contracts, maintain accurate records, and prepare clear reports.
- Communicate effectively with project teams and the public.
- Organize and present technical information, provide guidance to others, and coordinate program activities across design, construction, and operations.

**CERTIFICATES, LICENSES, REGISTRATIONS:**

Possession of a registered professional engineering license as required by the State of Michigan.  
Possession of a valid driver's license is required and must maintain throughout employment in the position.

*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

3/11/2026

\_\_\_\_\_  
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