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.)

3. Employee Identification Number

4. Civil Service Position Code Description
   Transportation Eng Lic Spl 2

5. Working Title (What the agency calls the position)
   Assistant Region Bridge Engineer

6. Name and Position Code Description of Direct Supervisor
   LARKINS, CHRISTAL; ENGINEER MANAGER LICENSED-3

7. Name and Position Code Description of Second Level Supervisor
   MINTON, STEVEN D; STATE ADMINISTRATIVE MANAGER-1

8. Department/Agency
   TRANSPORTATION CENTRAL OFFICE

9. Bureau (Institution, Board, or Commission)
   Bureau of Highways

10. Division
    Metro Region

11. Section
    Development

12. Unit
    Region Bridge Unit

13. Work Location (City and Address)/Hours of Work
    18101 West Nine Mile Road, Southfield, Michigan / 7:30 a.m. - 4:30 p.m. Monday - Friday (hours may v

14. General Summary of Function/Purpose of Position

   Working directly with the Region Bridge Engineer in the coordination of the bridge program and road program for Oakland and Macomb counties in the Metro Region, this position is the technical resource for Wayne County managing bridge related information in the Metro Region. The position is integral in the development of the Annual Bridge Call for Projects; therefore, the responsibilities include providing program and project expertise, bridge inspection, bridge project scoping, field reviews, quality assurance, and quality control to deliver the region bridge program in partnership with the Department’s Bureau of Bridges and Structures, Region, TSCs, and FHWA. The position will respond to emergencies caused by vehicles hitting structures in Wayne County and provide technical assistance to the region and statewide field personnel regarding repairs. The position will assist the Region Bridge Engineer in the formulation of annual bridge maintenance/repair priorities and oversee the completion of Bridge Request for Actions (RFA). Effective inspection of bridges requires that the employee operates a motor vehicle or vehicle/trailer combination with a Gross Weight Rating (GVWR) of between 10,001 and 26,000 pounds. To effectively perform the functions of this position the Metro Region's values of: Accountability, Working Together, Clarity, Learning and Agility will need to be practiced and promoted.
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.

<table>
<thead>
<tr>
<th>Duty 1</th>
<th>General Summary:</th>
<th>Percentage: 50</th>
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<tbody>
<tr>
<td>Lead region bridge inspection team in the development of monthly bridge and culvert safety inspection assignments for Wayne County. Independently inspect and evaluate structures, numerically rate each component of the structure per National Bridge Inspection Standards (NBIS) and MDOT Bridge Inspection Policies. Measure and/or quantify the deterioration state of bridge elements and classify the deterioration condition state per AASHTO Manual for Bridge Element Inspection.</td>
<td>On the routine basis, develop monthly Wayne County routine bridge safety, detailed, and other special inspection assignments to complete and recommend assignments for consultant contract. Conduct Routine Bridge Safety Inspections for in accordance with Federal Compliance requirements. Provide technical expertise in the performance of bridge and culvert inspections for Wayne County and prepare bridge inspection reports based on the data gathered during inspections. Provide technical knowledge, direction and recommendations to region staff during the bridge construction and maintenance processes. Independently inspect and evaluate structures, numerically rate each component of the structure per National Bridge Inspection Standards (NBIS) and MDOT Bridge Inspection Policies. Measure and/or quantify the deterioration state of bridge elements and classify the deterioration condition state per AASHTO Manual for Bridge Element Inspection. Document and Report complex field observations reflecting the existing bridge condition on the Bridge Inspection and Reporting System (MiBridge) and dissemination of reports such as Bridge Inspection Safety Reports (BSIR), Structure Inventory and Appraisal (Si&amp;A) form, AASHTO Element Level Report. Formulate inventory of bridges needing maintenance repairs for annual spring maintenance and Bridge Request for Actions (RFA) funding. Provide Maintenance work crew recommendations and designate the appropriate priority for region maintenance and contract county maintenance crews. Schedule and coordinate bridge post-construction and inventory inspections in collaboration with TSC construction staff, maintenance personnel, contractors, and/or Construction Engineering consultants in timely manner to fulfill NBIS requirements.</td>
<td>100 percent.</td>
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<th>Duty 2</th>
<th>General Summary:</th>
<th>Percentage: 25</th>
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<td>In coordination with the region bridge engineer and Macomb/Oakland County senior inspector, direct the implementation plan for the Region's Bridge Preservation Strategy. Perform engineering duties, as a technical expert, which are required to maintain structural management program, oversee and approves work of others as it relates to bridge inspection assignments and review/correction of reports. Responsible for training and assisting the other Bridge Unit Staff, as needed.</td>
<td>Use engineering judgment evaluate, inspect, recommend, and scope repairs for Capital Scheduled Maintenance (CSM), Capital Preventative Maintenance (CPM), and Rehabilitation and Reconstruction (R&amp;R) projects that conform to the Metro Region and Statewide Strategies. Research old plans, field conditions, and safety inspection reports to determine existing bridge conditions and its future repair needs. Lead and perform field investigations and gather detailed inspection information for determining future types of bridge repairs. Utilize available MDOT proprietary application such as MBridge, JobNet, ACRS, Phase Initiator, CTRAK, etc. in developing the Call for Projects. Estimate bridge repair costs. Program Project Concepts. Review and Approve Change Requests in JobNet. Analyze existing bridge condition, history, and current design standards to develop a bridge scoping document that meets the region and statewide strategy for bridge repairs. Actively participate in project development and design activities to advise design and Taylor or Detroit TSC staff on bridge structural conditions, guide scope of work, and provide guidance on preservation/rehabilitation methods. Provide support to related region and Lansing customers to ensure the scope of work remains consistent with the region and statewide policy and procedures before, during, and after construction. Participate in Region Project Development Steering meetings and provide technical knowledge on all things bridge related. Recommend changes to streamline the region bridge program and develop a more productive bridge preservation program. Conduct research to analyze and resolve bridge maintenance problems plus be prepared to explain or defend the inspection report recommendations in court as an expert witness should a bridge failure occur.</td>
<td>100 percent.</td>
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<th>Duty 3</th>
<th>General Summary:</th>
<th>Percentage: 15</th>
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<tr>
<td>Lead Bridge Post Construction Inspection and/or Maintenance Repair Evaluation. Assist the Statewide Load Rating Unit with load rating data collection, implementation, and calculations. Respond to Bridge Emergencies in Wayne County.</td>
<td></td>
<td>100 percent.</td>
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</table>
- Assist the region bridge engineer with monitoring the progress of structures during the construction process for assurance that the critical items are getting addressed.
- Schedule and coordinate bridge post-construction and inventory inspections in collaboration with TSC construction staff, maintenance personnel, contractors, and/or Construction Engineering consultants in timely manner to fulfill NBIS Requirements and Department Guidelines.
- Provide technical assistance to technicians during the construction process.
- Prepare timely punch lists for bridge construction projects.
- Support the region bridge engineer with the implementation of the bridge inspection quality control (QC) review process.
- Participate in the annual inspection calibration meeting, as well as region inspection team meetings to incorporate the latest standards and techniques; and maintain a current working knowledge of the inspection program.
- Recommend collecting and testing steel and/or concrete bridge samples to aid in the load rating of structures.
- Respond and lead on Bridge Emergencies Activities.
- Prepare special reports on bridges damaged by high load, ships, washouts, or severe deterioration.
- Lead in depth bridge inspections to determine structural integrity of key elements that affects the structure's load rating.

### Duty 4

**General Summary:**

Percentage: 5

Communicate both written and orally, and to work effectively with others, both inside and outside of the Bridge Unit. Receive, resolve and respond to customer concerns by making decisions as to the resolution of customer claims, complaints and applications per organizational policy. Oversee, guide, and instruct Detroit or Taylor TSCs and others in the resolution of customer concerns.

**Individual tasks related to the duty:**

- Share, request, obtain project related information from the Detroit or Taylor TSC’s, Construction, Utilities and Permits, Maintenance, Traffic and Safety, Construction and Technology and Real Estate Divisions, as needed
- Direct the development and implementation of communication mechanisms that keep all relevant customers/stakeholders properly informed of all project related information and engaged in the project's execution. Stakeholders include external partners and customers (motorists, residents, businesses, etc.), local units of government and elected officials, contractors, project team members, department managers/leadership, and the public.
- Maintain organized project record of correspondence, design workspace, and other pertinent project information
- Document all pertinent project communications and maintain file records
- Schedule and set up meetings as needed
- Assist construction personnel as needed

### Duty 5

**General Summary:**

Percentage: 5

Other duties as assigned, which may include, but are not limited to:

**Individual tasks related to the duty:**

- Assist supervisor in monitoring, coordinating and/or assigning appropriate resources based on operational needs.
- Represent the department at various meetings.
- Serve on quality action teams working on process improvements.
- Build positive relationships between MDOT and external stakeholders, including local communities, and the construction and consultant industry.
- Participate in Region and statewide business teams to ensure alignment in program delivery and policy implementation.
- Assist Detroit or Taylor TSC staff on bridge project development and construction related duties.
- Assist Macomb/Oakland Senior Bridge Inspector with inspections and emergency response on an as needed basis.

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

Decisions to apply bridge design standards, practices or procedures that affect the design or construction of a project.

Project management decisions to deliver the program on time and within budget.

Decisions relative to engineering principles and practices consistent with MDOT, FHWA, and AASHTO standards and guidelines.

Design solutions to unexpected problems which arise during project construction.

Decision regarding necessary equipment, scheduling of inspections, and other methods necessary to perform inspections. Identify bridges requiring detailed inspections, underwater inspections, or scoping.

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

When changes in policy are required. Changes in previously approved project scope, cost, or schedules. Conflicts in engineering standards, practices, or legal requirements. A case where there is a large variance with a previous inspection reports in order to standardize inspector procedures.
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.

Climbing under bridges, over water, wading in water to probe footings and continually working near heavy traffic occurs almost daily and requires good physical condition and agility. This position will operate a Motor Vehicle or vehicle / trailer combination with a Gross Weight Rating (GVWR) of between 10,001 and 26,000 pounds.

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):

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<tr>
<td>N</td>
<td>Complete and sign service ratings.</td>
<td>N</td>
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<tr>
<td>N</td>
<td>Provide formal written counseling.</td>
<td>N</td>
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<tr>
<td>N</td>
<td>Approve leave requests.</td>
<td>N</td>
</tr>
<tr>
<td>N</td>
<td>Approve time and attendance.</td>
<td>N</td>
</tr>
<tr>
<td>N</td>
<td>Orally reprimand.</td>
<td>N</td>
</tr>
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</table>

22. Do you agree with the responses for items 1 through 20? If not, which items do you disagree with and why?

Yes. This Position Description completed by the Hiring Manager.

23. What are the essential functions of this position?

Working directly with the Region Bridge Engineer in the coordination of the bridge program and road program for Oakland and Macomb counties in the Metro Region, this position is the team lead for Wayne County.

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

This is a new position. With the region's large inventory of bridges, increased inspection frequencies, and the increased data collection introduced with Bridge Element Level Inspection by the National Bridge Inspection Standard, this team lead position for Wayne County will utilize comprehensive structure preservation approach and bridge inspection expertise to guiding bridge design and construction projects, take the team lead on completing inspections, and delivering bridge Call for Projects.

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

The position is integral in the development of the Annual Bridge Call for Projects; therefore, the responsibilities include providing program and project expertise, bridge inspection, bridge project scoping, field reviews, quality assurance, and quality control to deliver the region bridge program in partnership with the Department’s Bureau of Bridges and Structures, Region, TSCs, and FHWA.

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:
Thorough understanding of the development, oversight, and coordination of contract administration

Thorough understanding of the bridge construction engineering and bridge inspection process and key elements of highway construction projects.

Thorough understanding of highway construction project design and construction standards and practices.

Understanding and ability to use department information management systems, especially MiBridge, JobNet, Phase Initiator (PI), and Planisware.

Must possess strong, effective organizational team building, facilitation, negotiation, leadership and communication skills.

Thorough knowledge of the principles and practices of Transportation Engineering.

CERTIFICATES, LICENSES, REGISTRATIONS:

Professional Engineer’s license in State of Michigan

Valid Driver’s License

Subclass Code Requirement: CMVOSSP – A safety-sensitive position in which the employee is required to operate a commercial vehicle. Requires a valid Medical Examiners Certificate for Commercial Driver Medical Certification.

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.

TAMARA SZYDLOWSKI 8/23/2019

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 __________