

# MINNESOTA DEPARTMENT OF TRANSPORTATION

## Class Specification

**Class code:**

003676

**Bargaining unit(s):**

207

**Classification title:**

Transportation Generalist Senior

**Function:**

Hydraulics/Water Resources

**Kind of work:**

Intermediate level technical, skilled work, and/or lead work

**Nature & purpose:**

Under general supervision, an employee in this class performs moderately difficult duties in program delivery work in the area of Hydraulics by providing hydraulic support, coordination and documentation for permits and grading and culvert projects; and performs culvert inspection duties. Train and lead others in MS4 inspections using GPS equipment and current database system. Also evaluates wetland sites for construction impacts and banking potential; develops wetland mitigation plans and monitors wetland sites; and performs related work as required.

This level is different from the Transportation Generalist in that at the Transportation Generalist Senior level, an employee initiates and/or prioritizes work activities, completes a variety of work assignments and chooses the methods in which to complete work using acquired knowledge of the function

An employee resolves semi-routine, yet uncommon problems by searching for solutions learned from experience. An employee is responsible for completing multiple projects and/or work activities with competing deadlines and may set some priorities in the completion of work. Some employees at this level may perform as lead worker having considerable freedom to organize human, equipment, material, and other resources as well as prioritize, schedule, assign, direct, guide, and report on the work activities of other state employees.

**Examples of work:**

A position may not include all the work examples given, nor does the list include all that may be assigned.

- \* Performs project-specific culvert, ditch, road surface at the pipeline location, curb and gutter, and catch basin inspections in the field using the current data collection inventory program for project scoping, design and maintenance activities and to meet permit requirements.
- \* Responds to requests for emergency assistance with hydraulics problems related to transportation facilities sufficient to minimize highway and property damage.
- \* Performs all aspects of Hydraulics analysis sufficient to accurately ascertain the characteristics of drainage areas determining size, type and locations of culverts, storm sewers and sediment basins in accordance with the MnDOT Drainage Manual and other permit regulations.
- \* Develops and uses ArcMap and other GIS applications sufficient to determine land use and drainage areas.
- \* Gathers, analyzes and evaluates data to delineate drainage areas for construction impacts and banking potential.

- \* Communicates with Central Office personnel and other agencies to coordinate wetland developments to ensure local, state and federal regulations are met.
- \* Designs temporary and permanent erosion control measures and assists in developing Storm Water Pollution Prevention Plans for construction projects sufficient to meet National Pollutant Discharge Elimination Systems (NPDES).
- \* Enters and updates field information into the current data collection inventory program sufficient to update and produce reports.
- \* Train and lead others in MS4 inspections using GPS equipment and current database system sufficient to meet MnDOT's MS4 NPDES permit requirements.

### **Knowledge, skills and abilities:**

#### **Knowledge of:**

General concepts of hydrology, hydraulics, erosion control; aerial photo and map interpretation; MnDOT's work zone safety manual and Safety Policy statement; ability to learn MnDOT manuals required to perform Hydraulic related activities.

Working knowledge of English sufficient to read, write, speak and understand oral and written information; communicate with employees and the general public in-person or via two-way radio and other electronic devices; and to maintain routine written logs and simple records.

#### **Skill in:**

- \* Using or operating basic hand tools, basic survey equip. such as hand level, level and rod, etc.
- \* Calibrate, set up and adjust equipment;
- \* Drive or operate mobile equipment.

#### **Ability to:**

Information Technology – Create and edit data files such as letters, memos, Spreadsheets, PowerPoint presentations, and GPS data files. Use CADD software to edit basic shapes and lines, and Microstation and ArcMap.

Interpersonal – Work cooperatively with peers. Able to receive verbal Instruction and direction. Interact with customers and stakeholders including property owners.

Leadership - Take responsibility for quality and timeliness of work. Respond To unplanned requests. Complete assigned tasks and report progress. Demonstrate behavior consistent with department direction.

Math – Do basic geometry such as calculate areas and volumes. Know the properties of uniform shapes such as planes and solid figures.

Oral Communications – Articulate job related questions and comprehend answers. Communicate in a team setting.

Problem Solving – Able to follow verbal instructions. Can work under the direction of others.

Reading – Read construction plans, MnDOT manuals, and specification books.

Written Communication – Generate notes, letters, memos, and departmental forms. Use Outlook.

### **Licenses, certifications:**

Some positions may require a driver's license, as well as endorsements, specific to position demands and/or equipment required to perform the job within the work area posted.

Technical certifications may be required specific to position demands and will be documented on the posting as to the justification of why specific certifications are necessary.

### **Minimum qualifications:**

Include years of experience, education, training, certifications, and licenses required at the time of application to be considered eligible for the vacancy. The level of experience to perform this job at the Transportation Generalist Senior level can be achieved with:

- \* Two years of experience performing Hydraulic activities or related;
- OR

- \* One year of experience performing hydraulic activities or related activities and a combination of one year of experience performing design, pre-design, roadway and/or bridge construction, and/or surveys or related activities.
- \* Note: A Two year Civil or Construction Technology Degree or the following four year degrees: Architectural, Civil or Mechanical Engineering; Land Surveying / Geomatics; or equivalent may substitute for one year of experience. (In order for education coursework to be considered in lieu of work experience you must submit a copy of your transcripts).
- \* Working knowledge of English sufficient to read, write, speak and understand oral and written information; communicate with employees and the general public in-person or via two-way radio and other electronic devices; and to maintain routine written logs and simple records.

**Physical capabilities and environmental work conditions:**

Requires occasionally lifting, moving and/or carrying articles weighing 50 pounds such as manhole covers, catch basin grates, etc. and frequent lifting and/or carrying objects such as heavy tools and file boxes. This job may require walking or standing to a significant degree on rough terrain or may involve sitting most of the time with pushing and pulling of arm and/or leg controls

**Hay rating:**

**Know How:**

DI2 132;

**Problem Solving:**

C3 (25) 33;

**Accountability:**

C1C 38;

**Working Conditions:**

11 = 214

**EST:**

**Rev:**

2-15-12 Updated degrees

**T.C.:**

**Former title(s):**

Highway Technician Intermediate