

# Local Transportation Agency Careers in Minnesota

Are you technically minded? Do you like a good challenge? Do you enjoy the outdoors? Choose a good-paying career job that matters at one of the many local transportation agencies in Minnesota.

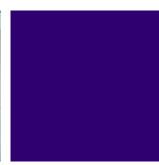










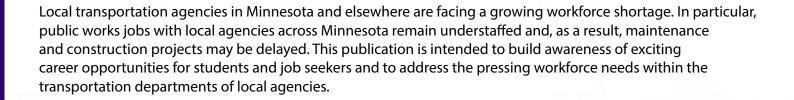












#### **Prepared by:**

#### Minnesota Local Technical Assistance Program

Center for Transportation Studies 440 University Office Plaza 2221 University Avenue S.E. Minneapolis, MN 55414 Phone: 612-626-1077 E-mail: <u>mnltap@umn.edu</u> <u>mnltap.umn.edu/workforce</u>

July 2021

Editor: Michael McCarthy Graphic Designer: Angela Kronebusch Researcher: Katherine Stanley Photos: Michael McCarthy/CTS, PE Services, Shutterstock

Employment outlook and wage data from the Minnesota Department of Employment and Economic Development (January 2021) The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard t o race, color, creed, religion, national origin, sex, age, marital status, or sexual orientation. This publication is available in alternative formats upon request.

© Printed on recycled paper with 10% postconsumer waste.

# Local Transportation Agency Careers in Minnesota An Inside Look into Local Transportation Agencies

### What is a local transportation agency?

Minnesota local transportation agencies consist of county, city, township, and tribal agencies across the state. Local agencies are responsible for planning, designing, evaluating, maintaining, and operating the transportation facilities and services for all modes within their community, including roads, bridges, and recreational trails. Maintaining these modes of transportation are critical in supporting the local economy, environment, and health and safety of the residents.

### **Fast facts**

Number of Minnesota agencies

- 87 counties
- 902 cities
- 1,781 townships
- 11 tribes

Local transportation agencies manage 80% of Minnesota's 20,000 bridges and 87% of the 140,000 miles of public road in the state.



### Why work for local transportation agencies?

- Everyone matters
- Job stability
- Great benefits
- Healthy work/life balance
  - Work in the place you live
- Make a valuable difference in your community
  Your customers are your friends and family.
- More opportunities for training and career growth
  - Start your career at a local transportation agency with your high school diploma. You may receive state certifications and on-the-job training. Plus you have the opportunity to work your way to completing college credit and earning a degree.
  - You have more opportunities to explore your interests through cross-training.
  - Local transportation agencies allow for faster career growth and broader skill development because of the smaller size and flexible organizational structure.

### Personally speaking...

"Local agencies provide a very stable source of employment, reasonable hours, good pay, and great benefits. Working for a local agency is not only a great job but allows me to have a great life outside of work as well. It is also an amazing way to have a direct, positive impact on your community every day."



Jacob Backer, Engineering Technician, Cook County, Minnesota

# Local Transportation Agency Careers in Minnesota Traffic Engineering, Analysis, and Safety

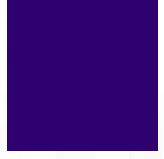


# Common job titles in traffic engineering, analysis, and safety

- City or County Engineer
- Computer Scientist or Programmer
- Safety Manager and Safety Coordinator
- Specialty Engineers and Engineering Technicians (electrical, safety, sign, traffic, transportation)
- Traffic Systems Analyst
- Transportation Planner

## What you might do

- Analyze a problem intersection to reduce crashes
- Design a freeway expansion to reduce congestion
- Develop signing and striping plans
- Forecast travel demand
- Plan bus routes and operations
- Program the timing of ramp meters
- Plan facilities for pedestrians and cyclists









### Featured job: Transportation Planner

### What does a transportation planner do?

A transportation planner designs and plans transportation systems, such as highways, roads, and mass transit routes. They often work in the public sector for government agencies or contractors to evaluate an area's immediate and long-term transportation needs, then they manage transportation projects developed to meet those needs. In the private sector, they typically work for public transportation providers to plan and ensure efficient operations. Transportation planners normally communicate through the media, and they also may be involved in marketing communications directed to the public. Meetings are a large part of their job, with duties including attendance, notetaking, and scheduling.

### **Personal characteristics**

- Likes to analyze information
- Good oral and written communication skills
- Enjoys problem-solving
- Detail-oriented and organized

#### Important info

- Education: Bachelor's degree in planning, engineering, urban design, or a related field (or equivalent) from an accredited college or university
- Median wage: \$39.19/hour or \$81,515/year\*
- Job outlook: 10.1% job growth by 2028

Personally speaking...



"I have always had broad interests and been eager to learn and try new things. These traits probably have something to do with a career path that didn't exactly follow a straight line.... I find it incredibly rewarding to work on behalf of the public to improve the transportation system. Every day is about working collaboratively with staff, agency partners, and elected officials to solve problems that matter to people."

Gina Mitteco, Regional and Multimodal Manager, Dakota County, Minnesota

\* *Median* means "middle," so half of these workers earn less than this amount.

# Local Transportation Agency Careers in Minnesota Environmental Preservation and Sustainability



# Common job titles in environmental preservation and sustainability

- Conservation Programs Coordinator
- Environmental Program Manager
- Forester/Arborist
- Hydrologist
- Industrial Ecologist
- Roadside Vegetation Specialist
- Specialty Engineers and Engineering Technicians (environmental, sustainability, water resources)
- Sustainability Manager

### What you might do

- Help research alternatives to road salt
- Evaluate environmental products and processes
- Maintain infrastructure to reduce stormwater runoff
- Monitor air quality and pollution
- Plan a community's environmental strategy
- Recommend plants that thrive along roadsides
- Reduce energy use and greenhouse gas emissions







### Personally speaking...



"There is no typical day. I am involved in everything from large (and small) development projects, working with individual homeowners' drainage improvement projects, as well as countless other water-quality improvement projects. I enjoy the challenge of working to solve complex drainage issues and helping to encourage responsible development that protects and improves water resources. I find it very rewarding to know that my work is helping to preserve and enhance water quality."

Brent Alcott, Water Resources Coordinator, City of Chaska, Minnesota



### Featured job: Water Resources Engineer

### What does a water resources engineer do?

Water resources engineers develop new equipment and systems for water resource management facilities. Their work ensures that everyone in the community has a continuous supply of clean, uncontaminated water for drinking, living, and recreational purposes. Water resources engineers not only design these water management systems—they often oversee the construction and maintenance of these systems as well.

### **Personal characteristics**

- Curious about how things work and how to make them better
- Likes hands-on work and variety
- Good understanding of math and science
- Good oral and written communication skills
- Enjoys problem-solving
- Works well with others and a team player
- Ability to think and plan ahead
- Interested in improving the environment
- Great attention to detail

#### Important info

- Education: Bachelor's degree in environmental engineering from an accredited college or university
- Median wage: \$41.80/hour or \$86,951/year
- Job outlook: 8.6% job growth by 2028

# Local Transportation Agency Careers in Minnesota Roads, Bridges, and Construction



# Common job titles in roads, bridges, and construction

- Construction Inspector
- City or County Engineer
- Field Technician
- GIS Technician
- Heavy Equipment Operator
- Lab/testing Technician
- Fleet Maintenance Mechanic
- Maintenance Technician
- Project Coordinator or Manager
- Specialty Engineers and Engineering Technicians (bridge, chemical, civil, geotechnical or soil, pavement or materials)
- Surveyor
- Transportation Coordinator

## What you might do

- Design a new road or bridge structure
- Ensure road safety with timely maintenance
- Manage the construction of new roads and bridges
- Operate machinery on a road construction project
- Determine the best pavement mixture for a road
- Prepare specs for a retaining wall or tunnel
- Design bike and pedestrian facilities
- Perform road and bridge safety inspections
- Repair and maintain vehicles and equipment



## Featured job: Civil Engineering Technician

### What does a civil engineering technician do?

A civil engineering technician helps civil engineers plan, design, and build public and private works to meet the community's needs, such as bridges, highways, airports, and other infrastructure projects. There are seven main civil engineering areas: structure, geotechnical, environmental, water resources, transportation, construction, and urban and community planning. Technicians work in offices and in the field by visiting job sites to collect and test materials or observe the project as a construction inspector.

### **Personal characteristics**

- Curious about how things work and how to make them better
- Likes hands-on work and variety
- Good understanding of math and science
- Good oral and written communication skills
- Enjoys problem-solving
- Works well with others and a team player
- Ability to think and plan ahead
- Interested in improving the environment
- Great attention to detail

### **Important info**

- Education: Two-year degree from a technical or community college
- Median wage: \$31.64/hour or \$65,815/year
- Job outlook: 6.8% job growth by 2028





### Personally speaking...



"I am doing civil design work, my bread and butter, but I've also learned on the job more about GIS mapping and analysis. In addition, I'm working to assist the engineering department in becoming more efficient and organized. These are the kinds of opportunities I was not getting before working at a local agency. I always knew I wanted to work in the technical field and do design work—I'm really happy I found a home at a local agency doing what I love to do."

Molly Swanson, Senior Engineering Technician, City of Eden Prairie, Minnesota

# Local Transportation Agency Careers in Minnesota Roads, Bridges, and Construction



# Featured job: Fleet Maintenance Mechanic

### What does a fleet maintenance mechanic do?

Fleet maintenance mechanics inspect, repair, and overhaul buses, trucks, or any vehicle, typically with a diesel engine. Local agency vehicles typically include plow trucks, construction equipment, street sweepers, lawn mowers, and bucket trucks.

### **Personal characteristics**

- Enjoys problem-solving
- Likes hands-on work and variety
- Desire to learn
- Good work ethic
- Patient
- Good attention to detail
- Good communication skills

#### Important info

- Education: Typically requires a two-year degree from a technical or community college or related experience
- Median wage: \$25.36/hour or \$52,741/year
- Job outlook: 6.4% job growth by 2028



### Personally speaking...

"I always had an interest in how things work. If something broke, tearing it apart, figuring out how it broke or why—trying to fix it.... Being a mechanic, I don't ever have to worry about not having a job, I receive good benefits, plus it's a great career. You get to really know your community, whether in your shop or through other agencies."

Steve Shaunce, Mechanic, Jackson County, Minnesota



"There is really no typical day on the job—that's part of what makes my work exciting. In the winter, I'm often in the office planning for summer construction projects and, in the summer, I'm out in the field working on those projects. But there is always much more going on, and every day I find myself working on something new."

Charles Fredericks, Streets Engineering Technician, City of Eagan, Minnesota



## Featured job: Maintenance Technician

### What does a maintenance technician do?

Maintenance technicians ensure highways and roads across the country remain in safe and working order. A maintenance worker completes a variety of routine tasks on these roads, such as removing snow and ice, painting and striping, and repairing potholes and other defects in the road caused by normal wear and tear or extreme weather.

### **Personal characteristics**

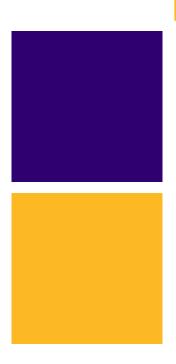
- Independent, stable, persistent, and practical
- Good physical stamina
- Mechanically inclined
- Enjoys operating heavy equipment
- Likes hands-on work and variety

### Important info

- Education: Typically requires a high school diploma or equivalent
- Median Wage: \$25.82/hour or \$53,719/year
- Job outlook: 4.3% job growth by 2028









## Want to learn more? Visit becomeacivilengineer.com

Find additional job profiles and complete interviews with people working in local transportation agency careers.

