

# Bridge Mechanic Tompkins County

**Department:** Highway  
**Classification:** Non-competitive  
**Labor Grade:** K (11)  
**Approved:** 0  
**Revised:** 5/91; 7/92; 3/93; 2/02; 5/13; 4/2020  
**By:** LG, Deputy Commissioner of Human Resources  
**BBP Risk Factor:** 3

## **MINIMUM QUALIFICATIONS:**

Graduate from high school and four years of experience constructing, repairing, and/or maintaining highway structures and/or buildings.

## **SPECIAL REQUIREMENT:**

The candidate must possess a valid New York State commercial drivers license class A or B with the appropriate required endorsements at the time of application and maintain such license for the duration of employment.

Tompkins County is Committed to Equity and Inclusion. We encourage those with similar values to apply.

## **DISTINGUISHING FEATURES OF THE CLASS:**

An employee in this class is responsible for performing a variety of skilled and semi-skilled tasks with a minimum of supervision in a number of complex trades such as carpentry, masonry, iron working and painting. An Employee in this class will also be involved with supervision of other employees on a continuous basis. The incumbent must also be able to read and use schematic drawings, blue prints, and mathematical formulae for the construction, repair and maintenance of bridges, culverts, roadways, and other highway structures. The position requires the operation of heavy equipment such as front end loaders, boom trucks, backhoes and trucks but is distinguished from a motor and/or heavy equipment operator by the additional duties of performing all necessary bridge maintenance and construction tasks the vast majority of his time. The employee will also be required to analyze any problems that arise in the field and provide to the engineer/supervisor potential solutions to the problem. Incumbent will be required to interface with engineers and project managers through all phases of projects providing suggestions for repair and maintenance alternatives, design input, and advice on constructability. The incumbent will perform all related duties as required.

## **TYPICAL WORK ACTIVITIES:**

- Provide suggestions and input for development of a bridge maintenance program;
- Provide advice and suggestions for project level design and constructability issues;
- Layout and construction forms for footing, foundations, walls and abutments;
- Read and understand schematic drawings, blueprints, and specifications and implement changes related to construction, repair and maintenance of bridges, culverts, roadways and other highway structures;
- Use basic knowledge of mathematical formulae for the construction, repair and maintenance of bridges, culverts, roadways and other highway structures;
- Operate a builder's level to set and transfer grades;
- Fabricate and install decking, stringers, braces, hand rails and other structural steel components;
- Operate heavy equipment such as front end loaders, backhoes, boom truck and trucks;
- Operate and maintain pumps, electrical breakers, electric drills, compressors, saws, mechanical wrenches and hoists and other tools that the jobs require;
- Erect scaffolds, rigs, slings and boatswain chairs, and operate equipment for the inspection, repair and maintenance of bridge super and substructures;
- Operate and maintain sand blasting equipment to remove deteriorated paint, scale, rust and other undesirable material from steel and concrete bridge surface;
- Supervise small groups of workers;
- Submit written daily report listing resources used and an explanation of events.

## **KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:**

- Working knowledge of methods, materials, tools and equipment used in the assigned trades as they apply to repair and maintenance operations of bridges, culverts and highway structures;
- Ability to read and understand schematic drawings, blueprints and specifications concerning construction, repair and maintenance of bridges, culverts, roadways and other highway structures;
- Ability to work with and explain information to others, including subordinates, residents, suppliers and vendors;
- Ability to work in an air supplied helmet.
- The employee's physical condition shall be commensurate with the demands of the position.

**UNUSUAL WORKING CONDITIONS:**

The employee is often required to work high above the ground and water on bridge maintenance and inspection equipment (i.e. scaffolds, ladders and boatswain chairs with rigging and slings). A Bridge Mechanic works in all kinds of weather conditions and in the midst of highway traffic.

The incumbent will be the primary team leader of a small bridge crew that will be responsible for the maintenance of 107 bridges. This crew will have a heavy work-load due to the limited size of the crew.

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