

Jurisdictional Class: Competitive  
Adopted: March 6, 1992  
Revised: April 26, 2010

## **BRIDGE REPAIR MECHANIC**

**DISTINGUISHING FEATURES OF THE CLASS:** This position involves skilled-level work in a number of trades, including carpentry, welding, masonry, iron working, steel fabricating, and painting, in the repair and maintenance of bridges and culverts. The work is performed under the general supervision of the Bridge Repair Supervisor. Supervision is exercised over crews assisting in the work. The incumbent does related work as required.

### **TYPICAL WORK ACTIVITIES:** (Illustrative only)

Works from blueprints, schematic drawings, and written instructions in the construction and repair of bridges and related concrete, steel, masonry, and wood structures;

Uses acetylene and electric cutting and welding equipment to fabricate, erect, and repair steel structures;

Erects scaffolds, rings, slings, and boatswain chains and operates under-bridge inspection equipment for the inspection, repair, and maintenance of bridge structures;

Builds forms of complex shapes for the pouring of concrete structures;

Operates sand blasting equipment to remove deteriorated paint, scale, rust, and other such material from steel and concrete surfaces;

Operates a variety of self-propelled equipment including cranes, dump trucks, bulldozers, loaders, patching machines, etc., used in construction and repair of bridges and other structures;

Cuts, bends, installs, ties, and secures all types of steel reinforcing for concrete structures as detailed on construction drawings and sketches;

Builds wooden decking, superstructures and railings;

Oversees and/or performs excavation de-watering, cofferdamming, and forming for footings and foundations;

Oversees and/or takes part in various other activities such as snow plowing, road sanding, equipment repair, and maintenance of buildings and highways.

### **FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES & PERSONAL CHARACTERISTICS:**

Working knowledge of Highway Maintenance Operational Guidelines as they apply to bridge repair and maintenance operations;

Working knowledge of Highway Safety Manual as it applies to bridge repair and maintenance operations;

Working knowledge of methods, materials, tools, and equipment used in the assigned trades as they apply to bridge repair and maintenance operations;

Basic knowledge of the specific properties of metals, concrete, and paving materials used on bridges;

Basic knowledge of mathematical formulae that relate to bridge construction, repair, and maintenance;

Basic knowledge of inspection techniques used to detect defects and deterioration in bridges;

Ability to perform above the ground work in the repair and maintenance of bridges;

Ability to use and operate the tools, equipment machines, and vehicles required in bridge repair and maintenance operations;

Ability to supervise small groups of workers;

Ability to read and understand schematic drawings and blueprints concerning the bridge construction, repair, and maintenance.

## Bridge Repair Mechanic

**MINIMUM QUALIFICATIONS:** Four (4) years experience in bridge construction, reconstruction, rehabilitation, or maintenance; two (2) years of which must have been at the journey level.

**NOTE:** Apprentice training in a bridge or mechanical trade or training gained by completion of a technical course in a bridge or technical trade may be substituted for the above experience on a year-for-year basis.

**SPECIAL REQUIREMENT FOR ACCEPTANCE OF APPLICATIONS:** Eligibility for an appropriate level New York State Driver's License at time of application and possession of license at time of appointment.