

**New York State Department of Civil Service**  
Division of Classification & Compensation

Classification Standard

***Occ. Code 7120135***

**Trades Specialist (Bridge), Grade 12**

Brief Description of Class

A Trades Specialist (Bridge) performs journey-level work in a number of different trades in the repair and maintenance of bridges and may act as a working supervisor over a bridge repair sub-crew on small bridge repair and maintenance projects.

Positions of Trades Specialists (Bridge) exist in the Regional Bridge Maintenance Units of the Department of Transportation and the NYS Thruway Authority.

Distinguishing Characteristics

Trades Specialist (Bridge): non-competitive; performs skilled-level work in a number of trades including carpentry, welding, masonry, ironworking, steel fabricating and painting in the repair and maintenance of bridges. Incumbents may supervise bridge repair sub-crews on small bridge repair and maintenance projects such as repairing bridge railings, repairing bridge deck holes and painting bridges.

Related Classes

Positions of Bridge Repair Supervisor 1 and 2 act as assistants and crew supervisors respectively for a bridge repair crew. The Bridge Repair Supervisor 2 positions, as crew supervisors, schedule repair projects, assign work to sub-crews, arrange for the necessary resources, and inspect bridges to determine the need for repair and maintenance work. Bridge Repair Supervisor 1 positions as assistant supervisors oversee and inspect the work of bridge repair sub-crews for adherence to standards and instructions or act as working supervisors for a bridge repair sub-crew engaged in extensive repair or rehabilitation projects such as repairing the pier footing and substructure of bridges or replacing structural members of bridges.

Bridge Repair Assistants perform semiskilled work in a number of different trades in the repair and maintenance of bridges under the direction and instruction of a skilled tradesperson. Their work includes mixing concrete, building concrete forms, breaking concrete, and operating highway equipment.

Trades Generalists perform skilled level work in a number of different trades in the repair and maintenance of State facilities and equipment. Incumbents typically work in a shop setting and in and around State owned buildings.

### Illustrative Tasks

A Trades Specialist (Bridge) performs a variety of skilled activities associated with the repair and maintenance of bridges including carpentry, welding, masonry, ironworking, steel fabricating and painting..

- Operates gunite equipment in the pneumatic application of concrete to repair deteriorated areas of structural members.
- Measures, cuts, and welds steel plates with acetylene and electric cutting and welding equipment to reinforce damaged and deteriorated structural steel.
- Erects scaffolds, rigs, slings, and boatswain chairs, and operates under bridge inspection equipment for the inspection, repair, and maintenance of bridge super and substructures.
- Operates sand blasting equipment to remove deteriorated paint, scale, rust, and other undesirable material from steel and concrete bridge surfaces.
- Working from blueprints, schematic drawings, and written instructions, fabricates elements of super and substructure, bridge railing, and catwalks from structural steel.
- Operates a variety of self-propelled equipment, including dump trucks, patching machines, and pavers, needed for bridge repair and maintenance projects.

May supervise a bridge repair sub-crew on small bridge repair and maintenance projects.

- Secures required resources from bridge repair crew or Residencies.
- Oversees, directs, and works with sub-crew in performance of work to ensure instructions, standards, and safety procedures are observed.
- Confers with crew supervisor if unforeseen problems are encountered.
- Prepares a brief written daily report on sub-crew and resources used, and an explanation of problems encountered and time delays.

Trades Specialists (Bridge) are required to work high above the ground and water on under bridge inspection equipment, scaffolds, ladders and boatswain chairs with rigging

and slings. They work in all kinds of weather conditions and in the midst of highway traffic.

### Independence of Operation

Trades Specialists (Bridge) are supervised by Bridge Repair Supervisor 1 and 2 positions who give project assignments, provide oral and written instructions, arrange for the necessary resources and periodically inspect work in progress and at its completion to ensure adherence to instructions and standards. On large repair and rehabilitation projects where Bridge Repair Supervisor 1 positions are assigned, incumbents of those positions also directly oversee the work of Trades Specialists (Bridge).

While the work of a Trades Specialist (Bridge) is inspected, an incumbent is expected to work with the independence that is typical of a skilled tradesperson.

### Communication

A Trades Specialist (Bridge) has frequent oral communications with the assistant and crew supervisor receiving instructions and advice and discussing the extent of repair and maintenance work and resources required. They have frequent oral communications with other members of a sub-crew giving and receiving advice and instructions during the performance of specific activities.

As a sub-crew supervisor, incumbents of positions in this class have frequent oral communications with crew members providing instructions, advice and training in the performance of assigned repair and maintenance work.

Communications with the general public are not typical of this class.

### Supervision Exercised

Trades Specialists (Bridge) may supervise sub-crews on small repair and maintenance projects. They provide instructions, make specific work assignments, secure necessary resources, and oversee and assist in the performance of work.

### Minimum Qualifications

Non-competitive: four years of full-time experience in a trade related to bridge repair, maintenance and construction under a skilled tradesperson which would provide training equivalent to that given in a training, apprenticeship, or equivalent program; or an equivalent combination of experience and training gained by completion of technical

courses in a bridge or technical trade at a school, institute, or branch of the Armed Services.

When required to operate motor vehicles, candidates must possess a valid New York State driver's license appropriate for the type of vehicle to be operated; candidates must be One-Person Plowing (OPP) certified to perform Snow & Ice Operations during the winter season; when required to perform work on NYSDOT projects, candidates must possess a NYSDOT Certified Welder in shielded metal arch welding, vertical position and unlimited thickness

**Note:** Classification Standards illustrate the nature, extent and scope of duties and responsibilities of the classes they describe. Standards cannot and do not include all of the work that might be appropriately performed by a class. The minimum qualifications above are those which were required for appointment at the time the Classification Standard was written. Please contact the Division of Staffing Services for current information on minimum qualification requirements for appointment or examination.

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