

# Job Description

Human Resource Use Only
Position Number:
Step/Grade
Effective Date: 05/2016

## POSITION IDENTIFICATION

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**Position Title:** Electrician  
**Division:** Department of Public Infrastructure – Operations Division  
**Status:** Full time, Non-Exempt  
**Normal Workweek:** Monday – Friday, subject to call-in 24/7

## SUPERVISORY RELATIONSHIPS

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**Reports to:** Operations Division Manager  
**Directly Supervises:** No Supervisory Responsibilities

## POSITION PURPOSE

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The employee in this position performs skilled work of a varied nature concerning the maintenance, inspection, testing, and repair of traffic signals, bascule bridge electrical and mechanical systems, and other City electrical systems (including but not limited to buildings, lift stations, civil defense sirens, and surveillance cameras). This employee will also be responsible for layout and design of such systems when necessary.

## ESSENTIAL DUTIES

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- Conduct diagnostic tests on traffic signal controllers, load switches, relays and related items. Assist in design, specification formulation, and installation of new traffic signals. Assist with design and layout traffic signal wiring configuration for new replacement signalized intersections. Write accurate and concise specification for new traffic signal controllers for quotation purposes.
- Assist the Operations Division Manager with the preparation of the annual budget related to all of the listed areas.
- Thoroughly understand the operation and control systems of the current 13 wastewater lift stations and the supervisory control and data acquisition system that monitors the overall system controls and alarms problems to the DPI office. Assist with alteration of these systems when required, and be familiar with any problems that can arise from inadvertent alteration to the controls or individual component failures in the system.
- Thoroughly understand ALL operating systems of both computer-operated bridges. Use the programmable computer system to systematically troubleshoot problems relating to the bridge operations, including hardware, software, electrical, hydraulic and mechanical problems. Troubleshoot SY-MAX programmable computers to include input/output boards, analog boards, resolver, servos boards, and all other items located within the computer cabinets. Define and correct failure in the mechanical, hydraulic, and electrical systems.
- Train new bridge tenders in all modes of operations and safety procedures required to conduct a safe lift.
- Troubleshoot, repair different types of parks equipment such as scoreboards, lighting, electronic signage, and security camera systems.

- Maintain, repair, and/or install electrical items in all city owned buildings that fall under the responsibility of DPI.
- Troubleshoot, repair and maintain the Early Warning System (Civil Defense Sirens) owned by the City.
- Troubleshoot, repair and maintain the two computer-operated fuel system sites owned and operated by the City.
- Responsible for inspection and coordination of private and public work performed by work crews.
- Responsible for on-call/after-hours duty, 24/7, for the Department of Public Infrastructure as scheduled/required.
- Be available for after-hours emergency and call in situations.

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## OTHER DUTIES

- Perform other related duties as required.

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## MINIMUM POSITION QUALIFICATIONS

<b>Education:</b>	High school diploma or equivalent. Education may be substituted for an equivalent combination of experience and training which provides the required knowledge, skills and abilities as determined by Management.
<b>Experience:</b>	Extensive experience as a journeyman electrician, licensed by the State of Wisconsin. Completion of indentured apprenticeship approved by the State of Wisconsin or approved equal training.
<b>Certifications/Licenses:</b>	Must possess a valid Wisconsin Driver's License Journeyman Electrician licensed by the State of Wisconsin
<b>Other Requirements:</b>	Employee must supply all basic hand tools.

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## KNOWLEDGE, SKILLS, & ABILITIES

This position must possess the ability to assess job priorities and carry out the workload in the most cost effective and efficient manner with limited assistance including advising the Operations Division Manager as to what services should be contracted out as opposed to being performed in-house to maximize the effective use of current staff; troubleshooting, repairs, installation and maintenance of traffic signals, bascule bridges, and electrical equipment in City-owned buildings and parks. This position must have a thorough knowledge of electrical systems and equipment, occupational hazards and the necessary safety precautions; basic working knowledge of the hydraulic, electrical and security systems in bascule bridges; the ability to inspect electrical equipment, detect operational flaws, and make the necessary repairs; the ability to read and interpret documents such as electrical schematics, parts manuals, safety rules, and operating and maintenance instructions and the ability to complete routine paperwork; and effectively present information to other employees and supervisors. This position must possess the ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions, and decimals, the ability to calculate area, circumference, and volume and the ability to apply concepts of basic algebra and geometry; display dependability; be a self-starter and be able to work with minimal supervision under the general direction of the Director of Public Infrastructure and Operations Division Manager. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

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**BACKGROUND CHECKS- Condition of Employment****PHYSICAL DEMANDS**

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The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Manual Dexterity:** While performing the duties of this job, the employee is regularly required to stand, walk, use hands to finger, handle, or feel; reach with hands and arms; stoop, kneel, bend, carry, twist, crouch or crawl; talk and hear. The employee is occasionally required to sit, climb, balance, taste or smell, and may be required to work in high places and/or confined spaces.

**Physical Effort:** The employee must regularly lift and/or move up to 25 pounds, frequently lift and/or move up to 50 pounds, and occasionally lift and/or move more than 100 pounds.

**Working Conditions:** The employee must be able to adjust from one schedule to another at short notice and be able to maintain attention to task in overtime situations. This position will work out of doors in varying weather conditions. In the performance of this position, the employee will be subject to outside weather conditions, which may include extreme cold, extreme heat, wet, and/or humid conditions and wind. The employee may be required to negotiate semi-rough or rough terrain. The noise level is generally moderate but may be quite loud, depending on equipment used or work being done in the area. The employee is frequently exposed to moving mechanical parts and vibration and may be exposed to fumes, airborne particles, and toxic or caustic chemicals. The employee may be required to use a respirator, either half mask or full mask, or a dust mask. The employee must be able to perform work in confined spaces once properly trained to do so. The employee will also be required to operate a boom truck and be trained in harness and fall protection.

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This position description has been prepared to define the general duties of the position, provide examples of work and to detail the required knowledge, skills and abilities as well as the acceptable experience and training for the position. The description is not intended to limit or modify the right of any supervisor to assign, direct, and control the duties of employees under supervision. The City of Manitowoc retains and reserves any and all rights to change, modify, amend, add to or delete from any portion of this description in its sole judgment.

This job description is not a contract for employment.

The City of Manitowoc is an equal opportunity employer, in compliance with the Americans with Disabilities Act. The City will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.