

## Sewer Substructure Inspector

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### **DEFINITION**

This is skilled work involving the inspection, maintenance and repair of various types of subterranean drainage network infrastructure facilities and structures.

Employees within this class, as part of a crew, perform inspection, maintenance, rehabilitation and repair activities on a variety of underground drainage structures including large diameter storm and sanitary trunklines, storage tanks and pipes, control structures, flow monitoring sites, interconnection sites, deep manholes, and related drainage structures. Inspections are done visually and/or with the use of televised/video/sonar equipment and images are recorded as required for subsequent analysis or for future reference. Typical inspection activity involves the walking of trunklines (with illumination) to determine condition, wear, defects, maintenance requirements, etc. When not engaged in underground work, incumbents provide a variety of support duties.

The nature of the working environment requires the judicious use of specialized breathing apparatus, protective clothing, harnesses, lifting/lowering winches, etc. Incumbents in this class work in teams and conduct inspection and maintenance /repair activity with extensive use of safety precautions and procedures. When not part of the two-person subterranean team, incumbents perform a variety of above-ground site support activities. Appropriate sanitary precautions and procedures are observed at all times and employees perform field activities to meet both production and safety standards. Employees in this class provide appropriate response to emergency situations, incoming requests for subterranean drainage system searches, recovery, pollution investigation, etc.

Results of visual inspections range from verbal to written reports and incumbents maintain appropriate records and files as required.

### **TYPICAL DUTIES** \*

Participate in the planning of trunkline infrastructure inspections, under the direction of a Foreman, including locations, tools and equipment required, safety considerations, etc.

Stock a wide variety inspection equipment, materials and supplies within inspection vans prior to site visits and ensures that special-purpose equipment is available as required.

Perform jobsite preparations such as traffic controls and barricades, checking availability/suitability of entry and egress points, setting up mechanical lifting winches and ensuring that all safety equipment and preparation procedures are followed.

Test breathing apparatus for proper operation, dons protective equipment (coveralls, boots, gloves, etc.), lifting harness, breathing apparatus or assists others with inspection preparation.

Enter sanitary and storm trunklines, storage tanks, storage pipes, control structures, flow monitoring sites, deep manholes and other subterranean drainage structures, and conducts (as a member of a two-person team) walkthroughs and visual inspections. Note deficiencies, failures, abnormal wear, maintenance and repair requirements and related pertinent anomalies for further investigation or repair activity.

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Perform video inspections, televised/ still photography, sonar testing and related equipment operations.

Carry out on-site repair, installation, and related activity through the use of hand and power tools, including the installation and maintenance of odour flaps.

Report both verbally and in writing the disposition of inspection and repair activity.

Provide jobsite assistance to walkers including winching, post-entry protective equipment removal, monitoring the ongoing status of both trunkline inspectors and flow rates, immediately responding to safety or emergency situations, etc.

Install and remove flow meters as required.

Maintain, inspect, repair, test, and certify specialized breathing apparatus used during subterranean inspections. Equipment is disassembled, cleaned, inspected, repaired, tested and records maintained as required.

Maintain related harness, protective clothing, winching equipment, repair tools, lighting equipment, etc. and ensure that trunkline vans are maintained in optimum operating condition.

Inspect new infrastructure for partial or full acceptance into inventory prior to issuance of CCC and FAC certifications.

Conduct special-purpose inspections and searches to support sewer pollution investigations, police and/or military requirements, etc.

Perform related duties as required.

### **KNOWLEDGE, ABILITIES AND SKILLS**

Knowledge of the drainage infrastructure and associated structures and related construction standards.

Ability to use, repair, adjust and maintain specialized breathing apparatus, specialized protective clothing and safety equipment, harnesses, winching equipment as well as a wide variety of inspection, testing and repair equipment and devices.

Ability to work as an effective member of a team and to apply support activities and respond to emergency or unusual situations.

Ability to withstand high levels of physical and mental stress associated with heavy exertion for extended periods of time within an isolated, total darkness and hazardous working environment.

Ability to read and interpret drainage infrastructure plans and to complete various inspection, repair and associated reports.

Ability to perform special duties and projects associated with police investigations, body search and recovery, weapons recovery, subsidence investigation, media and military requests, etc.

Skill in the use of special inspection tools and equipment and in the use of various hand and power tools while making repairs.

**TRAINING AND EXPERIENCE REQUIREMENTS**

Job Level

Completion of the twelfth school grade or equivalent supplemented by one year of related experience. Certified to applicable standards in confined space entry, Drager Breathing Apparatus Bench Technician II (or equivalent), Scott Breathing Apparatus and Canadian Red Cross First Aid. Possession of a valid Class V Motor Vehicle Operators Licence and eligibility to obtain a City driver's permit.

Incumbents within this classification must pass an annual medical examination.

**Drainage Services:**

The City of Edmonton is required to meet Alberta Environment Wastewater Collection Certification requirements for Drainage Services positions under this classification. All employees are required to obtain Level I Wastewater Collection Certification under the Alberta Environment Certificate program within 2 years of appointment to a permanent position within this class. Once the required level of certification is attained, the employee will transfer to the certified job code for this class, with the commensurate rate of pay.

The Drainage Branch reserves the right to waive the certification requirement for:

- an individual employee after 2 unsuccessful attempts at attaining the certification in a 2 year time frame or for
- a posted Design & Construction Section vacancy, where specific circumstances warrant,

provided that such waiver does not jeopardize the branch's ability to meet Alberta Environment certification requirements. The following classifications in the Drainage Operations Section will continue to require certification and incumbents will not be eligible for waiver of the certification requirement under any circumstances - these classifications are: Drainage Supervisor, Drainage Trainer, Training & Safety Instructor, Drainage Leader II, Maintenance Repairman II, and Pumpwell Millwright II.

\* *This is a class specification and not an individualized job description. A class specification represents and defines the general character, scope of duties and responsibilities of all positions within a specific job classification. It is not intended to describe nor does it necessarily list the essential job functions for a specific position in a classification. Positions may perform some of the duties listed above but this does not necessarily qualify for placement into this classification.*

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Salary Plan	10M	10A	10B	10C
Drainage Uncertified Grade	1836	016		
Drainage Certified Grade	2190	125		
Last Updated:	2010-05			
Originated:	2003-04			