

**493 MUNI CONSTRUCTION SPECIFICATION FOR TEMPORARY POTABLE WATER
SUPPLY SERVICES****493.02 References**

Add in the following:

CSA Standards

B64.10-17 Selection and Installation of Backflow Preventers

B64.10.1-17 Maintenance and Field Testing of Backflow Preventers

American Water Works Association (AWWA)

C511-17 Reduced Pressure Principle Backflow Prevention

C651-14 Disinfecting Watermains

493.03 Definitions

Add in the following:

Backflow Preventer Tester (BPT) means an individual who is authorized to install, test repair and relocate backflow preventers. A BPT must hold and maintain an Ontario Water Works Association (OWWA) Certified Cross Connection Control Specialist Certificate or a Ministry approved equivalent.

493.04.01 Submission Requirements

Delete in its entirety and replace with the following:

The Contractor shall submit a detailed plan and methodology of the proposed temporary water supply system to the City at the Pre-Construction Meeting, or one (1) week prior to any construction activities taking place, whichever comes first. Information provided in the plan and methodology must include, but is not limited to the following:

- a) Layout;
- b) Watermain construction/shutdown staging plan (if required);
- c) Connections to existing watermain;
- d) Size and type of pipe;
- e) Service connection points;
- f) Valves and check valves;
- g) Feed connections;
- h) Size of service to non-residential buildings.

493.05 Materials

493.05.01 General

Delete the first paragraph.

493.05.02 Temporary Potable Water Supply Services

Delete item i) for Double Check Valve Backflow Preventers from the list of materials and replace with the following:

- i) Reduced Pressure Principle (RP) Backflow Preventers shall be according to CSA B64.10/B64.10.1 and AWWA C651

493.07 Construction

493.07.01 General

Add in the following:

The Contractor shall keep and maintain a real time log of the houses which have been placed on and removed from the temporary water supply system. The log shall be made available for review by the City upon request. The log shall include at a minimum, the address, date and meter reading on that day. An example of this log form can be obtained from the City's website:

<https://www.greatersudbury.ca/do-business/infrastructure-and-city-construction/engineering-standards/standard-contract-documents-for-municipal-construction/temporary-water-service-notification/>

If for any reason, the water meter needs to be removed, the Contractor shall call the Water Meter Compliance Officer and request that City staff be dispatched to remove the meter. Minimum forty-eight (48) hours notice is required.

The Contractor is to coordinate with the City of Greater Sudbury's Distribution / Collection Operations as well as affected businesses, institutions and multiple unit residential buildings to ensure that the temporary water supply system is sized properly to provide for all water requirements. The Contractor may be required to work overnight or on weekends to accommodate the water requirements of the affected stakeholders. It shall be the bidder's responsibility for determining the number of households and/or businesses that require an outside water connection to be installed.

Meetings will be required with the City's Distribution / Collection Operations during the course of the construction to determine scheduling and actions that will be required prior to connections.

All hydrant connections and valve operations shall be completed and supervised by City forces.

It shall be the Contractor's responsibility to protect the temporary water supply system from freezing.

493.07.02 Temporary Watermains

Delete the second paragraph and replace with the following:

At any connection of a temporary watermain to the water supply and distribution system (e.g. at hydrants) a CSA Certified Reduced Pressure Principle (RP) backflow preventer shall be installed. Each RP backflow preventer installation shall be installed, field tested, and certified by a licenced Backflow Prevention Tester (BPT).

In addition to the requirements of section 493.07.08 for the flushing and disinfecting of temporary watermain and services, written certification of the backflow preventer installation, prepared by the BPT, must be submitted to the General Manager who shall issue written authorization to connect the temporary watermain to the existing municipal system.

At a minimum, written certification of the backflow preventer installation shall be in accordance with CSA B64.10/B64.10.1 and shall include:

- a) Specific location of device;
- b) Device size;
- c) Device manufacturer;
- d) Device model number;
- e) Device serial number;
- f) Installation date;
- g) Installation by (i.e. Business Name);
- h) Backflow Prevention Tester Name;
- i) Backflow Prevention Tester Business Name;
- j) Backflow Prevention Tester Business Address;
- k) Backflow Prevention Tester Business Phone Number;
- l) Backflow Prevention Tester OWWA Certification No. certification date, and expiry date;
- m) Device testing date
- n) Test results (i.e. Passed, Failed, re-test);
- o) Signature of Backflow Prevention Tester certifying installation and testing of device.

493.07.06 Protection

Add in the following:

The Contractor shall only cut and remove asphalt across the roadway to permit burying the by-pass pipe when directed by the General Manager.

493.07.07 Leakage Testing

Add in the following:

The temporary system shall be pressure tested at 820 kPa (120 psi) for one hour.

The pressure test shall be deemed acceptable if after one hour the pressure drop does not exceed 34.5 kPa (10 psi) and no leaks are visually apparent over the entire system.

The temporary potable water supply system shall be visually examined daily by the Contractor for leaks and any leakage must be repaired immediately.

493.07.08 Flushing and Disinfecting Temporary Watermains and Services

Delete in its entirety and replace with the following:

Flushing and Disinfecting of the temporary system shall be in accordance with section 441.07.24.03 of the City of Greater Sudbury Supplemental Specifications.

The “final connection device” to any buildings shall be treated in accordance with section 441.07.22 of the City of Greater Sudbury Supplemental Specifications.

493.10 Basis of Payment

493.10.01 Temporary Potable Water Supply Services – Item

Delete the second paragraph and replace with the following:

On completion of the supply, installation, flushing, disinfecting and testing of the temporary water supply system and upon successful connection, a payment of 60% of the lump sum price bid will be made. The remaining 40% will be paid on removal of the system.

Payment at the contract price shall also include the following:

- Removal of the temporary system;
- Protection measures as required to protect the temporary system from freezing;
- Methods and modifications needed to provide the buildings with a temporary water supply;
- Daily inspection and/or repairs as required;
- Flushing, disinfecting and testing of temporary system.