

**442 MUNI CONSTRUCTION SPECIFICATION FOR CORROSION PROTECTION  
OF NEW AND EXISTING WATERMAINS****442.02 References**

Add the following:

SSPC-SP1	Solvent Cleaning
SSPC-SP2	Hand Tool Cleaning
SSPC-SP3	Power Tool Cleaning
OPSS 503	Site Preparation for Pipeline, Utilities, and Associated Structures in Open Cut
OPSS 504	Preservation, Protection and Reconstruction of Existing Facilities
OPSS 517	Dewatering of Pipeline, Utilities and Associated Structures
OPSS 441	Watermain Installation in Open Cut
OPSS 410	Pipe Sewer Installation in Open Cut
	DENSO® NORTH AMERICA INC.

**442.03 Definitions**

Add in the following:

**Service Connection** means the system used to supply water from the watermain to the property line.

**Service Connection Appurtenance Set** means the main stop, curb stop, couplings, service box, service box support, and service saddle used in the installation of a service connection.

**442.05 Materials**

Add in the following:

**442.05.03.02 Petrolatum Tape Primer**

The primer shall be comprised of saturated petroleum hydrocarbons inert fillers and passivating agents.

The primer shall be in integral component for the preparation of metal surfaces prior to wrapping. Primer will displace moisture, passivate surface oxides, fill imperfections, and ensure contact for the tape.

**442.05.03.03 Petrolatum Tape**

The tape shall have a character stable in composition and plasticity over a wide temperature range. Tape shall be non-hardening and non-cracking.

**442.05.03.04 Petrolatum Molding Mastic**

The mastic shall be comprised of saturated petroleum hydrocarbons inert fillers, reinforcing fibers and thermal extenders.

Mastic shall be cold applied self-supporting for molding around irregular shaped fittings to provide a suitable profile for applying anti-corrosion tapes.

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Anti-corrosion materials approved for use by the General Manager include the following (or approved equal):

- Denso Paste Petrolatum Tape Primer as Priming Solution,
- Denso Profiling Mastic for profiling irregular contours and
- Denso LT Tape

#### **442.05.05                      Test Stations**

Add in the following:

All test stations shall be weatherproof and non-metallic and shall be of:

Little Fink as manufactured by Cott Manufacturing Company or approved equal.

Test stations to be installed as per GSSD 1125.010.

#### **442.07.01                      General**

Add in the following:

The work of installing corrosion protection on all metallic appurtenances shall include all primer, profiling mastic, and tape. The anti-corrosion materials shall be installed according to the manufacturer's recommendations with a 55% overlap for the tape applications.

#### **442.07.03                      Transporting, Unloading, Storage, and Handling Materials**

Add in the following:

Anti-corrosion materials that can be damaged by exposure to elements shall be stored in a clean, dry enclosure.

#### **442.07.04                      Anode Installation**

Delete sub sections 442.07.04.04, 442.07.04.05,

Add in the following subsections:

#### **442.07.15                      Cold Weather Work**

All work and materials must be protected from freezing.

#### **442.07.16                      Surface Preparation**

Preparation of the surface area for corrosion protection shall be performed in accordance to:

- a) SSPC-SP1            Solvent Cleaning
- b) SSPC-SP2            Hand Tool Cleaning
- c) SSPC-SP3            Power Tool Cleaning
- d) High Pressure Wash (3,000-7,000 psi)

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#### **442.07.17 Service Connection Appurtenance Set**

Corrosion protection shall be applied to the following metallic components:

- a) Service saddle;
- b) Main stop;
- c) Couplings or fittings;
- d) Curb stop.

Reference the appropriate GSSD 1104.010, GSSD 1104.011, GSSD 1104.020.

The appropriate size anode shall be applied to the service pipe if required.

#### **442.07.18 Metallic Fittings**

Corrosion protection shall be applied to the following metallic components:

- a) Bends or elbows;
- b) Tees;
- c) Crosses;
- d) Caps;
- e) Reducers;
- f) Pressure release valves;
- g) Thrust restraints.

#### **442.07.19 Associated Appurtenances – Hydrants**

Corrosion protection shall be applied to the following metallic components:

- a) Tee at watermain;
- b) Hydrant valve;
- c) Hydrant valve – fittings;
- d) Hydrant boot;
- e) Hydrant barrel: boot to flange on hydrant.

Reference GSSD 1105.030.

#### **442.07.20 Associated Appurtenances – Valves**

Corrosion protection shall be applied to the following metallic components:

- a) Entire valve exclusive of closing nut;
- b) All metallic fittings to connect valve to existing/new distribution system;
- c) As indicated on Greater Sudbury Standard Drawings (GSSDs).

#### **442.09 Measurement for Payment**

Add in the following subsections:

##### **442.09.03 Fittings – Metallic**

For measurement purposes, corrosion protection shall be included in the unit price for watermain.

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**442.09.04                      Service Connection**

For measurement purposes, corrosion protection shall be included in the unit price for service connections.

**442.09.05                      Hydrant Sets**

For measurement purposes, corrosion protection shall be included in the unit price for hydrant sets.

**442.09.06                      Valves**

For measurement purposes, corrosion protection shall be included in the unit price for valves.

**442.10                          Basis of Payment**

Add in the following:

Payment shall be full compensation for all labour, equipment, and material to do the work under the appropriate item.

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