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**Decommissioning, Demolition and Site Restoration SSB HQ**  
**Southside Road, St. John's, NL**  
**Project No. R.111146.001**

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2021/12/01

Section 33 11 16.01 - Incoming Site Water Utility Distribution Piping

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**PART 1**      **GENERAL**

**1.1**      **RELATED SECTIONS**

- .1      Section 01 33 00 - Submittal Procedures.
- .2      Section 01 74 21 - Construction / Demolition Waste Management and Disposal.
- .3      Section 01 78 00 - Closeout Submittals.
- .4      Section 22 11 18 - Domestic Water Piping Copper.

**1.2**      **REFERENCES**

- .1      American National Standards Institute/American Water Works Association (ANSI/AWWA)
  - .1      ANSI/AWWA C104/A21.4, Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
  - .2      ANSI/AWWA C110/A21.10, Ductile Iron and Gray Iron Fittings, 3 inch through 48 inch for Water and Other Liquids.
  - .3      ANSI/AWWA C111/A21.11, Rubber Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings.
  - .4      ANSI/AWWA C151/A21.51, Ductile-Iron Pipe, Centrifugally Cast, for Water.
- .2      American Society for Testing and Materials International, (ASTM)
  - .1      ASTM A307, Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
- .3      Manufacturer's Standardization Society of the Valve and Fittings Industry
  - .1      MSS-SP-70, Cast Iron Gate Valves, Flanged and Threaded Ends.

**1.3**      **PRODUCT DATA**

- .1      Submit product data in accordance with Section 01 33 00 - Submittal Procedures.
- .2      Submit data for following: valves, couplings, mechanical joints.

**1.4**      **CLOSEOUT SUBMITTALS**

- .1      Provide maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

**1.5**      **WASTE MANAGEMENT AND DISPOSAL**

- .1      Separate and recycle waste materials in accordance with Section 01 74 21 – Construction /Demolition Waste Management and Disposal.

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- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal paper, plastic, polystyrene, corrugated cardboard, packaging material in appropriate on-site bins for recycling in accordance with Waste Management Plan.
- .4 Divert unused metal and wiring materials from landfill to metal recycling facility approved by Departmental Representative.

**PART 2**      **PRODUCTS**

**2.1**      **PIPE**

- .1 Service water pipe: ductile iron cement mortar lined from 1 m outside of building or as indicated to:
  - .1 Ductile iron: ANSI/AWWA C151/A21.51.
  - .2 Cement mortar lining for ductile iron pipe: to ANSI/AWWA C104/A21.4.

**2.2**      **FITTINGS**

- .1 NPS 3 and larger mechanical joints or flanged: to ANSI/AWWA C110/A21.10.

**2.3**      **JOINTS**

- .1 Rubber gaskets for mechanical joints or flanges: to ANSI/AWWA C111/A21.11.
- .2 Bolts, nuts, hex head with washers: to ASTM A307, heavy series.

**2.4**      **GATE VALVES**

- .1 Rising stem: to MSS SP-70, class 125, 860 kPa, flat flange faces, cast-iron body, bronze trim, bolted bonnet.

**PART 3**      **EXECUTION**

**3.1**      **INSTALLATION**

- .1 Install in accordance with Canadian Plumbing Code and local authority having jurisdiction.
- .2 Piping cut square, reamed, free of cuttings and foreign material.
- .3 Minimum depth of bury: 1500 mm.

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- .4 Lay buried piping in compacted washed sand in accordance with AWWA Class "B" bedding. Where existing ground below bedding is unstable, install pipe on continuous concrete support.
- .5 Where piping enters building, provide support, and seal with modular link type seal with sleeve against ingress of moisture; to approval of authority having jurisdiction.
- .6 Assemble piping using fittings manufactured to ANSI standards and in accordance with manufacturer's instructions.
- .7 Apply one layer of protective coating to buried piping.

**3.2 PRESSURE TESTING**

- .1 Submit reports for inclusion into Commissioning Manuals.

**3.3 DISINFECTION**

- .1 Coordinate with Section 22 11 18- Domestic Water Piping Copper.
- .2 Submit bacteriological reports for inclusion into Commissioning Manuals.

**END OF SECTION**