



***DESIGN AND CONSTRUCTION
SPECIFICATIONS***

(MUNICIPAL WATER & WASTEWATER SYSTEMS)

2011 Edition



Halifax Regional Water Commission



Halifax Regional Water Commission

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April 21, 2011

To All Readers:

The Halifax Water Design and Construction Specifications document has been revised. Please refer to our website at www.halifaxwater.ca to download the current 2011 edition.

The Halifax Regional Water Commission (HRWC) merged in 2007 with the wastewater and stormwater operational groups of Halifax Regional Municipality (HRM) forming Halifax Water. Our new mandate provides for ownership, operation and maintenance of public water, wastewater and stormwater infrastructure within the boundaries of HRM. In order to establish, as far as practicable, uniformity of practice within the HRM, these Design Standards and Guidelines have been developed by staff of Halifax Water. They are to be used as a guideline of minimum standards to be met in the design and construction of municipal water, wastewater and stormwater services systems within the HRM and to list and suggest limiting values for items upon which an evaluation of such designs will be made by the reviewing authority.

Please note that the regulatory review and approval of new infrastructure related to section 6.0 of this document will be undertaken by HRM on behalf of Halifax Water, who will be responsible to own and maintain this infrastructure.

It is the intention of the HRWC to conform to the advancements and improvements in the practice of municipal engineering, and we look forward to a successful utilization of this document.

These specifications are developed to provide consistency in design and construction issues among developers, consultants and contractors all across this region. Any comments or suggested changes to the document are appreciated and encouraged from all interested parties. All comments received will be reviewed and considered for the 2012 update. Comments should be forwarded to Kenda MacKenzie, Senior Development Engineer P. Eng., at 490-5029.

It shall be the responsibility of the specifications holder to access our website on an annual basis to ensure that the most current version is utilized.

Yours very truly,

Jamie Hannam, P.Eng.

Director, Engineering & IS

JH/blj

DESIGN AND CONSTRUCTION STANDARDS

1.0	<u>Introduction</u>	Revised
2.0	<u>General Definitions</u>	Revised
3.0	<u>Design Requirements - Water System</u>	
3.1	Scope	Revised
3.2.8.3	Pump House	Revised
3.3.1	Physical Criteria	Revised
4.0	<u>Design Requirements Sewer Systems - Common Elements</u>	
4.6.1	Manholes	Revised
4.7.1.3	Pressure Laterals	Revised
5.0	<u>Design Requirements – Wastewater System</u>	
5.1	Scope	Revised
5.2.1.1	Gravity Systems	Revised
5.2.2.1	Wastewater Sewer Pipe	Revised
5.3.2.4	Auxiliary Power Supply and Building	Revised
5.3.2.14	Valves	Revised
5.3.2.18	Scada and Controls	Revised
5.3.2.21	Site Considerations	Revised
5.3.2.22	Safety	Added
5.3.3.1	Pipe (Forcemain)	Revised
5.3.3.6	Change in Direction	Revised
6.0	<u>Design Guideline - Stormwater Systems</u>	
6.1	General	Revised
6.6.1.2	Stormwater Sewer Pipe	Revised
7.0	<u>Drawing Standards</u>	Revised
8.0	<u>Submission and Acceptance Requirements</u> (formerly Miscellaneous)	Revised

SECTION 33 11 00 - SPECIFICATIONS AND REGULATIONS – WATERMAINS

Part 2 – PRODUCTS

2.6.1.9	Hydrants	Revised
2.7.2.6.1.2	Gate Valves	Revised
2.13.2.1	Thrust Restraint	Revised

Part 3 – EXECUTION

3.10.7	Flushing and Disinfection	Revised
3.10.8	Flushing and Disinfection	Revised

Please refer to the Standard Specifications for Municipal Services (2011) for the following sections.

33 31 00	Sanitary Sewers
33 34 00	Pressure Sewers
33 39 00	Pre-cast Manholes, Catch Basins and Structures
33 40 00	Storm Sewers and Culverts

SECTION 39 00 00 - SPECIFICATIONS AND REGULATIONS – STANDARD DRAWINGS

HWSD-1070	Thrust Block Requirements	Revised
HWSD-1110	Standard Hydrant Installation Urban Street	Revised
HWSD-1210	Typical Domestic & Sprinkler Connections as Separate Services	Revised
HWSD-1220	Typical Domestic & Sprinkler Connections	Revised
HWSD-1230	Typical Domestic & Sprinkler Connections	Revised
HWSD-1310	Commercial / Industrial Air Release / Air Vacuum Chamber Valve	Revised
HWSD-1320	Residential Air Release / Air Vacuum Valve Chamber	Revised

HWSD-1330	Meter Chamber for PVC Water mains	Revised
HWSD-1440	Trench and Backfill Cross Section	Revised
HWSD-1520	Standard 50mm Pressure Lateral Connection	Revised
HWSD-1570	1050 Pre-Cast Catch Basin	Revised
HWSD-1620	Inlet Headwall Structure and Grate Detail (Re-Named)	Revised
HWSD-1622	Outlet Headwall Structure and Grate Detail	New Drawing
HWSD-1624	Pre-Cast Concrete Driveway Headwall	New Drawing