



DESIGN SPECIFICATIONS

SECTION 7 - DRAWING REQUIREMENTS (GIS SYMBOLOGY)

SECTION 7.5.2
APRIL 2024

WATER SYSTEM

	GIS Revision Tracking Point		Water Rechlorination Station		Water Reservoir
	Pressure Tank	Water Fittings		Hydrants	
	Unknown FCODE		Adaptor		Hydrant
	Air and Vacuum Valve		Bend		Private Hydrant
	Air Release Valve		Blind Flange	Other Water Service Features	
	Altitude Valve		Cap		Water Service Point
	Ball Valve		Chamber Flow Arrow		Leaks and Breaks
	Butterfly Valve		Chamber Vent	Water Pumps	
	Butterfly Valve Operator Side		Coupling		Domestic Pump
	Check Valve		Cross		Fire Pump
	Corporation Stop		Denso Tape	Water Pipes	
	Curb Stop		Link Seal on a Pipe Sleeve		Unknown Pipe
	Drain Valve		M.J. Restraint Device		Drain
	Gate Valve		Non-shrink Fill on a Pipe Sleeve		Distribution Main
	Globe Valve		Plug		Transmission Main
	Hydrant Valve		Reducer		Private Drain
	Pressure Reducing Valve		Sleeve		Private Distribution Main
	Service Valve		Strainer		Private Transmission Main
	Surge Relief Valve		Tapping Sleeve		Unknown Lateral
	Private Air Release Valve		Tee		Service Lateral
	Private Air and Vacuum Valve		Test Meter Pit		Hydrant Lead
	Private Altitude Valve		Victaulic Coupling		Private Service Lateral
	Private Ball Valve		Wye		Private Hydrant Lead
	Private Butterfly Valve		Wye Left		Pipe Mask
	Private Butterfly Valve Operator Side		Wye Right	Water Pipe Protection	
	Private Check Valve	Structure Points			Pipe Protection - Temp
	Private Corporation Stop		Unknown Water Structure Point		Concrete Slab
	Private Curb Stop		Booster Station		Styrofoam Insulation
	Private Drain Valve		Bulk Fill Station		Pre-Insulated External Wrap - Buried
	Private Gate Valve		Water Supply Plant		Pre-Insulated External Wrap - Above Ground
	Private Globe Valve		ARV Chamber		Casing Pipe - Buried
	Private Hydrant Valve		Control Chamber		Casing Pipe - Above Ground
	Private Pressure Reducing Valve		Drain Chamber		Pipe Protection Unknown
	Private Service Valve		General Chamber		Pipe Protection Other
	Private Surge Relief Valve		Meter Chamber	Water Pipe Cleaning and Lining	
	Closed Valve		PRV Chamber		Cleaning and Lining
	Isolation Valve		Reservoir Chamber		Cleaned Pipe
	Private Isolation Valve		Surge Relief Chamber	Structure Polygons	
	Backflow Preventer		Water Intake Structure - In Bank Filtration		Unknown Water Structure
	Flowmeter		Water Intake Structure - Intake Structure		Bulk Fill Station
	Water Quality Station		Water Intake Structure - Low Lift		Booster Station
	Water Quality Instrument		Water Intake Structure - Travelling Screen		Reservoir
			Water Intake Structure - Well		Water Intake Structure
					Chamber
					Water Supply Plant



WASTEWATER COLLECTION SYSTEM

GIS Revision Tracking Point

Service Point



Collection System Spot Repair

Wastewater Manholes and Outfalls

Public Manhole

Legacy Service Point

Cathodic Protection Test Station

Private Manhole

Control Structure



Sewer Pump

Wastewater Chambers

Wastewater Diversion Chamber

Identified Deficiency (Pipes/Laterals)



Treatment Facility

Wastewater Diversion Point

Tracewire Access Point



Casing

Wastewater Force Main Valve Chamber

Force Main Flow Meter



Lining

Wastewater Junction Chamber

Gravity Flow Meter



Tracewire

Wastewater Pre-Treatment Unit

Gravity Flow Meter - Removed



Vent Line

Wastewater Pump Chamber

Wastewater Corp Stop



CCTV Televised Main

Wastewater Regulating Chamber

Wastewater Curb Stop

Wastewater Insulation



Concrete Slab

Wastewater Storage Basin

Wastewater Pumping Stations



Pre-Insulated Pipe

Wastewater Tide Chamber

Public Pumping Station



Styrofoam Sheet

Wastewater Vortex Chamber

Private Pumping Station

Wastewater Pipes

Outfall



Public Force Main

Wastewater Fittings

Bend

Wastewater Holding Tanks

Heat Recovery Tank



Public Gravity Pressure Pipe

Cap

Holding Tank



Public Pressure Pipe

Cleanout

Overflow Tank



Public Inverted Siphon

Coupling

Wastewater Valves

Air Release Valve



Public Pipe

Eccentric Reducer

Altitude Valve



Private Force Main

Flexible Coupling

Butterfly Valve



Private Gravity Pressure Pipe

Flex Joint

Ball Valve



Private Pressure Pipe

Grouted Connection

Cone Valve



Private Inverted Siphon

Long Radius Bend

Check Valve



Private Pipe

Mechanical Joint Restraint

Drain Valve



Public Lateral

Reducer

Gate Valve



Private Lateral

Saddle

Plug Valve



Wastewater Structure Polygon

Tap

Pressure Release Valve

Tee

Surge Relief Valve

Wye

Valve

Vent



STORMWATER COLLECTION SYSTEM

Stormwater Manholes

- Public Manhole
- Private Manhole

Stormwater Inlets

- Public Catchbasin
- Public Double Catchbasin
- Public Triple Catchbasin
- Private Catchbasin
- Private Double Catchbasin
- Private Triple Catchbasin

Stormwater Headwalls and Outfalls

- Headwall
- Outfall

Stormwater Fittings

- Bend
- Cap
- Cleanout
- Coupling
- Eccentric Reducer
- Flexible Coupling
- Flex Joint
- Grouted Connection
- Long Radius Bend
- Mechanical Joint Restraint
- Reducer
- Saddle
- Tap
- Tee
- Wye

Stormwater Chambers

- Other Chamber
- Stormwater Diversion Chamber
- Stormwater Diversion Point
- Stormwater Force Main Valve Chamber
- Stormwater Junction Chamber
- Stormwater Pump Chamber
- Stormwater Regulating Chamber
- Stormwater Storage Basin
- Stormwater Tide Chamber
- Stormwater Treatment Unit
- Private Stormwater Treatment Unit
- Stormwater Vortex Chamber

Service Point

Control Structure

Stormwater Valves

- Air Release Valve
- Altitude Valve
- Butterfly Valve
- Ball Valve
- Cone Valve
- Check Valve
- Drain Valve
- Gate Valve
- Plug Valve
- Pressure Release Valve
- Surge Relief Valve
- Valve

Stormwater Management Structures

- Other (No Remarks)
- Berm
- Private Berm
- Constructed Wetland
- Private Constructed Wetland
- Lake
- Private Lake
- Oversize Pipe
- Private Oversize Pipe
- Underground Storage
- Private Underground Storage
- Wet Pond
- Private Wet Pond
- Dry Pond
- Private Dry Pond
- Unknown
- Private Unknown
- Other (See Remarks)
- Private Other (See Remarks)

Identified Deficiency (Pipes/Laterals)

Force Main Flow Meter

Gravity Flow Meter

Gravity Flow Meter - Removed

Stormwater Corp Stop

Stormwater Curb Stop

Stormwater Pumping Stations

- Public Pumping Station
- Private Pumping Station

Casing

Lining

Ditch

CCTV Televised Main

Stormwater Insulation

- Concrete Slab
- Pre-Insulated Pipe
- Styrofoam Sheet

Stormwater Pipes

- Public Catchbasin Lead
- Public Culvert
- Public Drain
- Public Force Main
- Public Gravity Pressure Pipe
- Public Pressure Pipe
- Public Inverted Siphon
- Public Pipe
- Private Catchbasin Lead
- Private Culvert
- Private Drain
- Private Force Main
- Private Gravity Pressure Pipe
- Private Pressure Pipe
- Private Inverted Siphon
- Private Pipe
- Public Lateral
- Private Lateral
- Stormwater Structure Polygon



COMBINED COLLECTION SYSTEM

Combined Manholes and Outfalls

- Public Manhole
- Private Manhole
- Outfall
- Combined Sewer Overflow (CSO) Structure

Combined Fitting

- Bend
- Cap
- Cleanout
- Coupling
- Eccentric Reducer
- Flexible Coupling
- Flex Joint
- Grouted Connection
- Long Radius Bend
- Mechanical Joint Restraint
- Reducer
- Saddle
- Tap
- Tee
- Wye

Combined Holding Tanks

- Heat Recovery Tank
- Holding Tank
- Overflow Tank

Combined Pumping Stations

- Public Pumping Station
- Private Pumping Station

- Control Structure
- Identified Deficiency (Pipes/Laterals)
- Force Main Flow Meter
- Gravity Flow Meter
- Gravity Flow Meter - Removed
- Combined Corp Stop
- Combined Curb Stop

Combined Chambers

- Combined Diversion Chamber
- Combined Diversion Point
- Combined Force Main Valve Chamber
- Combined Junction Chamber
- Combined Pump Chamber
- Combined Regulating Chamber
- Combined Storage Basin
- Combined Tide Chamber
- Combined Vortex Chamber

Combined Valves

- Air Release Valve
- Altitude Valve
- Butterfly Valve
- Ball Valve
- Cone Valve
- Check Valve
- Drain Valve
- Gate Valve
- Plug Valve
- Pressure Release Valve
- Surge Relief Valve
- Valve

- Casing
- Lining
- CCTV Televised Main

Insulation

- Concrete Slab
- Pre-Insulated Pipe
- Styrofoam Sheet



Combined Pipes

- Public Force Main
- Public Gravity Pressure Pipe
- Public Pressure Pipe
- Public Inverted Siphon
- Public Pipe
- Private Force Main
- Private Gravity Pressure Pipe
- Private Pressure Pipe
- Private Inverted Siphon
- Private Pipe
- Public Lateral
- Private Lateral
- Combined Structure Polygon





UNKNOWN COLLECTION SYSTEM
















Unknown Manholes

-  Public Manhole
-  Private Manhole




Unknown Headwalls and Outfalls

-  Headwall
-  Outfall



Unknown Fittings










-  Bend
-  Cap
-  Cleanout
-  Coupling
-  Eccentric Reducer
-  Flexible Coupling
-  Flex Joint
-  Grouted Connection
-  Long Radius Bend
-  Mechanical Joint Restraint
-  Reducer
-  Saddle
-  Tap
-  Tee
-  Wye

Unknown Holding Tanks










-  Heat Recovery Tank
-  Holding Tank
-  Overflow Tank

Unknown Pumping Stations













-  Public Pumping Station
-  Private Pumping Station

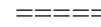


-  Service Point
-  Cathodic Protection Test Station
-  Control Structure
-  Identified Deficiency (Pipes/Laterals)
-  Force Main Flow Meter
-  Gravity Flow Meter
-  Gravity Flow Meter - Removed
-  Unknown Corp Stop
-  Unknown Curb Stop

Unknown Chambers



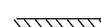
-  Unknown Diversion Chamber
-  Unknown Diversion Point
-  Unknown Force Main Valve Chamber
-  Unknown Junction Chamber
-  Unknown Pump Chamber
-  Unknown Regulating Chamber
-  Unknown Storage Basin
-  Unknown Tide Chamber
-  Unknown Vortex Chamber

Unknown Valves












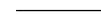

-  Air Release Valve
-  Altitude Valve
-  Butterfly Valve
-  Ball Valve
-  Cone Valve
-  Check Valve
-  Drain Valve
-  Gate Valve
-  Plug Valve
-  Pressure Release Valve
-  Surge Relief Valve
-  Valve

-  Casing
-  Lining
-  CCTV Televised Main

Unknown Insulation

-  Concrete Slab
-  Pre-Insulated Pipe
-  Styrofoam Sheet

Unknown Pipes

-  Public Force Main
-  Public Gravity Pressure Pipe
-  Public Pressure Pipe
-  Public Inverted Siphon
-  Public Pipe
-  Private Force Main
-  Private Gravity Pressure Pipe
-  Private Pressure Pipe
-  Private Inverted Siphon
-  Private Pipe
-  Public Lateral
-  Private Lateral
-  Unknown Structure Polygon













ABANDONED WATER SYSTEM

	Abandoned Valves		Water Supply Plant		Blind Flange
	Abandoned Hydrants		ARV Chamber		Cap
	Abandoned Water Rechlorination Station		Control Chamber		Chamber Flow Arrow
	Abandoned Water Reservoir		Drain Chamber		Chamber Vent
	Abandoned Flowmeter		General Chamber		Coupling
	Abandoned Water Pipe		Meter Chamber		Cross
	Abandoned Water Drain		PRV Chamber		Denso Tape
Abandoned Structure Polygons			Reservoir Chamber		Link Seal on a Pipe Sleeve
			Surge Relief Chamber		M.J. Restraint Device
			Water Intake Structure - In Bank Filtration		Non-shrink Fill on a Pipe Sleeve
Abandoned Structure Points			Water Intake Structure - Intake Structure		Plug
	Unknown		Water Intake Structure - Low Lift		Reducer
	Booster Station		Water Intake Structure - Travelling Screen		Sleeve
	Bulk Fill Station		Water Intake Structure - Well		Strainer
			Abandoned Service Point		Tapping Sleeve
			Abandoned Service Lateral		Tee
		Abandoned Fittings			Test Meter Pit
			Unknown FCODE		Victaulic Coupling
			Adaptor		Wye
			Bend		Wye Left
					Wye Right




ABANDONED COLLECTION SYSTEM

Abandoned Manholes			Abandoned Cathodic Protection Test Station		Abandoned Treatment Facility
	Combined Manhole		Abandoned Control Structure		Abandoned Pumping Station
	Wastewater Manhole		Abandoned Stormwater Management Structure		Abandoned Casing
	Stormwater Manhole		Abandoned Tracewire Access Point		Abandoned Lining
	Unknown Manhole		Abandoned Sewer Pump		Abandoned Ditch
	Abandoned CSO Structure		Abandoned Corp Stop		Abandoned Insulation
Abandoned Inlets and Outfalls			Abandoned Curb Stop		Abandoned Tracewire
	Catchbasin		Abandoned Chambers		Abandoned Vent Line
	Double Catchbasin		Diversion Chamber	Abandoned Pipes	
	Triple Catchbasin		Diversion Point		Combined Force Main
	Abandoned Headwall		Force Main Valve Chamber		Combined Gravity Pressure Pipe
	Abandoned Outfall		Junction Chamber		Combined Pressure Pipe
Abandoned Fittings			Pump Chamber		Combined Inverted Siphon
	Bend		Regulating Chamber		Combined Pipe
	Cap		Storage Basin		Catchbasin Lead
	Cleanout		Tide Chamber		Culvert
	Coupling		Stormwater Treatment Unit		Drain
	Eccentric Reducer		Vortex Chamber		Stormwater Force Main
	Flex Joint		Wastewater Pre-Treatment Unit		Stormwater Gravity Pressure Pipe
	Flexible Coupling	Abandoned Valves			Stormwater Pressure Pipe
	Grouted Connection		Air Release Valve		Stormwater Inverted Siphon
	Long Radius Bend		Altitude Valve		Stormwater Pipe
	Mechanical Joint Restraint		Butterfly Valve		Unknown Force Main
	Reducer		Ball Valve		Unknown Gravity Pressure Pipe
	Saddle		Cone Valve		Unknown Pressure Pipe
	Tap		Check Valve		Unknown Inverted Siphon
	Tee		Drain Valve		Unknown Pipe
	Wye		Gate Valve		Wastewater Force Main
	Vent		Plug Valve		Wastewater Gravity Pressure Pipe
Abandoned Holding Tanks			Pressure Relief Valve		Wastewater Pressure Pipe
	Heat Recovery Tank		Surge Relief Valve		Wastewater Inverted Siphon
	Holding Tank		Valve		Wastewater Pipe
	Overflow Tank		Abandoned Collection System Structure		Lateral
Abandoned Service Points					
	Unknown				
	Stormwater				
	Wastewater				

LAND FEATURES

-  Traffic Pole
-  Utility Pole
-  Survey Monument
-  Natural Gas Lateral
-  Natural Gas Pipeline
-  Property Boundary
-  Land Owned by Halifax Water
-  Community Boundary
-  Halifax Water Sewershed Boundary
-  Halifax Water Stormwater Service Boundary

HRM Service Requirements

-  Water Service Only
-  Wastewater Service Only
-  Water and Wastewater Service

Protected Water Areas

















Provincial Tertiary Watersheds





HW Water Supply Sheds

-  Bennery Lake
-  Bomont
-  Chain Lakes
-  Collin's Park
-  Five Islands
-  Lemont Lake
-  Lake Major
-  Middle Musquodoboit
-  Pockwock Lake
-  Siversands
-  Tomahawk Lake


















Property Zoning

-  BED
-  CHEB
-  CHW
-  DART
-  DHFX
-  DRTDO
-  EPCW
-  ESE
-  ESW
-  HMAIN
-  HPEN
-  HPSBB
-  LEPL
-  LTWN
-  MVDS
-  NPLM
-  PROS
-  SACK
-  SCKDR
-  SHUB
-  SMB
-  TLB

HW Capital Cost Contribution Areas




-  Beaver Bank
-  Bedford Commons
-  Bedford Highway
-  Bedford South
-  Bedford West
-  Beechville - Lakeside - Timberlea
-  Birch Cove North
-  Fall River - Windsor Junction
-  Geizer Hill
-  Hammonds Plains - Pockwock
-  Herring Cove
-  Kingswood - Blue Mountain
-  MacLaughlin Road
-  Middle Musquodoboit
-  Middle Sackville - Lively
-  Morris - Russell Lake
-  Portland Hills

BASEMAP





-  Power Pole / Transmission Tower
-  Municipal Boundary
-  Railroad
-  Rivers / Stream
-  Streets and Highways (1:100 - 1:8,000)
-  Streets and Highways (1:16,000 - 1:64,000)
-  Streets and Highways (1:128,000 - 1:256,000)
-  Major Highway
-  Minor Highway
-  Primary Street
-  Street
-  Building
-  Property Boundary
-  Lake
-  Parks / Recreational Areas
-  Land Owned by University
-  Coastline

ZONES AND REGIONS

Distribution System Regions












































-  Unknown
-  East
-  Central
-  West

Collection System Regions

-  Unknown
-  East
-  Central
-  West

Pressure Zones

-  Unknown Pressure Zone
-  24 East High
-  Aerotech
-  Atholea Low
-  Beaver Bank Boosted
-  Beaver Bank Intermediate
-  Bedford Intermediate
-  Bedford Low
-  Bedford South Intermediate
-  Berry Hills Boosted
-  Bluewater Intermediate
-  Broadholme Intermediate
-  Brunello Boosted
-  Burnside Boosted
-  Burnside High
-  Burnside Low
-  Caldwell Road Boosted
-  Charles Road Boosted
-  Churchill Intermediate
-  Collins Park Low
-  Cowie High
-  Dartmouth Intermediate East
-  Dartmouth Intermediate West
-  Dartmouth Low
-  Eaglewood Boosted
-  Eastern Passage/Woodside Low
-  Fairview Clayton High
-  Fall River Intermediate
-  Farnhamgate Intermediate
-  Flamingo Intermediate
-  Geizer 123 High
-  Geizer 158 High
-  Geizer Boosted

-  Glenforest Intermediate
-  Hemlock High
-  Hemlock Intermediate
-  Hemlock Super High
-  Herring Cove Low
-  Kearney Lake Intermediate
-  Kingswood High
-  Lake Major High
-  Lakeside Intermediate
-  Leiblin Boosted
-  Lively Boosted
-  Lucasville High
-  Miller Lake High
-  Miller Lake Low
-  Monarch/Rivendale High
-  Montague High
-  Mount Edward Boosted
-  Mowatt Intermediate
-  No. 7 Highway Boosted
-  North Preston
-  Orchard High
-  Peninsula High
-  Peninsula Intermediate
-  Peninsula Low
-  Pockwock Boosted
-  Pockwock High
-  Princess Margaret Low
-  Ritcey Low
-  Robie Reservoir
-  Rockingham Low
-  Rockmanor Intermediate
-  Ross Road Low
-  Sackville High
-  Sackville Intermediate
-  Siversands Low
-  Siverside Boosted
-  Spryfield Intermediate
-  Titus Evans Low
-  Upper Hammonds Plains High
-  Waverley Intermediate
-  Waverley Low
-  West Bedford Intermediate
-  Williams Lake Low

Meter Zones

-  Unknown Meter Zone
-  #7 Highway Boosted
-  24 East High
-  27 Low
-  Aerotech
-  Atholea Low
-  Beaver Bank Boosted
-  Beaver Bank Intermediate
-  Bedford Intermediate
-  Bedford Low
-  Bedford South Intermediate
-  Berry Hills Boosted
-  Birch Cove
-  Bluewater Intermediate
-  Broadholme Intermediate
-  Brunello Boosted
-  Burnside Boosted
-  Burnside High
-  Burnside Low
-  Caldwell Rd Boosted
-  Caledonia High
-  Central Dartmouth
-  Charles Rd Boosted
-  Churchill Intermediate
-  Cobequid High
-  Collins Park Low
-  Cowie High
-  Dartmouth Low
-  Eastern Passage Low
-  Fairmount High
-  Fairview Clayton Park
-  Fall River Intermediate
-  Farnhamgate Intermediate
-  Flamingo Intermediate
-  Geizer123 High
-  Geizer158 High
-  Geizer Boosted
-  Glenforest Intermediate
-  Hammond Kearney
-  Hemlock High
-  Hemlock Intermediate
-  Hemlock Super High
-  Herring Cove Low
-  Herring Cove Road Intermediate
-  Kearney Lake Intermediate
-  Kingswood High
-  Lake Major High
-  Lakeside High
-  Lakeside Intermediate
-  Leiblin Boosted
-  Lively Boosted
-  Lucasville High
-  Miller Lake High
-  Miller Lake Low
-  Monarch/Rivendale High
-  Montague High
-  Mount Edward Boosted
-  Mowatt Intermediate
-  North Preston
-  Orchard High
-  Penhorn Intermediate
-  Peninsula High
-  Peninsula Intermediate Central
-  Peninsula Intermediate North
-  Peninsula Intermediate South
-  Peninsula Low North
-  Peninsula Low South
-  Pockwock Boosted
-  Pockwock High
-  Princess Margaret Low
-  Ritcey Low
-  Robie Reservoir
-  Rockmanor Intermediate
-  Ross Rd
-  Sackville High
-  Sackville Intermediate
-  Siversands Low
-  Siverside Boosted
-  Spryfield Intermediate
-  Titus Evans Low
-  Upper Hammonds Plains High
-  Waverley Intermediate
-  Waverley Low
-  West Bedford Intermediate
-  Williams Lake Low
-  Woodlawn Inter
-  Woodside Low