



**Backflow Preventer** 

WAT	TER SYSTEM						
	GIS Revision Tracking Point		Flowmeter	WR	Water Reservoir		
PT	Pressure Tank	WQS Water Quality Station Other Water Service Features			Nater Service Features		
	Unknown FCODE	<b>_</b> WQ <b>I</b>	Water Quality Instrument	•	Water Service Point		
OAVC	Air and Vacuum Valve	Hydran	-	*	Leaks and Breaks		
OARV	Air Release Valve		Hydrant	Water Pumps			
○ALT	Altitude Valve	-OPVT	Private Hydrant		Domestic Pump		
0	Ball Valve	Water F	•	F	Fire Pump		
	Butterfly Valve		-		Pipes		
os	Butterfly Valve Operator Side	_	Bend		Unknown Pipe		
Ζţ	Check Valve	=	Blind Flange		Drain		
○ cs	Corporation Stop	п	Сар		Distribution Main		
$_{\odot}$ cc	Curb Stop	<b>A</b>	Chamber Flow Arrow		Transmission Main		
$\bigcirc$ DRN	Drain Valve	ΓVT	Chamber Vent		Private Drain		
$\otimes$	Gate Valve	)(	Coupling		Private Distribution Main		
$\bigcirc$ GLV	Globe Valve	Ι <u>□</u> Ι	Cross		Private Transmission Main		
$\otimes$	Hydrant Valve		Denso Tape		Unknown Lateral		
$\bigcirc$ PRV	Pressure Reducing Valve		Link Seal on a Pipe Sleeve		Service Lateral		
$_{\bigcirc}$ SRV	Service Valve	¥	M.J. Restraint Device		Hydrant Lead		
$\bigcirc$ SUR	Surge Relief Valve		Non-shrink Fill on a Pipe Sleeve		Private Service Lateral		
$\bigcirc$ ARV	Private Air Release Valve	I=1	Plug		Private Hydrant Lead		
OAVC	Private Air and Vacuum Valve	<b>A</b>	Reducer		Pipe Mask		
OALT	Private Altitude Valve	ı	Sleeve	Water F	Pipe Protection		
<b>©</b>	Private Ball Valve	•	Strainer	XXXX	Pipe Protection - Temp		
	Private Butterfly Valve	=	Tapping Sleeve		Concrete Slab		
os	Private Butterfly Valve Operator Side	C	Tee		Styrofoam Insulation		
Ζţ	Private Check Valve	□ТМ	Test Meter Pit	=	Pre-Insulated External Wrap - Buried		
⊖ CS	Private Corporation Stop	I	Victaulic Coupling		Pre-Insulated External Wrap - Above Ground		
○ CC	Private Curb Stop	<b>=</b>	Wye	XXXX	Casing Pipe - Buried		
ODRN	Private Drain Valve	=	Wye Left	XXXX	Casing Pipe - Above Ground		
8	Private Gate Valve	=	Wye Right		Pipe Protection Unknown		
GLV	Private Globe Valve		ire Points		Pipe Protection Other		
$\otimes$	Private Hydrant Valve	ARV	Air Release Chamber	Water F	Pipe Cleaning and Lining		
PRV	Private Pressure Reducing Valve	<u>S</u>	Booster Station	_	Cleaning and Lining		
SRV	Private Service Valve	CTR	Control Chamber	_	Cleaned Pipe		
SUR	Private Surge Relief Valve	MTR	Meter Chamber	Structu	ire Polygons		
O	Closed Valve	● PW	Production Well				
•	Isolation Valve	PRV	PRV Chamber				
0	Private Isolation Valve	RSV	Reservoir Chamber				
$\mathbf{O}$	i iivato isolation valve	7					

Water Treatment Plant



### **SECTION 7.5.2 FEB 2023**

### WASTEWATER COLLECTION SYSTEM

**GIS Revision Tracking Point** 



Collection System Spot Repair

**Wastewater Manholes and Outfalls** 

Public Manhole

Private Manhole

**Wastewater Chambers** 

 $\bigvee$ **Diversion Chamber** 

**Diversion Point** 

**FM**VL Force Main Valve Chamber

JNC Junction Chamber

Pre-Treatment Unit

**Pump Chamber** 

Regulating Chamber

T Tide Chamber

Outfall

**Wastewater Fittings** 

Bend

П Cap

Cleanout

co

Ж Coupling

Eccentric Reducer

Flexible Coupling

Flex Joint

**Grouted Connection** 

Long Radius Bend

Mechanical Joint Restraint

Reducer

Saddle

Tap

Tee

Wye

Vent

Service Point

Legacy Service Point

(ST) Cathodic Protection Test Station

Control Structure

Identified Deficiency (Pipes/Laterals)

Tracewire Access Point

Force Main Flow Meter

**Gravity Flow Meter** 

Gravity Flow Meter - Removed

 $_{\odot}$  CS Wastewater Corp Stop

 $_{\odot}$  CC Wastewater Curb Stop

**Wastewater Pumping Stations** 

 $\mathcal{O}_{\mathbf{r}}$ **Public Pumping Station** 

Private Pumping Station

**Wastewater Holding Tanks** 

**M** Heat Recovery Tank

Holding Tank

**OF** Overflow Tank

**Wastewater Valves** 

 $\bigcirc$  ARV Air Release Valve

 $\bigcirc$ ALT Altitude Valve

**Butterfly Valve** 

0 Ball Valve

Cone Valve 

○DRN Drain Valve

Ζt

 $\bigcirc$  PRV

Pressure Release Valve

Check Valve

Gate Valve

Plug Valve

 $\bigcirc \, {\rm SUR}$ Surge Relief Valve

Valve

Sewer Pump



**Treatment Facility** 

===== Casing

Lining

Tracewire

Vent Line

**CCTV Televised Main** 

Wastewater Insulation

Concrete Slab

Pre-Insulated Pipe

mStyrofoam Sheet

**Wastewater Pipes** 

FM▶— Public Force Main

GP**>**— Public Gravity Pressure Pipe

PP**>** — Public Pressure Pipe

ıs**>**— Public Inverted Siphon

Public Pipe

FM>-Private Force Main

GP>-Private Gravity Pressure Pipe

PP≫— Private Pressure Pipe

IS>-Private Inverted Siphon

Private Pipe

Public Lateral

Private Lateral

Wastewater Structure Polygon



### SECTION 7.5.2 **FEB 2023**

#### STORMWATER COLLECTION SYSTEM

#### **Stormwater Manholes**

Public Manhole 0

Private Manhole

#### Stormwater Inlets

Public Catchbasin

H Public Double Catchbasin

Public Triple Catchbasin

Private Catchbasin

Private Double Catchbasin

Private Triple Catchbasin

#### Stormwater Headwalls and Outfalls

Headwall

Δ Outfall

#### **Stormwater Fittings**

Bend

Cap

CO Cleanout

)(Coupling

 $\overline{\mathbf{A}}$ **Eccentric Reducer** 

Flexible Coupling

: Flex Joint

**Grouted Connection** 

Long Radius Bend

Mechanical Joint Restraint

Reducer

Saddle

Tap

⊂ Tee

Wye

#### **Stormwater Chambers**

 $\nabla$ **Diversion Chamber** 

**Diversion Point** 

**FM**VL Force Main Valve Chamber

JNC Junction Chamber

PUMP **Pump Chamber** 

Regulating Chamber

т Tide Chamber

**Treatment Unit**  Service Point

Control Structure

#### **Stormwater Valves**

○ARV Air Release Valve

 $\bigcirc$ ALT Altitude Valve

**Butterfly Valve** 

**Ball Valve** 

Cone Valve

Zt Check Valve

**○DRN** Drain Valve

Gate Valve  $\otimes$ 

Plug Valve

 $\bigcirc$  PRV Pressure Release Valve

 $\bigcirc$  SUR Surge Relief Valve

Valve

#### **Stormwater Management Structures**

**①** Other (No Remarks)

A Berm

Private Berm

Constructed Wetland

Private Constructed Wetland

Private Lake

Lake

Oversize Pipe

Private Oversize Pipe

**Underground Storage** 

Private Underground Storage

Private Wet Pond

Wet Pond

Dry Pond

ANA MA Private Dry Pond

⑥ Unknown

( )

Private Unknown 1

 $\odot$ Other (See Remarks)

Private Other (See Remarks)

Identified Deficiency (Pipes/Laterals)

Force Main Flow Meter

**Gravity Flow Meter** 

Gravity Flow Meter - Removed

o cs Stormwater Corp Stop

o cc Stormwater Curb Stop

#### Stormwater Pumping Stations

**Public Pumping Station** 

**Private Pumping Station** 

Casing

Lining

Ditch **CCTV Televised Main** 

#### Stormwater Insulation

\_\_\_\_\_ Concrete Slab

mmPre-Insulated Pipe

mmStyrofoam Sheet

#### **Stormwater Pipes**

Public Catchbasin Lead

Public Culvert

Public Drain

FM> Public Force Main

GP) Public Gravity Pressure Pipe

PP>-Public Pressure Pipe

1S> Public Inverted Siphon

Public Pipe

Private Catchbasin Lead

Private Drain

**Private Culvert** 

FM>-Private Force Main

GP>-Private Gravity Pressure Pipe

Private Pressure Pipe

Private Inverted Siphon

Private Pipe

Public Lateral

Stormwater Structure Polygon

Private Lateral



OF

Overflow Tank

**Public Pumping Station** 

**Private Pumping Station** 

**Combined Pumping Stations** 

### **DESIGN SPECIFICATIONS SECTION 7 - DRAWING REQUIREMENTS (GIS SYMBOLOGY)**

### **SECTION 7.5.2 FEB 2023**

### COMBINED COLLECTION SYSTEM

#### **Combined Manholes and Outfalls** Control Structure Casing Public Manhole Identified Deficiency (Pipes/Laterals) Lining П Private Manhole **CCTV Televised Main** Force Main Flow Meter Outfall Insulation **Gravity Flow Meter** Combined Sewer Overflow \_\_\_\_\_ Concrete Slab (CSO) Structure *.....* Pre-Insulated Pipe Gravity Flow Meter - Removed **Combined Fitting** mmStyrofoam Sheet Bend ⊖ CS Combined Corp Stop **Combined Pipes** П Cap Combined Curb Stop o cc FM▶— Public Force Main CO Cleanout **Combined Chambers** GP>— Public Gravity Pressure Pipe )(Coupling **Diversion Chamber** $\bigvee$ PP>-Public Pressure Pipe **Eccentric Reducer Diversion Point Public Inverted Siphon** FM VL Flexible Coupling Force Main Valve Chamber Public Pipe : Flex Joint JNC Junction Chamber FM>-Private Force Main PUMP **Grouted Connection Pump Chamber** Private Gravity Pressure Pipe GP>-Long Radius Bend Regulating Chamber PP -Private Pressure Pipe Mechanical Joint Restraint T Tide Chamber Private Inverted Siphon **Combined Valves** Reducer Private Pipe $\bigcirc$ ARV Air Release Valve Saddle Public Lateral $\bigcirc$ ALT Altitude Valve Tap Private Lateral **Butterfly Valve** Tee Combined Structure Polygon Wye **@ Ball Valve Combined Holding Tanks** Cone Valve # Heat Recovery Tank Zt Check Valve $\bigcirc$ DRN Holding Tank Drain Valve

Gate Valve

Plug Valve

Valve

Pressure Release Valve

Surge Relief Valve

 $\bigcirc$  PRV

SUR



### **SECTION 7.5.2 FEB 2023**

### UNKNOWN COLLECTION SYSTEM

#### **Unknown Manholes** Service Point $\bigcirc$ Public Manhole (TS) Cathodic Protection Test Station $\bigcirc$ Private Manhole X Control Structure **Unknown Headwalls and Outfalls** Identified Deficiency (Pipes/Laterals) Headwall Force Main Flow Meter ᠘ Outfall **Unknown Fittings Gravity Flow Meter** Bend Gravity Flow Meter - Removed П Cap o cs Unknown Corp Stop CO Cleanout o cc Unknown Curb Stop Coupling **Unknown Chambers Eccentric Reducer Diversion Chamber** Flexible Coupling **Diversion Point** : Flex Joint FM VL Force Main Valve Chamber **Grouted Connection** JNC Junction Chamber Long Radius Bend ☑ PUMP Pump Chamber Mechanical Joint Restraint Regulating Chamber Reducer T Tide Chamber Saddle **Unknown Valves** Tap $\bigcirc$ ARV Air Release Valve Ċ Tee $\bigcirc$ ALT Altitude Valve Wye \_()\_ **Butterfly Valve Unknown Holding Tanks** Ball Valve Heat Recovery Tank Cone Valve Holding Tank Ζt Check Valve **OF** Overflow Tank ∩DRN Drain Valve **Unknown Pumping Stations** $\otimes$ Gate Valve **Public Pumping Station** 1 Plug Valve **Private Pumping Station** ○ PRV Pressure Release Valve

 $\bigcirc$  SUR

Surge Relief Valve

Valve

	Lining				
	-				
	CCTV Televised Main				
Unknown	own Insulation				
	Concrete Slab				
<u> </u>	Pre-Insulated Pipe				
	Styrofoam Sheet				
Unknown Pipes					
FM <b>&gt;</b> —	Public Force Main				
GP <b>&gt;</b> ─	Public Gravity Pressure Pipe				
PP <b>&gt;</b> —	Public Pressure Pipe				
·ıs <b>&gt;</b> —	Public Inverted Siphon				
$\rightarrow$	Public Pipe				
FM>—	Private Force Main				
GP>—	Private Gravity Pressure Pipe				
PP>—	Private Pressure Pipe				
·IS>—	Private Inverted Siphon				
<b>→</b>	Private Pipe				
	Public Lateral				
	Private Lateral				
	Unknown Structure Polygon				

\_\_\_\_

Casing

Wastewater Inverted Siphon

Wastewater Pipe

Lateral



**Abandoned Service Points** 

Unknown

Stormwater

Wastewater

UK

SW

ww

# DESIGN SPECIFICATIONS SECTION 7 - DRAWING REQUIREMENTS (GIS SYMBOLOGY)

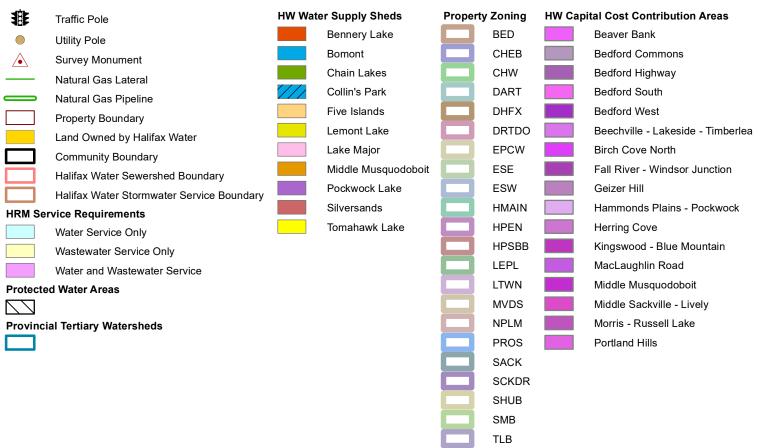
### **ABANDONED WATER SYSTEM**

$\otimes$	Abandoned Valves	WR	Abandoned Water Reservoir	Link Seal of M.J. Restra	on a Pipe Sleeve		
<b>-</b>	Abandoned Hydrants		pandoned Flowmeter		aint Device		
_	Abandoned Water Pipe	_			Fill on a Pipe Sleeve		
	Abandoned Water Drain		ndoned Fittings	Plug			
•	Abandoned Service Point		Jnknown FCODE	▲ Reducer ■ Sleeve			
Abandoned Service Lateral			Adaptor	<ul><li>Strainer</li></ul>			
Ab	andoned Structure Points		Bend Blind Flange	= Tapping SI	eeve		
,			ыши гіапу <del>е</del> Сар	□ Tee			
	ARV Air Release Chamber		Chamber Flow Arrow	□ <sup>™</sup> Test Meter	Pit		
	¬	_	Chamber Vent	<ul><li>✓ Victaulic Coupling</li><li>✓ Wye</li></ul>			
2	∠ Booster Station	77	Coupling				
	□ <sup>CTR</sup> Control Chamber		Cross	Wye Left			
	MTR Meter Chamber		Denso Tape	Wye Right			
PW Production Well			A	Abandoned Structure Polygons			
	PRV Chamber						
	Reservoir Chamber						
	Water Treatment Plant						
AB	<b>ANDONED COLLE</b>	CTIC	N SYSTEM				
Abano	doned Manholes		Abandoned Cathodic	77			
	Combined Manhole	(TS)	Protection Test Station		Abandoned Treatment Facility		
	Wastewater Manhole		Abandoned Control Structure	$\bigcirc$	AL		
0	Stormwater Manhole	•	Abandoned Stormwater		Abandoned Pumping Station		
	Unknown Manhole		Management Structure Abandoned Tracewire Access Point	====:	Abandoned Casing		
	Abandoned CSO Structure				Abandoned Lining		
Aband	doned Inlets and Outfalls Catchbasin		Abandoned Sewer Pump		Abandoned Ditch		
	Double Catchbasin	○ CS	Abandoned Corp Stop	XXXXXXXX	Abandoned Insulation		
	Triple Catchbasin	○ cc	Abandoned Curb Stop		Abandoned Tracewire		
	Abandoned Headwall		ed Chambers	Abandone	Abandoned Vent Line		
Å	Abandoned Outfall	<b>▽</b>	Diversion Chamber Diversion Point	FM	Combined Force Main		
Aban	doned Fittings	FM VL					
_	Bend		Force Main Valve Chamber	GP>—	Combined Gravity Pressure Pipe		
	Сар	☐ JNC ☐ PUMP	Junction Chamber	PP —	Combined Pressure Pipe		
⊕ <sup>CC</sup>	Cleanout	C FOINT	Pump Chamber		Combined Inverted Siphon		
)(	Coupling		Regulating Chamber	$\rightarrow$	Combined Pipe		
	Eccentric Reducer		Stormwater Treatment Unit		Catchbasin Lead		
	Flex Joint	T	Tide Chamber		Culvert		
具	Flexible Coupling		Wastewater Pre-Treatment Unit		Drain		
A	Grouted Connection		ed Valves	FM>—	Stormwater Force Main		
#	Long Radius Bend Mechanical Joint Restraint	○ARV ○ALT	Air Release Valve	GP>—	Stormwater Gravity Pressure Pip		
N H	Reducer	OALI	Altitude Valve	PP>—	Stormwater Pressure Pipe		
	Saddle		Butterfly Valve	·IS>	Stormwater Inverted Siphon		
Ξ	Тар	0	Ball Valve	<b>—</b>	Stormwater Pipe		
Ĺ	Tee		Cone Valve	FM>—	Unknown Force Main		
=	Wye	Ζt	Check Valve	GP <b>&gt;</b> ─	Unknown Gravity Pressure Pipe		
		ORN	Drain Valve	PP <b>&gt;</b> ─	Unknown Pressure Pipe		
Aband	doned Holding Tanks	$\otimes$	Gate Valve	ıs <b>&gt;</b> —	Unknown Inverted Siphon		
	Heat Recovery Tank	① DD\/	Plug Valve		Unknown Pipe		
	,	○ PRV ○ SUR	Pressure Relief Valve	ERA	•		
	Holding Tank	SUK SUK	Surge Relief Valve Valve	FM>—	Wastewater Force Main		
OF	Overflow Tank		Abandoned Collection System Struc	GP)—	Wastewater Gravity Pressure Pip		
			•	PP>—	Wastewater Pressure Pipe		



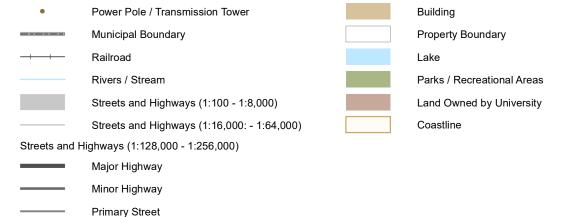
**SECTION 7.5.2 FEB 2023** 

#### **LAND FEATURES**



#### **BASEMAP**

Street





# **DESIGN SPECIFICATIONS SECTION 7 - DRAWING REQUIREMENTS (GIS SYMBOLOGY)**

### **SECTION 7.5.2 FEB 2023**

Z	ONES AND REGIONS					
Dis	tribution System Regions	Glenforest Intermediate	Met	ter Zones		Herring Cove Road Intermediate
	Unknown	Hemlock High		Unknown Meter Zone		Kearney Lake Intermediate
	East	Hemlock Intermediate		#7 Highway Boosted		Kingswood High
	Central	Hemlock Super High		24 East High		Lake Major High
	West	Herring Cove Low		27 Low		Lakeside High
Со	llection System Regions	Kearney Lake Intermediate		Aerotech		Lakeside Intermediate
	Unknown	Kingswood High		Atholea Low		Leiblin Boosted
	East	Lake Major High		Beaver Bank Boosted		Lively Boosted
	Central	Lakeside Intermediate		Beaver Bank Intermediate		Lucasville High
	West	Leiblin Boosted		Bedford Intermediate		Miller Lake High
Pre	essure Zones Unknown Pressure Zone	Lively Boosted		Bedford Low		Miller Lake Low
		Lucasville High		Bedford South Intermediate		Monarch/Rivendale High
	24 East High Aerotech	Miller Lake High		Berry Hills Boosted		Montague High
		Miller Lake Low		Birch Cove		Mount Edward Boosted
	Atholea Low	Monarch/Rivendale High		Bluewater Intermediate		Mowatt Intermediate
	Beaver Bank Boosted	Montague High		Broadholme Intermediate		North Preston
	Beaver Bank Intermediate	Mount Edward Boosted		Brunello Boosted		Orchard High
	Bedford Intermediate	Mowatt Intermediate		Burnside Boosted		Penhorn Intermediate
	Bedford Low	No. 7 Highway Boosted		Burnside High		Peninsula High
	Bedford South Intermediate	North Preston		Burnside Low		Peninsula Intermediate Central
	Berry Hills Boosted	Orchard High		Caldwell Rd Boosted		Peninsula Intermediate North
	Bluewater Intermediate	Peninsula High		Caledonia High		Peninsula Intermediate South
	Broadholme Intermediate	Peninsula Intermediate		Central Dartmouth		Peninsula Low North
	Brunello Boosted	Peninsula Low		Charles Rd Boosted		Peninsula Low South
	Burnside Boosted	Pockwock Boosted		Churchill Intermediate		Pockwock Boosted
	Burnside High	Pockwock High		Cobequid High		Pockwock High
	Burnside Low	Princess Margaret Low		Cowie High		Princess Margaret Low
	Caldwell Road Boosted	Ritcey Low		Dartmouth Low		Ritcey Low
	Charles Road Boosted	Robie Reservoir		Eastern Passage Low		Robie Reservoir
	Churchill Intermediate	Rockingham Low		Fairmount High		Rockmanor Intermediate
	Cowie High	Rockmanor Intermediate		Fairview Clayton Park		Ross Rd
	Dartmouth Intermediate East	Ross Road Low		Fall River Intermediate	_	Sackville High
	Dartmouth Intermediate West	Sackville High		Farnhamgate Intermediate		Sackville Intermediate
	Dartmouth Low	Sackville Intermediate		Flamingo Intermediate		Silverside Boosted
	Eaglewood Boosted	Silverside Boosted		Geizer123 High		Spryfield Intermediate
	Eastern Passage/Woodside Low	Spryfield Intermediate		Geizer158 High		Titus Evans Low
	Fairview Clayton High	Titas Evans Low		Geizer Boosted	_	Upper Hammonds Plains High
	Fall River Intermediate	Upper Hammonds Plains High		Glenforest Intermediate		- · ·
	Farnhamgate Intermediate	,,		Hammond Kearney		Waverley Intermediate
	Flamingo Intermediate	Waverley Intermediate		Hemlock High		Wast Radford Intermediate
	Geizer 123 High	Wast Radford Intermediate		Hemlock Intermediate		West Bedford Intermediate
	Geizer 158 High	West Bedford Intermediate		Hemlock Super High		Williams Lake Low
	Geizer Boosted	Williams Lake Low		Hemiock Super Flight		Woodlawn Inter

Herring Cove Low

Woodside Low