Engineering Design Criteria & Standard Drawings

(January 2018)

APPENDIX A – STANDARD DRAWINGS
FOREWORD

The Standard Drawings presented are meant to be read in conjunction with the City’s Design Criteria document.

The 2018 edition of the Standard Drawings has been prepared in response to the planned growth envisioned by the City’s Official Plan and informed by various Master Plan studies for transportation, water, wastewater and stormwater management infrastructure. While the previous stock of Standard Drawings has been simplified and consolidated wherever appropriate, additional standard drawings have been created to address the past experience of the City as well as emerging trends in the industry.

Changes and revisions will be made to the Design Criteria and Standard Drawings from time-to-time. It is the responsibility of the developer, its engineer(s) and others using this information to obtain and make use of the latest versions available at the time of design.

The Standard Drawings are unique to the City of Vaughan and take precedence over any Ontario Provincial Standard Drawings (OPSD) for similar matters, unless approved otherwise by the City.

If no standard drawing is provided by the City, the OPSD are to be consulted and referenced. In the event that OPSD does not contain the required standard, the developer, through its engineer, may prepare a standard for the review and approval of the City prior to the submission of any designs.

Please consider the environment before printing.
This revision record relates only to the Standard Drawings. For revisions to Design Criteria, refer to main body of document.

<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Location</th>
<th>Comments</th>
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<tbody>
<tr>
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</tr>
</tbody>
</table>
# STANDARD DRAWING INDEX

## GENERAL

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G - 101</td>
<td>BASE MAP</td>
</tr>
<tr>
<td>G - 102</td>
<td>LEGEND OF SYMBOLS</td>
</tr>
<tr>
<td>G - 103</td>
<td>ABBREVIATIONS</td>
</tr>
<tr>
<td>G - 104</td>
<td>GEODEDIC CONTROL SURVEY MARKER - TYPE A</td>
</tr>
<tr>
<td>G - 105</td>
<td>GEODEDIC CONTROL SURVEY MARKER - TYPE B</td>
</tr>
<tr>
<td>G - 106</td>
<td>GEODEDIC CONTROL SURVEY MARKER - ENGRAVING/STAMPING</td>
</tr>
<tr>
<td>G - 107</td>
<td>GEODEDIC CONTROL CONCRETE SURVEY MARKER</td>
</tr>
<tr>
<td>G - 108</td>
<td>PROJECT SIGN</td>
</tr>
</tbody>
</table>

## ROADS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R - 101</td>
<td>MAJOR COLLECTOR ROAD - 26m R.O.W. (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 102</td>
<td>MINOR COLLECTOR ROAD - 24m R.O.W. (WITH LAY-BY LANE) (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 103</td>
<td>MINOR COLLECTOR ROAD - 24m R.O.W. (W/O LAY-BY LANE) (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 104</td>
<td>LOCAL ROAD - 17.5m R.O.W. - 8m PAVEMENT (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 105</td>
<td>BUFFER ROAD - 15m R.O.W. - 7m PAVEMENT (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 106</td>
<td>LANEWAY - 8m R.O.W. - 6m PAVEMENT (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 107</td>
<td>CUL-DE-SAC (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 108</td>
<td>ANGLE BEND</td>
</tr>
<tr>
<td>R - 109</td>
<td>HORIZONTAL CURVE</td>
</tr>
<tr>
<td>R - 110</td>
<td>INTERSECTION DESIGN GUIDELINES (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 111</td>
<td>STREET SIGNS</td>
</tr>
<tr>
<td>R - 112</td>
<td>BREAKAWAY BOLLARD DETAIL</td>
</tr>
<tr>
<td>R - 113</td>
<td>DEAD END BARRICADE</td>
</tr>
<tr>
<td>R - 114</td>
<td>CONSTRUCTION TRAFFIC BARRICADES</td>
</tr>
<tr>
<td>R - 115</td>
<td>TRAFFIC CALMING ADVANCE WARNING SIGNS (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 116</td>
<td>SPEED HUMP (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 117</td>
<td>RAISED CROSSWALK (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 118</td>
<td>RAISED INTERSECTION (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 119</td>
<td>ROUNDABOUT LAYOUT (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 120</td>
<td>SINGLE-LANE ROUNDABOUT – NEW DEVELOPMENT AND RE-DEVELOPMENT (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 121</td>
<td>MINI-ROUNDABOUT – RE-DEVELOPMENT ONLY (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 122</td>
<td>TRAFFIC CALMING MEDIANS (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 123</td>
<td>CURB EXTENSIONS AND ROAD NARROWINGS (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 124</td>
<td>LADDER PAVEMENT MARKING DETAIL AT SIGNALIZED INTERSECTIONS (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 125</td>
<td>CATCH BASIN CURB DETAIL</td>
</tr>
<tr>
<td>R - 126</td>
<td>CURB AND SUBDRAIN DETAIL</td>
</tr>
<tr>
<td>R - 127</td>
<td>UNIT PAVER CROSSWALK DETAIL (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 128</td>
<td>SIDEWALK AND RAMP</td>
</tr>
<tr>
<td>R - 129</td>
<td>WALKWAYS</td>
</tr>
<tr>
<td>R - 130</td>
<td>BOLLARD DETAIL (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>R - 131</td>
<td>CONCRETE MULTI-USE PATH DETAIL (UNDER DEVELOPMENT)</td>
</tr>
</tbody>
</table>

## SEWER SYSTEM

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S - 101</td>
<td>OUTFALL GRATE MAX. 900mm DIAMETER</td>
</tr>
<tr>
<td>S - 102</td>
<td>INLET GRATE</td>
</tr>
<tr>
<td>S - 103</td>
<td>REAR YARD CATCHBASIN GRATE</td>
</tr>
<tr>
<td>S - 104</td>
<td>PRECAST CONCRETE CATCHBASIN (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>S - 105</td>
<td>SUMPRESS REAR YARD PRECAST CONCRETE CATCHBASIN (UNDER DEVELOPMENT)</td>
</tr>
<tr>
<td>S - 106</td>
<td>STORM WATER FACILITY POND WARNING SIGN</td>
</tr>
<tr>
<td>S - 107</td>
<td>SAFETY STATION FOR PONDS AND WATERWAYS</td>
</tr>
<tr>
<td>S - 108</td>
<td>SIDE INLET CATCHBASIN DETAILS (UNDER DEVELOPMENT)</td>
</tr>
</tbody>
</table>

## WATER

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>W - 101</td>
<td>SINGLE VALVE IN CHAMBER</td>
</tr>
<tr>
<td>W - 102</td>
<td>MULTIPLE VALVE CHAMBER</td>
</tr>
<tr>
<td>W - 103</td>
<td>AIR RELEASE VALVE CHAMBER</td>
</tr>
<tr>
<td>W - 104</td>
<td>HYDRANT INSTALLATION</td>
</tr>
</tbody>
</table>
## Engineering Design Criteria & Standard Drawings

### APPENDIX A – STANDARD DRAWINGS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>W - 105</td>
<td>Restraining of PVC Watermain at Valves and Fittings</td>
<td>(Under Development)</td>
</tr>
<tr>
<td>W - 106</td>
<td>Meter, Backflow Preventer &amp; By-Pass in Chamber</td>
<td></td>
</tr>
<tr>
<td>W - 107</td>
<td>Meter Chamber for Copper Services</td>
<td></td>
</tr>
<tr>
<td>W - 108</td>
<td>Water Meter Chamber Cover</td>
<td></td>
</tr>
<tr>
<td>W - 109</td>
<td>Industrial/Commercial Meter with Backflow Preventer and By-Pass Valve Installation (Meter Room)</td>
<td>(Under Development)</td>
</tr>
<tr>
<td>W - 110</td>
<td>Water Valve Open/Close Directions</td>
<td></td>
</tr>
<tr>
<td>W - 111</td>
<td>Backflow Preventer &amp; Chamber for 6” through 12” Double Check Valve Assembly</td>
<td></td>
</tr>
<tr>
<td>W - 112</td>
<td>Temporary Supply and Disinfection Connection</td>
<td>(Under Development)</td>
</tr>
</tbody>
</table>

### CONNECTIONS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C - 101</td>
<td>Residential Service Connections</td>
</tr>
<tr>
<td>C - 102</td>
<td>Block Service Connections</td>
</tr>
<tr>
<td>C - 103</td>
<td>Block Water Connection</td>
</tr>
<tr>
<td>C - 104</td>
<td>Storm Connection with Orifice Control</td>
</tr>
</tbody>
</table>

### STREET LIGHTING

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL - 101</td>
<td>Installation of Streetlight Cable at Road Crossings</td>
</tr>
<tr>
<td>SL - 102</td>
<td>Streetlight Wiring Connections</td>
</tr>
<tr>
<td>SL - 103</td>
<td>9.9m to 13.0m Concrete Pole with Underground Circuits and Streetlight Mounted on Arm</td>
</tr>
<tr>
<td>SL - 104</td>
<td>8.2m (27') Decorative Streetlight Pole</td>
</tr>
<tr>
<td>SL - 105</td>
<td>5.97m (19'-7&quot;) Decorative Streetlight Pole</td>
</tr>
<tr>
<td>SL - 106</td>
<td>Installation of Bollard Walkway Light Service at Streetlight Pole</td>
</tr>
<tr>
<td>SL - 107</td>
<td>1.8m Victorian Scroll Arm</td>
</tr>
<tr>
<td>SL - 108</td>
<td>1.5m Victorian Scroll Arm</td>
</tr>
</tbody>
</table>

### FENCING AND RETAINING WALLS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRW - 101</td>
<td>Chain Link Security Fence</td>
</tr>
<tr>
<td>FRW - 102</td>
<td>Acoustic Wood Fence</td>
</tr>
<tr>
<td>FRW - 103</td>
<td>Privacy Wood Fence</td>
</tr>
<tr>
<td>FRW - 104</td>
<td>Acoustic/Privacy Fence Notes</td>
</tr>
<tr>
<td>FRW - 105</td>
<td>Pedestrian/Bicycle Hand Rail</td>
</tr>
<tr>
<td>FRW - 106</td>
<td>Fence Types &amp; Placement</td>
</tr>
</tbody>
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# Legend of Symbols

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<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
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<tbody>
<tr>
<td>Bore Hole</td>
<td>Elevation in notes, description, location, bench mark</td>
</tr>
<tr>
<td>Property Bar</td>
<td>Re/Se/Rt</td>
</tr>
<tr>
<td>Thrust Block</td>
<td>Concrete</td>
</tr>
<tr>
<td>Change in Horizontal</td>
<td>Profile Drawing</td>
</tr>
<tr>
<td>Change of Road Grade</td>
<td>Profile Drawing</td>
</tr>
</tbody>
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## General

- Proposed Culvert
- (Common trench)
- Bell & Bell Hole
- Hydro Cable
- Bell Cable/Conduit
- Gas Main

## Underground Utilities

- Traffic Light
- Pole Light Pole
- Hydro Pole/Bell Pole
- Box
- Conduit
- Existing Culvert
- Ditch/Sewer Line
- Property Line
- Curb Rail
- Fence
- Concrete Sidewalk
- Curb & Curble or Removal Symbol

## Sewer

- Concrete Encasement
- Catch Basin
- Manhole
- Force Main & Pumping Station
- PR, Double Catch Basin
- EX, Double Catch Basin
- Proposed Catch Basin
- Existing Catch Basin
- Proposed Dual Man. Hole
- Existing Dual Man. Hole
- Proposed Maintenance Hole
- Existing Maintenance Hole
- Collector
- Foundation Drain (over 675mm)
- Proposed Sewer (up to 675mm)
- Proposed Sanitary (up to 675mm)
- Storm Sewer
- Existing Sanitary

## Water

- Pressure Reducing Valve
- Check Valve
- Cap
- Plug
- Reducer
- Curb Stop
- Hydrant & Valve In Box
- Drain Valve In Chamber
- Air Valve In Chamber
- Over 675mm
- Proposed Watershed
- Proposed Watershed
- Existing Watershed
Note: For all drawings, dimensions are in millimeters. 

Type A 
Survey Marker
Geodetic Control
City of Vaughan Engineering Standard

Materials - Brass or Bronze with

B Metal: 0.7 to 1.0
Copper Content:
Not Less Than 83% 

Section A-A

Section B-B

Face of Cap Buffed
Type B Survey Marker
Geodetic Control
City of Vaughan Engineering Standards

Dimensions in millimeters

Section B-B

B metal Z 32 HB
Copper containing
Not less than 85% Makel - Brass or bronze with

1. Refer to drawing STD G-105 FOR

ENGRaving / STAMPing DETAILS

NOTE

SECTION A-A

180 mm in LENGTH
25.4 mm steel Rod

SET DRIVING HEAD TO BAR FOR NUT WELDED

FACE OF CAP BURTTED

- M2.5 at root 0.875
MIN. 0.8376 INCH
- B-THREADS PER INCH
- STANDARD THREADED ROD (THREAD) TO TAKE 25.4 mm
CAP THREADED (STANDARD)
Concrete Survey Marker
Geodetic Control
City of Vaughan Engineering Standards

Note:
1. Refer to drawing STD. C-1.1 for Engraving / Stamping details.
2. Refer to drawing STD. C-1.14 for Brass Tablet details.

Dimensions in millimeters (mm)

- D = 250mm (max.)
- 70mm cover (typ.)

Ground

Sono Tube
200mm (MIN.)
30 MPa Concrete
Compact Sand
Reinforcing Rods
4 - 1.5mm

Max. Above Ground
Crown Concrete 25mm
to be flush to grade

Brass Tablet

Restore Surrounding Material to the satisfaction of the City of Vaughan
NOT TO SCALE

PER OP 985.220
4. Wooden support posts to be installed as
2. Minimum 20mm thick plywood sign.
2. Company name & number to be contoured.
1. Project title & contract number to be

NOTES

Vaughan

PROJECT SIGN
CITY OF VAUGHAN ENGINEERING STANDARDS

DATE: JULY 2016

REVISIONS

NEW DESIGN STANDARD

DATE: JULY 2016

REV.

2

4

VAUGHAN

Contractor Name: 25mm
White-15mm, Panton 24a Blue
Contract Number 1 (line)

Line 1: Primary Street Where Work Is Taking Place 6.9: Monroe Street
Line 2: Project Type (primary work) 6.9: Watermain Replacement

Project Name (two lines prefaced)

Company Name and Phone Number
Infrastructure Delivery Department (905) 832-8585

For Inquiries Contact

Contract No. ###-###

PROJECT NAME LINE 2
PROJECT NAME LINE 1

600
400
400
400
200
1200 (48"

Vaughan

150x150 (6"x6")

Wooden Support Post (x2)

Existing Ground

Height 1200 mm (48"

Dimensions in millimeters

EXCEPT AS NOTED

SIGN COLOURS & FONTS

EXCEPT AS NOTED
NOTES

1. BOULEVARD WIDTHS TO BE MAINTAINED AS PER ROAD CROSS-SECTION DETAILS

2. 20m MINIMUM STRAIGHT R.O.W. BEYOND BETWEEN CURVES.

3. FOR OTHER CURB RAIL REFER TO DESIGN CRITERIA.

EXCEPT AS NOTED
NOT TO SCALE
DESIGNED:

R = 120m MAJOR COLLECTOR ROADS
R = 90m MINOR COLLECTOR ROADS
R = 65m LOCAL OR BUFFER ROADS

MINIMUM RAIL

STREETERIE
CURB
EDGE OF ROAD
CURB
STREETERIE

VAUGHAN
CITY OF VAUGHAN ENGINEERING STANDARDS
Drawing: Breakaway Bollard Detail

City of Vaughan Engineering Standard

NOT TO SCALE

Dimensions in Millimetres

NOTE:

1. Bollards must be placed with traffic flow.

2. Bollard posts to be installed with 6" x 6" timber.

3. All sides: min. 100mm wide.

4. Permanent Orange

5. Reflective Collar

6. Pressure Treated

7. 38mm Drilled Hole

8. 25mm Rout\ed \& Groove (both sides)

9. 100mm Lime\stone

Screengage

Finished Grade

2.5m Bollard Top

Traffic Flow

Traffic Flow
DEAD END BARRICADE

NOTES

1. Dead end sign as specified in the Ontario Traffic Manual (OTM)

2. All metal to be galvanized

3. Dead end barricades required when a road ends without a turning circle and to extend 2.0m beyond curb line.

4. All posts to be galvanized steel.

5. No dumping sign to be in accordance with the City Operations Standards (Transportation Services, Parks and Forestry)

DEAD END BARRICADE

CITY OF VAUGHAN ENGINEERING STANDARD

VAUGHAN

ELEVATION

SECTION

VENNIENT

SEE NOTES

SEE OTHER SIDE

NOTES

1. Dead end sign as specified in the Ontario Traffic Manual (OTM)

2. All metal to be galvanized

3. Dead end barricades required when a road ends without a turning circle and to extend 2.0m beyond curb line.

4. All posts to be galvanized steel.

5. No dumping sign to be in accordance with the City Operations Standards (Transportation Services, Parks and Forestry)
NOT TO SCALE

9. DELINITERS TO BE INSTALLED ON BOTH OPENINGS, BOTH DIRECTIONS.
8. SIGNAGE TO BE THE SAME FOR OPPOSING DIRECTION.
7. ALL SIGNS SHALL BE REFLECTORIZED TO SHOW THE SAME COLOUR AND SHAPE BY DAY OR NIGHT.
6. OVERHEAD SIGNS SHALL HAVE AN ORANGE BACKGROUND WITH A BLACK LEGEND MESSAGE AND SIGN BORDER.
5. CABLE TO BE ATTACHED TO POSTS WITH BOLTS TO PREVENT EMERGENCY VEHICLES TO CUT THE BOLTS AND CABLE TO GAIN ACCESS.
4. MINIMUM CLEARANCE FROM BOTTOM OF OVERHEAD SIGN TO ROAD TO BE 2.00M.
3. MINIMUM LANE WIDTH TO BE 3.00M.
2. CONTRACTOR TO EMBED 200 X 200MM POSTS IN REAR BARREL.
1. TWO FRONT BARRELS TO BE FILLED WITH SAND; REAR BARREL TO BE FILLED WITH CONCRETE.

NOTES

SEE NOTES 1 AND 2.

THREE BARRELS AT EACH LOCATION.

TRIPO TYPICAL
STEEL POSTS 2.400 CM CENTRES

DOUBLE SNOW PENCIL WITH

0.60

WA-350

WA-325

WA-330

3.50

3.50

6.00

6.00

0.200 X 0.200 X 3.65

0.200 X 0.200 X 3.65

12MM STEEL CABLE (TYP.)

WOODEN POSTS (TYP.)
4-1 This detail is to be used as a guide only and will require adjustments to suit field conditions.

3-2 A new angled crosswalks; ladder crosswalk markings are to be installed parallel to the directed otherwise.

1-1 All pavement markings shall be durable inland and as per contract specifications, unless otherwise directed.

0.1m solid white

0.05m white

0.05m white

0.05m white
Curb and Subdrain Detail

City of Vaughan Engineering Standard

NOTES

1. All subdrain connections to be made on both sides of the catch basin and to be mortared at the inside and outside of the catch basin walls unless using number casket mortar. Where specified, continuous pipe shall be continuous with manufactured plug at the catch basin.

2. Pipe shall be 150mm polyethylene wrapped in filter fabric.

3. Filter fabric shall be in accordance with Ontario Provincial Standard Specifications.

4. Subdrain shall be placed under all curb and gutter.

HIGH POINT WHERE THERE IS NO CATCHBASIN.

GRADE MARKER

Curb and Cutter

Sidewalk Support

Per GP 600.070

2% Surface

100

25 MIN.

(Where Specified)

Salt Protection Pad

Finishing Road

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES
Sidewalk and Ramp

City of Vaughan Engineering Standard

NOT TO SCALE

DIMENSIONS IN METERS

B. All perpendicular tool markings from finishing tools for expansion joints are to be broomed out so none exist.

7. Cast floor facia plates to be in accordance with York Region Standard.

6. Concrete to be sprayed with white prominent curing compound immediately after finishing.

5. Dummy joints to be located at intervals of 1.5m. They are to be sawcut to 1/4 depth of concrete. After the concrete has partially hardened.

4. Expansion joints to be located every 8m and where concrete paving future other structures or buildings. The must be of a non-extruded resilient button or non-moving material - 10mm thick.

3. Concrete to have broom finish. Perpendicular to the sidewalk length.

2. Where sidewalk construction involves cut or fill, additional widening may be required.

1st class A2-1.00 class C2 (22 MPa) Concrete. Maximum cement/water ratio 0.45 with 6% air entrainment.

NOTES:

SECTION B-B

NOTE: No concrete to be placed outside of the reference lines.

SECTION A-A

NOTE: No concrete to be placed outside of the reference lines.
WALKWAYS

CITY OF VAUGHAN ENGINEERING STANDARDS

VAUGHAN

NOT TO SCALE

EXCEPT AS NOTED

9. WALKWAY LUMINARIES AND POLES AS PER CITY OF VAUGHAN CRITERIA.

8. MAXIMUM LONGITUDINAL GRADE OF WALKWAYS: 7%.

7.4" DEPTH OF FRESH CONCRETE. AFTER THE CONCRETE HAS PARTIALLY HARDENED.

6. DRAINAGE JOINTS TO BE LOCATED AT INTERVALS OF 15 M. THEY ARE TO BE FORMED BY CUTTING A SLOT.

5. ALL PERPENDICULAR TOOL MARKINGS FROM FINISHING TOOLS FOR EXPANSION JOINTS ARE TO BE BROOMED OUT.

4. EXPANSION JOINTS TO BE LOCATED EVERY 6 M AND WHERE CONCRETE PAVING AIDS OTHER MATERIALS OR NON-BRICK MATERIAL.

3. CONCRETE TO HAVE 300 attrition.

2. WHERE WALKWAY CONSTRUCTION INVOLVES CUT OR FILL. ADDITIONAL WIDENING MAY BE REQUIRED.

1. CSA A23.1-100 CLASS C (32 MPa) CONCRETE. MAXIMUM CEMENT/WATER RATIO 0.45 WITH 6% AIR.

NOTES

1. SCALE: 1:50 CLASS C32 MPa CONCRETE, MAXIMUM CEMENT/WATER RATIO 0.45 WITH 6% AIR.

2. STANDARD WALKWAY

3. DETAILED WHERE PAVEMENT ENDS.

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MAX 900mmØ
OUTFALL GRATE
CITY OF VAUGHAN ENGINEERING STANDARD

NOT TO SCALE

EXCEPT AS NOTED

DIMENSIONS IN MILLIMETERS

FRAME, HINGE STRAP, MOUNTING BRACKET AND STEEL RODS TO BE MEDIUM GRADE STEEL.

2. ENTIRE GRATE SHALL BE HOT DIPPED GALVANIZED.

NOTES

DETAIL OF HINGE STRAPS

ELEVATION

CONCRETE

FRAME: 60 x 13 R.A.T.

ANCHOR 19 mm DIAM C.N.C.

ANCHOR 19 mm DIAM C.N.C.

DETAIL OF MOUNTING BRACKET

BE ERECTED.

MASTER PAD LOCK KEY # 125

REMOVABLE GRATE TO BE LOCKABLE.

1. OUTFALL DIA. 900mm SHALL BE DESIGNED SPECIFICALLY AND APPROVED BY THE CITY.

4. ALL BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

3. ALL WELDS USED IN THE MANUFACTURE OF GRATES SHALL BE FULL STRENGTH WELDS.

2. ENTIRE GRATE SHALL BE HOT DIPPED GALVANIZED.

1. OUTFALL DIA. 900mm SHALL BE DESIGNED SPECIFICALLY AND APPROVED BY THE CITY.

4. ALL BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

3. ALL WELDS USED IN THE MANUFACTURE OF GRATES SHALL BE FULL STRENGTH WELDS.

2. ENTIRE GRATE SHALL BE HOT DIPPED GALVANIZED.

1. OUTFALL DIA. 900mm SHALL BE DESIGNED SPECIFICALLY AND APPROVED BY THE CITY.
NOTES
1. All steel used shall be medium grade.
2. The entire grate shall be hot-dipped galvanized.
3. All bolts, nuts, and washers shall be stainless steel.
4. All welds used in the manufacture of the grate shall be continuous full weld, 6 mm minimum width.
5. Grating to be specifically designed for pipe 1.0 m diam or larger.

SECTION A-A
19 mm x 250 mm Cinch Anchor
19 mm x 75 x 13 mm Cinch Anchor
19 mm x 75 x 13 mm Cinch Anchor
19 Steel Bolt

ELEVATION
- Framing
- Lockwasher
- 25 Slotted 9 x 250 Screws

PLAN
- 25 Slotted 9 x 250 Screws
- Lockwasher

REV.
DATE
SD.
W/C.

EXCEPTIONS AS NOTED
NOT TO SCALE
DESIGNED: ENG. DEPT.
DIMENSIONS IN MILLIMETERS

VAUGHAN CITY OF VAUGHAN ENGINEERING STANDARDS

VAUGHAN
GALVANIZED STEEL POST. SIGN(S) TO BE MOUNTED TO 3.8m U-CHANNEL MOUNTING HOLES.
(ENGINEER GRADE) WITH TOP AND BOTTOM MOUNT. SIGN(S) TO BE MANUFACTURED USING REFLECTIVE FINISH. SIGNFACE MUST BE PLACED AT ALL POND ENTRANCES.

SIGN REQUIMENTS

MAXIMUM FINE $5000.00 CITY OF VAUGHAN BY-LAW 13-4-1995
ARE PROHIBITED
SKATING & SWIMMING WATER LEVELS AND THIN ICE INCLUDNG FLUCTUATING CAN CHANGE RAPIDLY STORM WATER FACILITY POND CONDITIONS IN THE WARNING

WARNING
### Notes

1. Finish of post and all other steel components and fixtures to be Safety Yellow Gloss Enamel Powder Coating.

2. No plastic components are to be used except.

   - A Smooth and Even Surface
   - 4-5 Miles Per Hour Spacing

   Powder Coating must be applied with a manifold of Polyether 2000 Sprayer. Powder Coating must be applied in a thin layer of 0.5 mm. Powder Coating must be chemically cleaned and treated with Parker Bonetite and Chloroflex Solution or Siphon-Off Paint. Primer to Powder Coating. All Surfaces to be Safety Yellow Gloss Enamel Powder Coating.

### Dimensions

- **1200 mm**
- **1800 mm**
- **2400 mm**
- **3000 mm**
- **3500 mm**

### Additional Specifications

- Steel bracket 200 mm long x 150 mm high.
- Welded to pole 150 mm x 150 mm x 45 mm thick.
- Welded to pole 150 mm x 150 mm x 45 mm thick for life ring buoy.
- Buoy only.
- Floaing woman marine rope fastened to life ring.
- Polypropylene rope 150 mm long x 150 mm dia.
- Concrete footing, top of dome 50 mm above grade. Concrete 21 MPa, refer to.
- Poured dome concrete footing, top of dome.
- Long, angled, and symmetrically.
- Welded cross bar 150 mm dia. Steel rod 200 mm.

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**Revision:** Date: 2013

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**Face of Ponding Zone Above 100 Year Water Level**
DRAIN VALVE DETAIL WHEN REQUIRED

1. Valves to be set to finish grade.
2. Stop to be set to grade.
3. HN 300 mm diameter for gate valve curb.
4. Valves at 3.0 m metal.
5. Extension curb to be extended to meet pipe end.
6. Inlet and outlet connection to be made.
7. Extension curb to be extended to meet pipe end.
8. Concrete curb to be extended to meet pipe end.
9. Inlet and outlet connection to be made.
10. Extension curb to be extended to meet pipe end.

CONCRETE: 1:2:4 (C, E, M25)  
ALUMINIUM STEPS AS PER ODS NO 406/010

SECTION A-A

1. Cover  
2. Valve box top section  
3. Extension  
4. Concrete valve support (min. 120 cm)  
5. Watermain pipe (section 1)  
6. 30 cm concrete slab  
7. Chamber to be designed for H20 loading at.

SECRETION A-A

1. 120 cm high  
2. 200 mm deep  
3. 150 mm high  
4. 150 mm auger  
5. Inlet connection  
6. Outfall connection  
7. Extension curb  
8. Concrete curb to be extended to meet pipe end.

NOTES

1. All connections and fittings to be extended to meet pipe end.
2. Valve box top and base to be extended to meet pipe end.
3. All connections and fittings to be extended to meet pipe end.
4. Valve box top and base to be extended to meet pipe end.
5. Extension curb to be extended to meet pipe end.
6. Concrete curb to be extended to meet pipe end.
7. Extension curb to be extended to meet pipe end.
8. Concrete curb to be extended to meet pipe end.
9. Extension curb to be extended to meet pipe end.
10. Concrete curb to be extended to meet pipe end.

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NOTES
1. 25mm, 50mm and 75mm AIR RELEASE VALVE TO BE STAINLESS STEEL FOR SEWAGE APPLICATIONS.
2. Gate Valve & Air Valve to be insulated with foamlass or equivalent.
3. For Precast Chambers all joints shall be set in a mortar bed and parged outside.
4. Continuous rubber gasket between precast layers.
5. Air vents to be installed in boulevard section.
6. Precast concrete adjuster rings (e.g. module) to be used in conjunction with rings.

SECTION 'A-A'

AIR RELEASE VALVE CHAMBER

VAUGHAN ENGINEERING STANDARD

CITY OF VAUGHAN

W - 103

STO: DWG.

DESIGNED:

DATE: 2016

REVISION:

DATE:

Acad File: 0:\Infrastructure Delivery\Infrastructure Programming\PMO\City Standards\Design Criteria 2016\City Standards Update Folder\Covers\Standard Drawings_CAD_04232016\W-103.dwg
NOTES

1. Precast concrete chamber (e.g., modular) to be max. 300 mm otherwise poured.

2. Chamber/support to be installed from chamber wall to an accessible and permanent location.

3. Reducer(s) as required for 40-mm and 50-mm meter installations.

4. For 40-mm coupling or approved equal required for 40-mm and 50-mm meters.

5. All joints shall be set in a mortar bed and packed outside.

6. Storm sewer where possible.

7. Concrete supports to be 200-mm compressive strength.

8. Copper pipe to be Type K hard.

AS PER City Std. DWG W-101

Precast Concrete Chamber

Copper Pipe

Flare Cap Valve

Hand Operated

See Note 1

Flow

Back

Supports

Concrete

Drain (see note no. 6)

Alternate Remote Reader

Finished Grade

Flow

Service Box

Extension (see note no. 1)

M. 500mm Min.

(flow note no. 2)
1. Allowable tolerance: Dimensions +300mm and up, ±0.5mm.

2. Marking: The initials or mark of the manufacturer are to be distinctly cast in raised letters on both frame and cover.

3. Cast iron shall conform to ASTM A48 Class 30.

4. Y surfaces shall be machined.

NOTES
DOUBLE CHECK VALVE ASSEMBLY
FOR 6" THROUGH 12"
BACKFLOW PREVENTER 8 CHAMBER

TYPICAL INSTALLATION

1. This standard applies to buildings with unique requirements.
2. The backflow preventer shall be protected by a separate backflow preventer.
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12. The backflow preventer shall be protected by a separate backflow preventer.

END VIEW

SIDE VIEW

PLAN VIEW

NOTES
1. Bond breaker to be used between all concrete and fittings.

2. Provide restricted mechanical joints or slip-on joints with TE rods & clamps as required.

3. Thrust blocks shall not be used within valve chamber.

NOTES

Dimensions in metres

EXCEPT AS NOTED

NOT TO SCALE

ENGINEERED: ENG. DEPT.

CITY OF VAUGHAN ENGINEERING STANDARDS

VAUGHAN
1. Cast iron or cast iron/steel frames are acceptable.

NOTE

ORIFICE TUBE
MIN. 100mm OR
ECCENTRIC REDUCER

MANAGEMENT REPORT
WITH STORM WATER
SIZED IN ACCORDANCE
WITH STORM WATER
SPECIFICATION.

MAINTENANCE HOLE PER OP5D 70/10
PROPOSED PRECAST CONCRETE

TYPE B BEDDING

FLOW

1.0m

1.0m

PRIVATE PROPERTY

ROAD ALLOWANCE

150mm OF SAND OR
CUSHION LIMESTONE BASE

CUSHION LIMESTONE BASE

GROUND TO GRADE

GROUT TO OPEN

STREET LINE

NOT TO SCALE

NOT TO SCALE
CHAIN LINK SECURITY FENCE

CITY OF VAUGHAN ENGINEERING STANDARDS

VAUGHAN

NOT TO SCALE

EXCEPT AS NOTED

DIMENSIONS IN METRES

GATES (FOR MAX OPENING)

LENGTH NOTE

POST DETAILS

FOOTING DETAILS

DETAIL

NOTES
Acoustic Wood Fence

City of Vaughan Engineering Standard

Detail

Tongue & groove

ENLARGEMENT A

ENLARGEMENT B

NOTICE

1. REFER TO STD. D.W.C. FW-W-104 FOR SPECIFICATIONS.

2. FENCE HEIGHT HIGHER THAN 1.8M IS SUBJECT TO THE APPROVAL OF THE CITY.

DETAIL

Tongue & groove

Note: Dimensions in millimeters

EXCEPT AS NOTED

Dimensions in millimeters

EXCEPT AS NOTED

1. FENCE POSTS TO BE INSTALLED AT ALL LOT CORNERS WHERE IT ABOUNDS ANOTHER PRIVATE PROPERTY.

2. FENCE HEIGHT HIGHER THAN 1.8M IS SUBJECT TO THE APPROVAL OF THE CITY.

NOTICE

1. REFER TO STD. D.W.C. FW-W-104 FOR SPECIFICATIONS.

2. FENCE HEIGHT HIGHER THAN 1.8M IS SUBJECT TO THE APPROVAL OF THE CITY.

NOTICE
NOTES

Acoustic / Privacy Fence

City of Vaughan Engineering Standards

1. STEEPER THAN 3:1, CONSTRUCT BEAMS WITH A 100MM FLAT TOP AND SLOPE NO DENISTRY.
2. 20 CENTRE TO CENTRE 60MM BEAMS.
3. 996.10' x 998.13'
4. SHEAR WALLS AND DESIGNED IN ACCORDANCE WITH OP.0.P.0.
5. SLANT COMPARE WITH STANDARD DESIGN CRITERIA: FC-16.
6. DESIGN IS BASED ON AN ACCOMMODABLE SOIL PRESSURE OF 18 KG/CM².
7. CONCRETE FOR FOUNDATIONS HAVE A MINIMUM COMPRRESSIVE STRENGTH OF 25 MPa IN 28 DAYS.
8. DESIGN WIND SPEED 80KM/H, GUST TO 100KM/H.
9. CASTING CONCRETE FOR FOUNDATIONS.
10. FOUNDATION IS DESIGNED TO WITHSTAND ALL LEVEL AND 6M HEAVES.
11. COUNTER-SINK ALL SCREWS AND BOLTS AND DRIVE ALL NAIL HEADS.
12. ALL CONCRETE SHALL HAVE A MINIMUM FACE DENSITY OF 20 KG/M².
13. ALL EXPOSED BEAMS SHALL BE DRIED IN ACCORDANCE TO CSA STANDARD 616.
14. BOLTS AND SUITABLE AXES TO BE APPLICATED BY LANDSCAPE ARCHITECT.
15. SCREWS TO BE APPLICATED TO A MINIMUM FACE DRAINAGE GRADE.
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112. SCREWS TO BE APPLICATED TO A MINIMUM FACE DRAINAGE GRADE.
113. SCREWS TO BE APPLICATED TO A MINIMUM FACE DRAINAGE GRADE.
114. SCREWS TO BE APPLICATED TO A MINIMUM FACE DRAINAGE GRADE.