

**FLOODPLAIN STUDY
COOKSVILLE CREEK**

60 DUNDAS STREET EAST

**CITY OF MISSISSAUGA
REGION OF PEEL**

PREPARED FOR:

ACLP – DUNDAS STREET E

PREPARED BY:

**C.F. CROZIER & ASSOCIATES INC.
2800 HIGH POINT DRIVE, SUITE 100
MILTON, ON L9T 6P4**

FEBRUARY 2022

CFCA FILE NO. 2234-6274

The material in this report reflects best judgment in light of the information available at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. C.F. Crozier & Associates Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.



Revision Number	Date	Comments
Rev.0	February 2022	Issued for First Submission

TABLE OF CONTENTS

1.0 INTRODUCTION1

2.0 SITE DESCRIPTION1

3.0 EXISTING FLOOD CONDITIONS2

 3.1 1-D Hydraulic Model2

 3.2 2-D Hydraulic Model3

4.0 PROPOSED FLOOD CONDITIONS4

 4.1 Safe Access & Egress4

 4.2 Floodproofing5

 4.3 Conveyance5

5.0 CONCLUSIONS AND RECOMMENDATIONS.....5

LIST OF TABLES

Table 1: 1-D HEC-RAS Steady Flow Data

Table 2: 1-D HEC-RAS Model Water Surface Elevation Comparison

LIST OF APPENDICES

Appendix A: Hydraulic Modeling and Regulation Mapping

1.0 Introduction

C.F. Crozier & Associates Inc. (Crozier) was retained by ACLP – Dundas Street E to prepare a Floodplain Study related to Cooksville Creek. This report will support the applications for an Official Plan Amendment and Zoning By-Law Amendment (ZBA) required to permit the mixed-use development at 60 Dundas Street East in the City of Mississauga, Region of Peel (the Site).

This report will demonstrate that the proposed site can be developed in accordance with the City of Mississauga and Region of Peel guidelines from a floodplain management perspective.

The following information was reviewed during the preparation of this report:

- Credit Valley Conservation (CVC), Online Regulation Mapping, cvc.ca/regulation-mapping, last accessed February 16, 2022
- Credit Valley Conservation, HEC-RAS 1-D digital model, July 2021
- Credit Valley Conservation, Watershed Planning & Regulation Policies, April 2010
- Flood Hazard Map, Cooksville Creek Watershed, Sheet 5 of 14, undated
- Personal communication, R. Haq (CVC), N. Mocan (Crozier), B. Walton (Crozier), February 17, 2022

2.0 Site Description

The Site is approximately 1.07 ha and currently consists of an existing commercial plaza and parking lot. The Site, located in a residential and commercial neighbourhood, is bounded by Dundas Street East to the north, Cooksville Creek to the east, an existing high-rise residential development to the south and Shepard Avenue to the west. A portion of the Site lies within the Regulatory Floodplain of Cooksville Creek.

According to the concept plan prepared by Chamberlain Architect Services Limited, dated January 13, 2022, the elements envisioned for this development include the construction of three high-rise towers over two phases.

- Phase 1:
 - Tower A: 36-Storeys standing over a 3-storey podium and retail space.
- Phase 2:
 - Tower B: 33-Storeys
 - Tower C: 29-Storeys
 - Both towers will be connected by a 5-storey podium.
- A mixed-use development with 1,224 residential units distributed across three towers and townhouses.
- 847 square metres of retail area on the ground floor.
- 5 levels of underground parking structure.

3.0 Existing Flood Conditions

Cooksville Creek is regulated by Credit Valley Conservation and is located directly east of the Site and flows north to south. Cooksville Creek flows through an existing multiple barrel culvert beneath Dundas Street upstream of the Site, flowing southerly as an open channel to an existing culvert below King Street.

A review of the existing floodplain mapping and modeling from CVC shows that there are two floodplain models of Cooksville Creek adjacent to the Site: a 1-D HEC-RAS model and a 2-D HEC-RAS model. Even though the 1-D HEC-RAS model extends across the entire Site and beyond, the 2-D model overlaps the 1-D model across the subject lands. Based on personal communication (Haq/Mocan/Walton), it is understood that the 2-D model was developed by CVC to analyze the complicated urban flow hydraulics caused by the limited capacity of the culvert beneath Dundas Street East. This culvert is undersized and results in flood flows overtopping Dundas Street East before flows return to Cooksville Creek south of Dundas Street East, during the Regional event.

The regulation mapping across the site reflects the result of the 1-D HEC-RAS model whereas the Flood Hazard Map (CVC, undated) reflects the result of the 2-D HEC-RAS model for the portion of the floodplain adjacent to the Site. The two models and maps reflect significantly different results.

3.1 1-D Hydraulic Model

A review of the 1-D HEC-RAS model was undertaken to understand the floodplain characteristics of Cooksville Creek in the vicinity of the Site. Figure 1 illustrates the model cross-section locations and the approximate location of the Site in relation to Cooksville Creek.

Figure 1: 1-D HEC-RAS Model Cross-Section Locations

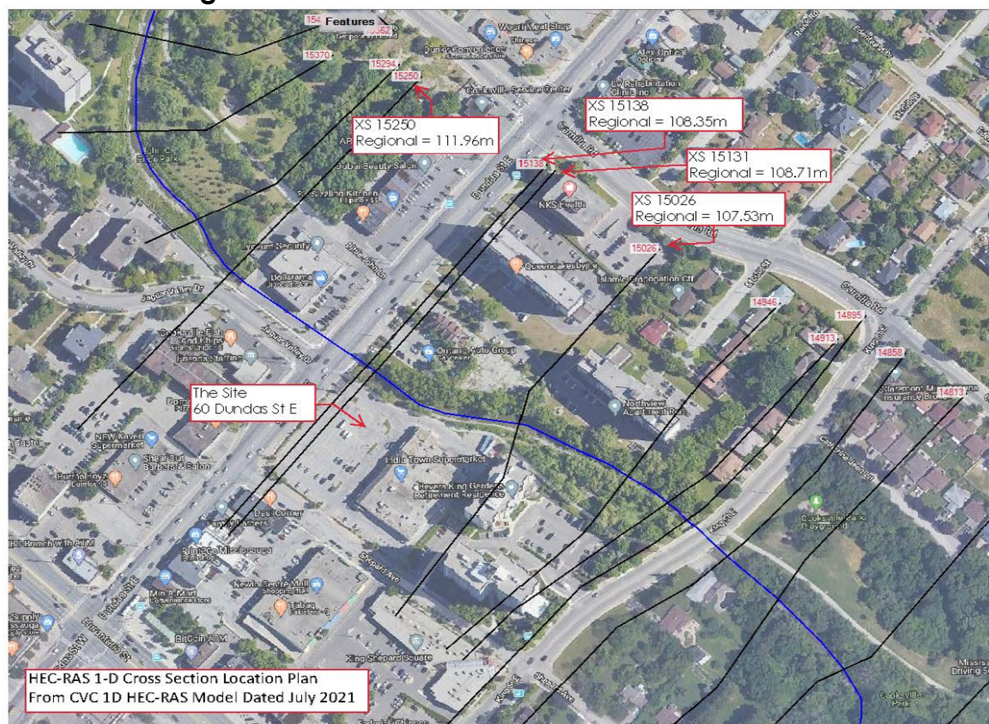


Table 1 indicates the peak flow data used in the model for the various storm events.

Table 1: 1-D HEC-RAS Steady Flow Data

River	Reach	RS	Scenario	Peak Flow (m ³ /s)						
				Regional	100-Yr	50-Yr	25-Yr	10-Yr	5-Yr	2-Yr
Cooksville Creek	2211	15294	Existing	265.2	226.2	197.1	170.5	142.3	106.7	71.6
			Future	269.5	213.7	186.3	161.1	134.6	101.2	65.2

The Regional storm future conditions scenario represents the highest peak flow rate and therefore it should be considered in the analysis.

Water surface elevation results for the 100-year and Regional storm based on future flows is presented in Table 2 below. The results reflect a mixed flow regime given the complex hydraulics in the area.

Table 2: 1-D HEC-RAS Model Water Surface Elevation Comparison¹

Location	HEC-RAS Cross Section ID	100-Year WSEL (m)	Regional WSEL (m)
Upstream Face of Dundas	15250	111.48	111.96
Downstream Face of Dundas	15138	107.80	108.35
Upstream Limit of Site	15131	108.15	108.71
Downstream Limit of Site	15026	106.98	107.53

Note 1: Add 0.112m to computed WSEL to obtain geodetic elevations corresponding to topographic survey.

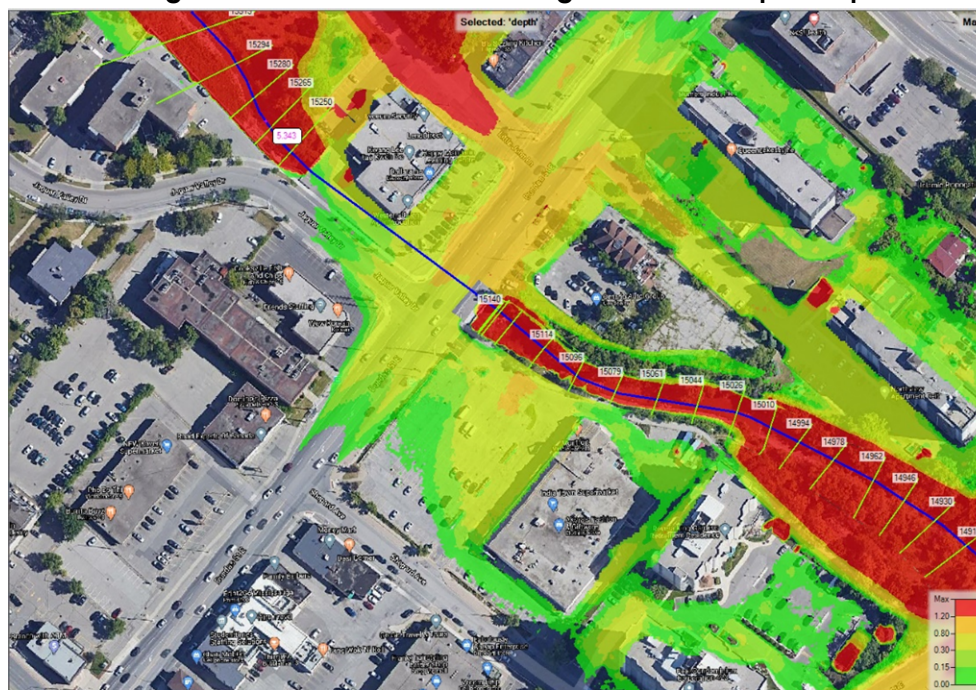
The Site topographic elevations vary across the site. At the highest point in the northwest corner of the Site, the existing elevations are approximately 111.3 m. The lowest portions of the Site are located along the eastern limits, where existing elevations fall to approximately 109.0 m. The Site generally slopes from west to east and from northwest to southeast. In all cases, the Regional water surface elevations across the Site according to the 1-D model are lower than the existing Site elevations when correcting the model results by the geodetic adjustment.

As indicated in Section 3.0 above, it is expected that a portion of the flow reaching Dundas Street East will overtop the road and flow overland towards the Site before flows return to Cooksville Creek proper. The 1-D model capabilities are limited in this regard, and we understand that CVC employed the use of the 2-D model to estimate the hydraulic conditions during high-flow events such as the Regional and 100-year storms. A discussion on the use of the 2-D model is provided below.

3.2 2-D Hydraulic Model

The Flood Hazard Map provided by CVC recognizes the 2-D model results in the vicinity of the Site, showing higher water surface elevations and inundation across the parking lot areas of the Site than the results suggested by the 1-D model. Consequently, significant discrepancies between the models exist which should be explored further through consultation with CVC. This report is limited to presenting the results of both the 1-D and 2-D models in the context of the Site and discussing potential floodplain management measures to facilitate the development.

Figure 2: 2-D HEC-RAS Model Regional Flood Depth Map



Based on the results of the 2-D model, and unlike the results of the 1-D model, the parking lot areas of the Site are partially subjected to shallow to moderate flooding conditions because of overtopping of Dundas Street East. It is unclear at this time how the flood flows were developed for use in the 2-D model, therefore consultation with CVC will be necessary through the course of the application process following the initial submission.

4.0 Proposed Flood Conditions

It will be necessary to consider the existing flood conditions to develop appropriate floodplain management measures as part of the redevelopment of the Site. Key objectives of the floodplain management measures include safe access and egress, floodproofing the structures and safe conveyance of overland flood flows to Cooksville Creek. These are discussed in more detail below.

4.1 Safe Access & Egress

According to CVC policies (April 2010), it will be necessary to demonstrate that the proposed development can provide at least one safe access and egress route during a Regional flood and associated emergencies for pedestrians and vehicles. Safe access and egress is defined by a flood condition having a depth no greater than 0.3 m, a velocity no greater than 1.7 m/s, and a depth-velocity product no greater than 0.4 m²/s.

Based on the proposed grading plan and development plans submitted under separate cover, flood free and safe access is provided at the vehicular entrance to the Site off Shepard Avenue.

While a vehicular and pedestrian access route to Dundas Street is identified in the development plans, the safety of this access is undetermined at this juncture and should be evaluated following resolution of the modeling discrepancies which exist between the 1-D and 2-D models.

4.2 Floodproofing

According to CVC policies (April 2010), it will be necessary to demonstrate that the proposed development can be adequately floodproofed in the event of a Regional flood. The preliminary grading plan submitted under separate cover illustrates minimum building opening and floor elevations of 111.5 m for all habitable structures. This is significantly higher than the 1-D Regional flood elevations across the Site which range from 107.64 m to 108.82 m, when adjusted for datum.

It is also suggested that the proposed grading of the site be raised to 0.3 metres above the Regional flood, which is 109.12 at the north limit and 107.94 m at the south limit. Likewise, most of the site has been graded to elevations at 110.75 m or higher, which is well above the Regional flood elevations shown in the 1-D model.

Based on the preliminary grading plan and 1-D model results, we confirm that the site has been adequately floodproofed in the event of a Regional flood.

4.3 Conveyance

It will be necessary to identify safe conveyance of flood flows in the event of overtopping of Dundas Street East during a Regional event. Recall, the 1-D model results show that the Regional flood is contained within the banks of Cooksville Creek adjacent to the Site, whereas the 2-D model results show shallow to moderate flooding of the Site because of overtopping of Dundas Street East.

Notwithstanding the model discrepancies, the preliminary grading plan illustrates an overland flow route along the east limit of the Site flowing south from Dundas Street, immediately east of the Dundas Street vehicular entrance to the Site.

5.0 Conclusions and Recommendations

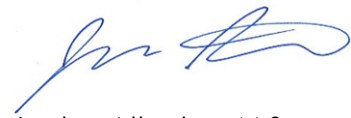
Based on a thorough review of the floodplain modeling and mapping available at the time of this study, we conclude that significant discrepancies exist between the 1-D and 2-D models provided by CVC. These should be addressed through the application process through consultation with CVC.

We also recommend a series of floodplain management measures for the Site including flood free access to Shepard Avenue, floodproofing the structures to an elevation of at least 111.5 m, flood proofing the Site to an elevation of 109.12 at the north limit and 107.94 m at the south limit, as well as safe conveyance of the Regional flood through an overland flow route at the east limit of the Site.

Based on the above conclusions, we recommend the approval of the Official Plan Amendment and Zoning By-Law Amendment subject to clarifying the model discrepancies as noted above.

Respectfully submitted,

C.F. CROZIER & ASSOCIATES INC.

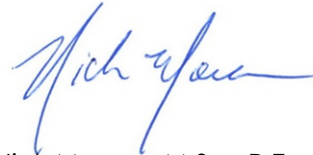
A blue ink signature of Jordan Atherton, consisting of a stylized 'J' followed by a series of loops and a final flourish.

Jordan Atherton, M.Sc.
Water Resources Analyst

JA/cj

I:\2200\2234- Almaga Corp\6274- 60 Dundas St Towers\Memos\Floodplain Study\2022.02.22_(2234-6274)_Floodplain Study_.docx

C.F. CROZIER & ASSOCIATES INC.

A blue ink signature of Nick Mocan, featuring a stylized 'N' and 'M' followed by a series of loops and a final flourish.

Nick Mocan, M.Sc., P.Eng.
President

APPENDIX A

Hydraulic Modeling and Regulation Mapping



HEC-RAS Output for Cooksville Creek
60 Dundas Street East (2234-6274)
February 22, 2022
By: JA

HEC-RAS Plan: Cooksville_FHM Locations: User Defined

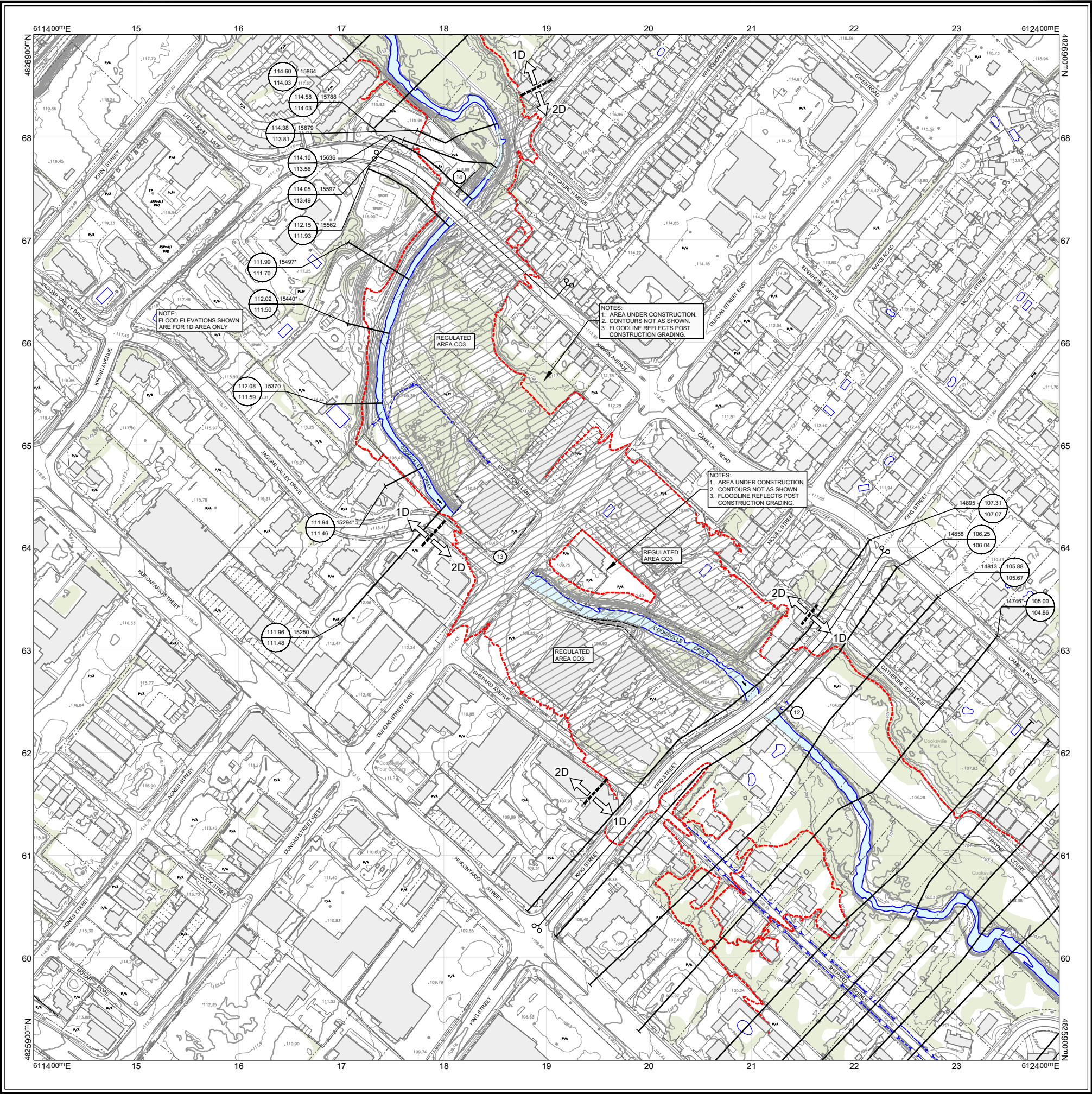
River	Reach	River Sta	Profile	Q Total (m ³ /s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m ²)	Top Width (m)	Froude # Chl
Cooksville Creek	2211	15370	2yr_Fut	60.20	107.65	109.06	109.29	109.84	0.008932	4.01	18.00	25.67	1.21
Cooksville Creek	2211	15370	5yr_Fut	94.10	107.65	109.35	109.70	110.40	0.009133	4.74	28.50	45.01	1.27
Cooksville Creek	2211	15370	10yr_Fut	125.60	107.65	110.19	109.98	110.51	0.001979	3.00	86.87	85.72	0.64
Cooksville Creek	2211	15370	25yr_Fut	150.50	107.65	111.23	110.01	111.33	0.000459	1.86	182.12	100.97	0.33
Cooksville Creek	2211	15370	50yr_Fut	174.30	107.65	111.36	110.28	111.47	0.000517	2.03	195.15	121.13	0.35
Cooksville Creek	2211	15370	100yr_Fut	200.30	107.65	111.59	110.39	111.71	0.000503	2.09	220.02	133.62	0.35
Cooksville Creek	2211	15370	Reg_Fut	246.90	107.65	112.08	110.57	112.19	0.000420	2.08	273.45	145.58	0.33
Cooksville Creek	2211	15294	2yr_Fut	65.20	107.00	109.02	108.69	109.26	0.001910	2.33	32.33	27.97	0.59
Cooksville Creek	2211	15294	5yr_Fut	101.20	107.00	109.75	109.02	109.97	0.001067	2.25	55.20	34.44	0.47
Cooksville Creek	2211	15294	10yr_Fut	134.60	107.00	110.12	109.26	110.39	0.001098	2.52	69.49	47.44	0.49
Cooksville Creek	2211	15294	25yr_Fut	161.10	107.00	111.15	109.48	111.29	0.000418	1.93	125.81	60.25	0.32
Cooksville Creek	2211	15294	50yr_Fut	186.30	107.00	111.25	109.66	111.43	0.000503	2.15	132.02	62.23	0.35
Cooksville Creek	2211	15294	100yr_Fut	213.70	107.00	111.46	109.81	111.67	0.000542	2.32	152.02	152.75	0.37
Cooksville Creek	2211	15294	Reg_Fut	269.50	107.00	111.94	110.28	112.15	0.000499	2.40	202.11	156.87	0.36
Cooksville Creek	2211	15250	2yr_Fut	65.20	106.46	108.91	108.27	109.18	0.001854	2.27	28.75	17.01	0.56
Cooksville Creek	2211	15250	5yr_Fut	101.20	106.46	109.56	108.74	109.88	0.001715	2.50	40.52	19.12	0.55
Cooksville Creek	2211	15250	10yr_Fut	134.60	106.46	109.84	109.10	110.28	0.002185	2.93	45.89	20.29	0.62
Cooksville Creek	2211	15250	25yr_Fut	161.10	106.46	110.98	109.35	111.23	0.000997	2.23	72.14	26.38	0.43
Cooksville Creek	2211	15250	50yr_Fut	186.30	106.46	111.26	109.57	111.37	0.000529	1.70	148.83	150.82	0.32
Cooksville Creek	2211	15250	100yr_Fut	213.70	106.46	111.48	109.82	111.60	0.000511	1.74	165.20	152.98	0.31
Cooksville Creek	2211	15250	Reg_Fut	269.50	106.46	111.96	110.25	112.08	0.000448	1.78	200.99	157.71	0.30
Cooksville Creek	2211	15204 13-Dundas St E	Bridge										
Cooksville Creek	2211	15138	2yr_Fut	65.20	104.68	105.58	106.12	107.50	0.038865	6.14	10.63	13.99	2.25
Cooksville Creek	2211	15138	5yr_Fut	101.20	104.68	105.86	106.57	108.34	0.034855	6.98	14.50	14.00	2.19
Cooksville Creek	2211	15138	10yr_Fut	134.60	104.68	106.23	106.93	108.60	0.023332	6.81	19.76	14.02	1.83
Cooksville Creek	2211	15138	25yr_Fut	161.10	104.68	107.22	107.22	108.39	0.006635	4.78	33.71	14.45	1.00
Cooksville Creek	2211	15138	50yr_Fut	186.30	104.68	107.48	107.48	108.74	0.006523	4.97	37.52	14.83	1.00
Cooksville Creek	2211	15138	100yr_Fut	213.70	104.68	107.80	107.74	109.10	0.006074	5.05	42.35	15.29	0.97
Cooksville Creek	2211	15138	Reg_Fut	269.50	104.68	108.35	108.24	109.78	0.005805	5.29	50.93	16.31	0.96
Cooksville Creek	2211	15131	2yr_Fut	65.20	103.58	104.61	105.26	107.04	0.050079	6.91	9.44	13.49	2.64
Cooksville Creek	2211	15131	5yr_Fut	101.20	103.58	104.87	105.68	107.91	0.043452	7.71	13.12	14.04	2.55
Cooksville Creek	2211	15131	10yr_Fut	134.60	103.58	105.17	106.03	108.21	0.032918	7.71	17.45	14.94	2.28
Cooksville Creek	2211	15131	25yr_Fut	161.10	103.58	107.51	106.29	107.97	0.001603	3.00	53.73	16.18	0.53
Cooksville Creek	2211	15131	50yr_Fut	186.30	103.58	107.84	106.52	108.34	0.001660	3.15	59.13	16.86	0.54
Cooksville Creek	2211	15131	100yr_Fut	213.70	103.58	108.15	106.75	108.71	0.001725	3.31	64.58	17.53	0.55
Cooksville Creek	2211	15131	Reg_Fut	269.50	103.58	108.71	107.21	109.37	0.001867	3.61	74.68	18.80	0.58
Cooksville Creek	2211	15026	2yr_Fut	65.20	103.44	105.71	105.12	106.08	0.002353	2.70	24.16	12.49	0.62
Cooksville Creek	2211	15026	5yr_Fut	101.20	103.44	105.97	105.65	106.66	0.003908	3.68	27.49	12.90	0.81
Cooksville Creek	2211	15026	10yr_Fut	134.60	103.44	106.18	106.08	107.19	0.005281	4.46	30.21	13.22	0.94
Cooksville Creek	2211	15026	25yr_Fut	161.10	103.44	106.39	106.39	107.60	0.005894	4.88	32.99	13.54	1.00
Cooksville Creek	2211	15026	50yr_Fut	186.30	103.44	106.68	106.68	107.97	0.005809	5.03	37.01	14.29	1.00
Cooksville Creek	2211	15026	100yr_Fut	213.70	103.44	106.98	106.98	108.33	0.005731	5.14	41.54	15.38	1.00
Cooksville Creek	2211	15026	Reg_Fut	269.50	103.44	107.53	107.53	108.98	0.005572	5.34	50.50	17.35	1.00
Cooksville Creek	2211	14946	2yr_Fut	65.20	103.31	105.73	105.25	105.88	0.001216	1.84	49.20	44.87	0.47
Cooksville Creek	2211	14946	5yr_Fut	101.20	103.31	106.16	105.54	106.35	0.001168	2.12	69.41	48.85	0.48
Cooksville Creek	2211	14946	10yr_Fut	134.60	103.31	106.59	105.76	106.79	0.001007	2.23	91.18	53.09	0.46
Cooksville Creek	2211	14946	25yr_Fut	161.10	103.31	106.76	105.92	107.00	0.001118	2.46	100.11	54.03	0.49
Cooksville Creek	2211	14946	50yr_Fut	186.30	103.31	106.88	106.07	107.16	0.001248	2.68	106.94	54.73	0.52
Cooksville Creek	2211	14946	100yr_Fut	213.70	103.31	107.00	106.19	107.33	0.001396	2.92	113.46	55.39	0.55
Cooksville Creek	2211	14946	Reg_Fut	269.50	103.31	107.21	106.53	107.65	0.001695	3.37	125.27	56.82	0.62
Cooksville Creek	2211	14913	2yr_Fut	65.20	103.25	105.77	104.79	105.83	0.000415	1.24	69.96	49.10	0.29
Cooksville Creek	2211	14913	5yr_Fut	101.20	103.25	106.20	105.07	106.30	0.000471	1.52	92.38	53.68	0.32
Cooksville Creek	2211	14913	10yr_Fut	134.60	103.25	106.63	105.29	106.74	0.000455	1.66	116.34	58.78	0.32
Cooksville Creek	2211	14913	25yr_Fut	161.10	103.25	106.80	105.45	106.94	0.000520	1.85	126.66	60.32	0.34
Cooksville Creek	2211	14913	50yr_Fut	186.30	103.25	106.93	105.59	107.10	0.000592	2.03	134.80	62.78	0.37
Cooksville Creek	2211	14913	100yr_Fut	213.70	103.25	107.06	105.73	107.26	0.000673	2.23	142.91	65.67	0.40
Cooksville Creek	2211	14913	Reg_Fut	269.50	103.25	107.29	106.00	107.56	0.000837	2.60	158.68	73.40	0.45
Cooksville Creek	2211	14895	2yr_Fut	65.20	103.19	105.76	104.50	105.82	0.000378	1.10	59.48	39.37	0.27
Cooksville Creek	2211	14895	5yr_Fut	101.20	103.19	106.20	104.83	106.29	0.000453	1.33	79.81	52.48	0.30
Cooksville Creek	2211	14895	10yr_Fut	134.60	103.19	106.63	105.08	106.73	0.000406	1.43	106.47	74.18	0.29
Cooksville Creek	2211	14895	25yr_Fut	161.10	103.19	106.80	105.26	106.92	0.000449	1.57	119.51	81.62	0.31
Cooksville Creek	2211	14895	50yr_Fut	186.30	103.19	106.94	105.42	107.08	0.000497	1.71	130.03	89.38	0.33
Cooksville Creek	2211	14895	100yr_Fut	213.70	103.19	107.07	105.62	107.23	0.000549	1.86	140.55	109.05	0.35
Cooksville Creek	2211	14895	Reg_Fut	269.50	103.19	107.31	105.94	107.52	0.000641	2.12	160.26	233.35	0.39
Cooksville Creek	2211	14878 12-King St E	Bridge										
Cooksville Creek	2211	14858	2yr_Fut	65.20	102.64	105.06	104.30	105.28	0.001574	2.07	31.43	57.67	0.51
Cooksville Creek	2211	14858	5yr_Fut	101.20	102.64	105.19	104.76	105.65	0.003125	3.00	33.79	68.28	0.72
Cooksville Creek	2211	14858	10yr_Fut	134.60	102.64	105.68	105.27	105.93	0.001662	2.48	86.51	100.38	0.54
Cooksville Creek	2211	14858	25yr_Fut	161.10	102.64	105.80	105.47	106.10	0.001830	2.70	96.92	102.20	0.57
Cooksville Creek	2211	14858	50yr_Fut	186.30	102.64	105.93	105.60	106.25	0.001940	2.88	106.65	103.43	0.59
Cooksville Creek	2211	14858	100yr_Fut	213.70	102.64	106.04	105.72	106.40	0.002067	3.07	115.98	104.62	0.62
Cooksville Creek	2211	14858	Reg_Fut	269.50	102.64	106.25	105.94	106.68	0.002297	3.41	133.09	121.85	0.66



Credit Valley Conservation - Online Regulatory Floodplain Mapping

Source: <https://cvc.ca/regulation-mapping/>

Last accessed: February 16, 2022



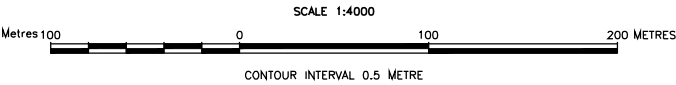
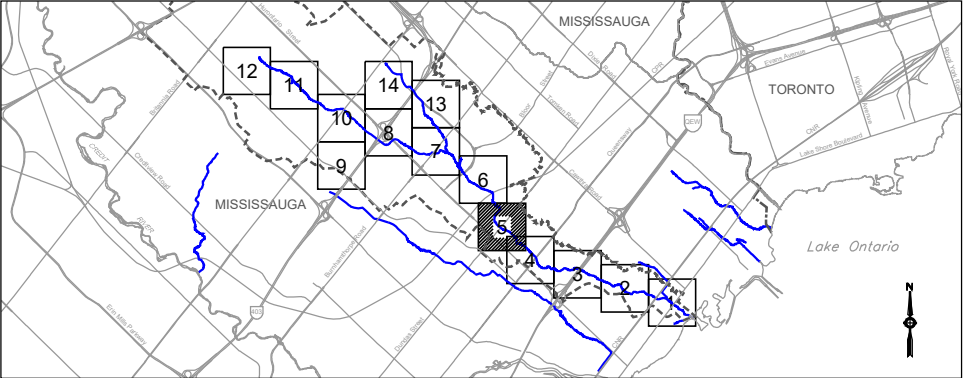
FLOOD HAZARD MAP

COOKSVILLE CREEK WATERSHED

LEGEND

Bridges.....	—————	Municipal Boundary.....	-----	Wall.....	-----
Building.....	—————	Overhead Walkway.....	-----	Watershed Boundary.....	-----
Building Ruin.....	-----	Parcel Fabric.....	-----	Waterbody Elevation.....	+97.5
Building Under Construction.....	-----	Parking Lot.....	P/A	Wooded Area.....	-----
Contour Index.....	172	Pile.....	P	Regulatory Floodline.....	-----
Contour Intermediate.....	172.5	Pipe.....	P	Regulatory Floodplain (2D Model).....	-----
Culvert Symbol.....	U	Pit.....	P	1D-2D Model Limits.....	1D < 2D
Culvert to Scale.....	U	Playground.....	PLAY	Two-Zone Policy Area.....	-----
Dam.....	-----	Pole.....	P	Section.....	-----
Ditch.....	-----	Pool.....	P	Overflow Section.....	-----
Dock, Wharf, Pier.....	-----	Railway.....	-----	Structure ID.....	10
Driveway.....	-----	Railway Abandoned.....	-----	Regional Flood Elevation	15426
Falls, Rapids.....	Rapid	River, Creek, Shoreline.....	-----	Section Number	98.75
Flow Direction.....	→	Road.....	-----	100 Year Flood Elevation	98.25
Footbridge.....	-----	Road Understructure (UC).....	UC		
Guidesail.....	-----	Sidewalk.....	-----		
Headwall.....	-----	Silo.....	-----		
Hedge.....	-----	Spot Height.....	+123.45		
Marsh.....	-----	Trail.....	-----		

SHEET INDEX



- General Notes:
1. Contourlines on this map were generated by Airborne Imaging using the Spring of 2015 LiDAR point cloud, breaklines and hydrologic enforcement at bridges. The vertical accuracy of the original points is 0.10 metres RMSE.
 2. The planimetric data was obtained from the City of Mississauga in 2017.
 3. The vertical datum is mean sea level established by the CGVD 28, 1978 Southern Ontario adjustment.
 4. The horizontal datum is North American Datum 1983 CSRS (Epoch 2010) UTM Zone 17.
 5. To obtain City of Mississauga datum, add 0.121 metres to elevation data.
 6. Where section numbers are marked with an * the Regulatory flood elevations drop moving upstream. The flood elevation for Regulatory purposes shall be calculated by linearly interpolating between the upstream and downstream sections that are adjacent to the sections marked with an *. In no case shall interpolation extend through a structure. For additional clarification please contact Credit Valley Conservation.



No	Amendment/Revision	By	Date