FUNCTIONAL SERVICING AND STORMWATER MANAGEMENT REPORT

1354 Bronte Road

Town of Oakville

Prepared for

Eaglewood Communities
Project #: 21-272

First Submission: February 2022

Second Submission: June 2023

Table of Contents

List of Tables

Appendices

Appendix A – Drawings

- SLP-1 Site Location Plan
- GR-1 Grading Plan
- EXC-1 Existing Conditions Plan
- STM-1 Pre-Development Storm Drainage Plan
- STM-2 Post-Development Storm Drainage Plan
- SAN-1 Sanitary Drainage Plan
- WM-1 Watermain Distribution Plan
- ESC-1 Erosion and Sediment Control Plan
- ESC-2 Erosion and Sediment Control Details
- PP-1 Street A (STA. 0+000.000 to STA. 0+160.000)
- PP-2 Bronte Road (STA. 2+720.000 to STA. 3+040.000)

Appendix B – Stormwater (SWM) Calculations

- Tank Details
- V06 model Output
- 5-Year Storm Design Sheet
- 100-Year and Regional PCSWMM Model Output

Appendix C – Wastewater Servicing

- Sanitary Design Sheet

Appendix D – Water Servicing

Appendix E – Geotechnical Report

Appendix F – Bronte Green 2 Memo

1 INTRODUCTION

Urbantech Consulting has been retained as consulting engineers by Eaglewood Communities to complete a Functional Servicing Report (FSR) in support of a zoning bylaw amendment application for the proposed 0.47 ha development in the Town of Oakville.

As shown on Drawing **SLP-1**, the subject property is bounded by the following:

- To the north by an existing residential dwelling (North 2);
- To the south by a future development (Bronte River Limited Partnership Lands (BRLP));
- To the east by Bronte Road;
- To the west by Bronte Creek Provincial Park (BCPP).

The site is comprised of municipal Lot 31, Concession 2, South of Dundas Street as shown on the October 7, 2021, survey prepared by A.T. McLaren Limited.

The site falls within the Town of Oakville Liveable Oakville Plan and currently is occupied by a single-family dwelling adjacent to Bronte Road.

The subject development lies within the 14 Mile Creek subwatershed, refer to Drawing **STM-1**.

1.1 Study Purpose

This FSR outlines the servicing details for the proposed storm drainage, sanitary sewer and water distribution systems required to service the subject development. The recommended servicing plans have been prepared in accordance with design criteria and requirements of the Town of Oakville, Region of Halton, and Conservation Halton (CH). The information in this report is intended to assist regulatory agencies in their review of the planning applications for the proposed development. Notably, the subject property is dependent on the development of the Bronte River Limited Partnership lands to the south for road access, and mutual services within Street A.

1.2 Planning Context

Eaglewood Communities is proposing to develop the subject property with medium density uses consistent with the Livable Oakville Plan.

Several pre-consultation meetings have been conducted with Town of Oakville, Halton Region Planning staff and CH staff, the first on March 3, 2021, the second on June 23, 2021, and the latest on September 22, 2021, which outlined the submission requirements.

At the beginning of 2021 an application was made to remove the Parkway Belt West Plan and Amendment and the Ministry's Zoning Order to allow for the future development of the site. The proposed development conforms to the Provincial Policy Statement (PPS), the Growth Plan, the Region of Halton Official Plan, and the policies of the Town of Oakville Livable Oakville Official Plan. The property is located within a Settlement Area defined by the PPS and growth Plan policies that direct and manage growth and are consistent with the growth policies of the

Region of Halton and Livable Oakville Official Plans which direct growth to the Urban Area and Built Boundary. Refer to Planning Justification Brief by GSAI for further details.

1.3 Development Concept

In reference to the **Site Plan** prepared by KNYMH, the subject development consists of:

1. 6-storey residential building with 109 units;
2. Connection of Street A from BRLP to North 1;
3. 13 surface and 153 underground parking spaces.

Access to the property will be through Street A, located on the development to the south, which aligns with the opposing Saw Whet Boulevard. Street A will also provide an access for the future development to the north.

1.4 Background Studies

The servicing plan and development concept presented within this report are an extension of the information contained in the following reports:

1. Drainage and Stormwater Management Draft Detailed Design Report (March 2010) by McCormick Rankin Corporation.
2. Bronte Green Development / Enns Property Stormwater Management Requirements (September 2016) by J.F. Sabourin and Associates

2 EXISTING CONDITIONS

2.1 Land Use

The existing development consists of a single-family residential dwelling that is also used as a cat hotel.

Refer to Drawing **EXC-1** for a visual summary of the existing conditions.

2.2 Geotechnical and Hydrogeology

In support of the draft plan application, site-specific soils reports have been prepared by DS Consultants Ltd. The study dated November 2021 is reproduced in **Appendix E**.

The report outlines the following subsurface conditions:

- Fill material and upper weathered/disturbed soils consisting of silty clay till, sandy silt to silty sand, sand and clayey silt to silty clay were encountered in all the boreholes, extending to depths of 1.1 to 1.5 m below the ground surface.
- Under the fill material upper native soil consisting of silty clay till was encountered in boreholes up to depths of 3.1 to 4.6 m.
- Sandy silt to silty sand till were encountered in the boreholes below the silty clay till extending to the depths of 6.1 to 7.6 m.
- A water bearing sand and gravel deposit was found below a depth of 6.1 to 7.6 m below the ground surface.

Groundwater levels were measured by DS Consultants in November 2021 which indicated that the groundwater ranged from 5.6 to 7.1 m below the ground surface.

3 GRADING DESIGN

3.1 Design Standards

The proposed grading design of the subject development considers the following requirements and constraints:

1. Conforms to the Town of Oakville design criteria.
2. Provided appropriate cover on proposed servicing.
3. Achieve stormwater management and environmental objectives;
4. Provides overland flow conveyance for major storm conditions;
5. Addresses boundary drainage conditions where surrounding lands are not developing at the present time;
6. Matches existing vertical boundary conditions;
7. Optimizes cut and fill operations to minimize import/export.;
8. Ensures compatibility with extensions of a road to the property at the north;
9. Minimizes the need for retaining walls;

4 STORM DRAINAGE AND STORMWATER MANAGEMENT

4.1 Drainage Criteria

In accordance with the Town of Oakville, Halton Region and CH standards, the design criteria for the site are as follows:

1. For 14 Mile Creek meet the pre-development targets outlined in PCSWMM model for 14 Mile Creek received from DSEL (June 2023).
2. Provide extended detention for 24 hour drawdown per Bronte River/Enns Property Stormwater Management Requirements Report (JFSA dated September 2016).
3. Ensure minimum MECP enhanced (Level 1) stormwater quality treatment of runoff is provided.
4. Maintain pre-development water balance through the use of LID measures.
5. Provide safe overland flow conveyance of the 100-year or Regional event, whichever is larger.

4.2 Existing Conditions

Under existing conditions 3.78 ha from Eaglewood Communities (0.47 ha), BRLP (2.04 ha), North 3 (BCPP lands located west of Eaglewood) (0.35 ha), North 1 (0.56 ha) and 2 (0.36 ha) drains to the east to Bronte Road where it is conveyed north by an existing ditch, approximately 245 m long, on the west side of the Bronte Road which outlets to 14 Mile Creek.

Urbantech was provided the approved PCSWMM hydrology model for 14 Mile Creek prepared for the Bronte Green 2 lands, the supporting memo is provided in **Appendix F**. The following changes were made to the existing conditions model:

- Minor change to the area of subcatchment ETRIB3W to follow the drainage boundary delineated as part of the BRLP development.

- Minor change to the area of subcatchment EBR3S to include the entirety of the Bronte Road frontage in front of the Eaglewood, BRLP and North 1 properties.

- Split catchment ENNS1 into 5 catchments to represent Eaglewood, BRLP and the three external properties. Flow length was measured based on the existing flow paths on the properties and slope was determined based on existing topography.

Table 4-1 provides flows entering 14 Mile Creek from Eaglewood, BRLP, North 1 & 2, and the adjacent provincial park lands under existing conditions. The pre-development drainage areas are shown on **Drawing STM-1**.

Table 4-1: Existing Flows to 14 Mile Creek

Storm	Eaglewood Flow (m^3/s)	BRLP Flow (m^3/s)	North 1 & 2 Flow (m^3/s)	North 3 Flow (m^3/s)
2-year	0.06	0.07	0.08	0.02
5-year	0.1	0.12	0.13	0.03
10-year	0.12	0.17	0.17	0.04
25-year	0.16	0.22	0.21	0.06
50-year	0.18	0.27	0.25	0.07
100-year	0.2	0.31	0.29	0.08
Regional	0.07	0.26	0.13	0.05

The pre-development drainage areas are shown on **Drawing STM-1**.

4.3 Storm Sewer Design

The storm sewer in the Eaglewood Communities portion of Street A is 300 mm and is sized to convey the 5-year storm primarily from external lands to the west in accordance with Town of Oakville Standards. The sewer will connect to the proposed sewers in Street A located within the BRLP lands to the south which have been sized to accommodate Eaglewood Communities.

Due to the elevation difference between North 2 and Eaglewood Communities, North 2 will require a connection to Bronte Road for storm servicing or will need to pump flows to the Street A storm sewer.

See **Drawing STM-2** for drainage areas and pipe networks and **Appendix B** for storm design sheets. The following sections describe the key elements of the storm sewer system.

4.3.1 Bronte Road Storm Sewer

Bronte Road contains an existing storm sewer that ranges in size from 375 to 750 mm and receives flows primarily from the Bronte Road ROW. It has been indicated by Halton Region that the existing storm sewer does not have capacity to accommodate the Subject Lands, which currently drains to an existing ditch that flows adjacent to Bronte Creek.

Three scenarios were evaluated to service the stormwater flows from the development draining to 14 Mile Creek:

1. Within the existing ditch along the west side of Bronte Road
2. Within a dedicated pipe within the Bronte Road ROW (three locations considered)
3. Within the existing or augmented Regional pipe within the Bronte Road ROW

In all piped scenarios the sewer will be sized to convey the 10-year storm by gravity with pressurization under the 100-year event.

A detailed comparison of the drainage options were provided to Halton Region for review on February 7th, 2023, and are presented in **Appendix B**. The final placement of the pipe within the Bronte Road ROW will be subject to ongoing discussions with Halton Region and analysis of the results of a subsurface utility engineering (SUE) study that is under way.

4.4 Quality Control

Based on the minimum practical orifice size of 75 mm, only a small measure of extended detention can be achieved for the 25 mm event. The original Bronte River/Enns Property Stormwater Management Requirements Report (prepared by JFSA dated September 2016) which indicated that 24 hour extended detention was required was based on a drainage area of 15.08 ha being conveyed to 14 Mile Creek. The reduction in drainage being directed to 14 Mile Creek (relative to the original assumptions) will significantly reduce flows entering the system on an absolute basis, thereby reducing erosion risk.

Enhanced (Level 1) water quality protection will be achieved though the use of a Jellyfish Filter System is ETV certified for 88% TSS removal, located downstream of the proposed storage tank. The sizing of the system will be confirmed by the manufacturer at detailed design.

4.5 Quantity Control

Quantity controls for the site will be provided through a storage tank within the underground parking. The flows will be controlled to existing condition targets presented **Table 4-1** based on the current 14 Mile Creek PCSWMM hydrology model. The proposed controlled model from the Bronte Green 2 development was updated as follows:

- Minor change to the area of subcatchment ETRIB3W to follow the drainage boundary delineated as part of the BRLP development.

- Minor change to the area of subcatchments EBR3S and WRegWid to include the portion of the Bronte Road frontage in front of the BRLP property, Eaglewood and North 1 properties.

- Removal of external area and north portion of BRLP property (~11.3 ha) from scenario that was determined to be conveyed to Bronte Creek in existing conditions as well as proposed BRLP diversion (1.44 ha).

- Removal of centralized storage facility and inclusion of storage tanks on the Eaglewood and North 1 properties.

- Split catchment ENNS1 into 6 catchments to represent Eaglewood, BRLP and the three external properties. Flow length and slopes for the development areas was measured based on the proposed roads and parking lots. For North 1 as the design is unknown a slope of 1% was assumed.

The Eaglewood development will require a 75 mm orifice to provide extended detention with a 300 mm orifice plate located above the 25 mm storm volume. The tank is proposed to be 2 m in depth with an area of 196 m^2. **Table 4-2** outlines the target flow rates and post development controlled release rates for the Eaglewood development which is overcontrolled to account for the 0.07 ha area associated with Street A. The Eaglewood tank will connect to Street A at proposed MH32. Drainage from North 3 will continue to drain towards Bronte Road and will be captured in the Street A storm sewer.

Table 4-2: 14 Mile Creek Flow Rates - Eaglewood

Storm Event	Target Flow Rate (m^3/s)	Post Development Flows Eaglewood - Controlled (m^3/s)	Required Storage (m^3)
2-year	0.06	0.05	70
5-year	0.1	0.10	82
10-year	0.12	0.12	91
25-year	0.16	0.13	105
50-year	0.18	0.15	115
100-year	0.2	0.16	125
Regional	0.07	0.07	78

North 1 + 2 will require a 75 mm orifice to provide extended detention with a 275 mm orifice plate located above the 25 mm storm volume. As the design of North 2 is not available, a 2.7 m deep tank with an area of 50 m^2 was modelled in PCSWMM, dimensions/elevations and changes to the model are to be refined by the North 2 engineers. **Table 4-3** outlines the target flows from North 1 + 2 and the proposed flow rates.

Table 4-3: 14 Mile Creek Flow Rates - North 1 + 2

Storm Event	Target Flow Rate (m^3/s)	Post Development Flows Eaglewood - Controlled (m^3/s)	Required Storage (m^3)
2-year	0.08	0.07	59
5-year	0.13	0.12	72
10-year	0.17	0.14	82
25-year	0.21	0.17	98
50-year	0.25	0.19	111
100-year	0.29	0.22	124
Regional	0.13	0.13	76

The following updates were made to the 14 Mile Creek PCSWMM model for the uncontrolled scenario:

- Minor change to the area of subcatchment ETRIB3W to follow the drainage boundary delineated as part of the BRLP development.

- Minor change to the area of subcatchments EBR3S and WRegWid to include the portion of the Bronte Road frontage in front of the BRLP property, Eaglewood and North 1 properties.

- Split catchment ENNS1 into 6 catchments to represent Eaglewood, BRLP and the three external properties and updated to represent post-development rather than pre-development as shown in the original model. Flow length and slopes for the development areas was measured based on the proposed roads and parking lots. For North 1 as the design is unknown a slope of 1% was assumed.

Due to the BRLP drainage diversion, 0.6 ha from BRLP will be conveyed uncontrolled to 14 Mile Creek.

Impacts to 14 Mile Creek were also evaluated at various key locations downstream of the proposed developments (**Table 4-5**). This analysis included utilizing an uncontrolled scenario for the developments as well as Bronte Green 2.

Table 4-4: 14 Mile Creek Downstream Flows

J438.5957							
Event	Existing Conditions m^3/s	Uncontrolled m^3/s	Controlled m^3/s	Difference Existing - Uncontrolled		Difference Existing - Controlled	
2-Year Design	35.486	35.485	35.268	-0.001	0%	-0.218	-1%
5-Year Design	58.79	58.79	58.365	0.000	0%	-0.425	-1%
10-Year Design	72.65	72.65	72.083	0.000	0%	-0.567	-1%
25-Year Design	93.104	92.603	92.602	-0.501	-1%	-0.502	-1%
50-Year Design	109.514	108.822	108.776	-0.692	-1%	-0.738	-1%
100-Year Design	128.723	127.960	127.903	-0.763	-1%	-0.820	-1%
Regional Event	267.575	267.609	266.341	0.034	0%	-1.234	0%

J982.0328							
Event	Existing Conditions m^3/s	Uncontrolled m^3/s	Controlled m^3/s	Difference Existing - Uncontrolled		Difference Existing - Controlled	
2-Year Design	32.683	32.683	32.466	0.000	0%	-0.217	-1%
5-Year Design	54.211	54.212	53.779	0.001	0%	-0.432	-1%
10-Year Design	68.970	68.588	68.499	-0.382	-1%	-0.471	-1%
25-Year Design	92.438	91.929	91.926	-0.509	-1%	-0.512	-1%
50-Year Design	108.512	107.823	107.783	-0.689	-1%	-0.729	-1%
100-Year Design	127.541	126.780	126.730	-0.761	-1%	-0.811	-1%
Regional Event	262.785	262.771	261.317	-0.014	0%	-1.468	-1%

J2546.464							
Event	Existing Conditions m^3/s	Uncontrolled m^3/s	Controlled m^3/s	Difference Existing - Uncontrolled		Difference Existing - Controlled	
2-Year Design	38.788	38.788	38.574	0.000	0%	-0.214	-1%
5-Year Design	59.702	59.702	59.185	0.000	0%	-0.517	-1%
10-Year Design	73.332	73.332	72.497	0.000	0%	-0.835	-1%
25-Year Design	93.956	93.421	93.354	-0.535	-1%	-0.602	-1%
50-Year Design	110.457	109.844	109.866	-0.613	-1%	-0.591	-1%
100-Year Design	128.615	127.841	127.856	-0.774	-1%	-0.759	-1%
Regional Event	259.027	258.804	258.075	-0.223	0%	-0.952	0%

J3150.013							
Event	Existing Conditions m^3/s	Uncontrolled m^3/s	Controlled m^3/s	Difference Existing - Uncontrolled		Difference Existing - Controlled	
2-Year Design	36.361	36.361	36.135	0.000	0%	-0.226	-1%
5-Year Design	56.323	56.323	55.767	0.000	0%	-0.556	-1%
10-Year Design	69.732	69.372	69.305	-0.360	-1%	-0.427	-1%
25-Year Design	93.608	93.072	93.005	-0.536	-1%	-0.603	-1%
50-Year Design	110.114	109.501	109.527	-0.613	-1%	-0.587	-1%
100-Year Design	128.386	127.600	127.619	-0.786	-1%	-0.767	-1%
Regional Event	257.247	256.946	256.360	-0.301	0%	-0.887	0%

J4232.339							
Event	Existing Conditions m^3/s	Uncontrolled m^3/s	Controlled m^3/s	Difference Existing - Uncontrolled		Difference Existing - Controlled	
2-Year Design	26.466	26.427	26.285	-0.039	0%	-0.181	-1%
5-Year Design	47.315	47.068	46.974	-0.247	-1%	-0.341	-1%
10-Year Design	63.275	62.928	62.841	-0.347	-1%	-0.434	-1%
25-Year Design	84.685	84.177	84.117	-0.508	-1%	-0.568	-1%
50-Year Design	99.689	99.086	99.139	-0.603	-1%	-0.550	-1%
100-Year Design	116.240	115.499	115.565	-0.741	-1%	-0.675	-1%
Regional Event	219.986	219.613	219.631	-0.373	0%	-0.355	0%

DF001							
Event	Existing Conditions m^3/s	Uncontrolled m^3/s	Controlled m^3/s	Difference Existing - Uncontrolled		Difference Existing - Controlled	
2-Year Design	1.11	1.11	0.829	0.000	0%	-0.281	-25%
5-Year Design	1.901	1.901	1.239	0.000	0%	-0.662	-35%
10-Year Design	2.503	2.503	1.522	0.000	0%	-0.981	-39%
25-Year Design	3.367	3.367	1.935	0.000	0%	-1.432	-43%
50-Year Design	4.008	4.008	2.256	0.000	0%	-1.752	-44%
100-Year Design	4.686	4.686	2.594	0.000	0%	-2.092	-45%
Regional Event	3.678	3.678	3.058	0.000	0%	-0.620	-17%

E153							
Event	Existing Conditions m^3/s	Uncontrolled m^3/s	Controlled m^3/s	Difference Existing - Uncontrolled		Difference Existing - Controlled	
2-Year Design	2.451	2.506	2.294	0.055	2%	-0.157	-6%
5-Year Design	5.021	5.045	4.607	0.024	0%	-0.414	-8%
10-Year Design	7.288	7.186	6.683	-0.102	-1%	-0.605	-8%
25-Year Design	9.849	9.624	8.945	-0.225	-2%	-0.904	-9%
50-Year Design	12.196	11.882	11.061	-0.314	-3%	-1.135	-9%
100-Year Design	14.554	14.222	13.265	-0.332	-2%	-1.289	-9%
Regional Event	15.950	15.064	14.977	-0.886	-6%	-0.973	-6%

E733							
Event	Existing Conditions m^3/s	Uncontrolled m^3/s	Controlled m^3/s	Difference Existing - Uncontrolled		Difference Existing - Controlled	
2-Year Design	0.906	0.872	0.868	-0.034	-4%	-0.038	-4%
5-Year Design	1.939	1.891	1.898	-0.048	-3%	-0.041	-2%
10-Year Design	2.730	2.642	2.67	-0.088	-3%	-0.065	-2%
25-Year Design	3.841	3.772	3.731	-0.069	-2%	-0.110	-3%
50-Year Design	4.666	4.623	4.521	-0.043	-1%	-0.145	-3%
100-Year Design	5.587	5.545	5.345	-0.042	-1%	-0.242	-4%
Regional Event	5.911	5.674	5.672	-0.237	-4%	-0.239	-4%

EBS1							
Event	Existing Conditions m^3/s	Uncontrolled m^3/s	Controlled m^3/s	Difference Existing - Uncontrolled		Difference Existing - Controlled	
2-Year Design	0.351	0.291	0.254	-0.060	-21%	-0.097	-28%
5-Year Design	0.564	0.608	0.469	0.044	7%	-0.095	-17%
10-Year Design	0.716	0.740	0.592	0.024	3%	-0.124	-17%
25-Year Design	0.928	0.919	0.733	-0.009	-1%	-0.195	-21%
50-Year Design	1.083	1.049	0.833	-0.034	-3%	-0.250	-23%
100-Year Design	1.241	1.177	0.929	-0.064	-5%	-0.312	-25%
Regional Event	0.637	0.415	0.413	-0.222	-53%	-0.224	-35%

Refer to the SWM Calculations and PCSWMM model output provided in **Appendix B**.

4.6 Water Balance

The Town of Oakville standards indicate that the stormwater management plan for the site should include LIDs. **Table 4-6** outlines possible measures that could be utilized in the Eaglewood Communities site.

Table 4-5: LID Measures

LID Measure	Notes
Rainwater Harvesting	Collection/Storage of runoff and re-use for irrigation.
Green Roofs	The benefits of green roofs could be attenuation of flows, filtration and increased water available for evapotranspiration.
Biofiltration Gallery	A biofiltration gallery, with enhanced topsoil, impermeable liner and an underdrain could be proposed on top of the parking garage. Stormwater from surface runoff where feasible can be routed through the biofiltration gallery. The benefits of biofiltration are attenuation, filtration, cooling, and increased water available for evapotranspiration.
Additional Topsoil	Minimum 200 mm of topsoil in landscape enhances water balance.
Enhanced Tree Pits	Enlarged tree pits or topsoil filled chamber designed to receive direct runoff from streets for infiltration.

It should be noted that due to the extent of the underground parking garage and high groundwater in the Eaglewood Communities site, there are limited opportunities for infiltration in the design. LID measures and objectives will be refined as the site design advances and updated geotechnical and hydrogeological information is available.

5 WASTEWATER SERVICING

5.1 Design Criteria

The wastewater design criteria used in this report is in accordance with the Halton Region Water and Wastewater Linear Design Manual and Town of Oakville design standards:

Design Flow:

- Residential Flow = 0.275 m^3 per capita / day
- Harmon Peaking Factor: min = 2.0, max = 4.0
- Infiltration Allowance = 0.286 L/ha/s

Population Equivalents from Region of Halton 2022 DC Background Study:

- Apartments – Less than 2 bedrooms = 1.356 pp/ha
- Apartments – 2 or more bedrooms = 1.831 pp/ha

5.2 Existing Conditions

The existing wastewater network in the vicinity of the site includes:

- A 300 mm dia. Sanitary Sewer on Bronte Road.
- A 200 mm Stub Sanitary Sewer located on Yellow Rose Circle

Refer to **Drawing SAN-1** for the location of the existing wastewater network in the vicinity of the site.

5.3 Proposed Wastewater

The site will be serviced through a new service connection to a new 200 mm sanitary sewer to be situated on the west side of the Bronte Road ROW. proposed by the Bronte River Limited Partnership development to the south.

The site has a total service area of 0.47 ha and contemplates 109 apartment units with a total population of 182. The anticipated wastewater flow from the site including infiltration and peaking is 2.5 L/s.

A new outfall sewer is proposed within the west boulevard of the Bronte Road by the development to the south which ultimately crosses Bronte Road and connects to a stub within Yellow Rose Circle.

The stub sewer was installed within Yellow Rose Circle was intended to service the subject property and is appropriately sized.

The proposed crossing of Bronte Road will likely intercept an existing 300 mm sewer hence diverting flows into the new outfall. The Bronte Road storm sewer design made accommodation for North 2 lands based on the Halton Region standard of 285 people per ha.

The placement of the outfall sewer within the west boulevard of Bronte Road is based on initial discussions with Halton Region with a view to minimizing disturbance within the paved portion of Bronte Road. The final placement of the sewer will be subject to further study as it relates to utility conflicts and property needs.

Refer to **Drawing SAN-1** for drainage areas and the proposed sanitary sewer layout, **Drawing PP-2** for details of the outfall Sewer within the Bronte Road Right of way and to **Appendix C** for sanitary sewer capacity calculations.

6 WATER SERVICING

6.1 Design Criteria

The watermain design criteria used in this report is in accordance with the Halton Region Water and Wastewater Linear Design Manual and Town of Oakville design standards:

Water Demand Design Criteria:

- Average Daily Demand = 0.275 m^3 per capita
- Maximum Daily Demand Peaking Factor = 2.25
- Peak Hourly Demand Peaking Factor = 4

Population Equivalents from Region of Halton 2022 DC Background Study:

- Apartments – Less than 2 bedrooms = 1.356 pp/ha
- Apartments – 2 or more bedrooms = 1.831 pp/ha

6.2 Existing Conditions

The existing water network in the vicinity of the site includes:

- A 300 mm dia. watermain on Bronte Road;
- A 1050 mm dia. Watermain on Bronte Road.

Refer to **Drawing WM-1** for the location of the existing watermains in the vicinity of the site.

6.3 Local Watermains

A water analysis was completed by MES in March 2023 for Eaglewood Communities and the surrounding properties. The MES analysis modelled the average, maximum day, and peak hour flows as shown in **Table 6-1**.

Table 6-1: Water Demand

Development	Average Day Demand (L/s)	Maximum Day Demand (L/s)	Peak Hour Demand (L/s)
Eaglewood Communities	0.56	1.26	2.23

Water servicing will be provided to the development through a connection to the proposed 300 mm watermain on Street A. A 300 mm watermain is also proposed on Street A through the Subject Property to provide servicing for North 2. Refer to **Drawing WM-1** for details of the preliminary site watermain layout.

Final watermain sizes will be determined at the detailed design stage.

6.4 Watermain Connection Options

The Subject Lands are located at the upper end of Pressure Zone 2. As a result, when a hydrant flow test was conducted on an existing hydrant situated on the east side of Bronte Road north of Saw Whet Boulevard it showed a lower than typical available flow of 99.7 L/s @ 20 psi.

The model considered moving the zone boundary from Bronte Road near Yellow Rose Circle to south of Saw Whet Boulevard. The Bronte Road watermain north of the Bronte River connection would move to Zone O3 and the watermain to the south would remain on Zone O2. The final configuration of the watermains and zone separation in the are must be discussed and confirmed with the Region.

With a Zone O3 supply, the domestic and fire flow demands can be met though the pressures are estimated above the OBC limit of 80 psi (550 kPa) and maybe above the Region pressure limit of 100 psi (690 kPa). The units will require individual pressure reducing valves.

Halton Region has advised that that water pressure zones are being revised but the Subject Lands will not be impacted by the change.

7 EROSION AND SEDIMENT CONTROL

Erosion and sediment controls will be implemented during all site construction works including topsoil stripping, bulk earthworks, foundation excavation, site servicing and stockpiling of materials and will conform to the **Erosion and Sediment Control Guide for Urban Construction (2019).** These measures will include:

1) Installing heavy duty silt control fencing along the perimeter of the site at strategic locations.
2) Installing a temporary mud mat at the construction site entrance.
3) Installing temporary cutoff swales or ESC ponds.
4) Wrapping the tops of all inlet structures with filter fabric and using install silt sacks after servicing.
5) Maintenance of flow from external lands during construction.
6) Inspecting all sediment and erosion controls to maintain them in good repair until such time as the Engineer or the City approves their removal.
7) Appropriate dewatering of existing ponds in compliance with Agency discharge requirements.

Refer to **Drawings ESC-1** for Erosion and Sediment control measures and details.

8 CONCLUSIONS

This report has demonstrated that:

- The proposed site can be graded to match to existing elevations at all property lines while adhering to Town of Oakville grading standards and specifications.
- Storm sewers are sized based on the 5-year Town IDF parameters. 100-year capture is assumed for Street A at Bronte Road.
- Quantity control will be provided with an underground storage tank to be installed in the underground parking.
- Quality control will be achieved through the use of a Jellyfish Filter System placed downstream of the storage tank.
- Water balance requirements will be provided (if any) through the use of LIDs will be determined at detailed design.
- Wastewater servicing to the site will be provided by a new sewer to be installed along Bronte Road connecting to an existing sewer stub at Yellow Rose Circle that was designed to accommodate the site.
- Water servicing to the site will be provided via a new water connection to existing infrastructure located within Bronte Road. The existing watermain on Bronte Road will be moved to PD3 by relocation of the PD boundary valving.
- Erosion and sediment control measures will be implemented during all construction works and will be maintained and inspected regularly.

Report Prepared by:

LICENSED PROFESSIONAL ENGINEER
S. A. HADER
2023-06-30
PROVINCE OF ONTARIO

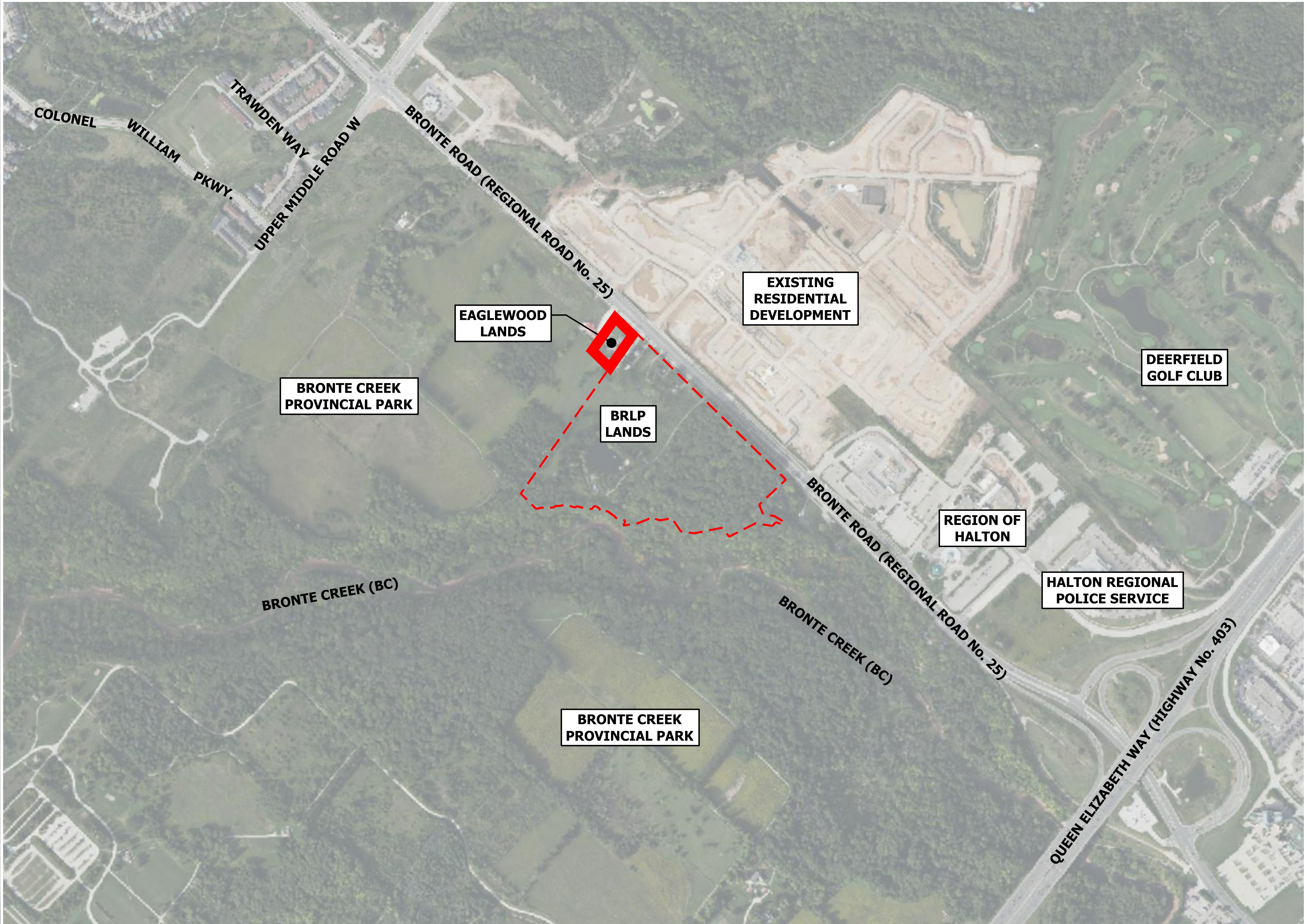
Janna Ormond

Steven A. Hader, P. Eng.
Senior Project Manager

Janna Ormond, B.Eng., EIT
Water Resources Designer

APPENDIX A
Drawings and Figures

- SLP-1 Site Location Plan
- GR-1 Grading Plan
- EXC-1 Existing Conditions Plan
- STM-1 Pre-Development Storm Drainage Plan
- STM-2 Post-Development Storm Drainage Plan
- SAN-1 Sanitary Drainage Plan
- WM-1 Watermain Distribution Plan
- ESC-1 Erosion and Sediment Control Plan
- ESC-2 Erosion and Sediment Control Details
- PP-1 Street A (STA. 0+000.000 to STA. 0+160.000)
- PP-2 Bronte Road (STA. 2+720.000 to STA. 3+040.000)



LEGEND

LIMIT OF EAGLEWOOD DEVELOPMENT

LIMIT OF BRONTE RIVER LIMITED PARTNERSHIP DEVELOPMENT

BENCHMARK

OAKVILLE BENCHMARK 101, ELEVATION = 115.838 METRES

NORTHWEST CORNER OF CONCRETE BOX CULVERT UNDER NORTH SERVICE ROAD. IT IS THE SECOND CULVERT WEST OF THIRD LINE, JUST WEST OF DRIVEWWAY TO #2195 NORTH SERVICE ROAD

TOPOGRAPHIC MAPPING FOR SITE PREPARED BY A.T. MCLAREN DATED OCT. 07, 2021

URBANTECH®

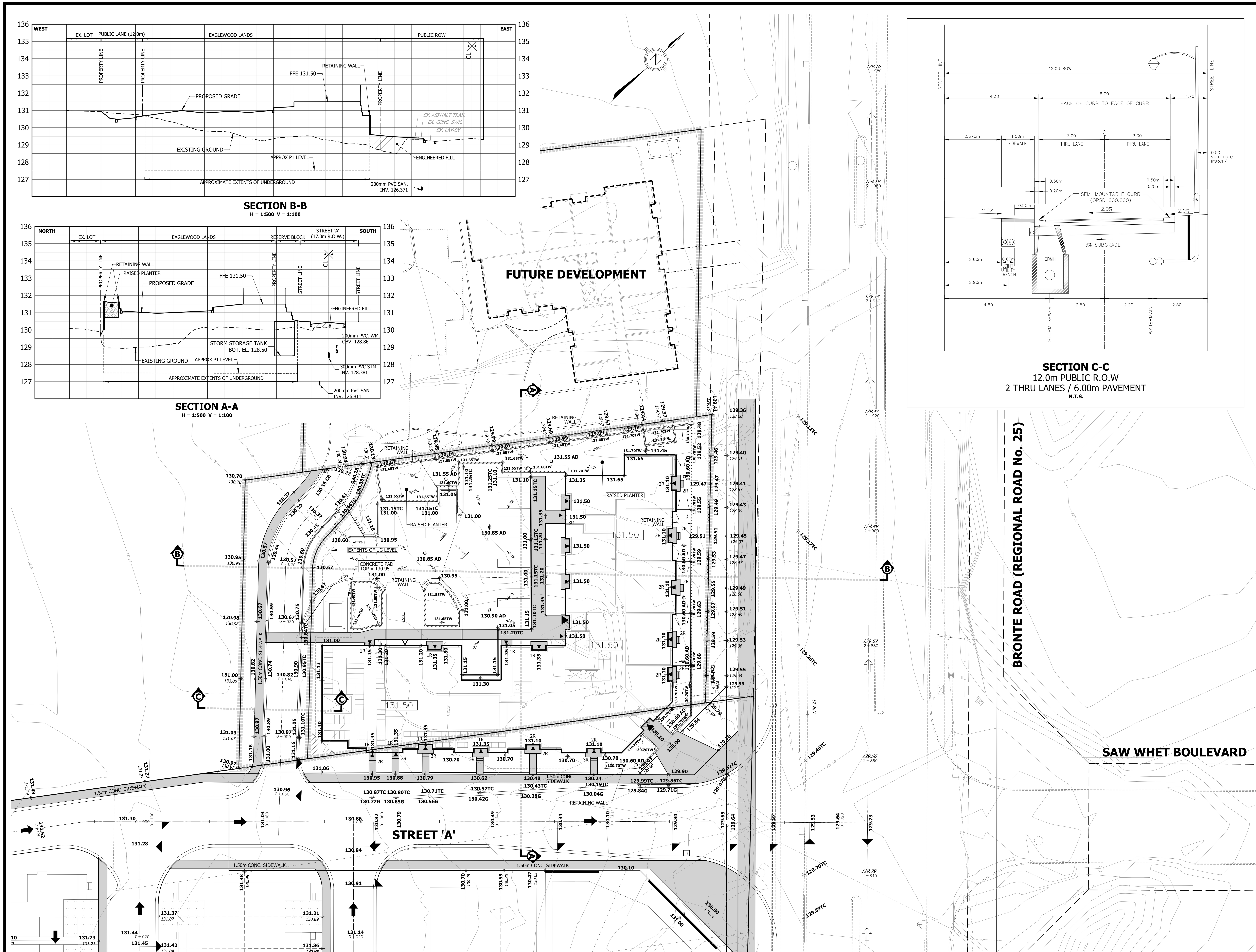
Urbantech® Consulting
A Division of Leighton-Zec West Ltd.
2030 Bristol Circle, Suite 105
Oakville, ON. L6H 0H2

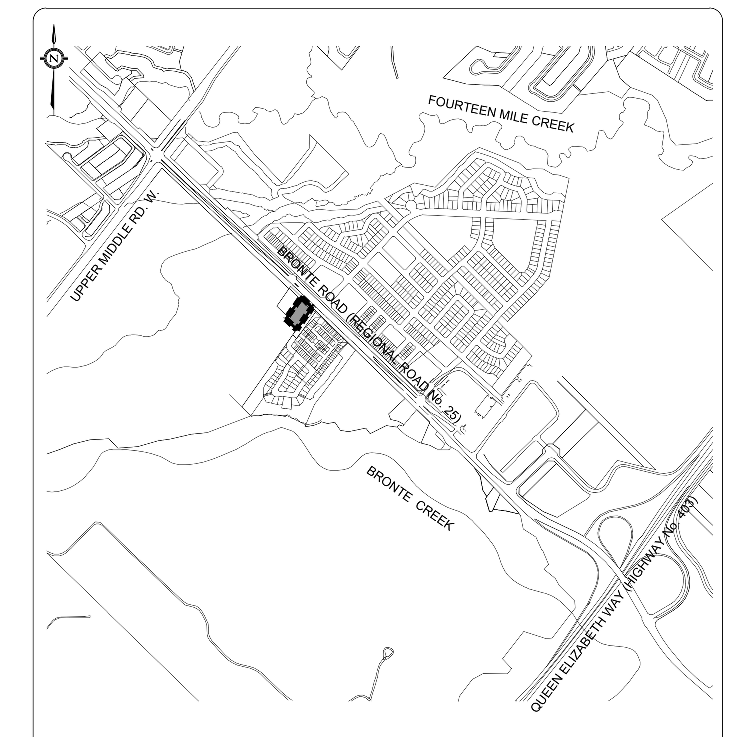
TEL 905.829.8818 • urbantech.com

EAGLEWOOD COMMUNITIES
TOWN OF OAKVILLE

SITE LOCATION PLAN

PROJECT No.	DATE	SCALE	DWG No.
21-272	JUN. 2023	1:7500	SLP-1





KEY PLAN
N.T.S.

LEGEND

- LIMIT OF EAGLEWOOD DEVELOPMENT
- 130.50 PROPOSED ELEVATION
- 130.50 EXISTING ELEVATION
- 132.85 FINISH FLOOR ELEVATION
- MAXIMUM 3:1 (UNLESS OTHERWISE NOTED)
- PROPOSED OVERLAND FLOW ROUTE
- EXISTING OVERLAND FLOW ROUTE
- EXISTING CONTOUR & ELEVATION
- SECTION MARKER

BENCHMARK

OAKVILLE BENCHMARK 101, ELEVATION = 115.838 METRES

NORTHWEST CORNER OF CONCRETE BOX CULVERT UNDER NORTH SERVICE ROAD. IT IS THE SECOND CULVERT WEST OF THIRD LINE, JUST WEST OF DRIVEWAY TO #2195 NORTH SERVICE ROAD

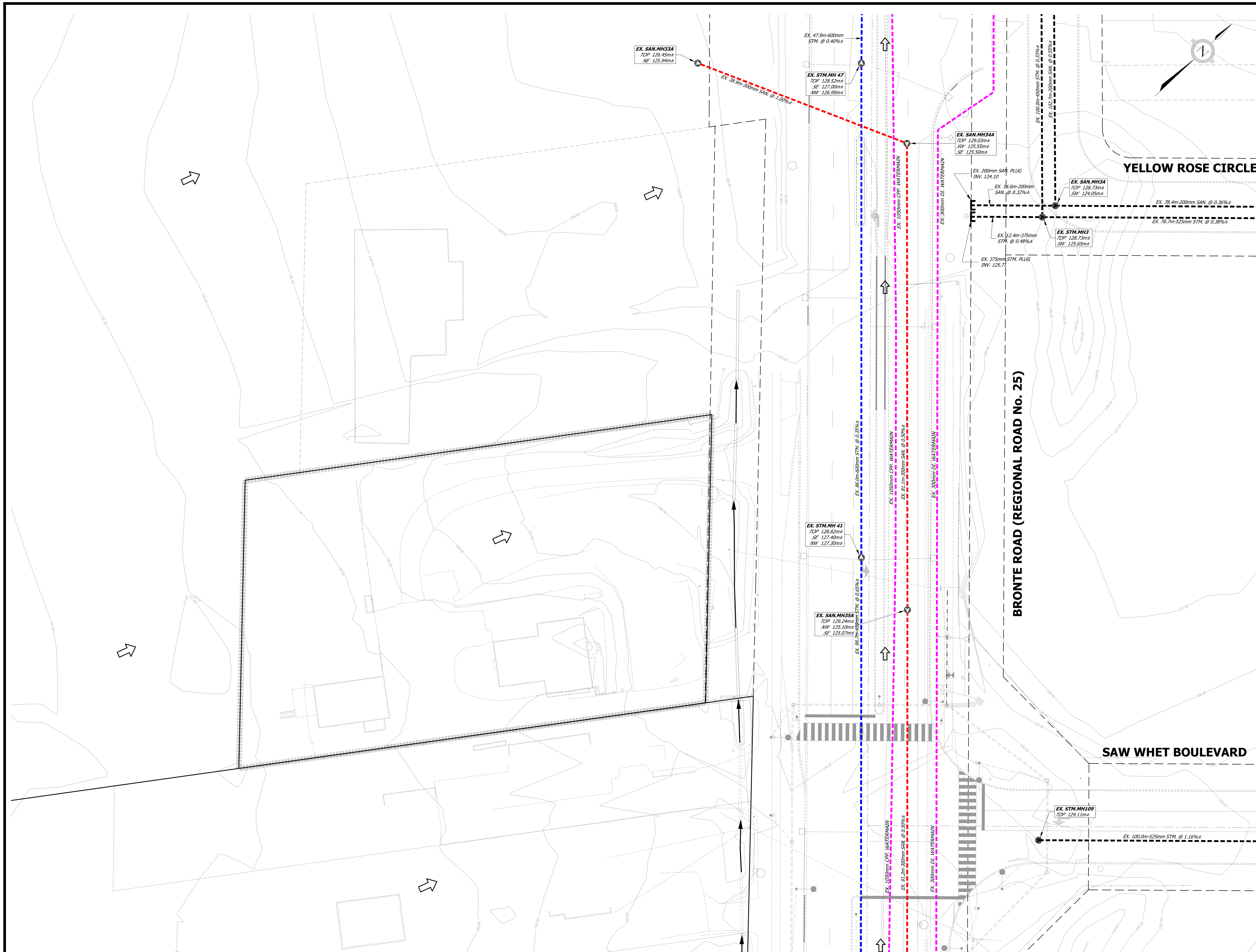
TOPOGRAPHIC MAPPING FOR SITE PREPARED BY A.T. McLAREN DATED OCT. 07, 2021

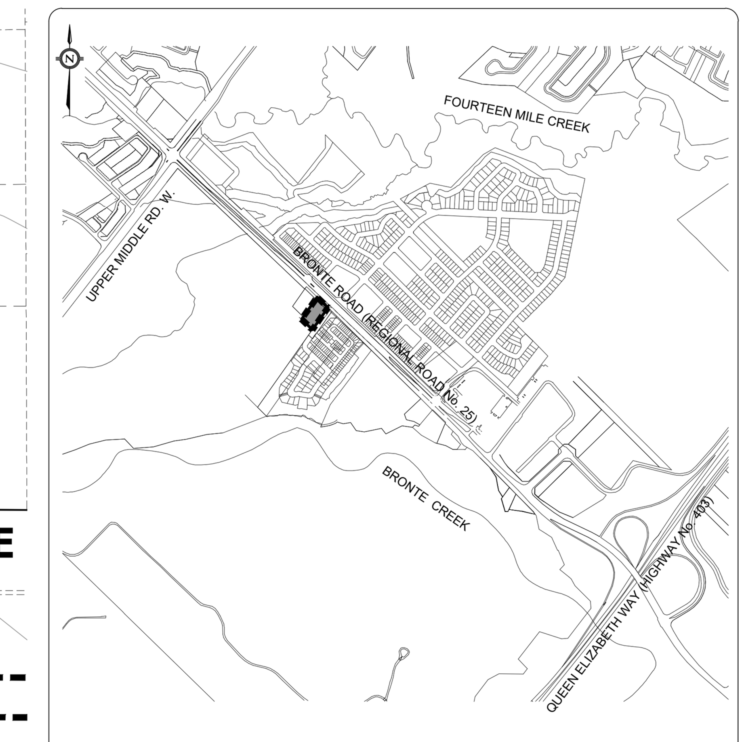
URBANTECH®
Urbantech® Consulting
A Division of Leighton-Zec West Ltd.
2030 Bristol Circle, Suite 105
Oakville, ON. L6H 0H2
TEL 905.829.8818 • urbantech.com

EAGLEWOOD COMMUNITIES
TOWN OF OAKVILLE

PRELIMINARY GRADING PLAN

PROJECT No.	DATE	SCALE	DWG No.
21-272	JUNE 30, 2023	1:300	GR-1





KEY PLAN
N.T.S.

LEGEND

- LIMIT OF EAGLEWOOD DEVELOPMENT
- EXISTING STORM SEWER
- EX. STM.MH 37 / TOP 130.02m± / SE 128.13m± / NW 128.05m± — EXISTING STORM MANHOLE ID; EXISTING GROUND ELEVATION; EXISTING SEWER INVERTS
- EXISTING SANITARY SEWER
- EX. SAN.MH35A / TOP 129.34m± / NW 125.10m± / SE 125.07m± — EXISTING SANITARY MANHOLE ID; EXISTING GROUND ELEVATION; EXISTING SEWER INVERTS
- EXISTING WATERMAIN
- EXISTING OVERLAND FLOW ROUTE
- EXISTING CONTOUR & ELEVATION
- EXISTING DITCH

BENCHMARK
OAKVILLE BENCHMARK 101, ELEVATION = 115.838 METRES

NORTHWEST CORNER OF CONCRETE BOX CULVERT UNDER NORTH SERVICE ROAD. IT IS THE SECOND CULVERT WEST OF THIRD LINE, JUST WEST OF DRIVEWWAY TO #2195 NORTH SERVICE ROAD

TOPOGRAPHIC MAPPING FOR SITE PREPARED BY A.T. MCLAREN DATED OCT. 07, 2021

URBANTECH®

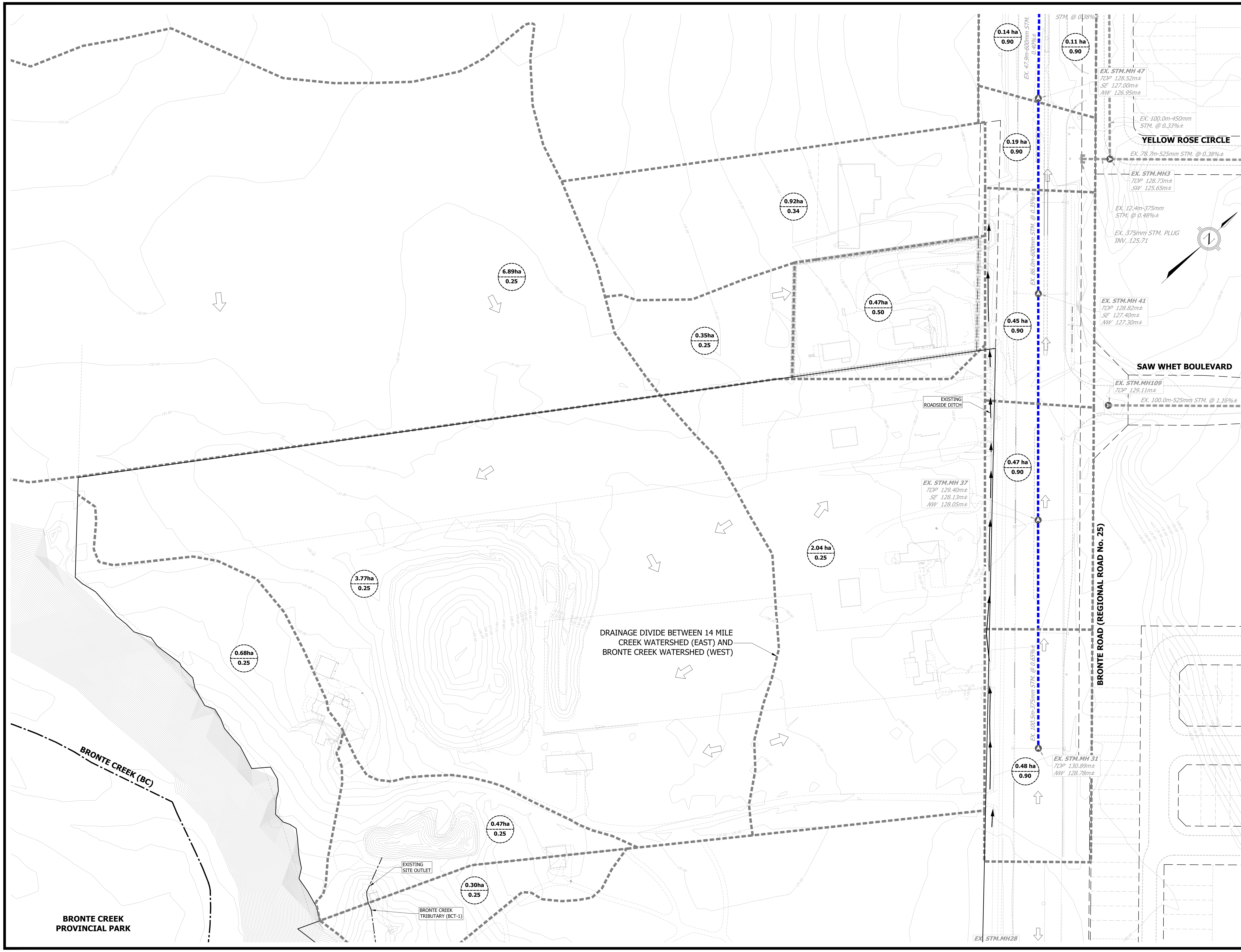
Urbantech® Consulting
A Division of Leighton-Zec West Ltd.
2030 Bristol Circle, Suite 105
Oakville, ON. L6H 0H2
TEL 905.829.8818 • urbantech.com

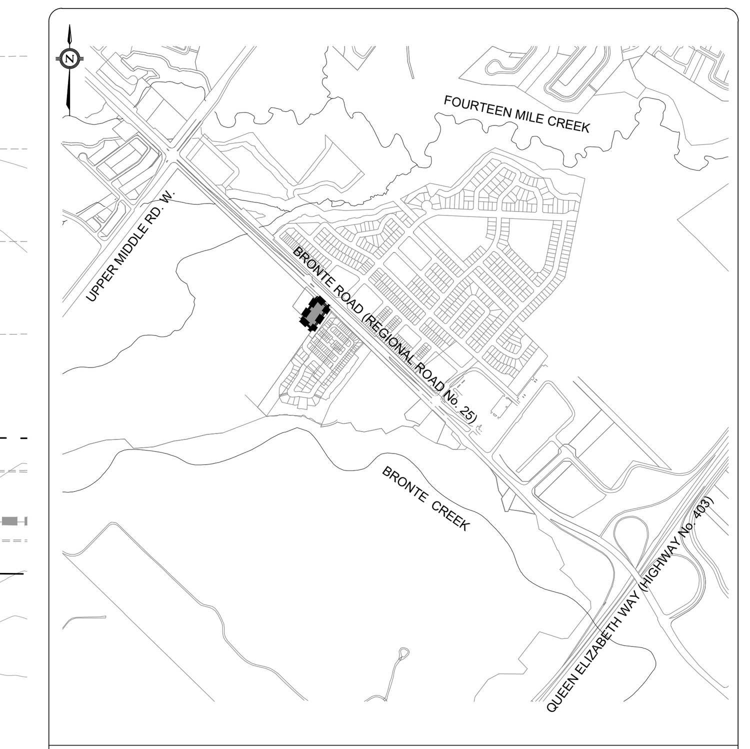
EAGLEWOOD COMMUNITIES
TOWN OF OAKVILLE

EXISTING CONDITIONS PLAN

PROJECT No.	DATE	SCALE	DWG No.
21-272	JUNE 30, 2023	1:300	EXC-1

F:\PROJECTS\21-272 - 1354 BRONTE RD (EAGLEWOOD COMM. VALERY - OAKVILLE)\DRAWINGS\PRELIMINARY ENGINEERING & FIGURES\21-272_FSR-(EXISTING CONDITIONS PLAN).DWG





KEY PLAN
N.T.S.

LEGEND

- LIMIT OF EAGLEWOOD DEVELOPMENT
- EXISTING STORM SEWER
- EXISTING STORM MANHOLE ID
- EXISTING GROUND ELEVATION
- EXISTING SEWER INVERTS
- EXISTING STORM DRAINAGE BOUNDARY
- EXISTING DRAINAGE AREA (3.70ha)
- EXISTING RUNOFF COEFFICIENT (0.25)
- EXISTING OVERLAND FLOW ROUTE
- EXISTING CONTOUR & ELEVATION

BENCHMARK

OAKVILLE BENCHMARK 101, ELEVATION = 115.838 METRES

NORTHWEST CORNER OF CONCRETE BOX CULVERT UNDER NORTH SERVICE ROAD. IT IS THE SECOND CULVERT WEST OF THIRD LINE, JUST WEST OF DRIVEWWAY TO #2195 NORTH SERVICE ROAD

TOPOGRAPHIC MAPPING FOR SITE PREPARED BY A.T. MCLAREN DATED OCT. 07, 2021

URBANTECH®

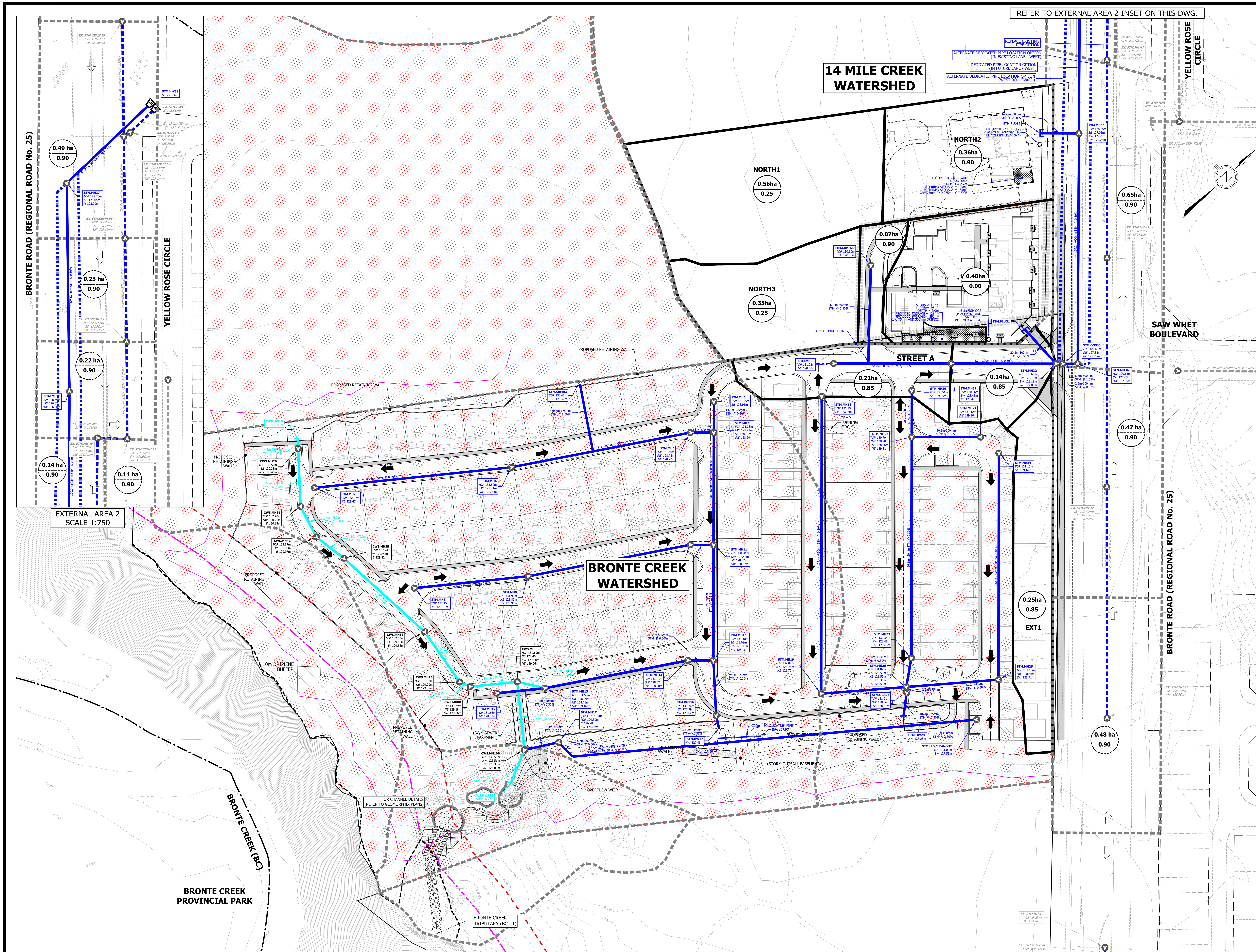
Urbantech® Consulting
A Division of Leighton-Zec West Ltd.
2030 Bristol Circle, Suite 105
Oakville, ON. L6H 0H2

TEL 905.829.8818 • urbantech.com

EAGLEWOOD COMMUNITIES
TOWN OF OAKVILLE

PRE-DEVELOPMENT STORM DRAINAGE PLAN

PROJECT No.	DATE	SCALE	DWG No.
21-272	JUNE 30, 2023	1:750	STM-1



LEGEND

- LIMIT OF EAGLEWOOD DEVELOPMENT
- PROPOSED STORM SEWER
- PROPOSED CLEAN WATER SEWER
- EXISTING STORM SEWER
- STORM MANHOLE ID
- PROPOSED GRADE ELEVATION
- PROPOSED SEWER INVERTS
- CLEAN WATER SEWER MANHOLE ID
- PROPOSED GRADE ELEVATION
- PROPOSED SEWER INVERTS
- EXISTING STORM MANHOLE ID
- EXISTING GROUND ELEVATION
- EXISTING SEWER INVERTS
- 0.22ha — PROPOSED DRAINAGE AREA
- 0.60 — PROPOSED RUNOFF COEFFICIENT
- 3.70ha — EXISTING DRAINAGE AREA
- 0.25 — EXISTING RUNOFF COEFFICIENT
- STORM DRAINAGE BOUNDARY
- EXISTING STORM DRAINAGE BOUNDARY
- EXISTING TOP OF BANK AS STAKED BY CONSERVATION HALTON
- DRIPLINE AS STAKED BY REGION OF HALTON
- 15.0m SETBACK FROM (LTSTB)
- LONG TERM STABLE TOP OF BANK (LTSTB)
- PROPOSED OVERLAND FLOW ROUTE
- EXISTING OVERLAND FLOW ROUTE
- 130.00 — EXISTING CONTOUR & ELEVATION
- DENOTES LAND DRAINING TO BRONTE CREEK

BENCHMARK

OAKVILLE BENCHMARK 101, ELEVATION = 115.838 METRES

NORTHWEST CORNER OF CONCRETE BOX CULVERT UNDER NORTH SERVICE ROAD. IT IS THE SECOND CULVERT WEST OF THIRD LINE, JUST WEST OF DRIVEWWAY TO #2195 NORTH SERVICE ROAD

TOPOGRAPHIC MAPPING FOR SITE PREPARED BY A.T. MCLAREN DATED OCT. 07, 2021

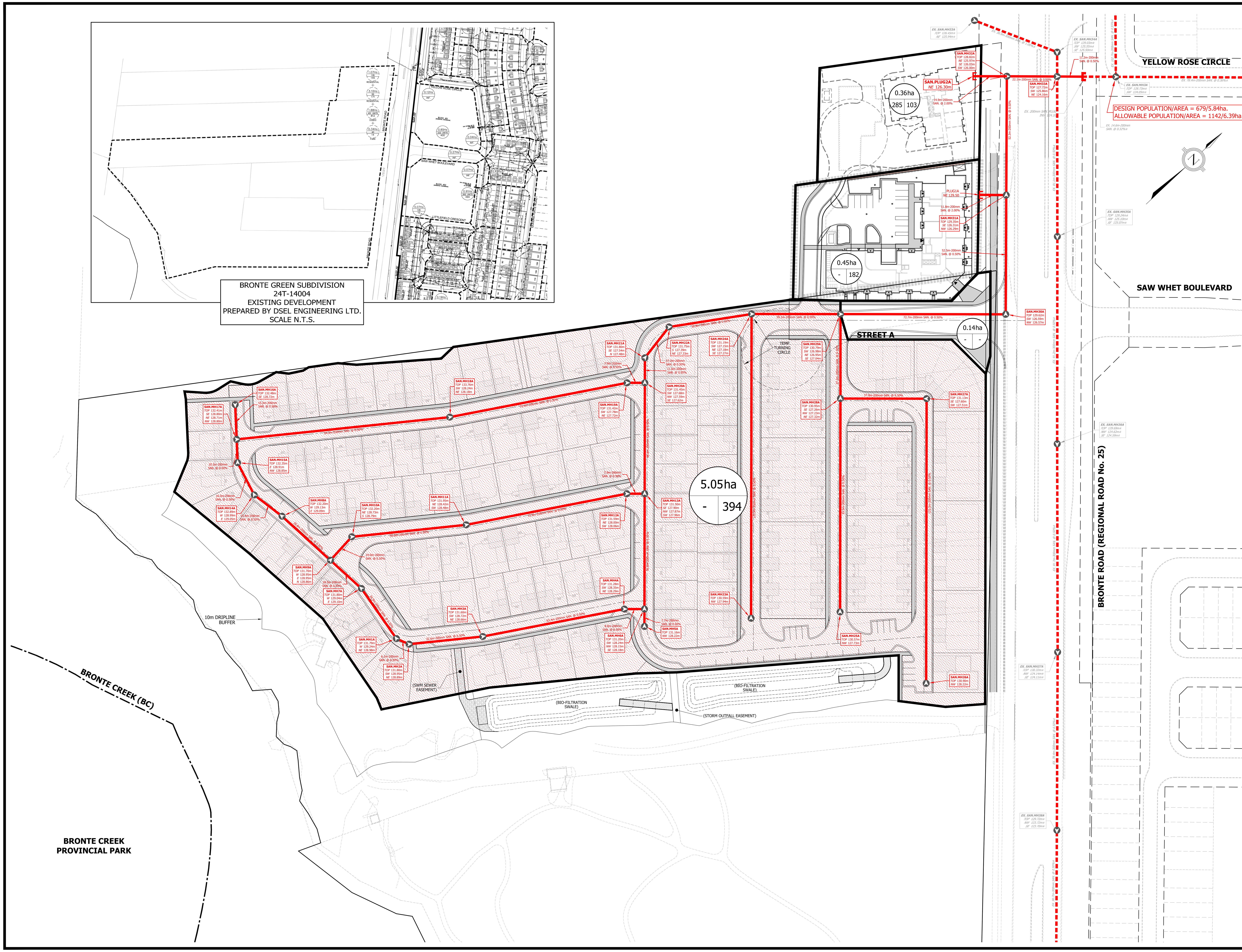
URBANTECH®
Urbantech® Consulting
A Division of Leighton-Zec West Ltd.
2030 Bristol Circle, Suite 105
Oakville, ON. L6H 0H2
TEL 905.829.8818 • urbantech.com

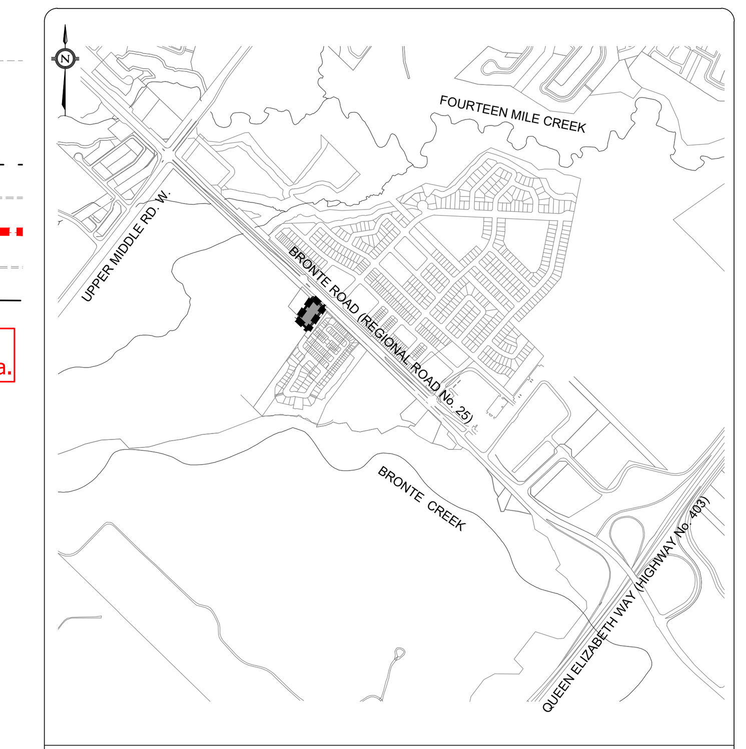
EAGLEWOOD COMMUNITIES
TOWN OF OAKVILLE

POST-DEVELOPEMNT STORM DRAINAGE PLAN

PROJECT No.	DATE	SCALE	DWG No.
21-272	JUNE 30, 2023	1:750	STM-2

F:\PROJECTS\21-272 - 1354 BRONTE RD (EAGLEWOOD COMM. VALERY - OAKVILLE)\DRAWINGS\PRELIMINARY ENGINEERING & FIGURES\21-272_FSR-(STORM DRAINAGE PLAN).DWG





KEY PLAN
N.T.S.

LEGEND

- LIMIT OF EAGLEWOOD DEVELOPMENT
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER
- SANITARY MANHOLE ID / PROPOSED GROUND ELEVATION / PROPOSED SEWER INVERTS
- EXISTING SANITARY MANHOLE ID / EXISTING GROUND ELEVATION / EXISTING SEWER INVERTS
- 0.32ha / 55 / 18: PROPOSED DRAINAGE AREA / PROPOSED POPULATION / PROPOSED # OF UNITS/OR POPULATION PER HECTARE
- SANITARY DRAINAGE BOUNDARY
- OTHER LANDS CONTRIBUTING TO THE SANITARY SEWER NETWORK BRONTE RIVER LIMITED PARTNERSHIP DEVELOPMENT

BENCHMARK

OAKVILLE BENCHMARK 101, ELEVATION = 115.838 METRES

NORTHWEST CORNER OF CONCRETE BOX CULVERT UNDER NORTH SERVICE ROAD. IT IS THE SECOND CULVERT WEST OF THIRD LINE, JUST WEST OF DRIVEWWAY TO #2195 NORTH SERVICE ROAD

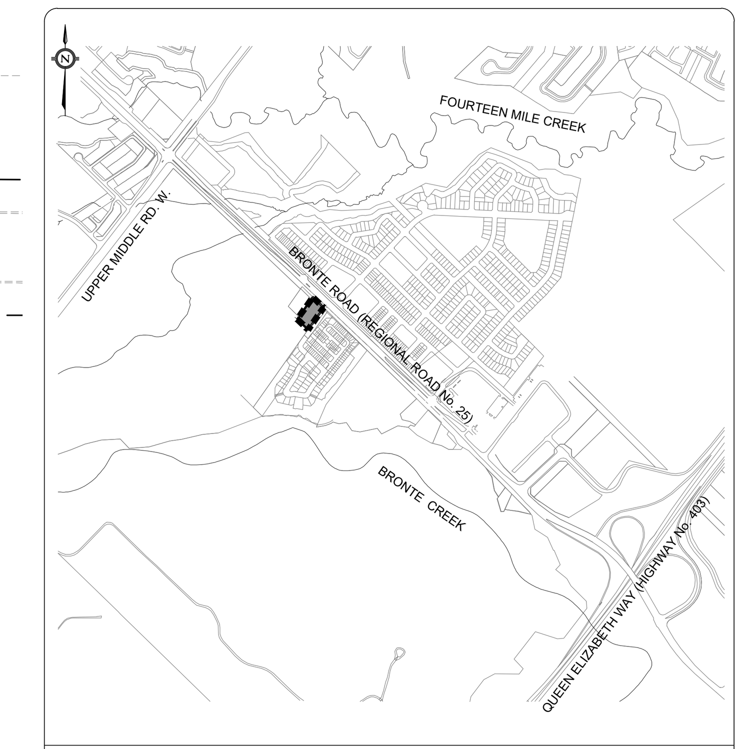
TOPOGRAPHIC MAPPING FOR SITE PREPARED BY A.T. MCLAREN DATED OCT. 07, 2021

URBANTECH®
Urbantech® Consulting
A Division of Leighton-Zec West Ltd.
2030 Bristol Circle, Suite 105
Oakville, ON. L6H 0H2
TEL 905.829.8818 • urbantech.com

EAGLEWOOD COMMUNITIES
TOWN OF OAKVILLE

PRELIMINARY SANITARY DRAINAGE PLAN

PROJECT No.	DATE	SCALE	DWG No.
21-272	JUNE 30, 2023	1:750	SAN-1



KEY PLAN
N.T.S.

LEGEND

- LIMIT OF EAGLEWOOD DEVELOPMENT
- PROPOSED WATERMAIN
- EXISTING WATERMAIN
- PROPOSED PRESSURE ZONE
- EXISTING PRESSURE ZONE
- OTHER LANDS CONTRIBUTING TO THE WATERMAIN NETWORK BRONTE RIVER LIMITED PARTNERSHIP DEVELOPMENT

BENCHMARK

OAKVILLE BENCHMARK 101, ELEVATION = 115.838 METRES

NORTHWEST CORNER OF CONCRETE BOX CULVERT UNDER NORTH SERVICE ROAD. IT IS THE SECOND CULVERT WEST OF THIRD LINE, JUST WEST OF DRIVEWAY TO #2195 NORTH SERVICE ROAD

TOPOGRAPHIC MAPPING FOR SITE PREPARED BY A.T. McLAREN DATED OCT. 07, 2021

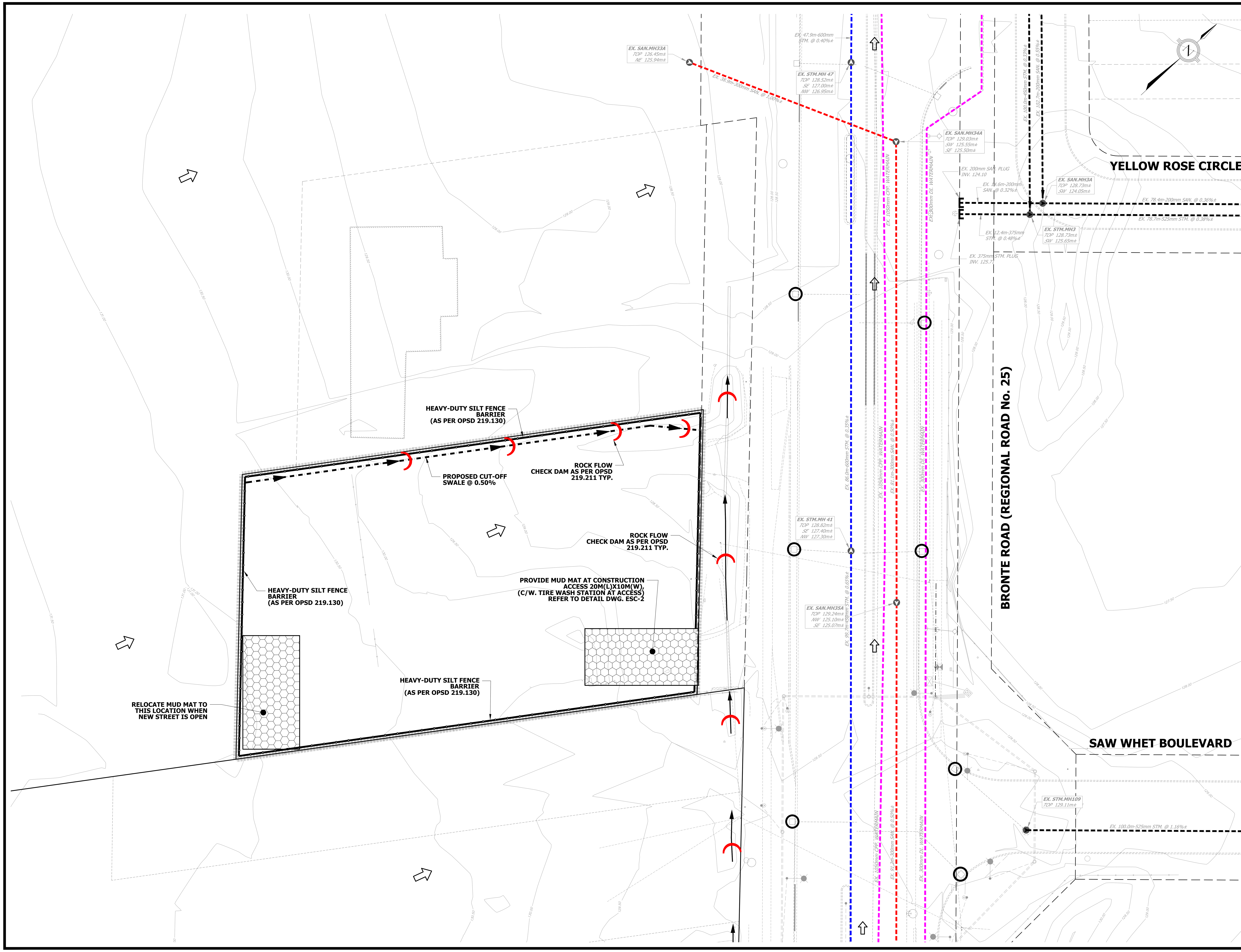
URBANTECH®
Urbantech® Consulting
A Division of Leighton-Zec West Ltd.
2030 Bristol Circle, Suite 105
Oakville, ON. L6H 0H2
TEL 905.829.8818 • urbantech.com

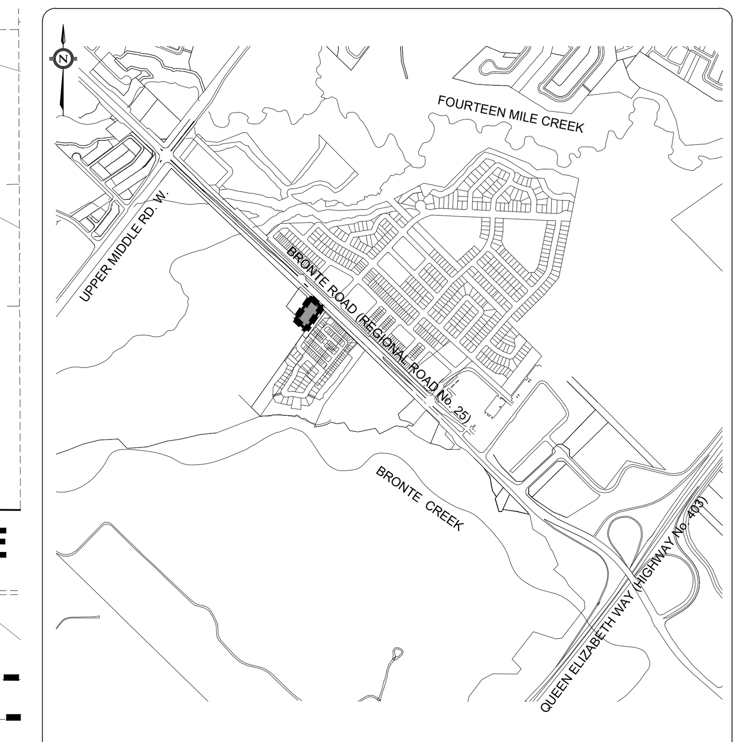
EAGLEWOOD COMMUNITIES
TOWN OF OAKVILLE

WATERMAIN DISTRIBUTION PLAN

PROJECT No.	DATE	SCALE	DWG No.
21-272	JUNE 30, 2023	1:750	WM-1

F:\PROJECTS\21-272 - 1354 BRONTE RD (EAGLEWOOD COMM. VALLEY - OAKVILLE)\DRAWINGS\PRELIMINARY ENGINEERING & FIGURES\21-272_FSR-(WATERMAIN DISTRIBUTION PLAN).DWG





KEY PLAN
N.T.S.

LEGEND

- LIMIT OF EAGLEWOOD DEVELOPMENT
- EXISTING STORM SEWER
- EXISTING STORM MANHOLE ID
- EXISTING GROUND ELEVATION
- EXISTING SEWER INVERTS
- EXISTING SANITARY SEWER
- EXISTING SANITARY MANHOLE ID
- EXISTING GROUND ELEVATION
- EXISTING SEWER INVERTS
- EXISTING WATERMAIN
- EXISTING OVERLAND FLOW ROUTE
- EXISTING CONTOUR & ELEVATION
- EXISTING DITCH
- HEAVY-DUTY SILT FENCE (OPSD 219.130)
- CATCHBASIN SILT PROTECTION
- ROCK FLOW CHECK DAM (OPSD 219.211)

BENCHMARK
OAKVILLE BENCHMARK 101, ELEVATION = 115.838 METRES

NORTHWEST CORNER OF CONCRETE BOX CULVERT UNDER NORTH SERVICE ROAD. IT IS THE SECOND CULVERT WEST OF THIRD LINE, JUST WEST OF DRIVEWWAY TO #2195 NORTH SERVICE ROAD

TOPOGRAPHIC MAPPING FOR SITE PREPARED BY A.T. MCLAREN DATED OCT. 07, 2021

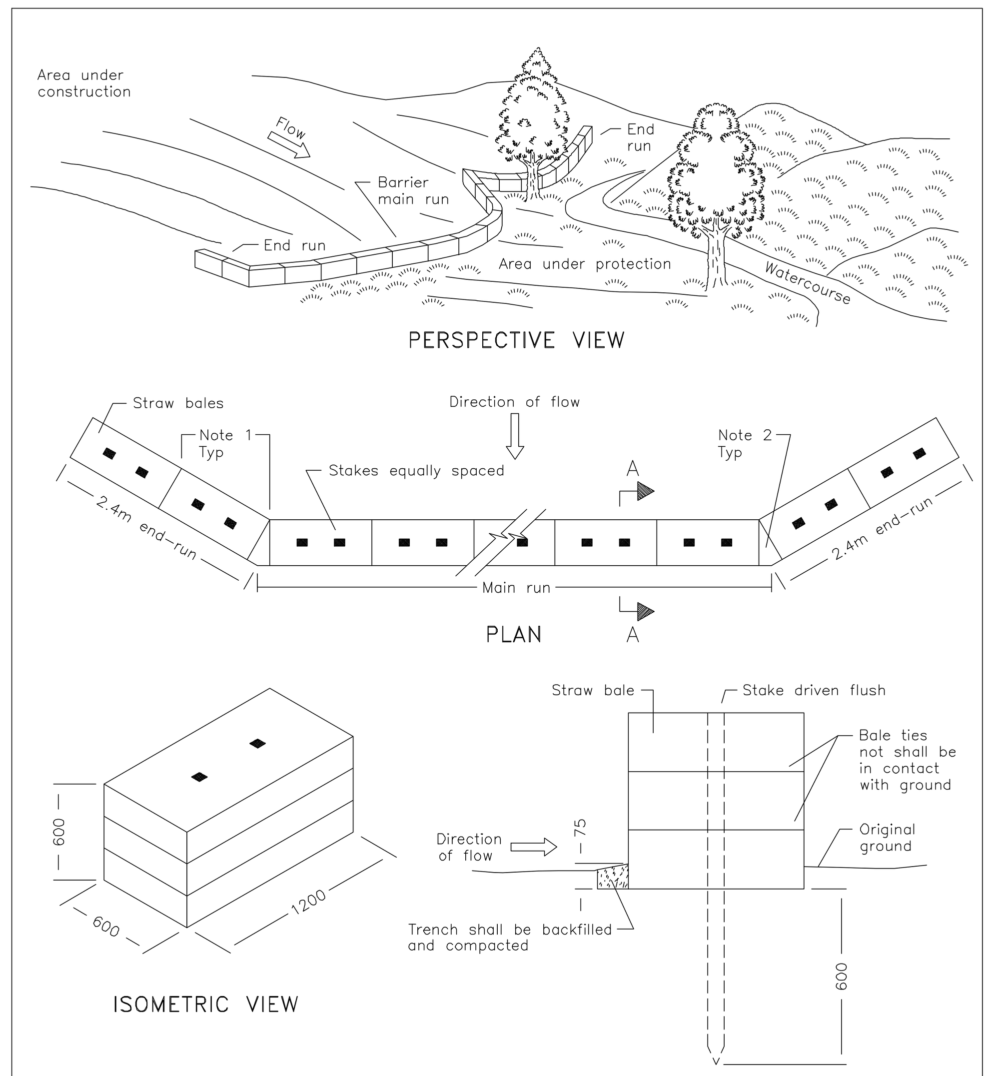
URBANTECH®

Urbantech® Consulting
A Division of Leighton-Zec West Ltd.
2030 Bristol Circle, Suite 105
Oakville, ON. L6H 0H2
TEL 905.829.8818 • urbantech.com

EAGLEWOOD COMMUNITIES
TOWN OF OAKVILLE

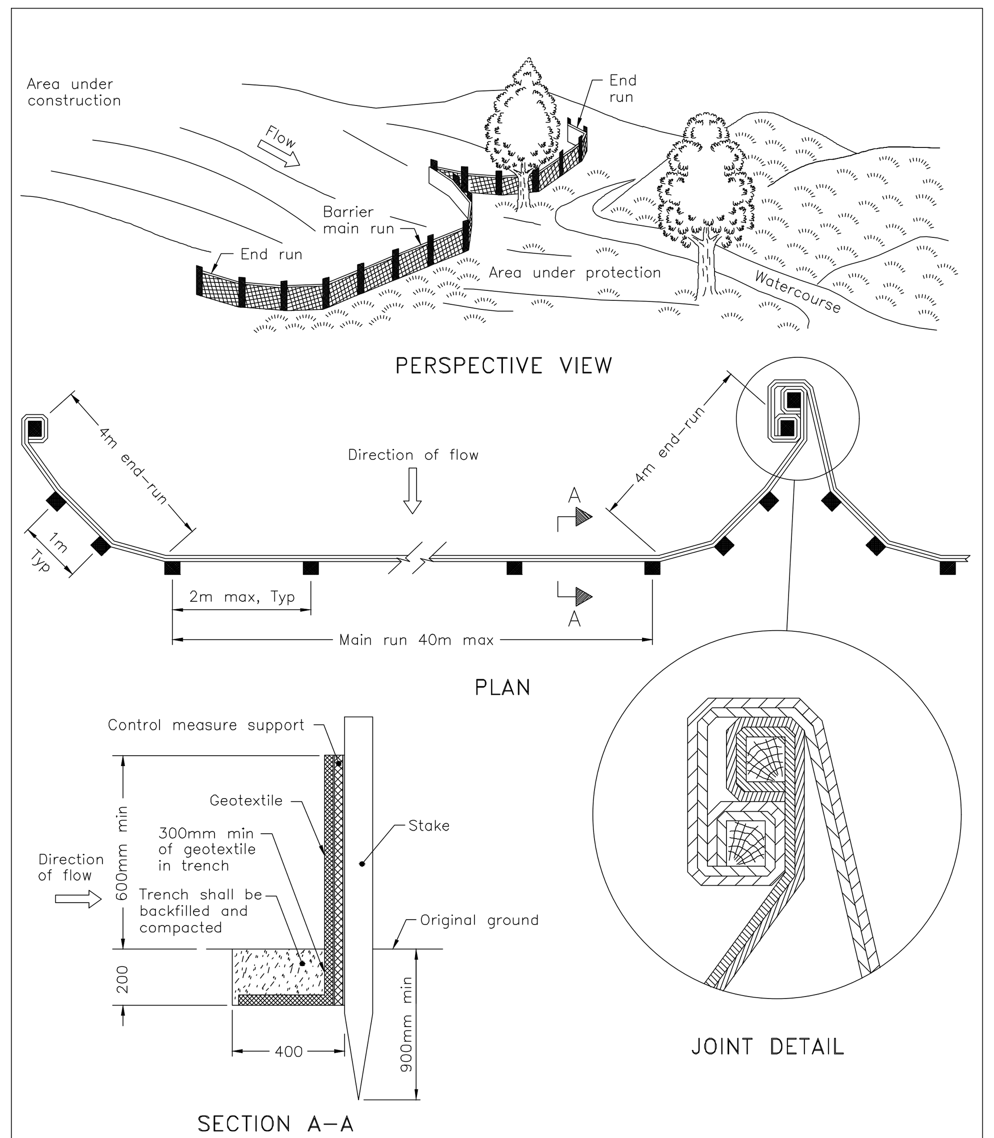
EROSION AND SEDIMENT CONTROL PLAN

PROJECT No.	DATE	SCALE	DWG No.
21-272	JUNE 30, 2023	1:300	ESC-1



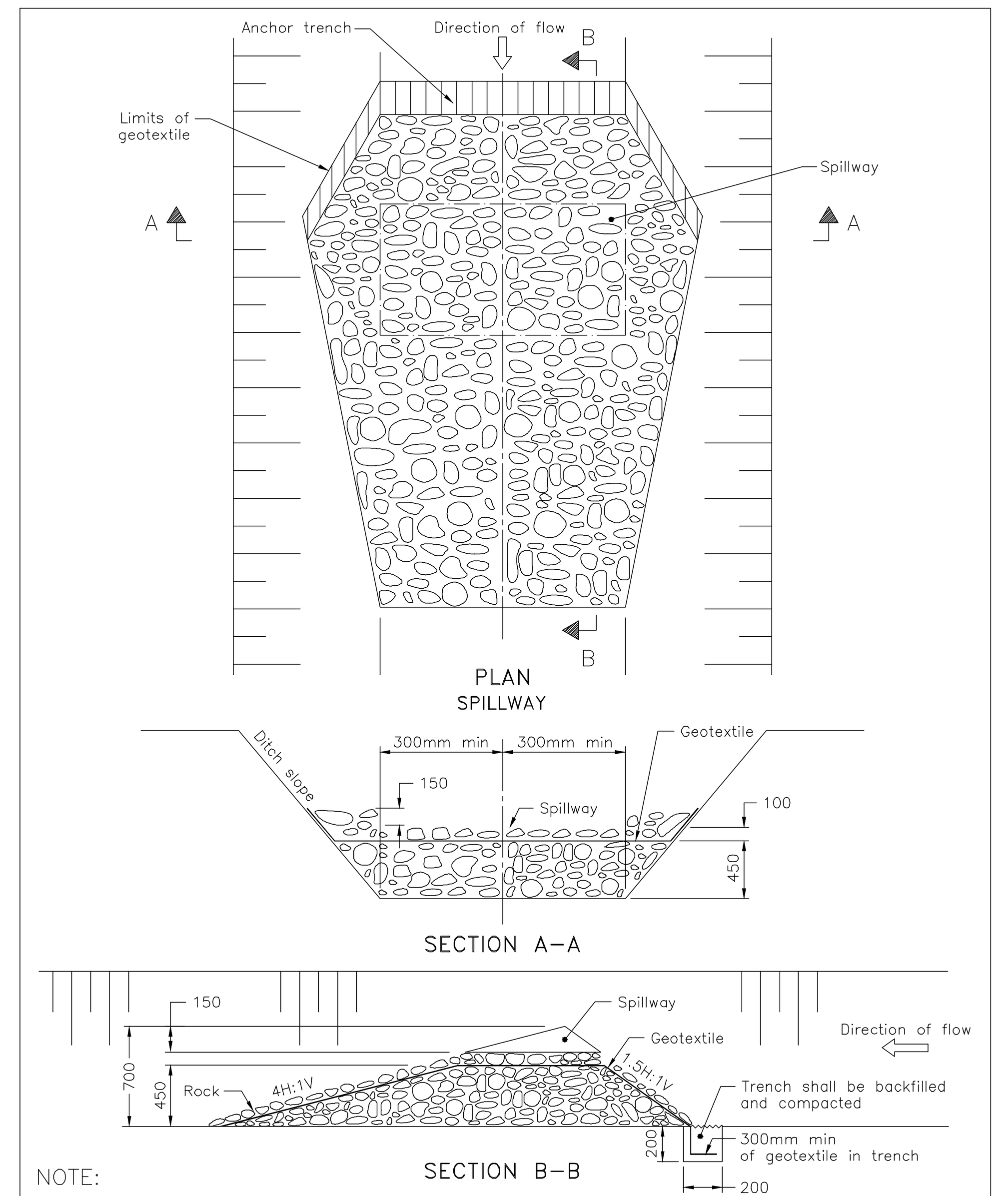
NOTES:
1 Straw bales shall be butted tightly against adjoining bales to prevent sediment flow through barrier.
2 Caulk and compact gaps with loose straw.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
LIGHT–DUTY STRAW BALE BARRIER		OPSD 219.100



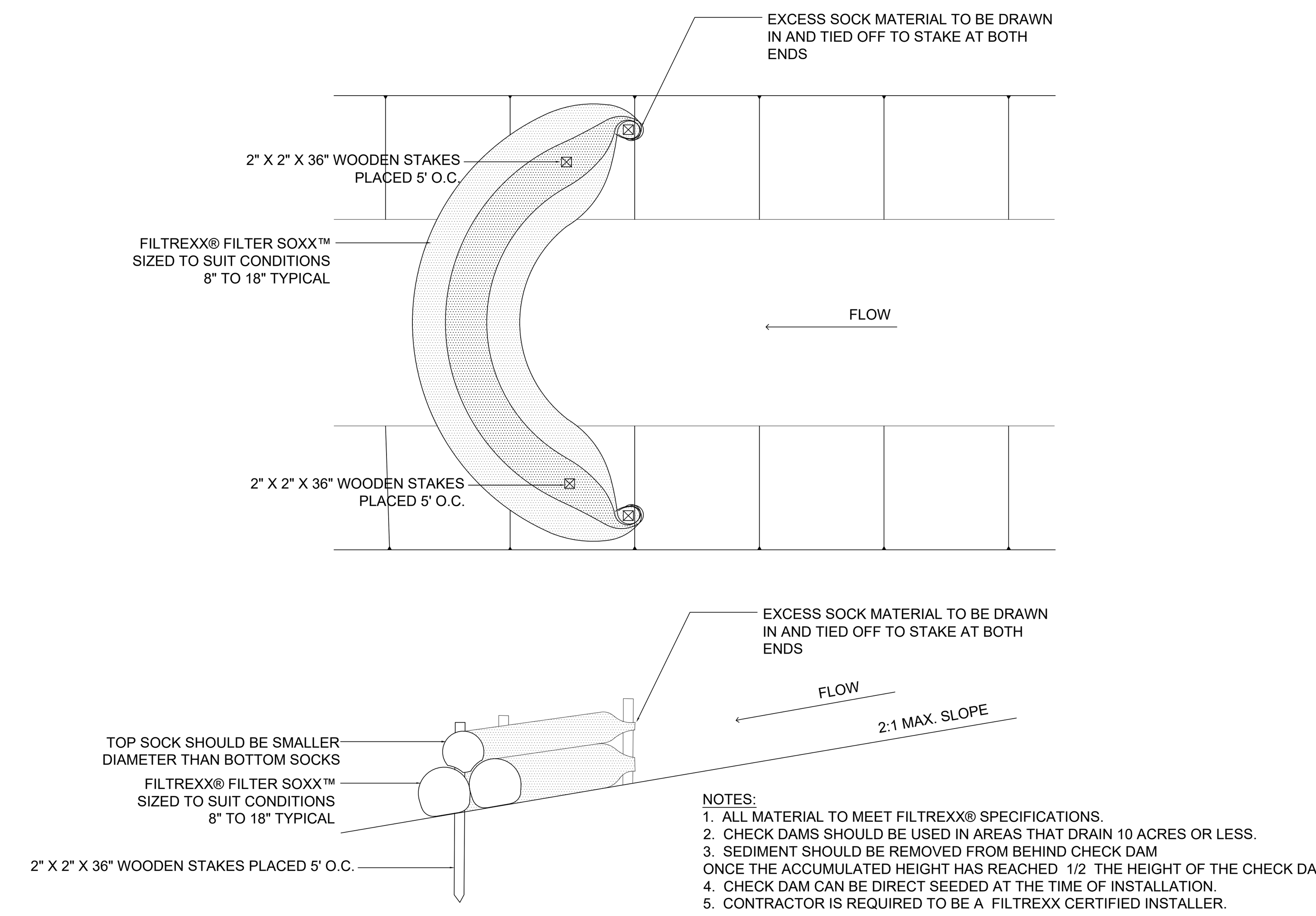
NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
HEAVY–DUTY SILT FENCE BARRIER		OPSD 219.130



NOTE:
A All dimensions are in millimetres unless otherwise shown.

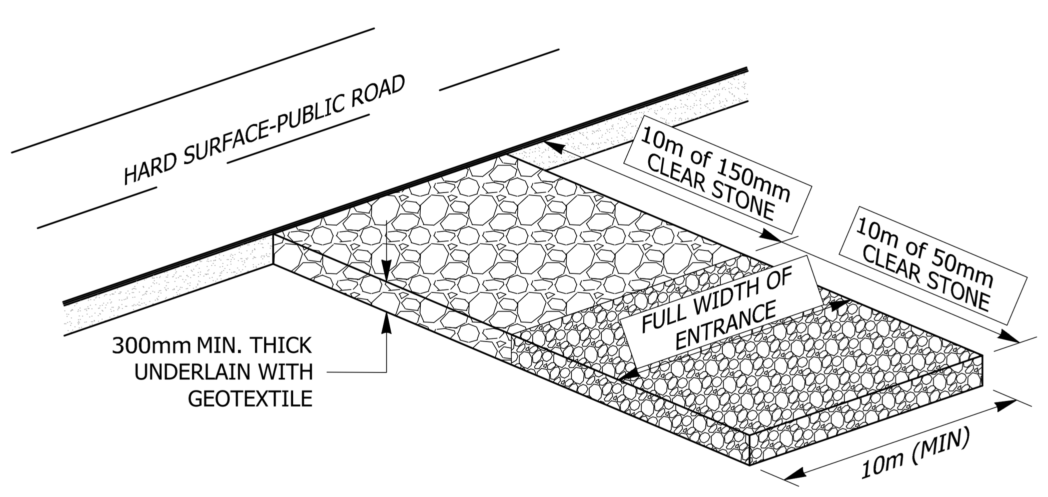
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
TEMPORARY ROCK FLOW CHECK DAM FLAT BOTTOM DITCH		OPSD 219.211



NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. CHECK DAMS SHOULD BE USED IN AREAS THAT DRAIN 10 ACRES OR LESS.
3. SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED 1/2 THE HEIGHT OF THE CHECK DAM.
4. CHECK DAM CAN BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
5. CONTRACTOR IS REQUIRED TO BE A FILTREXX CERTIFIED INSTALLER.

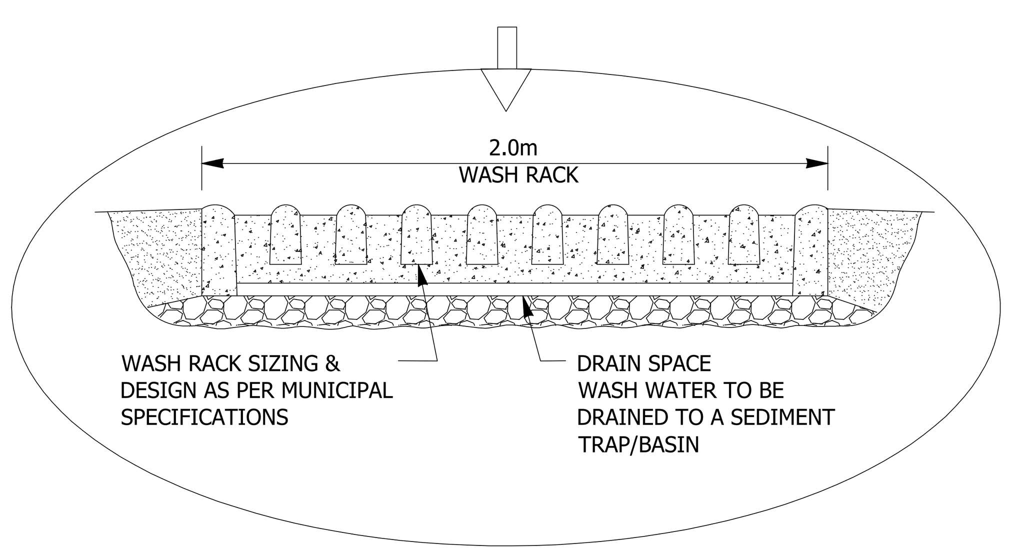
FILTREXX® FILTER SOXX

NTS



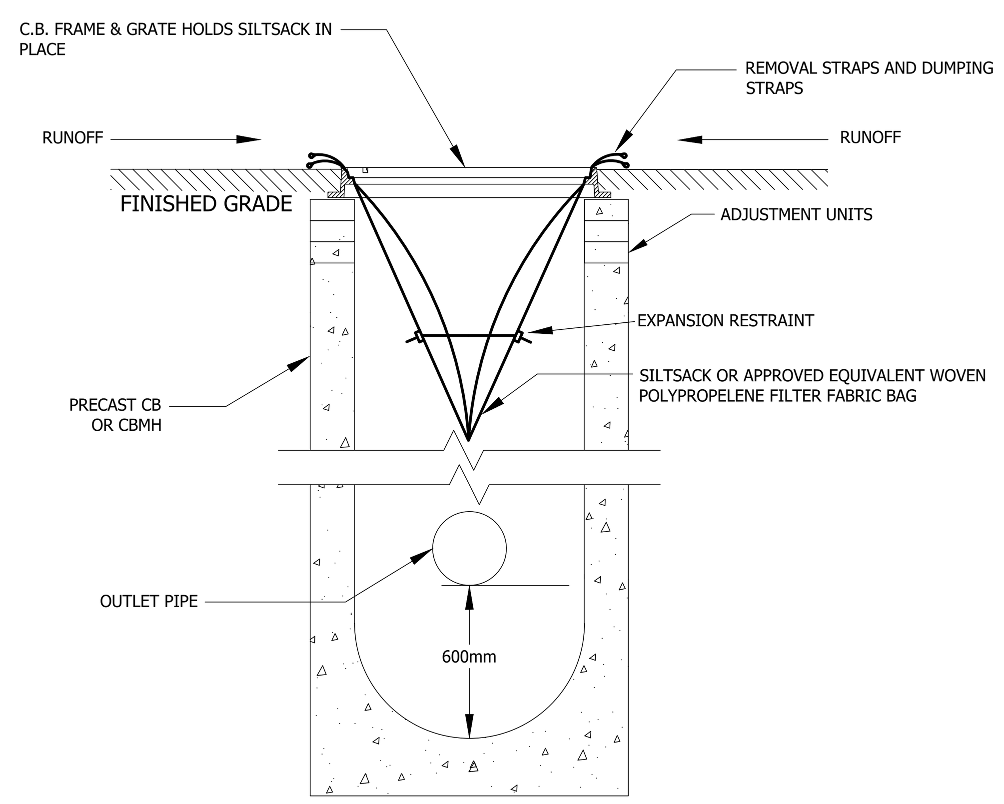
CONSTRUCTION ACCESS DETAIL

N.T.S.



WASH RACK DETAIL

N.T.S.

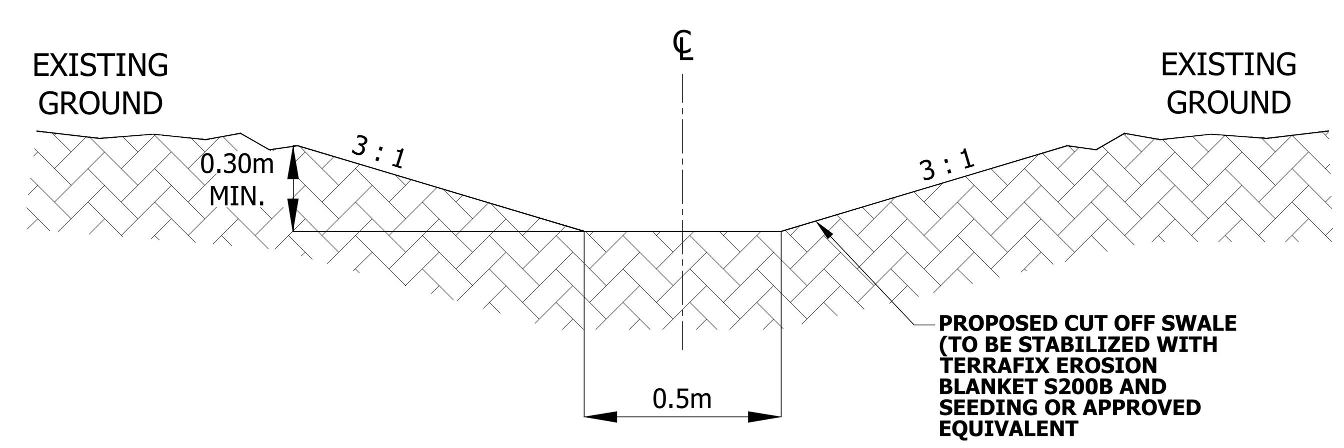


MAINTENANCE SCHEDULE

-INSPECT AFTER EVERY MAJOR RAIN EVENT.
-INSPECT EVERY 3 WEEKS MINIMUM.
-SILTSACK SHOULD NEVER BE OVER HALF FULL.
-FULL BAG CAN BE REMOVED, DUMPED, CLEANED AND REUSED
(TO REMOVE INSERT 25mm REBAR INTO REMOVAL FLAP POCKETS)
(TO DUMP INSERT 25mm REBAR INTO BOTH DUMPING STRAPS)

SILTSACK DETAIL

N.T.S.



TEMPORARY CUT-OFF SWALE

(N.T.S.)

BENCHMARK

OAKVILLE BENCHMARK 101, ELEVATION = 115.838 METRES

NORTHWEST CORNER OF CONCRETE BOX CULVERT UNDER NORTH SERVICE ROAD. IT IS THE SECOND CULVERT WEST OF THIRD LINE, JUST WEST OF DRIVEWAY TO #2195 NORTH SERVICE ROAD

TOPOGRAPHIC MAPPING FOR SITE PREPARED BY A.T. MCLAREN DATED OCT. 07, 2021

URBANTECH®

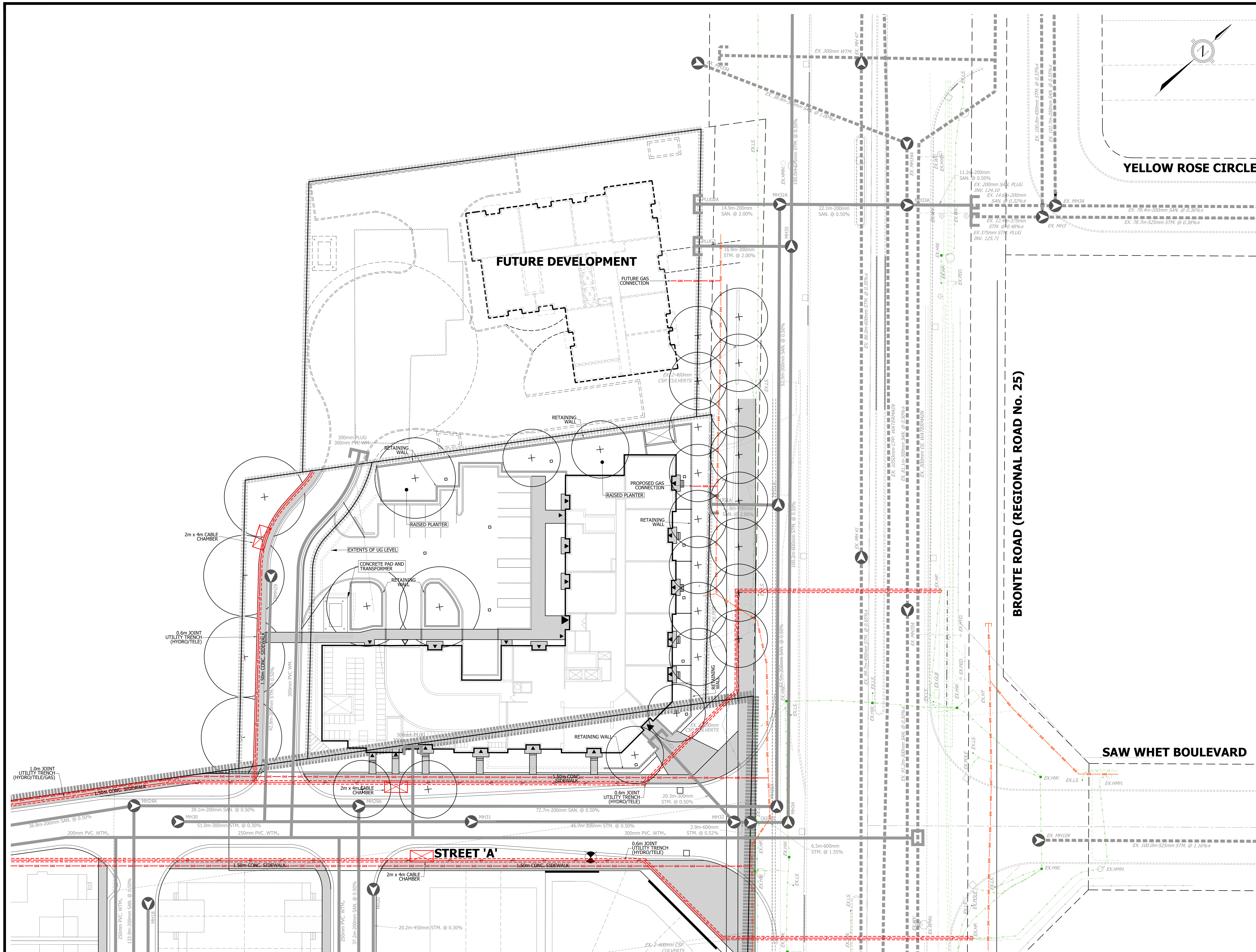
Urbantech® Consulting
A Division of Leighton-Zec West Ltd.
2030 Bristol Circle, Suite 105
Oakville, ON. L6H 0H2
TEL 905.829.8818 • urbantech.com

EAGLEWOOD COMMUNITIES
TOWN OF OAKVILLE

EROSION AND SEDIMENT CONTROL DETAILS

PROJECT No.	DATE	SCALE	DWG No.
21-272	JUNE 30, 2023	N.T.S.	ESC-2

F:\PROJECTS\21-272 - 1354 BRONTE RD (EAGLEWOOD COMM. VALERY - OAKVILLE)\DRAWINGS\PRELIMINARY ENGINEERING & FIGURES\21-272_FSR-(ESC DETAILS).DWG



KEY PLAN
N.T.S.

LEGEND

- LIMIT OF EAGLEWOOD DEVELOPMENT
- LIMIT OF SUBDIVISION
- PROPOSED SANITARY SEWER AND MANHOLE
- EXISTING SANITARY SEWER AND MANHOLE
- PROPOSED STORM SEWER AND MANHOLE
- EXISTING STORM SEWER AND MANHOLE
- PROPOSED WATERMAIN
- EXISTING WATERMAIN
- EXISTING TV LINE
- EXISTING UNDERGROUND HYDRO LINE
- EXISTING TELECOM LINE
- EXISTING GAS MAIN
- PROPOSED GAS MAIN
- PROPOSED JOINT UTILITY TRENCH

BENCHMARK

OAKVILLE BENCHMARK 101, ELEVATION = 115.838 METRES

NORTHWEST CORNER OF CONCRETE BOX CULVERT UNDER NORTH SERVICE ROAD. IT IS THE SECOND CULVERT WEST OF THIRD LINE, JUST WEST OF DRIVEWWAY TO #2195 NORTH SERVICE ROAD

TOPOGRAPHIC MAPPING FOR SITE PREPARED BY A.T. MCLAREN DATED OCT. 07, 2021

URBANTECH®

Urbantech® Consulting
A Division of Leighton-Zec West Ltd.
2030 Bristol Circle, Suite 105
Oakville, ON. L6H 0H2
TEL 905.829.8818 • urbantech.com

EAGLEWOOD COMMUNITIES
TOWN OF OAKVILLE

PRELIMINARY UTILITY COORDINATION PLAN

PROJECT No.	DATE	SCALE	DWG No.
21-272	JUNE 30, 2023	1:300	CUP-1

APPENDIX B
SWM Calculations

Urbantech® Consulting, A Division of Leighton-Zec West Ltd. | 2030 Bristol Circle, Suite 105 · Oakville · ON · L6H 0H2 | 905.829.8818
urbantech.com

URBANTECH®

STORM SEWER DESIGN SHEET

5 Year Storm

Enns (Argo-Oakville)

Town of Oakville

PROJECT DETAILS

Project No: 20-657
Date: 29-Mar-23
Designed by: E.L.
Checked by: S.H.

DESIGN CRITERIA

Min. Diameter = 300 mm
Mannings 'n'= 0.013
Starting Tc = 10 min
Factor of Safety = 5 %

Rainfall Intensity = $\frac{A}{(Tc+B)^c}$

A = 1170
B = 5.8
c = 0.843

NOMINAL PIPE SIZE USED

STREET	FROM MH	TO MH	AREA (ha)	RUNOFF COEFFICIENT "R"	'AR'	ACCUM. 'AR'	RAINFALL INTENSITY (mm/hr)	FLOW (m^3/s)	CONSTANT FLOW (m^3/s)	ACCUM. CONSTANT FLOW (m^3/s)	TOTAL FLOW (m^3/s)	LENGTH (m)	SLOPE (%)	PIPE DIAMETER (mm)	FULL FLOW CAPACITY (m^3/s)	FULL FLOW VELOCITY (m/s)	INITIAL Tc (min)	TIME OF CONCENTRATION (min)	ACC. TIME OF CONCENTRATION (min)	PERCENT FULL (%)
EXTERNAL																				
PRIVATE DRIVE	29	30	0.07	0.90	0.06	0.06	114.2	0.020			0.020	42.8	1.00	300	0.097	1.37	10.00	0.52	10.52	21%
NORTH3		30	0.35	0.25	0.09	0.09														
STREET A	30	31	0.21	0.80	0.17	0.32	111.1	0.098			0.098	51.0	0.30	450	0.156	0.98	10.52	0.87	11.39	63%
STREET A	31	32	0.14	0.80	0.11	0.43	106.4	0.127			0.127	45.7	0.50	450	0.202	1.27	11.39	0.60	11.99	63%
VALERY	VALERY	32	0.40	0.90	0.36	0.36	114.2	0.114			0.114	20.3	0.50	450	0.202	1.27	10.00	0.27	10.27	57%
STREET A	32	OGS33				0.79	103.4	0.227			0.227	2.9	0.50	525	0.304	1.40	11.99	0.03	12.02	75%
BRONTE ROAD	OGS33	34				0.79	103.2	0.227			0.227	6.5	1.55	525	0.535	2.47	12.02	0.04	12.07	42%
BRONTE ROAD	34	35				0.79	103.0	0.226			0.226	100.2	0.50	675	0.594	1.66	12.07	1.01	13.07	38%
NORTH1		35	0.56	0.25	0.14	0.14														
NORTH2		35	0.36	0.90	0.32	0.32														
BRONTE ROAD	35	36				1.25	98.3	0.343			0.343	100.0	0.50	750	0.787	1.78	13.07	0.94	14.01	44%
BRONTE ROAD	36	37				1.25	94.4	0.329			0.329	90.6	0.50	750	0.787	1.78	14.01	0.85	14.85	42%
BRONTE ROAD	37	HW38	0.00	0.00	0.00	1.25	91.1	0.318	0.000	0.000	0.318	48.3	0.50	750	0.787	1.78	14.85	0.45	15.31	40%
INTERNAL WEST LID OUTLET																				
	2	4	0.38	0.80	0.30	0.30	114.2	0.096			0.096	86.1	0.30	450	0.156	0.98	10.00	1.46	11.46	62%
0	ext	3	1.86	0.25	0.47	0.47	114.2	0.148	0.000	0.000	0.148	10.0	0.30	450	0.156	0.98	10.00	0.17	10.17	94%
	3	4	0.16	0.80	0.13	0.59	113.2	0.186	0.036	0.036	0.222	29.5	2.00	450	0.403	2.54	10.17	0.19	10.36	55%
	4	5	0.27	0.80	0.22	1.11	106.0	0.328		0.036	0.364	79.3	0.30	675	0.460	1.29	11.46	1.03	12.49	79%
	5	7				1.11	101.0	0.312		0.036	0.348	10.1	0.30	675	0.460	1.29	12.49	0.13	12.62	76%
	6	7	0.26	0.80	0.21	0.21	114.2	0.066			0.066	13.5	0.30	375	0.096	0.87	10.00	0.26	10.26	69%
	7	11				1.32	100.4	0.368		0.036	0.404	48.8	0.30	675	0.460	1.29	12.62	0.63	13.25	88%
	8	9	0.52	0.80	0.42	0.42	114.2	0.132			0.132	49.7	0.30	450	0.156	0.98	10.00	0.84	10.84	85%
	9	10	0.32	0.80	0.26	0.67	109.3	0.204			0.204	71.8	0.30	525	0.236	1.09	10.84	1.10	11.94	87%
	10	11				0.67	103.6	0.193			0.193	10.1	0.30	525	0.236	1.09	11.94	0.15	12.10	82%
	11	15	0.17	0.80	0.14	2.13	97.5	0.577		0.036	0.613	50.3	0.30	825	0.786	1.47	13.25	0.57	13.82	78%
	CWS	13					114.2		0.002	0.002	0.002	11.6	0.50	300	0.068	0.97	10.00	0.20	10.20	3%
	12	13	0.37	0.80	0.30	0.30	114.2	0.094			0.094	21.0	0.30	450	0.156	0.98	10.00	0.36	10.36	60%
	13	14	0.29	0.80	0.23	0.53	112.1	0.164		0.002	0.166	63.3	0.30	525	0.236	1.09	10.36	0.97	11.33	71%
	14	15				0.53	106.7	0.157		0.002	0.159	11.1	0.30	525	0.236	1.09	11.33	0.17	11.50	67%
	15	OGS16	0.08	0.80	0.06	2.72	95.1	0.719		0.038	0.757	24.0	0.30	900	0.992	1.56	13.82	0.26	14.08	76%

URBANTECH®

	OGS16	HW17	0.00	0.00	0.00	2.72	94.1	0.711	0.000	0.038	0.749	5.8	0.30	900	0.992	1.56	14.08	0.06	14.14	76%
INTERNAL EAST LID OUTLET																				
	18	19	0.51	0.80	0.41	0.41	114.2	0.129			0.129	129.4	0.30	450	0.156	0.98	10.00	2.20	12.20	83%
	19	26	0.14	0.80	0.11	0.52	102.3	0.148			0.148		0.30	450	0.156	0.98	12.20		12.20	95%
	20	22	0.40	0.80	0.32	0.32	114.2	0.102			0.102	20.2	0.30	450	0.156	0.98	10.00	0.34	10.34	65%
	21	22	0.07	0.80	0.06	0.06	114.2	0.018			0.018	30.0	0.30	300	0.053	0.75	10.00	0.67	10.67	34%
	22	23		0.80		0.38	110.3	0.115			0.115	96.1	0.30	450	0.156	0.98	10.67	1.63	12.30	74%
	23	26		0.80		0.38	101.9	0.106			0.106	12.8	0.30	450	0.156	0.98	12.30	0.22	12.52	68%
	24	25	0.36	0.80	0.29	0.29	114.2	0.091			0.091	98.6	0.30	375	0.096	0.87	10.00	1.89	11.89	95%
	25	26	0.04	0.80	0.03	0.32	103.8	0.092			0.092	40.2	0.30	450	0.156	0.98	11.89	0.68	12.57	59%
	26	OGS27		0.80		1.22	100.6	0.340			0.340	2.5	0.30	675	0.460	1.29	12.57	0.03	12.60	74%
	OGS27	HW28	0.00	0.80	0.00	1.22	100.4	0.339	0.000	0.000	0.339	10.2	0.30	675	0.460	1.29	12.60	0.13	12.74	74%
BY PASS SEWER																				
	HW1B	2B					114.2		0.597	0.597	0.597	8.6	3.00	750	1.928	4.36	10.00	0.03	10.03	31%
	2B	3B					114.0			0.597	0.597	28.9	0.50	750	0.787	1.78	10.03	0.27	10.30	76%
	3B	4B					112.4			0.597	0.597	14.9	0.50	750	0.787	1.78	10.30	0.14	10.44	76%
	4B	5B					111.6			0.597	0.597	15.2	0.50	750	0.787	1.78	10.44	0.14	10.58	76%
	5B	6B					110.8			0.597	0.597	47.6	0.50	750	0.787	1.78	10.58	0.45	11.03	76%
	6B	7B					108.3			0.597	0.597	26.5	0.50	750	0.787	1.78	11.03	0.25	11.28	76%
	7B	8B					107.0			0.597	0.597	5.0	0.50	750	0.787	1.78	11.28	0.05	11.32	76%
	8B	9B					106.7			0.597	0.597	20.5	0.50	750	0.787	1.78	11.32	0.19	11.52	76%
	9B	10B	0.00	0.00	0.00	0.00	105.7	0.000	0.000	0.597	0.597	28.0	2.00	750	1.574	3.56	11.52	0.13	11.65	38%
	10B	HW11B					105.1			0.597	0.597	14.5	2.00	750	1.574	3.56	11.65	0.07	11.71	38%

Fourteen Mile Creek Outlet via Bronte Road

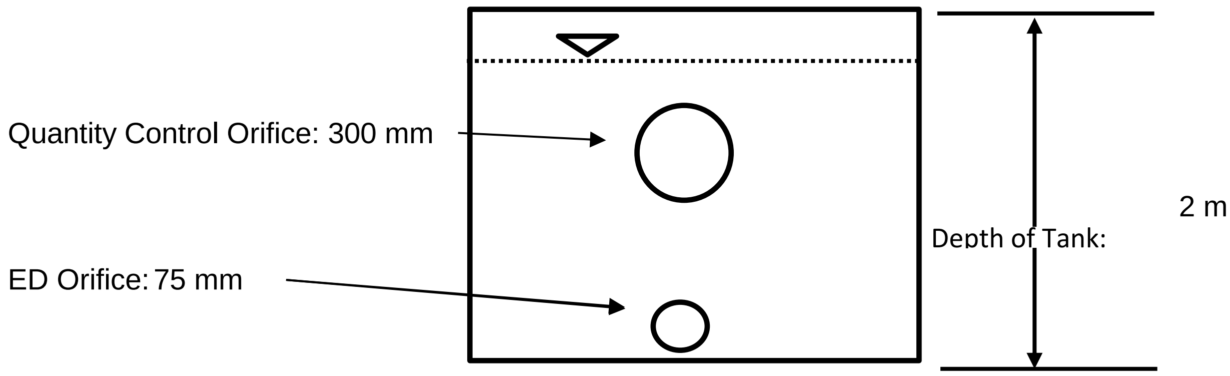
Metrics	Existing Ditch	New Designated Pipe			Replace Existing Pipe
		In West Boulevard	In Future Lane - West	In Existing Lane - West	
Conflicts with Utilities	• Moderate • If capacity augmentation and/or culvert repair needed, utilities may be unearthed.	• High • Buried utilities likely under existing boulevard.	• Medium • Buried utilities possible under existing boulevard.	• Low • Buried utilities least likely to be under pavement.	• Least • Replacing pipe in existing position already passes utilities.
Disruption to Public	• Minimal disruption and easy construction • Disrupts private property the greatest. • Easy construction	• Least disruption to public, difficult construction due to potential utility relocations • 1 lane closed daily	• Medium disruption to public and difficult construction • 1 lane closed daily • potential utility relocations	• More disruption to public and difficult construction • 1 lane closed during construction. • Next lane closed daily	• Most disruption to public and most difficult to construct. • Middle of the street • Disruption in both directions daily.
Design Considerations	• Driveway culverts are substandard depth. • Valery frontage will be urbanized cutting off Street A outlet.	• 10 Year Pipe + 100yr (pre)under surcharge. • Sized for development lands.	• 10 Year Pipe + 100yr (pre)under surcharge. • Sized for development lands.	• 10 Year Pipe + 100yr (pre)under surcharge. • Sized for development lands.	• 10 Year Pipe + 100yr (pre)under surcharge. • Sized for development lands plus Region 10yr needs.
Cost	• $	• $$$$ • Considerable utility relocations.	• $$$ • Moderate utility conflicts. • Cheaper restoration	• $$$ • Low utility conflicts. • Add pavement restoration.	• $$$$$ • Pipe is largest. Need to upsize OGS. • Most disruptive to public. • Complicated detour.
DC Potential	• No	• Not Likely	• Not Likely	• Not Likely	• YES
Maintenance Impacts	• Mowing	• Region has two (2) pipes to maintain	• Region has two (2) pipes to maintain	• Region has two (2) pipes to maintain	• Region has one (1) pipe to maintain.
Permitting	• Region	• MECP • Road Occupancy/Regional agreement • Detour and traffic management • Conservation Halton			
On-site Detention	On-site detention likely on Valery and non-participating landholding to reduce flows to pre-development 10 and 100 year.				
Region Interests	Maintenance of Ditch in addition to maintenance of existing pipe	Maintenance of existing pipe and 2nd pipe	Maintenance of existing pipe and 2nd pipe	Maintenance of existing pipe and 2nd pipe	Region gets new pipe Only one pipe to maintain
Town Interests	Ditch not ideal because urbanized lands need proper piped outlets. Drainage to Fourteen Mile Creek – downstream flooding and erosion potential				
CH Interests	Generally maintains drainage divides. Provides appropriate quality/quantity controls.				

CALCULATION OF STORAGE SIZE AND RATING CURVE BASED ON ORIFICE SIZE
Eaglewood Tank

URBANTECH®

Project Name: Eaglewood
Municipality: Oakville
Project No.: 21-272
Date: 30-Jun-23

Prepared by: J.P.O
Checked by: S.H



PCSWMM Input:

Depth (m)	Area (m2)
0	196
2	196

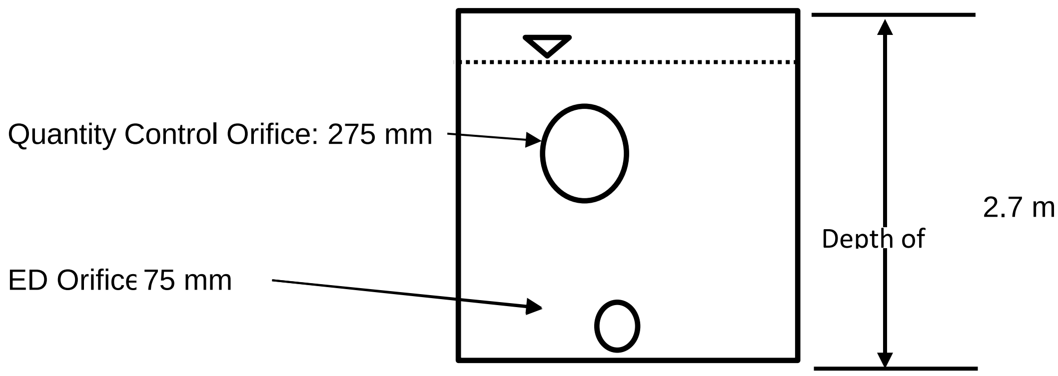
Name	Description		Result
	Quantity control only		
	Storage tank footprint		196 m^2
	Depth of Storage Tank		2 m
	Provided Volume	392 m^3	
	Required Volume from PCSWMM	125 m^3	
		Total	**392** m^3

CALCULATION OF STORAGE SIZE AND RATING CURVE BASED ON ORIFICE SIZE
North 1 Tank

URBANTECH®

Project Name: Eaglewood
Municipality: Oakville
Project No.: 21-272
Date: 30-Jun-23

Prepared by: J.P.O
Checked by: S.H



PCSWMM Input:

Depth (m)	Area (m2)
0	50
2.7	50

Name	Description		Result
North 1 Tank	Quantity control only		
	Storage tank footprint		**50** m^2
	Depth of Storage Tank		**2.70** m
	Provided Volume	135 m^3	
	Required Volume from PCSWMM	124 m^3	
		Total	**135** m^3

PCSWMM Report

Existing - 100-year

Model 14Mile_Ex_JFSA_v02.1, 100yrChicago24hr.inp

Urbantech Consulting

June 30, 2023

Table of Contents

Tables

Table 1: Junctions

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
10		101.05	105.05	4	0	0.25	0.82	101.87	3.339	3.18	29.25	3.392
21		104.217	114.737	10.52	0	1.19	2.76	106.98	115.908	7.997	2273.379	238.842
22		131.6	138.3	6.7	0	0.78	1.91	133.51	81.611	6.05	812.9	25.249
23		126.76	136.54	9.78	0	0.84	2.62	129.38	90.066	7.16	1023.4	51.197
25		118.429	128.74	10.311	0	1.23	2.41	120.84	109.989	8.889	1583.53	111.217
DF001		110.44	113.44	3	0	0.2	0.84	111.28	4.686	2.16	29.25	3.392
DF002		105.98	108.98	3	0	0.29	1.74	107.72	4.471	1.26	29.25	3.392
DF004		105.509	108.509	3	0	0.22	0.96	106.47	3.336	2.039	29.25	3.392
DF005		105.027	108.027	3	0	0.23	0.99	106.01	3.346	2.017	29.25	3.392
DF006		104.676	107.676	3	0	0.18	0.76	105.44	3.503	2.236	29.25	3.392
DF007		103.504	106.504	3	0	0.21	0.91	104.41	3.374	2.094	29.25	3.392
DF008		102.918	105.918	3	0	0.22	0.94	103.86	3.354	2.058	29.25	3.392
DF009		101.05	105.05	4	0	0.31	0.99	102.04	3.338	3.01	29.25	3.392
DFM001		108.085	108.085	0	0	0	0	108.08	0	0.755	29.25	3.392
DFM002		105.65	105.65	0	0	0	0	105.65	0	0.75	29.25	3.392
DFM003		107.786	107.786	0	0	0	0	107.79	0	0.746	29.25	3.392
DFM004		107.486	107.486	0	0	0	0	107.49	0	0.746	29.25	3.392
DFM005		107.187	107.187	0	0	0	0	107.19	0	0.747	29.25	3.392
DFM006		106.887	106.887	0	0	0	0	106.89	0	0.747	29.25	3.392
DFM007		106.588	106.588	0	0	0	0	106.59	0	0.748	29.25	3.392
DFM008		106.288	106.288	0	0	0	0	106.29	0	0.748	29.25	3.392
DFM009		105.989	105.989	0	0	0	0	105.99	0	0.749	29.25	3.392
E153		118.5	118.5	0	0	0.08	0.37	118.87	14.554	7.63	126.178	9.066
E238		119	119	0	0	0.19	0.74	119.74	14.557	6.76	126.178	9.066
E301		120	120	0	0	0.14	0.63	120.63	14.564	5.87	126.178	9.066
E344		120.5	120.5	0	0	0.25	0.72	121.22	13.168	5.28	115.238	8.391

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
E394		121.5	121.5	0	0	0.08	0.42	121.92	13.171	5.58	115.238	8.391
E439		121.5	121.5	0	0	0.42	1.13	122.63	12.715	4.87	110.689	8.3
E479		122	122	0	0	0.85	2.5	124.5	12.718	3	110.689	8.3
E494		122.54	122.54	0	0	0.49	1.97	124.51	12.729	2.99	110.689	8.3
E505		122.53	122.53	0	0	0.51	1.98	124.51	13.7	2.52	110.689	8.3
E543		123	123	0	0	0.34	1.52	124.52	15.023	3.98	109.129	8.268
E580		123.5	123.5	0	0	0.13	1.03	124.53	17.014	4.47	109.129	8.268
E604		124	124	0	0	0.31	0.68	124.68	10.426	4.82	55.83	5.177
E615		124.25	124.25	0	0	0.2	0.49	124.74	10.177	4.76	54.2	4.72
E618		124	124	0	0	0.43	0.94	124.94	6.827	3.56	53.299	3.092
E626		124	124	0	0	0.46	0.99	124.99	6.644	2.01	53.299	3.092
E643		124.5	124.5	0	0	0.19	0.67	125.17	10.353	3.33	54.2	4.72
E649		124.5	124.5	0	0	0.14	0.52	125.02	6.437	3.48	53.299	3.092
E667		124.5	124.5	0	0	0.29	0.9	125.4	10.444	3.1	54.2	4.72
E673		125	125	0	0	0.13	0.41	125.41	6.441	3.59	53.299	3.092
E677		125	125	0	0	0.13	0.47	125.47	10.496	3.53	54.2	4.72
E690		125	125	0	0	0.22	0.66	125.66	11.097	3.34	54.2	4.72
E732		126	126	0	0	0.09	0.5	126.5	12.722	3.5	52.28	4.682
E733		126	126	0	0	0.21	0.6	126.6	5.587	2.9	47.779	1.895
E761		126.5	126.5	0	0	0.06	0.44	126.94	14.991	4.06	52.28	4.682
E768		126.5	126.5	0	0	0.09	0.4	126.9	4.699	3.1	43.037	0.861
E818		126.5	126.5	0	0	0.5	1.3	127.8	9.606	3.2	52.28	4.682
E855		127	127	0	0	0.21	0.84	127.84	7.875	3.16	52.28	4.682
EBS1		127	127	0	0	0.18	0.76	127.76	1.241	1.24	4.741	1.034
EBS1_1		126.6	126.6	0	0	0.18	0.75	127.35	1.207	1.25	4.741	1.034
EBS1_2		126.2	126.2	0	0	0.19	0.75	126.95	1.166	1.25	4.741	1.034

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1		102.412	106.412	4	0	0.6	2.44	104.85	42.428	1.862	366.54	105.269
J100.17		119.57	130.25	10.68	0	0.46	1.29	120.86	17.199	9.39	401.01	11.577
J1002.010		118	124.97	6.97	0	0.22	0.64	118.64	14.357	6.33	191.22	42.512
J1012.195		83.33	87.423	4.093	0	0.91	2.19	85.52	127.542	3.093	2970.928	482.02
J1015.55		112.6	123.15	10.55	0	0.31	0.88	113.48	13.373	10.41	176.25	32.382
J1020.38		135.77	141.35	5.58	0	0.41	0.78	136.55	15.714	4.8	372.44	10.492
J1020.569		141.92	146.28	4.36	0	0.18	0.49	142.41	9.41	3.87	102.87	2.756
J1022.947		124.1	132.95	8.85	0	0.9	2.32	126.42	91.223	6.63	1068.5	62.887
J1029.335		118.5	125.27	6.77	0	0.13	0.43	118.93	14.359	8.36	191.22	42.512
J1033.40		112.7	123.79	11.09	0	0.28	0.86	113.56	13.377	10.43	176.25	32.382
J104.967		118.93	129.31	10.38	0	1.09	2.76	121.69	94.344	7.62	1182.52	99.64
J1041.555		138.5	144.74	6.24	0	0.73	1.62	140.12	36.639	4.62	344.96	10.306
J1042.897		124.71	133.33	8.62	0	0.58	1.84	126.55	91.235	6.78	1068.5	62.887
J1058.20		113	123.02	10.02	0	0.27	0.73	113.73	13.383	9.29	176.25	32.382
J1060.963		83.331	88.614	5.283	0	1.43	2.68	86.01	127.544	2.604	2970.928	482.02
J1093.556		83.516	88.39	4.874	0	1.39	2.67	86.18	127.01	2.573	2918.968	469.237
J1096.947		125.1	132.5	7.4	0	0.64	1.82	126.92	91.254	6.8	1068.5	62.887
J110.089		135.1	136.66	1.56	0	0.33	0.44	135.54	9.364	1.12	102.87	2.756
J1100		118.97	127.76	8.79	0	0.27	0.69	119.66	14.361	8.59	191.22	42.512
J1100.10		113.46	123	9.54	0	0.25	0.71	114.17	13.385	9.29	176.25	32.382
J1100.215		139	144.47	5.47	0	0.46	1.45	140.45	36.175	5.34	338.59	10.179
J1100.239		142.5	146.67	4.17	0	0.34	0.93	143.43	9.412	3.24	102.87	2.756
J1126.60		136.69	141.42	4.73	0	0.28	0.55	137.24	15.719	4.18	372.44	10.492
J113		160	163	3	0	0.4	1.76	161.76	31.69	4.54	232.12	4.642
J1130.117		125.2	133.15	7.95	0	0.6	1.81	127.01	91.346	7.24	1068.5	62.887
J1146.464		83.72	88.957	5.237	0	1.49	2.92	86.64	127.021	2.317	2918.968	469.237

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1151.075		139.5	146.29	6.79	0	0.55	1.14	140.64	36.211	5.96	338.59	10.179
J1154.80		114	124	10	0	0.25	0.71	114.71	13.385	9.29	176.25	32.382
J1163.689		144	147.44	3.44	0	0.19	0.53	144.53	9.416	3.28	102.87	2.756
J1178.27		114.74	124.1	9.36	0	0.19	0.55	115.29	13.388	8.81	176.25	32.382
J1184.779		119.5	128.78	9.28	0	0.22	0.67	120.17	14.372	8.61	191.22	42.512
J1200.117		125.3	134.05	8.75	0	0.89	2.24	127.54	90.516	6.81	1043.28	56.227
J1200.17		137.5	142.12	4.62	0	0.38	0.76	138.26	15.722	4.33	372.44	10.492
J1200.215		139.56	146.66	7.1	0	0.56	1.36	140.92	36.33	5.74	338.59	10.179
J1230.909		144.5	148.31	3.81	0	0.17	0.55	145.05	9.418	3.26	102.87	2.756
J1246.464		84.245	89.177	4.932	0	1.96	3.52	87.77	127.034	1.884	2918.968	469.237
J125.38		102.9	107	4.1	0	0.69	2.23	105.13	30.884	1.87	295.96	69.133
J1286.17		116.4	125.06	8.66	0	0.22	0.64	117.04	13.389	8.72	176.25	32.382
J1294.225		140.5	147.47	6.97	0	0.28	0.89	141.39	36.386	8.43	338.59	10.179
J1298.178		84.629	90.038	5.409	0	2	3.49	88.12	127.104	1.918	2918.968	469.237
J1300		121.16	129.84	8.68	0	0.23	0.62	121.78	14.378	8.06	191.22	42.512
J1300.117		125.84	133.78	7.94	0	0.66	1.9	127.74	89.825	6.64	1023.4	51.197
J1300.17		138.5	143.59	5.09	0	0.41	0.83	139.33	15.724	4.26	372.44	10.492
J1305.379		145.44	148.28	2.84	0	0.18	0.5	145.94	9.424	2.41	102.87	2.756
J1310.18		116.5	125.53	9.03	0	0.33	0.83	117.33	13.391	8.2	176.25	32.382
J1348.30		138.6	143.39	4.79	0	0.63	1.16	139.76	15.726	3.73	372.44	10.492
J1361.769		146.02	148.93	2.91	0	0.17	0.47	146.49	9.427	2.44	102.87	2.756
J1365.595		140.98	150.3	9.32	0	0.28	0.91	141.89	36.391	8.66	338.59	10.179
J1388.055		141	150.57	9.57	0	0.54	1.39	142.39	36.394	8.18	338.59	10.179
J1391.170		85.698	90.311	4.613	0	1.33	2.61	88.31	127.201	2.421	2918.968	469.237
J1393.48		139	143.67	4.67	0	0.34	0.82	139.82	15.73	5.6	372.44	10.492
J1400.000		122.35	130.16	7.81	0	0.2	0.55	122.9	14.388	7.42	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1400.10		117.53	126.26	8.73	0	0.48	1.16	118.69	13.425	7.57	176.25	32.382
J1400.117		125.96	134.5	8.54	0	1.07	2.46	128.42	89.945	6.42	1023.4	51.197
J1400.239		146.4	148.94	2.54	0	0.11	0.36	146.76	5.527	2.31	54.06	1.243
J142.6492		107.45	116.36	8.91	0	0.24	0.99	108.44	55.202	7.92	382.54	90.009
J1446.464		85.884	90.917	5.033	0	1.45	2.7	88.58	127.295	2.337	2918.968	469.237
J1447.009		146.5	149.17	2.67	0	0.14	0.47	146.97	5.53	2.45	54.06	1.243
J145.135		132.5	139.22	6.72	0	0.39	1.36	133.86	36.567	5.59	355.59	10.54
J146.4641		74.822	82.499	7.677	0	1.69	2.5	77.32	128.632	5.179	3095.538	514.044
J1489.00		139.5	145.92	6.42	0	0.75	1.35	140.85	15.732	5.07	372.44	10.492
J1500.000		123	130.97	7.97	0	0.3	0.8	123.8	14.41	7.17	191.22	42.512
J1500.10		119.53	127	7.47	0	0.15	0.46	119.99	13.443	7.01	176.25	32.382
J1500.117		126	134.88	8.88	0	1.17	2.89	128.89	90.017	7.12	1023.4	51.197
J1500.239		147	149.92	2.92	0	0.13	0.39	147.39	5.532	2.53	54.06	1.243
J151		98.68	102.181	3.501	0	0.65	1.61	100.29	50.89	2.69	416.78	126.952
J152		107	109	2	0	0.06	0.28	107.28	7.112	1.72	25.32	8.026
J1541.43		140	145.01	5.01	0	0.44	0.93	140.93	15.74	4.08	372.44	10.492
J1546.464		86.9	91.178	4.278	0	0.93	1.9	88.8	127.495	3.565	2918.968	469.237
J1550.647		126.5	136.51	10.01	0	0.89	2.8	129.3	90.036	7.21	1023.4	51.197
J1567.909		147.65	150.57	2.92	0	0.17	0.53	148.18	5.544	2.41	54.06	1.243
J1599.10		120	127.16	7.16	0	0.25	0.74	120.74	13.501	6.64	176.25	32.382
J16.935		131.7	139.46	7.76	0	0.72	1.82	133.52	36.589	6.14	355.59	10.54
J1600.117		127	136.56	9.56	0	0.76	2.47	129.47	84.014	7.09	874.51	39.882
J162.45		120.67	130.62	9.95	0	0.44	0.82	121.49	17.2	9.13	401.01	11.577
J162.977		119.1	128.88	9.78	0	1	2.75	121.85	94.515	7.03	1182.52	99.64
J1627.66		141	146	5	0	0.36	0.71	141.71	15.746	4.3	372.44	10.492
J1637.989		148.5	151.44	2.94	0	0.11	0.33	148.83	5.547	2.61	54.06	1.243

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1668.083		87	92.465	5.465	0	1.43	2.58	89.58	127.568	2.885	2918.968	469.237
J167		155.07	156.74	1.67	0	0.07	0.19	155.26	2.458	1.48	26.36	0.527
J1700		126	133.54	7.54	0	0.32	0.8	126.8	14.411	6.74	191.22	42.512
J1700.10		121	128.38	7.38	0	0.19	0.52	121.52	13.543	6.86	176.25	32.382
J1700.117		127.5	135.16	7.66	0	0.78	2.36	129.86	84.185	5.3	874.51	39.882
J1700.17		141.45	146.11	4.66	0	0.39	0.75	142.2	15.751	4.31	372.44	10.492
J1700.229		149.05	151.48	2.43	0	0.18	0.51	149.56	5.55	1.92	54.06	1.243
J1749.279		149.55	151.59	2.04	0	0.1	0.32	149.87	5.552	2.18	54.06	1.243
J1797.21		141.65	146.71	5.06	0	0.44	0.88	142.53	15.759	4.18	372.44	10.492
J1800		127.33	133.88	6.55	0	0.21	0.56	127.89	14.417	5.99	191.22	42.512
J1800.10		121.5	128.81	7.31	0	0.28	0.76	122.26	13.621	6.55	176.25	32.382
J1800.117		128.01	135.21	7.2	0	0.68	2.37	130.38	83.751	4.86	861.55	37.29
J1800.229		149.65	152.15	2.5	0	0.16	0.47	150.12	5.595	2.03	54.06	1.243
J181		135	137	2	0	0.08	0.32	135.32	7.262	1.68	15.96	8.842
J1816.580		87.39	91.48	4.09	0	1.47	2.46	89.85	128.09	2.025	2918.968	469.237
J185		153.5	154.5	1	0	0.12	0.55	154.05	5.509	2.45	43.32	1.04
J186		163.5	167	3.5	0	1.05	2.27	165.77	30.663	1.35	193.34	4.64
J1900		128.89	134	5.11	0	0.34	0.83	129.72	14.423	4.28	191.22	42.512
J1900.10		123	129.92	6.92	0	0.14	0.45	123.45	13.655	6.47	176.25	32.382
J1900.17		142.5	147.09	4.59	0	0.47	0.85	143.35	15.778	3.74	372.44	10.492
J1900.229		150.35	152.38	2.03	0	0.1	0.33	150.68	5.661	2.45	54.06	1.243
J1902.476		88.381	92.866	4.485	0	0.83	1.73	90.11	128.628	3.458	2918.968	469.237
J1917.479		88.485	93.672	5.187	0	0.82	1.72	90.2	128.698	3.472	2918.968	469.237
J1927.647		129.5	136.73	7.23	0	0.9	2.02	131.52	83.8	5.23	861.55	37.29
J1942.494		88.489	95.147	6.658	0	0.92	1.83	90.32	128.747	5.079	2918.968	469.237
J1952.554		88.541	95.294	6.753	0	0.98	1.9	90.44	128.862	5.011	2918.968	469.237

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1956.59		123.5	130.06	6.56	0	0.2	0.55	124.05	13.654	6.01	176.25	32.382
J1978.418		130.25	134.48	4.23	0	0.12	0.39	130.64	14.427	3.84	191.22	42.512
J2.1		141.3	150.5	9.2	0	0.51	1.6	142.9	27.428	7.6	232.12	4.642
J2.2		153.2	157.65	4.45	0	1.06	1.96	155.16	13.591	2.49	299.01	6.754
J2.5		142.5	151.5	9	0	0.64	1.64	144.14	43.705	7.36	408.23	8.212
j2.6		141.4	150.7	9.3	0	0.73	2.04	143.44	27.468	7.26	232.12	4.642
J200.09		103	106.44	3.44	0	0.81	2.29	105.29	31.071	1.18	295.96	69.133
J200.17		121.42	131.29	9.87	0	0.32	0.65	122.07	17.2	10.23	401.01	11.577
J200.215		132.57	139.52	6.95	0	0.53	1.48	134.05	36.632	5.81	355.59	10.54
J200.239		135.2	136.65	1.45	0	0.25	0.36	135.56	9.357	2.06	102.87	2.756
J2000.10		124.71	129.82	5.11	0	0.2	0.46	125.17	13.662	6.41	176.25	32.382
J2000.117		130	137.25	7.25	0	0.89	2.06	132.06	83.825	5.19	861.55	37.29
J2000.17		143	146.77	3.77	0	0.48	0.89	143.89	15.783	4.17	372.44	10.492
J2000.229		150.79	153.57	2.78	0	0.07	0.27	151.06	5.699	4.16	54.06	1.243
J2032.625		130.38	134.5	4.12	0	0.32	0.74	131.12	14.432	3.38	191.22	42.512
J2046.464		89	95.91	6.91	0	1.05	1.98	90.98	128.916	4.93	2918.968	469.237
J2063.577		130.5	137.45	6.95	0	0.72	1.8	132.3	81.569	5.15	812.9	25.249
J2100		131.31	134.6	3.29	0	0.2	0.54	131.85	14.437	2.75	191.22	42.512
J2100.10		124.81	131.68	6.87	0	0.72	1.66	126.47	13.747	5.21	176.25	32.382
J2100.17		144	149.06	5.06	0	0.38	0.74	144.74	15.789	4.32	372.44	10.492
J2100.229		151.18	155.61	4.43	0	0.18	0.52	151.7	5.749	3.91	54.06	1.243
J2118.174		89.5	95.106	5.606	0	0.88	1.83	91.33	128.938	3.917	2918.968	469.237
J212		144.4	145.7	1.3	0	0.05	0.14	144.54	1.194	1.16	8.58	0.463
J2128.867		131.26	138.01	6.75	0	0.61	1.54	132.8	81.608	5.21	812.9	25.249
J216		153.5	155.5	2	0	0.68	2.27	155.77	36.471	7.73	267.14	5.343
J2162.390		89.6	95.247	5.647	0	1.18	2.26	91.86	128.951	3.487	2918.968	469.237

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2165.306		132	135.12	3.12	0	0.27	0.66	132.66	14.438	2.46	191.22	42.512
J2171.407		131.5	138.11	6.61	0	0.81	1.81	133.31	81.605	5.63	812.9	25.249
J2173.272		89.7	95.24	5.54	0	1.32	2.48	92.18	128.958	3.26	2918.968	469.237
J2177.86		144.55	149.42	4.87	0	0.34	0.74	145.29	15.792	5.4	372.44	10.492
J2185.476		89.8	94.811	5.011	0	1.33	2.55	92.35	128.483	2.801	2879.168	458.412
J2187.585		132.25	135.24	2.99	0	0.25	0.66	132.91	14.438	2.46	191.22	42.512
J2200.229		152.38	156.67	4.29	0	0.11	0.35	152.73	5.777	3.94	54.06	1.243
J2206.53		126.62	132.31	5.69	0	0.19	0.58	127.2	13.759	5.72	176.25	32.382
J2213.506		90.096	94.702	4.606	0	1.24	2.46	92.55	128.485	2.98	2879.168	458.412
J2223.267		131.7	138.96	7.26	0	0.77	1.94	133.64	46.239	5.8	457.31	14.709
J2224.630		90.196	95.437	5.241	0	1.23	2.51	92.7	128.497	3.496	2879.168	458.412
J2227.161		132.92	136.08	3.16	0	0.35	0.91	133.83	14.438	2.54	191.22	42.512
J2242.380		133	136.45	3.45	0	0.41	1.06	134.06	14.438	2.39	191.22	42.512
J226.077		119.5	129	9.5	0	0.84	2.54	122.04	94.698	7.11	1182.52	99.64
J2266.899		153.53	156.84	3.31	0	0.15	0.42	153.95	5.784	2.89	54.06	1.243
J2267.81		144.88	151.02	6.14	0	0.52	0.98	145.86	15.793	5.16	372.44	10.492
J2287.052		133.1	136.24	3.14	0	0.46	1.16	134.26	14.439	2.65	191.22	42.512
J2292.097		132	139.74	7.74	0	0.74	1.9	133.9	46.52	5.84	457.31	14.709
J2296.492		90.5	96.5	6	0	1.27	2.53	93.03	128.518	3.47	2879.168	458.412
J2300.10		127.5	133.8	6.3	0	0.39	1.03	128.53	13.76	5.27	176.25	32.382
J2331.99		145.19	149.22	4.03	0	0.77	1.42	146.61	15.799	2.61	372.44	10.492
J2346.464		90.922	96.594	5.672	0	1.02	2.24	93.16	128.548	3.765	2879.168	458.412
J2352.47		128.16	134.26	6.1	0	0.4	1.07	129.23	13.76	5.03	176.25	32.382
J2359.439		133.2	136.81	3.61	0	0.54	1.34	134.54	14.44	2.55	191.22	42.512
J2376.910		133.3	136.89	3.59	0	0.52	1.36	134.66	14.442	2.53	191.22	42.512
J2378.957		132.5	140.22	7.72	0	0.76	1.84	134.34	46.597	5.88	457.31	14.709

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2411.26		146	149.06	3.06	0	0.41	0.87	146.87	15.819	2.33	372.44	10.492
J2430.00		129.47	135.14	5.67	0	0.56	1.49	130.96	13.77	4.18	176.25	32.382
J2446.464		91.165	97.168	6.003	0	1.32	2.74	93.91	128.583	4.448	2879.168	458.412
J2447.455		133.5	137.5	4	0	0.56	1.42	134.92	14.443	2.58	191.22	42.512
J2456.367		133.5	140.73	7.23	0	0.56	1.21	134.71	46.636	6.02	457.31	14.709
J246.4641		75.714	82.643	6.929	0	1.03	1.94	77.65	128.725	4.993	3095.538	514.044
J246.585		133	140.29	7.29	0	0.37	1.17	134.17	36.72	6.49	355.59	10.54
J2460.36		146.52	149.72	3.2	0	0.56	0.96	147.48	15.816	2.24	372.44	10.492
J2465.522		133.6	137.5	3.9	0	0.51	1.39	134.99	14.446	2.61	191.22	42.512
J248.32		103.2	106.67	3.47	0	0.91	2.35	105.55	33.159	1.12	295.96	69.133
J250.67		122	132.88	10.88	0	0.57	1.01	123.01	17.201	9.87	401.01	11.577
J2500		133.7	137.5	3.8	0	0.53	1.41	135.11	14.451	3.01	191.22	42.512
J2500.10		131.13	135.11	3.98	0	0.38	0.93	132.06	13.773	3.05	176.25	32.382
J2500.16		147	149.16	2.16	0	0.6	1.05	148.05	15.254	1.49	364.85	10.18
J2528.637		133.51	139.67	6.16	0	1.02	1.99	135.5	46.638	6	457.31	14.709
J2535.77		132.07	135.56	3.49	0	0.29	0.78	132.85	13.774	2.71	176.25	32.382
J2540.48		147.7	150.24	2.54	0	0.22	0.46	148.16	15.255	2.46	364.85	10.18
J2546.464		91.817	99.01	7.193	0	1.42	2.79	94.6	128.615	4.41	2879.168	458.412
J255.1367		109	117.33	8.33	0	0.37	1.08	110.08	33.503	7.25	310.94	72.681
J2559.518		133.8	137.92	4.12	0	0.59	1.5	135.3	14.456	3.88	191.22	42.512
J2594.793		133.9	138.89	4.99	0	0.59	1.53	135.43	14.465	3.85	191.22	42.512
J2600.16		148	150.92	2.92	0	0.39	0.73	148.73	15.256	2.45	364.85	10.18
J2603.25		132.62	136.05	3.43	0	0.25	0.78	133.4	13.775	3.35	176.25	32.382
J2604.897		134	141.11	7.11	0	0.72	1.62	135.62	44.031	5.68	419.1	8.527
J2646.464		93	99.353	6.353	0	0.85	2.01	95.01	127.993	4.93	2818.068	418.452
J2646.738		134	138.5	4.5	0	0.57	1.5	135.5	14.476	3.1	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J265.297		119.9	129.65	9.75	0	0.71	2.27	122.17	94.899	7.58	1182.52	99.64
J2650.52		148.47	151.65	3.18	0	0.34	0.72	149.19	13.6	2.7	342.33	7.793
J2662.919		134.1	138.5	4.4	0	0.49	1.43	135.53	14.492	3.17	191.22	42.512
J2666.88		133.04	137.17	4.13	0	0.47	1.18	134.22	13.778	3.06	176.25	32.382
J2680.447		93.183	100.123	6.94	0	1.07	2.21	95.39	128.001	4.733	2818.068	418.452
J27.449		130.03	136.41	6.38	0	0.1	0.21	130.24	7.176	6.17	148.89	11.315
J2706.457		134.5	141.8	7.3	0	0.56	1.5	136	43.366	6.39	408.23	8.212
J2721.15		148.5	151.92	3.42	0	0.44	0.9	149.4	13.601	2.52	342.33	7.793
J2723.864		134.2	138.4	4.2	0	0.44	1.39	135.59	14.511	3.21	191.22	42.512
J2742.526		134.3	138.39	4.09	0	0.5	1.4	135.7	14.535	2.99	191.22	42.512
J2744.16		133.12	137.36	4.24	0	0.63	1.54	134.66	13.779	2.7	176.25	32.382
J2746.464		93.57	100.018	6.448	0	1.18	2.38	95.95	128.005	4.432	2818.068	418.452
J2757.35		133.44	137.39	3.95	0	0.42	1.28	134.72	13.78	2.71	176.25	32.382
J2795.45		149	152.27	3.27	0	0.53	0.98	149.98	13.608	2.29	342.33	7.793
J2800		134.5	138.48	3.98	0	0.47	1.31	135.81	14.588	2.72	191.22	42.512
J2809.59		133.67	137.69	4.02	0	0.48	1.28	134.95	13.781	3.03	176.25	32.382
J2813.657		135	142.89	7.89	0	0.66	1.62	136.62	43.379	6.27	408.23	8.212
J2826.19		134.02	138.33	4.31	0	0.41	1.18	135.2	13.785	3.13	176.25	32.382
J2849.017		94.004	100.816	6.812	0	1.39	2.72	96.73	128.005	4.453	2818.068	418.452
J2860.405		94.277	101.456	7.179	0	1.25	2.64	96.92	128.006	4.536	2818.068	418.452
J2892.413		94.718	101.354	6.636	0	1.15	2.52	97.24	128.006	4.657	2818.068	418.452
J2900		135	139.03	4.03	0	0.5	1.28	136.28	14.593	3.24	191.22	42.512
J2900.09		134.66	138.21	3.55	0	0.43	1.15	135.81	13.786	2.77	176.25	32.382
J2900.117		136	143.22	7.22	0	0.39	1.11	137.11	43.422	6.11	408.23	8.212
J2900.16		150.44	152.62	2.18	0	0.47	0.88	151.32	13.614	2.24	342.33	7.793
J2902.731		94.769	101.549	6.78	0	1.24	2.68	97.45	128.007	4.498	2818.068	418.452

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2946.464		94.788	101.633	6.845	0	1.41	2.93	97.72	128.012	4.247	2818.068	418.452
J2979.285		135.02	139.54	4.52	0	0.67	1.6	136.62	14.597	2.92	191.22	42.512
J2989.647		95	101.923	6.923	0	1.36	2.93	97.93	128.025	3.993	2818.068	418.452
J3		143.5	146.5	3	0	0.28	1.47	144.97	43.711	4.03	408.23	8.212
j3.1		141.5	144.1	2.6	0	0.71	2.06	143.56	27.532	7.24	232.12	4.642
J3.15		153.4	157.72	4.32	0	0.9	1.78	155.18	13.912	2.54	299.01	6.754
J3.2		153.7	156.7	3	0	0.69	1.49	155.19	14.768	1.51	299.01	6.754
J300		109.84	118	8.16	0	0.45	1.18	111.02	33.791	6.98	310.94	72.681
J300.215		133.5	141.16	7.66	0	0.29	0.95	134.45	36.756	6.71	355.59	10.54
J300.239		135.3	137.92	2.62	0	0.19	0.38	135.68	9.366	2.8	102.87	2.756
J3000.09		135.71	139.63	3.92	0	0.47	1.26	136.97	13.791	2.73	176.25	32.382
J3000.117		136.5	143.55	7.05	0	0.28	1.05	137.55	43.469	6.15	408.23	8.212
J3000.16		151.17	154.29	3.12	0	0.52	0.86	152.03	13.617	2.26	342.33	7.793
J3007.922		135.5	139.65	4.15	0	0.29	1.15	136.65	14.615	3	191.22	42.512
J3051.067		137	144.2	7.2	0	0.27	0.9	137.9	43.484	6.48	408.23	8.212
J3054.885		96	102.767	6.767	0	0.96	2.25	98.25	128.03	5.017	2818.068	418.452
J3066.327		96.078	103.345	7.267	0	1.08	2.44	98.52	128.032	4.897	2818.068	418.452
J3100.09		136.64	140.63	3.99	0	0.43	1.17	137.81	13.791	2.82	176.25	32.382
J3100.16		151.77	154.15	2.38	0	0.42	0.72	152.49	13.624	2.36	342.33	7.793
J3103.867		137.1	144.38	7.28	0	0.52	1.42	138.52	43.498	6.17	408.23	8.212
J3105.432		96.188	102.227	6.039	0	1.26	2.66	98.84	128.049	4.687	2818.068	418.452
J311.56		123.78	133.22	9.44	0	0.35	0.65	124.43	17.202	8.79	401.01	11.577
J3111.594		136	139.94	3.94	0	0.24	0.9	136.9	14.648	3.37	191.22	42.512
J3135.520		136.1	140.27	4.17	0	0.19	0.81	136.91	14.76	4.47	191.22	42.512
J314.357		120	129.85	9.85	0	0.76	2.34	122.34	95.262	7.51	1182.52	99.64
J3148.25		152.01	155.09	3.08	0	0.29	0.6	152.61	13.627	2.48	342.33	7.793

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3150.013		96.681	102.937	6.256	0	0.86	2.19	98.87	128.386	6.172	2818.068	418.452
J3158.17		137.27	141.2	3.93	0	0.31	0.93	138.2	13.791	3.22	176.25	32.382
J3200		136.2	141.28	5.08	0	0.34	0.81	137.01	8.55	4.69	132.89	28.396
J3200.117		138	145.59	7.59	0	0.55	1.61	139.61	43.563	5.98	408.23	8.212
J3200.16		152.1	155.03	2.93	0	0.49	0.86	152.96	13.629	2.77	342.33	7.793
J3221.88		137.63	141.78	4.15	0	0.47	1.21	138.84	13.79	2.94	176.25	32.382
J3237.56		137.83	141.97	4.14	0	0.35	1.09	138.92	13.802	3.05	176.25	32.382
J3246.464		97	105.361	8.361	0	1.13	2.41	99.41	117.375	6.31	2401.288	291.5
J3262.17		152.2	155.64	3.44	0	0.56	1.02	153.22	13.633	2.61	342.33	7.793
J3300		136.5	142	5.5	0	0.35	0.81	137.31	7.588	4.69	121.24	27.348
J3300.117		139.5	145.63	6.13	0	0.3	1.04	140.54	43.597	5.47	408.23	8.212
J3322.153		98.06	106.78	8.72	0	0.75	1.65	99.71	116.622	7.07	2324.548	246.838
J3337.30		152.5	156.12	3.62	0	0.44	0.86	153.36	13.641	2.76	342.33	7.793
J3346.98		138	144.35	6.35	0	0.44	1.22	139.22	13.818	5.28	176.25	32.382
J3361.22		138.1	144.5	6.4	0	0.38	1.13	139.23	13.965	5.37	176.25	32.382
J3390.389		98.377	106.623	8.246	0	0.91	1.95	100.33	116.64	6.293	2324.548	246.838
J3392.66		138.2	141.54	3.34	0	0.3	1.04	139.24	14.577	2.5	176.25	32.382
J3400		137	142.5	5.5	0	0.25	0.62	137.62	7.59	5.25	121.24	27.348
J3411.51		153	156.34	3.34	0	0.42	0.78	153.78	13.643	2.59	342.33	7.793
J3414.967		140.48	146.99	6.51	0	0.28	1.12	141.6	43.602	5.5	408.23	8.212
J3428.33		153.1	156.37	3.27	0	0.49	0.86	153.96	11.728	2.51	299.01	6.754
J3445.04		138.5	142	3.5	0	0.25	0.75	139.25	9.536	4.11	110.73	11.324
J3446.464		98.818	106.275	7.457	0	0.85	1.85	100.66	116.65	5.615	2324.548	246.838
J346.4642		76.795	83.351	6.556	0	0.86	1.66	78.45	128.723	4.901	3095.538	514.044
J349.449		135.4	138.68	3.28	0	0.13	0.37	135.77	9.378	3.33	102.87	2.756
J3492.153		99	105.476	6.476	0	1	2.08	101.08	116.661	5.337	2324.548	246.838

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J350.45		124.43	133.57	9.14	0	0.57	1	125.43	17.203	8.14	401.01	11.577
J3500		137.5	143.37	5.87	0	0.42	0.96	138.46	6.076	4.91	97.4	21.626
J3500.1		139	142	3	0	0.12	0.38	139.38	9.54	4.48	110.73	11.324
J3500.117		141.15	147.77	6.62	0	0.61	1.6	142.75	43.613	5.02	408.23	8.212
J352.0823		110.5	118.23	7.73	0	0.46	1.17	111.67	14.199	6.56	191.22	42.512
J352.30		104	107.43	3.43	0	0.88	2.13	106.13	33.852	1.3	295.96	69.133
J3539.547		100	107.417	7.417	0	0.54	1.3	101.3	116.687	6.117	2324.548	246.838
J3546.867		141.5	147.8	6.3	0	0.51	1.5	143	43.657	5.77	408.23	8.212
J3552.954		100.01	107.142	7.132	0	0.66	1.46	101.47	116.702	5.696	2324.548	246.838
J3590.76		140.9	145.15	4.25	0	0.22	0.6	141.5	8.986	3.65	99.46	9.363
J3597.283		100.07	107.677	7.607	0	0.78	1.64	101.71	116.714	5.967	2324.548	246.838
J36.529		131.25	136.77	5.52	0	0.13	0.27	131.52	7.176	5.25	148.89	11.315
J3600		139	144	5	0	0.35	0.82	139.82	6.076	10.75	97.4	21.626
J3609.26		141	144.86	3.86	0	0.26	0.7	141.7	8.987	3.45	99.46	9.363
J3610.812		100.09	105.385	5.295	0	0.88	1.83	101.92	116.137	5.959	2295.298	243.446
J3624.107		142	149.27	7.27	0	0.45	1.29	143.29	43.687	5.98	408.23	8.212
J3660.527		142.5	151	8.5	0	0.39	1.26	143.76	43.698	7.24	408.23	8.212
J3667.068		100.17	107.789	7.619	0	1.2	2.38	102.55	116.139	5.409	2295.298	243.446
J3677.11		141.47	145.24	3.77	0	0.4	1.06	142.53	8.987	2.83	99.46	9.363
J3684.238		140.5	152.07	11.57	0	0.33	0.78	141.28	6.076	10.79	97.4	21.626
J3685.955		100.198	104.836	4.638	0	1.23	2.47	102.67	116.141	2.168	2295.298	243.446
J3696.22		141.96	145.72	3.76	0	0.24	0.78	142.74	8.988	3.27	99.46	9.363
J3709.655		100.514	105.087	4.573	0	1.02	2.31	102.82	116.143	4.287	2295.298	243.446
J3717.833		100.614	107.107	6.493	0	1.07	2.35	102.96	116.148	4.247	2295.298	243.446
J3742.908		141.18	147.54	6.36	0	0.36	0.88	142.06	6.076	5.48	97.4	21.626
J3758.726		141.55	145.98	4.43	0	0.26	0.71	142.26	6.076	3.72	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3770.893		101.707	107.337	5.63	0	0.89	1.96	103.67	116.148	4.63	2295.298	243.446
J3780.99		142.34	146.39	4.05	0	0.35	0.94	143.28	8.991	4.38	99.46	9.363
J3811.191		141.58	145.38	3.8	0	0.43	0.97	142.55	6.076	3.46	97.4	21.626
J3825.668		141.6	145.74	4.14	0	0.45	1	142.6	6.077	3.58	97.4	21.626
J3846.464		101.8	107.55	5.75	0	1.38	2.82	104.62	116.148	5.655	2295.298	243.446
J3869.05		143	148.32	5.32	0	0.39	1.09	144.09	8.993	4.23	99.46	9.363
J388.5779		77.436	83.441	6.005	0	0.79	1.66	79.09	128.723	4.351	3095.538	514.044
J3900		141.99	146.57	4.58	0	0.32	0.77	142.76	6.082	3.81	97.4	21.626
J392.31		104.36	107.44	3.08	0	0.83	2.09	106.45	34.021	0.99	295.96	69.133
J3932.07		143.5	147.63	4.13	0	0.38	1.07	144.57	8.993	3.48	99.46	9.363
J3946.464		102	110.475	8.475	0	1.44	3	105	116.165	5.475	2295.298	243.446
J3947.67		143.6	148.05	4.45	0	0.41	1.14	144.74	8.995	3.41	99.46	9.363
J4		144.1	147	2.9	0	0.65	1.98	146.08	30.973	2.92	267.14	5.343
J4.1		141.7	144.7	3	0	0.61	2.02	143.72	28.365	8.28	232.12	4.642
J4.2		154.5	157.5	3	0	0.45	0.9	155.4	11.102	2.1	193.34	4.64
J4.25		146	149	3	0	0.43	1.43	147.43	30.993	1.57	267.14	5.343
J4.5		146.02	149	2.98	0	0.56	1.81	147.83	30.998	2.59	267.14	5.343
J4.55		146.04	148.6	2.56	0	0.62	1.9	147.94	31.002	2.5	267.14	5.343
J4.56		146.06	150.45	4.39	0	0.61	1.9	147.96	31.007	2.49	267.14	5.343
J4.6		146.08	150.46	4.38	0	0.6	1.89	147.97	31.017	2.49	267.14	5.343
J4.7		146.1	149.1	3	0	0.61	1.9	148	31.155	2	267.14	5.343
J4.75		146.5	149.5	3	0	0.56	1.95	148.45	31.716	1.55	267.14	5.343
J400.127		120.75	130.56	9.81	0	0.66	2.05	122.8	95.551	7.76	1182.52	99.64
J400.215		134.5	142	7.5	0	0.55	1.53	136.03	36.769	5.97	355.59	10.54
J400.239		135.5	139.2	3.7	0	0.18	0.57	136.07	9.384	3.7	102.87	2.756
J4014.677		142.65	147.06	4.41	0	0.17	0.43	143.08	6.083	3.98	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4019.03		143.7	149.48	5.78	0	0.51	1.31	145.01	8.996	4.91	99.46	9.363
J402.1469		77.5	83.361	5.861	0	0.91	1.84	79.34	128.723	4.165	3095.538	514.044
J4034.42		143.8	149.72	5.92	0	0.49	1.36	145.16	9	4.86	99.46	9.363
J4067.080		102.504	110.39	7.886	0	1.16	2.74	105.24	116.19	5.763	2295.298	243.446
J410.6635		112	118.24	6.24	0	0.43	1.19	113.19	14.199	5.05	191.22	42.512
J4100		143.61	147.62	4.01	0	0.22	0.49	144.1	6.084	4.18	97.4	21.626
J4100.11		144	149.17	5.17	0	0.49	1.37	145.37	9.01	4.14	99.46	9.363
J4100.962		102.727	111.226	8.499	0	1.14	2.71	105.44	116.224	5.789	2295.298	243.446
J412.71		125.74	133.48	7.74	0	0.44	0.8	126.54	17.205	6.94	401.01	11.577
J4184.01		144.4	150.01	5.61	0	0.41	1.21	145.61	9.014	5.3	99.46	9.363
J4199.26		144.5	151.01	6.51	0	0.41	1.21	145.71	9.018	5.3	99.46	9.363
J4200		144.79	149.46	4.67	0	0.19	0.45	145.24	6.084	4.22	97.4	21.626
J4232.339		103.301	114.958	11.657	0	1.13	2.63	105.93	116.24	9.237	2295.298	243.446
J4248.377		103.429	115.295	11.866	0	1.27	2.8	106.23	116.26	9.065	2295.298	243.446
J4258.27		145	151.34	6.34	0	0.38	1.09	146.09	9.019	5.42	99.46	9.363
J427.7351		112.23	118.31	6.08	0	0.49	1.3	113.53	14.199	4.8	191.22	42.512
J4271.41		145.1	151.21	6.11	0	0.34	1.05	146.15	9.02	5.16	99.46	9.363
J4300		147.15	150.6	3.45	0	0.35	0.79	147.94	6.084	2.66	97.4	21.626
J4330.11		145.2	150.96	5.76	0	0.52	1.35	146.55	9.025	4.75	99.46	9.363
J4332.776		104.171	115.07	10.899	0	1.17	2.74	106.91	116.271	8.16	2295.298	243.446
J438.5957		77.124	83.798	6.674	0	1.43	2.57	79.7	128.723	4.118	3095.538	514.044
J4395.415		104.504	112.635	8.131	0	1.15	2.73	107.23	106.797	6.133	1890.838	148.834
J4396.23		145.53	150.63	5.1	0	0.39	1.21	146.74	9.029	3.89	99.46	9.363
J440.72		105	107.73	2.73	0	0.72	1.92	106.92	35.765	0.81	295.96	69.133
J4411.37		145.86	150.65	4.79	0	0.3	0.98	146.84	9.033	3.81	99.46	9.363
J4446.464		104.632	113.491	8.859	0	1.37	2.99	107.62	106.92	7.075	1890.838	148.834

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4462.26		145.9	151.32	5.42	0	0.45	1.16	147.06	9.036	4.26	99.46	9.363
J4477.44		146.29	151.39	5.1	0	0.21	0.82	147.11	9.042	4.28	99.46	9.363
J452.879		135.94	140.21	4.27	0	0.19	0.54	136.48	9.384	4.12	102.87	2.756
J4529.29		146.42	150.96	4.54	0	0.33	0.91	147.33	9.052	3.76	99.46	9.363
J454.8528		77.124	83.818	6.694	0	1.56	2.81	79.93	128.723	3.888	3095.538	514.044
J4546.464		105.4	115.463	10.063	0	1.02	2.62	108.02	106.798	8.342	1871.518	143.231
J4600.10		146.64	151.31	4.67	0	0.3	0.87	147.51	9.062	4.11	99.46	9.363
J461.85		126.2	133.36	7.16	0	0.49	0.95	127.15	17.205	6.51	401.01	11.577
J4635.43		147.07	152.05	4.98	0	0.21	0.61	147.68	9.096	4.37	99.46	9.363
J4646.464		105.733	116.695	10.962	0	1.08	2.63	108.37	107.063	8.48	1871.518	143.231
J4700.25		150.78	154.17	3.39	0	0.1	0.34	151.12	7.906	3.05	79.05	4.709
J4731.82		150.83	152.57	1.74	0	0.3	0.74	151.57	7.942	5.75	79.05	4.709
J4746.464		106.117	117.234	11.117	0	1.19	2.75	108.86	107.236	8.374	1871.518	143.231
J477.657		120.92	130.32	9.4	0	1.1	2.54	123.46	95.621	7.37	1182.52	99.64
J4800.10		151.38	157.87	6.49	0	0.08	0.37	151.75	7.629	6.12	69.57	1.391
J4846.464		106.467	116.662	10.195	0	1.19	2.98	109.44	107.365	7.616	1871.518	143.231
J487.7520		77.124	83.691	6.567	0	1.59	2.87	80	128.726	3.691	3095.538	514.044
J4900.10		152.09	154.18	2.09	0	0.31	0.7	152.79	7.433	1.39	69.57	1.391
J4945.903		107.124	117.713	10.589	0	0.94	2.55	109.68	107.618	8.381	1871.518	143.231
J4957.289		152.2	153.75	1.55	0	0.39	0.99	153.19	8.446	0.75	69.57	1.391
J498.2611		113.26	118.21	4.95	0	0.48	1.3	114.56	14.199	4.78	191.22	42.512
J5		148.5	151.5	3	0	0.19	0.8	149.3	32.21	9.2	267.14	5.343
J5.1		143.2	146.2	3	0	0.51	1.9	145.1	31.067	8.4	232.12	4.642
J5.2		154.6	156	1.4	0	0.78	1.53	156.13	11.812	0.33	193.34	4.64
J500.17		126.77	134.23	7.46	0	0.35	0.71	127.48	17.205	6.75	401.01	11.577
J500.239		136	140.66	4.66	0	0.17	0.6	136.6	9.387	4.47	102.87	2.756

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5000.10		152.74	154.09	1.35	0	0.16	0.45	153.19	9.14	1.04	69.57	1.391
J5046.464		107.448	118.385	10.937	0	1.06	2.58	110.03	107.909	9.253	1871.518	143.231
J5048.723		152.85	154.34	1.49	0	0.22	0.58	153.43	8.775	1.22	69.57	1.391
J506.895		135.5	142.66	7.16	0	0.47	1.2	136.7	36.182	5.96	344.96	10.306
J509.347		121	130.91	9.91	0	1.13	2.67	123.67	95.729	7.24	1182.52	99.64
J5100.10		153.03	154.83	1.8	0	0.28	0.71	153.74	8.745	1.09	69.57	1.391
J513.5331		113.58	118.5	4.92	0	0.43	1.23	114.81	14.201	3.69	191.22	42.512
J5146.464		107.53	119.365	11.835	0	1.24	2.82	110.35	108.306	9.015	1871.518	143.231
J5152.642		153.32	154.74	1.42	0	0.28	0.81	154.13	8.753	1.18	69.57	1.391
J516.02		105.73	107.84	2.11	0	0.63	1.6	107.33	36.278	1.4	295.96	69.133
J5220.803		153.49	155.48	1.99	0	0.41	1.08	154.57	8.786	0.91	69.57	1.391
J523.1179		77.124	83.691	6.567	0	1.69	3.05	80.17	128.729	3.521	3095.538	514.044
J5260.950		108.278	119.712	11.434	0	0.92	2.39	110.66	108.349	9.052	1854.739	141.217
J5260.956		153.77	155.4	1.63	0	0.21	0.81	154.58	8.901	0.93	69.57	1.391
J5300.10		154	155.74	1.74	0	0.16	0.61	154.61	9.235	1.6	69.57	1.391
J531.73		127.59	134.74	7.15	0	0.28	0.61	128.2	17.206	6.54	401.01	11.577
J534.23		105.99	108.99	3	0	0.57	1.47	107.46	36.632	1.56	295.96	69.133
J5373.942		109.061	119.739	10.678	0	0.87	2.24	111.3	108.503	8.439	1854.739	141.217
J5400.10		154.97	157.18	2.21	0	0.13	0.42	155.39	9.247	2.85	69.57	1.391
J5427.875		109.112	119.702	10.59	0	1.02	2.45	111.56	108.69	8.237	1854.739	141.217
J546.4642		77.521	83.405	5.884	0	1.54	3.03	80.55	128.73	3.663	3095.538	514.044
J5500.10		155.5	158.77	3.27	0	0.17	0.65	156.15	9.265	2.62	69.57	1.391
J5532.597		109.445	120.13	10.685	0	0.96	2.44	111.89	108.661	8.24	1843.058	140.984
J554.879		136.5	141.57	5.07	0	0.18	0.52	137.02	9.389	4.99	102.87	2.756
J5543.03		155.89	158.11	2.22	0	0.18	0.71	156.6	9.28	2.12	69.57	1.391
J5581.81		155.94	158.77	2.83	0	0.17	0.68	156.62	9.343	2.15	69.57	1.391

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5598.608		156	158.24	2.24	0	0.16	0.64	156.64	9.523	1.6	69.57	1.391
J5627.203		109.864	119.899	10.035	0	0.82	2.26	112.12	109.077	7.779	1843.058	140.984
J571.927		121.39	130.92	9.53	0	1	2.5	123.89	95.93	9.8	1182.52	99.64
J5746.464		110.189	119.271	9.082	0	1.05	2.4	112.59	109.522	7.941	1843.058	140.984
J5850.291		110.593	120.935	10.342	0	0.87	2.24	112.83	109.246	8.105	1809.048	131.053
J591.0980		77.124	83.691	6.567	0	2.06	3.72	80.85	128.732	2.966	3095.538	514.044
J5946.083		111.109	121.311	10.202	0	0.85	2.19	113.29	109.58	8.021	1809.048	131.053
J6		144.7	147.7	3	0	0.54	1.93	146.63	35.674	7.37	232.12	4.642
J6.2		154.7	157.7	3	0	0.73	1.46	156.16	19.982	1.66	193.34	4.64
J6.227		118.53	129.53	11	0	1.16	2.36	120.89	94.253	8.94	1182.52	99.64
J60.22		102.5	112.5	10	0	0.83	2.51	105.01	42.605	7.49	366.54	105.269
J600.0000		114.21	119.8	5.59	0	0.48	1.28	115.49	14.213	4.31	191.22	42.512
J600.17		128.66	135.22	6.56	0	0.34	0.69	129.35	17.207	6.69	401.01	11.577
J600.239		136.84	142.35	5.51	0	0.23	0.64	137.48	9.39	4.87	102.87	2.756
J6046.464		111.186	121.081	9.895	0	1.12	2.48	113.66	109.85	7.421	1809.048	131.053
J6098.928		111.34	119.993	8.653	0	1.05	2.45	113.79	110.12	7.663	1809.048	131.053
J6165.560		111.442	121.555	10.113	0	1.19	2.68	114.12	110.313	7.435	1809.048	131.053
J62.389		135	136.94	1.94	0	0.41	0.53	135.53	9.364	1.44	102.87	2.756
J6233.167		111.595	121.594	9.999	0	1.2	2.76	114.35	110.494	7.244	1809.048	131.053
J625.125		136.09	142.4	6.31	0	0.57	1.59	137.68	36.151	5.58	344.96	10.306
J6301.693		111.672	121.487	9.815	0	1.26	2.93	114.6	110.709	7.406	1809.048	131.053
J634.217		121.6	133.9	12.3	0	1.04	2.74	124.34	96.005	9.56	1182.52	99.64
J6358.901		111.749	122.083	10.334	0	1.28	2.96	114.71	111.035	7.373	1809.048	131.053
J639.57		129.64	137.02	7.38	0	0.23	0.51	130.15	17.209	6.87	401.01	11.577
J6435.935		112.363	122.451	10.088	0	0.95	2.52	114.88	110.374	8.237	1777.378	130.419
J646.4641		78.57	83.639	5.069	0	1.48	3.13	81.7	128.731	1.939	3095.538	514.044

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J647.627		121.74	131.42	9.68	0	1	2.72	124.46	96.058	6.96	1182.52	99.64
J6478.273		112.44	123.194	10.754	0	1.05	2.59	115.03	110.011	8.194	1749.908	128.222
J6565.562		112.848	123.632	10.784	0	0.98	2.52	115.37	110.462	10.639	1749.908	128.222
J657.28		107.9	110.98	3.08	0	0.27	0.88	108.78	37.076	2.2	295.96	69.133
J657.629		137.5	142.75	5.25	0	0.28	0.78	138.28	9.391	4.47	102.87	2.756
J6662.639		113.054	126.215	13.161	0	1.29	2.72	115.78	110.853	10.435	1749.908	128.222
J674.5680		79.397	83.676	4.279	0	1.17	2.72	82.12	128.731	1.961	3095.538	514.044
J674.60		108	111.03	3.03	0	0.32	1.03	109.03	37.896	2.63	295.96	69.133
J6772.934		114.195	124.959	10.764	0	0.9	2.18	116.38	110.987	9.192	1749.908	128.222
J684.977		122	132.21	10.21	0	1	2.75	124.75	96.117	8.57	1182.52	99.64
J6846.464		114.24	125.617	11.377	0	1.38	2.93	117.17	111.009	8.549	1749.908	128.222
J6894.028		114.34	125.719	11.379	0	1.51	3.17	117.51	111.079	8.7	1749.908	128.222
J69.25231		104.63	115.21	10.58	0	0.96	2.35	106.98	54.903	8.23	382.54	90.009
J695.90		130.8	137.5	6.7	0	0.42	0.71	131.51	17.206	6.62	401.01	11.577
J6988.738		114.56	126.43	11.87	0	1.48	3.15	117.71	111.255	8.72	1749.908	128.222
J699.925		136.5	143.67	7.17	0	0.64	1.47	137.97	36.173	5.7	344.96	10.306
J7.227846		75.474	80.753	5.279	0	0.7	1.15	76.63	128.796	5.493	3125.198	519.502
J700		114.3	120.41	6.11	0	0.5	1.34	115.64	14.26	4.77	191.22	42.512
J700.239		138	143.21	5.21	0	0.32	0.89	138.89	9.391	4.32	102.87	2.756
J703.1630		79.556	84.24	4.684	0	1.46	3.04	82.6	128.731	1.968	3095.538	514.044
J7047.302		114.752	124.764	10.012	0	1.37	3.09	117.84	111.11	6.924	1734.868	122.296
J706.81		131	138.33	7.33	0	0.46	0.79	131.79	17.206	6.98	401.01	11.577
J709.95		108.43	112.09	3.66	0	0.22	0.61	109.04	13.316	3.05	176.25	32.382
J71.72631		75.374	82.023	6.649	0	1.01	1.66	77.03	128.817	5.435	3125.198	519.502
J7132.593		114.937	124.928	9.991	0	1.43	3.18	118.12	111.703	6.808	1734.868	122.296
J718.547		122.1	133.32	11.22	0	0.98	2.73	124.83	96.236	8.59	1182.52	99.64

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J7232.906		115.699	124.326	8.627	0	0.99	2.56	118.26	113.784	6.066	1734.868	122.296
J7322.142		116.115	123.734	7.619	0	0.99	2.46	118.57	109.392	5.362	1608.69	113.23
J736.779		138.5	143.45	4.95	0	0.23	0.7	139.2	9.391	4.25	102.87	2.756
J737.045		137	142.75	5.75	0	0.48	1.14	138.14	36.202	6.34	344.96	10.306
J7381.689		116.697	124.514	7.817	0	0.86	2.12	118.82	109.939	8.037	1608.69	113.23
J74.135		132	138.61	6.61	0	0.66	1.65	133.65	36.542	5.07	355.59	10.54
J7449.270		116.966	127.126	10.16	0	0.82	2.09	119.06	110.424	8.066	1608.69	113.23
J746.4641		79.812	84.824	5.012	0	1.56	3.21	83.02	128.732	2.565	3095.538	514.044
J749.08		131.5	139.37	7.87	0	0.65	1.05	132.55	17.212	6.82	401.01	11.577
J7549.375		117.552	127.605	10.053	0	1.06	2.43	119.98	110.53	8.304	1608.69	113.23
J762.307		122.74	132.51	9.77	0	0.65	2.14	124.88	96.064	7.63	1173.84	98.364
J7639.745		117.959	128.691	10.732	0	0.83	2.25	120.21	110.828	8.481	1608.69	113.23
J768.179		138.9	143.38	4.48	0	0.25	0.69	139.59	9.392	3.85	102.87	2.756
J7752.183		118.5	128.747	10.247	0	1.17	2.34	120.84	16.089	8.29	401.01	11.577
J794.7359		79.818	85.591	5.773	0	1.93	3.64	83.46	128.734	2.638	3095.538	514.044
J795.635		137.1	144.48	7.38	0	0.81	1.56	138.66	36.357	5.92	344.96	10.306
J799.60		109.44	111.34	1.9	0	0.13	0.46	109.9	13.327	2.55	176.25	32.382
J80.89927		75	82.091	7.091	0	1.47	2.21	77.21	128.531	5.467	3095.538	514.044
J800.0000		116.5	120	3.5	0	0.39	1.06	117.56	14.464	5.08	191.22	42.512
J800.117		122.8	131.86	9.06	0	0.78	2.2	125	90.932	7.16	1068.5	62.887
J800.17		132.83	139.34	6.51	0	0.43	0.81	133.64	15.7	5.7	372.44	10.492
J800.239		139	144.32	5.32	0	0.23	0.71	139.71	9.402	4.61	102.87	2.756
J82.94		119	129.63	10.63	0	0.76	1.85	120.85	16.614	8.83	401.01	11.577
J846.4642		80.833	87.113	6.28	0	1.31	2.94	83.78	128.741	3.333	3095.538	514.044
J851.915		137.8	144.92	7.12	0	0.38	0.96	138.76	36.485	6.16	344.96	10.306
J854.56		110.28	113.29	3.01	0	0.27	0.7	110.98	13.363	2.31	176.25	32.382

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J855.869		139.98	144.52	4.54	0	0.16	0.48	140.46	9.404	4.86	102.87	2.756
J876.147		123.5	132.09	8.59	0	0.55	1.71	125.21	91.169	7.35	1068.5	62.887
J895.8482		81.591	87.386	5.795	0	1.12	2.49	84.08	128.751	3.306	3095.538	514.044
J9.209		127.26	134.08	6.82	0	0.52	2.12	129.38	7.176	4.7	148.89	11.315
J9.902844		104.31	115.07	10.76	0	1.12	2.67	106.98	54.609	8.09	382.54	90.009
J900.10		111.28	113.24	1.96	0	0.1	0.32	111.6	13.373	3.54	176.25	32.382
J900.239		140	145.34	5.34	0	0.29	0.75	140.75	9.408	4.59	102.87	2.756
J902.1607		116.99	123.13	6.14	0	0.2	0.7	117.69	14.323	6.2	191.22	42.512
J902.835		137.9	144.67	6.77	0	0.53	1.26	139.16	36.542	5.51	344.96	10.306
J904.90		134.44	140.82	6.38	0	0.25	0.51	134.95	15.703	5.87	372.44	10.492
J922.9622		117.1	123.85	6.75	0	0.25	0.74	117.84	14.353	6.16	191.22	42.512
J929.29		111.72	115.58	3.86	0	0.19	0.46	112.18	13.373	6.07	176.25	32.382
J945.497		124	133.06	9.06	0	0.7	1.84	125.84	91.213	7.22	1068.5	62.887
J955.93		135.5	140.77	5.27	0	0.31	0.61	136.11	15.704	4.97	372.44	10.492
J956.725		138	144.51	6.51	0	0.73	1.63	139.63	36.634	4.88	344.96	10.306
J963.549		141	145.71	4.71	0	0.15	0.5	141.5	9.41	4.21	102.87	2.756
J964.46		112.13	118.66	6.53	0	0.21	0.63	112.76	13.373	8.75	176.25	32.382
J966.3656		82.24	87.702	5.462	0	1.12	2.45	84.69	127.54	3.012	2970.928	482.02
J982.0328		82.34	87.489	5.149	0	1.21	2.64	84.98	127.541	2.559	2970.928	482.02
J99.99998		106.58	115.09	8.51	0	0.3	0.95	107.53	54.991	7.96	382.54	90.009
J992.03		112.5	121.88	9.38	0	0.3	0.8	113.3	13.373	9.85	176.25	32.382
SU211		139.5	142.1	2.6	0	0.06	0.46	139.96	9.055	2.54	38.21	6.182
SU220		133.5	135.15	1.65	0	0.07	0.65	134.15	14.845	2.35	48.65	12.041

Table 2A: Subcatchments

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)
Eaglewood	100yrChicago24hr	EBS1	0.47	50	94	2.7	43	0.013	0.25	25	OUTLET	100	0.1	18.09	0
EBG1	100yrChicago24hr	E690	1.92	128	150	1	2	0.013	0.25	25	OUTLET	100	0.1	30.35	0
EBG2	100yrChicago24hr	E505	1.56	104	150	1	2	0.013	0.25	25	OUTLET	100	0.1	34.46	0
EBG3	100yrChicago24hr	E394	4.55	303	150.165	1	2	0.013	0.25	25	OUTLET	100	0.1	33.6	0
EBG4	100yrChicago24hr	E673	3.71	247.667	149.798	1	2	0.013	0.25	25	OUTLET	100	0.1	42.81	0
EBG5	100yrChicago24hr	J6358.901	31.67	2111.333	150	1	2	0.013	0.25	25	OUTLET	100	0.1	32.99	0
EBR3S	100yrChicago24hr	EBS1	0.9614	64.515	149.02	1	49	0.013	0.25	25	OUTLET	100	0.1	16.26	0
EENNS1	100yrChicago24hr	EBS1	2.04	164.516	124	0.8	7	0.013	0.25	25	OUTLET	100	0.1	29.76	0
EGOLF1	100yrChicago24hr	j5427.875	11.68	779	149.936	1	2	0.013	0.25	25	OUTLET	100	0.1	31.55	0
EGOLF2	100yrChicago24hr	DF001	21.23	1415.333	150	1	2	0.013	0.25	25	OUTLET	100	0.1	31.55	0
EMAIN1	100yrChicago24hr	J7639.745	25.16	1677	150.03	1.5	8	0.013	0.25	25	OUTLET	100	0.1	29.61	0
EMAIN2	100yrChicago24hr	J6435.935	27.47	1831	150.027	2.3	8	0.013	0.25	25	OUTLET	100	0.1	29.57	0
EMAIN3	100yrChicago24hr	J5146.464	16.78	1118	150.089	0.5	12	0.013	0.25	25	OUTLET	100	0.1	28.45	0
EMAIN4	100yrChicago24hr	j4332.776	21.92	1461	150.034	0.7	21	0.013	0.25	25	OUTLET	100	0.1	25.47	0
ESAN1	100yrChicago24hr	j4446.464	19.32	1288	150	1.1	29	0.013	0.25	25	OUTLET	100	0.1	22.68	0
ESAN2	100yrChicago24hr	DF001	8.02	534	150.187	0.9	37	0.013	0.25	25	OUTLET	100	0.1	20.12	0
ETRIB1a	100yrChicago24hr	E301	5.78	385	150.13	3	9.9	0.013	0.25	25	OUTLET	100	0.1	28.93	0
ETRIB1b	100yrChicago24hr	E301	5.16	345	149.565	3	2	0.013	0.25	100	OUTLET	100	0.1	31.48	0
ETRIB2E	100yrChicago24hr	E604	1.63	108.667	150	1.1	28	0.013	0.25	25	OUTLET	100	0.1	23.16	0
ETRIB2W	100yrChicago24hr	E855	50.35	3356.667	150	1.2	9	0.013	0.25	25	OUTLET	100	0.1	29.31	0
ETRIB3E	100yrChicago24hr	E673	1.81	120.554	150.14	1.3	62	0.013	0.25	25	OUTLET	100	0.1	12.17	0
ETRIB3W	100yrChicago24hr	E768	43.0371	2869.14	150	1.1	2	0.013	0.25	25	OUTLET	100	0.1	31.6	0
North1	100yrChicago24hr	EBS1	0.56	54.902	102	2	7	0.013	0.25	25	OUTLET	100	0.1	29.62	0
North2	100yrChicago24hr	EBS1	0.36	50	72	1.8	43	0.013	0.25	25	OUTLET	100	0.1	18.09	0
North3	100yrChicago24hr	EBS1	0.35	44.872	78	1.3	7	0.013	0.25	25	OUTLET	100	0.1	29.61	0
S101	100yrChicago24hr	J71.72631	29.66	3802.564	78	0.3	18.4	0.013	0.25	25	OUTLET	100	0.1	26.09	0
S102	100yrChicago24hr	J895.8482	124.61	18325	68	0.45	25.7	0.013	0.25	25	OUTLET	100	0.1	23.68	0

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)
S103	100yrChicago24hr	J1060.963	51.96	7318.31	71	0.4	24.6	0.013	0.25	25	OUTLET	100	0.1	24.05	0
S104	100yrChicago24hr	J2173.272	39.8	5527.778	72	0.4	27.2	0.013	0.25	25	OUTLET	100	0.1	23.22	0
S105	100yrChicago24hr	J2546.464	61.1	5657.407	108	0.4	65.4	0.013	0.25	25	OUTLET	100	0.1	11.01	0
S106	100yrChicago24hr	J3246.464	76.74	12790	60	0.3	58.2	0.013	0.25	25	OUTLET	100	0.1	13.29	0
S109	100yrChicago24hr	J718.547	8.68	1045.783	83	0.25	14.7	0.013	0.25	25	OUTLET	100	0.1	27.32	0
S110	100yrChicago24hr	J1200.117	19.88	2395.181	83	0.4	25.3	0.013	0.25	25	OUTLET	100	0.1	23.85	0
S111	100yrChicago24hr	J400.215	10.63	2362.222	45	0.45	2.2	0.013	0.25	25	OUTLET	100	0.1	31.15	0
S112	100yrChicago24hr	J1388.055	106.47	8190	130	1.5	5.2	0.013	0.25	25	OUTLET	100	0.1	30.28	0
S113	100yrChicago24hr	J113	232.12	15474.67	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1	31.35	0
S151	100yrChicago24hr	J151	24.92	2076.667	120	1	54.8	0.013	0.25	25	OUTLET	100	0.1	14.38	0
S152	100yrChicago24hr	J152	25.32	1770.629	143	0.95	31.7	0.013	0.25	25	OUTLET	100	0.1	21.81	0
S153	100yrChicago24hr	J60.22	70.58	5881.667	120	0.2	51.2	0.013	0.25	25	OUTLET	100	0.1	15.62	0
S154	100yrChicago24hr	J674.60	119.71	14422.89	83	0.75	30.7	0.013	0.25	25	OUTLET	100	0.1	22.07	0
S155	100yrChicago24hr	J3500.1	11.27	1977.193	57	0.3	17.4	0.013	0.25	25	OUTLET	100	0.1	26.35	0
S156	100yrChicago24hr	SU156	26.18	4363.333	60	0.35	33.1	0.013	0.25	25	OUTLET	100	0.1	21.31	0
S157	100yrChicago24hr	SU157	39.34	5785.294	68	0.75	31.5	0.013	0.25	25	OUTLET	100	0.1	21.79	0
S158	100yrChicago24hr	J4731.82	9.48	2106.667	45	0.55	35	0.013	0.25	25	OUTLET	100	0.1	20.65	0
S159	100yrChicago24hr	SU159	20.41	3401.667	60	0.65	22.8	0.013	0.25	25	OUTLET	100	0.1	24.57	0
S160	100yrChicago24hr	J5598.608	69.57	6156.637	113	0.8	2	0.013	0.25	25	OUTLET	100	0.1	31.35	0
S161	100yrChicago24hr	J300	119.72	16627.78	72	0.5	25.2	0.013	0.25	25	OUTLET	100	0.1	23.84	0
S162	100yrChicago24hr	J142.6492	71.6	11015.38	65	0.85	24.2	0.013	0.25	25	OUTLET	100	0.1	24.11	0
S163	100yrChicago24hr	SU163	58.33	8973.846	65	0.4	24.2	0.013	0.25	25	OUTLET	100	0.1	24.17	0
S164	100yrChicago24hr	J3200	11.65	2080.357	56	0.5	9	0.013	0.25	25	OUTLET	100	0.1	29	0
S165	100yrChicago24hr	SU165	23.84	3667.692	65	0.65	24	0.013	0.25	25	OUTLET	100	0.1	24.19	0
S166	100yrChicago24hr	SU166	71.04	10447.06	68	1.05	29.7	0.013	0.25	25	OUTLET	100	0.1	22.35	0
S167	100yrChicago24hr	J167	26.36	2196.667	120	0.3	2	0.013	0.25	25	OUTLET	100	0.1	31.52	0
S171	100yrChicago24hr	SU171	34.01	5232.308	65	1.15	29.2	0.013	0.25	25	OUTLET	100	0.1	22.5	0

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)
S172	100yrChicago24hr	SU172	15.04	2211.765	68	0.85	39.4	0.013	0.25	25	OUTLET	100	0.1	19.26	0
S180	100yrChicago24hr	J749.08	28.57	4201.471	68	0.5	3.8	0.013	0.25	25	OUTLET	100	0.1	30.7	0
S181	100yrChicago24hr	J181	15.96	1922.892	83	1.25	55.4	0.013	0.25	25	OUTLET	100	0.1	14.16	0
S182	100yrChicago24hr	j2600.16	22.52	2297.959	98	0.4	10.6	0.013	0.25	25	OUTLET	100	0.1	28.63	0
S183	100yrChicago24hr	J2460.36	7.59	1686.667	45	0.45	4.1	0.013	0.25	25	OUTLET	100	0.1	30.54	0
S184	100yrChicago24hr	J3.2	105.67	9606.364	110	0.8	2	0.013	0.25	25	OUTLET	100	0.1	31.34	0
S185	100yrChicago24hr	J185	43.32	3938.182	110	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1	31.25	0
S186	100yrChicago24hr	J186	193.34	12889.33	150	2	2.4	0.013	0.25	25	OUTLET	100	0.1	31.18	0
S187	100yrChicago24hr	E855	1.93	321.667	60	0.9	7.8	0.013	0.25	25	OUTLET	100	0.1	29.34	0
S191	100yrChicago24hr	SU191	89.38	16864.15	53	0.6	29.8	0.013	0.25	25	OUTLET	100	0.1	22.32	0
S192	100yrChicago24hr	J1130.117	3.43	571.667	60	0.65	5.5	0.013	0.25	25	OUTLET	100	0.1	30.11	0
S193	100yrChicago24hr	SU193	21.79	3026.389	72	0.6	29.7	0.013	0.25	25	OUTLET	100	0.1	22.39	0
S195	100yrChicago24hr	SU220	9.45	1783.019	53	0.85	29.6	0.013	0.25	25	OUTLET	100	0.1	22.37	0
S201	100yrChicago24hr	SU201	16.42	2736.667	60	1.3	24	0.013	0.25	25	OUTLET	100	0.1	24.14	0
S202	100yrChicago24hr	SU202	29.6	4933.333	60	0.6	15.6	0.013	0.25	25	OUTLET	100	0.1	26.88	0
S203	100yrChicago24hr	J1700.117	12.96	2160	60	0.5	20	0.013	0.25	25	OUTLET	100	0.1	25.48	0
S204	100yrChicago24hr	J1361.769	48.81	3754.615	130	0.3	3.1	0.013	0.25	25	OUTLET	100	0.1	31.19	0
S205	100yrChicago24hr	J2266.899	54.06	3861.429	140	0.6	2.3	0.013	0.25	25	OUTLET	100	0.1	31.36	0
S210	100yrChicago24hr	J2604.897	10.87	2415.556	45	0.7	2.9	0.013	0.25	25	OUTLET	100	0.1	30.88	0
S211	100yrChicago24hr	SU211	29.63	4938.333	60	0.65	19.3	0.013	0.25	25	OUTLET	100	0.1	25.69	0
S212	100yrChicago24hr	J212	8.58	817.143	105	0.5	5.4	0.013	0.25	25	OUTLET	100	0.1	30.3	0
S213	100yrChicago24hr	J3	11.91	1044.737	114	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1	31.26	0
S214	100yrChicago24hr	J1041.555	6.37	767.47	83	1.15	2	0.013	0.25	25	OUTLET	100	0.1	31.24	0
S215	100yrChicago24hr	J3	129.18	8612	150	1.1	2	0.013	0.25	25	OUTLET	100	0.1	31.39	0
S216	100yrChicago24hr	J216	267.14	17809.33	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1	31.35	0
S220	100yrChicago24hr	SU220	34.67	5778.333	60	0.5	26.4	0.013	0.25	25	OUTLET	100	0.1	23.43	0
S221	100yrChicago24hr	SU220	4.53	503.333	90	0.55	2	0.013	0.25	25	OUTLET	100	0.1	31.34	0

Table 2B: Subcatchments

Name	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m^3/s)
Eaglewood	0	78.95	0.2
EBG1	0	61.56	0.21
EBG2	0	58.05	0.17
EBG3	0	58.74	0.49
EBG4	0	51.84	0.37
EBG5	0	59.25	3.42
EBR3S	0	80.39	0.35
EENNS1	0	66.12	0.31
EGOLF1	0	60.7	1.29
EGOLF2	0	60.7	2.34
EMAIN1	0	62	3.8
EMAIN2	0	62.36	4.73
EMAIN3	0	62.45	2.21
EMAIN4	0	66.51	4.2
ESAN1	0	73.68	5.2
ESAN2	0	76.3	2.42
ETRIB1a	0	63.29	1.14
ETRIB1b	0	60.31	0.8
ETRIB2E	0	69.66	0.4
ETRIB2W	0	62.19	7.38
ETRIB3E	0	82.79	0.77
ETRIB3W	0	59.31	4.7
North1	0	67.17	0.13
North2	0	78.97	0.16
North3	0	67.23	0.08
S101	0	70.03	6.32
S102	0	72.94	35.55

Table 2B: Subcatchments (continued...)

Name	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m^3/s)
S103	0	72.47	13.97
S104	0	73.33	11.18
S105	0	85.67	26.55
S106	0	83.58	33.47
S109	0	68.46	1.56
S110	0	72.52	5.11
S111	0	65.7	2.33
S112	0	66	18.46
S113	0	64.58	31.69
S151	0	82.44	10.3
S152	0	74.57	7.11
S153	0	80.53	23.55
S154	0	74.66	37.9
S155	0	70.13	2.7
S156	0	75.41	8.45
S157	0	75.07	13.47
S158	0	76.36	3.68
S159	0	72.28	6.26
S160	0	64.59	9.52
S161	0	72.77	33.79
S162	0	72.78	22.93
S163	0	72.43	16.11
S164	0	67.7	2.68
S165	0	72.6	7.22
S166	0	74.6	25.12
S167	0	63.17	2.46
S171	0	74.5	12.33

Table 2B: Subcatchments (continued...)

Name	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m^3/s)
S172	0	77.68	5.81
S180	0	65.7	5.08
S181	0	82.82	7.26
S182	0	67.15	3.68
S183	0	66.32	1.74
S184	0	64.64	14.77
S185	0	64.47	5.51
S186	0	65.06	30.66
S187	0	67.58	0.49
S191	0	74.62	31.32
S192	0	66.64	0.76
S193	0	74.35	6.86
S195	0	74.67	3.5
S201	0	72.94	5.87
S202	0	69.89	7.88
S203	0	71.23	3.59
S204	0	63.32	4.37
S205	0	63.84	5.78
S210	0	66.19	2.8
S211	0	71.14	8.58
S212	0	65.42	1.19
S213	0	64.39	1.47
S214	0	65.44	1.26
S215	0	64.32	16.06
S216	0	64.58	36.47
S220	0	73.34	10.7
S221	0	64.67	0.64

Table 3: Storages

Name	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Initial Depth (m)	Storage Curve	Curve Name	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Avg. Volume (1000 m^3)	Avg. Percent Full (%)	Max. Volume (1000 m^3)	Max. Percent Full (%)	Max. Outflow (m^3/s)
SU156	139	141.5	2.5	0	TABULAR	da156	1.72	2.28	141.28	8.449	5.644	60	8.047	85	3.274
SU157	139	141.5	2.5	0	TABULAR	da157	1.57	2.2	141.2	13.47	4.96	51	7.765	80	10.235
SU159	147.3	149.3	2	0	TABULAR	da159	0.8	1.01	148.31	6.26	3.226	31	4.192	40	3.937
SU163	136.85	139	2.15	0	TABULAR	da163	0.98	1.32	138.17	16.106	11.207	42	15.364	57	7.307
SU165	139	140.5	1.5	0	TABULAR	da165	0.8	1.01	140.01	7.219	4.083	49	5.234	63	4.344
SU166	147.15	150.15	3	0	TABULAR	da166	0.95	1.91	149.06	26.055	14.227	27	30.8	58	6.084
SU171	114	119	5	0	TABULAR	da171	1.5	4.43	118.43	12.327	1.436	19	5.701	74	9.407
SU172	127.5	130.5	3	0	TABULAR	da172	0.22	2.15	129.65	5.81	0.157	4	2.315	55	3.376
SU182	151.38	153.5	2.12	0	TABULAR	da182	0	0	151.38	0	0	0	0	0	0
SU191	127	130.5	3.5	0	TABULAR	da191	1.42	2.69	129.69	34.262	19.4	35	39.912	71	8.525
SU193	130.5	133	2.5	0	TABULAR	da193	1.05	1.5	132	6.861	4.237	40	6.171	58	3.813
SU201	132.59	135	2.41	0	TABULAR	da201	0.75	1.4	133.99	5.871	3.123	22	6.232	44	1.987
SU202	132.09	135	2.91	0	TABULAR	da202	1.04	1.9	133.99	7.876	6.159	29	12.017	56	1.772
SU203	131.25	134	2.75	0	TABULAR	da203	1.41	2.71	133.96	11.476	3.23	22	13.769	95	7.176

PCSWMM Report

Existing - Regional

Model 14Mile_Ex_JFSA_v02.1-Regional.inp

Urbantech Consulting

June 30, 2023

Table of Contents

Tables

Table 1: Junctions

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
10		101.05	105.05	4	0	0.31	1.29	102.34	3.454	2.71	29.25	3.392
21		104.217	114.737	10.52	0	1.2	3.68	107.89	218.743	7.087	2273.379	238.842
22		131.6	138.3	6.7	0	0.74	1.99	133.59	95.145	5.97	812.9	25.249
23		126.76	136.54	9.78	0	0.86	2.88	129.64	117.881	6.9	1023.4	51.197
25		118.429	128.74	10.311	0	1.26	2.9	121.33	168.865	8.399	1583.53	111.217
DF001		110.44	113.44	3	0	0.21	0.77	111.21	3.678	2.23	29.25	3.392
DF002		105.98	108.98	3	0	0.32	1.83	107.81	3.662	1.17	29.25	3.392
DF004		105.509	108.509	3	0	0.24	0.98	106.49	3.435	2.019	29.25	3.392
DF005		105.027	108.027	3	0	0.25	1	106.03	3.452	1.997	29.25	3.392
DF006		104.676	107.676	3	0	0.19	0.78	105.45	3.617	2.226	29.25	3.392
DF007		103.504	106.504	3	0	0.22	0.93	104.43	3.484	2.074	29.25	3.392
DF008		102.918	105.918	3	0	0.24	0.97	103.89	3.476	2.028	29.25	3.392
DF009		101.05	105.05	4	0	0.35	1.35	102.4	3.454	2.65	29.25	3.392
DFM001		108.085	108.085	0	0	0	0	108.08	0	0.755	29.25	3.392
DFM002		105.65	105.65	0	0	0	0	105.65	0	0.75	29.25	3.392
DFM003		107.786	107.786	0	0	0	0	107.79	0	0.746	29.25	3.392
DFM004		107.486	107.486	0	0	0	0	107.49	0	0.746	29.25	3.392
DFM005		107.187	107.187	0	0	0	0	107.19	0	0.747	29.25	3.392
DFM006		106.887	106.887	0	0	0	0	106.89	0	0.747	29.25	3.392
DFM007		106.588	106.588	0	0	0	0	106.59	0	0.748	29.25	3.392
DFM008		106.288	106.288	0	0	0	0	106.29	0	0.748	29.25	3.392
DFM009		105.989	105.989	0	0	0	0	105.99	0	0.749	29.25	3.392
E153		118.5	118.5	0	0	0.09	0.47	118.97	15.95	7.53	126.178	9.066
E238		119	119	0	0	0.2	0.76	119.76	16.039	6.74	126.178	9.066
E301		120	120	0	0	0.16	0.67	120.67	16.156	5.83	126.178	9.066
E344		120.5	120.5	0	0	0.25	0.76	121.26	14.887	5.24	115.238	8.391

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
E394		121.5	121.5	0	0	0.1	0.45	121.95	15.039	5.55	115.238	8.391
E439		121.5	121.5	0	0	0.41	1.17	122.67	14.477	4.83	110.689	8.3
E479		122	122	0	0	0.84	2.56	124.56	14.634	2.94	110.689	8.3
E494		122.54	122.54	0	0	0.54	2.03	124.57	14.913	2.93	110.689	8.3
E505		122.53	122.53	0	0	0.57	2.04	124.57	15.523	2.46	110.689	8.3
E543		123	123	0	0	0.39	1.58	124.58	15.822	3.92	109.129	8.268
E580		123.5	123.5	0	0	0.17	1.09	124.59	16.065	4.41	109.129	8.268
E604		124	124	0	0	0.3	0.66	124.66	9.553	4.84	55.83	5.177
E615		124.25	124.25	0	0	0.21	0.47	124.72	9.46	4.78	54.2	4.72
E618		124	124	0	0	0.39	0.86	124.86	6.602	3.64	53.299	3.092
E626		124	124	0	0	0.42	0.93	124.93	6.604	2.07	53.299	3.092
E643		124.5	124.5	0	0	0.19	0.65	125.15	9.64	3.35	54.2	4.72
E649		124.5	124.5	0	0	0.15	0.47	124.97	6.61	3.53	53.299	3.092
E667		124.5	124.5	0	0	0.29	0.88	125.38	9.724	3.12	54.2	4.72
E673		125	125	0	0	0.13	0.41	125.41	6.612	3.59	53.299	3.092
E677		125	125	0	0	0.13	0.46	125.46	9.782	3.54	54.2	4.72
E690		125	125	0	0	0.22	0.65	125.65	10.303	3.35	54.2	4.72
E732		126	126	0	0	0.1	0.48	126.48	11.852	3.52	52.28	4.682
E733		126	126	0	0	0.2	0.61	126.61	5.911	2.89	47.779	1.895
E761		126.5	126.5	0	0	0.07	0.43	126.93	14.069	4.07	52.28	4.682
E768		126.5	126.5	0	0	0.1	0.42	126.92	5.289	3.08	43.037	0.861
E818		126.5	126.5	0	0	0.48	1.29	127.79	8.564	3.21	52.28	4.682
E855		127	127	0	0	0.22	0.82	127.82	6.666	3.18	52.28	4.682
EBS1		127	127	0	0	0.18	0.59	127.59	0.637	1.41	4.741	1.034
EBS1_1		126.6	126.6	0	0	0.18	0.59	127.19	0.635	1.41	4.741	1.034
EBS1_2		126.2	126.2	0	0	0.19	0.61	126.81	0.632	1.39	4.741	1.034

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1		102.412	106.412	4	0	0.67	2.39	104.8	39.71	1.912	366.54	105.269
J100.17		119.57	130.25	10.68	0	0.49	1.79	121.36	36.097	8.89	401.01	11.577
J1002.010		118	124.97	6.97	0	0.24	0.82	118.82	25.169	6.15	191.22	42.512
J1012.195		83.33	87.423	4.093	0	1.02	3.43	86.76	263.275	1.853	2970.928	482.02
J1015.55		112.6	123.15	10.55	0	0.34	1.03	113.63	19.852	10.26	176.25	32.382
J1020.38		135.77	141.35	5.58	0	0.39	1.06	136.83	34.484	4.52	372.44	10.492
J1020.569		141.92	146.28	4.36	0	0.17	0.54	142.46	11.463	3.82	102.87	2.756
J1022.947		124.1	132.95	8.85	0	0.87	2.57	126.67	122.621	6.38	1068.5	62.887
J1029.335		118.5	125.27	6.77	0	0.15	0.59	119.09	25.172	8.2	191.22	42.512
J1033.40		112.7	123.79	11.09	0	0.32	1.02	113.72	19.852	10.27	176.25	32.382
J104.967		118.93	129.31	10.38	0	1.08	3.13	122.06	134.112	7.25	1182.52	99.64
J1041.555		138.5	144.74	6.24	0	0.68	1.65	140.15	40.582	4.59	344.96	10.306
J1042.897		124.71	133.33	8.62	0	0.63	2.11	126.82	122.623	6.51	1068.5	62.887
J1058.20		113	123.02	10.02	0	0.32	0.88	113.88	19.853	9.14	176.25	32.382
J1060.963		83.331	88.614	5.283	0	1.42	3.71	87.04	263.888	1.574	2970.928	482.02
J1093.556		83.516	88.39	4.874	0	1.37	3.68	87.2	263.966	1.553	2918.968	469.237
J1096.947		125.1	132.5	7.4	0	0.67	2.1	127.2	122.626	6.52	1068.5	62.887
J110.089		135.1	136.66	1.56	0	0.34	0.44	135.54	11.453	1.12	102.87	2.756
J1100		118.97	127.76	8.79	0	0.29	0.84	119.81	25.174	8.44	191.22	42.512
J1100.10		113.46	123	9.54	0	0.28	0.85	114.31	19.853	9.15	176.25	32.382
J1100.215		139	144.47	5.47	0	0.46	1.49	140.49	39.858	5.3	338.59	10.179
J1100.239		142.5	146.67	4.17	0	0.33	1	143.5	11.463	3.17	102.87	2.756
J1126.60		136.69	141.42	4.73	0	0.27	0.75	137.44	34.486	3.98	372.44	10.492
J113		160	163	3	0	0.41	1.54	161.54	29.166	4.76	232.12	4.642
J1130.117		125.2	133.15	7.95	0	0.61	2.09	127.29	122.639	6.96	1068.5	62.887
J1146.464		83.72	88.957	5.237	0	1.45	3.92	87.64	260.355	1.317	2918.968	469.237

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1151.075		139.5	146.29	6.79	0	0.53	1.19	140.69	39.862	5.91	338.59	10.179
J1154.80		114	124	10	0	0.28	0.85	114.85	19.853	9.15	176.25	32.382
J1163.689		144	147.44	3.44	0	0.18	0.58	144.58	11.464	3.23	102.87	2.756
J1178.27		114.74	124.1	9.36	0	0.21	0.66	115.4	19.853	8.7	176.25	32.382
J1184.779		119.5	128.78	9.28	0	0.25	0.88	120.38	25.182	8.4	191.22	42.512
J1200.117		125.3	134.05	8.75	0	0.86	2.46	127.76	119.972	6.59	1043.28	56.227
J1200.17		137.5	142.12	4.62	0	0.38	1.04	138.54	34.489	4.05	372.44	10.492
J1200.215		139.56	146.66	7.1	0	0.55	1.41	140.97	39.87	5.69	338.59	10.179
J1230.909		144.5	148.31	3.81	0	0.18	0.61	145.11	11.465	3.2	102.87	2.756
J1246.464		84.245	89.177	4.932	0	1.8	4.15	88.39	260.25	1.264	2918.968	469.237
J125.38		102.9	107	4.1	0	0.72	2.2	105.1	32.47	1.9	295.96	69.133
J1286.17		116.4	125.06	8.66	0	0.25	0.76	117.16	19.853	8.6	176.25	32.382
J1294.225		140.5	147.47	6.97	0	0.29	0.92	141.42	39.876	8.4	338.59	10.179
J1298.178		84.629	90.038	5.409	0	1.85	4.1	88.73	260.25	1.308	2918.968	469.237
J1300		121.16	129.84	8.68	0	0.25	0.79	121.95	25.191	7.89	191.22	42.512
J1300.117		125.84	133.78	7.94	0	0.65	2.12	127.96	117.857	6.42	1023.4	51.197
J1300.17		138.5	143.59	5.09	0	0.41	1.17	139.67	34.491	3.92	372.44	10.492
J1305.379		145.44	148.28	2.84	0	0.18	0.54	145.98	11.466	2.37	102.87	2.756
J1310.18		116.5	125.53	9.03	0	0.36	0.97	117.47	19.853	8.06	176.25	32.382
J1348.30		138.6	143.39	4.79	0	0.6	1.46	140.06	34.492	3.43	372.44	10.492
J1361.769		146.02	148.93	2.91	0	0.16	0.51	146.53	11.467	2.4	102.87	2.756
J1365.595		140.98	150.3	9.32	0	0.28	0.94	141.92	39.876	8.63	338.59	10.179
J1388.055		141	150.57	9.57	0	0.51	1.43	142.43	39.876	8.14	338.59	10.179
J1391.170		85.698	90.311	4.613	0	1.27	3.25	88.95	260.265	1.781	2918.968	469.237
J1393.48		139	143.67	4.67	0	0.35	1.16	140.16	34.496	5.26	372.44	10.492
J1400.000		122.35	130.16	7.81	0	0.22	0.73	123.08	25.197	7.24	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1400.10		117.53	126.26	8.73	0	0.51	1.31	118.84	19.855	7.42	176.25	32.382
J1400.117		125.96	134.5	8.54	0	1.02	2.69	128.65	117.868	6.19	1023.4	51.197
J1400.239		146.4	148.94	2.54	0	0.11	0.38	146.78	6.224	2.29	54.06	1.243
J142.6492		107.45	116.36	8.91	0	0.25	0.93	108.38	48.647	7.98	382.54	90.009
J1446.464		85.884	90.917	5.033	0	1.36	3.35	89.24	260.289	1.677	2918.968	469.237
J1447.009		146.5	149.17	2.67	0	0.14	0.49	146.99	6.225	2.43	54.06	1.243
J145.135		132.5	139.22	6.72	0	0.41	1.44	133.94	41.668	5.51	355.59	10.54
J146.4641		74.822	82.499	7.677	0	1.74	3.23	78.05	267.479	4.449	3095.538	514.044
J1489.00		139.5	145.92	6.42	0	0.69	1.59	141.09	34.497	4.83	372.44	10.492
J1500.000		123	130.97	7.97	0	0.33	1.03	124.03	25.208	6.94	191.22	42.512
J1500.10		119.53	127	7.47	0	0.17	0.56	120.09	19.856	6.91	176.25	32.382
J1500.117		126	134.88	8.88	0	1.12	3.12	129.12	117.876	6.89	1023.4	51.197
J1500.239		147	149.92	2.92	0	0.13	0.41	147.41	6.226	2.51	54.06	1.243
J151		98.68	102.181	3.501	0	0.65	1.51	100.19	45.782	2.79	416.78	126.952
J152		107	109	2	0	0.06	0.2	107.2	3.425	1.8	25.32	8.026
J1541.43		140	145.01	5.01	0	0.43	1.23	141.23	34.5	3.78	372.44	10.492
J1546.464		86.9	91.178	4.278	0	0.93	2.61	89.51	260.318	2.855	2918.968	469.237
J1550.647		126.5	136.51	10.01	0	0.89	3.05	129.55	117.878	6.96	1023.4	51.197
J1567.909		147.65	150.57	2.92	0	0.17	0.56	148.21	6.23	2.38	54.06	1.243
J1599.10		120	127.16	7.16	0	0.28	0.88	120.88	19.857	6.5	176.25	32.382
J16.935		131.7	139.46	7.76	0	0.7	1.9	133.6	41.665	6.06	355.59	10.54
J1600.117		127	136.56	9.56	0	0.79	2.72	129.72	101.701	6.84	874.51	39.882
J162.45		120.67	130.62	9.95	0	0.42	1.05	121.72	36.097	8.9	401.01	11.577
J162.977		119.1	128.88	9.78	0	0.99	3.14	122.24	134.173	6.64	1182.52	99.64
J1627.66		141	146	5	0	0.35	1.02	142.02	34.502	3.99	372.44	10.492
J1637.989		148.5	151.44	2.94	0	0.11	0.34	148.84	6.231	2.6	54.06	1.243

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1668.083		87	92.465	5.465	0	1.34	3.21	90.21	260.374	2.255	2918.968	469.237
J167		155.07	156.74	1.67	0	0.07	0.21	155.28	2.962	1.46	26.36	0.527
J1700		126	133.54	7.54	0	0.34	0.97	126.97	25.211	6.57	191.22	42.512
J1700.10		121	128.38	7.38	0	0.22	0.62	121.62	19.86	6.76	176.25	32.382
J1700.117		127.5	135.16	7.66	0	0.78	2.56	130.06	101.711	5.1	874.51	39.882
J1700.17		141.45	146.11	4.66	0	0.37	1.03	142.48	34.504	4.03	372.44	10.492
J1700.229		149.05	151.48	2.43	0	0.18	0.53	149.58	6.232	1.9	54.06	1.243
J1749.279		149.55	151.59	2.04	0	0.11	0.34	149.89	6.233	2.16	54.06	1.243
J1797.21		141.65	146.71	5.06	0	0.42	1.19	142.84	34.508	3.87	372.44	10.492
J1800		127.33	133.88	6.55	0	0.22	0.71	128.04	25.217	5.84	191.22	42.512
J1800.10		121.5	128.81	7.31	0	0.31	0.89	122.39	19.863	6.42	176.25	32.382
J1800.117		128.01	135.21	7.2	0	0.71	2.54	130.55	100.342	4.69	861.55	37.29
J1800.229		149.65	152.15	2.5	0	0.16	0.49	150.14	6.25	2.01	54.06	1.243
J181		135	137	2	0	0.08	0.25	135.25	2.312	1.75	15.96	8.842
J1816.580		87.39	91.48	4.09	0	1.45	3.12	90.51	260.524	1.365	2918.968	469.237
J185		153.5	154.5	1	0	0.15	0.67	154.17	5.341	2.33	43.32	1.04
J186		163.5	167	3.5	0	1.01	1.99	165.49	25.035	1.63	193.34	4.64
J1900		128.89	134	5.11	0	0.35	1.01	129.9	25.222	4.1	191.22	42.512
J1900.10		123	129.92	6.92	0	0.16	0.54	123.54	19.865	6.38	176.25	32.382
J1900.17		142.5	147.09	4.59	0	0.44	1.13	143.63	34.515	3.46	372.44	10.492
J1900.229		150.35	152.38	2.03	0	0.1	0.34	150.69	6.279	2.44	54.06	1.243
J1902.476		88.381	92.866	4.485	0	0.86	2.44	90.82	260.61	2.748	2918.968	469.237
J1917.479		88.485	93.672	5.187	0	0.83	2.44	90.92	260.623	2.752	2918.968	469.237
J1927.647		129.5	136.73	7.23	0	0.84	2.12	131.62	100.348	5.13	861.55	37.29
J1942.494		88.489	95.147	6.658	0	0.92	2.56	91.05	260.633	4.349	2918.968	469.237
J1952.554		88.541	95.294	6.753	0	0.97	2.63	91.17	260.657	4.281	2918.968	469.237

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1956.59		123.5	130.06	6.56	0	0.23	0.64	124.14	19.865	5.92	176.25	32.382
J1978.418		130.25	134.48	4.23	0	0.13	0.52	130.77	25.225	3.71	191.22	42.512
J2.1		141.3	150.5	9.2	0	0.52	1.61	142.91	27.677	7.59	232.12	4.642
J2.2		153.2	157.65	4.45	0	1.07	2.62	155.82	29.488	1.83	299.01	6.754
J2.5		142.5	151.5	9	0	0.64	1.69	144.19	48.233	7.31	408.23	8.212
j2.6		141.4	150.7	9.3	0	0.72	2.04	143.44	27.681	7.26	232.12	4.642
J200.09		103	106.44	3.44	0	0.83	2.28	105.28	32.373	1.19	295.96	69.133
J200.17		121.42	131.29	9.87	0	0.31	0.88	122.3	36.097	10	401.01	11.577
J200.215		132.57	139.52	6.95	0	0.55	1.55	134.12	41.678	5.74	355.59	10.54
J200.239		135.2	136.65	1.45	0	0.25	0.38	135.58	11.453	2.04	102.87	2.756
J2000.10		124.71	129.82	5.11	0	0.22	0.53	125.24	19.865	6.34	176.25	32.382
J2000.117		130	137.25	7.25	0	0.83	2.18	132.18	100.351	5.07	861.55	37.29
J2000.17		143	146.77	3.77	0	0.46	1.18	144.18	34.517	3.88	372.44	10.492
J2000.229		150.79	153.57	2.78	0	0.07	0.29	151.08	6.302	4.14	54.06	1.243
J2032.625		130.38	134.5	4.12	0	0.33	0.91	131.29	25.228	3.21	191.22	42.512
J2046.464		89	95.91	6.91	0	1.02	2.68	91.68	260.678	4.23	2918.968	469.237
J2063.577		130.5	137.45	6.95	0	0.69	1.91	132.41	95.137	5.04	812.9	25.249
J2100		131.31	134.6	3.29	0	0.21	0.69	132	25.232	2.6	191.22	42.512
J2100.10		124.81	131.68	6.87	0	0.76	1.81	126.62	19.868	5.06	176.25	32.382
J2100.17		144	149.06	5.06	0	0.37	1.02	145.02	34.52	4.04	372.44	10.492
J2100.229		151.18	155.61	4.43	0	0.18	0.54	151.72	6.329	3.89	54.06	1.243
J2118.174		89.5	95.106	5.606	0	0.88	2.56	92.06	260.69	3.187	2918.968	469.237
J212		144.4	145.7	1.3	0	0.05	0.14	144.54	1.062	1.16	8.58	0.463
J2128.867		131.26	138.01	6.75	0	0.58	1.64	132.9	95.143	5.11	812.9	25.249
J216		153.5	155.5	2	0	0.68	2.27	155.77	33.566	7.73	267.14	5.343
J2162.390		89.6	95.247	5.647	0	1.18	2.96	92.56	260.7	2.787	2918.968	469.237

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2165.306		132	135.12	3.12	0	0.27	0.83	132.83	25.233	2.29	191.22	42.512
J2171.407		131.5	138.11	6.61	0	0.76	1.88	133.38	95.143	5.56	812.9	25.249
J2173.272		89.7	95.24	5.54	0	1.32	3.25	92.95	260.705	2.49	2918.968	469.237
J2177.86		144.55	149.42	4.87	0	0.34	1.04	145.59	34.521	5.1	372.44	10.492
J2185.476		89.8	94.811	5.011	0	1.33	3.37	93.17	258.922	1.981	2879.168	458.412
J2187.585		132.25	135.24	2.99	0	0.26	0.84	133.09	25.233	2.28	191.22	42.512
J2200.229		152.38	156.67	4.29	0	0.11	0.37	152.75	6.347	3.92	54.06	1.243
J2206.53		126.62	132.31	5.69	0	0.21	0.68	127.3	19.869	5.62	176.25	32.382
J2213.506		90.096	94.702	4.606	0	1.25	3.32	93.42	258.924	2.11	2879.168	458.412
J2223.267		131.7	138.96	7.26	0	0.73	2.03	133.73	53.53	5.71	457.31	14.709
J2224.630		90.196	95.437	5.241	0	1.22	3.37	93.56	258.93	2.636	2879.168	458.412
J2227.161		132.92	136.08	3.16	0	0.36	1.12	134.04	25.233	2.33	191.22	42.512
J2242.380		133	136.45	3.45	0	0.43	1.29	134.29	25.233	2.16	191.22	42.512
J226.077		119.5	129	9.5	0	0.87	2.95	122.45	134.219	6.7	1182.52	99.64
J2266.899		153.53	156.84	3.31	0	0.14	0.43	153.96	6.35	2.88	54.06	1.243
J2267.81		144.88	151.02	6.14	0	0.51	1.33	146.21	34.521	4.81	372.44	10.492
J2287.052		133.1	136.24	3.14	0	0.47	1.43	134.53	25.234	2.38	191.22	42.512
J2292.097		132	139.74	7.74	0	0.71	1.99	133.99	53.554	5.75	457.31	14.709
J2296.492		90.5	96.5	6	0	1.23	3.39	93.89	258.943	2.61	2879.168	458.412
J2300.10		127.5	133.8	6.3	0	0.42	1.2	128.7	19.869	5.1	176.25	32.382
J2331.99		145.19	149.22	4.03	0	0.73	1.88	147.07	34.525	2.15	372.44	10.492
J2346.464		90.922	96.594	5.672	0	1.02	3.12	94.04	258.969	2.885	2879.168	458.412
J2352.47		128.16	134.26	6.1	0	0.43	1.24	129.4	19.869	4.86	176.25	32.382
J2359.439		133.2	136.81	3.61	0	0.55	1.63	134.83	25.235	2.26	191.22	42.512
J2376.910		133.3	136.89	3.59	0	0.54	1.67	134.97	25.237	2.22	191.22	42.512
J2378.957		132.5	140.22	7.72	0	0.72	1.91	134.41	53.571	5.81	457.31	14.709

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2411.26		146	149.06	3.06	0	0.4	1.27	147.27	34.531	1.93	372.44	10.492
J2430.00		129.47	135.14	5.67	0	0.61	1.74	131.21	19.871	3.93	176.25	32.382
J2446.464		91.165	97.168	6.003	0	1.32	3.66	94.82	258.999	3.538	2879.168	458.412
J2447.455		133.5	137.5	4	0	0.57	1.75	135.25	25.239	2.25	191.22	42.512
J2456.367		133.5	140.73	7.23	0	0.51	1.26	134.76	53.577	5.97	457.31	14.709
J246.4641		75.714	82.643	6.929	0	1.04	2.7	78.41	267.536	4.233	3095.538	514.044
J246.585		133	140.29	7.29	0	0.38	1.24	134.24	41.689	6.42	355.59	10.54
J2460.36		146.52	149.72	3.2	0	0.51	1.17	147.69	34.532	2.03	372.44	10.492
J2465.522		133.6	137.5	3.9	0	0.53	1.73	135.33	25.241	2.27	191.22	42.512
J248.32		103.2	106.67	3.47	0	0.92	2.36	105.56	32.33	1.11	295.96	69.133
J250.67		122	132.88	10.88	0	0.53	1.28	123.28	36.098	9.6	401.01	11.577
J2500		133.7	137.5	3.8	0	0.56	1.76	135.46	25.247	2.66	191.22	42.512
J2500.10		131.13	135.11	3.98	0	0.4	1.05	132.18	19.871	2.93	176.25	32.382
J2500.16		147	149.16	2.16	0	0.54	1.29	148.29	34.035	1.25	364.85	10.18
J2528.637		133.51	139.67	6.16	0	0.94	2.04	135.55	53.577	5.95	457.31	14.709
J2535.77		132.07	135.56	3.49	0	0.31	0.88	132.95	19.871	2.61	176.25	32.382
J2540.48		147.7	150.24	2.54	0	0.23	0.75	148.45	34.036	2.17	364.85	10.18
J2546.464		91.817	99.01	7.193	0	1.4	3.59	95.41	259.027	3.6	2879.168	458.412
J255.1367		109	117.33	8.33	0	0.38	1.15	110.15	38.754	7.18	310.94	72.681
J2559.518		133.8	137.92	4.12	0	0.61	1.86	135.66	25.252	3.52	191.22	42.512
J2594.793		133.9	138.89	4.99	0	0.61	1.9	135.8	25.26	3.48	191.22	42.512
J2600.16		148	150.92	2.92	0	0.38	1.04	149.04	34.037	2.14	364.85	10.18
J2603.25		132.62	136.05	3.43	0	0.28	0.92	133.54	19.871	3.21	176.25	32.382
J2604.897		134	141.11	7.11	0	0.66	1.68	135.68	49.357	5.62	419.1	8.527
J2646.464		93	99.353	6.353	0	0.89	2.85	95.85	256.634	4.09	2818.068	418.452
J2646.738		134	138.5	4.5	0	0.58	1.88	135.88	25.27	2.72	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J265.297		119.9	129.65	9.75	0	0.75	2.69	122.59	134.26	7.16	1182.52	99.64
J2650.52		148.47	151.65	3.18	0	0.34	1.06	149.53	32.398	2.36	342.33	7.793
J2662.919		134.1	138.5	4.4	0	0.52	1.81	135.91	25.282	2.79	191.22	42.512
J2666.88		133.04	137.17	4.13	0	0.5	1.33	134.37	19.871	2.91	176.25	32.382
J2680.447		93.183	100.123	6.94	0	1.07	3.03	96.21	256.641	3.913	2818.068	418.452
J27.449		130.03	136.41	6.38	0	0.09	0.3	130.33	16.525	6.08	148.89	11.315
J2706.457		134.5	141.8	7.3	0	0.54	1.56	136.06	48.172	6.33	408.23	8.212
J2721.15		148.5	151.92	3.42	0	0.43	1.29	149.79	32.398	2.13	342.33	7.793
J2723.864		134.2	138.4	4.2	0	0.48	1.79	135.99	25.294	2.81	191.22	42.512
J2742.526		134.3	138.39	4.09	0	0.53	1.8	136.1	25.308	2.59	191.22	42.512
J2744.16		133.12	137.36	4.24	0	0.67	1.7	134.82	19.872	2.54	176.25	32.382
J2746.464		93.57	100.018	6.448	0	1.19	3.26	96.83	256.644	3.552	2818.068	418.452
J2757.35		133.44	137.39	3.95	0	0.47	1.45	134.89	19.872	2.54	176.25	32.382
J2795.45		149	152.27	3.27	0	0.52	1.47	150.47	32.403	1.8	342.33	7.793
J2800		134.5	138.48	3.98	0	0.49	1.71	136.21	25.339	2.32	191.22	42.512
J2809.59		133.67	137.69	4.02	0	0.52	1.5	135.17	19.872	2.81	176.25	32.382
J2813.657		135	142.89	7.89	0	0.63	1.67	136.67	48.177	6.22	408.23	8.212
J2826.19		134.02	138.33	4.31	0	0.45	1.38	135.4	19.872	2.93	176.25	32.382
J2849.017		94.004	100.816	6.812	0	1.4	3.7	97.71	256.642	3.473	2818.068	418.452
J2860.405		94.277	101.456	7.179	0	1.27	3.69	97.97	256.642	3.486	2818.068	418.452
J2892.413		94.718	101.354	6.636	0	1.21	3.61	98.33	256.643	3.567	2818.068	418.452
J2900		135	139.03	4.03	0	0.51	1.6	136.6	25.348	2.92	191.22	42.512
J2900.09		134.66	138.21	3.55	0	0.46	1.32	135.98	19.872	2.6	176.25	32.382
J2900.117		136	143.22	7.22	0	0.39	1.16	137.16	48.184	6.06	408.23	8.212
J2900.16		150.44	152.62	2.18	0	0.44	1.11	151.55	32.408	2.01	342.33	7.793
J2902.731		94.769	101.549	6.78	0	1.3	3.81	98.58	256.644	3.368	2818.068	418.452

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2946.464		94.788	101.633	6.845	0	1.46	4.09	98.88	256.652	3.087	2818.068	418.452
J2979.285		135.02	139.54	4.52	0	0.68	1.93	136.95	25.353	2.59	191.22	42.512
J2989.647		95	101.923	6.923	0	1.37	4.05	99.05	256.673	2.873	2818.068	418.452
J3		143.5	146.5	3	0	0.33	1.54	145.04	48.234	3.96	408.23	8.212
j3.1		141.5	144.1	2.6	0	0.71	2.06	143.56	27.688	7.24	232.12	4.642
J3.15		153.4	157.72	4.32	0	0.89	2.43	155.83	29.602	1.89	299.01	6.754
J3.2		153.7	156.7	3	0	0.69	2.14	155.84	29.773	0.86	299.01	6.754
J300		109.84	118	8.16	0	0.45	1.24	111.08	38.782	6.92	310.94	72.681
J300.215		133.5	141.16	7.66	0	0.29	1.01	134.51	41.694	6.65	355.59	10.54
J300.239		135.3	137.92	2.62	0	0.19	0.42	135.72	11.455	2.76	102.87	2.756
J3000.09		135.71	139.63	3.92	0	0.51	1.45	137.16	19.872	2.54	176.25	32.382
J3000.117		136.5	143.55	7.05	0	0.29	1.11	137.61	48.192	6.09	408.23	8.212
J3000.16		151.17	154.29	3.12	0	0.49	1.12	152.29	32.411	2	342.33	7.793
J3007.922		135.5	139.65	4.15	0	0.34	1.5	137	25.367	2.65	191.22	42.512
J3051.067		137	144.2	7.2	0	0.27	0.95	137.95	48.194	6.43	408.23	8.212
J3054.885		96	102.767	6.767	0	1.02	3.33	99.33	256.685	3.937	2818.068	418.452
J3066.327		96.078	103.345	7.267	0	1.14	3.55	99.63	256.689	3.787	2818.068	418.452
J3100.09		136.64	140.63	3.99	0	0.46	1.35	137.99	19.872	2.64	176.25	32.382
J3100.16		151.77	154.15	2.38	0	0.39	0.97	152.74	32.414	2.11	342.33	7.793
J3103.867		137.1	144.38	7.28	0	0.51	1.47	138.57	48.197	6.12	408.23	8.212
J3105.432		96.188	102.227	6.039	0	1.31	3.78	99.97	256.722	3.557	2818.068	418.452
J311.56		123.78	133.22	9.44	0	0.33	0.85	124.63	36.098	8.59	401.01	11.577
J3111.594		136	139.94	3.94	0	0.28	1.25	137.25	25.394	3.02	191.22	42.512
J3135.520		136.1	140.27	4.17	0	0.23	1.16	137.26	25.465	4.12	191.22	42.512
J314.357		120	129.85	9.85	0	0.78	2.76	122.76	134.324	7.09	1182.52	99.64
J3148.25		152.01	155.09	3.08	0	0.29	0.91	152.92	32.417	2.17	342.33	7.793

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3150.013		96.681	102.937	6.256	0	0.94	3.32	100	257.247	5.042	2818.068	418.452
J3158.17		137.27	141.2	3.93	0	0.35	1.09	138.36	19.872	3.06	176.25	32.382
J3200		136.2	141.28	5.08	0	0.35	1.16	137.36	17.565	4.34	132.89	28.396
J3200.117		138	145.59	7.59	0	0.55	1.67	139.67	48.207	5.92	408.23	8.212
J3200.16		152.1	155.03	2.93	0	0.47	1.16	153.26	32.419	2.47	342.33	7.793
J3221.88		137.63	141.78	4.15	0	0.5	1.38	139.01	19.872	2.77	176.25	32.382
J3237.56		137.83	141.97	4.14	0	0.39	1.28	139.11	19.873	2.86	176.25	32.382
J3246.464		97	105.361	8.361	0	1.15	3.37	100.37	224.808	5.35	2401.288	291.5
J3262.17		152.2	155.64	3.44	0	0.53	1.36	153.56	32.423	2.27	342.33	7.793
J3300		136.5	142	5.5	0	0.35	1.13	137.63	16.03	4.37	121.24	27.348
J3300.117		139.5	145.63	6.13	0	0.31	1.08	140.58	48.213	5.43	408.23	8.212
J3322.153		98.06	106.78	8.72	0	0.82	2.51	100.57	221.778	6.21	2324.548	246.838
J3337.30		152.5	156.12	3.62	0	0.43	1.23	153.73	32.429	2.39	342.33	7.793
J3346.98		138	144.35	6.35	0	0.48	1.43	139.43	19.873	5.07	176.25	32.382
J3361.22		138.1	144.5	6.4	0	0.42	1.34	139.44	19.879	5.16	176.25	32.382
J3390.389		98.377	106.623	8.246	0	0.91	2.64	101.02	221.787	5.603	2324.548	246.838
J3392.66		138.2	141.54	3.34	0	0.33	1.25	139.45	19.9	2.29	176.25	32.382
J3400		137	142.5	5.5	0	0.26	0.91	137.91	16.046	4.96	121.24	27.348
J3411.51		153	156.34	3.34	0	0.4	1.13	154.13	32.433	2.24	342.33	7.793
J3414.967		140.48	146.99	6.51	0	0.3	1.18	141.66	48.214	5.44	408.23	8.212
J3428.33		153.1	156.37	3.27	0	0.47	1.21	154.31	28.859	2.16	299.01	6.754
J3445.04		138.5	142	3.5	0	0.26	0.96	139.46	12.898	3.9	110.73	11.324
J3446.464		98.818	106.275	7.457	0	0.87	2.51	101.33	221.792	4.945	2324.548	246.838
J346.4642		76.795	83.351	6.556	0	0.84	2.35	79.14	267.569	4.211	3095.538	514.044
J349.449		135.4	138.68	3.28	0	0.13	0.41	135.81	11.456	3.29	102.87	2.756
J3492.153		99	105.476	6.476	0	0.98	2.73	101.73	221.799	4.687	2324.548	246.838

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J350.45		124.43	133.57	9.14	0	0.54	1.24	125.67	36.099	7.9	401.01	11.577
J3500		137.5	143.37	5.87	0	0.42	1.26	138.76	12.872	4.61	97.4	21.626
J3500.1		139	142	3	0	0.13	0.54	139.54	12.904	4.32	110.73	11.324
J3500.117		141.15	147.77	6.62	0	0.58	1.66	142.81	48.215	4.96	408.23	8.212
J352.0823		110.5	118.23	7.73	0	0.49	1.37	111.87	25.116	6.36	191.22	42.512
J352.30		104	107.43	3.43	0	0.88	2.12	106.12	32.334	1.31	295.96	69.133
J3539.547		100	107.417	7.417	0	0.58	1.92	101.92	221.811	5.497	2324.548	246.838
J3546.867		141.5	147.8	6.3	0	0.5	1.56	143.06	48.223	5.71	408.23	8.212
J3552.954		100.01	107.142	7.132	0	0.67	2.05	102.06	221.821	5.106	2324.548	246.838
J3590.76		140.9	145.15	4.25	0	0.23	0.65	141.55	11.68	3.6	99.46	9.363
J3597.283		100.07	107.677	7.607	0	0.76	2.2	102.27	221.831	5.407	2324.548	246.838
J36.529		131.25	136.77	5.52	0	0.13	0.36	131.61	16.525	5.16	148.89	11.315
J3600		139	144	5	0	0.35	1.1	140.1	12.875	10.47	97.4	21.626
J3609.26		141	144.86	3.86	0	0.27	0.77	141.77	11.68	3.38	99.46	9.363
J3610.812		100.09	105.385	5.295	0	0.85	2.33	102.42	219.887	5.459	2295.298	243.446
J3624.107		142	149.27	7.27	0	0.45	1.33	143.33	48.229	5.94	408.23	8.212
J3660.527		142.5	151	8.5	0	0.4	1.31	143.81	48.232	7.19	408.23	8.212
J3667.068		100.17	107.789	7.619	0	1.14	2.92	103.09	219.889	4.869	2295.298	243.446
J3677.11		141.47	145.24	3.77	0	0.42	1.16	142.63	11.68	2.73	99.46	9.363
J3684.238		140.5	152.07	11.57	0	0.33	1.03	141.53	12.876	10.54	97.4	21.626
J3685.955		100.198	104.836	4.638	0	1.16	3.01	103.2	219.892	1.638	2295.298	243.446
J3696.22		141.96	145.72	3.76	0	0.26	0.88	142.84	11.68	3.17	99.46	9.363
J3709.655		100.514	105.087	4.573	0	0.98	2.84	103.35	219.895	3.757	2295.298	243.446
J3717.833		100.614	107.107	6.493	0	1.04	2.88	103.49	219.899	3.717	2295.298	243.446
J3742.908		141.18	147.54	6.36	0	0.36	1.15	142.33	12.876	5.21	97.4	21.626
J3758.726		141.55	145.98	4.43	0	0.27	0.99	142.54	12.877	3.44	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3770.893		101.707	107.337	5.63	0	0.88	2.49	104.19	219.899	4.11	2295.298	243.446
J3780.99		142.34	146.39	4.05	0	0.36	1.03	143.37	11.681	4.29	99.46	9.363
J3811.191		141.58	145.38	3.8	0	0.42	1.24	142.82	12.877	3.19	97.4	21.626
J3825.668		141.6	145.74	4.14	0	0.43	1.3	142.9	12.882	3.28	97.4	21.626
J3846.464		101.8	107.55	5.75	0	1.36	3.59	105.39	219.898	4.885	2295.298	243.446
J3869.05		143	148.32	5.32	0	0.41	1.17	144.17	11.681	4.15	99.46	9.363
J388.5779		77.436	83.441	6.005	0	0.8	2.36	79.8	267.566	3.641	3095.538	514.044
J3900		141.99	146.57	4.58	0	0.32	1.08	143.07	12.902	3.5	97.4	21.626
J392.31		104.36	107.44	3.08	0	0.85	2.07	106.43	32.335	1.01	295.96	69.133
J3932.07		143.5	147.63	4.13	0	0.4	1.15	144.65	11.681	3.4	99.46	9.363
J3946.464		102	110.475	8.475	0	1.41	3.9	105.9	219.903	4.575	2295.298	243.446
J3947.67		143.6	148.05	4.45	0	0.43	1.23	144.83	11.682	3.32	99.46	9.363
J4		144.1	147	2.9	0	0.63	2.01	146.11	32.188	2.89	267.14	5.343
J4.1		141.7	144.7	3	0	0.62	2.02	143.72	27.757	8.28	232.12	4.642
J4.2		154.5	157.5	3	0	0.46	1.39	155.89	19.881	1.61	193.34	4.64
J4.25		146	149	3	0	0.43	1.45	147.45	32.192	1.55	267.14	5.343
J4.5		146.02	149	2.98	0	0.57	1.84	147.86	32.193	2.56	267.14	5.343
J4.55		146.04	148.6	2.56	0	0.63	1.92	147.96	32.194	2.48	267.14	5.343
J4.56		146.06	150.45	4.39	0	0.62	1.92	147.98	32.195	2.47	267.14	5.343
J4.6		146.08	150.46	4.38	0	0.61	1.92	148	32.197	2.46	267.14	5.343
J4.7		146.1	149.1	3	0	0.61	1.92	148.02	32.226	1.98	267.14	5.343
J4.75		146.5	149.5	3	0	0.57	1.98	148.48	32.342	1.52	267.14	5.343
J400.127		120.75	130.56	9.81	0	0.68	2.47	123.22	134.376	7.34	1182.52	99.64
J400.215		134.5	142	7.5	0	0.54	1.58	136.08	41.697	5.92	355.59	10.54
J400.239		135.5	139.2	3.7	0	0.18	0.62	136.12	11.457	3.65	102.87	2.756
J4014.677		142.65	147.06	4.41	0	0.17	0.64	143.29	12.923	3.77	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4019.03		143.7	149.48	5.78	0	0.53	1.41	145.11	11.682	4.81	99.46	9.363
J402.1469		77.5	83.361	5.861	0	0.91	2.59	80.09	267.574	3.415	3095.538	514.044
J4034.42		143.8	149.72	5.92	0	0.51	1.48	145.28	11.683	4.74	99.46	9.363
J4067.080		102.504	110.39	7.886	0	1.15	3.64	106.15	219.918	4.853	2295.298	243.446
J410.6635		112	118.24	6.24	0	0.48	1.5	113.5	25.116	4.74	191.22	42.512
J4100		143.61	147.62	4.01	0	0.21	0.67	144.28	12.93	4	97.4	21.626
J4100.11		144	149.17	5.17	0	0.51	1.49	145.49	11.684	4.02	99.46	9.363
J4100.962		102.727	111.226	8.499	0	1.16	3.61	106.33	219.959	4.899	2295.298	243.446
J412.71		125.74	133.48	7.74	0	0.41	1.01	126.75	36.099	6.73	401.01	11.577
J4184.01		144.4	150.01	5.61	0	0.44	1.34	145.74	11.685	5.17	99.46	9.363
J4199.26		144.5	151.01	6.51	0	0.44	1.34	145.84	11.686	5.17	99.46	9.363
J4200		144.79	149.46	4.67	0	0.18	0.66	145.45	12.938	4.01	97.4	21.626
J4232.339		103.301	114.958	11.657	0	1.15	3.52	106.82	219.986	8.347	2295.298	243.446
J4248.377		103.429	115.295	11.866	0	1.26	3.71	107.14	220.001	8.155	2295.298	243.446
J4258.27		145	151.34	6.34	0	0.4	1.21	146.21	11.686	5.3	99.46	9.363
J427.7351		112.23	118.31	6.08	0	0.54	1.6	113.83	25.118	4.5	191.22	42.512
J4271.41		145.1	151.21	6.11	0	0.36	1.18	146.28	11.686	5.03	99.46	9.363
J4300		147.15	150.6	3.45	0	0.33	1.03	148.18	12.947	2.42	97.4	21.626
J4330.11		145.2	150.96	5.76	0	0.54	1.49	146.69	11.687	4.61	99.46	9.363
J4332.776		104.171	115.07	10.899	0	1.19	3.67	107.84	220.011	7.23	2295.298	243.446
J438.5957		77.124	83.798	6.674	0	1.45	3.38	80.51	267.575	3.308	3095.538	514.044
J4395.415		104.504	112.635	8.131	0	1.15	3.59	108.09	191.262	5.273	1890.838	148.834
J4396.23		145.53	150.63	5.1	0	0.41	1.35	146.88	11.688	3.75	99.46	9.363
J440.72		105	107.73	2.73	0	0.74	1.89	106.89	32.341	0.84	295.96	69.133
J4411.37		145.86	150.65	4.79	0	0.33	1.1	146.96	11.69	3.69	99.46	9.363
J4446.464		104.632	113.491	8.859	0	1.37	3.82	108.45	191.179	6.245	1890.838	148.834

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4462.26		145.9	151.32	5.42	0	0.47	1.28	147.18	11.69	4.14	99.46	9.363
J4477.44		146.29	151.39	5.1	0	0.24	0.94	147.23	11.692	4.16	99.46	9.363
J452.879		135.94	140.21	4.27	0	0.2	0.59	136.53	11.457	4.07	102.87	2.756
J4529.29		146.42	150.96	4.54	0	0.35	1.02	147.44	11.695	3.65	99.46	9.363
J454.8528		77.124	83.818	6.694	0	1.55	3.61	80.73	267.604	3.088	3095.538	514.044
J4546.464		105.4	115.463	10.063	0	1.07	3.43	108.83	190.174	7.532	1871.518	143.231
J4600.10		146.64	151.31	4.67	0	0.32	0.98	147.62	11.697	4	99.46	9.363
J461.85		126.2	133.36	7.16	0	0.47	1.22	127.42	36.1	6.24	401.01	11.577
J4635.43		147.07	152.05	4.98	0	0.22	0.7	147.77	11.706	4.28	99.46	9.363
J4646.464		105.733	116.695	10.962	0	1.13	3.45	109.19	190.205	7.66	1871.518	143.231
J4700.25		150.78	154.17	3.39	0	0.11	0.37	151.15	9.454	3.02	79.05	4.709
J4731.82		150.83	152.57	1.74	0	0.3	0.75	151.58	9.442	5.74	79.05	4.709
J4746.464		106.117	117.234	11.117	0	1.22	3.52	109.63	190.271	7.604	1871.518	143.231
J477.657		120.92	130.32	9.4	0	1.05	2.91	123.83	134.394	7	1182.52	99.64
J4800.10		151.38	157.87	6.49	0	0.09	0.4	151.78	8.45	6.09	69.57	1.391
J4846.464		106.467	116.662	10.195	0	1.24	3.83	110.3	190.326	6.756	1871.518	143.231
J487.7520		77.124	83.691	6.567	0	1.58	3.69	80.81	267.641	2.881	3095.538	514.044
J4900.10		152.09	154.18	2.09	0	0.27	0.69	152.78	8.416	1.4	69.57	1.391
J4945.903		107.124	117.713	10.589	0	1.01	3.43	110.56	190.407	7.501	1871.518	143.231
J4957.289		152.2	153.75	1.55	0	0.38	1.01	153.21	8.436	0.73	69.57	1.391
J498.2611		113.26	118.21	4.95	0	0.54	1.59	114.85	25.118	4.49	191.22	42.512
J5		148.5	151.5	3	0	0.21	0.8	149.3	32.469	9.2	267.14	5.343
J5.1		143.2	146.2	3	0	0.53	1.88	145.08	27.979	8.42	232.12	4.642
J5.2		154.6	156	1.4	0	0.79	1.8	156.4	20.116	0.06	193.34	4.64
J500.17		126.77	134.23	7.46	0	0.35	1.01	127.78	36.1	6.45	401.01	11.577
J500.239		136	140.66	4.66	0	0.18	0.66	136.66	11.458	4.41	102.87	2.756

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5000.10		152.74	154.09	1.35	0	0.15	0.47	153.21	8.557	1.02	69.57	1.391
J5046.464		107.448	118.385	10.937	0	1.09	3.44	110.89	190.501	8.393	1871.518	143.231
J5048.723		152.85	154.34	1.49	0	0.22	0.54	153.39	8.545	1.26	69.57	1.391
J506.895		135.5	142.66	7.16	0	0.46	1.23	136.73	40.535	5.93	344.96	10.306
J509.347		121	130.91	9.91	0	1.07	3.04	124.04	134.416	6.87	1182.52	99.64
J5100.10		153.03	154.83	1.8	0	0.27	0.72	153.75	8.566	1.08	69.57	1.391
J513.5331		113.58	118.5	4.92	0	0.48	1.53	115.11	25.118	3.39	191.22	42.512
J5146.464		107.53	119.365	11.835	0	1.27	3.68	111.21	190.628	8.155	1871.518	143.231
J5152.642		153.32	154.74	1.42	0	0.29	0.8	154.12	8.566	1.19	69.57	1.391
J516.02		105.73	107.84	2.11	0	0.64	1.58	107.31	32.342	1.42	295.96	69.133
J5220.803		153.49	155.48	1.99	0	0.4	1.07	154.56	8.577	0.92	69.57	1.391
J523.1179		77.124	83.691	6.567	0	1.66	3.86	80.99	267.644	2.701	3095.538	514.044
J5260.950		108.278	119.712	11.434	0	0.98	3.22	111.5	189.635	8.212	1854.739	141.217
J5260.956		153.77	155.4	1.63	0	0.23	0.8	154.57	8.603	0.94	69.57	1.391
J5300.10		154	155.74	1.74	0	0.17	0.61	154.61	8.664	1.6	69.57	1.391
J531.73		127.59	134.74	7.15	0	0.28	0.9	128.49	36.1	6.25	401.01	11.577
J534.23		105.99	108.99	3	0	0.57	1.44	107.43	32.342	1.59	295.96	69.133
J5373.942		109.061	119.739	10.678	0	0.92	3.05	112.11	189.702	7.629	1854.739	141.217
J5400.10		154.97	157.18	2.21	0	0.14	0.41	155.38	8.679	2.86	69.57	1.391
J5427.875		109.112	119.702	10.59	0	1.04	3.25	112.36	189.78	7.437	1854.739	141.217
J546.4642		77.521	83.405	5.884	0	1.49	4.05	81.57	267.651	2.643	3095.538	514.044
J5500.10		155.5	158.77	3.27	0	0.18	0.64	156.14	8.697	2.63	69.57	1.391
J5532.597		109.445	120.13	10.685	0	1	3.24	112.69	189.055	7.44	1843.058	140.984
J554.879		136.5	141.57	5.07	0	0.18	0.56	137.06	11.459	4.95	102.87	2.756
J5543.03		155.89	158.11	2.22	0	0.2	0.7	156.59	8.717	2.13	69.57	1.391
J5581.81		155.94	158.77	2.83	0	0.18	0.67	156.61	8.74	2.16	69.57	1.391

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5598.608		156	158.24	2.24	0	0.17	0.63	156.63	8.747	1.61	69.57	1.391
J5627.203		109.864	119.899	10.035	0	0.87	3.08	112.94	189.23	6.959	1843.058	140.984
J571.927		121.39	130.92	9.53	0	0.99	2.88	124.27	134.452	9.42	1182.52	99.64
J5746.464		110.189	119.271	9.082	0	1.1	3.18	113.37	189.43	7.161	1843.058	140.984
J5850.291		110.593	120.935	10.342	0	0.94	3.01	113.6	187.835	7.335	1809.048	131.053
J591.0980		77.124	83.691	6.567	0	2.02	4.73	81.85	267.733	1.966	3095.538	514.044
J5946.083		111.109	121.311	10.202	0	0.89	2.93	114.04	187.964	7.271	1809.048	131.053
J6		144.7	147.7	3	0	0.55	1.8	146.5	28.558	7.5	232.12	4.642
J6.2		154.7	157.7	3	0	0.71	1.73	156.43	22.405	1.39	193.34	4.64
J6.227		118.53	129.53	11	0	1.17	2.84	121.37	134.051	8.46	1182.52	99.64
J60.22		102.5	112.5	10	0	0.87	2.46	104.96	39.715	7.54	366.54	105.269
J600.0000		114.21	119.8	5.59	0	0.53	1.57	115.78	25.125	4.02	191.22	42.512
J600.17		128.66	135.22	6.56	0	0.33	0.97	129.63	36.1	6.41	401.01	11.577
J600.239		136.84	142.35	5.51	0	0.23	0.7	137.54	11.459	4.81	102.87	2.756
J6046.464		111.186	121.081	9.895	0	1.16	3.2	114.39	188.072	6.691	1809.048	131.053
J6098.928		111.34	119.993	8.653	0	1.06	3.18	114.52	188.172	6.933	1809.048	131.053
J6165.560		111.442	121.555	10.113	0	1.16	3.39	114.83	188.25	6.725	1809.048	131.053
J62.389		135	136.94	1.94	0	0.43	0.54	135.54	11.453	1.43	102.87	2.756
J6233.167		111.595	121.594	9.999	0	1.17	3.48	115.08	188.321	6.514	1809.048	131.053
J625.125		136.09	142.4	6.31	0	0.57	1.63	137.72	40.534	5.54	344.96	10.306
J6301.693		111.672	121.487	9.815	0	1.26	3.7	115.38	188.396	6.626	1809.048	131.053
J634.217		121.6	133.9	12.3	0	1.01	3.11	124.71	134.465	9.19	1182.52	99.64
J6358.901		111.749	122.083	10.334	0	1.27	3.74	115.49	188.496	6.593	1809.048	131.053
J639.57		129.64	137.02	7.38	0	0.24	0.77	130.41	36.101	6.61	401.01	11.577
J6435.935		112.363	122.451	10.088	0	1	3.31	115.67	185.936	7.447	1777.378	130.419
J646.4641		78.57	83.639	5.069	0	1.47	4.16	82.73	267.716	0.909	3095.538	514.044

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J647.627		121.74	131.42	9.68	0	0.98	3.1	124.84	134.474	6.58	1182.52	99.64
J6478.273		112.44	123.194	10.754	0	1.11	3.37	115.81	183.943	7.414	1749.908	128.222
J6565.562		112.848	123.632	10.784	0	1.01	3.28	116.13	184.04	9.879	1749.908	128.222
J657.28		107.9	110.98	3.08	0	0.28	0.83	108.73	32.343	2.25	295.96	69.133
J657.629		137.5	142.75	5.25	0	0.28	0.84	138.34	11.459	4.41	102.87	2.756
J6662.639		113.054	126.215	13.161	0	1.26	3.43	116.48	184.163	9.735	1749.908	128.222
J674.5680		79.397	83.676	4.279	0	1.2	3.79	83.19	267.717	0.891	3095.538	514.044
J674.60		108	111.03	3.03	0	0.33	0.97	108.97	32.343	2.69	295.96	69.133
J6772.934		114.195	124.959	10.764	0	0.91	2.84	117.04	184.221	8.532	1749.908	128.222
J684.977		122	132.21	10.21	0	0.99	3.14	125.14	134.484	8.18	1182.52	99.64
J6846.464		114.24	125.617	11.377	0	1.32	3.54	117.78	184.236	7.939	1749.908	128.222
J6894.028		114.34	125.719	11.379	0	1.49	3.8	118.14	184.264	8.07	1749.908	128.222
J69.25231		104.63	115.21	10.58	0	1.02	3.27	107.9	48.616	7.31	382.54	90.009
J695.90		130.8	137.5	6.7	0	0.38	0.86	131.66	36.1	6.47	401.01	11.577
J6988.738		114.56	126.43	11.87	0	1.52	3.82	118.38	184.319	8.05	1749.908	128.222
J699.925		136.5	143.67	7.17	0	0.61	1.52	138.02	40.538	5.65	344.96	10.306
J7.227846		75.474	80.753	5.279	0	0.78	1.66	77.14	268.738	4.983	3125.198	519.502
J700		114.3	120.41	6.11	0	0.55	1.66	115.96	25.143	4.45	191.22	42.512
J700.239		138	143.21	5.21	0	0.31	0.96	138.96	11.459	4.25	102.87	2.756
J703.1630		79.556	84.24	4.684	0	1.47	4.11	83.66	267.727	0.908	3095.538	514.044
J7047.302		114.752	124.764	10.012	0	1.4	3.78	118.53	183.392	6.234	1734.868	122.296
J706.81		131	138.33	7.33	0	0.42	0.98	131.98	36.1	6.79	401.01	11.577
J709.95		108.43	112.09	3.66	0	0.24	0.74	109.17	19.849	2.92	176.25	32.382
J71.72631		75.374	82.023	6.649	0	1.06	2.28	77.66	268.745	4.805	3125.198	519.502
J7132.593		114.937	124.928	9.991	0	1.44	3.88	118.82	183.515	6.108	1734.868	122.296
J718.547		122.1	133.32	11.22	0	0.97	3.12	125.22	134.504	8.2	1182.52	99.64

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J7232.906		115.699	124.326	8.627	0	1.03	3.26	118.96	183.89	5.366	1734.868	122.296
J7322.142		116.115	123.734	7.619	0	0.99	3.08	119.19	171.037	4.742	1608.69	113.23
J736.779		138.5	143.45	4.95	0	0.23	0.77	139.27	11.459	4.18	102.87	2.756
J737.045		137	142.75	5.75	0	0.45	1.19	138.19	40.542	6.29	344.96	10.306
J7381.689		116.697	124.514	7.817	0	0.92	2.71	119.41	171.202	7.447	1608.69	113.23
J74.135		132	138.61	6.61	0	0.64	1.73	133.73	41.663	4.99	355.59	10.54
J7449.270		116.966	127.126	10.16	0	0.85	2.66	119.62	171.348	7.506	1608.69	113.23
J746.4641		79.812	84.824	5.012	0	1.54	4.3	84.11	267.757	1.475	3095.538	514.044
J749.08		131.5	139.37	7.87	0	0.6	1.3	132.8	36.101	6.57	401.01	11.577
J7549.375		117.552	127.605	10.053	0	1.09	2.93	120.48	171.4	7.804	1608.69	113.23
J762.307		122.74	132.51	9.77	0	0.69	2.53	125.27	133.612	7.73	1173.84	98.364
J7639.745		117.959	128.691	10.732	0	0.85	2.78	120.73	171.47	7.961	1608.69	113.23
J768.179		138.9	143.38	4.48	0	0.25	0.75	139.65	11.459	3.79	102.87	2.756
J7752.183		118.5	128.747	10.247	0	1.19	2.84	121.34	36.445	7.79	401.01	11.577
J794.7359		79.818	85.591	5.773	0	1.9	4.72	84.54	267.879	1.558	3095.538	514.044
J795.635		137.1	144.48	7.38	0	0.75	1.62	138.72	40.555	5.86	344.96	10.306
J799.60		109.44	111.34	1.9	0	0.16	0.57	110.01	19.85	2.44	176.25	32.382
J80.89927		75	82.091	7.091	0	1.51	2.87	77.87	267.463	4.807	3095.538	514.044
J800.0000		116.5	120	3.5	0	0.43	1.31	117.81	25.146	4.83	191.22	42.512
J800.117		122.8	131.86	9.06	0	0.78	2.55	125.35	122.561	6.81	1068.5	62.887
J800.17		132.83	139.34	6.51	0	0.41	1.04	133.87	34.479	5.47	372.44	10.492
J800.239		139	144.32	5.32	0	0.23	0.77	139.77	11.461	4.55	102.87	2.756
J82.94		119	129.63	10.63	0	0.75	2.34	121.34	36.295	8.34	401.01	11.577
J846.4642		80.833	87.113	6.28	0	1.34	4.02	84.85	267.979	2.263	3095.538	514.044
J851.915		137.8	144.92	7.12	0	0.37	1.02	138.82	40.567	6.1	344.96	10.306
J854.56		110.28	113.29	3.01	0	0.3	0.8	111.08	19.851	2.21	176.25	32.382

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J855.869		139.98	144.52	4.54	0	0.16	0.53	140.51	11.462	4.81	102.87	2.756
J876.147		123.5	132.09	8.59	0	0.55	2.03	125.53	122.61	7.03	1068.5	62.887
J895.8482		81.591	87.386	5.795	0	1.18	3.55	85.14	268.005	2.246	3095.538	514.044
J9.209		127.26	134.08	6.82	0	0.57	2.38	129.64	16.525	4.44	148.89	11.315
J9.902844		104.31	115.07	10.76	0	1.13	3.58	107.89	48.005	7.18	382.54	90.009
J900.10		111.28	113.24	1.96	0	0.11	0.39	111.67	19.852	3.47	176.25	32.382
J900.239		140	145.34	5.34	0	0.28	0.81	140.81	11.462	4.53	102.87	2.756
J902.1607		116.99	123.13	6.14	0	0.24	0.98	117.97	25.156	5.92	191.22	42.512
J902.835		137.9	144.67	6.77	0	0.52	1.31	139.21	40.573	5.46	344.96	10.306
J904.90		134.44	140.82	6.38	0	0.25	0.72	135.16	34.48	5.66	372.44	10.492
J922.9622		117.1	123.85	6.75	0	0.27	1	118.1	25.166	5.9	191.22	42.512
J929.29		111.72	115.58	3.86	0	0.21	0.53	112.25	19.852	6	176.25	32.382
J945.497		124	133.06	9.06	0	0.66	2.05	126.05	122.619	7.01	1068.5	62.887
J955.93		135.5	140.77	5.27	0	0.3	0.83	136.33	34.481	4.75	372.44	10.492
J956.725		138	144.51	6.51	0	0.69	1.67	139.67	40.581	4.84	344.96	10.306
J963.549		141	145.71	4.71	0	0.15	0.55	141.55	11.463	4.16	102.87	2.756
J964.46		112.13	118.66	6.53	0	0.24	0.75	112.88	19.852	8.63	176.25	32.382
J966.3656		82.24	87.702	5.462	0	1.16	3.53	85.77	262.751	1.932	2970.928	482.02
J982.0328		82.34	87.489	5.149	0	1.26	3.84	86.18	262.785	1.359	2970.928	482.02
J99.99998		106.58	115.09	8.51	0	0.34	1.32	107.9	48.627	7.59	382.54	90.009
J992.03		112.5	121.88	9.38	0	0.34	0.93	113.43	19.852	9.72	176.25	32.382
SU211		139.5	142.1	2.6	0	0.07	0.33	139.83	5.159	2.67	38.21	6.182
SU220		133.5	135.15	1.65	0	0.08	0.41	133.91	6.77	2.59	48.65	12.041

Table 2A: Subcatchments

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)
Eaglewood	Regional	EBS1	0.47	50	94	2.7	43	0.013	0.25	25	OUTLET	100	0.1	48.42	0	0
EBG1	Regional	E690	1.92	128	150	1	2	0.013	0.25	25	OUTLET	100	0.1	91.32	0	0
EBG2	Regional	E505	1.56	104	150	1	2	0.013	0.25	25	OUTLET	100	0.1	93.98	0	0
EBG3	Regional	E394	4.55	303	150.165	1	2	0.013	0.25	25	OUTLET	100	0.1	93.17	0	0
EBG4	Regional	E673	3.71	247.667	149.798	1	2	0.013	0.25	25	OUTLET	100	0.1	85.77	0	0
EBG5	Regional	J6358.901	31.67	2111.333	150	1	2	0.013	0.25	25	OUTLET	100	0.1	93.08	0	0
EBR3S	Regional	EBS1	0.9614	64.515	149.02	1	49	0.013	0.25	25	OUTLET	100	0.1	44.43	0	0
EENNS1	Regional	EBS1	2.04	164.516	124	0.8	7	0.013	0.25	25	OUTLET	100	0.1	82.94	0	0
EGOLF1	Regional	j5427.875	11.68	779	149.936	1	2	0.013	0.25	25	OUTLET	100	0.1	91.69	0	0
EGOLF2	Regional	DF001	21.23	1415.333	150	1	2	0.013	0.25	25	OUTLET	100	0.1	91.69	0	0
EMAIN1	Regional	J7639.745	25.16	1677	150.03	1.5	8	0.013	0.25	25	OUTLET	100	0.1	86.41	0	0
EMAIN2	Regional	J6435.935	27.47	1831	150.027	2.3	8	0.013	0.25	25	OUTLET	100	0.1	85.64	0	0
EMAIN3	Regional	J5146.464	16.78	1118	150.089	0.5	12	0.013	0.25	25	OUTLET	100	0.1	84.86	0	0
EMAIN4	Regional	j4332.776	21.92	1461	150.034	0.7	21	0.013	0.25	25	OUTLET	100	0.1	75.02	0	0
ESAN1	Regional	j4446.464	19.32	1288	150	1.1	29	0.013	0.25	25	OUTLET	100	0.1	62.6	0	0
ESAN2	Regional	DF001	8.02	534	150.187	0.9	37	0.013	0.25	25	OUTLET	100	0.1	55.5	0	0
ETRIB1a	Regional	E301	5.78	385	150.13	3	9.9	0.013	0.25	25	OUTLET	100	0.1	83.39	0	0
ETRIB1b	Regional	E301	5.16	345	149.565	3	2	0.013	0.25	100	OUTLET	100	0.1	90.97	0	0
ETRIB2E	Regional	E604	1.63	108.667	150	1.1	28	0.013	0.25	25	OUTLET	100	0.1	67.36	0	0
ETRIB2W	Regional	E855	50.35	3356.667	150	1.2	9	0.013	0.25	25	OUTLET	100	0.1	85.87	0	0
ETRIB3E	Regional	E673	1.81	120.554	150.14	1.3	62	0.013	0.25	25	OUTLET	100	0.1	34.68	0	0
ETRIB3W	Regional	E768	43.0371	2869.14	150	1.1	2	0.013	0.25	25	OUTLET	100	0.1	93.01	0	0
North1	Regional	EBS1	0.56	54.902	102	2	7	0.013	0.25	25	OUTLET	100	0.1	80.64	0	0
North2	Regional	EBS1	0.36	50	72	1.8	43	0.013	0.25	25	OUTLET	100	0.1	48.35	0	0
North3	Regional	EBS1	0.35	44.872	78	1.3	7	0.013	0.25	25	OUTLET	100	0.1	80.5	0	0
S101	Regional	J71.72631	29.66	3802.564	78	0.3	18.4	0.013	0.25	25	OUTLET	100	0.1	72.4	0	0
S102	Regional	J895.8482	124.61	18325	68	0.45	25.7	0.013	0.25	25	OUTLET	100	0.1	64.7	0	0

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)
S103	Regional	J1060.963	51.96	7318.31	71	0.4	24.6	0.013	0.25	25	OUTLET	100	0.1	65.96	0	0
S104	Regional	J2173.272	39.8	5527.778	72	0.4	27.2	0.013	0.25	25	OUTLET	100	0.1	63.63	0	0
S105	Regional	J2546.464	61.1	5657.407	108	0.4	65.4	0.013	0.25	25	OUTLET	100	0.1	29.87	0	0
S106	Regional	J3246.464	76.74	12790	60	0.3	58.2	0.013	0.25	25	OUTLET	100	0.1	35.81	0	0
S109	Regional	J718.547	8.68	1045.783	83	0.25	14.7	0.013	0.25	25	OUTLET	100	0.1	76.46	0	0
S110	Regional	J1200.117	19.88	2395.181	83	0.4	25.3	0.013	0.25	25	OUTLET	100	0.1	65.75	0	0
S111	Regional	J400.215	10.63	2362.222	45	0.45	2.2	0.013	0.25	25	OUTLET	100	0.1	84.74	0	0
S112	Regional	J1388.055	106.47	8190	130	1.5	5.2	0.013	0.25	25	OUTLET	100	0.1	83.54	0	0
S113	Regional	J113	232.12	15474.67	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1	87.24	0	0
S151	Regional	J151	24.92	2076.667	120	1	54.8	0.013	0.25	25	OUTLET	100	0.1	38.92	0	0
S152	Regional	J152	25.32	1770.629	143	0.95	31.7	0.013	0.25	25	OUTLET	100	0.1	60.18	0	0
S153	Regional	J60.22	70.58	5881.667	120	0.2	51.2	0.013	0.25	25	OUTLET	100	0.1	43.56	0	0
S154	Regional	J674.60	119.71	14422.89	83	0.75	30.7	0.013	0.25	25	OUTLET	100	0.1	60.07	0	0
S155	Regional	J3500.1	11.27	1977.193	57	0.3	17.4	0.013	0.25	25	OUTLET	100	0.1	72.3	0	0
S156	Regional	j3392.66	26.18	4363.333	60	0.35	33.1	0.013	0.25	25	OUTLET	100	0.1	58.03	0	0
S157	Regional	j3392.66	39.34	5785.294	68	0.75	31.5	0.013	0.25	25	OUTLET	100	0.1	58.97	0	0
S158	Regional	J4731.82	9.48	2106.667	45	0.55	35	0.013	0.25	25	OUTLET	100	0.1	55.47	0	0
S159	Regional	j4635.43	20.41	3401.667	60	0.65	22.8	0.013	0.25	25	OUTLET	100	0.1	66.6	0	0
S160	Regional	J5598.608	69.57	6156.637	113	0.8	2	0.013	0.25	25	OUTLET	100	0.1	87.22	0	0
S161	Regional	J300	119.72	16627.78	72	0.5	25.2	0.013	0.25	25	OUTLET	100	0.1	65.16	0	0
S162	Regional	J142.6492	71.6	11015.38	65	0.85	24.2	0.013	0.25	25	OUTLET	100	0.1	65.24	0	0
S163	Regional	j3135.520	58.33	8973.846	65	0.4	24.2	0.013	0.25	25	OUTLET	100	0.1	66.09	0	0
S164	Regional	J3200	11.65	2080.357	56	0.5	9	0.013	0.25	25	OUTLET	100	0.1	79.11	0	0
S165	Regional	j3400	23.84	3667.692	65	0.65	24	0.013	0.25	25	OUTLET	100	0.1	65.7	0	0
S166	Regional	j4300	71.04	10447.06	68	1.05	29.7	0.013	0.25	25	OUTLET	100	0.1	60.26	0	0
S167	Regional	J167	26.36	2196.667	120	0.3	2	0.013	0.25	25	OUTLET	100	0.1	90.11	0	0
S171	Regional	j5746.464	34.01	5232.308	65	1.15	29.2	0.013	0.25	25	OUTLET	100	0.1	60.55	0	0

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)
S172	Regional	j6988.738	15.04	2211.765	68	0.85	39.4	0.013	0.25	25	OUTLET	100	0.1	51.89	0	0
S180	Regional	J749.08	28.57	4201.471	68	0.5	3.8	0.013	0.25	25	OUTLET	100	0.1	84.47	0	0
S181	Regional	J181	15.96	1922.892	83	1.25	55.4	0.013	0.25	25	OUTLET	100	0.1	37.9	0	0
S182	Regional	j2600.16	22.52	2297.959	98	0.4	10.6	0.013	0.25	25	OUTLET	100	0.1	80.04	0	0
S183	Regional	J2460.36	7.59	1686.667	45	0.45	4.1	0.013	0.25	25	OUTLET	100	0.1	83.04	0	0
S184	Regional	J3.2	105.67	9606.364	110	0.8	2	0.013	0.25	25	OUTLET	100	0.1	87.1	0	0
S185	Regional	J185	43.32	3938.182	110	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1	87.38	0	0
S186	Regional	J186	193.34	12889.33	150	2	2.4	0.013	0.25	25	OUTLET	100	0.1	86.12	0	0
S187	Regional	E855	1.93	321.667	60	0.9	7.8	0.013	0.25	25	OUTLET	100	0.1	79.57	0	0
S191	Regional	j762.307	89.38	16864.15	53	0.6	29.8	0.013	0.25	25	OUTLET	100	0.1	60.23	0	0
S192	Regional	J1130.117	3.43	571.667	60	0.65	5.5	0.013	0.25	25	OUTLET	100	0.1	82.08	0	0
S193	Regional	j1130.117	21.79	3026.389	72	0.6	29.7	0.013	0.25	25	OUTLET	100	0.1	60.9	0	0
S195	Regional	SU220	9.45	1783.019	53	0.85	29.6	0.013	0.25	25	OUTLET	100	0.1	60.12	0	0
S201	Regional	j36.529	16.42	2736.667	60	1.3	24	0.013	0.25	25	OUTLET	100	0.1	64.88	0	0
S202	Regional	j36.529	29.6	4933.333	60	0.6	15.6	0.013	0.25	25	OUTLET	100	0.1	73.12	0	0
S203	Regional	J1700.117	12.96	2160	60	0.5	20	0.013	0.25	25	OUTLET	100	0.1	69.4	0	0
S204	Regional	J1361.769	48.81	3754.615	130	0.3	3.1	0.013	0.25	25	OUTLET	100	0.1	89.52	0	0
S205	Regional	J2266.899	54.06	3861.429	140	0.6	2.3	0.013	0.25	25	OUTLET	100	0.1	88.7	0	0
S210	Regional	J2604.897	10.87	2415.556	45	0.7	2.9	0.013	0.25	25	OUTLET	100	0.1	83.51	0	0
S211	Regional	SU211	29.63	4938.333	60	0.65	19.3	0.013	0.25	25	OUTLET	100	0.1	69.72	0	0
S212	Regional	J212	8.58	817.143	105	0.5	5.4	0.013	0.25	25	OUTLET	100	0.1	84.75	0	0
S213	Regional	J3	11.91	1044.737	114	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1	87.55	0	0
S214	Regional	J1041.555	6.37	767.47	83	1.15	2	0.013	0.25	25	OUTLET	100	0.1	85.36	0	0
S215	Regional	J3	129.18	8612	150	1.1	2	0.013	0.25	25	OUTLET	100	0.1	87.79	0	0
S216	Regional	J216	267.14	17809.33	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1	87.24	0	0
S220	Regional	SU220	34.67	5778.333	60	0.5	26.4	0.013	0.25	25	OUTLET	100	0.1	63.66	0	0
S221	Regional	SU220	4.53	503.333	90	0.55	2	0.013	0.25	25	OUTLET	100	0.1	87.05	0	0

Table 2B: Subcatchments

Name	Runoff Depth (mm)	Peak Runoff (m^3/s)
Eaglewood	235.97	0.07
EBG1	193.75	0.23
EBG2	191.09	0.19
EBG3	191.9	0.55
EBG4	199.3	0.46
EBG5	191.99	3.86
EBR3S	239.83	0.14
EENNS1	202.04	0.26
EGOLF1	193.38	1.42
EGOLF2	193.37	2.59
EMAIN1	198.55	3.24
EMAIN2	199.33	3.65
EMAIN3	200.04	2
EMAIN4	209.73	2.79
ESAN1	222.02	2.6
ESAN2	228.97	1.09
ETRIB1a	201.55	0.78
ETRIB1b	194.15	0.69
ETRIB2E	217.27	0.22
ETRIB2W	199.08	6.4
ETRIB3E	249.35	0.26
ETRIB3W	192.05	5.29
North1	204.35	0.08
North2	236.04	0.05
North3	204.5	0.05
S101	212.4	3.87
S102	219.97	17.18

Table 2B: Subcatchments (continued...)

Name	Runoff Depth (mm)	Peak Runoff (m^3/s)
S103	218.73	7.08
S104	221.02	5.45
S105	254.08	8.8
S106	248.29	11.07
S109	208.4	1.09
S110	218.92	2.67
S111	200.33	1.45
S112	201.47	13.9
S113	197.83	29.17
S151	245.24	3.57
S152	224.39	3.42
S153	240.64	9.59
S154	224.52	16.72
S155	212.51	1.52
S156	226.51	3.66
S157	225.61	5.56
S158	229.05	1.36
S159	218.13	2.86
S160	197.85	8.75
S161	219.52	16.48
S162	219.46	10.08
S163	218.61	8.01
S164	205.84	1.59
S165	219.01	3.33
S166	224.35	10.1
S167	194.95	2.96
S171	224.07	4.85

Table 2B: Subcatchments (continued...)

Name	Runoff Depth (mm)	Peak Runoff (m^3/s)
S172	232.56	2.15
S180	200.57	3.77
S181	246.27	2.31
S182	204.89	2.82
S183	202.01	1.04
S184	197.97	13.35
S185	197.68	5.34
S186	198.94	25.03
S187	205.41	0.27
S191	224.38	12.69
S192	202.93	0.47
S193	223.7	3.04
S195	224.49	1.35
S201	219.84	2.34
S202	211.72	4.09
S203	215.37	1.79
S204	195.52	5.42
S205	196.36	6.35
S210	201.55	1.51
S211	215.07	4.13
S212	200.25	1.06
S213	197.51	1.46
S214	199.71	0.86
S215	197.28	15.88
S216	197.83	33.57
S220	221	4.85
S221	198.02	0.57

PCSWMM Report

Controlled-100-Year

Model
14Mile_Proposed-Controlled_JFSA_v01.22,2-100year.inp

Urbantech Consulting

June 30, 2023

Table of Contents

Tables

Table 1: Junctions

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
10		101.05	105.05	4	0	0.3	0.68	101.73	2.151	3.32	29.277	20.186
21		104.217	114.737	10.52	0	1.19	2.75	106.97	115.233	8.007	2276.115	278.207
22		131.6	138.3	6.7	0	0.78	1.91	133.51	81.611	6.05	812.9	25.249
23		126.76	136.54	9.78	0	0.83	2.62	129.38	90.066	7.16	1023.4	51.197
25		118.429	128.74	10.311	0	1.23	2.41	120.84	109.991	8.889	1583.62	111.307
DF001		110.44	113.44	3	0	0.24	0.65	111.09	2.594	2.35	29.277	20.186
DF002		105.98	108.98	3	0	0.31	0.94	106.92	2.472	2.06	29.277	20.186
DF004		105.509	108.509	3	0	0.26	0.73	106.24	2.161	2.269	29.277	20.186
DF005		105.027	108.027	3	0	0.27	0.77	105.79	2.161	2.237	29.277	20.186
DF006		104.676	107.676	3	0	0.21	0.58	105.26	2.204	2.416	29.277	20.186
DF007		103.504	106.504	3	0	0.24	0.69	104.19	2.156	2.314	29.277	20.186
DF008		102.918	105.918	3	0	0.25	0.72	103.64	2.152	2.278	29.277	20.186
DF009		101.05	105.05	4	0	0.36	0.81	101.86	2.152	3.19	29.277	20.186
DFM001		108.085	108.085	0	0	0	0	108.08	0	0.755	29.277	20.186
DFM002		105.65	105.65	0	0	0	0	105.65	0	0.75	29.277	20.186
DFM003		107.786	107.786	0	0	0	0	107.79	0	0.746	29.277	20.186
DFM004		107.486	107.486	0	0	0	0	107.49	0	0.746	29.277	20.186
DFM005		107.187	107.187	0	0	0	0	107.19	0	0.747	29.277	20.186
DFM006		106.887	106.887	0	0	0	0	106.89	0	0.747	29.277	20.186
DFM007		106.588	106.588	0	0	0	0	106.59	0	0.748	29.277	20.186
DFM008		106.288	106.288	0	0	0	0	106.29	0	0.748	29.277	20.186
DFM009		105.989	105.989	0	0	0	0	105.99	0	0.749	29.277	20.186
E153		118.5	118.5	0	0	0.07	0.35	118.85	13.265	7.65	117.186	12.145
E238		119	119	0	0	0.18	0.71	119.71	13.266	6.79	117.186	12.145
E301		120	120	0	0	0.14	0.61	120.61	13.275	5.89	117.186	12.145
E344		120.5	120.5	0	0	0.25	0.71	121.21	12.416	5.29	104.775	11.11

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
E394		121.5	121.5	0	0	0.08	0.4	121.9	12.419	5.6	104.775	11.11
E439		121.5	121.5	0	0	0.41	1.12	122.62	12.42	4.88	104.775	11.11
E479		122	122	0	0	0.84	2.49	124.49	12.424	3.01	104.775	11.11
E494		122.54	122.54	0	0	0.47	1.96	124.5	12.436	3	104.775	11.11
E505		122.53	122.53	0	0	0.5	1.97	124.5	12.479	2.53	104.775	11.11
E543		123	123	0	0	0.34	1.51	124.51	15.149	3.99	104.775	11.11
E580		123.5	123.5	0	0	0.12	1.02	124.52	17.305	4.48	104.775	11.11
E604		124	124	0	0	0.32	0.68	124.68	10.94	4.82	56.684	7.402
E615		124.25	124.25	0	0	0.21	0.5	124.75	10.714	4.75	55.054	6.945
E618		124	124	0	0	0.42	0.92	124.92	6.259	3.58	48.091	3.708
E626		124	124	0	0	0.45	0.96	124.96	6.109	2.04	48.091	3.708
E643		124.5	124.5	0	0	0.19	0.68	125.18	10.89	3.32	55.054	6.945
E649		124.5	124.5	0	0	0.14	0.49	124.99	5.896	3.51	48.091	3.708
E667		124.5	124.5	0	0	0.29	0.91	125.41	10.532	3.09	53.874	6.214
E673		125	125	0	0	0.13	0.39	125.39	5.903	3.61	48.091	3.708
E677		125	125	0	0	0.13	0.47	125.47	10.633	3.53	53.874	6.214
E690		125	125	0	0	0.22	0.66	125.66	11.236	3.34	53.874	6.214
E732		126	126	0	0	0.1	0.5	126.5	12.976	3.5	53.874	6.214
E733		126	126	0	0	0.21	0.59	126.59	5.345	2.91	45.785	2.476
E761		126.5	126.5	0	0	0.06	0.45	126.95	15.187	4.05	53.874	6.214
E768		126.5	126.5	0	0	0.09	0.4	126.9	4.681	3.1	42.868	0.857
E818		126.5	126.5	0	0	0.5	1.31	127.81	9.471	3.19	52.16	4.671
E855		127	127	0	0	0.21	0.84	127.84	7.858	3.16	52.16	4.671
EBS1		127	127	0	0	0.16	0.68	127.68	0.929	1.32	2.917	1.619
EBS1_1		126.6	126.6	0	0	0.16	0.68	127.28	0.915	1.32	2.917	1.619
EBS1_2		126.2	126.2	0	0	0.17	0.68	126.88	0.895	1.32	2.917	1.619

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1		102.412	106.412	4	0	0.6	2.44	104.85	42.428	1.862	366.54	105.269
J100.17		119.57	130.25	10.68	0	0.46	1.29	120.86	17.199	9.39	401.01	11.577
J1002.010		118	124.97	6.97	0	0.22	0.64	118.64	14.357	6.33	191.22	42.512
J1012.195		83.33	87.423	4.093	0	0.9	2.18	85.51	126.731	3.103	2973.692	538.178
J1015.55		112.6	123.15	10.55	0	0.3	0.88	113.48	13.373	10.41	176.25	32.382
J1020.38		135.77	141.35	5.58	0	0.4	0.78	136.55	15.714	4.8	372.44	10.492
J1020.569		141.92	146.28	4.36	0	0.18	0.49	142.41	9.41	3.87	102.87	2.756
J1022.947		124.1	132.95	8.85	0	0.9	2.32	126.42	91.223	6.63	1068.5	62.887
J1029.335		118.5	125.27	6.77	0	0.13	0.43	118.93	14.359	8.36	191.22	42.512
J1033.40		112.7	123.79	11.09	0	0.28	0.86	113.56	13.377	10.43	176.25	32.382
J104.967		118.93	129.31	10.38	0	1.08	2.76	121.69	94.346	7.62	1182.61	99.73
J1041.555		138.5	144.74	6.24	0	0.72	1.62	140.12	36.639	4.62	344.96	10.306
J1042.897		124.71	133.33	8.62	0	0.58	1.84	126.55	91.235	6.78	1068.5	62.887
J1058.20		113	123.02	10.02	0	0.27	0.73	113.73	13.383	9.29	176.25	32.382
J1060.963		83.331	88.614	5.283	0	1.43	2.67	86	126.734	2.614	2973.692	538.178
J1093.556		83.516	88.39	4.874	0	1.39	2.66	86.18	126.204	2.573	2921.732	525.395
J1096.947		125.1	132.5	7.4	0	0.64	1.82	126.92	91.254	6.8	1068.5	62.887
J110.089		135.1	136.66	1.56	0	0.33	0.44	135.54	9.364	1.12	102.87	2.756
J1100		118.97	127.76	8.79	0	0.27	0.69	119.66	14.361	8.59	191.22	42.512
J1100.10		113.46	123	9.54	0	0.25	0.71	114.17	13.385	9.29	176.25	32.382
J1100.215		139	144.47	5.47	0	0.45	1.45	140.45	36.175	5.34	338.59	10.179
J1100.239		142.5	146.67	4.17	0	0.34	0.93	143.43	9.412	3.24	102.87	2.756
J1126.60		136.69	141.42	4.73	0	0.28	0.55	137.24	15.719	4.18	372.44	10.492
J113		160	163	3	0	0.39	1.76	161.76	31.69	4.54	232.12	4.642
J1130.117		125.2	133.15	7.95	0	0.6	1.81	127.01	91.346	7.24	1068.5	62.887
J1146.464		83.72	88.957	5.237	0	1.49	2.92	86.64	126.215	2.317	2921.732	525.395

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1151.075		139.5	146.29	6.79	0	0.55	1.14	140.64	36.21	5.96	338.59	10.179
J1154.80		114	124	10	0	0.25	0.71	114.71	13.385	9.29	176.25	32.382
J1163.689		144	147.44	3.44	0	0.18	0.53	144.53	9.416	3.28	102.87	2.756
J1178.27		114.74	124.1	9.36	0	0.19	0.55	115.29	13.388	8.81	176.25	32.382
J1184.779		119.5	128.78	9.28	0	0.22	0.67	120.17	14.372	8.61	191.22	42.512
J1200.117		125.3	134.05	8.75	0	0.88	2.24	127.54	90.516	6.81	1043.28	56.227
J1200.17		137.5	142.12	4.62	0	0.38	0.76	138.26	15.722	4.33	372.44	10.492
J1200.215		139.56	146.66	7.1	0	0.56	1.36	140.92	36.33	5.74	338.59	10.179
J1230.909		144.5	148.31	3.81	0	0.17	0.55	145.05	9.418	3.26	102.87	2.756
J1246.464		84.245	89.177	4.932	0	1.96	3.52	87.76	126.228	1.894	2921.732	525.395
J125.38		102.9	107	4.1	0	0.68	2.23	105.13	30.884	1.87	295.96	69.133
J1286.17		116.4	125.06	8.66	0	0.22	0.64	117.04	13.389	8.72	176.25	32.382
J1294.225		140.5	147.47	6.97	0	0.28	0.89	141.39	36.386	8.43	338.59	10.179
J1298.178		84.629	90.038	5.409	0	2.01	3.49	88.12	126.298	1.918	2921.732	525.395
J1300		121.16	129.84	8.68	0	0.23	0.62	121.78	14.378	8.06	191.22	42.512
J1300.117		125.84	133.78	7.94	0	0.65	1.9	127.74	89.825	6.64	1023.4	51.197
J1300.17		138.5	143.59	5.09	0	0.4	0.83	139.33	15.724	4.26	372.44	10.492
J1305.379		145.44	148.28	2.84	0	0.18	0.5	145.94	9.424	2.41	102.87	2.756
J1310.18		116.5	125.53	9.03	0	0.33	0.83	117.33	13.391	8.2	176.25	32.382
J1348.30		138.6	143.39	4.79	0	0.62	1.16	139.76	15.726	3.73	372.44	10.492
J1361.769		146.02	148.93	2.91	0	0.17	0.47	146.49	9.427	2.44	102.87	2.756
J1365.595		140.98	150.3	9.32	0	0.28	0.91	141.89	36.391	8.66	338.59	10.179
J1388.055		141	150.57	9.57	0	0.54	1.39	142.39	36.394	8.18	338.59	10.179
J1391.170		85.698	90.311	4.613	0	1.33	2.61	88.3	126.397	2.431	2921.732	525.395
J1393.48		139	143.67	4.67	0	0.34	0.82	139.82	15.73	5.6	372.44	10.492
J1400.000		122.35	130.16	7.81	0	0.2	0.55	122.9	14.388	7.42	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1400.10		117.53	126.26	8.73	0	0.48	1.16	118.69	13.425	7.57	176.25	32.382
J1400.117		125.96	134.5	8.54	0	1.07	2.46	128.42	89.945	6.42	1023.4	51.197
J1400.239		146.4	148.94	2.54	0	0.11	0.36	146.76	5.527	2.31	54.06	1.243
J142.6492		107.45	116.36	8.91	0	0.24	0.99	108.44	55.202	7.92	382.54	90.009
J1446.464		85.884	90.917	5.033	0	1.45	2.69	88.58	126.494	2.337	2921.732	525.395
J1447.009		146.5	149.17	2.67	0	0.14	0.47	146.97	5.53	2.45	54.06	1.243
J145.135		132.5	139.22	6.72	0	0.39	1.36	133.86	36.567	5.59	355.59	10.54
J146.4641		74.822	82.499	7.677	0	1.69	2.5	77.32	127.807	5.179	3098.302	570.202
J1489.00		139.5	145.92	6.42	0	0.74	1.35	140.85	15.732	5.07	372.44	10.492
J1500.000		123	130.97	7.97	0	0.3	0.8	123.8	14.41	7.17	191.22	42.512
J1500.10		119.53	127	7.47	0	0.15	0.46	119.99	13.443	7.01	176.25	32.382
J1500.117		126	134.88	8.88	0	1.16	2.89	128.89	90.017	7.12	1023.4	51.197
J1500.239		147	149.92	2.92	0	0.13	0.39	147.39	5.532	2.53	54.06	1.243
J151		98.68	102.181	3.501	0	0.65	1.61	100.29	50.89	2.69	416.78	126.952
J152		107	109	2	0	0.06	0.28	107.28	7.112	1.72	25.32	8.026
J1541.43		140	145.01	5.01	0	0.43	0.93	140.93	15.74	4.08	372.44	10.492
J1546.464		86.9	91.178	4.278	0	0.93	1.89	88.79	126.703	3.575	2921.732	525.395
J1550.647		126.5	136.51	10.01	0	0.88	2.8	129.3	90.036	7.21	1023.4	51.197
J1567.909		147.65	150.57	2.92	0	0.17	0.53	148.18	5.544	2.41	54.06	1.243
J1599.10		120	127.16	7.16	0	0.25	0.74	120.74	13.501	6.64	176.25	32.382
J16.935		131.7	139.46	7.76	0	0.72	1.82	133.52	36.589	6.14	355.59	10.54
J1600.117		127	136.56	9.56	0	0.75	2.47	129.47	84.014	7.09	874.51	39.882
J162.45		120.67	130.62	9.95	0	0.44	0.82	121.49	17.2	9.13	401.01	11.577
J162.977		119.1	128.88	9.78	0	1	2.75	121.85	94.517	7.03	1182.61	99.73
J1627.66		141	146	5	0	0.35	0.71	141.71	15.746	4.3	372.44	10.492
J1637.989		148.5	151.44	2.94	0	0.11	0.33	148.83	5.547	2.61	54.06	1.243

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1668.083		87	92.465	5.465	0	1.43	2.58	89.58	126.772	2.885	2921.732	525.395
J167		155.07	156.74	1.67	0	0.07	0.19	155.26	2.458	1.48	26.36	0.527
J1700		126	133.54	7.54	0	0.32	0.8	126.8	14.411	6.74	191.22	42.512
J1700.10		121	128.38	7.38	0	0.19	0.52	121.52	13.543	6.86	176.25	32.382
J1700.117		127.5	135.16	7.66	0	0.77	2.36	129.86	84.184	5.3	874.51	39.882
J1700.17		141.45	146.11	4.66	0	0.39	0.75	142.2	15.751	4.31	372.44	10.492
J1700.229		149.05	151.48	2.43	0	0.18	0.51	149.56	5.55	1.92	54.06	1.243
J1749.279		149.55	151.59	2.04	0	0.1	0.32	149.87	5.552	2.18	54.06	1.243
J1797.21		141.65	146.71	5.06	0	0.44	0.88	142.53	15.759	4.18	372.44	10.492
J1800		127.33	133.88	6.55	0	0.21	0.56	127.89	14.417	5.99	191.22	42.512
J1800.10		121.5	128.81	7.31	0	0.28	0.76	122.26	13.621	6.55	176.25	32.382
J1800.117		128.01	135.21	7.2	0	0.67	2.37	130.38	83.751	4.86	861.55	37.29
J1800.229		149.65	152.15	2.5	0	0.16	0.47	150.12	5.595	2.03	54.06	1.243
J181		135	137	2	0	0.08	0.32	135.32	7.262	1.68	15.96	8.842
J1816.580		87.39	91.48	4.09	0	1.47	2.46	89.85	127.297	2.025	2921.732	525.395
J185		153.5	154.5	1	0	0.12	0.55	154.05	5.509	2.45	43.32	1.04
J186		163.5	167	3.5	0	1.05	2.27	165.77	30.663	1.35	193.34	4.64
J1900		128.89	134	5.11	0	0.34	0.83	129.72	14.423	4.28	191.22	42.512
J1900.10		123	129.92	6.92	0	0.14	0.45	123.45	13.655	6.47	176.25	32.382
J1900.17		142.5	147.09	4.59	0	0.46	0.85	143.35	15.778	3.74	372.44	10.492
J1900.229		150.35	152.38	2.03	0	0.1	0.33	150.68	5.661	2.45	54.06	1.243
J1902.476		88.381	92.866	4.485	0	0.83	1.72	90.1	127.852	3.468	2921.732	525.395
J1917.479		88.485	93.672	5.187	0	0.82	1.71	90.2	127.925	3.472	2921.732	525.395
J1927.647		129.5	136.73	7.23	0	0.9	2.02	131.52	83.8	5.23	861.55	37.29
J1942.494		88.489	95.147	6.658	0	0.92	1.83	90.32	127.976	5.079	2921.732	525.395
J1952.554		88.541	95.294	6.753	0	0.98	1.89	90.44	128.095	5.011	2921.732	525.395

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1956.59		123.5	130.06	6.56	0	0.2	0.55	124.05	13.654	6.01	176.25	32.382
J1978.418		130.25	134.48	4.23	0	0.12	0.39	130.64	14.427	3.84	191.22	42.512
J2.1		141.3	150.5	9.2	0	0.51	1.6	142.9	27.428	7.6	232.12	4.642
J2.2		153.2	157.65	4.45	0	1.06	1.96	155.16	13.591	2.49	299.01	6.754
J2.5		142.5	151.5	9	0	0.63	1.64	144.14	43.705	7.36	408.23	8.212
j2.6		141.4	150.7	9.3	0	0.72	2.04	143.44	27.468	7.26	232.12	4.642
J200.09		103	106.44	3.44	0	0.81	2.28	105.28	31.071	1.19	295.96	69.133
J200.17		121.42	131.29	9.87	0	0.32	0.65	122.07	17.2	10.23	401.01	11.577
J200.215		132.57	139.52	6.95	0	0.53	1.48	134.05	36.632	5.81	355.59	10.54
J200.239		135.2	136.65	1.45	0	0.25	0.36	135.56	9.357	2.06	102.87	2.756
J2000.10		124.71	129.82	5.11	0	0.2	0.46	125.17	13.662	6.41	176.25	32.382
J2000.117		130	137.25	7.25	0	0.89	2.06	132.06	83.825	5.19	861.55	37.29
J2000.17		143	146.77	3.77	0	0.48	0.89	143.89	15.783	4.17	372.44	10.492
J2000.229		150.79	153.57	2.78	0	0.07	0.27	151.06	5.699	4.16	54.06	1.243
J2032.625		130.38	134.5	4.12	0	0.32	0.74	131.12	14.432	3.38	191.22	42.512
J2046.464		89	95.91	6.91	0	1.04	1.97	90.97	128.155	4.94	2921.732	525.395
J2063.577		130.5	137.45	6.95	0	0.72	1.8	132.3	81.569	5.15	812.9	25.249
J2100		131.31	134.6	3.29	0	0.2	0.54	131.85	14.437	2.75	191.22	42.512
J2100.10		124.81	131.68	6.87	0	0.72	1.66	126.47	13.747	5.21	176.25	32.382
J2100.17		144	149.06	5.06	0	0.38	0.74	144.74	15.789	4.32	372.44	10.492
J2100.229		151.18	155.61	4.43	0	0.18	0.52	151.7	5.749	3.91	54.06	1.243
J2118.174		89.5	95.106	5.606	0	0.88	1.83	91.33	128.178	3.917	2921.732	525.395
J212		144.4	145.7	1.3	0	0.05	0.14	144.54	1.194	1.16	8.58	0.463
J2128.867		131.26	138.01	6.75	0	0.6	1.54	132.8	81.608	5.21	812.9	25.249
J216		153.5	155.5	2	0	0.67	2.27	155.77	36.471	7.73	267.14	5.343
J2162.390		89.6	95.247	5.647	0	1.17	2.25	91.85	128.191	3.497	2921.732	525.395

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2165.306		132	135.12	3.12	0	0.26	0.66	132.66	14.438	2.46	191.22	42.512
J2171.407		131.5	138.11	6.61	0	0.8	1.81	133.31	81.605	5.63	812.9	25.249
J2173.272		89.7	95.24	5.54	0	1.31	2.47	92.17	128.198	3.27	2921.732	525.395
J2177.86		144.55	149.42	4.87	0	0.34	0.74	145.29	15.792	5.4	372.44	10.492
J2185.476		89.8	94.811	5.011	0	1.33	2.55	92.35	127.725	2.801	2881.932	514.57
J2187.585		132.25	135.24	2.99	0	0.25	0.66	132.91	14.438	2.46	191.22	42.512
J2200.229		152.38	156.67	4.29	0	0.11	0.35	152.73	5.777	3.94	54.06	1.243
J2206.53		126.62	132.31	5.69	0	0.19	0.58	127.2	13.758	5.72	176.25	32.382
J2213.506		90.096	94.702	4.606	0	1.24	2.45	92.55	127.728	2.98	2881.932	514.57
J2223.267		131.7	138.96	7.26	0	0.76	1.94	133.64	46.239	5.8	457.31	14.709
J2224.630		90.196	95.437	5.241	0	1.23	2.5	92.7	127.74	3.496	2881.932	514.57
J2227.161		132.92	136.08	3.16	0	0.35	0.91	133.83	14.438	2.54	191.22	42.512
J2242.380		133	136.45	3.45	0	0.41	1.06	134.06	14.438	2.39	191.22	42.512
J226.077		119.5	129	9.5	0	0.84	2.54	122.04	94.699	7.11	1182.61	99.73
J2266.899		153.53	156.84	3.31	0	0.14	0.42	153.95	5.784	2.89	54.06	1.243
J2267.81		144.88	151.02	6.14	0	0.52	0.98	145.86	15.793	5.16	372.44	10.492
J2287.052		133.1	136.24	3.14	0	0.46	1.16	134.26	14.439	2.65	191.22	42.512
J2292.097		132	139.74	7.74	0	0.74	1.9	133.9	46.519	5.84	457.31	14.709
J2296.492		90.5	96.5	6	0	1.27	2.53	93.03	127.761	3.47	2881.932	514.57
J2300.10		127.5	133.8	6.3	0	0.39	1.03	128.53	13.76	5.27	176.25	32.382
J2331.99		145.19	149.22	4.03	0	0.77	1.42	146.61	15.799	2.61	372.44	10.492
J2346.464		90.922	96.594	5.672	0	1.02	2.23	93.15	127.79	3.775	2881.932	514.57
J2352.47		128.16	134.26	6.1	0	0.39	1.07	129.23	13.76	5.03	176.25	32.382
J2359.439		133.2	136.81	3.61	0	0.54	1.34	134.54	14.44	2.55	191.22	42.512
J2376.910		133.3	136.89	3.59	0	0.52	1.36	134.66	14.442	2.53	191.22	42.512
J2378.957		132.5	140.22	7.72	0	0.76	1.84	134.34	46.597	5.88	457.31	14.709

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2411.26		146	149.06	3.06	0	0.41	0.87	146.87	15.819	2.33	372.44	10.492
J2430.00		129.47	135.14	5.67	0	0.56	1.49	130.96	13.77	4.18	176.25	32.382
J2446.464		91.165	97.168	6.003	0	1.31	2.73	93.9	127.824	4.458	2881.932	514.57
J2447.455		133.5	137.5	4	0	0.55	1.42	134.92	14.443	2.58	191.22	42.512
J2456.367		133.5	140.73	7.23	0	0.56	1.21	134.71	46.636	6.02	457.31	14.709
J246.4641		75.714	82.643	6.929	0	1.03	1.93	77.65	127.907	4.993	3098.302	570.202
J246.585		133	140.29	7.29	0	0.37	1.17	134.17	36.72	6.49	355.59	10.54
J2460.36		146.52	149.72	3.2	0	0.56	0.96	147.48	15.816	2.24	372.44	10.492
J2465.522		133.6	137.5	3.9	0	0.51	1.39	134.99	14.446	2.61	191.22	42.512
J248.32		103.2	106.67	3.47	0	0.9	2.35	105.55	33.159	1.12	295.96	69.133
J250.67		122	132.88	10.88	0	0.57	1.01	123.01	17.201	9.87	401.01	11.577
J2500		133.7	137.5	3.8	0	0.53	1.41	135.11	14.451	3.01	191.22	42.512
J2500.10		131.13	135.11	3.98	0	0.38	0.93	132.06	13.773	3.05	176.25	32.382
J2500.16		147	149.16	2.16	0	0.6	1.05	148.05	15.254	1.49	364.85	10.18
J2528.637		133.51	139.67	6.16	0	1.02	1.99	135.5	46.638	6	457.31	14.709
J2535.77		132.07	135.56	3.49	0	0.28	0.78	132.85	13.774	2.71	176.25	32.382
J2540.48		147.7	150.24	2.54	0	0.22	0.46	148.16	15.255	2.46	364.85	10.18
J2546.464		91.817	99.01	7.193	0	1.42	2.78	94.6	127.856	4.41	2881.932	514.57
J255.1367		109	117.33	8.33	0	0.37	1.08	110.08	33.499	7.25	310.94	72.681
J2559.518		133.8	137.92	4.12	0	0.59	1.5	135.3	14.456	3.88	191.22	42.512
J2594.793		133.9	138.89	4.99	0	0.59	1.53	135.43	14.465	3.85	191.22	42.512
J2600.16		148	150.92	2.92	0	0.38	0.73	148.73	15.256	2.45	364.85	10.18
J2603.25		132.62	136.05	3.43	0	0.25	0.78	133.4	13.775	3.35	176.25	32.382
J2604.897		134	141.11	7.11	0	0.72	1.62	135.62	44.031	5.68	419.1	8.527
J2646.464		93	99.353	6.353	0	0.85	2.01	95.01	127.236	4.93	2820.832	474.61
J2646.738		134	138.5	4.5	0	0.56	1.5	135.5	14.476	3.1	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J265.297		119.9	129.65	9.75	0	0.7	2.27	122.17	94.9	7.58	1182.61	99.73
J2650.52		148.47	151.65	3.18	0	0.34	0.72	149.19	13.6	2.7	342.33	7.793
J2662.919		134.1	138.5	4.4	0	0.48	1.43	135.53	14.492	3.17	191.22	42.512
J2666.88		133.04	137.17	4.13	0	0.46	1.18	134.22	13.778	3.06	176.25	32.382
J2680.447		93.183	100.123	6.94	0	1.07	2.2	95.39	127.244	4.733	2820.832	474.61
J27.449		130.03	136.41	6.38	0	0.1	0.21	130.24	7.176	6.17	148.89	11.315
J2706.457		134.5	141.8	7.3	0	0.55	1.5	136	43.366	6.39	408.23	8.212
J2721.15		148.5	151.92	3.42	0	0.44	0.9	149.4	13.601	2.52	342.33	7.793
J2723.864		134.2	138.4	4.2	0	0.43	1.39	135.59	14.511	3.21	191.22	42.512
J2742.526		134.3	138.39	4.09	0	0.5	1.4	135.7	14.535	2.99	191.22	42.512
J2744.16		133.12	137.36	4.24	0	0.63	1.54	134.66	13.779	2.7	176.25	32.382
J2746.464		93.57	100.018	6.448	0	1.18	2.38	95.95	127.248	4.432	2820.832	474.61
J2757.35		133.44	137.39	3.95	0	0.42	1.28	134.72	13.78	2.71	176.25	32.382
J2795.45		149	152.27	3.27	0	0.53	0.98	149.98	13.608	2.29	342.33	7.793
J2800		134.5	138.48	3.98	0	0.46	1.31	135.81	14.588	2.72	191.22	42.512
J2809.59		133.67	137.69	4.02	0	0.48	1.28	134.95	13.781	3.03	176.25	32.382
J2813.657		135	142.89	7.89	0	0.66	1.62	136.62	43.379	6.27	408.23	8.212
J2826.19		134.02	138.33	4.31	0	0.41	1.18	135.2	13.785	3.13	176.25	32.382
J2849.017		94.004	100.816	6.812	0	1.39	2.72	96.72	127.248	4.463	2820.832	474.61
J2860.405		94.277	101.456	7.179	0	1.24	2.64	96.91	127.248	4.546	2820.832	474.61
J2892.413		94.718	101.354	6.636	0	1.14	2.52	97.23	127.248	4.667	2820.832	474.61
J2900		135	139.03	4.03	0	0.5	1.28	136.28	14.593	3.24	191.22	42.512
J2900.09		134.66	138.21	3.55	0	0.42	1.15	135.81	13.786	2.77	176.25	32.382
J2900.117		136	143.22	7.22	0	0.39	1.11	137.11	43.422	6.11	408.23	8.212
J2900.16		150.44	152.62	2.18	0	0.47	0.88	151.32	13.614	2.24	342.33	7.793
J2902.731		94.769	101.549	6.78	0	1.23	2.67	97.44	127.249	4.508	2820.832	474.61

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2946.464		94.788	101.633	6.845	0	1.41	2.92	97.71	127.254	4.257	2820.832	474.61
J2979.285		135.02	139.54	4.52	0	0.67	1.6	136.62	14.597	2.92	191.22	42.512
J2989.647		95	101.923	6.923	0	1.36	2.92	97.92	127.267	4.003	2820.832	474.61
J3		143.5	146.5	3	0	0.28	1.47	144.97	43.711	4.03	408.23	8.212
j3.1		141.5	144.1	2.6	0	0.71	2.06	143.56	27.532	7.24	232.12	4.642
J3.15		153.4	157.72	4.32	0	0.9	1.78	155.18	13.912	2.54	299.01	6.754
J3.2		153.7	156.7	3	0	0.68	1.49	155.19	14.768	1.51	299.01	6.754
J300		109.84	118	8.16	0	0.45	1.18	111.02	33.791	6.98	310.94	72.681
J300.215		133.5	141.16	7.66	0	0.28	0.95	134.45	36.756	6.71	355.59	10.54
J300.239		135.3	137.92	2.62	0	0.19	0.38	135.68	9.366	2.8	102.87	2.756
J3000.09		135.71	139.63	3.92	0	0.47	1.26	136.97	13.791	2.73	176.25	32.382
J3000.117		136.5	143.55	7.05	0	0.28	1.05	137.55	43.469	6.15	408.23	8.212
J3000.16		151.17	154.29	3.12	0	0.52	0.86	152.03	13.617	2.26	342.33	7.793
J3007.922		135.5	139.65	4.15	0	0.28	1.15	136.65	14.615	3	191.22	42.512
J3051.067		137	144.2	7.2	0	0.26	0.9	137.9	43.484	6.48	408.23	8.212
J3054.885		96	102.767	6.767	0	0.95	2.24	98.24	127.272	5.027	2820.832	474.61
J3066.327		96.078	103.345	7.267	0	1.08	2.43	98.51	127.274	4.907	2820.832	474.61
J3100.09		136.64	140.63	3.99	0	0.43	1.17	137.81	13.791	2.82	176.25	32.382
J3100.16		151.77	154.15	2.38	0	0.42	0.72	152.49	13.624	2.36	342.33	7.793
J3103.867		137.1	144.38	7.28	0	0.52	1.42	138.52	43.498	6.17	408.23	8.212
J3105.432		96.188	102.227	6.039	0	1.26	2.65	98.84	127.291	4.687	2820.832	474.61
J311.56		123.78	133.22	9.44	0	0.35	0.65	124.43	17.202	8.79	401.01	11.577
J3111.594		136	139.94	3.94	0	0.24	0.9	136.9	14.648	3.37	191.22	42.512
J3135.520		136.1	140.27	4.17	0	0.18	0.81	136.91	14.76	4.47	191.22	42.512
J314.357		120	129.85	9.85	0	0.76	2.34	122.34	95.264	7.51	1182.61	99.73
J3148.25		152.01	155.09	3.08	0	0.29	0.6	152.61	13.627	2.48	342.33	7.793

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3150.013		96.681	102.937	6.256	0	0.86	2.19	98.87	127.619	6.172	2820.832	474.61
J3158.17		137.27	141.2	3.93	0	0.31	0.93	138.2	13.79	3.22	176.25	32.382
J3200		136.2	141.28	5.08	0	0.34	0.81	137.01	8.55	4.69	132.89	28.396
J3200.117		138	145.59	7.59	0	0.54	1.61	139.61	43.563	5.98	408.23	8.212
J3200.16		152.1	155.03	2.93	0	0.49	0.86	152.96	13.629	2.77	342.33	7.793
J3221.88		137.63	141.78	4.15	0	0.47	1.21	138.84	13.79	2.94	176.25	32.382
J3237.56		137.83	141.97	4.14	0	0.35	1.09	138.92	13.802	3.05	176.25	32.382
J3246.464		97	105.361	8.361	0	1.12	2.4	99.4	116.691	6.32	2404.052	347.658
J3262.17		152.2	155.64	3.44	0	0.56	1.02	153.22	13.633	2.61	342.33	7.793
J3300		136.5	142	5.5	0	0.35	0.81	137.31	7.588	4.69	121.24	27.348
J3300.117		139.5	145.63	6.13	0	0.3	1.04	140.54	43.597	5.47	408.23	8.212
J3322.153		98.06	106.78	8.72	0	0.75	1.64	99.7	115.94	7.08	2327.312	302.996
J3337.30		152.5	156.12	3.62	0	0.44	0.86	153.36	13.641	2.76	342.33	7.793
J3346.98		138	144.35	6.35	0	0.44	1.22	139.22	13.818	5.28	176.25	32.382
J3361.22		138.1	144.5	6.4	0	0.38	1.13	139.23	13.964	5.37	176.25	32.382
J3390.389		98.377	106.623	8.246	0	0.91	1.95	100.33	115.957	6.293	2327.312	302.996
J3392.66		138.2	141.54	3.34	0	0.29	1.04	139.24	14.577	2.5	176.25	32.382
J3400		137	142.5	5.5	0	0.25	0.62	137.62	7.59	5.25	121.24	27.348
J3411.51		153	156.34	3.34	0	0.42	0.78	153.78	13.643	2.59	342.33	7.793
J3414.967		140.48	146.99	6.51	0	0.28	1.12	141.6	43.602	5.5	408.23	8.212
J3428.33		153.1	156.37	3.27	0	0.49	0.86	153.96	11.728	2.51	299.01	6.754
J3445.04		138.5	142	3.5	0	0.25	0.75	139.25	9.536	4.11	110.73	11.324
J3446.464		98.818	106.275	7.457	0	0.85	1.84	100.66	115.967	5.615	2327.312	302.996
J346.4642		76.795	83.351	6.556	0	0.86	1.65	78.45	127.904	4.901	3098.302	570.202
J349.449		135.4	138.68	3.28	0	0.13	0.37	135.77	9.378	3.33	102.87	2.756
J3492.153		99	105.476	6.476	0	1	2.08	101.08	115.978	5.337	2327.312	302.996

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J350.45		124.43	133.57	9.14	0	0.57	1	125.43	17.203	8.14	401.01	11.577
J3500		137.5	143.37	5.87	0	0.42	0.96	138.46	6.076	4.91	97.4	21.626
J3500.1		139	142	3	0	0.12	0.38	139.38	9.539	4.48	110.73	11.324
J3500.117		141.15	147.77	6.62	0	0.6	1.6	142.75	43.612	5.02	408.23	8.212
J352.0823		110.5	118.23	7.73	0	0.46	1.17	111.67	14.199	6.56	191.22	42.512
J352.30		104	107.43	3.43	0	0.87	2.13	106.13	33.852	1.3	295.96	69.133
J3539.547		100	107.417	7.417	0	0.54	1.3	101.3	116.004	6.117	2327.312	302.996
J3546.867		141.5	147.8	6.3	0	0.51	1.5	143	43.657	5.77	408.23	8.212
J3552.954		100.01	107.142	7.132	0	0.66	1.46	101.47	116.019	5.696	2327.312	302.996
J3590.76		140.9	145.15	4.25	0	0.22	0.6	141.5	8.986	3.65	99.46	9.363
J3597.283		100.07	107.677	7.607	0	0.78	1.64	101.71	116.031	5.967	2327.312	302.996
J36.529		131.25	136.77	5.52	0	0.13	0.27	131.52	7.176	5.25	148.89	11.315
J3600		139	144	5	0	0.35	0.82	139.82	6.076	10.75	97.4	21.626
J3609.26		141	144.86	3.86	0	0.26	0.7	141.7	8.987	3.45	99.46	9.363
J3610.812		100.09	105.385	5.295	0	0.88	1.83	101.92	115.461	5.959	2298.035	282.81
J3624.107		142	149.27	7.27	0	0.45	1.29	143.29	43.686	5.98	408.23	8.212
J3660.527		142.5	151	8.5	0	0.39	1.26	143.76	43.698	7.24	408.23	8.212
J3667.068		100.17	107.789	7.619	0	1.2	2.37	102.54	115.463	5.419	2298.035	282.81
J3677.11		141.47	145.24	3.77	0	0.4	1.06	142.53	8.987	2.83	99.46	9.363
J3684.238		140.5	152.07	11.57	0	0.33	0.78	141.28	6.076	10.79	97.4	21.626
J3685.955		100.198	104.836	4.638	0	1.22	2.46	102.66	115.466	2.178	2298.035	282.81
J3696.22		141.96	145.72	3.76	0	0.24	0.78	142.74	8.988	3.27	99.46	9.363
J3709.655		100.514	105.087	4.573	0	1.02	2.3	102.82	115.468	4.287	2298.035	282.81
J3717.833		100.614	107.107	6.493	0	1.07	2.34	102.96	115.472	4.247	2298.035	282.81
J3742.908		141.18	147.54	6.36	0	0.36	0.88	142.06	6.076	5.48	97.4	21.626
J3758.726		141.55	145.98	4.43	0	0.26	0.71	142.26	6.076	3.72	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3770.893		101.707	107.337	5.63	0	0.89	1.96	103.67	115.473	4.63	2298.035	282.81
J3780.99		142.34	146.39	4.05	0	0.35	0.94	143.28	8.991	4.38	99.46	9.363
J3811.191		141.58	145.38	3.8	0	0.43	0.97	142.55	6.076	3.46	97.4	21.626
J3825.668		141.6	145.74	4.14	0	0.44	1	142.6	6.077	3.58	97.4	21.626
J3846.464		101.8	107.55	5.75	0	1.38	2.81	104.61	115.473	5.665	2298.035	282.81
J3869.05		143	148.32	5.32	0	0.39	1.09	144.09	8.993	4.23	99.46	9.363
J388.5779		77.436	83.441	6.005	0	0.79	1.65	79.09	127.904	4.351	3098.302	570.202
J3900		141.99	146.57	4.58	0	0.32	0.77	142.76	6.082	3.81	97.4	21.626
J392.31		104.36	107.44	3.08	0	0.83	2.09	106.45	34.02	0.99	295.96	69.133
J3932.07		143.5	147.63	4.13	0	0.38	1.07	144.57	8.993	3.48	99.46	9.363
J3946.464		102	110.475	8.475	0	1.44	2.99	104.99	115.49	5.485	2298.035	282.81
J3947.67		143.6	148.05	4.45	0	0.4	1.14	144.74	8.995	3.41	99.46	9.363
J4		144.1	147	2.9	0	0.65	1.98	146.08	30.973	2.92	267.14	5.343
J4.1		141.7	144.7	3	0	0.6	2.02	143.72	28.365	8.28	232.12	4.642
J4.2		154.5	157.5	3	0	0.45	0.9	155.4	11.102	2.1	193.34	4.64
J4.25		146	149	3	0	0.42	1.43	147.43	30.992	1.57	267.14	5.343
J4.5		146.02	149	2.98	0	0.56	1.81	147.83	30.997	2.59	267.14	5.343
J4.55		146.04	148.6	2.56	0	0.61	1.9	147.94	31.002	2.5	267.14	5.343
J4.56		146.06	150.45	4.39	0	0.61	1.9	147.96	31.007	2.49	267.14	5.343
J4.6		146.08	150.46	4.38	0	0.6	1.89	147.97	31.017	2.49	267.14	5.343
J4.7		146.1	149.1	3	0	0.6	1.9	148	31.155	2	267.14	5.343
J4.75		146.5	149.5	3	0	0.56	1.95	148.45	31.716	1.55	267.14	5.343
J400.127		120.75	130.56	9.81	0	0.65	2.05	122.8	95.553	7.76	1182.61	99.73
J400.215		134.5	142	7.5	0	0.54	1.53	136.03	36.769	5.97	355.59	10.54
J400.239		135.5	139.2	3.7	0	0.18	0.57	136.07	9.384	3.7	102.87	2.756
J4014.677		142.65	147.06	4.41	0	0.17	0.43	143.08	6.083	3.98	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4019.03		143.7	149.48	5.78	0	0.51	1.31	145.01	8.996	4.91	99.46	9.363
J402.1469		77.5	83.361	5.861	0	0.91	1.84	79.34	127.904	4.165	3098.302	570.202
J4034.42		143.8	149.72	5.92	0	0.48	1.36	145.16	9	4.86	99.46	9.363
J4067.080		102.504	110.39	7.886	0	1.15	2.73	105.24	115.514	5.763	2298.035	282.81
J410.6635		112	118.24	6.24	0	0.43	1.19	113.19	14.199	5.05	191.22	42.512
J4100		143.61	147.62	4.01	0	0.22	0.49	144.1	6.084	4.18	97.4	21.626
J4100.11		144	149.17	5.17	0	0.49	1.37	145.37	9.01	4.14	99.46	9.363
J4100.962		102.727	111.226	8.499	0	1.14	2.7	105.43	115.548	5.799	2298.035	282.81
J412.71		125.74	133.48	7.74	0	0.44	0.8	126.54	17.205	6.94	401.01	11.577
J4184.01		144.4	150.01	5.61	0	0.41	1.21	145.61	9.014	5.3	99.46	9.363
J4199.26		144.5	151.01	6.51	0	0.41	1.21	145.71	9.018	5.3	99.46	9.363
J4200		144.79	149.46	4.67	0	0.19	0.45	145.24	6.084	4.22	97.4	21.626
J4232.339		103.301	114.958	11.657	0	1.12	2.62	105.92	115.565	9.247	2298.035	282.81
J4248.377		103.429	115.295	11.866	0	1.26	2.79	106.22	115.584	9.075	2298.035	282.81
J4258.27		145	151.34	6.34	0	0.37	1.09	146.09	9.019	5.42	99.46	9.363
J427.7351		112.23	118.31	6.08	0	0.49	1.3	113.53	14.199	4.8	191.22	42.512
J4271.41		145.1	151.21	6.11	0	0.34	1.05	146.15	9.02	5.16	99.46	9.363
J4300		147.15	150.6	3.45	0	0.35	0.79	147.94	6.084	2.66	97.4	21.626
J4330.11		145.2	150.96	5.76	0	0.52	1.35	146.55	9.025	4.75	99.46	9.363
J4332.776		104.171	115.07	10.899	0	1.17	2.73	106.9	115.595	8.17	2298.035	282.81
J438.5957		77.124	83.798	6.674	0	1.43	2.57	79.69	127.903	4.128	3098.302	570.202
J4395.415		104.504	112.635	8.131	0	1.14	2.72	107.22	106.169	6.143	1893.575	188.198
J4396.23		145.53	150.63	5.1	0	0.39	1.21	146.74	9.029	3.89	99.46	9.363
J440.72		105	107.73	2.73	0	0.72	1.92	106.92	35.764	0.81	295.96	69.133
J4411.37		145.86	150.65	4.79	0	0.3	0.98	146.84	9.033	3.81	99.46	9.363
J4446.464		104.632	113.491	8.859	0	1.36	2.99	107.62	106.288	7.075	1893.575	188.198

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4462.26		145.9	151.32	5.42	0	0.45	1.16	147.06	9.036	4.26	99.46	9.363
J4477.44		146.29	151.39	5.1	0	0.21	0.82	147.11	9.042	4.28	99.46	9.363
J452.879		135.94	140.21	4.27	0	0.19	0.54	136.48	9.384	4.12	102.87	2.756
J4529.29		146.42	150.96	4.54	0	0.33	0.91	147.33	9.052	3.76	99.46	9.363
J454.8528		77.124	83.818	6.694	0	1.55	2.8	79.92	127.904	3.898	3098.302	570.202
J4546.464		105.4	115.463	10.063	0	1.01	2.61	108.01	106.165	8.352	1874.255	182.595
J4600.10		146.64	151.31	4.67	0	0.3	0.87	147.51	9.062	4.11	99.46	9.363
J461.85		126.2	133.36	7.16	0	0.49	0.95	127.15	17.205	6.51	401.01	11.577
J4635.43		147.07	152.05	4.98	0	0.21	0.61	147.68	9.096	4.37	99.46	9.363
J4646.464		105.733	116.695	10.962	0	1.08	2.63	108.36	106.427	8.49	1874.255	182.595
J4700.25		150.78	154.17	3.39	0	0.1	0.34	151.12	7.906	3.05	79.05	4.709
J4731.82		150.83	152.57	1.74	0	0.3	0.74	151.57	7.942	5.75	79.05	4.709
J4746.464		106.117	117.234	11.117	0	1.19	2.74	108.86	106.597	8.374	1874.255	182.595
J477.657		120.92	130.32	9.4	0	1.1	2.54	123.46	95.623	7.37	1182.61	99.73
J4800.10		151.38	157.87	6.49	0	0.08	0.37	151.75	7.629	6.12	69.57	1.391
J4846.464		106.467	116.662	10.195	0	1.19	2.97	109.44	106.733	7.616	1874.255	182.595
J487.7520		77.124	83.691	6.567	0	1.59	2.87	79.99	127.907	3.701	3098.302	570.202
J4900.10		152.09	154.18	2.09	0	0.3	0.7	152.79	7.433	1.39	69.57	1.391
J4945.903		107.124	117.713	10.589	0	0.93	2.55	109.67	106.987	8.391	1874.255	182.595
J4957.289		152.2	153.75	1.55	0	0.39	0.99	153.19	8.445	0.75	69.57	1.391
J498.2611		113.26	118.21	4.95	0	0.48	1.3	114.56	14.199	4.78	191.22	42.512
J5		148.5	151.5	3	0	0.19	0.8	149.3	32.21	9.2	267.14	5.343
J5.1		143.2	146.2	3	0	0.5	1.9	145.1	31.067	8.4	232.12	4.642
J5.2		154.6	156	1.4	0	0.78	1.53	156.13	11.812	0.33	193.34	4.64
J500.17		126.77	134.23	7.46	0	0.35	0.71	127.48	17.205	6.75	401.01	11.577
J500.239		136	140.66	4.66	0	0.17	0.6	136.6	9.387	4.47	102.87	2.756

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5000.10		152.74	154.09	1.35	0	0.16	0.45	153.19	9.14	1.04	69.57	1.391
J5046.464		107.448	118.385	10.937	0	1.05	2.57	110.02	107.277	9.263	1874.255	182.595
J5048.723		152.85	154.34	1.49	0	0.22	0.58	153.43	8.775	1.22	69.57	1.391
J506.895		135.5	142.66	7.16	0	0.47	1.2	136.7	36.182	5.96	344.96	10.306
J509.347		121	130.91	9.91	0	1.12	2.67	123.67	95.731	7.24	1182.61	99.73
J5100.10		153.03	154.83	1.8	0	0.28	0.71	153.74	8.745	1.09	69.57	1.391
J513.5331		113.58	118.5	4.92	0	0.42	1.23	114.81	14.201	3.69	191.22	42.512
J5146.464		107.53	119.365	11.835	0	1.23	2.82	110.35	107.672	9.015	1874.255	182.595
J5152.642		153.32	154.74	1.42	0	0.28	0.81	154.13	8.753	1.18	69.57	1.391
J516.02		105.73	107.84	2.11	0	0.63	1.6	107.33	36.277	1.4	295.96	69.133
J5220.803		153.49	155.48	1.99	0	0.41	1.08	154.57	8.786	0.91	69.57	1.391
J523.1179		77.124	83.691	6.567	0	1.68	3.04	80.17	127.909	3.521	3098.302	570.202
J5260.950		108.278	119.712	11.434	0	0.91	2.38	110.66	107.715	9.052	1857.475	180.582
J5260.956		153.77	155.4	1.63	0	0.21	0.81	154.58	8.901	0.93	69.57	1.391
J5300.10		154	155.74	1.74	0	0.16	0.61	154.61	9.235	1.6	69.57	1.391
J531.73		127.59	134.74	7.15	0	0.28	0.61	128.2	17.206	6.54	401.01	11.577
J534.23		105.99	108.99	3	0	0.57	1.47	107.46	36.631	1.56	295.96	69.133
J5373.942		109.061	119.739	10.678	0	0.87	2.23	111.29	107.867	8.449	1857.475	180.582
J5400.10		154.97	157.18	2.21	0	0.13	0.42	155.39	9.247	2.85	69.57	1.391
J5427.875		109.112	119.702	10.59	0	1.01	2.44	111.55	108.053	8.247	1857.475	180.582
J546.4642		77.521	83.405	5.884	0	1.53	3.02	80.54	127.91	3.673	3098.302	570.202
J5500.10		155.5	158.77	3.27	0	0.17	0.65	156.15	9.265	2.62	69.57	1.391
J5532.597		109.445	120.13	10.685	0	0.96	2.44	111.88	108.041	8.25	1845.096	169.688
J554.879		136.5	141.57	5.07	0	0.18	0.52	137.02	9.389	4.99	102.87	2.756
J5543.03		155.89	158.11	2.22	0	0.18	0.71	156.6	9.28	2.12	69.57	1.391
J5581.81		155.94	158.77	2.83	0	0.17	0.68	156.62	9.343	2.15	69.57	1.391

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5598.608		156	158.24	2.24	0	0.16	0.64	156.64	9.523	1.6	69.57	1.391
J5627.203		109.864	119.899	10.035	0	0.82	2.25	112.12	108.459	7.779	1845.096	169.688
J571.927		121.39	130.92	9.53	0	1	2.5	123.89	95.932	9.8	1182.61	99.73
J5746.464		110.189	119.271	9.082	0	1.05	2.39	112.58	108.902	7.951	1845.096	169.688
J5850.291		110.593	120.935	10.342	0	0.86	2.23	112.82	108.627	8.115	1811.086	159.758
J591.0980		77.124	83.691	6.567	0	2.06	3.71	80.84	127.912	2.976	3098.302	570.202
J5946.083		111.109	121.311	10.202	0	0.84	2.18	113.29	108.96	8.021	1811.086	159.758
J6		144.7	147.7	3	0	0.54	1.93	146.63	35.671	7.37	232.12	4.642
J6.2		154.7	157.7	3	0	0.73	1.46	156.16	19.982	1.66	193.34	4.64
J6.227		118.53	129.53	11	0	1.16	2.36	120.89	94.255	8.94	1182.61	99.73
J60.22		102.5	112.5	10	0	0.83	2.51	105.01	42.605	7.49	366.54	105.269
J600.0000		114.21	119.8	5.59	0	0.48	1.28	115.49	14.213	4.31	191.22	42.512
J600.17		128.66	135.22	6.56	0	0.34	0.69	129.35	17.207	6.69	401.01	11.577
J600.239		136.84	142.35	5.51	0	0.23	0.64	137.48	9.39	4.87	102.87	2.756
J6046.464		111.186	121.081	9.895	0	1.11	2.47	113.66	109.229	7.421	1811.086	159.758
J6098.928		111.34	119.993	8.653	0	1.05	2.44	113.78	109.499	7.673	1811.086	159.758
J6165.560		111.442	121.555	10.113	0	1.18	2.67	114.12	109.691	7.435	1811.086	159.758
J62.389		135	136.94	1.94	0	0.41	0.53	135.53	9.364	1.44	102.87	2.756
J6233.167		111.595	121.594	9.999	0	1.19	2.75	114.34	109.871	7.254	1811.086	159.758
J625.125		136.09	142.4	6.31	0	0.57	1.59	137.68	36.151	5.58	344.96	10.306
J6301.693		111.672	121.487	9.815	0	1.26	2.92	114.59	110.086	7.416	1811.086	159.758
J634.217		121.6	133.9	12.3	0	1.04	2.74	124.34	96.005	9.56	1182.52	99.64
J6358.901		111.749	122.083	10.334	0	1.27	2.95	114.7	110.373	7.383	1809.01	158.979
J639.57		129.64	137.02	7.38	0	0.23	0.51	130.15	17.209	6.87	401.01	11.577
J6435.935		112.363	122.451	10.088	0	0.95	2.51	114.87	109.969	8.247	1770.29	133.733
J646.4641		78.57	83.639	5.069	0	1.48	3.12	81.69	127.912	1.949	3098.302	570.202

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J647.627		121.74	131.42	9.68	0	1	2.72	124.46	96.058	6.96	1182.52	99.64
J6478.273		112.44	123.194	10.754	0	1.05	2.58	115.02	109.569	8.204	1741.026	131.392
J6565.562		112.848	123.632	10.784	0	0.97	2.52	115.37	110.026	10.639	1741.026	131.392
J657.28		107.9	110.98	3.08	0	0.26	0.88	108.78	37.07	2.2	295.96	69.133
J657.629		137.5	142.75	5.25	0	0.28	0.78	138.28	9.391	4.47	102.87	2.756
J6662.639		113.054	126.215	13.161	0	1.29	2.72	115.77	110.418	10.445	1741.026	131.392
J674.5680		79.397	83.676	4.279	0	1.16	2.71	82.11	127.912	1.971	3098.302	570.202
J674.60		108	111.03	3.03	0	0.32	1.03	109.03	37.896	2.63	295.96	69.133
J6772.934		114.195	124.959	10.764	0	0.89	2.18	116.37	110.551	9.202	1741.026	131.392
J684.977		122	132.21	10.21	0	1	2.75	124.75	96.117	8.57	1182.52	99.64
J6846.464		114.24	125.617	11.377	0	1.37	2.93	117.17	110.573	8.549	1741.026	131.392
J6894.028		114.34	125.719	11.379	0	1.5	3.17	117.51	110.643	8.7	1741.026	131.392
J69.25231		104.63	115.21	10.58	0	0.95	2.34	106.97	54.902	8.24	382.54	90.009
J695.90		130.8	137.5	6.7	0	0.42	0.71	131.51	17.206	6.62	401.01	11.577
J6988.738		114.56	126.43	11.87	0	1.47	3.15	117.71	110.819	8.72	1741.026	131.392
J699.925		136.5	143.67	7.17	0	0.64	1.47	137.97	36.173	5.7	344.96	10.306
J7.227846		75.474	80.753	5.279	0	0.69	1.15	76.62	127.965	5.503	3127.962	575.66
J700		114.3	120.41	6.11	0	0.5	1.34	115.64	14.26	4.77	191.22	42.512
J700.239		138	143.21	5.21	0	0.31	0.89	138.89	9.391	4.32	102.87	2.756
J703.1630		79.556	84.24	4.684	0	1.46	3.03	82.59	127.912	1.978	3098.302	570.202
J7047.302		114.752	124.764	10.012	0	1.36	3.08	117.84	110.675	6.924	1725.986	125.467
J706.81		131	138.33	7.33	0	0.46	0.79	131.79	17.206	6.98	401.01	11.577
J709.95		108.43	112.09	3.66	0	0.22	0.61	109.04	13.316	3.05	176.25	32.382
J71.72631		75.374	82.023	6.649	0	1.01	1.65	77.03	127.987	5.435	3127.962	575.66
J7132.593		114.937	124.928	9.991	0	1.43	3.18	118.11	111.269	6.818	1725.986	125.467
J718.547		122.1	133.32	11.22	0	0.98	2.73	124.83	96.236	8.59	1182.52	99.64

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J7232.906		115.699	124.326	8.627	0	0.98	2.56	118.25	113.346	6.076	1725.986	125.467
J7322.142		116.115	123.734	7.619	0	0.98	2.45	118.57	109.397	5.362	1608.8	113.322
J736.779		138.5	143.45	4.95	0	0.23	0.7	139.2	9.391	4.25	102.87	2.756
J737.045		137	142.75	5.75	0	0.48	1.14	138.14	36.202	6.34	344.96	10.306
J7381.689		116.697	124.514	7.817	0	0.85	2.12	118.81	109.944	8.047	1608.8	113.322
J74.135		132	138.61	6.61	0	0.66	1.65	133.65	36.542	5.07	355.59	10.54
J7449.270		116.966	127.126	10.16	0	0.82	2.09	119.06	110.428	8.066	1608.8	113.322
J746.4641		79.812	84.824	5.012	0	1.56	3.2	83.01	127.912	2.575	3098.302	570.202
J749.08		131.5	139.37	7.87	0	0.65	1.05	132.55	17.212	6.82	401.01	11.577
J7549.375		117.552	127.605	10.053	0	1.06	2.43	119.98	110.533	8.304	1608.8	113.322
J762.307		122.74	132.51	9.77	0	0.64	2.14	124.88	96.064	7.63	1173.84	98.364
J7639.745		117.959	128.691	10.732	0	0.83	2.25	120.21	110.83	8.481	1608.8	113.322
J768.179		138.9	143.38	4.48	0	0.25	0.69	139.59	9.392	3.85	102.87	2.756
J7752.183		118.5	128.747	10.247	0	1.17	2.34	120.84	16.089	8.29	401.01	11.577
J794.7359		79.818	85.591	5.773	0	1.92	3.63	83.45	127.914	2.648	3098.302	570.202
J795.635		137.1	144.48	7.38	0	0.8	1.56	138.66	36.357	5.92	344.96	10.306
J799.60		109.44	111.34	1.9	0	0.13	0.46	109.9	13.327	2.55	176.25	32.382
J80.89927		75	82.091	7.091	0	1.47	2.2	77.2	127.704	5.477	3098.302	570.202
J800.0000		116.5	120	3.5	0	0.39	1.06	117.56	14.464	5.08	191.22	42.512
J800.117		122.8	131.86	9.06	0	0.77	2.2	125	90.932	7.16	1068.5	62.887
J800.17		132.83	139.34	6.51	0	0.43	0.81	133.64	15.7	5.7	372.44	10.492
J800.239		139	144.32	5.32	0	0.23	0.71	139.71	9.402	4.61	102.87	2.756
J82.94		119	129.63	10.63	0	0.75	1.85	120.85	16.614	8.83	401.01	11.577
J846.4642		80.833	87.113	6.28	0	1.31	2.93	83.77	127.921	3.343	3098.302	570.202
J851.915		137.8	144.92	7.12	0	0.38	0.96	138.76	36.485	6.16	344.96	10.306
J854.56		110.28	113.29	3.01	0	0.27	0.7	110.98	13.363	2.31	176.25	32.382

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J855.869		139.98	144.52	4.54	0	0.16	0.48	140.46	9.404	4.86	102.87	2.756
J876.147		123.5	132.09	8.59	0	0.55	1.71	125.21	91.169	7.35	1068.5	62.887
J895.8482		81.591	87.386	5.795	0	1.11	2.48	84.07	127.931	3.316	3098.302	570.202
J9.209		127.26	134.08	6.82	0	0.51	2.12	129.38	7.176	4.7	148.89	11.315
J9.902844		104.31	115.07	10.76	0	1.11	2.66	106.97	54.608	8.1	382.54	90.009
J900.10		111.28	113.24	1.96	0	0.1	0.32	111.6	13.373	3.54	176.25	32.382
J900.239		140	145.34	5.34	0	0.29	0.75	140.75	9.408	4.59	102.87	2.756
J902.1607		116.99	123.13	6.14	0	0.2	0.7	117.69	14.323	6.2	191.22	42.512
J902.835		137.9	144.67	6.77	0	0.53	1.26	139.16	36.542	5.51	344.96	10.306
J904.90		134.44	140.82	6.38	0	0.25	0.51	134.95	15.703	5.87	372.44	10.492
J922.9622		117.1	123.85	6.75	0	0.24	0.74	117.84	14.353	6.16	191.22	42.512
J929.29		111.72	115.58	3.86	0	0.19	0.46	112.18	13.373	6.07	176.25	32.382
J945.497		124	133.06	9.06	0	0.69	1.84	125.84	91.213	7.22	1068.5	62.887
J955.93		135.5	140.77	5.27	0	0.31	0.61	136.11	15.704	4.97	372.44	10.492
J956.725		138	144.51	6.51	0	0.72	1.63	139.63	36.634	4.88	344.96	10.306
J963.549		141	145.71	4.71	0	0.15	0.5	141.5	9.41	4.21	102.87	2.756
J964.46		112.13	118.66	6.53	0	0.21	0.63	112.76	13.373	8.75	176.25	32.382
J966.3656		82.24	87.702	5.462	0	1.12	2.44	84.68	126.729	3.022	2973.692	538.178
J982.0328		82.34	87.489	5.149	0	1.2	2.64	84.98	126.73	2.559	2973.692	538.178
J99.99998		106.58	115.09	8.51	0	0.3	0.95	107.53	54.989	7.96	382.54	90.009
J992.03		112.5	121.88	9.38	0	0.3	0.8	113.3	13.373	9.85	176.25	32.382
SU211		139.5	142.1	2.6	0	0.06	0.46	139.96	9.056	2.54	38.21	6.182
SU220		133.5	135.15	1.65	0	0.07	0.65	134.15	14.845	2.35	48.65	12.041

Table 2A: Conduits

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
10	DF009	10		42.65	0.013	101.05	101.05	0	CIRCULAR	1.5	0		0
12	10	J3597.283		87.39	0.045	101.05	100.07	0	TRAPEZOIDAL	1.2	0.6		0.01121
13	DFM002	J3539.547		146.39	0.01	105.65	100	0	IRREGULAR	0	0	Street-7.5m	0.03862
6	DF002	DFM001		19.71	0.01	108.085	108.085	0	IRREGULAR	0	0	Street-7.5m	0
6_1	DFM001	DFM003		100	0.01	108.085	107.786	0	IRREGULAR	0	0	Street-7.5m	0.00299
6_2	DFM003	DFM004		100	0.01	107.786	107.486	0	IRREGULAR	0	0	Street-7.5m	0.003
6_3	DFM004	DFM005		100	0.01	107.486	107.187	0	IRREGULAR	0	0	Street-7.5m	0.00299
6_4	DFM005	DFM006		100	0.01	107.187	106.887	0	IRREGULAR	0	0	Street-7.5m	0.003
6_5	DFM006	DFM007		100	0.01	106.887	106.588	0	IRREGULAR	0	0	Street-7.5m	0.00299
6_6	DFM007	DFM008		100	0.01	106.588	106.288	0	IRREGULAR	0	0	Street-7.5m	0.003
6_7	DFM008	DFM009		100	0.01	106.288	105.989	0	IRREGULAR	0	0	Street-7.5m	0.00299
6_8	DFM009	DFM002		113.16	0.01	105.989	105.65	0	IRREGULAR	0	0	Street-7.5m	0.003
C10.67_2	J1	J151		446.7	0.015	102.412	98.68	0	IRREGULAR	0	0	Design-Channel	0.00835
C11	J185	J3411.51		276	0.015	153.5	153	0	IRREGULAR	0	0	SAMPLE	0.00181
C12	J4.6	J4.56		6	0.013	146.08	146.06	0	IRREGULAR	0	0	4.7	0.00333
C15	J2.1	J1388.055		14	0.015	141.3	141	0	IRREGULAR	0	0	3.1	0.02143
C151	J151	J3150.013		303	0.015	98.68	97.681	0	IRREGULAR	0	0	10.67	0.0033
C152	J152	J151		543	0.015	107	99.5	0	IRREGULAR	0	0	Street1	0.01381
C167	J167	SU166		726	0.015	155.07	149	0	IRREGULAR	0	0	Street1	0.00836
C184	J186	J6.2		1362	0.015	164	154.7	0	IRREGULAR	0	0	184	0.00683
C191	J181	SU191		1098	0.015	135	132	0	IRREGULAR	0	0	Street1	0.00273
C2.2	J2.2	J3428.33		400	0.015	153.2	153.1	0	IRREGULAR	0	0	3.2	0.00025
C2.5	J2.5	J3660.527		44.5	0.013	142.63	142.5	0	IRREGULAR	0	0	3660.527	0.00292
C2.61	j2.6	J2.1		54	0.015	141.4	141.3	0	IRREGULAR	0	0	3.1	0.00185
C211	J212	SU211		570	0.015	144.4	140.5	0	IRREGULAR	0	0	Street1	0.00684
C3	J3	J2.5		9	0.015	143.5	142.63	0	IRREGULAR	0	0	3	0.09712

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
C3.1	j3.1	j2.6		28	0.015	141.5	141.4	0	IRREGULAR	0	0	3.1	0.00357
C3.15	J3.15	J2.2		31	0.013	153.4	153.2	0	IRREGULAR	0	0	3.2	0.00645
C3.2	J3.2	J3.15		8	0.015	153.7	153.4	0	IRREGULAR	0	0	3.2	0.03753
C3445.04	J3445.04	J3392.66		52.5	0.015	138.5	138.2	0	IRREGULAR	0	0	3445.04	0.00571
C3500.1	J3500.1	J3445.04		55	0.015	139	138.5	0	IRREGULAR	0	0	3500.1	0.00909
C3590.76	J3590.76	J3500.1		91	0.015	140.9	139	0	IRREGULAR	0	0	3590.86	0.02088
C4	J4	J3		97	0.015	144.1	143.5	0	IRREGULAR	0	0	4	0.00619
C4.1	J4.1	j3.1		41	0.015	141.7	141.5	0	IRREGULAR	0	0	4.1	0.00488
C4.2	J4.2	J3.2		50	0.015	154.5	153.7	0	IRREGULAR	0	0	4.2	0.016
C4.25	J4.25	J4		86	0.015	146	144.1	0	IRREGULAR	0	0	4.25	0.0221
C4.5	J4.5	J4.25		18	0.015	146.02	146	0	IRREGULAR	0	0	4.5	0.00111
C4.55	J4.55	J4.5		12.4	0.015	146.04	146.02	0	IRREGULAR	0	0	4.55	0.00161
C4.56	J4.56	J4.55		9.2	0.015	146.06	146.04	0	IRREGULAR	0	0	4.7	0.00217
C4.7	J4.7	J4.6		14.4	0.015	146.1	146.08	0	IRREGULAR	0	0	4.7	0.00139
C4.75	J4.75	J4.7		103	0.015	146.5	146.1	0	IRREGULAR	0	0	4.75	0.00388
C5	J5	J4.75		142	0.015	148.5	146.5	0	IRREGULAR	0	0	5	0.01409
C5.1	J5.1	J4.1		236	0.015	143.2	141.7	0	IRREGULAR	0	0	5.1	0.00636
C5.2	J5.2	J4.2		400	0.015	154.6	154.5	0	IRREGULAR	0	0	5.2	0.00025
C6	J216	J5		755	0.015	153.5	148.5	0	IRREGULAR	0	0	6.1	0.00662
C6.1	J6	J5.1		241	0.015	144.7	143.2	0	IRREGULAR	0	0	6	0.00622
C6.2	J6.2	J5.2		67	0.015	154.7	154.6	0	IRREGULAR	0	0	6.2	0.00149
C7.1	J113	J6		940	0.015	160	144.7	0	IRREGULAR	0	0	7.1	0.01628
CDF001	DF001	DF002		254.98	0.045	110.44	105.98	0	TRAPEZOIDAL	1.2	0.6		0.01749
CDF003	DF002	DF004		174.51	0.013	105.98	105.509	0	CIRCULAR	1.2	0		0.0027
CDF004	DF004	DF005		114.8	0.013	105.509	105.027	0	CIRCULAR	1.5	0		0.0042
CDF005	DF005	DF006		106.66	0.013	105.027	104.676	0	CIRCULAR	1.5	0		0.00329

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CDF006	DF006	DF007		130.03	0.013	104.09	103.504	0	CIRCULAR	1.5	0		0.00451
CDF007	DF007	DF008		113.13	0.013	103.504	102.918	0	CIRCULAR	1.5	0		0.00518
CDF008	DF008	DF009		158.54	0.013	102.81	102.239	0	CIRCULAR	1.5	0		0.0036
CEBS1_1	EBS1	EBS1_1		100	0.045	127	126.6	0	TRIANGULAR	2	12		0.004
CEBS1_2	EBS1_1	EBS1_2		100	0.045	126.6	126.2	0	TRIANGULAR	2	12		0.004
CEBS1_3	EBS1_2	E733		57.57	0.045	126.2	126	0	TRIANGULAR	2	12		0.00347
CJ100.17	J100.17	J82.94		17.23	0.015	119.57	119	0	IRREGULAR	0	0	100.17	0.0331
CJ1002.010	J1002.010	J922.9622		79.05	0.011	118.02	117.1	0	IRREGULAR	0	0	922.9622	0.01164
CJ1012.195	J1012.195	J982.0328		30.162	0.011	83.33	82.39	0	IRREGULAR	0	0	982.0328	0.03118
CJ1015.55	J1015.55	J992.03		23.52	0.015	112.6	112.5	0	IRREGULAR	0	0	1015.55	0.00425
CJ1020.38	J1020.38	J955.93		64.45	0.015	135.77	135.5	0	IRREGULAR	0	0	1020.38	0.00419
CJ1020.569	J1020.569	J963.549		57.02	0.015	141.92	141	0	IRREGULAR	0	0	1020.569	0.01614
CJ1022.947	J1022.947	J945.497		77.45	0.015	124.1	124	0	IRREGULAR	0	0	1022.947	0.00129
CJ1029.335	J1029.335	J1002.010		27.33	0.015	118.5	118	0	IRREGULAR	0	0	1029.335	0.0183
CJ1033.40	J1033.40	J1015.55		17.85	0.015	112.7	112.6	0	IRREGULAR	0	0	1033.40	0.0056
CJ104.967	J104.967	J6.227		98.74	0.015	118.93	118.53	0	IRREGULAR	0	0	104.967	0.00405
CJ1041.555	J1041.555	J956.725		84.83	0.015	138.5	138	0	IRREGULAR	0	0	1041.555	0.00589
CJ1042.897	J1042.897	J1022.947		19.95	0.015	124.71	124.1	0	IRREGULAR	0	0	1042.897	0.03059
CJ1058.20	J1058.20	J1033.40		24.8	0.015	113	112.7	0	IRREGULAR	0	0	1058.20	0.0121
CJ1060.963	J1060.963	J1012.195		48.768	0.015	83.331	83.33	0	IRREGULAR	0	0	1060.963	2E-05
CJ1093.556	J1093.556	J1060.963		32.593	0.015	83.516	83.331	0	IRREGULAR	0	0	1093.556	0.00568
CJ1096.947	J1096.947	J1042.897		54.05	0.011	125.1	124.71	0	IRREGULAR	0	0	1042.897	0.00722
CJ110.089	J110.089	J62.389		5	0.015	135.1	135	0	IRREGULAR	0	0	110.089	0.02
CJ1100	J1100	J1029.335		70.67	0.015	118.97	118.5	0	IRREGULAR	0	0	1100	0.00665
CJ1100.10	J1100.10	J1058.20		41.9	0.015	113.46	113	0	IRREGULAR	0	0	1100.10	0.01098
CJ1100.215	J1100.215	J1041.555		58.66	0.015	139	138.5	0	IRREGULAR	0	0	1100.215	0.00852

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ1100.239	J1100.239	J1020.569		79.67	0.015	142.5	141.92	0	IRREGULAR	0	0	1100.239	0.00728
CJ1126.60	J1126.60	J1020.38		106.22	0.015	136.69	135.77	0	IRREGULAR	0	0	1126.60	0.00866
CJ1130.117	J1130.117	J1096.947		33.17	0.015	125.2	125.1	0	IRREGULAR	0	0	1130.117	0.00301
CJ1146.464	J1146.464	J1093.556		52.908	0.015	83.72	83.516	0	IRREGULAR	0	0	1146.464	0.00386
CJ1151.075	J1151.075	J1100.215		50.86	0.015	139.5	139	0	IRREGULAR	0	0	1151.075	0.00983
CJ1154.80	J1154.80	J1100.10		54.7	0.015	114	113.46	0	IRREGULAR	0	0	1154.80	0.00987
CJ1163.689	J1163.689	J1100.239		63.45	0.015	144	142.5	0	IRREGULAR	0	0	1163.689	0.02365
CJ1178.27	J1178.27	J1154.80		23.47	0.015	114.74	114	0	IRREGULAR	0	0	1178.27	0.03155
CJ1184.779	J1184.779	J1100		84.78	0.015	119.5	118.97	0	IRREGULAR	0	0	1184.779	0.00625
CJ1200.117	J1200.117	J1130.117		70	0.015	125.3	125.2	0	IRREGULAR	0	0	1200.117	0.00143
CJ1200.17	J1200.17	J1126.60		73.57	0.015	137.5	136.69	0	IRREGULAR	0	0	1200.17	0.01101
CJ1200.215	J1200.215	J1151.075		49.14	0.015	139.56	139.5	0	IRREGULAR	0	0	1200.215	0.00122
CJ1230.909	J1230.909	J1163.689		67.22	0.015	144.5	144	0	IRREGULAR	0	0	1230.909	0.00744
CJ1246.464	J1246.464	J1146.464		100	0.015	84.245	83.72	0	IRREGULAR	0	0	1246.464	0.00525
CJ125.38	J125.38	J60.22		65.16	0.015	102.9	102.5	0	IRREGULAR	0	0	200.09	0.00614
CJ1286.17	J1286.17	J1178.27		107.9	0.011	116.4	114.74	0	IRREGULAR	0	0	1178.27	0.01539
CJ1294.225	J1294.225	J1200.215		94.01	0.015	140.5	139.56	0	IRREGULAR	0	0	1294.225	0.01
CJ1298.178	J1298.178	J1246.464		51.714	0.015	84.629	84.245	0	IRREGULAR	0	0	1298.178	0.00743
CJ1300	J1300	J1184.779		115.22	0.015	121.16	119.5	0	IRREGULAR	0	0	1300	0.01441
CJ1300.117	J1300.117	J1200.117		100	0.015	125.84	125.3	0	IRREGULAR	0	0	1300.117	0.0054
CJ1300.17	J1300.17	J1200.17		100	0.015	138.5	137.5	0	IRREGULAR	0	0	1300.17	0.01
CJ1305.379	J1305.379	J1230.909		74.47	0.015	145.44	144.5	0	IRREGULAR	0	0	1305.379	0.01262
CJ1310.18	J1310.18	J1286.17		24.01	0.015	116.5	116.4	0	IRREGULAR	0	0	1310.18	0.00416
CJ1348.30	J1348.30	J1300.17		48.13	0.015	138.6	138.5	0	IRREGULAR	0	0	1348.30	0.00208
CJ1361.769	J1361.769	J1305.379		56.39	0.015	146.02	145.44	0	IRREGULAR	0	0	1361.769	0.01029
CJ1365.595	J1365.595	J1294.225		71.37	0.015	140.98	140.5	0	IRREGULAR	0	0	1365.595	0.00673

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ1388.055	J1388.055	J1365.595		22.46	0.015	141	140.98	0	IRREGULAR	0	0	1388.055	0.00089
CJ1391.170	J1391.170	J1298.178		92.992	0.015	85.698	84.629	0	IRREGULAR	0	0	1391.170	0.0115
CJ1393.48	J1393.48	J1348.30		45.18	0.015	139	138.6	0	IRREGULAR	0	0	1393.48	0.00885
CJ1400.000	J1400.000	J1300		100	0.015	122.35	121.16	0	IRREGULAR	0	0	1400.000	0.0119
CJ1400.10	J1400.10	J1310.18		89.92	0.015	117.53	116.5	0	IRREGULAR	0	0	1400.10	0.01146
CJ1400.117	J1400.117	J1300.117		100	0.015	125.96	125.84	0	IRREGULAR	0	0	1400.117	0.0012
CJ1400.239	J1400.239	J1361.769		38.47	0.015	146.4	146.02	0	IRREGULAR	0	0	1400.239	0.00988
CJ142.6492	J142.6492	J99.99998		42.65	0.015	107.45	106.58	0	IRREGULAR	0	0	142.6492	0.0204
CJ1446.464	J1446.464	J1391.170		55.293	0.015	85.884	85.698	0	IRREGULAR	0	0	1446.464	0.00336
CJ1447.009	J1447.009	J1400.239		46.77	0.015	146.5	146.4	0	IRREGULAR	0	0	1447.009	0.00214
CJ145.135	J145.135	J74.135		71	0.015	132.5	132	0	IRREGULAR	0	0	145.135	0.00704
CJ146.4641	J146.4641	J80.89927		74.738	0.015	74.822	75	0	IRREGULAR	0	0	146.4641	-0.00238
CJ1489.00	J1489.00	J1393.48		95.52	0.015	139.5	139	0	IRREGULAR	0	0	1489.00	0.00523
CJ1500.000	J1500.000	J1400.000		100	0.015	123	122.35	0	IRREGULAR	0	0	1500.000	0.0065
CJ1500.10	J1500.10	J1400.10		100	0.015	119.53	117.53	0	IRREGULAR	0	0	1500.10	0.02
CJ1500.117	J1500.117	J1400.117		100	0.015	126	125.96	0	IRREGULAR	0	0	1500.117	0.0004
CJ1500.239	J1500.239	J1447.009		53.23	0.015	147	146.5	0	IRREGULAR	0	0	1500.239	0.00939
CJ1541.43	J1541.43	J1489.00		52.43	0.015	140	139.5	0	IRREGULAR	0	0	1541.43	0.00954
CJ1546.464	J1546.464	J1446.464		100	0.015	86.9	85.884	0	IRREGULAR	0	0	1546.464	0.01016
CJ1550.647	J1550.647	J1500.117		50.53	0.015	126.5	126	0	IRREGULAR	0	0	1550.647	0.0099
CJ1567.909	J1567.909	J1500.239		67.67	0.015	147.65	147	0	IRREGULAR	0	0	1567.909	0.00961
CJ1599.10	J1599.10	J1500.10		99	0.015	120	119.53	0	IRREGULAR	0	0	1599.10	0.00475
CJ16.935_1	J16.935	22		13.71	0.015	131.7	131.6	0	IRREGULAR	0	0	16.935	0.00729
CJ1600.117_1	J1600.117	23		23.78	0.015	127	126.76	0	IRREGULAR	0	0	1600.117	0.01009
CJ1600.117_2	23	J1550.647		25.69	0.015	126.76	126.5	0	IRREGULAR	0	0	1600.117	0.01012
CJ162.45	J162.45	J100.17		62.28	0.015	120.67	119.57	0	IRREGULAR	0	0	162.45	0.01766

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ162.977	J162.977	J104.967		58.01	0.015	119.1	118.93	0	IRREGULAR	0	0	162.977	0.00293
CJ1627.66	J1627.66	J1541.43		86.23	0.011	141	140	0	IRREGULAR	0	0	1541.43	0.0116
CJ1637.989	J1637.989	J1567.909		70.08	0.015	148.5	147.65	0	IRREGULAR	0	0	1637.989	0.01213
CJ1668.083	J1668.083	J1546.464		121.62	0.015	87	86.9	0	IRREGULAR	0	0	1668.083	0.00082
CJ1700	J1700	J1500.000		200	0.015	126	123	0	IRREGULAR	0	0	1700	0.015
CJ1700.10	J1700.10	J1599.10		101	0.015	121	120	0	IRREGULAR	0	0	1700.10	0.0099
CJ1700.117	J1700.117	J1600.117		100	0.015	127.5	127	0	IRREGULAR	0	0	1700.117	0.005
CJ1700.17	J1700.17	J1627.66		72.51	0.015	141.45	141	0	IRREGULAR	0	0	1700.17	0.00621
CJ1700.229	J1700.229	J1637.989		62.24	0.015	149.05	148.5	0	IRREGULAR	0	0	1700.229	0.00884
CJ1749.279	J1749.279	J1700.229		49.05	0.015	149.55	149.05	0	IRREGULAR	0	0	1749.279	0.01019
CJ1797.21	J1797.21	J1700.17		97.04	0.015	141.65	141.45	0	IRREGULAR	0	0	1797.21	0.00206
CJ1800	J1800	J1700		100	0.015	127.33	126	0	IRREGULAR	0	0	1800	0.0133
CJ1800.10	J1800.10	J1700.10		100	0.015	121.5	121	0	IRREGULAR	0	0	1800.10	0.005
CJ1800.117	J1800.117	J1700.117		100	0.015	128.01	127.5	0	IRREGULAR	0	0	1800.117	0.0051
CJ1800.229	J1800.229	J1749.279		50.95	0.015	149.65	149.55	0	IRREGULAR	0	0	1800.229	0.00196
CJ1816.580	J1816.580	J1668.083		148.5	0.015	87.39	87	0	IRREGULAR	0	0	1816.580	0.00263
CJ1900	J1900	J1800		100	0.015	128.89	127.33	0	IRREGULAR	0	0	1900	0.0156
CJ1900.10	J1900.10	J1800.10		100	0.015	123	121.5	0	IRREGULAR	0	0	1900.10	0.015
CJ1900.17	J1900.17	J1797.21		102.96	0.015	142.5	141.65	0	IRREGULAR	0	0	1900.17	0.00826
CJ1900.229	J1900.229	J1800.229		100	0.015	150.35	149.65	0	IRREGULAR	0	0	1900.229	0.007
CJ1902.476	J1902.476	J1816.580		234.393	0.015	88.381	87.39	0	IRREGULAR	0	0	1902.476	0.00423
CJ1917.479	J1917.479	J1902.476		15.002	0.015	88.485	88.381	0	IRREGULAR	0	0	1917.479	0.00693
CJ1927.647	J1927.647	J1800.117		127.53	0.015	129.5	128.01	0	IRREGULAR	0	0	1927.647	0.01168
CJ1942.494	J1942.494	J1917.479		25.015	0.011	88.489	88.485	0	IRREGULAR	0	0	1917.479	0.00016
CJ1952.554	J1952.554	J1942.494		10.06	0.015	88.541	88.489	0	IRREGULAR	0	0	2046.464	0.00517
CJ1956.59	J1956.59	J1900.10		56.49	0.015	123.5	123	0	IRREGULAR	0	0	1956.59	0.00885

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ1978.418	J1978.418	J1900		78.42	0.015	130.25	128.89	0	IRREGULAR	0	0	1978.418	0.01735
CJ200.09	J200.09	J125.38		74.71	0.015	103	102.9	0	IRREGULAR	0	0	200.09	0.00134
CJ200.17	J200.17	J162.45		37.72	0.015	121.42	120.67	0	IRREGULAR	0	0	200.17	0.01989
CJ200.215	J200.215	J145.135		55.08	0.015	132.57	132.5	0	IRREGULAR	0	0	200.215	0.00127
CJ200.239	J200.239	J110.089		90.15	0.015	135.2	135.1	0	IRREGULAR	0	0	200.239	0.00111
CJ2000.10	J2000.10	J1956.59		43.51	0.015	124.71	123.5	0	IRREGULAR	0	0	2000.10	0.02782
CJ2000.117	J2000.117	J1927.647		72.47	0.015	130	129.5	0	IRREGULAR	0	0	2000.117	0.0069
CJ2000.17	J2000.17	J1900.17		100	0.015	143	142.5	0	IRREGULAR	0	0	2000.17	0.005
CJ2000.229	J2000.229	J1900.229		100	0.015	150.79	150.35	0	IRREGULAR	0	0	2000.229	0.0044
CJ2032.625	J2032.625	J1978.418		54.21	0.015	130.38	130.25	0	IRREGULAR	0	0	2100	0.0024
CJ2046.464	J2046.464	J1952.554		93.91	0.015	89	88.541	0	IRREGULAR	0	0	2046.464	0.00489
CJ2063.577	J2063.577	J2000.117		63.46	0.015	130.5	130	0	IRREGULAR	0	0	2063.577	0.00788
CJ2100	J2100	J2032.625		67.38	0.015	131.31	130.38	0	IRREGULAR	0	0	2100	0.0138
CJ2100.10	J2100.10	J2000.10		100	0.015	124.81	124.71	0	IRREGULAR	0	0	2100.10	0.001
CJ2100.17	J2100.17	J2000.17		100	0.015	144	143	0	IRREGULAR	0	0	2100.17	0.01
CJ2100.229	J2100.229	J2000.229		100	0.015	151.18	150.79	0	IRREGULAR	0	0	2100.229	0.0039
CJ2118.174	J2118.174	J2046.464		71.71	0.015	89.5	89	0	IRREGULAR	0	0	2118.174	0.00697
CJ2128.867	J2128.867	J2063.577		65.29	0.015	131.26	130.5	0	IRREGULAR	0	0	2128.867	0.01164
CJ2162.390	J2162.390	J2118.174		44.216	0.015	89.6	89.5	0	IRREGULAR	0	0	2162.390	0.00226
CJ2165.306	J2165.306	J2100		65.31	0.015	132	131.31	0	IRREGULAR	0	0	2165.306	0.01057
CJ2171.407	J2171.407	J2128.867		42.54	0.015	131.5	131.26	0	IRREGULAR	0	0	2171.407	0.00564
CJ2173.272	J2173.272	J2162.390		55.1	0.015	89.7	89.6	0	IRREGULAR	0	0	2173.272	0.00181
CJ2177.86	J2177.86	J2100.17		77.69	0.015	144.55	144	0	IRREGULAR	0	0	2177.86	0.00708
CJ2185.476	J2185.476	J2173.272		23.085	0.015	89.8	89.7	0	IRREGULAR	0	0	2185.476	0.00433
CJ2187.585	J2187.585	J2165.306		22.28	0.015	132.25	132	0	IRREGULAR	0	0	2165.306	0.01122
CJ2200.229	J2200.229	J2100.229		100	0.015	152.38	151.18	0	IRREGULAR	0	0	2200.229	0.012

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ2206.53	J2206.53	J2100.10		106.43	0.015	126.62	124.81	0	IRREGULAR	0	0	2206.53	0.01701
CJ2213.506	J2213.506	J2185.476		28.031	0.011	90.096	89.84	0	IRREGULAR	0	0	2185.476	0.00913
CJ2223.267_1	J2223.267	22		39.91	0.015	131.7	131.6	0	IRREGULAR	0	0	2223.267	0.00251
CJ2223.267_2	22	J2171.407		11.95	0.015	131.6	131.5	0	IRREGULAR	0	0	2223.267	0.00837
CJ2224.630	J2224.630	J2213.506		11.124	0.015	90.196	90.096	0	IRREGULAR	0	0	2224.630	0.00899
CJ2227.161	J2227.161	J2187.585		39.58	0.011	132.92	132.25	0	IRREGULAR	0	0	2187.585	0.01693
CJ2242.380	J2242.380	J2227.161		15.22	0.015	133	132.92	0	IRREGULAR	0	0	2242.380	0.00526
CJ226.077	J226.077	J162.977		63.1	0.015	119.5	119.1	0	IRREGULAR	0	0	226.077	0.00634
CJ2266.899	J2266.899	J2200.229		66.67	0.015	153.53	152.38	0	IRREGULAR	0	0	2266.899	0.01725
CJ2267.81	J2267.81	J2177.86		89.95	0.015	144.88	144.55	0	IRREGULAR	0	0	2267.81	0.00367
CJ2287.052	J2287.052	J2242.380		44.67	0.015	133.1	133	0	IRREGULAR	0	0	2287.052	0.00224
CJ2292.097	J2292.097	J2223.267		68.83	0.015	132	131.7	0	IRREGULAR	0	0	2292.097	0.00436
CJ2296.492	J2296.492	J2224.630		71.862	0.015	90.5	90.196	0	IRREGULAR	0	0	2296.492	0.00423
CJ2300.10	J2300.10	J2206.53		93.57	0.015	127.5	126.62	0	IRREGULAR	0	0	2300.10	0.00941
CJ2331.99	J2331.99	J2267.81		64.18	0.015	145.19	144.88	0	IRREGULAR	0	0	2331.99	0.00483
CJ2346.464	J2346.464	J2296.492		49.972	0.015	90.922	90.5	0	IRREGULAR	0	0	2346.464	0.00845
CJ2352.47	J2352.47	J2300.10		52.37	0.015	128.16	127.5	0	IRREGULAR	0	0	2352.47	0.0126
CJ2359.439	J2359.439	J2287.052		72.39	0.015	133.2	133.1	0	IRREGULAR	0	0	2359.439	0.00138
CJ2376.910	J2376.910	J2359.439		17.47	0.015	133.3	133.2	0	IRREGULAR	0	0	2376.910	0.00572
CJ2378.957	J2378.957	J2292.097		86.86	0.015	132.5	132	0	IRREGULAR	0	0	2378.957	0.00576
CJ2411.26	J2411.26	J2331.99		79.27	0.015	146	145.19	0	IRREGULAR	0	0	2411.26	0.01022
CJ2430.00	J2430.00	J2352.47		77.53	0.015	129.47	128.16	0	IRREGULAR	0	0	2430.00	0.0169
CJ2446.464	J2446.464	J2346.464		100	0.015	91.165	90.922	0	IRREGULAR	0	0	2446.464	0.00243
CJ2447.455	J2447.455	J2376.910		70.55	0.011	133.5	133.3	0	IRREGULAR	0	0	2376.910	0.00283
CJ2456.367	J2456.367	J2378.957		77.41	0.015	133.5	132.5	0	IRREGULAR	0	0	2456.367	0.01292
CJ246.4641	J246.4641	J146.4641		100	0.015	75.714	74.822	0	IRREGULAR	0	0	246.4641	0.00892

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ246.585	J246.585	J200.215		46.37	0.015	133	132.57	0	IRREGULAR	0	0	246.585	0.00927
CJ2460.36	J2460.36	J2411.26		49.1	0.015	146.52	146	0	IRREGULAR	0	0	2460.36	0.01059
CJ2465.522	J2465.522	J2447.455		18.07	0.015	133.6	133.5	0	IRREGULAR	0	0	2465.522	0.00553
CJ248.32	J248.32	J200.09		48.23	0.015	103.2	103	0	IRREGULAR	0	0	248.32	0.00415
CJ250.67	J250.67	J200.17		50.5	0.015	122	121.42	0	IRREGULAR	0	0	250.67	0.01149
CJ2500	J2500	J2465.522		34.48	0.015	133.7	133.6	0	IRREGULAR	0	0	2500	0.0029
CJ2500.10	J2500.10	J2430.00		70.1	0.015	131.13	129.47	0	IRREGULAR	0	0	2500.10	0.02369
CJ2500.16	J2500.16	J2460.36		39.8	0.015	147	146.52	0	IRREGULAR	0	0	2500.16	0.01206
CJ2528.637	J2528.637	J2456.367		72.27	0.015	133.51	133.5	0	IRREGULAR	0	0	2528.637	0.00014
CJ2535.77	J2535.77	J2500.10		35.67	0.015	132.07	131.13	0	IRREGULAR	0	0	2535.77	0.02636
CJ2540.48	J2540.48	J2500.16		40.32	0.015	147.7	147	0	IRREGULAR	0	0	2540.48	0.01736
CJ2546.464	J2546.464	J2446.464		100	0.015	91.817	91.165	0	IRREGULAR	0	0	2546.464	0.00652
CJ255.1367	J255.1367	J142.6492		112.49	0.015	109	107.45	0	IRREGULAR	0	0	255.1367	0.01378
CJ2559.518	J2559.518	J2500		59.52	0.015	133.8	133.7	0	IRREGULAR	0	0	2559.518	0.00168
CJ2594.793	J2594.793	J2559.518		35.28	0.015	133.9	133.8	0	IRREGULAR	0	0	2594.793	0.00283
CJ2600.16	J2600.16	J2540.48		59.68	0.015	148	147.7	0	IRREGULAR	0	0	2600.16	0.00503
CJ2603.25	J2603.25	J2535.77		67.48	0.015	132.62	132.07	0	IRREGULAR	0	0	2603.25	0.00815
CJ2604.897	J2604.897	J2528.637		76.26	0.015	134	133.51	0	IRREGULAR	0	0	2604.897	0.00643
CJ2646.464	J2646.464	J2546.464		100	0.015	93	91.817	0	IRREGULAR	0	0	2646.464	0.01183
CJ2646.738	J2646.738	J2594.793		51.94	0.015	134	133.9	0	IRREGULAR	0	0	2646.738	0.00193
CJ265.297	J265.297	J226.077		39.22	0.015	119.9	119.5	0	IRREGULAR	0	0	265.297	0.0102
CJ2650.52	J2650.52	J2600.16		50.36	0.015	148.47	148	0	IRREGULAR	0	0	2650.52	0.00933
CJ2662.919	J2662.919	J2646.738		16.18	0.015	134.1	134	0	IRREGULAR	0	0	2662.919	0.00618
CJ2666.88	J2666.88	J2603.25		63.63	0.015	133.04	132.62	0	IRREGULAR	0	0	2666.88	0.0066
CJ2680.447	J2680.447	J2646.464		33.983	0.015	93.183	93	0	IRREGULAR	0	0	2680.447	0.00539
CJ27.449	J27.449	J9.209		18.24	0.015	130.03	127.26	0	IRREGULAR	0	0	27.449	0.15365

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ2706.457	J2706.457	J2604.897		101.56	0.015	134.5	134	0	IRREGULAR	0	0	2706.457	0.00492
CJ2721.15	J2721.15	J2650.52		70.63	0.015	148.5	148.47	0	IRREGULAR	0	0	2721.15	0.00042
CJ2723.864	J2723.864	J2662.919		60.95	0.011	134.2	134.1	0	IRREGULAR	0	0	2662.919	0.00164
CJ2742.526	J2742.526	J2723.864		18.66	0.015	134.3	134.2	0	IRREGULAR	0	0	2742.526	0.00536
CJ2744.16	J2744.16	J2666.88		77.28	0.015	133.12	133.04	0	IRREGULAR	0	0	2744.16	0.00104
CJ2746.464	J2746.464	J2680.447		66.017	0.015	93.57	93.183	0	IRREGULAR	0	0	2746.464	0.00586
CJ2757.35	J2757.35	J2744.16		13.19	0.015	133.44	133.12	0	IRREGULAR	0	0	2757.35	0.02427
CJ2795.45	J2795.45	J2721.15		74.3	0.015	149	148.5	0	IRREGULAR	0	0	2795.45	0.00673
CJ2800	J2800	J2742.526		57.47	0.015	134.5	134.3	0	IRREGULAR	0	0	2800	0.00348
CJ2809.59	J2809.59	J2757.35		52.24	0.011	133.67	133.48	0	IRREGULAR	0	0	2757.35	0.00364
CJ2813.657	J2813.657	J2706.457		107.2	0.015	135	134.5	0	IRREGULAR	0	0	2813.657	0.00466
CJ2826.19	J2826.19	J2809.59		16.6	0.015	134.02	133.67	0	IRREGULAR	0	0	2826.19	0.02109
CJ2849.017	J2849.017	J2746.464		102.553	0.015	94.004	93.57	0	IRREGULAR	0	0	2849.017	0.00423
CJ2860.405	J2860.405	J2849.017		11.389	0.015	94.277	94.004	0	IRREGULAR	0	0	2860.405	0.02398
CJ2892.413	J2892.413	J2860.405		32.008	0.03	94.718	94.277	0	IRREGULAR	0	0	2860.405	0.01378
CJ2900	J2900	J2800		100	0.015	135	134.5	0	IRREGULAR	0	0	2900	0.005
CJ2900.09	J2900.09	J2826.19		73.9	0.015	134.66	134.02	0	IRREGULAR	0	0	2900.09	0.00866
CJ2900.117	J2900.117	J2813.657		86.46	0.015	136	135	0	IRREGULAR	0	0	2900.117	0.01157
CJ2900.16	J2900.16	J2795.45		104.71	0.015	150.44	149	0	IRREGULAR	0	0	2900.16	0.01375
CJ2902.731	J2902.731	J2892.413		10.318	0.015	94.769	94.718	0	IRREGULAR	0	0	2860.405	0.00494
CJ2946.464	J2946.464	J2902.731		43.733	0.015	94.788	94.769	0	IRREGULAR	0	0	2860.405	0.00043
CJ2979.285	J2979.285	J2900		79.29	0.015	135.02	135	0	IRREGULAR	0	0	2979.285	0.00025
CJ2989.647	J2989.647	J2946.464		43.184	0.015	95	94.788	0	IRREGULAR	0	0	2989.647	0.00491
CJ300	J300	J255.1367		44.86	0.015	109.84	109	0	IRREGULAR	0	0	300	0.01873
CJ300.215	J300.215	J246.585		53.63	0.015	133.5	133	0	IRREGULAR	0	0	300.215	0.00932
CJ300.239	J300.239	J200.239		100	0.015	135.3	135.2	0	IRREGULAR	0	0	300.239	0.001

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ3000.09	J3000.09	J2900.09		100	0.015	135.71	134.66	0	IRREGULAR	0	0	3000.09	0.0105
CJ3000.117	J3000.117	J2900.117		100	0.015	136.5	136	0	IRREGULAR	0	0	3000.117	0.005
CJ3000.16	J3000.16	J2900.16		100	0.015	151.17	150.44	0	IRREGULAR	0	0	3000.16	0.0073
CJ3007.922	J3007.922	J2979.285		28.64	0.015	135.5	135.02	0	IRREGULAR	0	0	3007.922	0.01676
CJ3051.067	J3051.067	J3000.117		50.95	0.015	137	136.5	0	IRREGULAR	0	0	3051.067	0.00981
CJ3054.885	J3054.885	J2989.647		65.237	0.015	96	95	0	IRREGULAR	0	0	3054.885	0.01533
CJ3066.327	J3066.327	J3054.885		11.443	0.015	96.078	96	0	IRREGULAR	0	0	3066.327	0.00682
CJ3100.09	J3100.09	J3000.09		100	0.015	136.64	135.71	0	IRREGULAR	0	0	3100.09	0.0093
CJ3100.16	J3100.16	J3000.16		100	0.015	151.77	151.17	0	IRREGULAR	0	0	3100.16	0.006
CJ3103.867	J3103.867	J3051.067		52.8	0.015	137.1	137	0	IRREGULAR	0	0	3103.867	0.00189
CJ3105.432	J3105.432	J3066.327		39.105	0.011	96.26	96.15	0	IRREGULAR	0	0	3066.327	0.00281
CJ311.56	J311.56	J250.67		60.89	0.015	123.78	122	0	IRREGULAR	0	0	311.56	0.02925
CJ3111.594	J3111.594	J3007.922		103.67	0.011	136	135.5	0	IRREGULAR	0	0	3007.922	0.00482
CJ3135.520	J3135.520	J3111.594		23.93	0.015	136.1	136	0	IRREGULAR	0	0	3135.520	0.00418
CJ314.357	J314.357	J265.297		49.06	0.015	120	119.9	0	IRREGULAR	0	0	314.357	0.00204
CJ3148.25	J3148.25	J3100.16		48.09	0.015	152.01	151.77	0	IRREGULAR	0	0	3148.25	0.00499
CJ3150.013	J3150.013	J3105.432		44.581	0.015	96.681	96.188	0	IRREGULAR	0	0	3150.013	0.01106
CJ3158.17	J3158.17	J3100.09		58.08	0.015	137.27	136.64	0	IRREGULAR	0	0	3158.17	0.01085
CJ3200	J3200	J3135.520		64.48	0.015	136.2	136.1	0	IRREGULAR	0	0	3200	0.00155
CJ3200.117	J3200.117	J3103.867		96.25	0.015	138	137.1	0	IRREGULAR	0	0	3200.117	0.00935
CJ3200.16	J3200.16	J3148.25		51.91	0.015	152.1	152.01	0	IRREGULAR	0	0	3200.16	0.00173
CJ3221.88	J3221.88	J3158.17		63.71	0.015	137.63	137.27	0	IRREGULAR	0	0	3221.88	0.00565
CJ3237.56	J3237.56	J3221.88		15.68	0.015	137.83	137.63	0	IRREGULAR	0	0	3237.56	0.01276
CJ3246.464	J3246.464	J3150.013		96.451	0.015	97	96.681	0	IRREGULAR	0	0	3246.464	0.00331
CJ3262.17	J3262.17	J3200.16		62.01	0.015	152.2	152.1	0	IRREGULAR	0	0	3262.17	0.00161
CJ3300	J3300	J3200		100	0.015	136.5	136.2	0	IRREGULAR	0	0	3300	0.003

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ3300.117	J3300.117	J3200.117		100	0.015	139.5	138	0	IRREGULAR	0	0	3300.117	0.015
CJ3322.153	J3322.153	J3246.464		75.69	0.015	98.06	97	0	IRREGULAR	0	0	3322.153	0.01401
CJ3337.30	J3337.30	J3262.17		75.13	0.015	152.5	152.2	0	IRREGULAR	0	0	3337.30	0.00399
CJ3346.98	J3346.98	J3237.56		109.42	0.011	138	137.83	0	IRREGULAR	0	0	3237.56	0.00155
CJ3361.22	J3361.22	J3346.98		14.24	0.015	138.1	138	0	IRREGULAR	0	0	3361.22	0.00702
CJ3390.389	J3390.389	J3322.153		68.236	0.015	98.377	98.06	0	IRREGULAR	0	0	3390.389	0.00465
CJ3392.66	J3392.66	J3361.22		31.44	0.015	138.2	138.1	0	IRREGULAR	0	0	3392.66	0.00318
CJ3400	J3400	J3300		100	0.015	137	136.5	0	IRREGULAR	0	0	3400	0.005
CJ3411.51	J3411.51	J3337.30		74.21	0.015	153	152.5	0	IRREGULAR	0	0	3411.51	0.00674
CJ3414.967	J3414.967	J3300.117		114.85	0.015	140.48	139.5	0	IRREGULAR	0	0	3414.967	0.00853
CJ3428.33	J3428.33	J3411.51		16.82	0.015	153.1	153	0	IRREGULAR	0	0	3428.33	0.00595
CJ3446.464	J3446.464	J3390.389		56.075	0.015	98.818	98.377	0	IRREGULAR	0	0	3446.464	0.00786
CJ346.4642	J346.4642	J246.4641		100	0.015	76.795	75.714	0	IRREGULAR	0	0	346.4642	0.01081
CJ349.449	J349.449	J300.239		49.21	0.015	135.4	135.3	0	IRREGULAR	0	0	349.449	0.00203
CJ3492.153	J3492.153	J3446.464		45.689	0.015	99	98.818	0	IRREGULAR	0	0	3492.153	0.00398
CJ350.45	J350.45	J311.56		38.89	0.015	124.43	123.78	0	IRREGULAR	0	0	350.45	0.01672
CJ3500	J3500	J3400		100	0.015	137.5	137	0	IRREGULAR	0	0	3500	0.005
CJ3500.117	J3500.117	J3414.967		85.15	0.015	141.15	140.48	0	IRREGULAR	0	0	3500.117	0.00787
CJ352.0823	J352.0823	J300		52.08	0.015	110.5	109.84	0	IRREGULAR	0	0	352.0823	0.01267
CJ352.30	J352.30	J248.32		103.98	0.015	104	103.2	0	IRREGULAR	0	0	352.30	0.00769
CJ3539.547	J3539.547	J3492.153		47.394	0.015	100	99	0	IRREGULAR	0	0	3539.547	0.0211
CJ3546.867	J3546.867	J3500.117		46.75	0.015	141.5	141.15	0	IRREGULAR	0	0	3546.867	0.00749
CJ3552.954	J3552.954	J3539.547		13.407	0.015	100.01	100	0	IRREGULAR	0	0	3552.954	0.00075
CJ3597.283	J3597.283	J3552.954		44.329	0.011	100.07	100.01	0	IRREGULAR	0	0	3552.954	0.00135
CJ36.529	J36.529	J27.449		9.08	0.015	131.25	130.03	0	IRREGULAR	0	0	36.529	0.13559
CJ3600	J3600	J3500		100	0.015	139	137.5	0	IRREGULAR	0	0	3600	0.015

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ3609.26	J3609.26	J3590.76		18.5	0.015	141	140.9	0	IRREGULAR	0	0	3590.86	0.00541
CJ3610.812	J3610.812	J3597.283		13.529	0.015	100.09	100.07	0	IRREGULAR	0	0	3610.812	0.00148
CJ3624.107	J3624.107	J3546.867		77.24	0.015	142	141.5	0	IRREGULAR	0	0	3624.107	0.00647
CJ3660.527	J3660.527	J3624.107		36.42	0.015	142.5	142	0	IRREGULAR	0	0	3660.527	0.01373
CJ3667.068	J3667.068	J3610.812		56.255	0.015	100.17	100.09	0	IRREGULAR	0	0	3667.068	0.00142
CJ3677.11	J3677.11	J3609.26		67.85	0.011	141.5	141	0	IRREGULAR	0	0	3609.26	0.00737
CJ3684.238	J3684.238	J3600		84.24	0.015	140.5	139	0	IRREGULAR	0	0	3684.238	0.01781
CJ3685.955	J3685.955	J3667.068		18.887	0.015	100.198	100.17	0	IRREGULAR	0	0	3685.955	0.00148
CJ3696.22	J3696.22	J3677.11		19.11	0.015	141.96	141.47	0	IRREGULAR	0	0	3696.22	0.02565
CJ3709.655	J3709.655	J3685.955		23.7	0.011	100.52	100.2	0	IRREGULAR	0	0	3685.955	0.0135
CJ3717.833	J3717.833	J3709.655		8.178	0.015	100.614	100.514	0	IRREGULAR	0	0	3717.833	0.01223
CJ3742.908	J3742.908	J3684.238		58.67	0.015	141.18	140.5	0	IRREGULAR	0	0	3742.908	0.01159
CJ3758.726	J3758.726	J3742.908		15.82	0.015	141.55	141.18	0	IRREGULAR	0	0	3758.726	0.02339
CJ3770.893	J3770.893	J3717.833		53.06	0.015	101.707	100.614	0	IRREGULAR	0	0	3717.833	0.0206
CJ3780.99	J3780.99	J3696.22		84.77	0.015	142.34	141.96	0	IRREGULAR	0	0	3780.99	0.00448
CJ3811.191	J3811.191	J3758.726		52.47	0.011	141.58	141.55	0	IRREGULAR	0	0	3758.726	0.00057
CJ3825.668	J3825.668	J3811.191		14.48	0.015	141.6	141.58	0	IRREGULAR	0	0	3825.668	0.00138
CJ3846.464	J3846.464	J3770.893		75.571	0.015	101.8	101.707	0	IRREGULAR	0	0	3846.464	0.00123
CJ3869.05	J3869.05	J3780.99		88.06	0.015	143	142.34	0	IRREGULAR	0	0	3869.05	0.0075
CJ388.5779	J388.5779	J346.4642		42.114	0.015	77.436	76.795	0	IRREGULAR	0	0	388.5779	0.01522
CJ3900	J3900	J3825.668		74.33	0.015	141.99	141.6	0	IRREGULAR	0	0	3900	0.00525
CJ392.31	J392.31	J352.30		40.01	0.015	104.36	104	0	IRREGULAR	0	0	392.31	0.009
CJ3932.07	J3932.07	J3869.05		63.02	0.015	143.5	143	0	IRREGULAR	0	0	3932.07	0.00793
CJ3946.464	J3946.464	J3846.464		100	0.015	102	101.8	0	IRREGULAR	0	0	3946.464	0.002
CJ3947.67	J3947.67	J3932.07		15.6	0.015	143.6	143.5	0	IRREGULAR	0	0	3947.67	0.00641
CJ400.127	J400.127	J314.357		85.77	0.015	120.75	120	0	IRREGULAR	0	0	400.127	0.00874

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ400.215	J400.215	J300.215		100	0.015	134.5	133.5	0	IRREGULAR	0	0	400.215	0.01
CJ400.239	J400.239	J349.449		50.79	0.015	135.5	135.4	0	IRREGULAR	0	0	400.239	0.00197
CJ4014.677	J4014.677	J3900		114.68	0.015	142.65	141.99	0	IRREGULAR	0	0	4014.677	0.00576
CJ4019.03	J4019.03	J3947.67		71.36	0.011	143.7	143.6	0	IRREGULAR	0	0	3947.67	0.0014
CJ402.1469	J402.1469	J388.5779		13.569	0.015	77.5	77.436	0	IRREGULAR	0	0	388.5779	0.00472
CJ4034.42	J4034.42	J4019.03		15.39	0.015	143.8	143.7	0	IRREGULAR	0	0	4034.42	0.0065
CJ4067.080	J4067.080	J3946.464		120.616	0.015	102.504	102	0	IRREGULAR	0	0	4067.080	0.00418
CJ410.6635	J410.6635	J352.0823		58.58	0.015	112	110.5	0	IRREGULAR	0	0	410.6635	0.02561
CJ4100	J4100	J4014.677		85.32	0.015	143.61	142.65	0	IRREGULAR	0	0	4100	0.01125
CJ4100.11	J4100.11	J4034.42		65.69	0.015	144	143.8	0	IRREGULAR	0	0	4100.11	0.00304
CJ4100.962	J4100.962	J4067.080		33.882	0.015	102.727	102.504	0	IRREGULAR	0	0	4100.962	0.00658
CJ412.71	J412.71	J350.45		62.26	0.015	125.74	124.43	0	IRREGULAR	0	0	412.71	0.02105
CJ4184.01	J4184.01	J4100.11		83.9	0.015	144.4	144	0	IRREGULAR	0	0	4184.01	0.00477
CJ4199.26	J4199.26	J4184.01		15.25	0.015	144.5	144.4	0	IRREGULAR	0	0	4199.26	0.00656
CJ4200	J4200	J4100		100	0.015	144.79	143.61	0	IRREGULAR	0	0	4200	0.0118
CJ4232.339	J4232.339	J4100.962		131.377	0.019	103.301	102.73	0	IRREGULAR	0	0	4100.962	0.00435
CJ4248.377	J4248.377	J4232.339		16.038	0.015	103.429	103.301	0	IRREGULAR	0	0	4248.377	0.00798
CJ4258.27	J4258.27	J4199.26		59.01	0.011	145	144.5	0	IRREGULAR	0	0	4199.26	0.00847
CJ427.7351	J427.7351	J410.6635		17.07	0.015	112.23	112	0	IRREGULAR	0	0	427.7351	0.01348
CJ4271.41	J4271.41	J4258.27		13.14	0.015	145.1	145	0	IRREGULAR	0	0	4271.41	0.00761
CJ4300	J4300	J4200		100	0.015	147.15	144.79	0	IRREGULAR	0	0	4300	0.02361
CJ4330.11	J4330.11	J4271.41		58.7	0.015	145.2	145.1	0	IRREGULAR	0	0	4330.11	0.0017
CJ4332.776	J4332.776	J4248.377		84.398	0.015	104.171	103.429	0	IRREGULAR	0	0	4332.776	0.00879
CJ438.5957	J438.5957	J402.1469		36.449	0.011	77.15	77.5	0	IRREGULAR	0	0	402.1469	-0.0096
CJ4395.415_1	J4395.415	21		54.072	0.015	104.504	104.217	0	IRREGULAR	0	0	4395.415	0.00531
CJ4395.415_2	21	J4332.776		8.567	0.015	104.217	104.171	0	IRREGULAR	0	0	4395.415	0.00537

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ4396.23	J4396.23	J4330.11		66.12	0.015	145.53	145.2	0	IRREGULAR	0	0	4396.23	0.00499
CJ440.72	J440.72	J392.31		48.41	0.015	105	104.36	0	IRREGULAR	0	0	440.72	0.01322
CJ4411.37	J4411.37	J4396.23		15.14	0.015	145.86	145.53	0	IRREGULAR	0	0	4411.37	0.0218
CJ4446.464	J4446.464	J4395.415		51.049	0.015	104.632	104.504	0	IRREGULAR	0	0	4446.464	0.00251
CJ4462.26	J4462.26	J4411.37		50.89	0.011	145.9	145.86	0	IRREGULAR	0	0	4411.37	0.00079
CJ4477.44	J4477.44	J4462.26		15.18	0.015	146.29	145.9	0	IRREGULAR	0	0	4477.44	0.0257
CJ452.879	J452.879	J400.239		52.64	0.015	135.94	135.5	0	IRREGULAR	0	0	452.879	0.00836
CJ4529.29	J4529.29	J4477.44		51.85	0.015	146.42	146.29	0	IRREGULAR	0	0	4529.29	0.00251
CJ454.8528	J454.8528	J438.5957		16.257	0.015	77.124	77.124	0	IRREGULAR	0	0	454.8528	0
CJ4546.464	J4546.464	J4446.464		100	0.015	105.4	104.632	0	IRREGULAR	0	0	4546.464	0.00768
CJ4600.10	J4600.10	J4529.29		70.81	0.015	146.64	146.42	0	IRREGULAR	0	0	4600.10	0.00311
CJ461.85	J461.85	J412.71		49.14	0.015	126.2	125.74	0	IRREGULAR	0	0	461.85	0.00936
CJ4635.43	J4635.43	J4600.10		35.33	0.015	147.07	146.64	0	IRREGULAR	0	0	4635.43	0.01217
CJ4646.464	J4646.464	J4546.464		100	0.015	105.733	105.4	0	IRREGULAR	0	0	4646.464	0.00333
CJ4700.25	J4700.25	J4635.43		64.82	0.015	150.78	147.07	0	IRREGULAR	0	0	4700.25	0.05733
CJ4731.82	J4731.82	J4700.25		31.57	0.015	150.83	150.78	0	IRREGULAR	0	0	4731.82	0.00158
CJ4746.464	J4746.464	J4646.464		100	0.015	106.117	105.733	0	IRREGULAR	0	0	4746.464	0.00384
CJ477.657	J477.657	J400.127		77.53	0.015	120.92	120.75	0	IRREGULAR	0	0	477.657	0.00219
CJ4800.10	J4800.10	J4731.82		164.67	0.015	151.38	150.83	0	IRREGULAR	0	0	4800.10	0.00334
CJ4846.464	J4846.464	J4746.464		100	0.015	106.467	106.117	0	IRREGULAR	0	0	4846.464	0.0035
CJ487.7520	J487.7520	J454.8528		32.899	0.015	77.124	77.124	0	IRREGULAR	0	0	487.7520-2	0
CJ4900.10	J4900.10	J4800.10		100	0.015	152.09	151.38	0	IRREGULAR	0	0	4900.10	0.0071
CJ4945.903	J4945.903	J4846.464		99.44	0.015	107.124	106.467	0	IRREGULAR	0	0	4945.903	0.00661
CJ4957.289	J4957.289	J4900.10		57.19	0.015	152.2	152.09	0	IRREGULAR	0	0	4957.289	0.00192
CJ498.2611	J498.2611	J427.7351		70.53	0.011	113.26	112.25	0	IRREGULAR	0	0	427.7351	0.01432
CJ500.17	J500.17	J461.85		38.32	0.015	126.77	126.2	0	IRREGULAR	0	0	500.17	0.01488

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ500.239	J500.239	J452.879		47.36	0.015	136	135.94	0	IRREGULAR	0	0	500.239	0.00127
CJ5000.10	J5000.10	J4957.289		42.81	0.015	152.74	152.2	0	IRREGULAR	0	0	5000.10	0.01261
CJ5046.464	J5046.464	J4945.903		100.56	0.015	107.448	107.124	0	IRREGULAR	0	0	5046.464	0.00322
CJ5048.723	J5048.723	J5000.10		48.62	0.015	152.85	152.74	0	IRREGULAR	0	0	5048.723	0.00226
CJ506.895	J506.895	J400.215		106.68	0.015	135.5	134.5	0	IRREGULAR	0	0	506.895	0.00937
CJ509.347	J509.347	J477.657		31.69	0.015	121	120.92	0	IRREGULAR	0	0	509.347	0.00252
CJ5100.10	J5100.10	J5048.723		51.38	0.015	153.03	152.85	0	IRREGULAR	0	0	5100.10	0.0035
CJ513.5331	J513.5331	J498.2611		15.27	0.015	113.58	113.26	0	IRREGULAR	0	0	513.5331	0.02096
CJ5146.464	J5146.464	J5046.464		100	0.015	107.53	107.448	0	IRREGULAR	0	0	5146.464	0.00082
CJ5152.642	J5152.642	J5100.10		52.54	0.015	153.32	153.03	0	IRREGULAR	0	0	5152.642	0.00552
CJ516.02	J516.02	J440.72		75.3	0.015	105.73	105	0	IRREGULAR	0	0	516.02	0.0097
CJ5220.803	J5220.803	J5152.642		68.16	0.015	153.49	153.32	0	IRREGULAR	0	0	5220.803	0.00249
CJ523.1179	J523.1179	J487.7520		35.366	0.015	77.124	77.124	0	IRREGULAR	0	0	523.1179-2	0
CJ5260.950	J5260.950	J5146.464		114.486	0.015	108.278	107.53	0	IRREGULAR	0	0	5260.950	0.00653
CJ5260.956	J5260.956	J5220.803		40.15	0.015	153.77	153.49	0	IRREGULAR	0	0	5260.956	0.00697
CJ5300.10	J5300.10	J5260.956		39.14	0.015	154	153.77	0	IRREGULAR	0	0	5300.10	0.00588
CJ531.73	J531.73	J500.17		31.56	0.015	127.59	126.77	0	IRREGULAR	0	0	531.73	0.02599
CJ534.23	J534.23	J516.02		18.21	0.015	105.99	105.73	0	IRREGULAR	0	0	534.23	0.01428
CJ5373.942	J5373.942	J5260.950		112.992	0.015	109.061	108.278	0	IRREGULAR	0	0	5373.942	0.00693
CJ5400.10	J5400.10	J5300.10		100	0.015	154.97	154	0	IRREGULAR	0	0	5400.10	0.0097
CJ5427.875	J5427.875	J5373.942		53.933	0.015	109.112	109.061	0	IRREGULAR	0	0	5427.875	0.00095
CJ546.4642	J546.4642	J523.1179		23.346	0.015	77.521	77.124	0	IRREGULAR	0	0	546.4642	0.01701
CJ5500.10	J5500.10	J5400.10		100	0.015	155.5	154.97	0	IRREGULAR	0	0	5500.10	0.0053
CJ5532.597	J5532.597	J5427.875		104.722	0.015	109.445	109.112	0	IRREGULAR	0	0	5532.597	0.00318
CJ554.879	J554.879	J500.239		54.64	0.015	136.5	136	0	IRREGULAR	0	0	554.879	0.00915
CJ5543.03	J5543.03	J5500.10		42.94	0.015	155.89	155.5	0	IRREGULAR	0	0	5543.03	0.00908

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ5581.81	J5581.81	J5543.03		38.78	0.015	155.94	155.89	0	IRREGULAR	0	0	5581.81	0.00129
CJ5598.608	J5598.608	J5581.81		16.79	0.015	156	155.94	0	IRREGULAR	0	0	5598.608	0.00357
CJ5627.203	J5627.203	J5532.597		94.606	0.015	109.864	109.445	0	IRREGULAR	0	0	5627.203	0.00443
CJ571.927	J571.927	J509.347		62.58	0.015	121.39	121	0	IRREGULAR	0	0	571.927	0.00623
CJ5746.464	J5746.464	J5627.203		119.261	0.015	110.189	109.864	0	IRREGULAR	0	0	5746.464	0.00273
CJ5850.291	J5850.291	J5746.464		103.828	0.015	110.593	110.189	0	IRREGULAR	0	0	5850.291	0.00389
CJ591.0980	J591.0980	J546.4642		44.634	0.015	77.124	77.521	0	IRREGULAR	0	0	591.0980-2	-0.00889
CJ5946.083	J5946.083	J5850.291		95.792	0.015	111.109	110.593	0	IRREGULAR	0	0	5946.083	0.00539
CJ6.227	J6.227	25		6.09	0.015	118.53	118.429	0	IRREGULAR	0	0	6.227	0.01659
CJ60.22	J60.22	J1		60.12	0.015	102.5	102.412	0	IRREGULAR	0	0	200.09	0.00146
CJ600.0000	J600.0000	J513.5331		86.47	0.015	114.21	113.58	0	IRREGULAR	0	0	600.0000	0.00729
CJ600.17	J600.17	J531.73		68.44	0.015	128.66	127.59	0	IRREGULAR	0	0	600.17	0.01564
CJ600.239	J600.239	J554.879		45.36	0.015	136.84	136.5	0	IRREGULAR	0	0	600.239	0.0075
CJ6046.464	J6046.464	J5946.083		100.381	0.015	111.186	111.109	0	IRREGULAR	0	0	6046.464	0.00077
CJ6098.928	J6098.928	J6046.464		52.464	0.015	111.34	111.186	0	IRREGULAR	0	0	6098.928	0.00294
CJ6165.560	J6165.560	J6098.928		66.633	0.015	111.442	111.34	0	IRREGULAR	0	0	6165.560	0.00153
CJ62.389	J62.389	SU203		5	0.015	135.5	132.89	0	IRREGULAR	0	0	62.389	0.612
CJ6233.167	J6233.167	J6165.560		67.607	0.015	111.595	111.442	0	IRREGULAR	0	0	6233.167	0.00226
CJ625.125	J625.125	J506.895		118.23	0.015	136.09	135.5	0	IRREGULAR	0	0	625.125	0.00499
CJ6301.693	J6301.693	J6233.167		68.526	0.015	111.672	111.595	0	IRREGULAR	0	0	6301.693	0.00112
CJ634.217	J634.217	J571.927		62.29	0.015	121.6	121.39	0	IRREGULAR	0	0	634.217	0.00337
CJ6358.901	J6358.901	J6301.693		57.209	0.015	111.749	111.672	0	IRREGULAR	0	0	6358.901	0.00135
CJ639.57	J639.57	J600.17		39.4	0.015	129.64	128.66	0	IRREGULAR	0	0	639.57	0.02488
CJ6435.935	J6435.935	J6358.901		77.034	0.015	112.363	111.749	0	IRREGULAR	0	0	6435.935	0.00797
CJ646.4641	J646.4641	J591.0980		55.366	0.015	78.57	77.124	0	IRREGULAR	0	0	646.4641	0.02613
CJ647.627	J647.627	J634.217		13.41	0.015	121.74	121.6	0	IRREGULAR	0	0	647.627	0.01044

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ6478.273	J6478.273	J6435.935		42.338	0.015	112.44	112.363	0	IRREGULAR	0	0	6478.273	0.00182
CJ6565.562	J6565.562	J6478.273		87.288	0.015	112.848	112.44	0	IRREGULAR	0	0	6565.562	0.00467
CJ657.28	J657.28	J534.23		123.05	0.011	107.9	105.99	0	IRREGULAR	0	0	674.60	0.01552
CJ657.629	J657.629	J600.239		57.39	0.015	137.5	136.84	0	IRREGULAR	0	0	657.629	0.0115
CJ6662.639	J6662.639	J6565.562		97.077	0.015	113.054	112.848	0	IRREGULAR	0	0	6662.639	0.00212
CJ674.5680	J674.5680	J646.4641		28.104	0.015	79.397	78.57	0	IRREGULAR	0	0	674.5680	0.02944
CJ674.60	J674.60	J657.28		17.32	0.015	108	107.9	0	IRREGULAR	0	0	674.60	0.00577
CJ6772.934	J6772.934	J6662.639		110.295	0.015	114.195	113.054	0	IRREGULAR	0	0	6772.934	0.01035
CJ684.977	J684.977	J647.627		37.35	0.011	122	121.74	0	IRREGULAR	0	0	647.627	0.00696
CJ6846.464	J6846.464	J6772.934		73.53	0.015	114.24	114.195	0	IRREGULAR	0	0	6846.464	0.00061
CJ6894.028	J6894.028	J6846.464		47.564	0.015	114.34	114.24	0	IRREGULAR	0	0	6894.028	0.0021
CJ69.25231	J69.25231	J9.902844		59.35	0.015	104.63	104.31	0	IRREGULAR	0	0	69.25231	0.00539
CJ695.90	J695.90	J639.57		56.33	0.015	130.8	129.64	0	IRREGULAR	0	0	695.90	0.0206
CJ6988.738	J6988.738	J6894.028		94.71	0.015	114.56	114.34	0	IRREGULAR	0	0	6988.738	0.00232
CJ699.925	J699.925	J625.125		74.8	0.015	136.5	136.09	0	IRREGULAR	0	0	699.925	0.00548
CJ7.227846	J7.227846	OF100		7.228	0.015	75.474	75.474	0	IRREGULAR	0	0	7.227846	0
CJ700	J700	J600.0000		100	0.015	114.3	114.21	0	IRREGULAR	0	0	700	0.0009
CJ700.239	J700.239	J657.629		42.61	0.015	138	137.5	0	IRREGULAR	0	0	700.239	0.01174
CJ703.1630	J703.1630	J674.5680		28.595	0.015	79.556	79.397	0	IRREGULAR	0	0	703.1630	0.00556
CJ7047.302	J7047.302	J6988.738		58.564	0.015	114.752	114.56	0	IRREGULAR	0	0	7047.302	0.00328
CJ706.81	J706.81	J695.90		10.91	0.015	131	130.8	0	IRREGULAR	0	0	706.81	0.01833
CJ709.95	J709.95	J674.60		35.35	0.015	108.43	108	0	IRREGULAR	0	0	709.95	0.01216
CJ71.72631	J71.72631	J7.227846		64.498	0.015	75.374	75.474	0	IRREGULAR	0	0	71.72631	-0.00155
CJ7132.593	J7132.593	J7047.302		85.291	0.015	114.937	114.752	0	IRREGULAR	0	0	7132.593	0.00217
CJ718.547	J718.547	J684.977		33.57	0.015	122.1	122	0	IRREGULAR	0	0	718.547	0.00298
CJ7232.906	J7232.906	J7132.593		100.314	0.015	115.699	114.937	0	IRREGULAR	0	0	7232.906	0.0076

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ7322.142	J7322.142	J7232.906		89.235	0.015	116.115	115.699	0	IRREGULAR	0	0	7322.142	0.00466
CJ736.779	J736.779	J700.239		36.54	0.015	138.5	138	0	IRREGULAR	0	0	736.779	0.01368
CJ737.045	J737.045	J699.925		37.12	0.015	137	136.5	0	IRREGULAR	0	0	737.045	0.01347
CJ737.31	J749.08	J706.81		42.27	0.012	131.5	131.44	0	IRREGULAR	0	0	706.81	0.00142
CJ7381.689	J7381.689	J7322.142		59.548	0.015	116.697	116.115	0	IRREGULAR	0	0	7381.689	0.00977
CJ74.135	J74.135	J16.935		57.2	0.015	132	131.7	0	IRREGULAR	0	0	74.135	0.00524
CJ7449.270	J7449.270	J7381.689		67.581	0.015	116.966	116.697	0	IRREGULAR	0	0	7449.270	0.00398
CJ746.4641	J746.4641	J703.1630		43.301	0.015	79.812	79.556	0	IRREGULAR	0	0	746.4641	0.00591
CJ7549.375	J7549.375	J7449.270		100.105	0.015	117.552	116.966	0	IRREGULAR	0	0	7549.375	0.00585
CJ762.307	J762.307	J718.547		43.76	0.015	122.74	122.1	0	IRREGULAR	0	0	762.307	0.01463
CJ7639.745	J7639.745	J7549.375		90.369	0.015	117.959	117.552	0	IRREGULAR	0	0	7639.745	0.0045
CJ768.179	J768.179	J736.779		31.4	0.015	138.9	138.5	0	IRREGULAR	0	0	768.179	0.01274
CJ7752.183_1	J7752.183	25		14.84	0.015	118.5	118.429	0	IRREGULAR	0	0	7752.183	0.00478
CJ7752.183_2	25	J7639.745		97.598	0.015	118.429	117.959	0	IRREGULAR	0	0	7752.183	0.00482
CJ794.7359	J794.7359	J746.4641		48.272	0.015	79.818	79.812	0	IRREGULAR	0	0	794.7359	0.00012
CJ795.635	J795.635	J737.045		58.59	0.015	137.1	137	0	IRREGULAR	0	0	795.635	0.00171
CJ799.60	J799.60	J709.95		89.65	0.015	109.44	108.43	0	IRREGULAR	0	0	799.60	0.01127
CJ80.89927	J80.89927	J71.72631		73.671	0.015	75	75.374	0	IRREGULAR	0	0	80.89927	-0.00508
CJ800.0000	J800.0000	J700		100	0.015	116.5	114.3	0	IRREGULAR	0	0	800.0000	0.02201
CJ800.117	J800.117	J762.307		37.81	0.015	122.8	122.74	0	IRREGULAR	0	0	800.117	0.00159
CJ800.17	J800.17	J749.08		51.09	0.015	132.83	131.5	0	IRREGULAR	0	0	800.17	0.02604
CJ800.239	J800.239	J768.179		32.06	0.011	139	138.9	0	IRREGULAR	0	0	855.869	0.00312
CJ82.94_1	J82.94	J7752.183		16.78	0.015	119	118.5	0	IRREGULAR	0	0	82.94	0.02981
CJ846.4642	J846.4642	J794.7359		51.728	0.015	80.833	79.818	0	IRREGULAR	0	0	846.4642	0.01963
CJ851.915	J851.915	J795.635		56.28	0.015	137.8	137.1	0	IRREGULAR	0	0	851.915	0.01244
CJ854.56	J854.56	J799.60		54.96	0.015	110.28	109.44	0	IRREGULAR	0	0	854.56	0.01529

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
CJ855.869	J855.869	J800.239		55.63	0.015	139.98	139	0	IRREGULAR	0	0	855.869	0.01762
CJ876.147	J876.147	J800.117		76.03	0.015	123.5	122.8	0	IRREGULAR	0	0	876.147	0.00921
CJ895.8482	J895.8482	J846.4642		49.384	0.015	81.591	80.833	0	IRREGULAR	0	0	895.8482	0.01535
CJ9.209	J9.209	23		8.98	0.015	127.26	126.76	0	IRREGULAR	0	0	9.209	0.05577
CJ9.902844	J9.902844	21		9.9	0.015	104.31	104.217	0	IRREGULAR	0	0	9.902844	0.00939
CJ900.10	J900.10	J854.56		45.54	0.015	111.28	110.28	0	IRREGULAR	0	0	900.10	0.02196
CJ900.239	J900.239	J855.869		44.37	0.015	140	139.98	0	IRREGULAR	0	0	900.239	0.00045
CJ902.1607	J902.1607	J800.0000		102.16	0.015	116.99	116.5	0	IRREGULAR	0	0	902.1607	0.0048
CJ902.835	J902.835	J851.915		50.92	0.015	137.9	137.8	0	IRREGULAR	0	0	902.835	0.00196
CJ904.90	J904.90	J800.17		104.73	0.015	134.44	132.83	0	IRREGULAR	0	0	904.90	0.01537
CJ922.9622	J922.9622	J902.1607		20.8	0.015	117.1	116.99	0	IRREGULAR	0	0	922.9622	0.00529
CJ929.29	J929.29	J900.10		29.19	0.015	111.72	111.28	0	IRREGULAR	0	0	929.29	0.01508
CJ945.497	J945.497	J876.147		69.35	0.015	124	123.5	0	IRREGULAR	0	0	945.497	0.00721
CJ955.93	J955.93	J904.90		51.03	0.015	135.5	134.44	0	IRREGULAR	0	0	955.93	0.02078
CJ956.725	J956.725	J902.835		53.89	0.015	138	137.9	0	IRREGULAR	0	0	956.725	0.00186
CJ963.549	J963.549	J900.239		63.31	0.015	141	140	0	IRREGULAR	0	0	963.549	0.0158
CJ964.46	J964.46	J929.29		35.17	0.015	112.13	111.72	0	IRREGULAR	0	0	964.46	0.01166
CJ966.3656	J966.3656	J895.8482		70.517	0.015	82.24	81.591	0	IRREGULAR	0	0	966.3656	0.0092
CJ982.0328	J982.0328	J966.3656		15.667	0.015	82.34	82.24	0	IRREGULAR	0	0	982.0328	0.00638
CJ99.99998	J99.99998	J69.25231		30.75	0.015	106.58	104.63	0	IRREGULAR	0	0	99.99998	0.06354
CJ992.03	J992.03	J964.46		27.57	0.015	112.5	112.13	0	IRREGULAR	0	0	992.03	0.01342
LE153	E153	J7232.906		152.7	0.015	118.5	115.699	0	IRREGULAR	0	0	E153	0.01835
LE238	E238	E153		84.9	0.015	119	118.5	0	IRREGULAR	0	0	E238	0.00589
LE301	E301	E238		62.5	0.015	120	119	0	IRREGULAR	0	0	E301	0.016
LE344	E344	E301		43.2	0.015	120.5	120	0	IRREGULAR	0	0	E344	0.01157
LE394	E394	E344		49.7	0.015	121.5	120.5	0	IRREGULAR	0	0	E394	0.02012

Table 2A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (m)	Roughness	Inlet Elev. (m)	Outlet Elev. (m)	Exit Loss Coeff.	Cross-Section	Geom1 (m)	Geom2 (m)	Transect	Slope (m/m)
LE439	E439	E394		44.6	0.015	121.5	121.5	0	IRREGULAR	0	0	E439	0
LE479	E479	E439		39.8	0.015	122	121.5	0	IRREGULAR	0	0	E479	0.01256
LE494	E494	E479		15.4	0.015	122.54	122	0	IRREGULAR	0	0	E494	0.03509
LE505	E505	E494		10.5	0.015	122.53	122.54	0	IRREGULAR	0	0	E505	-0.00095
LE543	E543	E505		37.5	0.015	123	122.53	0	IRREGULAR	0	0	E543	0.01253
LE580	E580	E543		37.1	0.015	123.5	123	0	IRREGULAR	0	0	E580	0.01348
LE604	E604	E580		23.5	0.015	124	123.5	0	IRREGULAR	0	0	E604	0.02128
LE615	E615	E604		10.9	0.015	124.25	124	0	IRREGULAR	0	0	E615	0.02294
LE618	E618	E580		38.2	0.015	124	123.5	0	IRREGULAR	0	0	E618	0.01309
LE626	E626	E618		7.6	0.015	124	124	0	IRREGULAR	0	0	E626	0
LE643	E643	E615		28.2	0.015	124.5	124.25	0	IRREGULAR	0	0	E643	0.00887
LE649	E649	E626		22.7	0.015	124.5	124	0	IRREGULAR	0	0	E649	0.02203
LE667	E667	E643		24.4	0.015	124.5	124.5	0	IRREGULAR	0	0	E667	0
LE673	E673	E649		24.3	0.015	125	124.5	0	IRREGULAR	0	0	E673	0.02058
LE677	E677	E667		9.8	0.015	125	124.5	0	IRREGULAR	0	0	E677	0.05109
LE690	E690	E677		12.8	0.015	125	125	0	IRREGULAR	0	0	E690	0
LE732	E732	E690		41.9	0.015	126	125	0	IRREGULAR	0	0	E732	0.02387
LE733	E733	E673		60.1	0.015	126	125	0	IRREGULAR	0	0	E733	0.01664
LE761	E761	E732		28.6	0.015	126.5	126	0	IRREGULAR	0	0	E761	0.01749
LE768	E768	E733		34.6	0.015	126.5	126	0	IRREGULAR	0	0	E768	0.01445
LE818	E818	E761		56.6	0.015	126.5	126.5	0	IRREGULAR	0	0	E818	0
LE855	E855	E818		37.1	0.015	127	126.5	0	IRREGULAR	0	0	E855	0.01348
OL220	SU220	J2000.117		40	0.01	133.5	133.1	0	IRREGULAR	0	0	SAMPLE	0.01
OL3	SU211	J2528.637		100	0.01	139.5	138.5	0	IRREGULAR	0	0	SAMPLE	0.01

Table 2B: Conduits

Name	Max. |Flow| (m^3/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
10	2.151	2.46	11.38	0.5	29.277	20.186
12	2.144	0.68	0.25	0.78	29.277	20.186
13	0	0	0	0.5	29.277	20.186
6	0	0	0	0	29.277	20.186
6_1	0	0	0	0	29.277	20.186
6_2	0	0	0	0	29.277	20.186
6_3	0	0	0	0	29.277	20.186
6_4	0	0	0	0	29.277	20.186
6_5	0	0	0	0	29.277	20.186
6_6	0	0	0	0	29.277	20.186
6_7	0	0	0	0	29.277	20.186
6_8	0	0	0	0	29.277	20.186
C10.67_2	42.286	4.07	0.18	0.47	366.54	105.269
C11	5.557	1.56	0.03	0.21	43.32	1.04
C12	31.007	0.65	0.1	0.49	267.14	5.343
C15	27.424	2.31	0.01	0.16	232.12	4.642
C151	45.653	1.31	0.21	0.56	416.78	126.952
C152	6.675	1.98	0.08	0.5	25.32	8.026
C167	2.314	1.58	0.03	0.19	26.36	0.527
C184	19.982	0.45	0.13	0.45	193.34	4.64
C191	3.817	1.23	0.1	0.31	15.96	8.842
C2.2	11.728	0.29	0.45	0.5	299.01	6.754
C2.5	43.698	5.59	0.06	0.2	408.23	8.212
C2.61	27.428	1.06	0.04	0.2	232.12	4.642
C211	1.001	1.09	0.02	0.14	8.58	0.463
C3	43.705	3.86	0.03	0.27	408.23	8.212

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
C3.1	27.468	0.69	0.03	0.22	232.12	4.642
C3.15	13.591	0.52	0.1	0.67	299.01	6.754
C3.2	13.912	0.79	0.04	0.58	299.01	6.754
C3445.04	9.467	1.06	0.03	0.34	110.73	11.324
C3500.1	9.536	0.67	0.01	0.11	110.73	11.324
C3590.76	8.986	2.82	0.01	0.12	99.46	9.363
C4	30.826	1.17	0.15	0.35	267.14	5.343
C4.1	27.532	0.69	0.03	0.22	232.12	4.642
C4.2	10.765	0.25	0.09	0.61	193.34	4.64
C4.25	30.973	1.36	0.15	0.57	267.14	5.343
C4.5	30.992	1.63	0.79	0.54	267.14	5.343
C4.55	30.997	1.14	0.14	0.42	267.14	5.343
C4.56	31.002	0.65	0.13	0.49	267.14	5.343
C4.7	31.017	0.65	0.16	0.49	267.14	5.343
C4.75	31.155	0.75	0.24	0.55	267.14	5.343
C5	31.716	0.64	0.07	0.46	267.14	5.343
C5.1	28.365	0.84	0.02	0.19	232.12	4.642
C5.2	11.102	0.21	0.87	0.65	193.34	4.64
C6	32.21	1	0.02	0.15	267.14	5.343
C6.1	31.067	0.96	0.03	0.2	232.12	4.642
C6.2	11.812	0.26	0.33	0.83	193.34	4.64
C7.1	35.671	1.51	0.07	0.28	232.12	4.642
CDF001	2.472	1.32	0.23	0.65	29.277	20.186
CDF003	2.161	2.57	1.07	0.7	29.277	20.186
CDF004	2.161	2.45	0.47	0.5	29.277	20.186
CDF005	2.204	2.86	0.54	0.45	29.277	20.186

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CDF006	2.156	3.03	0.32	0.42	29.277	20.186
CDF007	2.152	2.65	0.42	0.47	29.277	20.186
CDF008	2.152	2.57	0.47	0.48	29.277	20.186
CEBS1_1	0.915	0.68	0.06	0.34	2.917	1.619
CEBS1_2	0.895	0.67	0.05	0.34	2.917	1.619
CEBS1_3	0.852	0.71	0.06	0.32	2.917	1.619
CJ100.17	16.614	13.69	0	0.15	401.01	11.577
CJ1002.010	14.353	1.67	0.01	0.1	191.22	42.512
CJ1012.195	126.73	50	0.1	0.46	2973.692	538.178
CJ1015.55	13.373	1.74	0.01	0.08	176.25	32.382
CJ1020.38	15.704	1.45	0.02	0.13	372.44	10.492
CJ1020.569	9.41	1.74	0.01	0.11	102.87	2.756
CJ1022.947	91.213	2.89	0.08	0.23	1068.5	62.887
CJ1029.335	14.357	1.29	0.01	0.08	191.22	42.512
CJ1033.40	13.373	1.76	0	0.08	176.25	32.382
CJ104.967	94.255	1.04	0.06	0.25	1182.61	99.73
CJ1041.555	36.634	1.54	0.02	0.26	344.96	10.306
CJ1042.897	91.223	50	0.01	0.24	1068.5	62.887
CJ1058.20	13.377	23.8	0	0.08	176.25	32.382
CJ1060.963	126.731	3.93	1.86	0.46	2973.692	538.178
CJ1093.556	126.2	2	0.14	0.55	2921.732	525.395
CJ1096.947	91.235	50	0.03	0.21	1068.5	62.887
CJ110.089	9.364	0.2	0.02	0.42	102.87	2.756
CJ1100	14.359	2.96	0.01	0.06	191.22	42.512
CJ1100.10	13.383	1.86	0.01	0.08	176.25	32.382
CJ1100.215	36.139	0.88	0.02	0.28	338.59	10.179

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m^3/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ1100.239	9.41	3.08	0.02	0.17	102.87	2.756
CJ1126.60	15.714	1.29	0.01	0.14	372.44	10.492
CJ1130.117	91.254	1.13	0.02	0.22	1068.5	62.887
CJ1146.464	126.204	3.31	0.18	0.53	2921.732	525.395
CJ1151.075	36.175	1.96	0.01	0.19	338.59	10.179
CJ1154.80	13.385	1.99	0.01	0.07	176.25	32.382
CJ1163.689	9.412	1.28	0.01	0.21	102.87	2.756
CJ1178.27	13.385	2.31	0	0.07	176.25	32.382
CJ1184.779	14.361	1.7	0.01	0.07	191.22	42.512
CJ1200.117	90.351	2.59	0.04	0.22	1043.28	56.227
CJ1200.17	15.719	2.75	0.02	0.14	372.44	10.492
CJ1200.215	36.21	1.78	0.03	0.18	338.59	10.179
CJ1230.909	9.416	1.27	0.01	0.14	102.87	2.756
CJ1246.464	126.215	3.95	0.21	0.65	2921.732	525.395
CJ125.38	30.837	1.56	0.13	0.69	295.96	69.133
CJ1286.17	13.388	2.03	0	0.06	176.25	32.382
CJ1294.225	36.33	25.83	0.01	0.16	338.59	10.179
CJ1298.178	126.228	2.73	0.11	0.65	2921.732	525.395
CJ1300	14.372	2.45	0	0.07	191.22	42.512
CJ1300.117	89.625	0.95	0.03	0.26	1023.4	51.197
CJ1300.17	15.722	1.68	0.01	0.16	372.44	10.492
CJ1305.379	9.418	4.73	0.02	0.19	102.87	2.756
CJ1310.18	13.389	2.22	0.01	0.08	176.25	32.382
CJ1348.30	15.724	2.19	0.03	0.2	372.44	10.492
CJ1361.769	9.424	1.04	0.02	0.17	102.87	2.756
CJ1365.595	36.386	1.55	0.01	0.1	338.59	10.179

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m^3/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ1388.055	36.391	1.81	0.05	0.12	338.59	10.179
CJ1391.170	126.298	1.31	0.1	0.66	2921.732	525.395
CJ1393.48	15.726	0.73	0.01	0.21	372.44	10.492
CJ1400.000	14.378	1.64	0.01	0.08	191.22	42.512
CJ1400.10	13.391	2.53	0.01	0.11	176.25	32.382
CJ1400.117	89.825	2.66	0.08	0.26	1023.4	51.197
CJ1400.239	5.526	0.85	0.01	0.17	54.06	1.243
CJ142.6492	54.989	2.08	0.01	0.11	382.54	90.009
CJ1446.464	126.397	3.03	0.14	0.53	2921.732	525.395
CJ1447.009	5.527	0.93	0.02	0.16	54.06	1.243
CJ145.135	36.542	1.01	0.02	0.22	355.59	10.54
CJ146.4641	127.704	0.8	0.07	0.31	3098.302	570.202
CJ1489.00	15.73	2.95	0.01	0.17	372.44	10.492
CJ1500.000	14.388	6.8	0.01	0.08	191.22	42.512
CJ1500.10	13.425	1.51	0.01	0.11	176.25	32.382
CJ1500.117	89.945	2.09	0.1	0.3	1023.4	51.197
CJ1500.239	5.53	1.15	0.01	0.15	54.06	1.243
CJ1541.43	15.732	0.73	0.01	0.23	372.44	10.492
CJ1546.464	126.494	1.25	0.13	0.55	2921.732	525.395
CJ1550.647	90.017	2.77	0.02	0.28	1023.4	51.197
CJ1567.909	5.532	1.58	0.01	0.16	54.06	1.243
CJ1599.10	13.443	1.31	0.01	0.08	176.25	32.382
CJ16.935_1	36.699	0.56	0.01	0.23	355.59	10.54
CJ1600.117_1	83.835	1.79	0.02	0.27	874.51	39.882
CJ1600.117_2	90.036	1.49	0.02	0.28	1023.4	51.197
CJ162.45	17.199	2.2	0	0.11	401.01	11.577

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ162.977	94.346	0.83	0.05	0.28	1182.61	99.73
CJ1627.66	15.74	1.43	0.01	0.16	372.44	10.492
CJ1637.989	5.544	1.1	0	0.15	54.06	1.243
CJ1668.083	126.703	2.47	0.22	0.41	2921.732	525.395
CJ1700	14.41	34.87	0.01	0.11	191.22	42.512
CJ1700.10	13.501	50	0.01	0.09	176.25	32.382
CJ1700.117	84.014	2.26	0.04	0.32	874.51	39.882
CJ1700.17	15.746	1.52	0.02	0.16	372.44	10.492
CJ1700.229	5.547	2.52	0.01	0.17	54.06	1.243
CJ1749.279	5.55	0.77	0.02	0.21	54.06	1.243
CJ1797.21	15.751	1.11	0.02	0.16	372.44	10.492
CJ1800	14.411	1.81	0.01	0.1	191.22	42.512
CJ1800.10	13.543	1.97	0.01	0.09	176.25	32.382
CJ1800.117	83.573	2.18	0.04	0.33	861.55	37.29
CJ1800.229	5.552	0.84	0.02	0.16	54.06	1.243
CJ1816.580	126.772	8.07	0.22	0.62	2921.732	525.395
CJ1900	14.417	2.21	0.01	0.14	191.22	42.512
CJ1900.10	13.621	1.37	0.01	0.09	176.25	32.382
CJ1900.17	15.759	1.39	0.02	0.19	372.44	10.492
CJ1900.229	5.595	0.7	0.01	0.2	54.06	1.243
CJ1902.476	127.297	0.57	0.1	0.47	2921.732	525.395
CJ1917.479	127.852	1.46	0.07	0.33	2921.732	525.395
CJ1927.647	83.751	3.22	0.03	0.3	861.55	37.29
CJ1942.494	127.925	1.2	0.44	0.34	2921.732	525.395
CJ1952.554	127.976	2.11	0.06	0.27	2921.732	525.395
CJ1956.59	13.655	12.62	0.01	0.08	176.25	32.382

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ1978.418	14.423	1.01	0.01	0.14	191.22	42.512
CJ200.09	30.884	1.6	0.29	0.66	295.96	69.133
CJ200.17	17.2	1.73	0	0.07	401.01	11.577
CJ200.215	36.567	26.24	0.04	0.2	355.59	10.54
CJ200.239	9.364	0.34	0.07	0.32	102.87	2.756
CJ2000.10	13.654	2.6	0	0.1	176.25	32.382
CJ2000.117	83.8	1.65	0.03	0.28	861.55	37.29
CJ2000.17	15.778	1	0.03	0.23	372.44	10.492
CJ2000.229	5.661	0.44	0.01	0.11	54.06	1.243
CJ2032.625	14.427	1.21	0.05	0.17	191.22	42.512
CJ2046.464	128.095	1.59	0.06	0.28	2921.732	525.395
CJ2063.577	81.524	1.19	0.03	0.28	812.9	25.249
CJ2100	14.432	0.98	0.02	0.2	191.22	42.512
CJ2100.10	13.662	0.84	0.04	0.15	176.25	32.382
CJ2100.17	15.783	1.28	0.01	0.16	372.44	10.492
CJ2100.229	5.699	1.13	0	0.09	54.06	1.243
CJ2118.174	128.155	1.54	0.08	0.34	2921.732	525.395
CJ2128.867	81.569	1.22	0.03	0.25	812.9	25.249
CJ2162.390	128.178	2.63	0.16	0.35	2921.732	525.395
CJ2165.306	14.437	1.61	0.03	0.19	191.22	42.512
CJ2171.407	81.608	1.61	0.04	0.25	812.9	25.249
CJ2173.272	128.191	2.21	0.18	0.41	2921.732	525.395
CJ2177.86	15.789	1.41	0.01	0.15	372.44	10.492
CJ2185.476	127.722	2.09	0.17	0.47	2881.932	514.57
CJ2187.585	14.438	1.36	0.03	0.21	191.22	42.512
CJ2200.229	5.749	0.7	0	0.1	54.06	1.243

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ2206.53	13.747	1.46	0.01	0.2	176.25	32.382
CJ2213.506	127.725	2.14	0.11	0.47	2881.932	514.57
CJ2223.267_1	45.941	1.02	0.05	0.26	457.31	14.709
CJ2223.267_2	81.605	1.86	0.05	0.25	812.9	25.249
CJ2224.630	127.728	2.35	0.11	0.46	2881.932	514.57
CJ2227.161	14.438	3.32	0.04	0.26	191.22	42.512
CJ2242.380	14.438	2.25	0.04	0.28	191.22	42.512
CJ226.077	94.517	0.65	0.04	0.28	1182.61	99.73
CJ2266.899	5.777	1.82	0	0.12	54.06	1.243
CJ2267.81	15.792	3.29	0.01	0.14	372.44	10.492
CJ2287.052	14.438	1.51	0.1	0.34	191.22	42.512
CJ2292.097	46.239	1.36	0.03	0.25	457.31	14.709
CJ2296.492	127.74	2.01	0.13	0.42	2881.932	514.57
CJ2300.10	13.758	3.14	0.02	0.13	176.25	32.382
CJ2331.99	15.793	3.01	0.05	0.3	372.44	10.492
CJ2346.464	127.761	1.25	0.08	0.42	2881.932	514.57
CJ2352.47	13.76	2.44	0.01	0.17	176.25	32.382
CJ2359.439	14.439	1.52	0.09	0.33	191.22	42.512
CJ2376.910	14.44	1.67	0.05	0.35	191.22	42.512
CJ2378.957	46.519	1.64	0.02	0.24	457.31	14.709
CJ2411.26	15.799	1.31	0.03	0.38	372.44	10.492
CJ2430.00	13.76	4.07	0.01	0.23	176.25	32.382
CJ2446.464	127.79	3.33	0.2	0.41	2881.932	514.57
CJ2447.455	14.442	1.57	0.07	0.36	191.22	42.512
CJ2456.367	46.597	1.21	0.01	0.21	457.31	14.709
CJ246.4641	127.807	1.21	0.05	0.32	3098.302	570.202

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ246.585	36.632	2.2	0.01	0.18	355.59	10.54
CJ2460.36	15.819	2	0.02	0.29	372.44	10.492
CJ2465.522	14.443	1.27	0.04	0.35	191.22	42.512
CJ248.32	31.071	2.36	0.13	0.67	295.96	69.133
CJ250.67	17.2	2.95	0	0.08	401.01	11.577
CJ2500	14.446	1.37	0.06	0.35	191.22	42.512
CJ2500.10	13.77	30.59	0.02	0.3	176.25	32.382
CJ2500.16	15.253	1.95	0.09	0.47	364.85	10.18
CJ2528.637	46.636	1.9	0.19	0.26	457.31	14.709
CJ2535.77	13.773	2.23	0.02	0.24	176.25	32.382
CJ2540.48	15.254	0.7	0.03	0.3	364.85	10.18
CJ2546.464	127.824	3.07	0.07	0.38	2881.932	514.57
CJ255.1367	33.062	2.2	0.01	0.12	310.94	72.681
CJ2559.518	14.451	1.45	0.06	0.33	191.22	42.512
CJ2594.793	14.456	1.48	0.03	0.28	191.22	42.512
CJ2600.16	15.255	7.78	0.04	0.2	364.85	10.18
CJ2603.25	13.774	8.41	0.03	0.23	176.25	32.382
CJ2604.897	44.003	0.72	0.02	0.25	419.1	8.527
CJ2646.464	127.222	1.74	0.07	0.38	2820.832	474.61
CJ2646.738	14.465	0.94	0.05	0.34	191.22	42.512
CJ265.297	94.699	0.75	0.04	0.25	1182.61	99.73
CJ2650.52	13.6	1.86	0.03	0.23	342.33	7.793
CJ2662.919	14.476	18.51	0.03	0.32	191.22	42.512
CJ2666.88	13.775	2.89	0.03	0.24	176.25	32.382
CJ2680.447	127.236	3.34	0.09	0.3	2820.832	474.61
CJ27.449	7.176	0.73	0	0.18	148.89	11.315

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ2706.457	43.282	1.01	0.02	0.21	408.23	8.212
CJ2721.15	13.6	1.17	0.12	0.24	342.33	7.793
CJ2723.864	14.492	14.22	0.05	0.31	191.22	42.512
CJ2742.526	14.511	1.89	0.04	0.32	191.22	42.512
CJ2744.16	13.778	1.91	0.09	0.32	176.25	32.382
CJ2746.464	127.244	3.25	0.11	0.36	2820.832	474.61
CJ2757.35	13.779	11.75	0.02	0.36	176.25	32.382
CJ2795.45	13.601	1.87	0.04	0.29	342.33	7.793
CJ2800	14.535	1.14	0.05	0.34	191.22	42.512
CJ2809.59	13.78	1.49	0.05	0.32	176.25	32.382
CJ2813.657	43.366	1.44	0.02	0.2	408.23	8.212
CJ2826.19	13.781	2.14	0.01	0.29	176.25	32.382
CJ2849.017	127.248	3.45	0.09	0.37	2820.832	474.61
CJ2860.405	127.248	30.95	0.03	0.37	2820.832	474.61
CJ2892.413	127.248	50	0.03	0.36	2820.832	474.61
CJ2900	14.588	1.71	0.05	0.32	191.22	42.512
CJ2900.09	13.785	1.96	0.05	0.33	176.25	32.382
CJ2900.117	43.379	1.21	0.02	0.19	408.23	8.212
CJ2900.16	13.608	1.71	0.05	0.43	342.33	7.793
CJ2902.731	127.248	50	0.06	0.36	2820.832	474.61
CJ2946.464	127.249	3.35	0.19	0.39	2820.832	474.61
CJ2979.285	14.593	1.74	0.21	0.32	191.22	42.512
CJ2989.647	127.254	2.48	0.1	0.42	2820.832	474.61
CJ300	33.499	50	0.01	0.14	310.94	72.681
CJ300.215	36.72	9.12	0.01	0.14	355.59	10.54
CJ300.239	9.357	0.52	0.03	0.15	102.87	2.756

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m^3/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ3000.09	13.786	2.56	0.04	0.31	176.25	32.382
CJ3000.117	43.422	0.85	0.03	0.15	408.23	8.212
CJ3000.16	13.614	1.33	0.02	0.28	342.33	7.793
CJ3007.922	14.597	0.91	0.02	0.33	191.22	42.512
CJ3051.067	43.469	50	0.02	0.14	408.23	8.212
CJ3054.885	127.267	2.27	0.05	0.38	2820.832	474.61
CJ3066.327	127.272	3.3	0.05	0.32	2820.832	474.61
CJ3100.09	13.791	2.03	0.02	0.31	176.25	32.382
CJ3100.16	13.617	0.78	0.05	0.33	342.33	7.793
CJ3103.867	43.484	2.68	0.04	0.16	408.23	8.212
CJ3105.432	127.274	3.03	0.08	0.34	2820.832	474.61
CJ311.56	17.201	2.4	0	0.09	401.01	11.577
CJ3111.594	14.615	1.34	0.04	0.25	191.22	42.512
CJ3135.520	14.648	0.62	0.01	0.2	191.22	42.512
CJ314.357	94.9	0.65	0.09	0.23	1182.61	99.73
CJ3148.25	13.624	0.74	0.03	0.21	342.33	7.793
CJ3150.013	127.291	0.83	0.02	0.39	2820.832	474.61
CJ3158.17	13.791	12.16	0.02	0.27	176.25	32.382
CJ3200	8.615	1.25	0.02	0.15	132.89	28.396
CJ3200.117	43.498	2.4	0.03	0.2	408.23	8.212
CJ3200.16	13.627	1.78	0.07	0.24	342.33	7.793
CJ3221.88	13.79	2.52	0.03	0.26	176.25	32.382
CJ3237.56	13.79	37.13	0.02	0.28	176.25	32.382
CJ3246.464	116.647	2.42	0.04	0.27	2404.052	347.658
CJ3262.17	13.629	1.25	0.05	0.26	342.33	7.793
CJ3300	7.589	1.11	0.01	0.15	121.24	27.348

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ3300.117	43.563	1.24	0.02	0.22	408.23	8.212
CJ3322.153	115.91	29.11	0.02	0.23	2327.312	302.996
CJ3337.30	13.633	0.86	0.02	0.26	342.33	7.793
CJ3346.98	13.802	47.48	0.06	0.28	176.25	32.382
CJ3361.22	13.818	0.55	0.01	0.18	176.25	32.382
CJ3390.389	115.94	2.5	0.03	0.22	2327.312	302.996
CJ3392.66	13.964	0.33	0.02	0.31	176.25	32.382
CJ3400	7.588	1.11	0.01	0.13	121.24	27.348
CJ3411.51	13.641	1.42	0.02	0.25	342.33	7.793
CJ3414.967	43.597	1.69	0.04	0.17	408.23	8.212
CJ3428.33	11.695	1.86	0.02	0.24	299.01	6.754
CJ3446.464	115.957	1.96	0.03	0.25	2327.312	302.996
CJ346.4642	127.907	1.97	0.05	0.27	3098.302	570.202
CJ349.449	9.366	0.61	0.02	0.12	102.87	2.756
CJ3492.153	115.967	2.29	0.06	0.3	2327.312	302.996
CJ350.45	17.202	7.83	0	0.09	401.01	11.577
CJ3500	6.075	2.23	0.01	0.13	97.4	21.626
CJ3500.117	43.602	2.63	0.05	0.21	408.23	8.212
CJ352.0823	14.197	2.55	0.01	0.14	191.22	42.512
CJ352.30	33.159	2.33	0.07	0.65	295.96	69.133
CJ3539.547	115.978	1.41	0.01	0.23	2327.312	302.996
CJ3546.867	43.612	1.24	0.04	0.25	408.23	8.212
CJ3552.954	116.004	2.22	0.07	0.19	2327.312	302.996
CJ3597.283	116.019	1.57	0.05	0.22	2327.312	302.996
CJ36.529	7.176	3.52	0	0.06	148.89	11.315
CJ3600	6.076	2.35	0.01	0.18	97.4	21.626

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ3609.26	8.986	1.78	0.01	0.16	99.46	9.363
CJ3610.812	115.455	2.59	0.1	0.32	2298.035	282.81
CJ3624.107	43.657	1.31	0.01	0.19	408.23	8.212
CJ3660.527	43.686	8.36	0.03	0.18	408.23	8.212
CJ3667.068	115.461	3.36	0.06	0.27	2298.035	282.81
CJ3677.11	8.987	2.58	0.02	0.22	99.46	9.363
CJ3684.238	6.076	2.3	0	0.07	97.4	21.626
CJ3685.955	115.463	1.89	0.17	0.52	2298.035	282.81
CJ3696.22	8.987	1.6	0.01	0.24	99.46	9.363
CJ3709.655	115.466	2.01	0.06	0.51	2298.035	282.81
CJ3717.833	115.468	2.32	0.04	0.35	2298.035	282.81
CJ3742.908	6.076	2.13	0	0.13	97.4	21.626
CJ3758.726	6.076	1.65	0.01	0.18	97.4	21.626
CJ3770.893	115.472	2.79	0.03	0.33	2298.035	282.81
CJ3780.99	8.988	1.67	0.02	0.21	99.46	9.363
CJ3811.191	6.076	1.47	0.03	0.19	97.4	21.626
CJ3825.668	6.076	1.04	0.03	0.24	97.4	21.626
CJ3846.464	115.473	4.69	0.3	0.39	2298.035	282.81
CJ3869.05	8.991	1.95	0.01	0.19	99.46	9.363
CJ388.5779	127.904	3.25	0.05	0.28	3098.302	570.202
CJ3900	6.077	0.94	0.01	0.19	97.4	21.626
CJ392.31	33.852	2.13	0.11	0.68	295.96	69.133
CJ3932.07	8.993	1.81	0.02	0.26	99.46	9.363
CJ3946.464	115.473	2.02	0.09	0.34	2298.035	282.81
CJ3947.67	8.993	1.72	0.01	0.24	99.46	9.363
CJ400.127	95.264	0.88	0.05	0.22	1182.61	99.73

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m^3/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ400.215	36.756	3.48	0.02	0.16	355.59	10.54
CJ400.239	9.378	1.33	0.03	0.13	102.87	2.756
CJ4014.677	6.082	30.52	0.01	0.14	97.4	21.626
CJ4019.03	8.995	1.28	0.03	0.27	99.46	9.363
CJ402.1469	127.904	2.9	0.09	0.29	3098.302	570.202
CJ4034.42	8.996	1.78	0.01	0.21	99.46	9.363
CJ4067.080	115.49	1.76	0.05	0.36	2298.035	282.81
CJ410.6635	14.199	3.47	0.01	0.19	191.22	42.512
CJ4100	6.083	11.09	0.01	0.11	97.4	21.626
CJ4100.11	9	1.21	0.02	0.26	99.46	9.363
CJ4100.962	115.514	2.25	0.03	0.32	2298.035	282.81
CJ412.71	17.203	1.86	0	0.12	401.01	11.577
CJ4184.01	9.01	2.27	0.01	0.23	99.46	9.363
CJ4199.26	9.014	1.88	0.01	0.19	99.46	9.363
CJ4200	6.084	1.58	0.01	0.1	97.4	21.626
CJ4232.339	115.548	2.34	0.04	0.31	2298.035	282.81
CJ4248.377	115.565	2.34	0.04	0.23	2298.035	282.81
CJ4258.27	9.018	1.61	0	0.18	99.46	9.363
CJ427.7351	14.199	2.44	0.01	0.2	191.22	42.512
CJ4271.41	9.019	2.18	0.01	0.17	99.46	9.363
CJ4300	6.084	1.92	0.01	0.18	97.4	21.626
CJ4330.11	9.02	1.96	0.02	0.2	99.46	9.363
CJ4332.776	115.584	1.81	0.06	0.25	2298.035	282.81
CJ438.5957	127.904	2.85	0.08	0.37	3098.302	570.202
CJ4395.415_1	106.097	1.09	0.06	0.34	1893.575	188.198
CJ4395.415_2	115.202	1.17	0.06	0.34	2276.115	278.207

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ4396.23	9.025	1.42	0.01	0.25	99.46	9.363
CJ440.72	34.02	2.09	0.16	0.73	295.96	69.133
CJ4411.37	9.029	1.59	0.01	0.23	99.46	9.363
CJ4446.464	106.169	1.24	0.1	0.32	1893.575	188.198
CJ4462.26	9.033	1.39	0.04	0.22	99.46	9.363
CJ4477.44	9.036	1.03	0.01	0.19	99.46	9.363
CJ452.879	9.384	7.44	0.01	0.13	102.87	2.756
CJ4529.29	9.042	1.24	0.02	0.19	99.46	9.363
CJ454.8528	127.903	2.93	1.06	0.4	3098.302	570.202
CJ4546.464	105.981	0.89	0.04	0.28	1874.255	182.595
CJ4600.10	9.052	0.99	0.02	0.19	99.46	9.363
CJ461.85	17.205	2.27	0.01	0.12	401.01	11.577
CJ4635.43	9.062	11.87	0.01	0.15	99.46	9.363
CJ4646.464	106.165	0.93	0.06	0.24	1874.255	182.595
CJ4700.25	7.905	2.12	0	0.14	79.05	4.709
CJ4731.82	7.906	2.73	0.05	0.31	79.05	4.709
CJ4746.464	106.427	0.91	0.05	0.24	1874.255	182.595
CJ477.657	95.553	1.05	0.11	0.24	1182.61	99.73
CJ4800.10	7.48	0.29	0	0.09	69.57	1.391
CJ4846.464	106.597	1.38	0.08	0.28	1874.255	182.595
CJ487.7520	127.904	1.69	0.52	0.48	3098.302	570.202
CJ4900.10	7.629	2.4	0.02	0.25	69.57	1.391
CJ4945.903	106.733	0.8	0.05	0.26	1874.255	182.595
CJ4957.289	7.433	1.49	0.05	0.48	69.57	1.391
CJ498.2611	14.199	5.32	0.01	0.21	191.22	42.512
CJ500.17	17.205	1.53	0.01	0.11	401.01	11.577

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ500.239	9.384	0.91	0.03	0.12	102.87	2.756
CJ5000.10	8.445	0.69	0.02	0.53	69.57	1.391
CJ5046.464	106.987	0.88	0.06	0.23	1874.255	182.595
CJ5048.723	9.14	0.43	0.04	0.33	69.57	1.391
CJ506.895	36.114	1.2	0.01	0.19	344.96	10.306
CJ509.347	95.623	0.98	0.1	0.26	1182.61	99.73
CJ5100.10	8.775	0.71	0.03	0.36	69.57	1.391
CJ513.5331	14.199	2.49	0.01	0.26	191.22	42.512
CJ5146.464	107.277	0.94	0.11	0.23	1874.255	182.595
CJ5152.642	8.745	1.26	0.07	0.53	69.57	1.391
CJ516.02	35.764	1.7	0.21	0.83	295.96	69.133
CJ5220.803	8.753	1.33	0.06	0.47	69.57	1.391
CJ523.1179	127.907	2.17	1.8	0.49	3098.302	570.202
CJ5260.950	107.272	0.87	0.04	0.23	1857.475	180.582
CJ5260.956	8.786	0.28	0.04	0.58	69.57	1.391
CJ5300.10	8.901	0.68	0.05	0.41	69.57	1.391
CJ531.73	17.205	2.33	0.01	0.09	401.01	11.577
CJ534.23	36.277	1.39	0.04	0.51	295.96	69.133
CJ5373.942	107.715	0.95	0.05	0.22	1857.475	180.582
CJ5400.10	9.235	19.22	0.02	0.23	69.57	1.391
CJ5427.875	107.867	0.98	0.11	0.22	1857.475	180.582
CJ546.4642	127.909	3.56	0.1	0.52	3098.302	570.202
CJ5500.10	9.247	1.15	0.01	0.16	69.57	1.391
CJ5532.597	107.776	0.86	0.06	0.23	1845.096	169.688
CJ554.879	9.387	1.2	0.01	0.11	102.87	2.756
CJ5543.03	9.265	1.68	0.02	0.31	69.57	1.391

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ5581.81	9.28	0.34	0.02	0.25	69.57	1.391
CJ5598.608	9.343	0.51	0.02	0.3	69.57	1.391
CJ5627.203	108.041	0.83	0.05	0.23	1845.096	169.688
CJ571.927	95.731	0.65	0.05	0.27	1182.61	99.73
CJ5746.464	108.459	33.62	0.07	0.26	1845.096	169.688
CJ5850.291	108.147	0.7	0.04	0.22	1811.086	159.758
CJ591.0980	127.91	2.78	0.05	0.5	3098.302	570.202
CJ5946.083	108.627	0.84	0.05	0.22	1811.086	159.758
CJ6.227	94.12	0.79	0.02	0.21	1182.61	99.73
CJ60.22	42.428	1.98	0.38	0.72	366.54	105.269
CJ600.0000	14.201	2.11	0.05	0.35	191.22	42.512
CJ600.17	17.206	1.63	0.01	0.1	401.01	11.577
CJ600.239	9.389	1.72	0.01	0.11	102.87	2.756
CJ6046.464	108.96	0.77	0.12	0.23	1811.086	159.758
CJ6098.928	109.229	0.62	0.08	0.28	1811.086	159.758
CJ6165.560	109.499	0.93	0.1	0.25	1811.086	159.758
CJ62.389	9.364	0.7	0	0.37	102.87	2.756
CJ6233.167	109.691	0.91	0.09	0.27	1811.086	159.758
CJ625.125	36.182	1.82	0.02	0.22	344.96	10.306
CJ6301.693	109.871	0.84	0.15	0.29	1811.086	159.758
CJ634.217	95.93	1.24	0.04	0.21	1182.52	99.64
CJ6358.901	110.048	0.62	0.1	0.28	1809.01	158.979
CJ639.57	17.207	1.76	0	0.08	401.01	11.577
CJ6435.935	109.678	0.72	0.05	0.27	1770.29	133.733
CJ646.4641	127.912	3.76	0.17	0.67	3098.302	570.202
CJ647.627	96.005	1.23	0.05	0.28	1182.52	99.64

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ6478.273	109.24	0.8	0.08	0.24	1741.026	131.392
CJ6565.562	109.569	0.92	0.06	0.24	1741.026	131.392
CJ657.28	36.631	1.49	0.06	0.39	295.96	69.133
CJ657.629	9.39	2.19	0.01	0.14	102.87	2.756
CJ6662.639	110.026	1	0.05	0.2	1741.026	131.392
CJ674.5680	127.912	3.41	0.16	0.68	3098.302	570.202
CJ674.60	37.07	2.11	0.1	0.32	295.96	69.133
CJ6772.934	110.418	1.15	0.03	0.23	1741.026	131.392
CJ684.977	96.058	1.22	0.06	0.28	1182.52	99.64
CJ6846.464	110.551	1.49	0.16	0.22	1741.026	131.392
CJ6894.028	110.573	5.33	0.09	0.27	1741.026	131.392
CJ69.25231	54.608	0.98	0.02	0.24	382.54	90.009
CJ695.90	17.209	0.91	0.01	0.09	401.01	11.577
CJ6988.738	110.643	50	0.06	0.27	1741.026	131.392
CJ699.925	36.151	1.49	0.02	0.21	344.96	10.306
CJ7.227846	127.961	2.29	0.94	0.2	3127.962	575.66
CJ700	14.213	1.51	0.25	0.51	191.22	42.512
CJ700.239	9.391	2.31	0.01	0.16	102.87	2.756
CJ703.1630	127.912	3.98	0.32	0.61	3098.302	570.202
CJ7047.302	110.42	0.71	0.07	0.31	1725.986	125.467
CJ706.81	17.206	1.02	0.01	0.1	401.01	11.577
CJ709.95	13.31	1.29	0.02	0.22	176.25	32.382
CJ71.72631	127.965	1.28	0.1	0.21	3127.962	575.66
CJ7132.593	110.675	0.86	0.09	0.31	1725.986	125.467
CJ718.547	96.117	1.18	0.03	0.24	1182.52	99.64
CJ7232.906	111.269	0.53	0.04	0.33	1725.986	125.467

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ7322.142	108.489	0.76	0.06	0.33	1608.8	113.322
CJ736.779	9.391	1.59	0.01	0.16	102.87	2.756
CJ737.045	36.173	0.98	0.02	0.23	344.96	10.306
CJ737.31	17.206	0.79	0.02	0.12	401.01	11.577
CJ7381.689	109.397	11.09	0.05	0.29	1608.8	113.322
CJ74.135	36.589	1.15	0.02	0.26	355.59	10.54
CJ7449.270	109.944	13.46	0.04	0.21	1608.8	113.322
CJ746.4641	127.912	3.36	0.26	0.62	3098.302	570.202
CJ7549.375	110.428	50	0.06	0.22	1608.8	113.322
CJ762.307	95.834	0.92	0.01	0.25	1173.84	98.364
CJ7639.745	110.533	0.66	0.04	0.22	1608.8	113.322
CJ768.179	9.391	1.79	0.01	0.16	102.87	2.756
CJ7752.183_1	15.879	11.6	0.01	0.23	401.01	11.577
CJ7752.183_2	109.903	32.85	0.05	0.23	1583.62	111.307
CJ794.7359	127.912	3.45	1.38	0.59	3098.302	570.202
CJ795.635	36.202	2.82	0.02	0.18	344.96	10.306
CJ799.60	13.316	1.3	0.07	0.28	176.25	32.382
CJ80.89927	127.65	1.19	0.04	0.27	3098.302	570.202
CJ800.0000	14.26	2.92	0.04	0.34	191.22	42.512
CJ800.117	90.693	1.72	0.03	0.23	1068.5	62.887
CJ800.17	15.696	1.66	0.01	0.14	372.44	10.492
CJ800.239	9.392	0.79	0.02	0.15	102.87	2.756
CJ82.94_1	16.089	0.8	0	0.2	401.01	11.577
CJ846.4642	127.914	2.54	0.06	0.52	3098.302	570.202
CJ851.915	36.357	0.72	0.01	0.18	344.96	10.306
CJ854.56	13.327	2.71	0.01	0.19	176.25	32.382

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m^3/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
CJ855.869	9.402	1.16	0.01	0.13	102.87	2.756
CJ876.147	90.932	1.22	0.01	0.23	1068.5	62.887
CJ895.8482	127.921	2.69	0.07	0.47	3098.302	570.202
CJ9.209	7.342	0.64	0	0.35	148.89	11.315
CJ9.902844	52.652	1.12	0.02	0.25	382.54	90.009
CJ900.10	13.363	1.46	0.02	0.26	176.25	32.382
CJ900.239	9.404	1.25	0.04	0.12	102.87	2.756
CJ902.1607	14.464	0.92	0.02	0.14	191.22	42.512
CJ902.835	36.485	50	0.03	0.17	344.96	10.306
CJ904.90	15.7	9.75	0.01	0.1	372.44	10.492
CJ922.9622	14.323	1.93	0.02	0.1	191.22	42.512
CJ929.29	13.373	5.47	0.01	0.1	176.25	32.382
CJ945.497	91.169	2.38	0.02	0.2	1068.5	62.887
CJ955.93	15.703	4.17	0.01	0.11	372.44	10.492
CJ956.725	36.542	2.19	0.03	0.22	344.96	10.306
CJ963.549	9.408	1.23	0.01	0.13	102.87	2.756
CJ964.46	13.373	2.27	0.01	0.08	176.25	32.382
CJ966.3656	126.727	3.3	0.13	0.46	2973.692	538.178
CJ982.0328	126.729	50	0.21	0.49	2973.692	538.178
CJ99.99998	54.902	24.68	0	0.17	382.54	90.009
CJ992.03	13.373	2.72	0	0.08	176.25	32.382
LE153	13.237	0.72	0	0.17	117.186	12.145
LE238	13.265	1.06	0.01	0.07	117.186	12.145
LE301	13.266	1.1	0.01	0.1	117.186	12.145
LE344	12.412	1.19	0.01	0.11	104.775	11.11
LE394	12.416	0.99	0.01	0.1	104.775	11.11

Table 2B: Conduits (continued...)

Name	Max. |Flow| (m³/s)	Max. |Velocity| (m/s)	Max/Full Flow	Max/Full Depth	Contributing Area (ha)	Contributing Imp. Area (ha)
LE439	12.419	1.32	0.4	0.13	104.775	11.11
LE479	12.42	2.67	0.02	0.33	104.775	11.11
LE494	12.424	0.37	0.01	0.45	104.775	11.11
LE505	12.436	0.35	0.08	0.49	104.775	11.11
LE543	12.479	0.7	0.01	0.39	104.775	11.11
LE580	15.149	0.85	0.01	0.23	104.775	11.11
LE604	10.971	3.22	0.01	0.15	56.684	7.402
LE615	10.612	50	0.01	0.11	55.054	6.945
LE618	6.57	1.8	0.01	0.2	48.091	3.708
LE626	6.259	0.58	0.51	0.31	48.091	3.708
LE643	10.714	1.33	0.02	0.17	55.054	6.945
LE649	6.109	0.53	0.01	0.29	48.091	3.708
LE667	10.433	1.13	0.5	0.2	53.874	6.214
LE673	5.896	1.14	0	0.11	48.091	3.708
LE677	10.532	0.93	0.01	0.17	53.874	6.214
LE690	10.633	1.42	0.31	0.14	53.874	6.214
LE732	11.236	1.14	0.01	0.14	53.874	6.214
LE733	5.335	1.09	0.01	0.14	45.785	2.476
LE761	12.976	1.45	0.01	0.13	53.874	6.214
LE768	4.671	0.61	0.01	0.14	42.868	0.857
LE818	14.916	1.85	0.88	0.19	52.16	4.671
LE855	9.471	0.58	0.01	0.27	52.16	4.671
OL220	14.817	3.49	0.03	0.2	48.65	12.041
OL3	8.992	3.15	0.02	0.15	38.21	6.182

Table 3A: Subcatchments

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C
CWP	100yrChicago24hr	J6301.693	2.07645	138.43	150	2	37.5	0.013	0.25	0	OUTLET	100	0.1
Eaglewood2	100yrChicago24hr	EBS1	0.07	14	50	1.5	100	0.013	0.25	25	OUTLET	100	0.1
Eaglwood1	100yrChicago24hr	EaglewoodStorage	0.4	200	20	1	100	0.013	0.25	25	OUTLET	100	0.1
EBR3S	100yrChicago24hr	EBS1	0.577	55.004	104.901	1	29	0.013	0.25	25	OUTLET	100	0.1
EENNS1	100yrChicago24hr	EBS1	0.6	46.154	130	1.5	93	0.013	0.25	25	OUTLET	100	0.1
EMAIN1	100yrChicago24hr	J7639.745	25.18	1677	150.149	1.5	8	0.013	0.25	25	OUTLET	100	0.1
EMAIN2	100yrChicago24hr	J6435.935	29.26326	1950.533	150.027	2.3	8	0.013	0.25	25	OUTLET	100	0.1
EMAIN3	100yrChicago24hr	J5146.464	16.78	1118	150.089	0.5	12	0.013	0.25	25	OUTLET	100	0.1
EMAIN4	100yrChicago24hr	j4332.776	21.92	1461	150.034	0.7	21	0.013	0.25	25	OUTLET	100	0.1
ESAN1	100yrChicago24hr	j4446.464	19.32	1288	150	1.1	29	0.013	0.25	25	OUTLET	100	0.1
ESAN2	100yrChicago24hr	DF001	8.02	534	150.187	0.9	37	0.013	0.25	25	OUTLET	100	0.1
ETRIB1a	100yrChicago24hr	E301	6.6609	444.06	150	3	11.4	0.013	0.25	25	OUTLET	100	0.1
ETRIB1b	100yrChicago24hr	Turtle	5.75	384.448	149.565	3	4.8	0.013	0.25	100	OUTLET	100	0.1
ETRIB2E	100yrChicago24hr	E604	1.63	108.667	150	1.1	28	0.013	0.25	25	OUTLET	100	0.1
ETRIB2W	100yrChicago24hr	E855	50.23	3349	149.985	1.2	9	0.013	0.25	25	OUTLET	100	0.1
ETRIB3E	100yrChicago24hr	E673	1.77	189.796	93.258	1.3	62	0.013	0.25	25	OUTLET	100	0.1
ETRIB3W	100yrChicago24hr	E768	42.8682	2858.223	149.982	1.1	2	0.013	0.25	25	OUTLET	100	0.1
FBG1	100yrChicago24hr	E761	1.714	17.14	1000	0.15	90	0.013	0.25	25	OUTLET	100	0.1
FBG2	100yrChicago24hr	E643	1.18	236	50	0.5	62	0.013	0.25	0	OUTLET	100	0.1
FBG3	100yrChicago24hr	J571.927	0.09	18	50	2	100	0.013	0.25	25	OUTLET	100	0.1
FBG4	100yrChicago24hr	SFBG-4-5	38.72	276.571	1400.002	3	65.2	0.013	0.25	0	OUTLET	100	0.1
FGOLF1	100yrChicago24hr	SFGOLF1	12.37879	825.605	149.936	2	88	0.013	0.25	25	OUTLET	100	0.1
FGOLF2	100yrChicago24hr	SFGOLF2	21.257	1416.793	150.036	2	81	0.013	0.25	25	OUTLET	100	0.1
North1	100yrChicago24hr	North1+2Storage	0.56	54.902	102	2	7	0.013	0.25	25	OUTLET	100	0.1
North2	100yrChicago24hr	North1+2Storage	0.36	65.455	55	1	100	0.013	0.25	25	OUTLET	100	0.1
North3	100yrChicago24hr	EBS1	0.35	44.872	78	1.3	7	0.013	0.25	25	OUTLET	100	0.1
S101	100yrChicago24hr	J71.72631	29.66	3802.564	78	0.3	18.4	0.013	0.25	25	OUTLET	100	0.1

Table 3A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C
S102	100yrChicago24hr	J895.8482	124.61	18325	68	0.45	25.7	0.013	0.25	25	OUTLET	100	0.1
S103	100yrChicago24hr	J1060.963	51.96	7318.31	71	0.4	24.6	0.013	0.25	25	OUTLET	100	0.1
S104	100yrChicago24hr	J2173.272	39.8	5527.778	72	0.4	27.2	0.013	0.25	25	OUTLET	100	0.1
S105	100yrChicago24hr	J2546.464	61.1	5657.407	108	0.4	65.4	0.013	0.25	25	OUTLET	100	0.1
S106	100yrChicago24hr	J3246.464	76.74	12790	60	0.3	58.2	0.013	0.25	25	OUTLET	100	0.1
S109	100yrChicago24hr	J718.547	8.68	1045.783	83	0.25	14.7	0.013	0.25	25	OUTLET	100	0.1
S110	100yrChicago24hr	J1200.117	19.88	2395.181	83	0.4	25.3	0.013	0.25	25	OUTLET	100	0.1
S111	100yrChicago24hr	J400.215	10.63	2362.222	45	0.45	2.2	0.013	0.25	25	OUTLET	100	0.1
S112	100yrChicago24hr	J1388.055	106.47	8190	130	1.5	5.2	0.013	0.25	25	OUTLET	100	0.1
S113	100yrChicago24hr	J113	232.12	15474.67	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1
S151	100yrChicago24hr	J151	24.92	2076.667	120	1	54.8	0.013	0.25	25	OUTLET	100	0.1
S152	100yrChicago24hr	J152	25.32	1770.629	143	0.95	31.7	0.013	0.25	25	OUTLET	100	0.1
S153	100yrChicago24hr	J60.22	70.58	5881.667	120	0.2	51.2	0.013	0.25	25	OUTLET	100	0.1
S154	100yrChicago24hr	J674.60	119.71	14422.89	83	0.75	30.7	0.013	0.25	25	OUTLET	100	0.1
S155	100yrChicago24hr	J3500.1	11.27	1977.193	57	0.3	17.4	0.013	0.25	25	OUTLET	100	0.1
S156	100yrChicago24hr	SU156	26.18	4363.333	60	0.35	33.1	0.013	0.25	25	OUTLET	100	0.1
S157	100yrChicago24hr	SU157	39.34	5785.294	68	0.75	31.5	0.013	0.25	25	OUTLET	100	0.1
S158	100yrChicago24hr	J4731.82	9.48	2106.667	45	0.55	35	0.013	0.25	25	OUTLET	100	0.1
S159	100yrChicago24hr	SU159	20.41	3401.667	60	0.65	22.8	0.013	0.25	25	OUTLET	100	0.1
S160	100yrChicago24hr	J5598.608	69.57	6156.637	113	0.8	2	0.013	0.25	25	OUTLET	100	0.1
S161	100yrChicago24hr	J300	119.72	16627.78	72	0.5	25.2	0.013	0.25	25	OUTLET	100	0.1
S162	100yrChicago24hr	J142.6492	71.6	11015.38	65	0.85	24.2	0.013	0.25	25	OUTLET	100	0.1
S163	100yrChicago24hr	SU163	58.33	8973.846	65	0.4	24.2	0.013	0.25	25	OUTLET	100	0.1
S164	100yrChicago24hr	J3200	11.65	2080.357	56	0.5	9	0.013	0.25	25	OUTLET	100	0.1
S165	100yrChicago24hr	SU165	23.84	3667.692	65	0.65	24	0.013	0.25	25	OUTLET	100	0.1
S166	100yrChicago24hr	SU166	71.04	10447.06	68	1.05	29.7	0.013	0.25	25	OUTLET	100	0.1
S167	100yrChicago24hr	J167	26.36	2196.667	120	0.3	2	0.013	0.25	25	OUTLET	100	0.1

Table 3A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C
S171	100yrChicago24hr	SU171	34.01	5232.308	65	1.15	29.2	0.013	0.25	25	OUTLET	100	0.1
S172	100yrChicago24hr	SU172	15.04	2211.765	68	0.85	39.4	0.013	0.25	25	OUTLET	100	0.1
S180	100yrChicago24hr	J749.08	28.57	4201.471	68	0.5	3.8	0.013	0.25	25	OUTLET	100	0.1
S181	100yrChicago24hr	J181	15.96	1922.892	83	1.25	55.4	0.013	0.25	25	OUTLET	100	0.1
S182	100yrChicago24hr	j2600.16	22.52	2297.959	98	0.4	10.6	0.013	0.25	25	OUTLET	100	0.1
S183	100yrChicago24hr	J2460.36	7.59	1686.667	45	0.45	4.1	0.013	0.25	25	OUTLET	100	0.1
S184	100yrChicago24hr	J3.2	105.67	9606.364	110	0.8	2	0.013	0.25	25	OUTLET	100	0.1
S185	100yrChicago24hr	J185	43.32	3938.182	110	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1
S186	100yrChicago24hr	J186	193.34	12889.33	150	2	2.4	0.013	0.25	25	OUTLET	100	0.1
S187	100yrChicago24hr	E855	1.93	321.667	60	0.9	7.8	0.013	0.25	25	OUTLET	100	0.1
S191	100yrChicago24hr	SU191	89.38	16864.15	53	0.6	29.8	0.013	0.25	25	OUTLET	100	0.1
S192	100yrChicago24hr	J1130.117	3.43	571.667	60	0.65	5.5	0.013	0.25	25	OUTLET	100	0.1
S193	100yrChicago24hr	SU193	21.79	3026.389	72	0.6	29.7	0.013	0.25	25	OUTLET	100	0.1
S195	100yrChicago24hr	SU220	9.45	1783.019	53	0.85	29.6	0.013	0.25	25	OUTLET	100	0.1
S201	100yrChicago24hr	SU201	16.42	2736.667	60	1.3	24	0.013	0.25	25	OUTLET	100	0.1
S202	100yrChicago24hr	SU202	29.6	4933.333	60	0.6	15.6	0.013	0.25	25	OUTLET	100	0.1
S203	100yrChicago24hr	J1700.117	12.96	2160	60	0.5	20	0.013	0.25	25	OUTLET	100	0.1
S204	100yrChicago24hr	J1361.769	48.81	3754.615	130	0.3	3.1	0.013	0.25	25	OUTLET	100	0.1
S205	100yrChicago24hr	J2266.899	54.06	3861.429	140	0.6	2.3	0.013	0.25	25	OUTLET	100	0.1
S210	100yrChicago24hr	J2604.897	10.87	2415.556	45	0.7	2.9	0.013	0.25	25	OUTLET	100	0.1
S211	100yrChicago24hr	SU211	29.63	4938.333	60	0.65	19.3	0.013	0.25	25	OUTLET	100	0.1
S212	100yrChicago24hr	J212	8.58	817.143	105	0.5	5.4	0.013	0.25	25	OUTLET	100	0.1
S213	100yrChicago24hr	J3	11.91	1044.737	114	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1
S214	100yrChicago24hr	J1041.555	6.37	767.47	83	1.15	2	0.013	0.25	25	OUTLET	100	0.1
S215	100yrChicago24hr	J3	129.18	8612	150	1.1	2	0.013	0.25	25	OUTLET	100	0.1
S216	100yrChicago24hr	J216	267.14	17809.33	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1
S220	100yrChicago24hr	SU220	34.67	5778.333	60	0.5	26.4	0.013	0.25	25	OUTLET	100	0.1

Table 3A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C
S221	100yrChicago24hr	SU220	4.53	503.333	90	0.55	2	0.013	0.25	25	OUTLET	100	0.1
WRegWid	100yrChicago24hr	E673	0.5362	35.747	149.999	1	25	0.013	0.25	25	OUTLET	100	0.1

Table 3B: Subcatchments

Name	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m^3/s)
CWP	22.38	0	0	74.47	0.69
Eaglewood2	0	0	0	96.56	0.04
Eaglwood1	0	0	0	96.34	0.22
EBR3S	22.63	0	0	74.01	0.17
EENNS1	2.21	0	0	94.47	0.33
EMAIN1	29.61	0	0	62	3.8
EMAIN2	29.57	0	0	62.36	5.04
EMAIN3	28.45	0	0	62.45	2.21
EMAIN4	25.47	0	0	66.51	4.2
ESAN1	22.68	0	0	73.68	5.2
ESAN2	20.12	0	0	76.3	2.42
ETRIB1a	28.44	0	0	63.86	1.36
ETRIB1b	30.57	0	0	61.44	0.98
ETRIB2E	23.16	0	0	69.66	0.4
ETRIB2W	29.31	0	0	62.19	7.36
ETRIB3E	12.15	0	0	82.99	0.81
ETRIB3W	31.6	0	0	59.31	4.68
FBG1	3.51	0	0	90.03	0.27
FBG2	13.14	0	0	83.59	0.57
FBG3	0	0	0	96.52	0.05

Table 3B: Subcatchments (continued...)

Name	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m³/s)
FBG4	12.61	0	0	82.03	10.65
FGOLF1	3.8	0	0	92.96	6.69
FGOLF2	6.02	0	0	90.81	11.15
North1	29.62	0	0	67.17	0.13
North2	0	0	0	96.6	0.2
North3	29.61	0	0	67.23	0.08
S101	26.09	0	0	70.03	6.32
S102	23.68	0	0	72.94	35.55
S103	24.05	0	0	72.47	13.97
S104	23.22	0	0	73.33	11.18
S105	11.01	0	0	85.67	26.55
S106	13.29	0	0	83.58	33.47
S109	27.32	0	0	68.46	1.56
S110	23.85	0	0	72.52	5.11
S111	31.15	0	0	65.7	2.33
S112	30.28	0	0	66	18.46
S113	31.35	0	0	64.58	31.69
S151	14.38	0	0	82.44	10.3
S152	21.81	0	0	74.57	7.11
S153	15.62	0	0	80.53	23.55
S154	22.07	0	0	74.66	37.9
S155	26.35	0	0	70.13	2.7
S156	21.31	0	0	75.41	8.45
S157	21.79	0	0	75.07	13.47
S158	20.65	0	0	76.36	3.68
S159	24.57	0	0	72.28	6.26
S160	31.35	0	0	64.59	9.52

Table 3B: Subcatchments (continued...)

Name	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m³/s)
S161	23.84	0	0	72.77	33.79
S162	24.11	0	0	72.78	22.93
S163	24.17	0	0	72.43	16.11
S164	29	0	0	67.7	2.68
S165	24.19	0	0	72.6	7.22
S166	22.35	0	0	74.6	25.12
S167	31.52	0	0	63.17	2.46
S171	22.5	0	0	74.5	12.33
S172	19.26	0	0	77.68	5.81
S180	30.7	0	0	65.7	5.08
S181	14.16	0	0	82.82	7.26
S182	28.63	0	0	67.15	3.68
S183	30.54	0	0	66.32	1.74
S184	31.34	0	0	64.64	14.77
S185	31.25	0	0	64.47	5.51
S186	31.18	0	0	65.06	30.66
S187	29.34	0	0	67.58	0.49
S191	22.32	0	0	74.62	31.32
S192	30.11	0	0	66.64	0.76
S193	22.39	0	0	74.35	6.86
S195	22.37	0	0	74.67	3.5
S201	24.14	0	0	72.94	5.87
S202	26.88	0	0	69.89	7.88
S203	25.48	0	0	71.23	3.59
S204	31.19	0	0	63.32	4.37
S205	31.36	0	0	63.84	5.78
S210	30.88	0	0	66.19	2.8

Table 3B: Subcatchments (continued...)

Name	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m³/s)
S211	25.69	0	0	71.14	8.58
S212	30.3	0	0	65.42	1.19
S213	31.26	0	0	64.39	1.47
S214	31.24	0	0	65.44	1.26
S215	31.39	0	0	64.32	16.06
S216	31.35	0	0	64.58	36.47
S220	23.43	0	0	73.34	10.7
S221	31.34	0	0	64.67	0.64
WRegWid	23.97	0	0	72.24	0.13

Table 4A: Storages

Name	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Initial Depth (m)	Storage Curve	Curve Name	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Avg. Volume (1000 m³)	Avg. Percent Full (%)	Max. Volume (1000 m³)	Max. Percent Full (%)
EaglewoodStorage	128.5	130.5	2	0	TABULAR	EaglewoodStorage	0.13	0.64	129.14	0.223	0.026	7	0.125	32
North1+2Storage	128.25	130.95	2.7	0	TABULAR	North1+2Storage	0.42	2.49	130.74	0.331	0.021	15	0.124	92
SFBG-4-5	121.17	125.27	4.1	0	TABULAR	BG_SWM_Pond-AsBuilt	1.2	1.73	122.9	10.655	13.291	23	19.822	35
SFGOLF1	121.4	125.5	4.1	0	TABULAR	FGOLF1	1.1	1.76	123.16	6.69	4.605	22	7.629	36
SFGOLF2	121.4	129.4	8	0	TABULAR	FGOLF2	1.13	1.79	123.19	11.154	7.913	10	12.946	16
SU156	139	141.5	2.5	0	TABULAR	da156	1.72	2.28	141.28	8.449	5.65	60	8.047	85
SU157	139	141.5	2.5	0	TABULAR	da157	1.57	2.2	141.2	13.47	4.964	51	7.765	80
SU159	147.3	149.3	2	0	TABULAR	da159	0.8	1.01	148.31	6.26	3.229	31	4.192	40
SU163	136.85	139	2.15	0	TABULAR	da163	0.98	1.32	138.17	16.106	11.219	42	15.364	57
SU165	139	140.5	1.5	0	TABULAR	da165	0.8	1.01	140.01	7.219	4.088	49	5.234	63
SU166	147.15	150.15	3	0	TABULAR	da166	0.95	1.91	149.06	26.06	14.191	27	30.8	58
SU171	114	119	5	0	TABULAR	da171	1.49	4.43	118.43	12.327	1.422	18	5.701	74

Table 4A: Storages (continued...)

Name	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Initial Depth (m)	Storage Curve	Curve Name	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Avg. Volume (1000 m^3)	Avg. Percent Full (%)	Max. Volume (1000 m^3)	Max. Percent Full (%)
SU172	127.5	130.5	3	0	TABULAR	da172	0.22	2.15	129.65	5.81	0.156	4	2.315	55
SU182	151.38	153.5	2.12	0	TABULAR	da182	0	0	151.38	0	0	0	0	0
SU191	127	130.5	3.5	0	TABULAR	da191	1.42	2.69	129.69	34.27	19.364	34	39.912	71
SU193	130.5	133	2.5	0	TABULAR	da193	1.04	1.5	132	6.861	4.234	40	6.171	58
SU201	132.59	135	2.41	0	TABULAR	da201	0.75	1.4	133.99	5.871	3.11	22	6.232	44
SU202	132.09	135	2.91	0	TABULAR	da202	1.03	1.9	133.99	7.876	6.133	29	12.017	56
SU203	131.25	134	2.75	0	TABULAR	da203	1.4	2.71	133.96	11.476	3.197	22	13.769	95
Turtle	122	132	10	3	TABULAR	Turtle_Pond	3.82	4.03	126.03	0.979	4.342	10	4.801	11

Table 4B: Storages

Name	Max. Outflow (m^3/s)
EaglewoodStorage	0.123
North1+2Storage	0.215
SFBG-4-5	0.702
SFGOLF1	0.286
SFGOLF2	0.469
SU156	3.274
SU157	10.235
SU159	3.937
SU163	7.307
SU165	4.344
SU166	6.084
SU171	9.407

Table 4B: Storages (continued...)

Name	Max. Outflow (m^3/s)
SU172	3.376
SU182	0
SU191	8.525
SU193	3.813
SU201	1.987
SU202	1.772
SU203	7.176
Turtle	0.265

Table 5: Orifices

Name	Inlet Node	Outlet Node	Cross-Section	Height (m)	Width (m)	Inlet Elev. (m)	Discharge Coeff.	Max. |Flow| (m^3/s)	Contributing Area (ha)	Contributing Imp. Area (ha)
1	North1+2Storage	EBS1	CIRCULAR	0.075	0	128.25	0.62	0.019	0.92	0.399
2	EaglewoodStorage	EBS1	CIRCULAR	0.075	0	128.5	0.62	0.01	0.4	0.4
3	North1+2Storage	EBS1	CIRCULAR	0.275	0	129.3	0.62	0.196	0.92	0.399
4	EaglewoodStorage	EBS1	CIRCULAR	0.3	0	128.8	0.62	0.113	0.4	0.4
OR3	SFGOLF1	J5427.875	CIRCULAR	0.125	0	121.4	0.62	0.045	12.379	10.893
OR4	SFGOLF1	J5427.875	CIRCULAR	0.35	0	122.15	0.62	0.241	12.379	10.893
OR5	SFGOLF2	DF001	CIRCULAR	0.16	0	121.4	0.62	0.074	21.257	17.218
OR6	SFGOLF2	DF001	CIRCULAR	0.45	0	122.15	0.62	0.395	21.257	17.218
Qual1	SFBG-4-5	J6358.901	CIRCULAR	0.23	0	121.17	0.62	0.145	38.72	25.245
Quan1	SFBG-4-5	J6358.901	CIRCULAR	0.6	0	122.09	0.62	0.557	38.72	25.245

PCSWMM Report

Post Development Controlled - Regional

Model 14Mile_Proposed-Controlled_JFSA_v01.22, Regional.inp

Urbantech Consulting

June 30, 2023

Table of Contents

Tables

Table 1: Junctions

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
10		101.05	105.05	4	0	0.37	1.27	102.32	2.969	2.73	29.277	20.186
21		104.217	114.737	10.52	0	1.21	3.67	107.89	218.397	7.087	2276.115	278.207
22		131.6	138.3	6.7	0	0.74	1.99	133.59	95.145	5.97	812.9	25.249
23		126.76	136.54	9.78	0	0.85	2.88	129.64	117.881	6.9	1023.4	51.197
25		118.429	128.74	10.311	0	1.26	2.9	121.33	168.875	8.399	1583.62	111.307
DF001		110.44	113.44	3	0	0.27	0.72	111.16	3.058	2.28	29.277	20.186
DF002		105.98	108.98	3	0	0.36	1.43	107.41	3.057	1.57	29.277	20.186
DF004		105.509	108.509	3	0	0.29	0.89	106.4	2.969	2.109	29.277	20.186
DF005		105.027	108.027	3	0	0.31	0.92	105.95	2.969	2.077	29.277	20.186
DF006		104.676	107.676	3	0	0.24	0.71	105.38	3.101	2.296	29.277	20.186
DF007		103.504	106.504	3	0	0.27	0.84	104.34	2.993	2.164	29.277	20.186
DF008		102.918	105.918	3	0	0.29	0.87	103.79	2.98	2.128	29.277	20.186
DF009		101.05	105.05	4	0	0.43	1.33	102.38	2.97	2.67	29.277	20.186
DFM001		108.085	108.085	0	0	0	0	108.08	0	0.755	29.277	20.186
DFM002		105.65	105.65	0	0	0	0	105.65	0	0.75	29.277	20.186
DFM003		107.786	107.786	0	0	0	0	107.79	0	0.746	29.277	20.186
DFM004		107.486	107.486	0	0	0	0	107.49	0	0.746	29.277	20.186
DFM005		107.187	107.187	0	0	0	0	107.19	0	0.747	29.277	20.186
DFM006		106.887	106.887	0	0	0	0	106.89	0	0.747	29.277	20.186
DFM007		106.588	106.588	0	0	0	0	106.59	0	0.748	29.277	20.186
DFM008		106.288	106.288	0	0	0	0	106.29	0	0.748	29.277	20.186
DFM009		105.989	105.989	0	0	0	0	105.99	0	0.749	29.277	20.186
E153		118.5	118.5	0	0	0.09	0.46	118.96	14.977	7.54	117.186	12.145
E238		119	119	0	0	0.2	0.74	119.74	15.04	6.76	117.186	12.145
E301		120	120	0	0	0.15	0.64	120.64	15.145	5.86	117.186	12.145
E344		120.5	120.5	0	0	0.24	0.73	121.23	13.587	5.27	104.775	11.11

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
E394		121.5	121.5	0	0	0.09	0.43	121.93	13.724	5.57	104.775	11.11
E439		121.5	121.5	0	0	0.41	1.15	122.65	13.704	4.85	104.775	11.11
E479		122	122	0	0	0.84	2.54	124.54	13.849	2.96	104.775	11.11
E494		122.54	122.54	0	0	0.53	2	124.54	14.18	2.96	104.775	11.11
E505		122.53	122.53	0	0	0.55	2.02	124.55	14.869	2.48	104.775	11.11
E543		123	123	0	0	0.38	1.55	124.55	15.343	3.95	104.775	11.11
E580		123.5	123.5	0	0	0.16	1.06	124.56	15.573	4.44	104.775	11.11
E604		124	124	0	0	0.31	0.66	124.66	9.767	4.84	56.684	7.402
E615		124.25	124.25	0	0	0.22	0.47	124.72	9.651	4.78	55.054	6.945
E618		124	124	0	0	0.38	0.86	124.86	5.974	3.64	48.091	3.708
E626		124	124	0	0	0.41	0.9	124.9	5.977	2.1	48.091	3.708
E643		124.5	124.5	0	0	0.2	0.66	125.16	9.826	3.34	55.054	6.945
E649		124.5	124.5	0	0	0.14	0.44	124.94	5.982	3.56	48.091	3.708
E667		124.5	124.5	0	0	0.29	0.88	125.38	9.741	3.12	53.874	6.214
E673		125	125	0	0	0.12	0.4	125.4	5.985	3.6	48.091	3.708
E677		125	125	0	0	0.13	0.46	125.46	9.8	3.54	53.874	6.214
E690		125	125	0	0	0.22	0.65	125.65	10.334	3.35	53.874	6.214
E732		126	126	0	0	0.1	0.49	126.49	12.013	3.51	53.874	6.214
E733		126	126	0	0	0.2	0.6	126.6	5.672	2.9	45.785	2.476
E761		126.5	126.5	0	0	0.07	0.43	126.93	14.184	4.07	53.874	6.214
E768		126.5	126.5	0	0	0.1	0.42	126.92	5.268	3.08	42.868	0.857
E818		126.5	126.5	0	0	0.48	1.29	127.79	8.468	3.21	52.16	4.671
E855		127	127	0	0	0.22	0.82	127.82	6.651	3.18	52.16	4.671
EBS1		127	127	0	0	0.16	0.5	127.5	0.413	1.5	2.917	1.619
EBS1_1		126.6	126.6	0	0	0.16	0.5	127.1	0.413	1.5	2.917	1.619
EBS1_2		126.2	126.2	0	0	0.18	0.53	126.73	0.411	1.47	2.917	1.619

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1		102.412	106.412	4	0	0.66	2.39	104.8	39.71	1.912	366.54	105.269
J100.17		119.57	130.25	10.68	0	0.48	1.79	121.36	36.097	8.89	401.01	11.577
J1002.010		118	124.97	6.97	0	0.24	0.82	118.82	25.169	6.15	191.22	42.512
J1012.195		83.33	87.423	4.093	0	1.01	3.42	86.75	261.648	1.863	2973.692	538.178
J1015.55		112.6	123.15	10.55	0	0.34	1.03	113.63	19.852	10.26	176.25	32.382
J1020.38		135.77	141.35	5.58	0	0.39	1.06	136.83	34.484	4.52	372.44	10.492
J1020.569		141.92	146.28	4.36	0	0.17	0.54	142.46	11.463	3.82	102.87	2.756
J1022.947		124.1	132.95	8.85	0	0.86	2.57	126.67	122.621	6.38	1068.5	62.887
J1029.335		118.5	125.27	6.77	0	0.15	0.59	119.09	25.172	8.2	191.22	42.512
J1033.40		112.7	123.79	11.09	0	0.32	1.02	113.72	19.852	10.27	176.25	32.382
J104.967		118.93	129.31	10.38	0	1.07	3.13	122.06	134.121	7.25	1182.61	99.73
J1041.555		138.5	144.74	6.24	0	0.68	1.65	140.15	40.582	4.59	344.96	10.306
J1042.897		124.71	133.33	8.62	0	0.63	2.11	126.82	122.623	6.51	1068.5	62.887
J1058.20		113	123.02	10.02	0	0.31	0.88	113.88	19.853	9.14	176.25	32.382
J1060.963		83.331	88.614	5.283	0	1.43	3.7	87.03	262.458	1.584	2973.692	538.178
J1093.556		83.516	88.39	4.874	0	1.38	3.67	87.19	262.832	1.563	2921.732	525.395
J1096.947		125.1	132.5	7.4	0	0.66	2.1	127.2	122.626	6.52	1068.5	62.887
J110.089		135.1	136.66	1.56	0	0.34	0.44	135.54	11.453	1.12	102.87	2.756
J1100		118.97	127.76	8.79	0	0.29	0.84	119.81	25.174	8.44	191.22	42.512
J1100.10		113.46	123	9.54	0	0.28	0.85	114.31	19.853	9.15	176.25	32.382
J1100.215		139	144.47	5.47	0	0.46	1.49	140.49	39.859	5.3	338.59	10.179
J1100.239		142.5	146.67	4.17	0	0.33	1	143.5	11.463	3.17	102.87	2.756
J1126.60		136.69	141.42	4.73	0	0.27	0.75	137.44	34.486	3.98	372.44	10.492
J113		160	163	3	0	0.41	1.54	161.54	29.166	4.76	232.12	4.642
J1130.117		125.2	133.15	7.95	0	0.61	2.09	127.29	122.639	6.96	1068.5	62.887
J1146.464		83.72	88.957	5.237	0	1.46	3.92	87.64	259.131	1.317	2921.732	525.395

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1151.075		139.5	146.29	6.79	0	0.53	1.19	140.69	39.862	5.91	338.59	10.179
J1154.80		114	124	10	0	0.28	0.85	114.85	19.853	9.15	176.25	32.382
J1163.689		144	147.44	3.44	0	0.18	0.58	144.58	11.464	3.23	102.87	2.756
J1178.27		114.74	124.1	9.36	0	0.21	0.66	115.4	19.853	8.7	176.25	32.382
J1184.779		119.5	128.78	9.28	0	0.24	0.88	120.38	25.182	8.4	191.22	42.512
J1200.117		125.3	134.05	8.75	0	0.85	2.46	127.76	119.972	6.59	1043.28	56.227
J1200.17		137.5	142.12	4.62	0	0.38	1.04	138.54	34.489	4.05	372.44	10.492
J1200.215		139.56	146.66	7.1	0	0.55	1.41	140.97	39.87	5.69	338.59	10.179
J1230.909		144.5	148.31	3.81	0	0.17	0.61	145.11	11.465	3.2	102.87	2.756
J1246.464		84.245	89.177	4.932	0	1.81	4.14	88.39	259.131	1.264	2921.732	525.395
J125.38		102.9	107	4.1	0	0.71	2.2	105.1	32.47	1.9	295.96	69.133
J1286.17		116.4	125.06	8.66	0	0.25	0.76	117.16	19.853	8.6	176.25	32.382
J1294.225		140.5	147.47	6.97	0	0.28	0.92	141.42	39.876	8.4	338.59	10.179
J1298.178		84.629	90.038	5.409	0	1.87	4.1	88.73	259.173	1.308	2921.732	525.395
J1300		121.16	129.84	8.68	0	0.24	0.79	121.95	25.191	7.89	191.22	42.512
J1300.117		125.84	133.78	7.94	0	0.65	2.12	127.96	117.857	6.42	1023.4	51.197
J1300.17		138.5	143.59	5.09	0	0.4	1.17	139.67	34.491	3.92	372.44	10.492
J1305.379		145.44	148.28	2.84	0	0.18	0.54	145.98	11.466	2.37	102.87	2.756
J1310.18		116.5	125.53	9.03	0	0.36	0.97	117.47	19.853	8.06	176.25	32.382
J1348.30		138.6	143.39	4.79	0	0.6	1.46	140.06	34.492	3.43	372.44	10.492
J1361.769		146.02	148.93	2.91	0	0.16	0.51	146.53	11.467	2.4	102.87	2.756
J1365.595		140.98	150.3	9.32	0	0.28	0.94	141.92	39.876	8.63	338.59	10.179
J1388.055		141	150.57	9.57	0	0.51	1.43	142.43	39.876	8.14	338.59	10.179
J1391.170		85.698	90.311	4.613	0	1.29	3.25	88.95	259.202	1.781	2921.732	525.395
J1393.48		139	143.67	4.67	0	0.35	1.16	140.16	34.496	5.26	372.44	10.492
J1400.000		122.35	130.16	7.81	0	0.22	0.73	123.08	25.197	7.24	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1400.10		117.53	126.26	8.73	0	0.51	1.31	118.84	19.855	7.42	176.25	32.382
J1400.117		125.96	134.5	8.54	0	1.01	2.69	128.65	117.868	6.19	1023.4	51.197
J1400.239		146.4	148.94	2.54	0	0.11	0.38	146.78	6.224	2.29	54.06	1.243
J142.6492		107.45	116.36	8.91	0	0.25	0.93	108.38	48.647	7.98	382.54	90.009
J1446.464		85.884	90.917	5.033	0	1.37	3.35	89.23	259.229	1.687	2921.732	525.395
J1447.009		146.5	149.17	2.67	0	0.14	0.49	146.99	6.225	2.43	54.06	1.243
J145.135		132.5	139.22	6.72	0	0.41	1.44	133.94	41.668	5.51	355.59	10.54
J146.4641		74.822	82.499	7.677	0	1.73	3.23	78.05	266.324	4.449	3098.302	570.202
J1489.00		139.5	145.92	6.42	0	0.69	1.59	141.09	34.497	4.83	372.44	10.492
J1500.000		123	130.97	7.97	0	0.33	1.03	124.03	25.208	6.94	191.22	42.512
J1500.10		119.53	127	7.47	0	0.17	0.56	120.09	19.856	6.91	176.25	32.382
J1500.117		126	134.88	8.88	0	1.11	3.12	129.12	117.876	6.89	1023.4	51.197
J1500.239		147	149.92	2.92	0	0.13	0.41	147.41	6.226	2.51	54.06	1.243
J151		98.68	102.181	3.501	0	0.64	1.51	100.19	45.783	2.79	416.78	126.952
J152		107	109	2	0	0.06	0.2	107.2	3.425	1.8	25.32	8.026
J1541.43		140	145.01	5.01	0	0.43	1.23	141.23	34.5	3.78	372.44	10.492
J1546.464		86.9	91.178	4.278	0	0.94	2.61	89.51	259.267	2.855	2921.732	525.395
J1550.647		126.5	136.51	10.01	0	0.88	3.05	129.55	117.878	6.96	1023.4	51.197
J1567.909		147.65	150.57	2.92	0	0.17	0.56	148.21	6.23	2.38	54.06	1.243
J1599.10		120	127.16	7.16	0	0.28	0.88	120.88	19.857	6.5	176.25	32.382
J16.935		131.7	139.46	7.76	0	0.7	1.9	133.6	41.665	6.06	355.59	10.54
J1600.117		127	136.56	9.56	0	0.79	2.72	129.72	101.701	6.84	874.51	39.882
J162.45		120.67	130.62	9.95	0	0.41	1.05	121.72	36.097	8.9	401.01	11.577
J162.977		119.1	128.88	9.78	0	0.99	3.14	122.24	134.183	6.64	1182.61	99.73
J1627.66		141	146	5	0	0.35	1.02	142.02	34.502	3.99	372.44	10.492
J1637.989		148.5	151.44	2.94	0	0.11	0.34	148.84	6.231	2.6	54.06	1.243

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1668.083		87	92.465	5.465	0	1.36	3.2	90.2	259.333	2.265	2921.732	525.395
J167		155.07	156.74	1.67	0	0.07	0.21	155.28	2.962	1.46	26.36	0.527
J1700		126	133.54	7.54	0	0.34	0.97	126.97	25.211	6.57	191.22	42.512
J1700.10		121	128.38	7.38	0	0.22	0.62	121.62	19.86	6.76	176.25	32.382
J1700.117		127.5	135.16	7.66	0	0.77	2.56	130.06	101.711	5.1	874.51	39.882
J1700.17		141.45	146.11	4.66	0	0.37	1.03	142.48	34.504	4.03	372.44	10.492
J1700.229		149.05	151.48	2.43	0	0.18	0.53	149.58	6.232	1.9	54.06	1.243
J1749.279		149.55	151.59	2.04	0	0.1	0.34	149.89	6.233	2.16	54.06	1.243
J1797.21		141.65	146.71	5.06	0	0.42	1.19	142.84	34.508	3.87	372.44	10.492
J1800		127.33	133.88	6.55	0	0.22	0.71	128.04	25.217	5.84	191.22	42.512
J1800.10		121.5	128.81	7.31	0	0.31	0.89	122.39	19.863	6.42	176.25	32.382
J1800.117		128.01	135.21	7.2	0	0.71	2.54	130.55	100.342	4.69	861.55	37.29
J1800.229		149.65	152.15	2.5	0	0.16	0.49	150.14	6.25	2.01	54.06	1.243
J181		135	137	2	0	0.08	0.25	135.25	2.312	1.75	15.96	8.842
J1816.580		87.39	91.48	4.09	0	1.47	3.11	90.5	259.515	1.375	2921.732	525.395
J185		153.5	154.5	1	0	0.15	0.67	154.17	5.341	2.33	43.32	1.04
J186		163.5	167	3.5	0	1.01	1.99	165.49	25.035	1.63	193.34	4.64
J1900		128.89	134	5.11	0	0.35	1.01	129.9	25.222	4.1	191.22	42.512
J1900.10		123	129.92	6.92	0	0.16	0.54	123.54	19.865	6.38	176.25	32.382
J1900.17		142.5	147.09	4.59	0	0.44	1.13	143.63	34.515	3.46	372.44	10.492
J1900.229		150.35	152.38	2.03	0	0.1	0.34	150.69	6.279	2.44	54.06	1.243
J1902.476		88.381	92.866	4.485	0	0.86	2.44	90.82	259.625	2.748	2921.732	525.395
J1917.479		88.485	93.672	5.187	0	0.84	2.43	90.92	259.641	2.752	2921.732	525.395
J1927.647		129.5	136.73	7.23	0	0.83	2.12	131.62	100.348	5.13	861.55	37.29
J1942.494		88.489	95.147	6.658	0	0.93	2.56	91.05	259.652	4.349	2921.732	525.395
J1952.554		88.541	95.294	6.753	0	0.98	2.62	91.16	259.682	4.291	2921.732	525.395

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1956.59		123.5	130.06	6.56	0	0.23	0.64	124.14	19.865	5.92	176.25	32.382
J1978.418		130.25	134.48	4.23	0	0.13	0.52	130.77	25.225	3.71	191.22	42.512
J2.1		141.3	150.5	9.2	0	0.51	1.61	142.91	27.677	7.59	232.12	4.642
J2.2		153.2	157.65	4.45	0	1.07	2.62	155.82	29.488	1.83	299.01	6.754
J2.5		142.5	151.5	9	0	0.63	1.69	144.19	48.233	7.31	408.23	8.212
j2.6		141.4	150.7	9.3	0	0.72	2.04	143.44	27.681	7.26	232.12	4.642
J200.09		103	106.44	3.44	0	0.82	2.28	105.28	32.373	1.19	295.96	69.133
J200.17		121.42	131.29	9.87	0	0.31	0.88	122.3	36.097	10	401.01	11.577
J200.215		132.57	139.52	6.95	0	0.55	1.55	134.12	41.678	5.74	355.59	10.54
J200.239		135.2	136.65	1.45	0	0.25	0.38	135.58	11.453	2.04	102.87	2.756
J2000.10		124.71	129.82	5.11	0	0.22	0.53	125.24	19.865	6.34	176.25	32.382
J2000.117		130	137.25	7.25	0	0.83	2.18	132.18	100.351	5.07	861.55	37.29
J2000.17		143	146.77	3.77	0	0.46	1.18	144.18	34.517	3.88	372.44	10.492
J2000.229		150.79	153.57	2.78	0	0.07	0.29	151.08	6.302	4.14	54.06	1.243
J2032.625		130.38	134.5	4.12	0	0.33	0.91	131.29	25.228	3.21	191.22	42.512
J2046.464		89	95.91	6.91	0	1.03	2.68	91.68	259.707	4.23	2921.732	525.395
J2063.577		130.5	137.45	6.95	0	0.69	1.91	132.41	95.137	5.04	812.9	25.249
J2100		131.31	134.6	3.29	0	0.21	0.69	132	25.232	2.6	191.22	42.512
J2100.10		124.81	131.68	6.87	0	0.76	1.81	126.62	19.868	5.06	176.25	32.382
J2100.17		144	149.06	5.06	0	0.37	1.02	145.02	34.52	4.04	372.44	10.492
J2100.229		151.18	155.61	4.43	0	0.18	0.54	151.72	6.329	3.89	54.06	1.243
J2118.174		89.5	95.106	5.606	0	0.89	2.56	92.06	259.721	3.187	2921.732	525.395
J212		144.4	145.7	1.3	0	0.05	0.14	144.54	1.062	1.16	8.58	0.463
J2128.867		131.26	138.01	6.75	0	0.58	1.64	132.9	95.143	5.11	812.9	25.249
J216		153.5	155.5	2	0	0.67	2.27	155.77	33.566	7.73	267.14	5.343
J2162.390		89.6	95.247	5.647	0	1.19	2.96	92.56	259.732	2.787	2921.732	525.395

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2165.306		132	135.12	3.12	0	0.27	0.83	132.83	25.233	2.29	191.22	42.512
J2171.407		131.5	138.11	6.61	0	0.76	1.88	133.38	95.143	5.56	812.9	25.249
J2173.272		89.7	95.24	5.54	0	1.33	3.24	92.94	259.739	2.5	2921.732	525.395
J2177.86		144.55	149.42	4.87	0	0.34	1.04	145.59	34.521	5.1	372.44	10.492
J2185.476		89.8	94.811	5.011	0	1.34	3.37	93.17	257.961	1.981	2881.932	514.57
J2187.585		132.25	135.24	2.99	0	0.26	0.84	133.09	25.233	2.28	191.22	42.512
J2200.229		152.38	156.67	4.29	0	0.11	0.37	152.75	6.347	3.92	54.06	1.243
J2206.53		126.62	132.31	5.69	0	0.21	0.68	127.3	19.869	5.62	176.25	32.382
J2213.506		90.096	94.702	4.606	0	1.26	3.31	93.41	257.963	2.12	2881.932	514.57
J2223.267		131.7	138.96	7.26	0	0.73	2.03	133.73	53.53	5.71	457.31	14.709
J2224.630		90.196	95.437	5.241	0	1.24	3.36	93.56	257.97	2.636	2881.932	514.57
J2227.161		132.92	136.08	3.16	0	0.36	1.12	134.04	25.233	2.33	191.22	42.512
J2242.380		133	136.45	3.45	0	0.43	1.29	134.29	25.233	2.16	191.22	42.512
J226.077		119.5	129	9.5	0	0.87	2.95	122.45	134.229	6.7	1182.61	99.73
J2266.899		153.53	156.84	3.31	0	0.14	0.43	153.96	6.35	2.88	54.06	1.243
J2267.81		144.88	151.02	6.14	0	0.51	1.33	146.21	34.521	4.81	372.44	10.492
J2287.052		133.1	136.24	3.14	0	0.47	1.43	134.53	25.234	2.38	191.22	42.512
J2292.097		132	139.74	7.74	0	0.7	1.99	133.99	53.554	5.75	457.31	14.709
J2296.492		90.5	96.5	6	0	1.24	3.39	93.89	257.984	2.61	2881.932	514.57
J2300.10		127.5	133.8	6.3	0	0.42	1.2	128.7	19.869	5.1	176.25	32.382
J2331.99		145.19	149.22	4.03	0	0.73	1.88	147.07	34.525	2.15	372.44	10.492
J2346.464		90.922	96.594	5.672	0	1.03	3.11	94.03	258.012	2.895	2881.932	514.57
J2352.47		128.16	134.26	6.1	0	0.43	1.24	129.4	19.869	4.86	176.25	32.382
J2359.439		133.2	136.81	3.61	0	0.55	1.63	134.83	25.235	2.26	191.22	42.512
J2376.910		133.3	136.89	3.59	0	0.53	1.67	134.97	25.237	2.22	191.22	42.512
J2378.957		132.5	140.22	7.72	0	0.72	1.91	134.41	53.571	5.81	457.31	14.709

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2411.26		146	149.06	3.06	0	0.4	1.27	147.27	34.531	1.93	372.44	10.492
J2430.00		129.47	135.14	5.67	0	0.6	1.74	131.21	19.871	3.93	176.25	32.382
J2446.464		91.165	97.168	6.003	0	1.33	3.65	94.82	258.046	3.538	2881.932	514.57
J2447.455		133.5	137.5	4	0	0.57	1.75	135.25	25.239	2.25	191.22	42.512
J2456.367		133.5	140.73	7.23	0	0.51	1.26	134.76	53.577	5.97	457.31	14.709
J246.4641		75.714	82.643	6.929	0	1.04	2.69	78.41	266.338	4.233	3098.302	570.202
J246.585		133	140.29	7.29	0	0.38	1.24	134.24	41.689	6.42	355.59	10.54
J2460.36		146.52	149.72	3.2	0	0.51	1.17	147.69	34.532	2.03	372.44	10.492
J2465.522		133.6	137.5	3.9	0	0.53	1.73	135.33	25.241	2.27	191.22	42.512
J248.32		103.2	106.67	3.47	0	0.91	2.36	105.56	32.33	1.11	295.96	69.133
J250.67		122	132.88	10.88	0	0.53	1.28	123.28	36.098	9.6	401.01	11.577
J2500		133.7	137.5	3.8	0	0.55	1.76	135.46	25.247	2.66	191.22	42.512
J2500.10		131.13	135.11	3.98	0	0.4	1.05	132.18	19.871	2.93	176.25	32.382
J2500.16		147	149.16	2.16	0	0.54	1.29	148.29	34.035	1.25	364.85	10.18
J2528.637		133.51	139.67	6.16	0	0.93	2.04	135.55	53.577	5.95	457.31	14.709
J2535.77		132.07	135.56	3.49	0	0.31	0.88	132.95	19.871	2.61	176.25	32.382
J2540.48		147.7	150.24	2.54	0	0.22	0.75	148.45	34.036	2.17	364.85	10.18
J2546.464		91.817	99.01	7.193	0	1.42	3.59	95.4	258.075	3.61	2881.932	514.57
J255.1367		109	117.33	8.33	0	0.38	1.15	110.15	38.754	7.18	310.94	72.681
J2559.518		133.8	137.92	4.12	0	0.6	1.86	135.66	25.252	3.52	191.22	42.512
J2594.793		133.9	138.89	4.99	0	0.6	1.9	135.8	25.26	3.48	191.22	42.512
J2600.16		148	150.92	2.92	0	0.38	1.04	149.04	34.037	2.14	364.85	10.18
J2603.25		132.62	136.05	3.43	0	0.28	0.92	133.54	19.871	3.21	176.25	32.382
J2604.897		134	141.11	7.11	0	0.66	1.68	135.68	49.357	5.62	419.1	8.527
J2646.464		93	99.353	6.353	0	0.89	2.85	95.85	255.687	4.09	2820.832	474.61
J2646.738		134	138.5	4.5	0	0.58	1.88	135.88	25.27	2.72	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J265.297		119.9	129.65	9.75	0	0.74	2.69	122.59	134.27	7.16	1182.61	99.73
J2650.52		148.47	151.65	3.18	0	0.34	1.06	149.53	32.398	2.36	342.33	7.793
J2662.919		134.1	138.5	4.4	0	0.51	1.81	135.91	25.282	2.79	191.22	42.512
J2666.88		133.04	137.17	4.13	0	0.5	1.33	134.37	19.871	2.91	176.25	32.382
J2680.447		93.183	100.123	6.94	0	1.08	3.02	96.2	255.694	3.923	2820.832	474.61
J27.449		130.03	136.41	6.38	0	0.09	0.3	130.33	16.525	6.08	148.89	11.315
J2706.457		134.5	141.8	7.3	0	0.53	1.56	136.06	48.172	6.33	408.23	8.212
J2721.15		148.5	151.92	3.42	0	0.42	1.29	149.79	32.398	2.13	342.33	7.793
J2723.864		134.2	138.4	4.2	0	0.48	1.79	135.99	25.294	2.81	191.22	42.512
J2742.526		134.3	138.39	4.09	0	0.52	1.8	136.1	25.308	2.59	191.22	42.512
J2744.16		133.12	137.36	4.24	0	0.67	1.7	134.82	19.872	2.54	176.25	32.382
J2746.464		93.57	100.018	6.448	0	1.2	3.25	96.82	255.698	3.562	2820.832	474.61
J2757.35		133.44	137.39	3.95	0	0.46	1.45	134.89	19.872	2.54	176.25	32.382
J2795.45		149	152.27	3.27	0	0.52	1.47	150.47	32.403	1.8	342.33	7.793
J2800		134.5	138.48	3.98	0	0.49	1.71	136.21	25.339	2.32	191.22	42.512
J2809.59		133.67	137.69	4.02	0	0.52	1.5	135.17	19.872	2.81	176.25	32.382
J2813.657		135	142.89	7.89	0	0.63	1.67	136.67	48.177	6.22	408.23	8.212
J2826.19		134.02	138.33	4.31	0	0.45	1.38	135.4	19.872	2.93	176.25	32.382
J2849.017		94.004	100.816	6.812	0	1.41	3.7	97.7	255.696	3.483	2820.832	474.61
J2860.405		94.277	101.456	7.179	0	1.27	3.68	97.96	255.697	3.496	2820.832	474.61
J2892.413		94.718	101.354	6.636	0	1.22	3.61	98.32	255.697	3.577	2820.832	474.61
J2900		135	139.03	4.03	0	0.5	1.6	136.6	25.348	2.92	191.22	42.512
J2900.09		134.66	138.21	3.55	0	0.46	1.32	135.98	19.872	2.6	176.25	32.382
J2900.117		136	143.22	7.22	0	0.38	1.16	137.16	48.184	6.06	408.23	8.212
J2900.16		150.44	152.62	2.18	0	0.44	1.11	151.55	32.408	2.01	342.33	7.793
J2902.731		94.769	101.549	6.78	0	1.31	3.8	98.57	255.698	3.378	2820.832	474.61

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2946.464		94.788	101.633	6.845	0	1.47	4.08	98.87	255.706	3.097	2820.832	474.61
J2979.285		135.02	139.54	4.52	0	0.67	1.93	136.95	25.353	2.59	191.22	42.512
J2989.647		95	101.923	6.923	0	1.38	4.05	99.05	255.727	2.873	2820.832	474.61
J3		143.5	146.5	3	0	0.32	1.54	145.04	48.234	3.96	408.23	8.212
j3.1		141.5	144.1	2.6	0	0.7	2.06	143.56	27.688	7.24	232.12	4.642
J3.15		153.4	157.72	4.32	0	0.89	2.43	155.83	29.602	1.89	299.01	6.754
J3.2		153.7	156.7	3	0	0.69	2.14	155.84	29.773	0.86	299.01	6.754
J300		109.84	118	8.16	0	0.45	1.24	111.08	38.782	6.92	310.94	72.681
J300.215		133.5	141.16	7.66	0	0.29	1.01	134.51	41.694	6.65	355.59	10.54
J300.239		135.3	137.92	2.62	0	0.19	0.42	135.72	11.455	2.76	102.87	2.756
J3000.09		135.71	139.63	3.92	0	0.5	1.45	137.16	19.872	2.54	176.25	32.382
J3000.117		136.5	143.55	7.05	0	0.29	1.11	137.61	48.192	6.09	408.23	8.212
J3000.16		151.17	154.29	3.12	0	0.49	1.12	152.29	32.411	2	342.33	7.793
J3007.922		135.5	139.65	4.15	0	0.33	1.5	137	25.367	2.65	191.22	42.512
J3051.067		137	144.2	7.2	0	0.27	0.95	137.95	48.194	6.43	408.23	8.212
J3054.885		96	102.767	6.767	0	1.03	3.32	99.32	255.74	3.947	2820.832	474.61
J3066.327		96.078	103.345	7.267	0	1.14	3.54	99.62	255.743	3.797	2820.832	474.61
J3100.09		136.64	140.63	3.99	0	0.46	1.35	137.99	19.872	2.64	176.25	32.382
J3100.16		151.77	154.15	2.38	0	0.39	0.97	152.74	32.414	2.11	342.33	7.793
J3103.867		137.1	144.38	7.28	0	0.51	1.47	138.57	48.197	6.12	408.23	8.212
J3105.432		96.188	102.227	6.039	0	1.32	3.78	99.96	255.779	3.567	2820.832	474.61
J311.56		123.78	133.22	9.44	0	0.33	0.85	124.63	36.098	8.59	401.01	11.577
J3111.594		136	139.94	3.94	0	0.27	1.25	137.25	25.394	3.02	191.22	42.512
J3135.520		136.1	140.27	4.17	0	0.23	1.16	137.26	25.465	4.12	191.22	42.512
J314.357		120	129.85	9.85	0	0.77	2.76	122.76	134.333	7.09	1182.61	99.73
J3148.25		152.01	155.09	3.08	0	0.29	0.91	152.92	32.417	2.17	342.33	7.793

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3150.013		96.681	102.937	6.256	0	0.94	3.31	99.99	256.36	5.052	2820.832	474.61
J3158.17		137.27	141.2	3.93	0	0.35	1.09	138.36	19.872	3.06	176.25	32.382
J3200		136.2	141.28	5.08	0	0.35	1.16	137.36	17.565	4.34	132.89	28.396
J3200.117		138	145.59	7.59	0	0.55	1.67	139.67	48.207	5.92	408.23	8.212
J3200.16		152.1	155.03	2.93	0	0.47	1.16	153.26	32.419	2.47	342.33	7.793
J3221.88		137.63	141.78	4.15	0	0.5	1.38	139.01	19.872	2.77	176.25	32.382
J3237.56		137.83	141.97	4.14	0	0.38	1.28	139.11	19.873	2.86	176.25	32.382
J3246.464		97	105.361	8.361	0	1.16	3.37	100.37	223.988	5.35	2404.052	347.658
J3262.17		152.2	155.64	3.44	0	0.53	1.36	153.56	32.423	2.27	342.33	7.793
J3300		136.5	142	5.5	0	0.34	1.13	137.63	16.03	4.37	121.24	27.348
J3300.117		139.5	145.63	6.13	0	0.31	1.08	140.58	48.213	5.43	408.23	8.212
J3322.153		98.06	106.78	8.72	0	0.82	2.51	100.57	220.986	6.21	2327.312	302.996
J3337.30		152.5	156.12	3.62	0	0.43	1.23	153.73	32.429	2.39	342.33	7.793
J3346.98		138	144.35	6.35	0	0.48	1.43	139.43	19.873	5.07	176.25	32.382
J3361.22		138.1	144.5	6.4	0	0.41	1.34	139.44	19.879	5.16	176.25	32.382
J3390.389		98.377	106.623	8.246	0	0.92	2.64	101.01	221.001	5.613	2327.312	302.996
J3392.66		138.2	141.54	3.34	0	0.33	1.25	139.45	19.9	2.29	176.25	32.382
J3400		137	142.5	5.5	0	0.26	0.91	137.91	16.046	4.96	121.24	27.348
J3411.51		153	156.34	3.34	0	0.4	1.13	154.13	32.433	2.24	342.33	7.793
J3414.967		140.48	146.99	6.51	0	0.3	1.18	141.66	48.214	5.44	408.23	8.212
J3428.33		153.1	156.37	3.27	0	0.46	1.21	154.31	28.859	2.16	299.01	6.754
J3445.04		138.5	142	3.5	0	0.26	0.96	139.46	12.898	3.9	110.73	11.324
J3446.464		98.818	106.275	7.457	0	0.88	2.51	101.33	221.008	4.945	2327.312	302.996
J346.4642		76.795	83.351	6.556	0	0.85	2.34	79.14	266.34	4.211	3098.302	570.202
J349.449		135.4	138.68	3.28	0	0.13	0.41	135.81	11.456	3.29	102.87	2.756
J3492.153		99	105.476	6.476	0	1	2.72	101.72	221.016	4.697	2327.312	302.996

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J350.45		124.43	133.57	9.14	0	0.53	1.24	125.67	36.099	7.9	401.01	11.577
J3500		137.5	143.37	5.87	0	0.41	1.26	138.76	12.872	4.61	97.4	21.626
J3500.1		139	142	3	0	0.13	0.54	139.54	12.904	4.32	110.73	11.324
J3500.117		141.15	147.77	6.62	0	0.58	1.66	142.81	48.215	4.96	408.23	8.212
J352.0823		110.5	118.23	7.73	0	0.49	1.37	111.87	25.116	6.36	191.22	42.512
J352.30		104	107.43	3.43	0	0.88	2.12	106.12	32.334	1.31	295.96	69.133
J3539.547		100	107.417	7.417	0	0.58	1.92	101.92	221.029	5.497	2327.312	302.996
J3546.867		141.5	147.8	6.3	0	0.5	1.56	143.06	48.223	5.71	408.23	8.212
J3552.954		100.01	107.142	7.132	0	0.68	2.04	102.05	221.04	5.116	2327.312	302.996
J3590.76		140.9	145.15	4.25	0	0.23	0.65	141.55	11.68	3.6	99.46	9.363
J3597.283		100.07	107.677	7.607	0	0.77	2.19	102.26	221.051	5.417	2327.312	302.996
J36.529		131.25	136.77	5.52	0	0.13	0.36	131.61	16.525	5.16	148.89	11.315
J3600		139	144	5	0	0.34	1.1	140.1	12.875	10.47	97.4	21.626
J3609.26		141	144.86	3.86	0	0.27	0.77	141.77	11.68	3.38	99.46	9.363
J3610.812		100.09	105.385	5.295	0	0.86	2.33	102.42	219.528	5.459	2298.035	282.81
J3624.107		142	149.27	7.27	0	0.44	1.33	143.33	48.229	5.94	408.23	8.212
J3660.527		142.5	151	8.5	0	0.39	1.31	143.81	48.232	7.19	408.23	8.212
J3667.068		100.17	107.789	7.619	0	1.16	2.92	103.09	219.53	4.869	2298.035	282.81
J3677.11		141.47	145.24	3.77	0	0.42	1.16	142.63	11.68	2.73	99.46	9.363
J3684.238		140.5	152.07	11.57	0	0.32	1.03	141.53	12.876	10.54	97.4	21.626
J3685.955		100.198	104.836	4.638	0	1.18	3	103.2	219.535	1.638	2298.035	282.81
J3696.22		141.96	145.72	3.76	0	0.26	0.88	142.84	11.68	3.17	99.46	9.363
J3709.655		100.514	105.087	4.573	0	0.99	2.84	103.35	219.537	3.757	2298.035	282.81
J3717.833		100.614	107.107	6.493	0	1.05	2.88	103.49	219.542	3.717	2298.035	282.81
J3742.908		141.18	147.54	6.36	0	0.36	1.15	142.33	12.876	5.21	97.4	21.626
J3758.726		141.55	145.98	4.43	0	0.26	0.99	142.54	12.877	3.44	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3770.893		101.707	107.337	5.63	0	0.88	2.49	104.19	219.542	4.11	2298.035	282.81
J3780.99		142.34	146.39	4.05	0	0.36	1.03	143.37	11.681	4.29	99.46	9.363
J3811.191		141.58	145.38	3.8	0	0.41	1.24	142.82	12.877	3.19	97.4	21.626
J3825.668		141.6	145.74	4.14	0	0.43	1.3	142.9	12.882	3.28	97.4	21.626
J3846.464		101.8	107.55	5.75	0	1.37	3.58	105.38	219.541	4.895	2298.035	282.81
J3869.05		143	148.32	5.32	0	0.41	1.17	144.17	11.681	4.15	99.46	9.363
J388.5779		77.436	83.441	6.005	0	0.8	2.36	79.79	266.34	3.651	3098.302	570.202
J3900		141.99	146.57	4.58	0	0.32	1.08	143.07	12.902	3.5	97.4	21.626
J392.31		104.36	107.44	3.08	0	0.84	2.07	106.43	32.335	1.01	295.96	69.133
J3932.07		143.5	147.63	4.13	0	0.4	1.15	144.65	11.681	3.4	99.46	9.363
J3946.464		102	110.475	8.475	0	1.43	3.89	105.89	219.546	4.585	2298.035	282.81
J3947.67		143.6	148.05	4.45	0	0.42	1.23	144.83	11.682	3.32	99.46	9.363
J4		144.1	147	2.9	0	0.63	2.01	146.11	32.188	2.89	267.14	5.343
J4.1		141.7	144.7	3	0	0.61	2.02	143.72	27.757	8.28	232.12	4.642
J4.2		154.5	157.5	3	0	0.46	1.39	155.89	19.881	1.61	193.34	4.64
J4.25		146	149	3	0	0.43	1.45	147.45	32.192	1.55	267.14	5.343
J4.5		146.02	149	2.98	0	0.56	1.84	147.86	32.193	2.56	267.14	5.343
J4.55		146.04	148.6	2.56	0	0.62	1.92	147.96	32.194	2.48	267.14	5.343
J4.56		146.06	150.45	4.39	0	0.61	1.92	147.98	32.195	2.47	267.14	5.343
J4.6		146.08	150.46	4.38	0	0.6	1.92	148	32.197	2.46	267.14	5.343
J4.7		146.1	149.1	3	0	0.61	1.92	148.02	32.226	1.98	267.14	5.343
J4.75		146.5	149.5	3	0	0.57	1.98	148.48	32.342	1.52	267.14	5.343
J400.127		120.75	130.56	9.81	0	0.68	2.47	123.22	134.386	7.34	1182.61	99.73
J400.215		134.5	142	7.5	0	0.54	1.58	136.08	41.697	5.92	355.59	10.54
J400.239		135.5	139.2	3.7	0	0.18	0.62	136.12	11.457	3.65	102.87	2.756
J4014.677		142.65	147.06	4.41	0	0.17	0.64	143.29	12.923	3.77	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4019.03		143.7	149.48	5.78	0	0.52	1.41	145.11	11.682	4.81	99.46	9.363
J402.1469		77.5	83.361	5.861	0	0.92	2.58	80.08	266.341	3.425	3098.302	570.202
J4034.42		143.8	149.72	5.92	0	0.5	1.48	145.28	11.683	4.74	99.46	9.363
J4067.080		102.504	110.39	7.886	0	1.15	3.64	106.14	219.562	4.863	2298.035	282.81
J410.6635		112	118.24	6.24	0	0.48	1.5	113.5	25.116	4.74	191.22	42.512
J4100		143.61	147.62	4.01	0	0.21	0.67	144.28	12.93	4	97.4	21.626
J4100.11		144	149.17	5.17	0	0.51	1.49	145.49	11.684	4.02	99.46	9.363
J4100.962		102.727	111.226	8.499	0	1.17	3.6	106.33	219.603	4.899	2298.035	282.81
J412.71		125.74	133.48	7.74	0	0.41	1.01	126.75	36.099	6.73	401.01	11.577
J4184.01		144.4	150.01	5.61	0	0.43	1.34	145.74	11.685	5.17	99.46	9.363
J4199.26		144.5	151.01	6.51	0	0.43	1.34	145.84	11.686	5.17	99.46	9.363
J4200		144.79	149.46	4.67	0	0.18	0.66	145.45	12.938	4.01	97.4	21.626
J4232.339		103.301	114.958	11.657	0	1.16	3.51	106.82	219.631	8.347	2298.035	282.81
J4248.377		103.429	115.295	11.866	0	1.27	3.7	107.13	219.647	8.165	2298.035	282.81
J4258.27		145	151.34	6.34	0	0.39	1.21	146.21	11.686	5.3	99.46	9.363
J427.7351		112.23	118.31	6.08	0	0.54	1.6	113.83	25.118	4.5	191.22	42.512
J4271.41		145.1	151.21	6.11	0	0.36	1.18	146.28	11.686	5.03	99.46	9.363
J4300		147.15	150.6	3.45	0	0.33	1.03	148.18	12.948	2.42	97.4	21.626
J4330.11		145.2	150.96	5.76	0	0.54	1.49	146.69	11.687	4.61	99.46	9.363
J4332.776		104.171	115.07	10.899	0	1.2	3.67	107.84	219.658	7.23	2298.035	282.81
J438.5957		77.124	83.798	6.674	0	1.45	3.38	80.5	266.341	3.318	3098.302	570.202
J4395.415		104.504	112.635	8.131	0	1.15	3.58	108.09	191.044	5.273	1893.575	188.198
J4396.23		145.53	150.63	5.1	0	0.41	1.35	146.88	11.688	3.75	99.46	9.363
J440.72		105	107.73	2.73	0	0.74	1.89	106.89	32.341	0.84	295.96	69.133
J4411.37		145.86	150.65	4.79	0	0.33	1.1	146.96	11.69	3.69	99.46	9.363
J4446.464		104.632	113.491	8.859	0	1.39	3.82	108.45	190.962	6.245	1893.575	188.198

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4462.26		145.9	151.32	5.42	0	0.47	1.28	147.18	11.69	4.14	99.46	9.363
J4477.44		146.29	151.39	5.1	0	0.24	0.94	147.23	11.692	4.16	99.46	9.363
J452.879		135.94	140.21	4.27	0	0.2	0.59	136.53	11.457	4.07	102.87	2.756
J4529.29		146.42	150.96	4.54	0	0.35	1.02	147.44	11.695	3.65	99.46	9.363
J454.8528		77.124	83.818	6.694	0	1.55	3.6	80.72	266.342	3.098	3098.302	570.202
J4546.464		105.4	115.463	10.063	0	1.07	3.43	108.83	189.962	7.532	1874.255	182.595
J4600.10		146.64	151.31	4.67	0	0.31	0.98	147.62	11.697	4	99.46	9.363
J461.85		126.2	133.36	7.16	0	0.46	1.22	127.42	36.1	6.24	401.01	11.577
J4635.43		147.07	152.05	4.98	0	0.22	0.7	147.77	11.706	4.28	99.46	9.363
J4646.464		105.733	116.695	10.962	0	1.14	3.45	109.19	189.997	7.66	1874.255	182.595
J4700.25		150.78	154.17	3.39	0	0.11	0.37	151.15	9.454	3.02	79.05	4.709
J4731.82		150.83	152.57	1.74	0	0.3	0.75	151.58	9.442	5.74	79.05	4.709
J4746.464		106.117	117.234	11.117	0	1.23	3.51	109.63	190.066	7.604	1874.255	182.595
J477.657		120.92	130.32	9.4	0	1.05	2.91	123.83	134.403	7	1182.61	99.73
J4800.10		151.38	157.87	6.49	0	0.09	0.4	151.78	8.45	6.09	69.57	1.391
J4846.464		106.467	116.662	10.195	0	1.25	3.83	110.29	190.126	6.766	1874.255	182.595
J487.7520		77.124	83.691	6.567	0	1.59	3.68	80.81	266.344	2.881	3098.302	570.202
J4900.10		152.09	154.18	2.09	0	0.27	0.69	152.78	8.416	1.4	69.57	1.391
J4945.903		107.124	117.713	10.589	0	1.02	3.43	110.55	190.212	7.511	1874.255	182.595
J4957.289		152.2	153.75	1.55	0	0.38	1.01	153.21	8.436	0.73	69.57	1.391
J498.2611		113.26	118.21	4.95	0	0.53	1.59	114.85	25.118	4.49	191.22	42.512
J5		148.5	151.5	3	0	0.2	0.8	149.3	32.469	9.2	267.14	5.343
J5.1		143.2	146.2	3	0	0.52	1.88	145.08	27.979	8.42	232.12	4.642
J5.2		154.6	156	1.4	0	0.78	1.8	156.4	20.116	0.06	193.34	4.64
J500.17		126.77	134.23	7.46	0	0.34	1.01	127.78	36.1	6.45	401.01	11.577
J500.239		136	140.66	4.66	0	0.18	0.66	136.66	11.458	4.41	102.87	2.756

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5000.10		152.74	154.09	1.35	0	0.15	0.47	153.21	8.557	1.02	69.57	1.391
J5046.464		107.448	118.385	10.937	0	1.1	3.44	110.89	190.31	8.393	1874.255	182.595
J5048.723		152.85	154.34	1.49	0	0.22	0.54	153.39	8.545	1.26	69.57	1.391
J506.895		135.5	142.66	7.16	0	0.45	1.23	136.73	40.535	5.93	344.96	10.306
J509.347		121	130.91	9.91	0	1.06	3.04	124.04	134.426	6.87	1182.61	99.73
J5100.10		153.03	154.83	1.8	0	0.26	0.72	153.75	8.566	1.08	69.57	1.391
J513.5331		113.58	118.5	4.92	0	0.47	1.53	115.11	25.119	3.39	191.22	42.512
J5146.464		107.53	119.365	11.835	0	1.29	3.68	111.21	190.442	8.155	1874.255	182.595
J5152.642		153.32	154.74	1.42	0	0.28	0.8	154.12	8.566	1.19	69.57	1.391
J516.02		105.73	107.84	2.11	0	0.63	1.58	107.31	32.342	1.42	295.96	69.133
J5220.803		153.49	155.48	1.99	0	0.39	1.07	154.56	8.577	0.92	69.57	1.391
J523.1179		77.124	83.691	6.567	0	1.67	3.86	80.98	266.345	2.711	3098.302	570.202
J5260.950		108.278	119.712	11.434	0	0.98	3.22	111.5	189.457	8.212	1857.475	180.582
J5260.956		153.77	155.4	1.63	0	0.22	0.8	154.57	8.603	0.94	69.57	1.391
J5300.10		154	155.74	1.74	0	0.17	0.61	154.61	8.664	1.6	69.57	1.391
J531.73		127.59	134.74	7.15	0	0.28	0.9	128.49	36.1	6.25	401.01	11.577
J534.23		105.99	108.99	3	0	0.57	1.44	107.43	32.342	1.59	295.96	69.133
J5373.942		109.061	119.739	10.678	0	0.93	3.05	112.11	189.527	7.629	1857.475	180.582
J5400.10		154.97	157.18	2.21	0	0.13	0.41	155.38	8.679	2.86	69.57	1.391
J5427.875		109.112	119.702	10.59	0	1.05	3.25	112.36	189.609	7.437	1857.475	180.582
J546.4642		77.521	83.405	5.884	0	1.5	4.04	81.56	266.346	2.653	3098.302	570.202
J5500.10		155.5	158.77	3.27	0	0.17	0.64	156.14	8.697	2.63	69.57	1.391
J5532.597		109.445	120.13	10.685	0	1	3.24	112.69	189.119	7.44	1845.096	169.688
J554.879		136.5	141.57	5.07	0	0.17	0.56	137.06	11.459	4.95	102.87	2.756
J5543.03		155.89	158.11	2.22	0	0.19	0.7	156.59	8.717	2.13	69.57	1.391
J5581.81		155.94	158.77	2.83	0	0.18	0.67	156.61	8.74	2.16	69.57	1.391

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5598.608		156	158.24	2.24	0	0.17	0.63	156.63	8.747	1.61	69.57	1.391
J5627.203		109.864	119.899	10.035	0	0.87	3.08	112.94	189.3	6.959	1845.096	169.688
J571.927		121.39	130.92	9.53	0	0.98	2.88	124.27	134.461	9.42	1182.61	99.73
J5746.464		110.189	119.271	9.082	0	1.11	3.18	113.37	189.509	7.161	1845.096	169.688
J5850.291		110.593	120.935	10.342	0	0.94	3.01	113.6	187.925	7.335	1811.086	159.758
J591.0980		77.124	83.691	6.567	0	2.03	4.72	81.84	266.348	1.976	3098.302	570.202
J5946.083		111.109	121.311	10.202	0	0.89	2.93	114.04	188.061	7.271	1811.086	159.758
J6		144.7	147.7	3	0	0.55	1.8	146.5	28.558	7.5	232.12	4.642
J6.2		154.7	157.7	3	0	0.71	1.73	156.43	22.405	1.39	193.34	4.64
J6.227		118.53	129.53	11	0	1.17	2.84	121.37	134.06	8.46	1182.61	99.73
J60.22		102.5	112.5	10	0	0.86	2.46	104.96	39.715	7.54	366.54	105.269
J600.0000		114.21	119.8	5.59	0	0.53	1.57	115.78	25.125	4.02	191.22	42.512
J600.17		128.66	135.22	6.56	0	0.33	0.97	129.63	36.1	6.41	401.01	11.577
J600.239		136.84	142.35	5.51	0	0.23	0.7	137.54	11.459	4.81	102.87	2.756
J6046.464		111.186	121.081	9.895	0	1.17	3.2	114.39	188.176	6.691	1811.086	159.758
J6098.928		111.34	119.993	8.653	0	1.08	3.18	114.52	188.28	6.933	1811.086	159.758
J6165.560		111.442	121.555	10.113	0	1.17	3.39	114.83	188.363	6.725	1811.086	159.758
J62.389		135	136.94	1.94	0	0.43	0.54	135.54	11.453	1.43	102.87	2.756
J6233.167		111.595	121.594	9.999	0	1.19	3.48	115.08	188.438	6.514	1811.086	159.758
J625.125		136.09	142.4	6.31	0	0.57	1.63	137.72	40.534	5.54	344.96	10.306
J6301.693		111.672	121.487	9.815	0	1.27	3.7	115.38	188.518	6.626	1811.086	159.758
J634.217		121.6	133.9	12.3	0	1	3.11	124.71	134.465	9.19	1182.52	99.64
J6358.901		111.749	122.083	10.334	0	1.29	3.74	115.49	188.497	6.593	1809.01	158.979
J639.57		129.64	137.02	7.38	0	0.23	0.77	130.41	36.101	6.61	401.01	11.577
J6435.935		112.363	122.451	10.088	0	1	3.31	115.67	185.132	7.447	1770.29	133.733
J646.4641		78.57	83.639	5.069	0	1.47	4.16	82.73	266.348	0.909	3098.302	570.202

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J647.627		121.74	131.42	9.68	0	0.97	3.1	124.84	134.474	6.58	1182.52	99.64
J6478.273		112.44	123.194	10.754	0	1.1	3.37	115.81	183.013	7.414	1741.026	131.392
J6565.562		112.848	123.632	10.784	0	1.01	3.28	116.12	183.11	9.889	1741.026	131.392
J657.28		107.9	110.98	3.08	0	0.28	0.83	108.73	32.343	2.25	295.96	69.133
J657.629		137.5	142.75	5.25	0	0.28	0.84	138.34	11.459	4.41	102.87	2.756
J6662.639		113.054	126.215	13.161	0	1.26	3.42	116.48	183.238	9.735	1741.026	131.392
J674.5680		79.397	83.676	4.279	0	1.2	3.78	83.18	266.349	0.901	3098.302	570.202
J674.60		108	111.03	3.03	0	0.33	0.97	108.97	32.343	2.69	295.96	69.133
J6772.934		114.195	124.959	10.764	0	0.9	2.84	117.03	183.299	8.542	1741.026	131.392
J684.977		122	132.21	10.21	0	0.98	3.14	125.14	134.484	8.18	1182.52	99.64
J6846.464		114.24	125.617	11.377	0	1.32	3.53	117.77	183.315	7.949	1741.026	131.392
J6894.028		114.34	125.719	11.379	0	1.49	3.79	118.13	183.345	8.08	1741.026	131.392
J69.25231		104.63	115.21	10.58	0	1.01	3.26	107.89	48.616	7.32	382.54	90.009
J695.90		130.8	137.5	6.7	0	0.38	0.86	131.66	36.1	6.47	401.01	11.577
J6988.738		114.56	126.43	11.87	0	1.51	3.81	118.37	183.395	8.06	1741.026	131.392
J699.925		136.5	143.67	7.17	0	0.61	1.52	138.02	40.538	5.65	344.96	10.306
J7.227846		75.474	80.753	5.279	0	0.78	1.66	77.13	267.608	4.993	3127.962	575.66
J700		114.3	120.41	6.11	0	0.55	1.66	115.96	25.143	4.45	191.22	42.512
J700.239		138	143.21	5.21	0	0.31	0.96	138.96	11.459	4.25	102.87	2.756
J703.1630		79.556	84.24	4.684	0	1.47	4.1	83.66	266.349	0.908	3098.302	570.202
J7047.302		114.752	124.764	10.012	0	1.39	3.77	118.52	182.473	6.244	1725.986	125.467
J706.81		131	138.33	7.33	0	0.42	0.98	131.98	36.1	6.79	401.01	11.577
J709.95		108.43	112.09	3.66	0	0.24	0.74	109.17	19.849	2.92	176.25	32.382
J71.72631		75.374	82.023	6.649	0	1.06	2.28	77.65	267.612	4.815	3127.962	575.66
J7132.593		114.937	124.928	9.991	0	1.43	3.87	118.81	182.59	6.118	1725.986	125.467
J718.547		122.1	133.32	11.22	0	0.96	3.12	125.22	134.504	8.2	1182.52	99.64

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J7232.906		115.699	124.326	8.627	0	1.03	3.26	118.95	182.991	5.376	1725.986	125.467
J7322.142		116.115	123.734	7.619	0	0.98	3.07	119.19	171.051	4.742	1608.8	113.322
J736.779		138.5	143.45	4.95	0	0.23	0.77	139.27	11.459	4.18	102.87	2.756
J737.045		137	142.75	5.75	0	0.45	1.19	138.19	40.542	6.29	344.96	10.306
J7381.689		116.697	124.514	7.817	0	0.92	2.71	119.4	171.214	7.457	1608.8	113.322
J74.135		132	138.61	6.61	0	0.64	1.73	133.73	41.663	4.99	355.59	10.54
J7449.270		116.966	127.126	10.16	0	0.85	2.65	119.62	171.361	7.506	1608.8	113.322
J746.4641		79.812	84.824	5.012	0	1.54	4.29	84.1	266.349	1.485	3098.302	570.202
J749.08		131.5	139.37	7.87	0	0.6	1.3	132.8	36.101	6.57	401.01	11.577
J7549.375		117.552	127.605	10.053	0	1.09	2.93	120.48	171.412	7.804	1608.8	113.322
J762.307		122.74	132.51	9.77	0	0.68	2.53	125.27	133.612	7.73	1173.84	98.364
J7639.745		117.959	128.691	10.732	0	0.84	2.78	120.73	171.483	7.961	1608.8	113.322
J768.179		138.9	143.38	4.48	0	0.24	0.75	139.65	11.459	3.79	102.87	2.756
J7752.183		118.5	128.747	10.247	0	1.19	2.84	121.34	36.445	7.79	401.01	11.577
J794.7359		79.818	85.591	5.773	0	1.91	4.71	84.53	266.416	1.568	3098.302	570.202
J795.635		137.1	144.48	7.38	0	0.74	1.62	138.72	40.555	5.86	344.96	10.306
J799.60		109.44	111.34	1.9	0	0.15	0.57	110.01	19.85	2.44	176.25	32.382
J80.89927		75	82.091	7.091	0	1.51	2.86	77.86	266.311	4.817	3098.302	570.202
J800.0000		116.5	120	3.5	0	0.43	1.31	117.81	25.146	4.83	191.22	42.512
J800.117		122.8	131.86	9.06	0	0.78	2.55	125.35	122.561	6.81	1068.5	62.887
J800.17		132.83	139.34	6.51	0	0.41	1.04	133.87	34.479	5.47	372.44	10.492
J800.239		139	144.32	5.32	0	0.23	0.77	139.77	11.461	4.55	102.87	2.756
J82.94		119	129.63	10.63	0	0.74	2.34	121.34	36.295	8.34	401.01	11.577
J846.4642		80.833	87.113	6.28	0	1.34	4.01	84.84	266.471	2.273	3098.302	570.202
J851.915		137.8	144.92	7.12	0	0.37	1.02	138.82	40.567	6.1	344.96	10.306
J854.56		110.28	113.29	3.01	0	0.3	0.8	111.08	19.851	2.21	176.25	32.382

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J855.869		139.98	144.52	4.54	0	0.16	0.53	140.51	11.462	4.81	102.87	2.756
J876.147		123.5	132.09	8.59	0	0.55	2.03	125.53	122.61	7.03	1068.5	62.887
J895.8482		81.591	87.386	5.795	0	1.18	3.54	85.14	266.494	2.246	3098.302	570.202
J9.209		127.26	134.08	6.82	0	0.57	2.38	129.64	16.525	4.44	148.89	11.315
J9.902844		104.31	115.07	10.76	0	1.13	3.58	107.89	48.05	7.18	382.54	90.009
J900.10		111.28	113.24	1.96	0	0.11	0.39	111.67	19.852	3.47	176.25	32.382
J900.239		140	145.34	5.34	0	0.28	0.81	140.81	11.462	4.53	102.87	2.756
J902.1607		116.99	123.13	6.14	0	0.24	0.98	117.97	25.156	5.92	191.22	42.512
J902.835		137.9	144.67	6.77	0	0.51	1.31	139.21	40.573	5.46	344.96	10.306
J904.90		134.44	140.82	6.38	0	0.25	0.72	135.16	34.48	5.66	372.44	10.492
J922.9622		117.1	123.85	6.75	0	0.27	1	118.1	25.166	5.9	191.22	42.512
J929.29		111.72	115.58	3.86	0	0.21	0.53	112.25	19.852	6	176.25	32.382
J945.497		124	133.06	9.06	0	0.65	2.05	126.05	122.619	7.01	1068.5	62.887
J955.93		135.5	140.77	5.27	0	0.3	0.83	136.33	34.481	4.75	372.44	10.492
J956.725		138	144.51	6.51	0	0.69	1.67	139.67	40.581	4.84	344.96	10.306
J963.549		141	145.71	4.71	0	0.15	0.55	141.55	11.463	4.16	102.87	2.756
J964.46		112.13	118.66	6.53	0	0.24	0.75	112.88	19.852	8.63	176.25	32.382
J966.3656		82.24	87.702	5.462	0	1.17	3.52	85.76	261.313	1.942	2973.692	538.178
J982.0328		82.34	87.489	5.149	0	1.26	3.83	86.17	261.317	1.369	2973.692	538.178
J99.99998		106.58	115.09	8.51	0	0.34	1.32	107.9	48.627	7.59	382.54	90.009
J992.03		112.5	121.88	9.38	0	0.33	0.93	113.43	19.852	9.72	176.25	32.382
SU211		139.5	142.1	2.6	0	0.07	0.33	139.83	5.159	2.67	38.21	6.182
SU220		133.5	135.15	1.65	0	0.08	0.41	133.91	6.77	2.59	48.65	12.041

Table 2A: Subcatchments

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)
CWP	Regional	J6301.693	2.07645	138.43	150	2	37.5	0.013	0.25	0	OUTLET	100	0.1	55.46	0
Eaglewood2	Regional	EBS1	0.07	14	50	1.5	100	0.013	0.25	25	OUTLET	100	0.1	0	0
Eaglwood1	Regional	Eaglewood	0.4	200	20	1	100	0.013	0.25	25	OUTLET	100	0.1	0	0
EBR3S	Regional	EBS1	0.577	55.004	104.901	1	29	0.013	0.25	25	OUTLET	100	0.1	61.8	0
EENNS1	Regional	EBS1	0.6	46.154	130	1.5	93	0.013	0.25	25	OUTLET	100	0.1	5.82	0
EMAIN1	Regional	J7639.745	25.18	1677	150.149	1.5	8	0.013	0.25	25	OUTLET	100	0.1	86.42	0
EMAIN2	Regional	J6435.935	29.26326	1950.533	150.027	2.3	8	0.013	0.25	25	OUTLET	100	0.1	85.64	0
EMAIN3	Regional	J5146.464	16.78	1118	150.089	0.5	12	0.013	0.25	25	OUTLET	100	0.1	84.86	0
EMAIN4	Regional	j4332.776	21.92	1461	150.034	0.7	21	0.013	0.25	25	OUTLET	100	0.1	75.02	0
ESAN1	Regional	j4446.464	19.32	1288	150	1.1	29	0.013	0.25	25	OUTLET	100	0.1	62.6	0
ESAN2	Regional	DF001	8.02	534	150.187	0.9	37	0.013	0.25	25	OUTLET	100	0.1	55.5	0
ETRIB1a	Regional	E301	6.6609	444.06	150	3	11.4	0.013	0.25	25	OUTLET	100	0.1	81.95	0
ETRIB1b	Regional	Turtle	5.75	384.448	149.565	3	4.8	0.013	0.25	100	OUTLET	100	0.1	88.27	0
ETRIB2E	Regional	E604	1.63	108.667	150	1.1	28	0.013	0.25	25	OUTLET	100	0.1	67.36	0
ETRIB2W	Regional	E855	50.23	3349	149.985	1.2	9	0.013	0.25	25	OUTLET	100	0.1	85.87	0
ETRIB3E	Regional	E673	1.77	189.796	93.258	1.3	62	0.013	0.25	25	OUTLET	100	0.1	34.29	0
ETRIB3W	Regional	E768	42.8682	2858.223	149.982	1.1	2	0.013	0.25	25	OUTLET	100	0.1	93.01	0
FBG1	Regional	E761	1.714	17.14	1000	0.15	90	0.013	0.25	25	OUTLET	100	0.1	9.52	0
FBG2	Regional	E643	1.18	236	50	0.5	62	0.013	0.25	0	OUTLET	100	0.1	33.07	0
FBG3	Regional	J571.927	0.09	18	50	2	100	0.013	0.25	25	OUTLET	100	0.1	0	0
FBG4	Regional	SFBG-4-5	38.72	276.571	1400.002	3	65.2	0.013	0.25	0	OUTLET	100	0	33.23	0
FGOLF1	Regional	SFGOLF1	12.37879	825.605	149.936	2	88	0.013	0.25	25	OUTLET	100	0.1	10.03	0
FGOLF2	Regional	SFGOLF2	21.257	1416.793	150.036	2	81	0.013	0.25	25	OUTLET	100	0.1	15.99	0
North1	Regional	North1+2Storage	0.56	54.902	102	2	7	0.013	0.25	25	OUTLET	100	0.1	80.64	0
North2	Regional	North1+2Storage	0.36	65.455	55	1	100	0.013	0.25	25	OUTLET	100	0.1	0	0
North3	Regional	EBS1	0.35	44.872	78	1.3	7	0.013	0.25	25	OUTLET	100	0.1	80.5	0
S101	Regional	J71.72631	29.66	3802.564	78	0.3	18.4	0.013	0.25	25	OUTLET	100	0.1	72.4	0

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)
S102	Regional	J895.8482	124.61	18325	68	0.45	25.7	0.013	0.25	25	OUTLET	100	0.1	64.7	0
S103	Regional	J1060.963	51.96	7318.31	71	0.4	24.6	0.013	0.25	25	OUTLET	100	0.1	65.96	0
S104	Regional	J2173.272	39.8	5527.778	72	0.4	27.2	0.013	0.25	25	OUTLET	100	0.1	63.63	0
S105	Regional	J2546.464	61.1	5657.407	108	0.4	65.4	0.013	0.25	25	OUTLET	100	0.1	29.87	0
S106	Regional	J3246.464	76.74	12790	60	0.3	58.2	0.013	0.25	25	OUTLET	100	0.1	35.81	0
S109	Regional	J718.547	8.68	1045.783	83	0.25	14.7	0.013	0.25	25	OUTLET	100	0.1	76.46	0
S110	Regional	J1200.117	19.88	2395.181	83	0.4	25.3	0.013	0.25	25	OUTLET	100	0.1	65.75	0
S111	Regional	J400.215	10.63	2362.222	45	0.45	2.2	0.013	0.25	25	OUTLET	100	0.1	84.74	0
S112	Regional	J1388.055	106.47	8190	130	1.5	5.2	0.013	0.25	25	OUTLET	100	0.1	83.54	0
S113	Regional	J113	232.12	15474.67	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1	87.24	0
S151	Regional	J151	24.92	2076.667	120	1	54.8	0.013	0.25	25	OUTLET	100	0.1	38.92	0
S152	Regional	J152	25.32	1770.629	143	0.95	31.7	0.013	0.25	25	OUTLET	100	0.1	60.18	0
S153	Regional	J60.22	70.58	5881.667	120	0.2	51.2	0.013	0.25	25	OUTLET	100	0.1	43.56	0
S154	Regional	J674.60	119.71	14422.89	83	0.75	30.7	0.013	0.25	25	OUTLET	100	0.1	60.07	0
S155	Regional	J3500.1	11.27	1977.193	57	0.3	17.4	0.013	0.25	25	OUTLET	100	0.1	72.3	0
S156	Regional	j3392.66	26.18	4363.333	60	0.35	33.1	0.013	0.25	25	OUTLET	100	0.1	58.03	0
S157	Regional	j3392.66	39.34	5785.294	68	0.75	31.5	0.013	0.25	25	OUTLET	100	0.1	58.97	0
S158	Regional	J4731.82	9.48	2106.667	45	0.55	35	0.013	0.25	25	OUTLET	100	0.1	55.47	0
S159	Regional	j4635.43	20.41	3401.667	60	0.65	22.8	0.013	0.25	25	OUTLET	100	0.1	66.6	0
S160	Regional	J5598.608	69.57	6156.637	113	0.8	2	0.013	0.25	25	OUTLET	100	0.1	87.22	0
S161	Regional	J300	119.72	16627.78	72	0.5	25.2	0.013	0.25	25	OUTLET	100	0.1	65.16	0
S162	Regional	J142.6492	71.6	11015.38	65	0.85	24.2	0.013	0.25	25	OUTLET	100	0.1	65.24	0
S163	Regional	j3135.520	58.33	8973.846	65	0.4	24.2	0.013	0.25	25	OUTLET	100	0.1	66.09	0
S164	Regional	J3200	11.65	2080.357	56	0.5	9	0.013	0.25	25	OUTLET	100	0.1	79.11	0
S165	Regional	j3400	23.84	3667.692	65	0.65	24	0.013	0.25	25	OUTLET	100	0.1	65.7	0
S166	Regional	j4300	71.04	10447.06	68	1.05	29.7	0.013	0.25	25	OUTLET	100	0.1	60.26	0
S167	Regional	J167	26.36	2196.667	120	0.3	2	0.013	0.25	25	OUTLET	100	0.1	90.11	0

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)
S171	Regional	j5746.464	34.01	5232.308	65	1.15	29.2	0.013	0.25	25	OUTLET	100	0.1	60.55	0
S172	Regional	j6988.738	15.04	2211.765	68	0.85	39.4	0.013	0.25	25	OUTLET	100	0.1	51.89	0
S180	Regional	J749.08	28.57	4201.471	68	0.5	3.8	0.013	0.25	25	OUTLET	100	0.1	84.47	0
S181	Regional	J181	15.96	1922.892	83	1.25	55.4	0.013	0.25	25	OUTLET	100	0.1	37.9	0
S182	Regional	j2600.16	22.52	2297.959	98	0.4	10.6	0.013	0.25	25	OUTLET	100	0.1	80.04	0
S183	Regional	J2460.36	7.59	1686.667	45	0.45	4.1	0.013	0.25	25	OUTLET	100	0.1	83.04	0
S184	Regional	J3.2	105.67	9606.364	110	0.8	2	0.013	0.25	25	OUTLET	100	0.1	87.1	0
S185	Regional	J185	43.32	3938.182	110	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1	87.38	0
S186	Regional	J186	193.34	12889.33	150	2	2.4	0.013	0.25	25	OUTLET	100	0.1	86.12	0
S187	Regional	E855	1.93	321.667	60	0.9	7.8	0.013	0.25	25	OUTLET	100	0.1	79.57	0
S191	Regional	j762.307	89.38	16864.15	53	0.6	29.8	0.013	0.25	25	OUTLET	100	0.1	60.23	0
S192	Regional	J1130.117	3.43	571.667	60	0.65	5.5	0.013	0.25	25	OUTLET	100	0.1	82.08	0
S193	Regional	j1130.117	21.79	3026.389	72	0.6	29.7	0.013	0.25	25	OUTLET	100	0.1	60.9	0
S195	Regional	SU220	9.45	1783.019	53	0.85	29.6	0.013	0.25	25	OUTLET	100	0.1	60.12	0
S201	Regional	j36.529	16.42	2736.667	60	1.3	24	0.013	0.25	25	OUTLET	100	0.1	64.88	0
S202	Regional	j36.529	29.6	4933.333	60	0.6	15.6	0.013	0.25	25	OUTLET	100	0.1	73.12	0
S203	Regional	J1700.117	12.96	2160	60	0.5	20	0.013	0.25	25	OUTLET	100	0.1	69.4	0
S204	Regional	J1361.769	48.81	3754.615	130	0.3	3.1	0.013	0.25	25	OUTLET	100	0.1	89.52	0
S205	Regional	J2266.899	54.06	3861.429	140	0.6	2.3	0.013	0.25	25	OUTLET	100	0.1	88.7	0
S210	Regional	J2604.897	10.87	2415.556	45	0.7	2.9	0.013	0.25	25	OUTLET	100	0.1	83.51	0
S211	Regional	SU211	29.63	4938.333	60	0.65	19.3	0.013	0.25	25	OUTLET	100	0.1	69.72	0
S212	Regional	J212	8.58	817.143	105	0.5	5.4	0.013	0.25	25	OUTLET	100	0.1	84.75	0
S213	Regional	J3	11.91	1044.737	114	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1	87.55	0
S214	Regional	J1041.555	6.37	767.47	83	1.15	2	0.013	0.25	25	OUTLET	100	0.1	85.36	0
S215	Regional	J3	129.18	8612	150	1.1	2	0.013	0.25	25	OUTLET	100	0.1	87.79	0
S216	Regional	J216	267.14	17809.33	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1	87.24	0
S220	Regional	SU220	34.67	5778.333	60	0.5	26.4	0.013	0.25	25	OUTLET	100	0.1	63.66	0

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)
S221	Regional	SU220	4.53	503.333	90	0.55	2	0.013	0.25	25	OUTLET	100	0.1	87.05	0
WRegWid	Regional	E673	0.5362	35.747	149.999	1	25	0.013	0.25	25	OUTLET	100	0.1	66.44	0

Table 2B: Subcatchments

Name	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m^3/s)
CWP	0	228.77	0.29
Eaglewood2	0	283.4	0.01
Eaglwood1	0	283.39	0.06
EBR3S	0	222.82	0.08
EENNS1	0	277.66	0.09
EMAIN1	0	198.55	3.24
EMAIN2	0	199.33	3.88
EMAIN3	0	200.04	2
EMAIN4	0	209.73	2.79
ESAN1	0	222.02	2.6
ESAN2	0	228.97	1.09
ETRIB1a	0	202.97	0.9
ETRIB1b	0	196.84	0.77
ETRIB2E	0	217.27	0.22
ETRIB2W	0	199.08	6.38
ETRIB3E	0	249.77	0.26
ETRIB3W	0	192.06	5.27
FBG1	0	273.72	0.22
FBG2	0	250.61	0.17
FBG3	0	283.4	0.01

Table 2B: Subcatchments (continued...)

Name	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m³/s)
FBG4	0	250.25	5.11
FGOLF1	0	273.54	1.82
FGOLF2	0	267.71	3.11
North1	0	204.35	0.08
North2	0	283.39	0.05
North3	0	204.5	0.05
S101	0	212.4	3.87
S102	0	219.97	17.18
S103	0	218.73	7.08
S104	0	221.02	5.45
S105	0	254.08	8.8
S106	0	248.29	11.07
S109	0	208.4	1.09
S110	0	218.92	2.67
S111	0	200.33	1.45
S112	0	201.47	13.9
S113	0	197.83	29.17
S151	0	245.24	3.57
S152	0	224.39	3.42
S153	0	240.64	9.59
S154	0	224.52	16.72
S155	0	212.51	1.52
S156	0	226.51	3.66
S157	0	225.61	5.56
S158	0	229.05	1.36
S159	0	218.13	2.86
S160	0	197.85	8.75

Table 2B: Subcatchments (continued...)

Name	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m³/s)
S161	0	219.52	16.48
S162	0	219.46	10.08
S163	0	218.61	8.01
S164	0	205.84	1.59
S165	0	219.01	3.33
S166	0	224.35	10.1
S167	0	194.95	2.96
S171	0	224.07	4.85
S172	0	232.56	2.15
S180	0	200.57	3.77
S181	0	246.27	2.31
S182	0	204.89	2.82
S183	0	202.01	1.04
S184	0	197.97	13.35
S185	0	197.68	5.34
S186	0	198.94	25.03
S187	0	205.41	0.27
S191	0	224.38	12.69
S192	0	202.93	0.47
S193	0	223.7	3.04
S195	0	224.49	1.35
S201	0	219.84	2.34
S202	0	211.72	4.09
S203	0	215.37	1.79
S204	0	195.52	5.42
S205	0	196.36	6.35
S210	0	201.55	1.51

Table 2B: Subcatchments (continued...)

Name	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m^3/s)
S211	0	215.07	4.13
S212	0	200.25	1.06
S213	0	197.51	1.46
S214	0	199.71	0.86
S215	0	197.28	15.88
S216	0	197.83	33.57
S220	0	221	4.85
S221	0	198.02	0.57
WRegWid	0	218.24	0.07

Table 3A: Storages

Name	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Initial Depth (m)	Storage Curve	Curve Name	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Avg. Volume (1000 m^3)	Avg. Percent Full (%)	Max. Volume (1000 m^3)	Max. Percent Full (%)
Eaglewood	128.5	130.5	2	0	TABULAR	EaglewoodStorage	0.13	0.4	128.9	0.059	0.025	6	0.078	20
North1+2Storage	128.25	130.95	2.7	0	TABULAR	North1+2Storage	0.42	1.53	129.78	0.13	0.021	15	0.076	57
SFBG-4-5	121.2	125.3	4.1	0	TABULAR	BG_SWM_Pond-AsBuilt	1.52	3.49	124.69	5.11	18.108	32	45.787	81
SFGOLF1	121.4	125.5	4.1	0	TABULAR	FGOLF1	1.48	3.37	124.77	1.817	6.58	31	16.391	77
SFGOLF2	121.4	129.4	8	0	TABULAR	FGOLF2	1.5	3.4	124.8	3.113	11.13	14	27.506	34
Turtle	122	132	10	3	TABULAR	Turtle_Pond	3.67	4.05	126.05	0.77	5.267	22	6.235	26

Table 3B: Storages

Name	Max. Outflow (m^3/s)
Eaglewood	0.059
North1+2Storage	0.128
SFBG-4-5	3.841
SFGOLF1	1.294
SFGOLF2	2.217
Turtle	0.764

Table 4: Orifices

Name	Inlet Node	Outlet Node	Cross-Section	Height (m)	Width (m)	Inlet Elev. (m)	Discharge Coeff.	Max. |Flow| (m^3/s)	Contributing Area (ha)	Contributing Imp. Area (ha)
OR1	North1+2Storage	EBS1	CIRCULAR	0.075	0	128.25	0.62	0.015	0.92	0.399
OR2	North1+2Storage	EBS1	CIRCULAR	0.275	0	129.3	0.62	0.113	0.92	0.399
OR3	SFGOLF1	J5427.875	CIRCULAR	0.125	0	121.4	0.62	0.062	12.379	10.893
OR4	SFGOLF1	J5427.875	CIRCULAR	0.35	0	122.15	0.62	0.413	12.379	10.893
OR5	SFGOLF2	DF001	CIRCULAR	0.16	0	121.4	0.62	0.102	21.257	17.218
OR6	SFGOLF2	DF001	CIRCULAR	0.45	0	122.15	0.62	0.681	21.257	17.218
OR7	Eaglewood	EBS1	CIRCULAR	0.3	0	128.8	0.62	0.051	0.4	0.4
OR8	Eaglewood	EBS1	CIRCULAR	0.075	0	128.5	0.62	0.008	0.4	0.4
Qual1	SFBG-4-5	J6358.901	CIRCULAR	0.23	0	121.2	0.62	0.21	38.72	25.245
Quan1	SFBG-4-5	J6358.901	CIRCULAR	0.6	0	122	0.62	1.201	38.72	25.245

PCSWMM Report

Proposed Uncontrolled - 100-year

Model 14Mile_Proposed-BG-Uncontrolled_JFSA_v01.22,
100yrChicago24hr.inp

Urbantech Consulting

June 30, 2023

Table of Contents

Tables

Table 1: Junctions

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
10		101.05	105.05	4	0	0.25	0.82	101.87	3.339	3.18	29.25	3.392
21		104.217	114.737	10.52	0	1.2	2.75	106.97	115.166	8.007	2276.126	267.597
22		131.6	138.3	6.7	0	0.78	1.91	133.51	81.611	6.05	812.9	25.249
23		126.76	136.54	9.78	0	0.84	2.62	129.38	90.066	7.16	1023.4	51.197
25		118.429	128.74	10.311	0	1.23	2.41	120.84	109.991	8.889	1583.62	111.307
DF001		110.44	113.44	3	0	0.2	0.84	111.28	4.686	2.16	29.25	3.392
DF002		105.98	108.98	3	0	0.29	1.74	107.72	4.471	1.26	29.25	3.392
DF004		105.509	108.509	3	0	0.22	0.96	106.47	3.336	2.039	29.25	3.392
DF005		105.027	108.027	3	0	0.23	0.99	106.01	3.346	2.017	29.25	3.392
DF006		104.676	107.676	3	0	0.18	0.76	105.44	3.503	2.236	29.25	3.392
DF007		103.504	106.504	3	0	0.21	0.91	104.41	3.374	2.094	29.25	3.392
DF008		102.918	105.918	3	0	0.22	0.94	103.86	3.354	2.058	29.25	3.392
DF009		101.05	105.05	4	0	0.31	0.99	102.04	3.338	3.01	29.25	3.392
DFM001		108.085	108.085	0	0	0	0	108.08	0	0.755	29.25	3.392
DFM002		105.65	105.65	0	0	0	0	105.65	0	0.75	29.25	3.392
DFM003		107.786	107.786	0	0	0	0	107.79	0	0.746	29.25	3.392
DFM004		107.486	107.486	0	0	0	0	107.49	0	0.746	29.25	3.392
DFM005		107.187	107.187	0	0	0	0	107.19	0	0.747	29.25	3.392
DFM006		106.887	106.887	0	0	0	0	106.89	0	0.747	29.25	3.392
DFM007		106.588	106.588	0	0	0	0	106.59	0	0.748	29.25	3.392
DFM008		106.288	106.288	0	0	0	0	106.29	0	0.748	29.25	3.392
DFM009		105.989	105.989	0	0	0	0	105.99	0	0.749	29.25	3.392
E153		118.5	118.5	0	0	0.07	0.37	118.87	14.222	7.63	117.186	12.18
E238		119	119	0	0	0.19	0.73	119.73	14.22	6.77	117.186	12.18
E301		120	120	0	0	0.14	0.63	120.63	14.225	5.87	117.186	12.18
E344		120.5	120.5	0	0	0.25	0.71	121.21	12.541	5.29	104.775	11.145

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
E394		121.5	121.5	0	0	0.08	0.41	121.91	12.543	5.59	104.775	11.145
E439		121.5	121.5	0	0	0.42	1.12	122.62	12.544	4.88	104.775	11.145
E479		122	122	0	0	0.85	2.5	124.5	12.547	3	104.775	11.145
E494		122.54	122.54	0	0	0.48	1.96	124.5	12.555	3	104.775	11.145
E505		122.53	122.53	0	0	0.5	1.97	124.5	13.456	2.53	104.775	11.145
E543		123	123	0	0	0.34	1.52	124.52	15.837	3.98	104.775	11.145
E580		123.5	123.5	0	0	0.12	1.03	124.53	18.137	4.47	104.775	11.145
E604		124	124	0	0	0.32	0.68	124.68	11.144	4.82	56.684	7.437
E615		124.25	124.25	0	0	0.21	0.5	124.75	10.92	4.75	55.054	6.981
E618		124	124	0	0	0.42	0.92	124.92	6.645	3.58	48.091	3.708
E626		124	124	0	0	0.45	0.97	124.97	6.438	2.03	48.091	3.708
E643		124.5	124.5	0	0	0.19	0.68	125.18	11.045	3.32	55.054	6.981
E649		124.5	124.5	0	0	0.14	0.5	125	6.229	3.5	48.091	3.708
E667		124.5	124.5	0	0	0.29	0.91	125.41	10.689	3.09	53.874	6.214
E673		125	125	0	0	0.13	0.4	125.4	6.239	3.6	48.091	3.708
E677		125	125	0	0	0.13	0.48	125.48	10.881	3.52	53.874	6.214
E690		125	125	0	0	0.22	0.67	125.67	11.328	3.33	53.874	6.214
E732		126	126	0	0	0.1	0.5	126.5	12.446	3.5	53.874	6.214
E733		126	126	0	0	0.21	0.6	126.6	5.545	2.9	45.785	2.476
E761		126.5	126.5	0	0	0.06	0.43	126.93	13.755	4.07	53.874	6.214
E768		126.5	126.5	0	0	0.09	0.4	126.9	4.681	3.1	42.868	0.857
E818		126.5	126.5	0	0	0.5	1.32	127.82	8.769	3.18	52.16	4.671
E855		127	127	0	0	0.21	0.85	127.85	7.858	3.15	52.16	4.671
EBS1		127	127	0	0	0.15	0.74	127.74	1.177	1.26	2.917	1.619
EBS1_1		126.6	126.6	0	0	0.15	0.74	127.34	1.155	1.26	2.917	1.619
EBS1_2		126.2	126.2	0	0	0.17	0.74	126.94	1.126	1.26	2.917	1.619

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1		102.412	106.412	4	0	0.6	2.44	104.85	42.428	1.862	366.54	105.269
J100.17		119.57	130.25	10.68	0	0.46	1.29	120.86	17.199	9.39	401.01	11.577
J1002.010		118	124.97	6.97	0	0.22	0.64	118.64	14.357	6.33	191.22	42.512
J1012.195		83.33	87.423	4.093	0	0.91	2.18	85.51	126.782	3.103	2973.676	510.774
J1015.55		112.6	123.15	10.55	0	0.31	0.88	113.48	13.373	10.41	176.25	32.382
J1020.38		135.77	141.35	5.58	0	0.41	0.78	136.55	15.714	4.8	372.44	10.492
J1020.569		141.92	146.28	4.36	0	0.18	0.49	142.41	9.41	3.87	102.87	2.756
J1022.947		124.1	132.95	8.85	0	0.9	2.32	126.42	91.223	6.63	1068.5	62.887
J1029.335		118.5	125.27	6.77	0	0.13	0.43	118.93	14.359	8.36	191.22	42.512
J1033.40		112.7	123.79	11.09	0	0.28	0.86	113.56	13.377	10.43	176.25	32.382
J104.967		118.93	129.31	10.38	0	1.09	2.76	121.69	94.346	7.62	1182.61	99.73
J1041.555		138.5	144.74	6.24	0	0.73	1.62	140.12	36.639	4.62	344.96	10.306
J1042.897		124.71	133.33	8.62	0	0.58	1.84	126.55	91.235	6.78	1068.5	62.887
J1058.20		113	123.02	10.02	0	0.27	0.73	113.73	13.383	9.29	176.25	32.382
J1060.963		83.331	88.614	5.283	0	1.43	2.67	86.01	126.784	2.604	2973.676	510.774
J1093.556		83.516	88.39	4.874	0	1.39	2.66	86.18	126.252	2.573	2921.716	497.992
J1096.947		125.1	132.5	7.4	0	0.64	1.82	126.92	91.254	6.8	1068.5	62.887
J110.089		135.1	136.66	1.56	0	0.33	0.44	135.54	9.364	1.12	102.87	2.756
J1100		118.97	127.76	8.79	0	0.27	0.69	119.66	14.361	8.59	191.22	42.512
J1100.10		113.46	123	9.54	0	0.25	0.71	114.17	13.385	9.29	176.25	32.382
J1100.215		139	144.47	5.47	0	0.46	1.45	140.45	36.175	5.34	338.59	10.179
J1100.239		142.5	146.67	4.17	0	0.34	0.93	143.43	9.412	3.24	102.87	2.756
J1126.60		136.69	141.42	4.73	0	0.28	0.55	137.24	15.719	4.18	372.44	10.492
J113		160	163	3	0	0.4	1.76	161.76	31.69	4.54	232.12	4.642
J1130.117		125.2	133.15	7.95	0	0.6	1.81	127.01	91.346	7.24	1068.5	62.887
J1146.464		83.72	88.957	5.237	0	1.49	2.92	86.64	126.263	2.317	2921.716	497.992

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1151.075		139.5	146.29	6.79	0	0.55	1.14	140.64	36.211	5.96	338.59	10.179
J1154.80		114	124	10	0	0.25	0.71	114.71	13.385	9.29	176.25	32.382
J1163.689		144	147.44	3.44	0	0.19	0.53	144.53	9.416	3.28	102.87	2.756
J1178.27		114.74	124.1	9.36	0	0.19	0.55	115.29	13.388	8.81	176.25	32.382
J1184.779		119.5	128.78	9.28	0	0.22	0.67	120.17	14.372	8.61	191.22	42.512
J1200.117		125.3	134.05	8.75	0	0.89	2.24	127.54	90.516	6.81	1043.28	56.227
J1200.17		137.5	142.12	4.62	0	0.38	0.76	138.26	15.722	4.33	372.44	10.492
J1200.215		139.56	146.66	7.1	0	0.56	1.36	140.92	36.33	5.74	338.59	10.179
J1230.909		144.5	148.31	3.81	0	0.17	0.55	145.05	9.418	3.26	102.87	2.756
J1246.464		84.245	89.177	4.932	0	1.96	3.52	87.76	126.276	1.894	2921.716	497.992
J125.38		102.9	107	4.1	0	0.69	2.23	105.13	30.884	1.87	295.96	69.133
J1286.17		116.4	125.06	8.66	0	0.22	0.64	117.04	13.389	8.72	176.25	32.382
J1294.225		140.5	147.47	6.97	0	0.28	0.89	141.39	36.386	8.43	338.59	10.179
J1298.178		84.629	90.038	5.409	0	2.01	3.49	88.12	126.344	1.918	2921.716	497.992
J1300		121.16	129.84	8.68	0	0.23	0.62	121.78	14.378	8.06	191.22	42.512
J1300.117		125.84	133.78	7.94	0	0.66	1.9	127.74	89.825	6.64	1023.4	51.197
J1300.17		138.5	143.59	5.09	0	0.41	0.83	139.33	15.724	4.26	372.44	10.492
J1305.379		145.44	148.28	2.84	0	0.18	0.5	145.94	9.424	2.41	102.87	2.756
J1310.18		116.5	125.53	9.03	0	0.33	0.83	117.33	13.391	8.2	176.25	32.382
J1348.30		138.6	143.39	4.79	0	0.63	1.16	139.76	15.726	3.73	372.44	10.492
J1361.769		146.02	148.93	2.91	0	0.17	0.47	146.49	9.427	2.44	102.87	2.756
J1365.595		140.98	150.3	9.32	0	0.28	0.91	141.89	36.391	8.66	338.59	10.179
J1388.055		141	150.57	9.57	0	0.54	1.39	142.39	36.394	8.18	338.59	10.179
J1391.170		85.698	90.311	4.613	0	1.34	2.61	88.3	126.44	2.431	2921.716	497.992
J1393.48		139	143.67	4.67	0	0.34	0.82	139.82	15.73	5.6	372.44	10.492
J1400.000		122.35	130.16	7.81	0	0.2	0.55	122.9	14.388	7.42	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1400.10		117.53	126.26	8.73	0	0.48	1.16	118.69	13.425	7.57	176.25	32.382
J1400.117		125.96	134.5	8.54	0	1.07	2.46	128.42	89.945	6.42	1023.4	51.197
J1400.239		146.4	148.94	2.54	0	0.11	0.36	146.76	5.527	2.31	54.06	1.243
J142.6492		107.45	116.36	8.91	0	0.24	0.99	108.44	55.202	7.92	382.54	90.009
J1446.464		85.884	90.917	5.033	0	1.45	2.69	88.58	126.535	2.337	2921.716	497.992
J1447.009		146.5	149.17	2.67	0	0.14	0.47	146.97	5.53	2.45	54.06	1.243
J145.135		132.5	139.22	6.72	0	0.39	1.36	133.86	36.567	5.59	355.59	10.54
J146.4641		74.822	82.499	7.677	0	1.69	2.5	77.32	127.867	5.179	3098.286	542.799
J1489.00		139.5	145.92	6.42	0	0.75	1.35	140.85	15.732	5.07	372.44	10.492
J1500.000		123	130.97	7.97	0	0.3	0.8	123.8	14.41	7.17	191.22	42.512
J1500.10		119.53	127	7.47	0	0.15	0.46	119.99	13.443	7.01	176.25	32.382
J1500.117		126	134.88	8.88	0	1.17	2.89	128.89	90.017	7.12	1023.4	51.197
J1500.239		147	149.92	2.92	0	0.13	0.39	147.39	5.532	2.53	54.06	1.243
J151		98.68	102.181	3.501	0	0.65	1.61	100.29	50.89	2.69	416.78	126.952
J152		107	109	2	0	0.06	0.28	107.28	7.112	1.72	25.32	8.026
J1541.43		140	145.01	5.01	0	0.44	0.93	140.93	15.74	4.08	372.44	10.492
J1546.464		86.9	91.178	4.278	0	0.94	1.89	88.79	126.737	3.575	2921.716	497.992
J1550.647		126.5	136.51	10.01	0	0.89	2.8	129.3	90.036	7.21	1023.4	51.197
J1567.909		147.65	150.57	2.92	0	0.17	0.53	148.18	5.544	2.41	54.06	1.243
J1599.10		120	127.16	7.16	0	0.25	0.74	120.74	13.501	6.64	176.25	32.382
J16.935		131.7	139.46	7.76	0	0.72	1.82	133.52	36.589	6.14	355.59	10.54
J1600.117		127	136.56	9.56	0	0.76	2.47	129.47	84.014	7.09	874.51	39.882
J162.45		120.67	130.62	9.95	0	0.44	0.82	121.49	17.2	9.13	401.01	11.577
J162.977		119.1	128.88	9.78	0	1	2.75	121.85	94.517	7.03	1182.61	99.73
J1627.66		141	146	5	0	0.36	0.71	141.71	15.746	4.3	372.44	10.492
J1637.989		148.5	151.44	2.94	0	0.11	0.33	148.83	5.547	2.61	54.06	1.243

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1668.083		87	92.465	5.465	0	1.44	2.58	89.58	126.806	2.885	2921.716	497.992
J167		155.07	156.74	1.67	0	0.07	0.19	155.26	2.458	1.48	26.36	0.527
J1700		126	133.54	7.54	0	0.32	0.8	126.8	14.411	6.74	191.22	42.512
J1700.10		121	128.38	7.38	0	0.19	0.52	121.52	13.543	6.86	176.25	32.382
J1700.117		127.5	135.16	7.66	0	0.78	2.36	129.86	84.185	5.3	874.51	39.882
J1700.17		141.45	146.11	4.66	0	0.39	0.75	142.2	15.751	4.31	372.44	10.492
J1700.229		149.05	151.48	2.43	0	0.18	0.51	149.56	5.55	1.92	54.06	1.243
J1749.279		149.55	151.59	2.04	0	0.1	0.32	149.87	5.552	2.18	54.06	1.243
J1797.21		141.65	146.71	5.06	0	0.44	0.88	142.53	15.759	4.18	372.44	10.492
J1800		127.33	133.88	6.55	0	0.21	0.56	127.89	14.417	5.99	191.22	42.512
J1800.10		121.5	128.81	7.31	0	0.28	0.76	122.26	13.621	6.55	176.25	32.382
J1800.117		128.01	135.21	7.2	0	0.68	2.37	130.38	83.751	4.86	861.55	37.29
J1800.229		149.65	152.15	2.5	0	0.16	0.47	150.12	5.595	2.03	54.06	1.243
J181		135	137	2	0	0.08	0.32	135.32	7.262	1.68	15.96	8.842
J1816.580		87.39	91.48	4.09	0	1.47	2.46	89.85	127.32	2.025	2921.716	497.992
J185		153.5	154.5	1	0	0.12	0.55	154.05	5.509	2.45	43.32	1.04
J186		163.5	167	3.5	0	1.06	2.27	165.77	30.663	1.35	193.34	4.64
J1900		128.89	134	5.11	0	0.34	0.83	129.72	14.423	4.28	191.22	42.512
J1900.10		123	129.92	6.92	0	0.14	0.45	123.45	13.655	6.47	176.25	32.382
J1900.17		142.5	147.09	4.59	0	0.47	0.85	143.35	15.778	3.74	372.44	10.492
J1900.229		150.35	152.38	2.03	0	0.11	0.33	150.68	5.661	2.45	54.06	1.243
J1902.476		88.381	92.866	4.485	0	0.84	1.72	90.1	127.854	3.468	2921.716	497.992
J1917.479		88.485	93.672	5.187	0	0.82	1.71	90.2	127.924	3.472	2921.716	497.992
J1927.647		129.5	136.73	7.23	0	0.9	2.02	131.52	83.8	5.23	861.55	37.29
J1942.494		88.489	95.147	6.658	0	0.92	1.83	90.32	127.972	5.079	2921.716	497.992
J1952.554		88.541	95.294	6.753	0	0.98	1.89	90.44	128.086	5.011	2921.716	497.992

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1956.59		123.5	130.06	6.56	0	0.2	0.55	124.05	13.654	6.01	176.25	32.382
J1978.418		130.25	134.48	4.23	0	0.12	0.39	130.64	14.427	3.84	191.22	42.512
J2.1		141.3	150.5	9.2	0	0.51	1.6	142.9	27.428	7.6	232.12	4.642
J2.2		153.2	157.65	4.45	0	1.06	1.96	155.16	13.591	2.49	299.01	6.754
J2.5		142.5	151.5	9	0	0.64	1.64	144.14	43.705	7.36	408.23	8.212
j2.6		141.4	150.7	9.3	0	0.73	2.04	143.44	27.468	7.26	232.12	4.642
J200.09		103	106.44	3.44	0	0.81	2.29	105.29	31.071	1.18	295.96	69.133
J200.17		121.42	131.29	9.87	0	0.32	0.65	122.07	17.2	10.23	401.01	11.577
J200.215		132.57	139.52	6.95	0	0.53	1.48	134.05	36.632	5.81	355.59	10.54
J200.239		135.2	136.65	1.45	0	0.25	0.36	135.56	9.357	2.06	102.87	2.756
J2000.10		124.71	129.82	5.11	0	0.2	0.46	125.17	13.662	6.41	176.25	32.382
J2000.117		130	137.25	7.25	0	0.89	2.06	132.06	83.825	5.19	861.55	37.29
J2000.17		143	146.77	3.77	0	0.48	0.89	143.89	15.783	4.17	372.44	10.492
J2000.229		150.79	153.57	2.78	0	0.07	0.27	151.06	5.699	4.16	54.06	1.243
J2032.625		130.38	134.5	4.12	0	0.32	0.74	131.12	14.432	3.38	191.22	42.512
J2046.464		89	95.91	6.91	0	1.05	1.97	90.97	128.143	4.94	2921.716	497.992
J2063.577		130.5	137.45	6.95	0	0.72	1.8	132.3	81.569	5.15	812.9	25.249
J2100		131.31	134.6	3.29	0	0.2	0.54	131.85	14.437	2.75	191.22	42.512
J2100.10		124.81	131.68	6.87	0	0.72	1.66	126.47	13.747	5.21	176.25	32.382
J2100.17		144	149.06	5.06	0	0.38	0.74	144.74	15.789	4.32	372.44	10.492
J2100.229		151.18	155.61	4.43	0	0.18	0.52	151.7	5.749	3.91	54.06	1.243
J2118.174		89.5	95.106	5.606	0	0.88	1.83	91.33	128.166	3.917	2921.716	497.992
J212		144.4	145.7	1.3	0	0.05	0.14	144.54	1.194	1.16	8.58	0.463
J2128.867		131.26	138.01	6.75	0	0.61	1.54	132.8	81.608	5.21	812.9	25.249
J216		153.5	155.5	2	0	0.68	2.27	155.77	36.471	7.73	267.14	5.343
J2162.390		89.6	95.247	5.647	0	1.18	2.25	91.85	128.178	3.497	2921.716	497.992

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2165.306		132	135.12	3.12	0	0.27	0.66	132.66	14.438	2.46	191.22	42.512
J2171.407		131.5	138.11	6.61	0	0.81	1.81	133.31	81.605	5.63	812.9	25.249
J2173.272		89.7	95.24	5.54	0	1.32	2.47	92.17	128.185	3.27	2921.716	497.992
J2177.86		144.55	149.42	4.87	0	0.34	0.74	145.29	15.792	5.4	372.44	10.492
J2185.476		89.8	94.811	5.011	0	1.34	2.55	92.35	127.711	2.801	2881.916	487.166
J2187.585		132.25	135.24	2.99	0	0.25	0.66	132.91	14.438	2.46	191.22	42.512
J2200.229		152.38	156.67	4.29	0	0.11	0.35	152.73	5.777	3.94	54.06	1.243
J2206.53		126.62	132.31	5.69	0	0.19	0.58	127.2	13.759	5.72	176.25	32.382
J2213.506		90.096	94.702	4.606	0	1.24	2.45	92.55	127.714	2.98	2881.916	487.166
J2223.267		131.7	138.96	7.26	0	0.77	1.94	133.64	46.239	5.8	457.31	14.709
J2224.630		90.196	95.437	5.241	0	1.24	2.5	92.7	127.725	3.496	2881.916	487.166
J2227.161		132.92	136.08	3.16	0	0.35	0.91	133.83	14.438	2.54	191.22	42.512
J2242.380		133	136.45	3.45	0	0.42	1.06	134.06	14.438	2.39	191.22	42.512
J226.077		119.5	129	9.5	0	0.84	2.54	122.04	94.699	7.11	1182.61	99.73
J2266.899		153.53	156.84	3.31	0	0.15	0.42	153.95	5.784	2.89	54.06	1.243
J2267.81		144.88	151.02	6.14	0	0.52	0.98	145.86	15.793	5.16	372.44	10.492
J2287.052		133.1	136.24	3.14	0	0.46	1.16	134.26	14.439	2.65	191.22	42.512
J2292.097		132	139.74	7.74	0	0.74	1.9	133.9	46.52	5.84	457.31	14.709
J2296.492		90.5	96.5	6	0	1.27	2.53	93.03	127.746	3.47	2881.916	487.166
J2300.10		127.5	133.8	6.3	0	0.39	1.03	128.53	13.76	5.27	176.25	32.382
J2331.99		145.19	149.22	4.03	0	0.77	1.42	146.61	15.799	2.61	372.44	10.492
J2346.464		90.922	96.594	5.672	0	1.02	2.23	93.15	127.775	3.775	2881.916	487.166
J2352.47		128.16	134.26	6.1	0	0.4	1.07	129.23	13.76	5.03	176.25	32.382
J2359.439		133.2	136.81	3.61	0	0.54	1.34	134.54	14.44	2.55	191.22	42.512
J2376.910		133.3	136.89	3.59	0	0.52	1.36	134.66	14.442	2.53	191.22	42.512
J2378.957		132.5	140.22	7.72	0	0.76	1.84	134.34	46.597	5.88	457.31	14.709

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2411.26		146	149.06	3.06	0	0.41	0.87	146.87	15.819	2.33	372.44	10.492
J2430.00		129.47	135.14	5.67	0	0.56	1.49	130.96	13.77	4.18	176.25	32.382
J2446.464		91.165	97.168	6.003	0	1.32	2.73	93.9	127.809	4.458	2881.916	487.166
J2447.455		133.5	137.5	4	0	0.56	1.42	134.92	14.443	2.58	191.22	42.512
J2456.367		133.5	140.73	7.23	0	0.56	1.21	134.71	46.636	6.02	457.31	14.709
J246.4641		75.714	82.643	6.929	0	1.04	1.93	77.65	127.964	4.993	3098.286	542.799
J246.585		133	140.29	7.29	0	0.37	1.17	134.17	36.72	6.49	355.59	10.54
J2460.36		146.52	149.72	3.2	0	0.56	0.96	147.48	15.816	2.24	372.44	10.492
J2465.522		133.6	137.5	3.9	0	0.51	1.39	134.99	14.446	2.61	191.22	42.512
J248.32		103.2	106.67	3.47	0	0.91	2.35	105.55	33.159	1.12	295.96	69.133
J250.67		122	132.88	10.88	0	0.57	1.01	123.01	17.201	9.87	401.01	11.577
J2500		133.7	137.5	3.8	0	0.53	1.41	135.11	14.451	3.01	191.22	42.512
J2500.10		131.13	135.11	3.98	0	0.38	0.93	132.06	13.773	3.05	176.25	32.382
J2500.16		147	149.16	2.16	0	0.6	1.05	148.05	15.254	1.49	364.85	10.18
J2528.637		133.51	139.67	6.16	0	1.02	1.99	135.5	46.638	6	457.31	14.709
J2535.77		132.07	135.56	3.49	0	0.29	0.78	132.85	13.774	2.71	176.25	32.382
J2540.48		147.7	150.24	2.54	0	0.22	0.46	148.16	15.255	2.46	364.85	10.18
J2546.464		91.817	99.01	7.193	0	1.43	2.78	94.6	127.841	4.41	2881.916	487.166
J255.1367		109	117.33	8.33	0	0.37	1.08	110.08	33.503	7.25	310.94	72.681
J2559.518		133.8	137.92	4.12	0	0.59	1.5	135.3	14.456	3.88	191.22	42.512
J2594.793		133.9	138.89	4.99	0	0.59	1.53	135.43	14.465	3.85	191.22	42.512
J2600.16		148	150.92	2.92	0	0.39	0.73	148.73	15.256	2.45	364.85	10.18
J2603.25		132.62	136.05	3.43	0	0.25	0.78	133.4	13.775	3.35	176.25	32.382
J2604.897		134	141.11	7.11	0	0.72	1.62	135.62	44.031	5.68	419.1	8.527
J2646.464		93	99.353	6.353	0	0.86	2.01	95.01	127.219	4.93	2820.816	447.207
J2646.738		134	138.5	4.5	0	0.57	1.5	135.5	14.476	3.1	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J265.297		119.9	129.65	9.75	0	0.71	2.27	122.17	94.901	7.58	1182.61	99.73
J2650.52		148.47	151.65	3.18	0	0.34	0.72	149.19	13.6	2.7	342.33	7.793
J2662.919		134.1	138.5	4.4	0	0.49	1.43	135.53	14.492	3.17	191.22	42.512
J2666.88		133.04	137.17	4.13	0	0.47	1.18	134.22	13.778	3.06	176.25	32.382
J2680.447		93.183	100.123	6.94	0	1.08	2.2	95.39	127.226	4.733	2820.816	447.207
J27.449		130.03	136.41	6.38	0	0.1	0.21	130.24	7.176	6.17	148.89	11.315
J2706.457		134.5	141.8	7.3	0	0.56	1.5	136	43.366	6.39	408.23	8.212
J2721.15		148.5	151.92	3.42	0	0.44	0.9	149.4	13.601	2.52	342.33	7.793
J2723.864		134.2	138.4	4.2	0	0.44	1.39	135.59	14.511	3.21	191.22	42.512
J2742.526		134.3	138.39	4.09	0	0.5	1.4	135.7	14.535	2.99	191.22	42.512
J2744.16		133.12	137.36	4.24	0	0.64	1.54	134.66	13.779	2.7	176.25	32.382
J2746.464		93.57	100.018	6.448	0	1.19	2.38	95.95	127.231	4.432	2820.816	447.207
J2757.35		133.44	137.39	3.95	0	0.42	1.28	134.72	13.78	2.71	176.25	32.382
J2795.45		149	152.27	3.27	0	0.53	0.98	149.98	13.608	2.29	342.33	7.793
J2800		134.5	138.48	3.98	0	0.47	1.31	135.81	14.588	2.72	191.22	42.512
J2809.59		133.67	137.69	4.02	0	0.48	1.28	134.95	13.781	3.03	176.25	32.382
J2813.657		135	142.89	7.89	0	0.66	1.62	136.62	43.379	6.27	408.23	8.212
J2826.19		134.02	138.33	4.31	0	0.41	1.18	135.2	13.785	3.13	176.25	32.382
J2849.017		94.004	100.816	6.812	0	1.4	2.72	96.72	127.23	4.463	2820.816	447.207
J2860.405		94.277	101.456	7.179	0	1.25	2.64	96.91	127.231	4.546	2820.816	447.207
J2892.413		94.718	101.354	6.636	0	1.15	2.52	97.23	127.231	4.667	2820.816	447.207
J2900		135	139.03	4.03	0	0.5	1.28	136.28	14.593	3.24	191.22	42.512
J2900.09		134.66	138.21	3.55	0	0.43	1.15	135.81	13.786	2.77	176.25	32.382
J2900.117		136	143.22	7.22	0	0.39	1.11	137.11	43.422	6.11	408.23	8.212
J2900.16		150.44	152.62	2.18	0	0.47	0.88	151.32	13.614	2.24	342.33	7.793
J2902.731		94.769	101.549	6.78	0	1.24	2.67	97.44	127.232	4.508	2820.816	447.207

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2946.464		94.788	101.633	6.845	0	1.42	2.92	97.71	127.237	4.257	2820.816	447.207
J2979.285		135.02	139.54	4.52	0	0.67	1.6	136.62	14.597	2.92	191.22	42.512
J2989.647		95	101.923	6.923	0	1.37	2.92	97.92	127.25	4.003	2820.816	447.207
J3		143.5	146.5	3	0	0.28	1.47	144.97	43.711	4.03	408.23	8.212
j3.1		141.5	144.1	2.6	0	0.71	2.06	143.56	27.532	7.24	232.12	4.642
J3.15		153.4	157.72	4.32	0	0.9	1.78	155.18	13.912	2.54	299.01	6.754
J3.2		153.7	156.7	3	0	0.69	1.49	155.19	14.768	1.51	299.01	6.754
J300		109.84	118	8.16	0	0.45	1.18	111.02	33.791	6.98	310.94	72.681
J300.215		133.5	141.16	7.66	0	0.29	0.95	134.45	36.756	6.71	355.59	10.54
J300.239		135.3	137.92	2.62	0	0.19	0.38	135.68	9.366	2.8	102.87	2.756
J3000.09		135.71	139.63	3.92	0	0.47	1.26	136.97	13.791	2.73	176.25	32.382
J3000.117		136.5	143.55	7.05	0	0.28	1.05	137.55	43.469	6.15	408.23	8.212
J3000.16		151.17	154.29	3.12	0	0.52	0.86	152.03	13.617	2.26	342.33	7.793
J3007.922		135.5	139.65	4.15	0	0.29	1.15	136.65	14.615	3	191.22	42.512
J3051.067		137	144.2	7.2	0	0.27	0.9	137.9	43.484	6.48	408.23	8.212
J3054.885		96	102.767	6.767	0	0.96	2.24	98.24	127.255	5.027	2820.816	447.207
J3066.327		96.078	103.345	7.267	0	1.08	2.43	98.51	127.257	4.907	2820.816	447.207
J3100.09		136.64	140.63	3.99	0	0.43	1.17	137.81	13.791	2.82	176.25	32.382
J3100.16		151.77	154.15	2.38	0	0.42	0.72	152.49	13.624	2.36	342.33	7.793
J3103.867		137.1	144.38	7.28	0	0.52	1.42	138.52	43.498	6.17	408.23	8.212
J3105.432		96.188	102.227	6.039	0	1.27	2.65	98.84	127.273	4.687	2820.816	447.207
J311.56		123.78	133.22	9.44	0	0.35	0.65	124.43	17.202	8.79	401.01	11.577
J3111.594		136	139.94	3.94	0	0.24	0.9	136.9	14.648	3.37	191.22	42.512
J3135.520		136.1	140.27	4.17	0	0.19	0.81	136.91	14.76	4.47	191.22	42.512
J314.357		120	129.85	9.85	0	0.76	2.34	122.34	95.264	7.51	1182.61	99.73
J3148.25		152.01	155.09	3.08	0	0.29	0.6	152.61	13.627	2.48	342.33	7.793

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3150.013		96.681	102.937	6.256	0	0.87	2.18	98.87	127.6	6.172	2820.816	447.207
J3158.17		137.27	141.2	3.93	0	0.31	0.93	138.2	13.791	3.22	176.25	32.382
J3200		136.2	141.28	5.08	0	0.34	0.81	137.01	8.55	4.69	132.89	28.396
J3200.117		138	145.59	7.59	0	0.55	1.61	139.61	43.563	5.98	408.23	8.212
J3200.16		152.1	155.03	2.93	0	0.49	0.86	152.96	13.629	2.77	342.33	7.793
J3221.88		137.63	141.78	4.15	0	0.47	1.21	138.84	13.79	2.94	176.25	32.382
J3237.56		137.83	141.97	4.14	0	0.35	1.09	138.92	13.802	3.05	176.25	32.382
J3246.464		97	105.361	8.361	0	1.13	2.4	99.4	116.632	6.32	2404.036	320.255
J3262.17		152.2	155.64	3.44	0	0.56	1.02	153.22	13.633	2.61	342.33	7.793
J3300		136.5	142	5.5	0	0.35	0.81	137.31	7.588	4.69	121.24	27.348
J3300.117		139.5	145.63	6.13	0	0.3	1.04	140.54	43.597	5.47	408.23	8.212
J3322.153		98.06	106.78	8.72	0	0.76	1.64	99.7	115.879	7.08	2327.296	275.592
J3337.30		152.5	156.12	3.62	0	0.44	0.86	153.36	13.641	2.76	342.33	7.793
J3346.98		138	144.35	6.35	0	0.44	1.22	139.22	13.818	5.28	176.25	32.382
J3361.22		138.1	144.5	6.4	0	0.38	1.13	139.23	13.965	5.37	176.25	32.382
J3390.389		98.377	106.623	8.246	0	0.91	1.95	100.33	115.897	6.293	2327.296	275.592
J3392.66		138.2	141.54	3.34	0	0.3	1.04	139.24	14.577	2.5	176.25	32.382
J3400		137	142.5	5.5	0	0.25	0.62	137.62	7.59	5.25	121.24	27.348
J3411.51		153	156.34	3.34	0	0.42	0.78	153.78	13.643	2.59	342.33	7.793
J3414.967		140.48	146.99	6.51	0	0.28	1.12	141.6	43.602	5.5	408.23	8.212
J3428.33		153.1	156.37	3.27	0	0.49	0.86	153.96	11.728	2.51	299.01	6.754
J3445.04		138.5	142	3.5	0	0.25	0.75	139.25	9.536	4.11	110.73	11.324
J3446.464		98.818	106.275	7.457	0	0.86	1.84	100.66	115.907	5.615	2327.296	275.592
J346.4642		76.795	83.351	6.556	0	0.86	1.65	78.45	127.961	4.901	3098.286	542.799
J349.449		135.4	138.68	3.28	0	0.13	0.37	135.77	9.378	3.33	102.87	2.756
J3492.153		99	105.476	6.476	0	1	2.07	101.07	115.917	5.347	2327.296	275.592

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J350.45		124.43	133.57	9.14	0	0.57	1	125.43	17.203	8.14	401.01	11.577
J3500		137.5	143.37	5.87	0	0.42	0.96	138.46	6.076	4.91	97.4	21.626
J3500.1		139	142	3	0	0.12	0.38	139.38	9.54	4.48	110.73	11.324
J3500.117		141.15	147.77	6.62	0	0.61	1.6	142.75	43.613	5.02	408.23	8.212
J352.0823		110.5	118.23	7.73	0	0.46	1.17	111.67	14.199	6.56	191.22	42.512
J352.30		104	107.43	3.43	0	0.88	2.13	106.13	33.852	1.3	295.96	69.133
J3539.547		100	107.417	7.417	0	0.54	1.3	101.3	115.943	6.117	2327.296	275.592
J3546.867		141.5	147.8	6.3	0	0.51	1.5	143	43.657	5.77	408.23	8.212
J3552.954		100.01	107.142	7.132	0	0.67	1.46	101.47	115.958	5.696	2327.296	275.592
J3590.76		140.9	145.15	4.25	0	0.22	0.6	141.5	8.986	3.65	99.46	9.363
J3597.283		100.07	107.677	7.607	0	0.79	1.64	101.71	115.97	5.967	2327.296	275.592
J36.529		131.25	136.77	5.52	0	0.13	0.27	131.52	7.176	5.25	148.89	11.315
J3600		139	144	5	0	0.35	0.82	139.82	6.076	10.75	97.4	21.626
J3609.26		141	144.86	3.86	0	0.26	0.7	141.7	8.987	3.45	99.46	9.363
J3610.812		100.09	105.385	5.295	0	0.88	1.83	101.92	115.396	5.959	2298.046	272.2
J3624.107		142	149.27	7.27	0	0.45	1.29	143.29	43.687	5.98	408.23	8.212
J3660.527		142.5	151	8.5	0	0.39	1.26	143.76	43.698	7.24	408.23	8.212
J3667.068		100.17	107.789	7.619	0	1.21	2.37	102.54	115.397	5.419	2298.046	272.2
J3677.11		141.47	145.24	3.77	0	0.4	1.06	142.53	8.987	2.83	99.46	9.363
J3684.238		140.5	152.07	11.57	0	0.33	0.78	141.28	6.076	10.79	97.4	21.626
J3685.955		100.198	104.836	4.638	0	1.23	2.46	102.66	115.401	2.178	2298.046	272.2
J3696.22		141.96	145.72	3.76	0	0.24	0.78	142.74	8.988	3.27	99.46	9.363
J3709.655		100.514	105.087	4.573	0	1.03	2.3	102.82	115.403	4.287	2298.046	272.2
J3717.833		100.614	107.107	6.493	0	1.08	2.34	102.96	115.407	4.247	2298.046	272.2
J3742.908		141.18	147.54	6.36	0	0.36	0.88	142.06	6.076	5.48	97.4	21.626
J3758.726		141.55	145.98	4.43	0	0.26	0.71	142.26	6.076	3.72	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3770.893		101.707	107.337	5.63	0	0.89	1.96	103.67	115.407	4.63	2298.046	272.2
J3780.99		142.34	146.39	4.05	0	0.35	0.94	143.28	8.991	4.38	99.46	9.363
J3811.191		141.58	145.38	3.8	0	0.43	0.97	142.55	6.076	3.46	97.4	21.626
J3825.668		141.6	145.74	4.14	0	0.45	1	142.6	6.077	3.58	97.4	21.626
J3846.464		101.8	107.55	5.75	0	1.39	2.81	104.61	115.408	5.665	2298.046	272.2
J3869.05		143	148.32	5.32	0	0.39	1.09	144.09	8.993	4.23	99.46	9.363
J388.5779		77.436	83.441	6.005	0	0.8	1.65	79.09	127.961	4.351	3098.286	542.799
J3900		141.99	146.57	4.58	0	0.32	0.77	142.76	6.082	3.81	97.4	21.626
J392.31		104.36	107.44	3.08	0	0.84	2.09	106.45	34.021	0.99	295.96	69.133
J3932.07		143.5	147.63	4.13	0	0.38	1.07	144.57	8.993	3.48	99.46	9.363
J3946.464		102	110.475	8.475	0	1.45	2.99	104.99	115.424	5.485	2298.046	272.2
J3947.67		143.6	148.05	4.45	0	0.41	1.14	144.74	8.995	3.41	99.46	9.363
J4		144.1	147	2.9	0	0.66	1.98	146.08	30.973	2.92	267.14	5.343
J4.1		141.7	144.7	3	0	0.61	2.02	143.72	28.365	8.28	232.12	4.642
J4.2		154.5	157.5	3	0	0.45	0.9	155.4	11.102	2.1	193.34	4.64
J4.25		146	149	3	0	0.43	1.43	147.43	30.993	1.57	267.14	5.343
J4.5		146.02	149	2.98	0	0.57	1.81	147.83	30.998	2.59	267.14	5.343
J4.55		146.04	148.6	2.56	0	0.62	1.9	147.94	31.002	2.5	267.14	5.343
J4.56		146.06	150.45	4.39	0	0.61	1.9	147.96	31.007	2.49	267.14	5.343
J4.6		146.08	150.46	4.38	0	0.6	1.89	147.97	31.017	2.49	267.14	5.343
J4.7		146.1	149.1	3	0	0.61	1.9	148	31.155	2	267.14	5.343
J4.75		146.5	149.5	3	0	0.56	1.95	148.45	31.716	1.55	267.14	5.343
J400.127		120.75	130.56	9.81	0	0.66	2.05	122.8	95.553	7.76	1182.61	99.73
J400.215		134.5	142	7.5	0	0.55	1.53	136.03	36.769	5.97	355.59	10.54
J400.239		135.5	139.2	3.7	0	0.18	0.57	136.07	9.384	3.7	102.87	2.756
J4014.677		142.65	147.06	4.41	0	0.17	0.43	143.08	6.083	3.98	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4019.03		143.7	149.48	5.78	0	0.51	1.31	145.01	8.996	4.91	99.46	9.363
J402.1469		77.5	83.361	5.861	0	0.91	1.84	79.34	127.961	4.165	3098.286	542.799
J4034.42		143.8	149.72	5.92	0	0.49	1.36	145.16	9	4.86	99.46	9.363
J4067.080		102.504	110.39	7.886	0	1.17	2.73	105.24	115.448	5.763	2298.046	272.2
J410.6635		112	118.24	6.24	0	0.43	1.19	113.19	14.199	5.05	191.22	42.512
J4100		143.61	147.62	4.01	0	0.22	0.49	144.1	6.084	4.18	97.4	21.626
J4100.11		144	149.17	5.17	0	0.49	1.37	145.37	9.01	4.14	99.46	9.363
J4100.962		102.727	111.226	8.499	0	1.15	2.7	105.43	115.483	5.799	2298.046	272.2
J412.71		125.74	133.48	7.74	0	0.44	0.8	126.54	17.205	6.94	401.01	11.577
J4184.01		144.4	150.01	5.61	0	0.41	1.21	145.61	9.014	5.3	99.46	9.363
J4199.26		144.5	151.01	6.51	0	0.41	1.21	145.71	9.018	5.3	99.46	9.363
J4200		144.79	149.46	4.67	0	0.19	0.45	145.24	6.084	4.22	97.4	21.626
J4232.339		103.301	114.958	11.657	0	1.14	2.62	105.92	115.499	9.247	2298.046	272.2
J4248.377		103.429	115.295	11.866	0	1.27	2.79	106.22	115.518	9.075	2298.046	272.2
J4258.27		145	151.34	6.34	0	0.38	1.09	146.09	9.019	5.42	99.46	9.363
J427.7351		112.23	118.31	6.08	0	0.49	1.3	113.53	14.199	4.8	191.22	42.512
J4271.41		145.1	151.21	6.11	0	0.34	1.05	146.15	9.02	5.16	99.46	9.363
J4300		147.15	150.6	3.45	0	0.35	0.79	147.94	6.084	2.66	97.4	21.626
J4330.11		145.2	150.96	5.76	0	0.52	1.35	146.55	9.025	4.75	99.46	9.363
J4332.776		104.171	115.07	10.899	0	1.18	2.73	106.9	115.529	8.17	2298.046	272.2
J438.5957		77.124	83.798	6.674	0	1.44	2.57	79.69	127.96	4.128	3098.286	542.799
J4395.415		104.504	112.635	8.131	0	1.16	2.72	107.22	106.079	6.143	1893.586	177.588
J4396.23		145.53	150.63	5.1	0	0.39	1.21	146.74	9.029	3.89	99.46	9.363
J440.72		105	107.73	2.73	0	0.72	1.92	106.92	35.765	0.81	295.96	69.133
J4411.37		145.86	150.65	4.79	0	0.3	0.98	146.84	9.033	3.81	99.46	9.363
J4446.464		104.632	113.491	8.859	0	1.38	2.98	107.62	106.197	7.075	1893.586	177.588

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4462.26		145.9	151.32	5.42	0	0.45	1.16	147.06	9.036	4.26	99.46	9.363
J4477.44		146.29	151.39	5.1	0	0.21	0.82	147.11	9.042	4.28	99.46	9.363
J452.879		135.94	140.21	4.27	0	0.19	0.54	136.48	9.384	4.12	102.87	2.756
J4529.29		146.42	150.96	4.54	0	0.33	0.91	147.33	9.052	3.76	99.46	9.363
J454.8528		77.124	83.818	6.694	0	1.56	2.8	79.92	127.961	3.898	3098.286	542.799
J4546.464		105.4	115.463	10.063	0	1.03	2.61	108.01	106.072	8.352	1874.266	171.985
J4600.10		146.64	151.31	4.67	0	0.3	0.87	147.51	9.062	4.11	99.46	9.363
J461.85		126.2	133.36	7.16	0	0.49	0.95	127.15	17.205	6.51	401.01	11.577
J4635.43		147.07	152.05	4.98	0	0.21	0.61	147.68	9.096	4.37	99.46	9.363
J4646.464		105.733	116.695	10.962	0	1.1	2.62	108.36	106.333	8.49	1874.266	171.985
J4700.25		150.78	154.17	3.39	0	0.1	0.34	151.12	7.906	3.05	79.05	4.709
J4731.82		150.83	152.57	1.74	0	0.3	0.74	151.57	7.942	5.75	79.05	4.709
J4746.464		106.117	117.234	11.117	0	1.21	2.74	108.85	106.502	8.384	1874.266	171.985
J477.657		120.92	130.32	9.4	0	1.11	2.54	123.46	95.623	7.37	1182.61	99.73
J4800.10		151.38	157.87	6.49	0	0.08	0.37	151.75	7.629	6.12	69.57	1.391
J4846.464		106.467	116.662	10.195	0	1.21	2.97	109.44	106.637	7.616	1874.266	171.985
J487.7520		77.124	83.691	6.567	0	1.6	2.87	79.99	127.964	3.701	3098.286	542.799
J4900.10		152.09	154.18	2.09	0	0.31	0.7	152.79	7.433	1.39	69.57	1.391
J4945.903		107.124	117.713	10.589	0	0.95	2.54	109.67	106.891	8.391	1874.266	171.985
J4957.289		152.2	153.75	1.55	0	0.39	0.99	153.19	8.446	0.75	69.57	1.391
J498.2611		113.26	118.21	4.95	0	0.48	1.3	114.56	14.199	4.78	191.22	42.512
J5		148.5	151.5	3	0	0.19	0.8	149.3	32.21	9.2	267.14	5.343
J5.1		143.2	146.2	3	0	0.51	1.9	145.1	31.067	8.4	232.12	4.642
J5.2		154.6	156	1.4	0	0.78	1.53	156.13	11.812	0.33	193.34	4.64
J500.17		126.77	134.23	7.46	0	0.35	0.71	127.48	17.205	6.75	401.01	11.577
J500.239		136	140.66	4.66	0	0.17	0.6	136.6	9.387	4.47	102.87	2.756

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5000.10		152.74	154.09	1.35	0	0.16	0.45	153.19	9.14	1.04	69.57	1.391
J5046.464		107.448	118.385	10.937	0	1.07	2.57	110.02	107.179	9.263	1874.266	171.985
J5048.723		152.85	154.34	1.49	0	0.23	0.58	153.43	8.775	1.22	69.57	1.391
J506.895		135.5	142.66	7.16	0	0.47	1.2	136.7	36.182	5.96	344.96	10.306
J509.347		121	130.91	9.91	0	1.13	2.67	123.67	95.731	7.24	1182.61	99.73
J5100.10		153.03	154.83	1.8	0	0.28	0.71	153.74	8.745	1.09	69.57	1.391
J513.5331		113.58	118.5	4.92	0	0.43	1.23	114.81	14.201	3.69	191.22	42.512
J5146.464		107.53	119.365	11.835	0	1.25	2.82	110.35	107.572	9.015	1874.266	171.985
J5152.642		153.32	154.74	1.42	0	0.28	0.81	154.13	8.753	1.18	69.57	1.391
J516.02		105.73	107.84	2.11	0	0.64	1.6	107.33	36.278	1.4	295.96	69.133
J5220.803		153.49	155.48	1.99	0	0.41	1.08	154.57	8.786	0.91	69.57	1.391
J523.1179		77.124	83.691	6.567	0	1.69	3.04	80.17	127.966	3.521	3098.286	542.799
J5260.950		108.278	119.712	11.434	0	0.94	2.38	110.66	107.612	9.052	1857.486	169.972
J5260.956		153.77	155.4	1.63	0	0.21	0.81	154.58	8.901	0.93	69.57	1.391
J5300.10		154	155.74	1.74	0	0.16	0.61	154.61	9.235	1.6	69.57	1.391
J531.73		127.59	134.74	7.15	0	0.28	0.61	128.2	17.206	6.54	401.01	11.577
J534.23		105.99	108.99	3	0	0.57	1.47	107.46	36.632	1.56	295.96	69.133
J5373.942		109.061	119.739	10.678	0	0.88	2.23	111.29	107.764	8.449	1857.486	169.972
J5400.10		154.97	157.18	2.21	0	0.13	0.42	155.39	9.247	2.85	69.57	1.391
J5427.875		109.112	119.702	10.59	0	1.03	2.44	111.55	107.949	8.247	1857.486	169.972
J546.4642		77.521	83.405	5.884	0	1.54	3.02	80.54	127.967	3.673	3098.286	542.799
J5500.10		155.5	158.77	3.27	0	0.17	0.65	156.15	9.265	2.62	69.57	1.391
J5532.597		109.445	120.13	10.685	0	0.98	2.44	111.88	107.901	8.25	1845.096	169.724
J554.879		136.5	141.57	5.07	0	0.18	0.52	137.02	9.389	4.99	102.87	2.756
J5543.03		155.89	158.11	2.22	0	0.18	0.71	156.6	9.28	2.12	69.57	1.391
J5581.81		155.94	158.77	2.83	0	0.17	0.68	156.62	9.343	2.15	69.57	1.391

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5598.608		156	158.24	2.24	0	0.16	0.64	156.64	9.523	1.6	69.57	1.391
J5627.203		109.864	119.899	10.035	0	0.84	2.25	112.12	108.315	7.779	1845.096	169.724
J571.927		121.39	130.92	9.53	0	1.01	2.5	123.89	95.932	9.8	1182.61	99.73
J5746.464		110.189	119.271	9.082	0	1.06	2.39	112.58	108.757	7.951	1845.096	169.724
J5850.291		110.593	120.935	10.342	0	0.89	2.23	112.82	108.479	8.115	1811.086	159.793
J591.0980		77.124	83.691	6.567	0	2.07	3.71	80.84	127.969	2.976	3098.286	542.799
J5946.083		111.109	121.311	10.202	0	0.87	2.18	113.29	108.812	8.021	1811.086	159.793
J6		144.7	147.7	3	0	0.54	1.93	146.63	35.674	7.37	232.12	4.642
J6.2		154.7	157.7	3	0	0.74	1.46	156.16	19.982	1.66	193.34	4.64
J6.227		118.53	129.53	11	0	1.16	2.36	120.89	94.255	8.94	1182.61	99.73
J60.22		102.5	112.5	10	0	0.83	2.51	105.01	42.605	7.49	366.54	105.269
J600.0000		114.21	119.8	5.59	0	0.48	1.28	115.49	14.213	4.31	191.22	42.512
J600.17		128.66	135.22	6.56	0	0.34	0.69	129.35	17.207	6.69	401.01	11.577
J600.239		136.84	142.35	5.51	0	0.23	0.64	137.48	9.39	4.87	102.87	2.756
J6046.464		111.186	121.081	9.895	0	1.15	2.47	113.65	109.08	7.431	1811.086	159.793
J6098.928		111.34	119.993	8.653	0	1.08	2.44	113.78	109.349	7.673	1811.086	159.793
J6165.560		111.442	121.555	10.113	0	1.21	2.67	114.11	109.541	7.445	1811.086	159.793
J62.389		135	136.94	1.94	0	0.41	0.53	135.53	9.364	1.44	102.87	2.756
J6233.167		111.595	121.594	9.999	0	1.22	2.75	114.34	109.721	7.254	1811.086	159.793
J625.125		136.09	142.4	6.31	0	0.57	1.59	137.68	36.151	5.58	344.96	10.306
J6301.693		111.672	121.487	9.815	0	1.29	2.92	114.59	109.935	7.416	1811.086	159.793
J634.217		121.6	133.9	12.3	0	1.05	2.74	124.34	96.005	9.56	1182.52	99.64
J6358.901		111.749	122.083	10.334	0	1.31	2.95	114.7	110.259	7.383	1811.086	159.793
J639.57		129.64	137.02	7.38	0	0.23	0.51	130.15	17.209	6.87	401.01	11.577
J6435.935		112.363	122.451	10.088	0	0.98	2.51	114.87	110.548	8.247	1811.086	159.793
J646.4641		78.57	83.639	5.069	0	1.49	3.12	81.69	127.969	1.949	3098.286	542.799

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J647.627		121.74	131.42	9.68	0	1.01	2.72	124.46	96.058	6.96	1182.52	99.64
J6478.273		112.44	123.194	10.754	0	1.1	2.58	115.02	110.146	8.204	1781.823	157.452
J6565.562		112.848	123.632	10.784	0	1	2.52	115.37	109.968	10.639	1741.026	131.428
J657.28		107.9	110.98	3.08	0	0.27	0.88	108.78	37.076	2.2	295.96	69.133
J657.629		137.5	142.75	5.25	0	0.28	0.78	138.28	9.391	4.47	102.87	2.756
J6662.639		113.054	126.215	13.161	0	1.3	2.72	115.77	110.356	10.445	1741.026	131.428
J674.5680		79.397	83.676	4.279	0	1.17	2.71	82.11	127.968	1.971	3098.286	542.799
J674.60		108	111.03	3.03	0	0.32	1.03	109.03	37.896	2.63	295.96	69.133
J6772.934		114.195	124.959	10.764	0	0.9	2.18	116.37	110.489	9.202	1741.026	131.428
J684.977		122	132.21	10.21	0	1.01	2.75	124.75	96.117	8.57	1182.52	99.64
J6846.464		114.24	125.617	11.377	0	1.38	2.93	117.17	110.51	8.549	1741.026	131.428
J6894.028		114.34	125.719	11.379	0	1.51	3.17	117.51	110.58	8.7	1741.026	131.428
J69.25231		104.63	115.21	10.58	0	0.96	2.34	106.97	54.903	8.24	382.54	90.009
J695.90		130.8	137.5	6.7	0	0.42	0.71	131.51	17.206	6.62	401.01	11.577
J6988.738		114.56	126.43	11.87	0	1.48	3.15	117.71	110.757	8.72	1741.026	131.428
J699.925		136.5	143.67	7.17	0	0.64	1.47	137.97	36.173	5.7	344.96	10.306
J7.227846		75.474	80.753	5.279	0	0.7	1.15	76.62	128.031	5.503	3127.946	548.256
J700		114.3	120.41	6.11	0	0.5	1.34	115.64	14.26	4.77	191.22	42.512
J700.239		138	143.21	5.21	0	0.32	0.89	138.89	9.391	4.32	102.87	2.756
J703.1630		79.556	84.24	4.684	0	1.47	3.03	82.59	127.969	1.978	3098.286	542.799
J7047.302		114.752	124.764	10.012	0	1.37	3.08	117.84	110.612	6.924	1725.986	125.502
J706.81		131	138.33	7.33	0	0.46	0.79	131.79	17.206	6.98	401.01	11.577
J709.95		108.43	112.09	3.66	0	0.22	0.61	109.04	13.316	3.05	176.25	32.382
J71.72631		75.374	82.023	6.649	0	1.02	1.66	77.03	128.052	5.435	3127.946	548.256
J7132.593		114.937	124.928	9.991	0	1.44	3.18	118.11	111.206	6.818	1725.986	125.502
J718.547		122.1	133.32	11.22	0	0.99	2.73	124.83	96.236	8.59	1182.52	99.64

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J7232.906		115.699	124.326	8.627	0	0.99	2.55	118.25	113.278	6.076	1725.986	125.502
J7322.142		116.115	123.734	7.619	0	0.99	2.45	118.57	109.399	5.362	1608.8	113.322
J736.779		138.5	143.45	4.95	0	0.23	0.7	139.2	9.391	4.25	102.87	2.756
J737.045		137	142.75	5.75	0	0.48	1.14	138.14	36.202	6.34	344.96	10.306
J7381.689		116.697	124.514	7.817	0	0.86	2.12	118.81	109.945	8.047	1608.8	113.322
J74.135		132	138.61	6.61	0	0.66	1.65	133.65	36.542	5.07	355.59	10.54
J7449.270		116.966	127.126	10.16	0	0.82	2.09	119.06	110.428	8.066	1608.8	113.322
J746.4641		79.812	84.824	5.012	0	1.57	3.2	83.01	127.969	2.575	3098.286	542.799
J749.08		131.5	139.37	7.87	0	0.65	1.05	132.55	17.212	6.82	401.01	11.577
J7549.375		117.552	127.605	10.053	0	1.06	2.43	119.98	110.533	8.304	1608.8	113.322
J762.307		122.74	132.51	9.77	0	0.65	2.14	124.88	96.064	7.63	1173.84	98.364
J7639.745		117.959	128.691	10.732	0	0.83	2.25	120.21	110.83	8.481	1608.8	113.322
J768.179		138.9	143.38	4.48	0	0.25	0.69	139.59	9.392	3.85	102.87	2.756
J7752.183		118.5	128.747	10.247	0	1.18	2.34	120.84	16.089	8.29	401.01	11.577
J794.7359		79.818	85.591	5.773	0	1.93	3.63	83.45	127.971	2.648	3098.286	542.799
J795.635		137.1	144.48	7.38	0	0.81	1.56	138.66	36.357	5.92	344.96	10.306
J799.60		109.44	111.34	1.9	0	0.13	0.46	109.9	13.327	2.55	176.25	32.382
J80.89927		75	82.091	7.091	0	1.47	2.2	77.2	127.767	5.477	3098.286	542.799
J800.0000		116.5	120	3.5	0	0.39	1.06	117.56	14.464	5.08	191.22	42.512
J800.117		122.8	131.86	9.06	0	0.78	2.2	125	90.932	7.16	1068.5	62.887
J800.17		132.83	139.34	6.51	0	0.43	0.81	133.64	15.7	5.7	372.44	10.492
J800.239		139	144.32	5.32	0	0.23	0.71	139.71	9.402	4.61	102.87	2.756
J82.94		119	129.63	10.63	0	0.76	1.85	120.85	16.614	8.83	401.01	11.577
J846.4642		80.833	87.113	6.28	0	1.32	2.93	83.77	127.978	3.343	3098.286	542.799
J851.915		137.8	144.92	7.12	0	0.38	0.96	138.76	36.485	6.16	344.96	10.306
J854.56		110.28	113.29	3.01	0	0.27	0.7	110.98	13.363	2.31	176.25	32.382

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J855.869		139.98	144.52	4.54	0	0.16	0.48	140.46	9.404	4.86	102.87	2.756
J876.147		123.5	132.09	8.59	0	0.55	1.71	125.21	91.169	7.35	1068.5	62.887
J895.8482		81.591	87.386	5.795	0	1.12	2.48	84.07	127.988	3.316	3098.286	542.799
J9.209		127.26	134.08	6.82	0	0.52	2.12	129.38	7.176	4.7	148.89	11.315
J9.902844		104.31	115.07	10.76	0	1.13	2.66	106.97	54.609	8.1	382.54	90.009
J900.10		111.28	113.24	1.96	0	0.1	0.32	111.6	13.373	3.54	176.25	32.382
J900.239		140	145.34	5.34	0	0.29	0.75	140.75	9.408	4.59	102.87	2.756
J902.1607		116.99	123.13	6.14	0	0.2	0.7	117.69	14.323	6.2	191.22	42.512
J902.835		137.9	144.67	6.77	0	0.53	1.26	139.16	36.542	5.51	344.96	10.306
J904.90		134.44	140.82	6.38	0	0.25	0.51	134.95	15.703	5.87	372.44	10.492
J922.9622		117.1	123.85	6.75	0	0.25	0.74	117.84	14.353	6.16	191.22	42.512
J929.29		111.72	115.58	3.86	0	0.19	0.46	112.18	13.373	6.07	176.25	32.382
J945.497		124	133.06	9.06	0	0.7	1.84	125.84	91.213	7.22	1068.5	62.887
J955.93		135.5	140.77	5.27	0	0.31	0.61	136.11	15.704	4.97	372.44	10.492
J956.725		138	144.51	6.51	0	0.73	1.63	139.63	36.634	4.88	344.96	10.306
J963.549		141	145.71	4.71	0	0.15	0.5	141.5	9.41	4.21	102.87	2.756
J964.46		112.13	118.66	6.53	0	0.21	0.63	112.76	13.373	8.75	176.25	32.382
J966.3656		82.24	87.702	5.462	0	1.13	2.44	84.68	126.779	3.022	2973.676	510.774
J982.0328		82.34	87.489	5.149	0	1.21	2.64	84.98	126.78	2.559	2973.676	510.774
J99.99998		106.58	115.09	8.51	0	0.3	0.95	107.53	54.991	7.96	382.54	90.009
J992.03		112.5	121.88	9.38	0	0.3	0.8	113.3	13.373	9.85	176.25	32.382
SU211		139.5	142.1	2.6	0	0.06	0.46	139.96	9.055	2.54	38.21	6.182
SU220		133.5	135.15	1.65	0	0.07	0.65	134.15	14.845	2.35	48.65	12.041

Table 2A: Subcatchments

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)
CWP	100yrChicago24hr	J6478.273	2.07645	138.43	150	2	37.5	0.013	0.25	25	OUTLET	100	0.1	22.38
Eaglewood2	100yrChicago24hr	EBS1	0.07	14	50	1.5	100	0.013	0.25	25	OUTLET	100	0.1	0
Eaglwood1	100yrChicago24hr	EBS1	0.4	200	20	1	100	0.013	0.25	25	OUTLET	100	0.1	0
EBR3S	100yrChicago24hr	EBS1	0.577	55.004	104.901	1	29	0.013	0.25	25	OUTLET	100	0.1	22.63
EENNS1	100yrChicago24hr	EBS1	0.6	46.154	130	1.5	93	0.013	0.25	25	OUTLET	100	0.1	2.21
EGOLF1	100yrChicago24hr	j5427.875	12.39	826	150	1	2	0.013	0.25	25	OUTLET	100	0.1	31.55
EGOLF2	100yrChicago24hr	DF001	21.23	1415.333	150	1	2	0.013	0.25	25	OUTLET	100	0.1	31.55
EMAIN1	100yrChicago24hr	J7639.745	25.18	1677	150.149	1.5	8	0.013	0.25	25	OUTLET	100	0.1	29.61
EMAIN2	100yrChicago24hr	J6435.935	29.26326	1950.533	150.027	2.3	8	0.013	0.25	25	OUTLET	100	0.1	29.57
EMAIN3	100yrChicago24hr	J5146.464	16.78	1118	150.089	0.5	12	0.013	0.25	25	OUTLET	100	0.1	28.45
EMAIN4	100yrChicago24hr	j4332.776	21.92	1461	150.034	0.7	21	0.013	0.25	25	OUTLET	100	0.1	25.47
ESAN1	100yrChicago24hr	j4446.464	19.32	1288	150	1.1	29	0.013	0.25	25	OUTLET	100	0.1	22.68
ESAN2	100yrChicago24hr	DF001	8.02	534	150.187	0.9	37	0.013	0.25	25	OUTLET	100	0.1	20.12
ETRIB1a	100yrChicago24hr	E301	6.6609	444.06	150	3	11.4	0.013	0.25	25	OUTLET	100	0.1	28.44
ETRIB1b	100yrChicago24hr	E301	5.75	384.448	149.565	3	4.8	0.013	0.25	25	OUTLET	100	0.1	30.57
ETRIB2E	100yrChicago24hr	E604	1.63	108.667	150	1.1	28	0.013	0.25	25	OUTLET	100	0.1	23.16
ETRIB2W	100yrChicago24hr	E855	50.23	3349	149.985	1.2	9	0.013	0.25	25	OUTLET	100	0.1	29.31
ETRIB3E	100yrChicago24hr	E673	1.77	189.796	93.258	1.3	62	0.013	0.25	25	OUTLET	100	0.1	12.15
ETRIB3W	100yrChicago24hr	E768	42.8682	2858.223	149.982	1.1	2	0.013	0.25	25	OUTLET	100	0.1	31.6
FBG1	100yrChicago24hr	E761	1.714	126.963	135	2	90	0.013	0.25	25	OUTLET	100	0.1	3.45
FBG2	100yrChicago24hr	E643	1.18	78.667	149.999	2	65	0.013	0.25	25	OUTLET	100	0.1	12.12
FBG3	100yrChicago24hr	J571.927	0.09	18	50	2	100	0.013	0.25	25	OUTLET	100	0.1	0
FBG4	100yrChicago24hr	J6478.273	38.72	2581.333	150	2	65.2	0.013	0.25	25	OUTLET	100	0.1	12.43
North1	100yrChicago24hr	EBS1	0.56	54.902	102	2	7	0.013	0.25	25	OUTLET	100	0.1	29.62
North2	100yrChicago24hr	EBS1	0.36	65.455	55	1	100	0.013	0.25	25	OUTLET	100	0.1	0
North3	100yrChicago24hr	EBS1	0.35	44.872	78	1.3	7	0.013	0.25	25	OUTLET	100	0.1	29.61
S101	100yrChicago24hr	J71.72631	29.66	3802.564	78	0.3	18.4	0.013	0.25	25	OUTLET	100	0.1	26.09

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)
S102	100yrChicago24hr	J895.8482	124.61	18325	68	0.45	25.7	0.013	0.25	25	OUTLET	100	0.1	23.68
S103	100yrChicago24hr	J1060.963	51.96	7318.31	71	0.4	24.6	0.013	0.25	25	OUTLET	100	0.1	24.05
S104	100yrChicago24hr	J2173.272	39.8	5527.778	72	0.4	27.2	0.013	0.25	25	OUTLET	100	0.1	23.22
S105	100yrChicago24hr	J2546.464	61.1	5657.407	108	0.4	65.4	0.013	0.25	25	OUTLET	100	0.1	11.01
S106	100yrChicago24hr	J3246.464	76.74	12790	60	0.3	58.2	0.013	0.25	25	OUTLET	100	0.1	13.29
S109	100yrChicago24hr	J718.547	8.68	1045.783	83	0.25	14.7	0.013	0.25	25	OUTLET	100	0.1	27.32
S110	100yrChicago24hr	J1200.117	19.88	2395.181	83	0.4	25.3	0.013	0.25	25	OUTLET	100	0.1	23.85
S111	100yrChicago24hr	J400.215	10.63	2362.222	45	0.45	2.2	0.013	0.25	25	OUTLET	100	0.1	31.15
S112	100yrChicago24hr	J1388.055	106.47	8190	130	1.5	5.2	0.013	0.25	25	OUTLET	100	0.1	30.28
S113	100yrChicago24hr	J113	232.12	15474.67	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1	31.35
S151	100yrChicago24hr	J151	24.92	2076.667	120	1	54.8	0.013	0.25	25	OUTLET	100	0.1	14.38
S152	100yrChicago24hr	J152	25.32	1770.629	143	0.95	31.7	0.013	0.25	25	OUTLET	100	0.1	21.81
S153	100yrChicago24hr	J60.22	70.58	5881.667	120	0.2	51.2	0.013	0.25	25	OUTLET	100	0.1	15.62
S154	100yrChicago24hr	J674.60	119.71	14422.89	83	0.75	30.7	0.013	0.25	25	OUTLET	100	0.1	22.07
S155	100yrChicago24hr	J3500.1	11.27	1977.193	57	0.3	17.4	0.013	0.25	25	OUTLET	100	0.1	26.35
S156	100yrChicago24hr	SU156	26.18	4363.333	60	0.35	33.1	0.013	0.25	25	OUTLET	100	0.1	21.31
S157	100yrChicago24hr	SU157	39.34	5785.294	68	0.75	31.5	0.013	0.25	25	OUTLET	100	0.1	21.79
S158	100yrChicago24hr	J4731.82	9.48	2106.667	45	0.55	35	0.013	0.25	25	OUTLET	100	0.1	20.65
S159	100yrChicago24hr	SU159	20.41	3401.667	60	0.65	22.8	0.013	0.25	25	OUTLET	100	0.1	24.57
S160	100yrChicago24hr	J5598.608	69.57	6156.637	113	0.8	2	0.013	0.25	25	OUTLET	100	0.1	31.35
S161	100yrChicago24hr	J300	119.72	16627.78	72	0.5	25.2	0.013	0.25	25	OUTLET	100	0.1	23.84
S162	100yrChicago24hr	J142.6492	71.6	11015.38	65	0.85	24.2	0.013	0.25	25	OUTLET	100	0.1	24.11
S163	100yrChicago24hr	SU163	58.33	8973.846	65	0.4	24.2	0.013	0.25	25	OUTLET	100	0.1	24.17
S164	100yrChicago24hr	J3200	11.65	2080.357	56	0.5	9	0.013	0.25	25	OUTLET	100	0.1	29
S165	100yrChicago24hr	SU165	23.84	3667.692	65	0.65	24	0.013	0.25	25	OUTLET	100	0.1	24.19
S166	100yrChicago24hr	SU166	71.04	10447.06	68	1.05	29.7	0.013	0.25	25	OUTLET	100	0.1	22.35
S167	100yrChicago24hr	J167	26.36	2196.667	120	0.3	2	0.013	0.25	25	OUTLET	100	0.1	31.52

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)
S171	100yrChicago24hr	SU171	34.01	5232.308	65	1.15	29.2	0.013	0.25	25	OUTLET	100	0.1	22.5
S172	100yrChicago24hr	SU172	15.04	2211.765	68	0.85	39.4	0.013	0.25	25	OUTLET	100	0.1	19.26
S180	100yrChicago24hr	J749.08	28.57	4201.471	68	0.5	3.8	0.013	0.25	25	OUTLET	100	0.1	30.7
S181	100yrChicago24hr	J181	15.96	1922.892	83	1.25	55.4	0.013	0.25	25	OUTLET	100	0.1	14.16
S182	100yrChicago24hr	j2600.16	22.52	2297.959	98	0.4	10.6	0.013	0.25	25	OUTLET	100	0.1	28.63
S183	100yrChicago24hr	J2460.36	7.59	1686.667	45	0.45	4.1	0.013	0.25	25	OUTLET	100	0.1	30.54
S184	100yrChicago24hr	J3.2	105.67	9606.364	110	0.8	2	0.013	0.25	25	OUTLET	100	0.1	31.34
S185	100yrChicago24hr	J185	43.32	3938.182	110	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1	31.25
S186	100yrChicago24hr	J186	193.34	12889.33	150	2	2.4	0.013	0.25	25	OUTLET	100	0.1	31.18
S187	100yrChicago24hr	E855	1.93	321.667	60	0.9	7.8	0.013	0.25	25	OUTLET	100	0.1	29.34
S191	100yrChicago24hr	SU191	89.38	16864.15	53	0.6	29.8	0.013	0.25	25	OUTLET	100	0.1	22.32
S192	100yrChicago24hr	J1130.117	3.43	571.667	60	0.65	5.5	0.013	0.25	25	OUTLET	100	0.1	30.11
S193	100yrChicago24hr	SU193	21.79	3026.389	72	0.6	29.7	0.013	0.25	25	OUTLET	100	0.1	22.39
S195	100yrChicago24hr	SU220	9.45	1783.019	53	0.85	29.6	0.013	0.25	25	OUTLET	100	0.1	22.37
S201	100yrChicago24hr	SU201	16.42	2736.667	60	1.3	24	0.013	0.25	25	OUTLET	100	0.1	24.14
S202	100yrChicago24hr	SU202	29.6	4933.333	60	0.6	15.6	0.013	0.25	25	OUTLET	100	0.1	26.88
S203	100yrChicago24hr	J1700.117	12.96	2160	60	0.5	20	0.013	0.25	25	OUTLET	100	0.1	25.48
S204	100yrChicago24hr	J1361.769	48.81	3754.615	130	0.3	3.1	0.013	0.25	25	OUTLET	100	0.1	31.19
S205	100yrChicago24hr	J2266.899	54.06	3861.429	140	0.6	2.3	0.013	0.25	25	OUTLET	100	0.1	31.36
S210	100yrChicago24hr	J2604.897	10.87	2415.556	45	0.7	2.9	0.013	0.25	25	OUTLET	100	0.1	30.88
S211	100yrChicago24hr	SU211	29.63	4938.333	60	0.65	19.3	0.013	0.25	25	OUTLET	100	0.1	25.69
S212	100yrChicago24hr	J212	8.58	817.143	105	0.5	5.4	0.013	0.25	25	OUTLET	100	0.1	30.3
S213	100yrChicago24hr	J3	11.91	1044.737	114	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1	31.26
S214	100yrChicago24hr	J1041.555	6.37	767.47	83	1.15	2	0.013	0.25	25	OUTLET	100	0.1	31.24
S215	100yrChicago24hr	J3	129.18	8612	150	1.1	2	0.013	0.25	25	OUTLET	100	0.1	31.39
S216	100yrChicago24hr	J216	267.14	17809.33	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1	31.35
S220	100yrChicago24hr	SU220	34.67	5778.333	60	0.5	26.4	0.013	0.25	25	OUTLET	100	0.1	23.43

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)
S221	100yrChicago24hr	SU220	4.53	503.333	90	0.55	2	0.013	0.25	25	OUTLET	100	0.1	31.34
WRegWid	100yrChicago24hr	E673	0.5362	35.747	149.999	1	25	0.013	0.25	25	OUTLET	100	0.1	23.97

Table 2B: Subcatchments

Name	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m^3/s)
CWP	0	0	74.7	0.69
Eaglewood2	0	0	96.56	0.04
Eaglwood1	0	0	96.34	0.22
EBR3S	0	0	74.01	0.17
EENNS1	0	0	94.47	0.33
EGOLF1	0	0	60.7	1.37
EGOLF2	0	0	60.7	2.34
EMAIN1	0	0	62	3.8
EMAIN2	0	0	62.36	5.04
EMAIN3	0	0	62.45	2.21
EMAIN4	0	0	66.51	4.2
ESAN1	0	0	73.68	5.2
ESAN2	0	0	76.3	2.42
ETRIB1a	0	0	63.86	1.36
ETRIB1b	0	0	61.44	0.98
ETRIB2E	0	0	69.66	0.4
ETRIB2W	0	0	62.19	7.36
ETRIB3E	0	0	82.99	0.81
ETRIB3W	0	0	59.31	4.68
FBG1	0	0	93.34	0.94

Table 2B: Subcatchments (continued...)

Name	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m³/s)
FBG2	0	0	84.89	0.55
FBG3	0	0	96.52	0.05
FBG4	0	0	84.67	18.01
North1	0	0	67.17	0.13
North2	0	0	96.6	0.2
North3	0	0	67.23	0.08
S101	0	0	70.03	6.32
S102	0	0	72.94	35.55
S103	0	0	72.47	13.97
S104	0	0	73.33	11.18
S105	0	0	85.67	26.55
S106	0	0	83.58	33.47
S109	0	0	68.46	1.56
S110	0	0	72.52	5.11
S111	0	0	65.7	2.33
S112	0	0	66	18.46
S113	0	0	64.58	31.69
S151	0	0	82.44	10.3
S152	0	0	74.57	7.11
S153	0	0	80.53	23.55
S154	0	0	74.66	37.9
S155	0	0	70.13	2.7
S156	0	0	75.41	8.45
S157	0	0	75.07	13.47
S158	0	0	76.36	3.68
S159	0	0	72.28	6.26
S160	0	0	64.59	9.52

Table 2B: Subcatchments (continued...)

Name	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m^3/s)
S161	0	0	72.77	33.79
S162	0	0	72.78	22.93
S163	0	0	72.43	16.11
S164	0	0	67.7	2.68
S165	0	0	72.6	7.22
S166	0	0	74.6	25.12
S167	0	0	63.17	2.46
S171	0	0	74.5	12.33
S172	0	0	77.68	5.81
S180	0	0	65.7	5.08
S181	0	0	82.82	7.26
S182	0	0	67.15	3.68
S183	0	0	66.32	1.74
S184	0	0	64.64	14.77
S185	0	0	64.47	5.51
S186	0	0	65.06	30.66
S187	0	0	67.58	0.49
S191	0	0	74.62	31.32
S192	0	0	66.64	0.76
S193	0	0	74.35	6.86
S195	0	0	74.67	3.5
S201	0	0	72.94	5.87
S202	0	0	69.89	7.88
S203	0	0	71.23	3.59
S204	0	0	63.32	4.37
S205	0	0	63.84	5.78
S210	0	0	66.19	2.8

Table 2B: Subcatchments (continued...)

Name	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m³/s)
S211	0	0	71.14	8.58
S212	0	0	65.42	1.19
S213	0	0	64.39	1.47
S214	0	0	65.44	1.26
S215	0	0	64.32	16.06
S216	0	0	64.58	36.47
S220	0	0	73.34	10.7
S221	0	0	64.67	0.64
WRegWid	0	0	72.24	0.13

Table 3: Storages

Name	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Initial Depth (m)	Storage Curve	Curve Name	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Avg. Volume (1000 m³)	Avg. Percent Full (%)	Max. Volume (1000 m³)	Max. Percent Full (%)	Max. Outflow (m³/s)
SU156	139	141.5	2.5	0	TABULAR	da156	1.72	2.28	141.28	8.449	5.646	60	8.047	85	3.274
SU157	139	141.5	2.5	0	TABULAR	da157	1.57	2.2	141.2	13.47	4.962	51	7.765	80	10.235
SU159	147.3	149.3	2	0	TABULAR	da159	0.8	1.01	148.31	6.26	3.227	31	4.192	40	3.937
SU163	136.85	139	2.15	0	TABULAR	da163	0.98	1.32	138.17	16.106	11.21	42	15.364	57	7.307
SU165	139	140.5	1.5	0	TABULAR	da165	0.8	1.01	140.01	7.219	4.084	49	5.234	63	4.344
SU166	147.15	150.15	3	0	TABULAR	da166	0.95	1.91	149.06	26.055	14.237	27	30.8	58	6.084
SU171	114	119	5	0	TABULAR	da171	1.5	4.43	118.43	12.327	1.439	19	5.701	74	9.407
SU172	127.5	130.5	3	0	TABULAR	da172	0.22	2.15	129.65	5.81	0.157	4	2.315	55	3.376
SU182	151.38	153.5	2.12	0	TABULAR	da182	0	0	151.38	0	0	0	0	0	0
SU191	127	130.5	3.5	0	TABULAR	da191	1.42	2.69	129.69	34.262	19.413	35	39.912	71	8.525
SU193	130.5	133	2.5	0	TABULAR	da193	1.05	1.5	132	6.861	4.238	40	6.171	58	3.813
SU201	132.59	135	2.41	0	TABULAR	da201	0.75	1.4	133.99	5.871	3.125	22	6.232	44	1.987

Table 3: Storages (continued...)

Name	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Initial Depth (m)	Storage Curve	Curve Name	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Avg. Volume (1000 m^3)	Avg. Percent Full (%)	Max. Volume (1000 m^3)	Max. Percent Full (%)	Max. Outflow (m^3/s)
SU202	132.09	135	2.91	0	TABULAR	da202	1.04	1.9	133.99	7.876	6.163	29	12.017	56	1.772
SU203	131.25	134	2.75	0	TABULAR	da203	1.41	2.71	133.96	11.476	3.239	22	13.769	95	7.176

PCSWMM Report

Proposed Uncontrolled - Regional

Model 14Mile_Proposed-BG-Uncontrolled_JFSA_v01.22, Regional.inp

Urbantech Consulting

June 30, 2023

Table of Contents

Tables

Table 1: Junctions

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
10		101.05	105.05	4	0	0.31	1.29	102.34	3.452	2.71	29.25	3.392
21		104.217	114.737	10.52	0	1.21	3.67	107.89	218.356	7.087	2276.126	267.597
22		131.6	138.3	6.7	0	0.74	1.99	133.59	95.145	5.97	812.9	25.249
23		126.76	136.54	9.78	0	0.86	2.88	129.64	117.881	6.9	1023.4	51.197
25		118.429	128.74	10.311	0	1.26	2.9	121.33	168.875	8.399	1583.62	111.307
DF001		110.44	113.44	3	0	0.21	0.77	111.21	3.678	2.23	29.25	3.392
DF002		105.98	108.98	3	0	0.32	1.83	107.81	3.662	1.17	29.25	3.392
DF004		105.509	108.509	3	0	0.24	0.98	106.49	3.435	2.019	29.25	3.392
DF005		105.027	108.027	3	0	0.25	1.01	106.03	3.454	1.997	29.25	3.392
DF006		104.676	107.676	3	0	0.19	0.78	105.45	3.618	2.226	29.25	3.392
DF007		103.504	106.504	3	0	0.22	0.93	104.43	3.491	2.074	29.25	3.392
DF008		102.918	105.918	3	0	0.24	0.97	103.89	3.482	2.028	29.25	3.392
DF009		101.05	105.05	4	0	0.35	1.35	102.4	3.452	2.65	29.25	3.392
DFM001		108.085	108.085	0	0	0	0	108.08	0	0.755	29.25	3.392
DFM002		105.65	105.65	0	0	0	0	105.65	0	0.75	29.25	3.392
DFM003		107.786	107.786	0	0	0	0	107.79	0	0.746	29.25	3.392
DFM004		107.486	107.486	0	0	0	0	107.49	0	0.746	29.25	3.392
DFM005		107.187	107.187	0	0	0	0	107.19	0	0.747	29.25	3.392
DFM006		106.887	106.887	0	0	0	0	106.89	0	0.747	29.25	3.392
DFM007		106.588	106.588	0	0	0	0	106.59	0	0.748	29.25	3.392
DFM008		106.288	106.288	0	0	0	0	106.29	0	0.748	29.25	3.392
DFM009		105.989	105.989	0	0	0	0	105.99	0	0.749	29.25	3.392
E153		118.5	118.5	0	0	0.09	0.46	118.96	15.064	7.54	117.186	12.18
E238		119	119	0	0	0.2	0.75	119.75	15.135	6.75	117.186	12.18
E301		120	120	0	0	0.15	0.65	120.65	15.248	5.85	117.186	12.18
E344		120.5	120.5	0	0	0.25	0.75	121.25	14.461	5.25	110.525	11.421

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
E394		121.5	121.5	0	0	0.09	0.43	121.93	13.843	5.57	104.775	11.145
E439		121.5	121.5	0	0	0.41	1.15	122.65	13.82	4.85	104.775	11.145
E479		122	122	0	0	0.84	2.54	124.54	13.962	2.96	104.775	11.145
E494		122.54	122.54	0	0	0.53	2.01	124.55	14.272	2.95	104.775	11.145
E505		122.53	122.53	0	0	0.56	2.02	124.55	14.957	2.48	104.775	11.145
E543		123	123	0	0	0.38	1.56	124.56	15.428	3.94	104.775	11.145
E580		123.5	123.5	0	0	0.16	1.07	124.57	15.654	4.43	104.775	11.145
E604		124	124	0	0	0.31	0.66	124.66	9.822	4.84	56.684	7.437
E615		124.25	124.25	0	0	0.22	0.47	124.72	9.706	4.78	55.054	6.981
E618		124	124	0	0	0.38	0.85	124.85	5.977	3.65	48.091	3.708
E626		124	124	0	0	0.41	0.9	124.9	5.979	2.1	48.091	3.708
E643		124.5	124.5	0	0	0.2	0.66	125.16	9.881	3.34	55.054	6.981
E649		124.5	124.5	0	0	0.14	0.44	124.94	5.984	3.56	48.091	3.708
E667		124.5	124.5	0	0	0.29	0.88	125.38	9.796	3.12	53.874	6.214
E673		125	125	0	0	0.13	0.4	125.4	5.987	3.6	48.091	3.708
E677		125	125	0	0	0.13	0.46	125.46	9.856	3.54	53.874	6.214
E690		125	125	0	0	0.22	0.65	125.65	10.391	3.35	53.874	6.214
E732		126	126	0	0	0.11	0.49	126.49	12.061	3.51	53.874	6.214
E733		126	126	0	0	0.2	0.6	126.6	5.674	2.9	45.785	2.476
E761		126.5	126.5	0	0	0.07	0.43	126.93	14.222	4.07	53.874	6.214
E768		126.5	126.5	0	0	0.1	0.42	126.92	5.268	3.08	42.868	0.857
E818		126.5	126.5	0	0	0.48	1.29	127.79	8.483	3.21	52.16	4.671
E855		127	127	0	0	0.22	0.82	127.82	6.651	3.18	52.16	4.671
EBS1		127	127	0	0	0.16	0.51	127.51	0.415	1.49	2.917	1.619
EBS1_1		126.6	126.6	0	0	0.16	0.5	127.1	0.415	1.5	2.917	1.619
EBS1_2		126.2	126.2	0	0	0.17	0.53	126.73	0.413	1.47	2.917	1.619

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1		102.412	106.412	4	0	0.67	2.39	104.8	39.71	1.912	366.54	105.269
J100.17		119.57	130.25	10.68	0	0.48	1.79	121.36	36.097	8.89	401.01	11.577
J1002.010		118	124.97	6.97	0	0.24	0.82	118.82	25.169	6.15	191.22	42.512
J1012.195		83.33	87.423	4.093	0	1.02	3.43	86.76	263.278	1.853	2973.676	510.774
J1015.55		112.6	123.15	10.55	0	0.34	1.03	113.63	19.852	10.26	176.25	32.382
J1020.38		135.77	141.35	5.58	0	0.39	1.06	136.83	34.484	4.52	372.44	10.492
J1020.569		141.92	146.28	4.36	0	0.17	0.54	142.46	11.463	3.82	102.87	2.756
J1022.947		124.1	132.95	8.85	0	0.87	2.57	126.67	122.621	6.38	1068.5	62.887
J1029.335		118.5	125.27	6.77	0	0.15	0.59	119.09	25.172	8.2	191.22	42.512
J1033.40		112.7	123.79	11.09	0	0.32	1.02	113.72	19.852	10.27	176.25	32.382
J104.967		118.93	129.31	10.38	0	1.08	3.13	122.06	134.121	7.25	1182.61	99.73
J1041.555		138.5	144.74	6.24	0	0.68	1.65	140.15	40.582	4.59	344.96	10.306
J1042.897		124.71	133.33	8.62	0	0.63	2.11	126.82	122.623	6.51	1068.5	62.887
J1058.20		113	123.02	10.02	0	0.32	0.88	113.88	19.853	9.14	176.25	32.382
J1060.963		83.331	88.614	5.283	0	1.42	3.71	87.04	263.923	1.574	2973.676	510.774
J1093.556		83.516	88.39	4.874	0	1.38	3.68	87.2	263.755	1.553	2921.716	497.992
J1096.947		125.1	132.5	7.4	0	0.67	2.1	127.2	122.626	6.52	1068.5	62.887
J110.089		135.1	136.66	1.56	0	0.34	0.44	135.54	11.453	1.12	102.87	2.756
J1100		118.97	127.76	8.79	0	0.29	0.84	119.81	25.174	8.44	191.22	42.512
J1100.10		113.46	123	9.54	0	0.28	0.85	114.31	19.853	9.15	176.25	32.382
J1100.215		139	144.47	5.47	0	0.46	1.49	140.49	39.858	5.3	338.59	10.179
J1100.239		142.5	146.67	4.17	0	0.33	1	143.5	11.463	3.17	102.87	2.756
J1126.60		136.69	141.42	4.73	0	0.27	0.75	137.44	34.486	3.98	372.44	10.492
J113		160	163	3	0	0.41	1.54	161.54	29.166	4.76	232.12	4.642
J1130.117		125.2	133.15	7.95	0	0.61	2.09	127.29	122.639	6.96	1068.5	62.887
J1146.464		83.72	88.957	5.237	0	1.45	3.92	87.64	260.306	1.317	2921.716	497.992

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1151.075		139.5	146.29	6.79	0	0.53	1.19	140.69	39.862	5.91	338.59	10.179
J1154.80		114	124	10	0	0.28	0.85	114.85	19.853	9.15	176.25	32.382
J1163.689		144	147.44	3.44	0	0.18	0.58	144.58	11.464	3.23	102.87	2.756
J1178.27		114.74	124.1	9.36	0	0.21	0.66	115.4	19.853	8.7	176.25	32.382
J1184.779		119.5	128.78	9.28	0	0.25	0.88	120.38	25.182	8.4	191.22	42.512
J1200.117		125.3	134.05	8.75	0	0.86	2.46	127.76	119.972	6.59	1043.28	56.227
J1200.17		137.5	142.12	4.62	0	0.38	1.04	138.54	34.489	4.05	372.44	10.492
J1200.215		139.56	146.66	7.1	0	0.55	1.41	140.97	39.87	5.69	338.59	10.179
J1230.909		144.5	148.31	3.81	0	0.18	0.61	145.11	11.465	3.2	102.87	2.756
J1246.464		84.245	89.177	4.932	0	1.8	4.15	88.39	260.166	1.264	2921.716	497.992
J125.38		102.9	107	4.1	0	0.72	2.2	105.1	32.47	1.9	295.96	69.133
J1286.17		116.4	125.06	8.66	0	0.25	0.76	117.16	19.853	8.6	176.25	32.382
J1294.225		140.5	147.47	6.97	0	0.29	0.92	141.42	39.876	8.4	338.59	10.179
J1298.178		84.629	90.038	5.409	0	1.85	4.1	88.73	260.132	1.308	2921.716	497.992
J1300		121.16	129.84	8.68	0	0.25	0.79	121.95	25.191	7.89	191.22	42.512
J1300.117		125.84	133.78	7.94	0	0.65	2.12	127.96	117.857	6.42	1023.4	51.197
J1300.17		138.5	143.59	5.09	0	0.41	1.17	139.67	34.491	3.92	372.44	10.492
J1305.379		145.44	148.28	2.84	0	0.18	0.54	145.98	11.466	2.37	102.87	2.756
J1310.18		116.5	125.53	9.03	0	0.36	0.97	117.47	19.853	8.06	176.25	32.382
J1348.30		138.6	143.39	4.79	0	0.6	1.46	140.06	34.492	3.43	372.44	10.492
J1361.769		146.02	148.93	2.91	0	0.16	0.51	146.53	11.467	2.4	102.87	2.756
J1365.595		140.98	150.3	9.32	0	0.28	0.94	141.92	39.876	8.63	338.59	10.179
J1388.055		141	150.57	9.57	0	0.51	1.43	142.43	39.876	8.14	338.59	10.179
J1391.170		85.698	90.311	4.613	0	1.28	3.25	88.95	260.153	1.781	2921.716	497.992
J1393.48		139	143.67	4.67	0	0.35	1.16	140.16	34.496	5.26	372.44	10.492
J1400.000		122.35	130.16	7.81	0	0.22	0.73	123.08	25.197	7.24	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1400.10		117.53	126.26	8.73	0	0.51	1.31	118.84	19.855	7.42	176.25	32.382
J1400.117		125.96	134.5	8.54	0	1.02	2.69	128.65	117.868	6.19	1023.4	51.197
J1400.239		146.4	148.94	2.54	0	0.11	0.38	146.78	6.224	2.29	54.06	1.243
J142.6492		107.45	116.36	8.91	0	0.25	0.93	108.38	48.647	7.98	382.54	90.009
J1446.464		85.884	90.917	5.033	0	1.36	3.35	89.23	260.176	1.687	2921.716	497.992
J1447.009		146.5	149.17	2.67	0	0.14	0.49	146.99	6.225	2.43	54.06	1.243
J145.135		132.5	139.22	6.72	0	0.41	1.44	133.94	41.668	5.51	355.59	10.54
J146.4641		74.822	82.499	7.677	0	1.74	3.23	78.05	267.53	4.449	3098.286	542.799
J1489.00		139.5	145.92	6.42	0	0.69	1.59	141.09	34.497	4.83	372.44	10.492
J1500.000		123	130.97	7.97	0	0.33	1.03	124.03	25.208	6.94	191.22	42.512
J1500.10		119.53	127	7.47	0	0.17	0.56	120.09	19.856	6.91	176.25	32.382
J1500.117		126	134.88	8.88	0	1.12	3.12	129.12	117.876	6.89	1023.4	51.197
J1500.239		147	149.92	2.92	0	0.13	0.41	147.41	6.226	2.51	54.06	1.243
J151		98.68	102.181	3.501	0	0.65	1.51	100.19	45.782	2.79	416.78	126.952
J152		107	109	2	0	0.06	0.2	107.2	3.425	1.8	25.32	8.026
J1541.43		140	145.01	5.01	0	0.43	1.23	141.23	34.5	3.78	372.44	10.492
J1546.464		86.9	91.178	4.278	0	0.93	2.61	89.51	260.2	2.855	2921.716	497.992
J1550.647		126.5	136.51	10.01	0	0.89	3.05	129.55	117.878	6.96	1023.4	51.197
J1567.909		147.65	150.57	2.92	0	0.17	0.56	148.21	6.23	2.38	54.06	1.243
J1599.10		120	127.16	7.16	0	0.28	0.88	120.88	19.857	6.5	176.25	32.382
J16.935		131.7	139.46	7.76	0	0.7	1.9	133.6	41.665	6.06	355.59	10.54
J1600.117		127	136.56	9.56	0	0.79	2.72	129.72	101.701	6.84	874.51	39.882
J162.45		120.67	130.62	9.95	0	0.42	1.05	121.72	36.097	8.9	401.01	11.577
J162.977		119.1	128.88	9.78	0	0.99	3.14	122.24	134.183	6.64	1182.61	99.73
J1627.66		141	146	5	0	0.35	1.02	142.02	34.502	3.99	372.44	10.492
J1637.989		148.5	151.44	2.94	0	0.11	0.34	148.84	6.231	2.6	54.06	1.243

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1668.083		87	92.465	5.465	0	1.35	3.21	90.21	260.247	2.255	2921.716	497.992
J167		155.07	156.74	1.67	0	0.07	0.21	155.28	2.962	1.46	26.36	0.527
J1700		126	133.54	7.54	0	0.34	0.97	126.97	25.211	6.57	191.22	42.512
J1700.10		121	128.38	7.38	0	0.22	0.62	121.62	19.86	6.76	176.25	32.382
J1700.117		127.5	135.16	7.66	0	0.78	2.56	130.06	101.711	5.1	874.51	39.882
J1700.17		141.45	146.11	4.66	0	0.37	1.03	142.48	34.504	4.03	372.44	10.492
J1700.229		149.05	151.48	2.43	0	0.18	0.53	149.58	6.232	1.9	54.06	1.243
J1749.279		149.55	151.59	2.04	0	0.11	0.34	149.89	6.233	2.16	54.06	1.243
J1797.21		141.65	146.71	5.06	0	0.42	1.19	142.84	34.508	3.87	372.44	10.492
J1800		127.33	133.88	6.55	0	0.22	0.71	128.04	25.217	5.84	191.22	42.512
J1800.10		121.5	128.81	7.31	0	0.31	0.89	122.39	19.863	6.42	176.25	32.382
J1800.117		128.01	135.21	7.2	0	0.71	2.54	130.55	100.342	4.69	861.55	37.29
J1800.229		149.65	152.15	2.5	0	0.16	0.49	150.14	6.25	2.01	54.06	1.243
J181		135	137	2	0	0.08	0.25	135.25	2.312	1.75	15.96	8.842
J1816.580		87.39	91.48	4.09	0	1.46	3.12	90.51	260.366	1.365	2921.716	497.992
J185		153.5	154.5	1	0	0.15	0.67	154.17	5.341	2.33	43.32	1.04
J186		163.5	167	3.5	0	1.01	1.99	165.49	25.035	1.63	193.34	4.64
J1900		128.89	134	5.11	0	0.35	1.01	129.9	25.222	4.1	191.22	42.512
J1900.10		123	129.92	6.92	0	0.16	0.54	123.54	19.865	6.38	176.25	32.382
J1900.17		142.5	147.09	4.59	0	0.44	1.13	143.63	34.515	3.46	372.44	10.492
J1900.229		150.35	152.38	2.03	0	0.1	0.34	150.69	6.279	2.44	54.06	1.243
J1902.476		88.381	92.866	4.485	0	0.86	2.44	90.82	260.433	2.748	2921.716	497.992
J1917.479		88.485	93.672	5.187	0	0.84	2.44	90.92	260.443	2.752	2921.716	497.992
J1927.647		129.5	136.73	7.23	0	0.84	2.12	131.62	100.348	5.13	861.55	37.29
J1942.494		88.489	95.147	6.658	0	0.93	2.56	91.05	260.45	4.349	2921.716	497.992
J1952.554		88.541	95.294	6.753	0	0.98	2.63	91.17	260.469	4.281	2921.716	497.992

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J1956.59		123.5	130.06	6.56	0	0.23	0.64	124.14	19.865	5.92	176.25	32.382
J1978.418		130.25	134.48	4.23	0	0.13	0.52	130.77	25.225	3.71	191.22	42.512
J2.1		141.3	150.5	9.2	0	0.52	1.61	142.91	27.677	7.59	232.12	4.642
J2.2		153.2	157.65	4.45	0	1.07	2.62	155.82	29.488	1.83	299.01	6.754
J2.5		142.5	151.5	9	0	0.63	1.69	144.19	48.233	7.31	408.23	8.212
j2.6		141.4	150.7	9.3	0	0.72	2.04	143.44	27.681	7.26	232.12	4.642
J200.09		103	106.44	3.44	0	0.83	2.28	105.28	32.373	1.19	295.96	69.133
J200.17		121.42	131.29	9.87	0	0.31	0.88	122.3	36.097	10	401.01	11.577
J200.215		132.57	139.52	6.95	0	0.55	1.55	134.12	41.678	5.74	355.59	10.54
J200.239		135.2	136.65	1.45	0	0.25	0.38	135.58	11.453	2.04	102.87	2.756
J2000.10		124.71	129.82	5.11	0	0.22	0.53	125.24	19.865	6.34	176.25	32.382
J2000.117		130	137.25	7.25	0	0.83	2.18	132.18	100.351	5.07	861.55	37.29
J2000.17		143	146.77	3.77	0	0.46	1.18	144.18	34.517	3.88	372.44	10.492
J2000.229		150.79	153.57	2.78	0	0.07	0.29	151.08	6.302	4.14	54.06	1.243
J2032.625		130.38	134.5	4.12	0	0.33	0.91	131.29	25.228	3.21	191.22	42.512
J2046.464		89	95.91	6.91	0	1.02	2.68	91.68	260.486	4.23	2921.716	497.992
J2063.577		130.5	137.45	6.95	0	0.69	1.91	132.41	95.137	5.04	812.9	25.249
J2100		131.31	134.6	3.29	0	0.21	0.69	132	25.232	2.6	191.22	42.512
J2100.10		124.81	131.68	6.87	0	0.76	1.81	126.62	19.868	5.06	176.25	32.382
J2100.17		144	149.06	5.06	0	0.37	1.02	145.02	34.52	4.04	372.44	10.492
J2100.229		151.18	155.61	4.43	0	0.18	0.54	151.72	6.329	3.89	54.06	1.243
J2118.174		89.5	95.106	5.606	0	0.88	2.56	92.06	260.495	3.187	2921.716	497.992
J212		144.4	145.7	1.3	0	0.05	0.14	144.54	1.062	1.16	8.58	0.463
J2128.867		131.26	138.01	6.75	0	0.58	1.64	132.9	95.143	5.11	812.9	25.249
J216		153.5	155.5	2	0	0.68	2.27	155.77	33.566	7.73	267.14	5.343
J2162.390		89.6	95.247	5.647	0	1.18	2.96	92.56	260.503	2.787	2921.716	497.992

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2165.306		132	135.12	3.12	0	0.27	0.83	132.83	25.233	2.29	191.22	42.512
J2171.407		131.5	138.11	6.61	0	0.76	1.88	133.38	95.143	5.56	812.9	25.249
J2173.272		89.7	95.24	5.54	0	1.32	3.25	92.95	260.508	2.49	2921.716	497.992
J2177.86		144.55	149.42	4.87	0	0.34	1.04	145.59	34.521	5.1	372.44	10.492
J2185.476		89.8	94.811	5.011	0	1.33	3.37	93.17	258.719	1.981	2881.916	487.166
J2187.585		132.25	135.24	2.99	0	0.26	0.84	133.09	25.233	2.28	191.22	42.512
J2200.229		152.38	156.67	4.29	0	0.11	0.37	152.75	6.347	3.92	54.06	1.243
J2206.53		126.62	132.31	5.69	0	0.21	0.68	127.3	19.869	5.62	176.25	32.382
J2213.506		90.096	94.702	4.606	0	1.25	3.32	93.41	258.72	2.12	2881.916	487.166
J2223.267		131.7	138.96	7.26	0	0.73	2.03	133.73	53.53	5.71	457.31	14.709
J2224.630		90.196	95.437	5.241	0	1.23	3.37	93.56	258.725	2.636	2881.916	487.166
J2227.161		132.92	136.08	3.16	0	0.36	1.12	134.04	25.233	2.33	191.22	42.512
J2242.380		133	136.45	3.45	0	0.43	1.29	134.29	25.233	2.16	191.22	42.512
J226.077		119.5	129	9.5	0	0.87	2.95	122.45	134.229	6.7	1182.61	99.73
J2266.899		153.53	156.84	3.31	0	0.14	0.43	153.96	6.35	2.88	54.06	1.243
J2267.81		144.88	151.02	6.14	0	0.51	1.33	146.21	34.521	4.81	372.44	10.492
J2287.052		133.1	136.24	3.14	0	0.47	1.43	134.53	25.234	2.38	191.22	42.512
J2292.097		132	139.74	7.74	0	0.71	1.99	133.99	53.554	5.75	457.31	14.709
J2296.492		90.5	96.5	6	0	1.23	3.39	93.89	258.735	2.61	2881.916	487.166
J2300.10		127.5	133.8	6.3	0	0.42	1.2	128.7	19.869	5.1	176.25	32.382
J2331.99		145.19	149.22	4.03	0	0.73	1.88	147.07	34.525	2.15	372.44	10.492
J2346.464		90.922	96.594	5.672	0	1.02	3.11	94.04	258.757	2.885	2881.916	487.166
J2352.47		128.16	134.26	6.1	0	0.43	1.24	129.4	19.869	4.86	176.25	32.382
J2359.439		133.2	136.81	3.61	0	0.55	1.63	134.83	25.235	2.26	191.22	42.512
J2376.910		133.3	136.89	3.59	0	0.54	1.67	134.97	25.237	2.22	191.22	42.512
J2378.957		132.5	140.22	7.72	0	0.72	1.91	134.41	53.571	5.81	457.31	14.709

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2411.26		146	149.06	3.06	0	0.4	1.27	147.27	34.531	1.93	372.44	10.492
J2430.00		129.47	135.14	5.67	0	0.6	1.74	131.21	19.871	3.93	176.25	32.382
J2446.464		91.165	97.168	6.003	0	1.32	3.65	94.82	258.782	3.538	2881.916	487.166
J2447.455		133.5	137.5	4	0	0.57	1.75	135.25	25.239	2.25	191.22	42.512
J2456.367		133.5	140.73	7.23	0	0.51	1.26	134.76	53.577	5.97	457.31	14.709
J246.4641		75.714	82.643	6.929	0	1.04	2.7	78.41	267.573	4.233	3098.286	542.799
J246.585		133	140.29	7.29	0	0.38	1.24	134.24	41.689	6.42	355.59	10.54
J2460.36		146.52	149.72	3.2	0	0.51	1.17	147.69	34.532	2.03	372.44	10.492
J2465.522		133.6	137.5	3.9	0	0.53	1.73	135.33	25.241	2.27	191.22	42.512
J248.32		103.2	106.67	3.47	0	0.92	2.36	105.56	32.33	1.11	295.96	69.133
J250.67		122	132.88	10.88	0	0.53	1.28	123.28	36.098	9.6	401.01	11.577
J2500		133.7	137.5	3.8	0	0.55	1.76	135.46	25.247	2.66	191.22	42.512
J2500.10		131.13	135.11	3.98	0	0.4	1.05	132.18	19.871	2.93	176.25	32.382
J2500.16		147	149.16	2.16	0	0.54	1.29	148.29	34.035	1.25	364.85	10.18
J2528.637		133.51	139.67	6.16	0	0.94	2.04	135.55	53.577	5.95	457.31	14.709
J2535.77		132.07	135.56	3.49	0	0.31	0.88	132.95	19.871	2.61	176.25	32.382
J2540.48		147.7	150.24	2.54	0	0.22	0.75	148.45	34.036	2.17	364.85	10.18
J2546.464		91.817	99.01	7.193	0	1.41	3.59	95.41	258.804	3.6	2881.916	487.166
J255.1367		109	117.33	8.33	0	0.38	1.15	110.15	38.754	7.18	310.94	72.681
J2559.518		133.8	137.92	4.12	0	0.61	1.86	135.66	25.252	3.52	191.22	42.512
J2594.793		133.9	138.89	4.99	0	0.61	1.9	135.8	25.26	3.48	191.22	42.512
J2600.16		148	150.92	2.92	0	0.38	1.04	149.04	34.037	2.14	364.85	10.18
J2603.25		132.62	136.05	3.43	0	0.28	0.92	133.54	19.871	3.21	176.25	32.382
J2604.897		134	141.11	7.11	0	0.66	1.68	135.68	49.357	5.62	419.1	8.527
J2646.464		93	99.353	6.353	0	0.89	2.85	95.85	256.406	4.09	2820.816	447.207
J2646.738		134	138.5	4.5	0	0.58	1.88	135.88	25.27	2.72	191.22	42.512

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J265.297		119.9	129.65	9.75	0	0.75	2.69	122.59	134.27	7.16	1182.61	99.73
J2650.52		148.47	151.65	3.18	0	0.34	1.06	149.53	32.398	2.36	342.33	7.793
J2662.919		134.1	138.5	4.4	0	0.52	1.81	135.91	25.282	2.79	191.22	42.512
J2666.88		133.04	137.17	4.13	0	0.5	1.33	134.37	19.871	2.91	176.25	32.382
J2680.447		93.183	100.123	6.94	0	1.07	3.02	96.21	256.412	3.913	2820.816	447.207
J27.449		130.03	136.41	6.38	0	0.09	0.3	130.33	16.525	6.08	148.89	11.315
J2706.457		134.5	141.8	7.3	0	0.54	1.56	136.06	48.172	6.33	408.23	8.212
J2721.15		148.5	151.92	3.42	0	0.43	1.29	149.79	32.398	2.13	342.33	7.793
J2723.864		134.2	138.4	4.2	0	0.48	1.79	135.99	25.294	2.81	191.22	42.512
J2742.526		134.3	138.39	4.09	0	0.53	1.8	136.1	25.308	2.59	191.22	42.512
J2744.16		133.12	137.36	4.24	0	0.67	1.7	134.82	19.872	2.54	176.25	32.382
J2746.464		93.57	100.018	6.448	0	1.19	3.26	96.83	256.414	3.552	2820.816	447.207
J2757.35		133.44	137.39	3.95	0	0.47	1.45	134.89	19.872	2.54	176.25	32.382
J2795.45		149	152.27	3.27	0	0.52	1.47	150.47	32.403	1.8	342.33	7.793
J2800		134.5	138.48	3.98	0	0.49	1.71	136.21	25.339	2.32	191.22	42.512
J2809.59		133.67	137.69	4.02	0	0.52	1.5	135.17	19.872	2.81	176.25	32.382
J2813.657		135	142.89	7.89	0	0.63	1.67	136.67	48.177	6.22	408.23	8.212
J2826.19		134.02	138.33	4.31	0	0.45	1.38	135.4	19.872	2.93	176.25	32.382
J2849.017		94.004	100.816	6.812	0	1.4	3.7	97.7	256.412	3.483	2820.816	447.207
J2860.405		94.277	101.456	7.179	0	1.27	3.69	97.96	256.412	3.496	2820.816	447.207
J2892.413		94.718	101.354	6.636	0	1.21	3.61	98.33	256.412	3.567	2820.816	447.207
J2900		135	139.03	4.03	0	0.51	1.6	136.6	25.348	2.92	191.22	42.512
J2900.09		134.66	138.21	3.55	0	0.46	1.32	135.98	19.872	2.6	176.25	32.382
J2900.117		136	143.22	7.22	0	0.39	1.16	137.16	48.184	6.06	408.23	8.212
J2900.16		150.44	152.62	2.18	0	0.44	1.11	151.55	32.408	2.01	342.33	7.793
J2902.731		94.769	101.549	6.78	0	1.3	3.81	98.57	256.414	3.378	2820.816	447.207

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J2946.464		94.788	101.633	6.845	0	1.47	4.09	98.88	256.421	3.087	2820.816	447.207
J2979.285		135.02	139.54	4.52	0	0.68	1.93	136.95	25.353	2.59	191.22	42.512
J2989.647		95	101.923	6.923	0	1.37	4.05	99.05	256.441	2.873	2820.816	447.207
J3		143.5	146.5	3	0	0.32	1.54	145.04	48.234	3.96	408.23	8.212
j3.1		141.5	144.1	2.6	0	0.71	2.06	143.56	27.688	7.24	232.12	4.642
J3.15		153.4	157.72	4.32	0	0.89	2.43	155.83	29.602	1.89	299.01	6.754
J3.2		153.7	156.7	3	0	0.69	2.14	155.84	29.773	0.86	299.01	6.754
J300		109.84	118	8.16	0	0.45	1.24	111.08	38.781	6.92	310.94	72.681
J300.215		133.5	141.16	7.66	0	0.29	1.01	134.51	41.694	6.65	355.59	10.54
J300.239		135.3	137.92	2.62	0	0.19	0.42	135.72	11.455	2.76	102.87	2.756
J3000.09		135.71	139.63	3.92	0	0.51	1.45	137.16	19.872	2.54	176.25	32.382
J3000.117		136.5	143.55	7.05	0	0.29	1.11	137.61	48.192	6.09	408.23	8.212
J3000.16		151.17	154.29	3.12	0	0.49	1.12	152.29	32.411	2	342.33	7.793
J3007.922		135.5	139.65	4.15	0	0.34	1.5	137	25.367	2.65	191.22	42.512
J3051.067		137	144.2	7.2	0	0.27	0.95	137.95	48.194	6.43	408.23	8.212
J3054.885		96	102.767	6.767	0	1.02	3.33	99.33	256.452	3.937	2820.816	447.207
J3066.327		96.078	103.345	7.267	0	1.14	3.55	99.62	256.455	3.797	2820.816	447.207
J3100.09		136.64	140.63	3.99	0	0.46	1.35	137.99	19.872	2.64	176.25	32.382
J3100.16		151.77	154.15	2.38	0	0.39	0.97	152.74	32.414	2.11	342.33	7.793
J3103.867		137.1	144.38	7.28	0	0.51	1.47	138.57	48.197	6.12	408.23	8.212
J3105.432		96.188	102.227	6.039	0	1.32	3.78	99.97	256.485	3.557	2820.816	447.207
J311.56		123.78	133.22	9.44	0	0.33	0.85	124.63	36.098	8.59	401.01	11.577
J3111.594		136	139.94	3.94	0	0.28	1.25	137.25	25.394	3.02	191.22	42.512
J3135.520		136.1	140.27	4.17	0	0.23	1.16	137.26	25.465	4.12	191.22	42.512
J314.357		120	129.85	9.85	0	0.78	2.76	122.76	134.333	7.09	1182.61	99.73
J3148.25		152.01	155.09	3.08	0	0.29	0.91	152.92	32.417	2.17	342.33	7.793

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3150.013		96.681	102.937	6.256	0	0.94	3.32	100	256.946	5.042	2820.816	447.207
J3158.17		137.27	141.2	3.93	0	0.35	1.09	138.36	19.872	3.06	176.25	32.382
J3200		136.2	141.28	5.08	0	0.35	1.16	137.36	17.565	4.34	132.89	28.396
J3200.117		138	145.59	7.59	0	0.55	1.67	139.67	48.207	5.92	408.23	8.212
J3200.16		152.1	155.03	2.93	0	0.47	1.16	153.26	32.419	2.47	342.33	7.793
J3221.88		137.63	141.78	4.15	0	0.5	1.38	139.01	19.872	2.77	176.25	32.382
J3237.56		137.83	141.97	4.14	0	0.39	1.28	139.11	19.873	2.86	176.25	32.382
J3246.464		97	105.361	8.361	0	1.15	3.37	100.37	224.509	5.35	2404.036	320.255
J3262.17		152.2	155.64	3.44	0	0.53	1.36	153.56	32.423	2.27	342.33	7.793
J3300		136.5	142	5.5	0	0.35	1.13	137.63	16.03	4.37	121.24	27.348
J3300.117		139.5	145.63	6.13	0	0.31	1.08	140.58	48.213	5.43	408.23	8.212
J3322.153		98.06	106.78	8.72	0	0.82	2.51	100.57	221.445	6.21	2327.296	275.592
J3337.30		152.5	156.12	3.62	0	0.43	1.23	153.73	32.429	2.39	342.33	7.793
J3346.98		138	144.35	6.35	0	0.48	1.43	139.43	19.873	5.07	176.25	32.382
J3361.22		138.1	144.5	6.4	0	0.41	1.34	139.44	19.879	5.16	176.25	32.382
J3390.389		98.377	106.623	8.246	0	0.91	2.64	101.02	221.451	5.603	2327.296	275.592
J3392.66		138.2	141.54	3.34	0	0.33	1.25	139.45	19.9	2.29	176.25	32.382
J3400		137	142.5	5.5	0	0.26	0.91	137.91	16.046	4.96	121.24	27.348
J3411.51		153	156.34	3.34	0	0.4	1.13	154.13	32.433	2.24	342.33	7.793
J3414.967		140.48	146.99	6.51	0	0.3	1.18	141.66	48.214	5.44	408.23	8.212
J3428.33		153.1	156.37	3.27	0	0.46	1.21	154.31	28.859	2.16	299.01	6.754
J3445.04		138.5	142	3.5	0	0.26	0.96	139.46	12.898	3.9	110.73	11.324
J3446.464		98.818	106.275	7.457	0	0.88	2.51	101.33	221.457	4.945	2327.296	275.592
J346.4642		76.795	83.351	6.556	0	0.85	2.35	79.14	267.6	4.211	3098.286	542.799
J349.449		135.4	138.68	3.28	0	0.13	0.41	135.81	11.456	3.29	102.87	2.756
J3492.153		99	105.476	6.476	0	0.99	2.73	101.73	221.463	4.687	2327.296	275.592

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J350.45		124.43	133.57	9.14	0	0.53	1.24	125.67	36.099	7.9	401.01	11.577
J3500		137.5	143.37	5.87	0	0.42	1.26	138.76	12.872	4.61	97.4	21.626
J3500.1		139	142	3	0	0.13	0.54	139.54	12.904	4.32	110.73	11.324
J3500.117		141.15	147.77	6.62	0	0.58	1.66	142.81	48.215	4.96	408.23	8.212
J352.0823		110.5	118.23	7.73	0	0.49	1.37	111.87	25.116	6.36	191.22	42.512
J352.30		104	107.43	3.43	0	0.88	2.12	106.12	32.334	1.31	295.96	69.133
J3539.547		100	107.417	7.417	0	0.58	1.92	101.92	221.475	5.497	2327.296	275.592
J3546.867		141.5	147.8	6.3	0	0.5	1.56	143.06	48.223	5.71	408.23	8.212
J3552.954		100.01	107.142	7.132	0	0.68	2.04	102.05	221.486	5.116	2327.296	275.592
J3590.76		140.9	145.15	4.25	0	0.23	0.65	141.55	11.68	3.6	99.46	9.363
J3597.283		100.07	107.677	7.607	0	0.77	2.2	102.27	221.497	5.407	2327.296	275.592
J36.529		131.25	136.77	5.52	0	0.13	0.36	131.61	16.525	5.16	148.89	11.315
J3600		139	144	5	0	0.35	1.1	140.1	12.875	10.47	97.4	21.626
J3609.26		141	144.86	3.86	0	0.27	0.77	141.77	11.68	3.38	99.46	9.363
J3610.812		100.09	105.385	5.295	0	0.85	2.33	102.42	219.513	5.459	2298.046	272.2
J3624.107		142	149.27	7.27	0	0.45	1.33	143.33	48.229	5.94	408.23	8.212
J3660.527		142.5	151	8.5	0	0.4	1.31	143.81	48.232	7.19	408.23	8.212
J3667.068		100.17	107.789	7.619	0	1.15	2.92	103.09	219.515	4.869	2298.046	272.2
J3677.11		141.47	145.24	3.77	0	0.42	1.16	142.63	11.68	2.73	99.46	9.363
J3684.238		140.5	152.07	11.57	0	0.33	1.03	141.53	12.876	10.54	97.4	21.626
J3685.955		100.198	104.836	4.638	0	1.17	3	103.2	219.518	1.638	2298.046	272.2
J3696.22		141.96	145.72	3.76	0	0.26	0.88	142.84	11.68	3.17	99.46	9.363
J3709.655		100.514	105.087	4.573	0	0.99	2.84	103.35	219.521	3.757	2298.046	272.2
J3717.833		100.614	107.107	6.493	0	1.05	2.88	103.49	219.525	3.717	2298.046	272.2
J3742.908		141.18	147.54	6.36	0	0.36	1.15	142.33	12.876	5.21	97.4	21.626
J3758.726		141.55	145.98	4.43	0	0.27	0.99	142.54	12.877	3.44	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J3770.893		101.707	107.337	5.63	0	0.88	2.49	104.19	219.525	4.11	2298.046	272.2
J3780.99		142.34	146.39	4.05	0	0.36	1.03	143.37	11.681	4.29	99.46	9.363
J3811.191		141.58	145.38	3.8	0	0.42	1.24	142.82	12.877	3.19	97.4	21.626
J3825.668		141.6	145.74	4.14	0	0.43	1.3	142.9	12.882	3.28	97.4	21.626
J3846.464		101.8	107.55	5.75	0	1.36	3.58	105.38	219.524	4.895	2298.046	272.2
J3869.05		143	148.32	5.32	0	0.41	1.17	144.17	11.681	4.15	99.46	9.363
J388.5779		77.436	83.441	6.005	0	0.8	2.36	79.8	267.596	3.641	3098.286	542.799
J3900		141.99	146.57	4.58	0	0.32	1.08	143.07	12.902	3.5	97.4	21.626
J392.31		104.36	107.44	3.08	0	0.84	2.07	106.43	32.335	1.01	295.96	69.133
J3932.07		143.5	147.63	4.13	0	0.4	1.15	144.65	11.681	3.4	99.46	9.363
J3946.464		102	110.475	8.475	0	1.42	3.89	105.89	219.529	4.585	2298.046	272.2
J3947.67		143.6	148.05	4.45	0	0.43	1.23	144.83	11.682	3.32	99.46	9.363
J4		144.1	147	2.9	0	0.63	2.01	146.11	32.188	2.89	267.14	5.343
J4.1		141.7	144.7	3	0	0.62	2.02	143.72	27.757	8.28	232.12	4.642
J4.2		154.5	157.5	3	0	0.46	1.39	155.89	19.881	1.61	193.34	4.64
J4.25		146	149	3	0	0.43	1.45	147.45	32.192	1.55	267.14	5.343
J4.5		146.02	149	2.98	0	0.57	1.84	147.86	32.193	2.56	267.14	5.343
J4.55		146.04	148.6	2.56	0	0.63	1.92	147.96	32.194	2.48	267.14	5.343
J4.56		146.06	150.45	4.39	0	0.62	1.92	147.98	32.195	2.47	267.14	5.343
J4.6		146.08	150.46	4.38	0	0.61	1.92	148	32.197	2.46	267.14	5.343
J4.7		146.1	149.1	3	0	0.61	1.92	148.02	32.226	1.98	267.14	5.343
J4.75		146.5	149.5	3	0	0.57	1.98	148.48	32.342	1.52	267.14	5.343
J400.127		120.75	130.56	9.81	0	0.68	2.47	123.22	134.385	7.34	1182.61	99.73
J400.215		134.5	142	7.5	0	0.54	1.58	136.08	41.697	5.92	355.59	10.54
J400.239		135.5	139.2	3.7	0	0.18	0.62	136.12	11.457	3.65	102.87	2.756
J4014.677		142.65	147.06	4.41	0	0.17	0.64	143.29	12.923	3.77	97.4	21.626

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4019.03		143.7	149.48	5.78	0	0.53	1.41	145.11	11.682	4.81	99.46	9.363
J402.1469		77.5	83.361	5.861	0	0.91	2.59	80.09	267.606	3.415	3098.286	542.799
J4034.42		143.8	149.72	5.92	0	0.51	1.48	145.28	11.683	4.74	99.46	9.363
J4067.080		102.504	110.39	7.886	0	1.15	3.64	106.14	219.545	4.863	2298.046	272.2
J410.6635		112	118.24	6.24	0	0.48	1.5	113.5	25.116	4.74	191.22	42.512
J4100		143.61	147.62	4.01	0	0.21	0.67	144.28	12.93	4	97.4	21.626
J4100.11		144	149.17	5.17	0	0.51	1.49	145.49	11.684	4.02	99.46	9.363
J4100.962		102.727	111.226	8.499	0	1.17	3.6	106.33	219.586	4.899	2298.046	272.2
J412.71		125.74	133.48	7.74	0	0.41	1.01	126.75	36.099	6.73	401.01	11.577
J4184.01		144.4	150.01	5.61	0	0.44	1.34	145.74	11.685	5.17	99.46	9.363
J4199.26		144.5	151.01	6.51	0	0.43	1.34	145.84	11.686	5.17	99.46	9.363
J4200		144.79	149.46	4.67	0	0.18	0.66	145.45	12.938	4.01	97.4	21.626
J4232.339		103.301	114.958	11.657	0	1.16	3.51	106.82	219.613	8.347	2298.046	272.2
J4248.377		103.429	115.295	11.866	0	1.27	3.7	107.13	219.628	8.165	2298.046	272.2
J4258.27		145	151.34	6.34	0	0.4	1.21	146.21	11.686	5.3	99.46	9.363
J427.7351		112.23	118.31	6.08	0	0.54	1.6	113.83	25.118	4.5	191.22	42.512
J4271.41		145.1	151.21	6.11	0	0.36	1.18	146.28	11.686	5.03	99.46	9.363
J4300		147.15	150.6	3.45	0	0.33	1.03	148.18	12.947	2.42	97.4	21.626
J4330.11		145.2	150.96	5.76	0	0.54	1.49	146.69	11.687	4.61	99.46	9.363
J4332.776		104.171	115.07	10.899	0	1.19	3.66	107.84	219.638	7.23	2298.046	272.2
J438.5957		77.124	83.798	6.674	0	1.45	3.39	80.51	267.609	3.308	3098.286	542.799
J4395.415		104.504	112.635	8.131	0	1.15	3.58	108.09	190.488	5.273	1893.586	177.588
J4396.23		145.53	150.63	5.1	0	0.41	1.35	146.88	11.688	3.75	99.46	9.363
J440.72		105	107.73	2.73	0	0.74	1.89	106.89	32.341	0.84	295.96	69.133
J4411.37		145.86	150.65	4.79	0	0.33	1.1	146.96	11.69	3.69	99.46	9.363
J4446.464		104.632	113.491	8.859	0	1.38	3.81	108.45	190.404	6.245	1893.586	177.588

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J4462.26		145.9	151.32	5.42	0	0.47	1.28	147.18	11.69	4.14	99.46	9.363
J4477.44		146.29	151.39	5.1	0	0.24	0.94	147.23	11.692	4.16	99.46	9.363
J452.879		135.94	140.21	4.27	0	0.2	0.59	136.53	11.457	4.07	102.87	2.756
J4529.29		146.42	150.96	4.54	0	0.35	1.02	147.44	11.695	3.65	99.46	9.363
J454.8528		77.124	83.818	6.694	0	1.55	3.61	80.73	267.629	3.088	3098.286	542.799
J4546.464		105.4	115.463	10.063	0	1.07	3.43	108.83	189.387	7.532	1874.266	171.985
J4600.10		146.64	151.31	4.67	0	0.31	0.98	147.62	11.697	4	99.46	9.363
J461.85		126.2	133.36	7.16	0	0.46	1.22	127.42	36.1	6.24	401.01	11.577
J4635.43		147.07	152.05	4.98	0	0.22	0.7	147.77	11.706	4.28	99.46	9.363
J4646.464		105.733	116.695	10.962	0	1.14	3.45	109.18	189.415	7.67	1874.266	171.985
J4700.25		150.78	154.17	3.39	0	0.11	0.37	151.15	9.454	3.02	79.05	4.709
J4731.82		150.83	152.57	1.74	0	0.3	0.75	151.58	9.442	5.74	79.05	4.709
J4746.464		106.117	117.234	11.117	0	1.23	3.51	109.63	189.476	7.604	1874.266	171.985
J477.657		120.92	130.32	9.4	0	1.05	2.91	123.83	134.403	7	1182.61	99.73
J4800.10		151.38	157.87	6.49	0	0.09	0.4	151.78	8.45	6.09	69.57	1.391
J4846.464		106.467	116.662	10.195	0	1.25	3.82	110.29	189.531	6.766	1874.266	171.985
J487.7520		77.124	83.691	6.567	0	1.58	3.69	80.81	267.656	2.881	3098.286	542.799
J4900.10		152.09	154.18	2.09	0	0.27	0.69	152.78	8.416	1.4	69.57	1.391
J4945.903		107.124	117.713	10.589	0	1.02	3.42	110.55	189.609	7.511	1874.266	171.985
J4957.289		152.2	153.75	1.55	0	0.38	1.01	153.21	8.436	0.73	69.57	1.391
J498.2611		113.26	118.21	4.95	0	0.54	1.59	114.85	25.118	4.49	191.22	42.512
J5		148.5	151.5	3	0	0.21	0.8	149.3	32.469	9.2	267.14	5.343
J5.1		143.2	146.2	3	0	0.53	1.88	145.08	27.979	8.42	232.12	4.642
J5.2		154.6	156	1.4	0	0.79	1.8	156.4	20.116	0.06	193.34	4.64
J500.17		126.77	134.23	7.46	0	0.34	1.01	127.78	36.1	6.45	401.01	11.577
J500.239		136	140.66	4.66	0	0.18	0.66	136.66	11.458	4.41	102.87	2.756

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5000.10		152.74	154.09	1.35	0	0.15	0.47	153.21	8.557	1.02	69.57	1.391
J5046.464		107.448	118.385	10.937	0	1.1	3.43	110.88	189.698	8.403	1874.266	171.985
J5048.723		152.85	154.34	1.49	0	0.22	0.54	153.39	8.545	1.26	69.57	1.391
J506.895		135.5	142.66	7.16	0	0.46	1.23	136.73	40.535	5.93	344.96	10.306
J509.347		121	130.91	9.91	0	1.07	3.04	124.04	134.426	6.87	1182.61	99.73
J5100.10		153.03	154.83	1.8	0	0.27	0.72	153.75	8.566	1.08	69.57	1.391
J513.5331		113.58	118.5	4.92	0	0.48	1.53	115.11	25.118	3.39	191.22	42.512
J5146.464		107.53	119.365	11.835	0	1.28	3.68	111.21	189.817	8.155	1874.266	171.985
J5152.642		153.32	154.74	1.42	0	0.29	0.8	154.12	8.566	1.19	69.57	1.391
J516.02		105.73	107.84	2.11	0	0.64	1.58	107.31	32.342	1.42	295.96	69.133
J5220.803		153.49	155.48	1.99	0	0.4	1.07	154.56	8.577	0.92	69.57	1.391
J523.1179		77.124	83.691	6.567	0	1.67	3.86	80.99	267.658	2.701	3098.286	542.799
J5260.950		108.278	119.712	11.434	0	0.98	3.22	111.49	188.801	8.222	1857.486	169.972
J5260.956		153.77	155.4	1.63	0	0.23	0.8	154.57	8.603	0.94	69.57	1.391
J5300.10		154	155.74	1.74	0	0.17	0.61	154.61	8.664	1.6	69.57	1.391
J531.73		127.59	134.74	7.15	0	0.28	0.9	128.49	36.1	6.25	401.01	11.577
J534.23		105.99	108.99	3	0	0.57	1.44	107.43	32.342	1.59	295.96	69.133
J5373.942		109.061	119.739	10.678	0	0.93	3.04	112.1	188.862	7.639	1857.486	169.972
J5400.10		154.97	157.18	2.21	0	0.14	0.41	155.38	8.679	2.86	69.57	1.391
J5427.875		109.112	119.702	10.59	0	1.05	3.24	112.35	188.935	7.447	1857.486	169.972
J546.4642		77.521	83.405	5.884	0	1.49	4.05	81.57	267.668	2.643	3098.286	542.799
J5500.10		155.5	158.77	3.27	0	0.18	0.64	156.14	8.697	2.63	69.57	1.391
J5532.597		109.445	120.13	10.685	0	1	3.24	112.68	188.138	7.45	1845.096	169.724
J554.879		136.5	141.57	5.07	0	0.18	0.56	137.06	11.459	4.95	102.87	2.756
J5543.03		155.89	158.11	2.22	0	0.2	0.7	156.59	8.717	2.13	69.57	1.391
J5581.81		155.94	158.77	2.83	0	0.18	0.67	156.61	8.74	2.16	69.57	1.391

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J5598.608		156	158.24	2.24	0	0.17	0.63	156.63	8.747	1.61	69.57	1.391
J5627.203		109.864	119.899	10.035	0	0.88	3.07	112.93	188.298	6.969	1845.096	169.724
J571.927		121.39	130.92	9.53	0	0.99	2.88	124.27	134.461	9.42	1182.61	99.73
J5746.464		110.189	119.271	9.082	0	1.11	3.17	113.36	188.479	7.171	1845.096	169.724
J5850.291		110.593	120.935	10.342	0	0.94	3	113.59	186.832	7.345	1811.086	159.793
J591.0980		77.124	83.691	6.567	0	2.02	4.73	81.85	267.745	1.966	3098.286	542.799
J5946.083		111.109	121.311	10.202	0	0.89	2.92	114.03	186.946	7.281	1811.086	159.793
J6		144.7	147.7	3	0	0.55	1.8	146.5	28.558	7.5	232.12	4.642
J6.2		154.7	157.7	3	0	0.71	1.73	156.43	22.405	1.39	193.34	4.64
J6.227		118.53	129.53	11	0	1.17	2.84	121.37	134.06	8.46	1182.61	99.73
J60.22		102.5	112.5	10	0	0.87	2.46	104.96	39.715	7.54	366.54	105.269
J600.0000		114.21	119.8	5.59	0	0.53	1.57	115.78	25.125	4.02	191.22	42.512
J600.17		128.66	135.22	6.56	0	0.33	0.97	129.63	36.1	6.41	401.01	11.577
J600.239		136.84	142.35	5.51	0	0.23	0.7	137.54	11.459	4.81	102.87	2.756
J6046.464		111.186	121.081	9.895	0	1.17	3.2	114.38	187.041	6.701	1811.086	159.793
J6098.928		111.34	119.993	8.653	0	1.07	3.17	114.51	187.127	6.943	1811.086	159.793
J6165.560		111.442	121.555	10.113	0	1.17	3.38	114.83	187.194	6.725	1811.086	159.793
J62.389		135	136.94	1.94	0	0.43	0.54	135.54	11.453	1.43	102.87	2.756
J6233.167		111.595	121.594	9.999	0	1.19	3.48	115.07	187.254	6.524	1811.086	159.793
J625.125		136.09	142.4	6.31	0	0.57	1.63	137.72	40.534	5.54	344.96	10.306
J6301.693		111.672	121.487	9.815	0	1.27	3.69	115.37	187.316	6.636	1811.086	159.793
J634.217		121.6	133.9	12.3	0	1.01	3.11	124.71	134.465	9.19	1182.52	99.64
J6358.901		111.749	122.083	10.334	0	1.29	3.73	115.48	187.394	6.603	1811.086	159.793
J639.57		129.64	137.02	7.38	0	0.24	0.77	130.41	36.101	6.61	401.01	11.577
J6435.935		112.363	122.451	10.088	0	1.01	3.3	115.67	187.468	7.447	1811.086	159.793
J646.4641		78.57	83.639	5.069	0	1.47	4.16	82.73	267.729	0.909	3098.286	542.799

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J647.627		121.74	131.42	9.68	0	0.98	3.1	124.84	134.474	6.58	1182.52	99.64
J6478.273		112.44	123.194	10.754	0	1.12	3.37	115.81	185.256	7.414	1781.823	157.452
J6565.562		112.848	123.632	10.784	0	1.02	3.28	116.13	183.188	9.879	1741.026	131.428
J657.28		107.9	110.98	3.08	0	0.28	0.83	108.73	32.343	2.25	295.96	69.133
J657.629		137.5	142.75	5.25	0	0.28	0.84	138.34	11.459	4.41	102.87	2.756
J6662.639		113.054	126.215	13.161	0	1.26	3.42	116.48	183.257	9.735	1741.026	131.428
J674.5680		79.397	83.676	4.279	0	1.2	3.79	83.19	267.732	0.891	3098.286	542.799
J674.60		108	111.03	3.03	0	0.33	0.97	108.97	32.343	2.69	295.96	69.133
J6772.934		114.195	124.959	10.764	0	0.91	2.84	117.03	183.297	8.542	1741.026	131.428
J684.977		122	132.21	10.21	0	0.99	3.14	125.14	134.484	8.18	1182.52	99.64
J6846.464		114.24	125.617	11.377	0	1.32	3.53	117.77	183.31	7.949	1741.026	131.428
J6894.028		114.34	125.719	11.379	0	1.49	3.79	118.13	183.335	8.08	1741.026	131.428
J69.25231		104.63	115.21	10.58	0	1.01	3.26	107.89	48.616	7.32	382.54	90.009
J695.90		130.8	137.5	6.7	0	0.38	0.86	131.66	36.1	6.47	401.01	11.577
J6988.738		114.56	126.43	11.87	0	1.52	3.81	118.37	183.382	8.06	1741.026	131.428
J699.925		136.5	143.67	7.17	0	0.61	1.52	138.02	40.538	5.65	344.96	10.306
J7.227846		75.474	80.753	5.279	0	0.78	1.66	77.14	268.8	4.983	3127.946	548.256
J700		114.3	120.41	6.11	0	0.55	1.66	115.96	25.143	4.45	191.22	42.512
J700.239		138	143.21	5.21	0	0.31	0.96	138.96	11.459	4.25	102.87	2.756
J703.1630		79.556	84.24	4.684	0	1.47	4.11	83.66	267.741	0.908	3098.286	542.799
J7047.302		114.752	124.764	10.012	0	1.4	3.77	118.52	182.456	6.244	1725.986	125.502
J706.81		131	138.33	7.33	0	0.42	0.98	131.98	36.1	6.79	401.01	11.577
J709.95		108.43	112.09	3.66	0	0.24	0.74	109.17	19.849	2.92	176.25	32.382
J71.72631		75.374	82.023	6.649	0	1.06	2.28	77.66	268.82	4.805	3127.946	548.256
J7132.593		114.937	124.928	9.991	0	1.44	3.87	118.81	182.572	6.118	1725.986	125.502
J718.547		122.1	133.32	11.22	0	0.97	3.12	125.22	134.504	8.2	1182.52	99.64

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m³/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m³/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J7232.906		115.699	124.326	8.627	0	1.03	3.26	118.95	182.971	5.376	1725.986	125.502
J7322.142		116.115	123.734	7.619	0	0.99	3.07	119.19	171.05	4.742	1608.8	113.322
J736.779		138.5	143.45	4.95	0	0.23	0.77	139.27	11.459	4.18	102.87	2.756
J737.045		137	142.75	5.75	0	0.45	1.19	138.19	40.542	6.29	344.96	10.306
J7381.689		116.697	124.514	7.817	0	0.92	2.71	119.4	171.214	7.457	1608.8	113.322
J74.135		132	138.61	6.61	0	0.64	1.73	133.73	41.663	4.99	355.59	10.54
J7449.270		116.966	127.126	10.16	0	0.85	2.65	119.62	171.361	7.506	1608.8	113.322
J746.4641		79.812	84.824	5.012	0	1.54	4.3	84.11	267.769	1.475	3098.286	542.799
J749.08		131.5	139.37	7.87	0	0.6	1.3	132.8	36.101	6.57	401.01	11.577
J7549.375		117.552	127.605	10.053	0	1.09	2.93	120.48	171.412	7.804	1608.8	113.322
J762.307		122.74	132.51	9.77	0	0.69	2.53	125.27	133.612	7.73	1173.84	98.364
J7639.745		117.959	128.691	10.732	0	0.85	2.78	120.73	171.482	7.961	1608.8	113.322
J768.179		138.9	143.38	4.48	0	0.25	0.75	139.65	11.459	3.79	102.87	2.756
J7752.183		118.5	128.747	10.247	0	1.19	2.84	121.34	36.445	7.79	401.01	11.577
J794.7359		79.818	85.591	5.773	0	1.9	4.72	84.54	267.888	1.558	3098.286	542.799
J795.635		137.1	144.48	7.38	0	0.75	1.62	138.72	40.555	5.86	344.96	10.306
J799.60		109.44	111.34	1.9	0	0.16	0.57	110.01	19.85	2.44	176.25	32.382
J80.89927		75	82.091	7.091	0	1.51	2.87	77.87	267.512	4.807	3098.286	542.799
J800.0000		116.5	120	3.5	0	0.43	1.31	117.81	25.146	4.83	191.22	42.512
J800.117		122.8	131.86	9.06	0	0.78	2.55	125.35	122.561	6.81	1068.5	62.887
J800.17		132.83	139.34	6.51	0	0.41	1.04	133.87	34.479	5.47	372.44	10.492
J800.239		139	144.32	5.32	0	0.23	0.77	139.77	11.461	4.55	102.87	2.756
J82.94		119	129.63	10.63	0	0.75	2.34	121.34	36.295	8.34	401.01	11.577
J846.4642		80.833	87.113	6.28	0	1.34	4.02	84.85	267.981	2.263	3098.286	542.799
J851.915		137.8	144.92	7.12	0	0.37	1.02	138.82	40.567	6.1	344.96	10.306
J854.56		110.28	113.29	3.01	0	0.3	0.8	111.08	19.851	2.21	176.25	32.382

Table 1: Junctions (continued...)

Name	Tag	Invert Elev. (m)	Rim Elev. (m)	Depth (m)	Baseline (m^3/s)	Avg. Depth (m)	Max. Depth (m)	Max. HGL (m)	Max. Total Inflow (m^3/s)	Min. Freeboard (m)	Contributing Area (ha)	Contributing Imp. Area (ha)
J855.869		139.98	144.52	4.54	0	0.16	0.53	140.51	11.462	4.81	102.87	2.756
J876.147		123.5	132.09	8.59	0	0.55	2.03	125.53	122.61	7.03	1068.5	62.887
J895.8482		81.591	87.386	5.795	0	1.18	3.55	85.14	268.015	2.246	3098.286	542.799
J9.209		127.26	134.08	6.82	0	0.57	2.38	129.64	16.525	4.44	148.89	11.315
J9.902844		104.31	115.07	10.76	0	1.13	3.58	107.89	47.999	7.18	382.54	90.009
J900.10		111.28	113.24	1.96	0	0.11	0.39	111.67	19.852	3.47	176.25	32.382
J900.239		140	145.34	5.34	0	0.28	0.81	140.81	11.462	4.53	102.87	2.756
J902.1607		116.99	123.13	6.14	0	0.24	0.98	117.97	25.156	5.92	191.22	42.512
J902.835		137.9	144.67	6.77	0	0.52	1.31	139.21	40.573	5.46	344.96	10.306
J904.90		134.44	140.82	6.38	0	0.25	0.72	135.16	34.48	5.66	372.44	10.492
J922.9622		117.1	123.85	6.75	0	0.27	1	118.1	25.166	5.9	191.22	42.512
J929.29		111.72	115.58	3.86	0	0.21	0.53	112.25	19.852	6	176.25	32.382
J945.497		124	133.06	9.06	0	0.66	2.05	126.05	122.619	7.01	1068.5	62.887
J955.93		135.5	140.77	5.27	0	0.3	0.83	136.33	34.481	4.75	372.44	10.492
J956.725		138	144.51	6.51	0	0.69	1.67	139.67	40.581	4.84	344.96	10.306
J963.549		141	145.71	4.71	0	0.15	0.55	141.55	11.463	4.16	102.87	2.756
J964.46		112.13	118.66	6.53	0	0.24	0.75	112.88	19.852	8.63	176.25	32.382
J966.3656		82.24	87.702	5.462	0	1.17	3.53	85.77	262.737	1.932	2973.676	510.774
J982.0328		82.34	87.489	5.149	0	1.26	3.84	86.18	262.771	1.359	2973.676	510.774
J99.99998		106.58	115.09	8.51	0	0.34	1.32	107.9	48.627	7.59	382.54	90.009
J992.03		112.5	121.88	9.38	0	0.34	0.93	113.43	19.852	9.72	176.25	32.382
SU211		139.5	142.1	2.6	0	0.07	0.33	139.83	5.159	2.67	38.21	6.182
SU220		133.5	135.15	1.65	0	0.08	0.41	133.91	6.77	2.59	48.65	12.041

Table 2A: Subcatchments

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)
CWP	Regional	J6478.273	2.07645	138.43	150	2	37.5	0.013	0.25	25	OUTLET	100	0.1	55.46	0
Eaglewood2	Regional	EBS1	0.07	14	50	1.5	100	0.013	0.25	25	OUTLET	100	0.1	0	0
Eaglwood1	Regional	EBS1	0.4	200	20	1	100	0.013	0.25	25	OUTLET	100	0.1	0	0
EBR3S	Regional	EBS1	0.577	55.004	104.901	1	29	0.013	0.25	25	OUTLET	100	0.1	61.8	0
EENNS1	Regional	EBS1	0.6	46.154	130	1.5	93	0.013	0.25	25	OUTLET	100	0.1	5.82	0
EGOLF1	Regional	j5427.875	12.39	826	150	1	2	0.013	0.25	25	OUTLET	100	0.1	91.69	0
EGOLF2	Regional	DF001	21.23	1415.333	150	1	2	0.013	0.25	25	OUTLET	100	0.1	91.69	0
EMAIN1	Regional	J7639.745	25.18	1677	150.149	1.5	8	0.013	0.25	25	OUTLET	100	0.1	86.42	0
EMAIN2	Regional	J6435.935	29.26326	1950.533	150.027	2.3	8	0.013	0.25	25	OUTLET	100	0.1	85.64	0
EMAIN3	Regional	J5146.464	16.78	1118	150.089	0.5	12	0.013	0.25	25	OUTLET	100	0.1	84.86	0
EMAIN4	Regional	j4332.776	21.92	1461	150.034	0.7	21	0.013	0.25	25	OUTLET	100	0.1	75.02	0
ESAN1	Regional	j4446.464	19.32	1288	150	1.1	29	0.013	0.25	25	OUTLET	100	0.1	62.6	0
ESAN2	Regional	DF001	8.02	534	150.187	0.9	37	0.013	0.25	25	OUTLET	100	0.1	55.5	0
ETRIB1a	Regional	E301	6.6609	444.06	150	3	11.4	0.013	0.25	25	OUTLET	100	0.1	81.95	0
ETRIB1b	Regional	E344	5.75	384.448	149.565	3	4.8	0.013	0.25	25	OUTLET	100	0.1	88.27	0
ETRIB2E	Regional	E604	1.63	108.667	150	1.1	28	0.013	0.25	25	OUTLET	100	0.1	67.36	0
ETRIB2W	Regional	E855	50.23	3349	149.985	1.2	9	0.013	0.25	25	OUTLET	100	0.1	85.87	0
ETRIB3E	Regional	E673	1.77	189.796	93.258	1.3	62	0.013	0.25	25	OUTLET	100	0.1	34.29	0
ETRIB3W	Regional	E768	42.8682	2858.223	149.982	1.1	2	0.013	0.25	25	OUTLET	100	0.1	93.01	0
FBG1	Regional	E761	1.714	126.963	135	2	90	0.013	0.25	25	OUTLET	100	0.1	8.58	0
FBG2	Regional	E643	1.18	78.667	149.999	2	65	0.013	0.25	25	OUTLET	100	0.1	30.66	0
FBG3	Regional	J571.927	0.09	18	50	2	100	0.013	0.25	25	OUTLET	100	0.1	0	0
FBG4	Regional	J6478.273	38.72	2581.333	150	2	65.2	0.013	0.25	25	OUTLET	100	0.1	30.39	0
North1	Regional	EBS1	0.56	54.902	102	2	7	0.013	0.25	25	OUTLET	100	0.1	80.64	0
North2	Regional	EBS1	0.36	65.455	55	1	100	0.013	0.25	25	OUTLET	100	0.1	0	0
North3	Regional	EBS1	0.35	44.872	78	1.3	7	0.013	0.25	25	OUTLET	100	0.1	80.5	0
S101	Regional	J71.72631	29.66	3802.564	78	0.3	18.4	0.013	0.25	25	OUTLET	100	0.1	72.4	0

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)
S102	Regional	J895.8482	124.61	18325	68	0.45	25.7	0.013	0.25	25	OUTLET	100	0.1	64.7	0
S103	Regional	J1060.963	51.96	7318.31	71	0.4	24.6	0.013	0.25	25	OUTLET	100	0.1	65.96	0
S104	Regional	J2173.272	39.8	5527.778	72	0.4	27.2	0.013	0.25	25	OUTLET	100	0.1	63.63	0
S105	Regional	J2546.464	61.1	5657.407	108	0.4	65.4	0.013	0.25	25	OUTLET	100	0.1	29.87	0
S106	Regional	J3246.464	76.74	12790	60	0.3	58.2	0.013	0.25	25	OUTLET	100	0.1	35.81	0
S109	Regional	J718.547	8.68	1045.783	83	0.25	14.7	0.013	0.25	25	OUTLET	100	0.1	76.46	0
S110	Regional	J1200.117	19.88	2395.181	83	0.4	25.3	0.013	0.25	25	OUTLET	100	0.1	65.75	0
S111	Regional	J400.215	10.63	2362.222	45	0.45	2.2	0.013	0.25	25	OUTLET	100	0.1	84.74	0
S112	Regional	J1388.055	106.47	8190	130	1.5	5.2	0.013	0.25	25	OUTLET	100	0.1	83.54	0
S113	Regional	J113	232.12	15474.67	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1	87.24	0
S151	Regional	J151	24.92	2076.667	120	1	54.8	0.013	0.25	25	OUTLET	100	0.1	38.92	0
S152	Regional	J152	25.32	1770.629	143	0.95	31.7	0.013	0.25	25	OUTLET	100	0.1	60.18	0
S153	Regional	J60.22	70.58	5881.667	120	0.2	51.2	0.013	0.25	25	OUTLET	100	0.1	43.56	0
S154	Regional	J674.60	119.71	14422.89	83	0.75	30.7	0.013	0.25	25	OUTLET	100	0.1	60.07	0
S155	Regional	J3500.1	11.27	1977.193	57	0.3	17.4	0.013	0.25	25	OUTLET	100	0.1	72.3	0
S156	Regional	j3392.66	26.18	4363.333	60	0.35	33.1	0.013	0.25	25	OUTLET	100	0.1	58.03	0
S157	Regional	j3392.66	39.34	5785.294	68	0.75	31.5	0.013	0.25	25	OUTLET	100	0.1	58.97	0
S158	Regional	J4731.82	9.48	2106.667	45	0.55	35	0.013	0.25	25	OUTLET	100	0.1	55.47	0
S159	Regional	j4635.43	20.41	3401.667	60	0.65	22.8	0.013	0.25	25	OUTLET	100	0.1	66.6	0
S160	Regional	J5598.608	69.57	6156.637	113	0.8	2	0.013	0.25	25	OUTLET	100	0.1	87.22	0
S161	Regional	J300	119.72	16627.78	72	0.5	25.2	0.013	0.25	25	OUTLET	100	0.1	65.16	0
S162	Regional	J142.6492	71.6	11015.38	65	0.85	24.2	0.013	0.25	25	OUTLET	100	0.1	65.24	0
S163	Regional	j3135.520	58.33	8973.846	65	0.4	24.2	0.013	0.25	25	OUTLET	100	0.1	66.09	0
S164	Regional	J3200	11.65	2080.357	56	0.5	9	0.013	0.25	25	OUTLET	100	0.1	79.11	0
S165	Regional	j3400	23.84	3667.692	65	0.65	24	0.013	0.25	25	OUTLET	100	0.1	65.7	0
S166	Regional	j4300	71.04	10447.06	68	1.05	29.7	0.013	0.25	25	OUTLET	100	0.1	60.26	0
S167	Regional	J167	26.36	2196.667	120	0.3	2	0.013	0.25	25	OUTLET	100	0.1	90.11	0

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)
S171	Regional	j5746.464	34.01	5232.308	65	1.15	29.2	0.013	0.25	25	OUTLET	100	0.1	60.55	0
S172	Regional	j6988.738	15.04	2211.765	68	0.85	39.4	0.013	0.25	25	OUTLET	100	0.1	51.89	0
S180	Regional	J749.08	28.57	4201.471	68	0.5	3.8	0.013	0.25	25	OUTLET	100	0.1	84.47	0
S181	Regional	J181	15.96	1922.892	83	1.25	55.4	0.013	0.25	25	OUTLET	100	0.1	37.9	0
S182	Regional	j2600.16	22.52	2297.959	98	0.4	10.6	0.013	0.25	25	OUTLET	100	0.1	80.04	0
S183	Regional	J2460.36	7.59	1686.667	45	0.45	4.1	0.013	0.25	25	OUTLET	100	0.1	83.04	0
S184	Regional	J3.2	105.67	9606.364	110	0.8	2	0.013	0.25	25	OUTLET	100	0.1	87.1	0
S185	Regional	J185	43.32	3938.182	110	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1	87.38	0
S186	Regional	J186	193.34	12889.33	150	2	2.4	0.013	0.25	25	OUTLET	100	0.1	86.12	0
S187	Regional	E855	1.93	321.667	60	0.9	7.8	0.013	0.25	25	OUTLET	100	0.1	79.57	0
S191	Regional	j762.307	89.38	16864.15	53	0.6	29.8	0.013	0.25	25	OUTLET	100	0.1	60.23	0
S192	Regional	J1130.117	3.43	571.667	60	0.65	5.5	0.013	0.25	25	OUTLET	100	0.1	82.08	0
S193	Regional	j1130.117	21.79	3026.389	72	0.6	29.7	0.013	0.25	25	OUTLET	100	0.1	60.9	0
S195	Regional	SU220	9.45	1783.019	53	0.85	29.6	0.013	0.25	25	OUTLET	100	0.1	60.12	0
S201	Regional	j36.529	16.42	2736.667	60	1.3	24	0.013	0.25	25	OUTLET	100	0.1	64.88	0
S202	Regional	j36.529	29.6	4933.333	60	0.6	15.6	0.013	0.25	25	OUTLET	100	0.1	73.12	0
S203	Regional	J1700.117	12.96	2160	60	0.5	20	0.013	0.25	25	OUTLET	100	0.1	69.4	0
S204	Regional	J1361.769	48.81	3754.615	130	0.3	3.1	0.013	0.25	25	OUTLET	100	0.1	89.52	0
S205	Regional	J2266.899	54.06	3861.429	140	0.6	2.3	0.013	0.25	25	OUTLET	100	0.1	88.7	0
S210	Regional	J2604.897	10.87	2415.556	45	0.7	2.9	0.013	0.25	25	OUTLET	100	0.1	83.51	0
S211	Regional	SU211	29.63	4938.333	60	0.65	19.3	0.013	0.25	25	OUTLET	100	0.1	69.72	0
S212	Regional	J212	8.58	817.143	105	0.5	5.4	0.013	0.25	25	OUTLET	100	0.1	84.75	0
S213	Regional	J3	11.91	1044.737	114	0.6	2.4	0.013	0.25	25	OUTLET	100	0.1	87.55	0
S214	Regional	J1041.555	6.37	767.47	83	1.15	2	0.013	0.25	25	OUTLET	100	0.1	85.36	0
S215	Regional	J3	129.18	8612	150	1.1	2	0.013	0.25	25	OUTLET	100	0.1	87.79	0
S216	Regional	J216	267.14	17809.33	150	1.4	2	0.013	0.25	25	OUTLET	100	0.1	87.24	0
S220	Regional	SU220	34.67	5778.333	60	0.5	26.4	0.013	0.25	25	OUTLET	100	0.1	63.66	0

Table 2A: Subcatchments (continued...)

Name	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Zero Imperv (%)	Subarea Routing	Percent Routed (%)	C	Infiltration (mm)	Imperv Runoff (mm)
S221	Regional	SU220	4.53	503.333	90	0.55	2	0.013	0.25	25	OUTLET	100	0.1	87.05	0
WRegWid	Regional	E673	0.5362	35.747	149.999	1	25	0.013	0.25	25	OUTLET	100	0.1	66.44	0

Table 2B: Subcatchments

Name	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m^3/s)
CWP	0	229.01	0.29
Eaglewood2	0	283.4	0.01
Eaglwood1	0	283.39	0.06
EBR3S	0	222.82	0.08
EENNS1	0	277.66	0.09
EGOLF1	0	193.37	1.51
EGOLF2	0	193.37	2.59
EMAIN1	0	198.55	3.24
EMAIN2	0	199.33	3.88
EMAIN3	0	200.04	2
EMAIN4	0	209.73	2.79
ESAN1	0	222.02	2.6
ESAN2	0	228.97	1.09
ETRIB1a	0	202.97	0.9
ETRIB1b	0	196.84	0.77
ETRIB2E	0	217.27	0.22
ETRIB2W	0	199.08	6.38
ETRIB3E	0	249.77	0.26
ETRIB3W	0	192.06	5.27
FBG1	0	274.96	0.25

Table 2B: Subcatchments (continued...)

Name	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m³/s)
FBG2	0	253.33	0.17
FBG3	0	283.4	0.01
FBG4	0	253.59	5.63
North1	0	204.35	0.08
North2	0	283.39	0.05
North3	0	204.5	0.05
S101	0	212.4	3.87
S102	0	219.97	17.18
S103	0	218.73	7.08
S104	0	221.02	5.45
S105	0	254.08	8.8
S106	0	248.29	11.07
S109	0	208.4	1.09
S110	0	218.92	2.67
S111	0	200.33	1.45
S112	0	201.47	13.9
S113	0	197.83	29.17
S151	0	245.24	3.57
S152	0	224.39	3.42
S153	0	240.64	9.59
S154	0	224.52	16.72
S155	0	212.51	1.52
S156	0	226.51	3.66
S157	0	225.61	5.56
S158	0	229.05	1.36
S159	0	218.13	2.86
S160	0	197.85	8.75

Table 2B: Subcatchments (continued...)

Name	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m^3/s)
S161	0	219.52	16.48
S162	0	219.46	10.08
S163	0	218.61	8.01
S164	0	205.84	1.59
S165	0	219.01	3.33
S166	0	224.35	10.1
S167	0	194.95	2.96
S171	0	224.07	4.85
S172	0	232.56	2.15
S180	0	200.57	3.77
S181	0	246.27	2.31
S182	0	204.89	2.82
S183	0	202.01	1.04
S184	0	197.97	13.35
S185	0	197.68	5.34
S186	0	198.94	25.03
S187	0	205.41	0.27
S191	0	224.38	12.69
S192	0	202.93	0.47
S193	0	223.7	3.04
S195	0	224.49	1.35
S201	0	219.84	2.34
S202	0	211.72	4.09
S203	0	215.37	1.79
S204	0	195.52	5.42
S205	0	196.36	6.35
S210	0	201.55	1.51

Table 2B: Subcatchments (continued...)

Name	Perv Runoff (mm)	Runoff Depth (mm)	Peak Runoff (m³/s)
S211	0	215.07	4.13
S212	0	200.25	1.06
S213	0	197.51	1.46
S214	0	199.71	0.86
S215	0	197.28	15.88
S216	0	197.83	33.57
S220	0	221	4.85
S221	0	198.02	0.57
WRegWid	0	218.24	0.07

APPENDIX C
Wastewater Servicing

Urbantech® Consulting, A Division of Leighton-Zec West Ltd. | 2030 Bristol Circle, Suite 105・Oakville・ON・L6H 0H2 | 905.829.8818

urbantech.com

URBANTECH®

SANITARY SEWER DESIGN SHEET	PROJECT DETAILS	DESIGN CRITERIA
Eaglewood TOWN OF OAKVILLE REGIONAL MUNICIPALITY OF HALTON	Project No: 20-657 Date: 30-Jun-23 Designed by: E.L. Checked by: S.H.	Min Diameter = 200 mm Mannings 'n'= 0.013 Min. Velocity = 0.60 m/s Max. Velocity = 3.00 m/s Avg. Domestic Flow = 275.0 l/c/d Infiltration = 0.286 l/s/ha Max. Peaking Factor = 4.50 Min. Peaking Factor= 2.00 NOMINAL PIPE SIZE USED

				RESIDENTIAL							COMMERCIAL/INDUSTRIAL/INSTITUTIONAL						FLOW CALCULATIONS							PIPE DATA					
STREET	FROM MH	TO MH	LENGTH (m)	AREA (ha)	ACC. AREA (ha)	UNITS (#)	DENSITY (P/ha)	DENSITY (P/Unit)	POP	ACCUM. RES. POP.	AREA (ha)	ACC. AREA (ha)	EQUIV. POP. (P/ha)	FLOW RATE (l/s/ha)	EQUIV. POP.	ACCUM. EQUIV. POP.	INFILTRATION (l/s)	TOTAL ACCUM. POP.	PEAKING FACTOR	RES. FLOW (l/s)	COMM. FLOW (l/s)	ACCUM. COMM. FLOW (l/s)	TOTAL FLOW (l/s)	SLOPE (%)	PIPE DIAMETER (mm)	FULL FLOW CAPACITY (l/s)	FULL FLOW VELOCITY (m/s)	ACTUAL VELOCITY (m/s)	PERCENT FULL (%)
	1A	7A	26.9	0.12	0.12		55		7	7							0.0	7	4.50	0.1			0.1	0.50	200	23.2	0.74	0.19	1%
	7A	9A	18.5		0.12		55			7							0.0	7	4.50	0.1			0.1	0.50	200	23.2	0.74	0.19	1%
	8A	9A	28.8	0.09	0.09		55		5	5							0.0	5	4.50	0.1			0.1	0.50	200	23.2	0.74	0.19	0%
	8A	14A	15.4				55																	0.50	200	23.2	0.74	0.19	
	14A	15A	16.0	0.13	0.13		55		8	8							0.0	8	4.50	0.1			0.2	0.50	200	23.2	0.74	0.19	1%
	15A	17A	10.3		0.13		55			8							0.0	8	4.50	0.1			0.2	0.50	200	23.2	0.74	0.19	1%
	16A	17A	15.3	0.08	0.08		55		5	5							0.0	5	4.50	0.1			0.1	0.50	200	23.2	0.74	0.19	0%
	1A	2A	6.1				55																	0.50	200	23.2	0.74	0.19	
	2A	3A	32.6	0.20	0.20		55		11	11							0.1	11	4.50	0.2			0.2	0.50	200	23.2	0.74	0.19	1%
	3A	4A	63.4	0.38	0.58		55		21	32							0.2	32	4.50	0.5			0.6	0.50	200	23.2	0.74	0.29	3%
	4A	6A	8.8		0.58		55			32							0.2	32	4.50	0.5			0.6	0.50	200	23.2	0.74	0.29	3%
	9A	10A	14.0		0.21		55			12							0.1	12	4.41	0.2			0.2	0.50	200	23.2	0.74		1%
	10A	11A	50.6	0.29	0.50		55		16	28							0.1	28	4.50	0.4			0.5	0.50	200	23.2	0.74		2%
	11A	12A	72.0	0.36	0.86		55		20	48							0.2	48	4.50	0.7			0.9	0.50	200	23.2	0.74		4%
	12A	13A	7.9		0.86		55			48							0.2	48	4.50	0.7			0.9	0.50	200	23.2	0.74		4%
	17A	18A	94.2	0.43	0.64		55		24	37							0.2	37	4.34	0.5			0.7	0.50	200	23.2	0.74	0.31	3%
	18A	19A	79.4	0.45	1.09		55		25	62							0.3	62	4.50	0.9			1.2	0.50	200	23.2	0.74	0.38	5%
	19A	20A	7.9		1.09		55			62							0.3	62	4.50	0.9			1.2	0.50	200	23.2	0.74	0.38	5%
	5A	6A	7.7				55																	0.50	200	23.2	0.74	0.19	
	6A	13A	50.8	0.20	0.78		55		11	43							0.2	43	4.33	0.6			0.8	0.50	200	23.2	0.74	0.33	4%
	13A	20A	48.8	0.17	1.81		55		10	101							0.5	101	4.50	1.4			2.0	0.50	200	23.2	0.74	0.44	8%
	20A	21A	11.0		2.90		55			163							0.8	163	4.50	2.3			3.2	0.50	200	23.2	0.74	0.52	14%
	23A	24A	133.9	0.36	0.36		135		49	49							0.1	49	4.50	0.7			0.8	0.50	200	23.2	0.74	0.33	3%
	25A	28A	93.9	0.42	0.42		135										0.1						0.1	0.50	200	23.2	0.74	0.19	1%
	28A	29A	37.2	0.07	0.49		135		10	10							0.1	10	4.50	0.1			0.3	0.50	200	23.2	0.74	0.19	1%
	26A	27A	125.3	0.61	0.61		135		83	83							0.2	83	4.50	1.2			1.4	0.50	200	23.2	0.74	0.40	6%
	27A	28A	37.9	0.15	0.76		135		21	104							0.2	104	4.24	1.4			1.6	0.50	200	23.2	0.74	0.42	7%
STREET A	21A	22A	17.2		2.90					163							0.8	163	4.50	2.3			3.2	0.50	200	23.2	0.74	0.52	14%
STREET A	22A	24A	36.8	0.05	2.95					163							0.8	163	4.18	2.2			3.0	0.50	200	23.2	0.74	0.51	13%
STREET A	24A	29A	39.1	0.04	3.35					212							1.0	212	4.14	2.8			3.8	0.50	200	23.2	0.74	0.54	16%
STREET A	29A	30A	72.7	0.14	3.98					222							1.1	222	4.50	3.2			4.3	0.50	200	23.2	0.74	0.56	19%
BRONTE ROAD	30A	31A	52.5	0.45	0.45	1		196	196	196							0.1	196	4.50	2.8			2.9	0.50	200	23.2	0.74	0.51	13%
BRONTE ROAD	31A	32A	52.3	0.36	0.81		285		103	299							0.2	299	4.50	4.3			4.5	0.50	200	23.2	0.74	0.56	19%
YELLOW ROSE CIRCLE	32A	33A	23.7		0.81					299							0.2	299	4.50	4.3			4.5	0.65	200	26.4	0.84	0.62	17%

APPENDIX D
Water Servicing

Municipal Engineering Solutions

March 30, 2023 Project No. 17003-49

Mr. Steve Hader
Urbantech Consulting
2030 Bristol Circle, Suite 105
Oakville, ON
L6H 0H2

Subject: Bronte River LP Development
Water Distribution Modeling
Town of Oakville, Region of Halton

Dear Mr. Hader,

We are pleased to submit our report entitled "Bronte River LP Development Watermain Analysis" outlining the results of our water distribution analysis for the proposed residential development in the Town of Oakville, Region of Halton.

This development layout was incorporated into the Region of Halton's existing Infowater water models dated August 2022 and modeled utilizing the design information provided to Municipal Engineering Solutions. The findings of our analysis are summarized in the following report.

We trust you will find this report satisfactory. Should you have any questions or require further clarification, please call.

Yours truly,

Municipal Engineering Solutions

John C. Bourrie

Per: John C. Bourrie, P.Eng.

/LMC

File Location: D:\Projects\2023\23-002 Bronte River Urbantech 17003-49\3.0 Report\Final Report March 2023\17003-49 Bronte River Watermain Analysis_20230330.docx

55 Gilbank Drive, Aurora, Ontario L4G 6H9
Tel: 905.726.1016 Cell: 416.434.0186 Fax: 905.726.1225

BRONTE RIVER LP DEVELOPMENT

WATER ANALYSIS

PREPARED BY:

MUNICIPAL ENGINEERING SOLUTIONS

FOR:

URBANTECH CONSULTING
March 2023

Project Number: 17003-49

TABLE OF CONTENTS

Section 1 – INTRODUCTION

Municipal Engineering Solutions ("MES") was retained by Urbantech Consulting to conduct a hydraulic water analysis for the proposed Bronte River LP development located in the Town of Oakville in the Region of Halton. As part of this hydraulic assessment MES was requested to undertake the following:

1. Calculate/verify water demands for the proposed development using Region of Halton, provincial and industry design standards;
2. Add the subject watermains/development to the Region's existing water model;
3. Run the model to size the subject mains to achieve service criteria during Average Day, Peak Hour, and fire flow during Maximum Day demand; and
4. Prepare a Report summarizing the modeling results for agency review and design purposes.

1.1 Development Background

The Bronte River LP Development will consist of 85 single family homes, 23 street townhomes, 66 back to back townhomes and one heritage home near Bronte Road between Upper Middle Road West and Highway 403 in the Town of Oakville. The proposed development is shown below on **Figure 1**. Two future apartment buildings north of the site were also considered in the analysis.

Figure 1 - Proposed Bronte River LP Development

Section 2 – WATERMAIN DESIGN CRITERIA

The design criteria utilized to estimate the water demands for the hydraulic water model follows general industry standards and is calculated using the design criteria and guidelines outlined in the Region of Halton's October 2019 Water and

Wastewater Linear Design Manual, the Ministry of the Environment, Conservation and Parks (MECP) Watermain Design Criteria, and the Fire Underwriters Survey.

The following sections summarize the specific design criteria used to carry out the hydraulic watermain assessment for this development.

2.1 Equivalent Population Densities & Water Design Factors

To calculate the equivalent population and water design factors for this development MES used Region of Halton criteria as noted in the *"Region of Halton Water and Wastewater Linear Design Manual, October 2019"*. **Table 1** summarizes the population densities and **Table 2** summarizes the average daily demand and peaking factors used for this analysis.

Table 1 – Equivalent Population Density

Type of Development	Equivalent Population (Persons/Ha)	Equivalent Population (Persons/Unit)
Single Family	55	3.772
Semi-Detached	100	3.772
Townhouse	135	2.536
Apartment	285	1.594
Light Commercial/Schools	90	
Community Services	40	

Source: Region of Halton Water and Wastewater Linear Design Manual, October 2019, 2022 Development Charges Update December 2021

Table 2 - Water Design Factors

Type of Development	Average Daily Demand (m^3 per capita)	Maximum Daily Demand Peaking Factor	Peak Hourly Demand Peaking Factor
Residential	0.275	2.25	4.00
Industrial	0.275	2.25	2.25
Commercial	0.275	2.25	2.25
Community Services	0.275	2.25	2.25

Source: Region of Halton Water and Wastewater Linear Design Manual, October 2019

Section 3 –FLOW DEMANDS

Utilizing the equivalent population data and the corresponding Average Day, Maximum Day, and Peak Hour data from **Table 1** the water demands for this development were calculated.

3.1 Equivalent Population Flow Demands

The calculated demands for the development are summarized in **Table 3**. For additional details on the development water demands and assigned demand nodes used in the water model see **Appendix A**.

Table 3 – Water Demand for Bronte River LP Development

Development	Average Day Demand (L/S)	Maximum Day Demand (L/S)	Peak Hour Demand (L/S)
Bronte River LP	2.72	6.12	10.88

`

3.2 Fire Flow Demands

The fire demands for this development were based on typical flows calculated using the Fire Underwriters Survey ("FUS") formula outlined in the *'Water Supply For Public Fire Protection Guideline',* dated 2020. Since the detailed design data (specifics) for the proposed units/buildings are not known at this time, fire flows that have been used by MES for other similar developments previously submitted in Halton were utilized. Once the building designs/configurations are known for the proposed development the fire flows for each unit/building must be confirmed using the FUS criteria to determine the actual fire flow required. Building construction and sprinkler systems may need to be designed to suit the available flow and pressure. The fire flows used are shown in **Table 4**.

Table 4 - Fire Flow Requirements

Building	Fire Flow (L/S)
Singles/Semidetached	167
Street Towns	250
B2B Towns	283
Apartments	273

Source: Fire Underwriters Survey,

3.3 External Demands

The Region of Halton InfoWater model that was provided by the Region to MES included water demands for existing and known future developments within the Region.

Section 4 – OTHER SYSTEM REQUIREMENTS

4.1 System Pressure Requirements

In addition to meeting the various flow requirements, the system must also satisfy minimum and maximum pressure requirements as outlined by the Region of Halton. The Region's pressure requirements are outlined in the Water and Wastewater Linear Design Manual and stipulate the following:

1. The water system shall be designed to maintain as close as possible to a maximum working pressure of 690 kPa (100 psi) as a best management practice.
2. The minimum system pressure shall not be less than 140 kPa (20 psi) at any point in the water system under fire flow conditions.
3. Under normal operating conditions, the water system shall have a target minimum static pressure of 345 kPa (50 psi). Under no operating conditions shall the static pressure within a distribution main fall below 275 kPa (40 psi).
4. The normal method of reduction of pressures to comply with the Ontario Building Code (reduction of pressures to 550 kPa, 80 psi) is by pressure reducing valves to be installed on individual services.

4.2 Watermain Sizing

The Region of Halton also stipulates minimum pipe sizes and requires that all watermains are adequately sized to maintain demand flows at the required pressures without causing excessive energy loss or result in water quality decay. The watermain system must therefore be designed to accommodate the greater of the following:

- Maximum day plus fire demand
- Peak hour demand

`

The minimum pipe size for commercial and industrial areas shall be 300 mm diameter and for residential areas the minimum pipe size shall be 150 mm diameter. For distribution systems providing fire protection the minimum pipe size shall be 150 mm diameter in accordance with Ministry of the Environment, Conservation and Parks (MECP) and NFPA requirements.

To provide appropriate fire protection, reliable supply and pressures the water distribution system should be looped wherever possible to improve supply security and water quality.

4.3 Watermain C-Factor

In designing and modeling of the pipes the Coefficient of Roughness (C-Factor) factors from the Region's design manual were utilized. The Coefficient of Roughness assigned to each pipe size in summarized in **Table 5** below.

Table 5 - Hazen-Williams Coefficient of Roughness (C-Factors)

Size of Pipe (Diameter in mm)	Pipe Material	Coefficient of Roughness (C)
50 mm	Copper	120
100 mm to 400 mm	PVC/HDPE	130
Greater Than 400 mm	Concrete Lined	110

Source: Region of Halton Water and Wastewater Linear Design Manual, October 2019

Section 5 – ANALYSIS & MODELING RESULTS

To conduct the hydraulic water analysis for the proposed development the water demands were estimated by MES using the design criteria previously discussed and incorporated the demands into the existing Region of Halton InfoWater model which was provided by the Region and confirmed as most recent. The following sections discusses the model setup and results.

5.1 Model Setup

The Bronte River LP development is located within the Region's Zone O2 which is not part of the area to be changed through the Region's zone realignment. The Bronte River LP site is located near the boundary between Zones O2 and O3. The service elevation range for Zone O2 is between 97.2 m and 133.7 m while Zone O3 is between 127.6 m and 164.0 m. The development was modeled under 2021 and 2031 conditions in the Region's water model.

New nodes were created to add the flow demands and service elevation information from the development and the future condominiums to the north to the Region of Halton's existing Infowater hydraulic water distribution model system and the system analysis was carried out. The larger existing pipes in the nearby Bronte Green development were also included for the Zone O3 analysis. Friction factor for the pipes were assigned according to **Table 5**.

5.2 Watermain Sizing and System Pressures

The analysis was conducted under 2021 and 2031 servicing conditions for Average Day, Maximum Day, Peak Hour and Maximum day plus Fire demands to size the watermains and meet the pressure requirements. The pipe size and layout are shown in **Appendix B**.

The site elevations range from approximately 129.7 m to 132.5 m. Based on the zone service ranges noted in Section 5.1, the site could be supplied by either pressure district. Currently, the O2/O3 zone boundary is located just east of Bronte Road. The existing 300 mm watermain on Bronte Road supplies Zone O2 pressures from the south up to the zone separation valve near Yellow Rose Circle. The Bronte Green development east of Bronte Road is supplied by

`

Zone O3 via a 300 mm watermain from Upper Middle Road West with zone boundary valves located on Bronte Road near north end of Yellow Rose Circle and on Charles Cornwall Avenue near Bronte Road. See **Figure 2** below.

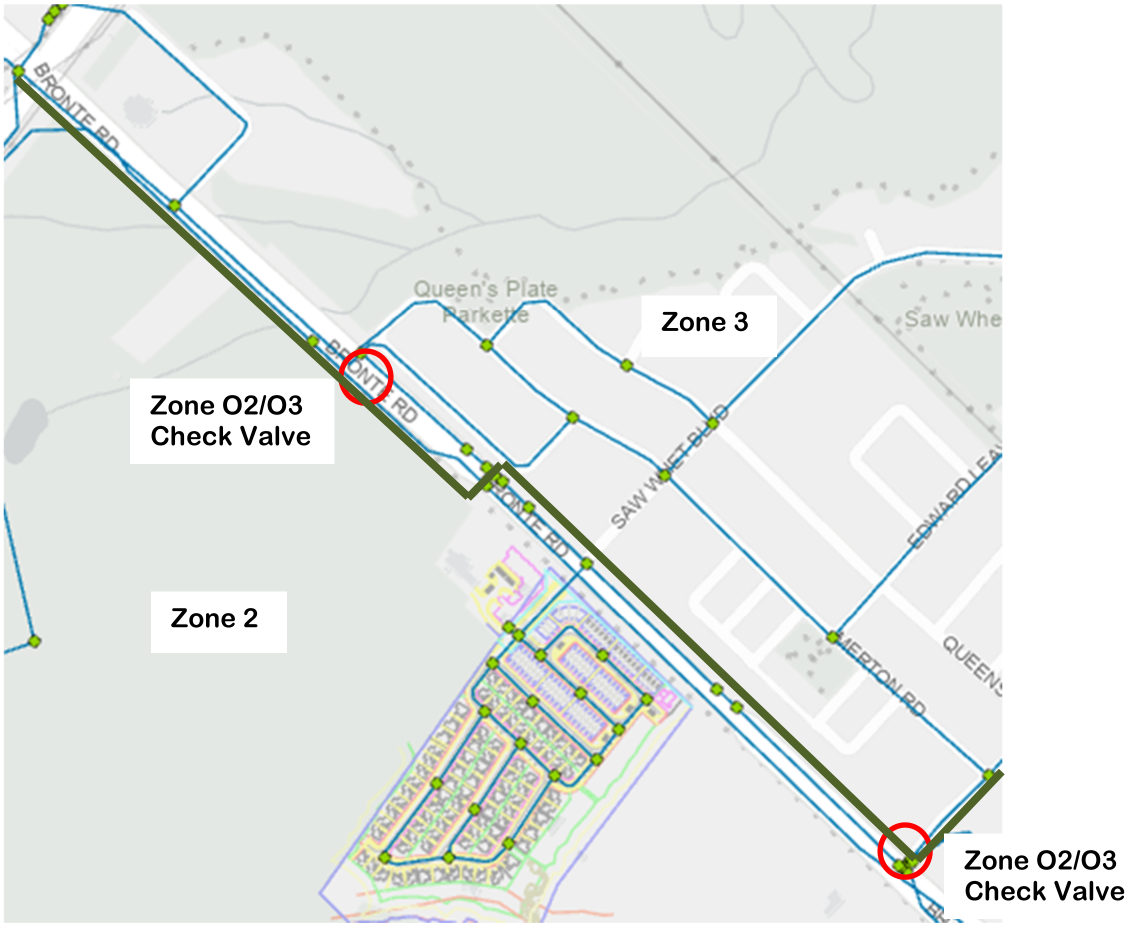


Figure 2 – Existing Zone Boundary and Boundary Valve Locations

The site was initially modeled with a connection to Bronte Road with a Zone O2 supply as described above. The domestic pressures were adequate, but the fire flows were similar to the hydrant test completed in November 2021 (See Appendix). The test result shows an estimated 1,580 usgpm @ 20 psi (99.7 L/s @ 140 kPa). This flow does not meet the fire flows used in this report as noted in **Section 3.2**. Due to the site location, the options to improve the fire flows are limited. With a Zone O3 supply nearby, the model was edited to provide the higher zone supply to the site.

The model considered moving the zone boundary from Bronte Road near Yellow Rose Circle to south of Saw Whet Boulevard. The Bronte Road watermain north of the Bronte River connection would move to Zone O3 and the watermain to the south would remain on Zone O2. The final configuration of the watermains and zone separation in the area must be discussed and confirmed with the Region.

With a Zone O3 supply, the domestic and fire flow demands can be met though the pressures are estimated above the OBC limit of 80 psi (550 kPa) and maybe above the Region pressure limit of 100 psi (690 kPa). The units will require individual pressure reducing valves. It should be noted that the Region does not examine minimum hour conditions so pressures could be higher than modelled.

The site can be adequately supplied by the single 300 mm watermain supply along Bronte Road.

`

The watermains were sized at 150 mm to 300 mm according to the results of average day, maximum day, maximum day plus fire, and peak hour scenarios with a Zone O3 supply through a single feed. The connection for the future apartment buildings was sized at 300 mm based on the preliminary information. The internal watermains for those future buildings will need to be examined in more detail in separate analysis reports.

Modeled service pressures for the development are summarized in **Table 6**. All pressures lie within the required operating range under average day, maximum day, and peak hour demands.

Detailed pipe and node tables for the various scenarios modelled are attached to this report in **Appendix B**.

Table 6 - Modeled Service Pressures

Scenario	Average Day	Maximum Day	Peak Hour	Max. Day + Fire
2021	91.4 – 95.8 psi (630 to 661 kPa)	85.7 – 90.1 psi (591 to 622 kPa)	81.6 to 86.1 psi (563 to 593 kPa)	183 to 320 L/s @ 20 psi
2031	92.4 – 96.9 psi (637 to 667 kPa)	97.7 – 102.1 psi (674 to 704 kPa)	88.5 to 93.0 psi (610 to 641 kPa)	207 to 343 L/s @ 20 psi

Section 6 – CONCLUSIONS

The results are summarized below.

- The service pressures are expected to range between 81.6 psi to 95.8 psi (563 kPa to 661 kPa) in 2021 and between 88.5 psi to 102.1 psi (610 kPa to 704 kPa) in 2031.
- The available fire flow meets the preliminary fire flow demands at the minimum pressure of 20 psi (140 kPa).
- The development will experience pressures above the OBC limit of 80 psi (550 kPa) and maybe above the Region pressure limit of 100 psi (690 kPa). The units will require individual pressure reducing valves. Pressures must be confirmed in the field.
- The changes to the pressure district boundary between Zones O2 and O3 and the alterations needed at Bronte Road must be discussed and confirmed by the Region prior to finalizing the detailed design and/or construction.
- The available fire flow meets or exceeds the preliminary fire flow demands utilized for this assessment at the minimum pressure of 140 kPa based on the proposed watermain supply and assumptions made within this report but must be confirmed when additional information becomes available. Once building designs/configurations are known, the fire flows must be confirmed using the FUS formula. Building construction may need to be designed to suit the available flow and pressure.
- This report, including all modeling assumptions used, is to be submitted to and reviewed by the water operating authority (municipality) to confirm that the modeling parameters used are acceptable to the operating authority and/or confirm if modified domestic or fire flow requirements are required or should be implemented for this particular development.

`

Appendix A

Demands

`

Halton Design Criteria

Water & Wastewater Linear Design Manual, October 2019

Equivalent Population by Unit

(2022 Development Charges Update, December 2021 Table A-4)

Type of Development	Equivalent Population Density
	(Person/Unit)
Single Family or Semi-Detached	3.772
Townhouse*	2.536
Apartment*	1.594

*average of ppu for each size unit (towns > or < 3 bdm, apartments > or < 2 bdrm)

Equivalent Population by Area

Type of Development	Equivalent Population Density	Average Day Demands
	(Person/Hectare)	*(m3/ha/day)*
Single Family	55	15.13
Semi-detached duplex and 4-plex	100	27.50
Townhouse, Maisonette (<6 stories)	135	37.13
Apartments (>6 stories)	285	78.38
Light Commercial Areas	90	24.75
Community Services	40	11.00
Light Industrial Areas	125	34.38
Hospitals (persons/bed)	4	

Water Design Factors

Average Daily Demand (m3/capita)	0.275
Maximum Daily Demand P.F.	2.25
Maximum Hourly Demand P.F.	
Residential	*4*
I/C/I	*2.25*

Cofficient of Roughness

Size of Pipe (mm Dia.)	Material	Coefficient of Roughness (C)
50	Copper	120
100-400	PVC/HDPE	130
Over 400	Concrete Lined	110

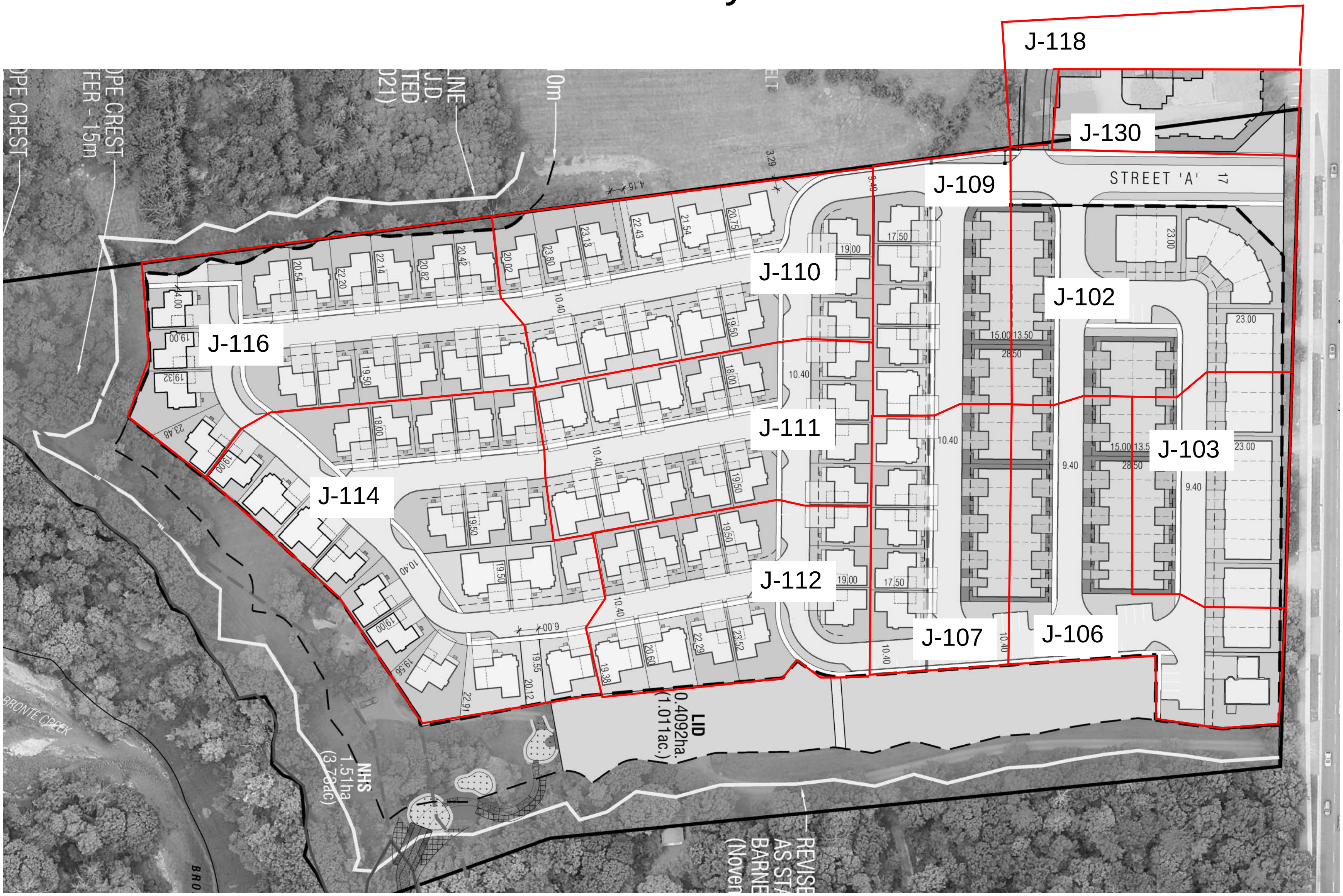
Minimum Pipe Size

Type of Development	Size of Pipe (mm Dia.)
Residential	150
Commercial/Industrial/Community	300

Working Pressures

Parameter	Pressure
Normal Condition	
Minimum Pressure	275 kPa (40 psi)
Target Pressure	350 kPa (50 psi)
Maximum (Building Code)	550 kPa (80 psi)
Maximum (Halton)	690 kPa (100 psi)
Fire Flow Conditions	
Minimum Pressure	140 kPa (20 psi)

Demand Layout



Water Demand
Bronte River, Oakville ON
March 30, 2023

Node	Exist. Zone	Fut. Zone	Elevation	Type of Development							Equivalent Population		Demands			Fire Flow
				Single Family	Semi-Detached	Townhouse	Apartment	Commercial	Community	Industrial	Total Population	Total Population	ADD	MDD	PHD	Demands
			(m)	*(units)*	*(units)*	*(units)*	(units)	*(ha)*	*(ha)*	*(ha)*	*(Residential)*	*(ICI)*	*(L/s)*	*(L/s)*	*(L/s)*	*(L/s)*
J-100	O2	O2	*129.57*								0	0	0.00	0.00	0.00	
J-101	O2	O2	*131.15*								0	0	0.00	0.00	0.00	273
J-102	O2	O2	*131.30*			26					66	0	0.21	0.47	0.84	283
J-103	O2	O2	*131.04*			21					53	0	0.17	0.38	0.68	283
J-104	O2	O2	*130.77*								0	0	0.00	0.00	0.00	283
J-105	O2	O2	*131.03*								0	0	0.00	0.00	0.00	283
J-106^	O2	O2	*130.77*	1		22					60	0	0.19	0.43	0.76	283
J-107	O2	O2	*130.85*	5		10					44	0	0.14	0.32	0.56	283
J-108	O2	O2	*131.31*								0	0	0.00	0.00	0.00	283
J-109	O2	O2	*131.60*	5		10					44	0	0.14	0.32	0.56	283
J-110	O2	O2	*131.78*	14							53	0	0.17	0.38	0.67	167
J-111	O2	O2	*131.47*	14							53	0	0.17	0.38	0.67	167
J-112	O2	O2	*131.24*	11							41	0	0.13	0.30	0.53	167
J-113	O2	O2	*131.75*								0	0	0.00	0.00	0.00	167
J-114	O2	O2	*132.12*	20							75	0	0.24	0.54	0.96	167
J-115	O2	O2	*131.94*								0	0	0.00	0.00	0.00	167
J-116	O2	O2	*132.47*	16							60	0	0.19	0.43	0.77	167
J-117	O2	O2	*132.70*								0	0	0.00	0.00	0.00	167
J-118	O2	O2	*131.00*				81				129	0	0.41	0.92	1.64	273
J-130	O2	O2	*131.15*				110				175	0	0.56	1.26	2.23	273
J-131	O2	O2	*131.30*								0	0	0.00	0.00	0.00	
*historic house			.													
Total				**86**	**0**	**89**	**81**	**0**	**0**	**0**	**854**	**0**	**2.72**	**6.12**	**10.88**	

HYDRANT INSPECTION & FLOW REPORT

SUGGESTED NFPA RATING	
BLUE	CLASS AA
1580 gpm @ 20 psi (138 kPa)	

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Prepared By: The Ontario Clean Water Agency
Prepared For: Urbantech Consulting
Residual Hyd Andrew Cruickshank
Flow Hyd(s) Kurt Kahler,Brandon Williams

Date: 16-Nov-21 Time: 8:22 AM

HYDRANT DESCRIPTION

Hydrant ID:	3210	Side of Street:	East	Make:	McAvity	Open Dir:	Left
Address:	Across from 1354 Bronte Road			Model:	Brigadier M-67	Latitude:	
Location:	Oakville, Ontario			Year:	2007	Longitude:	

GENERAL INSPECTION

OK - Good Condition *FR - Future Repair Required* *N/A - Not Applicable* *CF - Component Failure*

Upper Section	OK	FR	N/A	CF	Mid Section	OK	FR	N/A	CF	General	OK	FR	N/A	CF
Bonnet	☐	☐	☑	☐	Port Height	☐	☐	☑	☐	Accessibility	☐	☐	☑	☐
Operating Nut	☐	☐	☑	☐	Caps / Nozzles	☐	☐	☑	☐	Position / Height	☐	☐	☑	☐
Gaskets / Bolts	☐	☐	☑	☐	Chains	☐	☐	☑	☐	Paint Cond	☐	☐	☑	☐
O-Ring(s)	☐	☐	☑	☐	Traffic Flange	☐	☐	☑	☐	Drain Ports	☐	☐	☑	☐

Hydrostatic Leak Testing			Maintenance		Auxiliary / Secondary Valve	
Hydrant Closed	Above Grade Leak	N/A	Lubricate Operating Nut	N/A	Located / Accessible	N/A
	Subsurface Leak	N/A	Lubricate & Clean Nozzle Threads	N/A	Operated/Exercised	N/A
Hydrant Open	Above Grade Leak	N/A	Lubricate & Clean Cap Threads	N/A	Number of Turns	N/A
	Subsurface Leak	N/A	Water Removed (if non-draining)	N/A	Open Direction	

Comments:

Auxiliary Valve Location:

FLUSHING

*If hydrants are being flow tested, inspections and flushing are completed prior to testing

Hydrant Operated	Clear Flow Obtained	Cl2 Residual	Time Flushed	Flow	Total Flow	Dechlorinated
Yes - Easily Operated	Yes	N/A	5 minutes	1531 gal	7655 gal	Yes

Comments: **STATIC AFTER FLOW TEST WAS PERFORMED 49.12 PSI**

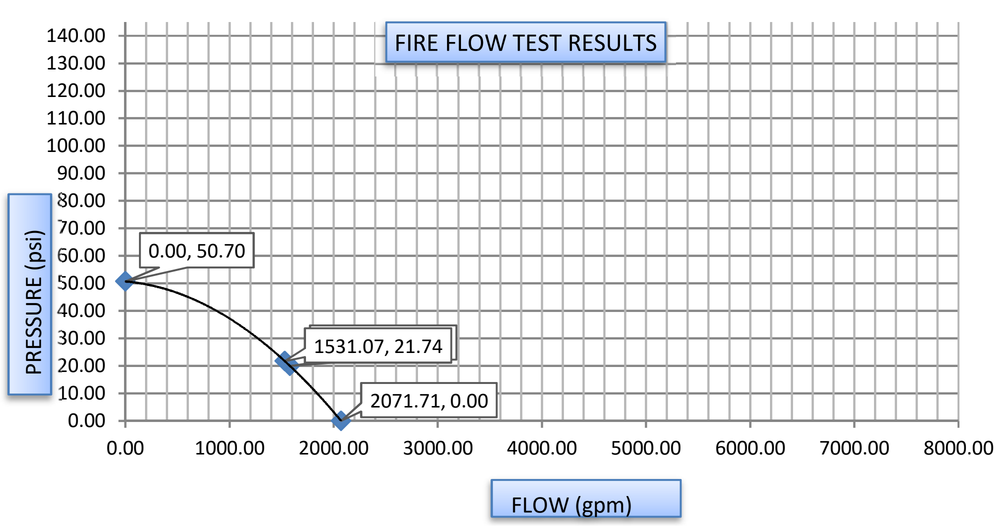
City of Toronto water department will drain the water in the hydrant if required

FLOW TESTING

*Flow testing results may be from previous year(s). Note date & time

Date: 16-Nov-21 Time: 8:21 AM

Flow Hydrant								Test Hydrant		
ID	Flow Device Used	Size	Coefficient	Time Flushed	Flow	Total Flow	Pitot	ID	Static	Residual
41289	Pollard Diffuser	2.5"	0.832	5.0 minutes	491 gal	2453 gal	10 psi	3210	50.70	21.74
41289	Pollard Diffuser	2.5"	0.832	5.0 minutes	347 gal	1734 gal	5 psi			
2781	Pollard Diffuser	2.5"	0.832	3.0 minutes	347 gal	1041 gal	5 psi			
2781	Pollard Diffuser	2.5"	0.832	3.0 minutes	347 gal	1041 gal	5 psi			



Calculated Results	
Calculated Flow @ 20 psi	1580 gpm
Calculated Flow @ 0 psi	2072 gpm
Pressure Drop	57.12%

Comments:

HOSE USED ON HYD 2781 TO AVOID DAMAGE TO SOD

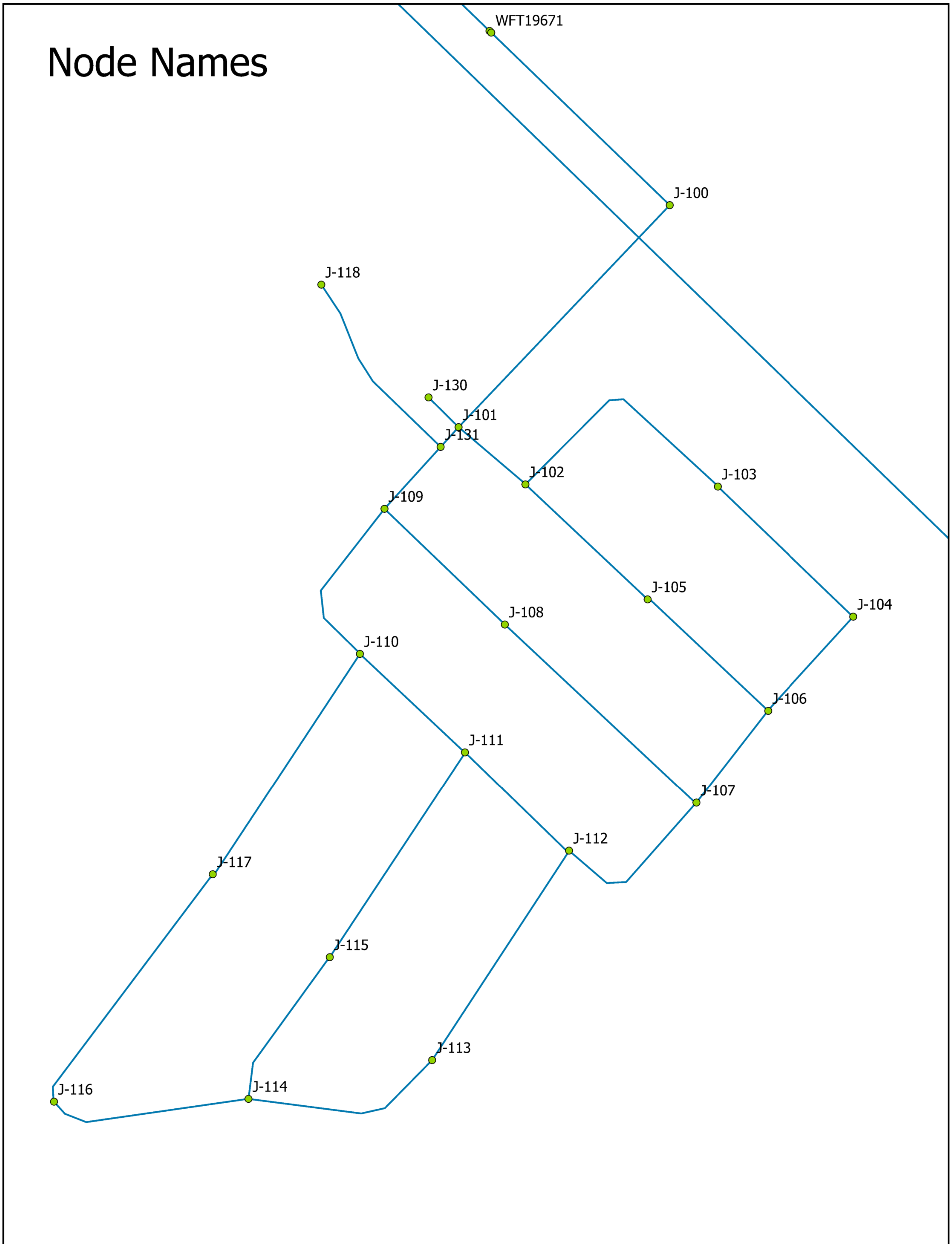

Flow hydrant
HYD 41289
Residual Hyd
HYD 3210
Hose used to avoid damage to area sod
HYD 2781
Bronte Rd
Bronte Rd
Bronte Rd
Queen's Plate Parkette
Saw Whet Blvd.
Saw Whet Blvd.
Saw Whet Blvd.
Saw Whet Blvd
Saw Whet Park
Merton Rd
Junk it!
Cats Castle Cat Hotel
Belt Ln
Littlefield Cres
Badger Cres
primont
Layers
Google
Imagery ©2021 Maxar Technologies, USDA Farm Service Agency, Map data ©2021 Canada Terms Privacy Send feedback 50 m

Appendix B

Model Results

`

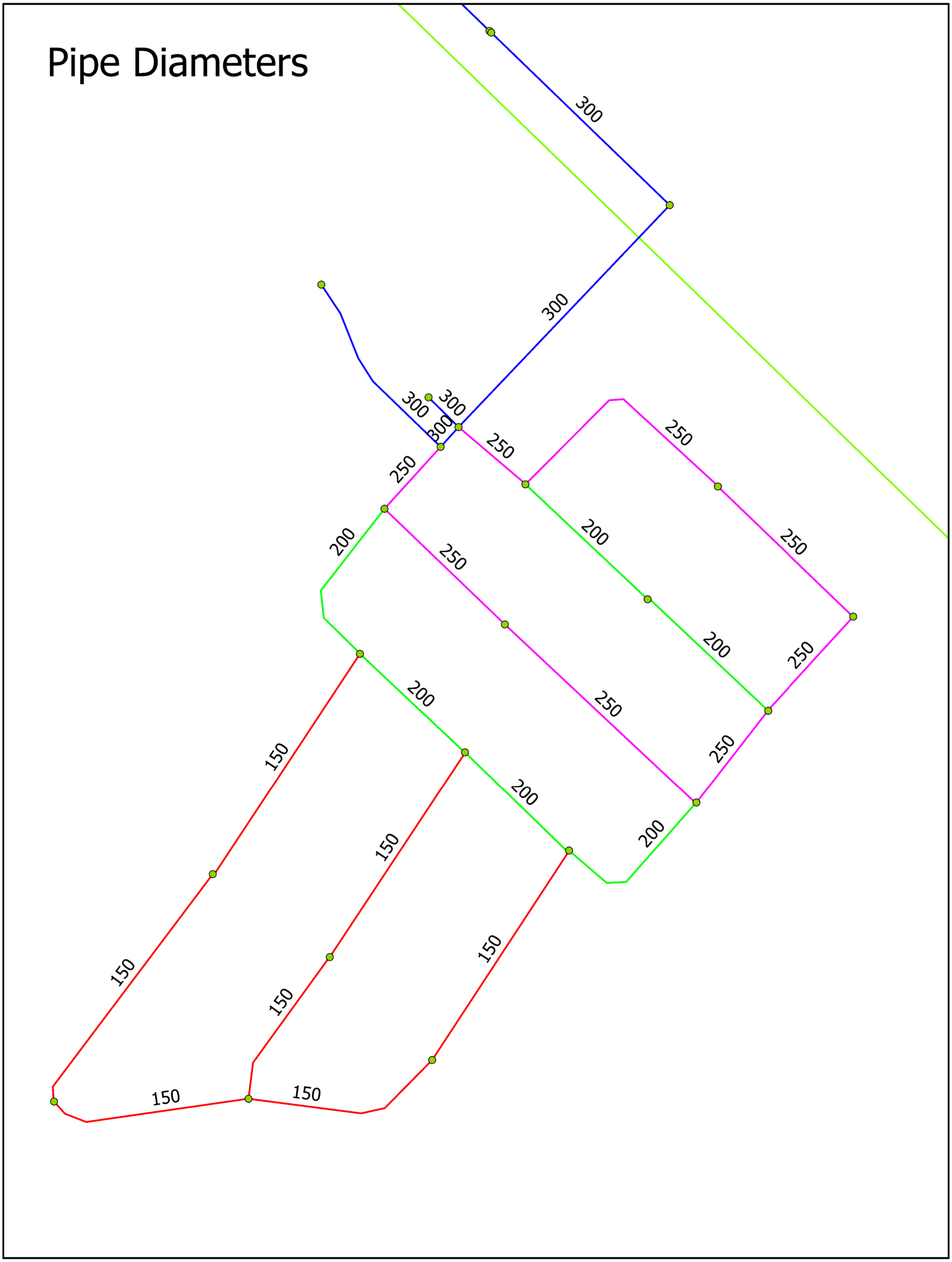
Node Names


WFT19671
J-100
J-118
J-130
J-101
J-131
J-102
J-103
J-109
J-105
J-104
J-108
J-110
J-106
J-111
J-107
J-112
J-117
J-115
J-113
J-116
J-114

Pipe Names

P-100
P-101
P-102
P-143
P-103
P-109
P-142
P-104
P-105
P-108
P-113
P-110
P-107
P-106
P-111
P-114
P-112
P-117
P-115
P-116
P-121
P-123
P-118
P-120
P-119
P-122

Pipe Diameters



2021 Conditions
Bronte River LP, Oakville On
March 30, 2023

Average Day

Node Table

ID	Demand	Elevation	Head	Pressure
	(L/s)	(m)	(m)	(psi)
J-100	0.00	129.57	196.99	95.84
J-101	0.00	131.15	196.99	93.59
J-102	0.21	131.30	196.99	93.38
J-103	0.17	131.04	196.99	93.75
J-104	0.00	130.77	196.99	94.13
J-105	0.00	131.03	196.99	93.76
J-106	0.19	130.77	196.99	94.13
J-107	0.14	130.85	196.99	94.02
J-108	0.00	131.31	196.99	93.37
J-109	0.14	131.60	196.99	92.95
J-110	0.17	131.78	196.99	92.70
J-111	0.17	131.47	196.99	93.14
J-112	0.13	131.24	196.99	93.47
J-113	0.00	131.75	196.99	92.74
J-114	0.24	132.12	196.99	92.21
J-115	0.00	131.94	196.99	92.47
J-116	0.19	132.47	196.99	91.72
J-117	0.00	132.70	196.99	91.39
J-118	0.41	131.00	196.99	93.81
J-130	0.56	131.15	196.99	93.59
J-131	0.00	131.30	196.99	93.38
WFT19671	0.02	130.28	196.99	94.83
MIN		**129.57**		**91.39**
MAX		**132.70**		**95.84**

Pipe Table

ID	From Node	To Node	Length	Diameter	Roughness	Flow	Velocity
			(m)	(mm)	(C)	(ML/d)	(m/s)
P-100	J-100	WFT19671	83.15	300	111	-0.24	0.04
P-101	J-100	J-101	102.61	300	130	0.24	0.04
P-102	J-101	J-130	14.16	300	130	0.05	0.01
P-103	J-101	J-102	29.82	250	130	0.07	0.02
P-104	J-102	J-103	87.35	250	130	0.03	0.01
P-105	J-103	J-104	62.68	250	130	0.02	0.00
P-106	J-104	J-106	42.61	250	130	0.02	0.00
P-107	J-106	J-105	55.15	200	130	-0.02	0.01
P-108	J-105	J-102	56.24	200	130	-0.02	0.01
P-109	J-101	J-131	8.94	300	130	0.12	0.02
P-110	J-109	J-108	55.74	250	130	0.03	0.01
P-111	J-108	J-107	87.22	250	130	0.03	0.01
P-112	J-107	J-106	39.18	250	130	-0.02	0.01
P-113	J-109	J-110	60.84	200	130	0.04	0.02
P-114	J-110	J-111	48.37	200	130	0.02	0.01
P-115	J-111	J-112	47.63	200	130	-0.01	0.00
P-116	J-112	J-107	58.80	200	130	-0.04	0.01
P-117	J-110	J-117	88.51	150	130	0.01	0.01
P-118	J-117	J-116	93.98	150	130	0.01	0.01
P-119	J-116	J-114	68.13	150	130	0.00	0.00
P-120	J-114	J-115	55.85	150	130	-0.01	0.01
P-121	J-115	J-111	82.33	150	130	-0.01	0.01
P-122	J-114	J-113	68.14	150	130	-0.01	0.01
P-123	J-113	J-112	83.53	150	130	-0.01	0.01
P-142	J-131	J-109	28.01	250	130	0.08	0.02
P-143	J-131	J-118	68.46	300	130	0.04	0.01

2021 Conditions
Bronte River LP, Oakville On
March 30, 2023

Maximum Day

Node Table

ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (psi)
J-100	0.00	129.57	192.98	90.14
J-101	0.00	131.15	192.98	87.89
J-102	0.47	131.30	192.98	87.68
J-103	0.38	131.04	192.98	88.05
J-104	0.00	130.77	192.98	88.43
J-105	0.00	131.03	192.98	88.06
J-106	0.43	130.77	192.98	88.43
J-107	0.32	130.85	192.98	88.32
J-108	0.00	131.31	192.98	87.66
J-109	0.32	131.60	192.98	87.25
J-110	0.38	131.78	192.98	86.99
J-111	0.38	131.47	192.98	87.44
J-112	0.30	131.24	192.98	87.76
J-113	0.00	131.75	192.98	87.04
J-114	0.54	132.12	192.97	86.51
J-115	0.00	131.94	192.98	86.77
J-116	0.43	132.47	192.97	86.01
J-117	0.00	132.70	192.98	85.69
J-118	0.92	131.00	192.98	88.11
J-130	1.26	131.15	192.98	87.89
J-131	0.00	131.30	192.98	87.68
WFT19671	0.03	130.28	192.98	89.14

MIN		**129.57**		**85.69**
MAX		**132.70**		**90.14**

Pipe Table

ID	From Node	To Node	Length (m)	Diameter (mm)	Roughness (C)	Flow (ML/d)	Velocity (m/s)
P-100	J-100	WFT19671	83.15	300	111	-0.53	0.09
P-101	J-100	J-101	102.61	300	130	0.53	0.09
P-102	J-101	J-130	14.16	300	130	0.11	0.02
P-103	J-101	J-102	29.82	250	130	0.16	0.04
P-104	J-102	J-103	87.35	250	130	0.08	0.02
P-105	J-103	J-104	62.68	250	130	0.04	0.01
P-106	J-104	J-106	42.61	250	130	0.04	0.01
P-107	J-106	J-105	55.15	200	130	-0.04	0.02
P-108	J-105	J-102	56.24	200	130	-0.04	0.02
P-109	J-101	J-131	8.94	300	130	0.26	0.04
P-110	J-109	J-108	55.74	250	130	0.06	0.01
P-111	J-108	J-107	87.22	250	130	0.06	0.01
P-112	J-107	J-106	39.18	250	130	-0.05	0.01
P-113	J-109	J-110	60.84	200	130	0.09	0.03
P-114	J-110	J-111	48.37	200	130	0.03	0.01
P-115	J-111	J-112	47.63	200	130	-0.03	0.01
P-116	J-112	J-107	58.80	200	130	-0.08	0.03
P-117	J-110	J-117	88.51	150	130	0.03	0.02
P-118	J-117	J-116	93.98	150	130	0.03	0.02
P-119	J-116	J-114	68.13	150	130	-0.01	0.01
P-120	J-114	J-115	55.85	150	130	-0.03	0.02
P-121	J-115	J-111	82.33	150	130	-0.03	0.02
P-122	J-114	J-113	68.14	150	130	-0.03	0.02
P-123	J-113	J-112	83.53	150	130	-0.03	0.02
P-142	J-131	J-109	28.01	250	130	0.18	0.04
P-143	J-131	J-118	68.46	300	130	0.08	0.01

2021 Conditions
Bronte River LP, Oakville On
March 30, 2023

Peak Hour

Node Table

ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (psi)
J-100	0.00	129.57	190.12	86.07
J-101	0.00	131.15	190.11	83.81
J-102	0.84	131.30	190.11	83.60
J-103	0.68	131.04	190.11	83.97
J-104	0.00	130.77	190.11	84.35
J-105	0.00	131.03	190.11	83.98
J-106	0.76	130.77	190.11	84.35
J-107	0.56	130.85	190.11	84.24
J-108	0.00	131.31	190.11	83.58
J-109	0.56	131.60	190.11	83.17
J-110	0.67	131.78	190.10	82.91
J-111	0.67	131.47	190.10	83.35
J-112	0.53	131.24	190.10	83.68
J-113	0.00	131.75	190.10	82.95
J-114	0.96	132.12	190.10	82.43
J-115	0.00	131.94	190.10	82.68
J-116	0.77	132.47	190.10	81.93
J-117	0.00	132.70	190.10	81.60
J-118	1.64	131.00	190.11	84.03
J-130	2.23	131.15	190.11	83.81
J-131	0.00	131.30	190.11	83.60
WFT19671	0.05	130.28	190.13	85.08
MIN		**129.57**		**81.60**
MAX		**132.70**		**86.07**

Pipe Table

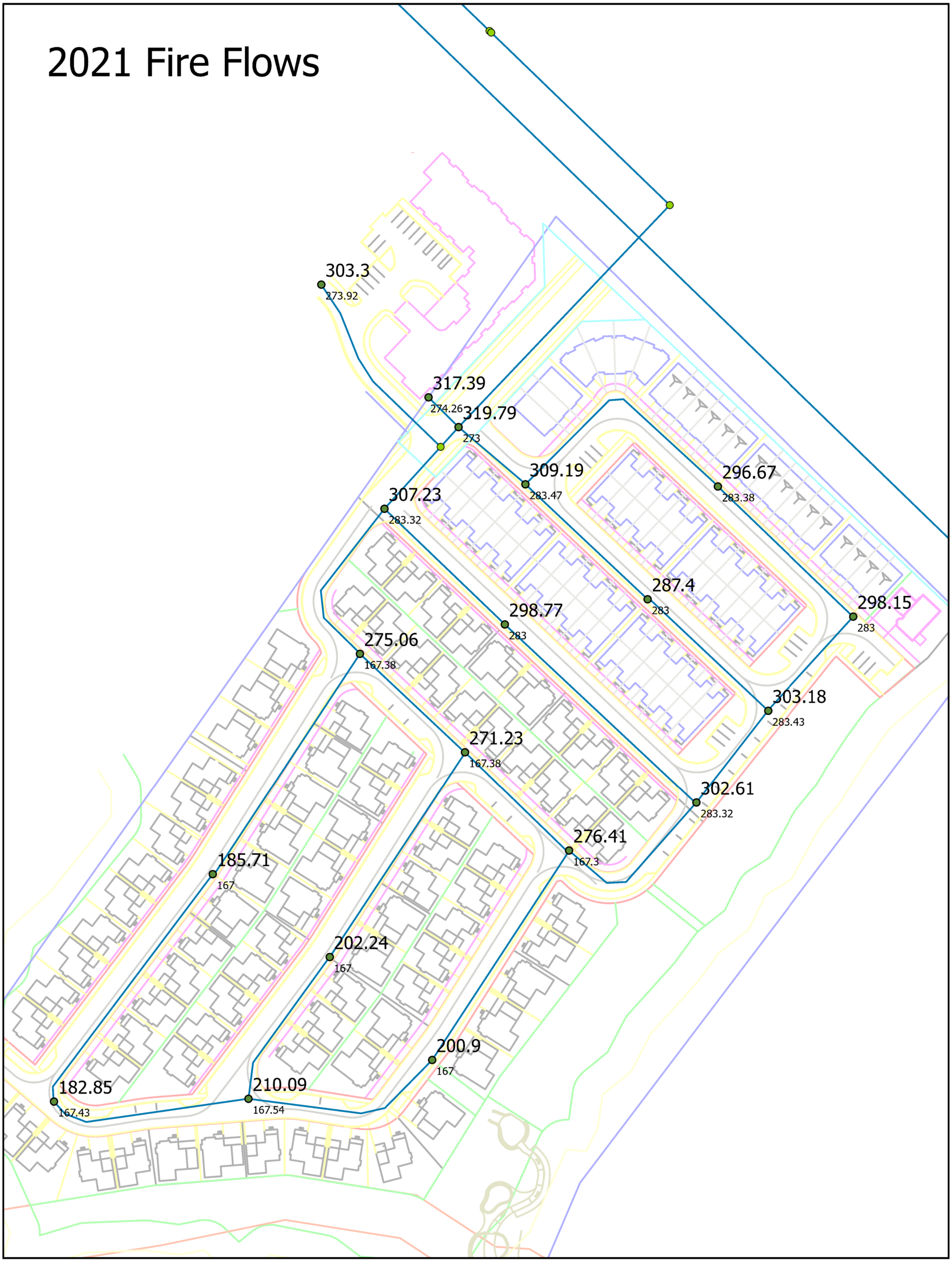
ID	From Node	To Node	Length (m)	Diameter (mm)	Roughness (C)	Flow (ML/d)	Velocity (m/s)
P-100	J-100	WFT19671	83.15	300	111	-0.94	0.15
P-101	J-100	J-101	102.61	300	130	0.94	0.15
P-102	J-101	J-130	14.16	300	130	0.19	0.03
P-103	J-101	J-102	29.82	250	130	0.29	0.07
P-104	J-102	J-103	87.35	250	130	0.13	0.03
P-105	J-103	J-104	62.68	250	130	0.08	0.02
P-106	J-104	J-106	42.61	250	130	0.08	0.02
P-107	J-106	J-105	55.15	200	130	-0.08	0.03
P-108	J-105	J-102	56.24	200	130	-0.08	0.03
P-109	J-101	J-131	8.94	300	130	0.46	0.08
P-110	J-109	J-108	55.74	250	130	0.10	0.02
P-111	J-108	J-107	87.22	250	130	0.10	0.02
P-112	J-107	J-106	39.18	250	130	-0.09	0.02
P-113	J-109	J-110	60.84	200	130	0.17	0.06
P-114	J-110	J-111	48.37	200	130	0.06	0.02
P-115	J-111	J-112	47.63	200	130	-0.05	0.02
P-116	J-112	J-107	58.80	200	130	-0.14	0.05
P-117	J-110	J-117	88.51	150	130	0.05	0.03
P-118	J-117	J-116	93.98	150	130	0.05	0.03
P-119	J-116	J-114	68.13	150	130	-0.02	0.01
P-120	J-114	J-115	55.85	150	130	-0.05	0.03
P-121	J-115	J-111	82.33	150	130	-0.05	0.03
P-122	J-114	J-113	68.14	150	130	-0.05	0.03
P-123	J-113	J-112	83.53	150	130	-0.05	0.03
P-142	J-131	J-109	28.01	250	130	0.32	0.08
P-143	J-131	J-118	68.46	300	130	0.14	0.02

2021 Conditions
Bronte River LP, Oakville On
March 30, 2023

Fire Flow Table			
ID	Total Demand *(L/s)*	Available Flow *(L/s)*	**Fire Flow Met?**
J-101	273.00	319.79	TRUE
J-102	283.47	309.19	TRUE
J-103	283.38	296.67	TRUE
J-104	283.00	298.15	TRUE
J-105	283.00	287.40	TRUE
J-106	283.43	303.18	TRUE
J-107	283.32	302.61	TRUE
J-108	283.00	298.77	TRUE
J-109	283.32	307.23	TRUE
J-110	167.38	275.06	TRUE
J-111	167.38	271.23	TRUE
J-112	167.30	276.41	TRUE
J-113	167.00	200.90	TRUE
J-114	167.54	210.09	TRUE
J-115	167.00	202.24	TRUE
J-116	167.43	182.85	TRUE
J-117	167.00	185.71	TRUE
J-118	273.92	303.30	TRUE
J-130	274.26	317.39	TRUE

MIN	**182.85**
MAX	**319.79**

2021 Fire Flows



2031 Conditions
Bronte River LP, Oakville On
March 30, 2023

Average Day

Node Table

ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (psi)
J-100	0.00	129.57	197.70	96.86
J-101	0.00	131.15	197.70	94.61
J-102	0.21	131.30	197.70	94.40
J-103	0.17	131.04	197.70	94.76
J-104	0.00	130.77	197.70	95.15
J-105	0.00	131.03	197.70	94.78
J-106	0.19	130.77	197.70	95.15
J-107	0.14	130.85	197.70	95.03
J-108	0.00	131.31	197.70	94.38
J-109	0.14	131.60	197.70	93.97
J-110	0.17	131.78	197.70	93.71
J-111	0.17	131.47	197.70	94.15
J-112	0.13	131.24	197.70	94.48
J-113	0.00	131.75	197.70	93.76
J-114	0.24	132.12	197.70	93.23
J-115	0.00	131.94	197.70	93.49
J-116	0.19	132.47	197.70	92.73
J-117	0.00	132.70	197.70	92.40
J-118	0.41	131.00	197.70	94.82
J-130	0.56	131.15	197.70	94.61
J-131	0.00	131.30	197.70	94.40
WFT19671	0.02	130.28	197.70	95.85
MIN		**129.57**		**92.40**
MAX		**132.70**		**96.86**

Pipe Table

ID	From Node	To Node	Length (m)	Diameter (mm)	Roughness (C)	Flow (ML/d)	Velocity (m/s)
P-100	J-100	WFT19671	83.15	300	111	-0.24	0.04
P-101	J-100	J-101	102.61	300	130	0.24	0.04
P-102	J-101	J-130	14.16	300	130	0.05	0.01
P-103	J-101	J-102	29.82	250	130	0.07	0.02
P-104	J-102	J-103	87.35	250	130	0.03	0.01
P-105	J-103	J-104	62.68	250	130	0.02	0.00
P-106	J-104	J-106	42.61	250	130	0.02	0.00
P-107	J-106	J-105	55.15	200	130	-0.02	0.01
P-108	J-105	J-102	56.24	200	130	-0.02	0.01
P-109	J-101	J-131	8.94	300	130	0.12	0.02
P-110	J-109	J-108	55.74	250	130	0.03	0.01
P-111	J-108	J-107	87.22	250	130	0.03	0.01
P-112	J-107	J-106	39.18	250	130	-0.02	0.01
P-113	J-109	J-110	60.84	200	130	0.04	0.02
P-114	J-110	J-111	48.37	200	130	0.02	0.01
P-115	J-111	J-112	47.63	200	130	-0.01	0.00
P-116	J-112	J-107	58.80	200	130	-0.04	0.01
P-117	J-110	J-117	88.51	150	130	0.01	0.01
P-118	J-117	J-116	93.98	150	130	0.01	0.01
P-119	J-116	J-114	68.13	150	130	0.00	0.00
P-120	J-114	J-115	55.85	150	130	-0.01	0.01
P-121	J-115	J-111	82.33	150	130	-0.01	0.01
P-122	J-114	J-113	68.14	150	130	-0.01	0.01
P-123	J-113	J-112	83.53	150	130	-0.01	0.01
P-142	J-131	J-109	28.01	250	130	0.08	0.02
P-143	J-131	J-118	68.46	300	130	0.04	0.01

2031 Conditions
Bronte River LP, Oakville On
March 30, 2023

Maximum Day

Node Table

ID	Demand	Elevatio	Head	Pressure
	(L/s)	(m)	(m)	(psi)
J-100	0.00	129.57	201.42	102.14
J-101	0.00	131.15	201.42	99.89
J-102	0.47	131.30	201.42	99.68
J-103	0.38	131.04	201.42	100.05
J-104	0.00	130.77	201.42	100.43
J-105	0.00	131.03	201.42	100.06
J-106	0.43	130.77	201.42	100.43
J-107	0.32	130.85	201.42	100.32
J-108	0.00	131.31	201.42	99.66
J-109	0.32	131.60	201.42	99.25
J-110	0.38	131.78	201.42	98.99
J-111	0.38	131.47	201.42	99.44
J-112	0.30	131.24	201.42	99.76
J-113	0.00	131.75	201.42	99.04
J-114	0.54	132.12	201.42	98.51
J-115	0.00	131.94	201.42	98.77
J-116	0.43	132.47	201.42	98.01
J-117	0.00	132.70	201.42	97.69
J-118	0.92	131.00	201.42	100.10
J-130	1.26	131.15	201.42	99.89
J-131	0.00	131.30	201.42	99.68
WFT19671	0.05	130.28	201.43	101.14
MIN		**129.57**		**97.69**
MAX		**132.70**		**102.14**

Pipe Table

ID	From Node	To Node	Length	Diameter	Roughness	Flow	Velocity
			(m)	(mm)	(C)	(ML/d)	(m/s)
P-100	J-100	WFT19671	83.15	300	111	-0.53	0.09
P-101	J-100	J-101	102.61	300	130	0.53	0.09
P-102	J-101	J-130	14.16	300	130	0.11	0.02
P-103	J-101	J-102	29.82	250	130	0.16	0.04
P-104	J-102	J-103	87.35	250	130	0.08	0.02
P-105	J-103	J-104	62.68	250	130	0.04	0.01
P-106	J-104	J-106	42.61	250	130	0.04	0.01
P-107	J-106	J-105	55.15	200	130	-0.04	0.02
P-108	J-105	J-102	56.24	200	130	-0.04	0.02
P-109	J-101	J-131	8.94	300	130	0.26	0.04
P-110	J-109	J-108	55.74	250	130	0.06	0.01
P-111	J-108	J-107	87.22	250	130	0.06	0.01
P-112	J-107	J-106	39.18	250	130	-0.05	0.01
P-113	J-109	J-110	60.84	200	130	0.09	0.03
P-114	J-110	J-111	48.37	200	130	0.03	0.01
P-115	J-111	J-112	47.63	200	130	-0.03	0.01
P-116	J-112	J-107	58.80	200	130	-0.08	0.03
P-117	J-110	J-117	88.51	150	130	0.03	0.02
P-118	J-117	J-116	93.98	150	130	0.03	0.02
P-119	J-116	J-114	68.13	150	130	-0.01	0.01
P-120	J-114	J-115	55.85	150	130	-0.03	0.02
P-121	J-115	J-111	82.33	150	130	-0.03	0.02
P-122	J-114	J-113	68.14	150	130	-0.03	0.02
P-123	J-113	J-112	83.53	150	130	-0.03	0.02
P-142	J-131	J-109	28.01	250	130	0.18	0.04
P-143	J-131	J-118	68.46	300	130	0.08	0.01

2031 Conditions
Bronte River LP, Oakville On
March 30, 2023

Peak Hour

Node Table

ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (psi)
J-100	0.00	129.57	194.97	92.97
J-101	0.00	131.15	194.96	90.71
J-102	0.84	131.30	194.96	90.50
J-103	0.68	131.04	194.96	90.86
J-104	0.00	130.77	194.96	91.25
J-105	0.00	131.03	194.96	90.88
J-106	0.76	130.77	194.96	91.25
J-107	0.56	130.85	194.96	91.13
J-108	0.00	131.31	194.96	90.48
J-109	0.56	131.60	194.96	90.07
J-110	0.67	131.78	194.96	89.81
J-111	0.67	131.47	194.96	90.25
J-112	0.53	131.24	194.96	90.58
J-113	0.00	131.75	194.95	89.85
J-114	0.96	132.12	194.95	89.32
J-115	0.00	131.94	194.95	89.58
J-116	0.77	132.47	194.95	88.83
J-117	0.00	132.70	194.95	88.50
J-118	1.64	131.00	194.96	90.92
J-130	2.23	131.15	194.96	90.71
J-131	0.00	131.30	194.96	90.50
WFT19671	0.07	130.28	194.98	91.98

MIN		**129.57**		**88.50**
MAX		**132.70**		**92.97**

Pipe Table

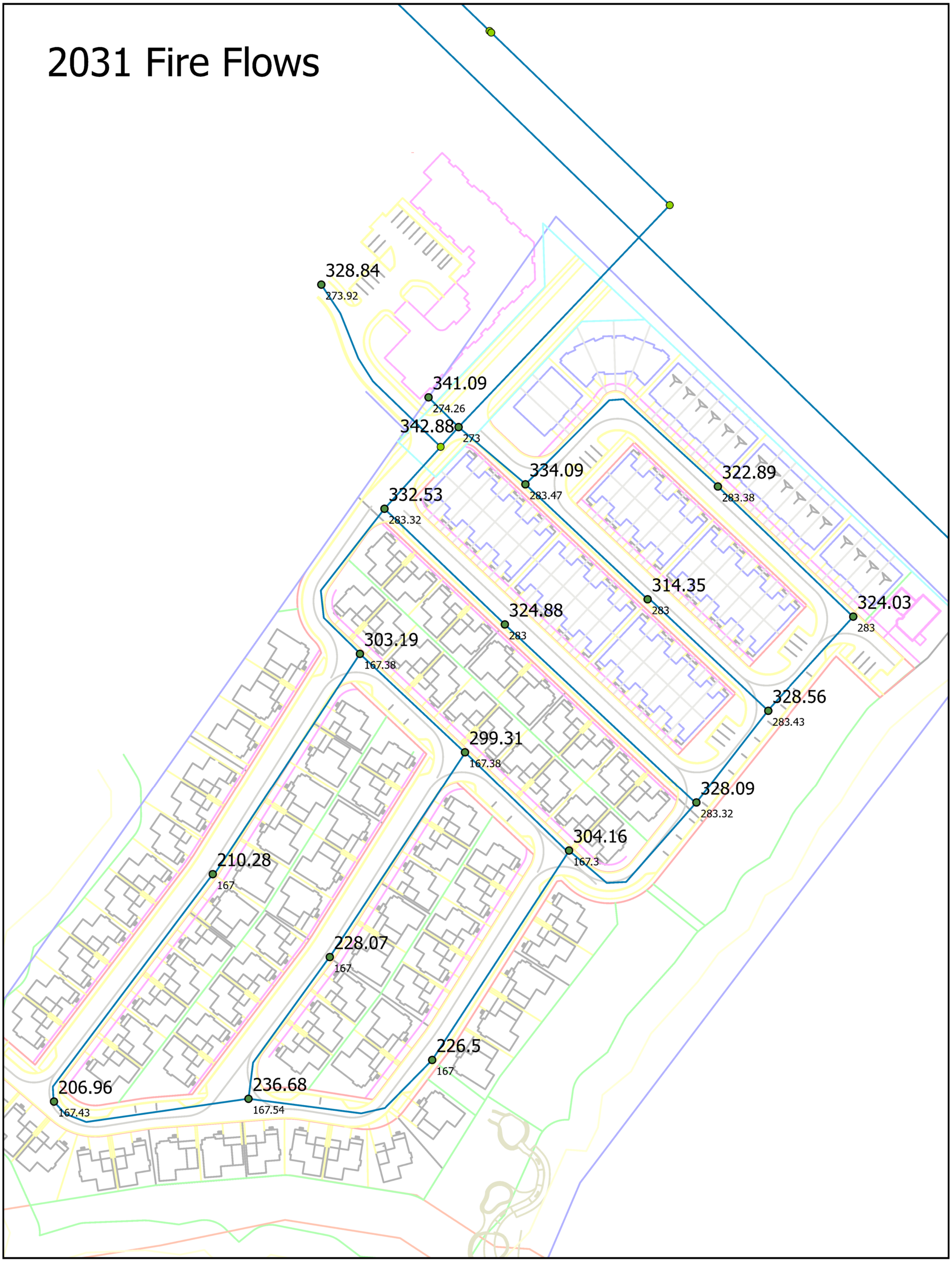
ID	From Node	To Node	Length (m)	Diameter (mm)	Roughness (C)	Flow (ML/d)	Velocity (m/s)
P-100	J-100	WFT19671	83.15	300	111	-0.94	0.15
P-101	J-100	J-101	102.61	300	130	0.94	0.15
P-102	J-101	J-130	14.16	300	130	0.19	0.03
P-103	J-101	J-102	29.82	250	130	0.29	0.07
P-104	J-102	J-103	87.35	250	130	0.13	0.03
P-105	J-103	J-104	62.68	250	130	0.08	0.02
P-106	J-104	J-106	42.61	250	130	0.08	0.02
P-107	J-106	J-105	55.15	200	130	-0.08	0.03
P-108	J-105	J-102	56.24	200	130	-0.08	0.03
P-109	J-101	J-131	8.94	300	130	0.46	0.08
P-110	J-109	J-108	55.74	250	130	0.10	0.02
P-111	J-108	J-107	87.22	250	130	0.10	0.02
P-112	J-107	J-106	39.18	250	130	-0.09	0.02
P-113	J-109	J-110	60.84	200	130	0.17	0.06
P-114	J-110	J-111	48.37	200	130	0.06	0.02
P-115	J-111	J-112	47.63	200	130	-0.05	0.02
P-116	J-112	J-107	58.80	200	130	-0.14	0.05
P-117	J-110	J-117	88.51	150	130	0.05	0.03
P-118	J-117	J-116	93.98	150	130	0.05	0.03
P-119	J-116	J-114	68.13	150	130	-0.02	0.01
P-120	J-114	J-115	55.85	150	130	-0.05	0.03
P-121	J-115	J-111	82.33	150	130	-0.05	0.03
P-122	J-114	J-113	68.14	150	130	-0.05	0.03
P-123	J-113	J-112	83.53	150	130	-0.05	0.03
P-142	J-131	J-109	28.01	250	130	0.32	0.08
P-143	J-131	J-118	68.46	300	130	0.14	0.02

2031 Conditions
Bronte River LP, Oakville On
March 30, 2023

Fire Flow Table			
ID	Total Demand *(L/s)*	Available Flow *(L/s)*	**Fire Flow Met?**
J-101	273.00	342.88	**TRUE**
J-102	283.47	334.09	**TRUE**
J-103	283.38	322.89	**TRUE**
J-104	283.00	324.03	**TRUE**
J-105	283.00	314.35	**TRUE**
J-106	283.43	328.56	**TRUE**
J-107	283.32	328.09	**TRUE**
J-108	283.00	324.88	**TRUE**
J-109	283.32	332.53	**TRUE**
J-110	167.38	303.19	**TRUE**
J-111	167.38	299.31	**TRUE**
J-112	167.30	304.16	**TRUE**
J-113	167.00	226.50	**TRUE**
J-114	167.54	236.68	**TRUE**
J-115	167.00	228.07	**TRUE**
J-116	167.43	206.96	**TRUE**
J-117	167.00	210.28	**TRUE**
J-118	273.92	328.84	**TRUE**
J-130	274.26	341.09	**TRUE**

MIN	**206.96**
MAX	**342.88**

2031 Fire Flows



HYDRANT INSPECTION & FLOW REPORT

SUGGESTED NFPA RATING	
BLUE	CLASS AA
1580 gpm @ 20 psi (138 kPa)	

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Prepared By: The Ontario Clean Water Agency
Prepared For: Urbantech Consulting
Residual Hyd Andrew Cruickshank
Flow Hyd(s) Kurt Kahler,Brandon Williams

Date: 16-Nov-21 Time: 8:22 AM

HYDRANT DESCRIPTION

Hydrant ID:	3210	Side of Street:	East	Make:	McAvity	Open Dir:	Left
Address:	Across from 1354 Bronte Road			Model:	Brigadier M-67	Latitude:	
Location:	Oakville, Ontario			Year:	2007	Longitude:	

GENERAL INSPECTION

OK - Good Condition *FR - Future Repair Required* *N/A - Not Applicable* *CF - Component Failure*

Upper Section	OK	FR	N/A	CF
Bonnet	☐	☐	☑	☐
Operating Nut	☐	☐	☑	☐
Gaskets / Bolts	☐	☐	☑	☐
O-Ring(s)	☐	☐	☑	☐

Mid Section	OK	FR	N/A	CF
Port Height	☐	☐	☑	☐
Caps / Nozzles	☐	☐	☑	☐
Chains	☐	☐	☑	☐
Traffic Flange	☐	☐	☑	☐

General	OK	FR	N/A	CF
Accessibility	☐	☐	☑	☐
Position / Height	☐	☐	☑	☐
Paint Cond	☐	☐	☑	☐
Drain Ports	☐	☐	☑	☐

Hydrostatic Leak Testing		
Hydrant Closed	Above Grade Leak	N/A
	Subsurface Leak	N/A
Hydrant Open	Above Grade Leak	N/A
	Subsurface Leak	N/A

Maintenance	
Lubricate Operating Nut	N/A
Lubricate & Clean Nozzle Threads	N/A
Lubricate & Clean Cap Threads	N/A
Water Removed (if non-draining)	N/A

Auxiliary / Secondary Valve	
Located / Accessible	N/A
Operated/Exercised	N/A
Number of Turns	N/A
Open Direction	

Comments:

Auxiliary Valve Location:

FLUSHING

*If hydrants are being flow tested, inspections and flushing are completed prior to testing

Hydrant Operated	Clear Flow Obtained	Cl2 Residual	Time Flushed	Flow	Total Flow	Dechlorinated
Yes - Easily Operated	Yes	N/A	5 minutes	1531 gal	7655 gal	Yes

Comments: **STATIC AFTER FLOW TEST WAS PERFORMED 49.12 PSI**

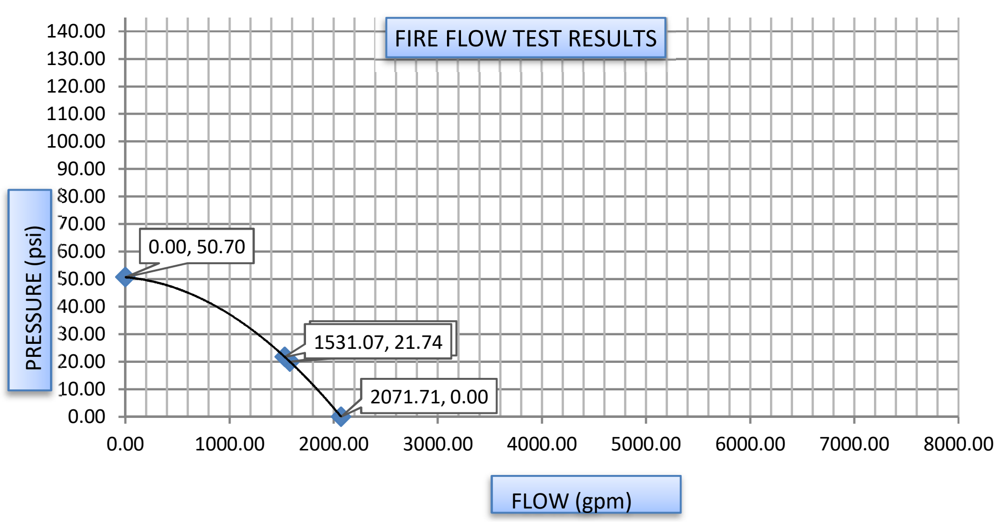
City of Toronto water department will drain the water in the hydrant if required

FLOW TESTING

*Flow testing results may be from previous year(s). Note date & time

Date: 16-Nov-21 Time: 8:21 AM

Flow Hydrant								Test Hydrant		
ID	Flow Device Used	Size	Coefficient	Time Flushed	Flow	Total Flow	Pitot	ID	Static	Residual
41289	Pollard Diffuser	2.5"	0.832	5.0 minutes	491 gal	2453 gal	10 psi	3210	50.70	21.74
41289	Pollard Diffuser	2.5"	0.832	5.0 minutes	347 gal	1734 gal	5 psi			
2781	Pollard Diffuser	2.5"	0.832	3.0 minutes	347 gal	1041 gal	5 psi			
2781	Pollard Diffuser	2.5"	0.832	3.0 minutes	347 gal	1041 gal	5 psi			



Calculated Results	
Calculated Flow @ 20 psi	**1580 gpm**
Calculated Flow @ 0 psi	**2072 gpm**
Pressure Drop	**57.12%**

Comments:

HOSE USED ON HYD 2781 TO AVOID DAMAGE TO SOD

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

ESTIMATE

ONTARIO CLEAN WATER AGENCY

DATE: OCTOBER 28, 2021

3392 Wonderland Road South,
Building 9, Unit 6, London, ON
N6L 1A8
Phone 226-374-4218
acruickshank@ocwa.com

TO Urbantech Consulting
2030 Bristol Circle, Suite 105
Oakville, ON
L6H 0H2

PROJECT / JOB INFO	PAYMENT TERMS	QUOTE VAILD
Fire Flow Testing 1354 Bronte Road, Oakville, ON	30 days	60 days
PROJECT MANAGER INFO AT SCS	**EMAIL ADDRESS**	**PHONE NUMBER**
Janna Ormond Municipal Design Assistant	Jannaormond@urbantech.com	2030 Bristol Circle, Suite 105, Oakville, ON L6H 0H2 jannaormond@urbantech.com • www.urbantech.com **TEL** 905-829-8818 Ext.1003 • **DIR** 905-829-6913

REF	DESCRIPTION	PRICE
Item 1	Flow Testing of 1 Hydrant or 2 Hydrants (max) to receive required pressure drop. • Flow testing completed according to AWWA & NFPA 291 requirements. • All flow tests to be completed with a minimum of 2 hydrants (flow & residual). Every effort will be made to ensure adequate pressure drops to ensure accurate testing. • Flow report provided for each hydrant indicating the date, time, operator, test hydrant information, test #, NFPA colour code, static pressure, residual pressure, pitot gauge reading(psi), flow in USGPM, available flow at test hydrant at 20psi & 0psi • Summary report of all flow tests compiled in a tabular form based on the test numbers with all details including date, time, hydrant location, available flow at 20PSI in USGPM and the flow rate colour code, pipe size, length, accuracy, explanation about any unexpected values etc • Provide a record of any deficiencies found • Pump out each hydrant after use • Three OCWA certified staff to be provided for flow test including mobilization/demobilization	$1850.00
Item 2	**I am not sure when the cut off to book fire flow testing is. Most municipalities are early to Mid-November**	
	SUBTOTAL	$1850.00
	HST (13%)	N/A
	TOTAL	$1850.00

OCWA shall indemnify and hold harmless the Contractor and against claims which may be suffered or incurred by the Contractor to the extent that such claim is solely attributed to OCWA's negligence or willful misconduct when performing the Services. No indemnification will be provided where such claim is due to an uncontrollable circumstance or to a condition of the infrastructure that existed prior to OCWA's commencement of the services. OCWA will not be held liable for any valve or appurtenance that may be affected adversely by the activities.

OCWA agrees to maintain professional liability insurance as well as errors and omissions insurance with a limit liability of no less than $2,000.000.

To accept this quotation, sign here and return: ______________________________

1354 Bronte Road

TEST HYD PSI	Flow Hyd 1 Pitot	Flow Hyd 2 Pitot	RESULTS
50.7			
35.69	25		29.61%
29.82	10 and 05		41.18%
23.79		10	53.08%
21.74	10 and 05	5 and 5	57.12%
NFPA is 25% Drop			
AWWA is no less than 10 PSI drop			


Bronte Rd
Flow hydrant
Queen's Plate Parkette
Saw Whet Blvd.
Saw Whet Park
HYD 41289
Merton Rd
Saw Whet Blvd
Residual Hyd
Junk it!
HYD 3210
Cats Castle Cat Hotel
primont
Beit Ln
Littlefield Cres
Bronte Rd
Hose used to avoid damage to area sod
HYD 2781
Badger Cres
Layers
Google
Imagery ©2021 Maxar Technologies, USDA Farm Service Agency, Map data ©2021 Canada Terms Privacy Send feedback 50 m

APPENDIX E
Geotechnical Report

Urbantech® Consulting, A Division of Leighton-Zec West Ltd. | 2030 Bristol Circle, Suite 105 • Oakville • ON • L6H 0H2 | 905.829.8818

urbantech.com

Report on
Geotechnical Investigation
Proposed Mid-Rise Building
1354 Bronte Road
Oakville, Ontario

Prepared For:
Eaglewood Communities Inc.

Project No. 21-347-100
Date: November 25, 2021

DS CONSULTANTS LTD.
6221 Highway 7, Unit 16
Vaughan, Ontario, L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Table of Contents

1. INTRODUCTION

DS Consultants Ltd. (DS) was retained by Eaglewood Communities Inc. to undertake a geotechnical investigation for the proposed development located at 1354 Bronte Road, Oakville, Ontario.

It is understood that the proposed development will consist of a midrise (4-Storey) building with one level of basement with finished basement floor at elevation 127.5m.

The purpose of this geotechnical investigation was to determine the subsurface conditions at four (4) borehole locations and from the findings at the boreholes make geotechnical recommendations for the following:

1) Foundations
2) Floor slabs and permanent drainage
3) Excavations and groundwater control
4) Earth pressures
5) Earthquake considerations

This report is provided on the basis of the terms of reference presented above and, on the assumption, that the design will be in accordance with applicable codes and standards. If there are any changes in the design features relevant to the geotechnical analyses, or if any questions arise concerning the geotechnical aspects of the codes and standards, this office should be contacted to review the design. It may then be necessary to carry out additional borings and reporting before the recommendations can cater to the changed design.

The site investigation and recommendations follow generally accepted practice for geotechnical consultants in Ontario. The format and contents are guided by client specific needs and economics. Laboratory testing for most part follows ASTM or CSA Standards or modifications of these standards that have become standard practice.

This report has been prepared for Eaglewood Communities Inc., its architects, and designers. Use of this report by third party without DS consent is prohibited.

2. FIELD AND LABORATORY WORK

Four (4) boreholes (BH21-1 to BH21-4, see **Drawing 1** for borehole locations) were drilled at the subject site to depths ranging from 8.2 to 9.7m below the existing ground surface. Boreholes were drilled using solid stem continuous flight augers equipment by a drilling sub-contractor under the direction and supervision of DS personnel. Samples were retrieved at regular intervals with a 50 mm O.D. split-barrel sampler driven with a hammer weighing 624 N and dropping 760 mm in accordance with the Standard Penetration Test (SPT) method. The samples were logged in the field and returned to the DS laboratory for detailed examination by the project engineer and for laboratory testing.

As well as visual examination in the laboratory, all soil samples from geotechnical boreholes were tested for moisture contents. Selected three (3) soil samples were subject to grain size analyses and results are presented on Drawing 7.

Water level observations were made during and upon completion of drilling. Monitoring wells of 50mm diameter were installed in boreholes BH21-1, BH21-2 and BH21-3 for the long-term groundwater levels measurements.

The surface elevations at the borehole locations were surveyed by DS, using differential GPS system.

3. SITE AND SUBSURFACE CONDITIONS

The borehole location plan is shown on **Drawing 1**. General notes on sample description are provided on **Drawing 1A**. The subsurface conditions at borehole locations are presented in the individual borehole logs presented on **Drawings 2 to 5**. A generalized sub-surface profile is presented on **Drawing 6**. The subsurface conditions in the boreholes are summarized in the following paragraphs.

3.1 Soil Conditions

Pavement Structure/Topsoil/Fill/Weathered/disturbed Soils: One borehole (BH21-1) was drilled on the paved area and encountered a pavement structure consisting of 130 mm of asphaltic concrete, overlying about 230 mm of the granular base/sub-base. A layer of topsoil, varying in thickness from 180 to 200 mm, was present at the surface of all the boreholes except BH21-1.

It should be noted that the thickness of the topsoil explored at the borehole locations may not be representative for the site and should not be relied on to calculate the amount of topsoil at the site. Shallow test pits should be carried out to explore the thickness of topsoil across the site.

Fill material and upper weathered/disturbed soils consisting of silty clay till, sandy silt to silty sand, sand and clayey silt to silty clay were encountered in all the boreholes, extending to depths varying from 1.1 to 1.5m. The fill material was found to have a soft to very stiff or very loose to compact state, with measured SPT 'N' values ranging from 2 to 19 blows per 300 mm penetration. Inclusions of topsoil, rootlets and organics were also found in fill material.

Silty Clay Till: Below the fill material, upper native soil consisting of silty clay till was encountered in boreholes, extending to depths of 3.1 to 4.6m below the existing grade. Silty clay till deposit was found to have a firm to hard consistency, with measured SPT 'N' values ranging from 7 to more than 30 blows per 300mm of penetration.

Grain size analysis of one (1) silty clay till sample (BH21-4/SS4) was conducted and the results are presented in Drawing 7, with the following fractions:

Clay:	18%
Silt:	53%
Sand:	26%
Gravel:	3%

Atterberg Limits test was conducted on the same silty clay till sample (BH21-4/SS4) and the results are presented on the respective borehole logs, with the following values:

Liquid Limit:	23%
Plastic Limit:	15%
Plasticity Index:	8

Sandy Silt to Silty Sand Till: Below the upper silty clay till deposits, sandy silt to silty sand till deposits were encountered in the boreholes, extending to the depths of 6.1 to 7.6 m and overlying sand and gravel deposits. Sandy silt to silty sand till was present in a very dense state, with measured SPT 'N' values of over 50 blows per 300 mm of penetration. Occasional seams/layers of sand and cobble/boulder were present within the till deposit.

Grain size analysis of two (2) sandy silt to silty sand till sample (BH21-1/SS6 and BH21-2/SS7) were conducted and the results are presented in Drawing 7, with the following fractions:

Clay:	6 to 11%
Silt:	19 to 39%
Sand:	31 to 58%
Gravel:	17 to 19%

Sand and Gravel Deposits: A water bearing sand and gravel deposit was encountered in all the boreholes below a depth of 6.1 to 7.6 m, below the sandy silt to silty sand till deposits and extended to the maximum explored depth of boreholes. Sand and Gravel was present in a wet condition. The measured SPT 'N' value in this deposit was 44 to over 50 blows per 300 mm of penetration, indicating its dense to very dense state.

3.2 Groundwater Conditions

During drilling, short-term (unstabilized) water was found in borehole BH21-4 at a depth of about 4.6 m below the existing grade. The groundwater levels measured in the monitoring wells installed in BH21-1, BH21-2 and BH21-3 on November 3, 2021 were found below the depths ranging from 5.6 to 7.7 m below ground surface, corresponding to Elevations 122.6 to 122.7 m, as summarized in **Table 1**.

Table 1: Summary of Groundwater Level Measurements in Monitoring Wells

Borehole No.	Ground Surface Elev. (m)	Date of Observation	Depth of Groundwater (m)	Elevation of Groundwater (m)
BH21-1	130.3	November 3, 2021	7.7	122.6
BH21-2	129.8	November 3, 2021	7.1	122.6
BH21-3	128.3	November 3, 2021	5.6	122.7

It should be noted that the groundwater levels can vary and are subject to seasonal fluctuations in response to major weather events.

4. FOUNDATIONS

It is understood that the proposed development will consist of a midrise building with one level of basement with finished basement floor (P1 slab) at Elevation 127.5 m. Footings will be 1 to 2m below the P1 slab.

Based on the information from boreholes, the proposed building with one level of basement can be supported by conventional spread and strip footings founded on the undisturbed native soils.

Footings founded on undisturbed native soils can be designed for bearing capacity value of 300 to 400 kPa at SLS (Serviceability Limit States), and for a factored geotechnical resistance of 450 to 600 kPa at ULS (Ultimate Limit States). The bearing values and the corresponding founding elevations at the borehole locations are summarized on **Table 2**.

Table 2: Bearing Values and Founding Levels of Footings

BH No.	Founding Soils	Bearing Capacity at SLS (kPa)	Factored Geotechnical Resistance at ULS (kPa)	Minimum Depth below Existing Ground (m)	Founding Level at or Below Elevation (m)
BH21-1	Silty Clay Till	300	450	2.0	128.3
	Sandy Silt to Silty Sand Till	400	600	4.6	125.7
BH21-2	Silty Clay Till	300	450	2.0	127.8
	Sandy Silt to Silty Sand Till	400	600	4.6	125.2

BH21-3	Silty Clay Till	300 400	450 600	1.5 2.3	126.8 126.0
BH21-4	Silty Clay Till	300	450	1.8	127.5
	Sandy Silt to Silty Sand Till	400	600	4.6	124.7

Foundations designed to the specified bearing capacity at the Serviceability Limit States (SLS) are expected to settle less than 25 mm total and 19 mm differential.

All footings exposed to seasonal freezing conditions must have at least 1.2 m of soil cover for frost protection.

All footing bases must be inspected by this office prior to pouring concrete.

Where it is necessary to place footings at different levels, the upper footing must be founded below an imaginary 10 horizontal to 7 vertical line drawn up from the base of the lower footing. The lower footing must be installed first to help minimize the risk of undermining the upper footing.

It should be noted that the recommended bearing capacities have been calculated by DS Consultants Ltd. from the borehole information for the design stage only. The investigation and comments are necessarily on-going as new information of the underground conditions becomes available. For example, more specific information is available with respect to conditions between boreholes when foundation construction is underway. The interpretation between boreholes and the recommendations of this report must therefore be checked through field inspections provided by DS Consultants Ltd to validate the information for use during the construction stage.

5. FLOOR SLAB AND PERMANENT DRAINAGE

The basement floor can be supported on grade provided all existing fill/weathered disturbed material and surficially loose/softened soils are removed and the base thoroughly proof rolled. Any backfill required to raise the grade can consists of inorganic soil, placed in shallow lifts and compacted to 98 percent of Standard Proctor Maximum Dry Density (SPMDD).

A moisture barrier consisting of at least 200mm of 19mm clear crushed stone should be installed under the floor slab.

A perimeter and underfloor drainage system will be required around the exterior basement walls. Typical drainage and backfill recommendations are illustrated on **Drawings 8** for the open cut excavations.

6. EARTH PRESSURES

The lateral earth pressures acting on basement walls may be calculated from the following expression:

$$p = K(\gamma h + q)$$

where p = Lateral earth pressure in kPa acting at depth h

K = Earth pressure coefficient equal to 0.40 for vertical walls and horizontal backfill used for permanent construction. Water pressure must be considered, if continuous wall drains are not used.

γ = Unit weight of backfill, a value of 21 kN/m^3 may be assumed

h = Depth to point of interest in metres

q = Equivalent value of surcharge on the ground surface in kPa

The above expression assumes that the perimeter drainage system prevents the build-up of any hydrostatic pressure behind the wall.

7. EXCAVATION AND GROUNDWATER CONTROL

Excavations can be carried out with heavy hydraulic backhoe. Due to the low permeability of the glacial till deposits, it is expected that the water seepage through the till deposits can be controlled by conventional pumping methods for excavations above elevation 126.0 m. Groundwater table in the monitoring wells was recorded at depths ranging from 5.6 to 7.7m, corresponding to Elevations 122.6 to 122.7 m. Positive dewatering will be required prior to any excavation in sandy silt to silty sand till, sand and gravel below the groundwater table, otherwise it will result in an unstable base and flowing sides.

DS is currently completing a hydrogeological assessment at the subject site. More comments regarding the type and extent of groundwater control required during construction and permanent drainage will be addressed in our hydrogeological report.

It should be noted that the till is a non-sorted sediment and therefore may contain boulders. Provisions must be made in the excavation contract for the removal of possible boulders in the till or obstructions in the fill material.

All excavations must be carried out in accordance with the most recent Occupational Health and Safety Act (OHSA). In accordance with OHSA, the fill can be classified as Type 3 Soil above groundwater table. The very stiff to hard silty clay till can be classified as Type 2 Soil above the groundwater table and Type 3 Soil below groundwater table. Firm clayey soils and sandy silt to silty sand till and cohesionless soils (sand and gravel) can be classified as Type 3 Soil above groundwater table and Type 4 Soil below the groundwater table.

The select inorganic fill and native soils free from topsoil and organics can be used as general construction backfill where it can be compacted with sheep's foot type compactors. Loose lifts of soil, which are to be compacted, should not exceed 200 mm.

Imported Granular 'B' fill is recommended in areas where free draining material is required, i.e. backfill behind foundation walls and in footing trenches. Imported granular fill, which can be compacted with handheld equipment, should be used in confined areas.

It should be noted that the excavated soils are subject to moisture content increase during wet weather which would make these materials too wet for adequate compaction. Stockpiles should therefore be compacted at the surface or be covered with tarpaulins to help minimize moisture uptake.

8. EARTHQUAKE CONSIDERATIONS

Based on the borehole information and according to Table 4.1.8.4.A of OBC 2012, the subject site for the proposed building with one level of basement can be classified as “Class C” for seismic site response.

9. GENERAL COMMENTS AND LIMITATIONS OF REPORT

DS Consultants Ltd. (DS) should be retained for a general review of the final design and specifications to verify that this report has been properly interpreted and implemented. If not accorded the privilege of making this review, DS will assume no responsibility for interpretation of the recommendations in the report.

This report is intended solely for the Client named. The material in it reflects our best judgment in light of the information available to DS at the time of preparation. Unless otherwise agreed in writing by DS, it shall not be used to express or imply warranty as to the fitness of the property for a particular purpose. No portion of this report may be used as a separate entity, it is written to be read in its entirety.

The conclusions and recommendations given in this report are based on information determined at the test hole locations. The information contained herein in no way reflects on the environment aspects of the project, unless otherwise stated. Subsurface and groundwater conditions between and beyond the test holes may differ from those encountered at the test hole locations, and conditions may become apparent during construction, which could not be detected or anticipated at the time of the site investigation. The benchmark and elevations used in this report are primarily to establish relative elevation differences between the test hole locations and should not be used for other purposes, such as grading, excavating, planning, development, etc.

The design recommendations given in this report are applicable only to the project described in the text and then only if constructed substantially in accordance with the details stated in this report.

The comments made in this report on potential construction problems and possible methods are intended only for the guidance of the designer. The number of test holes may not be sufficient to determine all the factors that may affect construction methods and costs. For example, the thickness of surficial topsoil or fill layers may vary markedly and unpredictably. The contractors bidding on this project or undertaking the construction should, therefore, make their own interpretation of the factual information presented and draw their own conclusions as to how the subsurface conditions may affect their work. This work has been undertaken in accordance with normally accepted geotechnical engineering practices.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. DS accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. We accept no responsibility for any decisions made or actions taken as a result of this report unless we are specifically advised of and participate in such action, in which case our responsibility will be as agreed to at that time.

We trust that the information contained in this report is satisfactory. Should you have any questions, please do not hesitate to contact this office.

DS Consultants Ltd.

Simerjeet Singh

Simerjeet Singh Gill, M. Eng., P. Eng.

SBandukwala

Shabbir Bandukwala, M. Eng., P.Eng.

LICENSED PROFESSIONAL ENGINEER
S.S. BANDUKWALA
2218113
PROVINCE OF ONTARIO

Fanyu Zhu

Fanyu Zhu, Ph. D., P.Eng.

LICENSED PROFESSIONAL ENGINEER
F. ZHU
PROVINCE OF ONTARIO

Drawings

Legend

Monitoring Well Locations

Borehole Locations

DS CONSULTANTS LTD.
6221 Highway 7, UNIT 16
Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Project:	Geotechnical Investigation -1354 Bronte Road, Oakville, ON
Title:	**Borehole Location Plan**
Client:	Eaglewood Communities Inc.
Size:	8.5 x 11
Rev:	0
Approved By:	FZ
Drawn By:	SG
Date:	November, 2021
Scale:	As Shown
Project No.:	21-347-100
Drawing No.:	1
Image/Map Source:	*Google Satellite Image*

N

Drawing 1A: Notes On Sample Descriptions

1. All sample descriptions included in this report generally follow the Unified Soil Classification. Laboratory grain size analyses provided by DSCL also follow the same system. Different classification systems may be used by others, such as the system by the International Society for Soil Mechanics and Foundation Engineering (ISSMFE). Please note that, with the exception of those samples where a grain size analysis and/or Atterberg Limits testing have been made, all samples are classified visually. Visual classification is not sufficiently accurate to provide exact grain sizing or precise differentiation between size classification systems.

ISSMFE SOIL CLASSIFICATION

CLAY	SILT			SAND			GRAVEL			COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE		

0.002 0.006 0.02 0.06 0.2 0.6 2.0 6.0 20 60 200

EQUIVALENT GRAIN DIAMETER IN MILLIMETRES

CLAY (PLASTIC) TO	FINE	MEDIUM	CRS.	FINE	COARSE
SILT (NONPLASTIC)	SAND			GRAVEL	

UNIFIED SOIL CLASSIFICATION

2. Fill: Where fill is designated on the borehole log it is defined as indicated by the sample recovered during the boring process. The reader is cautioned that fills are heterogeneous in nature and variable in density or degree of compaction. The borehole description may therefore not be applicable as a general description of site fill materials. All fills should be expected to contain obstruction such as wood, large concrete pieces or subsurface basements, floors, tanks, etc., none of these may have been encountered in the boreholes. Since boreholes cannot accurately define the contents of the fill, test pits are recommended to provide supplementary information. Despite the use of test pits, the heterogeneous nature of fill will leave some ambiguity as to the exact composition of the fill. Most fills contain pockets, seams, or layers of organically contaminated soil. This organic material can result in the generation of methane gas and/or significant ongoing and future settlements. Fill at this site may have been monitored for the presence of methane gas and, if so, the results are given on the borehole logs. The monitoring process does not indicate the volume of gas that can be potentially generated nor does it pinpoint the source of the gas. These readings are to advise of the presence of gas only, and a detailed study is recommended for sites where any explosive gas/methane is detected. Some fill material may be contaminated by toxic/hazardous waste that renders it unacceptable for deposition in any but designated land fill sites; unless specifically stated the fill on this site has not been tested for contaminants that may be considered toxic or hazardous. This testing and a potential hazard study can be undertaken if requested. In most residential/commercial areas undergoing reconstruction, buried oil tanks are common and are generally not detected in a conventional preliminary geotechnical site investigation.

3. Till: The term till on the borehole logs indicates that the material originates from a geological process associated with glaciation. Because of this geological process the till must be considered heterogeneous in composition and as such may contain pockets and/or seams of material such as sand, gravel, silt or clay. Till often contains cobbles (60 to 200 mm) or boulders (over 200 mm). Contractors may therefore encounter cobbles and boulders during excavation, even if they are not indicated by the borings. It should be appreciated that normal sampling equipment cannot differentiate the size or type of any obstruction. Because of the horizontal and vertical variability of till, the sample description may be applicable to a very limited zone; caution is therefore essential when dealing with sensitive excavations or dewatering programs in till materials.

DS CONSULTANTS LTD.
Geotechnical ❖ Environmental ❖ Materials ❖ Hydrogeology

LOG OF BOREHOLE BH21-1

PROJECT: Geotechnical Investigation- Proposed Mid- rise Building
CLIENT: Eaglewood Communities Inc.
PROJECT LOCATION: 1354 Bronte Road, Oakville, ON
DATUM: Geodetic
BOREHOLE LOCATION: See Drawing 1 N 4807982.335 E 600951.347

DRILLING DATA
Method: Hollow Stem Auger
Diameter: 200mm
Date: Oct-08-2021

REF. NO.: 21-347-100
ENCL NO.: 2

ELEV (m) / DEPTH	DESCRIPTION	SAMPLE NUMBER	TYPE	"N" BLOWS/0.3 m	ELEVATION	WATER CONTENT (%)	GR SA SI CL (%)
130.3							
130.2 / 0.1	**ASPHALT:** 130mm						
129.9 / 0.4	**GRANULAR BASE:** sand and gravel, 230mm	1	SS	5	130		
129.2 / 1.1	**FILL:** sandy silt to silty sand, some clay, trace organics/topsoil, brown, moist, loose	2	SS	7	129		
	SILTY CLAY TILL: sandy, trace gravel, trace shale fragments, brown, moist, stiff to very stiff sand seams	3	SS	18	128		
	greyish brown below 2.3m	4	SS	26			
	grey below 3.1m	5	SS	21	127		
125.7 / 4.6	**SANDY SILT TO SILTY SAND TILL:** some clay, some gravel, occasional cobble, reddish brown, moist, very dense	6	SS	50/ 50mm	126		19 31 39 11
	greyish brown and wet below 6.1 m	7	SS	50/ 50mm	125, 124		
122.7 / 7.6	**SAND AND GRAVEL:** trace silt, brown, wet, dense to very dense	8	SS	51	123, 122		
		9	SS	44	121		
120.6 / 9.7	**END OF BOREHOLE:** Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings: Date: Water Level(mbgl): Nov. 03, 2021 7.73						

W. L. 122.6 m
Nov 03, 2021

DYNAMIC CONE PENETRATION RESISTANCE PLOT: 20 40 60 80 100
SHEAR STRENGTH (kPa): ○ UNCONFINED + FIELD VANE & Sensitivity ● QUICK TRIAXIAL × LAB VANE: 20 40 60 80 100
PLASTIC LIMIT W_P — NATURAL MOISTURE CONTENT W — LIQUID LIMIT W_L
WATER CONTENT (%): 10 20 30
POCKET PEN. (Cu) (kPa)
NATURAL UNIT WT (kN/m^3)
METHANE AND GRAIN SIZE DISTRIBUTION (%)

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES: $+^3, \times^3$: Numbers refer to Sensitivity; ○ ^{8}=3% Strain at Failure

DS CONSULTANTS LTD.
Geotechnical ◆ Environmental ◆ Materials ◆ Hydrogeology

LOG OF BOREHOLE BH21-2

PROJECT: Geotechnical Investigation- Proposed Mid- rise Building
CLIENT: Eaglewood Communities Inc.
PROJECT LOCATION: 1354 Bronte Road, Oakville, ON
DATUM: Geodetic
BOREHOLE LOCATION: See Drawing 1 N 4808005.125 E 600921.387

DRILLING DATA
Method: Hollow Stem Auger
Diameter: 200mm
Date: Oct-08-2021

REF. NO.: 21-347-100
ENCL NO.: 3

ELEV (m) / DEPTH	DESCRIPTION	SAMPLE NUMBER	TYPE	"N" BLOWS/0.3 m	WATER CONTENT (%)	GR SA SI CL
129.8 / 0.0	**TOPSOIL:** 180mm					
129.6 / 0.2	**FILL:** clayey silt, trace sand, trace rootlets, some organics, brown, moist, soft	1	SS	2		
129.5 / 0.3	**FILL:** sandy silt, trace organics/topsoil, some clay, brown, wet, very loose to compact					
128.7 / 1.1	**SILTY CLAY TILL:** sandy, trace gravel, trace shale fragments, brown, moist, very stiff to hard trace cobble, sand seams below 1.5 m	2	SS	19		
		3	SS	26		
		4	SS	35		
	grey below 3.1m	5	SS	38		
125.2 / 4.6	**SANDY SILT TO SILTY SAND TILL:** trace clay, some gravel, occasional cobble, greyish brown, moist, very dense	6	SS	50/50mm		
		7	SS	50/130mm		17 58 19 6
122.2 / 7.6	**SAND AND GRAVEL:** trace silt, brown, wet, very dense	8	SS	56		
121.6 / 8.2	**END OF BOREHOLE:**					

W. L. 122.6 m
Nov 03, 2021

Notes:
1) 50mm dia. monitoring well installed upon completion.
2) Water Level Readings:

Date: Water Level(mbgl):
Nov. 03, 2021 7.14

DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100
SHEAR STRENGTH (kPa): ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE
PLASTIC LIMIT W_P, NATURAL MOISTURE CONTENT W, LIQUID LIMIT W_L; WATER CONTENT (%) 10 20 30
POCKET PEN. (Cu) (kPa); NATURAL UNIT WT (kN/m^3); METHANE AND GRAIN SIZE DISTRIBUTION (%)

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity ○ 8=3% Strain at Failure

DS CONSULTANTS LTD.
Geotechnical ◆ Environmental ◆ Materials ◆ Hydrogeology

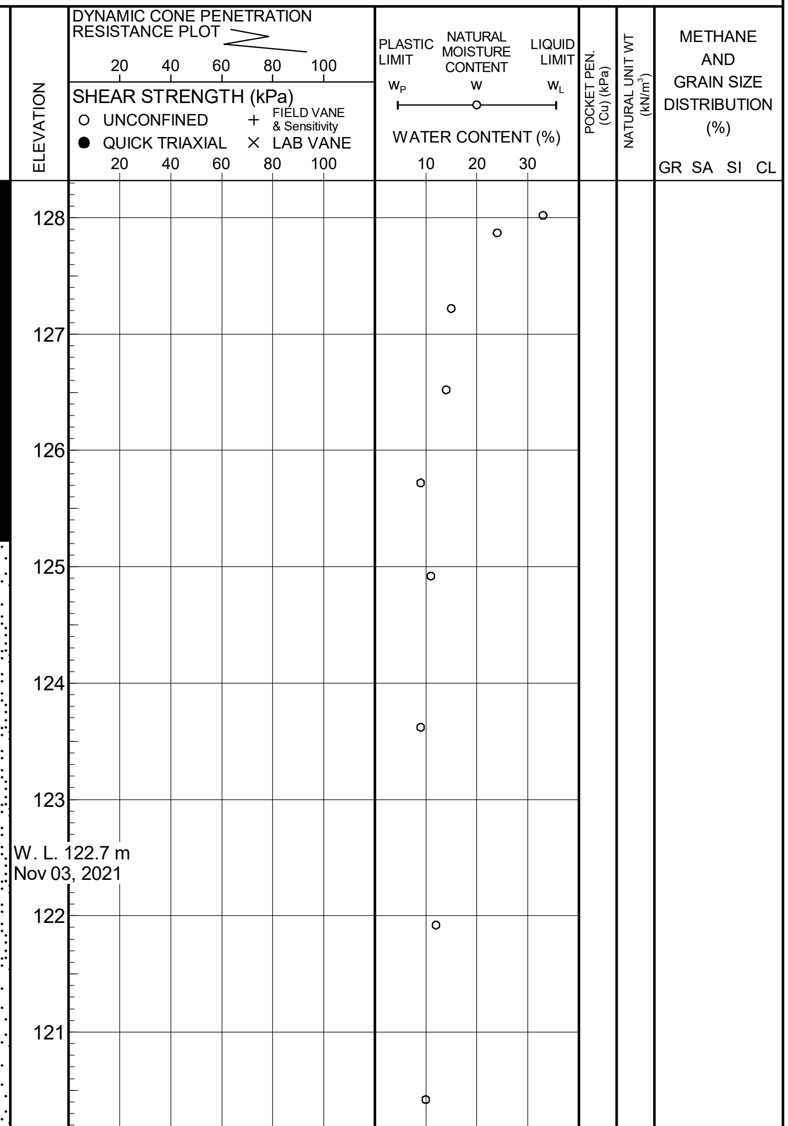
LOG OF BOREHOLE BH21-3

PROJECT: Geotechnical Investigation- Proposed Mid- rise Building
CLIENT: Eaglewood Communities Inc.
PROJECT LOCATION: 1354 Bronte Road, Oakville, ON
DATUM: Geodetic
BOREHOLE LOCATION: See Drawing 1 N 4808038.131 E 600946.877

DRILLING DATA
Method: Hollow Stem Auger
Diameter: 200mm
Date: Oct-08-2021

REF. NO.: 21-347-100
ENCL NO.: 4

ELEV (m) / DEPTH	DESCRIPTION	SAMPLE NUMBER	TYPE	"N" BLOWS/0.3 m	GROUND WATER CONDITIONS
128.3 / 0.0	**TOPSOIL:** 180mm				
0.2	**FILL:** silty clay, trace rootlets/organics, trace sand, trace gravel, brown, very moist, soft	1	SS	3	
127.5 / 0.8	**FILL:** silty clay till, sandy, trace gravel, occasional cobble, brown, moist, very stiff, weathered/disturbed	2	SS	19	
127.2 / 1.1	**SILTY CLAY TILL:** sandy, trace gravel, trace shale fragments, occasional cobble, brown, moist, very stiff to hard	3	SS	27	
	greyish brown	4	SS	47	
125.2 / 3.1	**SANDY SILT TO SILTY SAND TILL:** trace clay, trace gravel/ shale fragments, brown to reddish brown, wet, very dense	5	SS	63	
		6	SS	50/ 25mm	W. L. 122.7 m Nov 03, 2021
122.2 / 6.1	**SAND AND GRAVEL:** trace silt, brown, wet, very dense	7	SS	55	
		8	SS	62	
120.1 / 8.2	**END OF BOREHOLE:** Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings: Date: Water Level(mbgl): Nov. 03, 2021 5.67				



GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES
+3, ×3: Numbers refer to Sensitivity
O 8=3% Strain at Failure

LOG OF BOREHOLE BH21-4

PROJECT: Geotechnical Investigation- Proposed Mid- rise Building
CLIENT: Eaglewood Communities Inc.
PROJECT LOCATION: 1354 Bronte Road, Oakville, ON
DATUM: Geodetic
BOREHOLE LOCATION: See Drawing 1 N 4808021.236 E 600972.34

DRILLING DATA
Method: Hollow Stem Auger
Diameter: 200mm
Date: Oct-08-2021

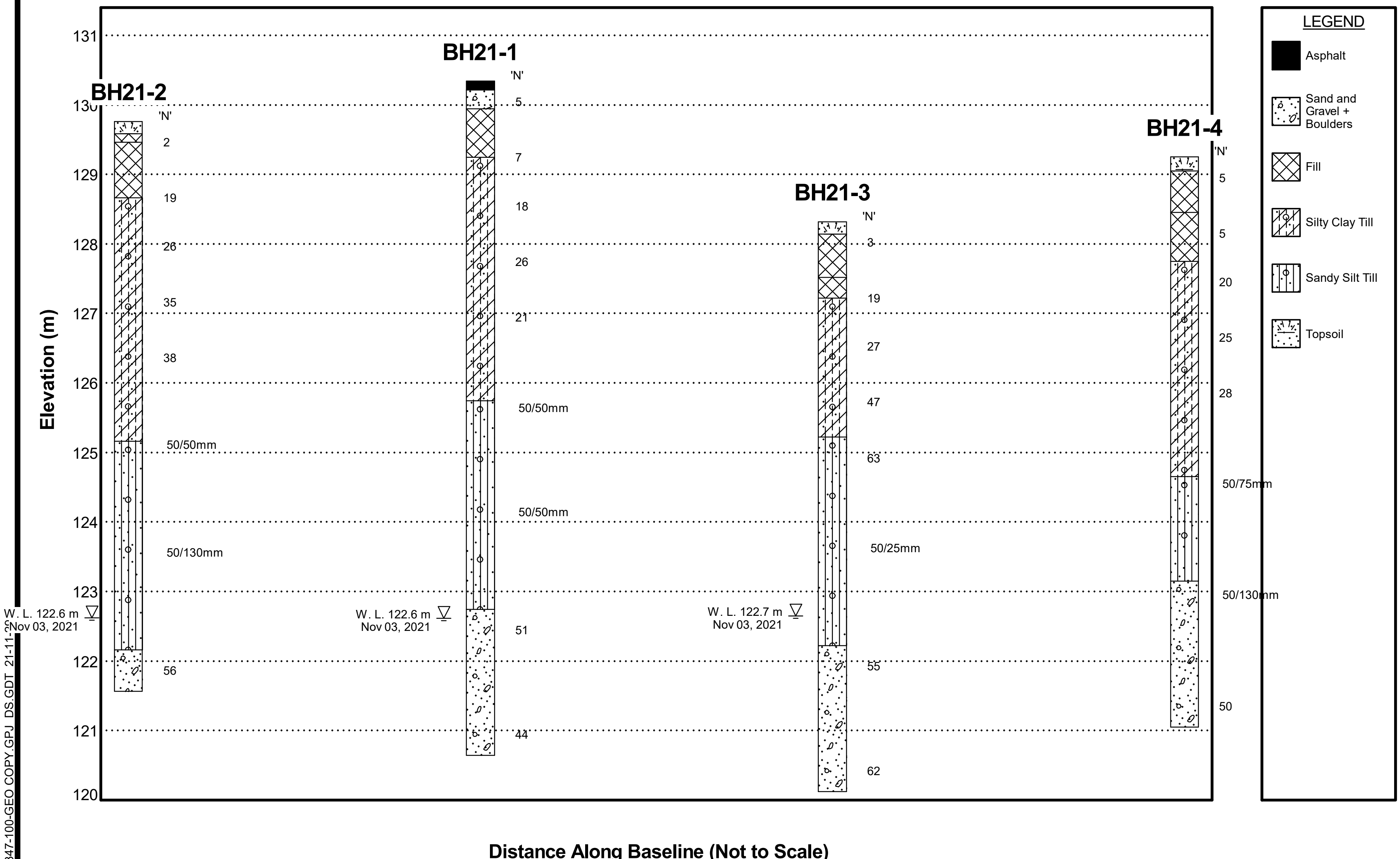
REF. NO.: 21-347-100
ENCL NO.: 5

ELEV (m) / DEPTH	DESCRIPTION	SAMPLE NUMBER	TYPE	"N" BLOWS/0.3 m	GROUND WATER CONDITIONS	NATURAL MOISTURE CONTENT	METHANE AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
129.3 / 0.0	**TOPSOIL:** 200mm						
129.1 / 0.2	**FILL:** sand, trace silt, trace rootlets, trace cobble, brown, moist, loose	1	SS	5		~10	
128.5 / 0.8	**FILL:** sandy silt, trace rootlets, trace clay, brown, wet, loose	2	SS	5		~20	
127.8 / 1.5	**SILTY CLAY TILL:** sandy, trace gravel/ shale fragments, occasional cobble, brown, moist, very stiff	3	SS	20			
	sand seams at 2.3m	4	SS	25			3 26 53 18
		5	SS	28			
124.7 / 4.6	**SANDY SILT TO SILTY SAND TILL:** trace clay, trace gravel, greyish brown, wet, very dense	6	SS	50/ 75mm			
123.2 / 6.1	**SAND AND GRAVEL:** trace silt, brown, wet, very dense	7	SS	50/ 130mm			
		8	SS	50			
121.1 / 8.2	**END OF BOREHOLE:** Notes: 1) Water depth at 4.6 m during drilling.						

DYNAMIC CONE PENETRATION RESISTANCE PLOT: 20 40 60 80 100
SHEAR STRENGTH (kPa): ○ UNCONFINED + FIELD VANE & Sensitivity ● QUICK TRIAXIAL × LAB VANE
PLASTIC LIMIT W_P — NATURAL MOISTURE CONTENT W — LIQUID LIMIT W_L
WATER CONTENT (%): 10 20 30
POCKET PEN. (Cu) (kPa) | NATURAL UNIT WT (kN/m^3)
ELEVATION: 129, 128, 127, 126, 125, 124, 123, 122

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES: $+^3, \times^3$: Numbers refer to Sensitivity ○ ε=3% Strain at Failure



DS CONSULTANTS LTD.

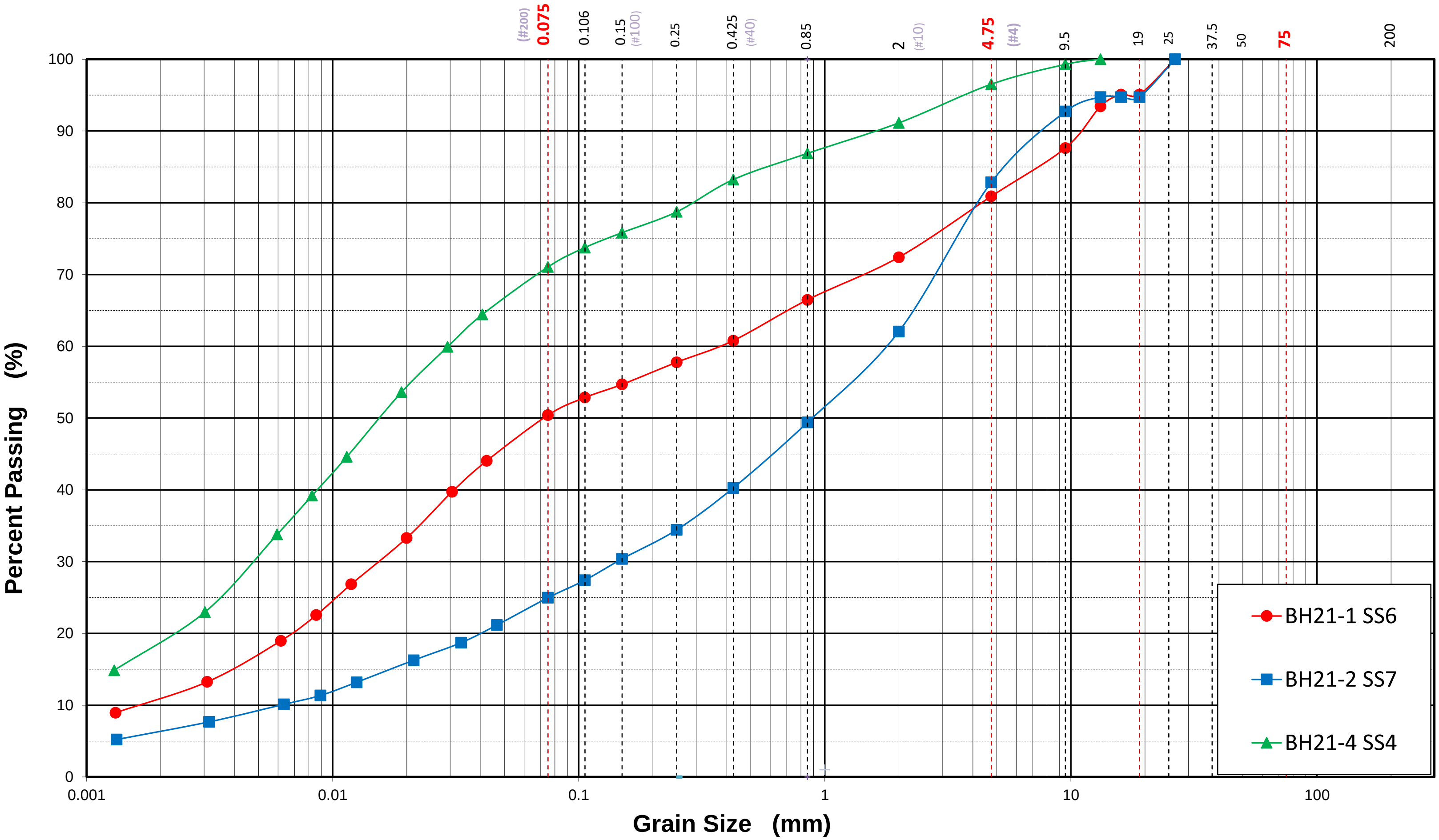
Geotechnical ◆ Environmental ◆ Materials ◆ Hydrogeology

Generalized Sub-surface Profile

DRAWING NO.	6
JOB NO.	21-347-100
DATE	November, 2021

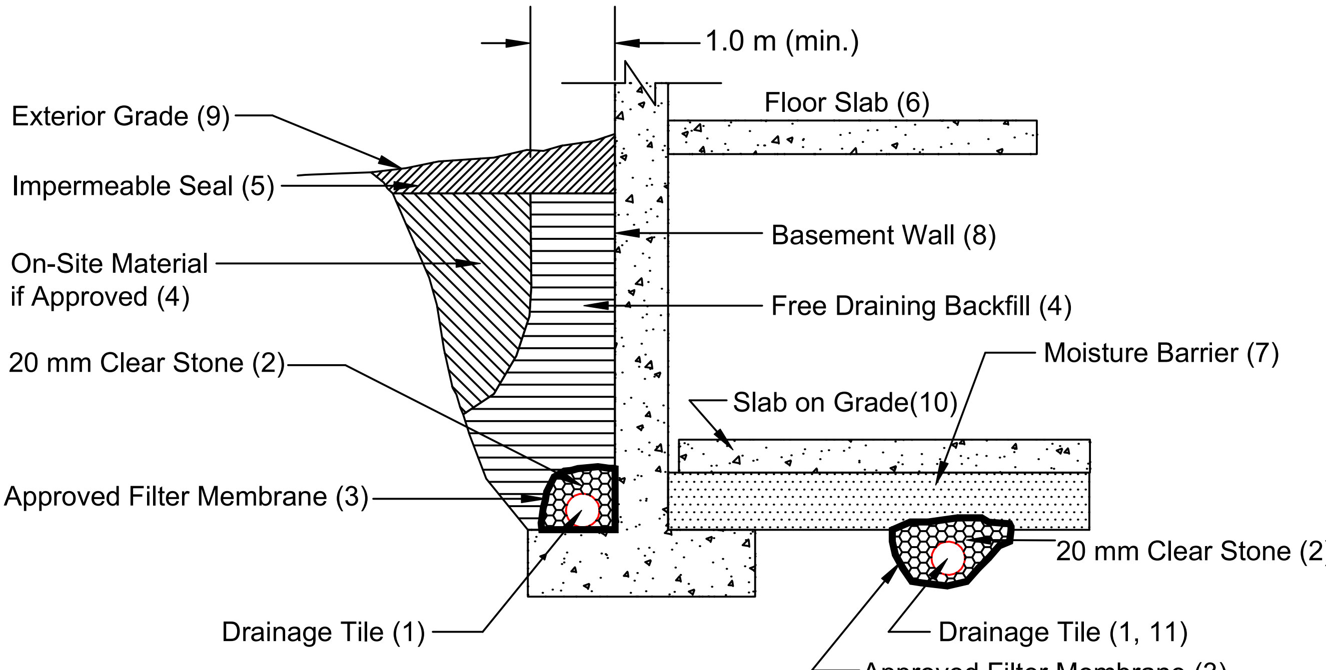
DS FENCE (M) 21-347-100-GEO COPY.GPJ DS.GDT 21-11-2

Particle Size Distribution (ASTM-D421/D422)



Silt and Clay		Sand			Gravel		Cobble +
Clay	Silt	Fine	Medium	Coarse	Fine	Coarse	

DS CONSULTANTS LTD. 6221 Highway 7, Unit 16 Vaughan, Ontario, L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca	Project	**Geotechnical Investigation**	Project No	**21-347-100**
	Location	**1354 Bronte Road, Oakville**	Date	**Oct-14-2021**
	Client	**Eaglewood Communities Inc.**	Figure No	7



EXTERIOR FOOTING

Notes

1. Drainage tile to consist of 100 mm (4") diameter weeping tile or equivalent perforated pipe leading to a positive sump or outlet.
2. 20 mm (3/4") clear stone - 150 mm (6") top and side of drain. If drain is not on footing, place100 mm (4 inches) of stone below drain .
3. Wrap the clear stone with an approved filter membrane (Terrafix 270R or equivalent).
4. Free Draining backfill - OPSS Granular B or equivalent compacted to the specified density. Do not use heavy compaction equipment within 450 mm (18") of the wall. Use hand controlled light compaction equipment within 1.8 m (6') of wall. The minimum width of the Granular 'B' backfill must be 1.0 m.
5. Impermeable backfill seal - compacted clay, clayey silt or equivalent. If original soil is free-draining, seal may be omitted. Maximum thickness of seal to be 0.5 m.
6. Do not backfill until wall is supported by basement and floor slabs or adequate bracing.
7. Moisture barrier to be at least 200 mm (8") of compacted clear 20 mm (3/4") stone or equivalent free draining material. A vapour barrier may be required for specialty floors.
8. Basement wall to be damp proofed /water proofed.
9. Exterior grade to slope away from building.
10. Slab on grade should not be structurally connected to the wall or footing.
11. Underfloor drain invert to be at least 300 mm (12") below underside of floor slab.
12. Drainage tile placed in parallel rows 6 to 8 m (20 to 25') centers one way. Place drain on 100 mm (4") clear stone with 150 mm (6") of clear stone on top and sides. Enclose stone with filter fabric as noted in (3).
13. The entire subgrade to be sealed with approved filter fabric (Terrafix 270R or equivalent) if non-cohesive (sandy) soils below ground water table encountered.
14. Do not connect the underfloor drains to perimeter drains.
15. Review the geotechnical report for specific details.

DRAINAGE AND BACKFILL RECOMMENDATIONS
Basement with Underfloor Drainage
(not to scale)

APPENDIX F

Bronte Green 2 Memo dated February 2023

David Schaeffer Engineering Ltd.
600 Alden Road, Suite 700
Markham, ON L3R 0E7
905-475-3080
dsel.ca

February 25, 2023

Conservation Halton *[Email]*
2596 Britannia Road West
Burlington, ON
L7P 0G3

Our File: 12-601

Re: **Bronte Green Former Region's Lands**
Town of Oakville, Region of Halton
FSR Addendum

The following letter outlines the background of the Bronte Green Subdivision SWM design as well as the updated analysis provided as part of the Bronte Green Former Region's Lands FSR Addendum.

The SWM design strategy of the Bronte Green Former Region's Lands generally conforms to the SWM strategy presented in the Bronte Green subdivision. No modifications are proposed to the existing infrastructure within the Bronte Green subdivision, and the development of these lands should not negatively impact the function of the subdivision.

A key component of the Bronte Green subdivision analysis was the flood protection analysis, which has been updated as part of the Bronte Green Former Region's Lands FSR Addendum.

Project Background

Bronte Green Subdivision FSR (September 2016)

A Function Servicing Report (FSR) was submitted to the agencies in September 2016 in support of development of the Bronte Green subdivision. A number of comments and concerns were raised over the proposed draft plan, and as a result the draft plan application (along with supporting documentation) were appealed to the Ontario Municipal Board (OMB). Settlement discussions occurred between parties and a decision was issued by the OMB to approve the Bronte Green draft plan in June 2017.

The FSR prepared in support of the Bronte Green subdivision included a flood protection analysis report prepared by J.F. Sabourin and Associates (JFSA). The analysis was completed to review the impacts of development within the Bronte Green subdivision as well as the neighboring Enns and Deerfields lands. The analysis completed by JFSA reviewed 5 different development scenarios:

(i) Existing conditions, as per the AMEC June 2016 model, modified to best represent site-specific predevelopment conditions on the Bronte Green, Enns land and Deerfield lands;

(ii) Proposed conditions for the Bronte Green development only, without Stormwater Management (SWM) controls;

(iii) Proposed conditions for the Bronte Green, Enns land and Deerfield developments, without SWM controls;

(iv) Proposed conditions for the Bronte Green development only, with SWM controls;

(v) Proposed conditions for the Bronte Green, Enns land and Deerfield developments, with SWM controls

The report analyzed the impact to peak flows under the 2-yr to 100-yr storm events, as well as the Regional storm event, within the 14 Mile Creek watershed. Peak flows were compared at key locations within 14 Mile Creek downstream of the Bronte Green subdivision, to assess the impacts of development.

The results of the analysis concluded that Scenarios (ii) and (iv) [with Bronte Green only developed] did not increase flows at the key location downstream during the Regional storm event. Scenario (iii) [with Bronte Green, Enns, and Deerfield developed – no SWM controls] increased flows at a number of key locations during the Regional storm event. Scenario (v) [Bronte Green, Enns, and Deerfield developed – with SWM controls] eliminated peak flow exceedances under the Regional event at the downstream key locations. The report concluded that providing SWM pond controls up to the Regional event eliminated peak flow increases at the downstream key locations. Note that the analysis at this time did not include the development of the Bronte Green Former Region’s Lands.

Bronte Green Subdivision FSR (February 2017)

As part of the Final Bronte Green Subdivision FSR (February 2017) the development of the Bronte Green Former Region's Lands was considered in the grading and stormwater management design. The extension of Charles Cornwall Avenue to Bronte Road was required to provide a second access to the subdivision and as such the development of these lands was studied.

The potential ultimate receiver for the Bronte Green Former Region's Lands was discussed with the agencies and it was the Town's preference that runoff from these future roads (public drainage) be treated within a public facility (Bronte Green subdivision SWM Pond). The subdivision SWM Pond was designed to provide quantity control up to and including the Regional storm event for these future roads. The Bronte Green subdivision FSR was approved based on this proposed SWM strategy.

At the time of the Final Bronte Green Subdivision FSR the existing Region SWM Pond was expected to remain in place and be retrofit to accommodate the future road extension.

Bronte Green Subdivision Detailed Design (2017-2019)

The Bronte Green subdivision detailed design implemented the framework and recommendations from the Bronte Green Subdivision FSR (February 2017). The detailed design of the Bronte Green subdivision included a SWM pond to provide quantity controls up to and including the Regional Storm. The Charles Cornwall Avenue extension within Bronte Green Former Region's Lands was considered for development as part of the detailed design.

The original flood protection memo was updated for the post-development scenario based on the refined stormwater management strategy and a SWM pond providing Regional controls. The updated flood protection report was reviewed and approved by the agencies as part of the subdivision detailed design.

Bronte Green Former Region's Lands FSR Addendum (2022-2023)

An updated FSR was prepared in support of the draft plan application for the Bronte Green Former Region's Lands. As part of the FSR Addendum an update has been provided to the original flood protection analysis provided in September 2016. The following updates were made to the analysis and original model, based on the development of the Bronte Green subdivision and through discussions with Conservation Halton and Town of Oakville staff.

Scenario (i) – Existing Conditions

- Scenario (i) generally remains the same as presented through the 2016 analysis

- Bronte Road drainage boundaries are updated based on detailed topographic information acquired through the Bronte Green subdivision design
    - Approximately 0.04 Ha from Bronte Road has been removed from the 14 Mile Creek catchment

- The total drainage area to Node J7.227846 (Lake Ontario) has been reduced from 3126.64 Ha to 3126.60 Ha compared to the 2016 analysis as a result of this refinement

Scenario (ii) – Bronte Green only developed (no controls)

- Scenario (ii) has been updated based on refinements to drainage boundaries and imperviousness

    - Bronte Road drainage boundaries are updated based on the detailed topographic information from the Bronte Green subdivision design (same as Scenario [i])

    - SWM Pond drainage area is updated to 38.72 Ha at 65.2% imperviousness based on the refinements presented below in *Table 1* and *Table 2*:

Table 1: SWM Pond Drainage Area

Description	Incremental Area Refinement (Ha)	Total Pond Drainage Area (Ha)	Notes
Approved Pond Design Brief	N/A	40.35	Pond Design Brief included 1.09 ha of drainage from Bronte Road. This area flows through the site where the pond captures marginal flows, however the majority of runoff flows discharge directly to 14 Mile Creek.
Bronte Road	-1.09	39.26	As noted above, the 1.09 ha from Bronte Road generally discharges directly to 14 Mile Creek. As such this area is removed from the pond drainage area. This 1.09 ha area is already included in the overall watershed model as part of catchment ETRIB 3. This approach is consistent with the original 2016 watershed model.
Boundary Refinements	-0.25	39.01	The intersection at Bronte Road and Charles Cornwall was assumed in the pond drainage area, however this area drains to Bronte Road.

- Bronte Road Intersection - Bronte Road Widening Blocks (South of High-Point) - Areas adjacent to existing swale on Region's lands			Bronte Road widening blocks, south of the existing high-point, were assumed in the pond drainage area. In reality these widening blocks will continue the existing drainage pattern and discharge to Bronte Road (Bronte Creek) Small areas on the southwest corner of the subdivision were included as part of the pond design brief, however these areas will continue to discharge to the existing swale on the Region of Halton's lands (Bronte Creek).
Bronte Green Former Region's Lands	+0.44	39.45	The future Charles Cornwall Avenue and Merton Road extensions were previously included in the approved Pond Design Brief. This area only reflects future lots that were not included in the approved Pond Design Brief.
Open Space Block	-0.73	38.72	As discussed with Conservation Halton and the Town of Oakville the Open Space Block is graded to discharge to Bronte Creek, matching existing conditions drainage patterns.
Updated SWM Pond Drainage Area	**38.72**		

Table 2: SWM Pond Catchment Imperviousness

Catchment		Area (Ha)	Catchment Imperviousness (Old)	Catchment Imperviousness (New)	Notes
Open Space Block	*SWM Pond*	*39.45**	*66.6%**		As noted in Table 1 above, the Open Space Block is removed from the pond catchment entirely, reducing the total drainage area and imperviousness to the SWM Pond.
	Open Space Block	0.73	79%	N/A	
	SWM Pond	*38.72*		*66.4%*	
Block 451	Block 451	0.87	100%	85%	The latest information provided by Urbantech Consulting (February 2022) includes a design imperviousness of 85%.
	SWM Pond	*38.72*		*66.0%*	
Block 452	Block 452	0.80	100%	85%	The latest information provided by Lamarre Consulting Group (March 2022) includes a design imperviousness of 78%.
	SWM Pond	*38.72*		*65.7%*	
School	School	1.86	86%	75%	The three most recent school blocks DSEL has reviewed in Oakville have had imperviousness less than 86%: - Proposed School in Joshua's Creek: 63% - As-Built School in Preserve Phase 1: 65% - As-Built School in Preserve Phase 2: 55% to 65% imperviousness (depending on portables) DSEL is not aware of schools with 86% imperviousness (with the possible exceptions of high-schools with artificial turf sports field). Per Bronte Green Subdivision Draft Plan Condition 136, if the school block is developed it will be an elementary school.
	SWM Pond	38.72		65.2%	
SWM Pond		**38.72**		**65.2%**	

* It was conservatively assumed that refinements to the SWM Pond catchment in Table 1 (apart from the Open Space Block) do not affect the total catchment imperviousness. The actual areas removed from the drainage plan are generally higher imperviousness areas and their removal would likely further reduce the catchment imperviousness.

- The catchment parameters for the SWM Pond drainage area (slope and flow length) are designed to generally match parameters from the original 2016 analysis

- The total drainage area to Node J7.227846 (Lake Ontario) is 3130.79 Ha, representing a net increase in drainage to 14 Mile Creek of 4.33 Ha as summarized below in *Table 3*
    - The proposed drainage exchange is less than the drainage exchange of approximately 4.7 Ha approved as part of the Bronte Green Subdivision FSR (2017)

Table 3: Drainage Exchange Summary

<table>
<tr><th>Catchment</th><th colspan="2">Area (Ha)</th><th>Notes</th></tr>
<tr><td>Pre-Development 14 Mile Creek Catchment</td><td colspan="2">3126.60</td><td>Refined existing 14 Mile Creek Catchment per Scenario (i) summarized above</td></tr>
<tr><td rowspan="4">Bronte Green Subdivision Lands Directed to 14 Mile Creek</td><td colspan="2">+4.33</td><td rowspan="4">Measured area to 14 Mile Creek. Refer to Figure 1</td></tr>
<tr><td>Bronte Green Subdivision*</td><td>+4.62</td></tr>
<tr><td>BG Former Region's Lands</td><td>+0.44</td></tr>
<tr><td>Open Space Block</td><td>-0.73</td></tr>
<tr><td>Bronte Road</td><td colspan="2">-0.14</td><td>0.18 ha of Bronte Road and boulevard, south of high-point on Bronte Road that does not drain 14 Mile Creek. Reinstated full curb at old golf course driveway and boulevard filled.

0.04 ha of this area was also removed from the pre-development (Scenario i) model. Therefore the net exchange on Bronte Road is 0.14 ha</td></tr>
<tr><td>Post-Development 14 Mile Creek Catchment</td><td colspan="2">3130.79</td><td></td></tr>
</table>

*Original Bronte Green Subdivision drainage exchange inclusive of open space block being directed to 14 Mile Creek

<u>Scenario (iii) – Bronte Green, Enns, and Deerfield Developed (no controls)</u>

- Scenario (iii) has not been re-evaluated as it involves a development scenario that is no longer applicable (Enns and Deerfield both developed without controls)

Scenario (iv) – Bronte Green only developed (with controls)

- Scenario (iv) has been updated based on refinements to the drainage boundary and imperviousness as discussed above in Scenario (ii)

- Flows from the SWM Pond catchment area have been calibrated based on the detailed design of the subdivision
  - The detailed design of the Bronte Green subdivision discretized the catchments to the SWM pond based on detailed drainage boundaries, storm sewers, and overland flow route information
  - The SWM pond and subdivision were designed and optimized based on this discretized subdivision model
  - The catchment parameters (slope, flow length) for the SWM pond drainage area are modified in the overall watershed model so that the pond inflow hydrograph closely matches the inflow hydrograph from the detailed Bronte Green subdivision design model
  - Refer to ***Attachment 3*** for detailed discussion of the calibration completed to the model

- The total drainage area to Node J7.227846 (Lake Ontario) is 3130.79 Ha, same as Scenario (ii)

Scenario (v) –Bronte Green, Enns, and Deerfield Developed (no controls)

- Scenario (iv) has been updated based on refinements to the SWM Pond drainage boundary and imperviousness as discussed above in Scenario (ii) and Scenario (iv)

The results of the updated analysis have been included in ***Attachment 1***. The conclusions of the updated results are generally consistent with the conclusions of the original 2016 flood protection analysis. SWM Pond controls (Scenarios [iv] and [v]) eliminate peak flow exceedances at the downstream key locations. Under Scenario (ii) (Bronte Green developed without Regional control), there is a minor increase in peak flows during the Regional event at Node J438.5957 (Lakeshore Road). The increase in peak flow is approximately 0.063 m^3/s or 0.02% of the total flow at this node. Through discussions with Conservation Halton staff it is understood that the increased flow was run through a hydraulic model and no increase in regulatory water levels were observed.

SWM Pond Design and Flood Control Credit Under the Regional Storm Event

As noted in the above section, allowing the Bronte Green subdivision SWM Pond to be credited with providing flood control measures under the Regional Storm event (Scenario iv) reduces peak flows downstream and allows for any increases at key downstream locations to be eliminated. Crediting this pond with providing Regional controls also allows for more flexibility when future developments proceed within the 14 Mile Creek catchment.

The following sections outline reports, published by public agencies (Conservation Halton, TRCA, Town of Oakville), allowing the use of SWM Ponds to provide flood control measures under the Regional Storm event.

Conservation Halton SWM Guidelines (November 2021)

Conservation Halton SWM Guidelines were published in November 2021. Section 2.2.1 of the SWM Guidelines include discussion of potential need for Regulatory Storm control.

> *If not stated in a higher-level document, consultation with CH and the municipality is recommended to confirm if Regulatory Storm control is required. CH generally follows the approaches outlined in the document Approaches to Manage Regulatory Event Flow Increases Resulting from Urban Development (Toronto and Region Conservation Authority, 2016).*

A higher-level document (i.e. subwatershed study) was not completed for this downstream section of 14 Mile Creek. It is understood that a subwatershed study would typically determine the need and/ or benefit of providing Regional controls, however in this case the ability to provide Regional Storm control has been demonstrated through the detailed design of the Bronte Green Subdivision SWM Pond and through the Bronte Green Former Region’s Lands Functional Servicing Report.

Approaches to Manage Regulatory Event Flow Increases Resulting from Urban Development (TRCA, 2016)

The Toronto and Region Conservation Authority (TRCA) published a report in June 2016 to provide guidance on approaches to address increases in Regulatory flood risk as a result of ongoing and proposed urban development. Conservation Halton staff were part of the Region Storm Control Committee and were involved in the report.

The report outlines the challenges imposed by current guidance on mitigation and control strategies, including the fact that the most current iteration of the MNRF Technical Guide (2002) states that the Regulatory flood model cannot account for the influence of stormwater detention ponds or similarly constructed storage facilities. The conclusion of the report is that when supported by watershed planning and engineering design, the use of off-line Regional Storm flood control facilities to control Regulatory peak flows is appropriate and can be accounted for in Regulatory storm hydrologic models. The use of Regional Storm flood control facilities is evident elsewhere in Oakville, particularly in North Oakville where the North Oakville Creeks Subwatershed Study (NOCSS) encourages the use of Regional Storm flood control facilities.

North Oakville Creeks Subwatershed Study (NOCSS)

The North Oakville Creeks Subwatershed Study (NOCSS) was a report completed by the Town of Oakville to provide a management strategy for the North Oakville Secondary Plan area. The NOCSS report covered all creek systems within North Oakville (north of Dundas Street) including 14 Mile Creek, the subject of this memo. While the Bronte Green Former Region's Lands site is not part of the NOCSS report, the upstream reaches of 14 Mile Creek are subject to the NOCSS. Section 6.2 of the report set out flood protection goals for the subwatershed study, including the excerpt below:

> *The targets will maintain runoff peak flow rates from new development to existing levels for the 2-yr through 100-yr return periods and the Regional Storm.*

Section 7.4.1 of the NOCSS discussed the runoff peak flow attenuation required on all new developments. Runoff attenuation under the Regional Storm event was set out as a requirement as per the excerpt below:

> *Runoff attenuation will be required for all frequency events including the 2 through 100-yr return periods and the Regional storm.*

Section 7.4.1.5 of the NOCSS further provided an example of a SWM pond sized to provide quantity controls under the Regional Storm Event (credited as providing flood control measures).

The NOCSS report clearly outlined that SWM ponds, designed to provide quantity control up to and including the Regional Storm Event would be accepted and credited as providing flood control measures for development.

This included Regional Ponds within the 14 Mile Creek Subcatchment, upstream of the Bronte Green Former Region's Lands.

Summary of Agency Guidelines

As outlined above, Conservation Halton's SWM Guidelines and the TRCA's *Approaches to Manage Regulatory Event Flow Increases Resulting from Urban Development* allow for the use of SWM Ponds to be credited with providing flood control measures under the Regional Event. It is understood that a subwatershed study would typically determine the need and/ or benefit of providing Regional controls. Although no subwatershed study was completed for this section of 14 Mile Creek, the Flood Protection Memo (JFSA, 2016) and subsequent flood protection analysis as part of the Bronte Green Former Region's Lands FSR (JFSA/DSEL, 2023) demonstrate that crediting the Bronte Green SWM Pond with providing control under the Regional Storm event eliminates peak flow increases at key locations in 14 Mile Creek downstream of the development.

Bronte Green Subdivision SWM Pond Design

Conservation Halton SWM Guidelines (November 2021) provide design requirements for Regional Control ponds. The design of the Bronte Green Subdivision SWM Pond meets these design requirements as outlined below.

- Storage calculations for the Regulatory Storm should presume a 2-year design storm occurred 48 hours prior to the Regulatory Storm, with the emergency overflow invert elevation set above the resulting Regulatory Storm maximum water surface elevation

As shown in ***Attachment 2***, the drawdown time of the 2-yr storm in the Bronte Green subdivision pond is less than 48 hours. As such, the water level in the pond 48 hours after a 2-yr storm event is the permanent pool elevation of 121.20m. The pond has been designed to provide controls up to the Regional event and as such provides sufficient freeboard from the emergency overflow invert to the Regional water surface.

- The emergency overflow invert elevation must also be a minimum of 100 mm above the normal Regulatory Storm water surface elevation (i.e., the water surface elevation calculated based on an assumption that all flood storage above the permanent pool was available prior to the Regulatory Storm occurring). CH recommends that this criterion apply to all SWM ponds.

As shown in ***Attachment 2***, the emergency overflow invert was constructed at an elevation of 124.80m, 0.163m above the Regional water level in the pond. As such, the pond provides adequate freeboard from the Regional water level to the emergency spillway.

In addition to the design requirements outlined above, it should also be noted that the Bronte Green SWM Pond is located inboard within the subdivision and not immediately adjacent to the creek or valley. The SWM pond has also generally been constructed in "cut" (i.e. the SWM pond was dug into native ground with localized engineered fill to complete the berms). While these may not be specific requirements of Regional control facilities, these can also help reduce the risk of potential failure or flood impacts compared to other ponds in North Oakville which are constructed next to a valley.

Conclusion

In conclusion, the 2016 flood protection analysis has been updated to include the proposed development of the Bronte Green Former Region's Lands. The results of the analysis show that crediting the Bronte Green SWM Pond with providing Regional controls eliminates peak flow increases at key downstream locations. If the Bronte Green SWM Pond is not credited then there is a minor increase in peak flows during the Regional storm event at Node J438.5957. The increase is minor (0.02%) and it is understood that the increase does not result in an increased flood elevation within 14 Mile Creek.

Yours truly,
David Schaeffer Engineering Ltd

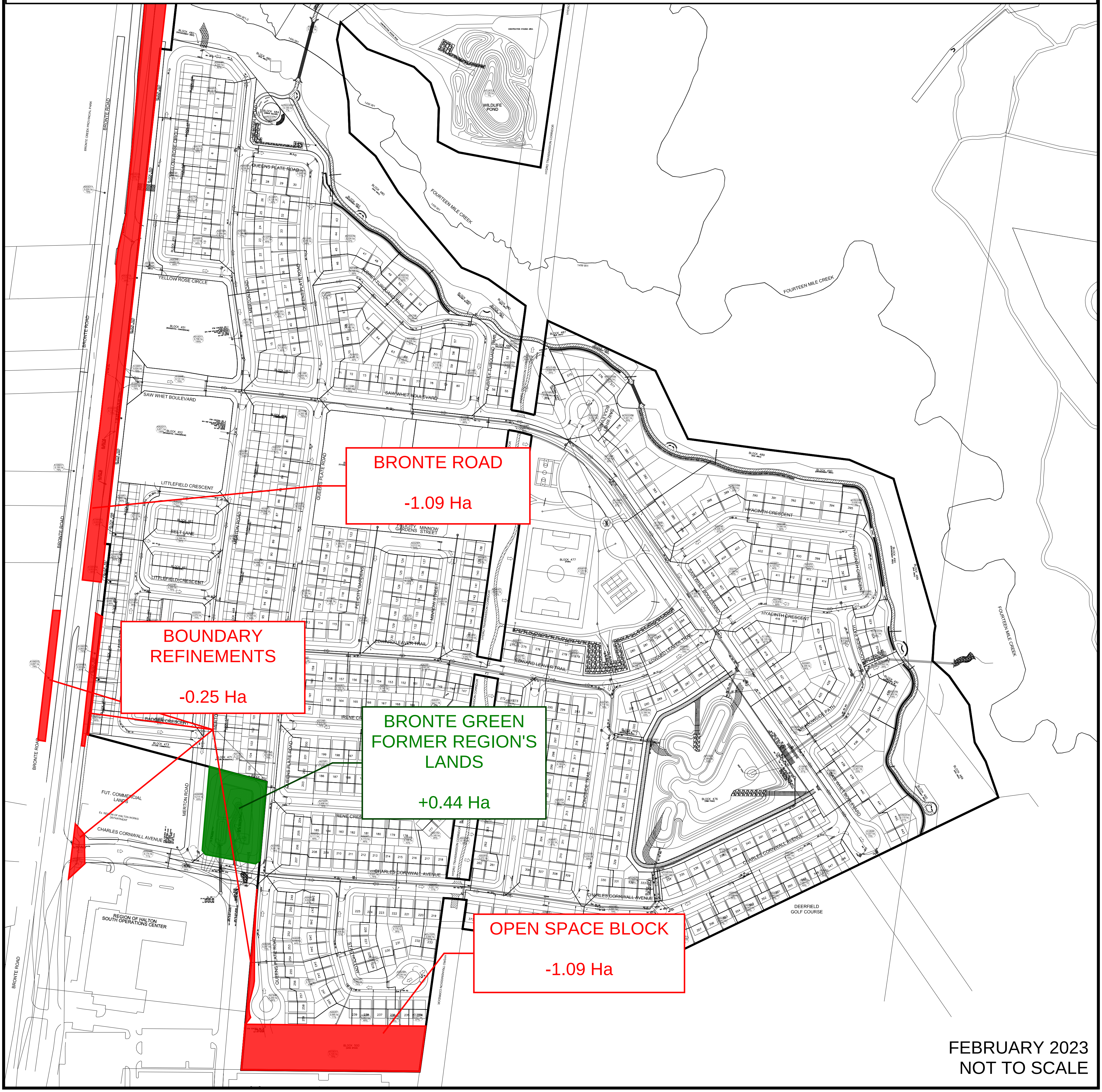
SENT BY EMAIL

Ryan Kerr, P.Eng and Brian Betts, P. Eng.

FIGURES

FIGURE 1

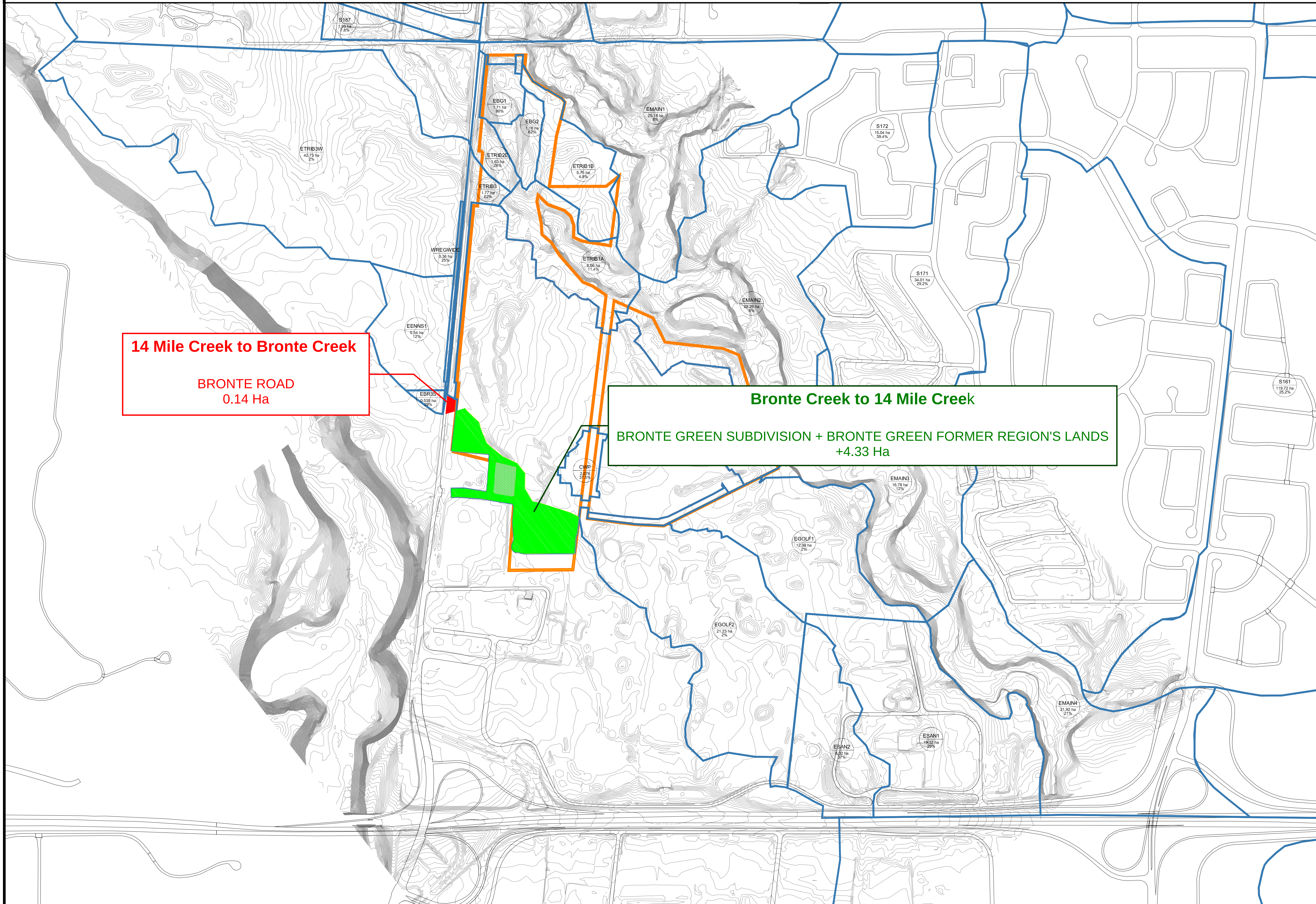
SWM Pond Drainage Boundary Refinements



FEBRUARY 2023
NOT TO SCALE

FIGURE 2

Drainage Exchange Summary



ATTACHMENTS

ATTACHMENT 1 - PEAK FLOW COMPARISON

J438.5957 **Lakeshore Road**

Event	Peak Flows				Difference In Peak Flows					
	(1) Existing Conditions m^3/s	(2) Scenario 2 Uncontrolled (BG Only) m^3/s	(4) Scenario 4 Controlled (BG Only) m^3/s	(5) Scenario 5 Controlled (BG, Enns, DF) m^3/s	(6) Scenario 2 Uncontrolled (BG Only) (2)-(1) m^3/s	(7) %	(8) Scenario 4 Controlled (BG Only) (4)-(1) m^3/s	(9) %	(10) Scenario 5 Controlled (BG, Enns, DF) (5)-(1) m^3/s	(11) %
2-Year Design	35.486	35.485	35.486	35.269	-0.001	0%	0.000	0%	-0.217	-1%
5-Year Design	58.79	58.79	58.79	58.365	0.000	0%	0.000	0%	-0.425	-1%
10-Year Design	72.65	72.65	72.65	72.083	0.000	0%	0.000	0%	-0.567	-1%
25-Year Design	93.067	92.557	92.494	92.593	-0.510	-1%	-0.573	-1%	-0.474	-1%
50-Year Design	109.592	108.988	108.943	108.9	-0.604	-1%	-0.649	-1%	-0.692	-1%
100-Year Design	128.816	128.145	128.14	128.032	-0.671	-1%	-0.676	-1%	-0.784	-1%
Regional Event	267.814	267.877	267.237	266.626	0.063	0%	-0.577	0%	-1.188	0%

Event	Peak Water Levels				Difference In Peak Water Levels		
	(1) Existing Conditions m	(2) Scenario 2 Uncontrolled (BG Only) m	(4) Scenario 4 Controlled (BG Only) m	(5) Scenario 5 Controlled (BG, Enns, DF) m	(6) Scenario 2 Uncontrolled (BG Only) (2)-(1) m	(7) Scenario 4 Controlled (BG Only) (4)-(1) m	(8) Scenario 5 Controlled (BG, Enns, DF) (5)-(1) m
2-Year Design	78.7	78.7	78.7	78.7	0.00	0.00	0.00
5-Year Design	79.04	79.04	79.04	79.04	0.00	0.00	0.00
10-Year Design	79.2	79.2	79.2	79.2	0.00	0.00	0.00
25-Year Design	79.4	79.4	79.4	79.4	0.00	0.00	0.00
50-Year Design	79.55	79.54	79.54	79.54	-0.01	-0.01	-0.01
100-Year Design	79.7	79.69	79.69	79.69	-0.01	-0.01	-0.01
Regional Event	80.51	80.51	80.51	80.5	0.00	0.00	-0.01

J982.0328 Rebecca Street

Event	Peak Flows				Difference In Peak Flows					
	(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)		Scenario 4 Controlled (BG Only) (4)-(1)		Scenario 5 Controlled (BG, Enns, DF) (5)-(1)	
	m^3/s	m^3/s	m^3/s	m^3/s	m^3/s	%	m^3/s	%	m^3/s	%
2-Year Design	32.683	32.683	32.683	32.466	0.000	0%	0.000	0%	-0.217	-1%
5-Year Design	54.211	54.212	54.211	53.779	0.001	0%	0.000	0%	-0.432	-1%
10-Year Design	69.023	68.699	68.556	68.627	-0.324	0%	-0.467	-1%	-0.396	-1%
25-Year Design	92.511	91.928	91.937	91.911	-0.583	-1%	-0.574	-1%	-0.600	-1%
50-Year Design	108.589	107.989	107.949	107.907	-0.600	-1%	-0.640	-1%	-0.682	-1%
100-Year Design	127.633	126.964	126.964	126.859	-0.669	-1%	-0.669	-1%	-0.774	-1%
Regional Event	263.029	263.024	262.493	261.827	-0.005	0%	-0.536	0%	-1.202	0%

Event	Peak Water Levels				Difference In Peak Water Levels		
	(1)	(2)	(4)	(5)	(6)	(7)	(8)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)	Scenario 4 Controlled (BG Only) (4)-(1)	Scenario 5 Controlled (BG, Enns, DF) (5)-(1)
	m	m	m	m	m	m	m
2-Year Design	83.61	83.61	83.61	83.6	0	0	-0.01
5-Year Design	84.02	84.02	84.02	84.01	0	0	-0.01
10-Year Design	84.23	84.23	84.23	84.23	0	0	0
25-Year Design	84.56	84.55	84.55	84.55	-0.01	-0.01	-0.01
50-Year Design	84.76	84.75	84.75	84.75	-0.01	-0.01	-0.01
100-Year Design	84.99	84.98	84.98	84.98	-0.01	-0.01	-0.01
Regional Event	86.18	86.18	86.18	86.17	0	0	-0.01

J2546.464 Speers Road

Event	Peak Flows				Difference In Peak Flows					
	(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)		Scenario 4 Controlled (BG Only) (4)-(1)		Scenario 5 Controlled (BG, Enns, DF) (5)-(1)	
	m^3/s	m^3/s	m^3/s	m^3/s	m^3/s	%	m^3/s	%	m^3/s	%
2-Year Design	38.788	38.788	38.788	38.574	0.000	0%	0.000	0%	-0.214	-1%
5-Year Design	59.702	59.702	59.702	59.185	0.000	0%	0.000	0%	-0.517	-1%
10-Year Design	73.332	73.332	73.332	72.497	0.000	0%	0.000	0%	-0.835	-1%
25-Year Design	94.019	93.558	93.467	93.493	-0.461	0%	-0.552	-1%	-0.526	-1%
50-Year Design	110.526	109.982	110.01	109.977	-0.544	0%	-0.516	0%	-0.549	0%
100-Year Design	128.711	128.026	128.091	128	-0.685	-1%	-0.620	0%	-0.711	-1%
Regional Event	259.194	259.138	258.923	258.244	-0.056	0%	-0.271	0%	-0.950	0%

Event	Peak Water Levels				Difference In Peak Water Levels		
	(1)	(2)	(4)	(5)	(6)	(7)	(8)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)	Scenario 4 Controlled (BG Only) (4)-(1)	Scenario 5 Controlled (BG, Enns, DF) (5)-(1)
	m	m	m	m	m	m	m
2-Year Design	93.48	93.48	93.48	93.48	0	0	0
5-Year Design	93.83	93.83	93.83	93.82	0	0	-0.01
10-Year Design	94.02	94.02	94.02	94.01	0	0	-0.01
25-Year Design	94.28	94.28	94.28	94.28	0	0	0
50-Year Design	94.45	94.44	94.44	94.44	-0.01	-0.01	-0.01
100-Year Design	94.61	94.6	94.6	94.6	-0.01	-0.01	-0.01
Regional Event	95.41	95.41	95.41	95.4	0	0	-0.01

J1350.013 Main Branch, at confluence with major storm outfall

Event	Peak Flows				Difference In Peak Flows					
	(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)		Scenario 4 Controlled (BG Only) (4)-(1)		Scenario 5 Controlled (BG, Enns, DF) (5)-(1)	
	m^3/s	m^3/s	m^3/s	m^3/s	m^3/s	%	m^3/s	%	m^3/s	%
2-Year Design	36.361	36.361	36.361	36.135	0.000	0%	0.000	0%	-0.226	-1%
5-Year Design	56.323	56.323	56.323	55.767	0.000	0%	0.000	0%	-0.556	-1%
10-Year Design	69.783	69.476	69.359	69.428	-0.307	0%	-0.424	-1%	-0.355	-1%
25-Year Design	93.671	93.21	93.119	93.143	-0.461	0%	-0.552	-1%	-0.528	-1%
50-Year Design	110.182	109.64	109.672	109.638	-0.542	0%	-0.510	0%	-0.544	0%
100-Year Design	128.482	127.789	127.86	127.767	-0.693	-1%	-0.622	0%	-0.715	-1%
Regional Event	257.443	257.291	257.236	256.535	-0.152	0%	-0.207	0%	-0.908	0%

Event	Peak Water Levels				Difference In Peak Water Levels		
	(1)	(2)	(4)	(5)	(6)	(7)	(8)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)	Scenario 4 Controlled (BG Only) (4)-(1)	Scenario 5 Controlled (BG, Enns, DF) (5)-(1)
	m	m	m	m	m	m	m
2-Year Design	97.64	97.64	97.64	97.64	0	0	0
5-Year Design	97.98	97.98	97.98	97.97	0	0	-0.01
10-Year Design	98.18	98.18	98.18	98.18	0	0	0
25-Year Design	98.49	98.48	98.48	98.48	-0.01	-0.01	-0.01
50-Year Design	98.68	98.67	98.67	98.67	-0.01	-0.01	-0.01
100-Year Design	98.87	98.87	98.87	98.87	0	0	0
Regional Event	100	100	100	99.99	0	0	-0.01

J4232.339 Main Branch, at QEW

Event	Peak Flows				Difference In Peak Flows					
	(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)		Scenario 4 Controlled (BG Only) (4)-(1)		Scenario 5 Controlled (BG, Enns, DF) (5)-(1)	
	m^3/s	m^3/s	m^3/s	m^3/s	m^3/s	%	m^3/s	%	m^3/s	%
2-Year Design	26.482	26.427	26.311	26.305	-0.055	0%	-0.171	-1%	-0.177	-1%
5-Year Design	47.354	47.147	47.036	47.08	-0.207	0%	-0.318	-1%	-0.274	-1%
10-Year Design	63.324	63.027	62.925	62.965	-0.297	0%	-0.399	-1%	-0.359	-1%
25-Year Design	84.745	84.309	84.246	84.258	-0.436	-1%	-0.499	-1%	-0.487	-1%
50-Year Design	99.755	99.222	99.286	99.256	-0.533	-1%	-0.469	0%	-0.499	-1%
100-Year Design	116.332	115.673	115.773	115.711	-0.659	-1%	-0.559	0%	-0.621	-1%
Regional Event	220.141	219.928	220.141	219.808	-0.213	0%	0.000	0%	-0.333	0%

Event	Peak Water Levels				Difference In Peak Water Levels		
	(1)	(2)	(4)	(5)	(6)	(7)	(8)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)	Scenario 4 Controlled (BG Only) (4)-(1)	Scenario 5 Controlled (BG, Enns, DF) (5)-(1)
	m	m	m	m	m	m	m
2-Year Design	104.55	104.54	104.54	104.54	-0.01	-0.01	-0.01
5-Year Design	104.98	104.97	104.97	104.97	-0.01	-0.01	-0.01
10-Year Design	105.26	105.25	105.25	105.25	-0.01	-0.01	-0.01
25-Year Design	105.57	105.56	105.56	105.56	-0.01	-0.01	-0.01
50-Year Design	105.74	105.74	105.74	105.74	0	0	0
100-Year Design	105.93	105.92	105.92	105.92	-0.01	-0.01	-0.01
Regional Event	106.82	106.82	106.82	106.82	0	0	0

DF001 **Secondary Culvert under QEW**

Event	Peak Flows				Difference In Peak Flows					
	(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)		Scenario 4 Controlled (BG Only) (4)-(1)		Scenario 5 Controlled (BG, Enns, DF) (5)-(1)	
	m^3/s	m^3/s	m^3/s	m^3/s	m^3/s	%	m^3/s	%	m^3/s	%
2-Year Design	1.11	1.11	1.11	0.829	0.000	0%	0.000	0%	-0.281	-25%
5-Year Design	1.901	1.901	1.901	1.239	0.000	0%	0.000	0%	-0.662	-35%
10-Year Design	2.503	2.503	2.503	1.522	0.000	0%	0.000	0%	-0.981	-39%
25-Year Design	3.367	3.367	3.367	1.935	0.000	0%	0.000	0%	-1.432	-43%
50-Year Design	4.008	4.008	4.008	2.256	0.000	0%	0.000	0%	-1.752	-44%
100-Year Design	4.686	4.686	4.686	2.594	0.000	0%	0.000	0%	-2.092	-45%
Regional Event	3.678	3.678	3.678	3.058	0.000	0%	0.000	0%	-0.620	-17%

Event	Peak Water Levels				Difference In Peak Water Levels		
	(1)	(2)	(4)	(5)	(6)	(7)	(8)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)
	m	m	m	m	m	m	m
2-Year Design	110.89	110.89	110.89	110.84	0	0	-0.05
5-Year Design	111.01	111.01	111.01	110.92	0	0	-0.09
10-Year Design	111.08	111.08	111.08	110.96	0	0	-0.12
25-Year Design	111.17	111.17	111.17	111.02	0	0	-0.15
50-Year Design	111.23	111.23	111.23	111.06	0	0	-0.17
100-Year Design	111.28	111.28	111.28	111.09	0	0	-0.19
Regional Event	111.21	111.21	111.21	111.16	0	0	-0.05

E153 Tributary 14W-W1, at confluence with main branch

Event	Peak Flows				Difference In Peak Flows					
	(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)		Scenario 4 Controlled (BG Only) (4)-(1)		Scenario 5 Controlled (BG, Enns, DF) (5)-(1)	
	m^3/s	m^3/s	m^3/s	m^3/s	m^3/s	%	m^3/s	%	m^3/s	%
2-Year Design	2.444	2.506	2.296	2.168	0.062	3%	-0.148	-6%	-0.276	-11%
5-Year Design	5.018	4.984	4.622	4.359	-0.034	-1%	-0.396	-8%	-0.659	-13%
10-Year Design	7.283	7.152	6.69	6.316	-0.131	-2%	-0.593	-8%	-0.967	-13%
25-Year Design	9.852	9.617	8.999	8.5	-0.235	-2%	-0.853	-9%	-1.352	-14%
50-Year Design	12.2	11.878	11.137	10.55	-0.322	-3%	-1.063	-9%	-1.650	-14%
100-Year Design	14.567	14.232	13.376	12.695	-0.335	-2%	-1.191	-8%	-1.872	-13%
Regional Event	16.096	15.396	15.301	15.026	-0.700	-4%	-0.795	-5%	-1.070	-7%

Event	Peak Water Levels				Difference In Peak Water Levels		
	(1)	(2)	(4)	(5)	(6)	(7)	(8)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)	Scenario 4 Controlled (BG Only) (4)-(1)	Scenario 5 Controlled (BG, Enns, DF) (5)-(1)
	m	m	m	m	m	m	m
2-Year Design	118.63	118.64	118.63	118.62	0.01	0	-0.01
5-Year Design	118.7	118.7	118.69	118.69	0	-0.01	-0.01
10-Year Design	118.75	118.75	118.74	118.73	0	-0.01	-0.02
25-Year Design	118.8	118.8	118.78	118.77	0	-0.02	-0.03
50-Year Design	118.84	118.83	118.82	118.81	-0.01	-0.02	-0.03
100-Year Design	118.87	118.87	118.86	118.84	0	-0.01	-0.03
Regional Event	118.97	118.96	118.96	118.96	-0.01	-0.01	-0.01

E733 Tributary 14W-W1-3 at Bronte Road (Enns lands and external areas)

Event	Peak Flows				Difference In Peak Flows					
	(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)		Scenario 4 Controlled (BG Only) (4)-(1)		Scenario 5 Controlled (BG, Enns, DF) (5)-(1)	
	m^3/s	m^3/s	m^3/s	m^3/s	m^3/s	%	m^3/s	%	m^3/s	%
2-Year Design	0.895	0.872	0.872	0.746	-0.023	-3%	-0.023	-3%	-0.149	-17%
5-Year Design	1.928	1.887	1.887	1.61	-0.041	-2%	-0.041	-2%	-0.318	-16%
10-Year Design	2.723	2.675	2.675	2.31	-0.048	-2%	-0.048	-2%	-0.413	-15%
25-Year Design	3.844	3.787	3.787	3.317	-0.057	-1%	-0.057	-1%	-0.527	-14%
50-Year Design	4.679	4.615	4.615	4.077	-0.064	-1%	-0.064	-1%	-0.602	-13%
100-Year Design	5.554	5.485	5.485	4.883	-0.069	-1%	-0.069	-1%	-0.671	-12%
Regional Event	6.05	5.999	5.999	5.744	-0.051	-1%	-0.051	-1%	-0.306	-5%

Event	Peak Water Levels				Difference In Peak Water Levels		
	(1)	(2)	(4)	(5)	(6)	(7)	(8)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)	Scenario 4 Controlled (BG Only) (4)-(1)	Scenario 5 Controlled (BG, Enns, DF) (5)-(1)
	m	m	m	m	m	m	m
2-Year Design	126.34	126.35	126.34	126.33	0.01	0	-0.01
5-Year Design	126.43	126.43	126.43	126.41	0	0	-0.02
10-Year Design	126.48	126.48	126.48	126.46	0	0	-0.02
25-Year Design	126.53	126.53	126.53	126.51	0	0	-0.02
50-Year Design	126.57	126.57	126.57	126.54	0	0	-0.03
100-Year Design	126.6	126.6	126.6	126.57	0	0	-0.03
Regional Event	126.61	126.61	126.61	126.6	0	0	-0.01

EBS1 **Bronte Road southside ditch, east of Tributary 14W-W1-3 (Enns lands and external areas)**

Event	Peak Flows				Difference In Peak Flows					
	(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)		Scenario 4 Controlled (BG Only) (4)-(1)		Scenario 5 Controlled (BG, Enns, DF) (5)-(1)	
	m^3/s	m^3/s	m^3/s	m^3/s	m^3/s	%	m^3/s	%	m^3/s	%
2-Year Design	0.338	0.291	0.291	0.073	-0.047	-14%	-0.047	-14%	-0.265	-78%
5-Year Design	0.542	0.476	0.476	0.154	-0.066	-12%	-0.066	-12%	-0.388	-72%
10-Year Design	0.691	0.612	0.612	0.195	-0.079	-11%	-0.079	-11%	-0.496	-72%
25-Year Design	0.902	0.805	0.805	0.239	-0.097	-11%	-0.097	-11%	-0.663	-74%
50-Year Design	1.056	0.948	0.948	0.265	-0.108	-10%	-0.108	-10%	-0.791	-75%
100-Year Design	1.217	1.097	1.097	0.29	-0.120	-10%	-0.120	-10%	-0.927	-76%
Regional Event	0.803	0.77	0.77	0.548	-0.033	-4%	-0.033	-4%	-0.255	-32%

Event	Peak Water Levels				Difference In Peak Water Levels		
	(1)	(2)	(4)	(5)	(6)	(7)	(8)
	Existing Conditions	Scenario 2 Uncontrolled (BG Only)	Scenario 4 Controlled (BG Only)	Scenario 5 Controlled (BG, Enns, DF)	Scenario 2 Uncontrolled (BG Only) (2)-(1)	Scenario 4 Controlled (BG Only) (4)-(1)	Scenario 5 Controlled (BG, Enns, DF) (5)-(1)
	m	m	m	m	m	m	m
2-Year Design	127.48	127.45	127.45	127.27	-0.03	-0.03	-0.21
5-Year Design	127.56	127.54	127.54	127.35	-0.02	-0.02	-0.21
10-Year Design	127.61	127.58	127.58	127.38	-0.03	-0.03	-0.23
25-Year Design	127.67	127.65	127.65	127.41	-0.02	-0.02	-0.26
50-Year Design	127.71	127.69	127.69	127.43	-0.02	-0.02	-0.28
100-Year Design	127.75	127.72	127.72	127.44	-0.03	-0.03	-0.31
Regional Event	127.65	127.64	127.64	127.56	-0.01	-0.01	-0.09

Table B-3: Extended Detention Parameters for SWM Facility

Permanent Pool Parameters		Quality Orifice Parameters	
Area (C3)	8,988 m^2	Diameter	0.230 m
Volume	11,180 m^3		
PP Elev	121.170 m	Area	0.042 m^2
QC Elev	121.378 m	Invert	121.170 m
h (m)	0.208 m	C_o	0.62

Notes:
- C3 is the intercept from the area-depth linear regression.
- PP Elev indicates the elevation of the permanent pool.
- QC Elev indicates the elevation of the storage volume required by MOE for quality control.
- h is the maximum water elevation above the orifice (m).

Table B-4: Extended Detention Drawdown Time for SWM Facility

Elev.	Active Storage			C2	Drawdown Time	Drawdown Time	Flow	Demarkation
(m)	V (m^3)	A (m^2)	depth (m)	(m²/m)	(h)	(days)	(m^3/s)	Point
121.17	0	8988	**0.00**					**PP Elev**
121.20	270	9100	0.03	3740	7.60	0.32	0.000	
121.25	730	9293	0.08	3815	12.50	0.52	0.005	
121.30	1199	9466	0.13	3678	16.03	0.67	0.013	
121.35	**1677**	**9629**	**0.18**	**3562**	**18.98**	**0.79**	**0.022**	**QC Elev**
121.378	1948	9714	0.21	3492	20.45	0.85	0.030	
121.40	2162	9780	0.23	3444	21.57	0.90	0.035	
121.45	2655	9952	0.28	3444	23.94	1.00	0.039	
121.50	3157	10128	0.33	3455	26.16	1.09	0.046	
121.55	3667	10289	0.38	3424	28.23	1.18	0.053	
121.60	4186	10459	0.43	3421	30.21	1.26	0.059	
121.65	4713	10608	0.48	3375	32.08	1.34	0.064	
121.70	5247	10742	0.53	3310	33.86	1.41	0.069	
121.75	5787	10867	0.58	3240	35.58	1.48	0.074	
121.80	6333	10990	0.63	3178	37.24	1.55	0.078	
121.85	6886	11110	0.68	3121	38.85	1.62	0.082	
121.90	7444	11228	0.73	3069	40.41	1.68	0.086	
121.95	8009	11346	0.78	3023	41.94	1.75	0.089	
122.00	**8579**	**11462**	**0.83**	**2981**	**43.43**	**1.81**	**0.093**	**Ext. Det.**
122.05	9155	11577	0.88	2942	44.89	1.87	0.096	
122.10	9620	11668	0.93	2882	46.29	1.93	0.100	
122.15	9737	11691	0.98	2758	47.56	1.98	0.102	
122.159	**10324**	**11803**	**0.99**	**2847**	**47.95**	**2.00**	**0.110**	**2-Year**
122.20	10431	11823	1.03	2753	48.97	2.04	0.149	
122.25	10917	11914	1.08	2709	50.30	2.10	0.156	
122.30	11516	12025	1.13	2688	51.64	2.15	0.187	
122.35	12119	12134	1.18	2666	52.96	2.21	0.225	
122.395	12729	12240	1.22	2655	54.15	2.26	0.264	
122.40	**13282**	**12335**	**1.23**	**2722**	**54.43**	**2.27**	**0.302**	**5-Year**
122.45	13343	12346	1.28	2624	55.54	2.31	0.336	
122.50	13963	12451	1.33	2604	56.81	2.37	0.340	
122.549	14589	12555	1.38	2587	58.04	2.42	0.378	
122.55	**15206**	**12653**	**1.38**	**2656**	**58.25**	**2.43**	**0.416**	**10-Year**
122.60	15219	12655	1.43	2564	59.30	2.47	0.454	

2-year drawdown time is less than 48 hours

Table 1: Summary of SWM Facility Operating Characteristics (Free Outfall Conditions)

Pond Component	Pond Inflow [1] (m^3/s)	Lower Elevation (m)	Upper Elevation (m)	Pond Release Rate (m^3/s)	Volume Used [2] (m^3)
Permanent Pool	N/A	118.200	121.170	N/A	11180
Quality Control	N/A	121.170	121.378	0.030	1948
Extended Detention	N/A	121.378	122.000	0.093	8579
2yr/24hr Chicago	6.345	121.170	122.160	0.124	10440
5yr/24hr Chicago	9.049	122.160	122.406	0.284	13420
10yr/24hr Chicago	10.260	122.406	122.561	0.425	15360
25yr/24hr Chicago	12.070	122.561	122.752	0.605	17810
50yr/24hr Chicago	13.150	122.752	122.885	0.691	19570
100yr/24hr Chicago	14.150	122.885	123.027	0.771	21470
Regional	5.213	123.027	124.637	3.618	45370

[1] Total inflow as simulated by the model; due to differences in timing is not a direct summation of all peak flows to the pond.

[2] Volumes are active storage only for all pond components except for the permanent pool.

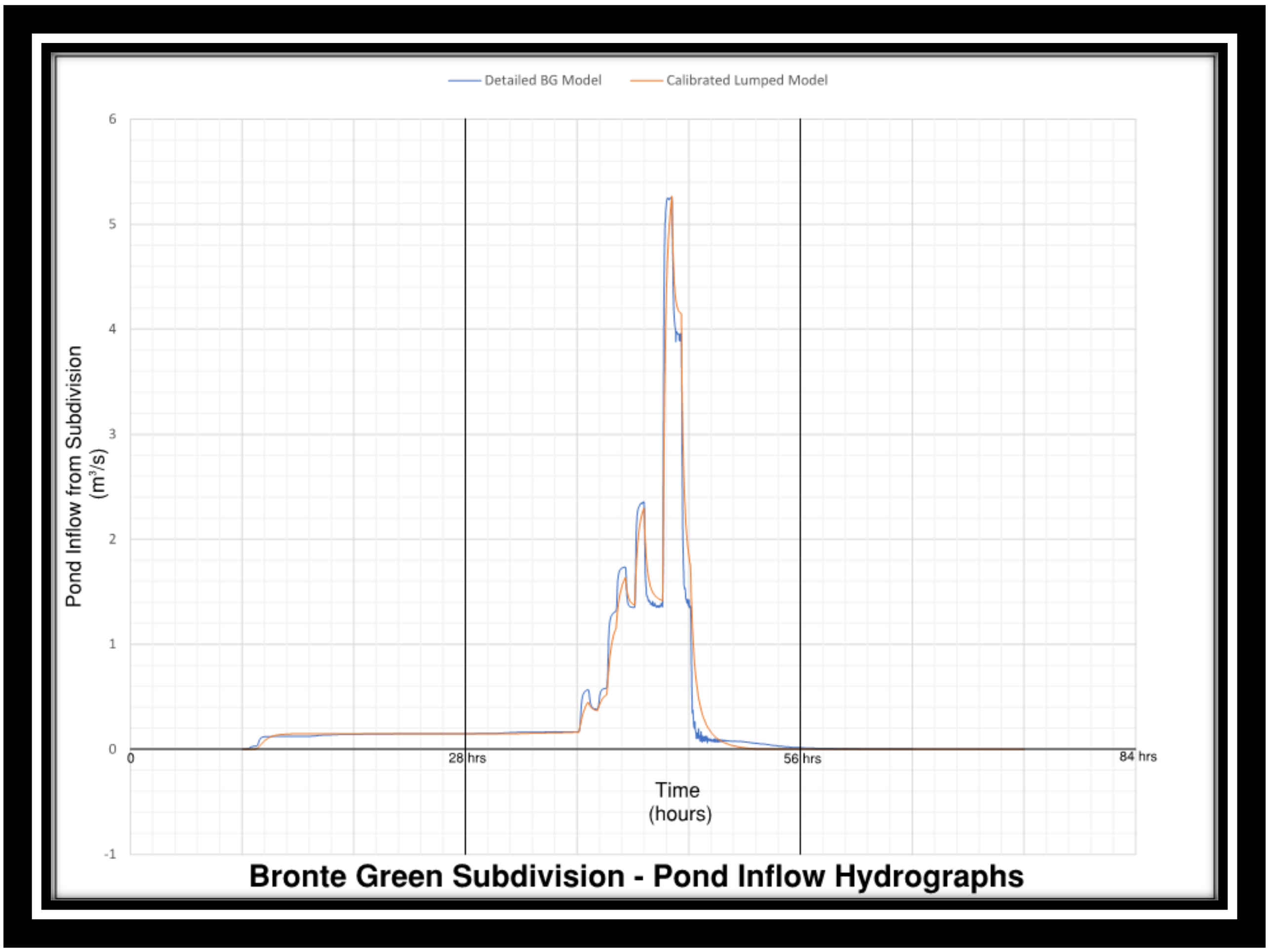
In the event of a blockage or a storm greater than the Regional event, a 10.0 m wide emergency overflow weir has been set in the berm of the pond next to Street A. Its crest elevation has been set at an elevation of 124.80 m, above the Regional water level in the pond. An additional pre-cast 1.80 m x 2.40 m box drop inlet structure has also been provided in the pond at a top elevation of 124.80 m to also act as an emergency overflow weir, with the purpose of minimizing emergency overflows to Street A. The elevations of the top of berm and all lots adjacent to the pond are above this Regional pond level, and thus the water is contained within the pond and no homes will be flooded.

Assuming 100% blockage of the pond outlet structures (except the added drop inlet structure at 124.80 m) the maximum Regional water level in the pond is 125.03 m, at which 1.743 m^3/s of outflow from the pond is conveyed by the emergency overflow weir. The elevations of the top of the berm and all lots adjacent to the pond are above this Regional pond level, and thus the water is contained within the pond and no homes will be flooded. The 10.0 m wide emergency spillway downstream of the emergency overflow weir will convey the 1.743 m^3/s Regional outflow to Street A at a flow depth of 12.7 cm and a velocity of 1.31 m/s at a 2.5% slope, and a flow depth of 12.8 cm and a velocity of 1.37 m/s at a 2.7% slope (refer to Calculation Sheet B-1 of Appendix B).

Scenario (iv and v) – Calibrated Model Approach

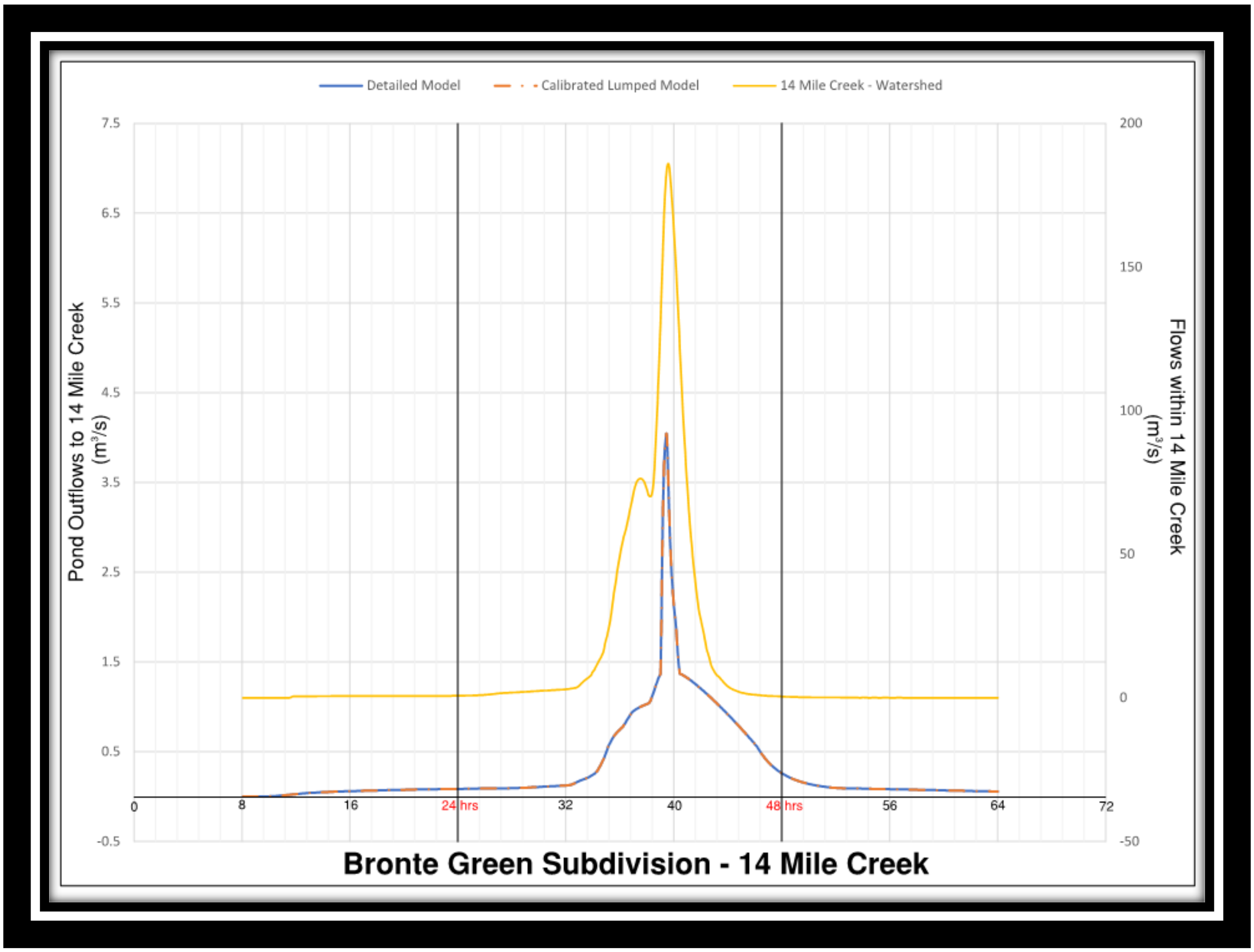
For Scenario (iv) and Scenario (v) a lumped catchment model was created to reflect the approved detailed design model for the Bronte Green Subdivision. This allows the Bronte Green proposed development to be run within the larger Fourteen Mile Creek watershed model, and avoids running the detailed subdivision model and extracting hydrographs and importing them into the larger Fourteen Mile Creek Catchment. Additionally, this approach avoids modeling issues with mixing detailed discretized catchments into a large simplified watershed model. The approach is similar to that used in the 2016 analysis for Scenario (iv) and Scenario (v).

The lumped catchment model for Bronte Green Subdivision was calibrated to have the inflow hydrographs closely match the approved detailed subdivision model for Bronte Green to the stormwater management pond, by modifying catchment length and slope parameters, in the lumped model. A comparison of the inflow hydrograph of the detailed design model to the Bronte Green SWM Pond and the lumped calibrated model is provided below to illustrate the inflow hydrograph calibration.



Bronte Green Subdivision - Pond Inflow Hydrographs

The lumped model catchments that were calibrated, as described above, were then modeled with the Bronte Green subdivision pond in the Fourteen Mile Creek watershed model. Below is an illustration comparing the outflow hydrographs from the detailed design model (as-constructed model submitted in 2019) to the calibrated lumped model outflow hydrograph from the pond. As can be seen, the calibration effort is effective in replicating the detailed design model as a lumped catchment within the Fourteen Mile Creek watershed model.



The Regional storm peak pond outflows flows from the Bronte Green subdivision detailed design model (4.047 m^3/s) and the lumped calibrated model (4.048 m3/s) are within 0.001 m^3/s. The 0.001 m^3/s difference is a 0.024% difference with respect to approved pond outflows, and 0.00045% with respect to the Fourteen Mile Creek peak Regional flows at the QEW (220.17 m^3/s). The inflow volume for the Regional storm (volume under the curve) for the detailed model is (95,942 m^3) and lumped model (95,944 m^3). It is concluded that the hydrograph in the lumped model for Bronte Green development SWM Pond is sufficiently replicating the approved detailed model for peak outflow, and inflow volume. The detailed subdivision model for the SWM Pond is accurately calibrated and reflected in the larger Fourteen Mile Creek catchment model. The Bronte Green Subdivision detailed design model includes the as-constructed control structure and pond storage volumes, which is reflected in the calibrated lumped model outflow hydrographs.

The same inflow hydrograph calibration exercise was completed for all Bronte Green subdivision lands that drain directly to Fourteen Mile Creek, and do not drain to the subdivision SWM Pond (i.e. lands draining to LIDs, clean water pipes and lands north of Reach 14W-W1).