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Commercial &  
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Restoration

# Proposed Commercial Development 4175 Strandherd Drive

## Site Servicing & Stormwater Management Report

Prepared for: Choice Properties

# **PROPOSED COMMERCIAL DEVELOPMENT**

**4175 Strandherd Drive**

**Ottawa, Ontario**

**Site Servicing & Stormwater Management Report**

Prepared By:

**NOVATECH**

Suite 200, 240 Michael Cowpland Drive  
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Submitted: February 2, 2026

Novatech File: 125050  
Ref: R-2026-009

February 2, 2026

City of Ottawa  
Planning Infrastructure and Economic Development Department  
110 Laurier Avenue West, 4<sup>th</sup> Floor  
Ottawa, ON  
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**Attention: Kelby Lodoen Unseth**

**Reference: Proposed Commercial Development  
4175 Strandherd Drive  
Site Servicing and Stormwater Management Report  
Our File No.: 125050**

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Please find enclosed the 'Site Servicing and Stormwater Management Report' dated February 2, 2026, for the above noted project. This report is prepared in support of the Site Plan Application and is hereby submitted for review and approval.

Should you have any questions or comments, please do not hesitate to contact us.

Yours truly,

**NOVATECH**



Drew Blair, P.Eng.  
Senior Project Manager

cc: Rina Gerson

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Post-Development Stormwater Management Plan	(125050-SWM)
Storm Drainage Area Plan	(125050-STM)
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## 1.0 INTRODUCTION

Novatech has been retained to prepare a Site Servicing and Stormwater Management Report for the proposed commercial development located at 4175 Strandherd Drive (Subject Site) within Ottawa, Ontario. This report is submitted in support of a Site Plan Application for the proposed development.

**Figure 1** – Key Plan shows the site location with respect to the CitiGate 416 Corporate Campus.

This report outlines the proposed sanitary and storm sewer servicing system, water distribution network, and stormwater management strategy for the proposed development.

### 1.1 Existing Conditions

The Subject Site's total area is approximately 5.27 hectares in size and is located within the CitiGate 416 Corporate Campus development southeast of the Highway 416 and Strandherd Drive interchange.

Within the CitiGate 416 Corporate Campus development, the Subject Site is located south of the existing Systemhouse Street and Strandherd Drive signalized intersection. The site is bounded by Systemhouse Street to the north, Strandherd Drive to the east, previously developed car dealerships and the Anegawhet Pond to the south, the O'Keefe Drain and undeveloped lands to the west.

**Figure 2** – Existing Conditions Plan highlights the site's existing conditions.

It should be noted that the CitiGate 416 Corporate Campus development has been designed, approved, and constructed to provide sanitary, storm and water servicing including stormwater management for the Subject Site.

### 1.2 Proposed Development

The proposed development consists of ten (10) Commercial Retail Units (CRUs), along with associated truck and trailer parking areas, drive through lanes, patio areas, landscaped areas, and surface parking lots. The proposed CRUs occupy approximately 1.15 hectares of the 5.27-hectare site. Access to the Subject Site will be provided by three (3) entrances: two from Strandherd Drive along the northeast area of the site, and one from Systemhouse Street along the northwest area of the site.

**Figure 3** – Concept Plan presents the proposed commercial development.

### 1.3 Design Criteria and Site Constraints

As discussed previously, the Subject Site is part of the CitiGate 416 Corporate Campus development and is referred to as 'Block 3'. Design criteria and information for the overall development is provided in the approved report entitled '*Citigate 416 Corporate Campus – Detailed Servicing and Stormwater Management Report (Phase 1)*' prepared by Novatech, dated January 9, 2015.

This site servicing report conforms to the design criteria and site constraints outlined in the CitiGate Detailed Servicing and Stormwater Management Report (Novatech, 2015) regarding sanitary and storm sewer servicing, stormwater management strategies, and water distribution networks. Design criteria and site constraints for each system are presented in further detail in the corresponding sections of this site servicing and stormwater management report.

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4175 STRANDHERD DRIVE

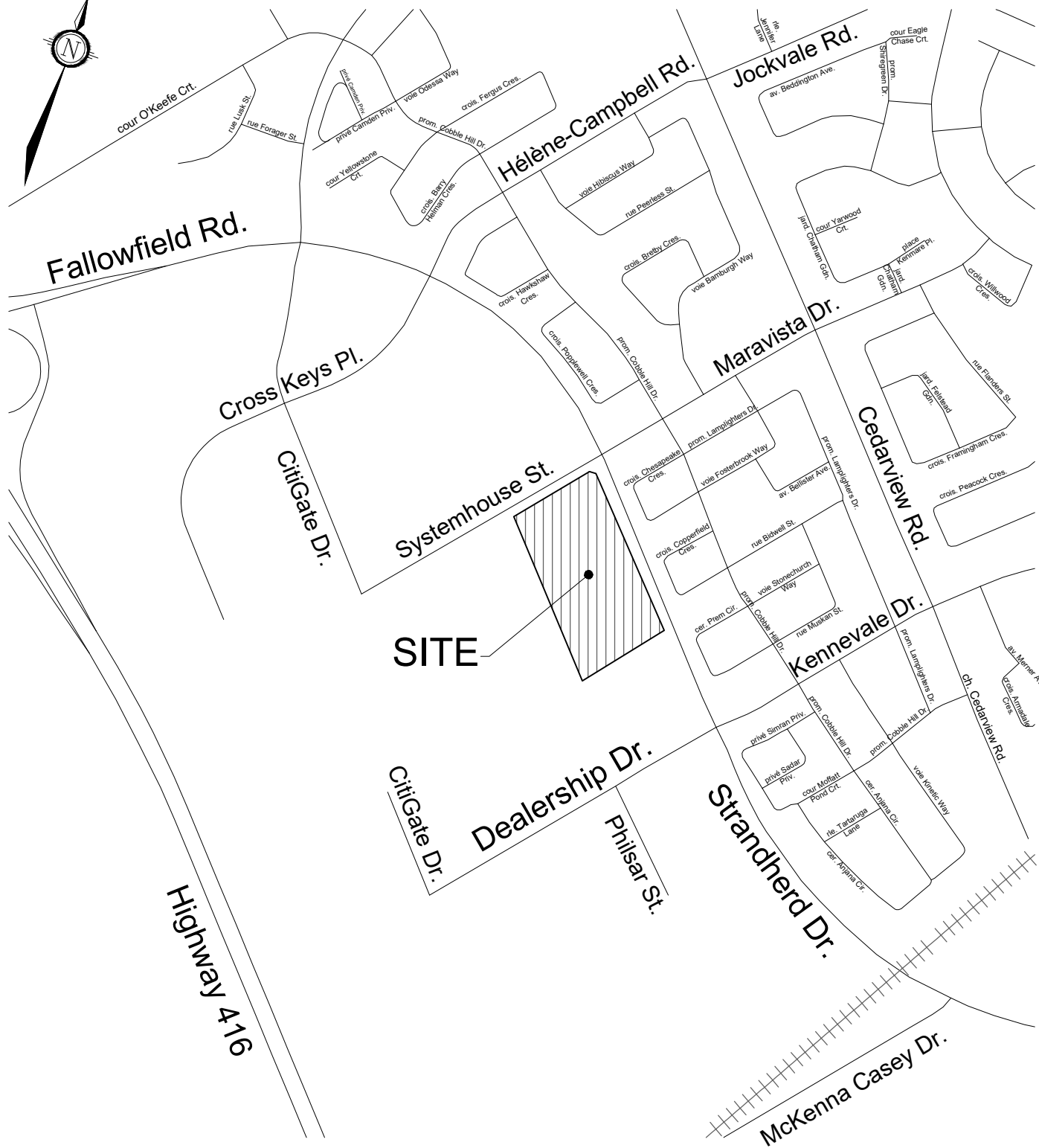
EXISTING CONDITIONS  
 PLAN



DATE FEB 2026

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FIGURE FIGURE 2



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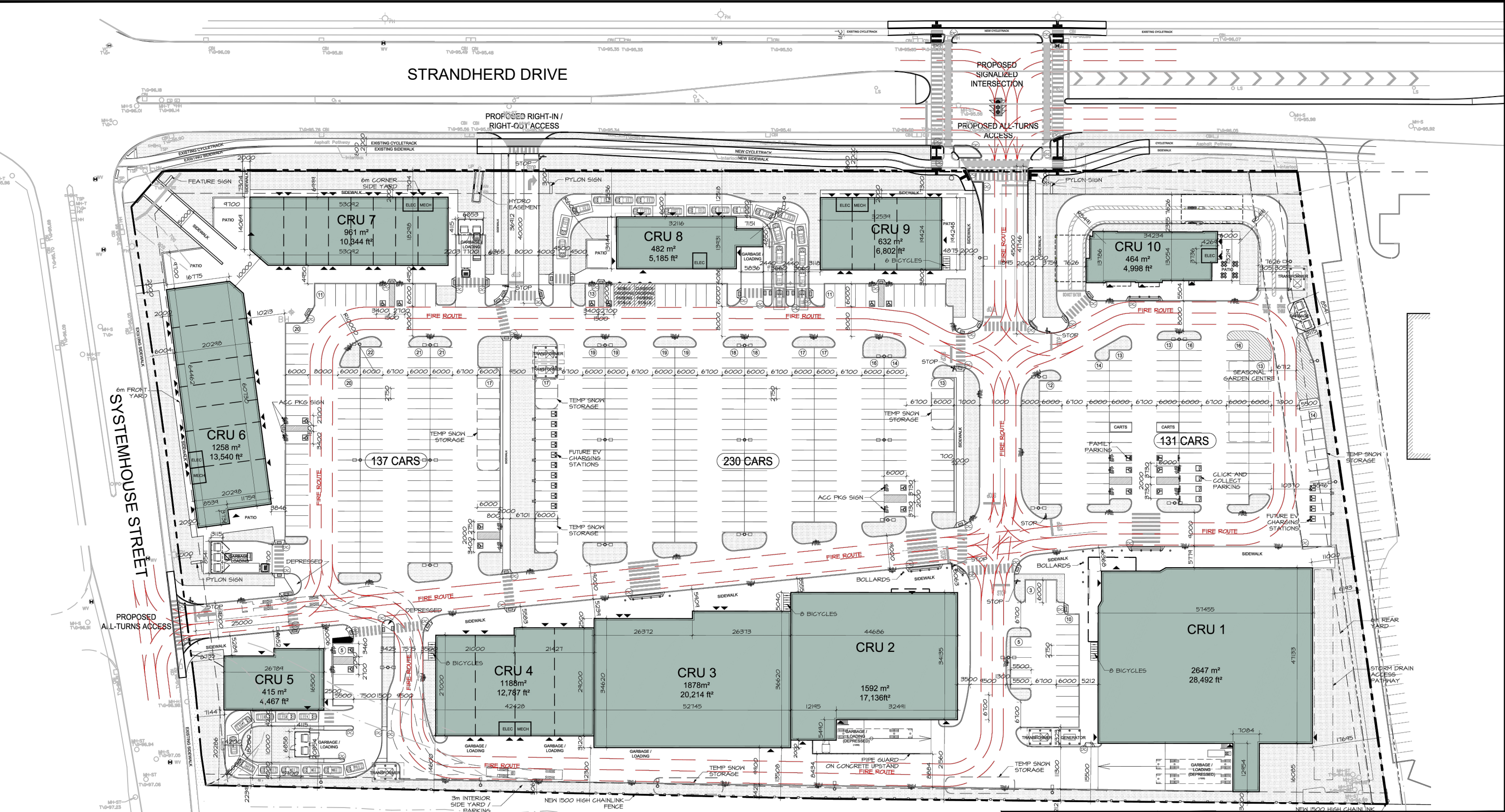
4175 STRANDHERD DRIVE

KEY PLAN

SCALE NOT TO SCALE

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4175 STRANDHERD DRIVE

SITE PLAN

SCALE 1 : 1000

DATE FEB 2026 JOB 125050 FIGURE 3

## 1.4 Geotechnical Investigation

The report titled 'Geotechnical Investigation, Proposed Commercial Development, 4175 Strandherd Drive, Ottawa, ON, REPORT PG7725-1' prepared by Paterson Group dated November 24, 2025, provides geotechnical recommendations for the proposed development. A summary of the investigation's findings are as follows:

- The ground surface across the site is relatively flat, sloping gently from north to south between approximate geodetic elevations of 95.5 to 94.5m.
- Generally, the subsurface profile at the Subject Site consists of a layer of topsoil underlain by a layer of very stiff brown silty clay, followed by a layer of firm to stiff grey silty clay, further underlain by glacial till deposit, and ultimately by the underlying bedrock formation.
- This site consists of a topsoil layer ranging in thickness between 200 to 350mm. The topsoil layer was noted to consist of a blend of brown silty clay with silty sand. Traces of crushed stone were noted within the topsoil layer at several borehole locations throughout the Subject Site.
- Bedrock information was provided based on available geological mapping of the site's location. The bedrock consists of dolostone and sandstone of the March Formation with a drift thickness ranging between 5 to 15m.
- Long-term groundwater levels are estimated to be at depths of 1.24m to 5.29m below existing grade.
- It is anticipated a fill layer will be encountered along the eastern property parcel boundary and at the northwestern portion of the Subject Site at the founding depth of the proposed CRU 7, 8, 9, and CRU 10 buildings. Where fill is encountered, provided the in-situ fill is considered to be of relatively workable soils (i.e., compactable using sheepsfoot and/or smooth-drum rollers), consideration could be given to sub-excavating 400 mm below the design founding depth of the proposed structures foundations, proof-rolling (i.e., re-compacting) and reinstating with engineered fill (OPSS Granular A and/or OPSS Granular B Type II crushed stone) as a capping layer for the bearing surface. All approved fill material should be placed in maximum 300 mm loose lifts under dry conditions and in above freezing temperatures. All sub-excavation and proof-rolling works should be reviewed and approved by Paterson field personnel.
- Due to the presence of a silty clay deposit on the Subject Site, a permissible grade raise restriction is recommended in the immediate area of settlement sensitive structures. The current permissible grade raise recommendations are presented on Drawing PG7725-2 Permissible Grade Raise Plan in Appendix 2 of the Geotechnical Investigation report provided by Paterson Group.
- The proposed grading conditions within a portion of the site are above Paterson's permissible grade raise recommendations. Therefore, lightweight fill (LWF) will be required for the proposed buildings and areas surrounding the building footprints where the permissible grade raise restrictions have been exceeded.
  - The LWF within the building footprints should consist of EPS 22 (expanded polystyrene) geofam blocks.
  - The LWF beyond building footprints should consist of EPS Type 19 and Type 12 geofam blocks throughout hardscaped and landscaped areas, respectively.
  - The placement of all lightweight fill should be reviewed at the time of placement by Paterson personnel.

## 1.5 Environmental Site Assessment

The report titled “Phase I Environmental Site Assessment Update – 4175 Strandherd Drive, Ottawa ON” prepared by Paterson Group, dated March 21, 2024 updates the original Phase I ESA entitled “Phase I Environmental Site Assessment, Vacant Land – Strandherd Drive at Highway 416, Ottawa, Ontario,” prepared by Paterson, dated June 24, 2015. The report summarizes the updated Phase I ESA findings for the proposed development. A summary of the ESA’s findings is as follows:

- A review of more recent environmental records, in conjunction with a visual inspection of the property, indicated that no physical changes have been made to the Phase I Property since the time of the previous 2015 Phase I ESA.
- The initially assessed lands had been previously utilized for agricultural purposes, and no evidence of any alternative uses, or formal development of lands were identified.
- Following a visual inspection, no environmental concerns were noted regarding the subject lands.
- Paterson completed various Phase 1 ESA’s within the area of the subject lands. A review of those reports did not identify any environmental risks to the subject lands.
- Based on Paterson’s finding of their environmental assessment, it is their opinion that a Phase II – Environmental Site Assessment is not required for the Subject Site.

## 1.6 Consultations and Approvals

The proposed site plan was presented at a pre-consultation meeting with the City of Ottawa on July 14, 2025. Notes from the meeting were received and incorporated into the site plan submission.

As part of the site plan approval process, the Rideau Valley Conservation Authority (RVCA) will be included in the circulation by the City of Ottawa for review and comments. Clearance from the RVCA will be required as part of the site plan approval process.

As determined in the pre-consultation meeting with the City of Ottawa, an Environmental Compliance Approval (ECA) provided by the Ministry of the Environment, Conservation and Parks (MECP) will not be required for the Subject Site.

## 1.7 Background Reports

This report provides information on the considerations and approach by which Novatech has designed and evaluated the proposed servicing and stormwater management strategies. This report should be read in conjunction with the following associated reports:

- CitiGate 416 Corporate Campus Detailed Servicing and Stormwater Management Report (Phase 1), prepared by Novatech, dated January 9, 2015.
- Phase 1 – Environmental Site Assessment Update, 4175 Strandherd Drive, Ottawa, ON, Report PE6464-LET.0, prepared by Paterson Group, dated March 21, 2024.
- Geotechnical Investigation, Proposed Commercial Development, 4175 Strandherd Drive, Ottawa, ON REPORT PG7725-1, prepared by Paterson Group, dated November 24, 2025.

## 2.0 WATER SERVICING

### 2.1 Introduction

The municipal watermain network for the general area surrounding the proposed development was designed as part of the CitiGate 416 Corporate Campus Detailed Servicing and Stormwater Management Report (Novatech, 2015). The water distribution systems along Systemhouse Street and Strandherd Drive are currently supplied by existing 250mm and 400 mm dia. watermains, respectively.

### 2.2 Proposed Watermain System

Water servicing for the proposed development includes on-site watermain installation. Along the northwest section of the site, a proposed 200 mm diameter watermain will connect to the existing 250 mm diameter watermain on Systemhouse Street. Along the northeast section, the proposed 200 mm diameter watermain will connect to the existing 200 mm diameter water service stub, which ultimately connects to the existing 400 mm diameter watermain on Strandherd Drive

Each of the proposed Commercial Retail Units (CRUs) will be serviced by the proposed on-site watermain network.

Refer to **Figure 4** – Watermain Network Plan for more details.

There are six (6) proposed on-site fire hydrants to service the Subject Site. Additionally, there are three (3) existing hydrants east of the Subject Site on Strandherd Drive, and three (3) existing hydrants north of the Subject Site on Systemhouse Street. The location and details of the proposed hydrants are illustrated on the General Plan of Servies drawings (**125050-GP1 & -GP2**), located in **Appendix E**.

The combination of the proposed and existing hydrants can provide adequate water supply for fire suppression based on 75m and 150m radius from each hydrant, as shown in **Figure 5** – Hydrant Coverage Plan. Fire suppression for all proposed CRUs will be provided by sprinkler systems; each building will be supplied with fire department (siamese) connections.

### 2.3 Proposed Domestic Water Demands

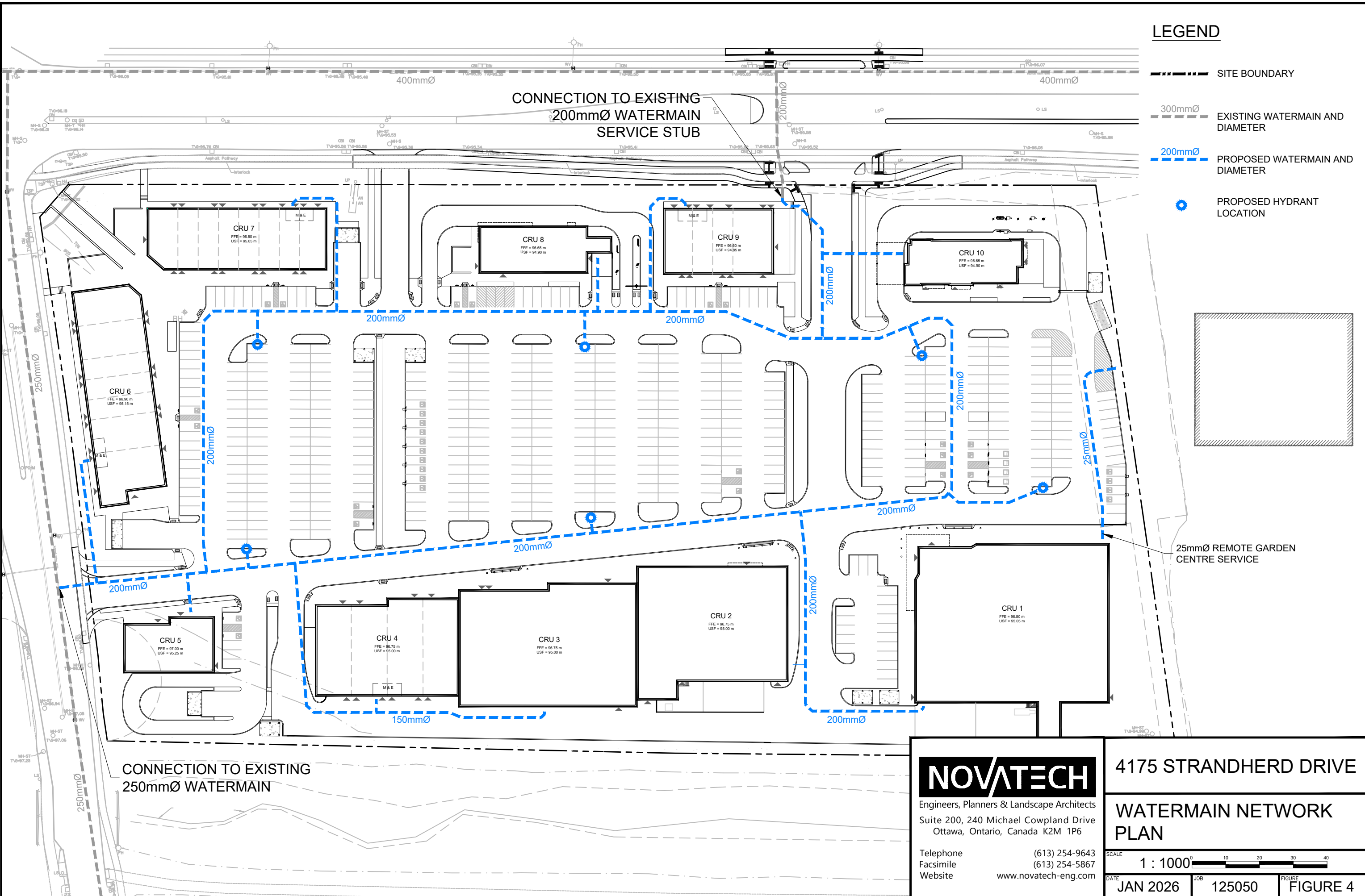
Design criteria outlined in the *City of Ottawa Water Distribution Design Guidelines* (2025), and the *Ministry of Environment (MOE) Design Guidelines for Drinking-Water Systems* (2023) were used to determine the theoretical water demands for the proposed development.

The theoretical water demand was determined based on the site's proposed commercial use. The calculation was completed using the criteria outlined in Table 3-2 of the MOE Design Guidelines for Drinking-Water Systems (2023), which specifies a commercial average daily water demand for shopping centres of 5.0 L/m<sup>2</sup>/day.

In accordance with the City of Ottawa's recommendations, the Fire Underwriters Survey (FUS) method was used to determine the required fire flow demands for the Subject Site. The analysis identified a maximum fire flow demand of 133 L/s at CRU 1, as presented in Table 2.1. The hydraulic analysis for the proposed watermain distribution system was completed using the maximum fire flow rate of 133 L/s.

The domestic water demands and fire flow for each commercial retail unit of the proposed development are summarized in **Table 2.1** below.

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- LEGEND**
- SITE BOUNDARY
  - 300mmØ EXISTING WATERMAIN AND DIAMETER
  - 200mmØ PROPOSED WATERMAIN AND DIAMETER
  - PROPOSED HYDRANT LOCATION

CONNECTION TO EXISTING 250mmØ WATERMAIN

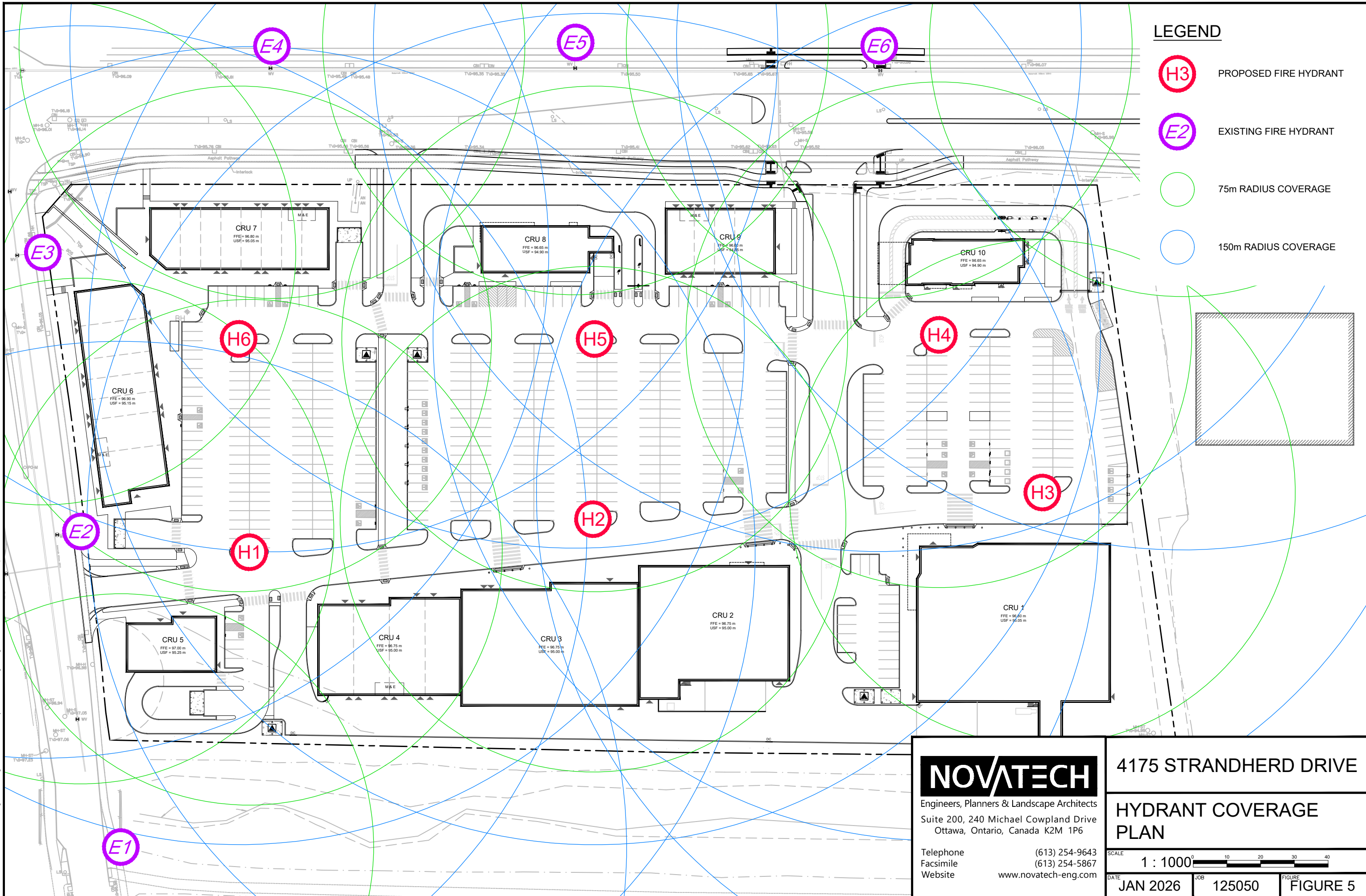
CONNECTION TO EXISTING 200mmØ WATERMAIN SERVICE STUB

25mmØ REMOTE GARDEN CENTRE SERVICE

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**4175 STRANDHERD DRIVE**  
**WATERMAIN NETWORK PLAN**  
 SCALE 1 : 1000   
 DATE JAN 2026 JOB 125050 FIGURE FIGURE 4

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**Table 2.1: Domestic Water Demand Summary**

Building ID	Building Area (m <sup>2</sup> )	Ave. Daily Demand (L/s)	Max. Daily Demand (L/s)	Peak Hour Demand (L/s)	Fire flow (L/s)
CRU 1	2,640	0.15	0.23	0.41	133
CRU 2	1,580	0.09	0.14	0.25	83
CRU 3	1,880	0.11	0.16	0.29	67
CRU 4	1,130	0.07	0.10	0.18	33
CRU 5	490	0.04	0.04	0.08	33
CRU 6	1,260	0.07	0.11	0.20	67
CRU 7	960	0.06	0.08	0.15	33
CRU 8	480	0.03	0.04	0.08	33
CRU 9	630	0.04	0.05	0.10	33
CRU 10	450	0.03	0.04	0.07	33
<b>Total Demands</b>	<b>11,500</b>	<b>0.67</b>	<b>1.00</b>	<b>1.80</b>	<b>133 (Max)</b>

## 2.4 Boundary Conditions and Hydraulic Analysis

The boundary conditions provided by the City of Ottawa correspond to the east connection to the existing 400mm dia. watermain on Strandherd Drive and the north connection to the existing 250mm dia. watermain on Systemhouse Street. These boundary conditions were provided based on domestic water demands provided to the City of Ottawa in request for boundary conditions. The municipal boundary condition data provided by the City of Ottawa, and the boundary request information is included in **Appendix B**.

The following design criteria were taken from Section 4.2.2 – ‘Watermain Pressure and Demand Objectives’ of the City of Ottawa Design Guidelines for Water Distribution:

- Normal operating pressures are to range between 345 kPa (50 psi) and 552 kPa (80 psi) under Max Day demands.
- Minimum system pressures are to be greater than 276 kPa (40 psi) under Peak Hour demands.
- Minimum system pressures are to be greater than 140 kPa (20 psi) under Max Day + Fire flow demands.

The hydraulic model EPANET was used to analyze the performance of the proposed watermain configuration for three (3) theoretical conditions:

- Maximum HGL
- Peak Hour
- Maximum Day + Fire Flow Demand (133 L/s)

A schematic of the hydraulic model is provided in **Appendix B**, presenting the layout of the proposed watermain network, along with the pipe and node numbering used in the analysis. The model was developed using the site’s required water demands and the hydraulic boundary conditions provided by the City of Ottawa.

The results confirm that the system meets the required pressure criteria under each specified design conditions. Additional information, including the hydraulic model schematic and detailed output results are provided in **Appendix B**.

The required pressure criteria and hydraulic model results are summarized in **Table 2.2**.

**Table 2.2: Hydraulic Model Summary**

Operating Conditions	Demand (L/s)	Fire Flow (L/s)	Min. / Max. Allowable Pressure (kPa/psi)	Min. / Max. Pressure Results (kPa/psi)
High Pressure (Max HGL)	0.67	N/A	552/80 (Max)	550.7 / 79.9 (Max)
Peak Hour	1.00	N/A	276/40 (Min)	495.6 / 71.9 (Min)
Max Daily + Fire Flow Demand (CRU 1)	1.80	133	140/20 (Min)	277.9 / 40.3 (Min)

The proposed water distribution system was checked for high pressures during average daily demand using the hydraulic boundary conditions provided by the City of Ottawa. The model indicated that pressures above 550 kPa (80 psi) do not exist within the site. Therefore, pressure reducing valves will not be required for any building.

It should be noted that the proposed tenants for CRU 1 and CRU 2 require a minimum sprinkler system pressure of 50 psi, in accordance with the building servicing requirements. The hydraulic analysis confirmed that the minimum sprinkler system pressure requirement is satisfied for both CRU 1 and CRU 2 under the maximum demand plus fire flow condition, as shown in the hydraulic analysis results provided in **Appendix B**.

The model indicates that the existing municipal watermain within Strandherd Drive and Systemhouse Street along with the on-site watermain will provide adequate fire flows and system pressures to service the Subject Site under each operating condition.

### 3.0 SANITARY SERVICING

#### 3.1 Introduction

The sanitary sewer system for the general area surrounding the proposed development was designed as part of the CitiGate 416 Corporate Campus development. Sanitary flows from the proposed development will discharge to the existing 375mm dia. sanitary sewer within Systemhouse Street, which conveys flows downstream to the 525mm dia. trunk sewer within Strandherd Drive, and ultimately outlets to the 750mm dia. South Nepean Collector (SNC) sanitary trunk sewer.

The CitiGate Detailed Servicing and Stormwater Management Report (Novatech, 2015), established allowable sanitary discharge rates for the Subject Site, referred to as 'Block 3'. The Sanitary Drainage Area Plan (109203-CG-SAN1) and associated sanitary sewer design sheets from the governing CitiGate Detailed Servicing and Stormwater Management Report (Novatech, 2015) are provided in **Appendix C**.

#### 3.2 Proposed Sanitary Sewer System

Each Commercial Retail Unit (CRU) within the proposed development will be serviced by a variety of 200mm and 250mm dia. gravity sewers. Sanitary flows from the Subject Site will discharge to the proposed sanitary maintenance hole (SANMH 101), connecting to the existing 375mm dia. sanitary sewer within Systemhouse Street. Sanitary flows are then conveyed downstream to the 525 mm dia. sanitary sewer within Strandherd Drive.

Refer to the General Plan of Services (**125050-GP1 & -GP2**) located in **Appendix E** for details.

The sanitary flows from the proposed development were accounted for in the original design of the South Nepean Collector (SNC) sanitary trunk sewer; therefore, the existing sanitary sewer system is expected to have sufficient capacity to service the proposed development. It should be noted that the SNC was sized to accommodate the overall CitiGate 416 Corporate Campus development.

### 3.2.1 Proposed Sanitary Peak Flow

#### Design Criteria

The total theoretical sanitary peak flow from the proposed development is calculated based on the following design criteria outlined in Section 4 of the *City of Ottawa Sewer Design Guidelines (2025)*, *Ministry of Environment (MOE) Design Guidelines for Sewage Works (2024)*, and Section 8 of the *Ontario Building Code (2024)*:

- Total Site Area = 5.27 ha
- Commercial Retail Avg Flow = 5.0 L/m<sup>2</sup>/day (MOE: Table 5-3)
- Restaurant Avg. Flow = 125 L/d/seat (City of Ottawa: Appendix 4-A)  
= 75 L/d/employee (City of Ottawa: Appendix 4-A)
- Restaurant Seats = 1 seat/4m<sup>2</sup> of restaurant floor area
- Restaurant Employees = 1 employee/20m<sup>2</sup> of restaurant floor area
- Commercial Peaking Factor = 1.5
- Infiltration Rate = 0.33 L/s/ha
- Minimum Velocity = 0.6 m/s
- Manning's n = 0.013

#### Proposed Sanitary Flows

The proposed sanitary peak flows from the Subject Site are presented in **Table 3.1** below.

**Table 3.1: Proposed Sanitary Peak Flow Summary**

Sanitary Flow Contribution	Commercial Retail Area (m <sup>2</sup> )	Restaurant Area (m <sup>2</sup> )	Sanitary Peak Flows (L/s)
CRU 1	2,640	-	0.23
CRU 2	1,580	-	0.14
CRU 3	1,880	-	0.16
CRU 4	1,130	-	0.10
CRU 5	-	415	0.25
CRU 6	660	600	0.42
CRU 7	460	500	0.34
CRU 8	-	480	0.29
CRU 9	-	630	0.38
CRU 10	-	460	0.28
Commercial Retail Flows	0.84 ha		0.72
Restaurant Flows	0.31 ha		1.88
Infiltration Flow	5.27 ha		1.74
<b>Total Sanitary Peak Flow</b>			<b>4.34</b>

As summarized in Table 3.1, the proposed development is expected to generate a total sanitary peak flow of **4.34 L/s**. These flows will ultimately discharge to the proposed sanitary maintenance hole (SANMH 101) within Systemhouse Street.

Refer to **Appendix C** for the sanitary sewer design sheet for detailed calculations, and the corresponding Sanitary Drainage Area Plan (**125050-SAN**) located in **Appendix E**.

### 3.3 CitiGate Sanitary Flow Allotment

The CitiGate Detailed Servicing and Stormwater Management Report (Novatech, 2015) established sanitary peak flow allotments for future development blocks within the overall CitiGate 416 Corporate Campus lands. The Sanitary Drainage Area Plan (109203-CG-SAN1) and associated sanitary sewer design sheets provide sanitary allotment for the Subject Site in reference to 'Block 3'.

The proposed sanitary peak flows in comparison to the CitiGate 'Block 3' allowable sanitary peak flows are presented in **Table 3.2** below.

**Table 3.2: Allowable and Proposed Peak Flow Summary**

Report ID	Sanitary Outlet	Site	Drainage Area	Sanitary Design Flow
*CitiGate 416 Corporate Campus Allowable Sanitary Flow	Systemhouse St. Sanitary Sewer	Block 3	5.27 ha	6.06 L/s
4175 Strandherd Drive Proposed Sanitary Flow	Proposed SANMH 101	Subject Site	5.27 ha	4.34 L/s

\*Based on calculations from Sanitary Sewer Design Sheet located in *CitiGate 416 Corporate Campus – Detailed Servicing and Stormwater Management Report* (Novatech, 2015)

The total proposed sanitary flows from the Subject Site are 4.34 L/s, which represents a 28% decrease in sanitary flows compared to the allowable sanitary flows for CitiGate 416 Corporate Campus 'Block 3' (6.06 L/s). This indicates there will be adequate capacity in the downstream sanitary sewer systems to accommodate the proposed commercial development.

## 4.0 STORM SERVICING AND STORMWATER MANAGEMENT

The post-development storm sewer and stormwater management system has been designed in accordance with the *City of Ottawa Sewer Design Guidelines (2025)* in addition to criteria included in Schedule C of the building lease. The design will adhere to previously established release rates for the area.

### 4.1 Background Information

The subject site has a drainage area of 5.27 hectares. The site is bound by Systemhouse Street to the North, Strandherd Drive to the East, the O'Keefe Municipal Drain to the West and CitiGate 'Block 4' to the South. CitiGate 'Block 3' is a phase of the CitiGate 416 Corporate Campus. Refer to the CitiGate Detailed Servicing and Stormwater Management Report (Novatech, 2015) for further information on the overall development.

### 4.2 Stormwater Management Criteria

#### Allowable Release Rates

Release rates from CitiGate 'Block 3' are summarized in **Table 4.1** and were previously determined as part of CitiGate – 416 Corporate Campus Detailed Servicing and Stormwater Management Report (Novatech, 2015).

**Table 4.1: Allowable Release Rates for the O'Keefe Drain**

Design Storm	Release Rate (L/s/ha)	Allowable Release Rate (L/s)	On-Site Storage* (m <sup>3</sup> /ha)
2-Year	20	106	179
5-Year	35	186	232
10-Year	45	239	267
25-Year	64	339	310
50-Year	75	398	333
100-Year	126	668	351

\*Based on 85% imperviousness

#### 4.2.1 Existing and Proposed Storm Infrastructure

The proposed commercial development will be serviced by approximately 1580m of storm sewers ranging from 300mm to 750mm dia., in addition to an existing 864mm x 1346mm elliptical pipe that is connected to two Vortech hydrodynamic separators for water quality treatment before discharging to the O'Keefe Municipal Drain. Refer to Stormwater Management drawing (125050-SWM) for the storm layout located in **Appendix E**.

#### 4.2.2 Minor System (Storm Sewers)

Storm servicing for the Subject Site will be provided using a dual-drainage system. Runoff from frequent events will be conveyed by the proposed storm sewers (minor system), while flows from large storm events that exceed the capacity of the minor system will be stored on the surface in road sags and/or conveyed overland along defined overland flow routes (major system).

##### Storm Sewer Design Criteria

The following is storm sewer design criteria based on the City of Ottawa Sewer Design Guidelines:

- Rational Method (Q) = 2.78CIA where
  - Q = peak flow (L/s)
  - C = runoff coefficient
    - C = (0.70 \* %Imp.) + 0.20
  - I = rainfall intensity for a 2-year return period (mm/hr)
    - $I_{2yr} = 732.951 / [(Tc(\text{min}) + 6.199)]^{0.810}$
  - A = site area (ha)
- Minimum Pipe Size = 250 mm
- Minimum / Maximum Full Flow Velocity = 0.8 m/s / 3.0 m/s

The on-site storm sewers will be sized to convey the peak flows corresponding to a 2-year return period storm event throughout the majority of the site. Some of the site will be sized to convey a 5-year return period as per Schedule C of the building lease agreement. Refer to the storm sewer design sheets provided in **Appendix D**.

##### Inlet Control Devices

Inlet control devices (ICDs) will be used to restrict inflows to the minor system. ICDs will be sized to ensure no surface ponding occurs during the 2-year or 5-year storm event (depending on proximity to CRU1) and to keep peak flows – in combination with the major system – below the allowable release rates as summarized in **Table 4.1**. The uncontrolled flows directed overland have been accounted for as part of the major system design and are included in the overall release rates.

### Hydraulic Grade Line

The storm sewers will be designed to ensure the hydraulic grade line (HGL) elevation for a 100-year storm event will provide a minimum 0.30 m clearance from the underside of footing (USF) where the buildings are directly connected to the storm sewers.

#### **4.2.3 Major System (Overland Flow)**

Under post-development conditions, the majority of the site will be graded to provide an overland flow path to convey the major system runoff towards Standherd Drive. The uncontrolled flows will be graded to direct overland runoff to the O'Keefe Municipal drain, the Systemhouse Street ROW or the Strandherd Drive ROW. Refer to the Grading Plans (**125050-GR1 & GR2**).

#### Major System (Overland Flow) Criteria

Runoff from storms that exceed the minor system capacity is to be stored or conveyed overland within the right-of-way and/or defined drainage easements. The following overland flow criteria from the Ottawa Sewer Design Guidelines will be applied to the design:

- Provide on-site storage for storm runoff which exceeds the allowable release rates listed in **Table 4.1** for all storms up to and including the 100-year event.
- No surface ponding for storms up to and including the 2-year event.
- Ensure that major system flows have a maximum dynamic depth (static ponding + dynamic flow) of 0.35 m in roadways/parking lots or 0.60 m in loading bays during the 100-year event.
- Ensure the product of velocity x depth does not exceed 0.60 during the 100-year event.
- Limit ponding to 0.15 m for all rooftop storage areas.

In addition to the criterion summarized above, Schedule C of the building lease outlines additional criteria in certain areas of the subject site. Best efforts will be made to meet the following:

- No surface ponding for storms up to and including the 5-year event.
- Drawdown times of no more than 30 minutes in the applicable parking lot areas during the 25-year event.
- Ensure maximum ponding depths of no more than 0.30 m during the 100-year event.
- A minimum orifice ICD size of 100mm dia. is to be used.
- Recessed loading dock ramps shall not provide any above ground storage.

The major system is to be evaluated using a hydraulic model to ensure that the maximum total flow depth (static + dynamic) will be restricted to 0.35 m (0.30 m where applicable and possible) during the 100-year storm event; and water levels will not touch the building envelope / lowest opening during the Stress Test event (100-year +20%).

### **4.3 Proposed Stormwater Management Strategy**

#### Stormwater Quality Control

Existing Vortechs units immediately upstream of the storm sewer outlet to the O'Keefe Municipal Drain have been designed to provide an Enhanced level of water quality control for the contributing drainage area, including the Subject Site. Refer to the CitiGate Detailed Servicing and Stormwater Management Report (Novatech, 2015) for further information on the existing Vortechs units.

### Stormwater Quantity Control

Surface and underground stormwater storage will be provided within the road sags, parking areas, and underground storage chambers. Minimum major system stormwater storage requirements outlined in the CitiGate Detailed Servicing and Stormwater Management Report (Novatech, 2015), have been provided and are summarized in **Table 4.1**.

The storm outlet for the proposed commercial development was designed to accommodate post-development runoff from the site based on a contributing drainage area of 5.30 ha and a runoff coefficient of  $C=0.80$ . The proposed development has a total drainage area of 5.27 ha and a runoff coefficient of  $C=0.80$ . Therefore, there will be no increase in runoff volume to the O'Keefe Drain from the Subject Site above what was assumed in the overall CitiGate SWM report.

#### **4.3.1 Stormwater Modelling**

The PCSWMM model has been developed to account for both minor and major system flows from the development and ensure no adverse impacts on the municipal drain. The results of the analysis were used to:

- Determine the total major and minor system runoff from the site;
- Size the ICDs for each inlet to the storm sewer system;
- Calculate the storm sewer hydraulic grade line for the 100-year storm event;
- Evaluate overland flow depths and ponding volumes during the 100-year event; and
- Ensure no ponding occurs during the 2-year storm event or 5-year storm event (where applicable).

The PCSWMM model schematics and output files are provided in **Appendix D**. The packaged PCSWMM modelling files are provided electronically as part of the submission package.

#### **4.3.2 PCSWMM Model Parameters**

##### Design Storms

The model includes the following design storms based on the City of Ottawa IDF data presented in the *City of Ottawa Sewer Design Guidelines (2025)*.

- 6-hour Chicago Storm Distribution
- 24-hour SCS Storm Distribution

##### PCSWMM Model Schematics, Output Data and Modeling Files

PCSWMM model schematics and output data for the 100-year 6-hour Chicago and 100-year 24-hour SCS storm distributions are provided in **Appendix D**. The PCSWMM modeling files are provided electronically as part of the submission package.

##### Subcatchment Areas / Runoff Coefficients

- For modeling purposes, the site has been divided into subcatchments based on the drainage areas tributary to each inlet of the proposed storm sewer design. The catchment areas are shown on the Storm Drainage Area Plans (**125050-STM**). Refer to the Grading Plans (**125050-GR1 & GR2**) and the General Plan of Services (**125050-GP1 & GP2**) for the location of the high points and low points and the storm sewer layout, respectively.
- Weighted runoff coefficients and percent impervious values are provided in **Appendix D**. As per the *City of Ottawa Sewer Design Guidelines (2025)*, the percent impervious values are based on the following equation:

$$\% \text{ Imp.} = (C - 0.20) / 0.7$$

The hydrologic parameters for each subcatchment were developed based on the Grading Plans and the Storm Drainage Area Plans. A summary of the drainage area parameters is provided in **Table 4.2**.

**Table 4.2: Subcatchment Parameters**

Area ID	Area (ha)	Runoff Coefficient (C)	Percent Imperv. (%)	Flow Length (m)	Width (m)	Slope (%)
A0-1	0.056	0.36	23%	6	101	15.0
A0-2	0.359	0.49	41%	29	122	2.5
A0-3	0.221	0.20	0%	35	64	15.0
A1-1	0.052	0.56	51%	13	41	1.25
A1-2	0.012	0.90	100%	7	17	0.5
A1-3	0.012	0.90	100%	6	19	0.5
A1-4	0.018	0.90	100%	11	16	1.0
A1-5	0.046	0.90	100%	26	17	2.0
A1-6	0.026	0.20	0%	8	33	3.0
A2-1	0.052	0.88	97%	21	24	1.5
A2-10	0.03	0.71	73%	12	26	1.5
A2-11	0.017	0.90	100%	14	12	1.0
A2-12	0.028	0.74	77%	13	21	1.0
A2-13	0.154	0.81	87%	25	61	1.5
A2-14	0.174	0.87	96%	27	66	1.75
A2-15	0.18	0.87	96%	23	79	1.5
A2-16	0.194	0.85	93%	27	72	1.5
A2-17	0.231	0.85	93%	24	98	1.5
A2-18	0.029	0.90	100%	10	30	1.5
A2-19.1	0.075	0.90	100%	27	28	2.5
A2-19.2	0.03	0.90	100%	27	11	2.5
A2-19.3	0.027	0.90	100%	13	20	2.5
A2-19.4	0.042	0.90	100%	20	21	2.5
A2-2	0.037	0.70	71%	12	30	1.5
A2-20	0.157	0.86	94%	20	79	1.0
A2-21	0.018	0.75	79%	6	31	1.0
A2-22	0.019	0.85	93%	9	22	1.5
A2-23	0.11	0.87	96%	22	50	1.5
A2-24	0.153	0.75	79%	33	46	1.5
A2-25	0.111	0.87	96%	23	48	1.5
A2-26	0.314	0.88	97%	41	76	1.5
A2-27	0.018	0.76	80%	9	21	1.0
A2-28	0.024	0.79	84%	10	23	1.5
A2-29	0.064	0.75	79%	10	65	2.0
A2-3	0.102	0.64	63%	31	33	1.5
A2-4	0.029	0.88	97%	11	28	1.5
A2-5	0.271	0.86	94%	44	61	1.5
A2-6	0.231	0.88	97%	31	75	1.5
A2-7	0.121	0.81	87%	24	50	1.5
A2-8	0.112	0.80	86%	29	39	1.5
A2-9	0.152	0.81	87%	24	64	1.5
R-1	0.278	0.90	100%	10	278	1.5
R-10	0.045	0.90	100%	10	45	1.5

Area ID	Area (ha)	Runoff Coefficient (C)	Percent Imperv. (%)	Flow Length (m)	Width (m)	Slope (%)
R-2	0.159	0.90	100%	10	159	1.5
R-3	0.188	0.90	100%	10	188	1.5
R-4	0.119	0.90	100%	10	119	1.5
R-5	0.042	0.90	100%	10	42	1.5
R-6	0.126	0.90	100%	10	126	1.5
R-7	0.096	0.90	100%	10	96	1.5
R-8	0.048	0.90	100%	10	48	1.5
R-9	0.063	0.90	100%	10	63	1.5
<b>Total</b>	<b>5.27</b>	<b>0.80</b>				

### Infiltration

Infiltration losses for all catchment areas were modeled using Horton's infiltration equation, which defines the infiltration capacity of soil over the duration of a precipitation event using a decay function that ranges from an initial maximum infiltration rate to a minimum rate as the storm progresses. The default values as specified in the *City of Ottawa Sewer Design Guidelines (2025)* were used for all catchments.

Horton's Equation:  
 $f(t) = fc + (fo - fc)e^{-k(t)}$

Initial infiltration rate:  $fo = 76.2$  mm/hr  
 Final infiltration rate:  $fc = 13.2$  mm/hr  
 Decay Coefficient:  $k = 4.14$ /hr

### Depression Storage

The following default values for depression storage provided in the *City of Ottawa Sewer Design Guidelines (2025)* were used for all catchments:

Depression Storage (pervious areas): 4.67 mm  
 Depression Storage (impervious areas): 1.57 mm

### Subarea Routing

Subarea routing for all subcatchments were set to "Outlet".

### Equivalent Width

The equivalent width parameter for all subcatchments is based on the measured flow length. Flow lengths were digitized in PCSWMM as described in Section 5.4.5.6 of the *City of Ottawa Sewer Design Guidelines (2025)*.

### Inlet Control Devices

Proposed inlet control devices (ICDs) are represented in the model as outlet curves. ICD information is indicated on the General Plan of Services (**125050-GP1 & GP2**).

### Storage Curves (Surface Ponding)

The catchbasin storage curves for ponding in the parking lots were calculated based on the Grading Plan (**125050-GR1 & GR2**). Conduits were used to model spill points between each catchbasin.

Minor System Conduits (Bend / Exit Losses)

The minor system network was created in Civil3D and imported into PCSWMM. The following exit losses have been inputted into the model. They represent the loss coefficient based on the bend angle, as per the Appendix 6-B in the *City of Ottawa Sewer Design Guidelines (2025)*.

<u>Bend Angle</u>	<u>Loss Coefficient</u>
0	0.00
15	0.09
30	0.21
45	0.39
60	0.64
75	0.96
90	1.32

Downstream Boundary Condition (Minor System)

The designated minor system outlet for Subject Site is the O’Keefe Municipal Drain to the west of the subject site.

The boundary conditions for the storm outlet are summarized in **Table 4.3**. They are based on Novatech’s HEC-RAS model for the O’Keefe drain from the CitiGate – 416 Corporate Campus project. The boundary condition correspondence has been provided in **Appendix D**.

**Table 4.3: O’Keefe Drain Boundary Conditions**

Storm Event	Boundary Condition HGL (m)
25 mm	92.95
2 Year	93.23
5 Year	93.42
10 Year	93.54
25 Year	93.69
50 Year	93.78
100 Year	93.88

#### 4.4 Minor System

Runoff from the site will be captured by the proposed on-site storm sewer network and attenuated by ICDs. Storage will be provided with a combination of underground storage and surface storage.

Inflows to the storm sewer were modeled based on characteristics of each inlet. All the catchbasins in the roadways and parking areas are located at low points. Inflows to the storm sewer are based on the ICD specified for the inlet and the maximum depth of ponding. ICDs have been sized to limit the outlet peak flows in conjunction with overland flow to the allowable release rates as displayed in **Table 4.1**. Details are outlined as follows in **Table 4.4**. ICD information is indicated on the General Plan of Services (**125050-GP1 & GP2**).

**Table 4.4: Inlet Control Devices and Design Flows**

Structure ID	ICD Size & Inlet Rate					
	ICD Type	T/G (m)	Orifice Invert (m)	Max HGL (100-year) (m)	100-year Head on Orifice (m)	100-year Orifice Peak Flow* (L/s)
<b>2-Year Orifices</b>						
MH440	Tempest LMF Vortex 50	96.22	94.22	96.06	1.84	3.08
MH272		96.3	93.92	95.06	1.14	1.49
CBMH252		96.15	94.11	95.83	1.72	2.97
MH428	Tempest LMF Vortex 40	96.19	94.21	95.87	1.66	1.80
CBMH408		96.00	94.05	95.14	1.09	1.45
MH288		96.09	94.06	95.22	1.16	1.50
MH264		96.23	93.95	96.13	2.18	2.08
<b>5-Year Orifices</b>						
MH244	Tempest LMF Vortex 40	96.78	94.04	95.70	1.66	1.80
CBMH228		96.00	93.94	95.62	1.68	1.84
CBMH222		96.00	93.86	96.12	2.26	2.13
CBMH214		96.95	93.84	96.16	2.32	2.13
CBMH206		95.95	93.98	96.09	2.11	2.04

\*PCSWMM model results for a 6-hour Chicago storm distribution

#### 4.5 Hydraulic Grade Line (PCSWMM)

The hydraulic grade line (HGL) within the storm sewer was evaluated using the fixed boundary conditions as presented in **Table 4.3**.

The results of the analysis were used to confirm a minimum freeboard of 0.30m is provided between the 100-year hydraulic grade line (HGL) and the designed underside of footing (USF) elevations for all buildings. The HGL analysis confirms that all buildings will have at least 0.30 m of freeboard between the hydraulic gradeline and the USF elevation. The HGL elevations for the stress test event (20% greater rainfall intensity and total precipitation than the 100-year event) were also reviewed to confirm that the modeled HGL will be below the USF of the buildings. **Table 4.5** summarizes the 100-year HGL elevation at each storm manhole downstream of the buildings storm connections within the proposed development.

**Table 4.5: 100-Year Hydraulic Gradeline Elevations**

Manhole ID	Obvert Elevation	T/G Elevation	HGL Elevation <sup>1</sup>	HGL in Stress Test <sup>1</sup>	Design USF	Clearance from USF (100-Year)
	(m)	(m)	(m)	(m)	(m)	(m)
MH218	94.48	96.36	94.23	94.23	94.90	0.67
MH238	94.38	96.43	94.11	94.13	95.05	0.94
MH242	94.27	96.76	94.01	94.03	95.00	0.99
MH278	94.26	96.3	93.95	93.97	95.00	1.05
MH282	94.53	96.17	94.29	94.29	94.85	0.56
MH284	94.53	97.28	94.27	94.28	94.90	0.63
MH416	94.39	96.57	94.02	94.04	95.00	0.98
MH422	94.66	96.3	94.44	94.45	95.05	0.61
MH462	94.49	96.51	94.07	94.09	95.15	1.08
MH468	94.57	96.61	94.26	94.28	95.25	0.99

<sup>1</sup>6-hour Chicago Storm.

## 4.6 Major System

The major system was evaluated using PCSWMM to ensure that overland flow depths and velocities conform to City Standards. A summary of ponding depths at each inlet for the 2-year, 5-year, 100-year and stress test events are provided in **Appendix D**. The maximum static and dynamic ponding depths within the site are less than 0.35 m for all events and the product of depth x velocity is less than 0.60 m<sup>2</sup>/s.

**Table 4.6** displays a summary of the maximum static ponding depths, and the modelled ponding depths/elevations for the 100-year and stress test events.

**Table 4.6: Overland Flow Results**

Catchbasin ID	Rim Elev. (m)	Max. Static Ponding (Spill Depth)		100-yr Event		Stress-Test Event	
		Spill Elev. (m)	Depth (m)	HGL Elev. (m) <sup>1</sup>	Ponding Depth (m)	HGL Elev. (m) <sup>1</sup>	Ponding Depth (m)
CB202	96.35	96.63	0.28	94.04	0.00	94.05	0.00
CB210	96.28	96.32	0.04	96.09	0.00	96.21	0.00
CB238	96.28	96.32	0.04	95.62	0.00	96.18	0.00
CB250	95.52	96.50	0.98	94.47	0.00	94.48	0.00
CB256	95.50	96.10	0.60	95.83	0.33	96.34	0.84
CB260	96.45	96.65	0.20	95.83	0.00	96.34	0.00
CB406	96.26	96.40	0.14	95.22	0.00	96.13	0.00
CB424	96.36	96.45	0.09	94.44	0.00	94.45	0.00
CB458	96.28	96.45	0.17	96.06	0.00	96.30	0.02
CB460	96.35	96.43	0.08	96.06	0.00	96.30	0.00
CBMH206	95.95	96.25	0.30	96.09	0.14	96.20	0.25
CBMH208	96.20	96.32	0.12	96.09	0.00	96.21	0.01
CBMH214/ST17	95.95	96.25	0.30	96.16	0.21	96.23	0.28
CBMH222	96.00	96.22	0.22	96.12	0.12	96.22	0.22
CBMH228	96.00	96.20	0.20	95.62	0.00	96.18	0.18
CBMH230	96.00	96.20	0.20	95.62	0.00	96.18	0.18
CBMH236	96.25	96.32	0.07	95.62	0.00	96.18	0.00
CBMH246/ST18	96.30	96.43	0.13	95.70	0.00	96.26	0.00
CBMH252	96.15	96.43	0.28	95.83	0.00	96.34	0.19
CBMH254	96.30	96.50	0.20	95.83	0.00	96.34	0.04
CBMH258	96.45	96.65	0.20	95.82	0.00	96.34	0.00
CBMH268	95.95	96.15	0.20	96.13	0.18	96.20	0.25
CBMH276	95.95	96.15	0.20	95.06	0.00	96.20	0.25
CBMH292	96.05	96.27	0.22	95.22	0.00	96.13	0.08
CBMH294	96.00	96.35	0.35	95.22	0.00	96.13	0.13
CBMH402	96.25	96.40	0.15	95.22	0.00	96.13	0.00
CBMH404	96.35	96.41	0.06	95.22	0.00	96.13	0.00
CBMH408	96.00	96.35	0.35	95.14	0.00	96.16	0.16
CBMH414	96.05	96.30	0.25	95.14	0.00	96.16	0.11
CBMH430	96.05	96.30	0.25	95.87	0.00	96.23	0.18
CBMH438	96.00	96.27	0.27	95.87	0.00	96.23	0.23
CBMH444/ST2	96.05	96.25	0.20	96.06	0.01	96.30	0.25
CBMH450	96.00	96.25	0.25	96.06	0.06	96.30	0.30
CBMH454	96.30	96.43	0.13	96.06	0.00	96.30	0.00
CBMH456	96.30	96.45	0.15	96.06	0.00	96.30	0.00
CBMH470	96.45	96.60	0.15	94.49	0.00	94.51	0.00

<sup>1</sup>6-hour Chicago Storm.

The modeled ponding depths less than 0.35 m for all events up to and including the stress test, with the exception of CB256. This catchbasin is located in the loading dock of CRU 2 and ponds to a depth of 0.84 m during the stress test event, but still has clearance from the FFE of 96.75 m.

The underground and surface storage provided upstream of each ICD are represented in the model using storage nodes. Storage curves are assigned to each storage node which represent the total storage (underground and surface) at each storage location within the site. The storage curves use a depth vs. area relationship to calculate the corresponding storage volumes at a given elevation. **Table 4.7** summarizes the volume of storage provided by the Stormtech Chambers upstream of each ICD. Refer to the General Plan of Services (**125050-GP1 & GP2**) for the proposed Stormtech Chamber layout details.

**Table 4.7: Stormtech Chamber Volume Requirements**

Orifice ID	Stormtech Storage Provided (m <sup>3</sup> )	# of Chambers Required	Max. Volume Used (m <sup>3</sup> )		
			2-Year	5-Year	100-Year
O-MH440	410	186	184	245	405
O-MH428	264	120	123	159	259
O-CBMH408	285	129	127	163	262
O-MH288	313	142	151	193	313
O-MH272	142	65	64	84	139
O-MH264	110	50	71	93	110
O-CBMH252	125	57	66	84	125
O-MH244	111	50	47	62	99
O-CBMH228	202	92	80	107	184
O-CBMH222	53	24	27	34	53
O-CBMH214	185	84	93	127	185
<b>Total</b>	<b>2,200</b>	<b>1,000</b>			

The model results demonstrate that each storage area provides sufficient underground storage so that there is no surface ponding during the 2-year event (5-year where applicable). An expanded table of the ponding depths at each low point (including the stress-test event) is provided in **Appendix D**. Based on these results, the proposed storm drainage system will not experience any adverse flooding even with a 20% increase to the 100-year event.

#### 4.7 Peak Flows (PCSWMM)

**Table 4.8** provides a summary of the peak flows to the O’Keeffe Municipal Drain, Strandherd Drive ROW and the Systemhouse Street ROW for all storm events up to and including the 100-year.

**Table 4.8: Summary of Peak Flows (PCSWMM)**

Outfall	6-hour Chicago Storm Event			
	2-year	5-year	25-year	100-year
Minor - MD	89	137	145	168
Major - MD	2	18	48	75
Systemhouse St.	5	58	19	139
Strandherd Dr.	33	12	101	25
<b>Total<sup>1</sup></b>	<b>105</b>	<b>183</b>	<b>302</b>	<b>402</b>
<b>Allowable</b>	<b>106</b>	<b>186</b>	<b>339</b>	<b>668</b>
<b>Difference</b>	<b>-1</b>	<b>-3</b>	<b>-37</b>	<b>-266</b>

<sup>1</sup>Total release rate based on varying times to peak at each outfall

## 4.8 Stormwater Temperature Mitigation

The *Citigate 416 Corporate Campus Detailed Servicing and Stormwater Management Report* (Novatech, 2015) states “the O’Keefe Drain has been designated as “cool-water fish habitat” ... To ensure that the O’Keefe Drain remains a hospitable fish environment, any increase in the water temperature in the drain should be kept to a minimum”. As the stormwater outlet for the Subject Site is the O’Keefe Drain, temperature mitigation practices should be implemented for the proposed development.

Surface ponding on the asphalt is susceptible to an increase in stormwater temperature which can be minimized by storing stormwater in an underground sewer system. Temperature increases will be mitigated through the following;

- Prior to leaving the Subject Site, the 2-year and 5-year storm events are captured underground in the proposed storm sewer system with no surface ponding;
- No stormwater wet ponds are being proposed;
- During larger events, drawdown times will be minimized (<30 minutes for the 25-year event).

## 5.0 EROSION AND SEDIMENT CONTROL

Temporary erosion and sediment control measures will be implemented on-site during construction in accordance with the Best Management Practices for Erosion and Sediment Control. This includes the following temporary measures:

- Filter socks (catchbasin inserts) will be placed in existing and proposed catchbasins and catchbasin manholes, and will remain in place until vegetation has been established and construction is completed;
- Silt fencing will be placed along the surrounding construction limits;
- Mud mats will be installed at the site entrances;
- Strawbale or rock check dams will be installed in swales and ditches;
- The contractor will be required to perform regular street sweeping and cleaning as required, to suppress dust and to provide safe and clean roadways adjacent to the construction site;

Erosion and sediment control measures should be inspected daily and after every rain event to determine maintenance, repair, or replacement requirements. Sediments or granulars that enter site sewers shall be removed immediately by the contractor. These measures will be implemented prior to the commencement of construction and maintained in good order until vegetation has been established. Refer to the Erosion and Sediment Control Plan (**125050-ESC**) located in **Appendix E** for additional information.

## 6.0 CONCLUSION

The Site Servicing and Stormwater Management Report has evaluated the servicing (water, sanitary and storm servicing) and stormwater management for the Proposed Commercial Development at 4175 Strandherd Drive.

The principal findings and conclusions of this report are as follows:

- The proposed commercial retail units will be serviced by the existing municipal water and sanitary sewer systems located on Strandherd Drive, and Systemhouse Street. Stormwater servicing will be provided by existing Vortec units which outlet to the O'Keefe Drain.
- Paterson's environmental assessment concluded that a Phase II Environmental Site Assessment is not required for the Subject Site.
- Paterson's geotechnical assessment determined that some areas of the site exceed the permissible grade raise limits. Therefore, lightweight fill will be required within building footprints and adjacent areas where grade raise limits have been exceeded.
- All proposed CRU will be sprinklered and supplied with fire department (Siamese) connections. The Siamese connections will be located within 45m of a nearby fire hydrant. The proposed development includes six (6) proposed on-site fire hydrants.
- The proposed 200 mm diameter on-site watermain will require two connections to the existing municipal system: one to the servicing stub on Strandherd Drive and another to the 250 mm watermain on Systemhouse Street. These watermain connections will provide sufficient water pressure to meet specified operating condition requirements.
- The sanitary sewer design for the proposed commercial retail units complies with the allowable discharge rates established in the CitiGate 416 Corporate Campus servicing plan. All CRUs will discharge to the existing sanitary sewer on Systemhouse Street, which conveys flows to the South Nepean Collector.
- The proposed development includes various methods of controlled and uncontrolled conveyance of stormwater.
  - Storm sewers (minor system) in the parking lots for all ten (10) CRUs have been designed to convey the uncontrolled 5-year peak flow using the rational method.
  - Flows from the CRUs roofs will be attenuated by controlled flow roof drains, which discharge into the minor storm sewer system.
  - Release rates from the proposed development conform to the allowable release rates outlined in the CitiGate 416 Corporate Campus stormwater management design.
- Stormwater temperature mitigation measures will be implemented to protect the O'Keefe Drain fish environment.
- Temporary erosion and sediment control measures will be implemented on-site during construction.

## CLOSURE

The preceding report is respectfully submitted for review and approval in support of the Site Plan Application for the Proposed Commercial Development at 4175 Strandherd Drive. Please contact the undersigned should have questions or require additional information.

## NOVATECH

Prepared by:



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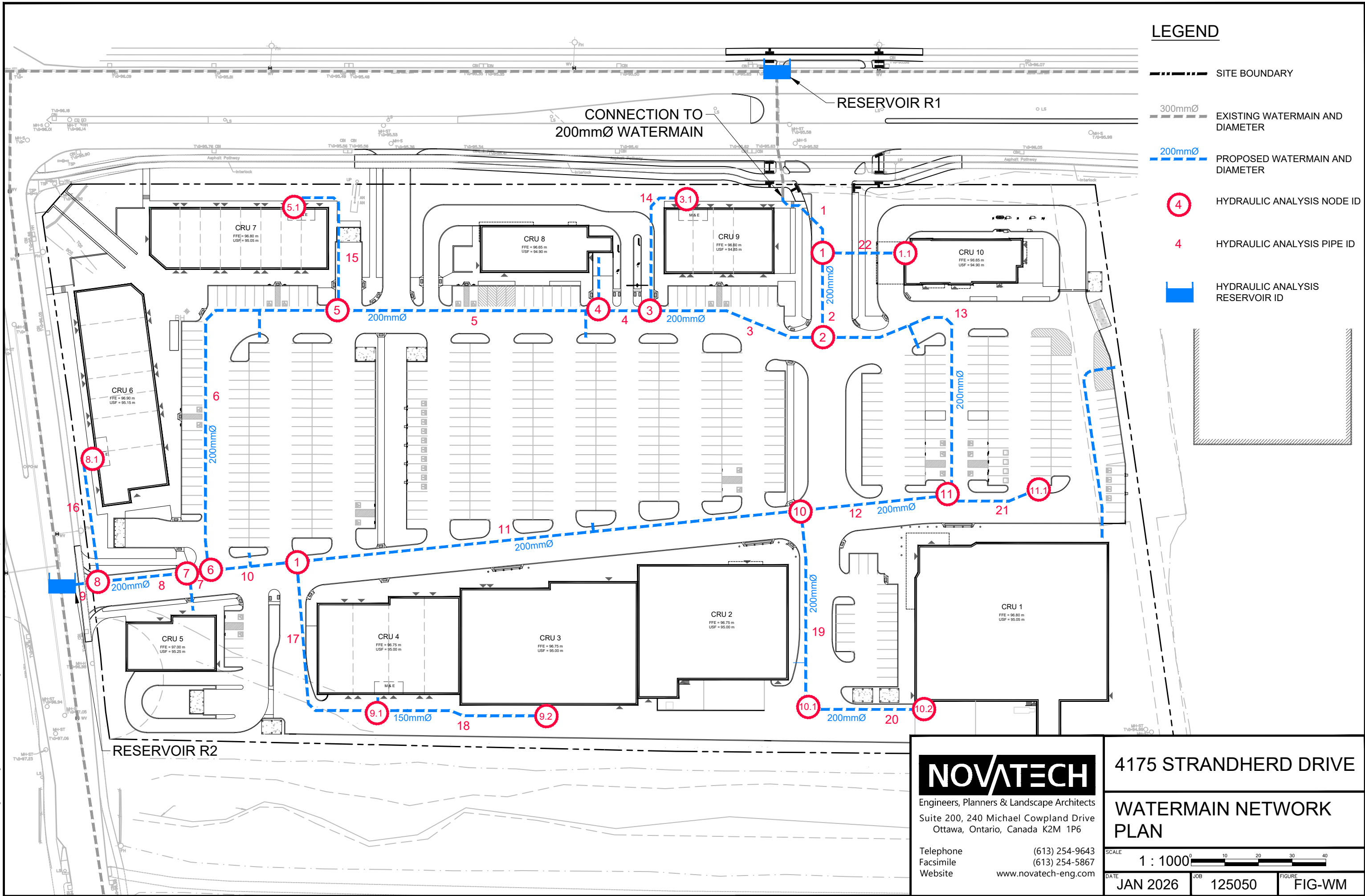


Mike Petepiece, P.Eng  
Senior Project Manager  
Water Resources Engineering

Appendix A  
CORRESPONDENCE

Appendix B  
WATER DISTRIBUTION

M:\2025\125050\CAD\Civil\Figures\Design Brief\125050-WM-FIG4.dwg, NODE NETWORK, Jan 19, 2026 - 4:30pm, bmcewen



- ### LEGEND
- SITE BOUNDARY
  - 300mmØ EXISTING WATERMAIN AND DIAMETER
  - 200mmØ PROPOSED WATERMAIN AND DIAMETER
  - 4 HYDRAULIC ANALYSIS NODE ID
  - 4 HYDRAULIC ANALYSIS PIPE ID
  - HYDRAULIC ANALYSIS RESERVOIR ID

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4175 STRANDHERD DRIVE  
**WATERMAIN NETWORK PLAN**

SCALE	1 : 1000	
DATE	JAN 2026	FIGURE
JOB	125050	FIG-WM



**Junction Report**

Node ID	Elevation m	Demand LPS	Head m	Pressure m	Pressure kPa	Pressure psi
N1	96.0	0.00	152.14	56.14	550.73	79.88
N1.1	96.4	0.03	152.14	55.74	546.81	79.31
N2	96.2	0.00	152.12	55.96	548.97	79.62
N3	96.3	0.00	152.10	55.85	547.89	79.46
N3.1	96.6	0.04	152.10	55.50	544.46	78.97
N4	96.3	0.03	152.09	55.79	547.30	79.38
N5	96.3	0.00	152.07	55.77	547.10	79.35
N5.1	96.8	0.06	152.07	55.32	542.69	78.71
N6	96.6	0.00	152.04	55.44	543.87	78.88
N7	96.7	0.03	152.03	55.38	543.28	78.80
N8	96.8	0.00	152.01	55.21	541.61	78.55
N8.1	96.9	0.07	152.01	55.16	541.12	78.48
N9	96.3	0.00	152.05	55.75	546.91	79.32
N9.1	96.6	0.07	152.05	55.45	543.96	78.90
N9.2	96.6	0.11	152.05	55.45	543.96	78.90
N10	96.5	0.00	152.08	55.58	545.24	79.08
N10.1	96.5	0.09	152.08	55.63	545.73	79.15
N10.2	96.5	0.15	152.08	55.58	545.24	79.08
N11	96.4	0.00	152.09	55.69	546.32	79.24
N11.1	96.3	0.00	152.09	55.79	547.30	79.38
R1	152.2	-10.67	152.20	0.00	0.00	0.00
R2	152.0	9.99	152.00	0.00	0.00	0.00

 Maximum Pressure

**Pipe Report**

Link ID	Length m	Diameter mm	Roughness	Flow LPS	Velocity m/s	Headloss m/km	Friction Factor
P1	60.0	200	110	10.67	0.340	1.00	0.034
P2	25.0	200	110	10.64	0.340	1.00	0.034
P3	52.5	200	110	-5.54	0.180	0.30	0.038
P4	15.5	200	110	-5.50	0.180	0.29	0.038
P5	77.5	200	110	-5.47	0.170	0.29	0.038
P6	114.5	200	110	5.41	0.170	0.28	0.038
P7	6.0	200	110	10.09	0.320	0.90	0.034
P8	27.0	200	110	10.06	0.320	0.90	0.034
P9	11.5	200	110	-9.99	0.320	0.89	0.034
P10	26.5	200	110	-4.68	0.150	0.22	0.038
P11	150.0	200	110	-4.86	0.150	0.23	0.038
P12	45.0	200	110	5.10	0.160	0.26	0.038
P13	90.0	200	110	5.10	0.160	0.26	0.038
P14	43.5	150	100	-0.04	0.000	0.00	0.123
P15	46.5	150	100	-0.06	0.000	0.00	0.051
P16	39.0	150	100	-0.07	0.000	0.00	0.189
P17	65.0	150	100	-0.18	0.010	0.00	0.073
P18	51.0	150	100	-0.11	0.010	0.00	0.069
P19	44.0	200	110	0.24	0.010	0.00	0.057
P20	48.0	200	110	-0.15	0.000	0.00	0.067
P21	29.0	150	100	0.00	0.000	0.00	0.000
P22	24.0	150	100	-0.03	0.000	0.00	0.000

**Junction Report**

Node ID	Elevation m	Demand LPS	Head m	Pressure m	Pressure kPa	Pressure psi
N1	96.0	0.00	147.18	51.18	502.08	72.82
N1.1	96.4	0.07	147.18	50.78	498.15	72.25
N2	96.2	0.00	147.21	51.05	500.80	72.63
N3	96.3	0.00	147.23	50.98	500.11	72.54
N3.1	96.6	0.10	147.23	50.63	496.68	72.04
N4	96.3	0.08	147.24	50.94	499.72	72.48
N5	96.3	0.00	147.27	50.97	500.02	72.52
N5.1	96.8	0.15	147.27	50.52	495.60	71.88
N6	96.6	0.00	147.33	50.73	497.66	72.18
N7	96.7	0.08	147.34	50.69	497.27	72.12
N8	96.8	0.00	147.38	50.58	496.19	71.97
N8.1	96.9	0.20	147.38	50.53	495.70	71.90
N9	96.3	0.00	147.31	51.01	500.41	72.58
N9.1	96.6	0.18	147.31	50.71	497.47	72.15
N9.2	96.6	0.29	147.31	50.71	497.47	72.15
N10	96.5	0.00	147.26	50.76	497.96	72.22
N10.1	96.5	0.25	147.26	50.81	498.45	72.29
N10.2	96.5	0.41	147.26	50.76	497.96	72.22
N11	96.4	0.00	147.24	50.84	498.74	72.34
N11.1	96.3	0.00	147.24	50.94	499.72	72.48
R1	147.1	12.36	147.10	0.00	0.00	0.00
R2	147.4	-14.17	147.40	0.00	0.00	0.00

 Minimum Pressure

**Pipe Report**

Link ID	Length m	Diameter mm	Roughness	Flow LPS	Velocity m/s	Headloss m/km	Friction Factor
P1	60.0	200	110	-12.36	0.39	1.31	0.033
P2	25.0	200	110	-12.43	0.40	1.33	0.033
P3	52.5	200	110	6.64	0.21	0.42	0.037
P4	15.5	200	110	6.74	0.21	0.43	0.036
P5	77.5	200	110	6.82	0.22	0.44	0.036
P6	114.5	200	110	-6.97	0.22	0.45	0.036
P7	6.0	200	110	-13.89	0.44	1.63	0.033
P8	27.0	200	110	-13.97	0.44	1.65	0.033
P9	11.5	200	110	14.17	0.45	1.69	0.033
P10	26.5	200	110	6.92	0.22	0.45	0.036
P11	150.0	200	110	6.45	0.21	0.39	0.037
P12	45.0	200	110	-5.79	0.18	0.32	0.037
P13	90.0	200	110	-5.79	0.18	0.32	0.037
P14	43.5	150	100	-0.10	0.01	0.00	0.079
P15	46.5	150	100	-0.15	0.01	0.00	0.074
P16	39.0	150	100	-0.20	0.01	0.00	0.046
P17	65.0	150	100	-0.47	0.03	0.01	0.062
P18	51.0	150	100	-0.29	0.02	0.01	0.066
P19	44.0	200	110	0.66	0.02	0.01	0.051
P20	48.0	200	110	-0.41	0.01	0.00	0.054
P21	29.0	150	100	0.00	0.00	0.00	0.000
P22	24.0	150	100	-0.07	0.00	0.00	0.306

**Junction Report**

Node ID	Elevation m	Demand LPS	Head m	Pressure m	Pressure kPa	Pressure psi
N1	96.0	0.00	144.04	48.04	471.27	68.35
N1.1	96.4	0.04	144.04	47.64	467.35	67.78
N2	96.2	0.00	143.39	47.23	463.33	67.20
N3	96.3	0.00	143.53	47.28	463.82	67.27
N3.1	96.6	0.05	143.53	46.93	460.38	66.77
N4	96.3	0.04	143.57	47.27	463.72	67.26
N5	96.3	0.00	143.77	47.47	465.68	67.54
N5.1	96.8	0.08	143.77	47.02	461.27	66.90
N6	96.6	0.00	144.07	47.47	465.68	67.54
N7	96.7	0.04	144.28	47.63	467.25	67.77
N8	96.8	0.00	145.20	48.40	474.80	68.86
N8.1	96.9	0.11	145.20	48.35	474.31	68.79
N9	96.3	0.00	143.54	47.24	463.42	67.21
N9.1	96.6	0.10	143.54	46.94	460.48	66.79
N9.2	96.6	0.16	143.54	46.94	460.48	66.79
N10	96.5	0.00	140.55	44.05	432.13	62.68
N10.1	96.5	0.14	140.55	44.10	432.62	62.75
N10.2	96.5	0.23	140.55	44.05	432.13	62.68
N11	96.4	0.00	139.66	43.26	424.38	61.55
N11.1	96.3	133.00	124.63	28.33	277.92	40.31
R1	145.6	-61.92	145.60	0.00	0.00	0.00
R2	145.6	-72.07	145.60	0.00	0.00	0.00

	Minimum Pressure
	Applied Fire Flow
	Minimum Building Sprinkler Pressure Requirement (50 psi)

**MAXIMUM DAY + FIREFLOW DEMAND SUMMARY**

Maximum day plus fire flow demand was modeled for the hydrant node N11.1

The following is a summary of the minimum pressures that occurred for this operating condition.

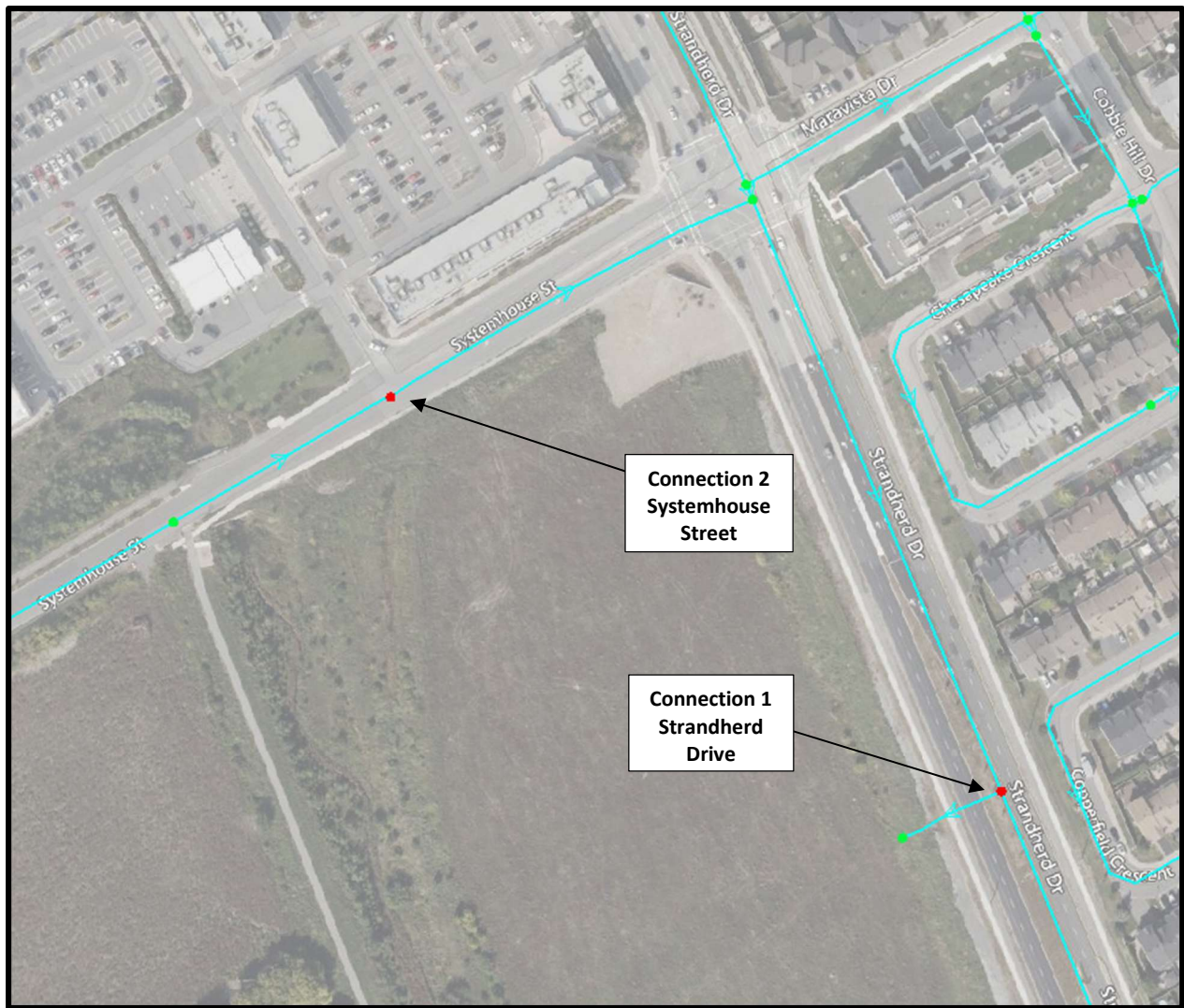
Fire at Junction	Demand (L/s)			Minimum Pressure			
	Maximum Daily	Fire Flow	Max Day + Fire	(m)	kPa	psi	Node
				N11.1	1.00	133.00	134.00

# Boundary Conditions 4175 Strandherd

## Provided Information

Scenario	Demand	
	L/min	L/s
Average Daily Demand	24	0.40
Maximum Daily Demand	36	0.60
Peak Hour	64	1.07
Fire Flow Demand	9,000	150.00

## Location



## **Results**

### **Connection 1 – Strandherd Drive**

<b>Demand Scenario</b>	<b>Head (m)</b>	<b>Pressure<sup>1</sup> (psi)</b>
Maximum HGL	152.2	80.4
Peak Hour	147.1	73.2
Max Day plus Fire Flow	145.6	71.0

<sup>1</sup> Ground Elevation = 95.7 m

### **Connection 2 – Systemhouse Street**

<b>Demand Scenario</b>	<b>Head (m)</b>	<b>Pressure<sup>1</sup> (psi)</b>
Maximum HGL	152.0	79.8
Maximum HGL	147.4	73.2
Max Day plus Fire Flow	145.6	70.6

<sup>1</sup> Ground Elevation = 96.0 m

## **Notes**

1. The IWSD has recently updated their water modelling software. Any significant difference between previously received BC results and newly received BC results could be attributed to this update.
2. Demands for proposed Connection 1 at existing private water main stub were assigned to upstream junction at Strandherd Drive off the public looped watermain. The engineer must calculate headloss off the dead-end main.
3. As per the Ontario Building Code in areas that may be occupied, the static pressure at any fixture shall not exceed 552 kPa (80 psi.) Pressure control measures to be considered are as follows, in order of preference:
  - a. If possible, systems to be designed to residual pressures of 345 to 552 kPa (50 to 80 psi) in all occupied areas outside of the public right-of-way without special pressure control equipment.
  - b. Pressure reducing valves to be installed immediately downstream of the isolation valve in the home/ building, located downstream of the meter so it is owner maintained.

## **Disclaimer**

*The boundary condition information is based on current operation of the city water distribution system. The computer model simulation is based on the best information available at the time. The operation of the water distribution system can change on a regular basis, resulting in a variation in boundary conditions. The physical properties of watermain deteriorate over time, as such must be assumed in the absence of actual field test data. The variation in physical watermain properties can therefore alter the results of the computer model simulation. Fire Flow analysis is a reflection of available flow in the watermain; there may be additional restrictions that occur between the watermain and the hydrant that the model cannot take into account.*

**Domestic Water Demands**

**Daily Demands - City of Ottawa Water Distribution Guidelines Table 4.2**

Establishment	Daily Demand Volume	
Commercial	28,000	L/ha/day

**Commercial Peaking Factors - City of Ottawa Water Distribution Guidelines**

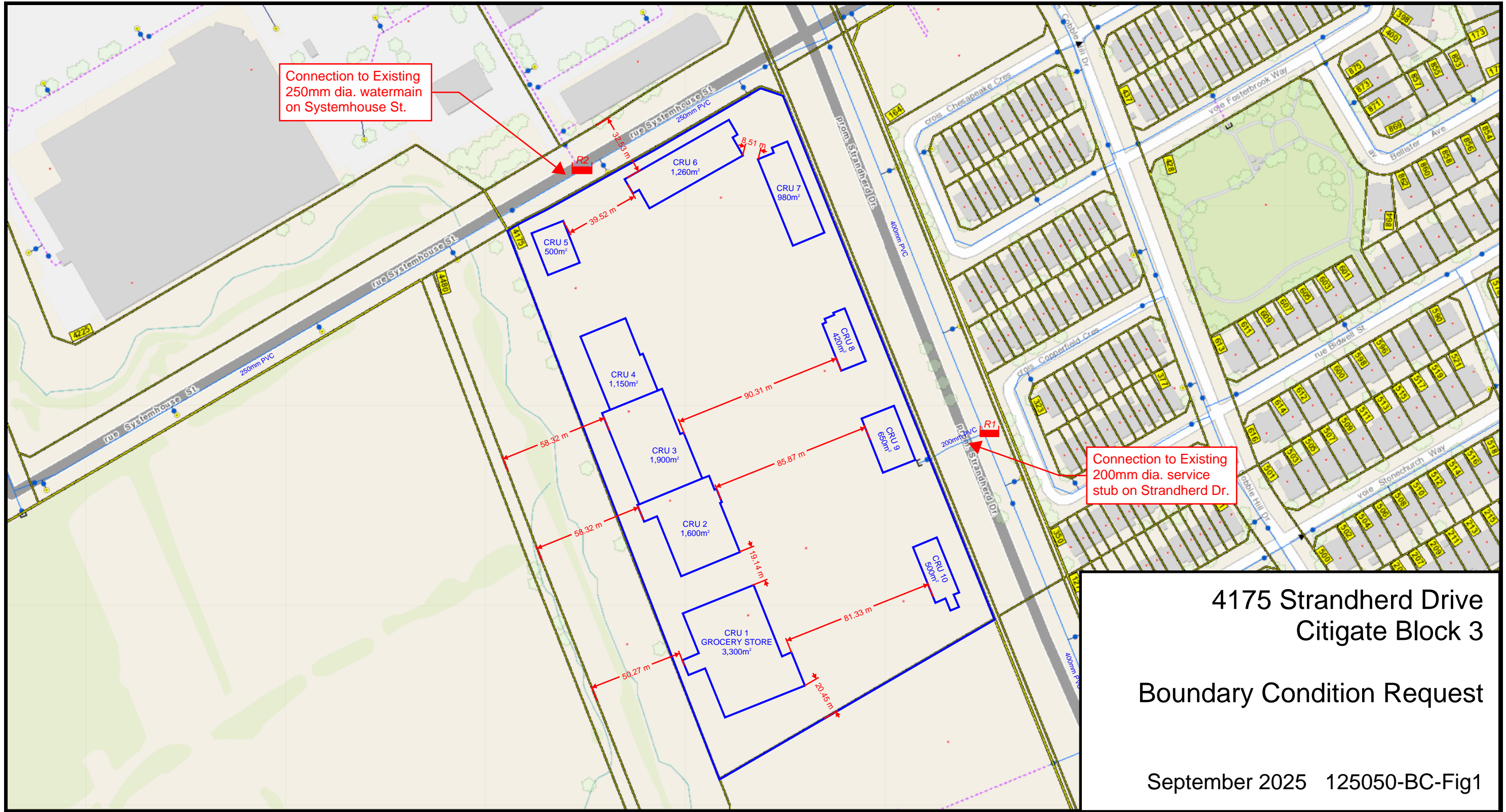
Conditions	Peaking Factor	
Maximum Daily Demand	1.5	x Avg. Day
Peak Hour Demand	1.8	x Max Daily

**Proposed Development Conditions**

Building ID	Area (m <sup>2</sup> )	Avg Daily Demand (L/s)	Max Daily Demand (L/s)	Peak Hour Demand (L/s)
CRU 1	3300	0.11	0.16	0.29
CRU 2	1600	0.05	0.08	0.14
CRU 3	1900	0.06	0.09	0.17
CRU 4	1150	0.04	0.06	0.10
CRU 5	500	0.02	0.02	0.04
CRU 6	1260	0.04	0.06	0.11
CRU 7	980	0.03	0.05	0.09
CRU 8	420	0.01	0.02	0.04
CRU 9	650	0.02	0.03	0.06
CRU 10	500	0.02	0.02	0.04
<b>Totals</b>	<b>12260</b>	<b>0.40</b>	<b>0.60</b>	<b>1.07</b>

**Required Fire Flows**

Fire Flow #1 - CRU 3/CRU 6	67 L/s
Fire Flow #2 - CRU 2	83 L/s
Fire Flow #3	117 L/s
Fire Flow #4 - CRU 1	133 L/s
Fire Flow #5	150 L/s



Connection to Existing 200mm dia. service stub on Strandherd Dr.

Connection to Existing 250mm dia. watermain on Systemhouse St.

4175 Strandherd Drive  
 Citigate Block 3  
 Boundary Condition Request  
 September 2025 125050-BC-Fig1

# FUS - Fire Flow Calculations



**Novatech Project #:** 125050  
**Project Name:** 4175 Strandherd Drive - Citigate Block 3  
**Date:** 9/11/2025  
**Input By:** Billy McEwen  
**Reviewed By:** Drew Blair  
**Drawing Reference:** 125050-BC-Fig1

**Legend:** Input by User  
 No Input Required  
**Reference:** Fire Underwriter's Survey Guideline (2020)  
 Formula Method

**Building Description:** General Commercial - CRU 1  
**Type II - Non-combustible construction**

Step		Choose		Value Used	Total Fire Flow (L/min)
<b>Base Fire Flow</b>					
1	<b>Construction Material</b>		<b>Multiplier</b>		0.8
	<b>Coefficient related to type of construction C</b>	Type V - Wood frame		1.5	
		Type IV - Mass Timber		Varies	
		Type III - Ordinary construction		1	
		Type II - Non-combustible construction	Yes	0.8	
Type I - Fire resistive construction (2 hrs)			0.6		
2	<b>Floor Area</b>				10,000
	<b>A</b>	Building Footprint (m <sup>2</sup> )	3300		
		Number of Floors/Storeys	1		
		Protected Openings (1 hr) if C<1.0	No		
		Area of structure considered (m <sup>2</sup> )		3,300	
<b>F</b>	Base fire flow without reductions				
	$F = 220 C (A)^{0.5}$				
<b>Reductions or Surcharges</b>					
3	<b>Occupancy hazard reduction or surcharge</b>		<b>FUS Table 3</b>	<b>Reduction/Surcharge</b>	10,000
	<b>(1)</b>	Non-combustible		-25%	
		Limited combustible		-15%	
		Combustible	Yes	0%	
		Free burning		15%	
Rapid burning			25%		
4	<b>Sprinkler Reduction</b>		<b>FUS Table 4</b>	<b>Reduction</b>	-5,000
	<b>(2)</b>	Adequately Designed System (NFPA 13)	Yes	-30%	
		Standard Water Supply	Yes	-10%	
		Fully Supervised System	Yes	-10%	
		<b>Cumulative Sub-Total</b>			
	Area of Sprinklered Coverage (m <sup>2</sup> )	3300	100%		
		<b>Cumulative Total</b>	<b>-50%</b>		
5	<b>Exposure Surcharge</b>		<b>FUS Table 5</b>	<b>Surcharge</b>	2,500
	<b>(3)</b>	North Side	10.1 - 20 m	15%	
		East Side	>30m	0%	
		South Side	20.1 - 30 m	10%	
		West Side	>30m	0%	
		<b>Cumulative Total</b>	<b>25%</b>		
<b>Results</b>					
6	<b>(1) + (2) + (3)</b>	<b>Total Required Fire Flow, rounded to nearest 1000L/min</b>		<b>L/min</b>	<b>8,000</b>
		(2,000 L/min < Fire Flow < 45,000 L/min)		or	L/s
				or	USGPM

# FUS - Fire Flow Calculations



**Novatech Project #:** 125050  
**Project Name:** 4175 Strandherd Drive - Citigate Block 3  
**Date:** 9/11/2025  
**Input By:** Billy McEwen  
**Reviewed By:** Drew Blair  
**Drawing Reference:** 125050-BC-Fig1

**Legend:** Input by User  
 No Input Required  
**Reference:** Fire Underwriter's Survey Guideline (2020)  
 Formula Method

**Building Description:** General Commercial - CRU 2  
**Type II - Non-combustible construction**

Step		Choose		Value Used	Total Fire Flow (L/min)	
<b>Base Fire Flow</b>						
1	<b>Construction Material</b>		<b>Multiplier</b>		0.8	
	<b>Coefficient related to type of construction C</b>	Type V - Wood frame		1.5		
		Type IV - Mass Timber		Varies		
		Type III - Ordinary construction		1		
		Type II - Non-combustible construction	Yes	0.8		
Type I - Fire resistive construction (2 hrs)			0.6			
2	<b>Floor Area</b>				7,000	
	<b>A</b>	Building Footprint (m <sup>2</sup> )	1600			
		Number of Floors/Storeys	1			
		Protected Openings (1 hr) if C<1.0	No			
		Area of structure considered (m <sup>2</sup> )		1,600		
<b>F</b>	Base fire flow without reductions					
<b>Reductions or Surcharges</b>						
3	<b>Occupancy hazard reduction or surcharge</b>		<b>FUS Table 3</b>	<b>Reduction/Surcharge</b>	7,000	
	<b>(1)</b>	Non-combustible		-25%		
		Limited combustible		-15%		
		Combustible	Yes	0%		
		Free burning		15%		
Rapid burning			25%			
4	<b>Sprinkler Reduction</b>		<b>FUS Table 4</b>	<b>Reduction</b>	-3,500	
	<b>(2)</b>	Adequately Designed System (NFPA 13)	Yes	-30%		
		Standard Water Supply	Yes	-10%		
		Fully Supervised System	Yes	-10%		
		<b>Cumulative Sub-Total</b>				-50%
<b>Area of Sprinklered Coverage (m<sup>2</sup>)</b>	1600	100%				
<b>Cumulative Total</b>			-50%			
5	<b>Exposure Surcharge</b>		<b>FUS Table 5</b>	<b>Surcharge</b>	1,050	
	<b>(3)</b>	North Side	2Hr Firewall	0%		
		East Side	>30m	0%		
		South Side	10.1 - 20 m	15%		
		West Side	>30m	0%		
<b>Cumulative Total</b>			15%			
<b>Results</b>						
6	<b>(1) + (2) + (3)</b>	<b>Total Required Fire Flow, rounded to nearest 1000L/min</b>		<b>L/min</b>	<b>5,000</b>	
		(2,000 L/min < Fire Flow < 45,000 L/min)		or	L/s	83
				or	USGPM	1,321

# FUS - Fire Flow Calculations



**Novatech Project #:** 125050  
**Project Name:** 4175 Strandherd Drive - Citigate Block 3  
**Date:** 9/11/2025  
**Input By:** Billy McEwen  
**Reviewed By:** Drew Blair  
**Drawing Reference:** 125050-BC-Fig1

**Legend:** Input by User  
 No Input Required  
**Reference:** Fire Underwriter's Survey Guideline (2020)  
 Formula Method

**Building Description:** General Commercial - CRU 3  
**Type II - Non-combustible construction**

Step		Choose		Value Used	Total Fire Flow (L/min)
<b>Base Fire Flow</b>					
1	<b>Construction Material</b>		<b>Multiplier</b>		0.8
	<b>Coefficient related to type of construction C</b>	Type V - Wood frame		1.5	
		Type IV - Mass Timber		Varies	
		Type III - Ordinary construction		1	
		Type II - Non-combustible construction	Yes	0.8	
Type I - Fire resistive construction (2 hrs)			0.6		
2	<b>Floor Area</b>				8,000
	<b>A</b>	Building Footprint (m <sup>2</sup> )	1900		
		Number of Floors/Storeys	1		
		Protected Openings (1 hr) if C<1.0	No		
		Area of structure considered (m <sup>2</sup> )		1,900	
<b>F</b>	Base fire flow without reductions				
<b>Reductions or Surcharges</b>					
3	<b>Occupancy hazard reduction or surcharge</b>		<b>FUS Table 3</b>	<b>Reduction/Surcharge</b>	8,000
	<b>(1)</b>	Non-combustible		-25%	
		Limited combustible		-15%	
		Combustible	Yes	0%	
		Free burning		15%	
Rapid burning			25%		
4	<b>Sprinkler Reduction</b>		<b>FUS Table 4</b>	<b>Reduction</b>	-4,000
	<b>(2)</b>	Adequately Designed System (NFPA 13)	Yes	-30%	
		Standard Water Supply	Yes	-10%	
		Fully Supervised System	Yes	-10%	
		<b>Cumulative Sub-Total</b>			
<b>Area of Sprinklered Coverage (m<sup>2</sup>)</b>		1900	100%		
		<b>Cumulative Total</b>	-50%		
5	<b>Exposure Surcharge</b>		<b>FUS Table 5</b>	<b>Surcharge</b>	0
	<b>(3)</b>	North Side	2Hr Firewall	0%	
		East Side	>30m	0%	
		South Side	2Hr Firewall	0%	
		West Side	>30m	0%	
		<b>Cumulative Total</b>	0%		
<b>Results</b>					
6	<b>(1) + (2) + (3)</b>	<b>Total Required Fire Flow, rounded to nearest 1000L/min</b>		<b>L/min</b>	<b>4,000</b>
		(2,000 L/min < Fire Flow < 45,000 L/min)		or	L/s
				or	USGPM
				1,057	

# FUS - Fire Flow Calculations



**Novatech Project #:** 125050  
**Project Name:** 4175 Strandherd Drive - Citigate Block 3  
**Date:** 9/11/2025  
**Input By:** Billy McEwen  
**Reviewed By:** Drew Blair  
**Drawing Reference:** 125050-BC-Fig1

**Legend:** Input by User  
 No Input Required  
**Reference:** Fire Underwriter's Survey Guideline (2020)  
 Formula Method

**Building Description:** General Commercial - CRU 6  
**Type II - Non-combustible construction**

Step		Choose		Value Used	Total Fire Flow (L/min)	
<b>Base Fire Flow</b>						
1	<b>Construction Material</b>		<b>Multiplier</b>		0.8	
	<b>Coefficient related to type of construction C</b>	Type V - Wood frame		1.5		
		Type IV - Mass Timber		Varies		
		Type III - Ordinary construction		1		
		Type II - Non-combustible construction	Yes	0.8		
Type I - Fire resistive construction (2 hrs)			0.6			
2	<b>Floor Area</b>				6,000	
	<b>A</b>	Building Footprint (m <sup>2</sup> )	1260			
		Number of Floors/Storeys	1			
		Protected Openings (1 hr) if C<1.0	No			
		Area of structure considered (m <sup>2</sup> )		1,260		
<b>F</b>	Base fire flow without reductions					
<b>Reductions or Surcharges</b>						
3	<b>Occupancy hazard reduction or surcharge</b>		<b>FUS Table 3</b>	<b>Reduction/Surcharge</b>	6,000	
	<b>(1)</b>	Non-combustible		-25%		
		Limited combustible		-15%		
		Combustible	Yes	0%		
		Free burning		15%		
Rapid burning			25%			
4	<b>Sprinkler Reduction</b>		<b>FUS Table 4</b>	<b>Reduction</b>	-3,000	
	<b>(2)</b>	Adequately Designed System (NFPA 13)	Yes	-30%		
		Standard Water Supply	Yes	-10%		
		Fully Supervised System	Yes	-10%		
		<b>Cumulative Sub-Total</b>				-50%
<b>Area of Sprinklered Coverage (m<sup>2</sup>)</b>		1260	100%			
<b>Cumulative Total</b>			-50%			
5	<b>Exposure Surcharge</b>		<b>FUS Table 5</b>	<b>Surcharge</b>	1,200	
	<b>(3)</b>	North Side	>30m	0%		
		East Side	3.1 - 10 m	20%		
		South Side	>30m	0%		
		West Side	>30m	0%		
<b>Cumulative Total</b>			20%			
<b>Results</b>						
6	<b>(1) + (2) + (3)</b>	<b>Total Required Fire Flow, rounded to nearest 1000L/min</b>		<b>L/min</b>	<b>4,000</b>	
		(2,000 L/min < Fire Flow < 45,000 L/min)		or	L/s	67
				or	USGPM	1,057

Appendix C  
SANITARY SERVICING

# SANITARY SEWER DESIGN SHEET



**Novatech Project #:** 125050  
**Project Name:** 4175 Strandherd  
**Date:** 1/23/2026  
**Input By:** MA / BM  
**Reviewed By:** DDB  
**Drawing Reference:** 125050-SAN

**Legend:**  
Design Input by User  
As-Built Input by User  
Cumulative Cell  
Calculated Design Cell Output

**Reference:**  
 City of Ottawa - Sewer Design Guidelines (2025)  
 MOE - Design Guidelines for Sewage Works (2008)

Location												Extraneous Flow Area Method			Total Design Flow		Design Capacity					
Area ID	From MH	To MH	Gross Area	Commercial Retail Unit (CRU) Areas	Restaurant Area	Cumulative Commercial Area	Cumulative Restaurant Area	Average Commercial Flow	Average Restaurant Flow	Commercial Peaking Factor	Peak Design Flow	Extraneous Drainage Area	Cumulative Extraneous Drainage Area	Design Extraneous Flow	Total Peak Design Flow	Pipe Length	Pipe Size (mm) and Material	Design Grade	Capacity	Full Flow Velocity	Q(D) / Qfull	
			(ha.)	(ha.)	(m <sup>2</sup> )	(ha.)	(m <sup>2</sup> )	(L/s)	(L/s)	Q (c) + Q (r) (L/s)	(ha.)								(ha.)			Q(e) (L/s)
A1	CRU-10	135	0.80		460		460	0.00	0.19	1.50	0.28		0.00	0.00	0.28	6.2	200 PVC	2.00	48.4	1.49	0.6%	
		135	133				460	0.00	0.19	1.50	0.28	0.80	0.80	0.26	0.54	58.6	200 PVC	0.50	24.2	0.75	2.2%	
A2	133	127	0.12				460	0.00	0.19	1.50	0.28	0.12	0.92	0.30	0.58	44.6	200 PVC	0.50	24.2	0.75	2.4%	
A3	CRU-1	131	0.49	0.264		0.264		0.15	0.00	1.50	0.23		0.00	0.00	0.23	3.0	200 PVC	2.00	48.4	1.49	0.5%	
		131	129			0.264		0.15	0.00	1.50	0.23	0.49	0.49	0.16	0.39	33.0	200 PVC	1.00	34.2	1.06	1.1%	
A4	129	127	0.45	0.158		0.422		0.24	0.00	1.50	0.37	0.45	0.94	0.31	0.68	57.9	200 PVC	0.50	24.2	0.75	2.8%	
A5	127	119	0.08			0.422	460	0.24	0.19	1.50	0.65	0.08	1.94	0.64	1.29	55.4	250 PVC	0.50	43.9	0.87	2.9%	
A6	CRU-9	125	0.56		630		630	0.00	0.26	1.50	0.38		0.00	0.00	0.38	12.6	200 PVC	2.00	48.4	1.49	0.8%	
		125	121				630	0.00	0.26	1.50	0.38	0.56	0.56	0.18	0.57	22.8	200 PVC	1.00	34.2	1.06	1.7%	
A7	CRU-8	123	0.75		480		480	0.00	0.19	1.50	0.29		0.00	0.00	0.29	18.8	200 PVC	2.00	48.4	1.49	0.6%	
		123	121				480	0.00	0.19	1.50	0.29	0.75	0.75	0.25	0.54	6.3	200 PVC	1.00	34.2	1.06	1.6%	
-	121	119				0.000	1110	0.00	0.45	1.50	0.67		1.31	0.43	1.11	64.6	200 PVC	1.00	34.2	1.06	3.2%	
A8	119	109	0.15			0.422	1570	0.24	0.64	1.50	1.32	0.15	3.40	1.12	2.44	100.2	250 PVC	0.50	43.9	0.87	5.6%	
A9	CRU-3	117	0.26	0.188		0.188		0.11	0.00	1.50	0.16		0.00	0.00	0.16	3.2	200 PVC	2.00	48.4	1.49	0.3%	
		117	115			0.188		0.11	0.00	1.50	0.16	0.26	0.26	0.09	0.25	49.8	200 PVC	2.00	48.4	1.49	0.5%	
A10	CRU-4	115	0.24	0.113		0.113		0.07	0.00	1.50	0.10		0.00	0.00	0.10	6.8	200 PVC	2.00	48.4	1.49	0.2%	
		115	113			0.301		0.17	0.00	1.50	0.26	0.24	0.50	0.17	0.43	23.3	200 PVC	1.85	46.5	1.44	0.9%	
		113	109			0.301		0.17	0.00	1.50	0.26	0.24	0.50	0.17	0.43	44.2	200 PVC	1.00	34.2	1.06	1.2%	
A11	CRU-7	111	0.78	0.046	500	0.046	500	0.03	0.20	1.50	0.34		0.00	0.00	0.34	13.4	200 PVC	2.00	48.4	1.49	0.7%	
		111	109			0.046	500	0.03	0.20	1.50	0.34	0.78	0.78	0.26	0.60	74.7	200 PVC	0.50	24.2	0.75	2.5%	
A12		109	107			0.769	2070	0.45	0.84	1.50	1.93	0.26	4.94	1.63	3.56	31.0	250 PVC	1.00	62.0	1.22	5.7%	
	CRU-5	107	0.26		415		415	0.00	0.17	1.50	0.25		0.00	0.00	0.25	8.2	200 PVC	2.00	48.4	1.49	0.5%	
-	107	103				0.769	2485	0.45	1.01	1.50	2.18		4.94	1.63	3.81	24.8	250 PVC	1.00	62.0	1.22	6.1%	
A13	CRU-6	105	0.33	0.066	600	0.066	600	0.04	0.24	1.50	0.42		0.00	0.00	0.42	1.5	200 PVC	2.00	48.4	1.49	0.9%	
		105	103			0.066	600	0.04	0.24	1.50	0.42	0.33	0.33	0.11	0.53	37.9	200 PVC	2.00	48.4	1.49	1.1%	
OUTLET	103	101				0.835	3085	0.48	1.25	1.50	2.60		5.27	1.74	4.34	16.0	250 PVC	1.00	62.0	1.22	7.0%	
<b>Totals</b>			<b>5.27</b>	<b>0.835</b>	<b>3085</b>	<b>0.835</b>	<b>3085</b>	<b>0.48</b>	<b>1.25</b>	<b>1.50</b>	<b>2.60</b>	<b>5.27</b>	<b>5.27</b>	<b>1.74</b>	<b>4.34</b>							

**Demand Equation / Parameters**

1. **Q(D)** = Q(c) + Q(e) + Q(r)
2. **Q(c)** = 5 L/m<sup>2</sup>/day (MOE: Table 5-3)
3. **Q(e)** = 0.33 L/s/ha (City of Ottawa)
4. **Q(r)** = 125 L/d/seat (City of Ottawa: Appendix 4-A)  
75 L/d/employee (City of Ottawa: Appendix 4-A)

**Definitions**

- Q(D)** = Peak Design Flow (L/s)  
**Q(c)** = Commercial Flow (L/s)  
**Q(e)** = Extraneous Flow (L/s)  
**Q(r)** = Restaurant Flow (L/s)

**Commercial Flows**

- 50000 L/ha/day  
 1.5 Peak Factor

**Restaurant Flow Assumptions**

- 1 seat per 4m<sup>2</sup> of restaurant floor area  
 1 employee per 20m<sup>2</sup> of restaurant floor area  
 1.5 Peak Factor

**Capacity Equation**

$$Q_{full} = 1000 \cdot (1/n) \cdot A_p \cdot R^{2/3} \cdot S_o^{0.5}$$

**Definitions**

- Q full** = Capacity (L/s)  
**n** = Manning coefficient of roughness (0.013)  
**A<sub>p</sub>** = Pipe flow area (m<sup>2</sup>)  
**R** = Hydraulic Radius of wetted area (dia./4 for full pipes)  
**S<sub>o</sub>** = Pipe slope/gradient

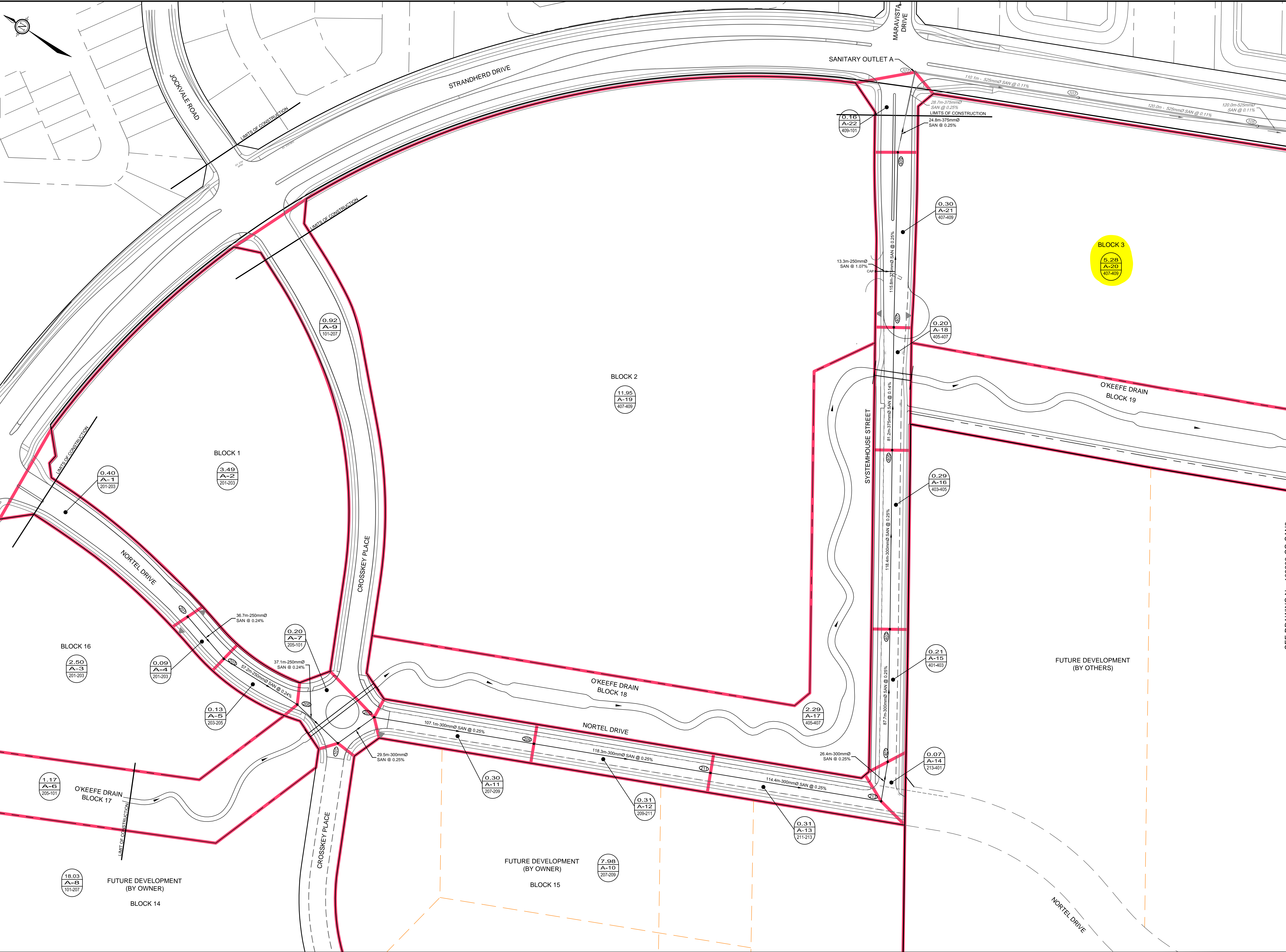
SANITARY SEWER DESIGN SHEET



**LEGEND**

- 0.36  
A-1  
305-307
- DRAINAGE AREA (hectares)
- AREA ID
- MANHOLE TO MANHOLE
- SANITARY DRAINAGE AREA BOUNDARY
- ▲ SANITARY SERVICE LOCATION
- PROPOSED SANITARY MANHOLE AND PIPE (WITH FLOW DIRECTION)

**REFER TO DRAWING 109203-CG-NTB FOR NOTES AND TABLES**



**NOTE:**  
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

**CITI GATE**  
416 CORPORATE CAMPUS

**REGIONAL**  
THE REGIONAL GROUP

No.	REVISION	DATE	BY
4.	ISSUED FOR SWM APPROVAL	AUG 10/14	MER
3.	ISSUED FOR APPROVAL	JUL 23/14	MER
2.	REV. PER CITY COMMENTS / ISS. FOR MOE APPROVAL	JUNE 27/14	MER
1.	ISSUED FOR CITY REVIEW	MAR 31/14	MER

**SCALE**

1:1000

0 10 20 30 40

DESIGN: LAB  
CHECKED: MER  
DRAWN: MTM/BET  
CHECKED: MER  
APPROVED: JGR

**REGISTERED PROFESSIONAL ENGINEER**  
M.E. RIDDELL  
100040125  
PROVINCE OF ONTARIO

**REGISTERED PROFESSIONAL ENGINEER**  
J.G. RIDDELL  
PROVINCE OF ONTARIO

**NOVATECH**  
Engineers, Planners & Landscape Architects  
Suite 200, 240 Michael Cowpland Drive  
Ottawa, Ontario, Canada K2M 3P6  
Telephone: (613) 254-9643  
Facsimile: (613) 254-5867  
Website: www.novatech-eng.com

LOCATION:  
CITY OF OTTAWA  
CITI GATE 416 CORPORATE CAMPUS

DRAWING NAME:  
SANITARY DRAINAGE AREA PLAN  
(OUTLET A)

PROJECT No.: 109203-00  
REV: REV # 4  
DRAWING No.: 109203-CG-SAN1

SEE DRAWING No. 109203-CG-SAN2

NOVATECH FILE NO.: 109203-0  
 CITY FILE NO.: D07-16-12-0023  
 DESIGNED BY: LAB  
 CHECKED BY: MER/MSP  
 PREPARED March 31, 2014  
 REVISED: August 10, 2014  
 REVISED: September 25, 2015

**SANITARY SEWER DESIGN SHEET**  
 Citi Gate 416 Corporate Campus  
 Phase 1 - As-Built



**AS-BUILT**

Location						Wastewater Flow Q(w)		Extraneous Flow Q(i)		Design Flow Q(d)	Proposed Sanitary Sewer						
Area I.D.	Street	Block Number	From MH	To MH	Area (ha)	Individual Peak Flow Rate 50,000 L/ha/d (L/s)	Cumulative Peak Flow Rate (L/s)	Individual Infiltration Rate 0.28 L/s/ha (L/s)	Cumulative Infiltration Rate (L/s)	Peak Design Flow (L/s)	Length (m)	Pipe Size (mm)	Type of Pipe	Grade %	Capacity (L/s)	Full Flow Velocity (m/s)	Percentage of Capacity
<b>Sanitary Outlet A to Strandherd Drive at Maravista Drive</b>																	
<b>Plan Reference: Sanitary Drainage Area Plan (109203-CG-SAN1)</b>																	
A-1	Nortel Drive		201	203	0.40	0.35	0.35	0.11	0.11	0.46							
A-2	Nortel Drive	Block 1	201	203	3.49	3.03	3.38	0.98	1.09	4.47							
A-3	Nortel Drive	Block 16	201	203	2.50	2.17	5.55	0.70	1.79	7.34							
A-4	Nortel Drive		201	203	0.09	0.08	5.63	0.03	1.81	7.44	36.0	250	PVC	0.53	45.16	0.89	16%
A-5	Nortel Drive		203	205	0.13	0.11	5.74	0.04	1.85	7.59	57.5	250	PVC	0.28	32.83	0.65	23%
A-6	Nortel Drive	Block 17	205	101	1.17	1.02	6.75	0.33	2.18	8.93							
A-7	Nortel Drive		205	101	0.20	0.17	6.93	0.06	2.23	9.16	37.3	250	PVC	0.21	28.43	0.56	32%
A-9	Crosskey Place		101	207	0.92	0.80	7.73	0.26	7.54	15.27							
A-8	Crosskey Place	Block 14	101	207	18.03	15.65	23.38	5.05	5.05	28.43	29.0	300	PVC	0.17	41.59	0.57	68%
A-10	Nortel Drive	Block 15	207	209	7.98	6.93	30.30	2.23	9.77	40.08							
A-11	Nortel Drive		207	209	0.30	0.26	30.56	0.08	9.86	40.42	106.5	300	PVC	0.27	52.42	0.72	77%
A-12	Nortel Drive		209	211	0.31	0.27	30.83	0.09	9.95	40.78	118.8	300	PVC	0.29	54.33	0.74	75%
A-13	Nortel Drive		211	213	0.31	0.27	31.10	0.09	10.03	41.13	114.6	300	PVC	0.22	47.32	0.65	87%
A-14	Systemhouse Street		213	401	0.07	0.06	31.16	0.02	10.05	41.22	26.4	300	PVC	0.23	48.38	0.66	85%
A-15	Systemhouse Street		401	403	0.21	0.18	31.35	0.06	10.11	41.46	86.8	300	PVC	0.28	53.38	0.73	78%
A-16	Systemhouse Street		403	405	0.29	0.25	31.60	0.08	10.19	41.79	118.8	300	PVC	0.32	57.07	0.78	73%
A-17	Systemhouse Street	Block 18	405	407	2.29	1.99	33.59	0.64	10.83	44.42							
A-18	Systemhouse Street		405	407	0.20	0.17	33.76	0.06	10.89	44.65	80.4	375	PVC	0.14	68.44	0.60	65%
A-19	Systemhouse Street	Block 2	407	409	11.95	10.37	44.13	3.35	14.24	58.37							
A-20	Systemhouse Street	Block 3	407	409	5.28	4.58	48.72	1.48	15.71	64.43							
A-21	Systemhouse Street		407	409	0.30	0.26	48.98	0.08	15.80	64.77	117.2	375	PVC	0.25	91.46	0.80	71%
A-22	Systemhouse Street		409	101	0.16	0.14	49.11	0.04	15.84	64.96	54.8	375	PVC	0.24	89.61	0.79	72%
						56.58				64.96							

- Notes:**  
 1.  $Q(d) = Q(w) + Q(i)$ , where  
 2.  $Q(i) = 0.28 \text{ L/s/ha}$   
 3. Peaking Factor = 1.5

**Legend**  
 0.20 As-built pipe grade (%) or length (m)  
 Q(d) = Design Flow (L/s)  
 Q(w) = Peak Wastewater Flow (L/s)  
 Q(i) = Extraneous Flow (L/s)



NOVATECH FILE NO.: 109203-0  
 CITY FILE NO.: D07-16-12-0023  
 DESIGNED BY: LAB  
 CHECKED BY: MER/MSP  
 DATE (Issued with report): March 31, 2014  
 REVISED : August 10, 2014  
 REVISED : September 25, 2015

**SANITARY SEWER DESIGN SHEET**  
 Citi Gate 416 Corporate Campus  
 Phase 1 - As-Built



**AS-BUILT**

Area I.D.	Location					Wastewater Flow Q(w)		Extraneous Flow Q(i)		Design Flow Q(d)	Proposed Sanitary Sewer						
	Street	Block Number	From MH	To MH	Area (ha)	Individual Peak Flow Rate 50,000 L/ha/d (L/s)	Cumulative Peak Flow Rate (L/s)	Individual Infiltration Rate 0.28 L/s/ha (L/s)	Cumulative Infiltration Rate (L/s)	Peak Design Flow (L/s)	Length (m)	Pipe Size (mm)	Type of Pipe	Grade %	Capacity (L/s)	Full Flow Velocity (m/s)	Percentage of Capacity
Sanitary Outlet B to Strandherd Drive at Kennevale Drive Reference: Sanitary Drainage Area Plan (109203-CG-SAN2)																	
Plan																	
C-1	Nortel Drive	Lands Owned by Others	Fut	501	22.68	19.69	19.69	6.35	6.35	26.04	4.0	300	PVC	0.20	45.12	0.62	58%
B-1	Dealership Street	Lands Owned by Others	Fut	501	27.06	23.49	23.49	7.58	7.58	31.07	12.5	300	PVC	0.20	45.12	0.62	69%
B-2	Dealership Street	Block 11	501	503	2.72	2.36	45.54	0.76	14.69	60.23							
B-3	Dealership Street	Block 10	501	503	2.14	1.86	47.40	0.60	15.29	62.68							
B-4	Dealership Street		501	503	0.28	0.24	47.64	0.08	15.37	63.01	119.5	450	PVC	0.14	111.29	0.68	57%
B-5	Dealership Street	Block 9	503	505	1.84	1.60	49.24	0.52	15.88	65.12							
B-6	Dealership Street		503	505	0.29	0.25	49.49	0.08	15.96	65.45	119.2	450	PVC	0.16	118.97	0.72	55%
B-7	Dealership Street	Block 12 (SWM)	505	507	3.20	2.78	52.27	0.90	16.86	69.12							
B-8	Dealership Street	Block 8	505	507	1.64	1.42	53.69	0.46	17.32	71.01							
B-9	Dealership Street		505	507	0.20	0.17	53.86	0.06	17.37	71.24	85.7	450	PVC	0.12	103.03	0.63	69%
B-10	Dealership Street	Block 19	507	509	2.51	2.18	56.04	0.70	18.08	74.12							
B-11	Dealership Street		507	509	0.13	0.11	56.15	0.04	18.11	74.27	55.9	450	PVC	0.16	118.97	0.72	62%
B-12	Philsar Street	Block 6	603	601	1.62	1.41	1.41	0.45	0.45	1.86							
B-13	Philsar Street		603	601	0.23	0.20	1.61	0.06	0.52	2.12	41.2	250	PVC	0.19	27.04	0.53	8%
B-15	Philsar Street		601	509	0.19	0.16	1.77	0.05	0.57	2.34	101.2	250	PVC	0.25	31.02	0.61	8%
B-16	Dealership Street	Block 4	509	511	3.39	2.94	60.87	0.95	19.63	80.50							
B-17	Dealership Street		509	511	0.24	0.21	61.08	0.07	19.70	80.78	99.5	450	PVC	0.17	122.63	0.75	66%
B-14	Dealership Street	Block 5	511	513	2.14	1.86	62.93	0.60	20.30	83.23							
B-18	Dealership Street		511	513	0.20	0.17	63.11	0.06	20.36	83.46	75.9	450	PVC	0.20	133.02	0.81	63%
B-19	Outlet to Lift Station		513	515	0.04	0.03	63.14	0.01	20.37	83.51	35.5	450	PVC	0.42	192.76	1.17	43%

72.74

**Notes:**

1.  $Q(d) = Q(w) + Q(i)$ , where
2.  $Q(i) = 0.28 \text{ L/s/ha}$
3. Peaking Factor = 1.5

**Legend:**

- $Q(d)$  = Design Flow (L/s)
- $Q(w)$  = Peak Wastewater Flow (L/s)
- $Q(i)$  = Extraneous Flow (L/s)
- 0.20** As-built pipe grade (%) or length (m)



Appendix D  
STORM SERVICING & STORMWATER MANAGEMENT

# STORM SEWER DESIGN SHEET

**Novatech Project #:** 125050  
**Project Name:** 4175 Strandherd  
**Date:** 1/23/2026  
**Input By:** MA / BM  
**Reviewed By:** DDB  
**Drawing Reference:** 125050-STM

**Legend:** Design Input by User  
 As-Built Input by User  
 Cumulative Cell  
 Calculated Design Cell Output  
 Calculated Uncontrolled Peak Flow Cell Output  
 Design Input Restricted Peak Flow Cell

**Reference:** City of Ottawa - Sewer Design Guidelines (2025)  
 MOE - Design Guidelines for Sewage Works (2008)

2 Year Storm Design Event

Location			Demand									Design Capacity				
			Flow									Proposed Sewer Pipe Sizing / Design				
Area ID	From MH	To MH	Area A (ha.)	Runoff Coefficient C	Indivi. 2.78 AC	Accum. 2.78 AC	Time of Conc. Tc (min.)	Rain Intensity I (mm/hr)	Total Uncontrolled Peak Flow Q (L/s)	Controlled Flow (L/s)	Total Controlled and Uncontrolled Peak Flow (L/s)	Pipe Length (m)	Pipe Size (mm) and Material	Design Grade So (%)	Time of Flow (min.)	Q / Qfull
1	456	454	0.09	0.81	0.20	0.20	10.00	76.81	15.6		15.6	9.8	300 PVC	1.00	0.12	15.4%
2	454	444	0.13	0.69	0.25	0.45	10.12	76.35	34.5		34.5	39.7	300 PVC	0.50	0.68	48.4%
5	450	444	0.12	0.81	0.27	0.27	10.00	76.81	20.8		20.8	4.7	300 PVC	0.50	0.08	29.1%
3	444	440	0.27	0.86	0.65	1.37	10.79	73.88	101.1		101.1	10.2	300 PVC	0.50	0.17	141.7%
5	440	426				1.37	10.97	73.27	100.2	1.88	1.9	11.1	300 PVC	0.50	0.19	2.6%
3A	470	468	0.05	0.56	0.08	0.08	10.00	76.81	6.0		6.0	19.9	300 PVC	0.35	0.41	10.0%
CRU-5	CRU-5	468	0.05	0.90	0.13	0.13	10.00	76.81	9.6	1.9	1.9	22.6	300 PVC	1.50	0.22	1.5%
	468	462	0.13	0.90	0.33	0.53	10.41	75.28	39.8		7.9	29.3	300 PVC	0.25	0.71	15.6%
CRU-6	CRU-6	462	0.05	0.57	0.08	0.08	10.00	76.81	6.1	5.7	5.7	14.2	300 PVC	1.00	0.17	5.7%
4A	466	464	0.03	0.90	0.08	0.08	10.00	76.81	5.8		5.8	30.9	300 PVC	0.35	0.63	9.7%
	464	462				0.08	10.63	74.47	5.6		5.6	27.4	450 PVC	0.25	0.50	3.8%
	462	426				0.68	11.13	72.71	49.6		19.2	19.4	600 CONC	0.15	0.38	7.7%
5A	438	430	0.11	0.80	0.24	0.24	10.00	76.81	18.8		18.8	6.2	300 PVC	0.50	0.11	26.3%
4	430	428	0.23	0.88	0.56	0.81	10.11	76.40	61.7		61.7	6.2	300 PVC	0.50	0.11	86.5%
	428	426				0.81	10.21	76.00	61.4	1.17	1.2	10.8	300 PVC	0.50	0.18	1.6%
	426	418				2.86	11.51	71.44	204.2		22.2	20.2	600 CONC	0.15	0.40	9.0%

# STORM SEWER DESIGN SHEET

Location			Demand									Design Capacity				
			Flow									Proposed Sewer Pipe Sizing / Design				
Area ID	From MH	To MH	Area A (ha.)	Runoff Coefficient C	Indivi. 2.78 AC	Accum. 2.78 AC	Time of Conc. Tc (min.)	Rain Intensity I (mm/hr)	Total Uncontrolled Peak Flow Q (L/s)	Controlled Flow (L/s)	Total Controlled and Uncontrolled Peak Flow (L/s)	Pipe Length (m)	Pipe Size (mm) and Material	Design Grade So (%)	Time of Flow (min.)	Q / Qfull
5B	424	420	0.02	0.90	0.05	0.05	10.00	76.81	3.8		3.8	24.0	300 PVC	0.50	0.41	5.4%
CRU-7	CRU-7	422	0.10	0.90	0.25	0.25	10.00	76.81	19.2	4.8	4.8	14.9	300 PVC	1.00	0.18	4.8%
		422				0.25	10.18	76.12	19.0		4.8	15.7	300 PVC	0.35	0.32	8.0%
		420				0.30	10.50	74.94	22.5		8.6	33.7	300 PVC	0.35	0.69	14.5%
		418				3.16	11.91	70.17	221.6		30.9	9.9	600 CONC	0.15	0.19	12.4%
CRU-4	CRU-4	416	0.12	0.90	0.30	0.30	10.00	76.81	23.1	3.8	3.8	47.7	300 PVC	1.00	0.58	3.8%
		416				3.46	12.10	69.57	240.6		34.7	55.3	600 CONC	0.15	1.08	14.0%
6C	404	402	0.05	0.78	0.11	0.11	10.00	76.81	8.3		8.3	27.9	300 PVC	0.50	0.48	11.7%
6B	402	400				0.11	10.48	75.03	8.1		8.1	32.4	300 PVC	0.50	0.55	11.4%
	400	294	0.03	0.72	0.06	0.17	11.03	73.07	12.3		12.3	10.7	300 PVC	0.35	0.22	20.6%
7A	294	288	0.18	0.87	0.44	0.60	11.25	72.33	43.7		43.7	6.1	300 PVC	0.50	0.10	61.2%
6A	292	288	0.15	0.81	0.34	0.34	10.00	76.81	25.9		25.9	6.1	300 PVC	0.50	0.10	36.4%
		288				0.94	11.35	71.98	67.8	1.06	1.1	11.0	300 PVC	0.50	0.19	1.5%
6	414	410	0.15	0.81	0.34	0.34	10.00	76.81	25.9		25.9	3.4	300 PVC	0.50	0.06	36.4%
7	410	408	0.17	0.87	0.41	0.75	10.06	76.59	57.4		57.4	8.8	300 PVC	0.50	0.15	80.4%
		408				0.75	10.21	76.02	56.9	1.04	1.0	10.4	300 PVC	0.50	0.18	1.5%
		286				5.15	13.19	66.40	341.9		36.8	18.8	600 CONC	0.15	0.37	14.8%
CRU-8	CRU-8	284	0.05	0.90	0.13	0.13	10.00	76.81	9.6	2.9	2.9	20.3	300 PVC	1.00	0.24	2.9%
		284				0.13	10.24	75.88	9.5		2.9	8.8	300 PVC	0.50	0.15	4.1%
CRU-9	CRU-9	282	0.06	0.90	0.15	0.15	10.00	76.81	11.5	3.8	3.8	14.1	300 PVC	1.00	0.17	3.8%
		282				0.15	10.17	76.16	11.4		3.8	22.3	300 PVC	0.50	0.38	5.3%
		280				0.28	10.55	74.76	20.6		6.7	33.3	375 PVC	0.25	0.69	7.3%
CRU-3	CRU-3	278	0.19	0.90	0.48	0.48	10.00	76.81	36.5	5.7	5.7	41.2	300 PVC	1.00	0.50	5.7%
		278				5.90	13.56	65.40	385.8		49.2	36.4	600 CONC	0.15	0.71	19.8%

# STORM SEWER DESIGN SHEET

Location			Demand									Design Capacity				
			Flow									Proposed Sewer Pipe Sizing / Design				
Area ID	From MH	To MH	Area A (ha.)	Runoff Coefficient C	Indivi. 2.78 AC	Accum. 2.78 AC	Time of Conc. Tc (min.)	Rain Intensity I (mm/hr)	Total Uncontrolled Peak Flow Q (L/s)	Controlled Flow (L/s)	Total Controlled and Uncontrolled Peak Flow (L/s)	Pipe Length (m)	Pipe Size (mm) and Material	Design Grade So (%)	Time of Flow (min.)	Q / Qfull
8A	268	264	0.23	0.85	0.54	0.54	10.00	76.81	41.7		41.7	7.0	300 PVC	0.50	0.12	58.5%
	264	262				0.54	10.12	76.35	41.5	1.26	1.3	10.1	300 PVC	0.50	0.17	1.8%
8	276	272	0.19	0.85	0.45	0.45	10.00	76.81	34.5		34.5	6.6	300 PVC	0.50	0.11	48.3%
	272	262				0.45	10.11	76.38	34.3	1.04	1.0	3.8	300 PVC	0.50	0.06	1.5%
	262	226				6.89	14.27	63.54	437.9		51.5	22.7	600 CONC	0.15	0.45	20.7%
9C	250	248	0.05	0.90	0.13	0.13	10.00	76.81	9.6		9.6	54.5	300 PVC	0.50	0.93	13.5%
CRU-1	CRU-1	248	0.28	0.90	0.70	0.70	10.00	76.81	53.8	9.5	9.5	5.2	300 PVC	2.00	0.04	6.7%
9E	258	254	0.07	0.90	0.18	0.18	10.00	76.81	13.5		13.5	30.0	300 PVC	0.50	0.51	18.9%
9D	254	252	0.06	0.90	0.15	0.33	10.51	74.90	24.4		24.4	30.0	300 PVC	0.50	0.51	34.1%
9B	252	248	0.08	0.90	0.20	0.53	11.02	73.09	38.4	1.75	1.8	6.0	300 PVC	0.50	0.10	2.5%
	248	242				1.35	11.13	72.74	98.3		20.9	40.3	450 CONC	0.25	0.74	14.0%
CRU-2	CRU-2	242	0.16	0.90	0.40	0.40	10.00	76.81	30.7	4.8	4.8	8.2	300 PVC	2.00	0.07	3.4%
9A	246	244	0.16	0.86	0.38	0.51	10.93	73.41	37.3		37.3	12.5	300 PVC	0.50	0.21	52.2%
	244	242				0.51	11.14	72.68	36.9	1.18	1.2	13.4	300 PVC	0.50	0.23	1.7%
	242	240				2.26	11.87	70.31	158.8		26.8	36.9	450 CONC	0.25	0.68	18.0%
	240	226				2.26	12.55	68.24	154.2		26.8	6.9	450 CONC	0.25	0.13	18.0%
10B	236	230	0.04	0.80	0.09	0.09	10.00	76.81	6.8		6.8	38.6	300 PVC	0.50	0.66	9.6%
10A	230	228	0.11	0.87	0.27	0.36	10.66	74.37	26.4		26.4	19.0	450 CONC	0.25	0.35	17.8%
9	228	226	0.15	0.75	0.31	0.67	11.01	73.14	48.8	1.23	1.2	17.1	300 PVC	0.50	0.29	1.7%
	226	220				9.82	12.67	67.87	666.4		79.5	19.0	750 CONC	0.10	0.39	21.7%
10	222	220	0.11	0.87	0.27	0.27	10.00	76.81	20.4	1.33	1.3	3.6	300 PVC	0.50	0.06	1.9%
	220	216				10.08	13.07	66.74	673.1		80.9	21.5	750 CONC	0.10	0.44	22.0%

# STORM SEWER DESIGN SHEET

Location			Demand									Design Capacity				
			Flow									Proposed Sewer Pipe Sizing / Design				
Area ID	From MH	To MH	Area A (ha.)	Runoff Coefficient C	Indivi. 2.78 AC	Accum. 2.78 AC	Time of Conc. Tc (min.)	Rain Intensity I (mm/hr)	Total Uncontrolled Peak Flow Q (L/s)	Controlled Flow (L/s)	Total Controlled and Uncontrolled Peak Flow (L/s)	Pipe Length (m)	Pipe Size (mm) and Material	Design Grade So (%)	Time of Flow (min.)	Q / Qfull
CRU-10	CRU-10	218	0.05	0.90	0.13	0.13	10.00	76.81	9.6	2.9	2.9	7.8	300 PVC	1.00	0.09	2.9%
	218	216				0.13	10.09	76.45	9.6		2.9	36.6	300 PVC	1.00	0.44	2.9%
	216	212				10.21	13.51	65.52	668.9		83.8	15.7	750 CONC	0.10	0.32	22.8%
11	214	212	0.31	0.88	0.76	0.76	10.00	76.81	58.2	1.27	1.3	9.5	300 PVC	0.50	0.16	1.8%
	212	204				10.97	13.84	64.66	709.2		85.0	25.3	750 CONC	0.10	0.52	23.2%
12A	208	206	0.04	0.79	0.09	0.09	10.00	76.81	6.7		6.7	42.0	750 CONC	0.15	0.71	1.5%
12	206	204	0.06	0.75	0.13	0.21	10.71	74.18	15.8	1.18	1.2	24.3	300 PVC	0.88	0.31	1.2%
	204	EX				11.18	14.36	63.32	708.0		86.2	83.2	855 x 1345 ELIP CONC (1050)	0.10	1.38	9.6%
13	200	EX STM	0.03	0.20	0.02	0.02	10.00	76.81	1.3		1.3	5.2	300 PVC	1.00	0.06	1.3%
	EX STM	HW				11.20	15.73	60.09	672.8		87.5	4.2	855 x 1345 ELIP CONC (1050)	0.22	0.05	6.5%

## Demand Equation / Parameters

1.  $Q = 2.78 ACI$

## Definitions

- Q = Peak flow in litres per second (L/s)
- A = Area in hectares (ha)
- C = Weighted runoff coefficient (increased by 25% for 100-year)
- I = Rainfall intensity in millimeters per hour (mm/hr)

Rainfall intensity is based on City of Ottawa IDF data presented in the City of Ottawa - Sewer Design Guidelines (2025)

## Capacity Equation

$Q_{full} = 1000 * (1/n) * A_p * R^{2/3} * S_o^{0.5}$

## Definitions

- Q full = Capacity (L/s)
- n = Manning coefficient of roughness (0.013)
- A<sub>p</sub> = Pipe flow area (m<sup>2</sup>)
- R = Hydraulic Radius of wetted area (dia./4 for full pipes)
- S<sub>o</sub> = Pipe slope/gradient

## 8.5.2 Water Quantity

### Public Roads

The storm sewers in the public right-of-ways will convey stormwater uncontrolled for storm events up to and including the 5-year storm event. For storm greater than the 5-year storm event, the public right-of-ways will provide approximately 100 m<sup>3</sup>/ha of storage within the road sags.

While, peak flows from the right-of-ways will be higher than pre-development conditions, the SWM facility on the west-side of the O’Keefe Drain has been oversized to ensure that flows in the O’Keefe Drain do not exceed pre-development levels.

### Private Sites

The private sites east of the O’Keefe Drain will be designed to provide sufficient on-site storage to ensure that peak flows in the O’Keefe Drain are maintained to below pre-development levels at all stages of development. Per hectare release rates and on-site storage requirements (based on 85% impervious) are shown in **Table 8.13**.

**Table 8.13: SWM Targets for Areas East of the O’Keefe Drain**

Design Event	Release Rate (L/s/ha)	On-Site Storage* (m <sup>3</sup> /ha)
2-yr Event	20	179
5-yr Event	35	232
10-yr Event	45	267
25-yr Event	64	310
50-yr Event	75	333
100-yr Event	126	351

\* Based on 85% imperviousness

Site-specific SWM reports will be required as part of the site plan application and detailed design of each individual site to demonstrate that the design adheres to the release rates listed in **Table 8.13**. Storage requirements will vary based on the imperviousness of each site. The allowable release rates for each Block are summarized in **Table 8.14**.

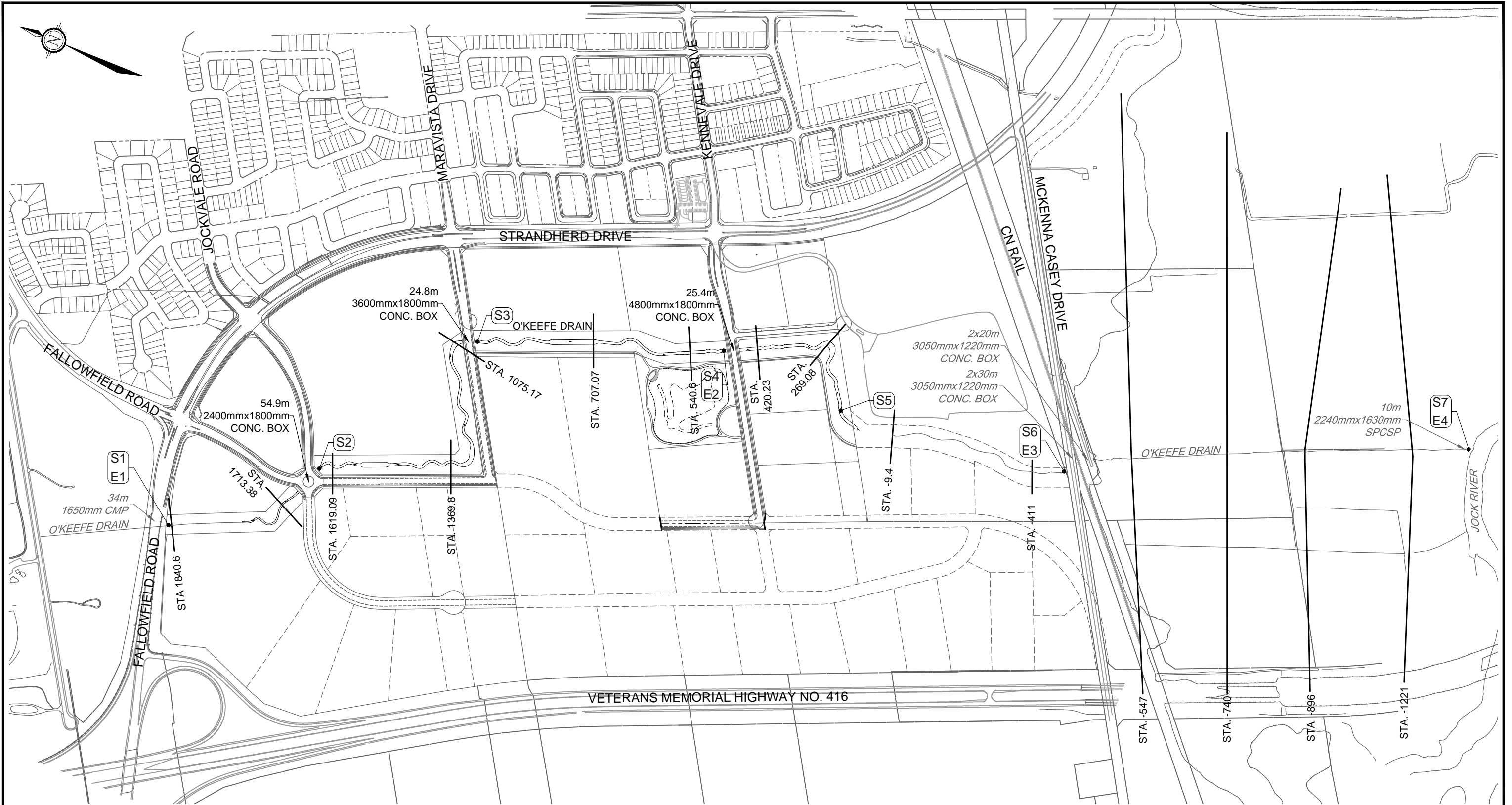
**Table 8.14: Allowable Release Rates for Areas East of the O’Keefe drain**

Block	Area (ha)	Allowable Release Rate (L/s)					
		2yr	5yr	10yr	25yr	50yr	100yr
Block 16	2.50	50	88	113	160	188	315
Block 1	3.51	70	123	158	225	263	442
Block 2	12.04	241	421	542	771	903	1,517
Block 3	5.30	106	186	239	339	398	668
Block 4	3.41	68	119	153	218	256	430
Blocks 5 & 6	3.49	70	122	157	223	262	440

### Temperature Mitigation

Best-management practices for temperature mitigation are encouraged for development on the east side of the O’Keefe Drain. Examples of suitable BMPs are provided in **Section 9.2.5**.

M:\2009\109203\Citi Gate\CAD\Design\Figures\Design Brief\2014\March\31-Servicing Report\109203-Figure7.dwg, FIG 7, Oct 03, 2014 - 1:39pm, cstant



**LEGEND**

- S1 HYDROLOGIC MODELING (SWMHYMO) ANALYSIS POINT
- E1 ENVIRONMENTAL MANAGEMENT PLAN (EMP) ANALYSIS POINT

— STA. 1840.6 CROSS SECTION AND STATION



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**CITI GATE 416  
EMPLOYMENT LANDS**

**Post-Development Conditions  
Hydraulic Model  
Cross-Section Locations**

SCALE 1:7500

DATE SEP 2014	JOB 109203	FIGURE FIGURE 7
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**HEC-RAS Summary Output**  
**Proposed Conditions**

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)
Proposed Channel	1840.38	100-yr 12hr SCS	7.16	97.42	98.25	1.95	7.36	27.91
Proposed Channel	615.6	100-yr 12hr SCS	10.46	92.42	93.88	0.73	20.99	30.58
Proposed Channel	615.6	50-yr 12hr SCS	8.77	92.42	93.78	0.7	17.96	29.97
Proposed Channel	615.6	25-yr 12hr SCS	7.49	92.42	93.69	0.7	15.28	29.42
Proposed Channel	615.6	10-yr 12hr SCS	5.39	92.42	93.54	0.68	10.89	28.48
Proposed Channel	615.6	5-yr 12hr SCS	4.09	92.42	93.42	0.66	7.74	25.55
Proposed Channel	615.6	2-yr 12hr SCS	2.40	92.42	93.23	0.64	3.86	12.66
Proposed Channel	615.6	25mm 6hr SCS	1.04	92.42	92.95	0.57	1.81	5.5
Proposed Channel	590.6	100-yr 12hr SCS	10.46	92.36	93.83	1.02	16.83	23.28
Proposed Channel	590.6	50-yr 12hr SCS	8.77	92.36	93.73	0.98	14.5	22.67
Proposed Channel	590.6	25-yr 12hr SCS	7.49	92.36	93.63	0.97	12.4	22.1
Proposed Channel	590.6	10-yr 12hr SCS	5.39	92.36	93.48	0.93	8.96	21.14
Proposed Channel	590.6	5-yr 12hr SCS	4.09	92.36	93.35	0.93	6.34	20.38
Proposed Channel	590.6	2-yr 12hr SCS	2.40	92.36	93.13	0.88	2.76	7.14
Proposed Channel	590.6	25mm 6hr SCS	1.04	92.36	92.87	0.68	1.54	4.03
Proposed Channel	585.6	Inl Struct						
Proposed Channel	540.6	100-yr 12hr SCS	10.46	92.27	93.81	1.08	14.66	21.81
Proposed Channel	540.6	50-yr 12hr SCS	8.77	92.27	93.71	1.04	12.46	21.19
Proposed Channel	540.6	25-yr 12hr SCS	7.49	92.27	93.62	1.03	10.55	20.65
Proposed Channel	540.6	10-yr 12hr SCS	5.39	92.27	93.46	0.96	7.4	19.71
Proposed Channel	540.6	5-yr 12hr SCS	4.09	92.27	93.34	0.92	5.05	16.95
Proposed Channel	540.6	2-yr 12hr SCS	2.40	92.27	93.11	0.77	3.1	5.37
Proposed Channel	540.6	25mm 6hr SCS	1.04	92.27	92.82	0.61	1.72	4.21
Proposed Channel	535.6	Inl Struct						
Proposed Channel	497.42	100-yr 12hr SCS	10.46	92.23	93.81	1.03	15.38	21.87
Proposed Channel	497.42	50-yr 12hr SCS	8.77	92.23	93.70	0.99	13.16	21.25
Proposed Channel	497.42	25-yr 12hr SCS	7.49	92.23	93.61	0.97	11.23	20.7
Proposed Channel	497.42	10-yr 12hr SCS	5.39	92.23	93.46	0.91	8.06	19.76
Proposed Channel	497.42	5-yr 12hr SCS	4.09	92.23	93.33	0.87	5.6	18.32
Proposed Channel	497.42	2-yr 12hr SCS	2.40	92.23	93.10	0.74	3.25	5.48
Proposed Channel	497.42	25mm 6hr SCS	1.04	92.23	92.81	0.56	1.84	4.33
Proposed Channel	490.6	100-yr 12hr SCS	10.46	92.22	93.79	1.06	14.62	20.58
Proposed Channel	490.6	50-yr 12hr SCS	8.77	92.22	93.69	1.02	12.53	19.96
Proposed Channel	490.6	25-yr 12hr SCS	7.49	92.22	93.60	1	10.72	19.41
Proposed Channel	490.6	10-yr 12hr SCS	5.39	92.22	93.44	0.92	7.77	18.36
Proposed Channel	490.6	5-yr 12hr SCS	4.09	92.22	93.31	0.88	5.47	17.43
Proposed Channel	490.6	2-yr 12hr SCS	2.40	92.22	93.08	0.75	3.2	5.44
Proposed Channel	490.6	25mm 6hr SCS	1.04	92.22	92.80	0.57	1.82	4.3
Proposed Channel	485.6	Culvert						
Proposed Channel	457.6	100-yr 12hr SCS	10.46	92.19	93.76	1.03	15.96	24.11
Proposed Channel	457.6	50-yr 12hr SCS	8.77	92.19	93.67	0.98	13.83	23.59
Proposed Channel	457.6	25-yr 12hr SCS	7.49	92.19	93.59	0.94	12.04	23.13
Proposed Channel	457.6	10-yr 12hr SCS	5.39	92.19	93.44	0.87	8.59	22.22
Proposed Channel	457.6	5-yr 12hr SCS	4.09	92.19	93.32	0.83	5.97	17.92
Proposed Channel	457.6	2-yr 12hr SCS	2.40	92.19	93.08	0.71	3.4	5.59
Proposed Channel	457.6	25mm 6hr SCS	1.04	92.19	92.80	0.53	1.97	4.45
Proposed Channel	451.71	100-yr 12hr SCS	10.46	92.18	93.75	1.01	15.96	24.24
Proposed Channel	451.71	50-yr 12hr SCS	8.77	92.18	93.66	0.96	13.82	23.7
Proposed Channel	451.71	25-yr 12hr SCS	7.49	92.18	93.58	0.93	12.01	23.24
Proposed Channel	451.71	10-yr 12hr SCS	5.39	92.18	93.43	0.87	8.53	22.32
Proposed Channel	451.71	5-yr 12hr SCS	4.09	92.18	93.30	0.83	5.88	17.78
Proposed Channel	451.71	2-yr 12hr SCS	2.40	92.18	93.07	0.72	3.35	5.55
Proposed Channel	451.71	25mm 6hr SCS	1.04	92.18	92.79	0.53	1.95	4.43
Proposed Channel	420.23	100-yr 12hr SCS	12.71	92.15	93.64	1.37	14.48	24.5
Proposed Channel	420.23	50-yr 12hr SCS	10.55	92.15	93.56	1.3	12.36	23.97
Proposed Channel	420.23	25-yr 12hr SCS	8.88	92.15	93.48	1.25	10.55	23.51
Proposed Channel	420.23	10-yr 12hr SCS	6.15	92.15	93.33	1.14	7.03	21.56
Proposed Channel	420.23	5-yr 12hr SCS	4.49	92.15	93.20	1.03	4.77	14.86
Proposed Channel	420.23	2-yr 12hr SCS	2.60	92.15	92.98	0.86	3.01	5.31
Proposed Channel	420.23	25mm 6hr SCS	1.18	92.15	92.71	0.68	1.72	4.22
Proposed Channel	410.23	Inl Struct						
Proposed Channel	340.6	100-yr 12hr SCS	12.71	92.07	93.64	1.19	17.38	27.04
Proposed Channel	340.6	50-yr 12hr SCS	10.55	92.07	93.55	1.13	15.04	26.52
Proposed Channel	340.6	25-yr 12hr SCS	8.88	92.07	93.48	1.07	13.03	26.06
Proposed Channel	340.6	10-yr 12hr SCS	6.15	92.07	93.32	0.98	9.1	25.14
Proposed Channel	340.6	5-yr 12hr SCS	4.49	92.07	93.19	0.91	6.1	19.96
Proposed Channel	340.6	2-yr 12hr SCS	2.60	92.07	92.96	0.77	3.36	5.56
Proposed Channel	340.6	25mm 6hr SCS	1.18	92.07	92.66	0.62	1.89	4.37
Proposed Channel	288.36	100-yr 12hr SCS	12.71	92.02	93.60	0.76	25.19	36.41
Proposed Channel	288.36	50-yr 12hr SCS	10.55	92.02	93.51	0.71	22.1	35.9
Proposed Channel	288.36	25-yr 12hr SCS	8.88	92.02	93.44	0.66	19.44	35.45
Proposed Channel	288.36	10-yr 12hr SCS	6.15	92.02	93.29	0.57	14.27	32.94
Proposed Channel	288.36	5-yr 12hr SCS	4.49	92.02	93.16	0.51	10.37	27.56
Proposed Channel	288.36	2-yr 12hr SCS	2.60	92.02	92.92	0.42	6.24	9.4
Proposed Channel	288.36	25mm 6hr SCS	1.18	92.02	92.63	0.31	3.75	7.45

**CitiGate - 'Block 3' (125050)**  
**PCSWMM Model Results (HGL)**



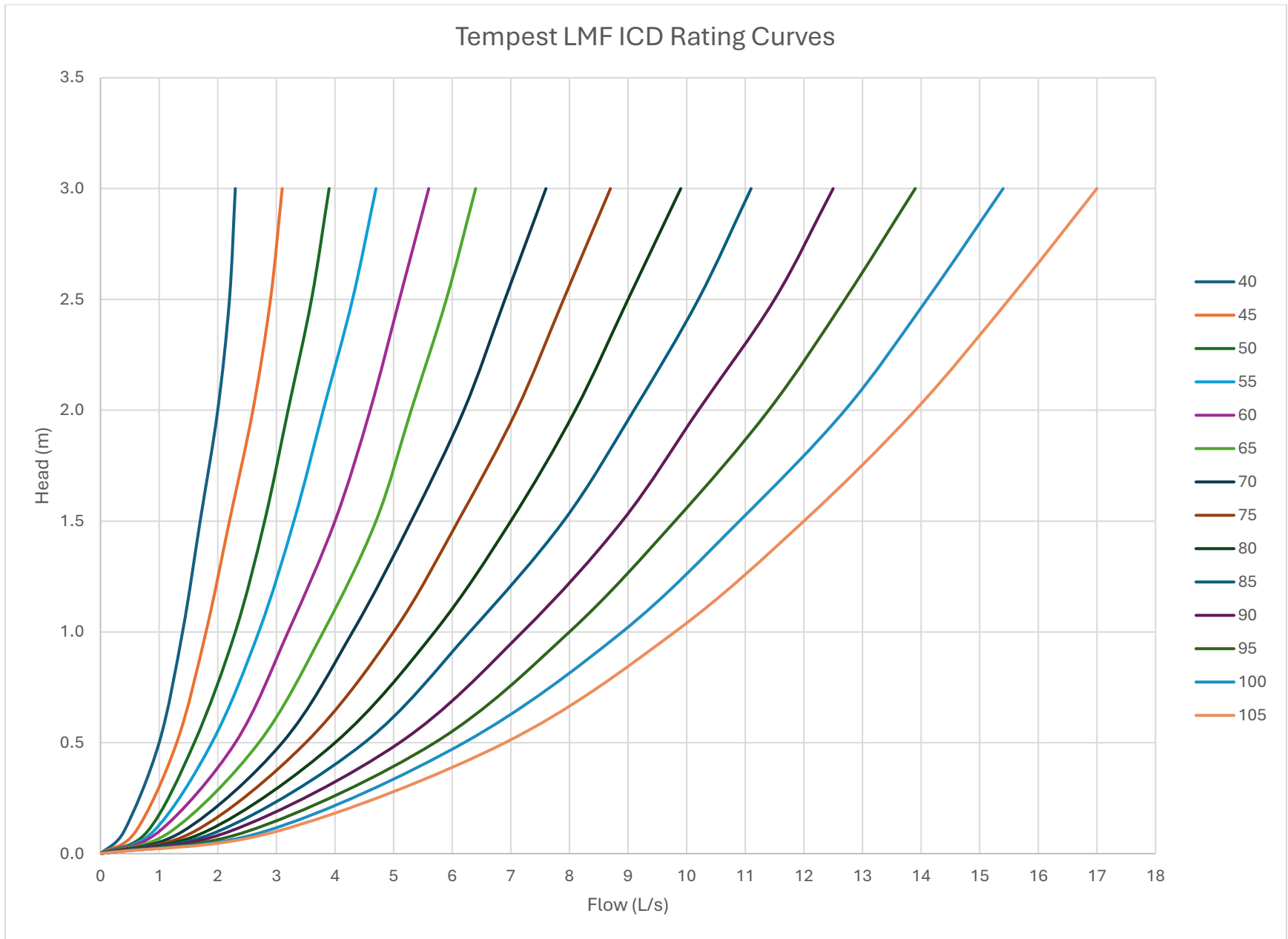
MH ID	Obvert Elevation (m)	T/G Elevation (m)	HGL Elevation <sup>1</sup> (m)	Surcharge (m)	Clearance from T/G (m)	HGL in Stress Test <sup>1</sup> (m)
MH218	94.48	96.36	94.23	0.00	2.13	94.23
MH238	94.38	96.43	94.11	0.00	2.32	94.13
MH242	94.27	96.76	94.01	0.00	2.75	94.03
MH278	94.26	96.3	93.95	0.00	1.88	93.97
MH282	94.53	96.17	94.29	0.00	3.01	94.29
MH284	94.53	97.28	94.27	0.00	2.55	94.28
MH416	94.39	96.57	94.02	0.00	1.86	94.04
MH422	94.66	96.3	94.44	0.00	2.44	94.45
MH462	94.49	96.51	94.07	0.00	2.35	94.09
MH468	94.57	96.61	94.26	0.00	0.00	94.28

<sup>1</sup> 6-hour Chicago Storm.

CitiGate - 'Block 3' (125050)  
PCSWMM Model Results (Ponding)

CB ID	Invert Elev. (m)	Rim Elev. (m)	Spill Elev. (m)	Ponding Depth (m)	HGL Elev. (m) <sup>1</sup>				Ponding Depth (m)				Spill Depth (m)			
					2-yr	5-yr	100-yr	100-yr (+20%)	2-yr	5-yr	100-yr	100-yr (+20%)	2-yr	5-yr	100-yr	100-yr (+20%)
CB202	97.35	96.35	96.63	0.28	93.98	94.01	94.04	94.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB210	97.28	96.28	96.32	0.04	94.70	95.04	96.09	96.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB238	97.28	96.28	96.32	0.04	94.73	94.94	95.67	96.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB250	96.52	95.52	96.50	0.98	94.43	94.44	94.47	94.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB256	96.50	95.50	96.10	0.60	95.02	95.03	95.83	96.34	0.00	0.00	0.33	0.84	0.00	0.00	0.00	0.24
CB260	97.45	96.45	96.65	0.20	94.96	94.97	95.83	96.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB406	97.26	96.26	96.40	0.14	94.96	94.98	95.22	96.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB424	97.36	96.36	96.45	0.09	94.42	94.43	94.44	94.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB458	97.28	96.28	96.45	0.17	94.99	95.12	96.06	96.30	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
CB460	97.35	96.35	96.43	0.08	94.92	95.12	96.06	96.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CBMH206	96.95	95.95	96.25	0.30	94.70	95.04	96.09	96.20	0.00	0.00	0.14	0.25	0.00	0.00	0.00	0.00
CBMH208	97.20	96.20	96.32	0.12	94.70	95.04	96.09	96.21	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
CBMH214/ST17	96.95	95.95	96.25	0.30	94.68	94.99	96.16	96.23	0.00	0.00	0.21	0.28	0.00	0.00	0.00	0.00
CBMH222	97.00	96.00	96.22	0.22	94.77	95.08	96.17	96.22	0.00	0.00	0.17	0.22	0.00	0.00	0.00	0.00
CBMH228	97.00	96.00	96.20	0.20	94.73	94.94	95.67	96.18	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00
CBMH230	97.00	96.00	96.20	0.20	94.73	94.94	95.67	96.18	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00
CBMH236	97.25	96.25	96.32	0.07	94.73	94.94	95.67	96.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CBMH246/ST18	97.30	96.30	96.43	0.13	94.76	94.97	95.71	96.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CBMH252	97.15	96.15	96.43	0.28	94.72	94.89	95.83	96.34	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00
CBMH254	97.30	96.30	96.5	0.20	94.72	94.89	95.83	96.34	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00
CBMH258	97.45	96.45	96.65	0.20	94.72	94.89	95.83	96.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CBMH268	96.95	95.95	96.15	0.20	94.98	95.05	96.14	96.20	0.00	0.00	0.19	0.25	0.00	0.00	0.00	0.05
CBMH276	96.95	95.95	96.15	0.20	94.47	94.62	95.06	96.20	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.05
CBMH292	97.05	96.05	96.27	0.22	94.63	94.79	95.22	96.13	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
CBMH294	97.00	96.00	96.35	0.35	94.63	94.79	95.22	96.13	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00
CBMH402	97.25	96.25	96.40	0.15	94.65	94.79	95.22	96.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CBMH404	97.35	96.35	96.41	0.06	94.84	94.85	95.22	96.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CBMH408	97.00	96.00	96.35	0.35	94.60	94.74	95.14	96.16	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00
CBMH414	97.05	96.05	96.30	0.25	94.60	94.74	95.14	96.16	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00
CBMH430	97.05	96.05	96.30	0.25	94.92	95.09	95.87	96.23	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00
CBMH438	97.00	96.00	96.27	0.27	94.92	95.09	95.87	96.23	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00
CBMH444/ST2	97.05	96.05	96.25	0.20	94.92	95.12	96.06	96.30	0.00	0.00	0.01	0.25	0.00	0.00	0.00	0.05
CBMH450	97.00	96.00	96.25	0.25	94.92	95.12	96.06	96.30	0.00	0.00	0.06	0.30	0.00	0.00	0.00	0.05
CBMH454	97.30	96.30	96.43	0.13	94.92	95.12	96.06	96.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CBMH456	97.30	96.30	96.45	0.15	94.92	95.12	96.06	96.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CBMH470	97.45	96.45	96.6	0.15	94.41	94.43	94.49	94.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

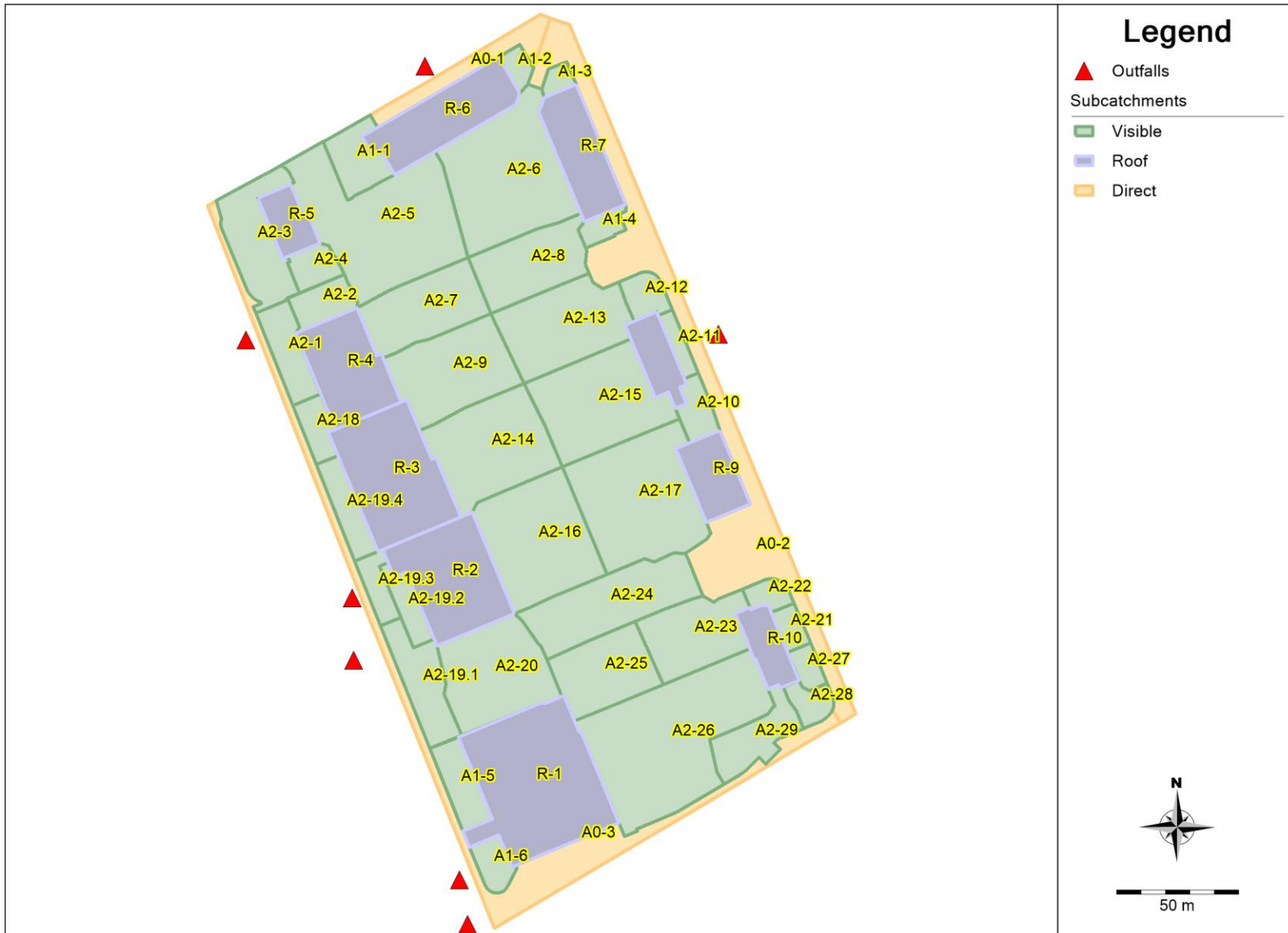
CitiGate - 'Block 3' (125050)  
Tempest ICD Curves



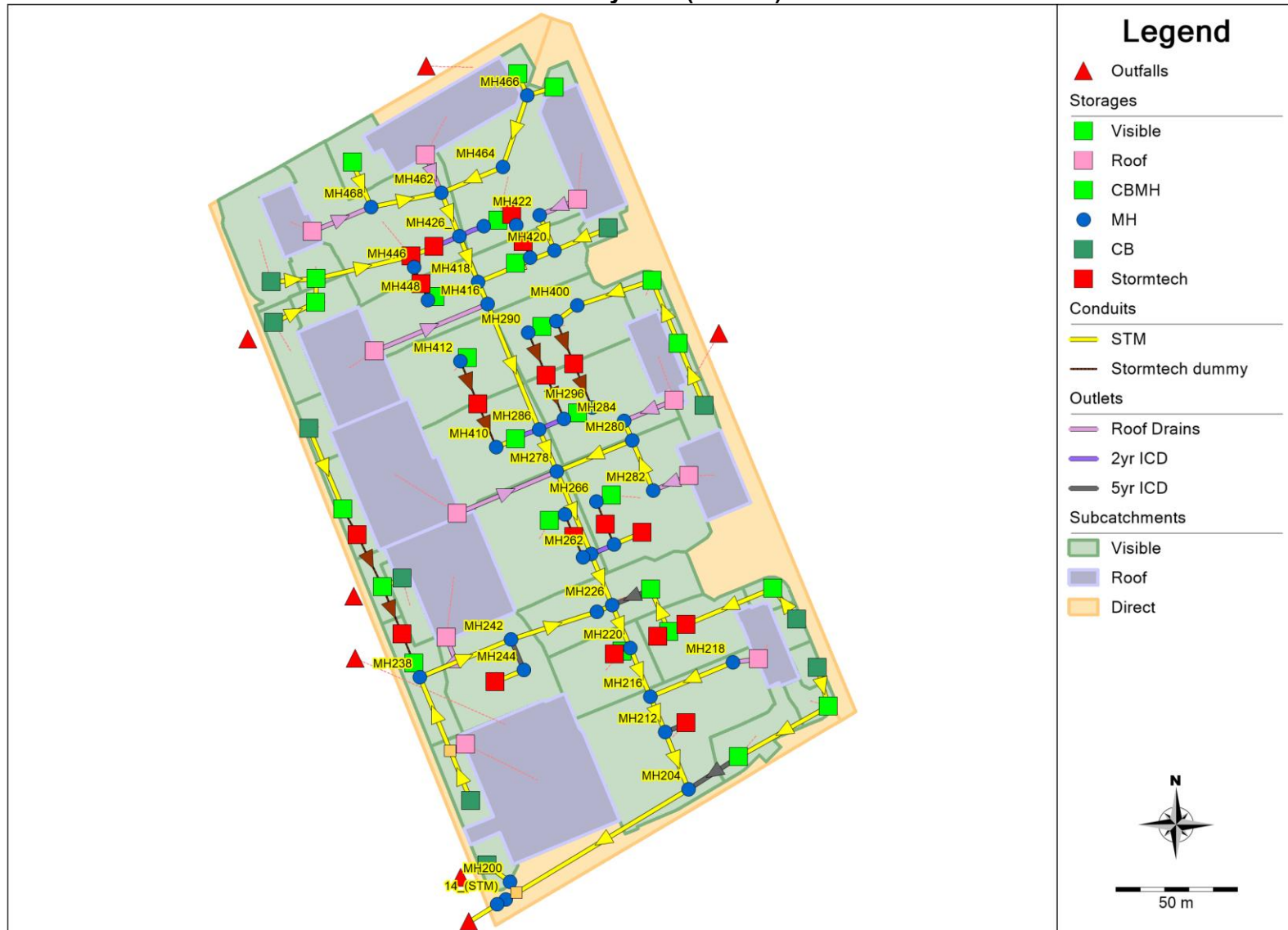
Overall Model Schematic



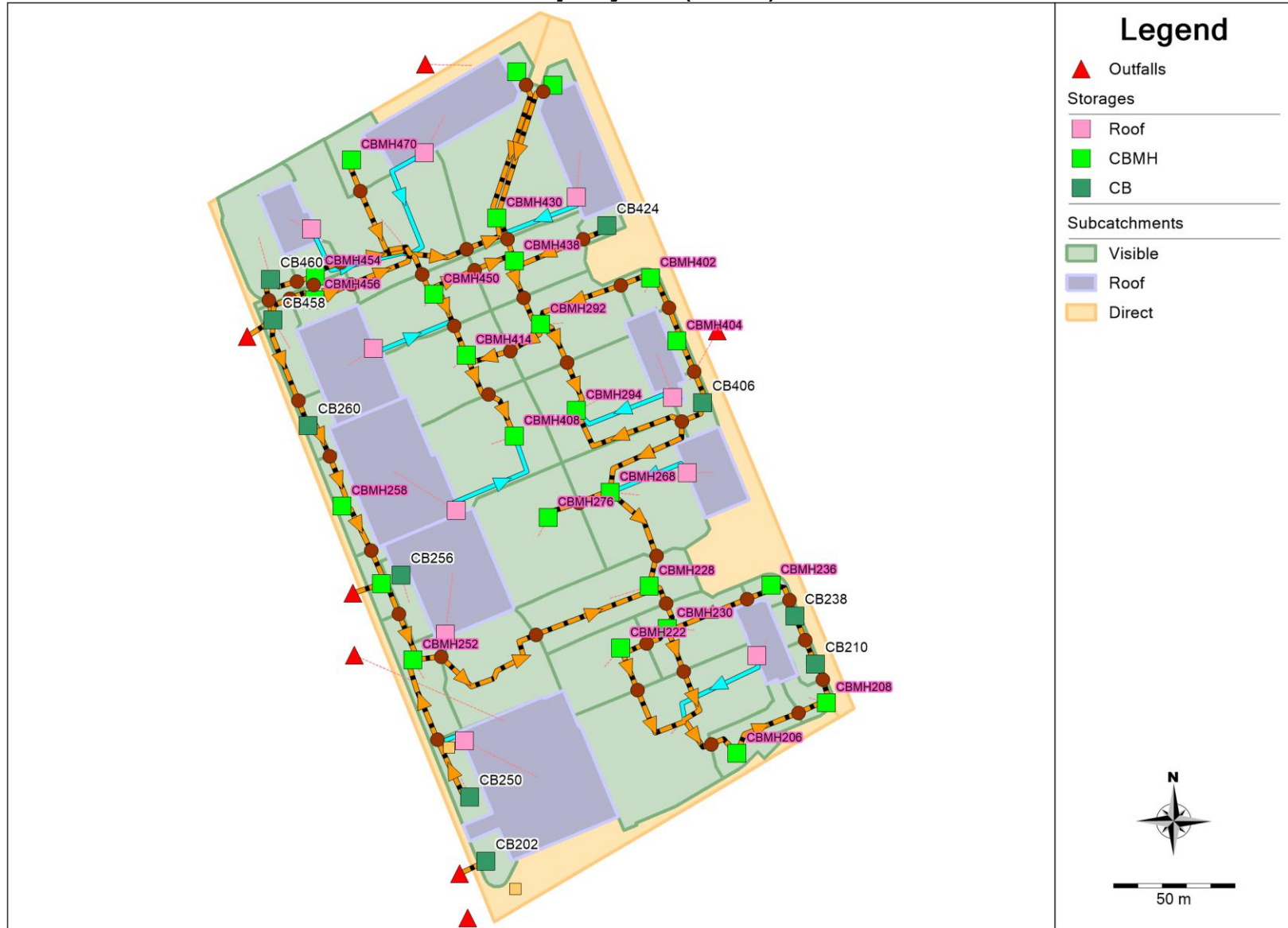
### Subcatchments



Minor System (MH IDs)



Major System (CB IDs)



EPA STORM WATER MANAGEMENT MODEL - VERSION 5.2 (Build 5.2.4)

Boundary Conditions:

100-yr = 93.88m

25-yr = 93.69m

WARNING 03: negative offset ignored for Link MAJ-CBMH454(3)  
 WARNING 03: negative offset ignored for Link MAJ-CBMH454(4)  
 WARNING 04: minimum elevation drop used for Conduit STM-106\_(STM)\_1  
 WARNING 04: minimum elevation drop used for Conduit STM-106\_(STM)\_2  
 WARNING 04: minimum elevation drop used for Conduit STM-115\_(STM)\_1  
 WARNING 04: minimum elevation drop used for Conduit STM-115\_(STM)\_2  
 WARNING 04: minimum elevation drop used for Conduit STM-118\_(STM)\_1  
 WARNING 04: minimum elevation drop used for Conduit STM-118\_(STM)\_2  
 WARNING 04: minimum elevation drop used for Conduit STM-124\_(STM)\_1  
 WARNING 04: minimum elevation drop used for Conduit STM-124\_(STM)\_2  
 WARNING 04: minimum elevation drop used for Conduit STM-141\_(STM)\_1  
 WARNING 04: minimum elevation drop used for Conduit STM-141\_(STM)\_2  
 WARNING 03: negative offset ignored for Link STM-55\_(STM)  
 WARNING 04: minimum elevation drop used for Conduit STM-88\_(STM)\_1  
 WARNING 04: minimum elevation drop used for Conduit STM-88\_(STM)\_2  
 WARNING 04: minimum elevation drop used for Conduit STM-89\_(STM)\_1  
 WARNING 04: minimum elevation drop used for Conduit STM-89\_(STM)\_2  
 WARNING 04: minimum elevation drop used for Conduit STM-96\_(STM)\_1  
 WARNING 04: minimum elevation drop used for Conduit STM-96\_(STM)\_2  
 WARNING 04: minimum elevation drop used for Conduit STM-99\_(STM)\_1  
 WARNING 04: minimum elevation drop used for Conduit STM-99\_(STM)\_2

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Element Count

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Number of rain gages ..... 1  
 Number of subcatchments ... 51  
 Number of nodes ..... 158  
 Number of links ..... 207  
 Number of pollutants ..... 0  
 Number of land uses ..... 0

\*\*\*\*\*

Raingage Summary

\*\*\*\*\*

Name	Data Source	Data Type	Recording Interval
Raingage	1-C6-100	INTENSITY	10 min.

\*\*\*\*\*

Subcatchment Summary

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Outlet	Area	Width	%Imperv	%Slope	Rain Gage
A0-1	0.06	101.27	23.00	15.0000	Raingage
OF-Systemhouse					

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

A0-2	0.36	122.48	41.00	2.5000	Raingage
OF-Strandherd					
A0-3	0.22	63.56	0.00	15.0000	Raingage
MAJ-MD					
A1-1	0.05	40.59	51.00	1.2500	Raingage
CBMH470					
A1-2	0.01	16.62	100.00	0.5000	Raingage
PD1					
A1-3	0.01	19.05	100.00	0.5000	Raingage
PD2					
A1-4	0.02	16.30	100.00	1.0000	Raingage
CB424					
A1-5	0.05	17.48	100.00	2.0000	Raingage
CB250					
A1-6	0.03	32.95	0.00	3.0000	Raingage
CB202					
A2-1	0.05	24.24	97.00	1.5000	Raingage
CB458					
A2-10	0.03	26.06	73.00	1.5000	Raingage
CB406					
A2-11	0.02	12.36	100.00	1.0000	Raingage
CBMH404					
A2-12	0.03	21.29	77.00	1.0000	Raingage
CBMH402					
A2-13	0.15	60.58	87.00	1.5000	Raingage
CBMH292					
A2-14	0.17	65.66	96.00	1.7500	Raingage
CBMH408					
A2-15	0.18	78.91	96.00	1.5000	Raingage
CBMH294					
A2-16	0.19	72.06	93.00	1.5000	Raingage
CBMH276					
A2-17	0.23	97.92	93.00	1.5000	Raingage
CBMH268					
A2-18	0.03	29.77	100.00	1.5000	Raingage
CB260					
A2-19.1	0.07	28.09	100.00	2.5000	Raingage
CBMH252					
A2-19.2	0.03	11.19	100.00	2.5000	Raingage
CB256					
A2-19.3	0.03	20.12	100.00	2.5000	Raingage
CBMH254					
A2-19.4	0.04	20.73	100.00	2.5000	Raingage
CBMH258					
A2-2	0.04	29.82	71.00	1.5000	Raingage
CBMH456					
A2-20	0.16	78.97	94.00	1.0000	Raingage
CBMH246/ST18					
A2-21	0.02	31.36	79.00	1.0000	Raingage
CB238					
A2-22	0.02	22.12	93.00	1.5000	Raingage
CBMH236					
A2-23	0.11	49.89	96.00	1.5000	Raingage
CBMH230					
A2-24	0.15	46.10	79.00	1.5000	Raingage
CBMH228					
A2-25	0.11	48.37	96.00	1.5000	Raingage
CBMH222					
A2-26	0.31	75.92	97.00	1.5000	Raingage
CBMH214/ST17					

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

A2-27 CB210	0.02	20.86	80.00	1.0000	Raingage
A2-28 CBMH208	0.02	23.03	84.00	1.5000	Raingage
A2-29 CBMH206	0.06	65.11	79.00	2.0000	Raingage
A2-3 CB460	0.10	32.88	63.00	1.5000	Raingage
A2-4 CBMH454	0.03	27.54	97.00	1.5000	Raingage
A2-5 CBMH444/ST2	0.27	61.28	94.00	1.5000	Raingage
A2-6 CBMH430	0.23	74.98	97.00	1.5000	Raingage
A2-7 CBMH450	0.12	49.84	87.00	1.5000	Raingage
A2-8 CBMH438	0.11	38.54	86.00	1.5000	Raingage
A2-9 CBMH414	0.15	64.30	87.00	1.5000	Raingage
R-1 R1_S	0.28	278.00	100.00	1.5000	Raingage
R-10 R10_S	0.04	45.00	100.00	1.5000	Raingage
R-2 R2_S	0.16	159.00	100.00	1.5000	Raingage
R-3 R3_S	0.19	188.00	100.00	1.5000	Raingage
R-4 R4_S	0.12	119.00	100.00	1.5000	Raingage
R-5 R5_S	0.04	42.00	100.00	1.5000	Raingage
R-6 R6_S	0.13	126.00	100.00	1.5000	Raingage
R-7 R7_S	0.10	96.00	100.00	1.5000	Raingage
R-8 R8_S	0.05	48.00	100.00	1.5000	Raingage
R-9 R9_S	0.06	63.00	100.00	1.5000	Raingage

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Node Summary

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Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
HP-A1-1	JUNCTION	96.60	1.00	0.0	
HP-A1-2	JUNCTION	96.85	1.00	0.0	
HP-A1-3	JUNCTION	96.75	1.00	0.0	
HP-A1-4	JUNCTION	96.45	1.00	0.0	
HP-A1-5	JUNCTION	96.50	1.00	0.0	
HP-A2-1	JUNCTION	96.65	1.00	0.0	
HP-A2-10 (1)	JUNCTION	96.41	1.00	0.0	
HP-A2-10 (2)	JUNCTION	96.40	1.00	0.0	
HP-A2-11	JUNCTION	96.42	1.00	0.0	
HP-A2-12	JUNCTION	96.40	1.00	0.0	
HP-A2-13 (1)	JUNCTION	96.30	1.00	0.0	

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HP-A2-13 (2)	JUNCTION	96.35	1.00	0.0
HP-A2-16	JUNCTION	96.15	1.00	0.0
HP-A2-17	JUNCTION	96.20	1.00	0.0
HP-A2-18	JUNCTION	96.65	1.00	0.0
HP-A2-19.1	JUNCTION	96.43	1.00	0.0
HP-A2-19.3	JUNCTION	96.50	1.00	0.0
HP-A2-19.4	JUNCTION	96.65	1.00	0.0
HP-A2-2 (1)	JUNCTION	96.45	1.00	0.0
HP-A2-2 (2)	JUNCTION	96.50	1.00	0.0
HP-A2-20	JUNCTION	96.50	1.00	0.0
HP-A2-21	JUNCTION	96.32	1.00	0.0
HP-A2-22	JUNCTION	96.37	1.00	0.0
HP-A2-23	JUNCTION	96.30	1.00	0.0
HP-A2-24	JUNCTION	96.20	1.00	0.0
HP-A2-25	JUNCTION	96.35	1.00	0.0
HP-A2-25 (2)	JUNCTION	96.22	1.00	0.0
HP-A2-26	JUNCTION	96.25	1.00	0.0
HP-A2-27	JUNCTION	96.40	1.00	0.0
HP-A2-28	JUNCTION	96.32	1.00	0.0
HP-A2-29	JUNCTION	96.45	1.00	0.0
HP-A2-3 (1)	JUNCTION	96.43	1.00	0.0
HP-A2-3 (2)	JUNCTION	96.45	1.00	0.0
HP-A2-4 (1)	JUNCTION	96.50	1.00	0.0
HP-A2-4 (2)	JUNCTION	96.55	1.00	0.0
HP-A2-5 (1)	JUNCTION	96.35	1.00	0.0
HP-A2-5 (2)	JUNCTION	96.25	1.00	0.0
HP-A2-6	JUNCTION	96.30	1.00	0.0
HP-A2-7 (1)	JUNCTION	96.30	1.00	0.0
HP-A2-7 (2)	JUNCTION	96.38	1.00	0.0
HP-A2-8	JUNCTION	96.27	1.00	0.0
HP-A2-9	JUNCTION	96.35	1.00	0.0
HP-MD1	OUTFALL	96.43	1.00	0.0
MAJ-MD	OUTFALL	96.43	0.00	0.0
MAJ-MD2	OUTFALL	96.41	1.00	0.0
MAJ-MD3	OUTFALL	96.63	1.00	0.0
MIN_MD	OUTFALL	93.00	0.86	0.0
OF-Strandherd	OUTFALL	95.49	0.00	0.0
OF-Systemhouse	OUTFALL	95.88	0.00	0.0
14_(STM)	STORAGE	93.09	2.37	0.0
15_(STM)	STORAGE	93.03	2.34	0.0
CB202	STORAGE	93.97	3.38	0.0
CB210	STORAGE	94.40	2.88	0.0
CB238	STORAGE	94.68	2.60	0.0
CB250	STORAGE	94.35	2.17	0.0
CB256	STORAGE	94.96	1.54	0.0
CB260	STORAGE	94.90	2.55	0.0
CB406	STORAGE	94.91	2.35	0.0
CB424	STORAGE	94.37	2.99	0.0
CB458	STORAGE	94.90	2.38	0.0
CB460	STORAGE	94.73	2.62	0.0
CBMH206	STORAGE	93.98	2.97	0.0
CBMH208	STORAGE	94.19	3.01	0.0
CBMH214/ST17	STORAGE	93.84	3.11	0.0
CBMH222	STORAGE	93.74	3.26	0.0
CBMH228	STORAGE	93.94	3.06	0.0
CBMH230	STORAGE	94.14	2.86	0.0
CBMH236	STORAGE	94.44	2.81	0.0

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CBMH246/ST18	STORAGE	94.10	3.20	0.0
CBMH252	STORAGE	94.11	3.04	0.0
CBMH254	STORAGE	94.27	3.03	0.0
CBMH258	STORAGE	94.27	3.18	0.0
CBMH268	STORAGE	94.74	2.21	0.0
CBMH276	STORAGE	94.25	2.70	0.0
CBMH292	STORAGE	94.10	2.95	0.0
CBMH294	STORAGE	94.23	2.77	0.0
CBMH402	STORAGE	94.56	2.69	0.0
CBMH404	STORAGE	94.76	2.59	0.0
CBMH408	STORAGE	94.05	2.95	0.0
CBMH414	STORAGE	94.42	2.63	0.0
CBMH430	STORAGE	94.39	2.66	0.0
CBMH438	STORAGE	94.68	2.32	0.0
CBMH444/ST2	STORAGE	94.35	2.70	0.0
CBMH450	STORAGE	94.67	2.33	0.0
CBMH454	STORAGE	94.63	2.67	0.0
CBMH456	STORAGE	94.74	2.56	0.0
CBMH470	STORAGE	94.34	3.11	0.0
MH200	STORAGE	93.70	3.03	0.0
MH200_Dummy	STORAGE	93.14	2.77	0.0
MH204	STORAGE	93.21	3.15	0.0
MH212	STORAGE	93.34	2.75	0.0
MH216	STORAGE	93.36	3.01	0.0
MH218	STORAGE	94.18	2.18	0.0
MH220	STORAGE	93.39	2.61	0.0
MH224/ST14	STORAGE	93.90	2.30	0.0
MH226	STORAGE	93.42	2.80	0.0
MH232/ST15	STORAGE	94.10	1.90	0.0
MH234/ST16	STORAGE	94.10	2.08	0.0
MH238	STORAGE	93.93	2.50	0.0
MH240	STORAGE	93.72	2.59	0.0
MH242	STORAGE	93.82	2.94	0.0
MH244	STORAGE	94.04	2.74	0.0
MH262	STORAGE	93.59	2.67	0.0
MH264	STORAGE	93.95	2.28	0.0
MH266	STORAGE	94.10	1.95	0.0
MH270/ST13	STORAGE	93.95	2.22	0.0
MH272	STORAGE	93.84	2.46	0.0
MH274	STORAGE	94.07	1.98	0.0
MH278	STORAGE	93.66	2.64	0.0
MH280	STORAGE	94.05	2.23	0.0
MH282	STORAGE	94.23	1.94	0.0
MH284	STORAGE	94.23	2.03	0.0
MH286	STORAGE	93.70	2.45	0.0
MH288	STORAGE	94.06	2.03	0.0
MH290	STORAGE	94.07	2.08	0.0
MH296	STORAGE	94.27	1.81	0.0
MH298	STORAGE	94.27	1.85	0.0
MH400	STORAGE	94.37	1.88	0.0
MH410	STORAGE	94.24	1.90	0.0
MH412	STORAGE	94.24	1.85	0.0
MH416	STORAGE	93.79	2.78	0.0
MH418	STORAGE	93.81	2.50	0.0
MH420	STORAGE	94.24	2.01	0.0
MH422	STORAGE	94.36	1.94	0.0
MH426_	STORAGE	93.85	2.56	0.0

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MH428	STORAGE	94.21	1.98	0.0
MH432/ST4	STORAGE	94.30	1.85	0.0
MH434	STORAGE	94.50	1.68	0.0
MH436	STORAGE	94.50	1.61	0.0
MH440/ST3	STORAGE	94.22	2.00	0.0
MH446	STORAGE	94.50	1.66	0.0
MH448	STORAGE	94.50	1.56	0.0
MH462	STORAGE	93.89	2.62	0.0
MH464	STORAGE	94.12	2.29	0.0
MH466	STORAGE	94.38	2.49	0.0
MH468	STORAGE	94.12	2.49	0.0
PD1	STORAGE	94.60	3.20	0.0
PD2	STORAGE	94.65	3.05	0.0
R-1_Dummy	STORAGE	94.24	1.65	0.0
R1_S	STORAGE	98.00	0.50	0.0
R10_S	STORAGE	98.00	0.50	0.0
R2_S	STORAGE	98.00	0.50	0.0
R3_S	STORAGE	98.00	0.50	0.0
R4_S	STORAGE	98.00	0.50	0.0
R5_S	STORAGE	98.00	0.50	0.0
R6_S	STORAGE	98.00	0.50	0.0
R7_S	STORAGE	98.00	0.50	0.0
R8_S	STORAGE	98.00	0.50	0.0
R9_S	STORAGE	98.00	0.50	0.0
ST1	STORAGE	94.35	1.75	0.0
ST10	STORAGE	94.12	2.18	0.0
ST11	STORAGE	93.95	2.20	0.0
ST12	STORAGE	93.95	2.20	0.0
ST5	STORAGE	94.35	1.80	0.0
ST6	STORAGE	94.09	2.01	0.0
ST7	STORAGE	94.05	2.05	0.0
ST8	STORAGE	94.12	1.98	0.0
ST9	STORAGE	94.12	2.28	0.0

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 Link Summary  
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Name	Slope	Roughness	From Node	To Node	Type	Length	%
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MAJ-CB210 (1)			CB210	HP-A2-27	CONDUIT	2.0	-
6.0108	0.0130						
MAJ-CB210 (2)			HP-A2-27	CB238	CONDUIT	2.0	
6.0108	0.0130						
MAJ-CB238 (1)			CB238	HP-A2-21	CONDUIT	2.0	-
2.0004	0.0130						
MAJ-CB238 (2)			HP-A2-21	CBMH236	CONDUIT	2.0	
3.5021	0.0130						
MAJ-CB250 (1)			CB250	HP-A1-5	CONDUIT	2.0	-
56.2106	0.0130						
MAJ-CB250 (2)			HP-A1-5	CBMH252	CONDUIT	2.0	
17.7743	0.0130						
MAJ-CB260 (1)			CB260	HP-A2-18	CONDUIT	2.0	-
10.0504	0.0130						
MAJ-CB260 (2)			HP-A2-18	CBMH258	CONDUIT	2.0	
10.0504	0.0130						

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MAJ-CB406 (1)	CB406	HP-A2-10 (1)	CONDUIT	2.0	-
8.0257 0.0130					
MAJ-CB406 (2)	HP-A2-10 (1)	CBMH404	CONDUIT	2.0	
3.0014 0.0130					
MAJ-CB406 (3)	CB406	HP-A2-10 (2)	CONDUIT	2.0	-
7.5212 0.0130					
MAJ-CB406 (4)	HP-A2-10 (2)	CBMH294	CONDUIT	2.0	
20.4124 0.0130					
MAJ-CB406 (5)	HP-A2-10 (2)	CBMH268	CONDUIT	2.0	
23.0921 0.0130					
MAJ-CB424 (1)	CB424	HP-A1-4	CONDUIT	2.0	-
4.0032 0.0130					
MAJ-CB424 (2)	HP-A1-4	CBMH438	CONDUIT	2.0	
23.0921 0.0130					
MAJ-CB458 (1)	CB458	HP-A2-1	CONDUIT	2.0	-
18.8249 0.0130					
MAJ-CB458 (2)	HP-A2-1	CB260	CONDUIT	2.0	
10.0504 0.0130					
MAJ-CB460 (1)	CB460	HP-A2-3 (1)	CONDUIT	2.0	-
4.0032 0.0130					
MAJ-CB460 (2)	HP-A2-3 (1)	CBMH454	CONDUIT	2.0	
6.5138 0.0130					
MAJ-CB460 (3)	CB460	HP-A2-3 (2)	CONDUIT	2.0	-
5.0063 0.0130					
MAJ-CB460 (4)	HP-A2-3 (2)	CB458	CONDUIT	2.0	
8.5309 0.0130					
MAJ-CBMH206 (1)	CBMH206	HP-A2-29	CONDUIT	2.0	-
25.8199 0.0130					
MAJ-CBMH206 (2)	HP-A2-29	CBMH208	CONDUIT	2.0	
12.5988 0.0130					
MAJ-CBMH208	CBMH208	HP-A2-28	CONDUIT	2.0	-
6.0108 0.0130					
MAJ-CBMH208 (2)	HP-A2-28	CB210	CONDUIT	2.0	
2.0004 0.0130					
MAJ-CBMH214 (1)	CBMH214/ST17	HP-A2-26	CONDUIT	2.0	-
15.1717 0.0130					
MAJ-CBMH214 (2)	HP-A2-26	CBMH206	CONDUIT	2.0	
15.1717 0.0130					
MAJ-CBMH222 (1)	CBMH222	HP-A2-25	CONDUIT	2.0	-
17.7743 0.0130					
MAJ-CBMH222 (2)	HP-A2-25	CBMH214/ST17	CONDUIT	2.0	
20.4124 0.0130					
MAJ-CBMH222 (3)	CBMH222	HP-A2-25 (2)	CONDUIT	2.0	-
11.0672 0.0130					
MAJ-CBMH222 (4)	HP-A2-25 (2)	CBMH230	CONDUIT	2.0	
11.0672 0.0130					
MAJ-CBMH228 (1)	CBMH228	HP-A2-24	CONDUIT	2.0	-
10.0504 0.0130					
MAJ-CBMH228 (2)	HP-A2-24	CBMH230	CONDUIT	2.0	
10.0504 0.0130					
MAJ-CBMH230 (1)	CBMH230	HP-A2-23	CONDUIT	2.0	-
15.1717 0.0130					
MAJ-CBMH230 (2)	HP-A2-23	CBMH214/ST17	CONDUIT	2.0	
17.7743 0.0130					
MAJ-CBMH236 (1)	CBMH236	HP-A2-22	CONDUIT	2.0	-
6.0108 0.0130					
MAJ-CBMH236 (2)	HP-A2-22	CBMH230	CONDUIT	2.0	
18.8249 0.0130					
MAJ-CBMH246 (1)	CBMH246/ST18	HP-A2-20	CONDUIT	2.0	-
25.8199 0.0130					

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MAJ-CBMH246 (2)	HP-A2-20	CBMH228	CONDUIT	2.0	
25.8199	0.0130				
MAJ-CBMH252 (1)	CBMH252	HP-A2-19.1	CONDUIT	2.0	-
14.1393	0.0130				
MAJ-CBMH252 (2)	HP-A2-19.1	CBMH246/ST18	CONDUIT	2.0	
22.0148	0.0130				
MAJ-CBMH254 (1)	CBMH254	HP-A2-19.3	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH254 (2)	HP-A2-19.3	CBMH252	CONDUIT	2.0	
17.7743	0.0130				
MAJ-CBMH258 (1)	CBMH258	HP-A2-19.4	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH258 (2)	HP-A2-19.4	CBMH254	CONDUIT	2.0	
17.7743	0.0130				
MAJ-CBMH268 (1)	CBMH268	HP-A2-17	CONDUIT	2.0	-
12.5988	0.0130				
MAJ-CBMH268 (2)	HP-A2-17	CBMH228	CONDUIT	2.0	
10.0504	0.0130				
MAJ-CBMH276 (1)	CBMH276	HP-A2-16	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH276 (2)	HP-A2-16	CBMH268	CONDUIT	2.0	
10.0504	0.0130				
MAJ-CBMH292 (1)	CBMH292	HP-A2-13 (1)	CONDUIT	2.0	-
12.5988	0.0130				
MAJ-CBMH292 (2)	HP-A2-13 (1)	CBMH414	CONDUIT	2.0	
12.5988	0.0130				
MAJ-CBMH292 (3)	CBMH292	HP-A2-13 (2)	CONDUIT	2.0	-
15.1717	0.0130				
MAJ-CBMH292 (4)	HP-A2-13 (2)	CBMH294	CONDUIT	2.0	
17.7743	0.0130				
MAJ-CBMH402 (1)	CBMH402	HP-A2-12	CONDUIT	2.0	-
7.5212	0.0130				
MAJ-CBMH402 (2)	HP-A2-12	CBMH292	CONDUIT	2.0	
17.7743	0.0130				
MAJ-CBMH404 (1)	CBMH404	HP-A2-11	CONDUIT	2.0	-
3.5021	0.0130				
MAJ-CBMH404 (2)	HP-A2-11	CBMH402	CONDUIT	2.0	
8.5309	0.0130				
MAJ-CBMH414 (1)	CBMH414	HP-A2-9	CONDUIT	2.0	-
15.1717	0.0130				
MAJ-CBMH414 (2)	HP-A2-9	CBMH408	CONDUIT	2.0	
17.7743	0.0130				
MAJ-CBMH430 (1)	CBMH430	HP-A2-6	CONDUIT	2.0	-
12.5988	0.0130				
MAJ-CBMH430 (2)	HP-A2-6	CBMH438	CONDUIT	2.0	
15.1717	0.0130				
MAJ-CBMH438 (1)	CBMH438	HP-A2-8	CONDUIT	2.0	-
13.6247	0.0130				
MAJ-CBMH438 (2)	HP-A2-8	CBMH292	CONDUIT	2.0	
11.0672	0.0130				
MAJ-CBMH444 (1)	CBMH444/ST2	HP-A2-5 (1)	CONDUIT	2.0	-
15.1717	0.0130				
MAJ-CBMH444 (2)	HP-A2-5 (1)	CBMH430	CONDUIT	2.0	
15.1717	0.0130				
MAJ-CBMH444 (3)	CBMH444/ST2	HP-A2-5 (2)	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH444 (4)	HP-A2-5 (2)	CBMH450	CONDUIT	2.0	
12.5988	0.0130				
MAJ-CBMH450 (1)	CBMH450	HP-A2-7 (1)	CONDUIT	2.0	-
15.1717	0.0130				

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MAJ-CBMH450 (2)	HP-A2-7 (1)	CBMH438	CONDUIT	2.0	
15.1717	0.0130				
MAJ-CBMH450 (3)	CBMH450	HP-A2-7 (2)	CONDUIT	2.0	-
19.3525	0.0130				
MAJ-CBMH450 (4)	HP-A2-7 (2)	CBMH414	CONDUIT	2.0	
16.7293	0.0130				
MAJ-CBMH454 (1)	CBMH454	HP-A2-4 (1)	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH454 (2)	HP-A2-4 (1)	CBMH456	CONDUIT	2.0	
10.0504	0.0130				
MAJ-CBMH454 (3)	CBMH454	HP-A2-4 (2)	CONDUIT	2.0	-
7.5212	0.0130				
MAJ-CBMH454 (4)	HP-A2-4 (2)	CBMH444/ST2	CONDUIT	2.0	
25.8199	0.0130				
MAJ-CBMH456 (1)	CBMH456	HP-A2-2 (1)	CONDUIT	2.0	-
7.5212	0.0130				
MAJ-CBMH456 (2)	HP-A2-2 (1)	CB458	CONDUIT	2.0	
8.5309	0.0130				
MAJ-CBMH456 (3)	CBMH456	HP-A2-2 (2)	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH456 (4)	HP-A2-2 (2)	CBMH444/ST2	CONDUIT	2.0	
23.0921	0.0130				
MAJ-CBMH470 (1)	CBMH470	HP-A1-1	CONDUIT	2.0	-
7.5212	0.0130				
MAJ-CBMH470 (2)	HP-A1-1	CBMH444/ST2	CONDUIT	2.0	
28.6028	0.0130				
MAJ-MD1	CB458	HP-MD1	CONDUIT	2.0	-
7.5212	0.0130				
MAJ-MD2	CBMH254	MAJ-MD2	CONDUIT	2.0	-
5.5083	0.0130				
MAJ-MD3	CB202	MAJ-MD3	CONDUIT	2.0	-
14.1393	0.0130				
MAJ-PD1 (1)	PD1	HP-A1-2	CONDUIT	2.0	-
2.5008	0.0130				
MAJ-PD1 (2)	HP-A1-2	CBMH430	CONDUIT	2.0	
43.6436	0.0130				
MAJ-PD2 (1)	PD2	HP-A1-3	CONDUIT	2.0	-
2.5008	0.0130				
MAJ-PD2 (2)	HP-A1-3	CBMH430	CONDUIT	2.0	
37.3632	0.0130				
PD1-Out	PD1	MH466	CONDUIT	13.2	
0.9849	0.0130				
PD2-Out	PD2	MH466	CONDUIT	15.9	
1.0063	0.0130				
STM-10_(STM)	15_(STM)	MIN_MD	CONDUIT	13.6	
0.2209	0.0130				
STM-101_(STM)	CB406	CBMH404	CONDUIT	27.9	
0.5011	0.0130				
STM-102_(STM)	CBMH404	CBMH402	CONDUIT	27.9	
0.5011	0.0130				
STM-103_(STM)	CBMH402	MH400	CONDUIT	32.4	
0.4938	0.0130				
STM-104_(STM)	MH400	MH298	CONDUIT	10.7	
0.3749	0.0130				
STM-106_(STM)_1	MH298	ST8	CONDUIT	2.0	
0.0152	0.0130				
STM-106_(STM)_2	ST8	MH296	CONDUIT	2.0	
0.0152	0.0130				
STM-108_(STM)	MH296	CBMH294	CONDUIT	6.2	
0.4808	0.0130				

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

STM-109_(STM) 0.4918 0.0130	CBMH294	MH288	CONDUIT	6.1
STM-11_(STM) 0.3526 0.0130	CBMH470	MH468	CONDUIT	19.9
STM-113_(STM) 0.4918 0.0130	CBMH292	MH290	CONDUIT	6.1
STM-115_(STM)_1 0.0152 0.0130	MH290	ST7	CONDUIT	2.0
STM-115_(STM)_2 0.0152 0.0130	ST7	MH288	CONDUIT	2.0
STM-116_(STM) 0.5970 0.0130	CBMH414	MH412	CONDUIT	3.4
STM-118_(STM)_1 0.0152 0.0130	MH412	ST6	CONDUIT	2.0
STM-118_(STM)_2 0.0152 0.0130	ST6	MH410	CONDUIT	2.0
STM-12_(STM) 0.2392 0.0130	MH468	MH462	CONDUIT	29.3
STM-120_(STM) 0.4525 0.0130	MH410	CBMH408	CONDUIT	8.8
STM-122_(STM) 0.4808 0.0130	CBMH438	MH436	CONDUIT	6.2
STM-124_(STM)_1 0.0152 0.0130	MH436	ST5	CONDUIT	2.0
STM-124_(STM)_2 0.0152 0.0130	ST5	MH434	CONDUIT	2.0
STM-125_(STM) 0.4329 0.0130	MH434	MH432/ST4	CONDUIT	4.6
STM-126_(STM) 0.4808 0.0130	MH432/ST4	CBMH430	CONDUIT	6.2
STM-127_(STM) 0.4808 0.0130	CBMH430	MH428	CONDUIT	6.2
STM-13_(1)_(STM) 0.1487 0.0130	MH426_	MH418	CONDUIT	20.2
STM-13_(STM) 0.1550 0.0130	MH462	MH426_	CONDUIT	19.4
STM-130_(STM) 0.5222 0.0130	CB458	CBMH456	CONDUIT	19.1
STM-131_(STM) 0.5102 0.0130	CBMH456	CBMH454	CONDUIT	9.8
STM-132_(STM) 0.5032 0.0130	CBMH454	CBMH444/ST2	CONDUIT	39.8
STM-133_(STM) 0.4892 0.0130	CBMH444/ST2	MH440/ST3	CONDUIT	10.2
STM-135_(STM) 0.4301 0.0130	MH446	CBMH444/ST2	CONDUIT	4.7
STM-138_(STM) 0.4899 0.0130	CB460	CBMH454	CONDUIT	18.4
STM-139_(STM) 0.6098 0.0130	CBMH450	MH448	CONDUIT	3.3
STM-14_(STM) 0.1006 0.0130	MH418	MH416	CONDUIT	9.9
STM-141_(STM)_1 0.0152 0.0130	MH448	ST1	CONDUIT	2.0
STM-141_(STM)_2 0.0152 0.0130	ST1	MH446	CONDUIT	2.0
STM-145_(STM) 0.4781 0.0130	CBMH246/ST18	MH244	CONDUIT	12.6
STM-15_(1)_(STM) 0.1597 0.0130	MH286	MH278	CONDUIT	18.8

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

STM-15_(STM) 0.1447 0.0130	MH416	MH286	CONDUIT	55.3
STM-16_(STM) 0.1648 0.0130	MH278	MH262	CONDUIT	36.4
STM-17_(STM) 0.1320 0.0130	MH262	MH226	CONDUIT	22.7
STM-18_(1)_(STM) 0.0929 0.0130	MH220	MH216	CONDUIT	21.5
STM-18_(STM) 0.1055 0.0130	MH226	MH220	CONDUIT	19.0
STM-19_(STM) 0.0637 0.0130	MH216	MH212	CONDUIT	15.7
STM-20_(STM) 0.0790 0.0130	MH212	MH204	CONDUIT	25.3
STM-21_(STM)_1 0.0913 0.0130	MH204	MH200_Dummy	CONDUIT	82.1
STM-21_(STM)_2 0.2868 0.0130	MH200_Dummy	14_(STM)	CONDUIT	5.2
STM-22_(STM) 0.3556 0.0130	MH466	MH464	CONDUIT	30.9
STM-23_(STM) 0.2555 0.0130	MH464	MH462	CONDUIT	27.4
STM-24_(1)_(STM) 0.3563 0.0130	MH420	MH418	CONDUIT	33.7
STM-24_(STM) 0.4998 0.0130	CB424	MH420	CONDUIT	24.0
STM-26_(STM) 0.4939 0.0130	MH282	MH280	CONDUIT	22.3
STM-27_(STM) 0.2400 0.0130	MH280	MH278	CONDUIT	33.3
STM-44_(STM) 0.3829 0.0130	MH422	MH420	CONDUIT	15.7
STM-55_(STM) 1.4378 0.0130	MH284	MH280	CONDUIT	12.5
STM-58_(STM) 1.0107 0.0130	MH218	MH216	CONDUIT	36.6
STM-59_(STM) 0.3019 0.0130	CB210	CBMH208	CONDUIT	16.6
STM-60_(STM) 0.1427 0.0130	CBMH208	CBMH206	CONDUIT	42.0
STM-62_(STM) 1.0283 0.0130	CB202	MH200	CONDUIT	11.7
STM-63_(STM) 0.9561 0.0130	MH200	MH200_Dummy	CONDUIT	5.2
STM-64_(STM) 0.5019 0.0130	CB238	CBMH236	CONDUIT	15.9
STM-65_(STM)_1 0.4927 0.0130	CBMH236	MH234/ST16	CONDUIT	38.6
STM-65_(STM)_2 0.5188 0.0130	MH234/ST16	CBMH230	CONDUIT	7.7
STM-66_(STM) 0.2637 0.0130	CBMH230	CBMH228	CONDUIT	19.0
STM-70_(STM)_1 0.4955 0.0130	CB250	R-1_Dummy	CONDUIT	22.0
STM-70_(STM)_2 0.4951 0.0130	R-1_Dummy	MH238	CONDUIT	32.5
STM-71_(STM) 0.2481 0.0130	MH238	MH242	CONDUIT	40.3
STM-72_(STM) 0.2440 0.0130	MH242	MH240	CONDUIT	36.9

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

STM-73_(STM) 0.2899 0.0130	MH240	MH226	CONDUIT	6.9
STM-79_(STM) 0.6098 0.0130	MH224/ST14	CBMH222	CONDUIT	3.3
STM-82_(STM) 0.4175 0.0130	MH232/ST15	CBMH230	CONDUIT	4.8
STM-87_(STM) 0.4940 0.0130	CB260	CBMH258	CONDUIT	36.4
STM-88_(STM)_1 0.0152 0.0130	CBMH258	ST9	CONDUIT	2.0
STM-88_(STM)_2 0.0152 0.0130	ST9	CBMH254	CONDUIT	2.0
STM-89_(STM)_1 0.0152 0.0130	CBMH254	ST10	CONDUIT	2.0
STM-89_(STM)_2 0.0152 0.0130	ST10	CBMH252	CONDUIT	2.0
STM-9_(STM) 0.7371 0.0130	14_(STM)	15_(STM)	CONDUIT	4.1
STM-91_(STM) 0.9647 0.0130	CB256	CBMH254	CONDUIT	9.3
STM-92_(STM) 0.4751 0.0130	MH270/ST13	MH264	CONDUIT	12.6
STM-94_(STM) 0.5714 0.0130	CBMH268	MH266	CONDUIT	7.0
STM-96_(STM)_1 0.0152 0.0130	MH266	ST12	CONDUIT	2.0
STM-96_(STM)_2 0.0152 0.0130	ST12	MH264	CONDUIT	2.0
STM-97_(STM) 0.4552 0.0130	CBMH276	MH274	CONDUIT	6.6
STM-99_(STM)_1 0.0152 0.0130	MH274	ST11	CONDUIT	2.0
STM-99_(STM)_2 0.0152 0.0130	ST11	MH272	CONDUIT	2.0
R1_OvF	R1_S	HP-A1-5	WEIR	
R10_OvF	R10_S	CBMH214/ST17	WEIR	
R2_OvF	R2_S	HP-A2-19.1	WEIR	
R3_OvF	R3_S	CBMH408	WEIR	
R4_OvF	R4_S	HP-A2-7(2)	WEIR	
R5_OvF	R5_S	CBMH444/ST2	WEIR	
R6_OvF	R6_S	CBMH444/ST2	WEIR	
R7_OvF	R7_S	HP-A2-6	WEIR	
R8_OvF	R8_S	CBMH294	WEIR	
R9_OvF	R9_S	CBMH268	WEIR	
O-CBMH206	CBMH206	MH204	OUTLET	
O-CBMH214	CBMH214/ST17	MH212	OUTLET	
O-CBMH222	CBMH222	MH220	OUTLET	
O-CBMH228	CBMH228	MH226	OUTLET	
O-CBMH252	CBMH252	MH238	OUTLET	
O-CBMH408	CBMH408	MH286	OUTLET	
O-MH244	MH244	MH242	OUTLET	
O-MH264	MH264	MH262	OUTLET	
O-MH272	MH272	MH262	OUTLET	
O-MH288	MH288	MH286	OUTLET	
O-MH428	MH428	MH426_	OUTLET	
O-MH440	MH440/ST3	MH426_	OUTLET	
R10-Out	R10_S	MH218	OUTLET	
R1-Out	R1_S	R-1_Dummy	OUTLET	
R2-Out	R2_S	MH238	OUTLET	

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
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R3-Out	R3_S	MH278	OUTLET
R4-Out	R4_S	MH416	OUTLET
R5-Out	R5_S	MH468	OUTLET
R6-Out	R6_S	MH462	OUTLET
R7-Out	R7_S	MH422	OUTLET
R8-Out	R8_S	MH284	OUTLET
R9-Out	R9_S	MH282	OUTLET

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 Cross Section Summary  
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Full Conduit Flow	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels
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MAJ-CB210 (1) 40250.57	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB210 (2) 40250.57	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB238 (1) 23220.06	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB238 (2) 30723.59	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB250 (1) 123087.46	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB250 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB260 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB260 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB406 (1) 46510.07	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB406 (2) 28442.21	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB406 (3) 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB406 (4) 74174.06	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB406 (5) 78892.68	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB424 (1) 32847.99	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB424 (2) 78892.68	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB458 (1) 71231.45	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB458 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB460 (1) 32847.99	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB460 (2) 41900.70	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB460 (3) 36733.45	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB460 (4) 47951.44	RECT_OPEN	1.00	3.00	0.60	3.00	1

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

MAJ-CBMH206 (1) 83422.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH206 (2) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH208 40250.57	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH208 (2) 23220.06	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH214 (1) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH214 (2) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH222 (1) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH222 (2) 74174.06	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH222 (3) 54616.39	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH222 (4) 54616.39	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH228 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH228 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH230 (1) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH230 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH236 (1) 40250.57	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH236 (2) 71231.45	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH246 (1) 83422.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH246 (2) 83422.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH252 (1) 61733.10	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH252 (2) 77030.48	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH254 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH254 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH258 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH258 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH268 (1) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH268 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH276 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH276 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH292 (1) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH292 (2) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

MAJ-CBMH292 (3) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH292 (4) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH402 (1) 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH402 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH404 (1) 30723.59	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH404 (2) 47951.44	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH414 (1) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH414 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH430 (1) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH430 (2) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH438 (1) 60599.46	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH438 (2) 54616.39	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH444 (1) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH444 (2) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH444 (3) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH444 (4) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH450 (1) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH450 (2) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH450 (3) 72222.70	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH450 (4) 67149.65	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH454 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH454 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH454 (3) 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH454 (4) 83422.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH456 (1) 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH456 (2) 47951.44	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH456 (3) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH456 (4) 78892.68	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH470 (1) 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH470 (2) 87802.97	RECT_OPEN	1.00	3.00	0.60	3.00	1

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
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MAJ-MD1 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-MD2 38531.43	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-MD3 61733.10	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-PD1 (1) 25962.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-PD1 (2) 108458.87	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-PD2 (1) 25962.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-PD2 (2) 100352.25	RECT_OPEN	1.00	3.00	0.60	3.00	1
PD1-Out 32.55	CIRCULAR	0.20	0.03	0.05	0.20	1
PD2-Out 32.90	CIRCULAR	0.20	0.03	0.05	0.20	1
STM-10_(STM) 1415.82	HORIZ_ELLIPSE	0.86	0.95	0.26	1.35	1
STM-101_(STM) 68.46	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-102_(STM) 68.46	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-103_(STM) 67.96	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-104_(STM) 59.21	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-106_(STM)_1 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-106_(STM)_2 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-108_(STM) 67.05	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-109_(STM) 67.82	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-11_(STM) 57.43	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-113_(STM) 67.82	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-115_(STM)_1 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-115_(STM)_2 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-116_(STM) 74.72	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-118_(STM)_1 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-118_(STM)_2 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-12_(STM) 139.46	CIRCULAR	0.45	0.16	0.11	0.45	1
STM-120_(STM) 65.05	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-122_(STM) 67.05	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-124_(STM)_1 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-124_(STM)_2 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

63.63	STM-125_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.05	STM-126_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.05	STM-127_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
236.82	STM-13_(1)_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
241.72	STM-13_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
69.88	STM-130_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
69.08	STM-131_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
68.60	STM-132_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.64	STM-133_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
63.42	STM-135_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.69	STM-138_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
75.52	STM-139_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
194.76	STM-14_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
11.94	STM-141_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-141_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
66.87	STM-145_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
245.42	STM-15_(1)_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
233.55	STM-15_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
249.27	STM-16_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
223.13	STM-17_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
339.41	STM-18_(1)_(STM)	CIRCULAR	0.75	0.44	0.19	0.75	1
361.60	STM-18_(STM)	CIRCULAR	0.75	0.44	0.19	0.75	1
280.98	STM-19_(STM)	CIRCULAR	0.75	0.44	0.19	0.75	1
312.84	STM-20_(STM)	CIRCULAR	0.75	0.44	0.19	0.75	1
910.23	STM-21_(STM)_1	HORIZ_ELLIPSE	0.86	0.95	0.26	1.35	1
1613.22	STM-21_(STM)_2	HORIZ_ELLIPSE	0.86	0.95	0.26	1.35	1
57.67	STM-22_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
144.11	STM-23_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
57.72	STM-24_(1)_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
68.37	STM-24_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1

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67.97	STM-26_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
85.89	STM-27_(STM)	CIRCULAR	0.38	0.11	0.09	0.38	1
59.84	STM-44_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
115.96	STM-55_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
97.22	STM-58_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
156.67	STM-59_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
420.55	STM-60_(STM)	CIRCULAR	0.75	0.44	0.19	0.75	1
60.31	STM-62_(STM)	CIRCULAR	0.25	0.05	0.06	0.25	1
94.56	STM-63_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
68.51	STM-64_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.88	STM-65_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
69.66	STM-65_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
146.42	STM-66_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
68.07	STM-70_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
68.05	STM-70_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
142.01	STM-71_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
140.85	STM-72_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
153.51	STM-73_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
75.52	STM-79_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
62.49	STM-82_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.97	STM-87_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-88_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-88_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-89_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-89_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
2586.23	STM-9_(STM)	HORIZ_ELLIPSE	0.86	0.95	0.26	1.35	1
94.98	STM-91_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
66.65	STM-92_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
73.10	STM-94_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-96_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1

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STM-96_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94						
STM-97_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
65.25						
STM-99_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94						
STM-99_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94						

\*\*\*\*\*  
 Analysis Options  
 \*\*\*\*\*

Flow Units ..... LPS  
 Process Models:  
 Rainfall/Runoff ..... YES  
 RDII ..... NO  
 Snowmelt ..... NO  
 Groundwater ..... NO  
 Flow Routing ..... YES  
 Ponding Allowed ..... YES  
 Water Quality ..... NO  
 Infiltration Method ..... HORTON  
 Flow Routing Method ..... DYNWAVE  
 Surcharge Method ..... EXTRAN  
 Starting Date ..... 11/17/2025 00:00:00  
 Ending Date ..... 11/25/2025 00:00:00  
 Antecedent Dry Days ..... 0.0  
 Report Time Step ..... 00:01:00  
 Wet Time Step ..... 00:05:00  
 Dry Time Step ..... 00:05:00  
 Routing Time Step ..... 2.00 sec  
 Variable Time Step ..... YES  
 Maximum Trials ..... 8  
 Number of Threads ..... 16  
 Head Tolerance ..... 0.001500 m

	Volume	Depth
Runoff Quantity Continuity	hectare-m	mm
*****	-----	-----
Initial LID Storage .....	0.005	0.980
Total Precipitation .....	0.434	82.323
Evaporation Loss .....	0.000	0.000
Infiltration Loss .....	0.043	8.156
Surface Runoff .....	0.394	74.665
Final Storage .....	0.005	0.980
Continuity Error (%) .....	-0.597	

	Volume	Volume
Flow Routing Continuity	hectare-m	10^6 ltr
*****	-----	-----
Dry Weather Inflow .....	0.000	0.000
Wet Weather Inflow .....	0.394	3.937
Groundwater Inflow .....	0.000	0.000
RDII Inflow .....	0.000	0.000

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External Inflow .....	0.002	0.016
External Outflow .....	0.395	3.952
Flooding Loss .....	0.000	0.000
Evaporation Loss .....	0.000	0.000
Exfiltration Loss .....	0.000	0.000
Initial Stored Volume ...	0.037	0.365
Final Stored Volume .....	0.037	0.366
Continuity Error (%) .....	-0.002	

\*\*\*\*\*  
 Highest Continuity Errors  
 \*\*\*\*\*

Node CBMH222 (-9.78%)  
 Node HP-A2-19.1 (-1.39%)  
 Node CBMH214/ST17 (1.20%)  
 Node CB260 (1.04%)  
 Node CBMH404 (1.01%)

\*\*\*\*\*  
 Time-Step Critical Elements  
 \*\*\*\*\*

Link STM-118\_(STM)\_2 (10.05%)  
 Link STM-9\_(STM) (5.25%)  
 Link STM-115\_(STM)\_2 (4.91%)  
 Link STM-89\_(STM)\_2 (4.22%)  
 Link STM-106\_(STM)\_2 (4.20%)

\*\*\*\*\*  
 Highest Flow Instability Indexes  
 \*\*\*\*\*

Link O-CBMH214 (25)  
 Link O-CBMH222 (17)

\*\*\*\*\*  
 Most Frequent Nonconverging Nodes  
 \*\*\*\*\*

Convergence obtained at all time steps.

\*\*\*\*\*  
 Routing Time Step Summary  
 \*\*\*\*\*

Minimum Time Step	:	0.50 sec
Average Time Step	:	1.77 sec
Maximum Time Step	:	2.00 sec
% of Time in Steady State	:	0.00
Average Iterations per Step	:	2.00
% of Steps Not Converging	:	0.00
Time Step Frequencies	:	
2.000 - 1.516 sec	:	77.86 %
1.516 - 1.149 sec	:	11.08 %
1.149 - 0.871 sec	:	4.80 %
0.871 - 0.660 sec	:	6.04 %

0.660 - 0.500 sec : 0.22 %

\*\*\*\*\*  
 Subcatchment Runoff Summary  
 \*\*\*\*\*

Perv		Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Runoff	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Runoff	Precip	Runoff	Runoff	mm	mm	mm
mm	mm	10^6 ltr	mm	Coeff	mm	mm	mm
			LPS				
A0-1			82.32	0.00	0.00	39.93	18.94
26.41	45.35	0.03	25.14	0.551			
A0-2			82.32	0.00	0.00	31.38	33.78
17.91	51.69	0.19	139.23	0.628			
A0-3			82.32	0.00	0.00	52.93	0.00
30.80	30.80	0.07	74.77	0.374			
A1-1			82.32	0.00	0.00	25.71	42.01
15.56	57.57	0.03	23.03	0.699			
A1-2			82.32	0.00	0.00	0.00	82.43
0.00	82.43	0.01	5.95	1.001			
A1-3			82.32	0.00	0.00	0.00	82.41
0.00	82.41	0.01	5.95	1.001			
A1-4			82.32	0.00	0.00	0.00	82.45
0.00	82.45	0.01	8.93	1.001			
A1-5			82.32	0.00	0.00	0.00	82.57
0.00	82.57	0.04	22.82	1.003			
A1-6			82.32	0.00	0.00	52.34	0.00
32.17	32.17	0.01	10.49	0.391			
A2-1			82.32	0.00	0.00	1.55	80.07
1.03	81.11	0.04	25.70	0.985			
A2-10			82.32	0.00	0.00	14.06	60.14
8.98	69.12	0.02	14.33	0.840			
A2-11			82.32	0.00	0.00	0.00	82.49
0.00	82.49	0.01	8.43	1.002			
A2-12			82.32	0.00	0.00	11.99	63.47
7.58	71.05	0.02	13.42	0.863			
A2-13			82.32	0.00	0.00	6.77	71.83
4.31	76.14	0.12	74.99	0.925			
A2-14			82.32	0.00	0.00	2.07	79.28
1.38	80.66	0.14	85.88	0.980			
A2-15			82.32	0.00	0.00	2.07	79.26
1.38	80.64	0.15	88.84	0.980			
A2-16			82.32	0.00	0.00	3.63	76.82
2.38	79.20	0.15	95.38	0.962			
A2-17			82.32	0.00	0.00	3.63	76.78
2.39	79.17	0.18	113.58	0.962			
A2-18			82.32	0.00	0.00	0.00	82.40
0.00	82.40	0.02	14.38	1.001			
A2-19.1			82.32	0.00	0.00	0.00	82.55
0.00	82.55	0.06	37.20	1.003			
A2-19.2			82.32	0.00	0.00	0.00	82.55
0.00	82.55	0.02	14.88	1.003			

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A2-19.3			82.32	0.00	0.00	0.00	82.41
0.00	82.41	0.02	13.39	1.001			
A2-19.4			82.32	0.00	0.00	0.00	82.48
0.00	82.48	0.03	20.83	1.002			
A2-2			82.32	0.00	0.00	15.11	58.50
9.57	68.06	0.03	17.58	0.827			
A2-20			82.32	0.00	0.00	3.11	77.62
2.05	79.68	0.13	77.29	0.968			
A2-21			82.32	0.00	0.00	10.89	65.07
7.19	72.26	0.01	8.69	0.878			
A2-22			82.32	0.00	0.00	3.62	76.62
2.41	79.03	0.02	9.34	0.960			
A2-23			82.32	0.00	0.00	2.07	79.25
1.38	80.63	0.09	54.29	0.979			
A2-24			82.32	0.00	0.00	11.02	65.27
6.66	71.93	0.11	72.37	0.874			
A2-25			82.32	0.00	0.00	2.07	79.26
1.38	80.64	0.09	54.78	0.980			
A2-26			82.32	0.00	0.00	1.56	80.28
1.03	81.31	0.26	155.10	0.988			
A2-27			82.32	0.00	0.00	10.39	65.91
6.77	72.68	0.01	8.70	0.883			
A2-28			82.32	0.00	0.00	8.30	69.21
5.46	74.67	0.02	11.67	0.907			
A2-29			82.32	0.00	0.00	10.90	65.08
7.15	72.22	0.05	30.91	0.877			
A2-3			82.32	0.00	0.00	19.60	51.99
11.36	63.35	0.06	44.44	0.770			
A2-4			82.32	0.00	0.00	1.55	79.93
1.03	80.96	0.02	14.33	0.983			
A2-5			82.32	0.00	0.00	3.12	77.81
2.01	79.82	0.22	133.29	0.970			
A2-6			82.32	0.00	0.00	1.55	80.18
1.03	81.22	0.19	114.14	0.987			
A2-7			82.32	0.00	0.00	6.77	71.82
4.32	76.14	0.09	58.94	0.925			
A2-8			82.32	0.00	0.00	7.30	71.04
4.59	75.63	0.08	54.35	0.919			
A2-9			82.32	0.00	0.00	6.77	71.81
4.32	76.14	0.12	74.05	0.925			
R-1			82.32	0.00	0.00	0.00	82.40
0.00	82.40	0.23	137.89	1.001			
R-10			82.32	0.00	0.00	0.00	82.40
0.00	82.40	0.04	22.32	1.001			
R-2			82.32	0.00	0.00	0.00	82.40
0.00	82.40	0.13	78.86	1.001			
R-3			82.32	0.00	0.00	0.00	82.40
0.00	82.40	0.15	93.25	1.001			
R-4			82.32	0.00	0.00	0.00	82.40
0.00	82.40	0.10	59.02	1.001			
R-5			82.32	0.00	0.00	0.00	82.40
0.00	82.40	0.03	20.83	1.001			
R-6			82.32	0.00	0.00	0.00	82.40
0.00	82.40	0.10	62.50	1.001			
R-7			82.32	0.00	0.00	0.00	82.40
0.00	82.40	0.08	47.62	1.001			
R-8			82.32	0.00	0.00	0.00	82.40
0.00	82.40	0.04	23.81	1.001			
R-9			82.32	0.00	0.00	0.00	82.40
0.00	82.40	0.05	31.25	1.001			

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 Node Depth Summary  
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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Time of Max Occurrence days hr:min	Reported Max Depth Meters
HP-A1-1	JUNCTION	0.00	0.00	96.60	0 00:00	0.00
HP-A1-2	JUNCTION	0.00	0.00	96.85	0 00:00	0.00
HP-A1-3	JUNCTION	0.00	0.00	96.75	0 00:00	0.00
HP-A1-4	JUNCTION	0.00	0.00	96.45	0 00:00	0.00
HP-A1-5	JUNCTION	0.00	0.00	96.50	0 00:00	0.00
HP-A2-1	JUNCTION	0.00	0.00	96.65	0 00:00	0.00
HP-A2-10 (1)	JUNCTION	0.00	0.00	96.41	0 00:00	0.00
HP-A2-10 (2)	JUNCTION	0.00	0.00	96.40	0 00:00	0.00
HP-A2-11	JUNCTION	0.00	0.00	96.42	0 00:00	0.00
HP-A2-12	JUNCTION	0.00	0.00	96.40	0 00:00	0.00
HP-A2-13 (1)	JUNCTION	0.00	0.00	96.30	0 00:00	0.00
HP-A2-13 (2)	JUNCTION	0.00	0.00	96.35	0 00:00	0.00
HP-A2-16	JUNCTION	0.00	0.00	96.15	0 00:00	0.00
HP-A2-17	JUNCTION	0.00	0.00	96.20	0 00:00	0.00
HP-A2-18	JUNCTION	0.00	0.00	96.65	0 00:00	0.00
HP-A2-19.1	JUNCTION	0.00	0.00	96.43	0 02:33	0.00
HP-A2-19.3	JUNCTION	0.00	0.00	96.50	0 00:00	0.00
HP-A2-19.4	JUNCTION	0.00	0.00	96.65	0 00:00	0.00
HP-A2-2 (1)	JUNCTION	0.00	0.00	96.45	0 00:00	0.00
HP-A2-2 (2)	JUNCTION	0.00	0.00	96.50	0 00:00	0.00
HP-A2-20	JUNCTION	0.00	0.00	96.50	0 00:00	0.00
HP-A2-21	JUNCTION	0.00	0.00	96.32	0 00:00	0.00
HP-A2-22	JUNCTION	0.00	0.00	96.37	0 00:00	0.00
HP-A2-23	JUNCTION	0.00	0.00	96.30	0 00:00	0.00
HP-A2-24	JUNCTION	0.00	0.00	96.20	0 00:00	0.00
HP-A2-25	JUNCTION	0.00	0.00	96.35	0 00:00	0.00
HP-A2-25 (2)	JUNCTION	0.00	0.00	96.22	0 00:00	0.00
HP-A2-26	JUNCTION	0.00	0.00	96.25	0 00:00	0.00
HP-A2-27	JUNCTION	0.00	0.00	96.40	0 00:00	0.00
HP-A2-28	JUNCTION	0.00	0.00	96.32	0 00:00	0.00
HP-A2-29	JUNCTION	0.00	0.00	96.45	0 00:00	0.00
HP-A2-3 (1)	JUNCTION	0.00	0.00	96.43	0 00:00	0.00
HP-A2-3 (2)	JUNCTION	0.00	0.00	96.45	0 00:00	0.00
HP-A2-4 (1)	JUNCTION	0.00	0.00	96.50	0 00:00	0.00
HP-A2-4 (2)	JUNCTION	0.00	0.00	96.55	0 00:00	0.00
HP-A2-5 (1)	JUNCTION	0.00	0.00	96.35	0 00:00	0.00
HP-A2-5 (2)	JUNCTION	0.00	0.00	96.25	0 00:00	0.00
HP-A2-6	JUNCTION	0.00	0.00	96.30	0 00:00	0.00
HP-A2-7 (1)	JUNCTION	0.00	0.00	96.30	0 00:00	0.00
HP-A2-7 (2)	JUNCTION	0.00	0.00	96.38	0 02:31	0.00
HP-A2-8	JUNCTION	0.00	0.00	96.27	0 00:00	0.00
HP-A2-9	JUNCTION	0.00	0.00	96.35	0 00:00	0.00
HP-MD1	OUTFALL	0.00	0.00	96.43	0 00:00	0.00
MAJ-MD	OUTFALL	0.00	0.00	96.43	0 00:00	0.00
MAJ-MD2	OUTFALL	0.00	0.00	96.41	0 00:00	0.00
MAJ-MD3	OUTFALL	0.00	0.00	96.63	0 00:00	0.00

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MIN_MD	OUTFALL	0.88	0.88	93.88	0	00:00	0.88
OF-Strandherd	OUTFALL	0.00	0.00	95.49	0	00:00	0.00
OF-Systemhouse	OUTFALL	0.00	0.00	95.88	0	00:00	0.00
14_(STM)	STORAGE	0.79	0.79	93.88	0	02:06	0.79
15_(STM)	STORAGE	0.85	0.85	93.88	0	02:06	0.85
CB202	STORAGE	0.00	0.07	94.04	0	02:10	0.07
CB210	STORAGE	0.10	1.69	96.09	0	03:12	1.69
CB238	STORAGE	0.10	0.99	95.67	0	06:10	0.99
CB250	STORAGE	0.00	0.12	94.47	0	02:10	0.12
CB256	STORAGE	0.03	0.87	95.83	0	04:00	0.87
CB260	STORAGE	0.04	0.93	95.83	0	03:59	0.93
CB406	STORAGE	0.02	0.31	95.22	0	06:13	0.31
CB424	STORAGE	0.00	0.07	94.44	0	02:10	0.07
CB458	STORAGE	0.11	1.16	96.06	0	06:12	1.16
CB460	STORAGE	0.15	1.33	96.06	0	06:12	1.33
CBMH206	STORAGE	0.14	2.11	96.09	0	03:12	2.11
CBMH208	STORAGE	0.12	1.90	96.09	0	03:11	1.90
CBMH214/ST17	STORAGE	0.38	2.32	96.16	0	06:10	2.32
CBMH222	STORAGE	0.30	2.43	96.17	0	03:27	2.43
CBMH228	STORAGE	0.29	1.73	95.67	0	06:10	1.73
CBMH230	STORAGE	0.23	1.53	95.67	0	06:10	1.53
CBMH236	STORAGE	0.14	1.23	95.67	0	06:10	1.23
CBMH246/ST18	STORAGE	0.28	1.61	95.71	0	04:23	1.61
CBMH252	STORAGE	0.14	1.72	95.83	0	04:00	1.72
CBMH254	STORAGE	0.11	1.56	95.83	0	04:00	1.56
CBMH258	STORAGE	0.11	1.56	95.83	0	04:00	1.56
CBMH268	STORAGE	0.12	1.39	96.13	0	05:04	1.39
CBMH276	STORAGE	0.09	0.81	95.06	0	05:40	0.81
CBMH292	STORAGE	0.35	1.12	95.22	0	06:13	1.12
CBMH294	STORAGE	0.23	0.99	95.22	0	06:13	0.99
CBMH402	STORAGE	0.10	0.66	95.22	0	06:14	0.66
CBMH404	STORAGE	0.05	0.46	95.22	0	06:13	0.46
CBMH408	STORAGE	0.26	1.09	95.14	0	06:12	1.09
CBMH414	STORAGE	0.11	0.72	95.14	0	06:12	0.72
CBMH430	STORAGE	0.25	1.48	95.87	0	06:12	1.48
CBMH438	STORAGE	0.14	1.19	95.87	0	06:12	1.19
CBMH444/ST2	STORAGE	0.32	1.71	96.06	0	06:11	1.71
CBMH450	STORAGE	0.17	1.40	96.07	0	06:11	1.40
CBMH454	STORAGE	0.18	1.43	96.06	0	06:12	1.43
CBMH456	STORAGE	0.15	1.32	96.06	0	06:12	1.32
CBMH470	STORAGE	0.00	0.15	94.49	0	02:10	0.15
MH200	STORAGE	0.18	0.18	93.88	0	02:10	0.18
MH200_Dummy	STORAGE	0.75	0.75	93.88	0	02:06	0.75
MH204	STORAGE	0.67	0.68	93.89	0	02:06	0.68
MH212	STORAGE	0.54	0.56	93.90	0	02:12	0.56
MH216	STORAGE	0.52	0.54	93.90	0	02:12	0.54
MH218	STORAGE	0.00	0.05	94.23	0	02:22	0.05
MH220	STORAGE	0.49	0.52	93.91	0	02:12	0.52
MH224/ST14	STORAGE	0.27	2.28	96.18	0	03:24	2.27
MH226	STORAGE	0.46	0.49	93.91	0	02:12	0.49
MH232/ST15	STORAGE	0.32	1.57	95.67	0	06:10	1.57
MH234/ST16	STORAGE	0.34	1.57	95.67	0	06:10	1.57
MH238	STORAGE	0.01	0.18	94.11	0	02:10	0.18
MH240	STORAGE	0.16	0.24	93.96	0	02:11	0.24
MH242	STORAGE	0.06	0.19	94.01	0	02:11	0.19
MH244	STORAGE	0.17	1.67	95.71	0	04:23	1.67
MH262	STORAGE	0.29	0.34	93.93	0	02:12	0.34

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MH264	STORAGE	0.27	2.18	96.13	0	05:04	2.18
MH266	STORAGE	0.23	2.03	96.13	0	05:04	2.03
MH270/ST13	STORAGE	0.43	2.18	96.13	0	05:04	2.18
MH272	STORAGE	0.25	1.22	95.06	0	05:41	1.22
MH274	STORAGE	0.13	0.99	95.06	0	05:41	0.99
MH278	STORAGE	0.22	0.29	93.95	0	02:12	0.29
MH280	STORAGE	0.00	0.11	94.16	0	02:23	0.11
MH282	STORAGE	0.00	0.07	94.30	0	02:23	0.07
MH284	STORAGE	0.00	0.04	94.27	0	02:22	0.04
MH286	STORAGE	0.18	0.26	93.96	0	02:12	0.26
MH288	STORAGE	0.32	1.16	95.22	0	06:13	1.16
MH290	STORAGE	0.38	1.15	95.22	0	06:13	1.15
MH296	STORAGE	0.21	0.95	95.22	0	06:13	0.95
MH298	STORAGE	0.21	0.95	95.22	0	06:13	0.95
MH400	STORAGE	0.17	0.85	95.22	0	06:13	0.85
MH410	STORAGE	0.18	0.90	95.14	0	06:12	0.90
MH412	STORAGE	0.18	0.90	95.14	0	06:12	0.90
MH416	STORAGE	0.09	0.23	94.02	0	02:11	0.23
MH418	STORAGE	0.07	0.23	94.04	0	02:11	0.23
MH420	STORAGE	0.00	0.12	94.36	0	02:10	0.12
MH422	STORAGE	0.00	0.08	94.44	0	02:25	0.08
MH426	STORAGE	0.04	0.20	94.05	0	02:11	0.20
MH428	STORAGE	0.32	1.66	95.87	0	06:12	1.66
MH432/ST4	STORAGE	0.36	1.57	95.87	0	06:12	1.57
MH434	STORAGE	0.20	1.37	95.87	0	06:12	1.37
MH436	STORAGE	0.20	1.37	95.87	0	06:12	1.37
MH440/ST3	STORAGE	0.33	1.84	96.06	0	06:11	1.84
MH446	STORAGE	0.22	1.56	96.06	0	06:11	1.56
MH448	STORAGE	0.22	1.57	96.07	0	06:11	1.56
MH462	STORAGE	0.01	0.18	94.07	0	02:10	0.18
MH464	STORAGE	0.00	0.10	94.22	0	02:10	0.10
MH466	STORAGE	0.00	0.10	94.48	0	02:10	0.10
MH468	STORAGE	0.00	0.14	94.26	0	02:10	0.14
PD1	STORAGE	0.00	0.06	94.66	0	02:05	0.06
PD2	STORAGE	0.00	0.06	94.71	0	02:10	0.06
R-1_Dummy	STORAGE	0.01	0.19	94.43	0	02:10	0.19
R1_S	STORAGE	0.01	0.15	98.15	0	02:31	0.15
R10_S	STORAGE	0.00	0.14	98.14	0	02:22	0.14
R2_S	STORAGE	0.01	0.15	98.15	0	02:33	0.15
R3_S	STORAGE	0.01	0.15	98.15	0	02:33	0.15
R4_S	STORAGE	0.01	0.15	98.15	0	02:31	0.15
R5_S	STORAGE	0.00	0.14	98.14	0	02:24	0.14
R6_S	STORAGE	0.00	0.12	98.12	0	02:25	0.12
R7_S	STORAGE	0.00	0.12	98.12	0	02:24	0.12
R8_S	STORAGE	0.00	0.14	98.14	0	02:22	0.14
R9_S	STORAGE	0.00	0.14	98.14	0	02:22	0.14
ST1	STORAGE	0.37	1.71	96.06	0	06:11	1.71
ST10	STORAGE	0.26	1.71	95.83	0	04:00	1.71
ST11	STORAGE	0.25	1.11	95.06	0	05:41	1.11
ST12	STORAGE	0.38	2.18	96.13	0	05:04	2.18
ST5	STORAGE	0.35	1.52	95.87	0	06:12	1.52
ST6	STORAGE	0.33	1.05	95.14	0	06:12	1.05
ST7	STORAGE	0.40	1.17	95.22	0	06:13	1.17
ST8	STORAGE	0.36	1.10	95.22	0	06:13	1.10
ST9	STORAGE	0.26	1.71	95.83	0	04:00	1.71

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 Node Inflow Summary  
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Total Inflow Volume		Flow Balance Error	Type	Maximum Lateral Inflow LPS	Maximum Total Inflow LPS	Time of Max Occurrence	Lateral Inflow Volume
Node	ltr	Percent				days hr:min	10^6 ltr
HP-A1-1	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A1-2	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A1-3	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A1-4	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A1-5	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-1	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-10(1)	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-10(2)	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-11	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-12	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-13(1)	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-13(2)	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-16	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-17	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-18	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-19.1	9.54e-05	-1.374	JUNCTION	0.00	0.17	0 02:33	0
HP-A2-19.3	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-19.4	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-2(1)	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-2(2)	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-20	0	0.000	JUNCTION	0.00	0.00	0 00:00	0
HP-A2-21	0	0.000	JUNCTION	0.00	0.00	0 00:00	0

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
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0	HP-A2-22	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-23	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-24	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-25	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-25(2)	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-26	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-27	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-28	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-29	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-3(1)	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-3(2)	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-4(1)	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-4(2)	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-5(1)	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-5(2)	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-6	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-7(1)	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0.000485	HP-A2-7(2)	JUNCTION	0.00	0.56	0	02:31	0
	-0.112						
0	HP-A2-8	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-A2-9	JUNCTION	0.00	0.00	0	00:00	0
	0.000 ltr						
0	HP-MD1	OUTFALL	0.00	0.00	0	00:00	0
	0.000 ltr						
0.0681	MAJ-MD	OUTFALL	74.77	74.77	0	02:10	0.0681
	0.000						
0	MAJ-MD2	OUTFALL	0.00	0.00	0	00:00	0
	0.000 ltr						
0	MAJ-MD3	OUTFALL	0.00	0.00	0	00:00	0
	0.000 ltr						
3.69	MIN_MD	OUTFALL	0.00	168.78	0	02:12	0
	0.000						
0.186	OF-Strandherd	OUTFALL	139.23	139.23	0	02:10	0.186
	0.000						
0.0254	OF-Systemhouse	OUTFALL	25.14	25.14	0	02:10	0.0254
	0.000						
3.69	14_(STM)	STORAGE	0.00	168.74	0	02:12	0
	-0.000						
3.69	15_(STM)	STORAGE	0.00	168.76	0	02:12	0
	-0.000						
0.00837	CB202	STORAGE	10.49	10.49	0	02:10	0.00837
	-0.010						

CitiGate - 'Block 3' (125050)  
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CB210		STORAGE	8.70	8.70	0	02:10	0.0131
0.0139	0.065						
CB238		STORAGE	8.69	8.69	0	02:10	0.013
0.013	0.652						
CB250		STORAGE	22.82	22.82	0	02:10	0.038
0.038	-0.034						
CB256		STORAGE	14.88	14.88	0	02:10	0.0248
0.0248	0.250						
CB260		STORAGE	14.38	14.38	0	02:10	0.0239
0.0244	1.049						
CB406		STORAGE	14.33	14.33	0	02:10	0.0207
0.0207	-0.084						
CB424		STORAGE	8.93	8.93	0	02:10	0.0148
0.0148	-0.059						
CB458		STORAGE	25.70	25.70	0	02:10	0.0422
0.0422	0.437						
CB460		STORAGE	44.44	44.44	0	02:10	0.0646
0.0646	-0.029						
CBMH206		STORAGE	30.91	30.91	0	02:10	0.0462
0.0872	-0.014						
CBMH208		STORAGE	11.67	26.15	0	02:07	0.0179
0.0418	0.034						
CBMH214/ST17		STORAGE	155.10	155.10	0	02:10	0.255
0.268	1.216						
CBMH222		STORAGE	54.78	54.78	0	02:10	0.0895
0.142	-8.906						
CBMH228		STORAGE	72.37	72.37	0	02:10	0.11
0.306	-0.003						
CBMH230		STORAGE	54.29	122.33	0	02:10	0.0887
0.351	0.010						
CBMH236		STORAGE	9.34	18.55	0	02:05	0.015
0.0279	-0.356						
CBMH246/ST18		STORAGE	77.29	77.29	0	02:10	0.125
0.136	0.005						
CBMH252		STORAGE	37.20	37.20	0	02:10	0.0619
0.203	0.001						
CBMH254		STORAGE	13.39	28.27	0	02:10	0.0223
0.121	-0.044						
CBMH258		STORAGE	20.83	35.28	0	02:08	0.0346
0.059	-0.439						
CBMH268		STORAGE	113.58	113.58	0	02:10	0.183
0.183	0.216						
CBMH276		STORAGE	95.38	95.38	0	02:10	0.154
0.154	0.217						
CBMH292		STORAGE	74.99	74.99	0	02:10	0.117
0.117	-0.000						
CBMH294		STORAGE	88.84	88.84	0	02:10	0.145
0.281	-0.001						
CBMH402		STORAGE	13.42	36.37	0	02:10	0.0199
0.0543	0.008						
CBMH404		STORAGE	8.43	22.70	0	02:10	0.014
0.0348	1.020						
CBMH408		STORAGE	85.88	85.88	0	02:10	0.14
0.37	0.002						
CBMH414		STORAGE	74.05	74.05	0	02:10	0.116
0.116	0.117						
CBMH430		STORAGE	114.14	114.14	0	02:10	0.188
0.425	0.007						
CBMH438		STORAGE	54.35	54.35	0	02:10	0.0847
0.0847	0.244						

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CBMH444/ST2	STORAGE	133.29	219.85	0	02:10	0.216
0.552 -0.018						
CBMH450	STORAGE	58.94	58.94	0	02:10	0.0921
0.0924 0.123						
CBMH454	STORAGE	14.33	92.59	0	02:10	0.0235
0.155 -0.055						
CBMH456	STORAGE	17.58	41.12	0	02:04	0.0252
0.0672 -0.065						
CBMH470	STORAGE	23.03	23.03	0	02:10	0.0299
0.0299 -0.003						
MH200	STORAGE	0.00	10.39	0	02:10	0
0.0167 0.003						
MH200_Dummy	STORAGE	0.00	168.74	0	02:13	0
3.7 -0.000						
MH204	STORAGE	0.00	161.30	0	02:13	0
3.68 0.000						
MH212	STORAGE	0.00	159.24	0	02:13	0
3.6 -0.090						
MH216	STORAGE	0.00	157.40	0	02:12	0
3.34 -0.001						
MH218	STORAGE	0.00	5.24	0	02:22	0
0.0371 0.001						
MH220	STORAGE	0.00	152.13	0	02:12	0
3.31 0.424						
MH224/ST14	STORAGE	0.00	51.33	0	02:05	0
0.0547 -0.002						
MH226	STORAGE	0.00	150.23	0	02:12	0
3.21 -0.002						
MH232/ST15	STORAGE	0.00	78.71	0	02:10	0
0.118 -0.008						
MH234/ST16	STORAGE	0.00	54.19	0	02:05	0
0.082 0.020						
MH238	STORAGE	0.00	49.39	0	02:10	0
0.566 -0.001						
MH240	STORAGE	0.00	50.70	0	02:11	0
0.698 -0.000						
MH242	STORAGE	0.00	50.76	0	02:10	0
0.694 0.038						
MH244	STORAGE	0.00	3.84	0	02:04	0
0.125 -0.004						
MH262	STORAGE	0.00	99.18	0	02:12	0
2.29 -0.000						
MH264	STORAGE	0.00	84.70	0	02:11	0
0.216 0.018						
MH266	STORAGE	0.00	113.42	0	02:09	0
0.183 -0.171						
MH270/ST13	STORAGE	0.00	77.22	0	02:11	0
0.0378 -0.059						
MH272	STORAGE	0.00	2.06	0	02:10	0
0.154 -0.000						
MH274	STORAGE	0.00	94.34	0	02:06	0
0.153 -0.137						
MH278	STORAGE	0.00	96.12	0	02:12	0
1.95 0.000						
MH280	STORAGE	0.00	12.52	0	02:22	0
0.0915 0.001						
MH282	STORAGE	0.00	7.14	0	02:22	0
0.0519 0.001						
MH284	STORAGE	0.00	5.38	0	02:22	0
0.0396 -0.004						

CitiGate - 'Block 3' (125050)  
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MH286		STORAGE	0.00	74.34	0	02:11	0
1.7	0.000						
MH288		STORAGE	0.00	30.65	0	02:09	0
0.356	0.000						
MH290		STORAGE	0.00	73.95	0	02:10	0
0.117	-0.000						
MH296		STORAGE	0.00	64.85	0	02:06	0
0.215	0.000						
MH298		STORAGE	0.00	32.03	0	02:08	0
0.0546	-0.091						
MH400		STORAGE	0.00	35.34	0	02:08	0
0.0543	-0.494						
MH410		STORAGE	0.00	83.88	0	02:05	0
0.341	-0.001						
MH412		STORAGE	0.00	73.30	0	02:09	0
0.116	-0.081						
MH416		STORAGE	0.00	72.08	0	02:11	0
1.12	-0.006						
MH418		STORAGE	0.00	65.24	0	02:11	0
1.02	-0.000						
MH420		STORAGE	0.00	15.91	0	02:10	0
0.094	0.007						
MH422		STORAGE	0.00	7.82	0	02:24	0
0.0791	0.001						
MH426_		STORAGE	0.00	49.89	0	02:10	0
0.926	-0.025						
MH428		STORAGE	0.00	3.08	0	02:05	0
0.272	-0.002						
MH432/ST4		STORAGE	0.00	110.17	0	02:10	0
0.325	-0.005						
MH434		STORAGE	0.00	62.65	0	02:10	0
0.243	-0.000						
MH436		STORAGE	0.00	53.20	0	02:10	0
0.0845	-0.171						
MH440/ST3		STORAGE	0.00	75.13	0	02:10	0
0.464	-0.013						
MH446		STORAGE	0.00	72.29	0	02:10	0
0.256	0.002						
MH448		STORAGE	0.00	57.80	0	02:10	0
0.0923	-0.070						
MH462		STORAGE	0.00	46.49	0	02:10	0
0.188	-0.009						
MH464		STORAGE	0.00	11.90	0	02:10	0
0.0198	-0.006						
MH466		STORAGE	0.00	11.90	0	02:10	0
0.0198	-0.005						
MH468		STORAGE	0.00	26.05	0	02:10	0
0.0646	-0.002						
PD1		STORAGE	5.95	5.95	0	02:10	0.00989
0.00989	-0.001						
PD2		STORAGE	5.95	5.95	0	02:10	0.00989
0.00989	-0.001						
R-1_Dummy		STORAGE	0.00	39.19	0	02:10	0
0.267	0.005						
R1_S		STORAGE	137.89	137.89	0	02:10	0.229
0.229	-0.001						
R10_S		STORAGE	22.32	22.32	0	02:10	0.0371
0.0371	-0.001						
R2_S		STORAGE	78.86	78.86	0	02:10	0.131
0.131	-0.001						

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

R3_S		STORAGE	93.25	93.25	0	02:10	0.155
0.155	-0.001						
R4_S		STORAGE	59.02	59.02	0	02:10	0.0981
0.0981	-0.001						
R5_S		STORAGE	20.83	20.83	0	02:10	0.0346
0.0346	-0.001						
R6_S		STORAGE	62.50	62.50	0	02:10	0.104
0.104	-0.001						
R7_S		STORAGE	47.62	47.62	0	02:10	0.0791
0.0791	-0.001						
R8_S		STORAGE	23.81	23.81	0	02:10	0.0396
0.0396	-0.001						
R9_S		STORAGE	31.25	31.25	0	02:10	0.0519
0.0519	-0.001						
ST1		STORAGE	0.00	127.31	0	02:10	0
0.196	-0.008						
ST10		STORAGE	0.00	47.88	0	02:06	0
0.149	-0.000						
ST11		STORAGE	0.00	93.33	0	02:06	0
0.169	-0.012						
ST12		STORAGE	0.00	111.71	0	02:09	0
0.193	-0.017						
ST5		STORAGE	0.00	113.46	0	02:10	0
0.186	-0.007						
ST6		STORAGE	0.00	154.94	0	02:09	0
0.265	-0.006						
ST7		STORAGE	0.00	101.24	0	02:10	0
0.179	-0.024						
ST8		STORAGE	0.00	91.31	0	02:06	0
0.153	-0.020						
ST9		STORAGE	0.00	47.85	0	02:06	0
0.0823	-0.035						

\*\*\*\*\*  
 Node Surcharge Summary  
 \*\*\*\*\*

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Meters	Min. Depth Below Rim Meters
MH224/ST14	STORAGE	12.81	1.845	0.025
MH232/ST15	STORAGE	33.88	1.148	0.332
MH266	STORAGE	14.12	1.135	0.000
MH270/ST13	STORAGE	25.60	1.675	0.035
MH274	STORAGE	19.42	0.544	0.986
MH288	STORAGE	53.30	0.722	0.868
MH296	STORAGE	47.30	0.652	0.858
MH298	STORAGE	42.46	0.592	0.898
MH410	STORAGE	39.39	0.598	1.002
MH412	STORAGE	28.49	0.438	0.952
MH428	STORAGE	48.10	1.215	0.315
MH432/ST4	STORAGE	40.60	1.095	0.275
MH434	STORAGE	39.42	1.075	0.305
MH436	STORAGE	31.22	0.925	0.235

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

MH440/ST3	STORAGE	47.53	1.395	0.155
MH446	STORAGE	40.04	1.265	0.095
MH448	STORAGE	32.30	1.115	0.000
ST1	STORAGE	40.03	1.265	0.035
ST10	STORAGE	16.08	1.257	0.473
ST11	STORAGE	24.84	0.694	1.086
ST12	STORAGE	27.21	1.735	0.015
ST5	STORAGE	39.42	1.075	0.275
ST6	STORAGE	39.38	0.598	0.962
ST7	STORAGE	53.30	0.722	0.878
ST8	STORAGE	47.30	0.652	0.878

\*\*\*\*\*  
 Node Flooding Summary  
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No nodes were flooded.

\*\*\*\*\*  
 Storage Volume Summary  
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Max Occurrence	Maximum Outflow Storage Unit	Average Volume	Avg Pcmt Full	Evap Pcmt Loss	Exfil Pcmt Loss	Maximum Volume	Max Pcmt Full	Time of days
hr:min	LPS	1000 m <sup>3</sup>				1000 m <sup>3</sup>		
14_(STM)		0.006	33.3	0.0	0.0	0.006	33.4	0
02:06	168.76							
15_(STM)		0.006	36.3	0.0	0.0	0.006	36.4	0
02:06	168.78							
CB202		0.000	0.0	0.0	0.0	0.000	2.1	0
02:10	10.39							
CB210		0.000	3.4	0.0	0.0	0.002	58.8	0
03:12	4.08							
CB238		0.000	3.7	0.0	0.0	0.001	38.0	0
06:10	9.23							
CB250		0.000	0.1	0.0	0.0	0.000	5.5	0
02:10	22.81							
CB256		0.000	0.2	0.0	0.0	0.001	4.2	0
04:00	14.88							
CB260		0.000	1.5	0.0	0.0	0.001	36.4	0
03:59	14.46							
CB406		0.000	1.1	0.0	0.0	0.000	13.3	0
06:13	14.27							
CB424		0.000	0.1	0.0	0.0	0.000	2.4	0
02:10	8.93							
CB458		0.000	4.6	0.0	0.0	0.002	48.9	0
06:12	25.22							
CB460		0.000	5.7	0.0	0.0	0.002	50.9	0
06:12	41.48							
CBMH206		0.000	0.7	0.0	0.0	0.008	16.4	0 0

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
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CBMH208		0.000	3.9	0.0	0.0	0.003	63.2	0
03:11	4.47							
CBMH214/ST17		0.038	12.9	0.0	0.0	0.222	75.7	0
06:10	2.13							
CBMH222		0.001	2.3	0.0	0.0	0.013	43.9	0
03:27	52.60							
CBMH228		0.000	0.0	0.0	0.0	0.002	0.2	0
06:10	69.55							
CBMH230		0.000	1.4	0.0	0.0	0.002	9.5	0
06:10	118.76							
CBMH236		0.000	5.2	0.0	0.0	0.001	43.7	0
06:10	12.17							
CBMH246/ST18		0.020	13.9	0.0	0.0	0.104	73.8	0
04:23	3.84							
CBMH252		0.000	0.4	0.0	0.0	0.002	4.9	0
04:00	36.19							
CBMH254		0.000	2.5	0.0	0.0	0.002	36.0	0
04:00	27.15							
CBMH258		0.000	3.5	0.0	0.0	0.002	49.0	0
04:00	34.13							
CBMH268		0.002	4.3	0.0	0.0	0.040	78.4	0
05:04	113.42							
CBMH276		0.000	0.3	0.0	0.0	0.001	3.0	0
05:40	94.34							
CBMH292		0.000	0.7	0.0	0.0	0.001	2.3	0
06:13	73.95							
CBMH294		0.000	0.3	0.0	0.0	0.001	1.2	0
06:13	87.84							
CBMH402		0.000	3.7	0.0	0.0	0.001	24.6	0
06:14	35.34							
CBMH404		0.000	2.0	0.0	0.0	0.001	17.8	0
06:13	23.53							
CBMH408		0.000	0.4	0.0	0.0	0.001	1.7	0
06:12	84.92							
CBMH414		0.000	0.3	0.0	0.0	0.001	2.2	0
06:12	73.30							
CBMH430		0.000	0.9	0.0	0.0	0.002	5.5	0
06:12	112.70							
CBMH438		0.000	0.3	0.0	0.0	0.001	2.6	0
06:12	53.20							
CBMH444/ST2		0.024	17.3	0.0	0.0	0.108	78.2	0
06:11	147.37							
CBMH450		0.000	0.1	0.0	0.0	0.004	1.5	0
06:11	57.80							
CBMH454		0.000	6.7	0.0	0.0	0.002	53.7	0
06:12	87.18							
CBMH456		0.000	5.8	0.0	0.0	0.001	51.8	0
06:12	36.90							
CBMH470		0.000	0.1	0.0	0.0	0.000	4.7	0
02:10	22.71							
MH200		0.000	5.9	0.0	0.0	0.000	6.0	0
02:10	10.43							
MH200_Dummy		0.000	0.0	0.0	0.0	0.000	0.0	0
00:00	168.74							
MH204		0.001	21.3	0.0	0.0	0.001	21.4	0
02:06	162.11							
MH212		0.001	19.6	0.0	0.0	0.001	20.3	0
02:12	159.50							
MH216		0.001	17.3	0.0	0.0	0.001	18.0	0
02:12	157.67							

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

MH218		0.000	0.1	0.0	0.0	0.000	2.2	0
02:22	5.24							
MH220		0.001	18.8	0.0	0.0	0.001	19.8	0
02:12	152.33							
MH224/ST14		0.008	14.5	0.0	0.0	0.052	100.0	0
02:26	4.53							
MH226		0.001	16.4	0.0	0.0	0.001	17.6	0
02:12	150.36							
MH232/ST15		0.026	20.8	0.0	0.0	0.117	95.0	0
06:10	0.91							
MH234/ST16		0.015	20.5	0.0	0.0	0.068	90.8	0
06:10	0.78							
MH238		0.000	0.5	0.0	0.0	0.000	7.4	0
02:10	49.36							
MH240		0.000	6.2	0.0	0.0	0.000	9.1	0
02:11	50.57							
MH242		0.000	2.2	0.0	0.0	0.000	6.5	0
02:11	50.70							
MH244		0.000	6.2	0.0	0.0	0.002	60.8	0
04:23	1.80							
MH262		0.000	10.9	0.0	0.0	0.000	12.6	0
02:12	99.66							
MH264		0.000	11.8	0.0	0.0	0.002	95.8	0
05:04	78.79							
MH266		0.000	11.7	0.0	0.0	0.002	100.0	0
02:21	111.71							
MH270/ST13		0.008	22.8	0.0	0.0	0.036	99.9	0
05:04	2.75							
MH272		0.000	10.0	0.0	0.0	0.001	49.8	0
05:41	1.49							
MH274		0.000	6.5	0.0	0.0	0.001	50.2	0
05:41	93.33							
MH278		0.000	8.4	0.0	0.0	0.000	11.1	0
02:12	96.29							
MH280		0.000	0.2	0.0	0.0	0.000	4.9	0
02:23	12.52							
MH282		0.000	0.1	0.0	0.0	0.000	3.6	0
02:23	7.14							
MH284		0.000	0.1	0.0	0.0	0.000	2.2	0
02:22	5.38							
MH286		0.000	7.4	0.0	0.0	0.000	10.8	0
02:12	73.99							
MH288		0.000	15.7	0.0	0.0	0.001	57.2	0
06:13	29.57							
MH290		0.000	18.2	0.0	0.0	0.001	55.4	0
06:13	72.88							
MH296		0.000	11.7	0.0	0.0	0.001	52.6	0
06:13	63.78							
MH298		0.000	11.5	0.0	0.0	0.001	51.4	0
06:13	30.76							
MH400		0.000	8.9	0.0	0.0	0.001	45.3	0
06:13	32.03							
MH410		0.000	9.4	0.0	0.0	0.001	47.3	0
06:12	83.18							
MH412		0.000	9.7	0.0	0.0	0.001	48.6	0
06:12	72.39							
MH416		0.000	3.4	0.0	0.0	0.000	8.4	0
02:11	71.96							
MH418		0.000	3.0	0.0	0.0	0.000	9.0	0
02:11	65.05							

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
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MH420		0.000	0.2	0.0	0.0	0.000	5.9	0
02:10	15.71							
MH422		0.000	0.2	0.0	0.0	0.000	4.2	0
02:25	7.82							
MH426_		0.000	1.6	0.0	0.0	0.000	7.9	0
02:11	49.67							
MH428		0.000	16.0	0.0	0.0	0.002	84.1	0
06:12	1.80							
MH432/ST4		0.022	23.8	0.0	0.0	0.088	96.2	0
06:12	62.65							
MH434		0.000	12.1	0.0	0.0	0.002	81.8	0
06:12	61.51							
MH436		0.000	12.7	0.0	0.0	0.002	85.4	0
06:12	51.99							
MH440/ST3		0.026	20.2	0.0	0.0	0.126	99.0	0
06:11	3.08							
MH446		0.000	13.4	0.0	0.0	0.002	94.3	0
06:11	71.04							
MH448		0.000	14.4	0.0	0.0	0.002	100.0	0
05:58	56.59							
MH462		0.000	0.3	0.0	0.0	0.000	7.0	0
02:10	46.39							
MH464		0.000	0.1	0.0	0.0	0.000	4.3	0
02:10	11.90							
MH466		0.000	0.1	0.0	0.0	0.000	3.9	0
02:10	11.90							
MH468		0.000	0.1	0.0	0.0	0.000	5.8	0
02:10	25.73							
PD1		0.000	0.0	0.0	0.0	0.000	0.0	0
00:00	5.95							
PD2		0.000	0.0	0.0	0.0	0.000	0.0	0
00:00	5.95							
R-1_Dummy		0.000	0.0	0.0	0.0	0.000	0.0	0
00:00	38.91							
R1_S		0.003	0.2	0.0	0.0	0.112	6.3	0
02:31	18.61							
R10_S		0.000	0.0	0.0	0.0	0.014	3.1	0
02:22	5.24							
R2_S		0.002	0.3	0.0	0.0	0.067	9.9	0
02:33	9.67							
R3_S		0.002	0.3	0.0	0.0	0.079	9.8	0
02:33	11.30							
R4_S		0.001	0.2	0.0	0.0	0.048	6.9	0
02:31	8.16							
R5_S		0.000	0.1	0.0	0.0	0.015	3.0	0
02:24	3.66							
R6_S		0.001	0.1	0.0	0.0	0.048	6.6	0
02:25	9.65							
R7_S		0.001	0.1	0.0	0.0	0.036	5.9	0
02:24	7.82							
R8_S		0.000	0.0	0.0	0.0	0.015	3.4	0
02:22	5.38							
R9_S		0.000	0.0	0.0	0.0	0.020	3.3	0
02:22	7.14							
ST1		0.052	30.7	0.0	0.0	0.171	100.0	0
02:44	10.95							
ST10		0.013	21.4	0.0	0.0	0.063	100.0	0
02:45	2.48							
ST11		0.031	21.9	0.0	0.0	0.139	97.9	0
05:41	2.06							

CitiGate - 'Block 3' (125050)  
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ST12		0.020	26.6	0.0	0.0	0.074	100.0	0
02:11	84.70							
ST5		0.051	30.1	0.0	0.0	0.171	100.0	0
03:27	4.34							
ST6		0.082	28.9	0.0	0.0	0.262	92.1	0
06:12	1.41							
ST7		0.060	34.9	0.0	0.0	0.171	100.0	0
05:16	1.71							
ST8		0.045	31.8	0.0	0.0	0.138	96.8	0
06:13	1.38							
ST9		0.013	21.4	0.0	0.0	0.063	100.0	0
02:45	2.52							

\*\*\*\*\*  
 Outfall Loading Summary  
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Outfall Node	Flow Freq Pcnt	Avg Flow LPS	Max Flow LPS	Total Volume 10^6 ltr
HP-MD1	0.00	0.00	0.00	0.000
MAJ-MD	1.44	16.55	74.77	0.068
MAJ-MD2	0.00	0.00	0.00	0.000
MAJ-MD3	0.00	0.00	0.00	0.000
MIN_MD	92.73	8.60	168.78	3.689
OF-Strandherd	6.47	9.81	139.23	0.186
OF-Systemhouse	6.11	1.51	25.14	0.025
System	15.25	36.47	402.52	3.968

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 Link Flow Summary  
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Link	Type	Maximum  Flow  LPS	Time of Max Occurrence days hr:min	Maximum  Veloc  m/sec	Max/ Full Flow	Max/ Full Depth
MAJ-CB210 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB210 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB238 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB238 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB250 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB250 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB260 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB260 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB406 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB406 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB406 (3)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB406 (4)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB406 (5)	CONDUIT	0.00	0 00:00	0.00	0.00	0.09
MAJ-CB424 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00

CitiGate - 'Block 3' (125050)  
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MAJ-CB424 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CB458 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CB458 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CB460 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CB460 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CB460 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CB460 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH206 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.07
MAJ-CBMH206 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH208	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH208 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH214 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.11
MAJ-CBMH214 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.07
MAJ-CBMH222 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.09
MAJ-CBMH222 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.11
MAJ-CBMH222 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.09
MAJ-CBMH222 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH228 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH228 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH230 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH230 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.11
MAJ-CBMH236 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH236 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH246 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH246 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH252 (1)	CONDUIT	0.08	0	02:33	0.00	0.00	0.00
MAJ-CBMH252 (2)	CONDUIT	0.10	0	02:26	0.00	0.00	0.00
MAJ-CBMH254 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH254 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH258 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH258 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH268 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.09
MAJ-CBMH268 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH276 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH276 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.09
MAJ-CBMH292 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH292 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH292 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH292 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH402 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH402 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH404 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH404 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH414 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH414 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH430 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH430 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH438 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH438 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH444 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.01
MAJ-CBMH444 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH444 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.01
MAJ-CBMH444 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.03
MAJ-CBMH450 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.03
MAJ-CBMH450 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH450 (3)	CONDUIT	0.29	0	02:31	0.00	0.00	0.03
MAJ-CBMH450 (4)	CONDUIT	0.27	0	02:31	0.00	0.00	0.00

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MAJ-CBMH454 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH454 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH454 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH454 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.01
MAJ-CBMH456 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH456 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH456 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH456 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.01
MAJ-CBMH470 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH470 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.01
MAJ-MD1	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-MD2	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-MD3	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-PD1 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-PD1 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-PD2 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-PD2 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
PD1-Out	CONDUIT	5.95	0	02:10	0.77	0.18	0.29
PD2-Out	CONDUIT	5.95	0	02:10	0.78	0.18	0.29
STM-10_(STM)	CONDUIT	168.78	0	02:12	0.18	0.12	0.99
STM-101_(STM)	CONDUIT	14.27	0	02:10	0.64	0.21	1.00
STM-102_(STM)	CONDUIT	23.53	0	02:10	0.82	0.34	1.00
STM-103_(STM)	CONDUIT	35.34	0	02:08	0.88	0.52	1.00
STM-104_(STM)	CONDUIT	32.03	0	02:08	0.61	0.54	1.00
STM-106_(STM)_1	CONDUIT	30.76	0	02:08	0.44	2.58	1.00
STM-106_(STM)_2	CONDUIT	63.78	0	02:06	0.96	5.34	1.00
STM-108_(STM)	CONDUIT	64.85	0	02:06	0.92	0.97	1.00
STM-109_(STM)	CONDUIT	30.65	0	02:09	0.43	0.45	1.00
STM-11_(STM)	CONDUIT	22.71	0	02:10	0.77	0.40	0.43
STM-113_(STM)	CONDUIT	73.95	0	02:10	1.05	1.09	1.00
STM-115_(STM)_1	CONDUIT	72.88	0	02:10	1.03	6.10	1.00
STM-115_(STM)_2	CONDUIT	28.44	0	02:09	0.40	2.38	1.00
STM-116_(STM)	CONDUIT	73.30	0	02:09	1.14	0.98	1.00
STM-118_(STM)_1	CONDUIT	72.39	0	02:09	1.04	6.06	1.00
STM-118_(STM)_2	CONDUIT	83.18	0	02:05	1.21	6.97	1.00
STM-12_(STM)	CONDUIT	25.73	0	02:10	0.71	0.18	0.28
STM-120_(STM)	CONDUIT	83.88	0	02:05	1.19	1.29	1.00
STM-122_(STM)	CONDUIT	53.20	0	02:10	0.94	0.79	1.00
STM-124_(STM)_1	CONDUIT	51.99	0	02:10	0.74	4.36	1.00
STM-124_(STM)_2	CONDUIT	61.51	0	02:10	0.87	5.15	1.00
STM-125_(STM)	CONDUIT	62.65	0	02:10	0.89	0.98	1.00
STM-126_(STM)	CONDUIT	110.17	0	02:10	1.56	1.64	1.00
STM-127_(STM)	CONDUIT	3.08	0	02:05	0.38	0.05	1.00
STM-13_(1)_(STM)	CONDUIT	49.67	0	02:11	0.57	0.21	0.35
STM-13_(STM)	CONDUIT	46.39	0	02:10	0.62	0.19	0.31
STM-130_(STM)	CONDUIT	25.22	0	02:04	0.78	0.36	1.00
STM-131_(STM)	CONDUIT	36.90	0	02:10	0.77	0.53	1.00
STM-132_(STM)	CONDUIT	87.18	0	02:10	1.23	1.27	1.00
STM-133_(STM)	CONDUIT	75.13	0	02:10	1.06	1.11	1.00
STM-135_(STM)	CONDUIT	72.29	0	02:10	1.02	1.14	1.00
STM-138_(STM)	CONDUIT	41.48	0	02:10	0.65	0.61	1.00
STM-139_(STM)	CONDUIT	57.80	0	02:10	0.97	0.77	1.00
STM-14_(STM)	CONDUIT	65.05	0	02:11	0.68	0.33	0.37
STM-141_(STM)_1	CONDUIT	56.59	0	02:10	0.86	4.74	1.00
STM-141_(STM)_2	CONDUIT	71.04	0	02:10	1.01	5.95	1.00
STM-145_(STM)	CONDUIT	3.84	0	02:04	0.35	0.06	1.00
STM-15_(1)_(STM)	CONDUIT	73.99	0	02:12	0.59	0.30	0.46

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STM-15_(STM)	CONDUIT	71.96	0	02:11	0.67	0.31	0.41
STM-16_(STM)	CONDUIT	96.29	0	02:12	0.66	0.39	0.52
STM-17_(STM)	CONDUIT	99.66	0	02:13	0.60	0.45	0.57
STM-18_(1)_(STM)	CONDUIT	152.33	0	02:12	0.46	0.45	0.70
STM-18_(STM)	CONDUIT	150.36	0	02:12	0.48	0.42	0.67
STM-19_(STM)	CONDUIT	157.67	0	02:13	0.46	0.56	0.73
STM-20_(STM)	CONDUIT	159.50	0	02:13	0.45	0.51	0.75
STM-21_(STM)_1	CONDUIT	162.11	0	02:13	0.19	0.18	0.82
STM-21_(STM)_2	CONDUIT	168.74	0	02:12	0.19	0.10	0.87
STM-22_(STM)	CONDUIT	11.90	0	02:10	0.68	0.21	0.30
STM-23_(STM)	CONDUIT	11.90	0	02:10	0.56	0.08	0.19
STM-24_(1)_(STM)	CONDUIT	15.71	0	02:10	0.70	0.27	0.36
STM-24_(STM)	CONDUIT	8.93	0	02:10	0.55	0.13	0.30
STM-26_(STM)	CONDUIT	7.14	0	02:23	0.61	0.11	0.22
STM-27_(STM)	CONDUIT	12.52	0	02:24	0.58	0.15	0.25
STM-44_(STM)	CONDUIT	7.82	0	02:25	0.58	0.13	0.25
STM-55_(STM)	CONDUIT	5.38	0	02:22	0.38	0.05	0.25
STM-58_(STM)	CONDUIT	5.24	0	02:22	0.47	0.05	0.23
STM-59_(STM)	CONDUIT	4.08	0	02:07	0.27	0.03	1.00
STM-60_(STM)	CONDUIT	11.82	0	02:07	0.17	0.03	1.00
STM-62_(STM)	CONDUIT	10.39	0	02:10	0.92	0.17	0.28
STM-63_(STM)	CONDUIT	10.43	0	02:10	0.20	0.11	0.69
STM-64_(STM)	CONDUIT	9.23	0	02:05	0.63	0.13	1.00
STM-65_(STM)_1	CONDUIT	12.17	0	02:06	0.28	0.18	1.00
STM-65_(STM)_2	CONDUIT	43.73	0	02:05	0.62	0.63	1.00
STM-66_(STM)	CONDUIT	68.10	0	02:10	0.43	0.47	1.00
STM-70_(STM)_1	CONDUIT	22.81	0	02:10	0.68	0.34	0.51
STM-70_(STM)_2	CONDUIT	38.91	0	02:10	0.94	0.57	0.57
STM-71_(STM)	CONDUIT	49.36	0	02:10	0.82	0.35	0.41
STM-72_(STM)	CONDUIT	50.70	0	02:11	0.70	0.36	0.46
STM-73_(STM)	CONDUIT	50.57	0	02:11	0.64	0.33	0.50
STM-79_(STM)	CONDUIT	51.33	0	02:05	0.73	0.68	1.00
STM-82_(STM)	CONDUIT	78.71	0	02:10	1.11	1.26	1.00
STM-87_(STM)	CONDUIT	14.46	0	02:08	0.78	0.21	1.00
STM-88_(STM)_1	CONDUIT	34.13	0	02:08	0.48	2.86	1.00
STM-88_(STM)_2	CONDUIT	17.17	0	02:09	0.24	1.44	1.00
STM-89_(STM)_1	CONDUIT	13.55	0	02:07	0.34	1.14	1.00
STM-89_(STM)_2	CONDUIT	34.55	0	02:05	0.49	2.89	1.00
STM-9_(STM)	CONDUIT	168.76	0	02:12	0.18	0.07	0.93
STM-91_(STM)	CONDUIT	14.88	0	02:10	0.87	0.16	1.00
STM-92_(STM)	CONDUIT	77.22	0	02:11	1.09	1.16	1.00
STM-94_(STM)	CONDUIT	113.42	0	02:09	1.65	1.55	1.00
STM-96_(STM)_1	CONDUIT	111.71	0	02:09	1.58	9.36	1.00
STM-96_(STM)_2	CONDUIT	84.70	0	02:11	1.20	7.09	1.00
STM-97_(STM)	CONDUIT	94.34	0	02:06	1.41	1.45	1.00
STM-99_(STM)_1	CONDUIT	93.33	0	02:06	1.32	7.82	1.00
STM-99_(STM)_2	CONDUIT	2.06	0	02:10	0.30	0.17	1.00
R1_OvF	WEIR	0.00	0	00:00			0.00
R10_OvF	WEIR	0.00	0	00:00			0.00
R2_OvF	WEIR	0.17	0	02:33			0.00
R3_OvF	WEIR	0.00	0	00:00			0.00
R4_OvF	WEIR	0.56	0	02:31			0.01
R5_OvF	WEIR	0.00	0	00:00			0.00
R6_OvF	WEIR	0.00	0	00:00			0.00
R7_OvF	WEIR	0.00	0	00:00			0.00
R8_OvF	WEIR	0.00	0	00:00			0.00
R9_OvF	WEIR	0.00	0	00:00			0.00







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MAJ-CBMH450 (4) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH454 (1) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH454 (2) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH454 (3) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH454 (4) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH456 (1) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH456 (2) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH456 (3) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH456 (4) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH470 (1) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH470 (2) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-MD1 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-MD2 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-MD3 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-PD1 (1) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-PD1 (2) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-PD2 (1) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-PD2 (2) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PD1-Out 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
PD2-Out 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-10_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-101_(STM) 0.00	1.00	0.00	0.04	0.00	0.13	0.00	0.00	0.83	0.88
STM-102_(STM) 0.00	1.00	0.00	0.04	0.00	0.18	0.00	0.00	0.77	0.82
STM-103_(STM) 0.00	1.00	0.00	0.07	0.00	0.26	0.00	0.00	0.67	0.74
STM-104_(STM) 0.00	1.00	0.62	0.02	0.00	0.35	0.00	0.00	0.01	0.64
STM-106_(STM)_1 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.01	0.00
STM-106_(STM)_2 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-108_(STM) 0.00	1.00	0.00	0.00	0.00	0.43	0.00	0.00	0.57	0.02
STM-109_(STM) 0.00	1.00	0.00	0.00	0.00	0.44	0.00	0.00	0.56	0.01
STM-11_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00

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STM-113_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-115_(STM)_1 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-115_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.44	0.00	0.00	0.56	0.00
STM-116_(STM) 0.00	1.00	0.00	0.01	0.00	0.26	0.00	0.00	0.74	0.73
STM-118_(STM)_1 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-118_(STM)_2 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-12_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-120_(STM) 0.00	1.00	0.00	0.00	0.00	0.35	0.00	0.00	0.65	0.00
STM-122_(STM) 0.00	1.00	0.00	0.01	0.00	0.25	0.00	0.00	0.75	0.75
STM-124_(STM)_1 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.01	0.00
STM-124_(STM)_2 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-125_(STM) 0.00	1.00	0.00	0.00	0.00	0.32	0.00	0.00	0.68	0.01
STM-126_(STM) 0.00	1.00	0.00	0.00	0.00	0.33	0.00	0.00	0.67	0.00
STM-127_(STM) 0.00	1.00	0.00	0.00	0.00	0.33	0.00	0.00	0.67	0.00
STM-13_(1)_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.24
STM-13_(STM) 0.00	1.00	0.00	0.71	0.00	0.29	0.00	0.00	0.00	0.71
STM-130_(STM) 0.00	1.00	0.00	0.02	0.00	0.19	0.00	0.00	0.79	0.81
STM-131_(STM) 0.00	1.00	0.00	0.01	0.00	0.23	0.00	0.00	0.76	0.76
STM-132_(STM) 0.00	1.00	0.00	0.05	0.00	0.28	0.00	0.00	0.67	0.74
STM-133_(STM) 0.00	1.00	0.00	0.00	0.00	0.33	0.00	0.00	0.67	0.01
STM-135_(STM) 0.00	1.00	0.00	0.00	0.00	0.31	0.00	0.00	0.69	0.01
STM-138_(STM) 0.00	1.00	0.00	0.02	0.00	0.25	0.00	0.00	0.73	0.77
STM-139_(STM) 0.00	1.00	0.00	0.00	0.00	0.25	0.00	0.00	0.75	0.74
STM-14_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-141_(STM)_1 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.01	0.00
STM-141_(STM)_2 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-145_(STM) 0.00	1.00	0.00	0.00	0.00	0.15	0.00	0.00	0.85	0.00
STM-15_(1)_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-15_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-16_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

STM-17_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-18_(1)_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-18_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-19_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-20_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-21_(STM)_1 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-21_(STM)_2 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-22_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-23_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-24_(1)_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-24_(STM) 0.00	1.00	0.00	0.00	0.00	0.03	0.00	0.00	0.97	0.03
STM-26_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-27_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-44_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-55_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
STM-58_(STM) 0.00	1.00	0.00	0.94	0.00	0.06	0.00	0.00	0.00	1.00
STM-59_(STM) 0.00	1.00	0.00	0.00	0.00	0.07	0.00	0.00	0.93	0.93
STM-60_(STM) 0.00	1.00	0.00	0.00	0.00	0.08	0.00	0.00	0.92	0.00
STM-62_(STM) 0.00	1.00	0.00	0.99	0.00	0.01	0.00	0.00	0.00	0.99
STM-63_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-64_(STM) 0.00	1.00	0.00	0.01	0.00	0.15	0.00	0.00	0.84	0.84
STM-65_(STM)_1 0.00	1.00	0.00	0.03	0.00	0.21	0.00	0.00	0.75	0.80
STM-65_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.25	0.00	0.00	0.75	0.01
STM-66_(STM) 0.00	1.00	0.00	0.00	0.00	0.26	0.00	0.00	0.74	0.00
STM-70_(STM)_1 0.00	1.00	0.00	0.01	0.00	0.99	0.00	0.00	0.00	1.00
STM-70_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-71_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.97
STM-72_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.03
STM-73_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-79_(STM) 0.00	1.00	0.00	0.00	0.00	0.09	0.00	0.00	0.91	0.00

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

STM-82_(STM) 0.00	1.00	0.00	0.00	0.00	0.25	0.00	0.00	0.75	0.00
STM-87_(STM) 0.00	1.00	0.00	0.00	0.00	0.07	0.00	0.00	0.93	0.94
STM-88_(STM)_1 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-88_(STM)_2 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-89_(STM)_1 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-89_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.13	0.00	0.00	0.87	0.00
STM-9_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-91_(STM) 0.00	1.00	0.00	0.00	0.00	0.05	0.00	0.00	0.95	0.94
STM-92_(STM) 0.00	1.00	0.00	0.00	0.00	0.20	0.00	0.00	0.80	0.01
STM-94_(STM) 0.00	1.00	0.00	0.00	0.00	0.10	0.00	0.00	0.90	0.07
STM-96_(STM)_1 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-96_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.20	0.00	0.00	0.80	0.00
STM-97_(STM) 0.00	1.00	0.00	0.00	0.00	0.16	0.00	0.00	0.84	0.83
STM-99_(STM)_1 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-99_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.21	0.00	0.00	0.79	0.00

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 Conduit Surcharge Summary  
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Conduit	Hours Full			Hours	Hours
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
STM-10_(STM)	0.01	0.01	192.00	0.01	0.01
STM-101_(STM)	0.85	0.85	11.31	0.01	0.01
STM-102_(STM)	11.99	11.99	21.41	0.01	0.01
STM-103_(STM)	25.52	25.52	37.07	0.01	0.01
STM-104_(STM)	39.35	39.35	42.46	0.01	0.01
STM-106_(STM)_1	47.30	47.30	47.30	0.20	0.13
STM-106_(STM)_2	47.30	47.30	47.30	0.44	0.01
STM-108_(STM)	47.30	47.30	49.80	0.01	0.01
STM-109_(STM)	50.66	50.66	53.30	0.01	0.01
STM-113_(STM)	63.24	63.24	66.59	0.10	0.19
STM-115_(STM)_1	53.30	53.30	53.30	0.52	0.34
STM-115_(STM)_2	53.30	53.30	53.30	0.20	0.01
STM-116_(STM)	27.22	27.31	28.48	0.01	0.06
STM-118_(STM)_1	39.38	39.38	39.38	0.52	0.30
STM-118_(STM)_2	39.38	39.38	39.38	0.55	0.01
STM-120_(STM)	39.38	39.38	42.42	0.13	0.01
STM-122_(STM)	29.70	29.71	31.22	0.01	0.05

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 6-hour Chicago Storm

STM-124_(STM)_1	39.41	39.42	39.41	0.37	0.30
STM-124_(STM)_2	39.41	39.41	39.42	0.47	0.03
STM-125_(STM)	39.42	39.42	40.60	0.01	0.01
STM-126_(STM)	43.59	43.59	45.46	0.17	0.01
STM-127_(STM)	46.10	46.10	48.10	0.01	0.01
STM-130_(STM)	21.34	21.34	25.51	0.01	0.01
STM-131_(STM)	28.16	28.16	30.46	0.01	0.01
STM-132_(STM)	33.34	33.34	43.99	0.13	0.13
STM-133_(STM)	44.56	44.56	47.53	0.09	0.09
STM-135_(STM)	40.03	40.03	41.16	0.13	0.01
STM-138_(STM)	28.62	28.62	32.85	0.01	0.01
STM-139_(STM)	31.34	31.35	32.29	0.01	0.06
STM-141_(STM)_1	40.03	40.03	40.03	0.38	0.29
STM-141_(STM)_2	40.03	40.03	40.03	0.49	0.03
STM-145_(STM)	19.16	19.16	20.47	0.01	0.01
STM-59_(STM)	7.51	7.51	7.82	0.01	0.01
STM-60_(STM)	7.10	7.10	7.36	0.01	0.01
STM-64_(STM)	18.78	18.78	21.09	0.01	0.01
STM-65_(STM)_1	26.10	26.10	32.75	0.01	0.01
STM-65_(STM)_2	33.12	33.12	34.68	0.01	0.01
STM-66_(STM)	31.29	31.29	33.13	0.01	0.01
STM-79_(STM)	12.81	12.81	13.02	0.01	0.01
STM-82_(STM)	33.88	33.88	34.68	0.13	0.01
STM-87_(STM)	4.78	4.78	7.83	0.01	0.01
STM-88_(STM)_1	16.08	16.08	16.08	0.21	0.26
STM-88_(STM)_2	16.08	16.08	16.08	0.13	0.09
STM-89_(STM)_1	16.08	16.08	16.08	0.07	0.20
STM-89_(STM)_2	16.08	16.08	16.08	0.23	0.03
STM-91_(STM)	3.68	3.68	5.28	0.01	0.01
STM-92_(STM)	25.60	25.60	27.21	0.01	0.01
STM-94_(STM)	13.41	13.53	14.12	0.16	0.08
STM-96_(STM)_1	27.21	27.21	27.21	0.43	0.34
STM-96_(STM)_2	27.21	27.21	27.21	0.26	0.31
STM-97_(STM)	18.43	18.51	19.42	0.15	0.11
STM-99_(STM)_1	24.84	24.85	24.84	0.67	0.45
STM-99_(STM)_2	24.84	24.84	24.84	0.01	0.01

Analysis begun on: Fri Jan 23 10:32:48 2026  
 Analysis ended on: Fri Jan 23 10:33:21 2026  
 Total elapsed time: 00:00:33

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.2 (Build 5.2.4)

Boundary Conditions:

100-yr = 93.88m

25-yr = 93.69m

- WARNING 03: negative offset ignored for Link MAJ-CBMH454(3)
- WARNING 03: negative offset ignored for Link MAJ-CBMH454(4)
- WARNING 04: minimum elevation drop used for Conduit STM-106\_(STM)\_1
- WARNING 04: minimum elevation drop used for Conduit STM-106\_(STM)\_2
- WARNING 04: minimum elevation drop used for Conduit STM-115\_(STM)\_1
- WARNING 04: minimum elevation drop used for Conduit STM-115\_(STM)\_2
- WARNING 04: minimum elevation drop used for Conduit STM-118\_(STM)\_1
- WARNING 04: minimum elevation drop used for Conduit STM-118\_(STM)\_2
- WARNING 04: minimum elevation drop used for Conduit STM-124\_(STM)\_1
- WARNING 04: minimum elevation drop used for Conduit STM-124\_(STM)\_2
- WARNING 04: minimum elevation drop used for Conduit STM-141\_(STM)\_1
- WARNING 04: minimum elevation drop used for Conduit STM-141\_(STM)\_2
- WARNING 03: negative offset ignored for Link STM-55\_(STM)
- WARNING 04: minimum elevation drop used for Conduit STM-88\_(STM)\_1
- WARNING 04: minimum elevation drop used for Conduit STM-88\_(STM)\_2
- WARNING 04: minimum elevation drop used for Conduit STM-89\_(STM)\_1
- WARNING 04: minimum elevation drop used for Conduit STM-89\_(STM)\_2
- WARNING 04: minimum elevation drop used for Conduit STM-96\_(STM)\_1
- WARNING 04: minimum elevation drop used for Conduit STM-96\_(STM)\_2
- WARNING 04: minimum elevation drop used for Conduit STM-99\_(STM)\_1
- WARNING 04: minimum elevation drop used for Conduit STM-99\_(STM)\_2

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Element Count

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Number of rain gages ..... 1  
 Number of subcatchments ... 51  
 Number of nodes ..... 158  
 Number of links ..... 207  
 Number of pollutants ..... 0  
 Number of land uses ..... 0

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Raingage Summary

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Name	Data Source	Data Type	Recording Interval
Raingage	3-C6-2	INTENSITY	10 min.

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Subcatchment Summary

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Outlet	Area	Width	%Imperv	%Slope	Rain Gage
A0-1	0.06	101.27	23.00	15.0000	Raingage
OF-Systemhouse					

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

A0-2	0.36	122.48	41.00	2.5000	Raingage
OF-Strandherd					
A0-3	0.22	63.56	0.00	15.0000	Raingage
MAJ-MD					
A1-1	0.05	40.59	51.00	1.2500	Raingage
CBMH470					
A1-2	0.01	16.62	100.00	0.5000	Raingage
PD1					
A1-3	0.01	19.05	100.00	0.5000	Raingage
PD2					
A1-4	0.02	16.30	100.00	1.0000	Raingage
CB424					
A1-5	0.05	17.48	100.00	2.0000	Raingage
CB250					
A1-6	0.03	32.95	0.00	3.0000	Raingage
CB202					
A2-1	0.05	24.24	97.00	1.5000	Raingage
CB458					
A2-10	0.03	26.06	73.00	1.5000	Raingage
CB406					
A2-11	0.02	12.36	100.00	1.0000	Raingage
CBMH404					
A2-12	0.03	21.29	77.00	1.0000	Raingage
CBMH402					
A2-13	0.15	60.58	87.00	1.5000	Raingage
CBMH292					
A2-14	0.17	65.66	96.00	1.7500	Raingage
CBMH408					
A2-15	0.18	78.91	96.00	1.5000	Raingage
CBMH294					
A2-16	0.19	72.06	93.00	1.5000	Raingage
CBMH276					
A2-17	0.23	97.92	93.00	1.5000	Raingage
CBMH268					
A2-18	0.03	29.77	100.00	1.5000	Raingage
CB260					
A2-19.1	0.07	28.09	100.00	2.5000	Raingage
CBMH252					
A2-19.2	0.03	11.19	100.00	2.5000	Raingage
CB256					
A2-19.3	0.03	20.12	100.00	2.5000	Raingage
CBMH254					
A2-19.4	0.04	20.73	100.00	2.5000	Raingage
CBMH258					
A2-2	0.04	29.82	71.00	1.5000	Raingage
CBMH456					
A2-20	0.16	78.97	94.00	1.0000	Raingage
CBMH246/ST18					
A2-21	0.02	31.36	79.00	1.0000	Raingage
CB238					
A2-22	0.02	22.12	93.00	1.5000	Raingage
CBMH236					
A2-23	0.11	49.89	96.00	1.5000	Raingage
CBMH230					
A2-24	0.15	46.10	79.00	1.5000	Raingage
CBMH228					
A2-25	0.11	48.37	96.00	1.5000	Raingage
CBMH222					
A2-26	0.31	75.92	97.00	1.5000	Raingage
CBMH214/ST17					

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

A2-27 CB210	0.02	20.86	80.00	1.0000	Raingage
A2-28 CBMH208	0.02	23.03	84.00	1.5000	Raingage
A2-29 CBMH206	0.06	65.11	79.00	2.0000	Raingage
A2-3 CB460	0.10	32.88	63.00	1.5000	Raingage
A2-4 CBMH454	0.03	27.54	97.00	1.5000	Raingage
A2-5 CBMH444/ST2	0.27	61.28	94.00	1.5000	Raingage
A2-6 CBMH430	0.23	74.98	97.00	1.5000	Raingage
A2-7 CBMH450	0.12	49.84	87.00	1.5000	Raingage
A2-8 CBMH438	0.11	38.54	86.00	1.5000	Raingage
A2-9 CBMH414	0.15	64.30	87.00	1.5000	Raingage
R-1 R1_S	0.28	278.00	100.00	1.5000	Raingage
R-10 R10_S	0.04	45.00	100.00	1.5000	Raingage
R-2 R2_S	0.16	159.00	100.00	1.5000	Raingage
R-3 R3_S	0.19	188.00	100.00	1.5000	Raingage
R-4 R4_S	0.12	119.00	100.00	1.5000	Raingage
R-5 R5_S	0.04	42.00	100.00	1.5000	Raingage
R-6 R6_S	0.13	126.00	100.00	1.5000	Raingage
R-7 R7_S	0.10	96.00	100.00	1.5000	Raingage
R-8 R8_S	0.05	48.00	100.00	1.5000	Raingage
R-9 R9_S	0.06	63.00	100.00	1.5000	Raingage

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Node Summary

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Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
HP-A1-1	JUNCTION	96.60	1.00	0.0	
HP-A1-2	JUNCTION	96.85	1.00	0.0	
HP-A1-3	JUNCTION	96.75	1.00	0.0	
HP-A1-4	JUNCTION	96.45	1.00	0.0	
HP-A1-5	JUNCTION	96.50	1.00	0.0	
HP-A2-1	JUNCTION	96.65	1.00	0.0	
HP-A2-10 (1)	JUNCTION	96.41	1.00	0.0	
HP-A2-10 (2)	JUNCTION	96.40	1.00	0.0	
HP-A2-11	JUNCTION	96.42	1.00	0.0	
HP-A2-12	JUNCTION	96.40	1.00	0.0	
HP-A2-13 (1)	JUNCTION	96.30	1.00	0.0	

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

HP-A2-13 (2)	JUNCTION	96.35	1.00	0.0
HP-A2-16	JUNCTION	96.15	1.00	0.0
HP-A2-17	JUNCTION	96.20	1.00	0.0
HP-A2-18	JUNCTION	96.65	1.00	0.0
HP-A2-19.1	JUNCTION	96.43	1.00	0.0
HP-A2-19.3	JUNCTION	96.50	1.00	0.0
HP-A2-19.4	JUNCTION	96.65	1.00	0.0
HP-A2-2 (1)	JUNCTION	96.45	1.00	0.0
HP-A2-2 (2)	JUNCTION	96.50	1.00	0.0
HP-A2-20	JUNCTION	96.50	1.00	0.0
HP-A2-21	JUNCTION	96.32	1.00	0.0
HP-A2-22	JUNCTION	96.37	1.00	0.0
HP-A2-23	JUNCTION	96.30	1.00	0.0
HP-A2-24	JUNCTION	96.20	1.00	0.0
HP-A2-25	JUNCTION	96.35	1.00	0.0
HP-A2-25 (2)	JUNCTION	96.22	1.00	0.0
HP-A2-26	JUNCTION	96.25	1.00	0.0
HP-A2-27	JUNCTION	96.40	1.00	0.0
HP-A2-28	JUNCTION	96.32	1.00	0.0
HP-A2-29	JUNCTION	96.45	1.00	0.0
HP-A2-3 (1)	JUNCTION	96.43	1.00	0.0
HP-A2-3 (2)	JUNCTION	96.45	1.00	0.0
HP-A2-4 (1)	JUNCTION	96.50	1.00	0.0
HP-A2-4 (2)	JUNCTION	96.55	1.00	0.0
HP-A2-5 (1)	JUNCTION	96.35	1.00	0.0
HP-A2-5 (2)	JUNCTION	96.25	1.00	0.0
HP-A2-6	JUNCTION	96.30	1.00	0.0
HP-A2-7 (1)	JUNCTION	96.30	1.00	0.0
HP-A2-7 (2)	JUNCTION	96.38	1.00	0.0
HP-A2-8	JUNCTION	96.27	1.00	0.0
HP-A2-9	JUNCTION	96.35	1.00	0.0
HP-MD1	OUTFALL	96.43	1.00	0.0
MAJ-MD	OUTFALL	96.43	0.00	0.0
MAJ-MD2	OUTFALL	96.41	1.00	0.0
MAJ-MD3	OUTFALL	96.63	1.00	0.0
MIN_MD	OUTFALL	93.00	0.86	0.0
OF-Strandherd	OUTFALL	95.49	0.00	0.0
OF-Systemhouse	OUTFALL	95.88	0.00	0.0
14_(STM)	STORAGE	93.09	2.37	0.0
15_(STM)	STORAGE	93.03	2.34	0.0
CB202	STORAGE	93.97	3.38	0.0
CB210	STORAGE	94.40	2.88	0.0
CB238	STORAGE	94.68	2.60	0.0
CB250	STORAGE	94.35	2.17	0.0
CB256	STORAGE	94.96	1.54	0.0
CB260	STORAGE	94.90	2.55	0.0
CB406	STORAGE	94.91	2.35	0.0
CB424	STORAGE	94.37	2.99	0.0
CB458	STORAGE	94.90	2.38	0.0
CB460	STORAGE	94.73	2.62	0.0
CBMH206	STORAGE	93.98	2.97	0.0
CBMH208	STORAGE	94.19	3.01	0.0
CBMH214/ST17	STORAGE	93.84	3.11	0.0
CBMH222	STORAGE	93.74	3.26	0.0
CBMH228	STORAGE	93.94	3.06	0.0
CBMH230	STORAGE	94.14	2.86	0.0
CBMH236	STORAGE	94.44	2.81	0.0

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CBMH246/ST18	STORAGE	94.10	3.20	0.0
CBMH252	STORAGE	94.11	3.04	0.0
CBMH254	STORAGE	94.27	3.03	0.0
CBMH258	STORAGE	94.27	3.18	0.0
CBMH268	STORAGE	94.74	2.21	0.0
CBMH276	STORAGE	94.25	2.70	0.0
CBMH292	STORAGE	94.10	2.95	0.0
CBMH294	STORAGE	94.23	2.77	0.0
CBMH402	STORAGE	94.56	2.69	0.0
CBMH404	STORAGE	94.76	2.59	0.0
CBMH408	STORAGE	94.05	2.95	0.0
CBMH414	STORAGE	94.42	2.63	0.0
CBMH430	STORAGE	94.39	2.66	0.0
CBMH438	STORAGE	94.68	2.32	0.0
CBMH444/ST2	STORAGE	94.35	2.70	0.0
CBMH450	STORAGE	94.67	2.33	0.0
CBMH454	STORAGE	94.63	2.67	0.0
CBMH456	STORAGE	94.74	2.56	0.0
CBMH470	STORAGE	94.34	3.11	0.0
MH200	STORAGE	93.70	3.03	0.0
MH200_Dummy	STORAGE	93.14	2.77	0.0
MH204	STORAGE	93.21	3.15	0.0
MH212	STORAGE	93.34	2.75	0.0
MH216	STORAGE	93.36	3.01	0.0
MH218	STORAGE	94.18	2.18	0.0
MH220	STORAGE	93.39	2.61	0.0
MH224/ST14	STORAGE	93.90	2.30	0.0
MH226	STORAGE	93.42	2.80	0.0
MH232/ST15	STORAGE	94.10	1.90	0.0
MH234/ST16	STORAGE	94.10	2.08	0.0
MH238	STORAGE	93.93	2.50	0.0
MH240	STORAGE	93.72	2.59	0.0
MH242	STORAGE	93.82	2.94	0.0
MH244	STORAGE	94.04	2.74	0.0
MH262	STORAGE	93.59	2.67	0.0
MH264	STORAGE	93.95	2.28	0.0
MH266	STORAGE	94.10	1.95	0.0
MH270/ST13	STORAGE	93.95	2.22	0.0
MH272	STORAGE	93.84	2.46	0.0
MH274	STORAGE	94.07	1.98	0.0
MH278	STORAGE	93.66	2.64	0.0
MH280	STORAGE	94.05	2.23	0.0
MH282	STORAGE	94.23	1.94	0.0
MH284	STORAGE	94.23	2.03	0.0
MH286	STORAGE	93.70	2.45	0.0
MH288	STORAGE	94.06	2.03	0.0
MH290	STORAGE	94.07	2.08	0.0
MH296	STORAGE	94.27	1.81	0.0
MH298	STORAGE	94.27	1.85	0.0
MH400	STORAGE	94.37	1.88	0.0
MH410	STORAGE	94.24	1.90	0.0
MH412	STORAGE	94.24	1.85	0.0
MH416	STORAGE	93.79	2.78	0.0
MH418	STORAGE	93.81	2.50	0.0
MH420	STORAGE	94.24	2.01	0.0
MH422	STORAGE	94.36	1.94	0.0
MH426_	STORAGE	93.85	2.56	0.0

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MH428	STORAGE	94.21	1.98	0.0
MH432/ST4	STORAGE	94.30	1.85	0.0
MH434	STORAGE	94.50	1.68	0.0
MH436	STORAGE	94.50	1.61	0.0
MH440/ST3	STORAGE	94.22	2.00	0.0
MH446	STORAGE	94.50	1.66	0.0
MH448	STORAGE	94.50	1.56	0.0
MH462	STORAGE	93.89	2.62	0.0
MH464	STORAGE	94.12	2.29	0.0
MH466	STORAGE	94.38	2.49	0.0
MH468	STORAGE	94.12	2.49	0.0
PD1	STORAGE	94.60	3.20	0.0
PD2	STORAGE	94.65	3.05	0.0
R-1_Dummy	STORAGE	94.24	1.65	0.0
R1_S	STORAGE	98.00	0.50	0.0
R10_S	STORAGE	98.00	0.50	0.0
R2_S	STORAGE	98.00	0.50	0.0
R3_S	STORAGE	98.00	0.50	0.0
R4_S	STORAGE	98.00	0.50	0.0
R5_S	STORAGE	98.00	0.50	0.0
R6_S	STORAGE	98.00	0.50	0.0
R7_S	STORAGE	98.00	0.50	0.0
R8_S	STORAGE	98.00	0.50	0.0
R9_S	STORAGE	98.00	0.50	0.0
ST1	STORAGE	94.35	1.75	0.0
ST10	STORAGE	94.12	2.18	0.0
ST11	STORAGE	93.95	2.20	0.0
ST12	STORAGE	93.95	2.20	0.0
ST5	STORAGE	94.35	1.80	0.0
ST6	STORAGE	94.09	2.01	0.0
ST7	STORAGE	94.05	2.05	0.0
ST8	STORAGE	94.12	1.98	0.0
ST9	STORAGE	94.12	2.28	0.0

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 Link Summary  
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Name	From Node	To Node	Type	Length	%
Slope Roughness					
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MAJ-CB210 (1) 6.0108 0.0130	CB210	HP-A2-27	CONDUIT	2.0	-
MAJ-CB210 (2) 6.0108 0.0130	HP-A2-27	CB238	CONDUIT	2.0	
MAJ-CB238 (1) 2.0004 0.0130	CB238	HP-A2-21	CONDUIT	2.0	-
MAJ-CB238 (2) 3.5021 0.0130	HP-A2-21	CBMH236	CONDUIT	2.0	
MAJ-CB250 (1) 56.2106 0.0130	CB250	HP-A1-5	CONDUIT	2.0	-
MAJ-CB250 (2) 17.7743 0.0130	HP-A1-5	CBMH252	CONDUIT	2.0	
MAJ-CB260 (1) 10.0504 0.0130	CB260	HP-A2-18	CONDUIT	2.0	-
MAJ-CB260 (2) 10.0504 0.0130	HP-A2-18	CBMH258	CONDUIT	2.0	

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MAJ-CB406 (1)	CB406	HP-A2-10 (1)	CONDUIT	2.0	-
8.0257 0.0130					
MAJ-CB406 (2)	HP-A2-10 (1)	CBMH404	CONDUIT	2.0	
3.0014 0.0130					
MAJ-CB406 (3)	CB406	HP-A2-10 (2)	CONDUIT	2.0	-
7.5212 0.0130					
MAJ-CB406 (4)	HP-A2-10 (2)	CBMH294	CONDUIT	2.0	
20.4124 0.0130					
MAJ-CB406 (5)	HP-A2-10 (2)	CBMH268	CONDUIT	2.0	
23.0921 0.0130					
MAJ-CB424 (1)	CB424	HP-A1-4	CONDUIT	2.0	-
4.0032 0.0130					
MAJ-CB424 (2)	HP-A1-4	CBMH438	CONDUIT	2.0	
23.0921 0.0130					
MAJ-CB458 (1)	CB458	HP-A2-1	CONDUIT	2.0	-
18.8249 0.0130					
MAJ-CB458 (2)	HP-A2-1	CB260	CONDUIT	2.0	
10.0504 0.0130					
MAJ-CB460 (1)	CB460	HP-A2-3 (1)	CONDUIT	2.0	-
4.0032 0.0130					
MAJ-CB460 (2)	HP-A2-3 (1)	CBMH454	CONDUIT	2.0	
6.5138 0.0130					
MAJ-CB460 (3)	CB460	HP-A2-3 (2)	CONDUIT	2.0	-
5.0063 0.0130					
MAJ-CB460 (4)	HP-A2-3 (2)	CB458	CONDUIT	2.0	
8.5309 0.0130					
MAJ-CBMH206 (1)	CBMH206	HP-A2-29	CONDUIT	2.0	-
25.8199 0.0130					
MAJ-CBMH206 (2)	HP-A2-29	CBMH208	CONDUIT	2.0	
12.5988 0.0130					
MAJ-CBMH208	CBMH208	HP-A2-28	CONDUIT	2.0	-
6.0108 0.0130					
MAJ-CBMH208 (2)	HP-A2-28	CB210	CONDUIT	2.0	
2.0004 0.0130					
MAJ-CBMH214 (1)	CBMH214/ST17	HP-A2-26	CONDUIT	2.0	-
15.1717 0.0130					
MAJ-CBMH214 (2)	HP-A2-26	CBMH206	CONDUIT	2.0	
15.1717 0.0130					
MAJ-CBMH222 (1)	CBMH222	HP-A2-25	CONDUIT	2.0	-
17.7743 0.0130					
MAJ-CBMH222 (2)	HP-A2-25	CBMH214/ST17	CONDUIT	2.0	
20.4124 0.0130					
MAJ-CBMH222 (3)	CBMH222	HP-A2-25 (2)	CONDUIT	2.0	-
11.0672 0.0130					
MAJ-CBMH222 (4)	HP-A2-25 (2)	CBMH230	CONDUIT	2.0	
11.0672 0.0130					
MAJ-CBMH228 (1)	CBMH228	HP-A2-24	CONDUIT	2.0	-
10.0504 0.0130					
MAJ-CBMH228 (2)	HP-A2-24	CBMH230	CONDUIT	2.0	
10.0504 0.0130					
MAJ-CBMH230 (1)	CBMH230	HP-A2-23	CONDUIT	2.0	-
15.1717 0.0130					
MAJ-CBMH230 (2)	HP-A2-23	CBMH214/ST17	CONDUIT	2.0	
17.7743 0.0130					
MAJ-CBMH236 (1)	CBMH236	HP-A2-22	CONDUIT	2.0	-
6.0108 0.0130					
MAJ-CBMH236 (2)	HP-A2-22	CBMH230	CONDUIT	2.0	
18.8249 0.0130					
MAJ-CBMH246 (1)	CBMH246/ST18	HP-A2-20	CONDUIT	2.0	-
25.8199 0.0130					

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MAJ-CBMH246 (2)	HP-A2-20	CBMH228	CONDUIT	2.0	
25.8199	0.0130				
MAJ-CBMH252 (1)	CBMH252	HP-A2-19.1	CONDUIT	2.0	-
14.1393	0.0130				
MAJ-CBMH252 (2)	HP-A2-19.1	CBMH246/ST18	CONDUIT	2.0	
22.0148	0.0130				
MAJ-CBMH254 (1)	CBMH254	HP-A2-19.3	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH254 (2)	HP-A2-19.3	CBMH252	CONDUIT	2.0	
17.7743	0.0130				
MAJ-CBMH258 (1)	CBMH258	HP-A2-19.4	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH258 (2)	HP-A2-19.4	CBMH254	CONDUIT	2.0	
17.7743	0.0130				
MAJ-CBMH268 (1)	CBMH268	HP-A2-17	CONDUIT	2.0	-
12.5988	0.0130				
MAJ-CBMH268 (2)	HP-A2-17	CBMH228	CONDUIT	2.0	
10.0504	0.0130				
MAJ-CBMH276 (1)	CBMH276	HP-A2-16	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH276 (2)	HP-A2-16	CBMH268	CONDUIT	2.0	
10.0504	0.0130				
MAJ-CBMH292 (1)	CBMH292	HP-A2-13 (1)	CONDUIT	2.0	-
12.5988	0.0130				
MAJ-CBMH292 (2)	HP-A2-13 (1)	CBMH414	CONDUIT	2.0	
12.5988	0.0130				
MAJ-CBMH292 (3)	CBMH292	HP-A2-13 (2)	CONDUIT	2.0	-
15.1717	0.0130				
MAJ-CBMH292 (4)	HP-A2-13 (2)	CBMH294	CONDUIT	2.0	
17.7743	0.0130				
MAJ-CBMH402 (1)	CBMH402	HP-A2-12	CONDUIT	2.0	-
7.5212	0.0130				
MAJ-CBMH402 (2)	HP-A2-12	CBMH292	CONDUIT	2.0	
17.7743	0.0130				
MAJ-CBMH404 (1)	CBMH404	HP-A2-11	CONDUIT	2.0	-
3.5021	0.0130				
MAJ-CBMH404 (2)	HP-A2-11	CBMH402	CONDUIT	2.0	
8.5309	0.0130				
MAJ-CBMH414 (1)	CBMH414	HP-A2-9	CONDUIT	2.0	-
15.1717	0.0130				
MAJ-CBMH414 (2)	HP-A2-9	CBMH408	CONDUIT	2.0	
17.7743	0.0130				
MAJ-CBMH430 (1)	CBMH430	HP-A2-6	CONDUIT	2.0	-
12.5988	0.0130				
MAJ-CBMH430 (2)	HP-A2-6	CBMH438	CONDUIT	2.0	
15.1717	0.0130				
MAJ-CBMH438 (1)	CBMH438	HP-A2-8	CONDUIT	2.0	-
13.6247	0.0130				
MAJ-CBMH438 (2)	HP-A2-8	CBMH292	CONDUIT	2.0	
11.0672	0.0130				
MAJ-CBMH444 (1)	CBMH444/ST2	HP-A2-5 (1)	CONDUIT	2.0	-
15.1717	0.0130				
MAJ-CBMH444 (2)	HP-A2-5 (1)	CBMH430	CONDUIT	2.0	
15.1717	0.0130				
MAJ-CBMH444 (3)	CBMH444/ST2	HP-A2-5 (2)	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH444 (4)	HP-A2-5 (2)	CBMH450	CONDUIT	2.0	
12.5988	0.0130				
MAJ-CBMH450 (1)	CBMH450	HP-A2-7 (1)	CONDUIT	2.0	-
15.1717	0.0130				

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MAJ-CBMH450 (2)	HP-A2-7 (1)	CBMH438	CONDUIT	2.0	
15.1717	0.0130				
MAJ-CBMH450 (3)	CBMH450	HP-A2-7 (2)	CONDUIT	2.0	-
19.3525	0.0130				
MAJ-CBMH450 (4)	HP-A2-7 (2)	CBMH414	CONDUIT	2.0	
16.7293	0.0130				
MAJ-CBMH454 (1)	CBMH454	HP-A2-4 (1)	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH454 (2)	HP-A2-4 (1)	CBMH456	CONDUIT	2.0	
10.0504	0.0130				
MAJ-CBMH454 (3)	CBMH454	HP-A2-4 (2)	CONDUIT	2.0	-
7.5212	0.0130				
MAJ-CBMH454 (4)	HP-A2-4 (2)	CBMH444/ST2	CONDUIT	2.0	
25.8199	0.0130				
MAJ-CBMH456 (1)	CBMH456	HP-A2-2 (1)	CONDUIT	2.0	-
7.5212	0.0130				
MAJ-CBMH456 (2)	HP-A2-2 (1)	CB458	CONDUIT	2.0	
8.5309	0.0130				
MAJ-CBMH456 (3)	CBMH456	HP-A2-2 (2)	CONDUIT	2.0	-
10.0504	0.0130				
MAJ-CBMH456 (4)	HP-A2-2 (2)	CBMH444/ST2	CONDUIT	2.0	
23.0921	0.0130				
MAJ-CBMH470 (1)	CBMH470	HP-A1-1	CONDUIT	2.0	-
7.5212	0.0130				
MAJ-CBMH470 (2)	HP-A1-1	CBMH444/ST2	CONDUIT	2.0	
28.6028	0.0130				
MAJ-MD1	CB458	HP-MD1	CONDUIT	2.0	-
7.5212	0.0130				
MAJ-MD2	CBMH254	MAJ-MD2	CONDUIT	2.0	-
5.5083	0.0130				
MAJ-MD3	CB202	MAJ-MD3	CONDUIT	2.0	-
14.1393	0.0130				
MAJ-PD1 (1)	PD1	HP-A1-2	CONDUIT	2.0	-
2.5008	0.0130				
MAJ-PD1 (2)	HP-A1-2	CBMH430	CONDUIT	2.0	
43.6436	0.0130				
MAJ-PD2 (1)	PD2	HP-A1-3	CONDUIT	2.0	-
2.5008	0.0130				
MAJ-PD2 (2)	HP-A1-3	CBMH430	CONDUIT	2.0	
37.3632	0.0130				
PD1-Out	PD1	MH466	CONDUIT	13.2	
0.9849	0.0130				
PD2-Out	PD2	MH466	CONDUIT	15.9	
1.0063	0.0130				
STM-10_(STM)	15_(STM)	MIN_MD	CONDUIT	13.6	
0.2209	0.0130				
STM-101_(STM)	CB406	CBMH404	CONDUIT	27.9	
0.5011	0.0130				
STM-102_(STM)	CBMH404	CBMH402	CONDUIT	27.9	
0.5011	0.0130				
STM-103_(STM)	CBMH402	MH400	CONDUIT	32.4	
0.4938	0.0130				
STM-104_(STM)	MH400	MH298	CONDUIT	10.7	
0.3749	0.0130				
STM-106_(STM)_1	MH298	ST8	CONDUIT	2.0	
0.0152	0.0130				
STM-106_(STM)_2	ST8	MH296	CONDUIT	2.0	
0.0152	0.0130				
STM-108_(STM)	MH296	CBMH294	CONDUIT	6.2	
0.4808	0.0130				

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STM-109_(STM) 0.4918 0.0130	CBMH294	MH288	CONDUIT	6.1
STM-11_(STM) 0.3526 0.0130	CBMH470	MH468	CONDUIT	19.9
STM-113_(STM) 0.4918 0.0130	CBMH292	MH290	CONDUIT	6.1
STM-115_(STM)_1 0.0152 0.0130	MH290	ST7	CONDUIT	2.0
STM-115_(STM)_2 0.0152 0.0130	ST7	MH288	CONDUIT	2.0
STM-116_(STM) 0.5970 0.0130	CBMH414	MH412	CONDUIT	3.4
STM-118_(STM)_1 0.0152 0.0130	MH412	ST6	CONDUIT	2.0
STM-118_(STM)_2 0.0152 0.0130	ST6	MH410	CONDUIT	2.0
STM-12_(STM) 0.2392 0.0130	MH468	MH462	CONDUIT	29.3
STM-120_(STM) 0.4525 0.0130	MH410	CBMH408	CONDUIT	8.8
STM-122_(STM) 0.4808 0.0130	CBMH438	MH436	CONDUIT	6.2
STM-124_(STM)_1 0.0152 0.0130	MH436	ST5	CONDUIT	2.0
STM-124_(STM)_2 0.0152 0.0130	ST5	MH434	CONDUIT	2.0
STM-125_(STM) 0.4329 0.0130	MH434	MH432/ST4	CONDUIT	4.6
STM-126_(STM) 0.4808 0.0130	MH432/ST4	CBMH430	CONDUIT	6.2
STM-127_(STM) 0.4808 0.0130	CBMH430	MH428	CONDUIT	6.2
STM-13_(1)_(STM) 0.1487 0.0130	MH426_	MH418	CONDUIT	20.2
STM-13_(STM) 0.1550 0.0130	MH462	MH426_	CONDUIT	19.4
STM-130_(STM) 0.5222 0.0130	CB458	CBMH456	CONDUIT	19.1
STM-131_(STM) 0.5102 0.0130	CBMH456	CBMH454	CONDUIT	9.8
STM-132_(STM) 0.5032 0.0130	CBMH454	CBMH444/ST2	CONDUIT	39.8
STM-133_(STM) 0.4892 0.0130	CBMH444/ST2	MH440/ST3	CONDUIT	10.2
STM-135_(STM) 0.4301 0.0130	MH446	CBMH444/ST2	CONDUIT	4.7
STM-138_(STM) 0.4899 0.0130	CB460	CBMH454	CONDUIT	18.4
STM-139_(STM) 0.6098 0.0130	CBMH450	MH448	CONDUIT	3.3
STM-14_(STM) 0.1006 0.0130	MH418	MH416	CONDUIT	9.9
STM-141_(STM)_1 0.0152 0.0130	MH448	ST1	CONDUIT	2.0
STM-141_(STM)_2 0.0152 0.0130	ST1	MH446	CONDUIT	2.0
STM-145_(STM) 0.4781 0.0130	CBMH246/ST18	MH244	CONDUIT	12.6
STM-15_(1)_(STM) 0.1597 0.0130	MH286	MH278	CONDUIT	18.8

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STM-15_(STM)	MH416	MH286	CONDUIT	55.3
0.1447 0.0130				
STM-16_(STM)	MH278	MH262	CONDUIT	36.4
0.1648 0.0130				
STM-17_(STM)	MH262	MH226	CONDUIT	22.7
0.1320 0.0130				
STM-18_(1)_(STM)	MH220	MH216	CONDUIT	21.5
0.0929 0.0130				
STM-18_(STM)	MH226	MH220	CONDUIT	19.0
0.1055 0.0130				
STM-19_(STM)	MH216	MH212	CONDUIT	15.7
0.0637 0.0130				
STM-20_(STM)	MH212	MH204	CONDUIT	25.3
0.0790 0.0130				
STM-21_(STM)_1	MH204	MH200_Dummy	CONDUIT	82.1
0.0913 0.0130				
STM-21_(STM)_2	MH200_Dummy	14_(STM)	CONDUIT	5.2
0.2868 0.0130				
STM-22_(STM)	MH466	MH464	CONDUIT	30.9
0.3556 0.0130				
STM-23_(STM)	MH464	MH462	CONDUIT	27.4
0.2555 0.0130				
STM-24_(1)_(STM)	MH420	MH418	CONDUIT	33.7
0.3563 0.0130				
STM-24_(STM)	CB424	MH420	CONDUIT	24.0
0.4998 0.0130				
STM-26_(STM)	MH282	MH280	CONDUIT	22.3
0.4939 0.0130				
STM-27_(STM)	MH280	MH278	CONDUIT	33.3
0.2400 0.0130				
STM-44_(STM)	MH422	MH420	CONDUIT	15.7
0.3829 0.0130				
STM-55_(STM)	MH284	MH280	CONDUIT	12.5
1.4378 0.0130				
STM-58_(STM)	MH218	MH216	CONDUIT	36.6
1.0107 0.0130				
STM-59_(STM)	CB210	CBMH208	CONDUIT	16.6
0.3019 0.0130				
STM-60_(STM)	CBMH208	CBMH206	CONDUIT	42.0
0.1427 0.0130				
STM-62_(STM)	CB202	MH200	CONDUIT	11.7
1.0283 0.0130				
STM-63_(STM)	MH200	MH200_Dummy	CONDUIT	5.2
0.9561 0.0130				
STM-64_(STM)	CB238	CBMH236	CONDUIT	15.9
0.5019 0.0130				
STM-65_(STM)_1	CBMH236	MH234/ST16	CONDUIT	38.6
0.4927 0.0130				
STM-65_(STM)_2	MH234/ST16	CBMH230	CONDUIT	7.7
0.5188 0.0130				
STM-66_(STM)	CBMH230	CBMH228	CONDUIT	19.0
0.2637 0.0130				
STM-70_(STM)_1	CB250	R-1_Dummy	CONDUIT	22.0
0.4955 0.0130				
STM-70_(STM)_2	R-1_Dummy	MH238	CONDUIT	32.5
0.4951 0.0130				
STM-71_(STM)	MH238	MH242	CONDUIT	40.3
0.2481 0.0130				
STM-72_(STM)	MH242	MH240	CONDUIT	36.9
0.2440 0.0130				

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

STM-73_(STM) 0.2899 0.0130	MH240	MH226	CONDUIT	6.9
STM-79_(STM) 0.6098 0.0130	MH224/ST14	CBMH222	CONDUIT	3.3
STM-82_(STM) 0.4175 0.0130	MH232/ST15	CBMH230	CONDUIT	4.8
STM-87_(STM) 0.4940 0.0130	CB260	CBMH258	CONDUIT	36.4
STM-88_(STM)_1 0.0152 0.0130	CBMH258	ST9	CONDUIT	2.0
STM-88_(STM)_2 0.0152 0.0130	ST9	CBMH254	CONDUIT	2.0
STM-89_(STM)_1 0.0152 0.0130	CBMH254	ST10	CONDUIT	2.0
STM-89_(STM)_2 0.0152 0.0130	ST10	CBMH252	CONDUIT	2.0
STM-9_(STM) 0.7371 0.0130	14_(STM)	15_(STM)	CONDUIT	4.1
STM-91_(STM) 0.9647 0.0130	CB256	CBMH254	CONDUIT	9.3
STM-92_(STM) 0.4751 0.0130	MH270/ST13	MH264	CONDUIT	12.6
STM-94_(STM) 0.5714 0.0130	CBMH268	MH266	CONDUIT	7.0
STM-96_(STM)_1 0.0152 0.0130	MH266	ST12	CONDUIT	2.0
STM-96_(STM)_2 0.0152 0.0130	ST12	MH264	CONDUIT	2.0
STM-97_(STM) 0.4552 0.0130	CBMH276	MH274	CONDUIT	6.6
STM-99_(STM)_1 0.0152 0.0130	MH274	ST11	CONDUIT	2.0
STM-99_(STM)_2 0.0152 0.0130	ST11	MH272	CONDUIT	2.0
R1_OvF	R1_S	HP-A1-5	WEIR	
R10_OvF	R10_S	CBMH214/ST17	WEIR	
R2_OvF	R2_S	HP-A2-19.1	WEIR	
R3_OvF	R3_S	CBMH408	WEIR	
R4_OvF	R4_S	HP-A2-7(2)	WEIR	
R5_OvF	R5_S	CBMH444/ST2	WEIR	
R6_OvF	R6_S	CBMH444/ST2	WEIR	
R7_OvF	R7_S	HP-A2-6	WEIR	
R8_OvF	R8_S	CBMH294	WEIR	
R9_OvF	R9_S	CBMH268	WEIR	
O-CBMH206	CBMH206	MH204	OUTLET	
O-CBMH214	CBMH214/ST17	MH212	OUTLET	
O-CBMH222	CBMH222	MH220	OUTLET	
O-CBMH228	CBMH228	MH226	OUTLET	
O-CBMH252	CBMH252	MH238	OUTLET	
O-CBMH408	CBMH408	MH286	OUTLET	
O-MH244	MH244	MH242	OUTLET	
O-MH264	MH264	MH262	OUTLET	
O-MH272	MH272	MH262	OUTLET	
O-MH288	MH288	MH286	OUTLET	
O-MH428	MH428	MH426_	OUTLET	
O-MH440	MH440/ST3	MH426_	OUTLET	
R10-Out	R10_S	MH218	OUTLET	
R1-Out	R1_S	R-1_Dummy	OUTLET	
R2-Out	R2_S	MH238	OUTLET	

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
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R3-Out	R3_S	MH278	OUTLET
R4-Out	R4_S	MH416	OUTLET
R5-Out	R5_S	MH468	OUTLET
R6-Out	R6_S	MH462	OUTLET
R7-Out	R7_S	MH422	OUTLET
R8-Out	R8_S	MH284	OUTLET
R9-Out	R9_S	MH282	OUTLET

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 Cross Section Summary  
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Full Conduit Flow	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels
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MAJ-CB210 (1) 40250.57	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB210 (2) 40250.57	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB238 (1) 23220.06	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB238 (2) 30723.59	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB250 (1) 123087.46	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB250 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB260 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB260 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB406 (1) 46510.07	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB406 (2) 28442.21	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB406 (3) 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB406 (4) 74174.06	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB406 (5) 78892.68	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB424 (1) 32847.99	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB424 (2) 78892.68	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB458 (1) 71231.45	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB458 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB460 (1) 32847.99	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB460 (2) 41900.70	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB460 (3) 36733.45	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CB460 (4) 47951.44	RECT_OPEN	1.00	3.00	0.60	3.00	1

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

MAJ-CBMH206 (1) 83422.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH206 (2) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH208 40250.57	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH208 (2) 23220.06	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH214 (1) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH214 (2) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH222 (1) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH222 (2) 74174.06	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH222 (3) 54616.39	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH222 (4) 54616.39	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH228 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH228 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH230 (1) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH230 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH236 (1) 40250.57	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH236 (2) 71231.45	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH246 (1) 83422.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH246 (2) 83422.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH252 (1) 61733.10	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH252 (2) 77030.48	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH254 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH254 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH258 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH258 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH268 (1) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH268 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH276 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH276 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH292 (1) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH292 (2) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

MAJ-CBMH292 (3) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH292 (4) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH402 (1) 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH402 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH404 (1) 30723.59	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH404 (2) 47951.44	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH414 (1) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH414 (2) 69215.12	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH430 (1) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH430 (2) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH438 (1) 60599.46	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH438 (2) 54616.39	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH444 (1) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH444 (2) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH444 (3) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH444 (4) 58273.32	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH450 (1) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH450 (2) 63947.17	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH450 (3) 72222.70	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH450 (4) 67149.65	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH454 (1) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH454 (2) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH454 (3) 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH454 (4) 83422.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH456 (1) 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH456 (2) 47951.44	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH456 (3) 52047.05	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH456 (4) 78892.68	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH470 (1) 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-CBMH470 (2) 87802.97	RECT_OPEN	1.00	3.00	0.60	3.00	1

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

MAJ-MD1 45024.40	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-MD2 38531.43	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-MD3 61733.10	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-PD1 (1) 25962.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-PD1 (2) 108458.87	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-PD2 (1) 25962.28	RECT_OPEN	1.00	3.00	0.60	3.00	1
MAJ-PD2 (2) 100352.25	RECT_OPEN	1.00	3.00	0.60	3.00	1
PD1-Out 32.55	CIRCULAR	0.20	0.03	0.05	0.20	1
PD2-Out 32.90	CIRCULAR	0.20	0.03	0.05	0.20	1
STM-10_(STM) 1415.82	HORIZ_ELLIPSE	0.86	0.95	0.26	1.35	1
STM-101_(STM) 68.46	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-102_(STM) 68.46	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-103_(STM) 67.96	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-104_(STM) 59.21	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-106_(STM)_1 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-106_(STM)_2 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-108_(STM) 67.05	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-109_(STM) 67.82	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-11_(STM) 57.43	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-113_(STM) 67.82	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-115_(STM)_1 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-115_(STM)_2 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-116_(STM) 74.72	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-118_(STM)_1 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-118_(STM)_2 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-12_(STM) 139.46	CIRCULAR	0.45	0.16	0.11	0.45	1
STM-120_(STM) 65.05	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-122_(STM) 67.05	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-124_(STM)_1 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1
STM-124_(STM)_2 11.94	CIRCULAR	0.30	0.07	0.07	0.30	1

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

63.63	STM-125_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.05	STM-126_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.05	STM-127_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
236.82	STM-13_(1)_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
241.72	STM-13_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
69.88	STM-130_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
69.08	STM-131_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
68.60	STM-132_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.64	STM-133_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
63.42	STM-135_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.69	STM-138_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
75.52	STM-139_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
194.76	STM-14_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
11.94	STM-141_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-141_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
66.87	STM-145_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
245.42	STM-15_(1)_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
233.55	STM-15_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
249.27	STM-16_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
223.13	STM-17_(STM)	CIRCULAR	0.60	0.28	0.15	0.60	1
339.41	STM-18_(1)_(STM)	CIRCULAR	0.75	0.44	0.19	0.75	1
361.60	STM-18_(STM)	CIRCULAR	0.75	0.44	0.19	0.75	1
280.98	STM-19_(STM)	CIRCULAR	0.75	0.44	0.19	0.75	1
312.84	STM-20_(STM)	CIRCULAR	0.75	0.44	0.19	0.75	1
910.23	STM-21_(STM)_1	HORIZ_ELLIPSE	0.86	0.95	0.26	1.35	1
1613.22	STM-21_(STM)_2	HORIZ_ELLIPSE	0.86	0.95	0.26	1.35	1
57.67	STM-22_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
144.11	STM-23_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
57.72	STM-24_(1)_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
68.37	STM-24_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
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67.97	STM-26_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
85.89	STM-27_(STM)	CIRCULAR	0.38	0.11	0.09	0.38	1
59.84	STM-44_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
115.96	STM-55_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
97.22	STM-58_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
156.67	STM-59_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
420.55	STM-60_(STM)	CIRCULAR	0.75	0.44	0.19	0.75	1
60.31	STM-62_(STM)	CIRCULAR	0.25	0.05	0.06	0.25	1
94.56	STM-63_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
68.51	STM-64_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.88	STM-65_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
69.66	STM-65_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
146.42	STM-66_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
68.07	STM-70_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
68.05	STM-70_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
142.01	STM-71_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
140.85	STM-72_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
153.51	STM-73_(STM)	CIRCULAR	0.45	0.16	0.11	0.45	1
75.52	STM-79_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
62.49	STM-82_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
67.97	STM-87_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-88_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-88_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-89_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-89_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
2586.23	STM-9_(STM)	HORIZ_ELLIPSE	0.86	0.95	0.26	1.35	1
94.98	STM-91_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
66.65	STM-92_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
73.10	STM-94_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94	STM-96_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

STM-96_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94						
STM-97_(STM)	CIRCULAR	0.30	0.07	0.07	0.30	1
65.25						
STM-99_(STM)_1	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94						
STM-99_(STM)_2	CIRCULAR	0.30	0.07	0.07	0.30	1
11.94						

\*\*\*\*\*  
 Analysis Options  
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Flow Units ..... LPS  
 Process Models:  
 Rainfall/Runoff ..... YES  
 RDII ..... NO  
 Snowmelt ..... NO  
 Groundwater ..... NO  
 Flow Routing ..... YES  
 Ponding Allowed ..... YES  
 Water Quality ..... NO  
 Infiltration Method ..... HORTON  
 Flow Routing Method ..... DYNWAVE  
 Surcharge Method ..... EXTRAN  
 Starting Date ..... 11/17/2025 00:00:00  
 Ending Date ..... 11/25/2025 00:00:00  
 Antecedent Dry Days ..... 0.0  
 Report Time Step ..... 00:01:00  
 Wet Time Step ..... 00:05:00  
 Dry Time Step ..... 00:05:00  
 Routing Time Step ..... 2.00 sec  
 Variable Time Step ..... YES  
 Maximum Trials ..... 8  
 Number of Threads ..... 16  
 Head Tolerance ..... 0.001500 m

	Volume	Depth
Runoff Quantity Continuity	hectare-m	mm
*****	-----	-----
Initial LID Storage .....	0.005	0.961
Total Precipitation .....	0.194	36.858
Evaporation Loss .....	0.000	0.000
Infiltration Loss .....	0.030	5.632
Surface Runoff .....	0.165	31.375
Final Storage .....	0.005	0.980
Continuity Error (%) .....	-0.444	

	Volume	Volume
Flow Routing Continuity	hectare-m	10^6 ltr
*****	-----	-----
Dry Weather Inflow .....	0.000	0.000
Wet Weather Inflow .....	0.165	1.654
Groundwater Inflow .....	0.000	0.000
RDII Inflow .....	0.000	0.000

External Inflow .....	0.000	0.000
External Outflow .....	0.166	1.656
Flooding Loss .....	0.000	0.000
Evaporation Loss .....	0.000	0.000
Exfiltration Loss .....	0.000	0.000
Initial Stored Volume ...	0.022	0.223
Final Stored Volume .....	0.022	0.223
Continuity Error (%) .....	-0.106	

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Time-Step Critical Elements

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- Link STM-118\_(STM)\_2 (6.40%)
- Link STM-115\_(STM)\_2 (5.09%)
- Link STM-106\_(STM)\_2 (4.44%)
- Link STM-89\_(STM)\_2 (3.64%)
- Link STM-99\_(STM)\_2 (2.53%)

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Highest Flow Instability Indexes

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- Link STM-9\_(STM) (4)
- Link STM-21\_(STM)\_2 (3)
- Link STM-10\_(STM) (3)

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Most Frequent Nonconverging Nodes

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Convergence obtained at all time steps.

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Routing Time Step Summary

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Minimum Time Step	:	0.50 sec
Average Time Step	:	1.84 sec
Maximum Time Step	:	2.00 sec
% of Time in Steady State	:	0.00
Average Iterations per Step	:	2.00
% of Steps Not Converging	:	0.00
Time Step Frequencies	:	
2.000 - 1.516 sec	:	82.99 %
1.516 - 1.149 sec	:	9.86 %
1.149 - 0.871 sec	:	5.39 %
0.871 - 0.660 sec	:	0.95 %
0.660 - 0.500 sec	:	0.81 %

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Subcatchment Runoff Summary

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CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Runoff	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Runoff	Precip	Runoff	Runoff	mm	mm	mm
mm	mm	10 <sup>6</sup> ltr	mm	Coeff	mm	mm	mm
			LPS				
A0-1			36.86	0.00	0.00	27.64	8.48
1.34	9.82	0.01	4.98	0.266			
A0-2			36.86	0.00	0.00	21.56	15.14
0.24	15.38	0.06	32.92	0.417			
A0-3			36.86	0.00	0.00	36.49	0.00
0.47	0.47	0.00	1.91	0.013			
A1-1			36.86	0.00	0.00	17.84	18.82
0.33	19.15	0.01	6.00	0.519			
A1-2			36.86	0.00	0.00	0.00	36.96
0.00	36.96	0.00	2.56	1.003			
A1-3			36.86	0.00	0.00	0.00	36.94
0.00	36.94	0.00	2.56	1.002			
A1-4			36.86	0.00	0.00	0.00	36.97
0.00	36.97	0.01	3.84	1.003			
A1-5			36.86	0.00	0.00	0.00	37.04
0.00	37.04	0.02	9.81	1.005			
A1-6			36.86	0.00	0.00	36.33	0.00
0.77	0.77	0.00	0.42	0.021			
A2-1			36.86	0.00	0.00	1.07	35.92
0.07	35.99	0.02	10.88	0.976			
A2-10			36.86	0.00	0.00	9.78	26.95
0.27	27.22	0.01	4.87	0.738			
A2-11			36.86	0.00	0.00	0.00	37.00
0.00	37.00	0.01	3.63	1.004			
A2-12			36.86	0.00	0.00	8.33	28.46
0.23	28.69	0.01	4.75	0.778			
A2-13			36.86	0.00	0.00	4.70	32.22
0.14	32.36	0.05	29.09	0.878			
A2-14			36.86	0.00	0.00	1.43	35.56
0.08	35.64	0.06	36.06	0.967			
A2-15			36.86	0.00	0.00	1.43	35.55
0.08	35.64	0.06	37.33	0.967			
A2-16			36.86	0.00	0.00	2.52	34.46
0.10	34.56	0.07	39.02	0.938			
A2-17			36.86	0.00	0.00	2.52	34.44
0.10	34.54	0.08	46.49	0.937			
A2-18			36.86	0.00	0.00	0.00	36.93
0.00	36.93	0.01	6.19	1.002			
A2-19.1			36.86	0.00	0.00	0.00	37.03
0.00	37.03	0.03	16.00	1.005			
A2-19.2			36.86	0.00	0.00	0.00	37.03
0.00	37.03	0.01	6.40	1.005			
A2-19.3			36.86	0.00	0.00	0.00	36.94
0.00	36.94	0.01	5.76	1.002			
A2-19.4			36.86	0.00	0.00	0.00	36.99
0.00	36.99	0.02	8.96	1.004			
A2-2			36.86	0.00	0.00	10.49	26.21
0.29	26.51	0.01	5.86	0.719			
A2-20			36.86	0.00	0.00	2.16	34.82
0.10	34.92	0.05	31.94	0.947			
A2-21			36.86	0.00	0.00	7.54	29.14
0.35	29.49	0.01	3.22	0.800			

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

A2-22			36.86	0.00	0.00	2.50	34.33
0.17	34.50	0.01	3.88	0.936			
A2-23			36.86	0.00	0.00	1.43	35.55
0.08	35.63	0.04	22.82	0.967			
A2-24			36.86	0.00	0.00	7.64	29.28
0.14	29.41	0.05	26.19	0.798			
A2-25			36.86	0.00	0.00	1.43	35.55
0.08	35.64	0.04	23.02	0.967			
A2-26			36.86	0.00	0.00	1.08	35.99
0.05	36.04	0.11	65.23	0.978			
A2-27			36.86	0.00	0.00	7.20	29.53
0.28	29.81	0.01	3.21	0.809			
A2-28			36.86	0.00	0.00	5.75	31.01
0.25	31.26	0.01	4.47	0.848			
A2-29			36.86	0.00	0.00	7.55	29.15
0.32	29.47	0.02	11.36	0.800			
A2-3			36.86	0.00	0.00	13.51	22.34
0.17	22.50	0.02	14.02	0.611			
A2-4			36.86	0.00	0.00	1.07	35.83
0.09	35.92	0.01	6.09	0.975			
A2-5			36.86	0.00	0.00	2.17	34.87
0.07	34.95	0.09	54.60	0.948			
A2-6			36.86	0.00	0.00	1.07	35.96
0.06	36.02	0.08	48.20	0.977			
A2-7			36.86	0.00	0.00	4.70	32.22
0.14	32.36	0.04	22.88	0.878			
A2-8			36.86	0.00	0.00	5.07	31.86
0.13	32.00	0.04	20.88	0.868			
A2-9			36.86	0.00	0.00	4.70	32.21
0.15	32.36	0.05	28.75	0.878			
R-1			36.86	0.00	0.00	0.00	36.93
0.00	36.93	0.10	59.31	1.002			
R-10			36.86	0.00	0.00	0.00	36.93
0.00	36.93	0.02	9.60	1.002			
R-2			36.86	0.00	0.00	0.00	36.93
0.00	36.93	0.06	33.92	1.002			
R-3			36.86	0.00	0.00	0.00	36.93
0.00	36.93	0.07	40.11	1.002			
R-4			36.86	0.00	0.00	0.00	36.93
0.00	36.93	0.04	25.39	1.002			
R-5			36.86	0.00	0.00	0.00	36.93
0.00	36.93	0.02	8.96	1.002			
R-6			36.86	0.00	0.00	0.00	36.93
0.00	36.93	0.05	26.88	1.002			
R-7			36.86	0.00	0.00	0.00	36.93
0.00	36.93	0.04	20.48	1.002			
R-8			36.86	0.00	0.00	0.00	36.93
0.00	36.93	0.02	10.24	1.002			
R-9			36.86	0.00	0.00	0.00	36.93
0.00	36.93	0.02	13.44	1.002			

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 Node Depth Summary  
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 Average Maximum Maximum Time of Max Reported  
 Depth Depth HGL Occurrence Max Depth

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

Node	Type	Meters	Meters	Meters	days	hr:min	Meters
HP-A1-1	JUNCTION	0.00	0.00	96.60	0	00:00	0.00
HP-A1-2	JUNCTION	0.00	0.00	96.85	0	00:00	0.00
HP-A1-3	JUNCTION	0.00	0.00	96.75	0	00:00	0.00
HP-A1-4	JUNCTION	0.00	0.00	96.45	0	00:00	0.00
HP-A1-5	JUNCTION	0.00	0.00	96.50	0	00:00	0.00
HP-A2-1	JUNCTION	0.00	0.00	96.65	0	00:00	0.00
HP-A2-10 (1)	JUNCTION	0.00	0.00	96.41	0	00:00	0.00
HP-A2-10 (2)	JUNCTION	0.00	0.00	96.40	0	00:00	0.00
HP-A2-11	JUNCTION	0.00	0.00	96.42	0	00:00	0.00
HP-A2-12	JUNCTION	0.00	0.00	96.40	0	00:00	0.00
HP-A2-13 (1)	JUNCTION	0.00	0.00	96.30	0	00:00	0.00
HP-A2-13 (2)	JUNCTION	0.00	0.00	96.35	0	00:00	0.00
HP-A2-16	JUNCTION	0.00	0.00	96.15	0	00:00	0.00
HP-A2-17	JUNCTION	0.00	0.00	96.20	0	00:00	0.00
HP-A2-18	JUNCTION	0.00	0.00	96.65	0	00:00	0.00
HP-A2-19.1	JUNCTION	0.00	0.00	96.43	0	00:00	0.00
HP-A2-19.3	JUNCTION	0.00	0.00	96.50	0	00:00	0.00
HP-A2-19.4	JUNCTION	0.00	0.00	96.65	0	00:00	0.00
HP-A2-2 (1)	JUNCTION	0.00	0.00	96.45	0	00:00	0.00
HP-A2-2 (2)	JUNCTION	0.00	0.00	96.50	0	00:00	0.00
HP-A2-20	JUNCTION	0.00	0.00	96.50	0	00:00	0.00
HP-A2-21	JUNCTION	0.00	0.00	96.32	0	00:00	0.00
HP-A2-22	JUNCTION	0.00	0.00	96.37	0	00:00	0.00
HP-A2-23	JUNCTION	0.00	0.00	96.30	0	00:00	0.00
HP-A2-24	JUNCTION	0.00	0.00	96.20	0	00:00	0.00
HP-A2-25	JUNCTION	0.00	0.00	96.35	0	00:00	0.00
HP-A2-25 (2)	JUNCTION	0.00	0.00	96.22	0	00:00	0.00
HP-A2-26	JUNCTION	0.00	0.00	96.25	0	00:00	0.00
HP-A2-27	JUNCTION	0.00	0.00	96.40	0	00:00	0.00
HP-A2-28	JUNCTION	0.00	0.00	96.32	0	00:00	0.00
HP-A2-29	JUNCTION	0.00	0.00	96.45	0	00:00	0.00
HP-A2-3 (1)	JUNCTION	0.00	0.00	96.43	0	00:00	0.00
HP-A2-3 (2)	JUNCTION	0.00	0.00	96.45	0	00:00	0.00
HP-A2-4 (1)	JUNCTION	0.00	0.00	96.50	0	00:00	0.00
HP-A2-4 (2)	JUNCTION	0.00	0.00	96.55	0	00:00	0.00
HP-A2-5 (1)	JUNCTION	0.00	0.00	96.35	0	00:00	0.00
HP-A2-5 (2)	JUNCTION	0.00	0.00	96.25	0	00:00	0.00
HP-A2-6	JUNCTION	0.00	0.00	96.30	0	00:00	0.00
HP-A2-7 (1)	JUNCTION	0.00	0.00	96.30	0	00:00	0.00
HP-A2-7 (2)	JUNCTION	0.00	0.00	96.38	0	00:00	0.00
HP-A2-8	JUNCTION	0.00	0.00	96.27	0	00:00	0.00
HP-A2-9	JUNCTION	0.00	0.00	96.35	0	00:00	0.00
HP-MD1	OUTFALL	0.00	0.00	96.43	0	00:00	0.00
MAJ-MD	OUTFALL	0.00	0.00	96.43	0	00:00	0.00
MAJ-MD2	OUTFALL	0.00	0.00	96.41	0	00:00	0.00
MAJ-MD3	OUTFALL	0.00	0.00	96.63	0	00:00	0.00
MIN_MD	OUTFALL	0.23	0.23	93.23	0	00:00	0.23
OF-Strandherd	OUTFALL	0.00	0.00	95.49	0	00:00	0.00
OF-Systemhouse	OUTFALL	0.00	0.00	95.88	0	00:00	0.00
14_(STM)	STORAGE	0.14	0.16	93.25	0	05:06	0.16
15_(STM)	STORAGE	0.20	0.22	93.25	0	05:06	0.22
CB202	STORAGE	0.00	0.01	93.98	0	02:10	0.01
CB210	STORAGE	0.01	0.30	94.70	0	03:02	0.30
CB238	STORAGE	0.00	0.05	94.73	0	04:58	0.05
CB250	STORAGE	0.00	0.08	94.43	0	02:10	0.08

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
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CB256	STORAGE	0.00	0.06	95.02	0	02:10	0.06
CB260	STORAGE	0.00	0.06	94.96	0	02:10	0.06
CB406	STORAGE	0.00	0.05	94.96	0	02:10	0.05
CB424	STORAGE	0.00	0.05	94.42	0	02:10	0.05
CB458	STORAGE	0.00	0.09	94.99	0	02:10	0.09
CB460	STORAGE	0.01	0.19	94.92	0	06:03	0.19
CBMH206	STORAGE	0.03	0.72	94.70	0	02:59	0.72
CBMH208	STORAGE	0.02	0.51	94.70	0	03:01	0.51
CBMH214/ST17	STORAGE	0.11	0.84	94.68	0	05:26	0.84
CBMH222	STORAGE	0.16	1.03	94.77	0	03:06	1.03
CBMH228	STORAGE	0.10	0.79	94.73	0	05:00	0.79
CBMH230	STORAGE	0.07	0.59	94.73	0	04:59	0.59
CBMH236	STORAGE	0.02	0.29	94.73	0	04:59	0.29
CBMH246/ST18	STORAGE	0.18	0.66	94.76	0	03:42	0.66
CBMH252	STORAGE	0.04	0.61	94.72	0	03:34	0.61
CBMH254	STORAGE	0.03	0.45	94.72	0	03:34	0.45
CBMH258	STORAGE	0.03	0.45	94.72	0	03:34	0.45
CBMH268	STORAGE	0.00	0.24	94.98	0	02:10	0.24
CBMH276	STORAGE	0.01	0.22	94.47	0	02:10	0.22
CBMH292	STORAGE	0.17	0.53	94.63	0	06:11	0.53
CBMH294	STORAGE	0.06	0.40	94.63	0	06:11	0.40
CBMH402	STORAGE	0.00	0.09	94.65	0	02:10	0.09
CBMH404	STORAGE	0.00	0.08	94.84	0	02:10	0.08
CBMH408	STORAGE	0.10	0.55	94.60	0	06:09	0.55
CBMH414	STORAGE	0.01	0.18	94.60	0	02:10	0.18
CBMH430	STORAGE	0.08	0.53	94.92	0	05:58	0.53
CBMH438	STORAGE	0.02	0.24	94.92	0	05:58	0.24
CBMH444/ST2	STORAGE	0.14	0.57	94.92	0	06:04	0.57
CBMH450	STORAGE	0.02	0.25	94.92	0	06:05	0.25
CBMH454	STORAGE	0.02	0.29	94.92	0	06:04	0.29
CBMH456	STORAGE	0.01	0.18	94.92	0	06:04	0.18
CBMH470	STORAGE	0.00	0.07	94.41	0	02:10	0.07
MH200	STORAGE	0.00	0.01	93.71	0	02:11	0.01
MH200_Dummy	STORAGE	0.10	0.15	93.28	0	02:16	0.15
MH204	STORAGE	0.03	0.20	93.41	0	02:15	0.20
MH212	STORAGE	0.03	0.26	93.60	0	02:14	0.26
MH216	STORAGE	0.03	0.26	93.62	0	02:14	0.26
MH218	STORAGE	0.00	0.04	94.22	0	02:15	0.04
MH220	STORAGE	0.03	0.25	93.64	0	02:14	0.25
MH224/ST14	STORAGE	0.16	0.87	94.77	0	03:06	0.87
MH226	STORAGE	0.02	0.24	93.66	0	02:14	0.24
MH232/ST15	STORAGE	0.17	0.63	94.73	0	04:57	0.63
MH234/ST16	STORAGE	0.19	0.63	94.73	0	04:55	0.63
MH238	STORAGE	0.01	0.14	94.07	0	02:11	0.14
MH240	STORAGE	0.01	0.16	93.88	0	02:12	0.16
MH242	STORAGE	0.01	0.14	93.96	0	02:12	0.14
MH244	STORAGE	0.06	0.72	94.76	0	03:43	0.72
MH262	STORAGE	0.02	0.18	93.77	0	02:14	0.18
MH264	STORAGE	0.08	0.83	94.78	0	04:21	0.83
MH266	STORAGE	0.06	0.68	94.78	0	04:21	0.68
MH270/ST13	STORAGE	0.26	0.83	94.78	0	04:22	0.83
MH272	STORAGE	0.14	0.63	94.47	0	04:24	0.63
MH274	STORAGE	0.04	0.40	94.47	0	04:24	0.40
MH278	STORAGE	0.02	0.18	93.84	0	02:13	0.18
MH280	STORAGE	0.00	0.09	94.14	0	02:17	0.09
MH282	STORAGE	0.00	0.06	94.29	0	02:15	0.06
MH284	STORAGE	0.00	0.04	94.27	0	02:14	0.04

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MH286	STORAGE	0.02	0.16	93.86	0	02:13	0.16
MH288	STORAGE	0.12	0.57	94.63	0	06:11	0.57
MH290	STORAGE	0.20	0.56	94.63	0	06:11	0.56
MH296	STORAGE	0.05	0.36	94.63	0	06:11	0.36
MH298	STORAGE	0.05	0.36	94.63	0	06:11	0.36
MH400	STORAGE	0.03	0.26	94.63	0	06:12	0.26
MH410	STORAGE	0.05	0.36	94.60	0	06:10	0.36
MH412	STORAGE	0.05	0.36	94.60	0	06:10	0.36
MH416	STORAGE	0.01	0.16	93.95	0	02:12	0.15
MH418	STORAGE	0.02	0.15	93.96	0	02:12	0.15
MH420	STORAGE	0.00	0.08	94.32	0	02:10	0.08
MH422	STORAGE	0.00	0.07	94.43	0	02:22	0.07
MH426_	STORAGE	0.01	0.13	93.98	0	02:11	0.13
MH428	STORAGE	0.12	0.71	94.92	0	05:58	0.71
MH432/ST4	STORAGE	0.20	0.62	94.92	0	05:58	0.62
MH434	STORAGE	0.05	0.42	94.92	0	05:59	0.42
MH436	STORAGE	0.05	0.42	94.92	0	05:58	0.42
MH440/ST3	STORAGE	0.11	0.70	94.92	0	06:04	0.70
MH446	STORAGE	0.05	0.42	94.92	0	06:04	0.42
MH448	STORAGE	0.05	0.42	94.92	0	06:05	0.42
MH462	STORAGE	0.00	0.11	94.00	0	02:11	0.11
MH464	STORAGE	0.00	0.06	94.18	0	02:10	0.06
MH466	STORAGE	0.00	0.06	94.44	0	02:10	0.06
MH468	STORAGE	0.00	0.08	94.20	0	02:10	0.08
PD1	STORAGE	0.00	0.04	94.64	0	02:10	0.04
PD2	STORAGE	0.00	0.04	94.69	0	02:10	0.04
R-1_Dummy	STORAGE	0.00	0.12	94.37	0	02:10	0.12
R1_S	STORAGE	0.00	0.10	98.10	0	02:23	0.10
R10_S	STORAGE	0.00	0.09	98.09	0	02:14	0.09
R2_S	STORAGE	0.00	0.10	98.10	0	02:23	0.10
R3_S	STORAGE	0.00	0.10	98.10	0	02:23	0.10
R4_S	STORAGE	0.00	0.10	98.10	0	02:23	0.10
R5_S	STORAGE	0.00	0.09	98.09	0	02:21	0.09
R6_S	STORAGE	0.00	0.09	98.09	0	02:22	0.09
R7_S	STORAGE	0.00	0.08	98.08	0	02:22	0.08
R8_S	STORAGE	0.00	0.09	98.09	0	02:14	0.09
R9_S	STORAGE	0.00	0.09	98.09	0	02:14	0.09
ST1	STORAGE	0.20	0.57	94.92	0	06:05	0.57
ST10	STORAGE	0.18	0.60	94.72	0	03:34	0.60
ST11	STORAGE	0.16	0.52	94.47	0	04:24	0.52
ST12	STORAGE	0.21	0.83	94.78	0	04:21	0.83
ST5	STORAGE	0.20	0.57	94.92	0	05:59	0.57
ST6	STORAGE	0.20	0.51	94.60	0	06:10	0.51
ST7	STORAGE	0.22	0.58	94.63	0	06:12	0.58
ST8	STORAGE	0.20	0.51	94.63	0	06:11	0.51
ST9	STORAGE	0.18	0.60	94.72	0	03:34	0.60

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 Node Inflow Summary  
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Total	Flow	Maximum	Maximum	Lateral
Inflow	Balance	Lateral	Total	Inflow
			Time of Max	

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

Volume Node	Error Percent	Type	Inflow LPS	Inflow LPS	Occurrence days hr:min	Volume 10^6 ltr	Volume 10^6
0 HP-A1-1	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A1-2	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A1-3	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A1-4	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A1-5	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-1	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-10(1)	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-10(2)	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-11	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-12	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-13(1)	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-13(2)	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-16	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-17	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-18	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-19.1	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-19.3	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-19.4	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-2(1)	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-2(2)	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-20	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-21	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-22	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-23	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-24	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-25	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	
0 HP-A2-25(2)	0.000 ltr	JUNCTION	0.00	0.00	0 00:00	0	

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

HP-A2-26	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-27	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-28	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-29	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-3(1)	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-3(2)	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-4(1)	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-4(2)	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-5(1)	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-5(2)	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-6	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-7(1)	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-7(2)	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-8	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-A2-9	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 ltr						
HP-MD1	OUTFALL	0.00	0.00	0	00:00	0
0 0.000 ltr						
MAJ-MD	OUTFALL	1.91	1.91	0	02:10	0.00104
0.00104 0.000						
MAJ-MD2	OUTFALL	0.00	0.00	0	00:00	0
0 0.000 ltr						
MAJ-MD3	OUTFALL	0.00	0.00	0	00:00	0
0 0.000 ltr						
MIN_MD	OUTFALL	0.00	89.35	0	02:16	0
1.59 0.000						
OF-Strandherd	OUTFALL	32.92	32.92	0	02:10	0.0552
0.0552 0.000						
OF-Systemhouse	OUTFALL	4.98	4.98	0	02:10	0.0055
0.0055 0.000						
14_(STM)	STORAGE	0.00	89.28	0	02:16	0
2.18 0.158						
15_(STM)	STORAGE	0.00	89.29	0	02:16	0
2.17 -0.091						
CB202	STORAGE	0.42	0.42	0	02:10	0.0002
0.0002 -0.013						
CB210	STORAGE	3.21	3.21	0	02:10	0.00536
0.00721 0.537						
CB238	STORAGE	3.22	3.22	0	02:10	0.00531
0.00531 0.142						
CB250	STORAGE	9.81	9.81	0	02:10	0.017
0.017 -0.044						
CB256	STORAGE	6.40	6.40	0	02:10	0.0111
0.0111 -0.004						
CB260	STORAGE	6.19	6.19	0	02:10	0.0107
0.0107 -0.008						

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

CB406		STORAGE	4.87	4.87	0	02:10	0.00816
0.00816	0.145						
CB424		STORAGE	3.84	3.84	0	02:10	0.00665
0.00665	-0.083						
CB458		STORAGE	10.88	10.88	0	02:10	0.0187
0.0187	0.098						
CB460		STORAGE	14.02	14.02	0	02:10	0.023
0.023	-0.102						
CBMH206		STORAGE	11.36	11.36	0	02:10	0.0189
0.0383	-0.013						
CBMH208		STORAGE	4.47	10.40	0	02:09	0.0075
0.0212	-0.058						
CBMH214/ST17		STORAGE	65.23	65.23	0	02:10	0.113
0.113	-0.000						
CBMH222		STORAGE	23.02	23.02	0	02:10	0.0396
0.0629	0.002						
CBMH228		STORAGE	26.19	26.19	0	02:10	0.045
0.122	-0.006						
CBMH230		STORAGE	22.82	46.65	0	02:10	0.0392
0.135	0.018						
CBMH236		STORAGE	3.88	7.07	0	02:10	0.00655
0.0119	-0.367						
CBMH246/ST18		STORAGE	31.94	31.94	0	02:10	0.0548
0.0654	0.007						
CBMH252		STORAGE	16.00	16.00	0	02:10	0.0278
0.088	0.001						
CBMH254		STORAGE	5.76	12.15	0	02:10	0.00997
0.0523	0.000						
CBMH258		STORAGE	8.96	15.15	0	02:10	0.0155
0.0262	-0.010						
CBMH268		STORAGE	46.49	46.49	0	02:10	0.0798
0.0798	0.023						
CBMH276		STORAGE	39.02	39.02	0	02:10	0.067
0.067	0.160						
CBMH292		STORAGE	29.09	29.09	0	02:10	0.0498
0.0499	-0.001						
CBMH294		STORAGE	37.33	37.33	0	02:10	0.0641
0.115	-0.007						
CBMH402		STORAGE	4.75	13.18	0	02:10	0.00803
0.0225	0.740						
CBMH404		STORAGE	3.63	8.48	0	02:10	0.00629
0.0144	-0.153						
CBMH408		STORAGE	36.06	36.06	0	02:10	0.062
0.155	-0.002						
CBMH414		STORAGE	28.75	28.75	0	02:10	0.0492
0.0492	0.054						
CBMH430		STORAGE	48.20	48.20	0	02:10	0.0832
0.18	0.011						
CBMH438		STORAGE	20.88	20.88	0	02:10	0.0358
0.0358	0.185						
CBMH444/ST2		STORAGE	54.60	91.27	0	02:10	0.0947
0.229	0.108						
CBMH450		STORAGE	22.88	22.88	0	02:10	0.0391
0.0391	0.068						
CBMH454		STORAGE	6.09	36.77	0	02:10	0.0104
0.0619	-0.092						
CBMH456		STORAGE	5.86	16.72	0	02:10	0.00981
0.0285	0.097						
CBMH470		STORAGE	6.00	6.00	0	02:10	0.00996
0.00996	-0.006						

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

MH200		STORAGE	0.00	0.38	0	02:10	0
0.0002	-0.008						
MH200_Dummy		STORAGE	0.00	89.44	0	02:15	0
1.59	-0.186						
MH204		STORAGE	0.00	89.30	0	02:15	0
1.59	0.002						
MH212		STORAGE	0.00	88.30	0	02:14	0
1.56	0.004						
MH216		STORAGE	0.00	87.35	0	02:14	0
1.45	0.012						
MH218		STORAGE	0.00	3.46	0	02:14	0
0.0166	0.001						
MH220		STORAGE	0.00	84.02	0	02:14	0
1.43	0.004						
MH224/ST14		STORAGE	0.00	21.05	0	02:10	0
0.0272	0.004						
MH226		STORAGE	0.00	82.92	0	02:13	0
1.39	-0.000						
MH232/ST15		STORAGE	0.00	34.13	0	02:09	0
0.0513	-0.016						
MH234/ST16		STORAGE	0.00	22.16	0	02:05	0
0.0343	0.104						
MH238		STORAGE	0.00	28.18	0	02:11	0
0.254	0.041						
MH240		STORAGE	0.00	29.13	0	02:12	0
0.308	-0.016						
MH242		STORAGE	0.00	29.22	0	02:11	0
0.308	0.012						
MH244		STORAGE	0.00	2.53	0	02:06	0
0.0548	-0.007						
MH262		STORAGE	0.00	53.32	0	02:14	0
0.987	-0.014						
MH264		STORAGE	0.00	14.05	0	02:05	0
0.0935	0.034						
MH266		STORAGE	0.00	46.44	0	02:10	0
0.0798	-0.025						
MH270/ST13		STORAGE	0.00	11.89	0	02:05	0
0.018	-0.163						
MH272		STORAGE	0.00	1.24	0	02:10	0
0.0671	-0.001						
MH274		STORAGE	0.00	38.97	0	02:10	0
0.0669	-0.068						
MH278		STORAGE	0.00	51.39	0	02:13	0
0.84	0.005						
MH280		STORAGE	0.00	8.42	0	02:15	0
0.041	0.002						
MH282		STORAGE	0.00	4.81	0	02:14	0
0.0233	0.003						
MH284		STORAGE	0.00	3.62	0	02:14	0
0.0177	-0.006						
MH286		STORAGE	0.00	35.77	0	02:12	0
0.73	-0.053						
MH288		STORAGE	0.00	24.49	0	02:05	0
0.158	0.001						
MH290		STORAGE	0.00	28.78	0	02:10	0
0.05	-0.006						
MH296		STORAGE	0.00	35.21	0	02:11	0
0.0757	0.042						
MH298		STORAGE	0.00	13.12	0	02:10	0
0.0224	-0.294						

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

MH400		STORAGE	0.00	13.14	0	02:10	0
0.0223	-0.269						
MH410		STORAGE	0.00	34.91	0	02:10	0
0.136	0.024						
MH412		STORAGE	0.00	28.72	0	02:10	0
0.0492	0.014						
MH416		STORAGE	0.00	34.07	0	02:12	0
0.482	-0.004						
MH418		STORAGE	0.00	29.19	0	02:11	0
0.438	-0.001						
MH420		STORAGE	0.00	8.19	0	02:10	0
0.0421	0.010						
MH422		STORAGE	0.00	5.04	0	02:22	0
0.0355	0.002						
MH426_		STORAGE	0.00	21.29	0	02:11	0
0.396	-0.060						
MH428		STORAGE	0.00	1.59	0	02:00	0
0.119	-0.002						
MH432/ST4		STORAGE	0.00	46.53	0	02:10	0
0.136	-0.013						
MH434		STORAGE	0.00	34.91	0	02:10	0
0.0975	0.034						
MH436		STORAGE	0.00	20.84	0	02:10	0
0.0358	-0.076						
MH440/ST3		STORAGE	0.00	52.81	0	02:06	0
0.196	-0.113						
MH446		STORAGE	0.00	33.99	0	02:12	0
0.0951	0.006						
MH448		STORAGE	0.00	22.85	0	02:10	0
0.0391	0.012						
MH462		STORAGE	0.00	18.70	0	02:10	0
0.0809	-0.004						
MH464		STORAGE	0.00	5.12	0	02:10	0
0.00887	-0.007						
MH466		STORAGE	0.00	5.12	0	02:10	0
0.00887	-0.005						
MH468		STORAGE	0.00	8.04	0	02:10	0
0.0255	-0.000						
PD1		STORAGE	2.56	2.56	0	02:10	0.00443
0.00443	-0.002						
PD2		STORAGE	2.56	2.56	0	02:10	0.00443
0.00443	-0.003						
R-1_Dummy		STORAGE	0.00	20.78	0	02:10	0
0.12	0.007						
R1_S		STORAGE	59.31	59.31	0	02:10	0.103
0.103	-0.001						
R10_S		STORAGE	9.60	9.60	0	02:10	0.0166
0.0166	-0.001						
R2_S		STORAGE	33.92	33.92	0	02:10	0.0587
0.0587	-0.000						
R3_S		STORAGE	40.11	40.11	0	02:10	0.0694
0.0694	-0.000						
R4_S		STORAGE	25.39	25.39	0	02:10	0.0439
0.0439	-0.000						
R5_S		STORAGE	8.96	8.96	0	02:10	0.0155
0.0155	-0.001						
R6_S		STORAGE	26.88	26.88	0	02:10	0.0465
0.0465	-0.001						
R7_S		STORAGE	20.48	20.48	0	02:10	0.0355
0.0355	-0.001						

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

R8_S		STORAGE	10.24	10.24	0	02:10	0.0177
0.0177	-0.001						
R9_S		STORAGE	13.44	13.44	0	02:10	0.0233
0.0233	-0.001						
ST1		STORAGE	0.00	50.86	0	02:11	0
0.0894	-0.030						
ST10		STORAGE	0.00	20.23	0	02:09	0
0.0685	-0.012						
ST11		STORAGE	0.00	38.61	0	02:10	0
0.0821	-0.051						
ST12		STORAGE	0.00	45.82	0	02:10	0
0.0896	-0.028						
ST5		STORAGE	0.00	54.60	0	02:10	0
0.0889	-0.062						
ST6		STORAGE	0.00	62.75	0	02:10	0
0.13	-0.047						
ST7		STORAGE	0.00	50.41	0	02:05	0
0.093	-0.021						
ST8		STORAGE	0.00	47.45	0	02:11	0
0.0675	-0.077						
ST9		STORAGE	0.00	20.16	0	02:10	0
0.0395	-0.068						

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 Node Surcharge Summary  
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Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Meters	Min. Depth Below Rim Meters
MH224/ST14	STORAGE	6.08	0.439	1.431
MH232/ST15	STORAGE	11.31	0.210	1.270
MH270/ST13	STORAGE	10.72	0.316	1.394
MH288	STORAGE	15.08	0.133	1.457
MH296	STORAGE	8.65	0.063	1.447
MH298	STORAGE	1.05	0.003	1.487
MH410	STORAGE	7.77	0.058	1.542
MH428	STORAGE	19.34	0.258	1.272
MH432/ST4	STORAGE	11.72	0.138	1.232
MH434	STORAGE	10.50	0.118	1.262
MH440/ST3	STORAGE	17.73	0.247	1.303
MH446	STORAGE	10.05	0.117	1.243
ST1	STORAGE	10.05	0.117	1.183
ST10	STORAGE	5.91	0.148	1.582
ST11	STORAGE	7.09	0.096	1.684
ST12	STORAGE	12.31	0.376	1.374
ST5	STORAGE	10.50	0.118	1.232
ST6	STORAGE	7.77	0.058	1.502
ST7	STORAGE	15.08	0.133	1.467
ST8	STORAGE	8.65	0.063	1.467

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 Node Flooding Summary

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

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No nodes were flooded.

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Storage Volume Summary

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Max Occurrence	Maximum Storage Unit Outflow hr:min LPS	Average Volume 1000 m <sup>3</sup>	Avg Pcmt Full	Evap Pcmt Loss	Exfil Pcmt Loss	Maximum Volume 1000 m <sup>3</sup>	Max Pcmt Full	Time of days
14_	(STM)	0.001	5.9	0.0	0.0	0.001	7.0	0
05:06	89.29							
15_	(STM)	0.001	8.5	0.0	0.0	0.002	9.3	0
05:06	89.35							
CB202		0.000	0.0	0.0	0.0	0.000	0.4	0
02:10	0.38							
CB210		0.000	0.3	0.0	0.0	0.000	10.5	0
03:02	3.17							
CB238		0.000	0.1	0.0	0.0	0.000	1.9	0
04:58	3.20							
CB250		0.000	0.0	0.0	0.0	0.000	3.5	0
02:10	9.80							
CB256		0.000	0.0	0.0	0.0	0.000	0.3	0
02:10	6.39							
CB260		0.000	0.1	0.0	0.0	0.000	2.4	0
02:10	6.19							
CB406		0.000	0.1	0.0	0.0	0.000	2.3	0
02:10	4.86							
CB424		0.000	0.0	0.0	0.0	0.000	1.6	0
02:10	3.84							
CB458		0.000	0.1	0.0	0.0	0.000	3.6	0
02:10	10.86							
CB460		0.000	0.4	0.0	0.0	0.000	7.2	0
06:03	14.00							
CBMH206		0.000	0.1	0.0	0.0	0.001	2.7	0
02:59	6.61							
CBMH208		0.000	0.6	0.0	0.0	0.001	17.0	0
03:01	3.21							
CBMH214/ST17		0.012	4.1	0.0	0.0	0.093	31.7	0
05:26	1.27							
CBMH222		0.000	0.6	0.0	0.0	0.001	4.1	0
03:06	22.13							
CBMH228		0.000	0.0	0.0	0.0	0.001	0.1	0
05:00	24.89							
CBMH230		0.000	0.4	0.0	0.0	0.001	3.7	0
04:59	44.82							
CBMH236		0.000	0.6	0.0	0.0	0.000	10.3	0
04:59	7.05							
CBMH246/ST18		0.013	9.1	0.0	0.0	0.047	33.5	0
03:42	2.53							

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

CBMH252		0.000	0.1	0.0	0.0	0.001	1.7	0
03:34	15.51							
CBMH254		0.000	0.6	0.0	0.0	0.001	10.4	0
03:34	11.59							
CBMH258		0.000	0.8	0.0	0.0	0.001	14.1	0
03:34	14.66							
CBMH268		0.000	0.0	0.0	0.0	0.000	0.5	0
02:10	46.44							
CBMH276		0.000	0.0	0.0	0.0	0.000	0.8	0
02:10	38.97							
CBMH292		0.000	0.4	0.0	0.0	0.001	1.1	0
06:11	28.78							
CBMH294		0.000	0.1	0.0	0.0	0.000	0.5	0
06:11	36.76							
CBMH402		0.000	0.1	0.0	0.0	0.000	3.3	0
02:10	13.14							
CBMH404		0.000	0.1	0.0	0.0	0.000	2.9	0
02:10	8.44							
CBMH408		0.000	0.2	0.0	0.0	0.001	0.9	0
06:09	35.76							
CBMH414		0.000	0.0	0.0	0.0	0.000	0.6	0
02:10	28.72							
CBMH430		0.000	0.3	0.0	0.0	0.001	2.0	0
05:58	47.85							
CBMH438		0.000	0.0	0.0	0.0	0.000	0.5	0
05:58	20.84							
CBMH444/ST2		0.010	7.4	0.0	0.0	0.043	31.1	0
06:04	66.13							
CBMH450		0.000	0.0	0.0	0.0	0.000	0.1	0
06:05	22.85							
CBMH454		0.000	0.9	0.0	0.0	0.000	10.8	0
06:04	36.69							
CBMH456		0.000	0.4	0.0	0.0	0.000	6.9	0
06:04	16.69							
CBMH470		0.000	0.0	0.0	0.0	0.000	2.3	0
02:10	5.96							
MH200		0.000	0.0	0.0	0.0	0.000	0.5	0
02:11	0.37							
MH200_Dummy		0.000	0.0	0.0	0.0	0.000	0.0	0
00:00	89.28							
MH204		0.000	1.0	0.0	0.0	0.000	6.4	0
02:15	89.26							
MH212		0.000	1.1	0.0	0.0	0.000	9.5	0
02:14	88.20							
MH216		0.000	0.9	0.0	0.0	0.000	8.6	0
02:14	87.26							
MH218		0.000	0.1	0.0	0.0	0.000	1.8	0
02:15	3.46							
MH220		0.000	1.0	0.0	0.0	0.000	9.6	0
02:14	83.91							
MH224/ST14		0.005	9.2	0.0	0.0	0.027	51.4	0
03:06	1.05							
MH226		0.000	0.9	0.0	0.0	0.000	8.6	0
02:14	82.84							
MH232/ST15		0.014	11.1	0.0	0.0	0.051	41.3	0
04:57	0.67							
MH234/ST16		0.009	11.4	0.0	0.0	0.029	38.8	0
04:55	0.48							
MH238		0.000	0.3	0.0	0.0	0.000	5.5	0
02:11	28.19							

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

MH240		0.000	0.3	0.0	0.0	0.000	6.2	0
02:12	29.01							
MH242		0.000	0.3	0.0	0.0	0.000	4.7	0
02:12	29.13							
MH244		0.000	2.0	0.0	0.0	0.001	26.4	0
03:43	1.18							
MH262		0.000	0.9	0.0	0.0	0.000	6.7	0
02:14	53.31							
MH264		0.000	3.7	0.0	0.0	0.001	36.2	0
04:21	12.74							
MH266		0.000	3.0	0.0	0.0	0.001	34.6	0
04:21	45.82							
MH270/ST13		0.005	14.8	0.0	0.0	0.017	48.2	0
04:22	0.29							
MH272		0.000	5.7	0.0	0.0	0.001	25.4	0
04:24	1.04							
MH274		0.000	1.9	0.0	0.0	0.000	20.0	0
04:24	38.61							
MH278		0.000	0.8	0.0	0.0	0.000	6.9	0
02:13	51.35							
MH280		0.000	0.1	0.0	0.0	0.000	4.0	0
02:17	8.39							
MH282		0.000	0.1	0.0	0.0	0.000	3.0	0
02:15	4.80							
MH284		0.000	0.0	0.0	0.0	0.000	1.8	0
02:14	3.62							
MH286		0.000	0.8	0.0	0.0	0.000	6.6	0
02:13	35.68							
MH288		0.000	5.8	0.0	0.0	0.001	28.2	0
06:11	23.85							
MH290		0.000	9.9	0.0	0.0	0.001	27.1	0
06:11	28.43							
MH296		0.000	3.0	0.0	0.0	0.000	20.0	0
06:11	34.56							
MH298		0.000	2.9	0.0	0.0	0.000	19.6	0
06:11	13.63							
MH400		0.000	1.5	0.0	0.0	0.000	14.0	0
06:12	13.12							
MH410		0.000	2.6	0.0	0.0	0.000	18.8	0
06:10	34.54							
MH412		0.000	2.7	0.0	0.0	0.000	19.4	0
06:10	28.41							
MH416		0.000	0.5	0.0	0.0	0.000	5.6	0
02:12	34.03							
MH418		0.000	0.6	0.0	0.0	0.000	6.0	0
02:12	29.08							
MH420		0.000	0.1	0.0	0.0	0.000	4.1	0
02:10	8.06							
MH422		0.000	0.1	0.0	0.0	0.000	3.4	0
02:22	5.03							
MH426_		0.000	0.6	0.0	0.0	0.000	5.0	0
02:11	21.18							
MH428		0.000	6.0	0.0	0.0	0.001	35.8	0
05:58	1.17							
MH432/ST4		0.012	13.1	0.0	0.0	0.038	41.2	0
05:58	34.91							
MH434		0.000	3.0	0.0	0.0	0.000	24.9	0
05:59	34.26							
MH436		0.000	3.2	0.0	0.0	0.000	26.0	0
05:58	20.36							

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

MH440/ST3		0.009	7.0	0.0	0.0	0.055	43.3	0
06:04	1.88							
MH446		0.000	2.9	0.0	0.0	0.000	25.1	0
06:04	33.40							
MH448		0.000	3.2	0.0	0.0	0.000	26.8	0
06:05	22.60							
MH462		0.000	0.1	0.0	0.0	0.000	4.3	0
02:11	18.67							
MH464		0.000	0.1	0.0	0.0	0.000	2.8	0
02:10	5.10							
MH466		0.000	0.1	0.0	0.0	0.000	2.5	0
02:10	5.12							
MH468		0.000	0.1	0.0	0.0	0.000	3.2	0
02:10	7.94							
PD1		0.000	0.0	0.0	0.0	0.000	0.0	0
00:00	2.56							
PD2		0.000	0.0	0.0	0.0	0.000	0.0	0
00:00	2.56							
R-1_Dummy		0.000	0.0	0.0	0.0	0.000	0.0	0
00:00	20.57							
R1_S		0.001	0.0	0.0	0.0	0.041	2.3	0
02:23	12.95							
R10_S		0.000	0.0	0.0	0.0	0.005	1.1	0
02:14	3.46							
R2_S		0.000	0.1	0.0	0.0	0.024	3.6	0
02:23	6.84							
R3_S		0.000	0.0	0.0	0.0	0.029	3.5	0
02:23	8.13							
R4_S		0.000	0.0	0.0	0.0	0.018	2.5	0
02:23	5.43							
R5_S		0.000	0.0	0.0	0.0	0.006	1.1	0
02:21	2.46							
R6_S		0.000	0.0	0.0	0.0	0.017	2.4	0
02:22	6.42							
R7_S		0.000	0.0	0.0	0.0	0.013	2.1	0
02:22	5.04							
R8_S		0.000	0.0	0.0	0.0	0.005	1.1	0
02:14	3.62							
R9_S		0.000	0.0	0.0	0.0	0.007	1.1	0
02:14	4.81							
ST1		0.030	17.5	0.0	0.0	0.085	49.8	0
06:05	1.57							
ST10		0.010	15.5	0.0	0.0	0.033	52.6	0
03:34	1.61							
ST11		0.020	13.7	0.0	0.0	0.064	45.3	0
04:24	1.24							
ST12		0.014	18.4	0.0	0.0	0.054	72.5	0
04:21	14.05							
ST5		0.030	17.7	0.0	0.0	0.085	49.9	0
05:59	0.79							
ST6		0.050	17.6	0.0	0.0	0.127	44.6	0
06:10	1.00							
ST7		0.034	19.7	0.0	0.0	0.087	51.2	0
06:12	7.34							
ST8		0.025	17.9	0.0	0.0	0.064	45.0	0
06:11	0.49							
ST9		0.010	15.5	0.0	0.0	0.033	52.6	0
03:34	0.81							

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 Outfall Loading Summary  
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Outfall Node	Flow Freq Pcnt	Avg Flow LPS	Max Flow LPS	Total Volume 10^6 ltr
HP-MD1	0.00	0.00	0.00	0.000
MAJ-MD	0.55	0.84	1.91	0.001
MAJ-MD2	0.00	0.00	0.00	0.000
MAJ-MD3	0.00	0.00	0.00	0.000
MIN_MD	39.38	8.43	89.35	1.594
OF-Strandherd	3.99	4.29	32.92	0.055
OF-Systemhouse	3.81	0.47	4.98	0.005
System	6.82	14.02	105.63	1.656

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 Link Flow Summary  
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Link	Type	Maximum  Flow  LPS	Time of Max Occurrence days hr:min	Maximum  Veloc  m/sec	Max/ Full Flow	Max/ Full Depth
MAJ-CB210 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB210 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB238 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB238 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB250 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB250 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB260 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB260 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB406 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB406 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB406 (3)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB406 (4)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB406 (5)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB424 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB424 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB458 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB458 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB460 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB460 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB460 (3)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CB460 (4)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CBMH206 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CBMH206 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CBMH208	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CBMH208 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CBMH214 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CBMH214 (2)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
MAJ-CBMH222 (1)	CONDUIT	0.00	0 00:00	0.00	0.00	0.00

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
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MAJ-CBMH222 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH222 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH222 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH228 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH228 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH230 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH230 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH236 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH236 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH246 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH246 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH252 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH252 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH254 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH254 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH258 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH258 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH268 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH268 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH276 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH276 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH292 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH292 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH292 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH292 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH402 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH402 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH404 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH404 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH414 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH414 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH430 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH430 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH438 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH438 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH444 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH444 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH444 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH444 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH450 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH450 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH450 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH450 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH454 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH454 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH454 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH454 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH456 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH456 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH456 (3)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH456 (4)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH470 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-CBMH470 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-MD1	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-MD2	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-MD3	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-PD1 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00

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MAJ-PD1 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-PD2 (1)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
MAJ-PD2 (2)	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
PD1-Out	CONDUIT	2.56	0	02:10	0.61	0.08	0.19
PD2-Out	CONDUIT	2.56	0	02:10	0.62	0.08	0.19
STM-10_(STM)	CONDUIT	89.35	0	02:16	0.54	0.06	0.26
STM-101_(STM)	CONDUIT	4.86	0	02:10	0.50	0.07	0.20
STM-102_(STM)	CONDUIT	8.44	0	02:10	0.64	0.12	0.24
STM-103_(STM)	CONDUIT	13.14	0	02:10	0.76	0.19	0.51
STM-104_(STM)	CONDUIT	13.12	0	02:10	0.64	0.22	0.94
STM-106_(STM)_1	CONDUIT	13.63	0	02:11	0.71	1.14	1.00
STM-106_(STM)_2	CONDUIT	34.56	0	02:11	0.98	2.90	1.00
STM-108_(STM)	CONDUIT	35.21	0	02:11	0.75	0.53	1.00
STM-109_(STM)	CONDUIT	24.49	0	02:05	0.64	0.36	1.00
STM-11_(STM)	CONDUIT	5.96	0	02:10	0.54	0.10	0.21
STM-113_(STM)	CONDUIT	28.78	0	02:10	0.41	0.42	1.00
STM-115_(STM)_1	CONDUIT	28.43	0	02:10	0.63	2.38	1.00
STM-115_(STM)_2	CONDUIT	23.13	0	02:05	0.56	1.94	1.00
STM-116_(STM)	CONDUIT	28.72	0	02:10	0.78	0.38	0.63
STM-118_(STM)_1	CONDUIT	28.41	0	02:10	0.92	2.38	1.00
STM-118_(STM)_2	CONDUIT	34.54	0	02:07	0.99	2.89	1.00
STM-12_(STM)	CONDUIT	7.94	0	02:10	0.51	0.06	0.15
STM-120_(STM)	CONDUIT	34.91	0	02:10	0.71	0.54	1.00
STM-122_(STM)	CONDUIT	20.84	0	02:10	0.72	0.31	0.84
STM-124_(STM)_1	CONDUIT	20.36	0	02:10	0.83	1.71	1.00
STM-124_(STM)_2	CONDUIT	34.26	0	02:10	0.96	2.87	1.00
STM-125_(STM)	CONDUIT	34.91	0	02:10	0.69	0.55	1.00
STM-126_(STM)	CONDUIT	46.53	0	02:10	0.69	0.69	1.00
STM-127_(STM)	CONDUIT	1.59	0	02:00	0.35	0.02	1.00
STM-13_(1)_(STM)	CONDUIT	21.18	0	02:11	0.46	0.09	0.22
STM-13_(STM)	CONDUIT	18.67	0	02:11	0.49	0.08	0.19
STM-130_(STM)	CONDUIT	10.86	0	02:10	0.69	0.16	0.27
STM-131_(STM)	CONDUIT	16.69	0	02:10	0.75	0.24	0.67
STM-132_(STM)	CONDUIT	36.69	0	02:10	0.87	0.53	0.98
STM-133_(STM)	CONDUIT	52.81	0	02:06	1.13	0.78	1.00
STM-135_(STM)	CONDUIT	33.99	0	02:12	0.63	0.54	1.00
STM-138_(STM)	CONDUIT	14.00	0	02:10	0.55	0.21	0.77
STM-139_(STM)	CONDUIT	22.85	0	02:10	0.74	0.30	0.86
STM-14_(STM)	CONDUIT	29.08	0	02:11	0.54	0.15	0.24
STM-141_(STM)_1	CONDUIT	22.60	0	02:08	0.86	1.89	1.00
STM-141_(STM)_2	CONDUIT	33.40	0	02:12	0.79	2.80	1.00
STM-145_(STM)	CONDUIT	2.53	0	02:06	0.33	0.04	1.00
STM-15_(1)_(STM)	CONDUIT	35.68	0	02:13	0.56	0.15	0.28
STM-15_(STM)	CONDUIT	34.03	0	02:12	0.60	0.15	0.26
STM-16_(STM)	CONDUIT	51.35	0	02:14	0.74	0.21	0.29
STM-17_(STM)	CONDUIT	53.31	0	02:14	0.86	0.24	0.27
STM-18_(1)_(STM)	CONDUIT	83.91	0	02:14	0.66	0.25	0.33
STM-18_(STM)	CONDUIT	82.84	0	02:14	0.68	0.23	0.32
STM-19_(STM)	CONDUIT	87.26	0	02:14	0.66	0.31	0.34
STM-20_(STM)	CONDUIT	88.20	0	02:15	0.82	0.28	0.29
STM-21_(STM)_1	CONDUIT	89.26	0	02:15	0.72	0.10	0.20
STM-21_(STM)_2	CONDUIT	89.28	0	02:16	0.94	0.06	0.17
STM-22_(STM)	CONDUIT	5.12	0	02:10	0.53	0.09	0.19
STM-23_(STM)	CONDUIT	5.10	0	02:10	0.45	0.04	0.12
STM-24_(1)_(STM)	CONDUIT	8.06	0	02:11	0.59	0.14	0.25
STM-24_(STM)	CONDUIT	3.84	0	02:10	0.42	0.06	0.20
STM-26_(STM)	CONDUIT	4.80	0	02:15	0.55	0.07	0.18

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STM-27_(STM)	CONDUIT	8.39	0	02:17	0.52	0.10	0.20
STM-44_(STM)	CONDUIT	5.03	0	02:22	0.51	0.08	0.20
STM-55_(STM)	CONDUIT	3.62	0	02:14	0.34	0.03	0.21
STM-58_(STM)	CONDUIT	3.46	0	02:15	0.64	0.04	0.13
STM-59_(STM)	CONDUIT	3.17	0	02:05	0.38	0.02	0.73
STM-60_(STM)	CONDUIT	5.59	0	02:09	0.16	0.01	0.72
STM-62_(STM)	CONDUIT	0.38	0	02:10	0.34	0.01	0.06
STM-63_(STM)	CONDUIT	0.37	0	02:11	0.31	0.00	0.05
STM-64_(STM)	CONDUIT	3.20	0	02:10	0.50	0.05	0.30
STM-65_(STM)_1	CONDUIT	7.05	0	02:10	0.29	0.10	0.98
STM-65_(STM)_2	CONDUIT	15.94	0	02:05	0.36	0.23	1.00
STM-66_(STM)	CONDUIT	23.83	0	02:10	0.24	0.16	1.00
STM-70_(STM)_1	CONDUIT	9.80	0	02:10	0.51	0.14	0.33
STM-70_(STM)_2	CONDUIT	20.57	0	02:10	0.81	0.30	0.39
STM-71_(STM)	CONDUIT	28.19	0	02:11	0.72	0.20	0.30
STM-72_(STM)	CONDUIT	29.13	0	02:12	0.66	0.21	0.32
STM-73_(STM)	CONDUIT	29.01	0	02:12	0.70	0.19	0.31
STM-79_(STM)	CONDUIT	21.05	0	02:10	0.33	0.28	1.00
STM-82_(STM)	CONDUIT	34.13	0	02:09	0.62	0.55	1.00
STM-87_(STM)	CONDUIT	6.19	0	02:10	0.61	0.09	0.20
STM-88_(STM)_1	CONDUIT	14.66	0	02:10	0.40	1.23	1.00
STM-88_(STM)_2	CONDUIT	5.78	0	02:05	0.17	0.48	1.00
STM-89_(STM)_1	CONDUIT	6.16	0	02:09	0.31	0.52	1.00
STM-89_(STM)_2	CONDUIT	14.13	0	02:05	0.41	1.18	1.00
STM-9_(STM)	CONDUIT	89.29	0	02:16	0.80	0.03	0.19
STM-91_(STM)	CONDUIT	6.39	0	02:10	0.71	0.07	0.19
STM-92_(STM)	CONDUIT	11.89	0	02:05	0.23	0.18	1.00
STM-94_(STM)	CONDUIT	46.44	0	02:10	0.92	0.64	0.67
STM-96_(STM)_1	CONDUIT	45.82	0	02:10	0.75	3.84	1.00
STM-96_(STM)_2	CONDUIT	14.05	0	02:05	0.29	1.18	1.00
STM-97_(STM)	CONDUIT	38.97	0	02:10	0.85	0.60	0.77
STM-99_(STM)_1	CONDUIT	38.61	0	02:10	1.02	3.23	1.00
STM-99_(STM)_2	CONDUIT	1.24	0	02:10	0.29	0.10	1.00
R1_OvF	WEIR	0.00	0	00:00			0.00
R10_OvF	WEIR	0.00	0	00:00			0.00
R2_OvF	WEIR	0.00	0	00:00			0.00
R3_OvF	WEIR	0.00	0	00:00			0.00
R4_OvF	WEIR	0.00	0	00:00			0.00
R5_OvF	WEIR	0.00	0	00:00			0.00
R6_OvF	WEIR	0.00	0	00:00			0.00
R7_OvF	WEIR	0.00	0	00:00			0.00
R8_OvF	WEIR	0.00	0	00:00			0.00
R9_OvF	WEIR	0.00	0	00:00			0.00
O-CBMH206	DUMMY	1.18	0	02:59			
O-CBMH214	DUMMY	1.27	0	05:26			
O-CBMH222	DUMMY	1.33	0	03:06			
O-CBMH228	DUMMY	1.23	0	05:00			
O-CBMH252	DUMMY	1.75	0	03:34			
O-CBMH408	DUMMY	1.04	0	06:09			
O-MH244	DUMMY	1.18	0	03:43			
O-MH264	DUMMY	1.26	0	04:21			
O-MH272	DUMMY	1.04	0	04:24			
O-MH288	DUMMY	1.06	0	06:11			
O-MH428	DUMMY	1.17	0	05:58			
O-MH440	DUMMY	1.88	0	06:04			
R10-Out	DUMMY	3.46	0	02:14			
R1-Out	DUMMY	12.95	0	02:23			







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MAJ-CBMH456 (4) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH470 (1) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-CBMH470 (2) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-MD1 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-MD2 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-MD3 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-PD1 (1) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-PD1 (2) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-PD2 (1) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAJ-PD2 (2) 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PD1-Out 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
PD2-Out 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-10_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
STM-101_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-102_(STM) 0.00	1.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.99	0.01
STM-103_(STM) 0.00	1.00	0.00	0.05	0.00	0.08	0.00	0.00	0.00	0.87	0.94
STM-104_(STM) 0.00	1.00	0.82	0.02	0.00	0.15	0.00	0.00	0.00	0.01	0.84
STM-106_(STM)_1 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.01	0.00
STM-106_(STM)_2 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
STM-108_(STM) 0.00	1.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.77	0.02
STM-109_(STM) 0.00	1.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.76	0.01
STM-11_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-113_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
STM-115_(STM)_1 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.01	0.00
STM-115_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.76	0.00
STM-116_(STM) 0.00	1.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.90	0.90
STM-118_(STM)_1 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.01	0.00
STM-118_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.01	0.00	0.00	0.00
STM-12_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-120_(STM) 0.00	1.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.81	0.00

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STM-122_(STM) 0.00	1.00	0.00	0.00	0.00	0.10	0.00	0.00	0.90	0.90
STM-124_(STM)_1 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.01	0.00
STM-124_(STM)_2 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-125_(STM) 0.00	1.00	0.00	0.00	0.00	0.16	0.00	0.00	0.84	0.01
STM-126_(STM) 0.00	1.00	0.00	0.00	0.00	0.18	0.00	0.00	0.82	0.00
STM-127_(STM) 0.00	1.00	0.00	0.00	0.00	0.18	0.00	0.00	0.82	0.00
STM-13_(1)_(STM) 0.00	1.00	0.00	0.00	0.00	0.23	0.00	0.00	0.77	0.00
STM-13_(STM) 0.00	1.00	0.00	0.06	0.00	0.17	0.00	0.00	0.77	0.86
STM-130_(STM) 0.00	1.00	0.00	0.00	0.00	0.05	0.00	0.00	0.95	0.15
STM-131_(STM) 0.00	1.00	0.00	0.01	0.00	0.08	0.00	0.00	0.91	0.92
STM-132_(STM) 0.00	1.00	0.00	0.05	0.00	0.13	0.00	0.00	0.83	0.89
STM-133_(STM) 0.00	1.00	0.00	0.00	0.00	0.17	0.00	0.00	0.83	0.01
STM-135_(STM) 0.00	1.00	0.00	0.00	0.00	0.15	0.00	0.00	0.85	0.01
STM-138_(STM) 0.00	1.00	0.00	0.01	0.00	0.10	0.00	0.00	0.89	0.93
STM-139_(STM) 0.00	1.00	0.00	0.00	0.00	0.10	0.00	0.00	0.90	0.90
STM-14_(STM) 0.00	1.00	0.00	0.00	0.00	0.22	0.00	0.00	0.78	0.00
STM-141_(STM)_1 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.01	0.00
STM-141_(STM)_2 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-145_(STM) 0.00	1.00	0.00	0.00	0.00	0.08	0.00	0.00	0.92	0.00
STM-15_(1)_(STM) 0.00	1.00	0.00	0.00	0.00	0.26	0.00	0.00	0.74	0.00
STM-15_(STM) 0.00	1.00	0.00	0.00	0.00	0.29	0.00	0.00	0.71	0.24
STM-16_(STM) 0.00	1.00	0.00	0.00	0.00	0.30	0.00	0.00	0.70	0.10
STM-17_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-18_(1)_(STM) 0.00	1.00	0.00	0.00	0.00	0.26	0.00	0.00	0.74	0.00
STM-18_(STM) 0.00	1.00	0.00	0.00	0.00	0.30	0.00	0.00	0.70	0.00
STM-19_(STM) 0.00	1.00	0.00	0.00	0.00	0.31	0.00	0.00	0.69	0.02
STM-20_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-21_(STM)_1 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.19
STM-21_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.01	0.00
STM-22_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00

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STM-23_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-24_(1)_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-24_(STM) 0.00	1.00	0.00	0.00	0.00	0.03	0.00	0.00	0.97	0.03
STM-26_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-27_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-44_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-55_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
STM-58_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-59_(STM) 0.00	1.00	0.00	0.00	0.00	0.03	0.00	0.00	0.97	0.00
STM-60_(STM) 0.00	1.00	0.00	0.00	0.00	0.05	0.00	0.00	0.95	0.00
STM-62_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-63_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-64_(STM) 0.00	1.00	0.00	0.00	0.00	0.04	0.00	0.00	0.96	0.96
STM-65_(STM)_1 0.00	1.00	0.00	0.03	0.00	0.09	0.00	0.00	0.87	0.92
STM-65_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.13	0.00	0.00	0.87	0.01
STM-66_(STM) 0.00	1.00	0.00	0.00	0.00	0.14	0.00	0.00	0.86	0.00
STM-70_(STM)_1 0.00	1.00	0.00	0.01	0.00	0.99	0.00	0.00	0.00	1.00
STM-70_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-71_(STM) 0.00	1.00	0.00	0.00	0.00	0.10	0.00	0.00	0.90	0.06
STM-72_(STM) 0.00	1.00	0.00	0.00	0.00	0.08	0.00	0.00	0.92	0.01
STM-73_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-79_(STM) 0.00	1.00	0.00	0.00	0.00	0.05	0.00	0.00	0.94	0.00
STM-82_(STM) 0.00	1.00	0.00	0.00	0.00	0.13	0.00	0.00	0.87	0.00
STM-87_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
STM-88_(STM)_1 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-88_(STM)_2 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-89_(STM)_1 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.01	0.00
STM-89_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.07	0.00	0.00	0.93	0.00
STM-9_(STM) 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-91_(STM) 0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00

CitiGate - 'Block 3' (125050)  
 PCSWMM Model Output  
 100yr, 24-hour SCS Storm

STM-92_(STM) 0.00	1.00	0.00	0.00	0.00	0.12	0.00	0.00	0.88	0.01
STM-94_(STM) 0.00	1.00	0.00	0.00	0.00	0.02	0.00	0.00	0.98	0.01
STM-96_(STM)_1 0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
STM-96_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.12	0.00	0.00	0.88	0.00
STM-97_(STM) 0.00	1.00	0.00	0.00	0.00	0.07	0.00	0.00	0.93	0.02
STM-99_(STM)_1 0.00	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.01	0.00
STM-99_(STM)_2 0.00	1.00	0.00	0.00	0.00	0.12	0.00	0.00	0.88	0.00

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 Conduit Surcharge Summary  
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Conduit	Hours Full			Hours	
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
STM-104_(STM)	0.01	0.01	1.04	0.01	0.01
STM-106_(STM)_1	8.64	8.64	8.64	0.08	0.01
STM-106_(STM)_2	8.64	8.64	8.64	0.15	0.01
STM-108_(STM)	8.64	8.64	11.41	0.01	0.01
STM-109_(STM)	12.33	12.33	15.08	0.01	0.01
STM-113_(STM)	25.11	25.11	28.42	0.01	0.01
STM-115_(STM)_1	15.08	15.08	15.08	0.22	0.01
STM-115_(STM)_2	15.08	15.08	15.08	0.11	0.01
STM-118_(STM)_1	7.77	7.77	7.77	0.22	0.01
STM-118_(STM)_2	7.77	7.77	7.77	0.23	0.01
STM-120_(STM)	7.77	7.77	11.07	0.01	0.01
STM-124_(STM)_1	10.50	10.50	10.50	0.18	0.01
STM-124_(STM)_2	10.50	10.50	10.50	0.18	0.01
STM-125_(STM)	10.50	10.50	11.72	0.01	0.01
STM-126_(STM)	14.82	14.82	16.72	0.01	0.01
STM-127_(STM)	17.37	17.37	19.33	0.01	0.01
STM-132_(STM)	0.01	0.01	14.17	0.01	0.01
STM-133_(STM)	14.75	14.75	17.73	0.01	0.01
STM-135_(STM)	10.05	10.05	11.22	0.01	0.01
STM-141_(STM)_1	10.05	10.05	10.05	0.19	0.01
STM-141_(STM)_2	10.05	10.05	10.05	0.18	0.01
STM-145_(STM)	7.22	7.22	8.54	0.01	0.01
STM-65_(STM)_1	0.01	0.01	10.15	0.01	0.01
STM-65_(STM)_2	10.54	10.54	12.12	0.01	0.01
STM-66_(STM)	8.61	8.61	10.54	0.01	0.01
STM-79_(STM)	6.08	6.08	6.29	0.01	0.01
STM-82_(STM)	11.31	11.31	12.12	0.01	0.01
STM-88_(STM)_1	5.90	5.90	5.90	0.13	0.01
STM-88_(STM)_2	5.90	5.90	5.90	0.01	0.01
STM-89_(STM)_1	5.90	5.90	5.90	0.01	0.01
STM-89_(STM)_2	5.90	5.90	5.90	0.12	0.01
STM-92_(STM)	10.72	10.72	12.31	0.01	0.01
STM-96_(STM)_1	12.31	12.31	12.31	0.36	0.23

CitiGate - 'Block 3' (125050)  
PCSWMM Model Output  
100yr, 24-hour SCS Storm

STM-96_(STM)_2	12.31	12.31	12.31	0.11	0.05
STM-99_(STM)_1	7.08	7.08	7.08	0.32	0.02
STM-99_(STM)_2	7.08	7.08	7.08	0.01	0.01

Analysis begun on: Fri Jan 23 13:23:46 2026  
Analysis ended on: Fri Jan 23 13:24:17 2026  
Total elapsed time: 00:00:31

Appendix E  
DRAWINGS