

**PROPOSED RE-ZONING  
FOR A COMMERCIAL ADDITION  
TO A RESIDENTIAL DWELLING  
LOT 343 R-PLAN 384  
67 KEMPSTER AVENUE  
CITY OF OTTAWA**

**SERVICING ASSESSMENT REPORT  
REPORT No. R-825-93 (REV. #1)  
JANUARY 2026**

**T. L. MAK ENGINEERING CONSULTANTS LTD.  
NOVEMBER 2025  
REF. FILE No. 825-93**

## **1) INTRODUCTION**

The owner of the said residential property is proposing to add a one storey ( $\pm 63.41 \text{ m}^2$ ) commercial building addition with basement to the existing one and one half residential dwelling in order to establish a bicycle repair shop. Application to the City of Ottawa for residential re-zoning is being made for further development of this site. Refer to Appendix A for site plan details.

For re-zoning purposes, one of the City's requirements to complete this application is an assessment of existing services (water pipe and sanitary lateral) for adequacy to accommodate the proposed building's intended use.

T.L. Mak Engineering Consultants Ltd. has been retained to prepare a "Servicing Assessment Report" for this site as a supplement to the re-zoning application process for the proposed re-development at this property.

## **2) EXISTING SITE CONDITIONS AND SERVICING**

Presently, a  $1\frac{1}{2}$  - storey residential building occupies the site. For details of the site's current conditions, refer to the Google image (2024) and aerial photography from (GeoOttawa 2022) found in Appendix B.

Presently, the residential dwelling is serviced by a 19 mm (3/4 inch.) dia. water service pipe which is connected to the existing City watermain system at Kempster Avenue. The building's existing 150 mm dia. concrete sanitary lateral is currently discharging and outletting to the City's 250 mm dia. sanitary sewer. From discussion with the owners of the property, there are no weeping tiles in place for this building and therefore, storm lateral is not found on this lot. The approximate location of existing water service and sanitary lateral are shown in Appendix C.

As for the availability of underground municipal services, there are existing municipal services along Kempster Avenue in front of this property consisting of a 250 mm dia. concrete sanitary sewer and a 150 mm dia. C.I. watermain.

Existing grading and drainage of the lot is primarily sloped from a back to front (east to west) direction. See topographical survey field recorded by J.D. Barnes Ltd. attached in Appendix C for details.

Currently, there exists an asphalt driveway located along the north side of the property and a parking area located at the front of the building that will be re-configured with soft landscaping material to remain at the front of the new building addition.

## **3) POTABLE WATER**

The existing  $\pm 21.5 \text{ m}$  long incoming water service line into the house is 19 mm (3/4 inch.) diameter in size. The existing water distribution line located downstream of the existing water meter is 12.5 mm (1/2 inch.) dia. Currently, the existing water fixture counts are as follows:

Main House:

Total sinks = 2

Total toilets = 1

Total washing machines = 1

Total dishwashers = 1

Total hose = 1

Total showers + bath = 1

Water fixtures for new commercial addition are as follows:

Proposed addition:

Total sinks = 1

Total toilets = 1

Bike wash station = 1

From the proposed commercial building addition with water fixture added for a bicycle repair shop, a total of approximately 14.6 fixture units will need to be considered based on the Ontario Building Code (specifically Table 7.6.3.2). Refer to Appendix D for details of the completed water data card.

At a length of  $\pm 21.5$  m, the existing incoming water service line can serve a maximum of approximately 20 fixture units according to Table A-2.6.3.1.(2)-A of the National Plumbing Code (2015) under an average day pressure of 66.84 psi (461.0 kPa) with the provision that the existing 12.5 mm (1/2 inch.) dia. water distribution line in the house be upgraded to 19 mm (3/4 inch.) dia. in order to achieve adequate pressure and volume, as well as assuming that minimum pressures under peak hour demand would be maintained above 311 kPa (45 psi). Water distribution pipe upgrade shall be carried out by the owners in compliance with the requirements of the latest revised Ontario Plumbing Code.

Since the total fixture units of 14.6 for the building with proposed addition are below the maximum value specified by Table A-2.6.3.1.(2)-A, we can conclude that the existing incoming water pipe 19 mm (3/4 inch.) dia. is adequate to service the building.

**Table A-2.6.3.1.(2)-A**

| Water Service Pipe, inches    | Water Distribution System, inches | Maximum Allowable Length, m    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-------------------------------|-----------------------------------|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                               |                                   | 12                             | 18  | 24  | 30  | 46  | 61  | 76  | 91  | 122 | 152 | 183 | 213 | 244 | 274 | 305 |
|                               |                                   | Number of Fixture Units Served |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                               |                                   | Flow Velocity, m/s             |     |     | 3.0 | 2.4 | 1.5 |     |     |     |     |     |     |     |     |     |
| Pressure Range 311 to 413 kPa |                                   |                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| ¾                             | ½                                 | 8                              | 7   | 6   | 5   | 4   | 3   | 2   | 2   | 1   | 1   | 1   | 0   | 0   | 0   | 0   |
| ¾                             | ⅝                                 | 13                             | 13  | 12  | 11  | 9   | 7   | 5   | 5   | 3   | 3   | 2   | 2   | 1   | 1   | 1   |
| ¾                             | ¾                                 | 21                             | 21  | 19  | 17  | 14  | 11  | 9   | 8   | 6   | 5   | 4   | 4   | 3   | 3   | 3   |
| 1                             | 1                                 | 42                             | 42  | 41  | 36  | 30  | 25  | 23  | 20  | 18  | 15  | 12  | 10  | 9   | 8   | 8   |
| 1½                            | 1¼                                | 83                             | 83  | 83  | 83  | 66  | 52  | 44  | 39  | 33  | 29  | 24  | 20  | 19  | 17  | 16  |
| 1½                            | 1½                                | 151                            | 151 | 151 | 151 | 128 | 105 | 90  | 78  | 62  | 52  | 42  | 38  | 35  | 32  | 30  |
| 2                             | 1½                                | 151                            | 151 | 151 | 151 | 150 | 117 | 98  | 84  | 67  | 55  | 42  | 38  | 35  | 32  | 30  |
| 2                             | 2                                 | 359                            | 359 | 359 | 359 | 359 | 318 | 280 | 250 | 205 | 165 | 142 | 123 | 110 | 102 | 94  |
| 2½                            | 2½                                | 611                            | 611 | 610 | 580 | 535 | 500 | 470 | 440 | 400 | 365 | 335 | 315 | 285 | 267 | 250 |
| Pressure Over 413 kPa         |                                   |                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| ¾                             | ½                                 | 8                              | 8   | 7   | 6   | 5   | 4   | 3   | 3   | 2   | 1   | 1   | 1   | 1   | 1   | 0   |
| ¾                             | ⅝                                 | 13                             | 13  | 13  | 13  | 11  | 8   | 7   | 6   | 5   | 4   | 3   | 3   | 3   | 2   | 2   |
| ¾                             | ¾                                 | 21                             | 21  | 21  | 21  | 17  | 13  | 11  | 10  | 8   | 7   | 6   | 6   | 5   | 4   | 4   |
| 1                             | 1                                 | 42                             | 42  | 42  | 42  | 38  | 32  | 29  | 26  | 22  | 18  | 14  | 13  | 12  | 12  | 11  |
| 1½                            | 1¼                                | 83                             | 83  | 83  | 83  | 83  | 74  | 62  | 54  | 43  | 34  | 26  | 25  | 23  | 22  | 21  |
| 1½                            | 1½                                | 151                            | 151 | 151 | 151 | 151 | 151 | 130 | 113 | 88  | 73  | 51  | 51  | 46  | 43  | 40  |
| 2                             | 1½                                | 151                            | 151 | 151 | 151 | 151 | 151 | 142 | 122 | 98  | 82  | 64  | 51  | 46  | 43  | 40  |
| 2                             | 2                                 | 359                            | 359 | 359 | 359 | 359 | 359 | 359 | 340 | 288 | 245 | 204 | 172 | 153 | 141 | 129 |
| 2½                            | 2½                                | 611                            | 611 | 611 | 611 | 611 | 611 | 610 | 570 | 510 | 460 | 430 | 404 | 380 | 356 | 329 |

### 3a) HYDRANT COVERAGE REVIEW

Based on Table 1 of Appendix I of the City of Ottawa Technical Bulletin ISTB-2018-02 and a desktop review (via Google Street View) to confirm hydrant class, four (4) hydrants are located near the building (see attached Hydrant Coverage Figure attached in Appendix E):

- One (1) Class AA hydrant is within 75m, providing a capacity contribution of up to 5,700 L/min.
- Three (3) additional Class AA hydrants are within 150m of the site, each contributing up to 3,800 L/min.

The combined hydrant flow coverage for 67 Kempster Avenue is therefore 17,100 L/min which is considered sufficient based on the expected fire flow requirement for the building (estimated to be less than 9,000 L/min based on building dimensions and usage) using the Ontario Building Code (OBC) Office of the Fire Marshal (OFM) method.

### 4) SANITARY FLOW

Estimated peak sanitary flow for the proposed commercial addition to the existing residential building is estimated at Q = 0.03 L/s with an infiltration rate of 0.013 L/s. (See Appendix F Page 1 of 1 for details.) This flow will enter the existing 250 mm diameter Kempster Avenue sanitary sewer via an existing 150 mm dia. concrete sanitary lateral sloped at 1.0% (min.).

The existing peak sanitary flow estimated for this lot prior to the proposed building addition is  $Q = 0.025$  L/s with a infiltration rate of 0.013 L/s. Therefore, the estimated net increase in peak flow from the proposed building addition is 0.006 L/s.

In view that the existing Kempster Avenue sanitary sewer size is 250 mm diameter in front of this property, an increase in sanitary flow to the existing sewer system by 0.006 L/s from this site is not expected to negatively impact the existing municipal sanitary sewer.

CCTV of the existing 150 mm dia. concrete sanitary service lateral currently servicing the existing house was recently completed and the 150mm dia. PVC sanitary lateral report recently completed at this building were reviewed and appears to be in good condition to convey flows. Some tree roots in the pipe was noted in the CCTV report but it appears that tree roots in the lateral were cut to maintain continued conveyance of sewage flow. Refer to Appendix G for summary of the sanitary lateral CCTV report findings carried out by Clean Water Works Inc. (CWW) dated October 8, 2025. This CCTV report is available in digital format also and can be provided to the City, if required for approval.

#### 5) STORM FLOW

In discussions with the owner of the property and according to the owner, at present the existing residential building does not have any weeping tiles and therefore we can only conclude that there are no storm lateral servicing the existing residential building.

Lot drainage on-site is observed to primarily graded to surface drain across the site from east to west or (rear to front) whereupon most of the surface stormwater outlets to the City's road right of way on Kempster Avenue. Refer to J.D. Barnes Ltd. topographical survey found in Appendix C for more details.

#### 6) CONCLUSIONS

In conclusion, it is our opinion that the existing incoming 19 mm (3/4 inch.) dia. water service is adequate to accommodate the proposed commercial building addition of  $\pm 63.41$  m<sup>2</sup> for a bicycle repair shop. The existing internal building water distribution pipe currently at 12.5 mm (1/2 inch.) dia. will need to be upsized to 19 mm (3/4 inch.) dia. in accordance with requirements of Table A-2.6.3.1.(2)-A of the Ontario Plumbing Code 2015. The existing 150 mm dia. sanitary lateral at the existing residential building is adequate in size to accommodate the addition of 0.006 L/s of flow from the addition at an estimated peak sanitary flow of 0.03 L/s.

**PREPARED BY T. L. MAK ENGINEERING CONSULTANTS LTD.**

  
TONY L. MAK, P. ENG.



**PROPOSED RE-ZONING  
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LOT 343 R-PLAN 384  
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**APPENDIX A**

**SITE PLAN DETAILS  
(SHEET No. A100)**



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**APPENDIX B**

**SITE PRE-DEVELOPMENT CONDITION  
GOOGLE IMAGE (2024)  
AND  
AERIAL PHOTOGRAPHY 2022 (GeoOTTAWA)**



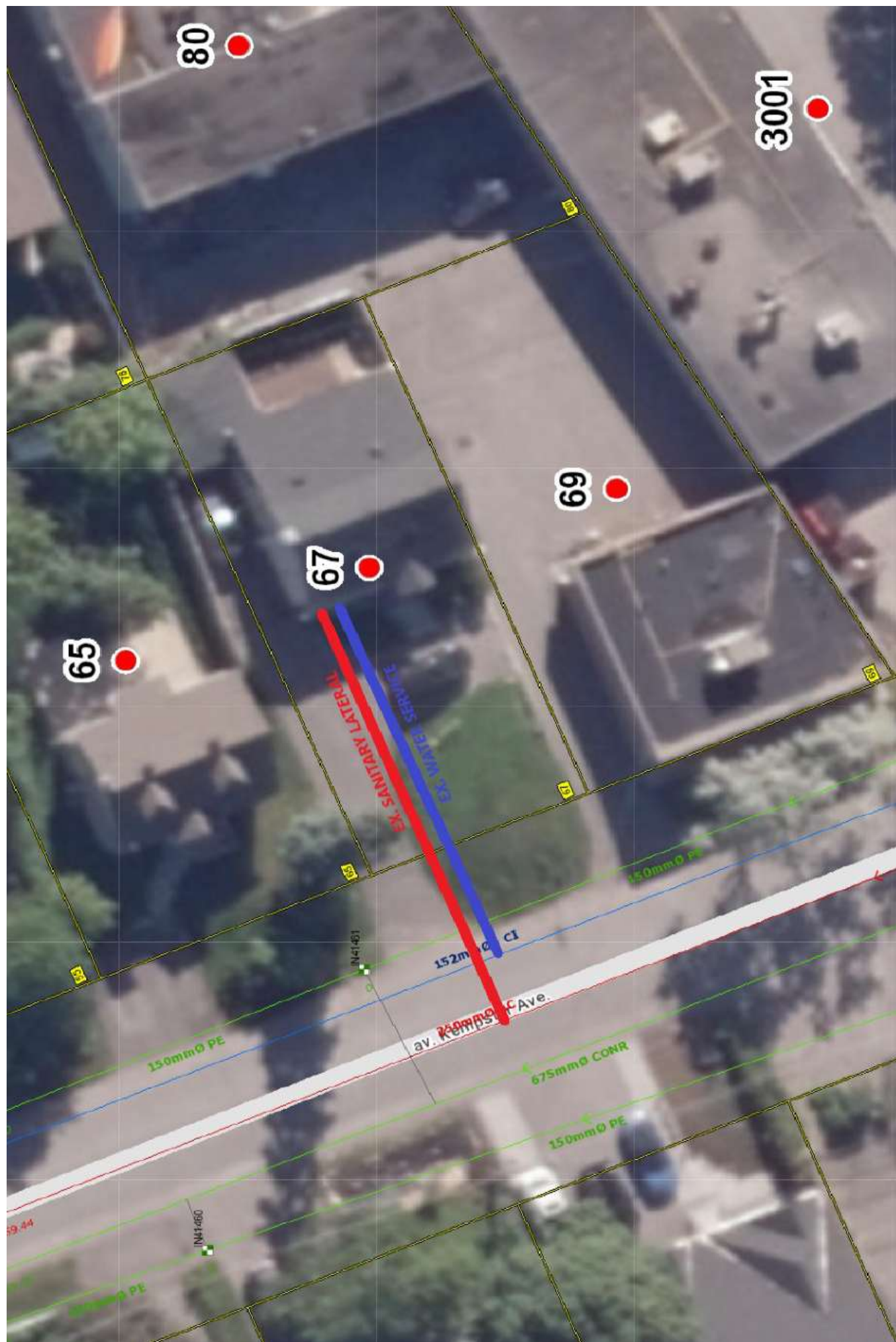




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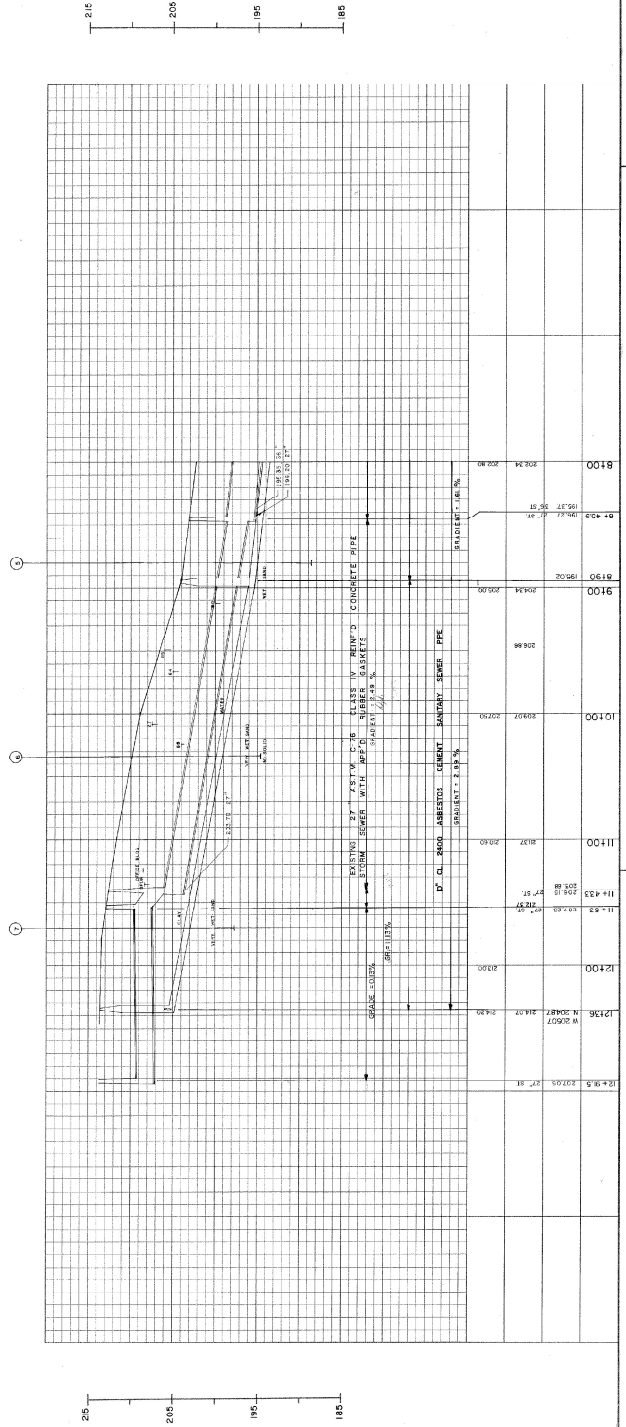
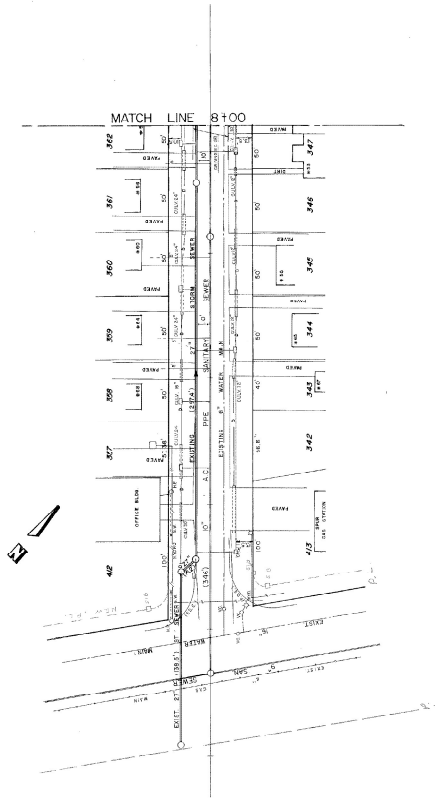
**APPENDIX C**

- **EXISTING LATERAL LOCATION**
  - **CITY's PLAN AND PROFILE DRAWINGS**
  - **TOPOGRAPHICAL SURVEY BY J.D. BARNES LTD.**
- (REF. No. 24-10-020-00 COMPLETED ON MARCH 5, 2024)**



NOTES

KEMPSTER AVENUE



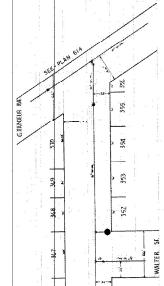
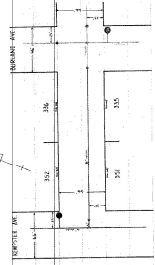
NOTE:  
UTILITIES SHOWN ARE TAKEN FROM BEST AVAILABLE  
SOURCE. THE CONTRACTOR SHALL VERIFY THE LOCATION AND  
DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.  
ALL UTILITIES SHOWN ARE NOT GUARANTEED AND  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING  
ALL NECESSARY PERMITS AND INFORMATION AS REQUIRED.  
CITY OF OTTAWA  
ENGINEERING DEPARTMENT  
SEWER SERVICES AND POLLUTION CONTROL BRANCH

| ROAD | GRADE | SURFACE | INVERT | STATIONS |
|------|-------|---------|--------|----------|
| 1335 | 1335  | 1335    | 1335   | 1335     |

DESIGNED BY: DATE: 1994  
DRAWN BY: DATE: 1994  
CHECKED BY: DATE: 1994  
APPROVED BY: DATE: 1994  
PROJECT NO.: 1335  
SHEET NO.: 5 OF 14

## WALTER ST.

## K E F W D S T E R A V E .



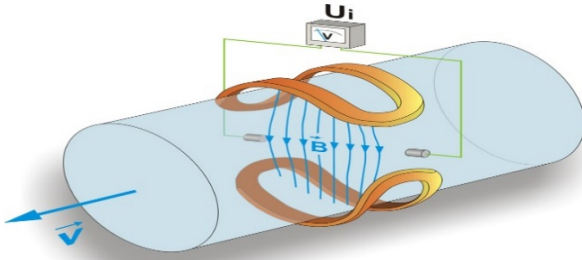
|          |  |   |                                   |
|----------|--|---|-----------------------------------|
| PLAN-610 | CITY OF OTTAWA<br>WATER WORKS DEPARTMENT | C. WEL. ONE REMITTANCE FROM GANDWATER TO<br>CARTING, SPRING ON WATER FROM GANDWATER<br>TO BUILDING, SPRING ON GANDWATER TO BUILDING | DATE 1941<br>MAY 1941<br>MAY 1941 |
|----------|--|---|-----------------------------------|



**PROPOSED RE-ZONING  
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CITY OF OTTAWA**

**APPENDIX D**

**COMPLETED WATER DATA CARD**



## Water Data Card

City of Ottawa

fax: (613) 728-4183

phone: 311 x

REV0\_2026

67 Kempster Avenue

Existing

Alex Zurawlev & Lucas Zurawlev

Single Detached

T. Mak

(613) 837 5516

Today is: 12-Jan-26

Water Meter Service Address:  
Project Proposed (New / Existing):

Water Account #

Property Owner:

Building Service Class (BSC):

Questionnaire Completed by:

Contact Phone Number:

Mechanical Contractor (if applicable):

Mech. Contact Phone Number:

Submission Date: (dd-mmm-yy)

| Fixture Description                                    | # of Fixtures |     |     |
|--|---------------|-----|-----|
| Bathtub  | 1             |     |     |
| Bedpan Washers   |               |     |     |
| Bidet  |               |     |     |
| Dental Unit  |               |     |     |
| Drinking Fountains                                     |               |     |     |
| Faucet (kitchen sink)                                  | 1             |     |     |
| Faucet (lavatory)                                      | 2             |     |     |
| Shower (single head)                                   | 1             |     |     |
| Utility Sink   |               |     |     |
| Toilet (flush valve)                                   |               |     |     |
| Toilet (tank)  | 2             |     |     |
| Urinal (flush valve)                                   |               |     |     |
| Urinal (wall or stall)                                 |               |     |     |
| Dishwasher   | 1             |     |     |
| Clothes Washer   | 1             |     |     |
| 1/2" Hose (50 ft. Wash Down)                           | 1             |     |     |
| 5/8" Hose (50 ft. Wash Down)                           |               |     |     |
| 3/4" Hose (50 ft. Wash Down)                           |               |     |     |
|  |               |     |     |
|  |               |     |     |
|  |               |     |     |
| <u>Enter Continuous Demand below (if applicable) *</u> |               |     |     |
|  |               |     | 0.0 |
|  |               |     | 0.0 |
|  |               |     | 0.0 |
| fixture description                                    | Qty.          | GPM |     |

Note: Irrigation is assumed to occur off peak demand period.

## Part C - Technical Information

|   | Value | Units         | Response           |
|---|-------|---------------|--------------------|
| Property Area <b>Class Code : R1</b>          | 0.04  | ha            | .01 to 200         |
| # of Connections to City Watermain:           | 1     |               | 0 to 20            |
| # of Buildings on Site:                       | 1     |               | 0 to 100           |
| <u>Length of Private Main (if applicable)</u> |       | km            | .01 to 100         |
| # of Private Hydrants on Property:            | 0     |               | 0 to 200           |
| <u>Maximum Fire Flow Available</u>            |       | l/min.        | 1,000 to 50,000    |
| <u>Phased Development?</u>                    | No    |               | yes/no             |
| <u>Static Main Pressure @ Property Line</u>   | 67    | <b>psi</b>    | 36 to 99           |
| <u>Service Length (supply main to meter)</u>  | 21.5  | <b>m</b>      | 2 to 1,500         |
| <u>Service Dia. (supply main to building)</u> | 19    | <b>mm</b>     | 19 to 406          |
| <u>Supply main elev. minus meter elev.</u>    | -2.1  | <b>m</b>      | -30 to 30          |
| <u>Existing Isolation Valve Clearance:</u>    |       | mm            | 190 to 3,000       |
| <u>Meter Isolation Valve Size:</u>            |       | <b>in</b>     | 3/4" to 6"         |
| <u>Pipe Dia. (outlet side of meter)</u>       |       | <b>mm</b>     | 19 to 406          |
| <u>Required Fire Flow @ 20 psi</u>            |       | l/sec         | 10 to 1000         |
| # of Units/Suites/Apts                        | 1     |               | 1 to 2,000         |
| # of Stories (above grade)                    | 2     |               | 1 to 50            |
| Booster Pumps (Domestic Supply)               |       |               | yes/no             |
| Booster Pumps (Fire Protection)               |       |               | yes/no             |
|   |       |               | <b>Calc. Value</b> |
| <u>Fixture Value Total</u>                    |       | (FV)          | 37                 |
| <u>Maximum/Peak Demand (Domestic)</u>         |       | <b>l/min.</b> | 78                 |
| <u>Continuous Demand (if applicable)</u>      |       | <b>l/min.</b> | 0                  |
|   | 0     | total         | 78                 |

## Office #46034 Use Only

|  |              |    |           |           |
|--|--------------|----|-----------|-----------|
|  | Enter Date > |    | dd-mmm-yy | 12-Jan-26 |
|  |              |    |           |           |
|  |              |    |           |           |
|  |              | 0  | l/min.    |           |
|  |              | 20 | psi       |           |
|  |              |    | psi       |           |
|  |              |    | psi       |           |
|  |              |    | psi       |           |
| Meter Size/Type                        |              |    | HL@ GD >  |           |
|  |              |    | Safe max. |           |
| template size/length                   |              |    | mm (B)    |           |
| Min. Isolation Valves Clearance (MIVC) |              |    | mm (A)    |           |

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LOT 343 R-PLAN 384  
67 KEMPSTER AVENUE  
CITY OF OTTAWA**

**APPENDIX E**

**HYDRANT COVERAGE  
FIGURE**



| Hydrant Class |                                       |
|---------------|---------------------------------------|
| Class AA      | <span style="color: blue;">○</span>   |
| Class A       | <span style="color: green;">○</span>  |
| Class B       | <span style="color: orange;">○</span> |
| Class C       | <span style="color: red;">○</span>    |
| Unknown       | <span style="color: yellow;">○</span> |

## Hydrant Coverage

Source: geoOttawa 2025; Contains information licensed under the Open Government License – City of Ottawa.

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**APPENDIX F**

**SANITARY SEWER DESIGN SHEET**

**PAGE 1 OF 1**

$M = 1 + \frac{14}{4 + \sqrt{p}}$  where  $P$  = population in 1000's  
 $Q(p) = \frac{P \cdot Q}{88.4}$   $K = 0.8$   
 $Q(t) = IA (L/s)$  where  $A$  = area in hectares  
 $Q(d) = Q(p) + Q(t) (L/s)$

$Q$  = average daily per capita flow  $\frac{280}{1000}$  /cap. d)  
 $I$  = unit of peak extraneous flow  $\frac{280}{1000}$  /hs. s)  
 $M$  = peaking factor 4 (MAX)  
 $Q(p)$  = peak population flow (L/s)  
 $Q(i)$  = peak extraneous flow (L/s)  
 $Q(d)$  = peak design flow

DENSITY

RESIDENTIAL

SINGLE FAMILY

COMMERCIAL

P.F. = 1.5  
AVG. DAILY FLOW  
= 1000000

[illegible]

|         |            |                               |                    |                     |
|---------|------------|-------------------------------|--------------------|---------------------|
| DESIGN  | TLM        | PROJECT                       | 67 KEMPSTER AVENUE | SHEET No.<br>1 of 1 |
| CHECKED | TLM        | PROPOSED COMMERCIAL ADDITION  |                    |                     |
| DATE    | NOV 5 2002 | TO EXISTING DWELLING - OTTAWA |                    |                     |
|         |            |                               |                    |                     |

(File # 825-93)

PROJECT 67 KEMPSTER AVENUE  
PROPOSED COMMERCIAL ADDITION  
TO EXISTING DWELLING - OTTAWA

SHEET No. 101



**PROPOSED RE-ZONING  
FOR COMMERCIAL BUILDING ADDITION  
LOT 343 R-PLAN 384  
67 KEMPSTER AVENUE  
CITY OF OTTAWA**

**APPENDIX G**

**CLEAN WATER WORKS (CWW)  
CCTV REPORT SUMMARY  
DATED OCTOBER 8, 2025**

**Ottawa (Head Office)**

1800 Bantree Street  
Ottawa, Ontario K1B 5L6

☎ 613.745.2444

☎ 613.745.9994

[www.cwwcanada.com](http://www.cwwcanada.com)

1.866.695.0155

**Montreal**

2700 Sabourin Street  
St-Laurent, Quebec H4S 1M2

☎ 514.738.2666

☎ 514.738.9762



INTEGRATED SEWER SOLUTIONS

# **COD – 67 KEMPSTER OTTAWA, ON**

## **SEWER CCTV INSPECTION REPORT**

**Work Order**  
148964

**Sewer Use**  
Sanitary

**Completion Date**  
October 8, 2025

**Inspected Length**  
26.40 meters

**THE WAY IS CLEAR™**

- Watermain Swabbing
- Hydro Vacuum Excavation
- CCTV Inspection of Sewers

- Plumbing & Drain Services
- Structural Rehabilitation of Manholes
- Cured-in-Place-Pipe Lining & Spot Repairs

- Grouting, Test & Seal Joints, Manholes & Services
- Lateral Sewer Inspection & Locates From Main
- Sewer Cleaning, Flushing & Pumping

Table of contents

|   |      |
|---|------|
|   | Page |
| 1. Index of pipes .....                     | 2    |
| 2. Pipe summary and condition details ..... | 3    |

# 1. Index of pipes

2 items

Inspected length : 52.80  
 Total length : 0.00

| Pipe                 | Start/End             | Direction         | Road        | Date                | Inspected | Total | Page              |
|----------------------|-----------------------|-------------------|-------------|---------------------|-----------|-------|-------------------|
| Main Cleanout to End | Main Cleanout --> End | Direction of flow | 67 Kempster | 08/10/2025, 7:38 AM | 26.4      |       | <a href="#">3</a> |
| Main Cleanout to End | Main Cleanout --> End | Direction of flow | 67 Kempster | 08/10/2025, 4:14 PM | 26.4      |       | <a href="#">6</a> |

## 2. Pipe summary and condition details

### Pipe identification

|                           |                       |                                 |                       |
|---------------------------|-----------------------|---------------------------------|-----------------------|
| <b>Pipe:</b>              | Main Cleanout to End  | <b>Direction of inspection:</b> | Main Cleanout --> End |
| <b>Direction of flow:</b> | Main Cleanout --> End | <b>Direction:</b>               | Direction of flow     |

### Pipe location

|                       |             |                        |                       |
|-----------------------|-------------|------------------------|-----------------------|
| <b>Road:</b>          | 67 Kempster | <u>UPSTREAM</u>        | <u>DOWNSTREAM</u>     |
| <b>Drainage Area:</b> |             | <b>Easting (X):</b>    | <b>Easting (X):</b>   |
| <b>City:</b>          | Ottawa      | <b>Northing (Y):</b>   | <b>Northing (Y):</b>  |
| <b>Location:</b>      |             | <b>Elevation (Z):</b>  | <b>Elevation (Z):</b> |
| <b>Owner:</b>         | Alex        | <b>Vertical Datum:</b> |                       |

### Pipe characteristics

|                                |           |                                  |   |
|--------------------------------|-----------|----------------------------------|---|
| <b>Category:</b>               |           | <b>Size:</b>                     | 4 |
| <b>Material:</b>               | Cast iron | <b>Width:</b>                    |   |
| <b>Lining:</b>                 |           | <b>Total length:</b>             |   |
| <b>Type:</b>                   | Lateral   | <b>Pipe unit length:</b>         |   |
| <b>Invert (upstream):</b>      |           | <b>Year laid:</b>                |   |
| <b>Depth (upstream):</b>       |           | <b>Invert (downstream):</b>      |   |
| <b>Cover level (upstream):</b> |           | <b>Depth (downstream):</b>       |   |
|                                |           | <b>Cover level (downstream):</b> |   |

### Additional details

|                              |                           |                             |                          |
|------------------------------|---------------------------|-----------------------------|--------------------------|
| <b>Date:</b>                 | 08/10/2025, 7:38 AM       | <b>Survey Abandoned:</b>    |                          |
| <b>Project Number:</b>       |                           | <b>Inspected length:</b>    | 26.4                     |
| <b>Contractor project #:</b> |                           | <b>Pre-cleaning:</b>        | <input type="checkbox"/> |
| <b>Client:</b>               | COD 67 Kempster WO 148964 | <b>Blocked flow:</b>        | <input type="checkbox"/> |
| <b>Purpose:</b>              |                           | <b>Regular CCTV:</b>        | <input type="checkbox"/> |
| <b>Operator:</b>             | Dave                      | <b>Reinspect with ZOOM:</b> | <input type="checkbox"/> |
| <b>Analyst:</b>              |                           | <b>Medium #:</b>            |                          |
|                              |                           | <b>Start position:</b>      |                          |
|                              |                           | <b>End position:</b>        |                          |

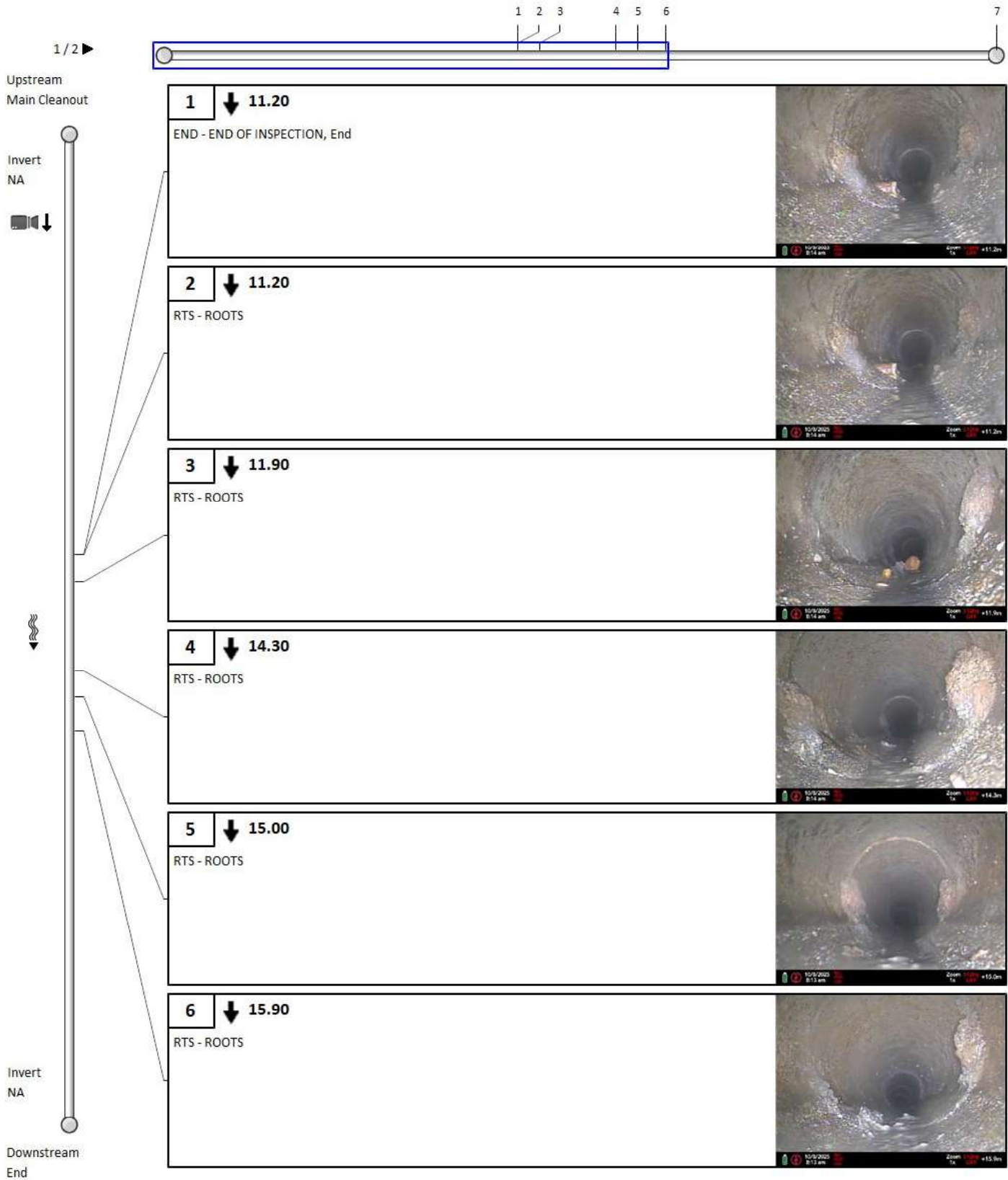
### Comments

|                                  |
|----------------------------------|
| Pull back starting at 26.4 City. |
|----------------------------------|

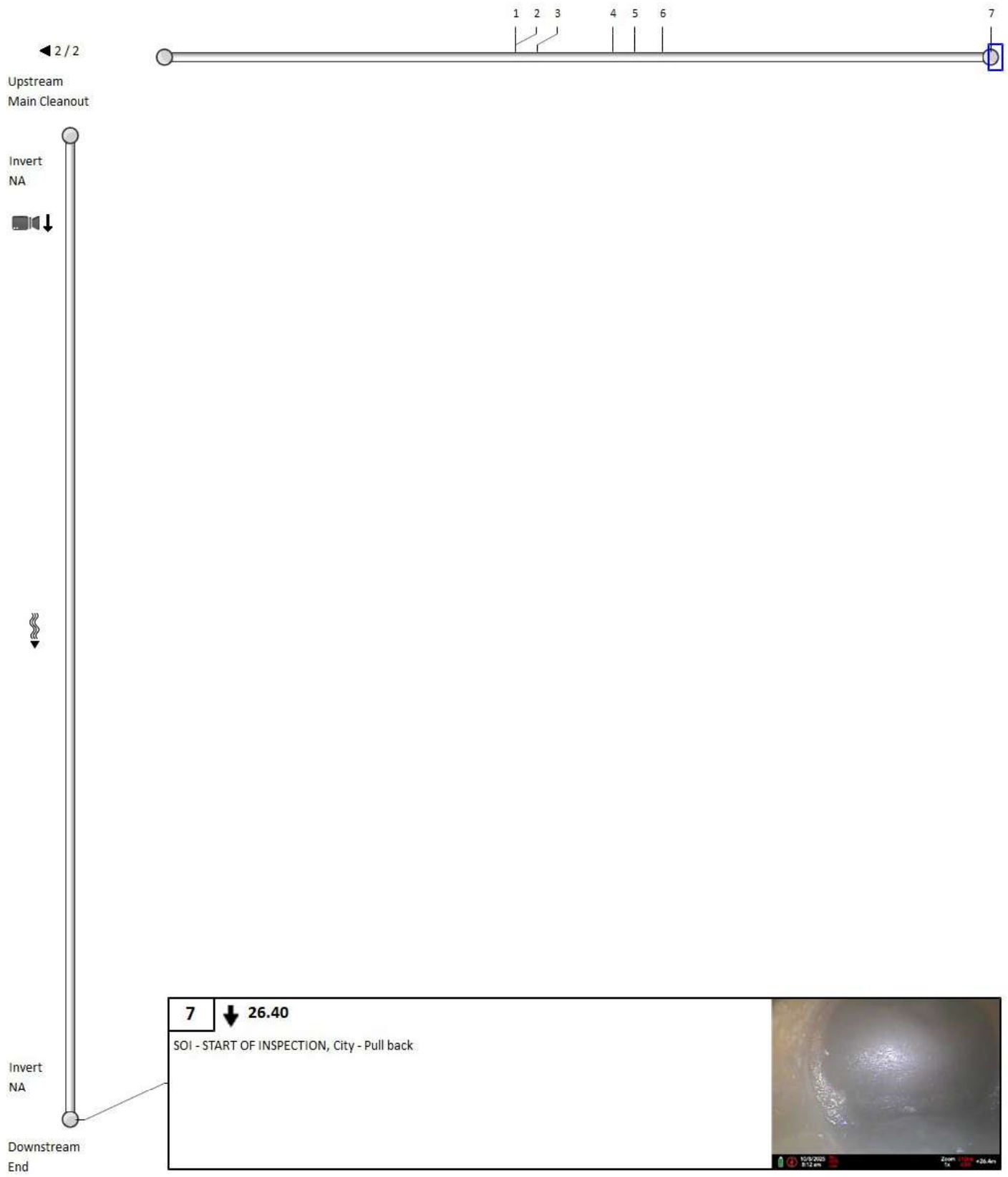
### Other information

|                           |  |                        |   |
|---------------------------|--|------------------------|---|
| <b>Date:</b>              |  | <b>Information 7:</b>  |   |
| <b>Work Order#:</b>       |  | <b>Information 8:</b>  |   |
| <b>Start of Location:</b> |  | <b>Information 9:</b>  |   |
| <b>End of Location:</b>   |  | <b>Information 10:</b> |   |
| <b>Location:</b>          |  | <b>PI5 (MAMR):</b>     | 0 |
| <b>Information 6:</b>     |  | <b>PI6 (MAMR):</b>     | 0 |

## 2. Pipe summary and condition details



# 2. Pipe summary and condition details



## 2. Pipe summary and condition details

### Pipe identification

|                           |                       |                                 |                       |
|---------------------------|-----------------------|---------------------------------|-----------------------|
| <b>Pipe:</b>              | Main Cleanout to End  | <b>Direction of inspection:</b> | Main Cleanout --> End |
| <b>Direction of flow:</b> | Main Cleanout --> End | <b>Direction:</b>               | Direction of flow     |

### Pipe location

|                       |             |                        |                       |
|-----------------------|-------------|------------------------|-----------------------|
| <b>Road:</b>          | 67 Kempster | <u>UPSTREAM</u>        | <u>DOWNSTREAM</u>     |
| <b>Drainage Area:</b> |             | <b>Easting (X):</b>    | <b>Easting (X):</b>   |
| <b>City:</b>          | Ottawa      | <b>Northing (Y):</b>   | <b>Northing (Y):</b>  |
| <b>Location:</b>      |             | <b>Elevation (Z):</b>  | <b>Elevation (Z):</b> |
| <b>Owner:</b>         | Alex        | <b>Vertical Datum:</b> |                       |

### Pipe characteristics

|                                |           |                                  |   |
|--------------------------------|-----------|----------------------------------|---|
| <b>Category:</b>               |           | <b>Size:</b>                     | 4 |
| <b>Material:</b>               | Cast iron | <b>Width:</b>                    |   |
| <b>Lining:</b>                 |           | <b>Total length:</b>             |   |
| <b>Type:</b>                   | Lateral   | <b>Pipe unit length:</b>         |   |
| <b>Invert (upstream):</b>      |           | <b>Year laid:</b>                |   |
| <b>Depth (upstream):</b>       |           | <b>Invert (downstream):</b>      |   |
| <b>Cover level (upstream):</b> |           | <b>Depth (downstream):</b>       |   |
|                                |           | <b>Cover level (downstream):</b> |   |

### Additional details

|                              |                     |                             |                          |
|------------------------------|---------------------|-----------------------------|--------------------------|
| <b>Date:</b>                 | 08/10/2025, 4:14 PM | <b>Survey Abandoned:</b>    |                          |
| <b>Project Number:</b>       |                     | <b>Inspected length:</b>    | 26.4                     |
| <b>Contractor project #:</b> |                     | <b>Pre-cleaning:</b>        | <input type="checkbox"/> |
| <b>Client:</b>               | Alex                | <b>Blocked flow:</b>        | <input type="checkbox"/> |
| <b>Purpose:</b>              |                     | <b>Regular CCTV:</b>        | <input type="checkbox"/> |
| <b>Operator:</b>             | Dave                | <b>Reinspect with ZOOM:</b> | <input type="checkbox"/> |
| <b>Analyst:</b>              |                     | <b>Medium #:</b>            |                          |
|                              |                     | <b>Start position:</b>      |                          |
|                              |                     | <b>End position:</b>        |                          |

### Comments

|           |
|-----------|
| Pull back |
|-----------|

### Other information

|                           |  |                        |   |
|---------------------------|--|------------------------|---|
| <b>Date:</b>              |  | <b>Information 7:</b>  |   |
| <b>Work Order#:</b>       |  | <b>Information 8:</b>  |   |
| <b>Start of Location:</b> |  | <b>Information 9:</b>  |   |
| <b>End of Location:</b>   |  | <b>Information 10:</b> |   |
| <b>Location:</b>          |  | <b>PI5 (MAMR):</b>     | 0 |
| <b>Information 6:</b>     |  | <b>PI6 (MAMR):</b>     | 0 |

## 2. Pipe summary and condition details

