

APPENDIX E

CCTV SEWER PIPE INSPECTION REPORT



June 2, 2023

734-2300070300-IR-C0001-00

Mr. Paul Bortoluzzi
City of Winnipeg
Water and Waste – Engineering Services
110-1199 Pacific Avenue
Winnipeg, MB R3E 3S8

Dear Mr. Bortoluzzi

**Subject Logan Avenue Mill and Fill – Keewatin Street to Dee Street
CCTV Sewer Pipe Inspection Report**

Uni-Jet Industrial Pipe Services has conducted a closed circuit televised (CCTV) inspection of six (6) manholes, four (4) catch basins and four (4) catch basin leads for the Logan Avenue Mill and Fill – Keewatin Street to Dee Street project.

Review of the CCTV inspections has shown the following sewers and structures warrant repair or replacement. A summary of conditions, recommendations, and photo references is provided.

Location 1

First manhole east of Dee Street					
Entity ID	Asset Number	Diam	Material	Flow Type	Height
20011285	S-MH20011285	1200mm	CONC	LDS	4.50m

Defects include:

- 750mm adjusting ring (Photo 1) - Broken, soil visible: replacement recommended

Location 2

Second manhole east of Dee Street					
Entity ID	Asset Number	Dimensions	Material	Flow Type	Height
20011280	S-MH20011280	1200mmx750mm	CONC	WWS	2.89m

Defects include:

- 750mm adjusting ring (Photo 2) - Broken, soil visible: replacement recommended
- Manhole floor (Photo 3) - Eroded/washed out: re-grouting recommended

Location 3

Catch basin south side, in front of 1848 Logan Avenue					
Entity ID	Asset Number	Diam	Material	Flow Type	Height
20011316	S-CB20011316	900mm	CONC	LDS	2.11m

Defects include:

- 750mm adjusting ring (Photo 4) – cracked: replacement recommended
- 750mm – 900 reducer (Photo 4) – cracked: replacement recommended
- 900mm riser (Photo 4) – broken: replacement recommended

Location 4

Catch basin north side, in front of 1847 Logan Avenue					
Entity ID	Asset Number	Diam	Material	Flow Type	Height
20011317	S-CB20011317	900mm	CONC	LDS	2.13

Defects include:

- Hole in cover (Photo 5) – 100mm ± diameter: replacement recommended
- 900mm riser (Photo 6) – cracked: grouting recommended
- 900mm riser (Photo 7) – cracked around lead from catch pit: grouting recommended

Location 5

Third manhole east of Dee Street					
Entity ID	Asset Number	Diam	Material	Flow Type	Height
20011318	S-MH20011318	1200mm	CONC	LDS	2.75m

Defects include:

- 750mm adjusting ring and 1200-750 reducer (Photo 8) – cracks: grouting recommended

Location 6

Fourth manhole east of Dee Street					
Entity ID	Asset Number	Dimensions	Material	Flow Type	Height
20011315	S-MH20011315	1200mmx750mm	CONC	WWS	2.32m

Defects include:

- Concrete spalling/cracking underneath frame (Photo 9) – grouting recommended

Location 7

Fifth manhole east of Dee Street					
Entity ID	Asset Number	Dimensions	Material	Flow Type	Height
20011375	S-MH20011375	1200mmx750mm	CONC	WWS	2.56m

Defects include:

- Concrete spalling/cracking underneath circular riser (Photo 10) – grouting recommended

Location 8

Sixth manhole east of Dee Street					
Entity ID	Asset Number	Diam	Material	Flow Type	Height
20011365	S-MH20011365	1200mm	CONC	LDS	2.14m

Defects include:

- Concrete spalling/cracking underneath frame as well as in the 900mm-750mm reducer (Photo 11) – grouting recommended

Location 9

Catch Basin in front of 1815 Logan Avenue					
Entity ID	Asset Number	Diam	Material	Flow Type	Height
20011363	S-CB20011363	900mm	CONC	LDS	1.97m

Defects include:

- Concrete spalling/cracking underneath frame as well as in the 900mm-750mm reducer (Photo 12) – grouting recommended

Location 10

Catch Basin in front of 1816 Logan Avenue					
Entity ID	Asset Number	Diam	Material	Flow Type	Height
20011362	S-CB20011362	900mm	CONC	LDS	2.32m

Defects include:

- Multiple fractures in 750mm adjustment ring, 900mm-750mm reducer, 900 riser (soil visible) (Photo 13) – replacement recommended

Location 11

250 Concrete CB lead from S-MH20011318 to S-CB20011317					
Entity ID	Asset Number	Diam	Material	Flow Type	Length
20012415	S-CL20012415	250mm	CONC	LDS	12.2m

Defects include:

- Pinched gasket protruding 6.3m from MH – no action required
- Circumferential crack 7-5 o'clock (Photo 14) 0.8m from CB – grout from inside of CB recommended

Location 12

250 Concrete CB lead from S-MH20011365 to S-CB20011363					
Entity ID	Asset Number	Diam	Material	Flow Type	Length
20012458	S-CL20012458	250mm	CONC	LDS	3.6m

Defects include:

- Large hole/void in pipe from 2 o'clock to 4 o'clock just outside manhole wall – (Photo 15) replacement recommended
- Multiple fractures from 12 o'clock to 12 o'clock (Photo 16) replacement recommended

Location 13

Catch Pit connected to S-CB20011362					
Entity ID	Asset Number	Diam	Material	Flow Type	Height
N/A	N/A	900mm	CONC	LDS	1.0m

Defects include:

- Wood debris inside – Clean out catch pit recommended
- Plastic pail with bottom removed in place of PVC pipe – (Photo 17) recommend pail be replaced with PVC SDR35 and grout as required

Location 14

Catch Pit connected to S-CB20011316					
Entity ID	Asset Number	Diam	Material	Flow Type	Height
N/A	N/A	900mm	CONC	LDS	1.0m

Defects include:

- Cracks around outlet pipe – (Photo 18) Clean out catch pit and grout cracks recommended

Location 15

Catch Pit connected to S-CB20011317					
Entity ID	Asset Number	Diam	Material	Flow Type	Height
N/A	N/A	900mm	CONC	LDS	1.0m

Defects include:

- Void around outlet pipe (Photo 19) – Clean out catch pit and grout voids recommended

The recommended repairs are noted for your information and attention. These repairs deal with existing infrastructure and are not deemed to be the responsibility of this project.

Also included for your records are digital files for all televised sewer inspections and reports prepared by Uni-Jet Industrial Pipe Services.

Prepared by
Steven Russell, C.E.T.
TETRA TECH WEI INC.



Attachments

Sewer Photos #1 through #19
CCTV Sewer Inspection Videos (4 files)
CCTV Structure Panaramo Films (10 files)
Sewer Inspection Reports (4 files)
Structure Inspection Reports (10 files)

Copy Matthew Hildebrand, P.Eng. – Tetra Tech

Logan Avenue - Mill and Fill

(Dee Street and Keewatin Street)

Sewer Inspection Photos



Photo #1 – (S-MH20011285) 0.28m deep multiple breaks throughout ring – soil visible



Photo #2 – (S-MH20011280) 0.58m deep multiple breaks throughout ring – soil visible



Photo #3 – (S-MH20011280) floor washed out



Photo #4 – (S-CB20011316) 0.24m-0.66m deep cracked adjuster ring, reducer, and broken riser

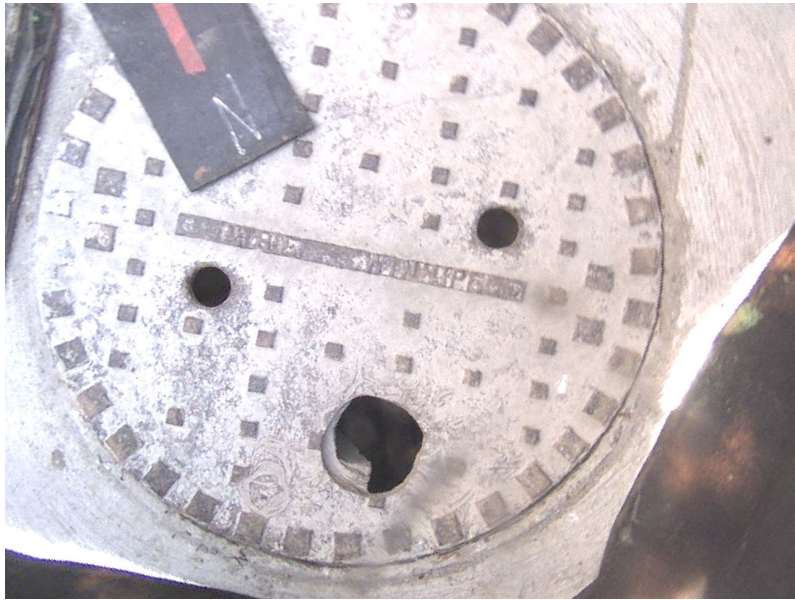


Photo #5 – (S-CB20011317) hole in cover



Photo #6 – (S-CB20011317) 0.48m deep - cracks present



Photo #7 – (S-CB20011317) 0.7m deep - cracks present



Photo #8 – (S-MH20011318) 0.48m deep - cracks present



Photo #9 – (S-MH20011315) 0.15m deep - cracks/spalling present underneath frame



Photo #10 – (S-MH20011375) 0.81m deep - cracks/spalling underneath circular riser



Photo #11 – (S-MH20011365) 0.27m-0.38m deep - cracks/spalling underneath frame and in 900mm-750mm reducer



Photo #12 – (S-MH20011363) 0.18m-0.33m deep - cracks/spalling underneath frame and in 900mm-750mm reducer



Photo #13 – (S-MH20011362) 0.25m-1.05m deep - multiple fractures in adjustment ring, reducer and riser – soil visible



Photo #14 – (S-CL20012414) circumferential fracture from 5 o'clock to 7 o'clock 0.2m from CB



Photo #15 – (S-CL20012458) large void in pipe wall adjacent (within 0.3m) to manhole S-MH20011318



Photo #16 – (S-CL20012458) multiple circumferential cracks within 1.0m of catch basin



Photo #17 – (no asset number) catch pit connected to S-CB20011362 plastic pail instead of PVC pipe



Photo #18 – (no asset number) catch pit connected to S-CB20011316 cracks around outlet



Photo #19 – (no asset number) catch pit connected to S-CB20011317 void around outlet pipe