

APPENDIX A – SITE SPECIFIC DESIGN CONDITIONS AND REPAIR REQUIREMENTS

Full Segment Renovations

Aikins St (Asset No. MA00009298)	MH at Backlane (S of Inkster Blvd) (Asset No. MH00010964) to MH at Inkster Blvd (CL) (Asset No. MH70034238)
Size/Shape	300 mm
Material	Concrete
Total Length	52.6 m
Sewer Depth to Invert – maximum	6.15 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH00010964	
20.8	Solid debris removal, encrustation at joint at 8:00
23.2	Solid debris removal, encrustation at joint from 8:00 to 11:00
24.0	Solid debris removal, encrustation at joint at 9:00
28.9	Solid debris removal, encrustation at joint from 5:00 to 7:00
32.9	Solid debris removal, encrustation at joint from 8:00 to 10:00
34.1	Solid debris removal, encrustation at joint at 9:00
36.1	Solid debris removal, encrustation at joint from 2:00 to 9:00
36.7	Solid debris removal, encrustation at joint at 9:00
37.3	Solid debris removal, encrustation at joint from 3:00 to 9:00
38.0	Solid debris removal, encrustation at joint from 8:00 to 10:00
38.6	Solid debris removal, encrustation at joint at 9:00

Ainslie St (Asset No. MA20005816)	2nd MH S of Bruce Av (Asset No. MH20005336) to 3rd MH S of Bruce Av (Asset No. MH20005337)
Size/Shape	600 mm
Material	Concrete
Total Length	88.5 m
Sewer Depth to Invert – maximum	6.55 m

Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20005336	
38.5 – 46.0	Solid debris removal, encrustation on pipe wall at 5:00
78.0 – 83.0	Solid debris removal, encrustation on pipe wall at 8:00

Allcott St (Asset No. MA20000759)	1st MH S of Ness Av (Asset No. MH20000688) to MH at Ness Av (Asset No. MH20000722)
Size/Shape	300 mm
Material	Concrete
Total Length	49.1 m
Sewer Depth to Invert – maximum	2.9 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH20000722	
32.5	Remove intruding service at 3:00

Alexander Av (Asset No. MA20019574)	1st MH W of Xante St (Asset No. MH20017586) to MH at Xante St (Asset No. MH70016005)
Size/Shape	300 mm
Material	Vitrified Clay
Total Length	80.4 m
Sewer Depth to Invert – maximum	3.87 m
Design Condition	
Partially Deteriorated 8%	
Site Specific Repairs	
Location	Required Action
Distance From MH20017586	
0.6	Solid debris removal, encrustation at

1.0	joint from 8:00 to 10:00 Solid debris removal, encrustation at joint from 3:00 to 5:00
1.5	Solid debris removal, encrustation at joint from 10:00 to 2:00
4.1	Solid debris removal, encrustation at joint at 2:00
5.2	Solid debris removal, encrustation at joint from 2:00 to 3:00
6.5	Solid debris removal, encrustation at joint from 8:00 to 3:00
7.5	Solid debris removal, encrustation at joint at 10:00
8.4	Solid debris removal, encrustation at joint at 2:00
15.1	Solid debris removal, encrustation at joint from 2:00 to 3:00
15.6	Solid debris removal, encrustation at joint from 1:00 to 4:00
16.2	Solid debris removal, encrustation at joint from 1:00 to 4:00
17.3	Solid debris removal, encrustation at joint from 1:00 to 3:00
20.1	Solid debris removal, encrustation at joint from 11:00 to 4:00
20.6	Solid debris removal, encrustation at joint from 10:00 to 4:00
21.2	Solid debris removal, encrustation at joint from 9:00 to 3:00
21.4	Solid debris removal, encrustation at service at 9:00
22.9	Solid debris removal, encrustation at joint from 8:00 to 10:00
23.6	Solid debris removal, encrustation at joint from 8:00 to 10:00
24.8	Solid debris removal, encrustation at joint from 8:00 to 3:00
27.2	Solid debris removal, encrustation at joint from 2:00 to 5:00
28.0	Solid debris removal, encrustation at joint from 7:00 to 5:00
28.5	Solid debris removal, encrustation at joint from 3:00 to 5:00
29.8	Solid debris removal, encrustation at joint from 7:00 to 4:00
30.3	Solid debris removal, encrustation at joint from 8:00 to 5:00
30.9	Solid debris removal, encrustation at joint from 8:00 to 4:00
31.6	Solid debris removal, encrustation at joint from 9:00 to 4:00
34.6	Solid debris removal, encrustation at joint from 1:00 to 3:00
35.2	Solid debris removal, encrustation at joint from 9:00 to 4:00
41.4	Solid debris removal, encrustation at joint from 1:00 to 3:00
42.6	Solid debris removal, encrustation at joint from 8:00 to 4:00

43.9	Solid debris removal, encrustation at joint from 7:00 to 12:00
44.5	Solid debris removal, encrustation at joint from 8:00 to 9:00
50.7	Solid debris removal, encrustation at joint from 9:00 to 12:00
51.3	Solid debris removal, encrustation at joint from 9:00 to 4:00
51.8	Solid debris removal, encrustation at joint from 8:00 to 3:00
56.2	Solid debris removal, encrustation at joint from 1:00 to 3:00
57.5	Solid debris removal, encrustation at joint from 3:00 to 4:00
57.7	Solid debris removal, encrustation at service at 9:00
69.5	Solid debris removal, encrustation at joint at 10:00
70.7	Solid debris removal, encrustation at joint from 7:00 to 5:00
78.8	Remove intruding service at 2:00

Allendyne Rd (Asset No. MA20007679)	2nd MH E of Ferry Rd (Asset No. MH20007024) to 1st MH E of Ferry Rd (Asset No. MH987-0009)
Size/Shape	375 mm
Material	Vitrified Clay
Total Length	89.3 m
Sewer Depth to Invert – maximum	3.09 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH20007024	
48.3	Remove intruding service at 3:00
82.3 – 83.3	External Point Repair (To Be Done By Others)

Amherst St (Asset No. MA20007979)	1st N of Ness Ave (Asset No. MH20007264) to MH at Ness Ave (Asset No. MH20007321)
Size/Shape	375mm

Material	Vitrified Clay
Total Length	91.3 m
Sewer Depth to Invert – maximum	6.3 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20007264	
68.2	Solid debris removal, encrustation at joint from 7:00 to 8:00

Arlington St (Asset No. MA20015302)	1st MH S of St Paul (Asset No. MH20013827) to 1st MH N of Portage Ave (Asset No. MH20013791)
Size/Shape	450mm
Material	Vitrified Clay
Total Length	83.5 m
Sewer Depth to Invert – maximum	5.35 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20013827	
0.3	Remove intruding service at 12:00

Arlington St (Asset No. MA20017400)	1st MH S of Sargent Ave (Asset No. MH20015645) to 2nd MH S of Sargent Ave (Asset No. MH20015612)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	95.9 m
Sewer Depth to Invert – maximum	3.78 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action

Distance From MH20015645	
10.8 – 13.8	External Point Repair (To Be Done By Others)
11.4	Remove intruding service at 12:00
21.98	Solid debris removal, encrustation at service at 9:00
90.5	Remove intruding service at 10:00

Assiniboine Cr (Asset No. MA20005359)	MH at Pinewood Dr (W of CL) (Asset No. MH70013279) to MH at Olive St (CL) (Asset No. MH20004925)
Size/Shape	450mm
Material	Concrete
Total Length	85.0 m
Sewer Depth to Invert – maximum	2.2 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH70013279	
51.4 – 56.2	External Point Repair (To Be Done By Others)
63.3 – 67.2	External Point Repair (To Be Done By Others)
Bannerman Av (Asset No. MA00012510)	1st MH E of Sinclair St (Asset No. MH00010824) to MH at Arlington St (Asset No. MH00010817)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	95.9 m
Sewer Depth to Invert – maximum	4.03 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH00010824	
7.3	Remove intruding service at 12:00
33.1	Solid debris removal, roots at

33.3	service at 2:00 Solid debris removal, roots at joint at 9:00
34.0	Solid debris removal, roots at joint at 8:00
60.6	Remove intruding service at 2:00
60.6	Solid debris removal, rebar at service from 3:00 to 7:00
63.1	Remove intruding service at 2:00
65.4	Remove intruding service at 9:00
82.3	Remove intruding service at 9:00

Bannister Rd (Asset No. MA20007420)	1st MH W of King Edwards St (Asset No. MH20006790) to MH at King Edwards St (WPL) (Asset No. MH20006819)
Size/Shape	250mm
Material	Concrete
Total Length	94.4 m
Sewer Depth to Invert – maximum	4.1 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH20007420 16.7	Solid debris removal, encrustation at service from 7:00 to 9:00

Beauty Ave (Asset No. MA00004506)	1st MH E of Pipeline Rd (Asset No. MH00003992) to Tie-in at Pipeline Rd (Asset No. TE00001372)
Size/Shape	250mm
Material	Concrete
Total Length	40.0 m
Sewer Depth to Invert – maximum	5.3 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH00003992	

32.5	Solid debris removal, encrustation at joint from 1:00 to 5:00
33.8	Solid debris removal, encrustation at joint from 7:00 to 5:00
35.0	Solid debris removal, encrustation at joint from 7:00 to 5:00

Bedson St (WPL) (Asset No. MA20004615)	MH at Keats Wy (N Leg) (Asset No. MH20004245) to MH at Keats Wy (S Leg) (Asset No. MH20004242)
Size/Shape	200mm
Material	Concrete
Total Length	95.3 m
Sewer Depth to Invert – maximum	2.83 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004245	
19.7	Solid debris removal, encrustation at joint at 5:00
24.3	Solid debris removal, encrustation at joint from 7:00 to 5:00
78.2	Remove intruding service at 10:00
90.1	Solid debris removal, encrustation at joint from 2:00 to 3:00

Bernadine Cr (N Leg) (Asset No. MA20001491)	MH at Stradford St (Asset No. MH20001328) to MH at Isbister St (Asset No. MH20001364)
Size/Shape	250mm
Material	Vitrified Clay
Total Length	75.1 m
Sewer Depth to Invert – maximum	4.18 m
Design Condition	
Partially Deteriorated 8%	
Site Specific Repairs	
Location	Required Action
Distance From MH20001328	

0 – 9.6	External Point Repair (To Be Done By Others)

Braintree Cr (W Leg) (Asset No. MA20006545)	MH at Listonel By (Asset No. MH20006019) to MH at Braintree Cr (S Leg) (Asset No. MH20006018)
Size/Shape	250mm
Material	Vitrified Clay
Total Length	79.1 m
Sewer Depth to Invert – maximum	4.72 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20006019 30.4 – 31.8	External Point Repair (To Be Done By Others)

Browning Bv (N of CL to SPL) (Asset No. MA20003253)	4th MH E of Wordsworth Wy (Asset No. MH20002968) to 5th MH E of Wordsworth Wy (Asset No. MH20002975)
Size/Shape	250mm
Material	Concrete
Total Length	62.3 m
Sewer Depth to Invert – maximum	4.27 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20002968 6.8	Solid debris removal, encrustation at service from 1:00 to 2:00

Buchanan Bv (Asset No. MA20001594)	MH at Hamilton Ave (Asset No. MH20001438) to 1st MH S of Hamilton Ave (Asset No. MH20001442)
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Size/Shape	200mm
Material	Concrete
Total Length	88.5 m
Sewer Depth to Invert – maximum	3.22m
Design Condition	
Partially Deteriorated 8%	
Site Specific Repairs	
Location	Required Action
Distance From MH20001438	
17.9	Solid debris removal, roots at service at 9:00
18.4	Solid debris removal, roots at joint from 4:00 to 8:00
19.2	Solid debris removal, roots at joint from 4:00 to 8:00
19.7	Remove intruding service at 10:00
21.6	Solid debris removal, roots at joint at 4:00
27.8	Solid debris removal, roots at joint from 4:00 to 8:00
31.7	Remove intruding service at 9:00
37.3	Remove intruding service at 3:00
48.8	Remove intruding service at 9:00
59.5	Remove intruding service at 9:00

Burrows St (Asset No. MA00014490)	1st MH W of Arlington St (Asset No. MH00012919) to MH at Arlington St (Asset No. MH00012991)
Size/Shape	450mm
Material	Vitrified Clay
Total Length	100.3 m
Sewer Depth to Invert – maximum	3.44 m
Design Condition	
Fully Deteriorated 10%	Excessive roots entire length
Site Specific Repairs	
Location	Required Action
Distance From MH00012919	
8.6	Solid debris removal, encrustation at service from 3:00 to 5:00
10.3	Solid debris removal, encrustation at

11.6	joint from 7:00 to 11:00 Solid debris removal, encrustation at joint from 3:00 to 5:00
14.6	Solid debris removal, encrustation at joint from 3:00 to 5:00
43.9 – 49.6	External Point Repair (To Be Done By Others)
50.5	Solid debris removal, encrustation at joint from 1:00 to 2:00
51.1	Solid debris removal, encrustation at joint from 3:00 to 4:00
79.3	Solid debris removal, encrustation at joint from 2:00 to 5:00

Carriage By (S Leg) (Asset No. MA20000310)	2nd MH E of Carriage By (W Leg) (Asset No. MH20000252) to MH at Heritage Bv (Asset No. MH20000247)
Size/Shape	200mm
Material	Concrete
Total Length	52.6 m
Sewer Depth to Invert – maximum	3.64 m
Design Condition	
Partially Deteriorated 8%	
Site Specific Repairs	
Location	Required Action
Distance From MH20000252	
0.0 – 1.0	External Point Repair (To Be Done By Others)
32.7	Solid debris removal, encrustation at joint from 8:00 to 4:00
41.3	Solid debris removal, encrustation at joint at 8:00
42.9	Remove intruding service at 10:00

Carruthers Ave (Asset No. MA00009224)	MH at Powers St (Asset No. MH00011233) to 1st MH E of Powers St (Asset No. MH00011109)
Size/Shape	375 mm
Material	Vitrified Clay
Total Length	100.3 m
Sewer Depth to Invert – maximum	4.96 m
Design Condition	
Partially Deteriorated 3%	

Site Specific Repairs	
Location	Required Action
Distance From MH00011233	
36.3	Solid debris removal, encrustation at joint from 7:00 to 9:00
49.6	Solid debris removal, encrustation at joint from 2:00 to 8:00
58.3	Solid debris removal, encrustation at joint from 3:00 to 9:00
58.6	Solid debris removal, encrustation at service from 8:00 to 10:00
59.3	Solid debris removal, encrustation at joint at 4:00
59.8	Solid debris removal, encrustation at joint from 7:00 to 10:00
66.1	Solid debris removal, encrustation at joint at 4:00
66.7	Solid debris removal, encrustation at joint from 8:00 to 4:00
67.2	Solid debris removal, encrustation at joint from 7:00 to 5:00
71.0	Solid debris removal, encrustation at joint from 7:00 to 11:00
76.0	Solid debris removal, encrustation at joint from 7:00 to 9:00
84.2 – 86.0	Solid debris removal, encrustation on pipe wall from 8:00 to 3:00
93.6	Solid debris removal, encrustation on pipe wall from 10:00 to 4:00
96.6	Solid debris removal, encrustation at service from 8:00 to 10:00

Collegiate St (Asset No. MA20008101)	1st MH N of Ness Ave (Asset No. MH20007446) to MH at Ness Ave (Asset No. MH20007441)
Size/Shape	375mm
Material	Vitrified Clay
Total Length	110.4 m
Sewer Depth to Invert – maximum	5.64 m
Design Condition	
Fully Deteriorated 10%	Excessive roots entire length
Site Specific Repairs	
Location	Required Action
Distance From MH20007446	
17.9	Remove intruding service at 10:00

Dominion St (Asset No. MA20009672)	MH at Sargent Ave (SPL) (Asset No. MH20008838) to 1st MH S of Sargent Ave (Asset No. MH20008839)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	92.8 m
Sewer Depth to Invert – maximum	3.66 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20008838	
3.5	Solid debris removal, encrustation at service at 9:00
9.2	Remove intruding service at 10:00

Dominion St (Asset No. MA20010356)	1st MH S of Notre Dame Ave (Asset No. MH20009417) to MH at Notre Dame Ave (Asset No. MH20009441)
Size/Shape	375mm
Material	Vitrified Clay
Total Length	115.7 m
Sewer Depth to Invert – maximum	4.99 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20009417	
31.1	Remove intruding service at 2:00
54.0	Remove intruding service at 2:00
62.0	Remove intruding service at 2:00
86.9	Solid debris removal, encrustation at joint from 1:00 to 4:00

Dufferin Ave (Asset No. MA00012821)	MH at McGregor St (Asset No. MH00011465) to 1st MH W of McGregor St (Asset No. MH00011452)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	100.3 m
Sewer Depth to Invert – maximum	3.07 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH00011465	
14.6	Remove intruding service at 10:00
39.1	Solid debris removal, encrustation at joint from 4:00 to 7:00
40.2	Solid debris removal, encrustation at joint from 6:00 to 9:00
45.0 – 46.0	External Point Repair (To Be Done By Others)
69.4	Remove intruding service at 10:00

Easement (W of Wiens St) (Asset No. MA20012535)	MH at Gallagher Ave W (Asset No. MH20011489) to MH at Keewatin St (N of CL) (Asset No. MH20011446)
Size/Shape	375mm
Material	Vitrified Clay
Total Length	80.5 m
Sewer Depth to Invert – maximum	3.67 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20011489	
20.5	Remove intruding service at 2:00
36.1	Remove intruding service at 10:00

Easement S of Portage Ave (Asset No. MA20004966)	MH at Buchanan Ave (Asset No. MH20004574) to 1st MH W of Buchanan Ave
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(Asset No. MH20004573)	
Size/Shape	200mm
Material	Concrete
Total Length	46.4 m
Sewer Depth to Invert – maximum	2.48 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004574	
5.9	Solid debris removal, encrustation at joint from 3:00 to 9:00
7.6	Solid debris removal, encrustation at joint at 8:00
15.3	Solid debris removal, encrustation at joint at 4:00
17.6	Solid debris removal, encrustation at joint at 4:00
18.4	Solid debris removal, encrustation at joint at 4:00
19.2	Solid debris removal, encrustation at joint from 7:00 to 8:00
23.3 – 25.7	Solid debris removal, encrustation on pipe wall from 4:00 to 8:00
26.3	Solid debris removal, encrustation at joint from 4:00 to 9:00
32.0 – 33.0	Solid debris removal, encrustation on pipe wall from 4:00 to 8:00
34.8	Solid debris removal, encrustation at joint from 3:00 to 5:00
40.2 – 41.0	Solid debris removal, encrustation on pipe wall from 4:00 to 8:00
44.0 – 45.0	Solid debris removal, encrustation on pipe wall from 4:00 to 8:00

Empress St (Asset No. MA20010632)	1st MH N of Westway Ave (Asset No. MH20009703) to 2nd MH N of Westway Ave (Asset No. MH20009769)
Size/Shape	750mm
Material	Concrete
Total Length	88.2 m
Sewer Depth to Invert – maximum	3.02 m
Design Condition	
Fully Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
No preparatory work required	

Empress St (Asset No. MA20010633)	MH at Westway Ave (Asset No. MH20009702) to (Asset No. MH20009703)
Size/Shape	750mm
Material	Concrete
Total Length	98.7 m
Sewer Depth to Invert – maximum	2.48 m
Design Condition	
Fully Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20009702	
83.1	Remove intruding service at 10:00
95.0 – 98.7	Grout holes from 5:00 to 8:00

Erin St (Asset No. MA20011296)	2nd MH N of Wolever St (Asset No. MH20010289) to 3rd MH N of Wolever St (Asset No. MH20010277)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	92.6 m
Sewer Depth to Invert – maximum	3.9 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20010289	
5.2	Solid debris removal, encrustation at joint at 8:00
25.4	Solid debris removal, encrustation at service at 2:00
33.6	Remove intruding service at 2:00
55.6 – 60.3	Solid debris removal, encrustation on pipe wall from 9:00 to 3:00
66.0	Solid debris removal, encrustation at joint from 7:00 to 10:00
63.5 – 70.0	Solid debris removal, encrustation on

70.0	pipe wall from 9:00 to 3:00
70.6	Solid debris removal, encrustation at joint from 7:00 to 3:00
72.5	Solid debris removal, encrustation at joint from 1:00 to 4:00
75.0	Solid debris removal, encrustation at joint from 7:00 to 3:00
75.6	Solid debris removal, encrustation at joint from 8:00 to 12:00
79.9	Solid debris removal, encrustation at joint from 7:00 to 4:00
83.1	Solid debris removal, encrustation at joint from 8:00 to 4:00
91.4	Solid debris removal, encrustation at joint from 7:00 to 11:00
	External Point Repair (To Be Done By Others)

Erin St (Asset No. MA20009408)	1st MH S of Sargent Ave (WPL) (Asset No. MH20008600) to MH at Sargent Ave (CL) (Asset No. MH20008601)
Size/Shape	400mm
Material	Asbestos Cement
Total Length	38.9 m
Sewer Depth to Invert – maximum	6.48 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH20008600	
16.1	Solid debris removal, encrustation at joint from 4:00 to 8:00
34.6	Solid debris removal, encrustation at service from 4:00 to 8:00
38.3	Solid debris removal, encrustation at joint from 4:00 to 8:00

Golden Gate (W Leg) (Asset No. MA20005328)	MH at Golden Gate (N Leg) (Asset No. MH20004877) to MH at Lodge Ave (Asset No. MH20004885)
Size/Shape	250mm
Material	Vitrified Clay
Total Length	120.0 m
Sewer Depth to Invert – maximum	4.07 m
Design Condition	

Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004877	
31.2	Remove intruding service at 10:00
66.1	Remove intruding service at 10:00
71.2	Remove intruding service at 2:00

Golf Bv (Asset No. MA20003635)	2nd MH N of McBey Ave (Asset No. MH20003394) to MH at Portage Ave (Asset No. MH20003338)
Size/Shape	250mm
Material	Concrete
Total Length	62.1 m
Sewer Depth to Invert – maximum	5.49 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20003394	
9.6	Solid debris removal, encrustation at joint from 8:00 to 4:00
2.5	Solid debris removal, encrustation at joint from 2:00 to 4:00
7.1	Solid debris removal, encrustation at joint from 8:00 to 4:00
7.9	Solid debris removal, encrustation at joint at 10:00
11.1	Solid debris removal, encrustation at joint at 10:00
15.9	Remove intruding service at 2:00
18.8	Solid debris removal, encrustation at joint at 4:00
20.3	Solid debris removal, encrustation at joint at 8:00
32.9	Solid debris removal, encrustation at joint at 2:00
43.8	Solid debris removal, encrustation at joint from 1:00 to 4:00
66.1	Solid debris removal, encrustation at joint from 2:00 to 4:00

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Ingersoll St (Asset No. MA20017232)	1st MH S of Ellice Ave (Asset No. MH20015464) to MH at Ellice Ave (Asset No. MH20015468)
Size/Shape	450mm
Material	Concrete
Total Length	73.4 m
Sewer Depth to Invert – maximum	4.53 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20015464	
13.7 – 14.1	Solid debris removal, encrustation on pipe wall from 5:00 to 6:00
47.8 – 50.0	Solid debris removal, encrustation on pipe wall from 6:00 to 10:00
59.9 – 63.6	Solid debris removal, encrustation on pipe wall from 3:00 to 9:00

Keewatin St (W of CL) (Asset No. MA20012494)	MH at Logan Ave (S of CL) (Asset No. MH20011390) to MH at Alexander Ave W (Asset No. MH20011404)
Size/Shape	250mm
Material	Concrete
Total Length	81.5 m
Sewer Depth to Invert – maximum	3.94 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
No preparatory work required.	

Lake St (Asset No. MA20005685)	1st MH S of Portage Ave (Asset No. MH20005232) to 2nd MH S of Portage Ave (Asset No. MH20005201)
Size/Shape	200mm
Material	Concrete

Total Length	123.0 m
Sewer Depth to Invert – maximum	2.77 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20005232	
0.6	External Point Repair (To Be Done By Others)
8.1	Solid debris removal, encrustation at joint from 6:00 to 9:00
8.9	Solid debris removal, encrustation at joint at 8:00
10.1	Solid debris removal, encrustation at service from 3:00 to 5:00
10.5	Solid debris removal, encrustation at joint from 2:00 to 9:00
11.0 -11.3	Solid debris removal, encrustation on pipe wall from 8:00 to 4:00
11.9	Solid debris removal, encrustation at joint from 8:00 to 12:00
15.8	Solid debris removal, encrustation at joint at 4:00
19.7	Solid debris removal, encrustation at joint at 8:00
20.5	Solid debris removal, encrustation at joint from 4:00 to 8:00
21.1	Solid debris removal, encrustation at joint from 4:00 to 8:00
22.0	Solid debris removal, encrustation at joint from 4:00 to 8:00
23.0	Solid debris removal, encrustation at service from 3:00 to 4:00
29.6	Solid debris removal, encrustation at joint at 4:00
32.0	Solid debris removal, encrustation at joint at 8:00
33.5	Solid debris removal, encrustation at joint at 9:00
37.6	Solid debris removal, encrustation at service from 3:00 to 4:00
38.8	Remove intruding service at 3:00
40.5	Solid debris removal, encrustation at joint at 8:00
54.4	Solid debris removal, encrustation at joint from 8:00 to 4:00
55.2	Solid debris removal, encrustation at joint from 8:00 to 4:00
69.9	Solid debris removal, encrustation at joint from 8:00 to 4:00
71.6	Solid debris removal, encrustation at joint from 8:00 to 4:00
72.2	Solid debris removal, encrustation at joint from 8:00 to 4:00

74.5	Solid debris removal, encrustation at joint from 3:00 to 4:00
76.8	Solid debris removal, encrustation at joint from 8:00 to 4:00
77.5 – 79.0	External Point Repair (To Be Done By Others)
83.3	Solid debris removal, encrustation at service at 4:00
100.8	Solid debris removal, encrustation at joint from 9:00 to 12:00
102.3	Solid debris removal, encrustation at joint from 8:00 to 4:00
106.3	Solid debris removal, encrustation at joint from 7:00 to 9:00
108.0	Solid debris removal, encrustation at service from 3:00 to 4:00
120.9	Solid debris removal, encrustation at joint from 3:00 to 4:00

Lane (N of Portage Ave) (Asset No. MA20005422)	2nd MH E of Olive St (Asset No. MH20004956) to MH at Whytewold St (Asset No. MH20004954)
Size/Shape	250mm
Material	Concrete
Total Length	19.7 m
Sewer Depth to Invert – maximum	5.5 m
Design Condition	
Partially Deteriorated 8%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004956	
0.0 – 8.6	Solid debris removal, encrustation on pipe wall from 9:00 to 3:00

Lane (N of Portage Ave) (Asset No. MA20005412)	MH at Olive St (Asset No. MH20004945) to 1st MH E of Olive St (Asset No. MH20004944)
Size/Shape	200mm
Material	Concrete
Total Length	13.2 m
Sewer Depth to Invert – maximum	3.84 m
Design Condition	
Partially Deteriorated 3%	

Site Specific Repairs	
Location	Required Action
No preparatory work required	

Lane (N of Portage Ave) (Asset No. MA70026031)	1st MH E of Olive St (Asset No. MH20004944) to 2nd MH E of Olive St (Asset No. MH20004956)
Size/Shape	250mm
Material	Concrete
Total Length	96.5 m
Sewer Depth to Invert – maximum	4.05 m
Design Condition	
Partially Deteriorated 3%	Excessive grease entire length
Site Specific Repairs	
Location	Required Action
Distance From MH20004944 2.2	Solid debris removal, encrustation at joint from 1:00 to 5:00

Lodge Ave (Asset No. MA20005832)	MH at Golden Gate By (W Leg) (Asset No. MH20004885) to MH at Ainslie St (Asset No. MH20005351)
Size/Shape	250mm
Material	Vitrified Clay
Total Length	89.9 m
Sewer Depth to Invert – maximum	4.69 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004885 2.8 21.5 23.3 66.5	Remove intruding service at 10:00 Solid debris removal, roots at joint at 8:00 Remove intruding service at 9:00 Remove intruding service at 2:00

87.5 – 89.9	External Point Repair (To Be Done By Others)

Logan Ave (CL) (Asset No. MA20012541)	1st MH E of Wiens St (Asset No. MH20011435) to MH at McKelvey St (Asset No. MH20011451)
Size/Shape	450mm
Material	Vitrified Clay
Total Length	80.1 m
Sewer Depth to Invert – maximum	4.07 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20011435	
24.7	Solid debris removal, encrustation at joint from 3:00 to 5:00
53.9	Remove intruding service at 2:00

Magnus Ave (Asset No. MA00015022)	MH at Salter St (Asset No. MH00013397) to 1st MH E of Salter St (Asset No. MH00011888)
Size/Shape	375mm
Material	Vitrified Clay
Total Length	100.8 m
Sewer Depth to Invert – maximum	3.9 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH00013397	
28.3	Remove intruding service at 10:00
43.5	Solid debris removal, encrustation at joint at 8:00
44.8	Solid debris removal, encrustation at joint from 7:00 to 10:00
45.5	Solid debris removal, encrustation at joint from 2:00 to 4:00
89.4	Solid debris removal, encrustation at

	joint at 4:00

Magnus Ave (CL) (Asset No. MA00015032)	1st MH W of Salter St (Asset No. MH00013390) to MH at Salter St (Asset No. MH00013397)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	100.5 m
Sewer Depth to Invert – maximum	3.25 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH00013390	
75.2	Solid debris removal, encrustation at joint from 9:00 to 12:00
76.0	Solid debris removal, encrustation at joint from 10:00 to 3:00
92.3	Remove intruding service at 2:00

Main St (Asset No. MA00013601)	MH at Manitoba Ave (Asset No. MH00012123) to MH at Pritchard Ave (Asset No. MH00012135)
Size/Shape	600mm
Material	Brick
Total Length	75.9 m
Sewer Depth to Invert – maximum	6.44 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH00012123	
15.9	Solid debris removal, encrustation at joint from 2:00 to 3:00
23.5 – 25.1	Solid debris removal, encrustation on pipe wall from 8:00 to 4:00
48.6	Remove intruding service at 10:00
48.6	Solid debris removal, encrustation at

59.0	service from 10:00 to 8:00
61.9	Solid debris removal, encrustation at service from 1:00 to 5:00
74.4	Solid debris removal, encrustation at service from 2:00 to 5:00
	Solid debris removal, encrustation at service from 2:00 to 5:00

Main St (E of CL) (Asset No. MA00013599)	MH at Manitoba N (SPL) (Asset No. MH00012163) to MH at Manitoba S (CL) (Asset No. MH00012125)
Size/Shape	600mm
Material	Brick
Total Length	12.7 m
Sewer Depth to Invert – maximum	5.82 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
No preparatory work required	

McDermot Ave W (Asset No. MA20012696)	1st MH W of Flint St (Asset No. MH20011591) to 2nd MH E of Flint St (Asset No. MH20011568)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	107.4 m
Sewer Depth to Invert – maximum	3.11 m
Design Condition	
Partially Deteriorated 8%	
Site Specific Repairs	
Location	Required Action
Distance From MH20011591	
18.6	Remove intruding service at 10:00
87.6	Remove intruding service at 10:00

Ness Ave (Asset No. MA20000214)	MH at Heritage Bv (Asset No. MH20000237) to 1st MH W of Heritage Bv (Asset No. MH20000161)
Size/Shape	250mm
Material	Concrete
Total Length	105.4 m
Sewer Depth to Invert – maximum	4.61 m
Design Condition	
Partially Deteriorated 8%	
Site Specific Repairs	
Location	Required Action
Distance From MH20000237	
9.0	Solid debris removal, encrustation at joint from 10:00 to 2:00
10.8	Solid debris removal, encrustation at service from 9:00 to 11:00
27.7	Solid debris removal, encrustation at service from 8:00 to 4:00
38.4	Solid debris removal, encrustation at joint from 8:00 to 4:00
78.8	Solid debris removal, encrustation at joint from 7:00 to 8:00
83.4	Solid debris removal, encrustation at joint from 8:00 to 11:00
87.4	Solid debris removal, encrustation at joint from 10:00 to 4:00
102.2	Solid debris removal, encrustation at joint from 9:00 to 12:00
103.9	Solid debris removal, encrustation at service from 12:00 to 5:00

Ness Ave (Asset No. MA20007938)	1st MH E of Linwood St (Asset No. MH20007279) to MH at Lyle St (Asset No. MH20007280)
Size/Shape	300mm
Material	Concrete
Total Length	39.4 m
Sewer Depth to Invert – maximum	4.37 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20007279	
9.8	Solid debris removal, encrustation at joint from 8:00 to 12:00

13.3	Solid debris removal, encrustation at joint from 8:00 to 12:00
18.4	Solid debris removal, encrustation at joint at 8:00
19.3	Solid debris removal, encrustation at joint from 7:00 to 3:00
23.8	Solid debris removal, encrustation at joint from 9:00 to 10:00
31.8	Solid debris removal, encrustation at joint from 1:00 to 4:00

Parkdale Ave (Asset No. MA20000018)	1st MH N of Portage Ave (Asset No. MH20000495) to MH at Portage Ave (N of CL) (Asset No. MH20003902)
Size/Shape	250mm
Material	Concrete
Total Length	82.4 m
Sewer Depth to Invert – maximum	4.2 m
Design Condition	
Partially Deteriorated 5%	

Site Specific Repairs	
Location	Required Action
Distance From MH20000495	
2.9	Solid debris removal, encrustation at joint at 4:00
21.6	Solid debris removal, encrustation at joint at 9:00
26.1	Remove intruding service at 10:00
26.1 - 26.5	Solid debris removal, encrustation at joint from 6:00 to 9:00
29.9	Solid debris removal, encrustation at joint from 8:00 to 4:00
32.2	Solid debris removal, encrustation at joint from 8:00 to 10:00
50.9	Solid debris removal, encrustation at joint from 5:00 to 11:00
53.9	Solid debris removal, encrustation at service from 7:00 to 8:00
58.5	Solid debris removal, encrustation at service at 5:00
69.3	Solid debris removal, encrustation at joint from 9:00 to 10:00

Penninghame St (Asset No. MA00012273)	1st MH S of Machray Ave (Asset No. MH00010604) to Mh at Machray Ave (Asset
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	No. MH00010612)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	60.5 m
Sewer Depth to Invert – maximum	3.52 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH00010604	
4.6	Remove intruding service at 2:00
13.6	Solid debris removal, encrustation at joint from 4:00 to 7:00
23.0	Solid debris removal, encrustation at joint at 6:00
41.8	Solid debris removal, encrustation at joint from 6:00 to 7:00
45.9	Solid debris removal, encrustation at joint at 7:00
Pipeline Rd (Asset No. MA00005341)	1st MH S of Adsum Dr (Asset No. MH00004747) to MH at Adsum Dr (Asset No. MH00004746)
Size/Shape	600mm
Material	Concrete
Total Length	27.4 m
Sewer Depth to Invert – maximum	7.31 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH00004747	
1.4	Solid debris removal, encrustation at joint from 8:00 to 4:00
3.1	Solid debris removal, encrustation at joint from 9:00 to 12:00
13.3	Remove intruding service at 10:00
Portage Ave (Asset No. MA20010973)	MH at Clifton St S (Asset No. MH20010003) to MH at Erin St (Asset No. MH20010046)

Size/Shape	600mm
Material	Concrete
Total Length	78.6 m
Sewer Depth to Invert – maximum	5.51 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20010003	
0.0	Grout MH interface
11.3	Solid debris removal, encrustation at service from 1:00 to 5:00
14.1	Solid debris removal, encrustation on pipe wall from 8:00 to 4:00
15.0	Solid debris removal, encrustation at service from 8:00 to 11:00
18.0	Solid debris removal, encrustation at joint from 8:00 to 4:00
20.4	Solid debris removal, encrustation on pipe wall from 8:00 to 4:00
21.6	Solid debris removal, encrustation at service from 1:00 to 5:00
23.8	Solid debris removal, encrustation on pipe wall from 8:00 to 4:00
26.5	Solid debris removal, encrustation on pipe wall from 8:00 to 11:00
27.0	Solid debris removal, encrustation on pipe wall from 8:00 to 4:00
28.6	Solid debris removal, encrustation on pipe wall from 8:00 to 4:00
30.9	Solid debris removal, encrustation at service from 2:00 to 10:00
31.4	Solid debris removal, encrustation on pipe wall from 8:00 to 3:00
32.7	Solid debris removal, encrustation on pipe wall from 2:00 to 6:00
33.4 – 34.4	Solid debris removal, encrustation on pipe wall from 4:00 to 8:00
35.3	Solid debris removal, encrustation on pipe wall from 1:00 to 5:00
36.7	Solid debris removal, encrustation on pipe wall from 10:00 to 5:00
37.6	Solid debris removal, encrustation on pipe wall from 8:00 to 4:00
39.8	Solid debris removal, encrustation at service from 2:00 to 10:00
41.6	Solid debris removal, encrustation on pipe wall from 8:00 to 4:00
45.5	Solid debris removal, encrustation at service from 1:00 to 5:00
47.1	Solid debris removal, encrustation on pipe wall from 7:00 to 5:00
48.7	Solid debris removal, encrustation at

50.1	service from 1:00 to 6:00
50.7	Solid debris removal, encrustation at service from 9:00 to 11:00
54.5	Solid debris removal, encrustation on pipe wall from 6:00 to 11:00
56.6	Solid debris removal, encrustation on pipe wall from 7:00 to 5:00
57	Solid debris removal, encrustation on pipe wall at 12:00
58.3	Solid debris removal, encrustation on pipe wall from 1:00 to 6:00
61.0	Solid debris removal, encrustation at service from 2:00 to 11:00
62.0	Solid debris removal, encrustation on pipe wall at 2:00
63.0	Solid debris removal, encrustation on pipe wall from 1:00 to 5:00
64.2	Solid debris removal, encrustation on pipe wall from 12:00 to 4:00
65.1	Solid debris removal, encrustation on pipe wall from 1:00 to 6:00
67.0	Solid debris removal, encrustation on pipe wall from 1:00 to 5:00
67.8	Solid debris removal, encrustation at service from 2:00 to 10:00
71.7	Solid debris removal, encrustation on pipe wall from 2:00 to 4:00
74.3	Solid debris removal, encrustation on pipe wall from 7:00 to 11:00
	Solid debris removal, encrustation at service from 7:00 to 11:00

Portage Ave (Asset No. MA20005133)	3rd MH E of Mount Royal Rd (Asset No. MH20004682) to 2nd MH E of Mount Royal Rd (Asset No. MH20004689)
Size/Shape	375mm
Material	Concrete
Total Length	88.8 m
Sewer Depth to Invert – maximum	4.73 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004682	
7.4	Solid debris removal, encrustation on pipe wall at 4:00
12.8	Solid debris removal, encrustation at joint from 7:00 to 6:00
15.9	Solid debris removal, encrustation at joint at 10:00

20.7	Solid debris removal, encrustation at joint from 7:00 to 5:00
23.9	Solid debris removal, encrustation at joint from 8:00 to 4:00
29.1 – 30.5	Solid debris removal, encrustation on pipe wall from 6:00 to 10:00
30.8	Solid debris removal, encrustation at joint at 9:00
31.5	Solid debris removal, encrustation at joint from 8:00 to 10:00
33.1	Solid debris removal, encrustation at joint from 7:00 to 9:00
34.8	Solid debris removal, encrustation at joint from 8:00 to 4:00
37.1	Solid debris removal, encrustation at joint from 7:00 to 11:00
37.9	Solid debris removal, encrustation at joint from 12:00 to 5:00
39.5	Solid debris removal, encrustation at joint from 8:00 to 4:00
40.3	Solid debris removal, encrustation at joint from 8:00 to 10:00
43.5	Solid debris removal, encrustation at joint from 4:00 to 5:00
46.6	Solid debris removal, encrustation at joint from 8:00 to 4:00
47.4	Solid debris removal, encrustation at joint from 7:00 to 10:00
48.3	Solid debris removal, encrustation at joint from 8:00 to 4:00
49.3	Solid debris removal, encrustation at service from 1:00 to 5:00
49.8	Solid debris removal, encrustation at joint from 3:00 to 6:00
50.5	Solid debris removal, encrustation at joint from 8:00 to 4:00
51.4	Solid debris removal, encrustation at joint from 8:00 to 4:00
52.0	Solid debris removal, encrustation at joint from 8:00 to 4:00
52.9	Solid debris removal, encrustation at joint from 8:00 to 12:00
55.8	Solid debris removal, encrustation at joint at 4:00
59.2	Solid debris removal, encrustation at joint at 4:00
60.0	Solid debris removal, encrustation at joint at 4:00
71.1	Solid debris removal, encrustation at joint from 7:00 to 12:00

Portage Ave (Asset No. MA20011016)	MH at Camden PI (Asset No. MH20010044) to MH at Newman (Asset No. MH20010041)
Size/Shape	600mm

Material	Concrete
Total Length	81.1 m
Sewer Depth to Invert – maximum	6.23 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20010044	
0.1	Solid debris removal, encrustation at joint from 3:00 to 6:00
19.5	Solid debris removal, encrustation on pipe wall from 8:00 to 12:00
22.1	Solid debris removal, encrustation on pipe wall from 7:00 to 4:00
23.9	Solid debris removal, encrustation on pipe wall from 7:00 to 2:00
26.6 – 26.9	Solid debris removal, encrustation on pipe wall from 7:00 to 5:00
27.1	Solid debris removal, encrustation at service from 2:00 to 10:00
29.7	Solid debris removal, encrustation on pipe wall at 11:00
30.2	Solid debris removal, encrustation on pipe wall from 1:00 to 5:00
31.6	Solid debris removal, encrustation on pipe wall from 3:00 to 6:00
34.1	Solid debris removal, encrustation on pipe wall from 8:00 to 11:00
34.8	Solid debris removal, encrustation on pipe wall from 8:00 to 3:00
35.8	Solid debris removal, encrustation at service from 2:00 to 10:00
36.8	Solid debris removal, encrustation on pipe wall from 7:00 to 11:00
37.5	Solid debris removal, encrustation on pipe wall from 8:00 to 11:00
39.8	Solid debris removal, encrustation on pipe wall from 2:00 to 9:00
41.5	Solid debris removal, encrustation on pipe wall from 7:00 to 4:00
45.3	Solid debris removal, encrustation at service from 2:00 to 10:00
46.4	Solid debris removal, encrustation on pipe wall from 1:00 to 11:00
48.5 – 49.5	Solid debris removal, encrustation on pipe wall from 7:00 to 5:00
54.0 – 54.4	Solid debris removal, encrustation on pipe wall from 7:00 to 4:00
56.2	Solid debris removal, encrustation on pipe wall from 7:00 to 11:00
57.4	Solid debris removal, encrustation on pipe wall from 7:00 to 11:00
58.6	Solid debris removal, encrustation on pipe wall from 7:00 to 5:00
61.5	Solid debris removal, encrustation on

62.2	pipe wall from 8:00 to 11:00
65.9	Solid debris removal, encrustation on pipe wall from 2:00 to 4:00
66.6	Solid debris removal, encrustation on pipe wall from 1:00 to 10:00
69.7	Solid debris removal, encrustation on pipe wall from 2:00 to 5:00
74.5	Solid debris removal, encrustation at service from 2:00 to 10:00
	Solid debris removal, encrustation on pipe wall from 10:00 to 6:00

Raquette St (CL) (Asset No. MA)20004725	2nd MH N of Allard Ave (Asset No. MH20004347) to 3rd MH N of Allard Ave (Asset No. MH20004383)
Size/Shape	250mm
Material	Concrete
Total Length	104.9 m
Sewer Depth to Invert – maximum	3.65 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004347	
19.6	Solid debris removal, encrustation at joint from 7:00 to 11:00
26.8	Solid debris removal, encrustation at service from 2:00 to 10:00
53.4	External Point Repair (To Be Done By Others)
91.3	Solid debris removal, encrustation at service at 2:00

Rita St (Asset No. MA20005350)	MH at Public Lane (Asset No. MH20005350) to MH at Portage Ave (CL) (Asset No. MH20004898)
Size/Shape	250mm
Material	Concrete
Total Length	86.5 m
Sewer Depth to Invert – maximum	5.25 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	

Location	Required Action
Distance From MH20005350	
10.4	Remove intruding service at 10:00
28.5	Solid debris removal, encrustation at joint at 8:00
36.9	Solid debris removal, encrustation at joint at 6:00
57.9	Solid debris removal, encrustation at joint from 5:00 to 7:00
60.7	Solid debris removal, encrustation at joint from 5:00 to 7:00
64.5	Solid debris removal, encrustation at joint from 4:00 to 8:00
69.1	Solid debris removal, encrustation at service at 4:00
83.6	Solid debris removal, encrustation at service from 1:00 to 5:00

Riverbend Cr (E Leg) (Asset No. MA20009022)	1 st MH S of Portage Ave (Asset No. MH20008324) to MH at Portage Ave (Asset No. MH20008312)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	87.5 m
Sewer Depth to Invert – maximum	4.68 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20008324	
42.7	Solid debris removal, encrustation at joint from 3:00 to 4:00
56.0	Remove intruding service at 12:00
86.7	Solid debris removal, encrustation on pipe wall at 6:00

Roseberry St (Asset No. MA20008329)	MH at Silver Ave (SPL) (Asset No. MH20007679) to 1 st MH S of Silver Ave (Asset No. MH20007662)
Size/Shape	300mm
Material	Vitrified Clay

Total Length	104.2 m
Sewer Depth to Invert – maximum	3.64 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20007679	
16.6	Solid debris removal, encrustation at service at 10:00
30.2	Remove intruding service at 2:00
32.0	Solid debris removal, roots at joint at 8:00
32.3	Solid debris removal, roots at service at 10:00
36.6	Solid debris removal, roots at joint at 8:00
37.4	Solid debris removal, roots at joint from 8:00 to 3:00
38.2	Solid debris removal, roots at joint from 8:00 to 3:00
38.5	Solid debris removal, roots at service from 2:00 to 4:00
39.0	Solid debris removal, roots at joint from 8:00 to 3:00
39.7	Solid debris removal, roots at joint from 8:00 to 2:00
40.3 – 44.3	External Point Repair (To Be Done By Others)
45.1	Solid debris removal, roots at joint from 7:00 to 10:00
54.6	Solid debris removal, roots at joint from 10:00 to 5:00
55.0 – 57.5	External Point Repair (To Be Done By Others)

Roseberry St (Asset No. MA20008138)	1st MH N of Ness Ave (Asset No. MH20007487) to MH at Ness Ave (Asset No. MH20007477)
Size/Shape	375mm
Material	Vitrified Clay
Total Length	103.3 m
Sewer Depth to Invert – maximum	7.47 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action

Distance From MH20007487	
0.6	Remove intruding service at 2:00
20.1	Remove intruding service at 2:00
20.7	Remove intruding service at 10:00
24.7	Remove intruding service at 10:00
25.9	Remove intruding service at 10:00
32.0	Remove intruding service at 2:00

ROW (E of King Edward St) (Asset No. MA20007530)	1st MH N of Logan Ave (Asset No. MH20006893) to MH at Logan Ave (Asset No. MH20006895)
Size/Shape	250mm
Material	Concrete
Total Length	100.1 m
Sewer Depth to Invert – maximum	3.97 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20006893	
40.9	Remove intruding service at 2:00
99.1 – 100.1	Fill void at manhole interface (To Be Done By Others)

Rowand Ave (N Leg) (Asset No. MA20005160)	2nd MH E of Mount Royal Rd (Asset No. MH20004721) to 1st MH E of Mount Royal Rd (Asset No. MH20004710)
Size/Shape	300mm
Material	Concrete
Total Length	109.3 m
Sewer Depth to Invert – maximum	3.7 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action

Distance From MH20004721	
12.8	Solid debris removal, encrustation at joint from 7:00 to 11:00
16.7	Solid debris removal, encrustation at joint from 2:00 to 5:00
24.4	Solid debris removal, encrustation at joint at 8:00
26.0	Solid debris removal, encrustation at joint at 8:00
34.5	Solid debris removal, encrustation at joint from 7:00 to 10:00
35.9	Solid debris removal, encrustation at joint from 4:00 to 8:00
65.8	Solid debris removal, encrustation at joint from 2:00 to 10:00
74.6	Remove intruding service at 10:00

Rowand Ave (E Leg) (Asset No. MA20005162)	MH at Rowand Ave (S Leg) (Asset No. MH20004715) to MH at Rowand Ave (N Leg) (Asset No. MH20004713)
Size/Shape	250mm
Material	Concrete
Total Length	52.2 m
Sewer Depth to Invert – maximum	3.17m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004715	
2.5	Solid debris removal, encrustation at joint at 7:00
13.4	Solid debris removal, encrustation at joint from 7:00 to 5:00
23.4	Solid debris removal, encrustation at joint from 7:00 to 5:00
27.3	Solid debris removal, encrustation at joint at 8:00
28.9	Solid debris removal, encrustation at joint from 7:00 to 5:00
37.2	Solid debris removal, encrustation at joint at 8:00

Rowand Ave (N Leg) (Asset No. MA20005167)	MH at Rowand Ave (E Leg) (Asset No. MH20004713) to (Asset No. MH)
Size/Shape	300mm

Material	Concrete
Total Length	15.4 m
Sewer Depth to Invert – maximum	3.22 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004713	
No preparatory work required	

Rowand Ave (S Leg) (Asset No. MA20005163)	MH at Rowand Ave (E Leg) (Asset No. MH20004715) to 2nd MH E of Mount Royal Rd (Asset No. MH20004714)
Size/Shape	250mm
Material	Concrete
Total Length	15.1 m
Sewer Depth to Invert – maximum	3.09 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004715	
3.8	Solid debris removal, encrustation at joint at 8:00
9.2	Solid debris removal, encrustation at joint from 7:00 to 5:00
10.0	Solid debris removal, encrustation at joint from 1:00 to 6:00

Rowand Ave (N Leg) (Asset No. MA20005110)	1st W of Round Ave (E Leg) (Asset No. MH20004710) to MH at Mount Royal Rd (Asset No. MH20004667)
Size/Shape	375mm
Material	Concrete
Total Length	109.4 m
Sewer Depth to Invert – maximum	4.15 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	

Location	Required Action
No preparatory work required	

Rowand Ave (S Leg) (Asset No. MA20005161)	2 nd MH E of Mount Royal Rd (Asset No. MH20004714) to 1 st MH E of Mount Royal Rd (Asset No. MH20004713)
Size/Shape	300mm
Material	Concrete
Total Length	110.6 m
Sewer Depth to Invert – maximum	3.15 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004714	
2.6	Remove intruding service at 10:00
75.2	Remove intruding service at 2:00

Salter St (W of CL) (Asset No. MA00013103)	MH at Stella Ave (Asset No. MH00011708) to 1 st MH N of Stella Ave (Asset No. MH00011709)
Size/Shape	450mm
Material	Concrete
Total Length	16.1 m
Sewer Depth to Invert – maximum	3.55 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
No preparatory work required	

Shelley St (Asset No. MA20004342)	Mh at McBey Ave (Asset No. MH20003966) to 1 st MH N of McBey Ave (Asset No. MH20003995)
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Size/Shape	250mm
Material	Concrete
Total Length	100.5 m
Sewer Depth to Invert – maximum	3.56 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20003966	
0.6	Solid debris removal, encrustation at joint from 4:00 to 6:00
6.0	Solid debris removal, encrustation at joint from 9:00 to 3:00
11.1	Solid debris removal, encrustation at joint from 7:00 to 8:00
14.2	Remove intruding service at 8:00
17.3	Remove intruding service at 2:00
17.8 – 23.1	External Point Repair (To Be Done By Others)
54.4	Remove intruding service at 10:00
63.1	Remove intruding service at 2:00
65.0 – 66.4	External Point Repair (To Be Done By Others)
83.0	Remove intruding service at 9:00
97.1	Remove intruding service at 9:00

Sherburn St (Asset No. MA20017118)	1st MH N of Sargent Ave (Asset No. MH20015377) to MH at Sargent Ave (Asset No. MH20015368)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	99.7 m
Sewer Depth to Invert – maximum	3.88 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20015377	
40.4	Solid debris removal, encrustation at

83.7	joint at 5:00 Solid debris removal, encrustation at joint from 7:00 to 8:00
89.8	Solid debris removal, encrustation at joint from 7:00 to 9:00

Simcoe St (Asset No. MA20018099)	MH at Notre Dame Ave (SPL) (Asset No. MH20016193) to 1st MH S of Notre Dame Ave (Asset No. MH20016194)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	84.1 m
Sewer Depth to Invert – maximum	2.71 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20016193	
54.3	Solid debris removal, encrustation at joint from 4:00 to 5:00
59.0 – 60.6	External Point Repair (To Be Done By Others)

Simcoe St (Asset No. MA20017532)	1st MH N of Sargent Ave (Asset No. MH20017530) to MH at Sargent Ave (Asset No. MH20017529)
Size/Shape	450mm
Material	Vitrified Clay
Total Length	94.9 m
Sewer Depth to Invert – maximum	4.19 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH20016193	
3.5	Solid debris removal, encrustation at service at 10:00
45.0	Solid debris removal, encrustation at service from 2:00 to 3:00
54.0	Solid debris removal, steel rod at service from 10:00 to 4:00

Smart St (Asset No. MA20012520)	1st MH N of Logan Ave (Asset No. MH20011463) to MH at Logan Ave (Asset No. MH20011429)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	82.2 m
Sewer Depth to Invert – maximum	4.56 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
No preparatory work required	

St James St (Asset No. MA20010590)	2nd MH N of Ness Ave (Asset No. MH20009666) to 3rd MH N of Ness Ave (Asset No. MH20009751)
Size/Shape	375mm
Material	Concrete
Total Length	87.3 m
Sewer Depth to Invert – maximum	3.26 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20009666	
11.5	Solid debris removal, encrustation at service from 7:00 to 9:00
19.2	Solid debris removal, encrustation at service from 7:00 to 11:00
37.8	Remove intruding service at 10:00
46.5	Remove intruding service at 2:00
50.0	Remove intruding service at 3:00
64.7	Solid debris removal, encrustation at

	service from 7:00 to 8:00

Toronto St (Asset No. MA20015522)	1st MH S of St Matthews Ave (Asset No. MH20014012) to 2nd MH S of St Matthews Ave (Asset No. MH20013998)
Size/Shape	300mm
Material	Vitrified Clay
Total Length	109.4 m
Sewer Depth to Invert – maximum	4.38 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20014012	
6.5	Remove intruding service at 2:00
36.3	Remove intruding service at 3:00
41.5	Remove intruding service at 10:00
94.4	Remove intruding service at 12:00
104.9	External Point Repair (To Be Done By Others)

Truro St (Asset No. MA20007974)	1st MH N of Ness Ave (Asset No. MH20007337) to MH at Ness Ave (Asset No. MH20007306)
Size/Shape	375mm
Material	Vitrified Clay
Total Length	91.7 m
Sewer Depth to Invert – maximum	5.66 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20007337	
11.7	Remove intruding service at 1:00
18.6	Remove intruding service at 10:00

83.0	Remove intruding service at 2:00

Vimy Rd (Asset No. MA20000757)	1st MH S of Ness Ave (Asset No. MH20000686) to MH at Ness Ave (Asset No. MH20000714)
Size/Shape	250mm
Material	Concrete
Total Length	106.6 m
Sewer Depth to Invert – maximum	2.82 m
Design Condition	
Partially Deteriorated 8%	
Site Specific Repairs	
Location	Required Action
Distance From MH20000686	
24.9 – 26.3	External Point Repair (To Be Done By Others)
50.0	Remove intruding service at 2:00
98.3	Solid debris removal, encrustation at service from 4:00 to 5:00

Vimy Rd (Asset No. MA20004357)	1st MH N of Portage Ave (Asset No. MH20004016) to MH at Portage Ave N (N of CL) (Asset No. MH20004005)
Size/Shape	250mm
Material	Concrete
Total Length	102.6 m
Sewer Depth to Invert – maximum	4.27 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20004016	
0.6	Solid debris removal, encrustation at joint at 5:00
3.7	Solid debris removal, encrustation at joint from 1:00 to 7:00
5.7	Solid debris removal, encrustation at service from 4:00 to 5:00
9.3	Solid debris removal, encrustation at

10.0	joint from 7:00 to 2:00 Solid debris removal, encrustation at joint from 1:00 to 5:00
10.8	Solid debris removal, encrustation at joint from 3:00 to 5:00
12.4	Solid debris removal, encrustation at joint from 1:00 to 5:00
13.3	Solid debris removal, encrustation at joint from 1:00 to 11:00
14.0	Solid debris removal, encrustation at joint from 3:00 to 10:00
24.2	Solid debris removal, encrustation at joint from 1:00 to 5:00
26.6	Solid debris removal, encrustation at joint from 1:00 to 5:00
28.1	Solid debris removal, encrustation at joint from 9:00 to 5:00
31.3	Solid debris removal, encrustation at joint from 1:00 to 5:00
32.8	Solid debris removal, encrustation at joint from 1:00 to 6:00
33.8	Solid debris removal, encrustation at joint from 1:00 to 6:00
35.2	Solid debris removal, encrustation at joint from 1:00 to 4:00
42.7	Remove intruding service at 2:00
42.7	Solid debris removal, encrustation at service from 9:00 to 3:00
45.6	Solid debris removal, encrustation at joint from 9:00 to 4:00
51.7	Solid debris removal, encrustation at joint from 8:00 to 3:00
53.2	Solid debris removal, encrustation at joint from 8:00 to 4:00
74.1	Remove intruding service at 1:00

Wall St (Asset No. MA20009489)	2nd MH N of Ellice Ave (WPL) (Asset No. MH20008690) to 1st MH N of Ellice Ave (WPL) (Asset No. MH20008667)
Size/Shape	400mm
Material	Concrete
Total Length	83.5 m
Sewer Depth to Invert – maximum	4.51 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH20008690	

13.8	Solid debris removal, encrustation at joint from 5:00 to 6:00
25.7	Solid debris removal, encrustation at joint from 5:00 to 6:00
33.6	Solid debris removal, encrustation at joint from 3:00 to 9:00
34.0 – 35.3	Solid debris removal, encrustation on pipe wall from 4:00 to 8:00
37.7	Solid debris removal, encrustation at joint from 7:00 to 12:00
63.0	Solid debris removal, encrustation at joint at 6:00
69.7 – 70.5	Solid debris removal, encrustation on pipe wall from 5:00 to 7:00
72.2	Remove intruding service at 11:00
72.8	Solid debris removal, encrustation at joint at 10:00

Wellington Ave (Asset No. MA20010460)	1st MH E of Sanford St (Asset No. MH20009549) to MH at Sanford St (Asset No. MH20009550)
Size/Shape	450mm
Material	Vitrified Clay
Total Length	92.8 m
Sewer Depth to Invert – maximum	4.06 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20009549	
13.8	Solid debris removal, encrustation at joint at 4:00
15.6	Solid debris removal, encrustation at joint from 3:00 to 9:00
16.3	Solid debris removal, encrustation at joint from 2:00 to 8:00
17.2	Solid debris removal, encrustation at joint from 4:00 to 8:00
47.2	Solid debris removal, encrustation at joint from 5:00 to 7:00
51.7	Solid debris removal, encrustation at joint at 7:00
59.3	Solid debris removal, encrustation at joint at 8:00
62.5	Solid debris removal, encrustation at joint at 7:00
64.6	Solid debris removal, encrustation at joint at 8:00
65.6	Solid debris removal, encrustation at

67.3	joint from 3:00 to 7:00 Solid debris removal, encrustation at service from 3:00 to 5:00
75.8 – 83.6	Solid debris removal, encrustation on pipe wall from 2:00 to 10:00

Westwood Dr (Asset No. MA20003240)	MH at Wordsworth Wy (Asset No. MH20002957) to MH at Browning Bv (Asset No. MH20002995)
Size/Shape	250mm
Material	Concrete
Total Length	102.9 m
Sewer Depth to Invert – maximum	4.61 m
Design Condition	
Partially Deteriorated 5%	

Site Specific Repairs	
Location	Required Action
Distance From MH20002957	
0.6	Solid debris removal, encrustation at joint from 5:00 to 7:00
8.8	Solid debris removal, encrustation at joint from 4:00 to 8:00
11.5	Solid debris removal, encrustation at joint from 8:00 to 11:00
17.0	Solid debris removal, encrustation at joint at 9:00
30.0	Solid debris removal, encrustation on pipe wall from 5:00 to 7:00
50.8	Solid debris removal, encrustation at joint at 6:00
53.8	Solid debris removal, encrustation at joint at 6:00
55.4	Solid debris removal, encrustation at joint at 6:00
57.2	Solid debris removal, encrustation at joint at 6:00
61.7	Solid debris removal, encrustation at joint at 6:00
68.2	Solid debris removal, encrustation at joint at 6:00
80.1	Solid debris removal, encrustation at joint at 6:00
93.8	Solid debris removal, encrustation at joint at 6:00
96.7	Solid debris removal, encrustation at joint at 4:00
97.6	Solid debris removal, encrustation at joint from 2:00 to 7:00

Wharton By (Asset No. MA20000744)	1st MH S of Ness Ave (Asset No. MH20000676) to MH at Ness Ave (Asset No. MH20000710)
Size/Shape	250mm
Material	Concrete
Total Length	18.3 m
Sewer Depth to Invert – maximum	3.79 m
Design Condition	
Partially Deteriorated 3%	
Site Specific Repairs	
Location	Required Action
Distance From MH20000676 7.8 – 13.1	Solid debris removal, encrustation on pipe wall from 7:00 to 5:00

Winchester St (Asset No. MA20007930)	1st MH N of Ness Ave (Asset No. MH20007269) to Noe S of Ness Ave (Asset No. TE 1)
Size/Shape	200mm
Material	Concrete
Total Length	70.0 m
Sewer Depth to Invert – maximum	2.22 m
Design Condition	
Partially Deteriorated 5%	
Site Specific Repairs	
Location	Required Action
Distance From MH20002957 33.1 34.8 40.2 44.0 44.3 51.2 66.5	Solid debris removal, encrustation on pipe wall from 7:00 to 10:00 Solid debris removal, encrustation at joint from 4:00 to 8:00 Solid debris removal, encrustation at joint from 4:00 to 5:00 Solid debris removal, encrustation at joint at 4:00 Solid debris removal, encrustation on pipe wall from 3:00 to 5:00 Solid debris removal, encrustation at joint from 4:00 to 5:00 Install Manhole (To Be Done By Others)

Windham Ave (Asset No. MA20005667)	3rd MH S of Portage Ave (Asset No. MH20005192) to MH at Assiniboine Cr (Asset No. MH2004632)
Size/Shape	200mm
Material	Concrete
Total Length	85.5 m
Sewer Depth to Invert – maximum	2.82 m
Design Condition	
Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20005192	
0.4	Solid debris removal, encrustation on pipe wall at 4:00
1.9 – 2.9	Solid debris removal, encrustation on pipe wall from 3:00 to 9:00
4.0	Solid debris removal, encrustation at joint from 1:00 to 11:00
14.0	Solid debris removal, encrustation at joint from 8:00 to 4:00
17.9	Solid debris removal, encrustation at joint from 12:00 to 4:00
21.9	Solid debris removal, encrustation at joint from 8:00 to 12:00
22.5	Solid debris removal, encrustation at joint from 10:00 to 11:00
24.0	Solid debris removal, encrustation at joint from 8:00 to 2:00
26.4	Solid debris removal, encrustation at joint from 8:00 to 4:00
28.7	Solid debris removal, encrustation at joint from 4:00 to 8:00
38.7	Solid debris removal, encrustation at joint from 8:00 to 3:00
44.1	Solid debris removal, encrustation at joint at 8:00
45.0 – 48.4	Solid debris removal, encrustation on pipe wall from 3:00 to 8:00
60.4	Solid debris removal, encrustation at joint from 1:00 to 4:00
79.6 – 82.8	External Point Repair (To Be Done By Others)

Woodlands Cr (W Leg) (Asset No.	1st MH N of Summerland Bv (Asset No.
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MA20003832)	MH20003513) to MH at McBey Ave (Asset No. MH20003525)
Size/Shape	250mm
Material	Concrete
Total Length	61.5 m
Sewer Depth to Invert – maximum	3.39 m
Design Condition	
Partially Deteriorated 8%	
Site Specific Repairs	
Location	Required Action
Distance From MH20003513	
0.6	Solid debris removal, encrustation at joint from 2:00 to 8:00
4.6	Remove intruding service at 3:00
20.0	Remove intruding service at 10:00
23.2	Solid debris removal, encrustation at joint from 4:00 to 5:00
26.0	Solid debris removal, encrustation at service from 2:00 to 8:00
32.8	Solid debris removal, encrustation at joint from 7:00 to 5:00
35.4	Remove intruding service at 2:00
37.6	Solid debris removal, encrustation on pipe wall at 4:00
39.9	Solid debris removal, encrustation at joint from 6:00 to 4:00
41.4	Solid debris removal, encrustation at joint from 7:00 to 8:00
42.3	Solid debris removal, encrustation at joint at 8:00
44.6	Solid debris removal, encrustation at joint from 8:00 to 9:00
47.8	Solid debris removal, encrustation at joint from 7:00 to 3:00
51.7	Remove intruding service at 10:00
55.6 – 57.2	External Point Repair (To Be Done By Others)
57.7	Remove intruding service at 10:00
58.6	Remove intruding service at 2:00
59.7	Solid debris removal, encrustation at joint from 8:00 to 4:00

Woodlands Cr (W Leg) (Asset No.	2nd MH N of McBey Ave (Asset No.
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MA20003856)	MH20003532) to MH at Portage Ave (Asset No. MH20003533)
Size/Shape	250mm
Material	Concrete
Total Length	62.0 m
Sewer Depth to Invert – maximum	4.58 m
Design Condition Fully Deteriorated 10%	
Site Specific Repairs	
Location	Required Action
Distance From MH20003532 12.6 44.4 45.0 – 50.2 56.0 – 58.1 58.1 59.5 59.7	Solid debris removal, encrustation at joint from 2:00 to 8:00 Solid debris removal, encrustation at joint at 8:00 Solid debris removal, grease on pipe wall from 10:00 to 2:00 Solid debris removal, grease on pipe wall from 10:00 to 2:00 Solid debris removal, encrustation at joint at 4:00 Solid debris removal, encrustation at joint at 4:00 Solid debris removal, encrustation at service from 4:00 to 8:00