

**APPENDIX A - TABLE E13.1: SITE SPECIFIC DESIGN CONDITIONS AND REPAIR REQUIREMENTS PRIOR TO PERFORMING SEWER LINING**

<b>Bedson Street (Asset No. MA20003473)</b>	<b>1st MH S of Dickens Dr (MH20003182) to MH at Assiniboine Ave (MH20003181)</b>
<b>Sanitary Sewer</b>	
Drawng Number	12394
Size / Shape	300mm Circular
Material Type	Concrete
Total Length	92.0m
Maximum Sewer Depth to Invert	5.95m
Design Condition	Fully Deteriorated ovality 2%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20003182 (m)	
1.0	Cut pipe gasket at 10:00
18.5	Remove encrustation at service at 2:00
33.2 to 33.3	Remove grease from pipe wall at 11:00 and 1:00
36.4 to 37.3	Remove grease from pipe wall at 11:00 and 1:00
47.4	Remove encrustation from pipe wall at 5:00
80.0	Remove encrustation from service at 12:00

<b>Barron Drive (Asset No. MA20003444)</b>	<b>2nd MH N of Assiniboine Ave (MH20003109) to 1st MH N of Assiniboine Ave (MH20003051)</b>
<b>Land Drainage Sewer</b>	
Drawng Number	12395
Size / Shape	375mm Circular
Material Type	Concrete
Total Length	87.8m
Maximum Sewer Depth to Invert	2.85m
Design Condition	Fully Deteriorated ovality 10%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20003109 (m)	
0 to 1.0	Remove encrustation from pipe wall at 6:00
2.4 to 19.9	Caution: Multiple cracked pipe with minor deformation (information only)
20.8 to 34.7	Caution: Multiple cracked pipe with minor deformation (information only)
66.2	Remove encrustation from pipe joint from 9:00 to 1:00
77.8 to 80.0	Caution: Multiple cracked pipe with minor deformation (information only)
82.4 to 87.0	Caution: Multiple cracked pipe with minor deformation (information only)

<b>Barron Drive (Asset No. MA20003409)</b>	<b>3rd MH N of Assiniboine Ave (MH20003164) to 2nd MH N of Assiniboine Ave (MH20003109)</b>
<b>Land Drainage Sewer</b>	
Drawng Number	12396
Size / Shape	300mm Circular
Material Type	Concrete
Total Length	75.8m
Maximum Sewer Depth to Invert	2.3m
Design Condition	Fully Deteriorated ovality 10%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20003164 (m)	
0.0 to 0.5	Remove encrustation from pipe wall from 5:00 to 7:00
8.6 to 11.0	External Point Repair
34.0 to 35.0	Caution: Multiple cracked pipe with deformation (information only)
39.5 to 44.0	Caution: Multiple cracked pipe with deformation (information only)
44.8	Remove roots from pipe joint from 2:00 to 3:00
48.7	Remove roots from pipe joint from 7:00 to 10:00
49.5	Remove roots from pipe joint at 3:00
51.8	Remove roots from pipe joint from 1:00 to 5:00
52.6	Remove roots from pipe joint at 3:00
54.1	Remove roots from pipe joint at 4:00
54.9	Remove roots from pipe joint at 9:00
55.6	Remove roots from pipe joint at 9:00
57.1	Remove roots from pipe joint at 9:00
57.9	Remove roots from pipe joint at 3:00 and 9:00
58.7	Remove roots from pipe joint at 3:00 and 9:00
59.4	Remove roots from pipe joint at 3:00
60.2	Remove roots from pipe joint at 3:00 and 9:00
61.8	Remove roots from pipe joint at 3:00
64.0 to 67.1	External Point Repair
65.8	Remove roots from pipe wall at 3:00

<b>Whitegates Crescent (Asset No. MA20003343) Land Drainage Sewer</b>	<b>1st MH E of Maureen St (MH20003066) to MH at Maureen St (MH20003050)</b>
Drawng Number	12397
Size / Shape	375mm Circular
Material Type	Concrete
Total Length	90.5m
Maximum Sewer Depth to Invert	4.18m
Design Condition	Fully Deteriorated ovality 5%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20003066 (m)	
41.9	Remove encrustation from pipe joint at 4:00
63.0	Remove roots from pipe joint at 9:00 and 3:00
64.1	Remove roots from pipe joint at 9:00 and 3:00
66.7	Remove roots from pipe joint at 9:00 and 3:00
67.9	Remove roots from pipe joint at 9:00 and 3:00
69.2	Remove roots from pipe joint at 9:00 and 3:00
70.4	Remove roots from pipe joint at 9:00 and 3:00
71.6	Remove roots from pipe joint at 9:00 and 3:00
72.8	Remove roots from pipe joint at 9:00 and 3:00
75.7	Abandoned CI WM intruding 7:00 to 5:00 (information only)
76.5	Remove roots from pipe joint at 7:00
77.7	Remove roots from pipe joint at 4:00
80.2	Remove roots from pipe joint at 4:00
85.2	Remove roots from pipe joint at 4:00
86.3	Remove roots from pipe joint at 8:00 and 4:00
87.5	Remove roots from pipe joint at 8:00 and 4:00
88.6 to 90.5	External Point Repair

<b>Wordsworth Way South Leg (Asset No. MA20003194) Storm Sewer</b>	<b>4th MH W of Carroll Rd (MH20002905) to 3rd MH W of Carroll Rd (MH20002910)</b>
Drawng Number	12398
Size / Shape	300mm Circular
Material Type	Concrete
Total Length	72.7m
Maximum Sewer Depth to Invert	3.08m
Design Condition	Fully Deteriorated ovality 5%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20002905 (m)	
1.2	Remove roots from pipe joint from 4:00 to 7:00
2.4	Remove roots from pipe joint from 4:00 to 7:00
2.7	Remove roots from pipe joint from 4:00 to 7:00
3.8	Remove roots from pipe joint at 8:00
4.4	Remove roots from pipe joint from 6:00 to 9:00
5.4	Remove roots from pipe joint at 5:00 and 7:00
6.2	Remove roots from pipe joint at 5:00 and 7:00
6.7	Remove roots from pipe joint at 5:00 and 7:00
7.7	Remove roots from pipe joint at 5:00
8.4	Remove roots from pipe joint at 5:00 and 7:00
9.2	Remove roots from pipe joint at 5:00 and 7:00
10.0	Remove roots from pipe joint at 5:00 and 7:00
10.9	Remove roots from pipe joint at 5:00 and 7:00
11.6	Remove roots from pipe joint at 5:00 and 7:00
12.4	Remove roots from pipe joint at 5:00 and 7:00
13.1	Remove roots from pipe joint at 6:00
13.8	Remove roots from pipe joint at 6:00
17.1	Remove roots from pipe joint at 5:00 and 7:00
67.2	Remove roots from pipe joint at 5:00
67.9	Remove roots from pipe joint at 5:00
67.9 to 69.6	External Point Repair

<b>Amundsen Bay (Asset No. MA70031429)</b>	
<b>Sanitary Sewer</b>	
Drawing Number	12399
Size / Shape	200mm Circular
Material Type	Concrete
Total Length	79.5m
Maximum Sewer Depth to Invert	3.67m
Design Condition	Fully Deteriorated ovality 6%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20003889 (m)	
0.0 to 20.0	Remove grease from pipe wall from 1:00 to 10:00
20.8	Remove intruding service at 9:00
21.7	Remove roots around service at 9:00
22.3	Remove roots from pipe joint from 9:00 to 3:00
23.3	Remove roots from pipe joint at 9:00 and 3:00
24.2	Remove roots from pipe joint at 9:00 and 3:00
25.1	Remove roots from pipe joint at 9:00 and 3:00
26.0	Remove roots from pipe joint at 9:00 and 3:00
26.9	Remove roots from pipe joint at 9:00 and 3:00
27.9	Remove roots from pipe joint at 9:00 and 3:00
28.8	Remove roots from pipe joint at 9:00 and 3:00
29.7	Remove roots from pipe joint at 9:00 and 3:00
30.6	Remove roots from pipe joint at 9:00 and 3:00
31.5	Remove roots from pipe joint at 9:00 and 3:00
32.4	Remove roots from pipe joint at 9:00 and 3:00
33.4	Remove roots from pipe joint at 9:00 and 3:00
34.3	Remove roots from pipe joint at 9:00 and 3:00
37.0	Remove roots from pipe joint at 3:00
50.1	Remove roots around service at 9:00
50.9	Remove roots from pipe joint from 7:00 to 5:00
50.9	Remove roots from around service at 3:00
51.8	Remove roots from pipe joint from 7:00 to 5:00
53.0	Remove grease from pipe wall at 9:00
64.4 to 68.2	Remove encrustation from pipe wall from 7:00 to 5:00

<b>Aldrich Avenue (Asset No. MA20004059)</b>	
<b>Land Drainage Sewer</b>	
Drawing Number	12400
Size / Shape	450mm Circular
Material Type	Concrete
Total Length	86.7m
Maximum Sewer Depth to Invert	3.4m
Design Condition	Fully Deteriorated ovality 5%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20003731 (m)	
2.0	Remove encrustation from pipe wall at 12:00
3.2	Remove encrustation from pipe wall at 12:00
4.4	Remove encrustation from pipe wall at 12:00
5.6	Remove encrustation from pipe wall at 12:00
9.2	Remove encrustation from pipe wall at 12:00
10.4	Remove encrustation from pipe wall at 12:00
13.0	Remove encrustation from pipe wall at 12:00
13.8	Remove encrustation from pipe joint at 3:00
14.4	Remove encrustation from pipe wall at 12:00
15.4	Remove encrustation from pipe wall at 12:00
16.5	Remove encrustation from pipe wall at 12:00
18.5	Remove encrustation from pipe joint from 7:00 to 9:00
19.2	Remove encrustation from pipe wall at 12:00
20.0	Remove encrustation from pipe joint from 9:00 to 3:00
20.5	Remove encrustation from pipe wall at 12:00
21.1	Remove encrustation from pipe joint from 7:00 to 10:00
21.8	Remove encrustation from pipe wall at 12:00
22.6	Remove encrustation from pipe joint at 1:00
23.4	Remove encrustation from pipe wall at 12:00
23.6	Remove encrustation from pipe joint at 1:00
24.4	Remove encrustation from pipe wall at 12:00
25.1	Remove encrustation from pipe joint at 4:00 and 10:00
28.3	Remove encrustation from pipe wall at 12:00
30.5	Remove encrustation from pipe wall at 12:00
31.0	Remove encrustation from pipe joint at 3:00
31.7	Remove encrustation from pipe wall at 12:00
33.0	Remove encrustation from pipe wall at 12:00
39.0	Remove encrustation from pipe wall at 12:00
40.0	Remove encrustation from pipe wall at 12:00
41.4	Remove encrustation from pipe wall at 12:00
47.8	Remove encrustation from pipe wall at 12:00

48.9	Remove encrustation from pipe wall at 12:00
50.3	Remove encrustation from pipe wall at 12:00
52.5	Remove encrustation from pipe wall at 12:00
55.1	Remove encrustation from pipe wall at 12:00
73.7 to 76.3	External Point Repair
81.1	Remove encrustation from pipe joint from 6:00 to 9:00
85.6	Remove roots from pipe joint at 4:00

<b>Columbus CresCent (Asset No. MA20003074) Sanitary Sewer</b>		<b>MH at Franklin By (MH20002787) to MH at Carroll Rd (MH20002790)</b>	
Drawing Number	12401		
Size / Shape	300mm Circular		
Material Type	Concrete		
Total Length	81.7m		
Maximum Sewer Depth to Invert	6.43m		
Design Condition	Fully Deteriorated ovality 5%		
<b>Site Specific Repairs</b>			
<b>Location</b>	<b>Action Required</b>		
Distance From MH20002787 (m)			
0.0	Remove encrustation from pipe wall at 10:00		
10.9 to 11.4	Remove encrustation from pipe wall from 8:00 to 3:00		
18.6	Remove encrustation from pipe joint at 3:00		
26.5	Remove encrustation at service at 10:00		
27.7	Remove encrustation from pipe wall from 9:00 to 3:00		
39.2	Remove encrustation from pipe joint from 9:00 to 4:00		
42.6	Remove encrustation at service at 10:00		
44.3	Remove encrustation at service at 1:00		
55.1	Remove encrustation from pipe joint at 3:00		
55.8	Remove encrustation from pipe wall at 4:00		
59.1	Remove encrustation at service at 10:00		
59.5	Remove encrustation at service at 1:00		
74.7 to 80.4	Remove encrustation from pipe wall from 12:00 to 12:00		
81.4	Inactive drop pipe at 6:00 (information only)		
81.7	Remove encrustation from pipe wall at 3:00		

<b>Robert Service Bay (W Leg) (Asset No. MA20003048) Land Drainage Sewer</b>		<b>MH at Robert Service By (S leg) (MH20002769) to 1st MH N of Robert Service By (S leg) (MH2002770)</b>	
Drawing Number	12402		
Size / Shape	300mm Circular		
Material Type	Concrete		
Total Length	32.7m		
Maximum Sewer Depth to Invert	4.74m		
Design Condition	Fully Deteriorated ovality 5%		
<b>Site Specific Repairs</b>			
<b>Location</b>	<b>Action Required</b>		
Distance From MH20002769 (m)			
28.5	Remove encrustation from pipe joint from 3:00 to 6:00		

<b>Assiniboine Avenue (Asset No. MA20002952) Sanitary Sewer</b>		<b>1st MH E of Carroll Rd (MH20002673) to MH at Carroll Rd (MH20002674)</b>	
Drawing Number	12403		
Size / Shape	200mm Circular		
Material Type	Concrete		
Total Length	54.6m		
Maximum Sewer Depth to Invert	6.13m		
Design Condition	Fully Deteriorated ovality 6%		
<b>Site Specific Repairs</b>			
<b>Location</b>	<b>Action Required</b>		
Distance From MH20002673 (m)			
5.6	Remove intruding service at 12:00		
22.4	Remove intruding service at 12:00		
38.9	Remove intruding service at 10:00		
52.4	Remove encrustation around service at 10:00		
53.6	Remove roots from service at 10:00		

<b>Wallasey Street (Asset No. MA20006889) Sanitary Sewer</b>	<b>3rd MH S of Lodge Ave (MH20005299) to MH at Public Lane N of Portage Ave (MH20005275)</b>
Drawng Number	12404
Size / Shape	250mm Circular
Material Type	Vitrified Clay
Total Length	96.5m
Maximum Sewer Depth to Invert	5.82m
Design Condition	Fully Deteriorated ovality 5%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20005299 (m)	
2.0 to 3.2	Remove grease on pipe wall at 3:00
3.2	Remove encrustation from pipe wall at 10:00
4.3 to 5.4	<b>External Point Repair</b>
19.4	Remove intruding service at 10:00
41.0	Remove intruding service at 2:00
46.0	Remove intruding service at 10:00
47.0	Remove intruding service at 2:00
65.7	Remove intruding service at 10:00
66.2	Remove intruding service at 10:00
85.6	Remove intruding service at 10:00
94.6	300 drop pipe (information only)

<b>Lodge Avenue (Asset No. MA20005516) Combined Sewer</b>	<b>MH at Olive St (MH20005046) to 1st MH E of Olive St (MH20005048)</b>
Drawng Number	12405
Size / Shape	200mm Circular
Material Type	Concrete
Total Length	62.0m
Maximum Sewer Depth to Invert	3.75m
Design Condition	Fully Deteriorated ovality 5%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20005046 (m)	
1.0	Remove encrustation from pipe joint from 7:00 to 10:00
3.9 to 27.4	Remove grease from pipe wall from 11:00 to 3:00
28.0 to 29.9	Remove grease from pipe wall from 10:00 to 2:00
30.5 to 39.7	Remove grease from pipe wall at 9:00 and 3:00
34.6	Remove intruding service at 11:00
35.2	Remove intruding service at 10:00
40.2 to 44.2	Remove grease from pipe wall from 11:00 to 1:00
46.1 to 47.4	Remove grease from pipe wall from 11:00 to 1:00
48.2 to 51.0	Remove grease from pipe wall from 11:00 to 1:00
51.9	Remove encrustation from pipe wall at 3:00
52.8	Remove encrustation from pipe wall at 3:00
54.7	Remove grease from pipe wall at 12:00
59.0 to 60.9	Remove grease from pipe wall at 12:00
61.3	Remove encrustation from pipe joint from 5:00 to 8:00

<b>Lodge Avenue (Asset No. MA20005515) Combined Sewer</b>	
1st MH E of Olive St (MH20005048) to MH at Whytewold Ave (MH20005050)	
Drawing Number	12406
Size / Shape	200mm Circular
Material Type	Concrete / PVC
Total Length	64.0m
Maximum Sewer Depth to Invert	3.75m
Design Condition	Fully Deteriorated ovality 5%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20005048 (m)	
0.3	Remove encrustation from pipe wall at 7:00
0.9	Remove encrustation from pipe joint at 5:00
3.0	Remove encrustation from pipe joint from 7:00 to 11:00
3.9	Remove encrustation from pipe joint from 3:00 to 11:00
4.6	Remove encrustation from pipe joint from 12:00 to 12:00
5.4	Remove encrustation from pipe joint from 1:00 to 5:00
6.2	Remove encrustation from pipe joint from 1:00 to 9:00
6.3	Remove encrustation from pipe wall at 4:00
7.0	Remove encrustation from pipe joint from 7:00 to 11:00
7.7	Remove encrustation from pipe joint from 7:00 to 12:00
10.8	Remove encrustation from pipe joint at 5:00
11.6	Remove encrustation from pipe joint from 5:00 to 10:00
15.5	Remove encrustation from pipe joint from 12:00 to 12:00
17.7	Remove encrustation from pipe joint from 7:00 to 10:00
19.4	Remove encrustation from pipe joint from 1:00 to 11:00
30.1	Remove encrustation from pipe joint from 1:00 to 11:00
31.0	Remove encrustation from pipe joint from 7:00 to 11:00
32.5	Remove encrustation from pipe joint from 7:00 to 10:00
34.0	Remove encrustation from pipe wall at 10:00
37.2	Remove encrustation from pipe joint from 8:00 to 11:00
38.3	Remove intruding service at 3:00
41.1	Remove encrustation from pipe joint at 10:00
43.5	Remove encrustation from pipe joint from 3:00 to 9:00
45.8	Remove encrustation from pipe joint from 2:00 to 10:00
45.8	Remove debris at 6:00
51.2	Remove encrustation from pipe wall at 3:00
54.3	Remove encrustation from pipe joint from 1:00 to 5:00
58.2	Remove encrustation from pipe joint from 1:00 to 10:00
62.8	Pipe size change to 250mm (information only)

<b>Palliser Avenue (N Leg) (Asset No. MA20005587) Combined Sewer</b>	
2nd MH W of Mount Royal Rd (MH20005114) to 1st MH W of Mount Royal Rd (MH20005113)	
Drawing Number	12407
Size / Shape	300mm Circular
Material Type	Concrete
Total Length	110.9m
Maximum Sewer Depth to Invert	3.21m
Design Condition	Fully Deteriorated ovality 7%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20005114 (m)	
0.6 to 1.0	Remove encrustation from pipe wall at 9:00
1.8	Remove encrustation from pipe wall at 3:00
4.2	Remove encrustation from pipe joint at 5:00
6.6	Remove roots from pipe joint at 9:00
7.3	Remove roots from pipe joint from 9:00 to 3:00
15.8	Remove encrustation from pipe joint at 4:00
16.7	Remove encrustation from pipe joint at 6:00
17.4	Remove encrustation from pipe joint at 7:00 and 4:00
20.5	Remove encrustation from pipe joint at 6:00
22.8	Remove encrustation from pipe joint at 6:00
23.6	Remove encrustation from pipe joint at 4:00
26.0	Remove encrustation from pipe joint at 4:00
29.0	Remove encrustation from pipe joint at 7:00
30.7	Remove encrustation from pipe joint at 7:00
30.8	Remove encrustation from pipe wall from 2:00 to 5:00
31.4	Remove encrustation from pipe joint at 7:00
32.2	Remove encrustation from pipe joint at 8:00
35.3	Remove encrustation from pipe joint at 5:00
36.8	Remove encrustation from pipe joint at 5:00
40.8	Remove encrustation from pipe joint at 5:00
42.9	Remove encrustation from pipe joint at 6:00
43.7	Remove encrustation from pipe joint at 6:00
48.4	Remove encrustation from pipe joint at 6:00
49.2	Remove encrustation from pipe joint at 6:00
50.8	Remove encrustation from pipe joint at 6:00
53.2	Remove encrustation from pipe joint from 4:00 to 8:00

55.5	Remove encrustation from pipe joint at 6:00
57.0	Remove encrustation from pipe joint at 5:00
67.8	Remove encrustation from pipe wall at 5:00
68.6	Remove encrustation from pipe wall at 8:00
69.4	Remove encrustation from pipe wall at 5:00
69.6	Remove encrustation from pipe wall at 7:00
70.2	Remove encrustation from pipe joint at 8:00
71.0	Remove encrustation from pipe joint at 6:00
71.8	Remove encrustation from pipe joint at 7:00
74.8	Remove encrustation from pipe joint at 5:00
75.6	Remove encrustation from pipe joint from 5:00 to 6:00
78.0	Remove encrustation from pipe joint at 5:00
78.8	Remove encrustation from pipe joint at 6:00
81.0	Remove encrustation from pipe joint at 6:00
83.3	Remove encrustation from pipe joint at 5:00
84.1	Remove encrustation from pipe joint at 6:00
85.7	Remove encrustation from pipe joint at 7:00
86.5	Remove encrustation from pipe joint at 5:00
89.6	Remove encrustation from pipe joint at 5:00
90.4	Remove encrustation from pipe joint at 5:00
96.2	Remove encrustation from pipe wall at 3:00
97.4	Remove encrustation from pipe joint at 5:00
97.8	Remove encrustation from pipe wall at 9:00
100.4	Remove encrustation from pipe joint at 9:00
107.7	Remove encrustation from pipe wall at 9:00

<b>Palliser Avenue (Asset No. MA20005103) Combined Sewer</b>	
<b>1st MH W of Mount Royal Rd (MH20005113) to MH at Mount Royal Rd (MH20004673)</b>	
Drawng Number	12408
Size / Shape	375mm Circular
Material Type	Concrete
Total Length	107.5m
Maximum Sewer Depth to Invert	4.18m
Design Condition	Fully Deteriorated ovality 7%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20005113 (m)	
2.6	Remove encrustation from pipe wall at 5:00
33.8	Remove encrustation from pipe wall at 5:00
45.1	Remove encrustation from pipe wall below service at 9:00
67.3	Remove encrustation from pipe joint at 5:00
70.2	Remove encrustation from pipe joint at 5:00
86.5	Remove encrustation from pipe joint at 9:00
87.4	Remove encrustation from pipe joint at 5:00

<b>Sharp Boulevard (Asset No. MA20005253) Combined Sewer</b>	
<b>1st MH N of Lodge Ave (MH20004805) to 2nd MH N of Lodge Ave (MH20004829)</b>	
Drawng Number	12409
Size / Shape	200mm Circular
Material Type	Vitrified Clay
Total Length	132.0m
Maximum Sewer Depth to Invert	2.81m
Design Condition	Fully Deteriorated ovality 10%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20004805 (m)	
0.0 to 0.5	Remove encrustation from pipe wall from 12:00 to 12:00
8.6	Remove encrustation from pipe joint at 6:00
10.2	Remove encrustation from pipe joint at 9:00
12.3	Remove encrustation around pipe repair at 12:00
13.3	Remove encrustation around pipe repair at 12:00
13.5	Remove intruding service at 9:00
13.3 to 15.8	Remove grease from pipe wall at 9:00 and 3:00
15.6	Remove encrustation from pipe joint from 9:00 and 3:00
28.9	Remove roots from pipe joint at 1:00
29.7	Remove roots from pipe joint at 3:00
37.3	Remove roots from pipe joint at 4:00
38.2	Remove roots from pipe joint at 9:00 and 4:00
39.1	Remove roots from pipe joint at 4:00
39.8	Remove roots from pipe joint at 5:00 and 9:00
41.3	Remove encrustation from pipe joint at 6:00
42.1	Remove roots from pipe joint at 9:00 and 3:00
42.9	Remove roots from pipe joint at 9:00 and 3:00
43.7	Remove roots from pipe joint at 9:00 and 3:00
44.5	Remove roots from pipe joint at 9:00 and 3:00
45.3	Remove roots from pipe joint at 9:00 and 3:00
45.8 to 47.5	Remove encrustation from pipe wall at 8:00 and 4:00
47.5 to 62.7	Remove roots from pipe wall

53.7 to 58.0	Remove grease from pipe wall at 3:00 and 9:00
60.0 to 62.5	Remove grease from pipe wall at 3:00 and 9:00
62.5	Remove intruding service at 9:00
64.0	Remove roots from pipe repair at 1:00
66.0	Remove roots from pipe joint at 9:00
67.7	Remove roots around pipe repair at 1:00
70.0	Remove roots from pipe joint at 9:00 and 3:00
70.8	Remove roots from pipe joint at 9:00 and 3:00
71.6	Remove roots from pipe joint at 9:00 and 3:00
72.3	Remove roots from pipe joint at 9:00 and 3:00
73.2	Remove roots from pipe joint at 9:00 and 3:00
73.8	Remove roots from pipe joint at 9:00 and 3:00
79.4	Remove encrustation from pipe joint at 7:00
79.6	Remove encrustation at service at 9:00
79.9 to 81.3	Remove encrustation from pipe wall at 9:00 and 3:00
81.7 to 84.4	Remove encrustation from pipe wall at 9:00 and 3:00
100.5	Remove encrustation from pipe joint at 5:00
100.9 to 102.8	Remove grease from pipe wall at 5:00 and 7:00
101.2	Remove roots from pipe joint at 10:00
103.8 to 106.0	Remove grease from pipe wall at 5:00 and 7:00
108.0 to 110.0	Remove grease from pipe wall at 8:00
111.6 to 112.0	Remove grease from pipe wall at 3:00
112.7 to 115.3	Remove grease from pipe wall at 4:00 and 9:00
113.5	Remove intruding service at 10:00
116.2	Remove encrustation on pipe wall at 5:00
117.9 to 119.9	Remove grease from pipe wall at 4:00
120.8 to 131.0	Remove grease from pipe wall at 9:00 and 3:00

<b>Sharp Boulevard (Asset No. MA20005281) Combined Sewer</b>	
1st MH S of Bruce Ave (MH20004829) to MH at Bruce Ave (S PL) (MH20004828)	
Drawing Number	12410
Size / Shape	225mm Circular
Material Type	Vitrified Clay
Total Length	149.8m
Maximum Sewer Depth to Invert	3.73m
Design Condition	Fully Deteriorated ovality 10%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20004829 (m)	
0.0 to 0.3	Remove encrustation from pipe wall at 10:00
7.3	Remove encrustation from pipe joint at 9:00
8.6 to 14.2	Remove grease from pipe wall at 7:00 and 5:00
19.6	Remove roots from pipe joint at 4:00
23.8	Remove roots from pipe joint at 9:00
24.5	Remove roots from pipe joint at 9:00
24.5 to 27.5	Remove grease from pipe wall at 3:00 and 9:00
27.6	Remove roots from pipe joint at 3:00 and 9:00
28.3	Remove roots from pipe joint at 9:00
29.1	Remove roots from pipe joint at 9:00 and 3:00
29.9	Remove roots from pipe joint at 9:00 and 3:00
30.5 to 33.0	Remove grease from pipe wall at 9:00 and 3:00
31.6	Remove solid debris at 6:00
33.0	Remove root from pipe joint at 9:00
33.8	Pipe size change to 250mm (information only)
39.4	Pipe size change to 225mm (information only)
39.5	Remove encrustation from pipe wall at 5:00
48.8 to 49.4	Remove encrustation from pipe wall at 10:00
52.0 to 54.1	Remove grease from pipe wall at 9:00 and 3:00
58.8	Remove roots from pipe joint at 10:00 and 2:00
59.5	Remove roots from pipe joint at 12:00 and 4:00
60.3	Remove roots from pipe joint at 12:00 and 4:00
61.1	Remove roots from pipe joint at 12:00 and 4:00
61.9	Remove roots from pipe joint at 8:00 and 12:00
62.7	Remove roots from pipe joint from 9:00 to 2:00
63.4	Remove roots from pipe joint at 9:00 and 3:00
64.2	Remove roots from pipe joint at 9:00 and 3:00
65.1	Remove roots from pipe joint at 9:00 and 3:00
66.5	Remove roots from pipe joint at 9:00 and 3:00
67.3	Remove roots from pipe joint at 9:00 and 3:00
68.2	Remove roots from pipe joint at 9:00 and 3:00
68.8	Remove roots around service at 10:00
69.0	Remove roots from pipe joint at 10:00
69.3	Remove roots around service at 10:00
71.2	Remove roots from pipe joint from 1:00 to 5:00
72.1	Remove roots from pipe joint at 9:00
72.9	Remove roots from pipe joint at 8:00
73.7	Remove roots from pipe joint at 8:00
74.5	Remove roots from pipe joint at 8:00
75.3	Remove roots from pipe joint at 8:00
77.6	Remove roots from pipe joint at 4:00

78.3	Remove roots from pipe joint at 4:00
80.0	Remove roots from pipe joint at 9:00
81.5	Remove roots from pipe joint at 9:00 and 3:00
82.2	Remove roots from pipe joint at 9:00 and 3:00
83.1	Remove roots from pipe joint at 9:00 and 3:00
84.0	Remove roots around service at 10:00
84.5	Remove roots from pipe joint from 9:00 to 3:00
85.3	Remove roots from pipe joint from 9:00 to 3:00
86.1	Remove roots from pipe joint from 9:00 to 3:00
86.9	Remove roots from pipe joint from 9:00 to 3:00
87.7	Remove roots from pipe joint from 9:00 to 3:00
88.7	Remove roots from pipe joint from 9:00 to 3:00
89.3	Remove roots from pipe joint at 9:00
90.1	Remove roots from pipe joint at 9:00
91.6	Remove roots from pipe joint at 9:00
92.3	Remove roots from pipe joint at 9:00
93.2	Remove roots from pipe joint at 9:00
94.0	Remove roots from pipe joint at 9:00
94.8	Remove roots from pipe joint at 9:00
95.5	Remove roots from pipe joint at 9:00
96.3	Remove roots from pipe joint at 9:00
97.1	Remove roots from pipe joint at 9:00
97.9	Remove roots from pipe joint at 9:00
98.6	Remove roots from pipe joint at 9:00
99.5	Remove roots from pipe joint at 9:00 and 3:00
99.8	Remove roots from service at 10:00
100.2	Remove roots from pipe joint at 9:00 and 3:00
101.0	Remove roots from pipe joint at 9:00 and 3:00
101.8	Remove roots from pipe joint at 9:00 and 3:00
102.7 to 104.1	Remove encrustation from pipe wall at 9:00 and 5:00
104.3 to 107.9	Remove encrustation from pipe wall at 9:00 and 5:00
115.0	Pipe size change to 250mm (information only)
126.1	Pipe size change to 225mm (information only)
126.1	Remove solid debris from invert of pipe
126.8	Remove roots from pipe joint at 9:00 and 3:00
127.5	Remove roots from pipe joint from 9:00 to 3:00
129.0	Remove roots from pipe joint from 9:00 to 3:00
130.2	Remove intruding service and roots at 9:00
138.8	Remove roots from pipe joint at 10:00 and 3:00
131.4	Remove roots from pipe joint at 10:00 and 3:00
132.5	Remove roots at service at 10:00
133.0	Remove roots from pipe joints from 12:00 to 12:00
133.9	Remove roots from pipe joints from 9:00 to 3:00
134.7	Remove roots from pipe joints from 9:00 to 3:00
135.4	Remove roots from pipe joints from 9:00 to 3:00
136.2	Remove roots from pipe joints from 9:00 to 3:00
136.8	Remove roots from pipe joints from 9:00 to 3:00
137.6	Remove roots from pipe joints from 9:00 to 3:00
138.4	Remove roots from pipe joints at 10:00
140.8	Remove roots from pipe joints at 4:00
141.6	Remove roots from pipe joints at 12:00
144.0	Remove intruding service with roots at 10:00
144.7	Remove roots from pipe joint from 9:00 to 4:00
145.6	Remove roots from pipe joint from 9:00 to 4:00
146.3	Remove roots from pipe joint from 9:00 to 4:00
146.9	Remove roots from pipe joint from 9:00 to 4:00
147.7	Remove roots from pipe joint from 9:00 to 4:00
148.5	Remove roots from pipe joint from 9:00 to 4:00

<b>Duffield Street (Asset No. MA20005199)</b>	
<b>Combined Sewer</b>	
Drawing Number	12411
Size / Shape	300mm Circular
Material Type	Vitrified Clay
Total Length	82.0m
Maximum Sewer Depth to Invert	4.03m
Design Condition	Fully Deteriorated ovality 5%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20004753 (m)	
4.9 to 5.3	Remove encrustation from pipe wall at 3:00 and 8:00
7.4 to 9.0	Remove encrustation from pipe wall from 9:00 to 3:00
13.2 to 15.2	Remove encrustation from pipe wall from 9:00 to 3:00
16.2 to 16.8	Remove encrustation from pipe wall at 9:00 and 3:00
21.1	Remove encrustation below connection at 10:00
22.5 to 23.0	Remove encrustation from pipe wall at 9:00 and 3:00
28.7 to 29.4	Remove encrustation from pipe wall at 9:00 and 3:00
46.1	Remove encrustation from pipe wall at 5:00
48.4	Remove roots from joint at 9:00
49.5 to 50.0	Remove encrustation from pipe wall at 9:00 and 4:00

50.8	Remove roots from pipe joint at 9:00
61.8	Remove encrustation under service at 9:00
66.1	Remove roots at service at 10:00

<b>Duffield Street (Asset No. MA20005262)</b>	
<b>Combined Sewer</b>	
Drawng Number	12412
Size / Shape	300mm Circular
Material Type	Vitrified Clay
Total Length	98.7m
Maximum Sewer Depth to Invert	4.42m
Design Condition	Fully Deteriorated ovality 5%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20004834 (m)	
0.0	Remove encrustation from pipe wall at 10:00
1.0	Remove intruding service at 10:00
15.6	Remove roots from pipe joint at 10:00
14.8 to 17.3	External Point Repair
30.1	Remove intruding service at 10:00
30.3	Remove roots at service at 10:00
30.5	Remove roots from pipe joint at 10:00
34.5	Remove roots from pipe joint at 9:00
35.1	Remove intruding service at 1:00
35.3	Remove roots from pipe joint at 9:00
40.0	Remove roots from pipe joint at 9:00
50.1	Remove roots from pipe joint at 9:00 and 3:00
50.9	Remove roots from pipe joint at 9:00 and 3:00
52.0	Remove intruding service at 2:00
53.0	Remove intruding service at 10:00
55.0 to 58.3	Remove roots from pipe joint at 12:00
61.5	Remove roots around service at 2:00
65.0	Remove roots from pipe joint at 9:00
65.9	Remove roots from pipe joint at 3:00
66.7	Remove roots from pipe joint at 3:00
67.4	Remove roots from pipe joint at 9:00 and 3:00
68.4	Remove roots from pipe joint at 9:00
69.0	Remove roots from pipe joint at 9:00
69.8	Remove roots from pipe joint at 10:00 and 2:00
70.5	Remove roots from pipe joint at 10:00 and 2:00
71.3	Remove roots from pipe joint at 10:00 and 2:00
71.4 to 71.7	Remove grease from pipe wall at 8:00 and 5:00
72.9	Remove roots from pipe joint at 2:00
73.7	Remove roots from pipe joint at 9:00 and 2:00
74.5	Remove roots from pipe joint at 9:00 and 2:00
75.2 to 76.8	External Point Repair
81.3	Remove roots from pipe joint at 10:00
82.1	Remove roots from pipe joint at 10:00
82.9	Remove roots from pipe joint at 2:00
83.7	Remove roots from pipe joint at 10:00
86.8	Remove roots from pipe joint at 3:00 and 9:00
90.0 to 92.3	External Point Repair
95.3	Remove roots from pipe joint at 4:00
96.2	Remove roots from pipe joint at 4:00

<b>Duffield Street (Asset No. MA20005287)</b>	
<b>Combined Sewer</b>	
Drawng Number	12413
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	107.2m
Maximum Sewer Depth to Invert	6.9m
Design Condition	Fully Deteriorated ovality 2%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20004835 (m)	
4.0	Remove encrustation around connection at 10:00
4.4	Remove intruding service at 2:00
5.0	Remove roots from pipe joint at 3:00
19.0	Remove roots from pipe joint at 3:00
19.9	Remove roots from pipe joint at 3:00
26.5	Remove roots from pipe joint at 3:00
33.7	Remove roots at service at 10:00
34.7	Remove roots at service at 2:00
35.1	Remove roots from pipe wall at 2:00
49.2	Remove roots at service at 10:00
57.4	Remove roots from pipe joint
58.2	Remove roots from pipe joint

59.0	Remove roots from pipe joint
59.8	Remove roots from pipe joint
60.6	Remove roots from pipe joint
61.4	Remove roots from pipe joint
62.2	Remove roots from pipe joint
63.0	Remove roots from pipe joint
63.8	Remove roots from pipe joint
64.4	Remove roots from pipe joint
64.8	Remove roots at service at 10:00
65.3	Remove roots from pipe joint at 5:00 and 10:00
66.0	Remove roots at service at 2:00
66.8	Remove roots from pipe joint
67.5	Remove roots from pipe joint
68.2	Remove roots from pipe joint
69.0	Remove roots from pipe joint
79.0	Remove roots from pipe joint
79.8	Remove roots from pipe joint
80.6	Remove roots from pipe joint
81.3	Remove roots from pipe joint
89.7	Remove roots from pipe joint

<b>Notre Dame Avenue (Asset No. MA20007194) Sanitary Sewer</b>	<b>1st MH E of King Edward St (MH20006593) to 2nd MH E of King Edward St (MH20006623)</b>
Drawng Number	12414
Size / Shape	250mm Circular
Material Type	Concrete
Total Length	93.1m
Maximum Sewer Depth to Invert	3.34m
Design Condition	Fully Deteriorated ovality 6%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20006593 (m)	
0.0 to 1.0	Remove encrustation from pipe wall from 3:00 to 9:00
2.0 to 6.9	Remove grease from pipe wall from 9:00 and 3:00
6.9	Remove encrustation below service at 10:00
8.2	Remove encrustation from pipe joint from 3:00 to 9:00
9.7	Remove encrustation from pipe joint from 3:00 and 9:00
12.8	Remove encrustation from pipe joint from 3:00 and 9:00
13.6	Remove encrustation from pipe joint from 3:00 and 9:00
33.1	Remove encrustation from pipe joint at 7:00
33.9	Remove encrustation from pipe joint at 7:00
52.1	Remove encrustation from pipe wall at 4:00
54.0	Remove encrustation from pipe wall at 9:00
54.8	Remove encrustation from pipe wall at 4:00 and 8:00
55.4	Remove encrustation from pipe wall at 4:00
56.0	Remove encrustation from pipe wall at 7:00
59.8	Remove encrustation from pipe joint from 1:00 to 10:00
60.6	Remove encrustation from pipe joint from 3:00 to 5:00
63.3	Remove encrustation from pipe wall at 9:00
66.0	Remove encrustation from pipe joint at 2:00
71.1	Remove encrustation from pipe wall at 5:00
71.7	Remove encrustation from pipe wall at 8:00
76.1	Remove encrustation from pipe wall at 4:00
78.2	Remove encrustation from pipe wall at 9:00
79.3 to 80.8	Remove grease from pipe wall from 10:00 to 2:00
80.9 to 81.6	Remove encrustation from pipe wall from 7:00 to 5:00
83.0 to 83.9	Remove encrustation from pipe wall from 9:00 to 4:00
84.9 to 85.2	Remove encrustation from pipe wall from 12:00 to 3:00
86.3 to 95.8	Remove encrustation from pipe wall from 10:00 to 2:00

<b>Brooklyn Street (Asset No. MA20008296) Combined Sewer</b>	<b>1st MH S of Silver Ave (MH20007704) to 2nd MH S of Silver Ave (MH20007627)</b>
Drawng Number	12415
Size / Shape	300mm Circular
Material Type	Vitrified Clay
Total Length	136.6m
Maximum Sewer Depth to Invert	3.46m
Design Condition	Fully Deteriorated ovality 4%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20007704 (m)	
2.3	Remove encrustation below service at 2:00
3.2	Remove intruding service at 9:00
4.4	Remove encrustation from pipe wall at 5:00
5.4	Remove encrustation from pipe wall at 4:00
5.9	Remove encrustation from pipe joint at 5:00
6.7	Remove encrustation from pipe joint at 7:00
7.5	Remove encrustation from pipe joint at 5:00

13.9	Remove encrustation from pipe joint at 5:00 and 7:00
17.8	Remove intruding service at 11:00
20.8	Remove encrustation from pipe joint at 5:00 and 7:00
31.3	Remove intruding service at 10:00
36.5	Remove encrustation from pipe joint at 7:00
38.0	Remove encrustation from pipe joint from 7:00 to 1:00
40.0	Remove intruding service at 10:00
41.3	Remove encrustation from pipe joint at 5:00 and 7:00
65.2	Remove intruding service at 2:00
71.9	Remove encrustation from pipe joint at 7:00
72.7	Remove encrustation from pipe joint at 5:00
74.3	Remove encrustation from pipe joint at 8:00
77.7	Remove intruding service at 10:00
78.2	Remove encrustation from pipe wall at 7:00
79.0	Remove encrustation from pipe joint at 5:00
82.9	Remove encrustation from pipe joint from 4:00 to 6:00
86.0	Remove encrustation from pipe joint at 4:00
91.9 to 92.2	Remove encrustation from pipe wall from 7:00 to 9:00
92.4	Remove encrustation from pipe wall below service at 10:00
93.2 to 93.5	Remove encrustation from pipe wall from 2:00 to 8:00
99.4	Remove encrustation from pipe joint from 7:00 to 9:00
100.0	Remove encrustation from pipe joint from 5:00 to 9:00
101.0	Remove encrustation from pipe joint from 5:00 to 9:00
102.4	Remove encrustation from pipe joint at 4:00
109.4	Remove encrustation from pipe joint at 4:00
113.4	Remove encrustation from pipe joint at 9:00
117.3	Remove encrustation from pipe joint from 5:00 to 7:00
124.5	Remove encrustation from pipe joint at 7:00
125.6	Remove intruding service at 10:00
126.9	Remove encrustation from pipe joint at 4:00 and 8:00
132.2	Remove encrustation from pipe joint at 4:00
134.7	Remove intruding service at 10:00

<b>Winston Drive (Asset No. MA20008799)</b>	
<b>Combined Sewer</b>	
1st MH N of Assiniboine Ave (MH20008135) to MH at Assiniboine Ave (MH20008112)	
Drawing Number	12416
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	123.6m
Maximum Sewer Depth to Invert	3.71m
Design Condition	Fully Deteriorated ovality 9%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20008135 (m)	
1.2	Remove intruding service at 2:00
2.6	Remove intruding service at 10:00
3.6	Remove encrustation from pipe joint at 6:00
8.4	Remove encrustation from pipe wall from 5:00 to 7:00
19.9	Remove intruding service at 10:00
24.7	Remove encrustation from pipe joint at 5:00
48.6	Remove intruding service at 10:00
49.0	Remove intruding service at 2:00
51.6	Remove intruding service at 10:00
54.8	Remove intruding service at 2:00
72.9	Remove intruding service at 10:00
95.8	Remove intruding service at 10:00
111.9	Remove encrustation from pipe wall at 6:00
112.1	Remove encrustation from pipe joint at 8:00

<b>Dublin Avenue (Asset No. MA20011692)</b>	
<b>Combined Sewer</b>	
2nd MH W of Notre Dame Ave (MH20010648) to 1st MH W of Notre Dame Ave (MH20010673)	
Drawing Number	12417
Size / Shape	300mm Circular
Material Type	Vitrified Clay
Total Length	100.1m
Maximum Sewer Depth to Invert	2.52m
Design Condition	Fully Deteriorated ovality 3%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20010648 (m)	
1.0	Remove encrustation from pipe wall at 3:00
8.7 to 9.6	Remove encrustation from pipe wall from 3:00 and 9:00
11.8 to 12.4	Remove encrustation from pipe wall at 8:00
16.6	Remove intruding service at 10:00
18.3	Remove encrustation from pipe wall at 4:00
19.6	Remove encrustation from pipe joint at 3:00
21.9	Remove encrustation from pipe wall at 3:00
22.7	Remove encrustation from pipe joint at 3:00

26.7	Remove encrustation from pipe joint afrom 12:00 to 4:00
26.8	Remove intruding service at 10:00
33.3 to 33.7	Remove encrustation from pipe wall at 10:00
34.0	Remove encrustation from pipe joint at 3:00
49.6	Remove encrustation from pipe joint at 10:00
49.1	Remove encrustation from pipe joint at 3:00
51.4	Remove encrustation from pipe joint at 3:00
52.8	Remove encrustation from pipe joint at 3:00
71.9	Remove encrustation from pipe joint at 3:00
95.3 to 97.5	EPR by others (Tender 594-2019)
100.0	Remove solid debris to invert of benching in MH

<b>Wellington Avenue (Asset No. MA20010459) Combined Sewer</b>		<b>1st MH W of Strathcona St (MH20009548) to 2nd MH W of Strathcona St (MH20009549)</b>	
Drawng Number	12418		
Size / Shape	450mm Circular		
Material Type	Vitrified Clay		
Total Length	93.8m		
Maximum Sewer Depth to Invert	4.02m		
Design Condition	Fully Deteriorated ovality 8%		
<b>Site Specific Repairs</b>			
<b>Location</b>	<b>Action Required</b>		
Distance From MH20009548 (m)			
8.1	Remove encrustation from pipe joint at 7:00		
8.5	Remove encrustation under service at 10:00		
22.2	Remove encrustation from pipe joint at 9:00 and 3:00		
24.4	Remove encrustation from pipe joint at 7:00		
25.5	Remove encrustation from pipe joint at 7:00		
51.1	Remove encrustation from pipe wall below service at 10:00		
63.2 to 64.4	Remove encrustation from pipe wall from 3:00 to 7:00		
65.9 to 66.2	Remove encrustation from pipe wall at 8:00		
66.9	Remove encrustation from pipe joint at 7:00		
69.0	Remove encrustation from pipe joint at 7:00		
81.4 to 81.7	Remove encrustation from pipe wall at 10:00		
91.1	Remove encrustation from pipe joint at 7:00		
92.1	Remove encrustation from pipe joint at 7:00		

<b>Strathcona Street (Asset No. MA20009815) Combined Sewer</b>		<b>2nd MH N of St. Matthews Ave (MH20008974) to 1st MH N of St. Matthews Ave (MH20008973)</b>	
Drawng Number	12419		
Size / Shape	300mm Circular		
Material Type	Vitrified Clay		
Total Length	86.3m		
Maximum Sewer Depth to Invert	4.35m		
Design Condition	Fully Deteriorated ovality 5%		
<b>Site Specific Repairs</b>			
<b>Location</b>	<b>Action Required</b>		
Distance From MH20008974 (m)			
0.5	Remove encrustation from pipe joint at 9:00		
3.5	Remove encrustation from pipe joint from 7:00 to 4:00		
4.1	Remove encrustation from pipe joint from 7:00 to 10:00		
4.7	Remove encrustation from pipe joint from 1:00 to 5:00		
11.1	Remove encrustation from pipe wall at 10:00		
14.7	Remove encrustation from pipe joint from 7:00 to 10:00		
15.3	Remove encrustation from pipe joint from 7:00 to 10:00		
17.8	Remove encrustation from pipe joint at 10:00		
18.4	Remove encrustation from pipe joint at 9:00		
19.9	Remove encrustation from below service at 2:00		
26.4	Remove roots from pipe joint at 9:00		
50.7 to 54.9	Remove grease from pipe wall at 3:00 and 9:00		
60.7 to 61.5	Remove encrustation from pipe wall at 8:00		
68.6	Remove encrustation from pipe joint at 9:00		
70.0	Remove encrustation from pipe wall at 9:00		
76.0 to 76.5	Remove grease from pipe wall at 8:00		

<b>Telfer Street North (Asset No. MA20009155) Combined Sewer</b>	<b>3rd MH S of Ellice Ave (MH20008451) to 4th MH S of Ellice Ave (MH20008379)</b>
Drawing Number	12420
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	90.0m
Maximum Sewer Depth to Invert	4.45m
Design Condition	Fully Deteriorated ovality 3%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20008451 (m)	
3.3	Remove encrustation from pipe joint at 9:00
6.3	Remove encrustation from pipe joint at 9:00
14.6 to 14.9	Remove encrustation from pipe wall at 3:00
17.4	Remove encrustation from pipe wall at 9:00
27.0	Remove encrustation from pipe joint at 9:00
37.8	Remove roots from service at 10:00
52.6	Remove encrustation from pipe wall at 4:00
53.6	Remove encrustation from pipe wall from 10:00 to 12:00
54.3	Remove encrustation from pipe joint at 9:00
54.5	Remove encrustation below service at 10:00
63.8	Remove encrustation from pipe wall at 9:00 and 3:00
66.9	Remove roots from pipe joint at 7:00

<b>Burrows Avenue (Asset No. MA00008081) Combined Sewer</b>	<b>1st MH E of Shepperd St (MH00008020) to 2nd MH E of Shepperd St (MH00008024)</b>
Drawing Number	12421
Size / Shape	375mm Circular
Material Type	Concrete
Total Length	80.0m
Maximum Sewer Depth to Invert	4.3m
Design Condition	Fully Deteriorated ovality 2%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH00008020 (m)	
2.2	Remove encrustation from pipe joint at 4:00
10.2	Remove intruding service at 3:00
35.9	Remove encrustation from pipe joint at 5:00
78.3	Remove roots from pipe joint from 9:00 to 3:00

<b>St. Matthews Avenue (Asset No. MA20009452) Combined Sewer</b>	<b>1st MH E of Minto St (MH20008641A) to Sewer at Minto St (MA20009451)</b>
Drawing Number	12422
Size / Shape	250mm Circular
Material Type	PVC
Total Length	31.4m
Maximum Sewer Depth to Invert	2.7m
Design Condition	Fully Deteriorated ovality 2%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20008641A (m)	
8.3	Remove encrustation from pipe wall at 9:00
11.1	Remove encrustation from pipe wall at 7:00
13.2	Remove encrustation from pipe wall at 3:00
15.6	Remove encrustation from pipe joint at 9:00
18.9	Remove encrustation from pipe joint at 9:00
19.9	Remove encrustation from pipe wall at 3:00
29.0	Remove encrustation from pipe joint at 7:00
27.0 to 31.0	Remove encrustation from pipe wall at 6:00

<b>Arlington Street (Asset No. MA20015225) Combined Sewer</b>	<b>1st MH S of Portage Ave (MH20013789) to MH at Preston Ave (MH20013726)</b>
Drawng Number	12423
Size / Shape	300 Circular
Material Type	Vitrified Clay
Total Length	87.3m
Maximum Sewer Depth to Invert	4.42m
Design Condition	Fully Deteriorated ovality 10%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20013789 (m)	
0.0	Remove encrustation from pipe wall from 6:00 to 8:00
0.0	Grout void out side of pipe in MH at 5:00
0.5 to 3.0	Remove encrustation from pipe wall from 7:00 and 5:00
9.5	Remove intruding service
16.5	Remove encrustation from pipe wall below service at 10:00
16.8	Remove encrustation from pipe joint at 4:00
22.1	Remove intruding service at 9:00
24.9	Remove intruding service at 3:00
25.5	Remove encrustation from pipe wall at 3:00
42.1 to 42.4	Remove encrustation from pipe wall from 7:00 to 11:00
43.2	Remove encrustation from pipe wall at 11:00
43.6	Remove encrustation from pipe joint at 11:00
43.6 to 44.0	Remove encrustation from pipe wall from 1:00 to 4:00
50.4	Remove encrustation from pipe wall from 7:00 to 12:00
53.0	Remove intruding service at 9:00
54.2	Remove intruding service at 9:00
49.9 to 55.3	Remove encrustation from pipe wall at 11:00
67.2	Remove encrustation from pipe wall at 3:00
68.6	Remove encrustation from pipe wall at 12:00
77.4	Remove intruding service at 2:00
84.8	Remove encrustation from pipe wall from 7:00 to 11:00
85.4	Remove encrustation from pipe wall from 12:00 to 4:00
87.0	Remove encrustation from pipe wall from 7:00 to 11:00

<b>Bannerman Avenue (Asset No. MA00007201) Combined Sewer</b>	<b>MH at McPhillips St EPL (MH00007236) to 1st MH E of McPhillips St (MH00007251)</b>
Drawng Number	12424
Size / Shape	300mm Circular
Material Type	Vitrified Clay
Total Length	69.5m
Maximum Sewer Depth to Invert	3.22m
Design Condition	Fully Deteriorated ovality 6%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH00007236 (m)	
24.6	Remove encrustation from pipe joint at 7:00
45.0	Remove encrustation from pipe joint at 7:00
49.7	Remove encrustation from pipe joint at 7:00
51.2	Remove encrustation from pipe joint at 6:00
59.1	Remove encrustation from pipe joint at 6:00
62.2 to 63.4	Remove grease from pipe wall at 4:00 and 9:00
63.8	Remove encrustation from pipe joint at 7:00

<b>William Avenue (Asset No. MA20019491) Combined Sewer</b>	<b>3rd MH W of Arlington Ave (MH70005321) to 2nd MH W of Arlington Ave (MH20017498)</b>
Drawng Number	12425
Size / Shape	300mm Circular
Material Type	Vitrified Clay
Total Length	87.5m
Maximum Sewer Depth to Invert	3.0m
Design Condition	Fully Deteriorated ovality 7%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH70005321(m)	
27.2	Remove encrustation from pipe joint from 4:00 to 7:00
33.2	Remove encrustation from pipe joint at 8:00
38.4 to 43.2	Remove encrustation from pipe wall at 9:00
43.6	Remove encrustation from below service at 10:00
44.4 to 48.8	Remove encrustation from pipe wall at 9:00
50.5	Remove encrustation from below service at 10:00
57.0 to 58.6	External Point Repair
62.4	Remove encrustation below service at 9:00
71.5	Remove encrustation below service at 3:00
71.8	Remove encrustation from pipe wall at 10:00

<b>Beverley Street (Asset No. MA20017551)</b>	
<b>Combined Sewer</b>	
Drawng Number	12426
Size / Shape	450mm Circular
Material Type	Vitrified Clay
Total Length	8.6m
Maximum Sewer Depth to Invert	5.07m
Design Condition	Fully Deteriorated ovality 6%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20015753 (m)	
	No repair works required (information only)

<b>Beverley Street (Asset No. MA20017534)</b>	
<b>Combined Sewer</b>	
Drawng Number	12427
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	95.6m
Maximum Sewer Depth to Invert	4.13m
Design Condition	Fully Deteriorated ovality 5%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20015767 (m)	
8.3	Remove intruding service at 2:00
8.6	Remove intruding service at 10:00
17.4	Remove encrustation below service at 2:00
17.4 to 20.1	Remove encrustation from pipe wall at 8:00 and 4:00
21.0	Remove encrustation from pipe wall at 8:00
21.6	Remove encrustation from pipe wall at 8:00
22.3	Remove encrustation from pipe wall at 8:00 and 4:00
24.4	Remove intruding service at 10:00
26.7 to 30.6	Remove encrustation from pipe wall from 12:00 to 9:00
32.0 to 32.5	Remove encrustation from pipe wall from 2:00 to 5:00
34.6 to 35.3	Remove encrustation from pipe wall from 1:00 to 9:00
42.9	Remove encrustation from pipe joint at 7:00
45.4	Remove encrustation from pipe joint at 5:00
47.6	Remove intruding service at 10:00
52.1 to 52.4	Remove encrustation from pipe wall from 7:00 to 12:00
53.0 to 54.0	Remove encrustation from pipe wall from 2:00 to 11:00
55.7	Remove encrustation at service at 10:00
79.1	Remove encrustation from pipe joint at 4:00
95.3	Remove encrustation on pipe wall entering MH at 6:00

<b>Walnut Street (Asset No. MA20015049)</b>	
<b>Combined Sewer</b>	
Drawng Number	12428
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	8.9m
Maximum Sewer Depth to Invert	5.35m
Design Condition	Fully Deteriorated ovality 2%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20013568 (m)	
5.2	Remove roots around service at 10:00
5.7	Remove roots from pipe joint at 10:00
7.8	Remove debris at 7:00

<b>Walnut Street (Asset No. MA20015048)</b>	
<b>Combined Sewer</b>	
Drawing Number	12429
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	79.5m
Maximum Sewer Depth to Invert	6.86m
Design Condition	Fully Deteriorated ovality 2%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20013569 (m)	
0.5	Remove encrustation from pipe wall at 5:00
3.0	Remove encrustation from pipe joint from 3:00 to 6:00
4.2	Remove encrustation from pipe joint at 5:00
6.8	Remove encrustation from pipe joint at 9:00
7.0	Remove encrustation from pipe wall at service at 2:00
33.9	Remove encrustation from pipe joint at 10:00
37.8 to 38.7	Remove encrustation from pipe wall from 3:00 to 5:00
38.7	Remove intruding service at 3:00
38.1 to 39.6	External Point Repair
43.2 to 46.4	External Point Repair
60.5 to 61.3	Remove grease from pipe wall at 12:00
63.5 to 65.5	Remove grease from pipe wall at 12:00
68.5 to 70.7	Remove grease from pipe wall from 9:00 to 2:00
73.1 to 76.5	Remove grease from pipe wall from 9:00 to 2:00

<b>Middle Gate (Asset No. MA20013685)</b>	
<b>Combined Sewer</b>	
Drawing Number	12430
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	99.9m
Maximum Sewer Depth to Invert	4.39m
Design Condition	Fully Deteriorated ovality 2%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20012394 (m)	
2.1 to 3.3	External Point Repair
5.9	Remove roots from pipe joint at 9:00 and 2:00
6.5	Remove roots from pipe joint at 9:00 and 2:00
7.6	Remove roots from pipe joint at 9:00 and 2:00
8.2	Remove roots from pipe joint at 9:00 and 2:00
10.9	Remove roots from pipe joint at 9:00 and 2:00
11.5	Remove roots from pipe joint at 9:00 and 2:00
13.8	Remove roots from pipe joint at 9:00 and 2:00
15.0	Remove roots from pipe joint at 9:00 and 2:00
15.6	Remove roots from pipe joint at 9:00 and 2:00
16.9	Remove roots from pipe joint at 9:00 and 2:00
17.6	Remove roots from pipe joint at 9:00 and 2:00
18.1	Remove roots from pipe joint at 9:00 and 2:00
18.8	Remove roots from pipe joint at 9:00 and 2:00
19.3	Remove roots from pipe joint at 9:00 and 2:00
20.0	Remove roots from pipe joint at 9:00 and 2:00
20.9	Remove roots from pipe joint at 9:00 and 2:00
21.4	Remove roots from pipe joint at 9:00 and 2:00
21.9	Remove roots from pipe joint at 9:00 and 2:00
22.6	Remove roots from pipe joint at 9:00 and 2:00
23.2	Remove roots around service at 10:00
23.9	Remove roots from pipe joint from 9:00 to 4:00
24.5	Remove roots from pipe joint from 9:00 to 4:00
25.3	Remove roots from pipe joint from 9:00 to 4:00
25.9	Remove roots from pipe joint from 9:00 to 4:00
27.1	Remove roots from pipe joint from 9:00 to 4:00
27.7	Remove roots from pipe joint from 9:00 to 4:00
28.3	Remove roots from pipe joint from 9:00 to 4:00
28.9	Remove roots from pipe joint from 9:00 to 4:00
30.2	Remove roots from pipe joint from 9:00 to 4:00
31.5	Remove roots from pipe joint from 9:00 to 4:00
32.1	Remove roots from pipe joint from 9:00 to 4:00
40.0	Remove encrustation from pipe joint at 8:00
42.6	Remove intruding service at 2:00
56.9	Remove encrustation from pipe wall at 3:00
61.8	Remove intruding service at 2:00
64.5	Remove encrustation from pipe joint at 7:00
81.5	Remove roots from pipe joint at 9:00 and 3:00
82.1	Remove roots from pipe joint at 9:00 and 12:00
82.8	Remove roots from pipe joint at 3:00
83.4	Remove roots from pipe joint at 9:00 and 3:00

83.8	Remove roots from service at 2:00
84.0	Remove roots from pipe joint at 10:00 and 4:00
86.0	Remove roots from pipe joint at 10:00 and 4:00
86.5	Remove roots from pipe joint at 10:00 and 4:00
87.2	Remove roots from pipe joint at 10:00 and 4:00
87.6	Remove roots from pipe joint at 10:00 and 4:00
88.2	Remove roots from pipe joint at 10:00 and 4:00
89.2	Remove roots from pipe joint at 10:00 and 4:00
89.8	Remove roots from pipe joint at 10:00 and 4:00
90.9	Remove roots from pipe joint at 10:00 and 4:00
91.2	Remove roots at service at 10:00
91.6	Remove roots from pipe joint from 7:00 to 5:00
92.1	Remove roots from pipe joint from 7:00 to 5:00
92.7	Remove roots from pipe joint from 7:00 to 5:00
93.4	Remove roots from pipe joint from 7:00 to 5:00
94.0	Remove roots from pipe joint from 7:00 to 5:00
94.6	Remove roots from pipe joint from 7:00 to 5:00
96.6	Remove roots from pipe joint from 7:00 to 5:00
97.1	Remove roots from pipe joint from 7:00 to 5:00
97.7	Remove roots from pipe joint from 7:00 to 5:00
97.9	Remove roots from service at 2:00
98.4	Remove roots from pipe joint at 9:00 and 4:00
98.9	Remove encrustation from pipe joint at 10:00

<b>West Gate (Asset No. MA20013687)</b>	
<b>Combined Sewer</b>	
Drawng Number	12431
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	77.3m
Maximum Sewer Depth to Invert	4.18m
Design Condition	Fully Deteriorated ovality 2%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH20012396 (m)	
2.0	Remove intruding service at 9:00
15.9	Remove intruding service at 9:00
17.8	Remove roots from pipe joint at 8:00
27.1	Remove roots from pipe joint at 8:00
29.3	Remove roots from pipe joint at 3:00
35.5	Remove roots from pipe joint at 10:00
35.8	Remove roots at service at 10:00
41.6	Remove roots from pipe joint at 4:00
43.9	Remove roots from pipe joint at 4:00
45.0	Remove roots from service at 10:00
45.5	Remove roots from pipe joint at 8:00
46.2	Remove roots from pipe joint at 8:00
47.0	Remove roots from pipe joint at 8:00
47.9	Remove roots from pipe joint at 8:00
49.3	Remove roots from pipe joint at 8:00
50.8	Remove roots from pipe joint at 8:00

<b>Andrews Street (Asset No. MA00015282)</b>	
<b>Combined Sewer</b>	
Drawng Number	12432
Size / Shape	300mm Circular
Material Type	Vitrified Clay
Total Length	107.3m
Maximum Sewer Depth to Invert	4.1m
Design Condition	Fully Deteriorated ovality 2%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH00013615 (m)	
5.3 to 12.9	Remove grease from pipe wall at 5:00 and 7:00
36.0	Remove encrustation on pipe wall at service at 10:00
42.4	Remove intruding service at 2:00
49.3	Remove encrustation around service at 10:00
66.3	Remove encrustation around service at 2:00
89.3	Remove encrustation below service at 2:00

<b>Luxton Avenue (Asset No. MA00010009)</b>	<b>MH at Powers St (CL) (MH00006562) to MH at Powers St (WPL) (MH00006563)</b>
<b>Combined Sewer</b>	
Drawing Number	12433
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	6.2m
Maximum Sewer Depth to Invert	5.5m
Design Condition	Fully Deteriorated ovality 2%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance from MH00006562 (m)	
5.4	Remove encrustation from pipe wall at 3:00

<b>St. Johns Park (Asset No. MA00016834)</b>	<b>1st MH E of Main St (MH70028728) to MH at Main St (E PL) (MH00014391)</b>
<b>Combined Sewer</b>	
Drawing Number	12434
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	195.5m
Maximum Sewer Depth to Invert	5.93m
Design Condition	Fully Deteriorated ovality 8%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH70028727 (m)	
0.1	Remove encrustation from pipe joint at 12:00
0.0 to 0.8	Remove encrustation from pipe wall at 9:00
2.0	Remove encrustation from pipe joint from 9:00 to 3:00
2.7	Remove roots from pipe joint at 10:00
3.4	Remove roots from pipe joint from 10:00 to 2:00
5.6	Remove roots from pipe joint at 3:00
7.0	Remove roots from pipe joint from 9:00 to 3:00
9.3	Remove roots from pipe joint from 9:00 to 3:00
11.6	Remove roots from pipe joint from 9:00 to 3:00
12.3	Remove roots from pipe joint from 9:00 to 3:00
13.1	Remove roots from pipe joint from 9:00 to 3:00
16.2	Remove roots from pipe joint from 9:00 to 3:00
17.7	Remove roots from pipe joint from 9:00 to 3:00
23.0	Remove roots from pipe joint from 9:00 to 3:00
23.8	Remove roots from pipe joint from 9:00 to 3:00
24.6	Remove roots from pipe joint from 9:00 to 3:00
29.3	Remove encrustation from pipe joint at 12:00
30.6	Remove encrustation from pipe joint at 12:00
31.3	Remove encrustation from pipe joint at 12:00
32.1	Remove roots from pipe joint at 10:00
32.9	Remove encrustation from pipe joint at 2:00
33.6	Remove encrustation from pipe joint from 9:00 to 1:00
36.6	Remove encrustation from pipe joint from 9:00 to 12:00
37.4	Remove encrustation from pipe joint at 10:00
39.6	Remove encrustation from pipe joint from 9:00 to 3:00
41.2	Remove encrustation from pipe joint from 10:00 to 5:00
43.4	Remove roots from pipe wall from 1:00 to 3:00
48.0	Remove roots from pipe wall at 2:00
48.8	Remove encrustation from pipe joint at 9:00 and 5:00
54.8	Remove encrustation from pipe joint at 2:00
61.6	Remove encrustation from pipe joint from 9:00 to 3:00
66.7	Remove encrustation from pipe joint at 10:00
87.2	Remove encrustation from pipe joint at 10:00
90.4	Remove encrustation from pipe joint from 9:00 to 3:00
91.1	Remove encrustation from pipe joint from 9:00 to 3:00
108.6	Remove encrustation from pipe joint from 9:00 to 3:00
110.1	Remove encrustation from pipe joint from 9:00 to 3:00
113.2	Remove encrustation from pipe joint at 10:00
120.1	Remove encrustation from pipe joint from 9:00 to 3:00
120.8	Remove encrustation from pipe joint from 10:00 to 2:00
123.6	Remove encrustation from pipe joint at 2:00
127.1	Remove encrustation from pipe joint at 7:00
130.8	Remove encrustation from pipe joint from 7:00 and 4:00
134.6	Remove encrustation from pipe joint from 7:00 and 4:00
137.0	Remove encrustation from pipe joint at 12:00
158.4 to 161.4	Remove encrustation from pipe wall at 9:00 and 4:00
161.4 to 163.0	Remove grease from pipe wall at 9:00 and 4:00
165.4	Remove roots from pipe joint at 5:00
166.2	Remove encrustation from pipe joint at 8:00 and 4:00
168.4	Remove encrustation from pipe joint at 8:00 and 4:00
174.0	Remove roots from pipe joint at 2:00
178.6	Remove encrustation from pipe joint from 6:00 to 7:00
185.3	Remove encrustation from pipe joint at 4:00
186.0	Remove roots from pipe joint at 3:00

<b>Luxton Avenue (Asset No. MA00008872)</b>	<b>3rd MH E of Main St (MH00010991) to 4th MH E of Main St (MH00008906)</b>
<b>Combined Sewer</b>	
Drawng Number	12435
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	111.9m
Maximum Sewer Depth to Invert	4.44m
Design Condition	Fully Deteriorated ovality 10%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH00010991 (m)	
3.9	Remove encrustation from pipe wall at 4:00 and 8:00
4.3 to 4.9	Remove encrustation from pipe wall from 7:00 to 11:00
5.2 to 6.1	Remove encrustation from pipe wall at 4:00 and 8:00
15.1 to 15.9	Remove encrustation from pipe wall from 12:00 to 12:00
16.5 to 17.8	Remove encrustation from pipe wall from 2:00 to 11:00
21.2 to 22.2	Remove encrustation from pipe wall from 12:00 to 9:00
28.6	Remove encrustation from open connection at 10:00
30.6 to 31.1	Remove encrustation from pipe wall from 3:00 to 9:00
32.7 to 32.9	Remove encrustation from pipe wall from 7:00 to 9:00
36.3	Remove encrustation from pipe joint from 3:00 to 6:00
43.3 to 44.5	Remove encrustation from pipe wall from 3:00 to 9:00
49.0	Remove encrustation from pipe wall at 4:00 and 8:00
50.3 to 50.8	Remove encrustatn from pipe wall from 8:00 to 9:00
52.8 to 54.4	Remove encrustation from pipe wall from 5:00 to 9:00
61.5 to 63.2	Remove encrustation from pipe wall from 5:00 to 9:00
107.2	Remove grease from pipe wall at 7:00
111.2	Remove intruding service at 2:00

<b>McAdam Avenue (Asset No. MA00015986) Combined Sewer</b>	<b>MH at Jones St (MH00014143) to 1st MH W of Jones St (MH00011611)</b>
Drawng Number	12436
Size / Shape	375mm Circular
Material Type	Vitrified Clay
Total Length	100.3m
Maximum Sewer Depth to Invert	5.1m
Design Condition	Fully Deteriorated ovality 2%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH00014143 (m)	
88.9	Remove roots from pipe joint at 7:00

<b>Royal Avenue (Asset No. MA00001514)</b>	<b>1st MH E of Andrews St (MH00010196) to MH at Andrews St (MH00001259)</b>
<b>Combined Sewer</b>	
Drawng Number	12437
Size / Shape	450mm Circular
Material Type	Concrete
Total Length	100.6m
Maximum Sewer Depth to Invert	4.25m
Design Condition	Fully Deteriorated ovality 7%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH00010196 (m)	
0.0 to 0.5	Remove encrustation from pipe wall from 7:00 to 4:00
1.2	Remove encrustation from under service at 10:00
6.3	Remove encrustation from under service at 2:00
15.5	Remove encrustation from pipe wall at 9:00
20.2	Remove encrustation from pipe wall at 7:00
20.8	Remove roots from pipe joint at 3:00
22.5	Remove encrustation from pipe joint from 3:00 to 9:00
23.1	Remove encrustation from pipe joint from 3:00 to 9:00
24.0	Remove encrustation from pipe joint from 3:00 to 9:00
24.8	Remove encrustation from pipe joint from 3:00 to 9:00
27.1	Remove encrustation from pipe joint from 3:00 to 9:00
27.1	Remove encrustation from pipe joint from 3:00 to 9:00
27.9	Remove encrustation from pipe joint from 3:00 to 9:00
28.6	Remove encrustation from pipe joint from 3:00 to 9:00
29.4	Remove encrustation from pipe joint from 3:00 to 9:00
30.5	Remove roots at service at 10:00
33.3	Remove encrustation from pipe joint from 3:00 to 9:00
33.9 to 36.2	Remove grease from pipe wall at 3:00
36.4	Remove encrustation from pipe joint at 7:00
38.0 to 39.7	Remove grease from pipe wall at 4:00 and 8:00
41.9	Remove encrustation from pipe joint at 7:00
43.6	Remove branch from pipe joint at 3:00
46.5	Remove encrustation from pipe joint at 5:00

50.7	Remove roots from service at 10:00
52.1 to 52.3	Remove grease from pipe wall at 5:00 and 7:00
52.7	Remove roots at connection at 10:00
65.0	Remove intruding service at 10:00
69.2 to 69.4	Remove encrustation from pipe wall at 10:00
70.7	Remove encrustation from pipe wall at 6:00
100.0	Remove encrustation from pipe wall at 7:00

<b>Main Street E Curb (Asset No. MA00017005) Combined Sewer</b>		<b>MH at Belmont Ave (MH00000817) to 1st MH S of Belmont Ave (MH00000832)</b>	
Drawng Number	12438		
Size / Shape	450mm Circular		
Material Type	Vitrified Clay		
Total Length	67.3m		
Maximum Sewer Depth to Invert	5.88m		
Design Condition	Fully Deteriorated ovality 3%		
<b>Site Specific Repairs</b>			
<b>Location</b>	<b>Action Required</b>		
Distance From MH00000817 (m)			
61.0	Remove encrustation from pipe wall at 9:00 and 4:00		
63.4	Remove encrustation from pipe wall from 7:00 to 5:00		

<b>Kilbride Avenue (Asset No. MA00001051) Combined Sewer</b>		<b>2nd MH W of Scotia St (MH00000919) to 3rd MH W of Scotia St (MH00000918)</b>	
Drawng Number	12439		
Size / Shape	300mm Circular		
Material Type	Vitrified Clay		
Total Length	82.8m		
Maximum Sewer Depth to Invert	4.64m		
Design Condition	Fully Deteriorated ovality 6%		
<b>Site Specific Repairs</b>			
<b>Location</b>	<b>Action Required</b>		
Distance From MH00000919 (m)			
7.1	Remove roots from pipe joint at 3:00		
9.2 to 11.2	Remove stick from pipe invert		
13.9	Remove encrustation below service at 2:00		
25.2	Remove intruding service at 10:00		
25.2	Remove roots around service at 10:00		
27.7	Remove roots from pipe joint at 3:00		
28.7	Remove roots around service at 2:00		
33.9	Remove encrustation from pipe wall at service		
36.0	Remove encrustation from pipe wall at service		
38.4	Remove intruding service at 10:00		
41.2	Remove encrustation below service at 10:00		
56.0	Remove encrustation below service at 10:00		
59.7	Remove encrustation below service at 2:00		
74.0	Remove encrustation from pipe joint at 3:00		
74.3	Remove encrustation below service at 2:00		
74.7	Remove encrustation from pipe joint at 9:00		
76.8	Remove encrustation from pipe joint at 9:00		
79.3	Remove encrustation below service at 10:00		
79.7	Remove encrustation from pipe joint at 9:00		
80.4	Remove encrustation from pipe joint at 10:00		
80.6	Remove encrustation from pipe wall at 10:00		
81.3	Remove encrustation from pipe joint at 10:00		
81.5	Remove encrustation below service at 2:00		

<b>Kingsbury Avenue (Asset No. MA00017588) Combined Sewer</b>		<b>MH at Main St (W of CL) (MH00000934) to Node at Main St (E of CL)</b>	
Drawng Number	12440		
Size / Shape	300mm Circular		
Material Type	Concrete		
Total Length	30.6m		
Maximum Sewer Depth to Invert	2.23m		
Design Condition	Fully Deteriorated ovality 7%		
<b>Site Specific Repairs</b>			
<b>Location</b>	<b>Action Required</b>		
Distance From MH00000934 (m)			
10.6	Cut gasket at 7:00 to 6:00		
16.4 to 16.9	Remove debris at 6:00		
19.0	Survey abandoned (information only)		

<b>Main Street (Asset No. MA0000930) Combined Sewer</b>	<b>MH at Armstrong Ave (MH00000678) to Node at Newton Ave (TE00000263)</b>
Drawng Number	12441
Size / Shape	450mm Circular
Material Type	Vitrified Clay
Total Length	89.4m
Maximum Sewer Depth to Invert	4.42m
Design Condition	Fully Deteriorated ovality 4%
<b>Site Specific Repairs</b>	
<b>Location</b>	<b>Action Required</b>
Distance From MH00000678 (m)	
5.5	Remove encrustation from pipe wall at 2:00
6.2	Remove roots from pipe joint at 3:00
7.0	Remove roots from pipe joint at 9:00
8.5	Remove debris at 3:00
8.9	Remove encrustation from pipe joint at 3:00
19.9	Remove encrustation around service at 12:00
24.4	Remove encrustation around service at 11:00
32.1	Remove encrustation around service at 3:00
35.6	Remove roots from pipe joint at 8:00
39.4	Remove encrustation from pipe joint at 9:00
40.5	Remove encrustation around service at 10:00
42.7	Remove encrustation from pipe joint at 7:00
48.2	Remove encrustation around service at 12:00
54.8	Remove encrustation around service at 3:00
64.0	Remove encrustation around service at 12:00
74.3	Remove encrustation around service at 10:00
78.9	Remove encrustation from pipe joint from 6:00 to 11:00
79.7	Remove encrustation from pipe joint from 6:00 to 11:00
81.9	Remove encrustation from pipe joint from 6:00 to 11:00