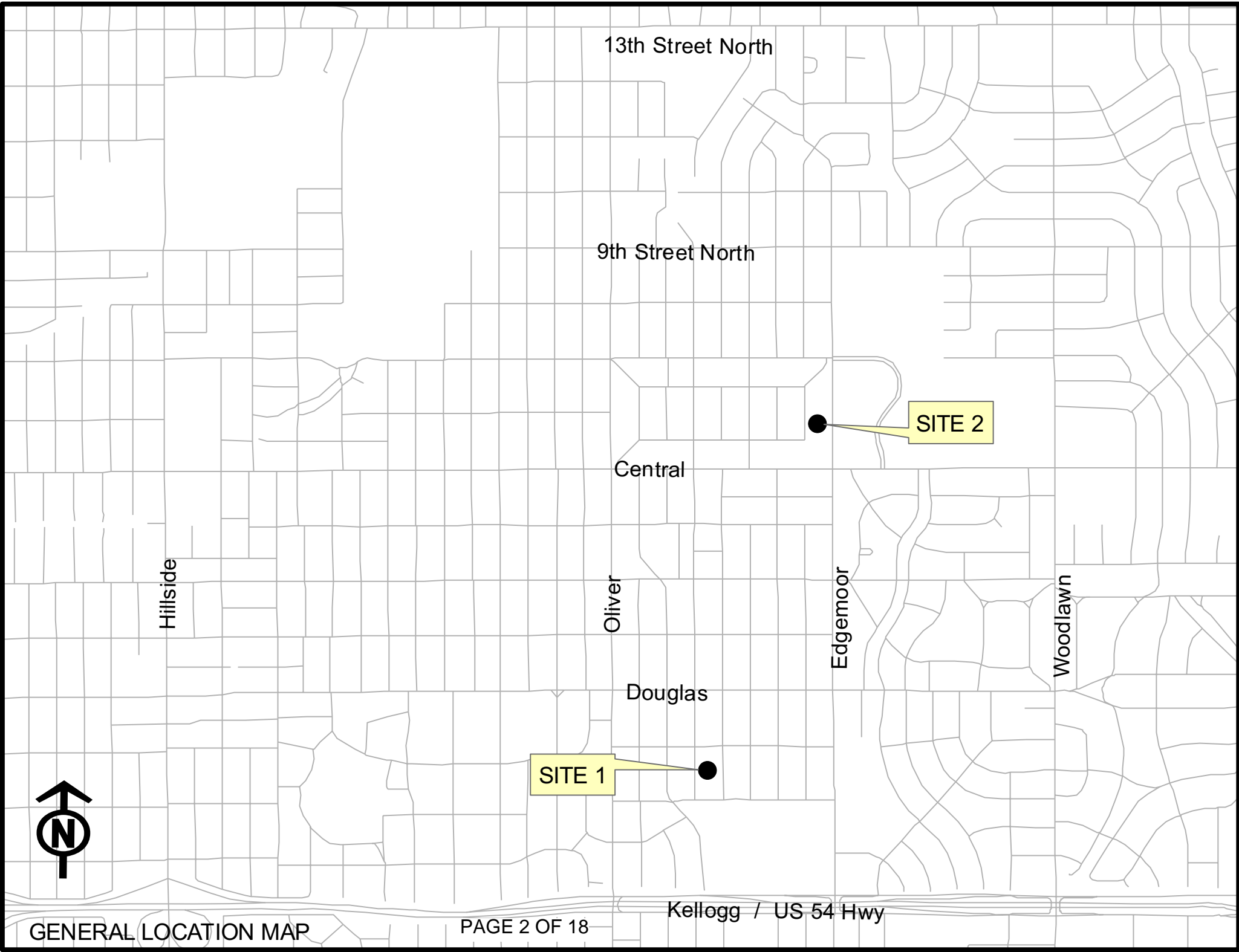


# 2011 SANITARY SEWER RECONSTRUCTION PHASE 1

**OCA # 620571 / 468-84726**  
( North of Kellogg, East of Oliver )

<u>SITE NO.</u>	<u>GENERAL LOCATION</u>	<u>PIPE SIZE</u>	<u>UPSTREAM MANHOLE</u>	<u>DOWNSTREAM MANHOLE</u>	<u>UPSTREAM INVERT ELEVATION</u> <small>(City Datum)</small>	<u>DOWNSTREAM INVERT ELEVATION</u> <small>(City Datum)</small>	<u>LENGTH (FT.)</u>
1	Easement between Battin and Pinecrest, from English to Waterman		5847-419		157.53		
		8"	New Manhole	5847-418		155.51	167
		8"	5847-418	5847-417	155.51	153.46	205
		8"	5847-417	New Manhole	153.46		130
				5847-380		151.4	
2	Easement between Ridgewood & Edgemoor, north of Central	8"	5848-041	5848-440	183.73	182.94	251
		8"	5848-440	5848-040	182.94	182.55	100
Total liner feet =							----- 853



13th Street North

9th Street North

Central

Oliver

Douglas

Edgemoor

Woodlawn

SITE 1

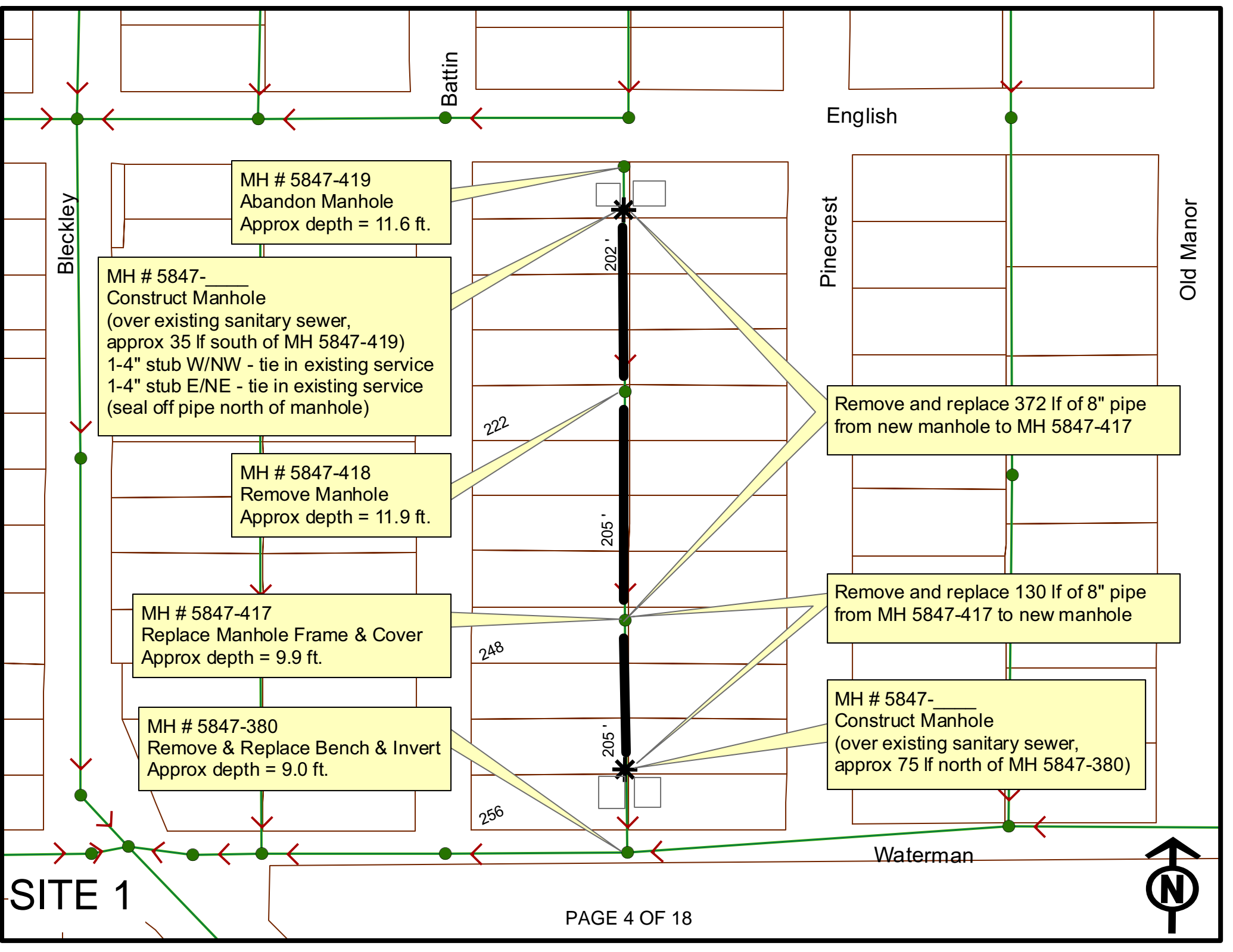
SITE 2

Kellogg / US 54 Hwy



**Bid Items by Site Reference**  
 2011 Sanitary Sewer Reconstruction Phase 1

<b><u>Item</u></b>	<b><u>Site 1</u></b>	<b><u>Site 2</u></b>	<b><u>Totals</u></b>	
Pipe, Removed & Replaced, 8"	502	351	853	lf
Manhole, Standard SS (4')	2		2	ea
MH Adjusted, w/New Frame & Cover		1	1	ea
MH Frame & Cover, Replaced	1	1	2	ea
MH Bench & Invert, Removed & Replaced	1		1	ea
Manhole Abandoned	1		1	ea
MH, Removed	1	1	2	ea
BMP Erosion Control			1	ls
Site Clearing			1	ls
Site Restoration			1	ls



MH # 5847-419  
Abandon Manhole  
Approx depth = 11.6 ft.

MH # 5847-\_\_\_\_  
Construct Manhole  
(over existing sanitary sewer,  
approx 35 lf south of MH 5847-419)  
1-4" stub W/NW - tie in existing service  
1-4" stub E/NE - tie in existing service  
(seal off pipe north of manhole)

MH # 5847-418  
Remove Manhole  
Approx depth = 11.9 ft.

MH # 5847-417  
Replace Manhole Frame & Cover  
Approx depth = 9.9 ft.

MH # 5847-380  
Remove & Replace Bench & Invert  
Approx depth = 9.0 ft.

Remove and replace 372 lf of 8" pipe  
from new manhole to MH 5847-417

Remove and replace 130 lf of 8" pipe  
from MH 5847-417 to new manhole

MH # 5847-\_\_\_\_  
Construct Manhole  
(over existing sanitary sewer,  
approx 75 lf north of MH 5847-380)

SITE 1



E ENGLISH ST

S BATTIN AVE

222

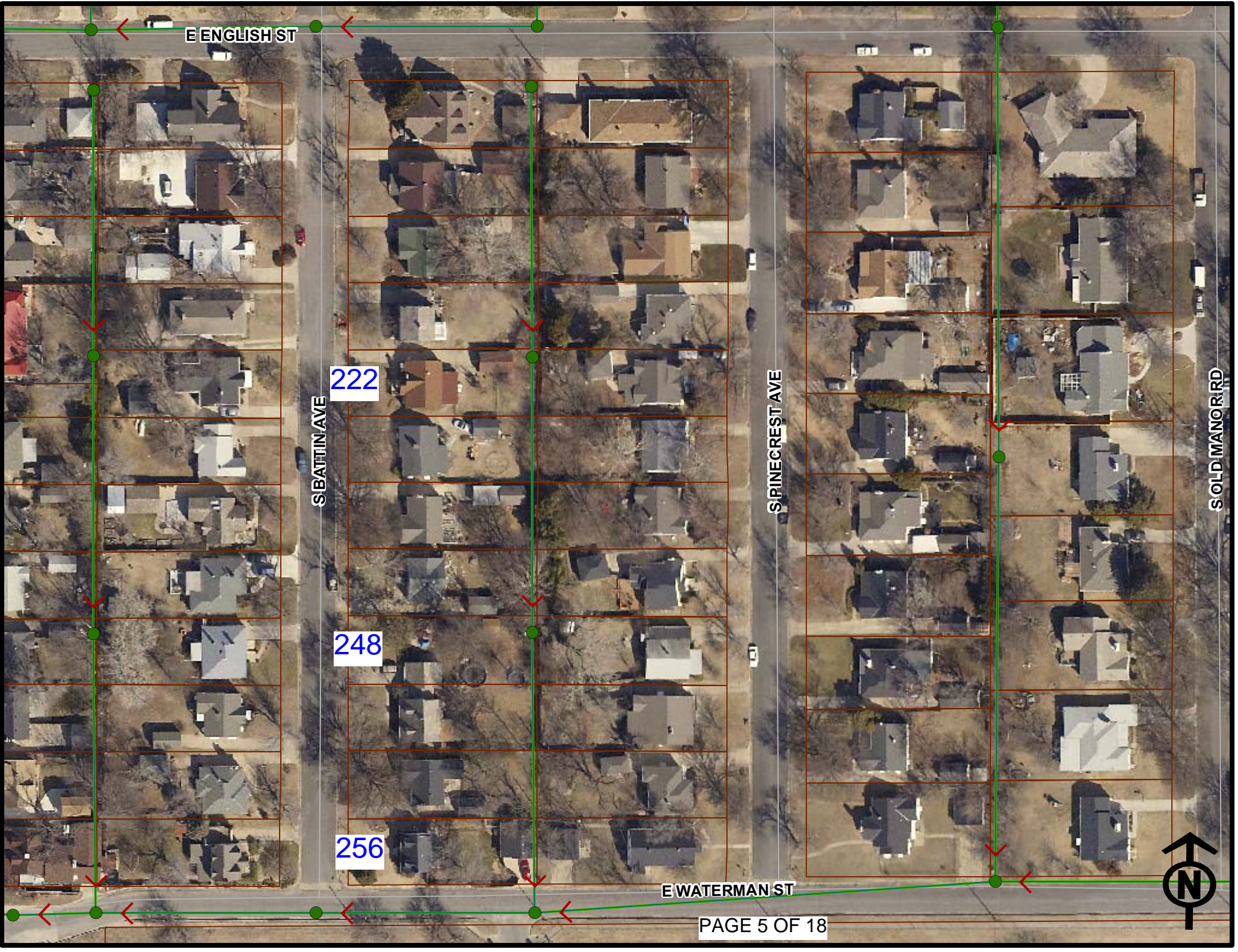
248

256

S PINECREST AVE

E WATERMAN ST

S OLD MANOR RD



# Television Inspection Master Report

12/27/2010

10:59 AM

US Structure: 5847-418      222 BATTIN ST      Date Insp: 8/12/2010      Basin: E04D  
 DS Structure: 5847-417      248 S BATTIN AVE      Dir Televised: Upstream To Downstream

**Pipe Information**

Project No. : E-027      Dia: 8      Material: VCP      Length: 205.1      Slope: 0.016      Tape ID: DVD #0594

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings		Remain (gpm)	
							Est. (gpm)	Struct Clean		
1		0.0		5847-418 US Manhole	<b><u>THIS IS THE MID-BLOCK SEGMENT</u></b>					
2		5.0	W	Break-In Conn	5	0.010	400	0	0.010	
222 S BATTIN										
3		11.2		Sealed Off Wye	1	0.000	0	0	0.000	
4		15.9		Sealed Off Wye	1	0.000	0	0	0.000	
5		29.0		Broken Pipe	2	0.008	44	0	0.008	
6		30.2		Broken Pipe	3	0.010	60	0	0.010	
7		31.8	E	Break-In Conn	4	0.008	60	0	0.008	
223 S PINECREST										
8		36.6		Sealed Off Wye	1	0.000	0	0	0.000	
9		39.0		Sealed Off Wye	1	0.000	0	0	0.000	
10		42.8		Crack-Horizontal	1	0.001	1	0	0.001	
11		48.2		Crack-Horizontal	2	0.002	2	0	0.002	
12		50.5		Crack-Horizontal	3	0.004	5	0	0.004	
13		53.9		Broken Pipe	2	0.008	44	0	0.008	
14		56.6		Crack-Radial	5	0.010	18	0	0.010	
15		60.0	W	Wye Service	2	0.000	0	0	0.000	
228 S BATTIN / ROOTS										
16		62.0		Roots	2	0.004	2	4	0.004	
17		63.7	E	Wye Service	2	0.000	0	0	0.000	
227 S PINECREST										
18		64.7		Broken Pipe	3	0.010	60	0	0.010	
19		74.6		Crack-Horizontal	2	0.002	2	0	0.002	
20		87.0		Sealed Off Wye	1	0.000	0	0	0.000	
21		89.2		Sealed Off Wye	1	0.000	0	0	0.000	
22		115.0		Sealed Off Wye	1	0.000	0	0	0.000	
23		115.5		Crack-Radial	2	0.002	2	0	0.002	
24		115.5		Sealed Off Wye	2	0.000	0	0	0.000	
25		118.4	E	Break-In Conn	2	0.002	0	0	0.002	
227 S PINECREST										
26		118.4		Broken Pipe	3	0.010	60	0	0.010	
27		122.3		Crack-Horizontal	3	0.004	5	0	0.004	
28		123.9		Crack-Horizontal	2	0.002	2	0	0.002	
29		125.8		Crack-Horizontal	3	0.004	5	0	0.004	
30		130.8		Crack-Horizontal	3	0.004	5	0	0.004	

# Television Inspection Master Report

12/27/2010

10:59 AM

US Structure: 5847-418                      222 BATTIN ST                      Date Insp: 8/12/2010                      Basin: E04D  
 DS Structure: 5847-417                      248 S BATTIN AVE                      Dir Televised: Upstream To Downstream

31	133.0		Broken Pipe	3	0.010	60	0	0.010
32	135.1		Crack-Radial	4	0.008	10	0	0.008
33	140.6	W	Wye Service	1	0.000	0	0	0.000
234 S BATTIN								
34	142.9		Sealed Off Wye	1	0.000	0	0	0.000
35	162.8		Broken Pipe	4	0.030	78	0	0.030
36	164.3	W	Wye Service	4	0.000	60	0	0.000
236 S BATTIN / FULL OF ROOTS								
37	166.6	E	Break-In Conn	5	0.010	400	0	0.010
231 S PINECREST / PVC								
38	168.0		Broken Pipe	5	0.060	100	0	0.060
39	168.0		Stopped Inspection	5	0.000	0	0	0.000

LARGE HOLE IN BOTTOM OF PIPE

**REVERSE SETUP:**

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings		Remain (gpm)
							Est. (gpm)	Struct Clean	
1		0.0	5847-417 DS Manhole	/ TV AGAINST THE FLOW					
2		6.9		Sealed Off Wye	1	0.000	0	0	0.000
3		9.6		Sealed Off Wye	1	0.000	0	0	0.000
4		11.3		Broken Pipe	3	0.010	60	0	0.010
5		12.9		Crack-Horizontal	4	0.008	10	0	0.008
6		15.9		Broken Pipe	3	0.010	60	0	0.010
7		19.1		Broken Pipe	3	0.010	60	0	0.010
8		22.1		Broken Pipe	2	0.008	44	0	0.008
9		25.5		Crack-Horizontal	3	0.004	5	0	0.004
10		28.4		Broken Pipe	5	0.060	100	0	0.060
11		29.9		Stopped Inspection	5	0.000	0	0	0.000

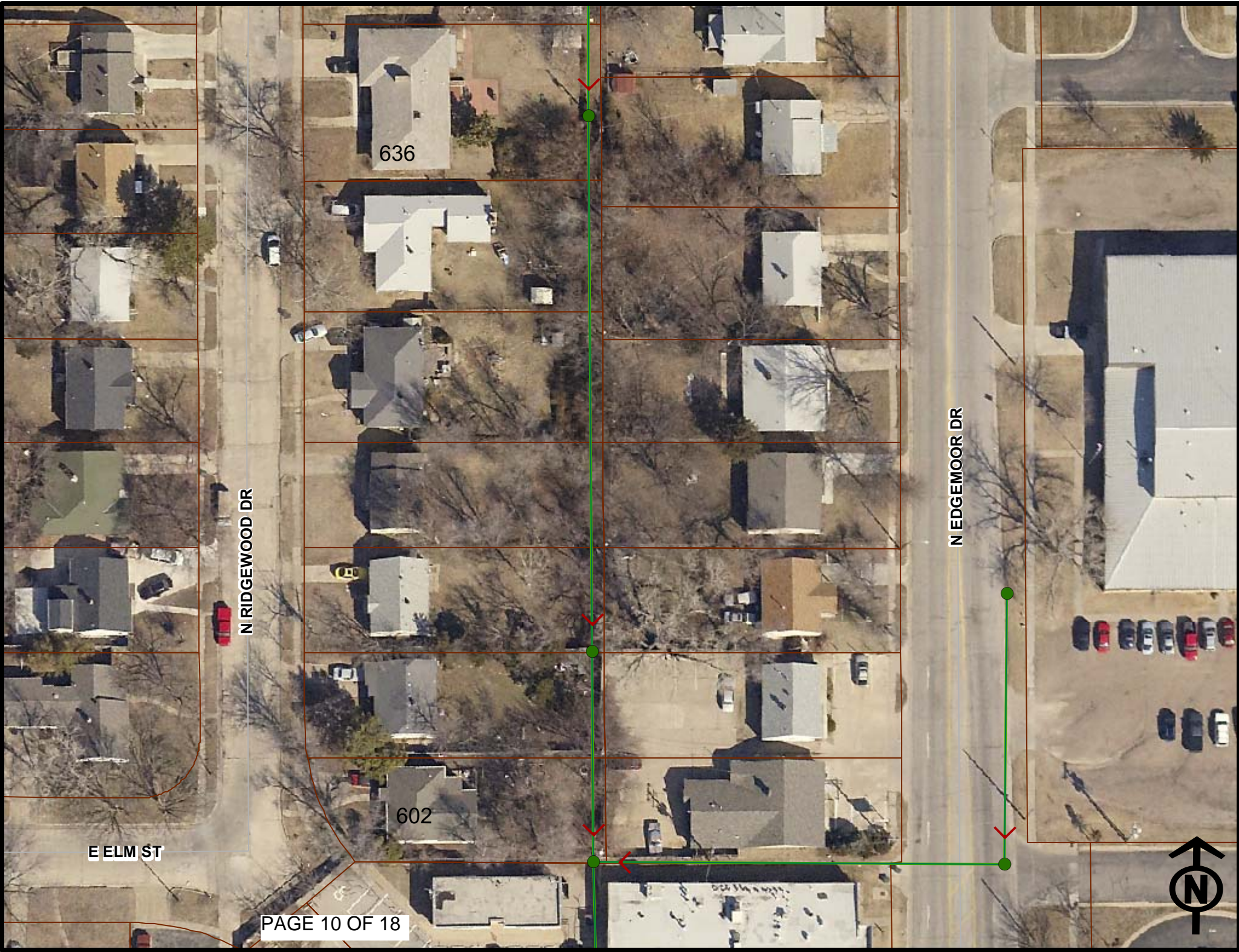
5847-419 to 5847-418

Televising not available. Camera was able to observe the northerly two tap locations and then came upon another hole in the sewer main, stopping the camera.

5847-417 to 5847-380

Televising not available. Cleaner pulled a lot of mud from the main. Cannot get the camera into the sewer main.





N RIDGEWOOD DR

N EDGEMOOR DR

E ELM ST

636

602



# Television Inspection Master Report

11/5/2010

2:17 PM

US Structure: 5848-041      636 N RIDGEWOOD ST      Date Insp: 9/16/2010      Basin: E04E  
 DS Structure: 5848-040      602 N RIDGEWOOD ST      Dir Televised: Upstream To Downstream

**Pipe Information**

Project No. : E-065      Dia: 8      Material: VCP      Length: 251.7      Slope: 0.003  
 Crew: 692      Tape ID: DVD #0599

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5848-041 US Manhole						
2		7.3	W	Wye Service	2		0.000	0	0	0.000
636 N RIDGEWOOD										
3		10.7		Sealed Off Wye	1		0.000	0	0	0.000
4		14.8		Broken Pipe	2		0.008	44	0	0.008
5		18.1	E	Break-In Conn	4		0.008	60	0	0.008
635 N EDGEMOOR										
6		20.9		Broken Pipe	2		0.008	44	0	0.008
7		23.6		Broken Pipe	4		0.030	78	0	0.030
8		27.1		Broken Pipe	4		0.030	78	0	0.030
9		29.8		Roots	2		0.004	2	4	0.004
10		31.4		Broken Pipe	4		0.030	78	0	0.030
11		34.3		Sealed Off Wye	5		0.000	0	0	0.000
12		37.5		Sealed Off Wye	4		0.000	0	0	0.000
13		39.1		Broken Pipe	4		0.030	78	0	0.030
14		42.6		Broken Pipe	4		0.030	78	0	0.030
15		43.6		<b>Stopped Inspection</b>						(loose debris, bricks, possible broken pipe)

**REVERSE SETUP:**

US Structure: 5848-041      636 N RIDGEWOOD ST      Date Insp: 9/16/2010      Basin: E04E  
 DS Structure: 5848-040      602 N RIDGEWOOD ST      Dir Televised: Downstream to Upstream

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5848-040 DS Manhole						(located south of the wood fence, by utility pole)
602 N RIDGEWOOD / TV AGAINST THE FLOW										
2		10.8		Crack-Horizontal	1		0.001	1	0	0.001
3		13.8		Crack-Horizontal	2		0.002	2	0	0.002

## Television Inspection Master Report

11/5/2010

2:17 PM

US Structure: 5848-041      636 N RIDGEWOOD ST      Date Insp: 9/16/2010      Basin: E04E  
 DS Structure: 5848-040      602 N RIDGEWOOD ST      Dir Televised: Downstream to Upstream

4	16.7	E	Wye Service	4	0.000	60	0	0.000
603 N EDGEMOOR / full of roots								
5	16.8		Broken Pipe / Invert is shifted & sticking up	5	0.060	100	0	0.060
6	19.1	W	Extended Tap	5	0.002	400	0	0.002
602 N RIDGEWOOD / PVC extended tap / roots								
7	20.3		Broken Pipe	4	0.030	78	0	0.030
8	22.8		Broken Pipe	3	0.010	60	0	0.010
9	25.9		Broken Pipe	3	0.010	60	0	0.010
10	28.8		Crack-Horizontal	1	0.001	1	0	0.001
11	40.4		Sealed Off Wye	2	0.000	0	0	0.000
12	40.4		Crack-Horizontal	3	0.004	5	0	0.004
13	43.5		Sealed Off Wye	2	0.000	0	0	0.000
14	43.5		Broken Pipe / shifting pipe	4	0.030	78	0	0.030
15	46.3		Roots	2	0.004	2	4	0.004
16	46.9		Broken Pipe / shifting pipe	4	0.030	78	0	0.030
17	49.6		Broken Pipe	3	0.010	60	0	0.010
18	64.3	E	Wye Service	3	0.000	2	0	0.000
607 N EDGEMOOR / roots inside								
19	67.0	W	Break-In Conn	2	0.002	0	0	0.002
608 N RIDGEWOOD / PVC								
20	91.1		Sealed Off Wye	5	0.000	0	0	0.000
21	93.9		Sealed Off Wye	4	0.000	0	0	0.000
22	<b>99.8</b>		<b>Unmapped Manhole 5848-440</b>					
23	114.8	E	Wye Service	3	0.000	2	0	0.000
613 N EDGEMOOR / roots inside								
24	118.0	W	Break-In Conn	2	0.002	0	0	0.002
612 N RIDGEWOOD								
25	138.4		Sealed Off Wye	5	0.000	0	0	0.000
26	141.3		Sealed Off Wye	5	0.000	0	0	0.000
27	165.2	E	Wye Service	5	0.000	400	0	0.000
617 N EDGEMOOR / roots inside								
28	168.1	W	Wye Service	1	0.000	0	0	0.000
618 N RIDGEWOOD								
29	174.5		Broken Pipe	4	0.030	78	0	0.030
30	177.5		Shifting Pipe / Broken Pipe	4	0.030	78	0	0.030
31	180.6		Broken Pipe	4	0.030	78	0	0.030
32	183.7		Broken Pipe	4	0.030	78	0	0.030
33	186.6		Broken Pipe	4	0.030	78	0	0.030
34	189.2		Sealed Off Wye	5	0.000	0	0	0.000
35	189.8		Crack-Horizontal	5	0.010	18	0	0.010

## Television Inspection Master Report

11/5/2010

2:17 PM

US Structure: 5848-041      636 N RIDGEWOOD ST      Date Insp: 9/16/2010      Basin: E04E  
 DS Structure: 5848-040      602 N RIDGEWOOD ST      Dir Televised: Downstream to Upstream

36	192.2		Sealed Off Wye	5	0.000	0	0	0.000
37	192.7		Broken Pipe	5	0.060	100	0	0.060
38	195.8		Broken Pipe	4	0.030	78	0	0.030
39	198.5		Broken Pipe	5	0.060	100	0	0.060
40	202.8		Broken Pipe	4	0.030	78	0	0.030
180' to 206' is non-stop shifted pipe, out of round, badly cracked)								
41	207.4		Crack-Horizontal	2	0.002	2	0	0.002
42	213.5	E	Break-In Conn	1	0.001	0	0	0.001
621 N EDGEWOOD / PVC								
43	216.0	W	Sealed Off Wye	3	0.000	0	0	0.000
622 N RIDGEWOOD / roots inside								
44	237.0		Sealed Off Wye	2	0.000	0	0	0.000
45	239.8		Sealed Off Wye	4	0.000	0	0	0.000
46	240.8		Crack-Horizontal	1	0.001	1	0	0.001
47	243.0		Broken Pipe	4	0.030	78	0	0.030
48	246.4		Crack-Horizontal	3	0.004	5	0	0.004
49	249.3		Broken Pipe	4	0.030	78	0	0.030
50	252.2		Broken Pipe	4	0.030	78	0	0.030
51	255.2		Broken Pipe	4	0.030	78	0	0.030
52	258.2		Broken Pipe	4	0.030	78	0	0.030
53	264.1	E	Break-In Conn	4	0.008	60	0	0.008
629 N EDGEWOOD / roots inside								
54	266.7		Sealed Off Wye	5	0.000	0	0	0.000
55	276.0		Broken Pipe	4	0.030	78	0	0.030
56	279.3		Broken Pipe	4	0.030	78	0	0.030
57	282.3		Broken Pipe	3	0.010	60	0	0.010
58	285.0		Broken Pipe	4	0.030	78	0	0.030
59	287.7		Sealed Off Wye	5	0.000	0	0	0.000
60	288.2		Crack-Horizontal	4	0.008	10	0	0.008
61	290.7	W	Wye Service	1	0.000	0	0	0.000
630 N RIDGEWOOD								
62	291.1		Crack-Horizontal	3	0.004	5	0	0.004
63	293.9		Crack-Horizontal	3	0.004	5	0	0.004
64	297.1		Broken Pipe	4	0.030	78	0	0.030
65	300.1		Broken Pipe	4	0.030	78	0	0.030
66	303.1		Broken Pipe	4	0.030	78	0	0.030
67	306.3		Broken Pipe	4	0.030	78	0	0.030
68	305.2	Invert / debris / broken pipe	<b>Camera Blocked</b>	5	0.000	0	0	0.000