

25th Street North

MH 5650-247
Buried / Not found
Adjust Manhole to Grade (6" to 12")(est.)
Replace MH Frame & Cover
MH depth is not known

MH 5650-248
2521 E. 25th St. N.
Remove & Replace MH Bench & Invert
Approx MH depth = 10.6 ft

MH 5650-244
2720 E. Ethel St.
Replace MH Frame & Cover
Approx MH depth = 11.9 ft

MH 5650-243
2720 Ethel
Approx MH depth = 12.8 ft

MH 5650-245
2744 N. Poplar
Approx MH depth = 15.4 ft

MH 5650-246
2744 N. Poplar
Replace MH Frame & Cover
Approx MH depth = 14.5 ft

Relocate Service Connection
Remove the existing service tap from the manhole wall and reconnect the service to the new pipe. Seal off the opening in the manhole wall.

Remove 823 lf of 8" Pipe
Install 823 lf of 8" Pipe
(all 8" pipe upstream of MH 5650-242)

Estimated 17 Service Reconnections (4")
Estimated 1 Construction Entrance
Estimated 30 sy Erosion Control Mat
Estimated 20 lf Back of Curb Protection

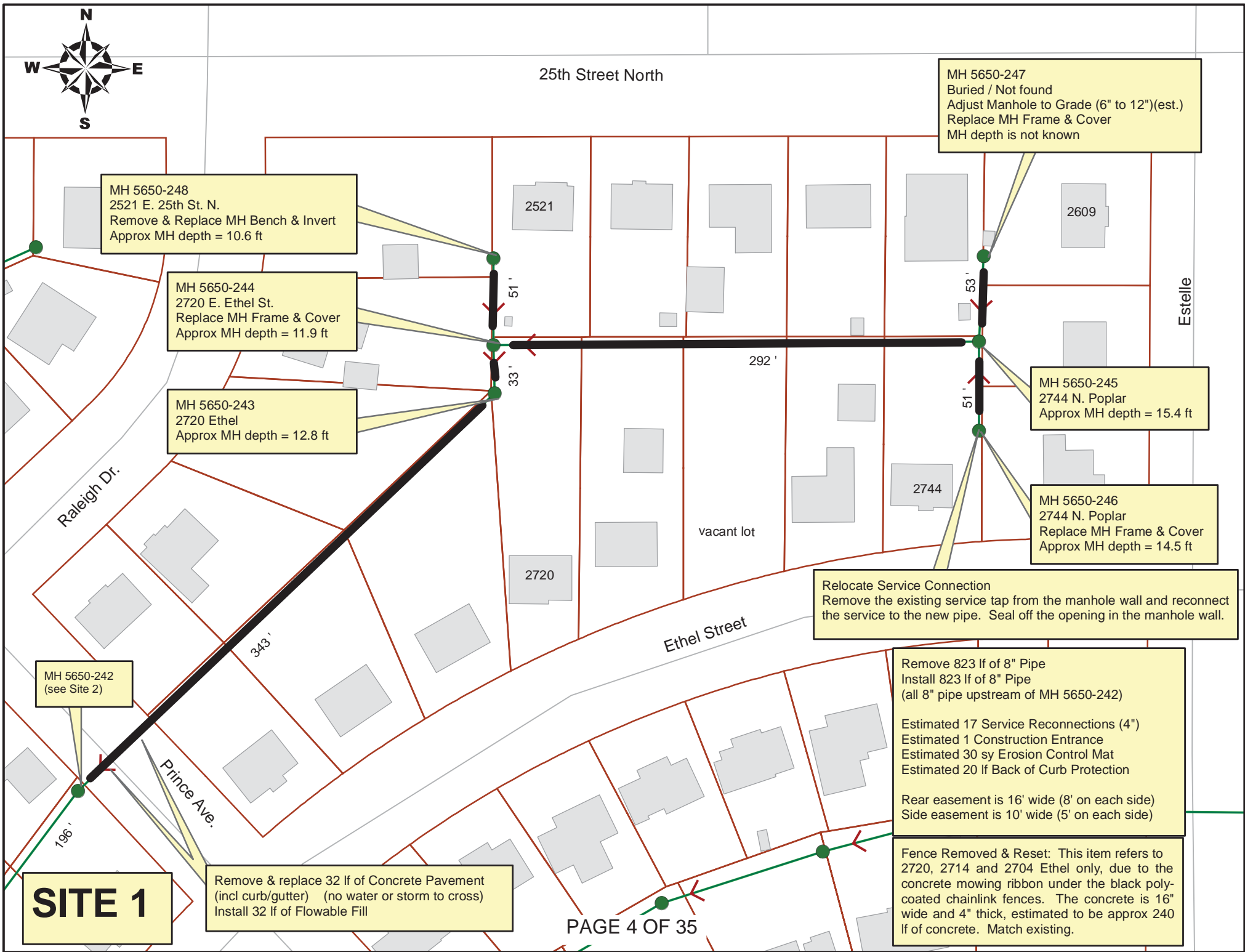
Rear easement is 16' wide (8' on each side)
Side easement is 10' wide (5' on each side)

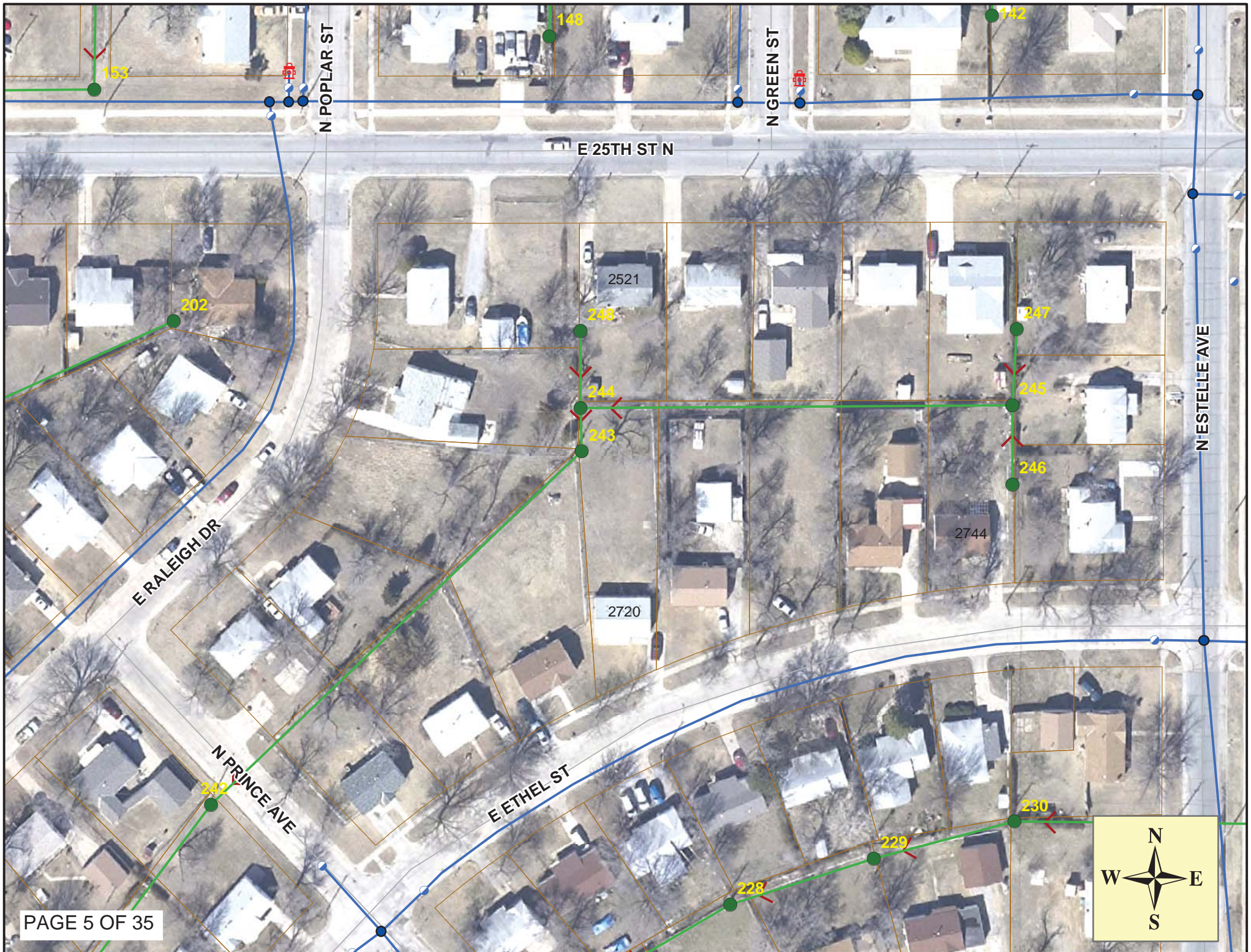
Fence Removed & Reset: This item refers to 2720, 2714 and 2704 Ethel only, due to the concrete mowing ribbon under the black poly-coated chainlink fences. The concrete is 16" wide and 4" thick, estimated to be approx 240 lf of concrete. Match existing.

MH 5650-242
(see Site 2)

Remove & replace 32 lf of Concrete Pavement (incl curb/gutter) (no water or storm to cross)
Install 32 lf of Flowable Fill

SITE 1





Television Inspection Master Report

11/25/2009

7:34 AM

US Structure: 5650-248 2521 E 25TH ST Date Insp: 10/5/2009 Basin: EC02D
 DS Structure: 5650-244 2720 E ETHEL ST Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No. : G-027
 Dia/Ht: 8 Material: VCP Index:
 Length: 51.0 Slope: 0.400 Surface:

Inspection Information

Crew: 692 Percent Full: Tape ID: DVD #0523
 Weather: Cloudy Purpose: TV Existing Line Counter Start:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0	5650-248	US Manhole	1	0.000	0	0	0.000	
2		17.8		Roots	1	0.002	1	1	0.002	
3		28.3		Crack-Horizontal	1	0.001	1	0	0.001	
4		33.3		Broken Pipe	3	0.010	60	0	0.010	
5		37.7		Broken Pipe	2	0.008	44	0	0.008	
6		45.3		Roots	1	0.002	1	1	0.002	
7		46.9		Broken Pipe / roots	5	0.060	100	0	0.060	
Pipe is sheared vertically at the first joint outside of the manhole -LML										
8		48.7	5650-244	DS Manhole	4	0.000	0	0	0.000	

Television Inspection Master Report

11/25/2009

7:34 AM

US Structure: 5650-247 2539 N ESTELLE AVE Date Insp: 10/27/2009 Basin: EC02D
 Dir Televised: Downstream To Upstream
 DS Structure: 5650-245 2744 E ETHEL ST

Pipe Information

Shape: Round Length Status: Project No. : G-027
 Dia/Ht: 8 Material: VCP Index:
 Length: 53.0 Slope: 0.400 Surface:

Inspection Information

Crew: 692 Percent Full: DVD #0532
 Weather: Sunny Purpose: TV Existing Line Tape ID:
 Counter Start:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings		Remain (gpm)	
							Est. (gpm)	Struct Clean		
1		0.0	5650-245	DS Manhole	1	0.000	0	0	0.000	
2		0.0		Break-In Conn	1	0.001	0	0	0.001	
2533 N ESTELLE										
3		6.7		Roots	1	0.002	1	1	0.002	
4		7.2	INFILTRATION	Broken Pipe	4	0.030	78	0	0.030	
5		11.6		Crack-Horizontal	3	0.004	5	0	0.004	
6		15.5		Roots	2	0.004	2	4	0.004	
7		30.2		Sealed Off Wye / roots	2	0.000	0	0	0.000	
8		30.5		Roots	1	0.002	1	1	0.002	
9		32.7		Crack-Horizontal	1	0.001	1	0	0.001	
10		34.5		Break-In Conn	4	0.008	60	0	0.008	
2539 N ESTELLE / roots										
11		39.6		Crack-Horizontal	2	0.002	2	0	0.002	
12		40.9		Crack-Horizontal	1	0.001	1	0	0.001	
13		53.2	5650-247 / MH is buried	US Manhole	1	0.000	0	0	0.000	

Television Inspection Master Report

11/25/2009

7:34 AM

US Structure: 5650-246 2744 E ETHEL ST Date Insp: 10/28/2009 Basin: EC02D
 DS Structure: 5650-245 2744 E ETHEL ST Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No. : G-027
 Dia/Ht: 8 Material: VCP Index:
 Length: 51.4 Slope: 0.002 Surface:

Inspection Information

Crew: 692 Percent Full: Tape ID: DVD #0532
 Weather: Sunny Purpose: TV Existing Line Counter Start:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5650-246 US Manhole	1	0.000	0	0	0.000	
2		0.0	2527 N ESTELLE / MH TAP	Break-In Conn	1	0.001	0	0	0.001	
3		6.0	loose tile	Debris	5	0.000	0	75	0.000	
4		16.0	2533 N ESTELLE EXTENDED TAP	Break-In Conn	5	0.010	400	0	0.010	

REVERSE SETUP:

US Structure: 5650-246 2744 E ETHEL ST Date Insp: 10/27/2009 Basin: EC02D
 DS Structure: 5650-245 2744 E ETHEL 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	tv against flow	5650-245 DS Manhole	1	0.000	0	0	0.000	
2		15.7	Joint	Offset	3	0.010	20	0	0.010	
3		22.4		Broken Pipe	3	0.010	60	0	0.010	
4		27.9		Sealed Off Wye / roots	2	0.000	0	0	0.000	
5		35.2	2533 N ESTELLE	EXTENDED TAP	5	0.002	400	0	0.002	
6			Camera Blocked							

Television Inspection Master Report

11/25/2009

7:34 AM

US Structure: 5650-245 2744 E ETHEL ST Date Insp: 10/28/2009 Basin: EC02D
 DS Structure: 5650-244 2720 E ETHEL ST Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No. : G-027
 Dia/Ht: 8 Material: VCP Index:
 Length: 292.6 Slope: 0.400 Surface:

Inspection Information

Crew: 692 Percent Full: Tape ID: DVD #0532
 Weather: Cloudy Purpose: TV Existing Line Counter Start:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5650-245 US Manhole	1	0.000	0	0	0.000	
2		12.1		Broken Pipe / roots	4	0.030	78	0	0.030	
3		15.3		Roots	2	0.004	2	4	0.004	
4		15.8		Broken Pipe	2	0.008	44	0	0.008	
5		18.2		Broken Pipe	3	0.010	60	0	0.010	
6		21.0		Broken Pipe	3	0.010	60	0	0.010	
7		24.1		Broken Pipe	3	0.010	60	0	0.010	
8		27.1		Broken Pipe	3	0.010	60	0	0.010	
9		30.4		Broken Pipe	3	0.010	60	0	0.010	
10		33.1		Broken Pipe	3	0.010	60	0	0.010	
11		36.3		Broken Pipe	3	0.010	60	0	0.010	
12		39.3	Offset outside of the main	Wye Service	3	0.000	2	0	0.000	
2744 E ETHEL										
13		42.3		Break-In Conn	3	0.004	2	0	0.004	
2609 E 25TH ST N										
14		45.5		Broken Pipe	3	0.010	60	0	0.010	
15		48.3		Broken Pipe	3	0.010	60	0	0.010	
16		64.2		Broken Pipe	3	0.010	60	0	0.010	
17		66.5		Crack-Horizontal	2	0.002	2	0	0.002	
18		96.5		Broken Pipe	4	0.030	78	0	0.030	
19		98.0	heavy roots	Wye Service	4	0.000	60	0	0.000	
2738 E ETHEL										
20		99.2		Break-In Conn	3	0.004	2	0	0.004	
2738 E ETHEL										
21		99.8		Break-In Conn	3	0.004	2	0	0.004	
2603 E 25TH ST N										
22		102.8		Broken Pipe	3	0.010	60	0	0.010	
23		129.6		Broken Pipe	4	0.030	78	0	0.030	
24		132.8		Broken Pipe	4	0.030	78	0	0.030	
25		136.1		Broken Pipe	3	0.010	60	0	0.010	
26		138.7		Broken Pipe	3	0.010	60	0	0.010	
27		142.0		Broken Pipe	3	0.010	60	0	0.010	

Television Inspection Master Report

11/25/2009

7:34 AM

US Structure: 5650-245 2744 E ETHEL ST Date Insp: 10/28/2009 Basin: EC02D
 DS Structure: 5650-244 2720 E ETHEL ST Dir Televised: Upstream To Downstream

28	144.8		Broken Pipe	3	0.010	60	0	0.010
29	147.7		Broken Pipe	3	0.010	60	0	0.010
30	150.8		Broken Pipe	3	0.010	60	0	0.010
31	155.5	heavy roots	Wye Service	4	0.000	60	0	0.000
2732 E ETHEL								
32	158.2		Wye Service	3	0.000	2	0	0.000
2533 E 25TH ST N								
33	162.8		Broken Pipe	3	0.010	60	0	0.010
34	165.8		Broken Pipe	3	0.010	60	0	0.010
35	169.0		Broken Pipe	3	0.010	60	0	0.010
36	174.6		Roots	1	0.002	1	1	0.002
37	187.0		Broken Pipe	2	0.008	44	0	0.008
38	189.6		Broken Pipe	3	0.010	60	0	0.010
39	205.2		Crack-Horizontal	3	0.004	5	0	0.004
40	207.7		Broken Pipe	3	0.010	60	0	0.010
41	211.0		Broken Pipe	3	0.010	60	0	0.010
42	214.2		Wye Service	4	0.000	60	0	0.000
2726 E ETHEL								
43	217.5	full of roots	Wye Service	4	0.000	60	0	0.000
2527 E 25TH ST N								
44	220.1		Broken Pipe	4	0.030	78	0	0.030
45	222.7		Broken Pipe	4	0.030	78	0	0.030
46	226.1		Broken Pipe	3	0.010	60	0	0.010
47	229.2		Broken Pipe	4	0.030	78	0	0.030
48	232.2		Broken Pipe	4	0.030	78	0	0.030
49	241.4		Broken Pipe	4	0.030	78	0	0.030
50	244.4		Broken Pipe	3	0.010	60	0	0.010
51	253.4		Broken Pipe	4	0.030	78	0	0.030
52	261.5		Broken Pipe	4	0.030	78	0	0.030
53	262.3		Broken Pipe	3	0.010	60	0	0.010
54	265.8		Wye Service	4	0.000	60	0	0.000
2720 E ETHEL								
55	268.8		Roots	1	0.002	1	1	0.002
56	269.3		Wye Service	4	0.000	60	0	0.000
2521 E 25TH ST N								
57	271.8		Broken Pipe	3	0.010	60	0	0.010
58	274.9		Broken Pipe	2	0.008	44	0	0.008
59	285.4		Broken Pipe	3	0.010	60	0	0.010
60	286.8		DS Manhole	1				inside drop

Pipe is cracked all the way and taps are in poor condition. Needs open cut. -LML
 Latest televising performed in July, 2013. - LML

Television Inspection Master Report

11/25/2009

7:34 AM

US Structure: 5650-244 2720 E ETHEL ST Date Insp: 10/5/2009 Basin: EC02D
 DS Structure: 5650-243 2720 E ETHEL ST Dir Televised: Downstream To Upstream

Pipe Information

Shape: Round Length Status: Project No. : G-027
 Dia/Ht: 8 Material: VCP Index:
 Length: 33.4 Slope: 0.001 Surface:

Inspection Information

Crew: 692 Percent Full: Tape ID: DVD #0523
 Weather: Cloudy Purpose: TV Existing Line Counter Start:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5650-243 DS Manhole	1		0.000	0	0	0.000
	2720 E ETHEL		/	tv against the flow						
2		7.4		Sealed Off Wye	1		0.000	0	0	0.000
3		7.4	Joint	Offset / roots	2		0.000	0	0	0.000
4		10.8	Joint	Offset / roots	2		0.000	0	0	0.000
5		13.2	Joint	Offset / roots	2		0.000	0	0	0.000
6		15.7		Roots	1		0.002	1	1	0.002
7		19.1		Roots	1		0.002	1	1	0.002
8		22.5		Roots	1		0.002	1	1	0.002
9		29.4		Broken Pipe	1		0.004	30	0	0.004
10		32.4		5650-244 US Manhole	4		0.000	0	0	0.000

No taps.

Television Inspection Master Report

11/25/2009

7:34 AM

US Structure: 5650-243 2720 E ETHEL ST Date Insp: 10/5/2009 Basin: EC02D
 DS Structure: 5650-242 2513 N POPLAR ST Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No. : G-027
 Dia/Ht: 8 Material: VCP Index:
 Length: 343.0 Slope: 0.400 Surface:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5650-243 US Manhole	1	0.000	0	0	0.000	
2		4.0	Joint	Offset	4	0.030	60	0	0.030	
3		6.0		Grease	1	0.000	0	0	0.000	
4		8.4	packed with roots	Break-In Conn	5	0.010	400	0	0.010	
2553 E RALEIGH										
5		25.3		Roots	1	0.002	1	1	0.002	
6		52.0		Roots	1	0.002	1	1	0.002	
7		55.2		Roots	1	0.002	1	1	0.002	
8		58.2		Roots	1	0.002	1	1	0.002	
9		61.3		Roots	1	0.002	1	1	0.002	
10		101.0		Broken Pipe	4	0.030	78	0	0.030	
11		104.6		Broken Pipe	4	0.030	78	0	0.030	
12		107.0		Broken Pipe	4	0.030	78	0	0.030	
13		109.7		Break-In Conn	4	0.008	60	0	0.008	
2714 E ETHEL										
14		114.0		Break-In Conn	4	0.008	60	0	0.008	
2547 E RALEIGH										
15		116.1	Invert is shifted pipe	Broken Pipe	4	0.030	78	0	0.030	
16		119.3		Broken Pipe	4	0.030	78	0	0.030	
17		121.8		Broken Pipe	4	0.030	78	0	0.030	
18		125.7		Broken Pipe	4	0.030	78	0	0.030	
19		127.9		Broken Pipe	4	0.030	78	0	0.030	
20		130.9	invert & crown both shifted pipe	Broken Pipe	4	0.030	78	0	0.030	
21		134.1		Broken Pipe	4	0.030	78	0	0.030	
22		137.2		Broken Pipe	4	0.030	78	0	0.030	
23		140.1		Broken Pipe	4	0.030	78	0	0.030	
24		143.4		Broken Pipe	4	0.030	78	0	0.030	
25		146.6		Broken Pipe	4	0.030	78	0	0.030	
26		149.1		Broken Pipe	4	0.030	78	0	0.030	
27		152.9		Broken Pipe	4	0.030	78	0	0.030	
28		155.6		Broken Pipe	4	0.030	78	0	0.030	
29		158.2		Broken Pipe	4	0.030	78	0	0.030	
30		161.8		Broken Pipe	3	0.010	60	0	0.010	



Television Inspection Master Report

11/25/2009

7:34 AM

US Structure: 5650-243 2720 E ETHEL ST Date Insp: 10/5/2009 Basin: EC02D
 DS Structure: 5650-242 2513 N POPLAR ST Dir Televised: Upstream To Downstream

31	164.3		Broken Pipe	4	0.030	78	0	0.030
32	168.1		Broken Pipe	4	0.030	78	0	0.030
33	170.9		Broken Pipe	3	0.010	60	0	0.010
34	173.6		Crack-Horizontal	3	0.004	5	0	0.004
35	179.3		Broken Pipe	4	0.030	78	0	0.030
36	186.4		Broken Pipe	4	0.030	78	0	0.030
37	191.0		PVC Break-In Conn	1	0.001	0	0	0.001
2541 E RALEIGH								
38	205.4		Crack-Horizontal	1	0.001	1	0	0.001
39	206.3		Broken Pipe	4	0.030	78	0	0.030
40	210.1		Break-In Conn	5	0.010	400	0	0.010
2708 E ETHEL / root ball where PVC service line meets VCP wye at main -LML								
41	214.9		Sealed Off Wye	5	0.000	0	0	0.000
ROOTS & BROKEN PIPE (can't see a seal off) - LML								
42	234.2		Crack-Horizontal	3	0.004	5	0	0.004
43	243.9		Broken Pipe	3	0.010	60	0	0.010
44	247.2		Broken Pipe	4	0.030	78	0	0.030
45	249.2		Broken Pipe	4	0.030	78	0	0.030
46	255.5		Broken Pipe	3	0.010	60	0	0.010
47	258.1		Crack-Horizontal	2	0.002	2	0	0.002
48	264.2		Broken Pipe	3	0.010	60	0	0.010
49	268.6		Broken Pipe	3	0.010	60	0	0.010
50	269.8		Wye Service	3	0.000	2	0	0.000
2740 E ETHEL / looks like a PVC service line just outside of the main, hard to tell with roots - LML								
51	271.5		Extended Tap	5	0.002	400	0	0.002
2535 E RALEIGH / PVC service extends into the main / Camera Blocked								

REVERSE SETUP:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0	TV against the flow	5650-242 DS Manhole	1					
2		54.3	Joint	Offset	3	0.010	20	0	0.010	
3		63.3		Broken Pipe	4	0.030	78	0	0.030	
4		66.6		Broken Pipe	4	0.030	78	0	0.030	
5		68.3		Extended Tap	5	0.002	400	0	0.002	
2535 E RALEIGH / PVC service extends into the main / Camera Blocked / Stopped Inspection										

Latest televising performed in July, 2013. Pipe is in poor condition. - LML