

MH 5448-515
Approx. MH depth = 4.4 ft

Install 477 lf of 10" Cured-in-Place Liner

Install 1305 lf of 10" Cured-in-Place Liner from MH 5448-512 to MH 5448-508

MH 5448-512
Approx. MH depth = 5.9 ft

MH 5448-511
Approx. MH depth = 4.5 ft

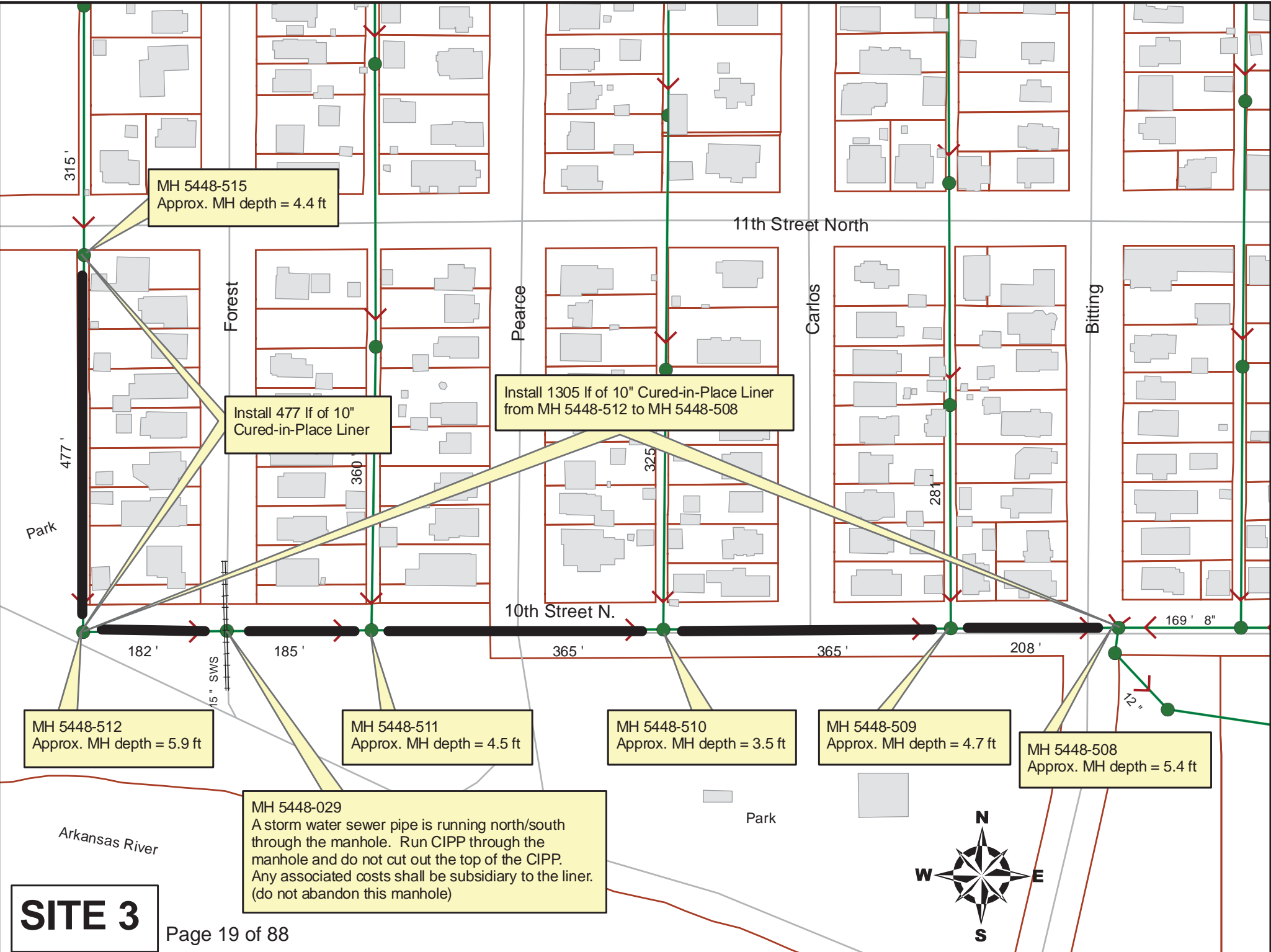
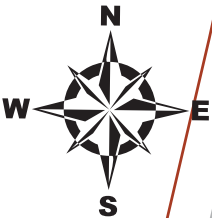
MH 5448-510
Approx. MH depth = 3.5 ft

MH 5448-509
Approx. MH depth = 4.7 ft

MH 5448-508
Approx. MH depth = 5.4 ft

MH 5448-029
A storm water sewer pipe is running north/south through the manhole. Run CIPP through the manhole and do not cut out the top of the CIPP. Any associated costs shall be subsidiary to the liner. (do not abandon this manhole)

SITE 3





N FOREST AVE

N PEARCE AVE

N CARLOS AVE

N BITTING AVE

1209

1101

1104

928

1104

W 11TH ST N

W 10TH ST N

W OAK PARK



Television Inspection Master Report

4/25/2011

7:51 AM

US Structure: 5448-515 1209 W 11TH ST N Date Insp: 4/14/2010 Basin: C03E
 DS Structure: 5448-512 1101 N FOREST ST Dir Televised:Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No. : B-236
 Dia/Ht: 10 Material: VCP Index:
 Length: 477.6 Slope: 0.280 DVD #0569

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings		Remain (gpm)
							Est. (gpm)	Struct Clean	
1		0.0		5448-515 US Manhole					
2		6.0		Crack-Horizontal	2	0.002	2	0	0.002
3		8.8		Crack-Radial	2	0.002	2	0	0.002
4		10.8		Sealed Off Wye	1	0.000	0	0	0.000
5		21.4		Crack-Radial	1	0.001	1	0	0.001
6		24.6		Crack-Radial	2	0.002	2	0	0.002
7		35.8		Sealed Off Wye	1	0.000	0	0	0.000
8		36.3		Crack-Radial	2	0.002	2	0	0.002
9		43.6		Crack-Radial	2	0.002	2	0	0.002
10		60.6	1209 N FOREST	Wye Service	1	0.000	0	0	0.000
11		62.8	PARK BLDG	West Break-In Conn	1	0.001	0	0	0.001
12		81.6		Crack-Radial	2	0.002	2	0	0.002
13		85.4	1209 N FOREST	Wye Service	2	0.000	0	0	0.000
14		88.6		Crack-Radial	2	0.002	2	0	0.002
15		91.2		Crack-Radial	2	0.002	2	0	0.002
16		93.6		Crack-Radial	2	0.002	2	0	0.002
17		96.2		Crack-Radial	2	0.002	2	0	0.002
18		101.2		Crack-Horizontal	1	0.001	1	0	0.001
19		105.8		Crack-Radial	2	0.002	2	0	0.002
20		110.1	1147 N FOREST	Wye Service	2	0.000	0	0	0.000
21		110.9		Crack-Radial	2	0.002	2	0	0.002
22		121.1		Crack-Radial	2	0.002	2	0	0.002
23		131.6		Observation Hole	1	0.000	0	0	0.000
24		133.2		Crack-Radial	2	0.002	2	0	0.002
25		135.4		Sealed Off Wye	1	0.000	0	0	0.000
26		136.9		Small hole / Broken Pipe	5	0.060	100	0	0.060
27		143.6		Crack-Radial	2	0.002	2	0	0.002
28		159.0	1145 N FOREST	Wye Service	1	0.000	0	0	0.000
29		171.7		Crack-Radial	1	0.001	1	0	0.001
30		181.3		Crack-Radial	2	0.002	2	0	0.002
31		183.8		Crack-Radial	1	0.001	1	0	0.001
32		185.7		Sealed Off Wye	1	0.000	0	0	0.000
33		203.8		Crack-Radial	1	0.001	1	0	0.001
34		210.6		Sealed Off Wye	2	0.000	0	0	0.000
35		214.0		Crack-Radial	1	0.001	1	0	0.001

Television Inspection Master Report

4/25/2011

7:51 AM

US Structure: 5448-515 1209 W 11TH ST N Date Insp: 4/14/2010 Basin: C03E
 DS Structure: 5448-512 1101 N FOREST ST Dir Televised:Upstream To Downstream

36	216.6		Crack-Radial	1	0.001	1	0	0.001
37	234.6	1143 N FOREST	PVC Break-In Conn	1	(tap is in a sag area of the pipe)			
38	260.6		Sealed Off Wye	1	0.000	0	0	0.000
39	273.9	(patched hole in crown)	Broken Pipe	1	0.004	30	0	0.004
40	284.4	1141 N FOREST	Break-In Conn	1	0.001	0	0	0.001
41	294.4		Observation Hole	1	0.000	0	0	0.000
42	311.0	1119 N FOREST	Wye Service	2	0.000	0	0	0.000
43	311.4		Crack-Radial	2	0.002	2	0	0.002
44	314.1		Crack-Radial	3	0.004	5	0	0.004
45	318.9		Crack-Radial	3	0.004	5	0	0.004
46	336.0		Sealed Off Wye	1	0.000	0	0	0.000
47	360.6		Sealed Off Wye	1	0.000	0	0	0.000
48	363.6		Crack-Radial	3	0.004	5	0	0.004
49	383.9	1115 N FOREST	Break-In Conn	2	0.002	0	0	0.002
50	387.7	(patched hole)	Broken Pipe	5	0.060	100	0	0.060
51	410.0		Sealed Off Wye	1	0.000	0	0	0.000
52	410.5		Crack-Radial	2	0.002	2	0	0.002
53	437.9		Crack-Radial	3	0.004	5	0	0.004
58	470.7	5448-512	DS Manhole	1	0.000	0	0	0.000

Record of sags:

54	210.5		Sag begins	4	0.000	10	0	0.000
55	210.5		Sag	4	0.000	10	0	0.000
		(226' to 287' had the camera under water)						
56	287.0		Sag	1	0.000	1	0	0.000
57	287.0		Sag ends	1	0.000	1	0	0.000

There are no backups or stoppages related to the sag in this line. We'll go ahead and line through the sag due to all the trees in the area.

US Structure: 5448-512 1101 N FOREST ST Date Insp: 4/16/2010 Basin: C03E

DS Structure: 5448-511 1103 N PEARCE AVE Dir Televised: Downstream To Upstream

Pipe Information

Shape:	Round	Length Status:		Project No. :	B-232
Dia/Ht:	10	Material:	VCP	Index:	
Length:	367.0	Slope:	0.280	Surface:	

Inspection Information

Crew:	692	Percent Full:		Tape ID:	DVD #0569
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Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5448-511 DS Manhole						
1103 N PEARCE / TV AGAINST FLOW										
2		132.3		Mat. Chngs to PVC	1	0.000	0	0	0	0.000
3		152.0		Mat. Chngs back to VCP	1	0.000	0	0	0	0.000
4		184.8		Unmapped Manhole	1	0.000	0	0	0	0.000
<p>THIS IS MANHOLE 5448-029. LINE THROUGH THIS MANHOLE WITHOUT CUTTING THE CIPP OPEN. THERE IS A NORTH/SOUTH STORM WATER SEWER PIPE RUNNING THROUGH THIS MANHOLE. IT WILL BE A TIGHT FIT TO GET THE CIPP UNDER THE STORM PIPE.</p>										
5		206.5	hole in crown (hit)	Broken Pipe	5	0.060	100	0	0	0.060
6		276.3	hole in crown (hit)	Broken Pipe	5	0.060	100	0	0	0.060
7		279.0	hole in crown (hit)	Broken Pipe	5	0.060	100	0	0	0.060
8		363.0		5448-512 US Manhole	1	0.000	0	0	0	0.000

Television Inspection Master Report

4/25/2011

7:52 AM

US Structure: 5448-511 1103 N PEARCE AVE Date Insp: 4/16/2010 Basin: C03E
 DS Structure: 5448-510 1104 N PEARCE ST Dir Televised: Downstream To Upstream

Pipe Information

Shape: Round Length Status: Project No. : B-232
 Dia/Ht: 10 Material: VCP Index:
 Length: 370.0 Slope: 0.280 Surface:

Inspection Information

Crew: 692 Percent Full: Tape ID: DVD #0569

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5448-510 DS Manhole	1	0.000	0	0	0.000	
1104 N PEARCE / TV AGAINST THE FLOW										
2		13.7		Crack-Radial	1	0.001	1	0	0.001	
3		19.0		Crack-Horizontal	4	0.008	10	0	0.008	
4		21.4		Crack-Horizontal	3	0.004	5	0	0.004	
5		98.1		Roots	1	0.002	1	1	0.002	
6		100.4		Roots	1	0.002	1	1	0.002	
7		117.7		Roots	1	0.002	1	1	0.002	
8		132.8		Roots	1	0.002	1	1	0.002	
9		135.7		Roots	1	0.002	1	1	0.002	
10		137.8		Roots / heavy	3	0.008	5	8	0.008	
11		140.4		Roots / heavy	4	0.010	10	25	0.010	
12		142.8		Roots	2	0.004	2	4	0.004	
13		145.2		Roots	2	0.004	2	4	0.004	
14		150.4		Roots	3	0.008	5	8	0.008	
15		154.8		Roots	2	0.004	2	4	0.004	
16		188.3		Observation Hole	2	0.000	0	0	0.000	
17		197.9		Crack-Radial	1	0.001	1	0	0.001	
18		300.5		Crack-Radial	4	0.008	10	0	0.008	
19		364.0		5448-511 US Manhole	1	0.000	0	0	0.000	

Roots are a problem on this line.

Television Inspection Master Report

4/25/2011

7:52 AM

US Structure: 5448-510
DS Structure: 5448-509

1104 N PEARCE ST
906 W 10TH ST

Date Insp: 4/16/2010
Dir Televised: Upstream To Downstream

Basin: C03E

Pipe Information

Project No. : B-232 Dia: 10 Material: VCP Length: 366.0 Slope: 0.280 DVD #0569

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5448-510 US Manhole	1	0.000	0	0	0.000	
THIS MANHOLE WAS RECONSTRUCTED – DECEMBER 2012 – LML										
2		6.0		Crack-Radial	3	0.004	5	0	0.004	
3		10.9		Crack-Radial	2	0.002	2	0	0.002	
4		13.1		Crack-Radial	3	0.004	5	0	0.004	
5		15.5		Crack-Radial	2	0.002	2	0	0.002	
6		18.2		Crack-Radial	2	0.002	2	0	0.002	
7		20.7		Crack-Radial	3	0.004	5	0	0.004	
8		25.5		Crack-Radial	2	0.002	2	0	0.002	
9		28.0		Crack-Radial	3	0.004	5	0	0.004	
10		30.6		Crack-Radial	3	0.004	5	0	0.004	
11		62.5		Roots	1	0.002	1	1	0.002	
12		63.3		Crack-Radial	2	0.002	2	0	0.002	
13		65.0		Roots	1	0.002	1	1	0.002	
14		72.2		Roots	1	0.002	1	1	0.002	
15		74.8		Roots	2	0.004	2	4	0.004	
16		82.7		Crack-Radial	3	0.004	5	0	0.004	
17		85.3		Crack-Radial	1	0.001	1	0	0.001	
18		101.5	PARK	PVC Break-In Conn	1	0.001	0	0	0.001	
19		115.3		Crack-Radial	1	0.001	1	0	0.001	
20		125.2		Crack-Radial	2	0.002	2	0	0.002	
21		135.1		Crack-Radial	1	0.001	1	0	0.001	
22		137.9		Crack-Radial	2	0.002	2	0	0.002	
23		152.5		Mat. Chngs to PVC	1	0.000	0	0	0.000	
24		173.0		Mat. Chngs to VCP	2	0.000	0	0	0.000	
25		180.8		Observation Hole sealed off	1	0.000	0	0	0.000	
26		192.5		Roots	1	0.002	1	1	0.002	
27		195.1		Roots	2	0.004	2	4	0.004	
28		197.5		Roots	1	0.002	1	1	0.002	
29		218.0		Crack-Radial	1	0.001	1	0	0.001	
30		222.7		Crack-Radial	1	0.001	1	0	0.001	
31		237.8		Crack-Radial	2	0.002	2	0	0.002	
32		258.1		Crack-Radial	2	0.002	2	0	0.002	
33		260.8		Crack-Radial	1	0.001	1	0	0.001	
34		263.4		Crack-Radial	1	0.001	1	0	0.001	
35		273.4		Crack-Radial	2	0.002	2	0	0.002	
36		303.7		Crack-Radial	1	0.001	1	0	0.001	
37		361.2		5448-009 DS Manhole	1	More roots than noted here on the log.				

Television Inspection Master Report

4/25/2011

7:52 AM

US Structure: 5448-509 906 W 10TH ST Date Insp: 4/16/2010 Basin: C03E
 DS Structure: 5448-508 1104 N BITTING ST Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No. : B-232
 Dia/Ht: 10 Material: VCP Index:
 Length: 206.0 Slope: 0.280 Surface:

Inspection Information

Crew: 692 Percent Full: Tape ID: DVD #0569

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5448-509 US Manhole	1	0.000	0	0	0.000	
2		8.0		Crack-Radial	3	0.004	5	0	0.004	
3		51.2		Crack-Radial	1	0.001	1	0	0.001	
4		56.3		Crack-Radial	1	0.001	1	0	0.001	
5		70.5	Side of the main is broken	Broken Pipe	2	0.008	44	0	0.008	
6		86.1		Crack-Radial	2	0.002	2	0	0.002	
7		105.9		Crack-Radial	2	0.002	2	0	0.002	
8		111.0		Crack-Radial	2	0.002	2	0	0.002	
9		123.5		Crack-Radial	1	0.001	1	0	0.001	
10		128.4		Crack-Radial	2	0.002	2	0	0.002	
11		131.1		Crack-Radial	2	0.002	2	0	0.002	
12		148.4		Mat. Chngs to PVC	1	0.000	0	0	0.000	
13		152.3		Mat. Chngs back to VCP	1	0.000	0	0	0.000	
14		156.2		Crack-Radial	1	0.001	1	0	0.001	
15		160.5	OK to line through this sag	Sag begins	2	0.000	2	0	0.000	
16		160.9		Sag / submerged	5	0.000	25	0	0.000	
17		175.5		Sag / emerged	1	0.000	1	0	0.000	
18		175.5	80% sag, maybe / some silt	Sag ends	1	0.000	1	0	0.000	
19		180.6		Crack-Radial	1	0.001	1	0	0.001	
20		203.1		Crack-Radial	2	0.002	2	0	0.002	
21		205.9		Crack-Radial	2	0.002	2	0	0.002	
22		208.9	906 W 10TH	5448-508 DS Manhole	1	0.000	0	0	0.000	