

District of Columbia Water and Sewer Authority



Soapstone Valley Creek Bed Sewer Rehabilitation Project



Sewer Assessment
March 15, 2011

Table of Contents

Section 1 Introduction	1-1
1.1 Background	1-1
1.2 Purpose.....	1-1
1.3 Description of the Sewerage System	1-1
Section 2 Sewer System Condition Assessment	2-3
2.1 Scope of Observations	2-3
2.2 Inspection Methodology	2-3
2.3 Manhole Inspection Results (Sanitary and storm sewer systems)	2-5
2.4 CCTV Inspection Results	2-13
2.4.1 Sanitary Sewer CCTV Inspection Results	2-13
2.4.2 Storm Sewer System CCTV Inspection Results	2-15
2.4.3 Overall Sewer Ratings	2-16
Section 3 Project Requirements	3-1
3.1 Preliminary Recommendations	3-1
3.2 Construction Access	3-1
3.3 Permits	3-1

List of Tables

Table 2-1 Exposed Sanitary Sewer and Manholes in Stream.....	2-6
Table 2-2 CCTV Inspection Results - Summary	2-14
Table 2-3 CCTV Inspection Results - Summary	2-16
Table 2-4 CCTV Inspection Results - Summary	2-16
Table 3-1 Anticipated Permit Requirements.....	3-2

List of Figures

Figure 1-1 Study Area	1-2
Figure 2-1 Soapstone Valley Sewer System Inspections.....	2-4
Figure 2-2 Sewer Crossing at Manhole M-9766.....	2-7
Figure 2-3 Sewer Crossing at Manhole M-9762.....	2-8
Figure 2-4 Sewer Crossing at Manhole M-10442.....	2-9
Figure 2-5 Sewer Crossing at Manhole M-10443.....	2-10

Table of Contents

Figure 2-6 Exposed Manhole M-10364	2-11
Figure 2-7 Exposed Manhole M-10445	2-12
Figure 2-8 Sewer Rating for Inspected Sewers.....	2-18
Figure 3-1 Soapstone Valley Sewer System Rehabilitation and Replacement of Stream Crossing	3-3

Appendices

Appendix A - Manhole Inspection Logs

Appendix B - CCTV Inspection Logs

Section 1 Introduction

1.1 Background

The District of Columbia Water and Sewer Authority (DC Water) adopted the Sewer System Facilities Plan report (SSFP) produced by Engineering Program Management Consultant 3B (EPMC-3B) in June 2009. Rehabilitation projects for the sewer system were identified as Capital Improvement Program (CIP) projects in the SSFP and implemented based on the priority ranking assigned using field investigation results. As part of these findings, the Soapstone Valley creek bed sewer rehabilitation project was scheduled as a CIP project with a start of design by 2011.

Soapstone Valley Park, managed by the National Park Service – Rock Creek Park Operating Unit, is approximately 23 acres. This park is roughly bounded by Connecticut Avenue NW and Albemarle Street on the northwest corner, Audubon Terrace to the north and Broad Branch Road on the east. This park is at the western wing of the Rock Creek Park. Figure 1.1 shows the NPS Park. Soapstone Creek is a subwatershed of the Rock Creek, a tributary of the Potomac River.

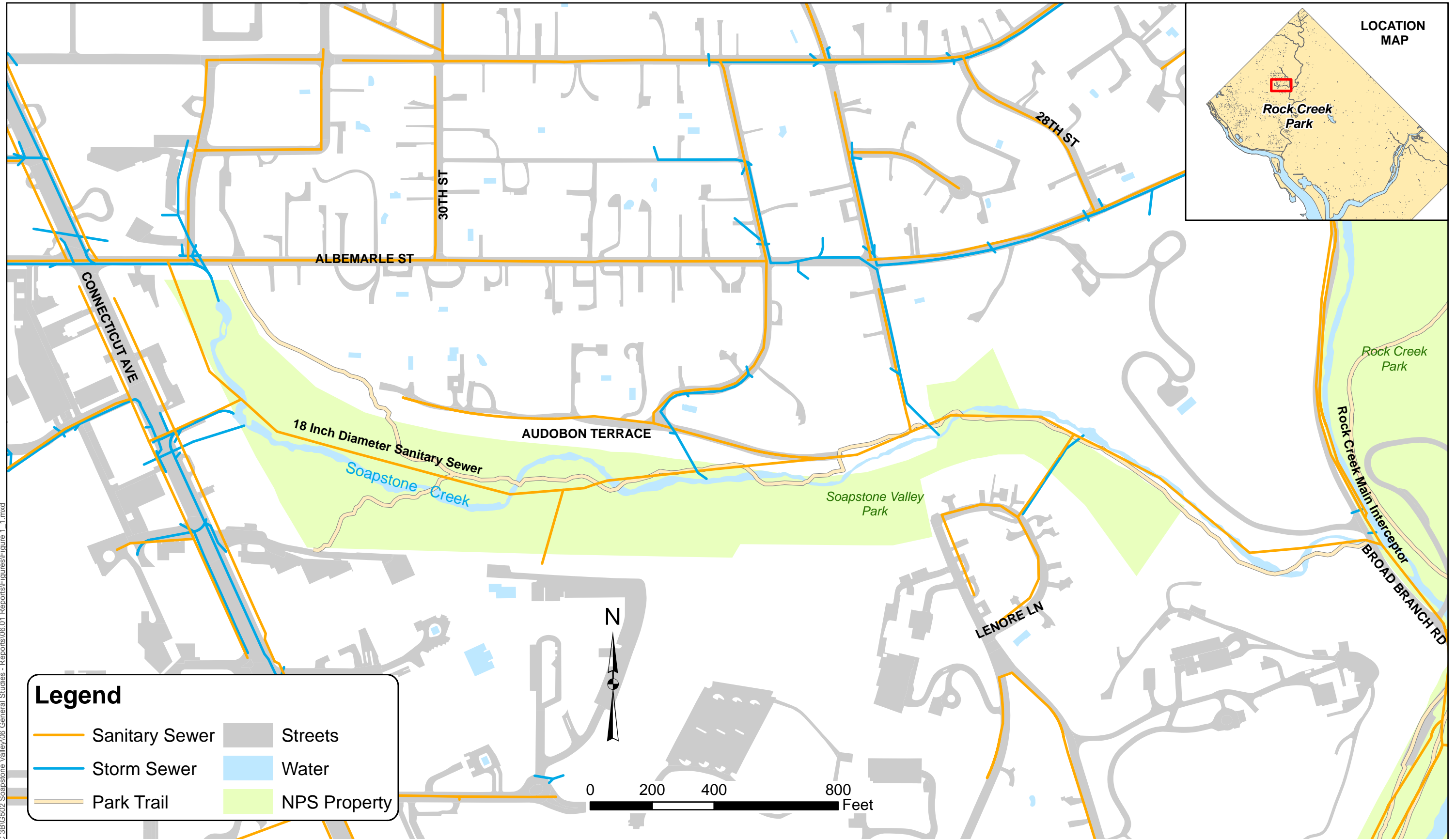
1.2 Purpose

The purpose of this Study is to evaluate the condition of the existing sanitary and storm sewer system in the Soapstone Valley Park and identify rehabilitation needs.

1.3 Description of the Sewerage System

The sewer shed consists predominantly of residential and commercial areas and is entirely in the District of Columbia. The sanitary sewer system in Soapstone Valley Park was constructed in 1908 and wastewater flows through an 18-inch diameter sanitary sewer into the Rock Creek Main Interceptor (RCMI). The RCMI runs parallel Rock Creek and ultimately conveys the flow for treatment at the Blue Plains AWWTP. Storm sewers for the drainage basin all convey storm flow directly to Soapstone creek. Refer to Figure 1.1 for the project area and the location of the sanitary sewer system.

The Soapstone Valley sanitary sewer system is made up of vitrified clay pipe (VCP) material. Construction of the sewer was completed during 1908; making the system more than a century old and beyond the estimated service life of VCP (between 75 and 100 years). In order to convey flows at the lower points of the gravity system, sewers were installed in the vicinity of streams to convey the wastewater from the neighborhood. Due to natural stream valley, the sanitary sewer crossed the stream at a few locations. Over time, portions of the buried sewer crossings became exposed by the erosive stream flows and surface runoff. Sewer crossing with concrete encasement was also eroded and become exposed by the stream flow.



X:\01900 - DC\WASA\EPMC 3B\G502 Soapstone Valley\06 General Studies - Reports\06.01 Reports\Figures\Figure 1_1.mxd

Study Area

Figure 1.1

Section 2 Sewer System Condition Assessment

2.1 Scope of Observations

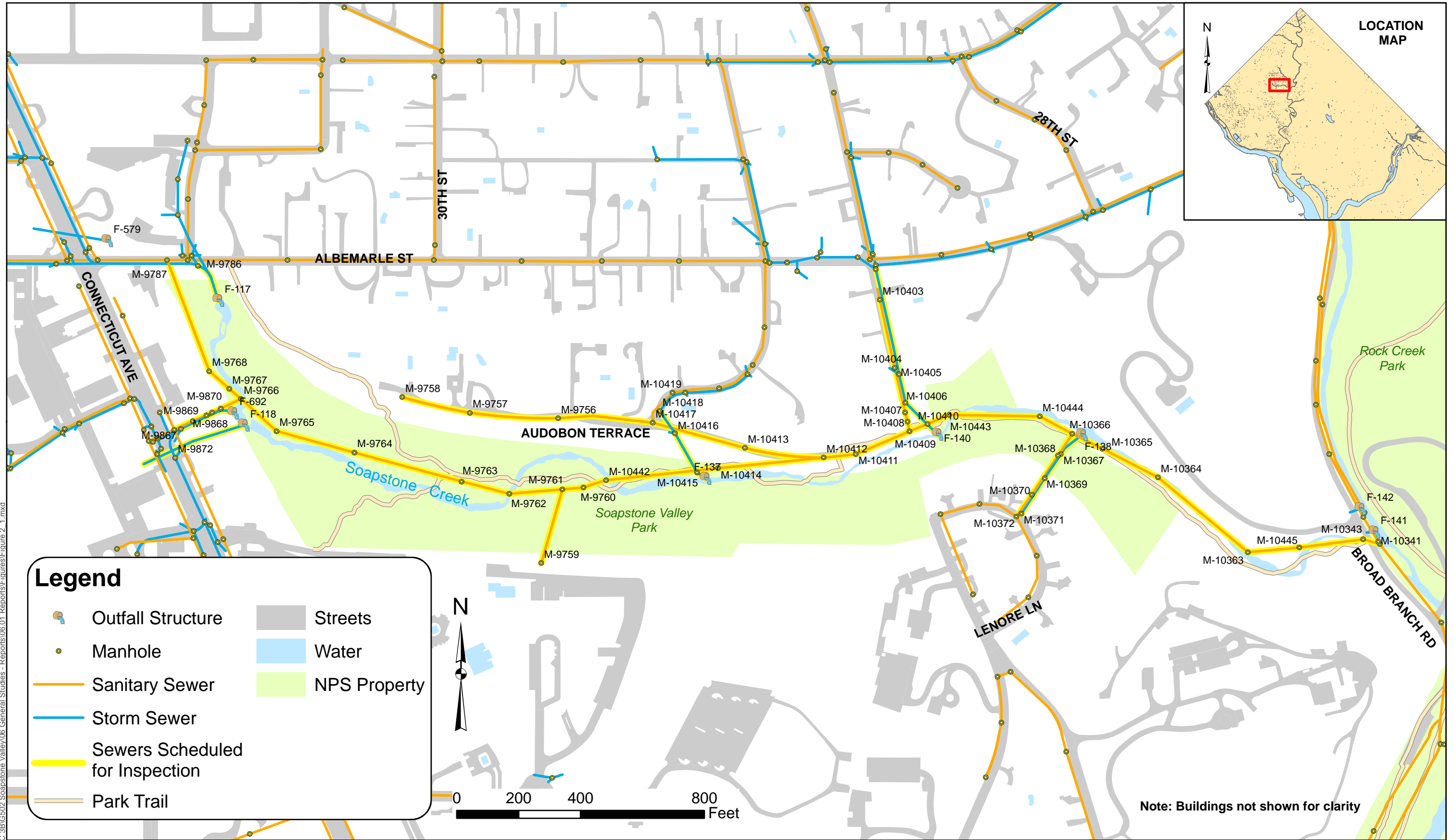
Inspections of the sanitary and storm sewer infrastructure within the Soapstone Valley Park and the immediate vicinity were performed as part of this assessment. Figure 2.1 depicts the location of the sewers to be inspected as well as manhole numbers. Inspection reports for the sewers and manholes are included in the appendices.

2.2 Inspection Methodology

Counter maps and GIS data were used to create field maps to aid the inspection crews. Manhole numbers were extracted from the DC Water geo-database and identified on the maps to be used in manhole inspection logs and sewer inspection videos. Diversion of flow or bypass pumping was not required for the inspection of the sewers.

Sewers were inspected by using Closed Circuit Television (CCTV) cameras. In order to perform these inspections, two access locations, at Manholes M-9787 (located in Albemarle Street and is approximately 40-feet deep) and M-10412 (located in Audobon Terrace), were identified to perform a continuous inspection through the 18-inch diameter sewer system. All the storm sewer lines and outfalls to the creek were inspected with access from the most upstream manhole located outside NPS property to minimize disruption. Any sewer lines flowing into the 18-inch diameter sewer line were inspected from access locations outside NPS property. Certain sewer segments were added to the schedule for CCTV inspection to complete the inspection, but were necessary to prevent having to enter the Park with the inspection truck.

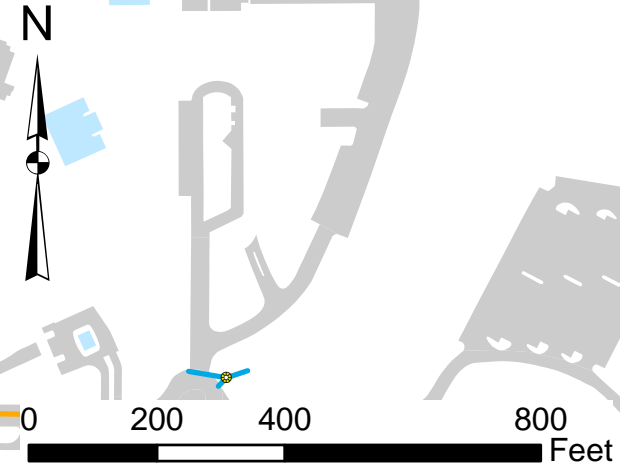
Inspection of the remaining sewers within the park property required a NPS special use permit (SUP). This SUP was obtained to inspect the sewers with minimal or no disturbance to the park property. For this report, both sanitary and storm manholes were inspected by man entry and pictures were taken to capture observations. The CCTV inspection contractor was able to collect and provide sufficient information to conduct the internal condition assessment; however, not all sewers were inspected due to access issues within the National Park. Additionally, a segment of the storm sewer system upstream of the outfall F-118, which runs across Connecticut Avenue, is under a building and access couldn't be obtained to perform inspection from outside the park.



X:\01900 - DC\WASA\EPMC\3B\G502 Soapstone Valley\06 General Studies - Reports\06.01 Reports\Figures\Figure 2_1.mxd

Legend

- Outfall Structure
- Manhole
- Sanitary Sewer
- Storm Sewer
- Sewers Scheduled for Inspection
- Park Trail
- Streets
- Water
- NPS Property



Note: Buildings not shown for clarity

EPMC 3B

Soapstone Valley Sewer System Inspections

Figure 2.1

2.3 Manhole Inspection Results (Sanitary and storm sewer systems)

Manholes for the Soapstone Valley sewer system were constructed using brick and mortar. Corrosion inside the manholes was observed throughout the system. Manhole covers were mostly rusted closed and some of them were welded shut. Manhole frames were rusted along with the steps.



Photo – View of Sanitary Manhole M-9763 with corroded frame and steps

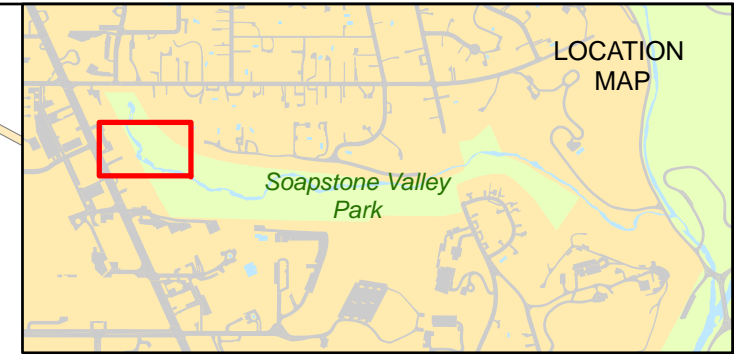


Photo – View of Sanitary Manhole M-10363 with 6-inch connection

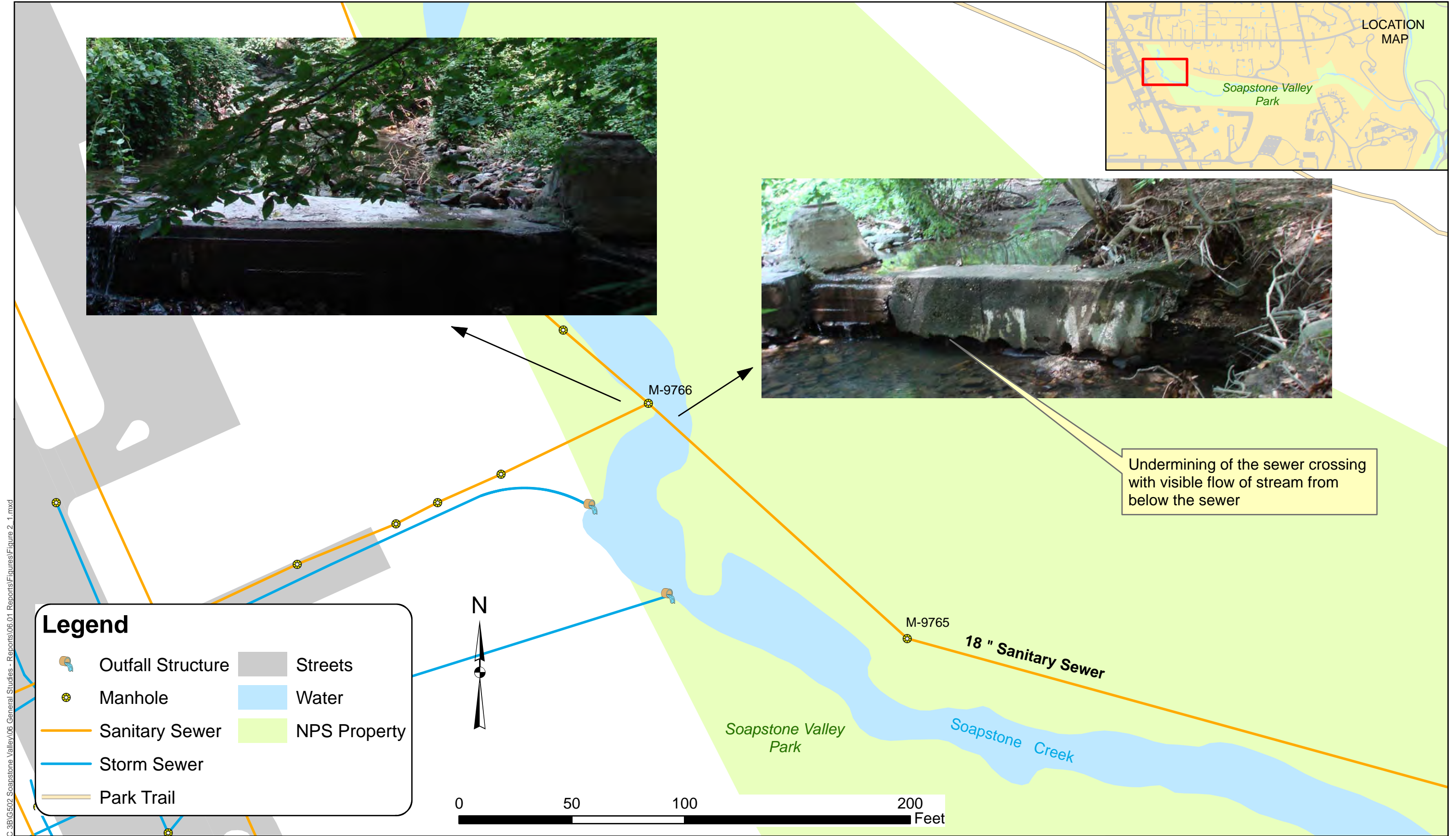
Due to the stream erosion certain portions of the vitrified clay pipe sanitary sewer and the sanitary manholes are exposed. Exposed manholes were observed to have structural damage from the stream. Table 2-1 lists the locations of the exposed sanitary manholes and sewers in the stream.

**Table 2-1
 Exposed Sanitary Sewer and Manholes in Stream**

Manhole ID	Counter Map	Figure
M-9766	LM-19-20 NW	Figure 2-2
M-9762	LM-19-20 NW	Figure 2-3
M-10442	IK-19-20 NW	Figure 2-4
M-10443	IK-19-20 NW	Figure 2-5
M-10364	IK-19-20 NW	Figure 2-6
M-10445	IK-19-20 NW	Figure 2-7



Undermining of the sewer crossing with visible flow of stream from below the sewer



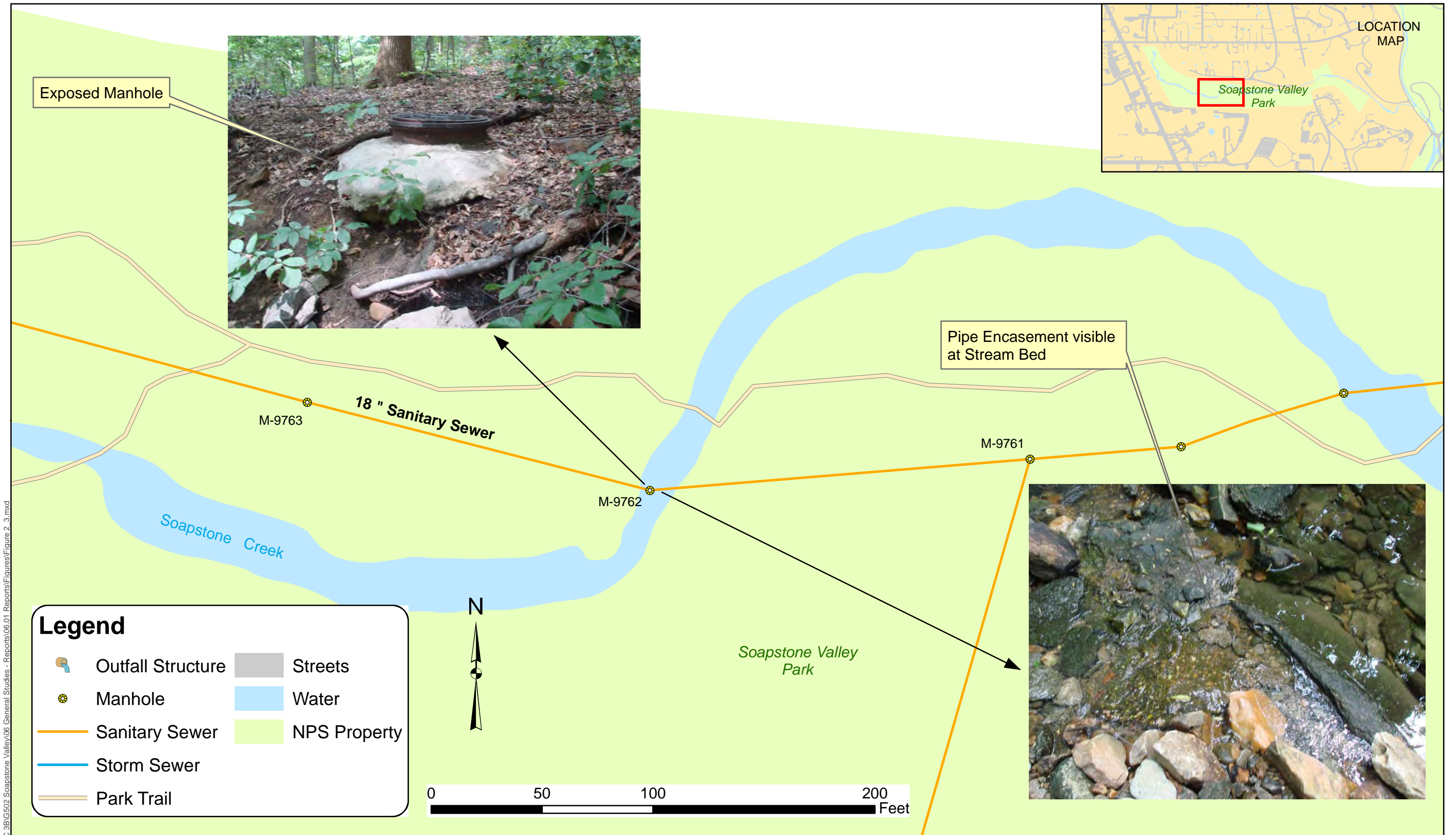
Legend

	Outfall Structure		Streets
	Manhole		Water
	Sanitary Sewer		NPS Property
	Storm Sewer		
	Park Trail		

X:\01900 - DC\WASA\EPMC 3B\G502 Soapstone Valley\06 General Studies - Reports\06.01 Reports\Figures\Figure 2_1.mxd

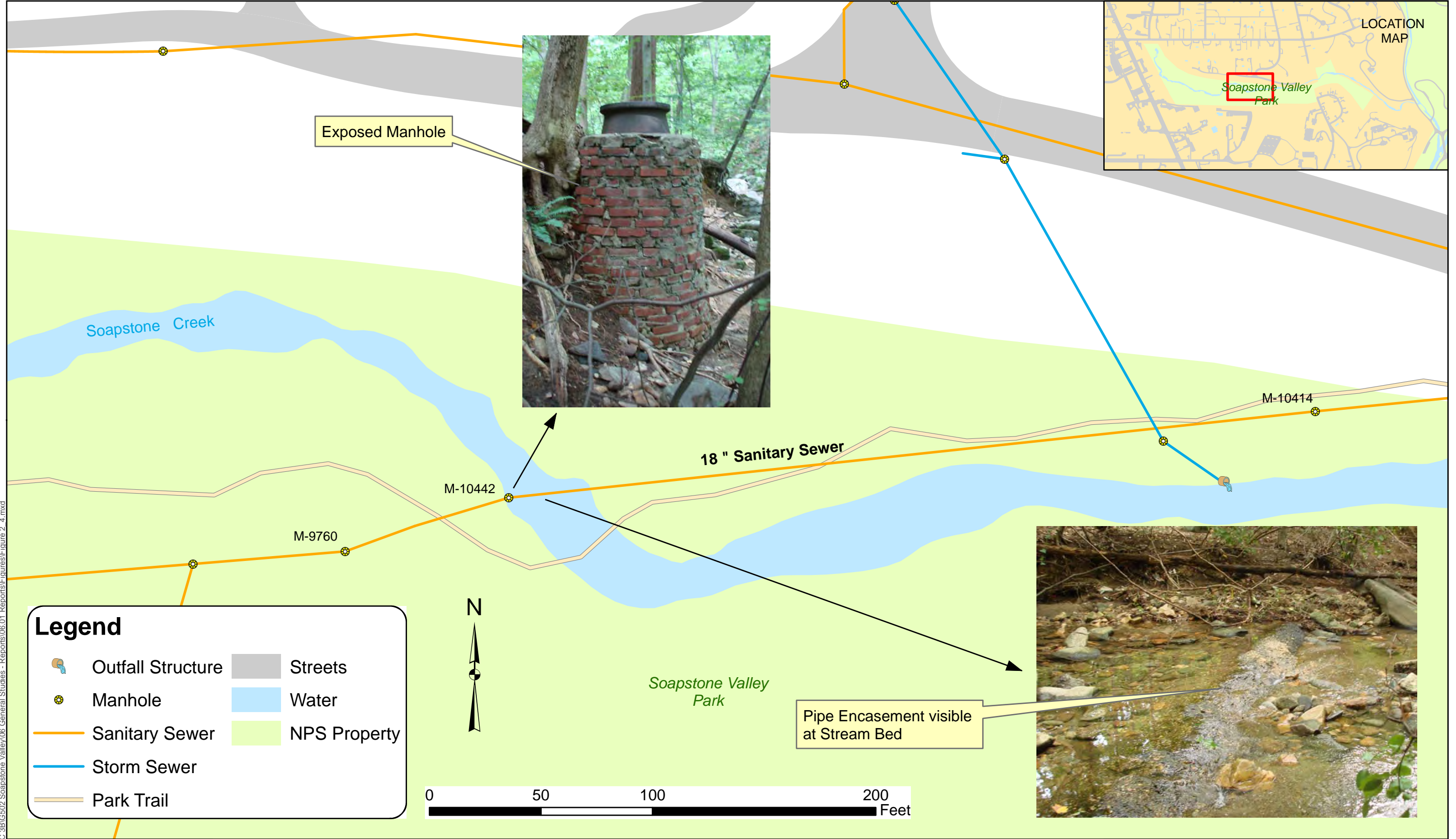
Sewer Crossing at Manhole M-9766

Figure 2.2



Sewer Crossing at Manhole M-9762

Figure 2.3



X:\01900 - DC\WASA\EP\MC 3B\G502 Soapstone Valley\06 General Studies - Reports\06.01 Reports\Figures\Figure 2_4.mxd

Sewer Crossing at Manhole M-10442

Figure 2.4

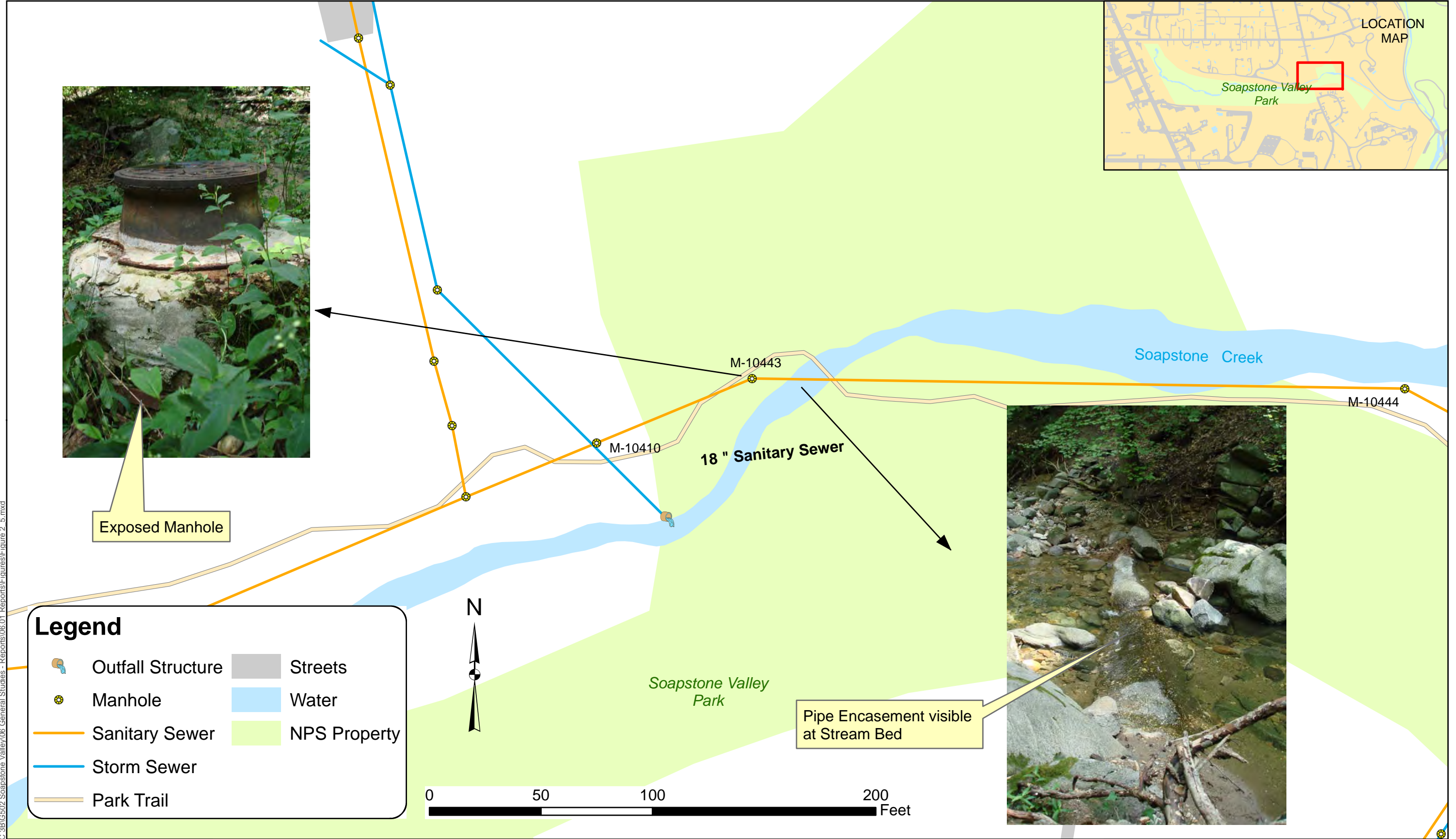
X:\01900 - DC\WASA\EPMC 3B\G502 Soapstone Valley\06 General Studies - Reports\06.01 Reports\Figures\Figure 2.5.mxd



Exposed Manhole



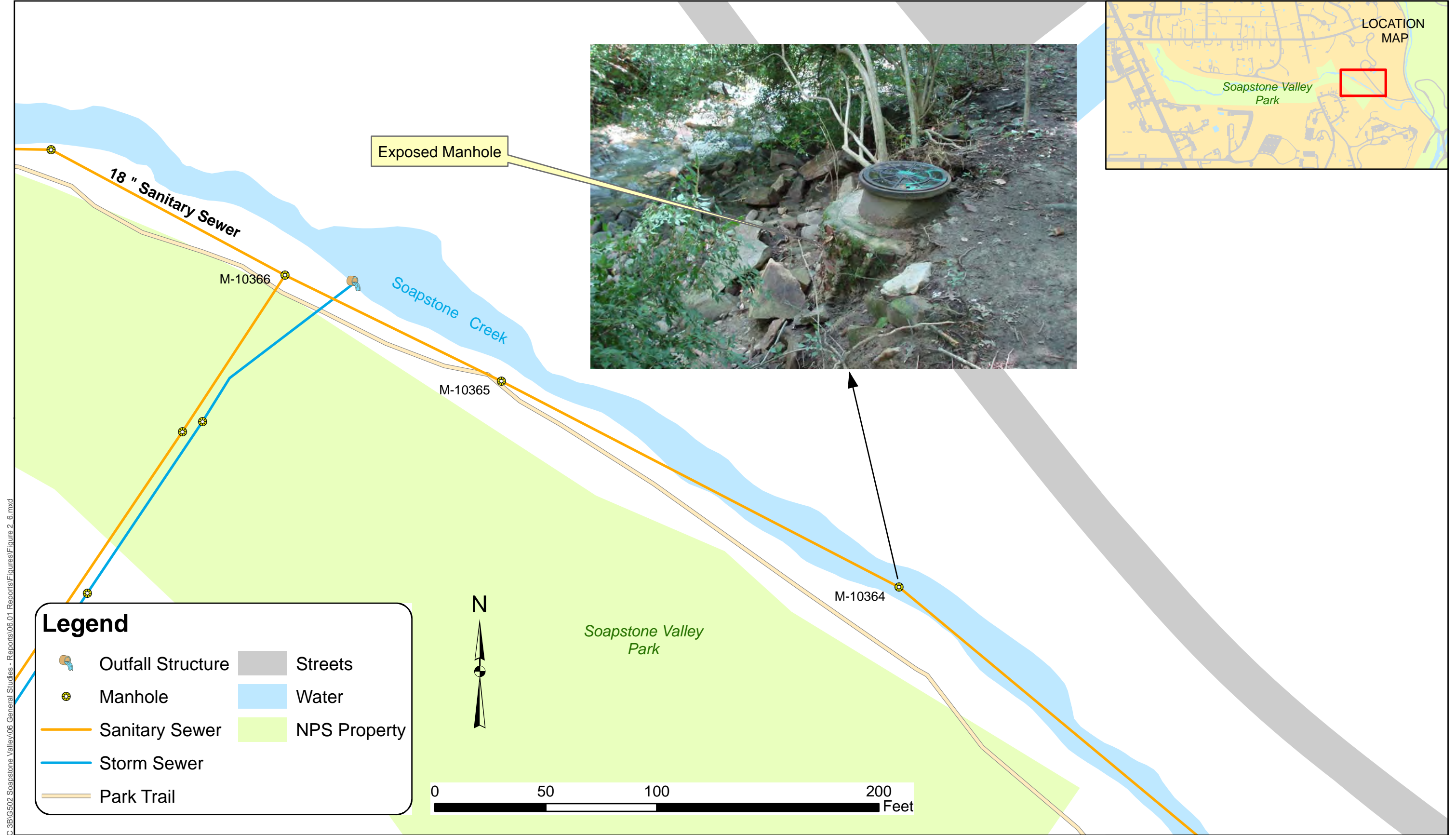
Pipe Encasement visible at Stream Bed



Legend

- Outfall Structure
- Manhole
- Sanitary Sewer
- Storm Sewer
- Park Trail
- Streets
- Water
- NPS Property

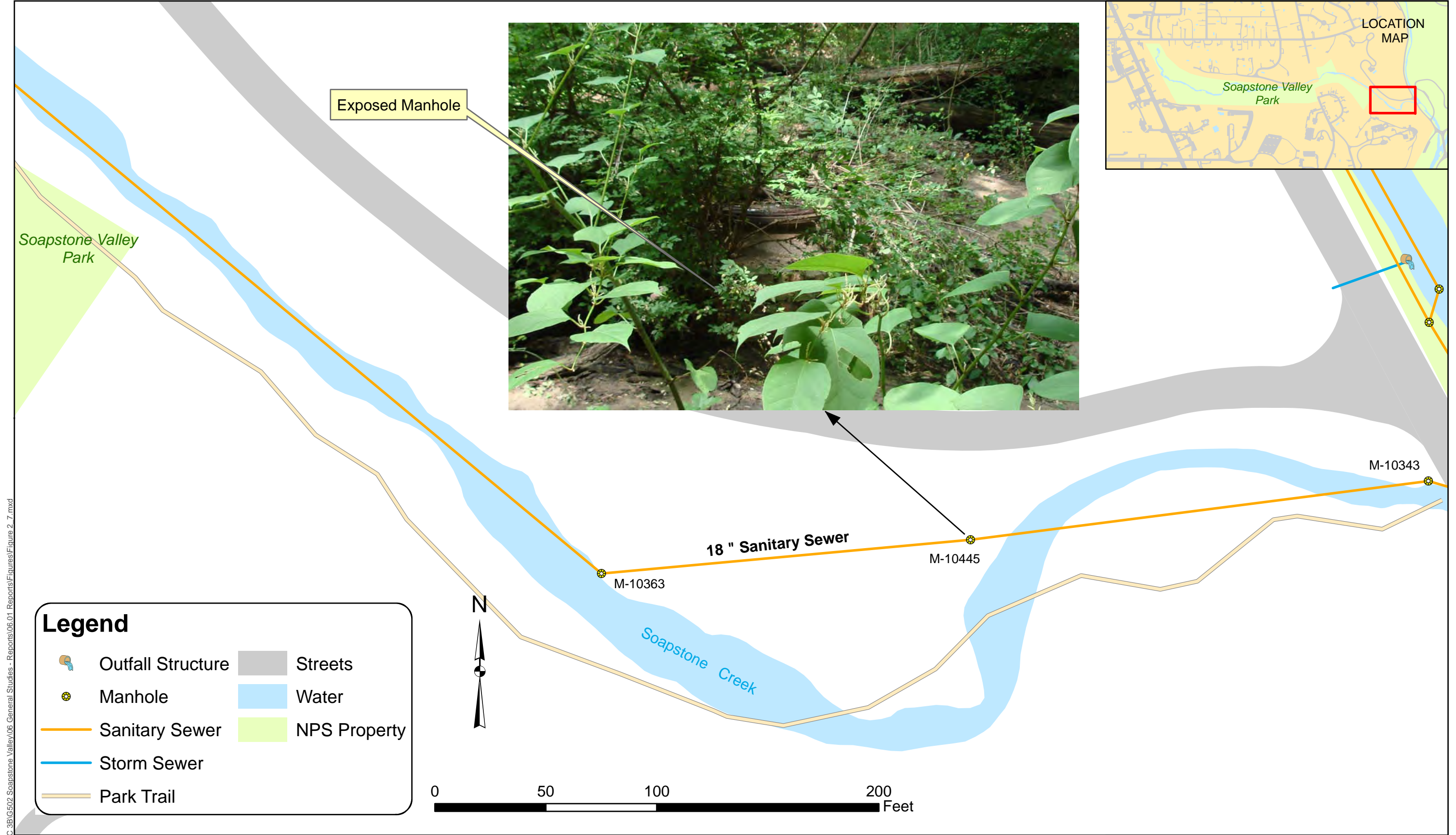
Sewer Crossing at Manhole M-10443



X:\01900 - DC\WASA\EPMC 3B\G502 Soapstone Valley\06 General Studies - Reports\06.01 Reports\Figures\Figure 2_6.mxd

Exposed Manhole M-10364

Figure 2.6



X:\01900 - DC\WASA\EP\MC 3B\G502 Soapstone Valley\06 General Studies - Reports\06.01 Reports\Figures\Figure 2.7.mxd

Exposed Manhole M-10445

2.4 CCTV Inspection Results

2.4.1 Sanitary Sewer CCTV Inspection Results

Active infiltration was observed in the sanitary sewers during the CCTV inspection predominantly where the sewer pipe crossed the stream. The sewer stream crossing between manholes M-10443 and M-10444 was observed to have high active infiltration as shown in the picture below. The location of the leak was later found and immediately referred to DC Water's DSS for repair. DSS immediately fixed the hole in the pipe, where a rock had fallen against the clay pipe causing a leak, with exterior cementitious grout and stopped the infiltration at this location.



Photo – Example of Active Infiltration

Cracks in the sewer pipe, both longitudinal and multiple, were observed throughout the sanitary line during the internal inspections. In general, VCP has a tendency to fail, especially those pipes installation with shallow cover over the pipe. External point loads exceeding the pipe hoop strength tend to deform the pipe, creating cracks in it. Failure is often exacerbated by the loss of surrounding soil leading to void formation and loss of soil support to the pipe.

Sewer segments between manholes M-9768 to M-9765 were observed to be previously lined and are in need of no further improvements at this time. Roots and multiple cracks at the crown of the pipe were observed for the sewer segment between manhole M-9765 and M-9764. Fine to medium roots were generally observed at the joints for all the sanitary sewer segments.



Photo – Example of crown of pipe with multiple cracks (Rotated View)

Other common defects identified in the sanitary sewer VCP included: root intrusion, deposit build-up, cracks/broken pipe, and leakage.

A list of sanitary sewer segments with observed primary defects noted is provided in Table 2.2. As noted in the table all segments have defects that need to be addressed by either pipe replacement or rehabilitation with the exception of the two sections previously rehabilitated.

**Table 2-2
CCTV Inspection Results - Summary**

Upstream Manhole ID	Downstream Manhole ID	Diameter (inch)	Length (ft)	Primary Observed Defects
M-9787	M-9768	18	353	Roots
M-9768	M-9766	18	180	Lined Previously
M-9766	M-9765	18	111	Lined Previously
M-9765	M-9764	18	270	Roots, Cracks
M-9764	M-9763	18	353	Roots fine
M-9763	M-9762	18	170	Roots fine, evidence of surcharge
M-9762	M-9761	18	167	Leaks, offsets minor, longitudinal cracks at 12:00. Creek Crossing
M-9761	M-9760	18	37	Roots, located b/w two crossings
M-9760	M-10442	18	80	Fine Roots, located in wooded area with D/S MH on creek bank and in middle of two creek crossings
M-10442	M-10414	18	374	Leaks, roots, cracks, creek crossing
M-10414	M-10412	18	347	Fine roots

Upstream Manhole ID	Downstream Manhole ID	Diameter (inch)	Length (ft)	Primary Observed Defects
M-10412	M-10411	18	109	Roots (fine) in lower section; D/S MH buried
M-9758	M-9757	10	224	Roots; open joints
M-9757	M-9756	10	284	Roots (fine)
M-10417	M-10413	15	316	Roots (fine)
M-10413	M-10412	15	261	Longitudinal cracks & fractures; roots (fine)
M-9756	M-10417	10	320	Roots; Heavy cleaning; cracks, open joints, fractures
M-10411	M-10409	18	192	Roots, cracks, broken
M-10409	M-10410	18	52	Cracks near U/S MH
M-10410	M-10443	18	76	Roots, fine, cracks, lateral
M-10443	M-10444	18	297	Roots, hole void visible, cracks, creek crossing
M-10444	M-10366	18	142	Roots, cracks
M-10366	M-10365	18	87	Cracks, one active tap
M-10365	M-10364	18	206	Fine roots, minor break
M-10364	M-10363	18	376	Cracks, roots, grease or surcharge evidence. One lateral with broken tee
M-10363	M-10445	18	171	Leaks, roots, deposits. Crosses creek
M-10445	M-10343	18	215	Hole void visible, leaks, 12:00 broken, fine roots

2.4.2 Storm Sewer System CCTV Inspection Results

Storm sewer inspection limited due to topography and permitted access by the National Park Service. Storm lines inspected located in Soapstone Valley Park with major elevation changes have more significant problems than storm lines located on “flatter” slopes.

Table 2-3
CCTV Inspection Results - Summary

Upstream Manhole ID	Downstream Manhole ID	Diameter (inch)	Length (ft)	Primary Observed Defects
M-10416	M-10415	18	130	Minor breaks
M-10418	M-10416	18	92	Cracks
M-10415	F-137	18	11	Good condition
M-10395	M-10405	36	346	Roots (fine)
M-10405	M-10406	27	97	Cracks, offset joints, minor break

2.4.3 Overall Sewer Ratings

Sewers inspected as part of this assessment have been rated based on condition assessment rating system developed for the Sewer System Facilities Plan. Rating system used a unique client system based on the National Association of Sewer Service Companies (NASSCO) system available through their Pipeline Assessment Certification Program (PACP). The rating system encompasses normalized defect coding to provide a comparable segment score. “Tech Memo No. 5 Sewer Assessment Rating System” by EPMC-3A outlines the sewer assessment rating system in detail.

The Structural Segment Rating (normalized defect rating) and Overall Sewer Rating Scores for each sewer segment are included below in Table 2-4. The Sewer Ratings are depicted in Figure 2-8.

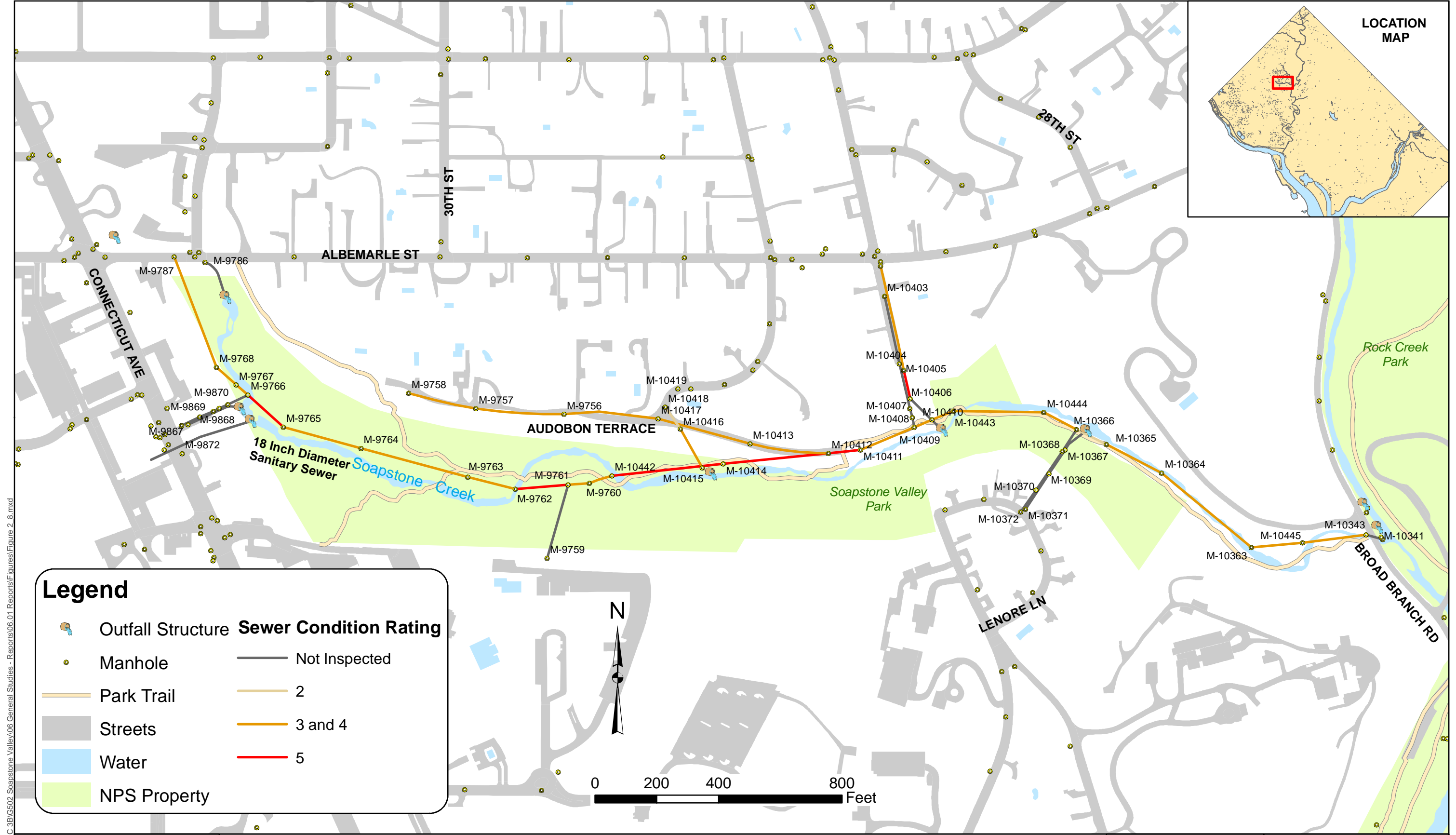
Table 2-4
CCTV Inspection Results - Summary

Upstream Manhole ID	Downstream Manhole ID	Structural Sewer Rating	Overall Sewer Rating
M-9760	M-10442	2	3
M-10366	M-10365	1	2
M-10363	M-10445	3	4
M-10364	M-10363	3	3
M-10445	M-10343	5	4
M-10365	M-10364	3	3
M-10444	M-10366	3	3
M-10443	M-10444	5	4
M-10410	M-10443	4	4
M-10409	M-10410	3	3
M-10411	M-10409	5	4
M-10416	M-10415	4	4
M-10418	M-10416	1	2
M-10415	F-137	0	2
M-10414	M-10412	6	5
M-9762	M-9761	7	5
M-9761	M-9760	3	3
M-10442	M-10414	6	5

Sewer Assessment

Section 2

Upstream Manhole ID	Downstream Manhole ID	Structural Sewer Rating	Overall Sewer Rating
M-9764	M-9763	2	3
M-9763	M-9762	5	4
M-9765	M-9764	2	3
M-9766	M-9765	6	5
M-9768	M-9766	3	3
M-9787	M-9768	3	3
M-9758	M-9757	4	4
M-9757	M-9756	3	3
M-10417	M-10413	2	3
M-10395	M-10405	2	3
M-10405	M-10406	5	5
M-10413	M-10412	3	3
M-9756	M-10417	4	3
M-10412	M-10411	6	5



X:\01900 - DC IWASA EPMC 3B\G502 Soapstone Valley\06 General Studies - Reports\06.01 Reports\Figures\Figure 2.8.mxd

Section 3 Project Requirements

3.1 Preliminary Recommendations

Rehabilitation recommendations for the sewer include the following:

- Replace or relocate the sewer crossings indicated on Figure 3.1 with structural encasement for pipe integrity
- Rehabilitate approximately 4000 ft of the buried 18” sanitary sewers inside Soapstone Valley National Park with UV CIPP or similar trenchless method
- Stabilize the stream banks at the stream crossings to avoid any further erosion of the banks at the crossings

3.2 Construction Access

For access to replace the stream crossing, access routes to the stream are required through the NPS property. Currently, access routes are planned to avoid dense areas of wood and mostly follow foot trails or wide gaps through woods. These access routes are being utilized to perform inspections with NPS approval. Access routes include:

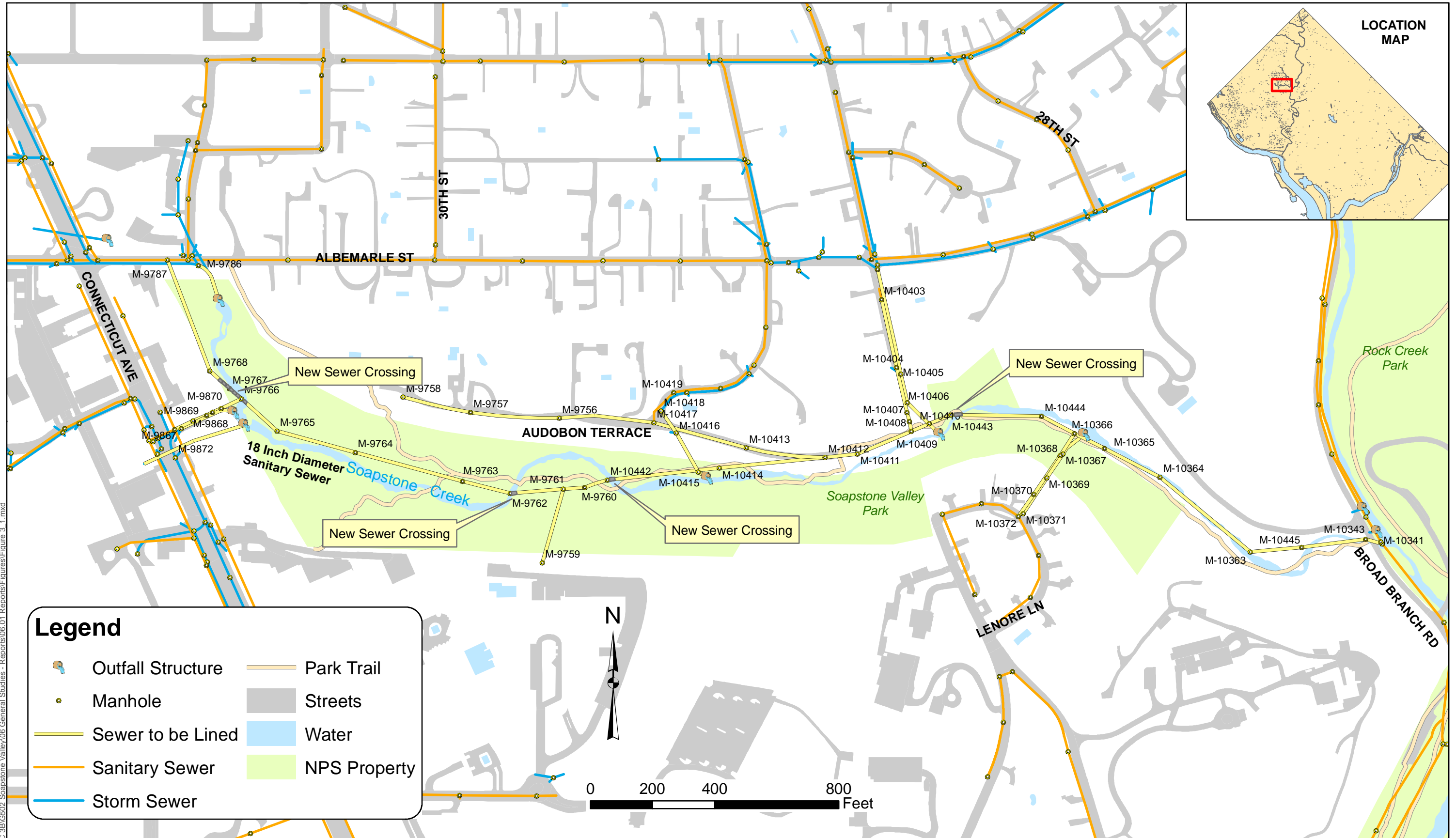
- Access from the west end of Audubon Terrace through the existing foot trail
- Access from the paved edge of Audubon Terrace through wide gaps in the woods
- Access from the intersection of Audubon Terrace and 29th St NW
- Access from the east end of Audubon Terrace through the existing foot trail

3.3 Permits

Permits are anticipated to be required from District of Columbia (DCRA), which incorporates DC Water, DDOT and District Dept. of Environment. Other permits required include the National Park Service (NPS), US Army Corps of Engineers, and U.S. Fish and Wildlife Service. Each of the permits required is discussed below.

**Table 3-1
Anticipated Permit Requirements**

Agency	Permit Requirements
District of Columbia (DCRA)	<ul style="list-style-type: none"> ■ Construction Permit ■ Building Permit ■ Sediment Control/Stormwater Management Plan ■ Sheeting and Shoring Permit ■ Sewer Permit (with DC Water)
National Park Service (NPS)	<ul style="list-style-type: none"> ■ Special Use Permit ■ Environmental Assessment
US Army Corps of Engineers	<ul style="list-style-type: none"> ■ Permit for Construction in wetlands
US Fish and Wildlife Service	<ul style="list-style-type: none"> ■ Review for impacts to endangered species ■ Enhancement of Survival Permits – Candidate Conservation Agreement



X:\01900 - DC WASA EPMC 3B\GIS\02 Soapstone Valley\06 General Studies - Reports\06.01 Reports\Figures\Figure 3.1.mxd

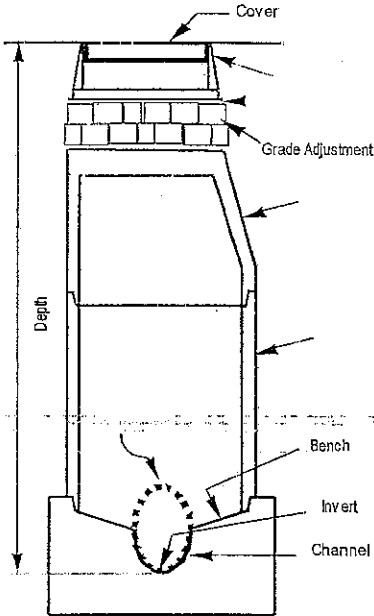
Appendix A

Manhole Inspection Logs



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY MANHOLE INSPECTION FORM

Date/Time 6-15-2010 3:03 PM Contract No. 080110 Task Order No. 1 Inspection Crew JRH
 MH ID No M-9762 Counter Map No. FD 269 Depth 7 [ft] 0 [in] Weather Dry Showers Heavy Rain Snow Light Rain
 Street Soapstone Park Quadrant NW Block No. NA Temperature 67 [F]



TYPICAL MH SECTION

GENERAL PHOTOS No

<input checked="" type="checkbox"/> Surface Inspection	Location <input type="checkbox"/> Paved-Conc.	<input type="checkbox"/> Curb	Traffic <input type="checkbox"/> Two Lane
<input checked="" type="checkbox"/> Internal Inspection	<input type="checkbox"/> Paved-Asph	<input type="checkbox"/> Yard	<input type="checkbox"/> 3-4 Lane
<input type="checkbox"/> Buried or Paved Over	<input type="checkbox"/> Driveway	<input type="checkbox"/> Dirt/Grass	<input type="checkbox"/> Highway
<input type="checkbox"/> Surcharged [] [in]	<input type="checkbox"/> Side Walk	<input checked="" type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Alley
<input type="checkbox"/> Debris/Silt			<input type="checkbox"/> Parking Lot
<input type="checkbox"/> Not Found	Vermin <input type="checkbox"/> Rats	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> Other (Use Comments)
	<input type="checkbox"/> Cockroaches	<input type="checkbox"/> Other (Use Comments)	

COVER PHOTOS No

Type <input checked="" type="checkbox"/> Pick	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Too Light	<input type="checkbox"/> Broken	No. of <input type="checkbox"/> None
<input type="checkbox"/> Concealed	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Loose	<input type="checkbox"/> Cracked	Holes <input type="checkbox"/> Pick (1)
<input type="checkbox"/> Gasketed	<input type="checkbox"/> Poor	<input type="checkbox"/> Rocking	<input type="checkbox"/> Missing	<input checked="" type="checkbox"/> Pick (2)
<input type="checkbox"/> Bolted # []		<input checked="" type="checkbox"/> Corroded/Pitted		<input type="checkbox"/> 3-6
<input type="checkbox"/> Vent				<input type="checkbox"/> >6
<input type="checkbox"/> Storm				

Cover Dia. 22 [in] Grade {+/-} 0 [in] Ponding Depth 0 [in]
 Subject to Sheet Flow Yes , IF Yes [] [sq ft.] Surrounding Pavement Cracked Yes

Comments:
man hole in Soapstone Valley Park

FRAME PHOTO No

Frame <input type="checkbox"/> Good	Adjustmen <input checked="" type="checkbox"/> None	Seal <input type="checkbox"/> Good	Frame Inside
Condition <input checked="" type="checkbox"/> Fair	Rings <input type="checkbox"/> One	Condition <input checked="" type="checkbox"/> Fair	Diameter <u>20</u> [in]
<input type="checkbox"/> Poor	<input type="checkbox"/> Two	<input type="checkbox"/> Poor	Offset <u>0</u> [in]
<input type="checkbox"/> Missing	<input type="checkbox"/> >2		Observed I/I <u>0</u> [gpm]
Frame <input type="checkbox"/> Cracked	<input checked="" type="checkbox"/> Corroded/Pitted		
Defects <input type="checkbox"/> Broken			

GRADE ADJUSTMENT (CHIMNEY) Yes No PHOTOS Yes No

Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
<input type="checkbox"/> Brick	<input type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input type="checkbox"/> Cracked
<input type="checkbox"/> Cast-in-Place		<input type="checkbox"/> H2S Corrosion
<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
<input type="checkbox"/> Other (Use Comments)		

Opening Dia. [] [in] Height [] [in] Probe Depth [] [in] Observed I/I [] [gpm]

CONE Yes No or **RISER** Yes No PHOTOS No

Cone <input checked="" type="checkbox"/> Concentric	Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
Shape <input type="checkbox"/> Eccentric	<input checked="" type="checkbox"/> Brick	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Flat Top	<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input checked="" type="checkbox"/> Cracked
<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Cast-in-Place		<input type="checkbox"/> H2S Corrosion
	<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
	<input type="checkbox"/> Other (Use Comments)		

Riser Dia. 24 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

WALL

PHOTOS Yes No

Comments:
manhole in Soapstone Valley Park

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments)

Opening Dia. 36 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

BENCH Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

CHANNEL Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Half Pipe 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Debris/Silt

Needs Cleaning Yes No Observed I/I 0 [gpm]

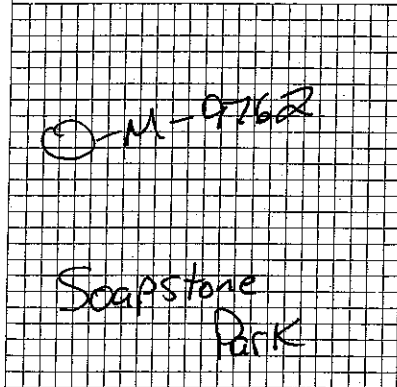
STEPS Yes No

PHOTOS Yes No

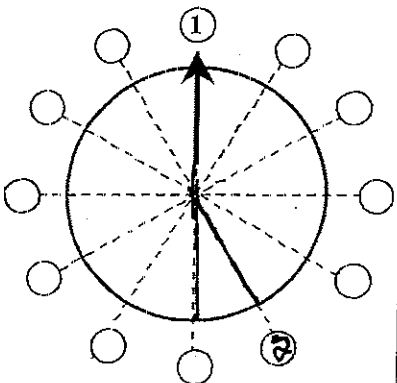
Material 1 Metal Condition 1 Good Defects 1 Missing #
 2 Brick 2 Fair 2 Corroded # 3
 3 Plastic/Rubber Coated 3 Poor 3 Broken #
 4 Other (Use Comments) 4 Other (Use Comments)

Number of Steps 3 Observed I/I 0 [gpm]

MH LOCATION SKETCH
(use to clarify location, if needed)



PRIMARY EFFLUENT



(show connecting line numbers)

CONNECTING PIPES

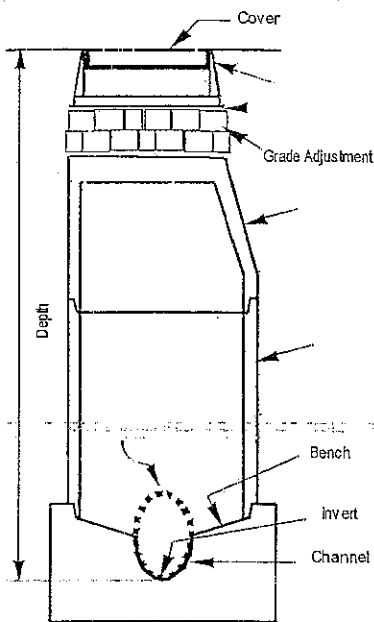
	Flow Direction	Line Type	Clock Position	Shape	Size [in]		Depth to Invert* [ft]-[in]	Debris	Roots	I/I [gpm]
					Height Dia.	Width				
Line 1	2	1	12:00	3	18	x	7-0	1	1	0
Line 2	1	4	5:00	3	18	x	6-0	1	1	0
Line 3						x	-			
Line 4						x	-			
Line 5						x	-			

- 1=Influent 1=Primary Line 1=Arched with Flat Bottom * From Cover 1=None 1=None
 2=Effluent 2=Secondary Influent Line 2=Barrel 2=Sludge 2=Light
 3=Overflow Line 3=Circular 3=Mud 3=Medium
 4=Drop Connection 4=Egg Shaped 4=Rocks 4=Heavy
 5=Horseshoe 5=Oval 5=Other 5=Severe
 6=Rectangular
 7=Square
 8=Square
 9=Trapezoidal
 10=U-Shaped with Flat Top
 11=Other (Use Comments)



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY MANHOLE INSPECTION FORM

Date/Time 6-15-2010 3:30 PM hr) Contract No 080110 Task Order No. 1 Inspection Crew JRH
 MH ID No M-9793 Counter Map No. F0269 Depth 8 [ft] 6 [in] Weather Dry Showers Heavy Rain Snow Light Rain
 Street Soapstone Park Quadrant NW Block No. NA Temperature 67 [F]



GENERAL PHOTOS No

<input checked="" type="checkbox"/> Surface Inspection	Location <input type="checkbox"/> Paved-Conc	<input type="checkbox"/> Curb	Traffic <input type="checkbox"/> Two Lane
<input checked="" type="checkbox"/> Internal Inspection	<input type="checkbox"/> Paved-Asph	<input type="checkbox"/> Yard	<input type="checkbox"/> 3-4 Lane
<input type="checkbox"/> Buried or Paved Over	<input type="checkbox"/> Driveway	<input type="checkbox"/> Dirt/Grass	<input type="checkbox"/> Highway
<input type="checkbox"/> Surcharged [] [in]	<input type="checkbox"/> Side Walk	<input checked="" type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Alley
<input type="checkbox"/> Debris/Silt	Vermin <input type="checkbox"/> Rats	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Parking Lot
<input type="checkbox"/> Not Found	<input type="checkbox"/> Cockroaches	<input type="checkbox"/> Other (Use Comments)	<input checked="" type="checkbox"/> Other (Use Comments)

COVER PHOTOS No

Type <input checked="" type="checkbox"/> Pick	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Too Tight	<input type="checkbox"/> Broken	No. of <input type="checkbox"/> None
<input type="checkbox"/> Concealed	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Loose	<input type="checkbox"/> Cracked	Holes <input type="checkbox"/> Pick (1)
<input type="checkbox"/> Gasketed	<input type="checkbox"/> Poor	<input type="checkbox"/> Rocking	<input type="checkbox"/> Missing	<input checked="" type="checkbox"/> Pick (2)
<input type="checkbox"/> Bolted # []		<input checked="" type="checkbox"/> Corroded/Pitted		<input type="checkbox"/> 3-6
<input type="checkbox"/> Vent				<input type="checkbox"/> >6
<input type="checkbox"/> Storm				

Cover Dia. 22 [in] Grade {+/-} 0 [in] Ponding Depth 0 [in]
 Subject to Sheet Flow Yes , IF Yes [sq.ft.] Surrounding Pavement Cracked Yes

Comments:
Manhole in Soapstone
Valley Park

FRAME PHOTOS No

Frame <input type="checkbox"/> Good	Adjustmen <input checked="" type="checkbox"/> None	Seal <input type="checkbox"/> Good	Frame Inside
Condition <input checked="" type="checkbox"/> Fair	Rings <input type="checkbox"/> One	Condition <input checked="" type="checkbox"/> Fair	Diameter <u>20</u> [in]
<input type="checkbox"/> Poor	<input type="checkbox"/> Two	<input type="checkbox"/> Poor	Offset <u>0</u> [in]
<input type="checkbox"/> Missing	<input type="checkbox"/> >2		Observed I/I <u>0</u> [gpm]
Frame <input type="checkbox"/> Cracked	<input checked="" type="checkbox"/> Corroded/Pitted		
Defects <input type="checkbox"/> Broken			

GRADE ADJUSTMENT (CHIMNEY) Yes No PHOTOS Yes No

Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
<input type="checkbox"/> Brick	<input type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input type="checkbox"/> Cracked
<input type="checkbox"/> Cast-in-Place		<input type="checkbox"/> H2S Corrosion
<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
<input type="checkbox"/> Other (Use Comments)		

Opening Dia. [in] Height [in] Probe Depth [in] Observed I/I [gpm]

CONE Yes No or **RISER** Yes No PHOTOS Yes No

Cone <input checked="" type="checkbox"/> Concentric	Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
Shape <input type="checkbox"/> Eccentric	<input checked="" type="checkbox"/> Brick	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Flat Top	<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input checked="" type="checkbox"/> Cracked
<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Cast-in Place		<input type="checkbox"/> H2S Corrosion
	<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
	<input type="checkbox"/> Other (Use Comments)		

Riser Dia. 24 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

WALL

PHOTOS Yes No

Comments:

manhole in Soapstone Valley Park

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Roots
 3 Block 7 Other (Use Comments) 3 Fair 3 Cracked
 4 Lined 3 Poor 4 H2S Corrosion
 5 Other (Use Comments)

Opening Dia 36 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

BENCH Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 3 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

CHANNEL Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 3 Fair 2 Roots
 3 Block 7 Half Pipe 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

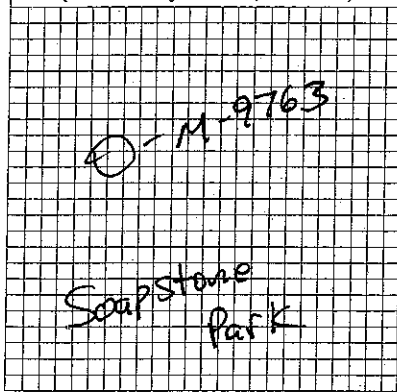
STEPS Yes No

PHOTOS Yes No

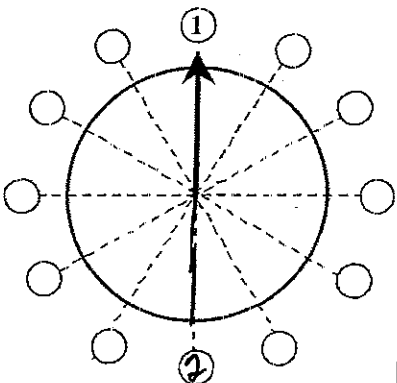
Material 1 Metal Condition 1 Good Defects 1 Missing #
 2 Brick 2 Fair 2 Corroded # 4
 3 Plastic/Rubber Coated 3 Poor 3 Broken #
 4 Other (Use Comments) 4 Other (Use Comments)

Number of Steps 4 Observed I/I 0 [gpm]

MH LOCATION SKETCH
(use to clarify location, if needed)



PRIMARY EFFLUENT



(show connecting line numbers)

CONNECTING PIPES

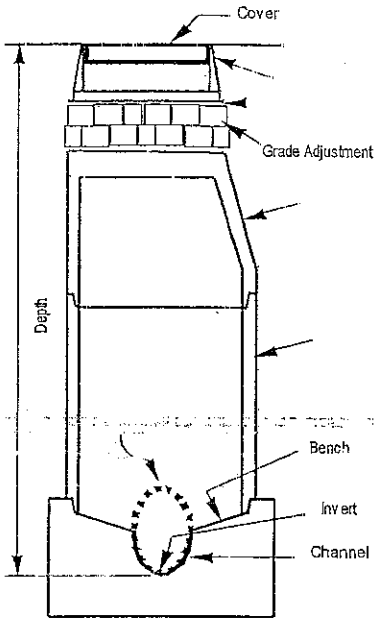
	Flow Direction	Line Type	Clock Position	Shape	Size [in]		Depth to Invert* [ft]-[in]	Debris	Roots	I/I [gpm]
					Height Dia.	Width				
Line 1	2	1	12:00	3	18	x 0	8-6	1	1	0
Line 2	1	1	6:00	3	18	x 0	8-6	1	1	0
Line 3						x	-			
Line 4						x	-			
Line 5						x	-			

- 1=Influent 1=Primary Line 1=Arched with Flat Bottom * From Cover
 - 2=Effluent 2=Secondary Influent Line 2=Barrel
 - 3=Overflow Line 3=Circular
 - 4=Drop Connection 4=Egg Shaped
 - 5=Horseshoe
 - 6=Oval
 - 7=Rectangular
 - 8=Square
 - 9=Trapezoidal
 - 10=U-Shaped with Flat Top
 - 11=Other (Use Comments)
- 1=None
 - 2=Sludge
 - 3=Mud
 - 4=Rocks
 - 5=Other
 - 1=None
 - 2=Light
 - 3=Medium
 - 4=Heavy
 - 5=Severe



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY MANHOLE INSPECTION FORM

Date/Time 6-15-2010 4:15 PM Contract No 080110 Task Order No. 1 Inspection Crew JRH
 MH ID No M-9744 Counter Map No ID269 Depth 6 [ft] 6 [in] Weather Dry Showers Heavy Rain Snow Light Rain
 Street Soapstone Park Quadrant NW Block No. NA Temperature 67 [F]



GENERAL PHOTOS [No]

<input checked="" type="checkbox"/> Surface Inspection	Location <input type="checkbox"/> Paved-Conc	<input type="checkbox"/> Curb	Traffic <input type="checkbox"/> Two Lane
<input checked="" type="checkbox"/> Internal Inspection	<input type="checkbox"/> Paved-Asph	<input type="checkbox"/> Yard	<input type="checkbox"/> 3-4 Lane
<input type="checkbox"/> Buried or Paved Over	<input type="checkbox"/> Driveway	<input type="checkbox"/> Dirt/Grass	<input type="checkbox"/> Highway
<input type="checkbox"/> Surcharged [] [in]	<input type="checkbox"/> Side Walk	<input checked="" type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Alley
<input type="checkbox"/> Debris/Silt	Vermin <input type="checkbox"/> Rats	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Parking Lot
<input type="checkbox"/> Not Found	<input type="checkbox"/> Cockroaches	<input type="checkbox"/> Other (Use Comments)	<input checked="" type="checkbox"/> Other (Use Comments)

COVER PHOTOS [No]

Type <input checked="" type="checkbox"/> Pick	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Too Light	<input type="checkbox"/> Broken	No. of <input type="checkbox"/> None
<input type="checkbox"/> Concealed	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Loose	<input type="checkbox"/> Cracked	Holes <input type="checkbox"/> Pick (1)
<input type="checkbox"/> Gasketed	<input type="checkbox"/> Poor	<input type="checkbox"/> Rocking	<input type="checkbox"/> Missing	<input checked="" type="checkbox"/> Pick (2)
<input type="checkbox"/> Bolted # _____		<input checked="" type="checkbox"/> Corroded/Pitted		<input type="checkbox"/> 3-6
<input type="checkbox"/> Vent				<input type="checkbox"/> >6
<input type="checkbox"/> Storm				

Cover Dia. 22 [in] Grade {+/-} 0 [in] Ponding Depth 0 [in]
 Subject to Sheet Flow Yes No, IF Yes _____ [sq ft] Surrounding Pavement Cracked Yes No

Comments:
Man hole in Soapstone Valley Park

FRAME PHOTOS [No]

Frame Condition <input type="checkbox"/> Good	Adjustment <input checked="" type="checkbox"/> None	Seal Condition <input type="checkbox"/> Good	Frame Inside Diameter <u>20</u> [in]
<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> One	<input checked="" type="checkbox"/> Fair	Offset <u>0</u> [in]
<input type="checkbox"/> Poor	<input type="checkbox"/> Two	<input type="checkbox"/> Poor	Observed I/I <u>0</u> [gpm]
<input type="checkbox"/> Missing	<input type="checkbox"/> >2		
Frame Defects <input type="checkbox"/> Cracked	<input checked="" type="checkbox"/> Corroded/Pitted		
<input type="checkbox"/> Broken			

GRADE ADJUSTMENT (CHIMNEY) Yes No PHOTOS Yes No

Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
<input type="checkbox"/> Brick	<input type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input type="checkbox"/> Cracked
<input type="checkbox"/> Cast-in-Place		<input type="checkbox"/> H2S Corrosion
<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
<input type="checkbox"/> Other (Use Comments)		

Opening Dia. _____ [in] Height _____ [in] Probe Depth _____ [in] Observed I/I _____ [gpm]

CONE Yes No or **RISER** Yes No PHOTOS [No]

Cone Shape <input checked="" type="checkbox"/> Concentric	Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
<input type="checkbox"/> Eccentric	<input checked="" type="checkbox"/> Brick	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Flat Top	<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input checked="" type="checkbox"/> Cracked
<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Cast-in-Place		<input type="checkbox"/> H2S Corrosion
	<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
	<input type="checkbox"/> Other (Use Comments)		

Riser Dia. 24 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

WALL PHOTOS Yes No

Comments:
manhole in Soapstone Valley Park

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments) 4 H2S Corrosion
 5 Other (Use Comments)

Opening Dia. 36 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

BENCH PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments) 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

CHANNEL PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Half Pipe 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

STEPS PHOTOS Yes No

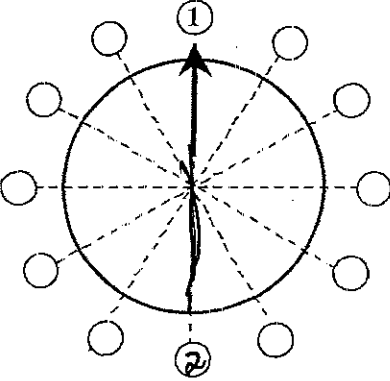
Material 1 Metal Condition 1 Good Defects 1 Missing #
 2 Brick 2 Fair 2 Corroded # 2
 3 Plastic/Rubber Coated 3 Poor 3 Broken #
 4 Other (Use Comments) 4 Other (Use Comments)

Number of Steps 2 Observed I/I 0 [gpm]

MH LOCATION SKETCH
(use to clarify location, if needed)



PRIMARY EFFLUENT



(show connecting line numbers)

CONNECTING PIPES

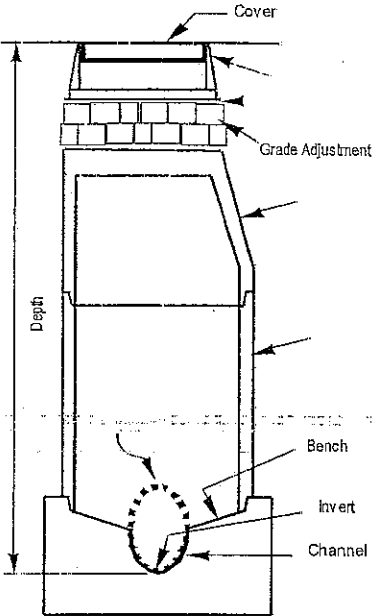
Line	Flow Direction	Line Type	Clock Position	Shape	Size [in]		Depth to Invert* [ft]-[in]	Debris	Roots	I/I [gpm]
					Height Dia.	Width				
Line 1	2	1	12:00	3	18	x 0	6-6	1	1	0
Line 2	1	1	6:00	3	18	x 0	6-6	1	1	0
Line 3						x	-			
Line 4						x	-			
Line 5						x	-			

- 1=Influent 1=Primary Line 1=Arched with Flat Bottom * From Cover
- 2=Effluent 2=Secondary Influent Line 2=Barrel 1=None 1=None
- 3=Overflow Line 3=OverFlow Line 3=Circular 2=Sludge 2=Light
- 4=Drop Connection 4=Drop Connection 4=Egg Shaped 3=Mud 3=Medium
- 5=Horseshoe 5=Horseshoe 5=Horseshoe 4=Rocks 4=Heavy
- 6=Oval 6=Oval 6=Oval 5=Other 5=Severe
- 7=Rectangular 7=Rectangular 7=Rectangular
- 8=Square 8=Square 8=Square
- 9=Trapezoidal 9=Trapezoidal 9=Trapezoidal
- 10=U-Shaped with Flat Top 10=U-Shaped with Flat Top
- 11=Other (Use Comments) 11=Other (Use Comments)



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY MANHOLE INSPECTION FORM

Date/Time 6-15-2010 4:00 PM (hr) Contract No 080110 Task Order No. 1 Inspection Crew JRH
 MH ID No M-9795 Counter Map No I0269 Depth 6 [ft] 0 [in] Weather Dry Showers Heavy Rain Snow Light Rain
 Street Soapstone Park Quadrant NW Block No. NA Temperature 47 [F]



TYPICAL MH SECTION

GENERAL

<input checked="" type="checkbox"/> Surface Inspection	Location	<input type="checkbox"/> 1 Paved-Conc	<input type="checkbox"/> 5 Curb	Traffic	<input type="checkbox"/> 1 Two Lane
<input checked="" type="checkbox"/> Internal Inspection		<input type="checkbox"/> 2 Paved-Asph	<input type="checkbox"/> 6 Yard		<input type="checkbox"/> 2 3-4 Lane
<input type="checkbox"/> Buried or Paved Over		<input type="checkbox"/> 3 Driveway	<input type="checkbox"/> Dirt/Grass		<input type="checkbox"/> 3 Highway
<input type="checkbox"/> Surcharged [] [in]		<input type="checkbox"/> 4 Side Walk	<input checked="" type="checkbox"/> Other (Use Comments)		<input type="checkbox"/> 4 Alley
<input type="checkbox"/> Debris/Silt					<input type="checkbox"/> 5 Parking Lot
<input type="checkbox"/> Not Found	Vermin	<input type="checkbox"/> 1 Rats	<input checked="" type="checkbox"/> None		<input checked="" type="checkbox"/> Other (Use Comments)
		<input type="checkbox"/> 2 Cockroaches	<input type="checkbox"/> 4 Other (Use Comments)		

PHOTOS No

COVER

Type	<input checked="" type="checkbox"/> 1 Pick	Condition	<input type="checkbox"/> 1 Good	Defects	<input type="checkbox"/> Too Tight	<input checked="" type="checkbox"/> Broken	No. of	<input type="checkbox"/> 1 None
	<input type="checkbox"/> 2 Concealed		<input checked="" type="checkbox"/> Fair		<input type="checkbox"/> 2 Loose	<input type="checkbox"/> 6 Cracked	Holes	<input type="checkbox"/> 2 Pick (1)
	<input type="checkbox"/> 3 Gasketed		<input type="checkbox"/> 3 Poor		<input type="checkbox"/> 3 Rocking	<input type="checkbox"/> 7 Missing		<input checked="" type="checkbox"/> Pick (2)
	<input type="checkbox"/> 4 Bolted # []				<input checked="" type="checkbox"/> Corroded/Pitted			<input type="checkbox"/> 4 3-6
	<input type="checkbox"/> 5 Vent							<input type="checkbox"/> 5 >6
	<input type="checkbox"/> 6 Storm							

Cover Dia. 22 [in] Grade {+/-} 0 [in] Ponding Depth 0 [in]
 Subject to Sheet Flow Yes No, IF Yes [] [sq.ft.] Surrounding Pavement Cracked Yes No

PHOTO No

FRAME

Frame	<input type="checkbox"/> 1 Good	Adjustmen	<input checked="" type="checkbox"/> None	Seal	<input type="checkbox"/> 1 Good	Frame Inside	
Condition	<input checked="" type="checkbox"/> Fair	Rings	<input type="checkbox"/> 2 One	Condition	<input checked="" type="checkbox"/> Fair	Diameter	<u>20</u> [in]
	<input type="checkbox"/> 3 Poor		<input type="checkbox"/> 3 Two		<input type="checkbox"/> 3 Poor	Offset	<u>0</u> [in]
	<input type="checkbox"/> 4 Missing		<input type="checkbox"/> 4 >2			Observed I/I	<u>0</u> [gpm]

Frame Defects 1 Cracked Corroded/Pitted 2 Broken

PHOTO No

Comments:
manhole in Soapstone
Valley Park

GRADE ADJUSTMENT (CHIMNEY) Yes No

Material	<input type="checkbox"/> 1 Precast	Condition	<input type="checkbox"/> 1 Good	Defects	<input type="checkbox"/> 1 Voids
	<input type="checkbox"/> 2 Brick		<input type="checkbox"/> 2 Fair		<input type="checkbox"/> 2 Roots
	<input type="checkbox"/> 3 Block		<input type="checkbox"/> 3 Poor		<input type="checkbox"/> 3 Cracked
	<input type="checkbox"/> 4 Cast-in-Place				<input type="checkbox"/> 4 H2S Corrosion
	<input type="checkbox"/> 5 Parged Over				<input type="checkbox"/> 5 Other (Use Comments)
	<input type="checkbox"/> 6 Other (Use Comments)				

Opening Dia. [] [in] Height [] [in] Probe Depth [] [in] Observed I/I [] [gpm]

PHOTOS Yes No

CONE Yes No

or

RISER Yes No

PHOTOS No

Cone	<input checked="" type="checkbox"/> Concentric	Material	<input type="checkbox"/> 1 Precast	Condition	<input type="checkbox"/> 1 Good	Defects	<input type="checkbox"/> 1 Voids
Shape	<input type="checkbox"/> 2 Eccentric		<input checked="" type="checkbox"/> Brick		<input checked="" type="checkbox"/> Fair		<input type="checkbox"/> 2 Roots
	<input type="checkbox"/> 3 Flat Top		<input type="checkbox"/> 3 Block		<input type="checkbox"/> 3 Poor		<input checked="" type="checkbox"/> Cracked
	<input type="checkbox"/> 4 Other (Use Comments)		<input type="checkbox"/> 4 Cast-in-Place				<input type="checkbox"/> 4 H2S Corrosion
			<input type="checkbox"/> 5 Parged Over				<input type="checkbox"/> 5 Other (Use Comments)
			<input type="checkbox"/> 6 Other (Use Comments)				

Riser Dia. 24 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

WALL

PHOTOS Yes No

Comments:
Manhole in Soapstone Valley Park

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 4 H2S Corrosion
 5 Other (Use Comments)

Opening Dia. 36 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

BENCH Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

CHANNEL Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Half Pipe 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

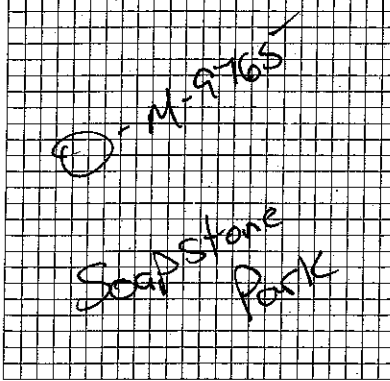
STEPS Yes No

PHOTOS Yes No

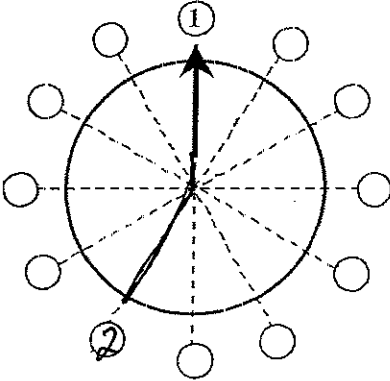
Material 1 Metal Condition 1 Good Defects 1 Missing #
 2 Brick 2 Fair 2 Corroded # 0
 3 Plastic/Rubber Coated 3 Poor 3 Broken #
 4 Other (Use Comments) 4 Other (Use Comments)

Number of Steps 2 Observed I/I 0 [gpm]

MH LOCATION SKETCH
(use to clarify location, if needed)



PRIMARY EFFLUENT



(show connecting line numbers)

CONNECTING PIPES

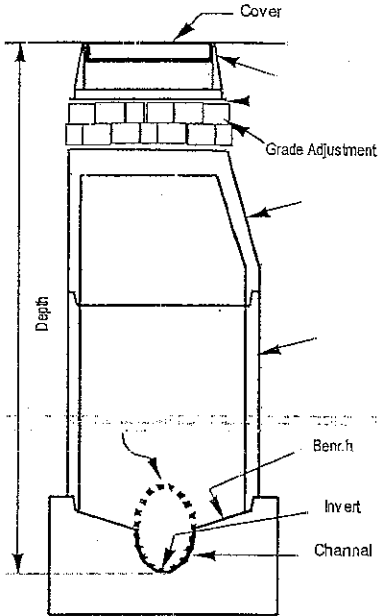
	Flow Direction	Line Type	Clock Position	Shape	Size [in]		Depth to Invert* [ft]-[in]	Debris	Roots	I/I [gpm]
					Height Dia.	Width				
Line 1	2	1	12:00	3	18	x 0	6-0	1	1	0
Line 2	1	1	7:00	3	18	x 0	6-0	1	1	0
Line 3						x	-			
Line 4						x	-			
Line 5						x	-			

- 1=Influent 1=Primary Line 1=Arched with Flat Bottom * From Cover
 - 2=Effluent 2=Secondary Influent Line 2=Barrel
 - 3=Overflow Line 3=Circular
 - 4=Drop Connection 4=Egg Shaped
 - 5=Horseshoe
 - 6=Oval
 - 7=Rectangular
 - 8=Square
 - 9=Trapezoidal
 - 10=U-Shaped with Flat Top
 - 11=Other (Use Comments)
- 1=None
 - 2=Sludge
 - 3=Mud
 - 4=Rocks
 - 5=Other
 - 1=None
 - 2=Light
 - 3=Medium
 - 4=Heavy
 - 5=Severe



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY MANHOLE INSPECTION FORM

Date/Time 6-15-2010 3:45 PM (hr) Contract No. 080110 Task Order No. 1 Inspection Crew JRH
 MH ID No. M-9746 Counter Map No. ID 269 Depth 6 [ft] 0 [in] Weather Dry Showers Heavy Rain Snow Light Rain
 Street Soapstone Park Quadrant NW Block No. NA Temperature 67 [F]



TYPICAL MH SECTION

GENERAL PHOTOS No

<input checked="" type="checkbox"/> Surface Inspection	Location <input type="checkbox"/> Paved-Conc	<input type="checkbox"/> Curb	Traffic <input type="checkbox"/> Two Lane
<input checked="" type="checkbox"/> Internal Inspection	<input type="checkbox"/> Paved-Asph	<input type="checkbox"/> Yard	<input type="checkbox"/> 3-4 Lane
<input type="checkbox"/> Buried or Paved Over	<input type="checkbox"/> Driveway	<input type="checkbox"/> Dirt/Grass	<input type="checkbox"/> Highway
<input type="checkbox"/> Surcharged <input type="checkbox"/> [in]	<input type="checkbox"/> Side Walk	<input checked="" type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Alley
<input type="checkbox"/> Debris/Silt	Vermin <input type="checkbox"/> Rats	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Parking Lot
<input type="checkbox"/> Not Found	<input type="checkbox"/> Cockroaches	<input type="checkbox"/> Other (Use Comments)	<input checked="" type="checkbox"/> Other (Use Comments)

COVER PHOTOS No

Type <input checked="" type="checkbox"/> Pick	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Too Tight	<input type="checkbox"/> Broken	No. of <input type="checkbox"/> None
<input type="checkbox"/> Concealed	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Loose	<input type="checkbox"/> Cracked	Holes <input type="checkbox"/> Pick (1)
<input type="checkbox"/> Gasketed	<input type="checkbox"/> Poor	<input type="checkbox"/> Rocking	<input type="checkbox"/> Missing	<input checked="" type="checkbox"/> Pick (2)
<input type="checkbox"/> Bolted # _____	<input checked="" type="checkbox"/> Corroded/Pitted			<input type="checkbox"/> 3-6
<input type="checkbox"/> Vent				<input type="checkbox"/> >6
<input type="checkbox"/> Storm				

Cover Dia. 22 [in] Grade {+/-} 0 [in] Ponding Depth 0 [in]
 Subject to Sheet Flow Yes , IF Yes _____ [sq ft.] Surrounding Pavement Cracked Yes

FRAME PHOTOS No

Frame <input type="checkbox"/> Good	Adjustment <input checked="" type="checkbox"/> None	Seal <input type="checkbox"/> Good	Frame Inside
Condition <input checked="" type="checkbox"/> Fair	Rings <input type="checkbox"/> One	Condition <input checked="" type="checkbox"/> Fair	Diameter <u>20</u> [in]
<input type="checkbox"/> Poor	<input type="checkbox"/> Two	<input type="checkbox"/> Poor	Offset <u>0</u> [in]
<input type="checkbox"/> Missing	<input type="checkbox"/> >2		Observed I/I <u>0</u> [gpm]
Frame <input type="checkbox"/> Cracked	<input checked="" type="checkbox"/> Corroded/Pitted		
Defects <input type="checkbox"/> Broken			

GRADE ADJUSTMENT (CHIMNEY) Yes No PHOTOS Yes No

Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
<input type="checkbox"/> Brick	<input type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input type="checkbox"/> Cracked
<input type="checkbox"/> Cast-in-Place		<input type="checkbox"/> H2S Corrosion
<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
<input type="checkbox"/> Other (Use Comments)		

Opening Dia. _____ [in] Height _____ [in] Probe Depth _____ [in] Observed I/I _____ [gpm]

CONE Yes No or **RISER** Yes No PHOTOS Yes No

Cone <input checked="" type="checkbox"/> Concentric	Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
Shape <input type="checkbox"/> Eccentric	<input checked="" type="checkbox"/> Brick	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Flat Top	<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input checked="" type="checkbox"/> Cracked
<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Cast-in-Place		<input type="checkbox"/> H2S Corrosion
	<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
	<input type="checkbox"/> Other (Use Comments)		

Riser Dia. 24 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

Comments:
manhole in Soapstone
Valley Park

WALL

PHOTOS Yes No

Comments: Man hole in Soapstone Valley Park

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments)

Opening Dia. 36 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

BENCH Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

CHANNEL Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Half Pipe 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

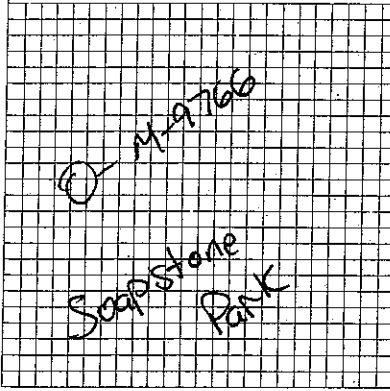
STEPS Yes No

PHOTOS Yes No

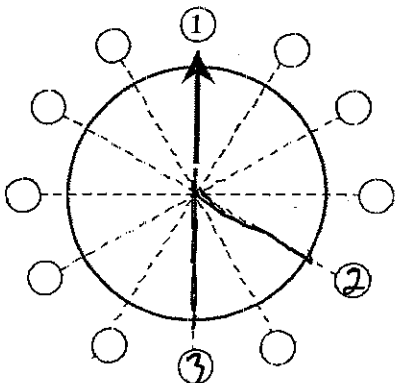
Material 1 Metal Condition 1 Good Defects 1 Missing #
 2 Brick 2 Fair 2 Corroded # 2
 3 Plastic/Rubber Coated 3 Poor 3 Broken #
 4 Other (Use Comments) 4 Other (Use Comments)

Number of Steps 2 Observed I/I 0 [gpm]

MH LOCATION SKETCH
(use to clarify location, if needed)



PRIMARY EFFLUENT



(show connecting line numbers)

CONNECTING PIPES

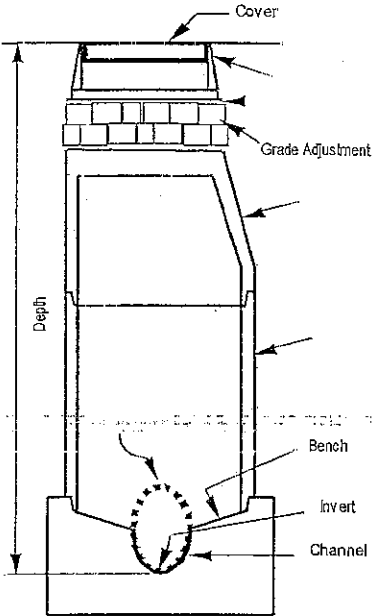
	Flow Direction	Line Type	Clock Position	Shape	Size [in]		Depth to Invert* [ft]-[in]	Debris	Roots	I/I [gpm]
					Height Dia.	Width				
Line 1	2	1	12:00	3	18	x 0	6-0	1	1	0
Line 2	1	4	4:00	3	12	x 0	4-8	1	1	0
Line 3	1	1	6:00	3	18	x 0	6-0	1	1	0
Line 4						x	-			
Line 5						x	-			

- 1=Influent 1=Primary Line 1=Arched with Flat Bottom * From Cover
 - 2=Effluent 2=Secondary Influent Line 2=Barrel
 - 3=Overflow Line 3=Circular
 - 4=Drop Connection 4=Egg Shaped
 - 5=Horseshoe
 - 6=Oval
 - 7=Rectangular
 - 8=Square
 - 9=Trapezoidal
 - 10=U-Shaped with Flat Top
 - 11=Other (Use Comments)
- 1=None
 - 2=Sludge
 - 3=Mud
 - 4=Rocks
 - 5=Other
 - 1=None
 - 2=Light
 - 3=Medium
 - 4=Heavy
 - 5=Severe



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY MANHOLE INSPECTION FORM

Date/Time 6/15/10 11:53AM Contract No 080110 Task Order No. 1 Inspection Crew JRH
 MH ID No M-10363 Counter Map No ID-209 Depth 12 [ft] 0 [in] Weather Dry Heavy Rain Light Rain Showers Snow
 Street Scopstone Valley P. Quadrant NW Block No. NA Temperature 66 [F]



TYPICAL MH SECTION

GENERAL PHOTOS No

<input checked="" type="checkbox"/> Surface Inspection	Location <input type="checkbox"/> Paved-Conc	<input type="checkbox"/> Curb	Traffic <input type="checkbox"/> Two Lane
<input type="checkbox"/> Internal Inspection	<input type="checkbox"/> Paved-Asph	<input type="checkbox"/> Yard	<input type="checkbox"/> 3-4 Lane
<input type="checkbox"/> Buried or Paved Over	<input type="checkbox"/> Driveway	<input type="checkbox"/> Dirt/Grass	<input type="checkbox"/> Highway
<input type="checkbox"/> Surcharged [] [in]	<input type="checkbox"/> Side Walk	<input checked="" type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Alley
<input type="checkbox"/> Debris/Silt	Vermin <input type="checkbox"/> Rats	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Parking Lot
<input type="checkbox"/> Not Found	<input type="checkbox"/> Cockroaches	<input type="checkbox"/> Other (Use Comments)	<input checked="" type="checkbox"/> Other (Use Comments)

COVER PHOTOS No

Type <input checked="" type="checkbox"/> Pick	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Too Light	<input type="checkbox"/> Broken	No. of <input type="checkbox"/> None
<input type="checkbox"/> Concealed	<input type="checkbox"/> Fair	<input type="checkbox"/> Loose	<input type="checkbox"/> Cracked	Holes <input type="checkbox"/> Pick (1)
<input type="checkbox"/> Gasketed	<input checked="" type="checkbox"/> Poor	<input type="checkbox"/> Rocking	<input type="checkbox"/> Missing	<input checked="" type="checkbox"/> Pick (2)
<input type="checkbox"/> Bolted # _____		<input checked="" type="checkbox"/> Corroded/Pitted		<input type="checkbox"/> 3-6
<input type="checkbox"/> Vent				<input type="checkbox"/> >6
<input type="checkbox"/> Storm				

Cover Dia. 22 [in] Grade {+/-} 0 [in] Ponding Depth 0 [in]
 Subject to Sheet Flow Yes , IF Yes _____ [sq.ft.] Surrounding Pavement Cracked Yes

Comments:
Inside park.
No internal inspection
due to flow from
drop connections.

FRAME PHOTO No

Frame Condition <input type="checkbox"/> Good	Adjustment <input checked="" type="checkbox"/> None	Seal Condition <input type="checkbox"/> Good	Frame Inside Diameter <u>20</u> [in]
<input type="checkbox"/> Fair	Rings <input type="checkbox"/> One	<input checked="" type="checkbox"/> Fair	Offset <u>0</u> [in]
<input checked="" type="checkbox"/> Poor	<input type="checkbox"/> Two	<input type="checkbox"/> Poor	Observed I/I <u>0</u> [gpm]
<input type="checkbox"/> Missing	<input type="checkbox"/> >2		
Frame Defects <input type="checkbox"/> Cracked	<input checked="" type="checkbox"/> Corroded/Pitted		
<input type="checkbox"/> Broken			

GRADE ADJUSTMENT (CHIMNEY) Yes No PHOTOS Yes No

Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
<input type="checkbox"/> Brick	<input type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input type="checkbox"/> Cracked
<input type="checkbox"/> Cast-in-Place		<input type="checkbox"/> H2S Corrosion
<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
<input type="checkbox"/> Other (Use Comments)		

Opening Dia. _____ [in] Height _____ [in] Probe Depth _____ [in] Observed I/I _____ [gpm]

CONE Yes No or **RISER** Yes No PHOTOS No

Cone Shape <input checked="" type="checkbox"/> Concentric	Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
<input type="checkbox"/> Eccentric	<input checked="" type="checkbox"/> Brick	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Flat Top	<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input checked="" type="checkbox"/> Cracked
<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Cast-in-Place		<input type="checkbox"/> H2S Corrosion
	<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
	<input type="checkbox"/> Other (Use Comments)		

Riser Dia. 24 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

WALL

PHOTOS Yes No

Comments: MH In Soapstone Valley Park.

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments)

Opening Dia. 36 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

BENCH Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

CHANNEL Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Half Pipe 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Debris/Silt

Needs Cleaning Yes No Observed I/I 0 [gpm]

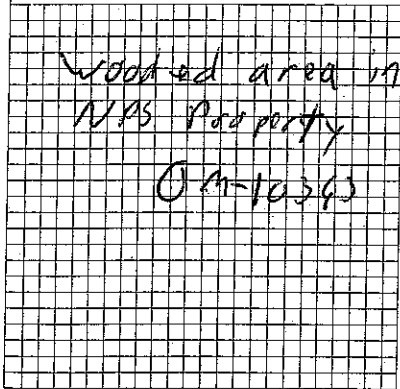
STEPS Yes No

PHOTOS Yes No

Material 1 Metal Condition 1 Good Defects 1 Missing #
 2 Brick 2 Fair 2 Corroded # 6
 3 Plastic/Rubber Coated 3 Poor 3 Broken #
 4 Other (Use Comments) 4 Other (Use Comments)

Number of Steps 6 Observed I/I 0 [gpm]

MH LOCATION SKETCH
(use to clarify location, if needed)

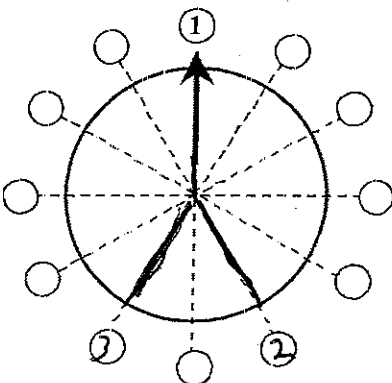


CONNECTING PIPES

	Flow Direction	Line Type	Clock Position	Shape	Size [in]		Depth to Invert* [ft]-[in]	Debris	Roots	I/I [gpm]
					Height Dia.	Width				
Line 1	2	1	12:00	3	18	x	12-0	1	1	0
Line 2	1	4	5:00	3	6	x	4-6	1	1	0
Line 3	1	4	7:00	3	18	x	9-3	1	1	0
Line 4						x	-			
Line 5						x	-			

- 1=Influent 1=Primary Line 1=Arched with Flat Bottom * From Cover
 - 2=Effluent 2=Secondary Influent Line 2=Barrel
 - 3=Overflow Line 3=Circular
 - 4=Drop Connection 4=Egg Shaped
 - 5=Horseshoe
 - 6=Oval
 - 7=Rectangular
 - 8=Square
 - 9=Trapezoidal
 - 10=U-Shaped with Flat Top
 - 11=Other (Use Comments)
- 1=None
 - 2=Sludge
 - 3=Mud
 - 4=Rocks
 - 5=Other
 - 1=None
 - 2=Light
 - 3=Medium
 - 4=Heavy
 - 5=Severe

PRIMARY EFFLUENT

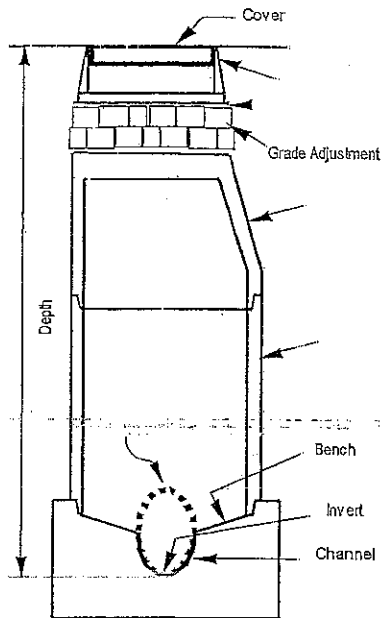


(show connecting line numbers)



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY MANHOLE INSPECTION FORM

Date/Time 6/15/10 12:30 PM Contract No. 080110 Task Order No. 1 Inspection Crew JRH
 MH ID No. M-10364 Counter Map No. 10-269 Depth 5 [ft] 3 [in] Weather Dry Showers Heavy Rain Snow Light Rain
 Street Soapstone Valley P. Quadrant NW Block No. NA Temperature 67 [F]



GENERAL

PHOTOS No

<input checked="" type="checkbox"/> Surface Inspection	Location	<input type="checkbox"/> Paved-Conc	<input type="checkbox"/> Curb	Traffic	<input type="checkbox"/> Two Lane
<input checked="" type="checkbox"/> Internal Inspection	<input type="checkbox"/> Paved-Asph	<input type="checkbox"/> Yard	<input type="checkbox"/> 3-4 Lane	<input type="checkbox"/> Highway	<input type="checkbox"/> Alley
<input type="checkbox"/> Buried or Paved Over	<input type="checkbox"/> Driveway	<input type="checkbox"/> Dirt/Grass	<input type="checkbox"/> Parking Lot	<input checked="" type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Other (Use Comments)
<input type="checkbox"/> Surcharged [] [in]	<input type="checkbox"/> Side Walk	<input checked="" type="checkbox"/> Other (Use Comments)			
<input type="checkbox"/> Debris/Silt	Vermin	<input type="checkbox"/> Rats	<input checked="" type="checkbox"/> None		
<input type="checkbox"/> Not Found	<input type="checkbox"/> Cockroaches	<input type="checkbox"/> Other (Use Comments)			

COVER

PHOTO No

Type <input checked="" type="checkbox"/> Pick	Condition	<input type="checkbox"/> Good	Defects	<input type="checkbox"/> Too Light	<input type="checkbox"/> Broken	No. of Holes	<input type="checkbox"/> None
<input type="checkbox"/> Concealed	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Fair	<input type="checkbox"/> Loose	<input type="checkbox"/> Cracked	<input type="checkbox"/> Cracked	<input type="checkbox"/> Pick (1)	<input type="checkbox"/> Pick (2)
<input type="checkbox"/> Gasketed	<input type="checkbox"/> Floor	<input type="checkbox"/> Floor	<input type="checkbox"/> Rocking	<input type="checkbox"/> Missing	<input type="checkbox"/> Missing	<input checked="" type="checkbox"/> 3-6	<input type="checkbox"/> >6
<input type="checkbox"/> Bolted # []			<input checked="" type="checkbox"/> Corroded/Pitted				
<input type="checkbox"/> Vent							
<input type="checkbox"/> Storm							

Cover Dia. 22 [in] Grade {+/-} 0 [in] Ponding Depth 0 [in]
 Subject to Sheet Flow Yes No, IF Yes [] [sq.ft.] Surrounding Pavement Cracked Yes No

FRAME

PHOTO No

Frame Condition	<input type="checkbox"/> Good	Adjustment Rings	<input checked="" type="checkbox"/> None	Seal Condition	<input type="checkbox"/> Good	Frame Inside Diameter	<u>20</u> [in]
<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Fair	<input type="checkbox"/> One	<input type="checkbox"/> One	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Fair	Offset	[] [in]
<input type="checkbox"/> Poor	<input type="checkbox"/> Poor	<input type="checkbox"/> Two	<input type="checkbox"/> Two	<input type="checkbox"/> Poor	<input type="checkbox"/> Poor	Observed I/I	[] [gpm]
<input type="checkbox"/> Missing	<input type="checkbox"/> Missing	<input type="checkbox"/> >2	<input type="checkbox"/> >2				
Frame Defects	<input type="checkbox"/> Cracked	<input checked="" type="checkbox"/> Corroded/Pitted					
	<input type="checkbox"/> Broken						

GRADE ADJUSTMENT (CHIMNEY)

PHOTOS No Yes

Material	<input type="checkbox"/> Precast	Condition	<input type="checkbox"/> Good	Defects	<input type="checkbox"/> Voids
<input type="checkbox"/> Brick	<input type="checkbox"/> Fair	<input type="checkbox"/> Fair	<input type="checkbox"/> Roots	<input type="checkbox"/> Cracked	<input type="checkbox"/> H2S Corrosion
<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input type="checkbox"/> Poor	<input type="checkbox"/> Cracked	<input type="checkbox"/> Other (Use Comments)	
<input type="checkbox"/> Cast-in-Place					
<input type="checkbox"/> Parged Over					
<input type="checkbox"/> Other (Use Comments)					

Opening Dia. [] [in] Height [] [in] Probe Depth [] [in] Observed I/I [] [gpm]

CONE

No or RISER Yes PHOTOS No

Cone Shape	<input checked="" type="checkbox"/> Concentric	Material	<input type="checkbox"/> Precast	Condition	<input type="checkbox"/> Good	Defects	<input type="checkbox"/> Voids
<input type="checkbox"/> Eccentric	<input checked="" type="checkbox"/> Brick	<input checked="" type="checkbox"/> Brick	<input checked="" type="checkbox"/> Fair	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Roots	<input checked="" type="checkbox"/> Cracked	<input type="checkbox"/> H2S Corrosion
<input type="checkbox"/> Flat Top	<input type="checkbox"/> Block	<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input type="checkbox"/> Poor	<input type="checkbox"/> Cracked	<input type="checkbox"/> Other (Use Comments)	
<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Cast-in-Place	<input type="checkbox"/> Cast-in-Place					
	<input type="checkbox"/> Parged Over	<input type="checkbox"/> Parged Over					
	<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Other (Use Comments)					

Riser Dia. 24 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

Comments: MA In Soapstone Valley Park.

WALL PHOTOS Yes No

Comments: MH IN Soap Stone Valley Park.

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments)

Opening Dia. 36 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

BENCH Yes No PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

CHANNEL Yes No PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Half Pipe 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

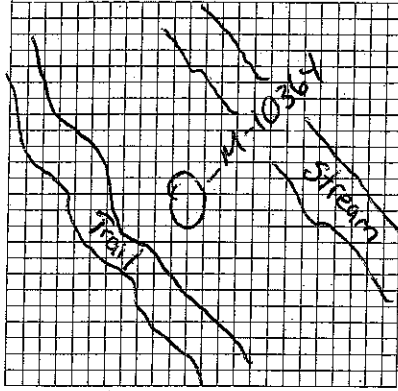
Needs Cleaning Yes No Observed I/I 0 [gpm]

STEPS Yes No PHOTOS Yes No

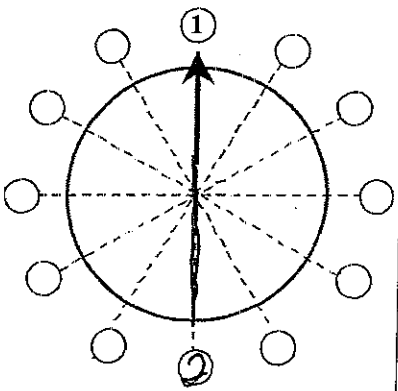
Material 1 Metal Condition 1 Good Defects 1 Missing #
 2 Brick 2 Fair 2 Corroded # 2
 3 Plastic/Rubber Coated 3 Poor 3 Broken #
 4 Other (Use Comments) 4 Other (Use Comments)

Number of Steps 2 Observed I/I 0 [gpm]

MH LOCATION SKETCH (use to clarify location, if needed)



PRIMARY EFFLUENT



(show connecting line numbers)

CONNECTING PIPES

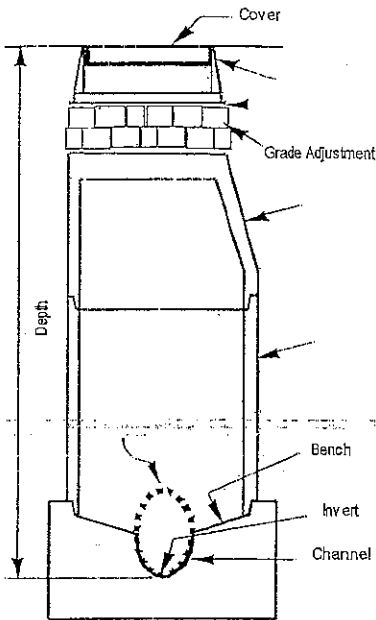
	Flow Direction	Line Type	Clock Position	Shape	Size [in]		Depth to Invert* [ft]-[in]	Debris	Roots	I/I [gpm]
					Height Dia.	Width				
Line 1	2	1	12:00	3	18	x	5-3	1	1	0
Line 2	1	1	6:00	3	18	x	5-3	1	1	0
Line 3						x	-			
Line 4						x	-			
Line 5						x	-			

- 1=Influent 1=Primary Line 1=Arched with Flat Bottom * From Cover
 - 2=Effluent 2=Secondary Influent Line 2=Barrel
 - 3=Overflow Line 3=Circular
 - 4=Drop Connection 4=Egg Shaped
 - 5=Horseshoe
 - 6=Oval
 - 7=Rectangular
 - 8=Square
 - 9=Trapezoidal
 - 10=U-Shaped with Flat Top
 - 11=Other (Use Comments)
- 1=None
 - 2=Sludge
 - 3=Mud
 - 4=Rocks
 - 5=Other
 - 1=None
 - 2=Light
 - 3=Medium
 - 4=Heavy
 - 5=Severe



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY MANHOLE INSPECTION FORM

Date/Time 6-17-2010 3:40 pm (hr) Contract No. 080110 Task Order No. 1 Inspection Crew JRH
 MH ID No. M-10368 Counter Map No. ID269 Depth 10 [ft] 0 [in] Weather Dry Showers
 Heavy Rain Snow
 Light Rain
 Street Soapstone Valley Quadrant NW Block No. NA Temperature 67° [F]



TYPICAL MH SECTION

GENERAL

PHOTOS No

<input checked="" type="checkbox"/> Surface Inspection	Location	<input type="checkbox"/> 1 Paved-Conc.	<input type="checkbox"/> 5 Curb	Traffic	<input type="checkbox"/> 1 Two Lane
<input checked="" type="checkbox"/> Internal Inspection	<input type="checkbox"/> 2 Paved-Asph	<input type="checkbox"/> 6 Yard	<input type="checkbox"/> 2 3-4 Lane	<input type="checkbox"/> 3 Highway	
<input type="checkbox"/> Buried or Paved Over	<input type="checkbox"/> 3 Driveway	<input checked="" type="checkbox"/> Dirt/Grass	<input type="checkbox"/> 4 Alley	<input type="checkbox"/> 5 Parking Lot	
<input type="checkbox"/> Surcharged [] [in]	<input type="checkbox"/> 4 Side Walk	<input type="checkbox"/> 8 Other (Use Comments)	<input checked="" type="checkbox"/> Other (Use Comments)		
<input type="checkbox"/> Debris/Silt	Vermin	<input type="checkbox"/> 1 Rats	<input checked="" type="checkbox"/> None		
<input type="checkbox"/> Not Found	<input type="checkbox"/> 2 Cockroaches	<input type="checkbox"/> 4 Other (Use Comments)			

COVER

PHOTO No

Type <input checked="" type="checkbox"/> Pick	Condition	<input type="checkbox"/> 1 Good	Defects	<input checked="" type="checkbox"/> Too Light	<input type="checkbox"/> 5 Broken	No. of	<input type="checkbox"/> 1 None
<input type="checkbox"/> 2 Concealed	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> 2 Loose	<input type="checkbox"/> 6 Cracked	<input type="checkbox"/> 2 3-4 Lane		<input type="checkbox"/> 2 Pick (1)	
<input type="checkbox"/> 3 Gasketed	<input type="checkbox"/> 3 Poor	<input type="checkbox"/> 3 Rocking	<input type="checkbox"/> 7 Missing	<input checked="" type="checkbox"/> Pick (2)		<input checked="" type="checkbox"/> 3-6	
<input type="checkbox"/> 4 Bolted # _____		<input checked="" type="checkbox"/> Corroded/Pitted		<input type="checkbox"/> 5 >6			
<input type="checkbox"/> 5 Vent							
<input type="checkbox"/> 6 Storm							

Cover Dia. 22 [in] Grade {+/-} 0 [in] Ponding Depth 0 [in]
 Subject to Sheet Flow Yes No, IF Yes _____ [sq.ft.] Surrounding Pavement Cracked Yes No

FRAME

PHOTO No

Frame Condition	<input type="checkbox"/> 1 Good	Adjustment Rings	<input checked="" type="checkbox"/> None	Seal Condition	<input type="checkbox"/> 1 Good	Frame Inside Diameter	<u>20</u> [in]
<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> 2 One	<input type="checkbox"/> 2 One	<input type="checkbox"/> 2 One	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> 2 Fair	Offset	<u>0</u> [in]
<input type="checkbox"/> 3 Poor	<input type="checkbox"/> 3 Two	<input type="checkbox"/> 3 Two	<input type="checkbox"/> 3 Two	<input type="checkbox"/> 3 Poor	<input type="checkbox"/> 3 Poor	Observed I/I	<u>0</u> [gpm]
<input type="checkbox"/> 4 Missing	<input type="checkbox"/> >2						

Frame Defects 1 Cracked Corroded/Pitted 2 Broken

GRADE ADJUSTMENT (CHIMNEY) Yes No

PHOTOS Yes No

Material	<input type="checkbox"/> 1 Precast	Condition	<input type="checkbox"/> 1 Good	Defects	<input type="checkbox"/> 1 Voids
<input type="checkbox"/> 2 Brick	<input type="checkbox"/> 2 Fair	<input type="checkbox"/> 2 Fair	<input type="checkbox"/> 2 Roots	<input type="checkbox"/> 2 Cracked	<input type="checkbox"/> 2 H2S Corrosion
<input type="checkbox"/> 3 Block	<input type="checkbox"/> 3 Poor	<input type="checkbox"/> 3 Poor	<input type="checkbox"/> 3 Cracked	<input type="checkbox"/> 3 H2S Corrosion	<input type="checkbox"/> 3 Other (Use Comments)
<input type="checkbox"/> 4 Cast-in-Place			<input type="checkbox"/> 4 H2S Corrosion	<input type="checkbox"/> 4 Other (Use Comments)	
<input type="checkbox"/> 5 Parged Over			<input type="checkbox"/> 5 Other (Use Comments)		
<input type="checkbox"/> 6 Other (Use Comments)					

Opening Dia. _____ [in] Height _____ [in] Probe Depth _____ [in] Observed I/I _____ [gpm]

CONE No or **RISER** Yes No

PHOTOS No

Cone Shape	<input checked="" type="checkbox"/> Concentric	Material	<input type="checkbox"/> 1 Precast	Condition	<input type="checkbox"/> 1 Good	Defects	<input type="checkbox"/> 1 Voids
<input type="checkbox"/> 2 Eccentric	<input checked="" type="checkbox"/> Brick	<input checked="" type="checkbox"/> Brick	<input type="checkbox"/> 2 Fair	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> 2 Roots	<input checked="" type="checkbox"/> Cracked	<input type="checkbox"/> 2 H2S Corrosion
<input type="checkbox"/> 3 Flat Top	<input type="checkbox"/> 3 Block	<input type="checkbox"/> 3 Block	<input type="checkbox"/> 3 Poor	<input type="checkbox"/> 3 Poor	<input type="checkbox"/> 3 Cracked	<input type="checkbox"/> 3 H2S Corrosion	<input type="checkbox"/> 3 Other (Use Comments)
<input type="checkbox"/> 4 Other (Use Comments)	<input type="checkbox"/> 4 Cast-in-Place	<input type="checkbox"/> 4 Cast-in-Place			<input type="checkbox"/> 4 H2S Corrosion	<input type="checkbox"/> 4 Other (Use Comments)	
	<input type="checkbox"/> 5 Parged Over	<input type="checkbox"/> 5 Parged Over			<input type="checkbox"/> 5 Other (Use Comments)		
	<input type="checkbox"/> 6 Other (Use Comments)	<input type="checkbox"/> 6 Other (Use Comments)					

Riser Dia. 24 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

Comments:
Manhole in Soapstone Valley Park

Comments:
man hole in
Soapstone valley
Park

WALL

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Other (Use Comments)

Opening Dia. 36 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

BENCH Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

CHANNEL Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Half Pipe 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

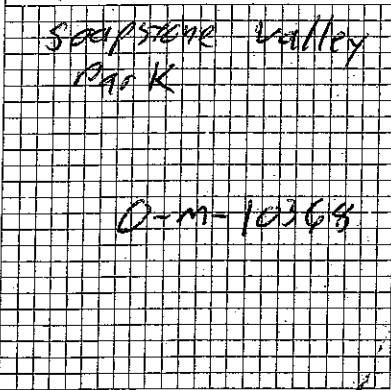
STEPS Yes No

PHOTOS Yes No

Material 1 Metal Condition 1 Good Defects 1 Missing #
 2 Brick 2 Fair 2 Corroded #
 3 Plastic/Rubber Coated 3 Poor 3 Broken #
 4 Other (Use Comments) 4 Other (Use Comments)

Number of Steps 5 Observed I/I 0 [gpm]

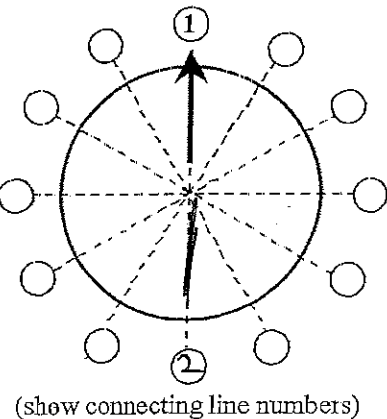
MH LOCATION SKETCH
 (use to clarify location, if needed)



CONNECTING PIPES

	Flow Direction	Line Type	Clock Position	Shape	Size [in]		Depth to Invert* [ft]-[in]	Debris	Roots	I/I [gpm]
					Height Dia.	Width				
Line 1	2	1	12:00	3	10	x	10-0	1	1	0
Line 2	1	4	6:00	3	10	x	8-8	1	1	0
Line 3						x	-			
Line 4						x	-			
Line 5						x	-			

- 1=Influent
- 2=Effluent
- 1=Primary Line
- 2=Secondary Influent Line
- 3=Overflow Line
- 4=Drop Connection
- 1=Arched with Flat Bottom
- 2=Barrel
- 3=Circular
- 4=Egg Shaped
- 5=Horseshoe
- 6=Oval
- 7=Rectangular
- 8=Square
- 9=Trapezoidal
- 10=U-Shaped with Flat Top
- 11=Other (Use Comments)
- * From Cover
- 1=None
- 2=Sludge
- 3=Mud
- 4=Rocks
- 5=Other
- 1=None
- 2=Light
- 3=Medium
- 4=Heavy
- 5=Severe

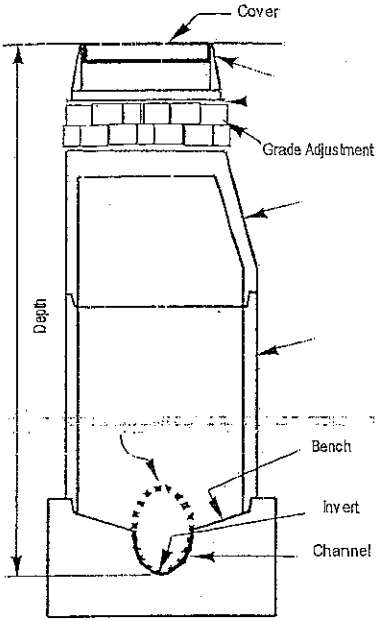


(show connecting line numbers)



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY MANHOLE INSPECTION FORM

Date/Time 6-17-2010 4:10 pm Contract No 080110 Task Order No. 1 Inspection Crew JRH
 MH ID No M-10369 Counter Map No. ID 269 Depth 8 [ft] 5 [in] Weather Dry Showers
 Heavy Rain Snow
 Light Rain
 Street Soapstone Valley Quadrant NW Block No. NA Temperature 71 [F]



TYPICAL MH SECTION

GENERAL

<input checked="" type="checkbox"/> Surface Inspection	Location	<input type="checkbox"/> Paved-Conc	<input type="checkbox"/> Curb	Traffic	<input type="checkbox"/> Iwo Lane
<input checked="" type="checkbox"/> Internal Inspection	<input type="checkbox"/> Paved-Asph	<input type="checkbox"/> Yard	<input type="checkbox"/> 3-4 Lane	<input type="checkbox"/> Highway	<input type="checkbox"/> Alley
<input type="checkbox"/> Buried or Paved Over	<input type="checkbox"/> Driveway	<input checked="" type="checkbox"/> Dirt/Grass	<input type="checkbox"/> Parking Lot	<input checked="" type="checkbox"/> Other (Use Comments)	
<input type="checkbox"/> Surcharged [] [in]	<input type="checkbox"/> Side Walk	<input type="checkbox"/> Other (Use Comments)			
<input type="checkbox"/> Debris/Silt	Vermin	<input type="checkbox"/> Rats	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> Other (Use Comments)	
<input type="checkbox"/> Not Found	<input type="checkbox"/> Cockroaches	<input type="checkbox"/> Other (Use Comments)			

PHOTOS [No]

COVER

Type	<input checked="" type="checkbox"/> Pick	Condition	<input type="checkbox"/> Good	Defects	<input type="checkbox"/> Too light	<input type="checkbox"/> Broken	No. of	<input type="checkbox"/> None
	<input type="checkbox"/> Concealed	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Fair	<input type="checkbox"/> Loose	<input type="checkbox"/> Cracked	<input type="checkbox"/> Cracked	Holes	<input type="checkbox"/> Pick (1)
	<input type="checkbox"/> Gasketed	<input type="checkbox"/> Poor	<input type="checkbox"/> Poor	<input type="checkbox"/> Rocking	<input type="checkbox"/> Missing	<input type="checkbox"/> Missing		<input checked="" type="checkbox"/> Pick (2)
	<input type="checkbox"/> Bolted # _____			<input checked="" type="checkbox"/> Corroded/Pitted				<input type="checkbox"/> 3-6
	<input type="checkbox"/> Vent							<input type="checkbox"/> >6
	<input type="checkbox"/> Storm							

PHOTO [No]

Cover Dia. 22 [in] Grade +/- 0 [in] Ponding Depth 0 [in]
 Subject to Sheet Flow Yes No, IF Yes _____ [sq.ft.] Surrounding Pavement Cracked Yes No

FRAME

Frame Condition	<input type="checkbox"/> Good	Adjustment Rings	<input checked="" type="checkbox"/> None	Seal Condition	<input type="checkbox"/> Good	Frame Inside Diameter	<u>20</u> [in]
	<input checked="" type="checkbox"/> Fair		<input type="checkbox"/> One	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Fair	Offset	<u>0</u> [in]
	<input type="checkbox"/> Poor		<input type="checkbox"/> Two	<input type="checkbox"/> Poor		Observed I/I	<u>0</u> [gpm]
	<input type="checkbox"/> Missing		<input type="checkbox"/> >2				
Frame Defects	<input type="checkbox"/> Cracked	<input checked="" type="checkbox"/> Corroded/Pitted					
	<input type="checkbox"/> Broken						

PHOTO [No]

Comments:
manhole in Soapstone Valley Park

GRADE ADJUSTMENT (CHIMNEY)

Material	<input type="checkbox"/> Precast	Condition	<input type="checkbox"/> Good	Defects	<input type="checkbox"/> Voids
	<input type="checkbox"/> Brick	<input type="checkbox"/> Fair	<input type="checkbox"/> Fair	<input type="checkbox"/> Roots	<input type="checkbox"/> Cracked
	<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input type="checkbox"/> Poor	<input type="checkbox"/> H2S Corrosion	<input type="checkbox"/> Other (Use Comments)
	<input type="checkbox"/> Cast-in-Place				
	<input type="checkbox"/> Parged Over				
	<input type="checkbox"/> Other (Use Comments)				

PHOTOS Yes No

Opening Dia. _____ [in] Height _____ [in] Probe Depth _____ [in] Observed I/I _____ [gpm]

CONE Yes No or **RISER** Yes No

Cone Shape	<input checked="" type="checkbox"/> Concentric	Material	<input type="checkbox"/> Precast	Condition	<input type="checkbox"/> Good	Defects	<input type="checkbox"/> Voids
	<input type="checkbox"/> Eccentric	<input checked="" type="checkbox"/> Brick	<input type="checkbox"/> Brick	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Fair	<input type="checkbox"/> Roots	<input type="checkbox"/> Cracked
	<input type="checkbox"/> Flat Top	<input type="checkbox"/> Block	<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input type="checkbox"/> Poor	<input checked="" type="checkbox"/> Cracked	<input type="checkbox"/> H2S Corrosion
	<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Cast-in-Place	<input type="checkbox"/> Cast-in-Place			<input type="checkbox"/> Other (Use Comments)	
		<input type="checkbox"/> Parged Over	<input type="checkbox"/> Parged Over				
		<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Other (Use Comments)				

PHOTOS Yes No

Riser Dia. 24 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

WALL

PHOTOS Yes No

Comments:

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 4 H2S Corrosion
 5 Other (Use Comments)

Opening Dia. 36 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

manhole in Soapstone Valley Park

BENCH Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

CHANNEL Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Half Pipe 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

STEPS Yes No

PHOTOS Yes No

Material 1 Metal Condition 1 Good Defects 1 Missing #
 2 Brick 2 Fair 2 Corroded #
 3 Plastic/Rubber Coated 3 Poor 3 Broken #
 4 Other (Use Comments) 4 Other (Use Comments)

Number of Steps 4 Observed I/I 0 [gpm]

MH LOCATION SKETCH
(use to clarify location, if needed)

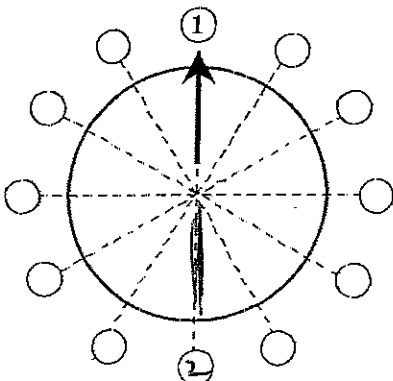
Soapstone Valley Park

CONNECTING PIPES

	Flow Direction	Line Type	Clock Position	Shape	Size [in]		Depth to Invert* [ft]-[in]	Debris	Roots	I/I [gpm]
					Height Dia.	Width				
Line 1	2	1	12:00	3	18	x	8-5	1	1	0
Line 2	1	1	6:00	3	18	x	7-7	1	1	0
Line 3					x		-			
Line 4					x		-			
Line 5					x		-			

1=Influent 1=Primary Line 1=Arched with Flat Bottom * From Cover 1=None 1=None
 2=Effluent 2=Secondary Influent Line 2=Barrel 2=Sludge 2=Light
 3=Overflow Line 3=Circular 3=Mud 3=Medium
 4=Drop Connection 4=Egg Shaped 4=Rocks 4=Heavy
 5=Horseshoe 5=Other 5=Severe
 6=Oval
 7=Rectangular
 8=Square
 9=Trapezoidal
 10=U-Shaped with Flat Top
 11=Other (Use Comments)

PRIMARY EFFLUENT

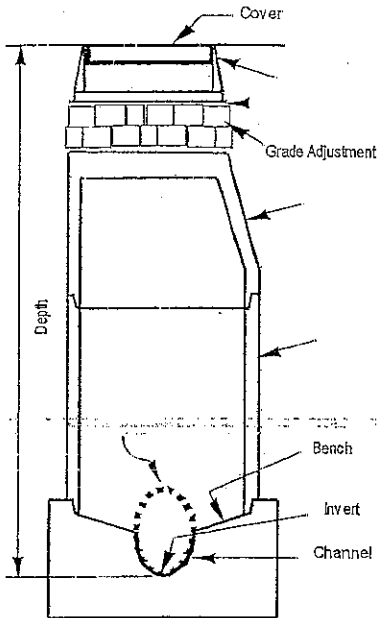


(show connecting line numbers)



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY MANHOLE INSPECTION FORM

Date/Time 6-17-2010 2:00pm Contract No. 080110 Task Order No. 1 Inspection Crew JRH
 MH ID No. M-10372 Counter Map No. ID269 Depth 12 [ft] 0 [in] Weather Dry Showers
 Heavy Rain Snow
 Light Rain
 Street Lenore Ln Quadrant NW Block No. 4200 Temperature 67 [F]



TYPICAL MH SECTION

GENERAL

<input checked="" type="checkbox"/> Surface Inspection	Location	<input type="checkbox"/> Paved-Conc.	<input type="checkbox"/> Curb	PHOTOS <input checked="" type="checkbox"/> <input type="checkbox"/> No
<input checked="" type="checkbox"/> Internal Inspection	<input checked="" type="checkbox"/> Paved-Asph	<input type="checkbox"/> Yard	Traffic	<input checked="" type="checkbox"/> Two Lane
<input type="checkbox"/> Buried or Paved Over	<input type="checkbox"/> Driveway	<input checked="" type="checkbox"/> Dirt/Grass	<input type="checkbox"/> 3-4 Lane	<input type="checkbox"/> Highway
<input type="checkbox"/> Surcharged [] [in]	<input type="checkbox"/> Side Walk	<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Alley	<input type="checkbox"/> Parking Lot
<input type="checkbox"/> Debris/Silt	Vermin	<input type="checkbox"/> Rats	<input type="checkbox"/> Other (Use Comments)	
<input type="checkbox"/> Not Found	<input type="checkbox"/> Cockroaches	<input type="checkbox"/> None		
		<input type="checkbox"/> Other (Use Comments)		

COVER

Type	<input checked="" type="checkbox"/> Pick	Condition	<input type="checkbox"/> Good	Defects	<input type="checkbox"/> Too Light	<input type="checkbox"/> Broken	No. of	<input type="checkbox"/> None
	<input type="checkbox"/> Concealed	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Poor	<input type="checkbox"/> Loose	<input type="checkbox"/> Corroded/Pitted	<input type="checkbox"/> Cracked	Holes	<input type="checkbox"/> Pick (1)
	<input type="checkbox"/> Gasketed	<input type="checkbox"/> Storm		<input type="checkbox"/> Rocking		<input type="checkbox"/> Missing		<input checked="" type="checkbox"/> Pick (2)
	<input type="checkbox"/> Bolted # []							<input type="checkbox"/> 3-6
	<input type="checkbox"/> Vent							<input type="checkbox"/> >6
	<input type="checkbox"/> Storm							

Cover Dia. 22 [in] Grade {+/-} 0 [in] Ponding Depth 0 [in]
 Subject to Sheet Flow Yes No, IF Yes [] [sq.ft.] Surrounding Pavement Cracked Yes No

FRAME

Frame Condition	<input type="checkbox"/> Good	Adjustment Rings	<input checked="" type="checkbox"/> None	Seal Condition	<input type="checkbox"/> Good	Frame Inside Diameter	<u>20</u> [in]
	<input checked="" type="checkbox"/> Fair		<input type="checkbox"/> One		<input checked="" type="checkbox"/> Fair	Offset	<u>0</u> [in]
	<input type="checkbox"/> Poor		<input type="checkbox"/> Two		<input type="checkbox"/> Poor	Observed I/I	<u>0</u> [gpm]
	<input type="checkbox"/> Missing		<input type="checkbox"/> >2				
Frame Defects	<input type="checkbox"/> Cracked	<input checked="" type="checkbox"/> Corroded/Pitted					
	<input type="checkbox"/> Broken						

GRADE ADJUSTMENT (CHIMNEY) Yes No

Material	<input type="checkbox"/> Precast	Condition	<input type="checkbox"/> Good	Defects	<input type="checkbox"/> Voids
	<input type="checkbox"/> Brick	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	<input type="checkbox"/> Roots	<input type="checkbox"/> Cracked
	<input type="checkbox"/> Block			<input type="checkbox"/> H2S Corrosion	<input type="checkbox"/> Other (Use Comments)
	<input type="checkbox"/> Cast-in-Place				
	<input type="checkbox"/> Parged Over				
	<input type="checkbox"/> Other (Use Comments)				

Opening Dia. [] [in] Height [] [in] Probe Depth [] [in] Observed I/I [] [gpm]

CONE No Yes or **RISER** Yes No

Cone Shape	<input checked="" type="checkbox"/> Concentric	Material	<input type="checkbox"/> Precast	Condition	<input type="checkbox"/> Good	Defects	<input type="checkbox"/> Voids
	<input type="checkbox"/> Eccentric	<input checked="" type="checkbox"/> Brick	<input type="checkbox"/> Block	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Poor	<input type="checkbox"/> Roots	<input type="checkbox"/> Cracked
	<input type="checkbox"/> Flat Top	<input type="checkbox"/> Cast-in-Place	<input type="checkbox"/> Parged Over			<input type="checkbox"/> H2S Corrosion	<input type="checkbox"/> Other (Use Comments)
	<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Other (Use Comments)					

Riser Dia. 24 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

Comments:

WALL

PHOTOS Yes No

Comments:

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments)

Opening Dia. 36 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

BENCH Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 5 Other (Use Comments)

Needs Cleaning Yes No Observed I/I _____ [gpm]

CHANNEL Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Half Pipe 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Other (Use Comments)

Needs Cleaning Yes No Observed I/I _____ [gpm]

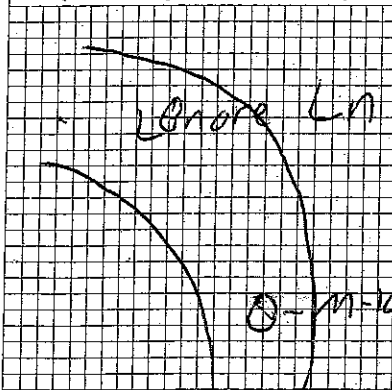
STEPS Yes No

PHOTOS Yes No

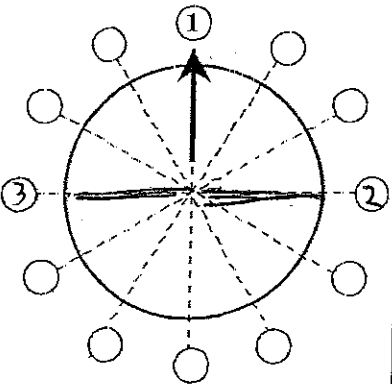
Material 1 Metal Condition 1 Good Defects 1 Missing #
 2 Brick 2 Fair 2 Corroded #
 3 Plastic/Rubber Coated 3 Poor 3 Broken #
 4 Other (Use Comments) 4 Other (Use Comments)

Number of Steps 8 Observed I/I 0 [gpm]

MH LOCATION SKETCH
(use to clarify location, if needed)



PRIMARY EFFLUENT



(show connecting line numbers)

CONNECTING PIPES

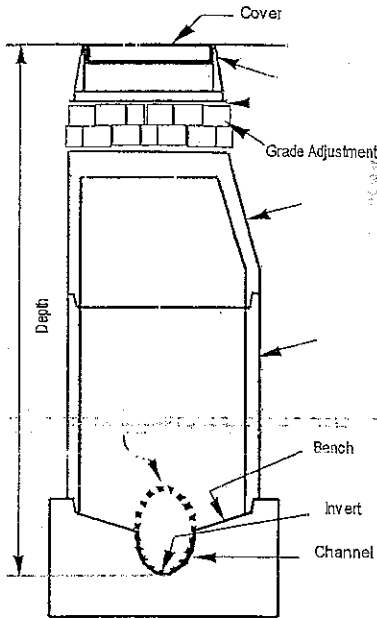
	Flow Direction	Line Type	Clock Position	Shape	Size [in]		Depth to Invert* [ft]-[in]	Debris	Roots	I/I [gpm]
					Height Dia.	Width				
Line 1	2	1	12:00	3	10	x	12-0	5	1	0
Line 2	1	2	3:00	3	10	x	12-0	1	1	0
Line 3	1	2	9:00	3	10	x	12-0	1	1	0
Line 4						x	-			
Line 5						x	-			

- | | | | | | |
|------------|---------------------------|---------------------------|--------------|----------|----------|
| 1=Influent | 1=Primary Line | 1=Arched with Flat Bottom | * From Cover | 1=None | 1=None |
| 2=Effluent | 2=Secondary Influent Line | 2=Barrel | | 2=Sludge | 2=Light |
| | 3=Overflow Line | 3=Circular | | 3=Mud | 3=Medium |
| | 4=Drop Connection | 4=Egg Shaped | | 4=Rocks | 4=Heavy |
| | | 5=Horseshoe | | 5=Other | 5=Severe |
| | | 6=Oval | | | |
| | | 7=Rectangular | | | |
| | | 8=Square | | | |
| | | 9=Trapezoidal | | | |
| | | 10=U-Shaped with Flat Top | | | |
| | | 11=Other (Use Comments) | | | |



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY MANHOLE INSPECTION FORM

Date/Time 6-17-10 10:30 am Contract No. 080110 Task Order No. 1 Inspection Crew JRH
 MH ID No M-10415 Counter Map No. ID 264 Depth 5 [ft] 1 [in] Weather Dry Showers
 Heavy Rain Snow
 Light Rain
 Street Soapstone Valley Quadrant NW Block No. NA Temperature 72 [F]



GENERAL PHOTOS No

<input checked="" type="checkbox"/> Surface Inspection	Location <input type="checkbox"/> Paved-Conc.	<input type="checkbox"/> Curb	Traffic <input type="checkbox"/> Two Lane
<input checked="" type="checkbox"/> Internal Inspection	<input type="checkbox"/> Paved-Asph	<input type="checkbox"/> Yard	<input type="checkbox"/> 3-4 Lane
<input type="checkbox"/> Buried or Paved Over	<input type="checkbox"/> Driveway	<input checked="" type="checkbox"/> Dirt/Grass	<input type="checkbox"/> Highway
<input type="checkbox"/> Surcharged [] [in]	<input type="checkbox"/> Side Walk	<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Alley
<input type="checkbox"/> Debris/Silt	Vermyn <input type="checkbox"/> Rats	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Parking Lot
<input type="checkbox"/> Not Found	<input type="checkbox"/> Cockroaches	<input type="checkbox"/> Other (Use Comments)	<input checked="" type="checkbox"/> Other (Use Comments)

COVER PHOTO No

Type <input checked="" type="checkbox"/> Pick	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Too Light	<input type="checkbox"/> Broken	No. of <input type="checkbox"/> None
<input type="checkbox"/> Concealed	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Loose	<input type="checkbox"/> Cracked	Holes <input type="checkbox"/> Pick (1)
<input type="checkbox"/> Gasketed	<input type="checkbox"/> Poor	<input type="checkbox"/> Rocking	<input type="checkbox"/> Missing	<input checked="" type="checkbox"/> Pick (2)
<input type="checkbox"/> Bolted # _____		<input checked="" type="checkbox"/> Corroded/Pitted		<input type="checkbox"/> 3-6
<input type="checkbox"/> Vent				<input type="checkbox"/> >6
<input type="checkbox"/> Storm				

Cover Dia. 22 [in] Grade {+/-} 0 [in] Ponding Depth 0 [in]
 Subject to Sheet Flow Yes , IF Yes _____ [sq.ft.] Surrounding Pavement Cracked Yes

Comments:
Manhole is in Soapstone Valley Park

FRAME PHOTO No

Frame Condition <input type="checkbox"/> Good	Adjustment <input checked="" type="checkbox"/> None	Seal <input type="checkbox"/> Good	Frame Inside Diameter <u>20</u> [in]
<input checked="" type="checkbox"/> Fair	Rings <input type="checkbox"/> One	Condition <input checked="" type="checkbox"/> Fair	Offset <u>0</u> [in]
<input type="checkbox"/> Poor	<input type="checkbox"/> Two	<input type="checkbox"/> Poor	Observed I/I <u>0</u> [gpm]
<input type="checkbox"/> Missing	<input type="checkbox"/> >2		
Frame Defects <input type="checkbox"/> Cracked	<input checked="" type="checkbox"/> Corroded/Pitted		
<input type="checkbox"/> Broken			

GRADE ADJUSTMENT (CHIMNEY) Yes PHOTOS Yes No

Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
<input type="checkbox"/> Brick	<input type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input type="checkbox"/> Cracked
<input type="checkbox"/> Cast-in-Place		<input type="checkbox"/> H2S Corrosion
<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
<input type="checkbox"/> Other (Use Comments)		

Opening Dia. _____ [in] Height _____ [in] Probe Depth _____ [in] Observed I/I _____ [gpm]

CONE Yes No or **RISER** Yes No PHOTOS Yes No

Cone Shape <input checked="" type="checkbox"/> Concentric	Material <input type="checkbox"/> Precast	Condition <input type="checkbox"/> Good	Defects <input type="checkbox"/> Voids
<input type="checkbox"/> Eccentric	<input checked="" type="checkbox"/> Brick	<input checked="" type="checkbox"/> Fair	<input type="checkbox"/> Roots
<input type="checkbox"/> Flat Top	<input type="checkbox"/> Block	<input type="checkbox"/> Poor	<input checked="" type="checkbox"/> Cracked
<input type="checkbox"/> Other (Use Comments)	<input type="checkbox"/> Cast-in-Place		<input type="checkbox"/> H2S Corrosion
	<input type="checkbox"/> Parged Over		<input type="checkbox"/> Other (Use Comments)
	<input type="checkbox"/> Other (Use Comments)		

Riser Dia. 24 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

WALL

PHOTOS Yes No

Comments:

manhole is in
Soapstone Valley
Park

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 4 H2S Corrosion
 5 Other (Use Comments)

Opening Dia. 36 [in] Probe Depth 0 [in] Observed I/I 0 [gpm]

BENCH Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Other (Use Comments) 3 Poor 3 Cracked
 4 Lined 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

CHANNEL Yes No

PHOTOS Yes No

Material 1 Precast 5 Cast-in-Place Condition 1 Good Defects 1 Voids
 2 Brick 6 Parged Over 2 Fair 2 Roots
 3 Block 7 Half Pipe 3 Poor 3 Cracked
 4 Lined 8 Other (Use Comments) 4 H2S Corrosion
 5 Debris/Silt
 6 Other (Use Comments)

Needs Cleaning Yes No Observed I/I 0 [gpm]

STEPS Yes No

PHOTOS Yes No

Material 1 Metal Condition 1 Good Defects 1 Missing #
 2 Brick 2 Fair 2 Corroded #
 3 Plastic/Rubber Coated 3 Poor 3 Broken #
 4 Other (Use Comments) 4 Other (Use Comments)

Number of Steps 1 Observed I/I 0 [gpm]

MH LOCATION SKETCH
(use to clarify location, if needed)

Soapstone Valley
Park

CONNECTING PIPES

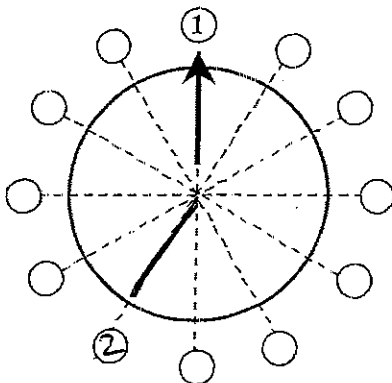
Line	Flow Direction	Line Type	Clock Position	Shape	Size [in]		Depth to Invert* [ft]-[in]	Debris	Roots	I/I [gpm]
					Height Dia.	Width				
Line 1	2	1	12:00	3	24	x	5-1	1	1	0
Line 2	1	1	8:00	3	15	x	5-1	1	1	0
Line 3						x	-			
Line 4						x	-			
Line 5						x	-			

- 1=Influent
- 2=Effluent
- 1=Primary Line
- 2=Secondary Influent Line
- 3=Overflow Line
- 4=Drop Connection
- 1=Arched with Flat Bottom
- 2=Barrel
- 3=Circular
- 4=Egg Shaped
- 5=Horseshoe
- 6=Oval
- 7=Rectangular
- 8=Square
- 9=Trapezoidal
- 10=U-Shaped with Flat Top
- 11=Other (Use Comments)

* From Cover

- 1=None
- 2=Sludge
- 3=Mud
- 4=Rocks
- 5=Other
- 1=None
- 2=Light
- 3=Medium
- 4=Heavy
- 5=Severe

PRIMARY EFFLUENT



(show connecting line numbers)

Appendix B

CCTV Inspection Logs

CCTV Surveys List for DCWASA

Number of surveys in this list is 24 as of Monday, June 28, 2010

Unit of measure: ft

Setup	Date	Street	Start MH	Finish MH	Dir	Size inch	Pre Clean	Media Number	Scheduled Length	Surveyed Length
15	6/16/2010	SOAPSTONE VALLEY PARK	M-10366	M-10365	D	18	Z	SVP	87.0	87.0
16	6/16/2010	SOAPSTONE VALLEY PARK	M-10363	M-10445	D	18	Z	SVP	171.0	171.0
17	6/16/2010	SOAPSTONE VALLEY PARK	M-10364	M-10363	D	18	Z	SVP	376.3	376.3
18	6/16/2010	SOAPSTONE VALLEY PARK	M-10445	M-10343	D	18	Z	SVP	215.2	215.2
19	6/16/2010	SOAPSTONE VALLEY PARK	M-10365	M-10364	D	18	Z	SVP	206.0	206.0
20	6/16/2010	SOAPSTONE VALLEY PARK	M-10444	M-10366	D	18	Z	SVP	142.0	142.0
21	6/16/2010	SOAPSTONE VALLEY PARK	M-10443	M-10444	D	18	Z	SVP	296.7	296.7
22	6/16/2010	SOAPSTONE VALLEY PARK	M-10410	M-10443	D	18	Z	SVP	76.0	76.0
23	6/16/2010	SOAPSTONE VALLEY PARK	M-10409	M-10410	D	18	Z	SVP	52.0	52.0
24	6/16/2010	SOAPSTONE VALLEY PARK	M-10411	M-10409	D	18	Z	SVP	192.0	192.0
25	6/17/2010	SOAPSTONE VALLEY PARK	M-10416	M-10415	D	18	Z	SVP-1	130.1	130.1
26	6/17/2010	SOAPSTONE VALLEY PARK	M-10418	M-10416	D	18	Z	SVP-1	92.0	92.0
27	6/17/2010	SOAPSTONE VALLEY PARK	M-10415	F-137	D	18	Z	SVP-1	11.0	11.0
28	6/19/2010	SOAPSTONE VALLEY PARK	M-10414	M-10412	D	18	Z	SVP-2	347.1	347.1
29	6/19/2010	SOAPSTONE VALLEY PARK	M-9762	M-9761	D	18	Z	SVP-2	167.0	167.0
30	6/19/2010	SOAPSTONE VALLEY PARK	M-9761	M-9760	D	18	Z	SVP-2	67.0	67.0
31	6/19/2010	SOAPSTONE VALLEY PARK	M-10442	M-10414	D	18	Z	SVP-2	374.0	374.0
32	6/19/2010	SOAPSTONE VALLEY PARK	M-9764	M-9763	D	18	Z	SVP-2	353.0	353.0
33	6/19/2010	SOAPSTONE VALLEY PARK	M-9763	M-9762	D	18	Z	SVP-2	170.0	170.0
34	6/19/2010	SOAPSTONE VALLEY PARK	M-9765	M-9764	D	18	Z	SVP-2	270.0	270.0
35	6/19/2010	SOAPSTONE VALLEY PARK	M-9766	M-9765	D	18	Z	SVP-2	111.0	111.0
36	6/19/2010	SOAPSTONE VALLEY PARK	M-9768	M-9766	D	18	Z	SVP-2	180.0	180.0
37	6/19/2010	SOAPSTONE VALLEY PARK	M-9787	M-9768	D	18	Z	SVP-2	353.0	353.0
38	6/19/2010	SOAPSTONE VALLEY PARK	M-9760	M-10442	D	18	Z	SVP-2	80.0	80.0
Total Scheduled Length									4,519.4	
Total Length Surveyed										4,519.4

Tabular Report of PSR M-10366

for DCWASA

Setup 15	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/16	Time 12:09	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10366	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10365	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP
Shape Circular	Height 18	Width ins	Preclean Z
Material Vitrified Clay Pipe	Joint length Ft	Total length 87.0 Ft	Length Surveyed 87.0
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
		Constructional	

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	11349	AMH								Manhole
0.0	11349	MWL			15					Water Level
0.0		MGO								General Observation
47.8		TBA		04				9		Tap Break-in Active
72.7		CL						5		Crack Longitudinal
87.0		AMH								Manhole
87.0		FH								End of Survey

87.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10363

for DCWASA

Setup 16	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/16	Time 13:52	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10363	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10445	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP
Shape Circular	Height 18	Width ins	Preclean Z Year Cleaned
Material Vitrified Clay Pipe	Joint length Ft	Total length 171.0 Ft	Length Surveyed 171.0
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M Constructional
Location Easement/Right of Way		Miscellaneous	Hydraulic

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	21326	AMH								M-10363
0.0	21326	MWL			15					
0.0		MGO								DROP CONNECTION BEHIND CAMEP
40.8		IR				J	7			
59.0		IR				J	4			
71.8		RFJ				J	9			
71.9	S01	DAE			5		9	3		
77.4	F01	DAE			5		9	3		
135.4		IR					4			
135.4		RFJ				J	4			
147.1		DAE			5	J	3			
159.4		DAE			5	J	9			
162.6		RFJ				J	4			
165.7		RFJ				J	8			
171.0		AMH								M-10445
171.0		FH								End of Survey

171.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10364

for DCWASA

Setup 17	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/16	Time 12:44	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10364	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10363	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP
Shape Circular	Height 18	Width ins Preclean Z	Year Cleaned
Material Vitrified Clay Pipe	Joint length Ft	Total length 376.3 Ft	Length Surveyed 376.3
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info			Structural O&M Constructional
Location Easement/Right of Way			Miscellaneous Hydraulic

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	13540	AMH								Manhole M-10364
0.0	13540	MWL			15					Water Level
5.6		S01			5		3	9		DAGS Deposits Attached Grease
24.3		DAE			5	J	6	6		Deposits Attached Encrustation
38.1		CL					9			Crack Longitudinal
43.8		F01			5		3	9		DAGS Deposits Attached Grease
61.6		RFJ				J	10			Roots Fine Joint
118.6		RFJ				J	6	6		Roots Fine Joint
122.1		RFJ				J	9	3		Roots Fine Joint
196.3		CL				J	2			Crack Longitudinal
202.1		B				J	4			Broken
223.2		CL				J	4			Crack Longitudinal
259.8		MGO								General Observation OPEN JOINT
265.6		RFJ				J	2	6		Roots Fine Joint
320.8		CL				J	9			Crack Longitudinal
320.8		CM				J	6	6		Crack Multiple
323.4		TFA	04				3			Tap Factory Active
376.3		AMH								Manhole M-10363
376.3		FH								End of Survey

376.3 Ft Total Length Surveyed

Scores	Structural:	Total	Mean Defect	Peak	Mean Pipe
	Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10445

for DCWASA

Setup 18	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/16	Time 14:43	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10445	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10343	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP
Shape Circular	Height 18	Width ins	Preclean Z
Material Vitrified Clay Pipe	Joint length Ft	Total length 215.2 Ft	Length Surveyed 215.2
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
			Constructional

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	23203	AMH								Manhole
0.0	23203	MWL			10					Water Level
3.7		RFJ				J	9			Roots Fine Joint
19.5		IR				J	2			Infil Runner
22.9		IR				J	2			Infil Runner
46.9		IR				J	4			Infil Runner
62.5		B				J	12			Broken
64.2		S01					10	2		Crack Multiple
66.0		HVV					12			Hole Void Visible
69.6		F01					10	2		Crack Multiple
215.2		AMH								Manhole
215.2		FH								End of Survey

215.2 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10365

for DCWASA

Setup 19	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/16	Time 12:23	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10365	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10364	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP
Shape Circular	Height 18	Width ins	Preclean Z Year Cleaned
Material Vitrified Clay Pipe	Joint length Ft	Total length 206.0 Ft	Length Surveyed 206.0
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M Constructional
Location Easement/Right of Way		Miscellaneous	Hydraulic

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	12248	AMH								Manhole M-10365
0.0	12248	MWL			15					Water Level
144.8		RFJ				J	3			Roots Fine Joint
194.6		B				J	3			Broken
206.0		AMH								Manhole M-10364
206.0		FH								End of Survey

206.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10444

for DCWASA

Setup 20	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/16	Time 11:50	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10444	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10366	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP
Shape Circular	Height 18	Width ins	Preclean Z
Material Vitrified Clay Pipe	Joint length Ft	Total length 142.0 Ft	Length Surveyed 142.0
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
		Constructional	

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	10114	AMH								Manhole
0.0	10114	MWL			15					Water Level
25.7		RFJ				J	3			Roots Fine Joint
32.4		CL				J	1			Crack Longitudinal
39.3		S01				J	3	9		Roots Fine Joint
80.4		DAE			5	J	9	3		Deposits Attached Encrustation
87.8		F01				J	3	9		Roots Fine Joint
110.2		CL					3			Crack Longitudinal
139.8		B					7	5		Broken
142.0		AMH								Manhole
142.0		FH								End of Survey

142.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10443

for DCWASA

Setup	21	Surveyor	JRH	Certificate #	U-809-9224	System Owner	DCWASA	
Drainage		Survey Customer	DCWASA					
P/O #	ID-269	Date	2010/06/16	Time	11:21	Street	SOAPSTONE VALLEY PARK	
City	WASHINGTON DC	Further location details						
Start	M-10443	Rim to invert		Grade to invert		Rim to grade	Ft	
Finish	M-10444	Rim to invert		Grade to invert		Rim to grade	Ft	
Use	Sanitary	Direction	Down	Flow control	Not Controlled	Media No	SVP	
Shape	Circular	Height	18	Width	ins	Preclean Z	Year Cleaned	
Material	Vitrified Clay Pipe	Joint length	Ft	Total length	296.7	Ft	Length Surveyed 296.7	
Lining		Year laid		Year rehabilitated		Weather	Dry	
Purpose	Maintenance Related	Cat						
Additional info						Structural	O&M	Constructional
Location						Easement/Right of Way	Miscellaneous	Hydraulic

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0	3836		AMH Manhole								M-10443
0.0	3836		MWL Water Level			15					
8.0			RFJ Roots Fine Joint				J	12			
11.9		S01	RFJ Roots Fine Joint				J	9	3		
16.2			CL Crack Longitudinal					7			
27.4			IR Infil Runner				J	12			
28.6			HVV Hole Void Visible					12			
53.5		F01	RFJ Roots Fine Joint				J	9	3		
81.4		S02	DAE Deposits Attached Encrustation			5		9	3		
174.0		S03	RFJ Roots Fine Joint				J	7	5		
203.3		F03	RFJ Roots Fine Joint				J	7	5		
227.6		F02	DAE Deposits Attached Encrustation			5		9	3		
259.6			CL Crack Longitudinal				J	8			
286.1			RFJ Roots Fine Joint				J	8			
291.8			MWL Water Level			30					
296.7			AMH Manhole								M-10444
296.7			FH End of Survey								

296.7 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10410

for DCWASA

Setup 22	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/16	Time 10:40	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10410	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10443	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP
Shape Circular	Height 18	Width ins	Preclean Z
Material Vitrified Clay Pipe	Joint length Ft	Total length 76.0	Ft Length Surveyed 76.0
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
		Constructional	

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	3023	AMH								Manhole
0.0	3023	MWL			15					Water Level
27.7		RFJ				J	3			Roots Fine Joint
49.4		RFJ				J	8			Roots Fine Joint
54.1		S01 DAE			5		3	9		Deposits Attached Encrustation
70.0		TBA	04				9			Tap Break-in Active
70.0		CM					8	10		Crack Multiple
70.0		RFJ				J	3			Roots Fine Joint
76.0		F01 DAE			5		3	9		Deposits Attached Encrustation
76.0		AMH								Manhole
76.0		FH								End of Survey

76.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10409

for DCWASA

Setup 23	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA		
Drainage		Survey Customer DCWASA			
P/O # ID-269	Date 2010/06/16	Time 10:28	Street SOAPSTONE VALLEY PARK		
City WASHINGTON DC	Further location details				
Start M-10409	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish M-10410	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Down	Flow control Not Controlled	Media No	SVP	
Shape Circular	Height 18	Width	ins	Preclean Z	Year Cleaned
Material Vitrified Clay Pipe	Joint length	Ft	Total length 52.0	Ft	Length Surveyed 52.0
Lining	Year laid	Year rehabilitated	Weather	Dry	
Purpose Maintenance Related	Cat				
Additional info			Structural	O&M	Constructional
Location Easement/Right of Way			Miscellaneous	Hydraulic	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0	2449		AMH Manhole								M-10409
0.0	2449		MWL Water Level			15					
1.1			CM Crack Multiple					6	12		
1.1			CL Crack Longitudinal				J	3			
52.0			AMH Manhole								M-10410
52.0			FH End of Survey								

52.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10411

for DCWASA

Setup 24	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/16	Time 8:24	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10411	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10409	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP
Shape Circular	Height 18	Width ins	Preclean Z Year Cleaned
Material Vitrified Clay Pipe	Joint length Ft	Total length 192.0 Ft	Length Surveyed 192.0
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info			Structural O&M Constructional
Location Easement/Right of Way			Miscellaneous Hydraulic

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST Start of Survey								
0.0		AMH Manhole								M-10411
0.0		MWL Water Level			15					
3.6		RMJ Roots Medium Joint			30	J	7	5		
7.0		RMJ Roots Medium Joint			30	J	10			
9.6		CL Crack Longitudinal				J	7			
10.1		RFJ Roots Fine Joint				J	3			
13.2	S01	RFJ Roots Fine Joint				J	7	5		
13.2		CM Crack Multiple					2	5		
38.9		CL Crack Longitudinal					12			
40.2	S02	CL Crack Longitudinal				J	12			
44.5		CL Crack Longitudinal					2			
44.5		DAE Deposits Attached Encrustation			5		2			
50.0	F01	RFJ Roots Fine Joint				J	7	5		
50.0	F02	CL Crack Longitudinal				J	12			
89.5		RFJ Roots Fine Joint				J	7	10		
93.2		CM Crack Multiple				J	2	5		
93.2		B Broken				J	3			
96.3		CL Crack Longitudinal				J	9			
98.3		RMJ Roots Medium Joint			30	J	3	4		
101.9		B Broken				J	9	12		
105.2		RMJ Roots Medium Joint			20	J	10			
117.2		RFJ Roots Fine Joint				J	9			
120.6		CL Crack Longitudinal				J	12			
128.7		RMJ Roots Medium Joint			20	J	9			
165.5		RFJ Roots Fine Joint				J	2			
172.0	S03	RFJ Roots Fine Joint				J	9	3		
175.8		CL Crack Longitudinal				J	12			
192.0	F03	RFJ Roots Fine Joint				J	9	3		
192.0		AMH Manhole								M-10409
192.0		FH End of Survey								

192.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10416

for DCWASA

Setup 25	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/17	Time 9:57	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10416	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10415	Rim to invert	Grade to invert	Rim to grade Ft
Use Stormwater	Direction Down	Flow control Not Controlled	Media No SVP-1
Shape Circular	Height 18	Width ins	Preclean Z Year Cleaned
Material Concrete Pipe (non-reinforced)	Joint length Ft	Total length 130.1 Ft	Length Surveyed 130.1
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M Constructional
Location Easement/Right of Way		Miscellaneous	Hydraulic

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0		AMH								Manhole
0.0		MWL			5					Water Level
36.9		JAM								Joint Angular Medium
52.5		B				J	2			Broken
111.8		JAM								Joint Angular Medium
119.7		B				J	6			Broken
130.1		AMH								Manhole
130.1		FH								End of Survey

130.1 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10418

for DCWASA

Setup 26	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/17	Time 8:21	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10418	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10416	Rim to invert	Grade to invert	Rim to grade Ft
Use Stormwater	Direction Down	Flow control Not Controlled	Media No SVP-1
Shape Circular	Height 18	Width ins	Preclean Z Year Cleaned
Material Concrete Pipe (non-reinforced)	Joint length Ft	Total length 92.0 Ft	Length Surveyed 92.0
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M Constructional
Location Easement/Right of Way		Miscellaneous	Hydraulic

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0			AMH Manhole								M-10418
0.0			MWL Water Level			5					
49.4			MWLS Water Level Sag			10					
57.4			JAM Joint Angular Medium								PIPE DROPS
92.0			AMH Manhole								M-10416
92.0			FH End of Survey								

92.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10415

for DCWASA

Setup 27	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/17	Time 10:41	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10415	Rim to invert	Grade to invert	Rim to grade Ft
Finish F-137	Rim to invert	Grade to invert	Rim to grade Ft
Use Stormwater	Direction Down	Flow control Not Controlled	Media No SVP-1
Shape Circular	Height 18	Width ins	Preclean Z
Material Concrete Pipe (non-reinforced)	Joint length Ft	Total length 11.0 Ft	Length Surveyed 11.0
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
		Constructional	

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0		AMH								Manhole
0.0		MWL			5					Water Level
11.0		AEP								End of Pipe
11.0		FH								End of Survey

11.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10414

for DCWASA

Setup 28	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/19	Time 4:11	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10414	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10412	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP-2
Shape Circular	Height 18	Width ins	Preclean Z Year Cleaned
Material Vitrified Clay Pipe	Joint length Ft	Total length 347.1 Ft	Length Surveyed 347.1
Lining Cured in Place	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Constructional
		Hydraulic	

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	21915	AMH								Manhole
0.0	21915	MWL			10					Water Level
28.8		S01			5		4	8		DAGS Deposits Attached Grease
274.9		RFJ				J	3			Roots Fine Joint
347.1		F01			5		4	8		DAGS Deposits Attached Grease
347.1		AMH								Manhole
347.1		FH								End of Survey

347.1 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9762

for DCWASA

Setup 29	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA		
Drainage		Survey Customer DCWASA			
P/O # ID-269	Date 2010/06/19	Time 2:54	Street SOAPSTONE VALLEY PARK		
City WASHINGTON DC	Further location details				
Start M-9762	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish M-9761	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Down	Flow control Not Controlled	Media No	SVP-2	
Shape Circular	Height 18	Width	ins Preclean Z	Year Cleaned	
Material Vitrified Clay Pipe	Joint length	Ft Total length	167.0	Ft Length Surveyed	167.0
Lining Cured in Place	Year laid	Year rehabilitated	Weather Dry		
Purpose Maintenance Related	Cat				
Additional info			Structural	O&M	Constructional
Location Easement/Right of Way			Miscellaneous	Hydraulic	

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	13426	AMH								M-9762
0.0	13426	MWL			10					
8.2		RFJ				J	12			
11.6		JAM								Joint Angular Medium
15.6		RFJ				J	12			
17.9		S01			5		4	8		DAGS Deposits Attached Grease
23.3		CL					12			Crack Longitudinal
34.5		ID				J	2			Infil Dripper
34.5		IR				J	10			Infil Runner
37.4		JOM								Joint Offset Medium
39.5		IR					12			Infil Runner
108.2		RFJ				J	5			Roots Fine Joint
110.3		JOM								Joint Offset Medium
110.4		RFJ				J	7			Roots Fine Joint
123.8		RFJ				J	8			Roots Fine Joint
141.8		RFJ				J	7			Roots Fine Joint
161.3		RMB			20		2			Roots Medium Barrel
167.0		F01			5		4	8		DAGS Deposits Attached Grease
167.0		AMH								M-9761
167.0		FH								End of Survey

167.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9761

for DCWASA

Setup 30	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/19	Time 3:11	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-9761	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-9760	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP-2
Shape Circular	Height 18	Width ins	Preclean Z
Material Vitrified Clay Pipe	Joint length Ft	Total length 67.0	Ft Length Surveyed 67.0
Lining Cured in Place	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
		Constructional	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0	14912		AMH Manhole								M-9761
0.0	14912		MWL Water Level			10					
2.2			RMJ Roots Medium Joint			20	J	10			
8.0		S01	RFJ Roots Fine Joint				J	7	5		
44.8		F01	RFJ Roots Fine Joint				J	7	5		
60.3			RFJ Roots Fine Joint				J	9	3		
67.0			AMH Manhole								M-9760
67.0			FH End of Survey								

67.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10442

for DCWASA

Setup 31	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/19	Time 3:46	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-10442	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10414	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP-2
Shape Circular	Height 18	Width ins	Preclean Z
Material Vitrified Clay Pipe	Joint length Ft	Total length 374.0 Ft	Length Surveyed 374.0
Lining Cured in Place	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
			Constructional

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	15946	AMH								Manhole M-10442
0.0	15946	MWL			10					Water Level
0.0		S01			5		4	8		DAGS Deposits Attached Grease
2.7		S02				J	9	5		RFJ Roots Fine Joint
14.2		F02				J	9	5		RFJ Roots Fine Joint
14.2		S03				J	12			IR Infil Runner
26.5		F03				J	12			IR Infil Runner
128.8		CL						11		Crack Longitudinal
138.6		RFJ				J	12			Roots Fine Joint
156.8		RFJ				J	7			Roots Fine Joint
200.0		CL				J	8			Crack Longitudinal
265.8		RFJ				J	9	3		Roots Fine Joint
285.7		RFJ				J	7			Roots Fine Joint
374.0		F01			5		4	8		DAGS Deposits Attached Grease
374.0		AMH								Manhole M-10414
374.0		FH								End of Survey

374.0 Ft Total Length Surveyed

Scores	Structural:	Total	Mean Defect	Peak	Mean Pipe
	Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9764

for DCWASA

Setup 32	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/19	Time 2:12	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-9764	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-9763	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP-2
Shape Circular	Height 18	Width ins	Preclean Z Year Cleaned
Material Vitrified Clay Pipe	Joint length Ft	Total length 353.0 Ft	Length Surveyed 353.0
Lining Cured in Place	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
		Constructional	

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	10248	AMH								Manhole
0.0	10248	MWL			10					Water Level
44.0		RFJ				J	7			Roots Fine Joint
123.1		DAE			5	J	7	5		Deposits Attached Encrustation
228.0		RFJ				J	5	7		Roots Fine Joint
283.7		DAE			5	J	1			Deposits Attached Encrustation
286.9		RFJ				J	7			Roots Fine Joint
303.2		RFJ				J	7			Roots Fine Joint
318.4		CL					8			Crack Longitudinal
332.6		CM				J	4	6		Crack Multiple
353.0		AMH								Manhole
353.0		FH								End of Survey

353.0 Ft Total Length Surveyed

Scores	Structural:	Total	Mean Defect	Peak	Mean Pipe
	Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9763

for DCWASA

Setup 33	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/19	Time 2:36	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-9763	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-9762	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP-2
Shape Circular	Height 18	Width ins	Preclean Z Year Cleaned
Material Vitrified Clay Pipe	Joint length Ft	Total length 170.0 Ft	Length Surveyed 170.0
Lining Cured in Place	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
		Constructional	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0	12221		AMH Manhole								M-9763
0.0	12221		MWL Water Level			10					
1.2			CL Crack Longitudinal					4			
48.9			RFJ Roots Fine Joint				J	7			
57.6			RFJ Roots Fine Joint				J	7			
65.1		S01	DAGS Deposits Attached Grease			5		5	7		
133.9			RFJ Roots Fine Joint				J	7			
170.0		F01	DAGS Deposits Attached Grease			5		5	7		
170.0			AMH Manhole								M-9762
170.0			FH End of Survey								

170.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9765

for DCWASA

Setup 34	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA		
Drainage		Survey Customer DCWASA			
P/O # ID-269	Date 2010/06/19	Time 1:52	Street SOAPSTONE VALLEY PARK		
City WASHINGTON DC	Further location details				
Start M-9765	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish M-9764	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Down	Flow control Not Controlled	Media No	SVP-2	
Shape Circular	Height 18	Width	ins Preclean Z	Year Cleaned	
Material Vitrified Clay Pipe	Joint length	Ft	Total length 270.0	Ft	Length Surveyed 270.0
Lining Cured in Place	Year laid	Year rehabilitated	Weather Dry		
Purpose Maintenance Related	Cat				
Additional info			Structural	O&M	Constructional
Location Easement/Right of Way			Miscellaneous	Hydraulic	

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	lmRef	Remarks
0.0		ST								Start of Survey
0.0	4438	AMH								M-9765
0.0	4438	MWL			10					
118.2		RFJ				J	8			
135.6		RFJ				J	5			
165.6		RMJ			20	J	3			
167.4		CM					10	1		
167.4		RFB					12			
169.3		CM					12	5		
169.3		RFB					5			
174.6		S01 RFJ				J	7	5		
176.3		CL				J	3			
210.7		F01 RFJ				J	7	5		
270.0		AMH								M-9764
270.0		FH								End of Survey

270.0 Ft Total Length Surveyed

Scores	Structural:	Total	Mean Defect	Peak	Mean Pipe
	Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9766

for DCWASA

Setup 35	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/19	Time 1:28	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-9766	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-9765	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP-2
Shape Circular	Height 18	Width ins	Preclean Z
Material Vitrified Clay Pipe	Joint length Ft	Total length 111.0 Ft	Length Surveyed 111.0
Lining Cured in Place	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
		Constructional	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0	3617		AMH Manhole								M-9766
0.0	3617		MWL Water Level			10					
42.2		S01	DAGS Deposits Attached Grease			5	J	5	7		
61.8		S02	DAGS Deposits Attached Grease			5		9	3		
111.0		F01	DAGS Deposits Attached Grease			5	J	5	7		
111.0		F02	DAGS Deposits Attached Grease			5		9	3		
111.0			AMH Manhole								M-9765
111.0			FH End of Survey								

111.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9768

for DCWASA

Setup 36	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/19	Time 1:04	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-9768	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-9766	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP-2
Shape Circular	Height 18	Width ins	Preclean Z
Material Vitrified Clay Pipe	Joint length Ft	Total length 180.0 Ft	Length Surveyed 180.0
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Constructional
		Hydraulic	

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	2136	AMH								Manhole
0.0	2136	MWL			15					Water Level
50.0		S01			5		5	7		DAGS Deposits Attached Grease
180.0		F01			5		5	7		DAGS Deposits Attached Grease
180.0		MGO								General Observation
180.0		MGO								General Observation
180.0		AMH								Manhole
180.0		FH								End of Survey

180.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9787

for DCWASA

Setup 37	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/19	Time 12:38	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-9787	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-9768	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP-2
Shape Circular	Height 18	Width ins	Preclean Z
Material Vitrified Clay Pipe	Joint length Ft	Total length 353.0 Ft	Length Surveyed 353.0
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
		Constructional	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0			AMH Manhole								M-9787
0.0			MWL Water Level			15					
22.4			DAE Deposits Attached Encrustation			5	J	6	6		
30.8		S01	DAE Deposits Attached Encrustation			5	J	6	6		
88.4		F01	DAE Deposits Attached Encrustation			5	J	6	6		
142.5			DAE Deposits Attached Encrustation			5		9	3		
174.3		S02	RFJ Roots Fine Joint				J	7	10		
183.6		F02	RFJ Roots Fine Joint				J	7	10		
183.6			RFJ Roots Fine Joint				J	5			
295.3			RFJ Roots Fine Joint				J	8			
353.0			AMH Manhole								M-9768
353.0			FH End of Survey								

353.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9760

for DCWASA

Setup 38	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/06/19	Time 3:37	Street SOAPSTONE VALLEY PARK
City WASHINGTON DC	Further location details		
Start M-9760	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10442	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No SVP-2
Shape Circular	Height 18	Width ins	Preclean Z
Material Vitrified Clay Pipe	Joint length Ft	Total length 80.0	Ft Length Surveyed 80.0
Lining Cured in Place	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Easement/Right of Way		Miscellaneous	Hydraulic
		Constructional	

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0	15946	AMH								Manhole
0.0	15946	MWL			10					Water Level
23.5		S01				J	7	5		Roots Fine Joint
80.0		F01				J	7	5		Roots Fine Joint
80.0		AMH								Manhole
80.0		FH								End of Survey

80.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10412 H for DCWASA

Setup 12	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA		
Drainage	Survey Customer DCWASA				
P/O # ID-269	Date 2010/04/20	Time 14:01	Street AUDOBON TERRACE NW.		
City WASHINGTON	Further location details				
Start M-10412	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish M-10411	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Down	Flow control Not Controlled	Media No	269	
Shape Circular	Height 18	Width ins	Preclean J	Year Cleaned	2010/04/20
Material Vitrified Clay Pipe	Joint length	Ft	Total length 109.0	Ft	Length Surveyed 109.0
Lining	Year laid	Year rehabilitated	Weather	Dry	
Purpose Maintenance Related	Cat				
Additional info			Structural	O&M	Constructional
Location Easement/Right of Way			Miscellaneous	Hydraulic	

Count	Video	CD Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST								Start of Survey
0.0		AMH								Manhole M-10412
0.0		MWL			15					Water Level
15.5		S01			5		4	8		Deposits Attached Other
91.5		RFJ				J	9			Roots Fine Joint
91.5		RFJ				J	9			Roots Fine Joint
100.8		RFJ				J	10			Roots Fine Joint
109.0		F01			5		4	8		Deposits Attached Other
109.0		AMH								Manhole M-10411
109.0		FH								End of Survey

109.0 Ft Total Length Surveyed

Scores	Structural:	Total	Mean Defect	Peak	Mean Pipe
	Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10395 R for DCWASA

Setup 5	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/04/19	Time 15:02	Street LINNNEAN AVE. NW.
City WASHINGTON	Further location details		
Start M-10395	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10405	Rim to invert	Grade to invert	Rim to grade Ft
Use Stormwater	Direction Down	Flow control Not Controlled	Media No 269
Shape Circular	Height 36	Width ins	Preclean J Year Cleaned
Material Reinforced Concrete Pipe	Joint length Ft	Total length 346.1 Ft	Length Surveyed 346.1
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Light Highway		Miscellaneous	Constructional
		Hydraulic	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0			AMH Manhole								M-10395
0.0			MWL Water Level			5					
130.7			OBZ Obstacle Other			10		5	7		DEBRIS
259.5			MSC Shape or Size Change	27							SIZE CHANGE
346.1			AMH Manhole								M-10405
346.1			FH End of Survey								

346.1 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10405 R for DCWASA

Setup 4	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA		
Drainage		Survey Customer DCWASA			
P/O # ID-269	Date 2010/04/19	Time 15:43	Street LINNNEAN AVE. NW.		
City WASHINGTON	Further location details				
Start M-10405	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish M-10406	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Stormwater	Direction Down	Flow control Not Controlled	Media No 269		
Shape Circular	Height 27	Width ins	Preclean J	Year Cleaned	
Material Reinforced Concrete Pipe	Joint length	Ft	Total length 97.0	Ft	Length Surveyed 97.0
Lining	Year laid	Year rehabilitated	Weather Dry		
Purpose Maintenance Related	Cat				
Additional info			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0			AMH Manhole								M-10405
0.0			MWL Water Level			5					
48.4			B Broken				J	5	7		
62.1			CM Crack Multiple					9	12		
67.2			CM Crack Multiple				J	3	6		
71.8			CL Crack Longitudinal				J	3			
91.4			B Broken				J	3			
92.9			CL Crack Longitudinal					10			
97.0			AMH Manhole								M-10406
97.0			FH End of Survey								

97.0 Ft Total Length Surveyed

Scores	Structural:	Total	Mean Defect	Peak	Mean Pipe
	Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10403 X for DCWASA

Setup 3	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/04/13	Time 12:55	Street LINNEAN AVE. NW.
City WASHINGTON DC	Further location details		
Start M-10403	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10404	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control	Media No 269
Shape Circular	Height 10	Width ins	Preclean J Year Cleaned 2010/04/13
Material Vitrified Clay Pipe	Joint length Ft	Total length 231.1 Ft	Length Surveyed 231.1
Lining	Year laid	Year rehabilitated	Weather Light Rain
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M Constructional
Location Light Highway		Miscellaneous	Hydraulic

Count	Video	CD Code		In1	In2	%	Jnt	Fr To	ImRef	Remarks
0.0		ST	Start of Survey							
0.0		AMH	Manhole							M-10403
0.0		MWL	Water Level			5				
3.0		TBA	Tap Break-in Active	04				3		
40.3		DAGS	Deposits Attached Grease			5		4		
64.1		B	Broken				J	12	1	
73.0		TBA	Tap Break-in Active	04				9		PIPE BROKEN AROUND TAP
85.7		B	Broken				J	1	6	
106.0		S01	DAGS Deposits Attached Grease			5		7	5	
125.9		S02	CM Crack Multiple					7	5	
130.2		TBA	Tap Break-in Active	04				9		
138.3		TBA	Tap Break-in Active	04				2		
140.1		IR	Infil Runner				J	5		
155.0		RFJ	Roots Fine Joint				J	9		
157.4		B	Broken				J	5	12	WATER GOING OUT OF PIPE
207.9		MGO	General Observation							DEBRIS IN PIPE
231.1		F01	DAGS Deposits Attached Grease			5		7	5	
231.1		F02	CM Crack Multiple					7	5	
231.1		AMH	Manhole							M-10404
231.1		FH	End of Survey							

231.1 Ft Total Length Surveyed

Scores	Structural:	Total	Mean Defect	Peak	Mean Pipe
	Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10404

X

for DCWASA

Setup 2	Surveyor JRH	Certificate #	U-809-9224	System Owner	DCWASA	
Drainage	Survey Customer		DCWASA			
P/O #	ID-269	Date	2010/04/13	Time	14:25	
City	WASHINGTON DC	Street				LINNEAN AVE. NW.
Further location details						
Start	M-10404	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish	M-10407	Rim to invert	Grade to invert	Rim to grade	Ft	
Use	Sanitary	Direction	Down	Flow control	Media No 269	
Shape	Circular	Height	10	Width ins	Preclean J	
Material	Vitrified Clay Pipe	Joint length	Ft	Total length	153.4 Ft	
Lining		Year laid		Year rehabilitated	Weather Light Rain	
Purpose	Maintenance Related	Cat				
Additional info				Structural	O&M	
Location Woods				Miscellaneous	Constructional	
				Hydraulic		

Count	Video	CD Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								M-10404
0.0		MWL	Water Level			5					
1.7		MGO	General Observation								LINE DROPS DOWN
10.3		S01	DAGS Deposits Attached Grease			5		7	5		
24.7		RFJ	Roots Fine Joint				J	5			
42.6		RFJ	Roots Fine Joint				J	7	5		
46.0		RFJ	Roots Fine Joint				J	12			
48.0		CC	Crack Circumferential					12	6		
64.1		RFJ	Roots Fine Joint				J	12	6		
64.1		CM	Crack Multiple				J	1	6		
67.3		RFJ	Roots Fine Joint				J	6	11		
72.2		TBA	Tap Break-in Active	04				9			
89.0		H	Hole					12			TREES VISIBLE
102.1		F01	DAGS Deposits Attached Grease			5		7	5		
102.1		S02	RFJ Roots Fine Joint				J	6	6		
112.7		S03	DAGS Deposits Attached Grease			5		7	5		
153.4		F02	RFJ Roots Fine Joint				J	6	6		
153.4		F03	DAGS Deposits Attached Grease			5		7	5		
153.4		AMH	Manhole								M-10407
153.4		FH	End of Survey								

153.4 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10417

R

for DCWASA

Setup 6	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/04/19	Time 12:19	Street AUDOBON TER. NW
City WASHINGTON	Further location details		
Start M-10417	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10413	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No 269
Shape Circular	Height 15	Width ins	Preclean J Year Cleaned
Material Vitrified Clay Pipe	Joint length Ft	Total length 316.1 Ft	Length Surveyed 316.1
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M Constructional
Location Light Highway		Miscellaneous	Hydraulic

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0			AMH Manhole								M-10417
0.0			MWL Water Level			5					
11.0		S01	RFJ Roots Fine Joint				J	3	9		
74.2		F01	RFJ Roots Fine Joint				J	3	9		
114.6			RFJ Roots Fine Joint				J	3	6		
192.0			TBA Tap Break-in Active	04					9		2899 AUDOBON TER.
219.6			SSS Surface Spalling				J		9		
243.6			DAE Deposits Attached Encrustation			5	J	3	6		
265.8			DAE Deposits Attached Encrustation			5		3	4		
295.0			TBA Tap Break-in Active	04					9		2891 AUDOBON TER.
298.1			TBA Tap Break-in Active	04					9		2891 AUDOBON TER.
316.1			AMH Manhole								M-10413
316.1			FH End of Survey								

316.1 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9756 R for DCWASA

Setup 7	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA		
Drainage	Survey Customer DCWASA				
P/O # ID-269	Date 2010/04/19	Time 11:33	Street AUDOBON TERRACE NW.		
City WASHINGTON	Further location details				
Start M-10417	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish M-9756	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Up	Flow control Not Controlled	Media No	269	
Shape Circular	Height 10	Width	ins Preclean J	Year Cleaned	
Material Vitrified Clay Pipe	Joint length	Ft	Total length	Ft	Length Surveyed 180.2
Lining	Year laid	Year rehabilitated	Weather	Dry	
Purpose Maintenance Related	Cat				
Additional info REVERSE			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0			AMH Manhole								M-10417
0.0			MWL Water Level			5					
12.7		S01	RFJ Roots Fine Joint				J	3	9		
180.2		F01	RFJ Roots Fine Joint				J	3	9		
180.2			MSA Abandoned Survey								REVERSE

180.2 Ft Total Length Surveyed

Scores	Structural:	Total	Mean Defect	Peak	Mean Pipe
	Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-51410

X

for DCWASA

Setup 8	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA		
Drainage		Survey Customer DCWASA			
P/O # ID-269	Date 2010/04/19	Time 10:56	Street AUDOBON TERRACE NW.		
City WASHINGTON	Further location details				
Start M-9758	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish M-51410	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Up	Flow control Not Controlled	Media No 269		
Shape Circular	Height 10	Width ins	Preclean J	Year Cleaned	
Material Polyvinyl Chloride	Joint length	Ft	Total length 100.0	Ft	Length Surveyed 100.0
Lining	Year laid	Year rehabilitated	Weather	Dry	
Purpose Maintenance Related	Cat				
Additional info M-51410 NEW MANHOLE, TOTAL DISTANCE 100FT.			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0			AMH Manhole								M-9758
0.0			MWL Water Level			5					
100.0			AMH Manhole								M-51410
100.0			FH End of Survey								

100.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9757 X for DCWASA

Setup 10	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA		
Drainage		Survey Customer DCWASA			
P/O # ID-269	Date 2010/04/19	Time 9:07	Street AUDOBON TERRACE NW.		
City WASHINGTON	Further location details				
Start M-9757	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish M-9756	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Down	Flow control Not Controlled	Media No 269		
Shape Circular	Height 10	Width ins	Preclean J	Year Cleaned	
Material Vitrified Clay Pipe	Joint length Ft	Total length 284.1 Ft	Length Surveyed 284.1		
Lining	Year laid	Year rehabilitated	Weather Dry		
Purpose Maintenance Related		Cat			
Additional info			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0			AMH Manhole								M-9757
0.0			MWL Water Level			5					
13.6			RFJ Roots Fine Joint				J	3	9		
22.2		S01	RFJ Roots Fine Joint				J	6	6		
28.8			TBA Tap Break-in Active	04				9			3001 AUDOBON TER.
284.1		F01	RFJ Roots Fine Joint				J	6	6		
284.1			AMH Manhole								M-9756
284.1			FH End of Survey								

284.1 Ft Total Length Surveyed

Scores	Structural:	Total	Mean Defect	Peak	Mean Pipe
	Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9758

X

for DCWASA

Setup 11	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/04/19	Time 7:44	Street ADOBON TERRACE NW.
City WASHINGTON	Further location details		
Start M-9758	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-9757	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No 269
Shape Circular	Height 10	Width ins Preclean J	Year Cleaned
Material Vitrified Clay Pipe	Joint length Ft	Total length 224.0 Ft	Length Surveyed 224.0
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info		Structural	O&M
Location Light Highway		Miscellaneous	Hydraulic
			Constructional

Count	Video	CD Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								M-9758
8.6		RMJ	Roots Medium Joint			10	J	3	7		
8.6		MWL	Water Level			5					
8.6		B	Broken				J	5	7		
33.5		S01	SSS Surface Spalling					6	6		
47.1		CL	Crack Longitudinal					7			
54.3		TFB	Tap Factory Abandoned	04				9			3005 ADOBON TER.
54.3		MGO	General Observation								ROOTS AT TAP
81.0		F01	SSS Surface Spalling					6	6		
85.1		RMJ	Roots Medium Joint			10	J	3	6		
93.8		DAE	Deposits Attached Encrustation			5	J	2	6		
102.4		DAE	Deposits Attached Encrustation			5	J	2	10		
110.8		RFJ	Roots Fine Joint				J	7	12		
123.4		RMJ	Roots Medium Joint			10	J	6	12		
128.2		RBJ	Roots Ball Joint			55	J	3	9		
135.6		S02	RFJ Roots Fine Joint				J	6	6		
148.5		F02	RFJ Roots Fine Joint				J	6	6		
165.9		RFJ	Roots Fine Joint				J	6	6		
187.3		DAE	Deposits Attached Encrustation			5		5			
191.9		DAE	Deposits Attached Encrustation			5	J	5			
211.4		TBA	Tap Break-in Active	04				9			3001 ADOBON TER.
224.0		AMH	Manhole								M-9757
224.0		FH	End of Survey								

224.0 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10413 X for DCWASA

Setup 14	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA		
Drainage		Survey Customer DCWASA			
P/O # ID-269	Date 2010/04/20	Time 8:34	Street AUDOBON TERRACE NW.		
City WASHINGTON	Further location details				
Start M-10413	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish M-10412	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Down	Flow control Not Controlled	Media No	269	
Shape Circular	Height 15	Width ins	Preclean J	Year Cleaned 2010/04/20	
Material Vitrified Clay Pipe	Joint length	Ft	Total length 261.0	Ft	Length Surveyed 261.0
Lining	Year laid	Year rehabilitated	Weather Dry		
Purpose Maintenance Related	Cat				
Additional info			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0			AMH Manhole								M-10413
0.0			MWL Water Level			10					
19.4		S01	RFJ Roots Fine Joint				J	6	6		
32.8			TBI Tap Break-in Intruding	04	01			9			2883 AUDOBON TER.
75.5			B Broken				J	10			
95.5			DAE Deposits Attached Encrustation			5		5			
100.0			CL Crack Longitudinal				J	12			
101.6			TBI Tap Break-in Intruding	02	01			9			
103.3			CL Crack Longitudinal				J	12			
109.8		S02	CL Crack Longitudinal				J	12			
112.0			CL Crack Longitudinal				J	7			
116.2		S03	CL Crack Longitudinal				J	7			
124.1			TBA Tap Break-in Active	04				9			2877 AUDOBON TER.
130.1		F02	CL Crack Longitudinal				J	12			
159.7		F03	CL Crack Longitudinal				J	7			
159.7		F01	RFJ Roots Fine Joint				J	6	6		
248.2			TBA Tap Break-in Active	04				9			2871 AUDOBON TER.
261.0			AMH Manhole								M-10412
261.0			FH End of Survey								

261.0 Ft Total Length Surveyed

Scores	Structural:	Total	Mean Defect	Peak	Mean Pipe
	Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-10407 X for DCWASA

Setup 1	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA		
Drainage	Survey Customer DCWASA				
P/O # ID-269	Date 2010/04/13	Time 14:52	Street LINNEAN AVE. NW.		
City WASHINGTON DC	Further location details				
Start M-10407	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish M-10409	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Down	Flow control	Media No	269	
Shape Circular	Height 10	Width ins	Preclean J	Year Cleaned 2010/04/13	
Material Vitrified Clay Pipe	Joint length	Ft	Total length	Ft	Length Surveyed 30.2
Lining	Year laid	Year rehabilitated	Weather	Light Rain	
Purpose Maintenance Related	Cat				
Additional info			Structural	O&M	Constructional
Location Woods			Miscellaneous	Hydraulic	

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0			AMH Manhole								M-10407
0.0			MWL Water Level			5					
0.0			MGO General Observation								LINE DROPS DOWN
3.5			RFJ Roots Fine Joint				J	6	9		
14.6			CM Crack Multiple				J	6	6		
18.3			FM Fracture Multiple					6	6		
30.2			MSA Abandoned Survey								PIPE DROPS 45 DEGREES

30.2 Ft Total Length Surveyed

Scores	Structural:	Total	Mean Defect	Peak	Mean Pipe
	Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9756 H for DCWASA

Setup 13	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA		
Drainage	Survey Customer DCWASA				
P/O # ID-269	Date 2010/04/20	Time 12:21	Street AUDOBON TERRACE NW.		
City WASHINGTON	Further location details				
Start M-9756	Rim to invert	Grade to invert	Rim to grade	Ft	
Finish M-10417	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Down	Flow control Not Controlled	Media No	269	
Shape Circular	Height 10	Width ins	Preclean H	Year Cleaned	2010/04/20
Material Vitrified Clay Pipe	Joint length	Ft	Total length 319.8	Ft	Length Surveyed 319.8
Lining	Year laid	Year rehabilitated	Weather	Dry	
Purpose Maintenance Related	Cat				
Additional info RETV HEAVY CLEAN ROOT CUT			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	

Count	Video	CD Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								M-9756
0.0		MWL	Water Level			5					
16.9		S01 RFJ	Roots Fine Joint				J	3	9		
21.7		CC	Crack Circumferential					6	9		
25.7		CC	Crack Circumferential					6	6		
29.9		CC	Crack Circumferential					3	6		
46.4		CL	Crack Longitudinal				J	5			
48.8		TBA	Tap Break-in Active	04				9			2915 AUDOBON TER.
64.7		CC	Crack Circumferential					11	6		
66.2		TBA	Tap Break-in Active	04				9			2915 AUDOBON TER.
80.1		CL	Crack Longitudinal					1			
92.4		B	Broken				J	12	3		
92.4		CM	Crack Multiple				J	3	9		
130.2		CC	Crack Circumferential				J	5	7		
136.2		CL	Crack Longitudinal				J	3			
161.5		CM	Crack Multiple				J	4	10		
189.0		JAM	Joint Angular Medium								
210.2		CL	Crack Longitudinal				J	2			
217.1		F01 RFJ	Roots Fine Joint				J	3	9		
268.4		SSS	Surface Spalling					10	11		
277.3		SSS	Surface Spalling					3			
309.9		RFJ	Roots Fine Joint				J	3	9		
315.5		DAE	Deposits Attached Encrustation			5		11	1		
319.8		AMH	Manhole								M-10417
319.8		FH	End of Survey								

319.8 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

Tabular Report of PSR M-9756

X

for DCWASA

Setup 9	Surveyor JRH	Certificate # U-809-9224	System Owner DCWASA
Drainage	Survey Customer DCWASA		
P/O # ID-269	Date 2010/04/19	Time 9:42	Street AUDOBON TERRACE NW.
City WASHINGTON	Further location details		
Start M-9756	Rim to invert	Grade to invert	Rim to grade Ft
Finish M-10417	Rim to invert	Grade to invert	Rim to grade Ft
Use Sanitary	Direction Down	Flow control Not Controlled	Media No 269
Shape Circular	Height 10	Width ins Preclean J	Year Cleaned
Material Vitrified Clay Pipe	Joint length Ft	Total length Ft	Length Surveyed 126.9
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Maintenance Related	Cat		
Additional info NEEDS HEAVY CLEANED		Structural	O&M
Location Light Highway		Miscellaneous	Constructional Hydraulic

Count	Video	CD	Code	In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST Start of Survey								
0.0			AMH Manhole								M-9756
0.0			MWL Water Level			5					
13.1		S01	RFJ Roots Fine Joint				J	6	6		
45.4			TBA Tap Break-in Active	04				9			2915 AUDOBON TER.
63.1			TBA Tap Break-in Active	04				9			2915 AUDOBON TER.
63.1			MGO General Observation								ROOTS AT TAP
89.8			CC Crack Circumferential				J	3	9		
120.9			RMJ Roots Medium Joint			10	J	3	9		
126.9			RMJ Roots Medium Joint			30	J	3	6		
126.9		F01	RFJ Roots Fine Joint				J	6	6		
126.9			MSA Abandoned Survey								ROOTS

126.9 Ft Total Length Surveyed

Scores

Structural:	Total	Mean Defect	Peak	Mean Pipe
Service:	Total	Mean Defect	Peak	Mean Pipe

