

June 23, 2022

Mr. Elvis Dhima, PE Town Engineer

Mr. James Lavacchia Public Works Supervisor

Town of Hudson 12 School Street Hudson, NH 03051

RE: Town of Hudson

> Hudson Infiltration/Inflow Study – Subsystems 4 & 9 Fuss & O'Neill Reference No. 20200006.A30

Dear Messrs. Dhima and Lavacchia:

The following is a summary of findings from our review of video files supplied to Fuss & O'Neill by the Town of Hudson. The attached spreadsheet notes conditions of individual sewer segments as well as some maintenance recommendations for those segments.

Fuss & O'Neill received a total of 244 sewer videos that were performed by Hudson DPW in the Fall and Winter of 2020-21 and the Fall of 2021. An additional set of 24 videos, including the north end of Webster Street, were taken in the Spring of 2022. These videos focused on Subsystems 4 and 9 which are located in the northwest corner of Hudson.

Occasionally, two video sections were needed to record conditions of a single sewer segment. The

sewer pipe material was predominately asbestos concrete pipe (ACP) with some PVC plastic pipe segments as well. These Subsystem areas did not include any vitrified clay pipe (VCP) sewer segments. VCP segments are more subject to cracking and infiltration at the un-gasketed joints than ACP and PVC sewer segments.

Through our review, there were a few sewer pipe sections which showed severe infiltration problems.

- 1. One was on St. Laurent Drive (Segment SLD4 SLD3). The video for this segment captured a view of apparent groundwater spraying from the pipe invert under artesian pressure.
- 2. Two Webster Street sewer segments are labeled WEB43 WEB42 and WEB43 -WEB42_1. Typically, the underscore symbol "_" indicates a continuation of video through the same segment, but these two videos document conditions in separate

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Messrs. Dhima and Lavacchia

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segments, so we're not sure of the exact location of each video. Both videos show possible inflow from cracks in the invert area below the fluid level. We recommend the Town revisit these segments in dryer periods (e.g., July or August) when flows might be reduced to review and confirm the locations of these segments and the findings noted.

- 3. Segment WEB50 WEB49 shows significant inflow through a pipe joint.
- 4. Root intrusions were noted on Grand Avenue Sewer Segment SUM2- NEW1 (Entry #54), and Elm Avenue SMH (Entry #164).

It was previously noted that many of the Webster Street sewer segments had fluid levels that were deeper than the camera lens, so not much data was originally available for viewing (see pale colored entries on the attached spreadsheet). This trunk sewer size ranges from 10" to 15" diameter according to the Town's sewer database. The Town was able to re-videotape Webster Street sections using an extension on the camera rig that raised the camera above the fluid level. We note that the adjacent Reeds Brook parallels Webster Street for much of its length and is a perennial stream, so groundwater levels remained high in that vicinity to highlight infiltration/inflow issues.

We appreciate the opportunity to provide these review services and look forward to any questions you may have.

Steven W. Reichert PE

Sincerely,

David A. Lewis PE

Senior Project Engineer Senior Project Manager

DAL:mjt

Attachment: Sewer Video Evaluation spreadsheet

Fuss O'Neill Ref. 20200006.A30



									DOWN /			
#	STREET	DATE	SVVIII (START & END	PIPE	\	/IDEO FOOTA	\GE	UPSTREAM	JOINTS-	PIPE	NOTES
π	JIKELI	DATE	JIVII I. V	JIANI & LIID	MATERIAL	START	END	NET	VIDEO DIRECTION	FT	INTEGRITY	NOTES
1	ADAMS DRIVE	3-Nov-20	SLD11	AD7	ACP	0	166	16	66 UP	13	GOOD	ACP?; 160' SAME DIA LATERAL ON LEFT; SOLIDS ACCUM IN SMH AT 166' WHY WASN'T SMH MOVED 6' DS?
2	ADAMS DRIVE	3-Nov-20	ADX1	ADX2_1	ACP	201.5	202.4	0	.9 DOWN		POOR VIDEO	FLUID LEVEL JUST BELOW CAMERA LENS, WHEELS HAVE LITTLE TRACTION
	ADAMS DRIVE	3-Nov-20		ADX2	ACP	0	202		DOWN	13	GOOD	WHEELS LOST TRACTION AT 202', CAN SEE SMH ~ 210' THOUGH
	ADAMS DRIVE	3-Nov-20		AD10	ACP	0	180		80 ? TOO LOW		GOOD	LARGE SERVICE 110' RT; 2ND SERVICE 167' LT; 3RD SERVICE 170' RT; SMH AT 180'
	ADAMS DRIVE	3-Nov-20		ADX9	ACP	0	24.4		.4 DOWN		TOO SHORT	
												REVERSE OF VIDEO ABOVE; LOTS OF CLEAR WATER, SERVICE AT 70' LT; 2ND AT 73' RT; 3RD AT 195' RT W/
6	ADAMS DRIVE	3-Nov-20	AD9	AD10	ACP	0	196	19	96 UP	13	GOOD	SIGNIFICANT GREASE: STOPS PROGRESSION
	ADAMS DRIVE	3-Nov-20		AD8	ACP	0	300		00 UP		GOOD	LG. SERVICE / LATERAL 30' RT; 2ND SERVICE AT 126' RT; 3RD SEERVICE AT 129 LT; SMH AT 300'
	7.070 02	0 .101 20	, ,				300			1		LOTS OF CLEAR WATER; SERVICE 19' LT; 2ND 35' RT - SIG. ROOT INTRUSION! AT 1' FROM MAIN; 3RD 151
8	ADAMS DRIVE	2-Nov-20	AD8	AD7	ACP	0	158	15	58 UP	13	GOOD	LT: SMH AT 158
	ADAMS DRIVE	2-Nov-20		AD7_1	ACP	209	345		36 UP		GOOD	345' SMH W/ LATERAL ENTERING FROM RIGHT
,	7.67.11.110 51.11.12	2 1101 20	7120	7.57_1	7.01	207	0.10		33 0.		0002	1ST SERVICE 57' LT; 2ND AT 74' RT; 3RD AT 183' RT; SERVICE NEAR 202' LAUNDRY FOAM VIDEO DIDN'T
10	ADAMS DRIVE	2-Nov-20	AD6	AD7	ACP	0	209	20	09 UP	13	GOOD	SHOW SIDE: ENDS AT 209' NO SMH
	ADAMS DRIVE	2-Nov-20		AD5_2	ACP	274.5	354		2.5 UP		GOOD	1ST SERVICE AT 276 LT; 2ND AT 306' RT; SMH AT 352'
	ADAMS DRIVE	2-Nov-20		AD5_1	ACP	-2.5	276		5.5 UP		GOOD	1ST SERVICE 55' RT; 2ND AT 124 LT; 3RD AT 206 RT; 4TH AT 276 LT; NO SMH AT VIDEO END
	ADAMS DRIVE	2-Nov-20		AD5	ACP	0	270	210	0		NA	CAMERA RECORDED IN OFFICE - NO SEWER ON VIDEO
	ADAMS DRIVE	2-Nov-20		AD4	ACP	297.6	348	50	.4 DOWN		GOOD	1ST SERVICE AT 299' LT; ENDS AT SMH 348'
	ADAMS DRIVE	3-Nov-20		ADX1_1	ACP	322.5	353		0.5 DOWN		GOOD	SAG IN PROFILED FROM 340-348; 353' SMH WITH <i>ROOTS ON SHELF?!</i> ; VIDEO ENDS
13	ADAIVIS DITIVE	3-1407-20	AD4	ADXI_I	ACI	322.3	333	30	7.3 DOVVIV	13	GOOD	SAGINT KOTILED TROIN 340-340 , 333 SIVIT WITH ROOTS ON STILLT !! , VIDEO LINDS
16	ADAMS DRIVE	3-Nov-20	ΔD4	ADX1	ACP	0	322.5	322	.5 DOWN	13	GOOD	VIDEO STARTS IN SAG WITH FLUID ALONST TO LENS; 57' CAMERA CLEARS SAG; DOESN'T END IN SMH
	ADAMS DRIVE	2-Nov-20		AD4_1	ACP	261	302		41 UP		GOOD	SMH AT 302'
	ADAMS DRIVE	2-Nov-20		AD4_1	ACP	0	261		61 UP		GOOD	1ST SERVICE AT 65' RT: 2ND AT 68' LT: 3RD AT 217' RT: 4TH AT 220' LT: NO SMH AT VIDEO END
	ADAMS DRIVE	2-Nov-20		AD3_1	ACP	247	333		36 UP		GOOD	13' PIPE SECTIONS UNTIL 289', THEN SOME 6' SECTIONS; 1ST SERVICE AT 261' RT; SMH AT 333'
	ADAMS DRIVE	2-Nov-20		AD3_1	ACP	0	247		47 UP		GOOD	1ST SERVICE AT 82' RT; 2ND AT 206' LT; NO SMH AT VIDEO END
20	ADAMS DITTE	2-1407-20	ADZ	ADS	ACI	U	247		+7 OI	13	GOOD	1ST SERVICE AT 32 KT, 2ND AT 200 ET, NO SWITTAT VIDEO END
21	ADAMS DRIVE	3-Nov-20	ΛD1	AD2_2	ACP	311.8	324	12	.2 NO FLOW	SHORT	GOOD	MAYBE RE-BRICKING TOO
	ADAMS DRIVE	3-Nov-20		AD2_2 AD2_1	ACP	311.0	311.8		.8 NO FLOW		GOOD	1ST SERVICE 108' RT; 2ND AT 311.8' LT; VIDEO ENDS
	VOVIND DUILE	3-1100-20	ואטו	תטב_ו	AUI	U	311.0	311	.0 INO I LOVV	13	3000	IST SERVICE TOO INT, ZIND AT STILO ET, VIDEO ENDS
23	ADAMS DRIVE	2-Nov-20	AD1	AD2	ACP	0	196	19	96 NO FLOW	13	GOOD	1ST SERVICE 54' LT; VIDEO BLINKING PROBLEMS; 2ND AT 110' RT; 3RD AT 193' LT; NO SMH AT VIDEO END
	ALVIRNE DRIVE	19-Nov-20		ALV1	ACP	0	186		36 UP		GOOD	1ST SERVICE AT 41' RT; SMH AT 186'; (FASTER OPERATOR)
	ALVIRNE DRIVE	19-Nov-20		ALV2	ACP	0	160		60 UP		GOOD	1ST SERVICE AT 82' LT; SMH AT 160'
20	DINVE	77.100 20					.00	- 10	0.	10		FLAT PIPE/ SAG FOR INITIAL ~15'; 1ST SERVICE 16' RT; 2ND AT 59' LT - LOTS OF GREASE!; 3RD AT 154' RT -
26	ALVIRNE DRIVE	19-Nov-20	AI V4	ALV3	ACP	n	262	26	62 UP	13	GOOD	MOD. GREASE; 4TH AT 211' LT MOD. GREASE; SMH AT 252'
20	, LEVINIVE DINIVE	171400 20	/ \L V -T	, , , , ,	. 101	J	202	20	02 01	13	3000	1ST SERVICE AT 31' RT MOD. GREASE (CAMERA DIDN'T STOP); 2ND AT 73' LT MOD. GREASE; SMH AT 202
27	ALVIRNE DRIVE	19-Nov-20	ALV5	ALV4	ACP	0	202	20	D2 UP	13	GOOD	WITH GREASY SERVICE FROM ATOP SHELF
	AMANDA DRIVE	1-Dec-20		AMA1	PVC	0	74		74 DOWN		GOOD	NO SERVICES; SMH AT 74';
	AMANDA DRIVE	30-Nov-20		AMA2	PVC	0	132		32 DOWN		GOOD	1ST SERVICE 12' LT; 2ND 64' LT; SMH AT 132'
	AMANDA DRIVE	30-Nov-20		AMA3	PVC	0	188		38 DOWN		GOOD	1ST SERVICE 12 E1, 2ND 04 E1, SWITAT 132 1ST SERVICE AT 41' LT; 2ND 112' LT; 3RD 165' RT; 4TH 179' LT; SMH AT 188'
	AMANDA DRIVE	30-Nov-20		AMA4	PVC	0	115		15 UP		GOOD	1ST SERVICE AT 41 E1, 2ND 112 E1, 3RD 103 R1, 4111 179 E1, 3MH AT 115'
31	VINIUIANY DI/IAF	30-1404-20	VIANY	AIVIA4	1 00	U	113	<u> </u>	13 01	13	3000	1ST SERVICE 9 KT - WIKE HANGING?!, 2ND 69 KT, 3MH AT TTS 1ST SERVICE 12' RT; 2ND 39' LT; 3RD 72' RT; 4TH 122' LT - MAINLINE FLUID BACKS INTO SERVICE; 5TH 140'
32	AMANDA DRIVE	30-Nov-20	AMA6	AMA5	PVC	0	188	18	B8 UP	13	GOOD	RT - ALSO FLUID BACKS UP SERVICE; SMH AT 188'
			1		1						I	

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-									DOWN /			
					PIPE		VIDEO FOO	ΓAGE	UPSTREAM	JOINTS-	PIPE	
#	STREET	DATE	SMH: STA	ART & END	MATERIAL				VIDEO			NOTES
					IVIATERIAL	START	END	NET	DIRECTION	FT	INTEGRITY	
22	AMANDA DRIVE	30-Nov-20) 1117	AMA6	PVC	0	146	1/16	UP	12	GOOD	1ST SERVICE 8' RT; 2ND 61' RT; 3RD 120' RT; 4TH 127' RT; 5TH 138' LT; TERMINAL SMH AT 146
	AMANDA DRIVE	30-Nov-20		AMA4	PVC	0	156		UP		GOOD	1ST SERVICE 6 KI, 2ND 61 KI, 3KD 126 KI, 4TH 127 KI, 5TH 136 EI, TERMINAL SMITAT 146
34	AIVIANDA DITIVL	30-1107-20	INATT	AIVIA4	I VC	0	130	130	Oi	13	GOOD	1ST 49' RT; 2ND 129' RT; 3RD 143' LT; 4TH 197' RT; 5TH 210' LT; 6TH 232' LT; 7TH 238' LT; TERMINSL SMH
35	AMANDA DRIVE	1-Dec-20	ΜΔD1	AMA6	PVC	0	248	248	LID	13	GOOD	248' NEEDS CLEANING
33	AIVIANDA DITIVE	1-000-20	IVIADI	AIVIAU	1 00	0	240	240	Oi	13	0000	1ST SERVICE 44' RT; 2ND 95' LT; 3RD 106' RT; 4TH 162' LT; 5TH 166 RT; 6TH 203 RT; 7TH 207' LT; 2MH AT
36	BERKLEY DRIVE	1-Dec-20	RFR3	BER2	PVC	0	222	222	UP	13	GOOD	222'
	BERKLEY DRIVE	1-Dec-20			PVC	0		171			GOOD	1ST SERVICE 33' LT; 2ND 53' RT; 3RD 115' LT; 4TH 125' RT; SMH AT 171'
	BERKLEY DRIVE	1-Dec-20		BER1	PVC	0	223	223			GOOD	1ST SERVICE 19' RT; SMH AT 223' - NEEDS CLEANING
	BERKLEY DRIVE	1-Dec-20			PVC	0	64		UP		GOOD	1ST SERVICE 28' LT; 2ND 58' LT; SMH AT 64';
	BERKLEY DRIVE	1-Dec-20		_	PVC	0	96		UP		GOOD	1ST SERVICE 43' LT; 2ND 47' RT; 3RD 90' LT; SMH 96'
	BERKLEY DRIVE	1-Dec-20		_	PVC	0	95		UP		GOOD	1ST SERVICE 48'; 2ND 87' LT; 3RD 89' RT; 4TH 90' LT; SMH AT 95' - NEEDS CLEANING
	DERRY LANE	9-Dec-20		WEB34		6.3				?	?	VERY POOR FLASHING VIDEO; END CAPPED AT 304'??!!
	FOREST ROAD	18-Nov-20			ACP	0			DOWN	10	GOOD	170' FLUID LEVEL HIGHER THAN CAMERA; VIDEO ENDS AT 198' - NO SMH
	FOREST ROAD	18-Nov-20		FORX1-12 I	-	0			DOWN		GOOD	SMH AT 196'; NO SERVICES
	FOREST ROAD	18-Nov-20			ACP	0	336		UP		GOOD	1ST SERVICE 89' RT; 2ND 143' LT; 3RD 277' RT; SMH - 336'
	FOREST ROAD	18-Nov-20			ACP	0			VERY LOW		GOOD	1ST SERVICE 43' LT; SMH AT 103'
	FOREST ROAD	18-Nov-20			ACP	0	127	127			GOOD	1ST SERVICE 35' RT; 2ND 58' LT; SMH AT 127'
												PROBLEM STARTING - DUE TO GREASE; 1ST SERVICE 65' RT; MUCH LESS GREASE PAST 65'; 2ND 148' LT;
48	FOREST ROAD	18-Nov-20	FOR9	FOR8	ACP	0	160	160	UP	10	GOOD	3RD 157'- SEVERE GREASE BUILDUP; TOO MUCH SOLIDS TO PROGRESS - NEEDS CLEANING
49	FOREST ROAD	18-Nov-20	FORX1	SLD4	ACP	0	222	222	DOWN	10	GOOD	SMH AT 222'; NO SERVICES
												PIPE FLUID AT SPRINGLINE ENTIRE VIDEO LENGTH; 1ST SERVICE 2' RT; 2ND 71' TOP CHIMNEY; 3RD 114' TOI
50	GRAND AVE	23-Mar-21	1 CE43	CE41	ACP	0	114	114	UP	13	GOOD	CHIMNEY FLOWING WELL; END OF VIDEO
												1ST SERVICE AT -1.5' (~8' FROM ENTRY); 2ND 93' LT; 3RD 135' RT; 4TH AT 255' LT' CAN SEE SMH, BUT
51	GRAND AVE	24-Mar-21	I GRA5	GRA4	ACP	0	256	256	UP	13	GOOD	TOO MUCH SOLIDS TO ADVANCE; VIDEO ENDS ABOUT 10' SHY OF SMH
												1ST SERVICE 1' LT; 2ND 121' RT; 3RD 171' LT - CLEAR WATER FROM SERVICE; 4TH 232' RT; 5TH 246' LT; SMI
52	GRAND AVE	24-Mar-21	HIL2	HIL1	ACP	0	297	297	UP	13	GOOD	AT 297 W/ TWO INT. DROP SERVICES
												1ST SERVICE 13' LT - STREAMING LEAK!; 2ND 60' LT; 3RD 78' RT; SMH AT 294' WITH TWO INT. DROP
53	GRAND AVE	24-Mar-21	HIL3	HIL1	ACP	0	596	596	DOWN	13	GOOD	SERVICES; 1ST 246' RT; 2ND 260' LT; 3RD 549' RT; 4TH 591'RT; SMH AT 596'
												1ST SERVICE 5' RT; 2ND 13' LT; 3RD 160' RT; 4TH 185' LT; 5TH 190' LT - APPEARS CAPPED; SEVERE ROOT
54	GRAND AVE	24-Mar-21	SUM2	NEW1	ACP	0	252	252	UP	13	FAIR	INTRUSION AT 252' END OF VIDEO
												1ST SERVICE 22' LT - STREAMING INFIL. AT CONNECTION; 2ND 69' LT; 3RD 87' RT; 4TH 215' LT; 5TH 258'
55	GRAND AVE	24-Mar-21	SUM3	HIL2	ACP	0	302	302	DOWN	13	GOOD	RT; SMH AT 302' W/ TWO INT. DROP SERVICES
												1ST SERVICE 27' LT; 2ND 82' LT; 3RD 110' RT; 4TH 192' RT; 5TH 270' RT; 6TH 272' RT; TERMINAL SMH AT
	GRAND AVE	24-Mar-21	SUM3	SUM2	ACP	0	278		UP		GOOD	278'
57	GRAND AVE	24-Mar-21	I SUM4	SUM3	ACP	0	332	332	DOWN	13	GOOD	1ST SERVICE 40' RT; 2ND 149' LT; 3RD 198' LT; 4TH 218' RT; 5TH 264' LT; 6TH 287' RT; SMH AT 332'
												1ST SERVICE 39' RT; 2ND 148' LT; 3RD 197 LT; 4TH 217 RT; 5TH 264 LT; 6TH 287' RT; <u>SMH AT 333</u> '; 1ST 356'
												LT - GW LEAK SPRAYING AT SERVICE; 2ND 403' LT; 3RD 421' RT MOD. GREASE; 4TH 548' LT; 5TH 591' RT;
												ANOTHER SMH AT 638' - 2 INT. DROPS; 1ST SERVICE AT 689' RT; 2ND 704' LT GREASE; 3RD 765 RT GREASE
	HILL ST	25-Mar-21		HIL2	ACP	0	817		DOWN		GOOD	4TH 815' LT; 817' END OF VIDEO NOT IN SMH
	HILL ST	25-Mar-21			ACP	817			DOWN		GOOD	CON'T FROM ABOVE; PRIMARILY RETRIEVAL
60	LECLAIR DR	30-Nov-20) LEC1	SHOR3	PVC	0	252	252	UP	13	GOOD	VERY FOGGY VIDEO; NO SERVICES?!; TERMINAL SMH AT 252'

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#	# STREET C		SMH: S	: START & END	PIPE MATERIAL		VIDEO FOOT <i>e</i>		DOWN / UPSTREAM VIDEO	JOINTS- FT	PIPE INTEGRITY	NOTES
					IVII (TEKINE	START	END	NET	DIRECTION	''	INTEGRITI	
												REDUCED LIGHT POWER - 37V; 1ST SERVICE 27' RT; 2ND 34' LT; 3RD 78' LT; 4TH 105 RT; SMH AT 135'; 1ST
	LEXINGTON CT	31-Jan-21		LEX3	PVC	0	260		60 UP		GOOD	180' LT; 2ND 208' LT; 3RD 235' LT; SMH AT 260'
62	LEXINGTON CT	31-Jan-21	LEX1	LEX3-44	PVC	0	126	12	26 UP	13	GOOD	1ST 7' LT; 2ND 21' RT; 3RD 65' LT; SMH AT 126 W/ ONE INT. SERVICE DROP (SET TOO LOW)
42	LEXINGTON CT	3-Dec-20	DLO	DL6	PVC & ACP	0	87	C	B7 UP	12	GOOD	MTRL CHANGES FROM PVC TO ACP AT 62'; BACK TO PVC AT 80'; NO SERVICES; SMH AT 87' - NEEDS CLEANING
03	LEXINGTON CT	3-Det-20	DLO	DLO	PVC & ACP	U	07	C	OF UP	13	GOOD	1ST SERVICE 70' LT; 2ND 85' RT; 3RD 101' LT; 4TH 104' RT; 5TH 157' LT; 6TH 184' RT; 7TH 219' LT; 8TH 246'
64	LEXINGTON CT	3-Dec-20	I FX1	DL7	PVC	0	265	26	DOWN	13	GOOD	RT; CAMERA CAN'T PROGRESS PAST 265', VIDEO ENDS
	LEXINGTON CT	3-Dec-20		LEX1	PVC	0			34 UP		GOOD	1ST SERVICE 12' RT; 2ND 26' RT; 3RD 34' LT; 4TH 77' LT; 5TH 104 RT; SMH AT 134'
66	LEXINGTON CT	3-Dec-20	LEX4	LEX3	PVC	0	122		22 UP	13	GOOD	FOGGY VIDEO LENS; 1ST SERVICE AT 70' LT; 2ND 97' LT; SMH AT 122'
67	LEXINGTON CT	3-Dec-20	LEX5	LEX4	PVC	0	125	12	DOWN	13	GOOD	FOGGY CAMERA LENS; 1ST SERVICE AT 54' RT; 2ND AT 99' LT; SMH AT 125'
												1ST SERVICE 3.6' LT; 2ND 7' RT; 3RD 49' LT; 4TH 56' RT; 5TH 117' RT; 6TH 131 LT; 7TH 145' RT; 8TH 198' RT;
	LEXINGTON CT	3-Dec-20		LEX6	PVC	0	265		55 DOWN		GOOD	9TH 205' LT; 10TH 248 LT; TOP OF DROP AT 265'
	LEXINGTON CT	3-Dec-20		LEX5	PVC	0			36 UP		GOOD	1ST SERVICE AT 91' LT; 2ND 98' RT; 3RD 162' RT; 4TH 169' LT; 5TH 176'RT; SMH AT 186'
	LEXINGTON CT	3-Dec-20		LEXX1	PVC	0			3 UP		GOOD	NO SERVICES ON VIDEO; FLUID LEVEL HIGH, NO END SMH
	PATRICIA DR	19-Nov-20		PAT6	ACP	0			54 DOWN		GOOD	1ST SERVICE 75' TOP; SMH AT 264' 1ST SERVICE AT 17' RT; 2ND 34' LT; 3RD 113' RT; SMH AT 132
	PATRICIA DR	19-Nov-20		PAT5	ACP	0	132	ld	32 DOWN		GOOD	
	PLAZA AVE	22-Nov-20		WEB53	ACP	NA	215	21	15 DOWN		NA	NO EFFECTIVE VIDEO RESULTS 1ST SERVICE 118' RT; SMH 215'
/4	PLAZA AVE	22-Nov-20	PLAT	WEB53_1	ACP	U	213	Z 1	13 DOWN	13	GOOD	1ST SERVICE 116 RT, SIVIN 213 1ST SERVICE 23' RT; 2ND 156' LT; 3RD 210' RT; FLUID HIGH FROM 271 TO SMH AT 281'; ATTEMPT TO
75	PLAZA AVE	22-Nov-20	DI A 2	PLA1	ACP	0	281	28	B1 DOWN	13	GOOD	PROGRESS FAILS;
	PLAZA AVE	22-Nov-20		PLA3	ACP	0			04 UP		GOOD	1ST SERVICE 123' LT; 2ND 191 RT; 3RD 271 LT; SMH AT 304' VIDEO ENDS
70	, I E/LE/C/CVE	22 140 20		1 2710	7101		001		71 01			1ST SERVICE 41' RT; 2ND 135' LT; 3RD 229 RT; 4TH 271' RT; 5TH 285' LT; SOLIDS BUILDUP 285-303'; SMH AT
77	PLAZA AVE	22-Nov-20	PLA5	PLA4	ACP	0	303	30)3 UP		GOOD	303'
78	ST. LAURENT DR	16-Nov-20	FOR1	FOR2	ACP	0	166	16	66 DOWN	10	GOOD	1ST SERVICE 4' RT; 2ND 47' LT; 3RD 120' RT; VIDEO STOPS AT 166' NO SMH
79	ST. LAURENT DR	16-Nov-20	FOR1	FOR2_1	ACP	166	301	13	B5 DOWN	10	GOOD	CON'T - 4TH 203' LT; 5TH 246' RT; SMH AT 301'
	ST. LAURENT DR	16-Nov-20	FOR2	FOR3	ACP	0			B8 DOWN		GOOD	1ST SERVICE 24' LT; 2ND 36' RT; VIDEO STOPS AT 138' NO SMH
	ST. LAURENT DR	16-Nov-20		FOR3_1	ACP	138			33 DOWN	10	GOOD	CON'T - 3RD 140' LT; 4TH 265' LT; VIDEO STOPS AT 271' NO SMH
	ST. LAURENT DR	16-Nov-20		FOR3_2	ACP	271	304		33 DOWN		GOOD	CON'T VIDEO STOPS AT 304' SMH APPEARS FARTHER - MAYBE 315'
	ST. LAURENT DR	16-Nov-20		FOR4	ACP	0			21 UP		GOOD	1ST SERVICE 83' LT; 2ND 125' RT; 3RD 209' LT; 4TH 251' RT; 5TH 294' LT; SMH AT 321'
	ST. LAURENT DR	16-Nov-20		FOR5	ACP	0			32 UP		GOOD	1ST SERVICE 50' RT; 2ND 92' LT; SMH AT 132'
	ST. LAURENT DR	16-Nov-20		SLD9	ACP	0			0 DOWN		GOOD	1ST SERVICE AT 3' LT; 2ND 58' LT; VIDEO ENDS AT 244' NO SMH
	ST. LAURENT DR	16-Nov-20		SLD9_1	ACP ACP	244	287		13 DOWN		GOOD	SMH AT 287'
	ST. LAURENT DR ST. LAURENT DR	16-Nov-20 16-Nov-20		PAT3 PAT3_1	ACP	217			17 UP 71 UP		GOOD GOOD	1ST SERVICE 29' RT; 2ND 152' RT; 3RD 215 LT; CON'T 4TH SERVICE 278' RT; TERMINAL SMH AT 288'
	ST. LAURENT DR	16-Nov-20		FOR1	ACP	0			12 DOWN		GOOD	1ST SERVICE 118' LT; 2ND 140' RT; VIDEO ENDS AT 142' - NO SMH
	ST. LAURENT DR	16-Nov-20		FOR1_1	ACP	186			14 DOWN		GOOD	CON'T BUT MISSING 44 LF; 3RD 254' LT; SMH AT 330'
	ST. LAURENT DR	16-Nov-20		PAT3	ACP	0			72 UP		GOOD	1ST SERVICE 72' LT; VIDEO STOPS AT 79' - SMH PLUGGED ABOUT 5' AHEAD - NEEDS CLEANING
<u> </u>		13.131.20					, _					1ST SERVICE 81' LT; 2ND 101' RT; SIG. SOILDS BUILDUP PAST 202'; VIDEO STOPS AT 228' EST. SMH ANOTHER
92	ST. LAURENT DR	16-Nov-20	SL10	SL9	ACP	10	228	21	I8 UP	10	GOOD	10 ' SEGMENT NEEDS CLEANING
	ST. LAURENT DR	16-Nov-20		SL9_1	ACP	228			0 NA		NA	CAMERA DOES NOT MAKE ANY ADDITIONAL PROGRESS TO ONE ABOVE
94	ST. LAURENT DR	16-Nov-20	SLD1	WEB51	ACP	0	216	21	16 DOWN	13	GOOD	NO SERVICES; SMH AT 216'
95	ST. LAURENT DR	16-Nov-20	SLD2	SLD1	ACP	0	293	29	DOWN	13	GOOD	1ST SERVICE 196' RT; SMH AT 293'

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									DOWN /			
#	STREET	DATE	CVVIII - C	START & END	PIPE		VIDEO FOOTA	GE	DOWN / UPSTREAM	JOINTS-	PIPE	NOTES
#	SIRLLI	DATE	SIVIII. S	START & LIND	MATERIAL	START	END	NET	VIDEO DIRECTION	FT	INTEGRITY	NOTES
96	ST. LAURENT DR	16-Nov-20	SLD3	SLD2	ACP	0	350	35	50 DOWN	13	GOOD	1ST SERVICE 45' LT; 2ND 73' RT - LOOKS UNUSED??; 3RD 168' RT; 4TH 290' TOP CHIMNEY; SMH AT 350'
												1ST SERVICE 54' RT; 2ND 109 LT; GW INFILTRATION BUBBLING INTO SEWER AT JOINT - 136'; 3RD AT 203
97	ST. LAURENT DR	16-Nov-20	SLD4	SLD3	ACP	0	272	27	72 UP	13	POOR	RT; 4TH 218' LT; VIDEO ENDS 272' BUT NO SMH
												351' LAST JOINT BEFORE SMH SHOWS WIDER GAP AT FLUID LEVEL THAN TOP - LAST SECTION IS MUCH
	ST. LAURENT DR	16-Nov-20			ACP	272			35 UP		GAP?	STEEPER; SMH AT 357'
	ST. LAURENT DR	16-Nov-20		SLD4	ACP	0			68 UP		GOOD	1ST SERVICE 81' RT; 2ND 97' LT; VIDEO ENDS AT 168' - NO SMH
100	ST. LAURENT DR	16-Nov-20	SLD5	SLD4_1	ACP	168	223	t	55 UP	13	GOOD	NO SERVICES; SMH AT 223
101	CT I ALIDENT DD	1/ Nov 20	CL D/	CLDE	ACD	0	100	10	20 110	10	COOD	1CT CEDVICE 14LDT - DAC HANCING, OND COLLT, ODD 10FLDT, ATH 1/2LLT, MDFO ENDS AT 100LNO SMILL
	ST. LAURENT DR ST. LAURENT DR	16-Nov-20 16-Nov-20			ACP ACP	190	190 245		90 UP 55 UP		GOOD GOOD	1ST SERVICE 14' RT - RAG HANGING; 2ND 29' LT; 3RD 135' RT; 4TH 163' LT; VIDEO ENDS AT 190' NO SMH NO SERVICES: SMH AT 245'
	ST. LAURENT DR	16-Nov-20		SLD5_1 SLD6	ACP	190			78 UP		GOOD	1ST SERVICE AT 15' RT; 2ND 56' LT; 3RD 122' RT; 4TH 164' LT; VIDEO ENDS AT 178' NO SMH
	ST. LAURENT DR	16-Nov-20			ACP	178			70 UP		GOOD	CONTINUDED; NO SERVICES; CAMERA RELEASED BLOCKAGE; NO SMH AT VIDEO END
	ST. LAURENT DR	16-Nov-20		SLD0_1	ACP	0			39 DOWN		GOOD	1ST SERVICE 21' RT; 2ND 63' LT; 3RD 146' RT; 4TH 189' LT;
	ST. LAURENT DR	16-Nov-20		SLD7_1	ACP	189			0 NA		NA	JUST VIEW OF SMH AT END OF PREVIOUS VIDEO
	ST. LAURENT DR	16-Nov-20		SLD7_1	ACP	0			B4 UP		GOOD	1ST SERVICE 82' RT; NO SMH AT VIDEO END
	ST. LAURENT DR	16-Nov-20			ACP	184			58 UP		GOOD	2ND SERVICE 208' LT; SMH AT 242'
	SCENIC LANE	23-Nov-20			PVC	0			08 DOWN		GOOD	1ST SERVICE 23' LT; 2ND 37' RT; 3RD 136' RT; 4TH 145' LT; 5TH 254' RT; 6TH 261' LT; SMH AT 308
	SCENIC LANE	23-Nov-20			PVC	0			98 DOWN		GOOD	1ST SERVICE 13' LT; 2ND 84' RT; 3RD 148' LT; 4TH 212' RT; SMH AT 298'
	SCENIC LANE	23-Nov-20			PVC	0			56 DOWN		GOOD	1ST SERVICE 110' LT; 2ND 208' RT; SMH AT 256'
	SHORELINE DR	23-Nov-20			PVC	0			B1 DOWN		GOOD	NO SERVICES; SMH AT 81'
	SHORELINE DR	23-Nov-20		SHOR2	PVC	0			54 DOWN		GOOD	1ST SERVICE 115' RT; 2ND 120' LT; SMH AT 154
	SHORELINE DR	23-Nov-20			PVC	0			B3 DOWN		GOOD	MAYBE SHOR 2 TO 3??; 1ST SERVICE 38' RT; 2ND 167' RT; SMH AT 183'
	SHORELINE DR	23-Nov-20			PVC	0			63 DOWN		GOOD	1ST SERVICE 27' RT; 2ND 42' LT; 3RD 154' RT; 4TH 161' LT; SMH AT 263'
	SHORELINE DR	23-Nov-20		SHOR5?	??	0			29 ??		??	MAYBE SHOR5 TO 4??; VERY FOGGY LENS; CANNOT DISCERN PIPE QUALITY
												UPPER END OF SEGMENT NEEDS FLUSHING; 1ST SERVICE 7' LT; 2ND 75' LT; 3RD 186' LT; CAMERA UNDER
117	SHORELINE DR	23-Nov-20	SHOR6	SHOR5	PVC	0	289	28	B9 DOWN	13	GOOD	FLUID LEVEL PAST 163'; VIDEO ENDS AT 289'
	SHORELINE DR	23-Nov-20		SHOR8					0			** SAME VIDEO CONTENT AS ABOVE: SHOR6 TO SHOR5 ??!! **
119	SUNLAND DR	19-Nov-20	PAT5	SUN8	ACP	0	329	32	29 DOWN	13	GOOD	1ST SERVICE 5' RT; 2ND 95' LT; 3RD 137' RT; 4TH 273' LT; SMH AT 329'
120	SUNLAND DR	23-Nov-20	PLA3	PLA2	ACP	0	310	31	10 UP	13	GOOD	TOO FOGGY TO SEE UNTIL 273'; SERVICE AT 291' RT; SMH AT 310'; LEAKING COVER
121	SUNLAND DR	19-Nov-20	SUN1	WEB45	ACP	0	281	28	B1 DOWN	13	GOOD	1ST SERVICE 171' LT; 2ND 190' LT; DROP INTO SMH AT 281'\
122	SUNLAND DR	19-Nov-20	SUN2	SUN1	ACP	0	241	24	41 DOWN	13	GOOD	1ST SERVICE 27' RT; 2ND 175' CHIMNEY; SMH & INTERNAL ELEVATED DROP AT 241'
123	SUNLAND DR	19-Nov-20	SUN3	SUN2-8	ACP	0	307	30	O7 UP	13	GOOD	NO SERVICES; SMH AT 307'
124	SUNLAND DR	19-Nov-20	SUN4	SUN3	ACP	0	298	29	98 UP	13	GOOD	1ST SERVICE 280' RT; 2ND 282' LT; SMH 298'
												1ST SERVICE 17' RT; 2ND 247' RT; 3RD 263' LT; HIGH FLUID LEVEL - BACK & FORTH AFTER 290; NO SMH AT
	SUNLAND DR	19-Nov-20			ACP	0	290		90 DOWN		GOOD	VIDEO END
	SUNLAND DR	19-Nov-20			ACP	298			38 UP		NA	PULL-BACK OPERATION FROM PREVIOUS RUN; NO FURTHER INFORMATION FROM VIDEO
	SUNLAND DR	19-Nov-20		SUN5	ACP	0			DOMN		GOOD	1ST SERVICE 20' RT; 2ND 199' RT; 3RD 202' LT; SMH AT 303'
	SUNLAND DR	19-Nov-20			ACP	0			95 UP		GOOD	CAMERA LENS FOGGED UP UNTIL 240'; 1ST SERVICE 158' LT; 2ND 201 RT; 3rd 283' LT; SMH AT 295'
	SUNLAND DR	19-Nov-20			ACP	0	203		DOWN		GOOD	VIDEO ENDS AT 203' NO SMH
	SUNLAND DR	19-Nov-20			ACP	0			13 UP		GOOD	1ST SERVICE 82' RT; 2ND 138' LT; 3RD 194' RT; 4TH 289' LT; SMH AT 313'
	WESTCHESTER CT	1-Dec-20			PVC	0			23 UP		GOOD	1ST SERVICE 43' RT; 2ND 115' RT; SMH AT 223'
132	WESTCHESTER CT	1-Dec-20	WES1	LEXX2	PVC	0	105	10	DOWN	13	GOOD	NO SERVICES; VIDEO ENDS AT DROP 105'

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#	STREET	DATE	SMH: S	TART & END	PIPE	,	/IDEO FOOTA	GE	DOWN / UPSTREAM	JOINTS-	PIPE	, NOTES
					MATERIAL	START	END	NET	VIDEO DIRECTION	FT FT	INTEGRITY	
133	WESTCHESTER CT	1-Dec-20	WES8	WES7	PVC	0	141	14	41 UP	13	GOOD	1ST SERVICE 40' RT; 2ND 94' LT; 3RD 100' RT; 4TH 115' RT; TERMINAL SMH AT 141' - NEEDS FLUSHING
134	WESTCHESTER CT	1-Dec-20	WES8	WES9	PVC	0	117	1	17 DOWN		GOOD	1ST SERVICE 48' LT; 2ND 53' RT (APPEARS UNUSED); SMH AT 117'
135	WESTCHESTER CT	1-Dec-20	WES9	WES10	PVC	0	125	12	25 DOWN	13	GOOD	1ST SERVICE 6' LT; 2ND 39' RT; 3RD 50' LT; 4TH 116' LT; SMH AT 125'
136	WESTCHESTER CT	1-Dec-20	WES10	WES1	PVC	0	105	1(DOWN	13	GOOD	1ST SERVICE 8' RT; 2ND 45' LT; SMH AT 105'
137	WEBSTER ST	11/16/2021	UNLABEL	_ED	ACP	0	159	15	59 DOWN	13	GOOD	NO SERVICES, SMH AT 159' WITH DROP INLET (LIKELY WEB34-33)
138	WEBSTER ST	11/16/2021	WEB34	WEB33	NA	0	0		0 NA		NA	ONLY VIDEO OF SMH ABOVE WITH DROP INLET
139	WEBSTER ST	11/16/2021	WEB35	WEB34	NA				0 NA	NA	NA	VIDEO CAMERA DOES NOT MOVE OUTSIDE SMH
140	WEBSTER ST	11/16/2021	WEB36	WEB35	ACP	1	167	10	66 UP	13	GOOD	SERVICE 128' RT; SMH AT 167'
141 \	WEBSTER ST	11/16/2021	WEB36	WEB37	ACP	0	269	20	69 UP	13	GOOD	1ST SERVICE AT 14' RT; VIDEO ENDS AT 269' NO SMH
142	WEBSTER ST	11/16/2021	WEB39		ACP	0	279	2	79 UP	13	GOOD	SERVICE AT 112' RT; 2ND AT 169' RT; 3RD AT 185' LT; SMH AT 279'
143	WEBSTER ST	11/16/2021	WEB39	WEB38-1	ACP	0	300	30	00 DOWN	13	GOOD	SERVICE AT 189' LT; SMH AT 300' WITH SMALLER SEWER ON RIGHT SHELF
												VIDEO FROM ANOTHER RUN FOR 2 INITIAL 2 MINUTES; SERVICE AT 198' CHIMNEY; 2ND CHIM SERVICE AT
144	WEBSTER ST	11/16/2021	WEB40	WEB39-1	ACP	0	303	30	03 UP	13	GOOD	227'; 3RD CHIM AT 257'; SMH AT 303'
145		11/16/2021	WEB41		ACP	0	181	18	81 UP		GOOD	CHIM SERVICE AT 39'; SMH AT 181'
146	WEBSTER ST	11/16/2021	WEB41	WEB42	ACP	0	108	10	08 UP	13	GOOD	CHIM SERVICE AT 29'; VIDEO ENDS AT 108, THEN PULLED BACK; NO SMH AT END
	WEBSTER ST	11/17/2021	4		ACP				NA		GOOD	FORWARD CAMERA VIEW IS TOO FOGGY TO SEE; LITTLE REAR VIEW SUGGESTS GOOD PIPE INTEGRITY
	WEBSTER ST	11/17/2021	_		ACP	0	141		41 DOWN		GOOD	NO SERVICES; SMH AT 141'
	WEBSTER ST	11/17/2021	_		ACP	0	95		95		??	MOST OF VIDEO IS TOO FOGGY TO SEE; CHIM SERVICE AT 23'; SMH AT 95'
	WEBSTER ST	11/17/2021		WEB30_1		0	136		36		??	FOGGY BUT VIEWABLE VIDEO; VIDEO ENDS AT 136' WITH "CAN'T PLAY" ERROR
	WEBSTER ST	11/17/2021	_	WEB30_2		0	235		35		??	FOGGY BUT VIEWABLE VIDEO; PASSES THRU SMH AT 93'; SMH AT 205'; 3RD SMH AT 235
	WEBSTER ST	11/17/2021	_		??	0	30		30		??	CAMERA TRACTOR WHEELS CONTINUED TO SLIP
153	WEBSTER ST	11/17/2021	WEB32	WEB31	ACP	0	110	1	10 ??	13	??	FOGGY BUT VIEWABLE VIDEO; SMH AT 110'
												MAJOR SERVICE AT 20' RT; CAMERA UNDER FLUID LEVEL FROM 22'-65'; SMH W/ DROP INFLUENT SEER AT
	WEBSTER ST		_	WEB31_1		0	159		59 DOWN		GOOD	159'
	WEBSTER ST	11/17/2021		WEB31_2		0	265		65 DOWN		GOOD	1ST SERVICE AT 251' RT; TRACTOR WHEELS LOST TRACTION AT 265'; NO SMH AT VIDEO END
	WEBSTER ST	11/17/2021			ACP	0	296		96 UP		GOOD	FOGGY VIDEO; CHIMNEY SERVICE AT 225'; SMH AT 296'; MUCH BETTER VIDEO ON PULL-BACK
	ELM AVE	11/18/2021			ACP	0	268		68 DOWN		GOOD	SERVICE AT 251' LT; SMH W/ DROP INFLUENT AT 268';
	ELM AVE	11/18/2021			ACP	0	118		18 ??		??	FOGGY VIDEO; FLUID AT CAMERA LENS HGT.; SMH AT 118'
	ELM AVE	11/18/2021			ACP	0	194		94 ??		??	FOGGY VIDEO; FLUID AT CAMERA LENS HGT.; SMH AT 194'
	ELM AVE	11/18/2021			ACP	0	182		82 up		??	FOGGY VIDEO; FLUID AT CAMERA LENS HGT.; SMH AT 182'
	ELM AVE	11/18/2021			ACP	0	242		42 ??		??	VERY FOGGY VIDEO; VIDEO ENDS AT 242'; NO SMH AT VIDEO END
	ELM AVE	11/18/2021		_	ACP	0	298		98 ??	13		VERY FOGGY VIDEO; CHIM SERVICE AT 161'; SMH AT 298'
163	ELM AVE	11/22/2021	DE26	ELM10	ACP	0	90	(90 DOWN	13	GOOD	SMH AT 90' WITH INTERIOR SERVICE ON LT
	=1 N 4 A 3 4 / =	44/00/005		E1.5.47	4.00	_ ا	4.5.5	÷ -	00 0000		EAID	SERVICE AT 4' LT; SMH AT 128' WITH ROOT INTRUSION THRU SEGMENTAL CONCRETE BLOCKS; PULL-BACK
164	ELM AVE	11/22/2021	ELM/	ELM6	ACP	0	128	12	28 DOWN		FAIR	READS -725 ??!!
	=1.N.4.A.V.E	44 /00 /005	EL N 40	EL N 42	4.00		150		50 0000		POSS. BAD	FLUID FLOWING FAST; POSSIBLE INVERT OBSTRUCTION / VOID AT 28', 41', 120'; PROFILE OF LAST PIPE
165	ELM AVE	11/22/2021	ELM8	ELM7	ACP	0	152	15	52 DOWN	13	JOINTS	SECTION DIPS; SMH AT 152'
	- I N A A N / F	11/00/005	EL 1 40	EL 1 40	AOD		0.1.1	-	11 001111		0005	ALIGNMENT TURNS IN FIRST PIPE SEGMENT- ODD; SLOPE DIPS SLIGHTLY AT 161' AND 187'; SMH AT 311'
	ELM AVE	11/22/2021			ACP	0	311		11 DOWN		GOOD	WITH INTERNAL DROP
16/	ELM AVE	11/22/2021	ELIVI10	ELM9	ACP	0	182	18	82 DOWN	13	GOOD	SERVICE AT 152' LT; SMH AT 182'

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#	STREET	DATE	SMH: START & E	ND PIPE		VIDEO FOOT	AGE	DOWN / UPSTREAM	JOINTS-	PIPE	NOTES
"	JIKELI	DATE	31VIII. 317 IKT & E	MATERIAL	START	END	NET	VIDEO DIRECTION	FT	INTEGRITY	
1/0/		11/00/0001	LINII ADELED	D) (O		20.4	20.4	LID	10	0000	SERVICE AT 53' LT; 2ND AT 68' RT; 3RD 203' LT; 4TH AT 221 RT; 5TH AT 264' LT; 6TH AT 268' RT; SMH AT
	CAMPBELLO ST		UNLABELED	PVC	0	294		UP		GOOD	294' - NEEDS FLUSHING
	CAMPBELLO ST	11/29/2021		PVC	0	282		UP		GOOD	SMH AT 282'
	CAMPBELLO ST	11/29/2021		PVC	0	164		DOWN		GOOD	SMH AT 164'
	CAMPBELLO ST	11/29/2021		PVC PVC	0	246		P ?? B DOWN		GOOD	FOGGY VIDEO; SMH AT 246' SMH AT 228'
	CAMPBELLO ST CAMPBELLO ST	11/29/2021 11/30/2021		ACP	0	228 45		5 UP		GOOD GOOD	SMH AT 45'
	CAMPBELLO ST	11/30/2021		ACP	0	157		DOWN		GOOD	SMH AT 157'
	CAMPBELLO ST	11/30/2021		ACP	1	234		B UP		GOOD	SERVICE AT 227' WITH GREASE BUILDUP; SMH AT 234'
	CAMPBELLO ST	12/7/2021		ACP	1	367		DOWN		GOOD	SMH AT 367'
	CAMPBELLO ST	12/7/2021		ACP	0			B DOWN		NA	FALSE START
	CAMPBELLO ST	12/7/2021			0	121		DOWN		GOOD	SMH AT 121'
	CAMPBELLO ST	12/7/2021		ACP	0	244		DOWN		GOOD	SMH AT 244'
	CAMPBELLO ST	12/6/2021		PVC	0			??	13	??	CAMERA CAN'T PROGRESS PAST SOLIDS BUILDUP' LINE NEEDS FLUSHING
	CAMPBELLO ST	12/6/2021			0	275		DOWN	13	GOOD	SMH AT 275'
	FEDERAL ST	11/30/2021			1	115		DOWN		GOOD	CAN SEE SMH ABOUT 15' AHEAD OF VIDEO END, BUT DIDN'T PROGRESS INTO SMH
	FEDERAL ST	11/29/2021		ACP	0		179			GOOD	SMH AT 179'; LOW FLOW
	FEDERAL ST	11/29/2021		ACP	0	139	139			GOOD	NO SMH AT VIDEO END
	FEDERAL ST	11/29/2021		ACP	0			3 ??		GOOD	PVC SECTION WITH SERVICE REPLACED FROM 102-105'; SMH AT 188'
	GARRISON FARM	11/29/2021			0			5 ??		GOOD	LOW FLOW; SMH AT 105'
	GARRISON FARM	11/29/2021		NA		100)		NA	VIDEO DOESN'T LEAVE SMH
	GARRISON FARM	11/29/2021		PVC	0	226	226)		GOOD	VIDEO ENDS AT TERMINAL SMH
	MERRIMACK ST	11/30/2021		ACP	0			DOWN		GOOD	CAMERA TRACTOR COULDN'T PROGRESS PAST 32'
	MERRIMACK ST	12/2/2021		ACP	0	226		DOWN		GOOD	VIDEO ENDS AT DROP INTO SMH AT 226
											PVC PIPE WITH SERVICE INSERTED FROM 208-212'; GAP APPEARS ON LEADING EDGE - NO INFLOW NOTE
191 l	MERRIMACK ST	12/2/2021	MER3 MER2	ACP	0	330	330	UP	13	NOTE	BUT LOOKS SUSPECT; SMH AT 330'
											WIDE JOINT REVEAL; CAMERA STOPPED AT FIRST JOINT AT 42'; TERMINAL UPSTREAM SMH AT 359' -
192 ľ	MERRIMACK ST	12/2/2021	MER4 MER3	ACP	0	359	359	UP	13	GOOD	NEEDS FLUSHING
193	TOLLES ST	12/2/2021	TO1 TO2	ACP	0	167	167	' UP	13	GOOD	WIDE JOINT REVEAL; CAMERA TRACTOR STOPPED BY SOLIDS; NO SMH AT END
194	TOLLES ST	12/2/2021	TO2 TO3	ACP	0	196	196	DOWN	13	GOOD	SMH AT 196'; NO SERVICES
195	TOLLES ST	12/2/2021	TO3 TO4	ACP	0	232	232	DOWN	13	NOTE	PVC PIPE INSERT WITH SERVICE 163-165' - GAP ON LEADING EDGE - NO INFLOW NOTED; SMH AT 232
196	TOLLES ST	12/7/2021	TO4 TO5	ACP	0	241	241	UP	13	GOOD	SMH AT 241'
197	TOLLES ST	12/7/2021	TO5 CAM9	ACP	0	270	270	UP	13	GOOD	SMH AT 270'
198 l	KENYON ST	12/6/2021	KEN1 CAM8	ACP	0	211	211	DOWN	13	GOOD	INLET TO SMH DROP AT 211'
199 k	KENYON ST	12/6/2021	KEN2 KEN1	ACP	0	243	243	DOWN	13	GOOD	SMH AT 243'
200 k	KENYON ST	12/6/2021	KEN3 KEN2	ACP	0	288	288	??	13	GOOD	BLOCKAGE AT 288, BUT CAN SEE SMH ABOUT 295'
201 (GAMBIA ST	12/7/2021	GA1 CAM9	ACP	0	194	194	DOWN	13	GOOD	SMH AT 194'
202 (GAMBIA ST	12/7/2021	GA2 GA1	ACP	0	236	236	DOWN	13	GOOD	SMH AT 236'
203 (GAMBIA ST	12/7/2021	GA3 GA1	PVC	0	69	69	UP	13	GOOD	BLOCKAGE AT 69' - NEEDS FLUSHING; SMH APPEARS TO BE ABOUT 75'
204 \	WENDE DRIVE	12/7/2021		PVC	0		C)			FALSE START
	WENDE DRIVE	12/7/2021		PVC	0	146	146	UP	13	GOOD	FOGGY VIDEO; SMH AT 146'
	WENDE DRIVE	12/7/2021	WEN3 CAM1	PVC	0	111	111	??	13	??	FOGGY VIDEO, SMH AT 111'

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									DOWN /			
					PIPE	'	VIDEO FOOTA	\GE	UPSTREAM	JOINTS-	PIPE	
#	STREET	DATE	SMH: ST	TART & END	MATERIAL				VIDEO	FT	INTEGRITY	, NOTES
					IVIATERIAL	START	END	NET		FI	INTEGRIT	
		10/0/0001		1, , , =, , ,	51.40				DIRECTION			
	WICKFORD LANE	12/9/2021			PVC	0	213		3 DOWN		GOOD	SMH AT 213'
208	WICKFORD LANE	12/9/2021	WCK2	WCK1	PVC	0	122	12	2 UP	13	GOOD	SMH AT 122'; BLOCKAGE IN SMH
209	WEYMOUTH CT	12/7/2021	WEY2	WEY1	PVC	0	300	30	0 DOWN	13	GOOD	FOGGY VIDEO, SMH AT 300'
210	WEYMOUTH CT	12/7/2021	WEY3	WEY2	PVC	0	147	14	7 ??	13	GOOD	FOGGY VIDEO, SMH AT 147'
211	WEYMOUTH CT	12/7/2021	WEY4	WEY3	NA				0 NA		NA	FALSE START
212	WEYMOUTH CT	12/9/2021	WEY1	WEY2	PVC	0	302	30	2 DOWN	13	GOOD	SMH AT 302'
	WEYMOUTH CT	12/9/2021			PVC	0	212		2 DOWN		GOOD	SMH AT 212'; THIS VIDEO IS NOT REVERSE DIRECTION OF ABOVE
	WEYMOUTH CT	12/9/2021		and the second s	PVC	0	143		3 UP		GOOD	SMH AT 143'
	WEYMOUTH CT	12/9/2021			PVC	0	230		0 DOWN		GOOD	SMH AT 230'
213	VVETIVIOUTH CT	12/9/2021	VVET4	VVETS	PVC	U	230	23	DOWN	13	GOOD	SIVITAT 230
216	WEYMOUTH CT	12/9/2021	WEY5	WEY4	PVC	0	60	6	0 DOWN	13	GOOD	SMH AT 60'
217	WEYMOUTH CT	12/9/2021	WEY6	WEY5	PVC	0	150	15	0 DOWN	13	GOOD	SMH AT 150'
	CRICKETFIELD LANE	12/14/2021			PVC				0		NA	VIDEO FORWARD PROGRESS NOT CLEAR
	CRICKETFIELD LANE	12/14/2021			PVC	0	276	27	6 UP	10	GOOD	SMH AT 276'
		12/14/2021			PVC	0	65		5 UP		GOOD	SMH AT 276
						U						
	LAYBRIDGE DR	12/14/2021			PVC	0	130		0 DOWN		GOOD	SMH AT 130'
	LAYBRIDGE DR	12/14/2021			PVC	0	251		1 DOWN		GOOD	SMH AT 251'
	LAYBRIDGE DR	12/14/2021			PVC	0	151		1 UP		GOOD	TERMINAL SMH AT 151' - <u>NEEDS CLEANING</u>
	TAUNTON LANE	12/14/2021	TUT1	LYB3	PVC	0	178	17	8 UP		GOOD	CAMERA TRACTOR CAN'T PULL ANY MORE CABLE; VIDEO ENDS BEFORE SMH
225	??	12/16/2021	UNLABEL	ED	PVC	0	92	9	2 UP	13	GOOD	SMH AT 92'
226	BRACKETT LANE	12/16/2021	BKT1	BKTX1	PVC	0	68	6	8 DOWN	13	GOOD	SMH AT 68'
227	BRACKETT LANE	12/16/2021	BKT2	BKT1	PVC	0	98	9	8 DOWN	13	GOOD	SMH AT 98'
228	BRACKETT LANE	12/16/2021	BKT3	BKT2	PVC	0	135	13	5 UP	13	GOOD	SMH AT 135'
229	BRACKETT LANE	12/16/2021	BKTX1	WEB27	PVC	0	96	9	6 UP	13	GOOD	SMH AT 96'
230		12/16/2021			PVC	0	93		3 UP		GOOD	SMH AT 93'
231		12/16/2021			PVC	0	276		6 DOWN		GOOD	SMH AT 276'
	DOVETON LANE	12/16/2021			PVC	0			2		NA	CAMERA TRACTOR UNABLE TO PROCEED PAST 12'
						0	12					
	DOVETON LANE	12/16/2021			PVC	0	97		7 UP		GOOD	SMH AT 97'
	DOVETON LANE	12/16/2021			PVC	0	154		4 DOWN		GOOD	SMH AT 154'
	DOVETON LANE	12/16/2021			PVC	0	200		0 DOWN		GOOD	SMH AT 200'
	WEBSTER ST	10/26/2021			ACP	0	123		3 DOWN		GOOD	FOGGY LENS; HIGH FLUID LEVEL; VIDEO ENDS BEFORE SMH
237	WEBSTER ST	10/26/2021	WEB44		ACP	0	250	25	0 UP	13		CAMERA SUBMERGED EARLY IN VIDEO; HIGH FLUID LEVEL; VIDEO ENDS BEFORE SMH
238	WEBSTER ST	10/26/2021	WEB45	WEB44	ACP	0	29	2	9 DOWN		??	FLUID HIGHER THAN CAMERA LENS; VIDEO ENDS BEFROE SMH
239	WEBSTER ST	10/26/2021	WEB46	WEB45	ACP	0	231	23	1 DOWN	13	GOOD	SMH AT 231'
240	WEBSTER ST	10/26/2021	WEB46	WEB48	ACP	17	622	60	5 UP	13	GOOD	SMH AT 264'; 2ND SMH AT 565'; VIDEO ENDS AT 622' NO THIRD SMH
												SMH AT 173'; CHIPPED JOINT AT 203'; POSSIBLE LEAKING SERVICE AT 225'; LEAKING JOINT AT 320'; SMH A
241	WEBSTER ST	10/26/2021	WEB50	WEB47	ACP	0			0 DOWN	13	POOR	379'; VIDEO ENDS AT 570' NO 3RD SMH
	WEBSTER ST	10/26/2021		WEB47_1		570	556	-1		1	NA	PARTIAL PULL-BACK OF ABOVE VIDEO
	WEBSTER ST	10/26/2021		-	ACP	0	335		5 DOWN	12	GOOD	SMH AT 197'; VIDEO ENDS AT 335' - NO 2ND SMH
	WEBSTER ST	10/26/2021			ACP	0	1890		O UP		GOOD	SLIGHTLY FOGGY VIDEO; SMH AT 118'; BLOCKAGE AT 189'
277	**EDUILIN UI	10/20/2021	VVLDJ4	VVLDOU	, 101	J	1070	107	01	13	3000	SEIGHTEL LOGGE VIDEO, GIVILLATE LIO, DECOUNCE AL 107
			ı	NFT TOTAL LE	 VIDEOTAPED			45,342.40)			
	WEBSTER TOTAL LF							710				
			AAFDOIFL	TOTALLI				710				I .

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								IDOM/NI /			
# STREET	Γ DATE	SMH- S	START & END	PIPE		VIDEO FOOT	AGE	DOWN / UPSTREAM	JOINTS-	PIPE	NOTES
# STREET	DATE	317111. 3	TAKT & LIND	MATERIAL	START	END	NET	VIDEO DIRECTION	FT	INTEGRITY	
GOOD	COMMEN ⁻	rc .									
FAIR			WERE SUBME	DCED NEED T	ALLED TDAC	TOD					
POOR	SEE NOTES		WERE SUBIVIE	NGLD. NLLD I	ALLEN INAC	TOR					
FOOR	SEE NOTES	DELOW									
******* JUNE 20)22 REVIEW ****	*****	*								
											1ST SERVICE AT 134' RT; 2ND AT 225' LT; SEVERAL JOINTS HAVE WIDE SPACE, BUT NO EVIDENT INFLOW;
245 DAW ST	5/4/2	22 BAK1	DAW2	PVC	3	331	328	DS	13	GOOD	SMH AT 331'
246 DAW ST	5/4/2	22 DAW2	DAW1	PVC	0	158	158	DS	13	GOOD	INITIAL 4' SECTION NOT IN ALIGNMENT; 1ST SERVICE 4' LEFT
247 WEBSTER ST	3/21/2	22 WEB5	WEB4	AC	0	0	0	DS	NA	NA	NO EFFECTIVE MOVEMENT
248 WEBSTER ST	3/21/2	22 WEB39	WEB38	AC	0	278	278	UP	13	GOOD	1ST SERVICE 114' RT; 2ND AT 170' RT; 3RD 187' LT; SMH AT 278' (THIS OPERATOR STOPS AT SERVICES)
											1ST SERVICE AT 202' ON CROWN, NOT CLEAR WHICH SIDE; 2ND AT 231' ALSO NOT CLEAR; 3RD AT 261'
249 WEBSTER ST	3/21/2	22 WEB40	WEB39	AC	0	304	304	UP	13	GOOD	ALSO NOT CLEAR; SMH AT 304'
250 WEBSTER ST	3/21/2	22 WEB41	WEB40	AC	0	183	183	UP	13	GOOD	1ST SERVICE AT 44' IS CROWN CHIMNEY; SMH AT 183'
											1ST SERVICE AT 102' - CHIMNEY; DIP IN PROFILE AT 206' & 226' MAY BE DUE TO HOLE/ PROTRUDING
251 WEBSTER ST	3/21/2	22 WEB43	WEB42	AC	0	264	264	DS	13	ODD	ROCKS IN INVERT??; SMH AT 264'
											** NOT A CONTINUATION - WRONG SMH?? **1ST SERVICE AT 48' - CHIMNEY, OBSTRUCTION OR POSSIBLE
											INVERT HOLE AT 234'; 2ND SERVICE AT 246' - CHIMNEY & DRY; POSSIBLE CRACKED INVERT AT 272'; SMH AT
252 WEBSTER ST	3/21/2	22 WEB43	WEB42_1	AC	0	278	278	DS	13	ODD	<mark>278'</mark>
253 WEBSTER ST	3/21/2	22 WEB44	WEB43	AC	0	299	299	DS	13	GOOD	1ST SERVICE AT 53' LEFT; 2ND AT 163' CHIMNEY; SMH AT 299' WITH DROP
											1ST SERVICE 78' RT; ROCK ROLLING AT 253'; SMH AT 285' WITH MAJORITY OF FLOW FROM EXTERIOR DROP
254 WEBSTER ST	3/21/2	22 WEB45	WEB44	AC	0	285	285	UP	13	GOOD	SEWER
											SMH AT 158' WITH SHORT INTERNAL DROP; NO SERVICES; 2ND VIDEO PROCEEDS UPSTREAM; SMH AT Q57'
255 BIRCH ST	3/22/202	22 BI-1	BI-2	AC	0	158	158	DS	13	GOOD	WITH 2 INFLUENT SEWERS
256 BIRCH ST	3/22/202	22 BI-1	BI-2_1	AC	34	6	-28	DS	13	GOOD	JUST PARTIAL PULL-BACK ON VIDEO; NO USEFUL DATA
257 BIRCH ST	3/22/202	22 BI-2	WX7	??	0	22	22	??		??	NO USEFUL DATA ON VIDEO
											1ST SERVICE - CAPPED AT 87' RT; SMH AT 130' - VIDEO CONTINUES THRU SMH; SERVICE AT 175' LT; 2ND
258 LOWELL ROAD	3/22/202	22 LO9	LO7	AC	0	258	258	UP	13	GOOD	SERVICE AT 191' RT; 2ND SMH AT 258' - MAJOR GREASE BUILDUP; INTERIOR DROP LACKS CHANNEL
											EXTENSIVE GREASE BUILDUP; 1ST SERVICE 171 RT; SMH AT 181; SERVICE AT 278' RT; 2ND SMH AT 387'
											WITH SERVICE ENTERING LT; SERVIC E AT 511' CHIMNEY; 3RD SMH AT 542 WITH DROP SERVICE ON RT;
259 LOWELL ROAD	3/22/202	22 LO14	LO13	AC	10	700	690	DS	13	GOOD	CHIM SERVICE AT 629'; 4TH SMH AT 700' WITH SERVICE ENTERING LEFT; PULL-BACK TO 10'
											SMH AT 274' WITH SERVICES ON BOTH SIDES, FALLEN BRICK ON LEFT; PULL-BACK TO SEE SERVICE 215' LT;
							_				APPARENTLY CREW PULLS CAMERA TO RE-ENTER SEWER IN DS DIRECTION?!; 1ST SERVICE AT 54' LT;
260 LOWELL ROAD				AC	0	274	274			GOOD	SMH AT 123' WITH SERVICE ON LT DISCHARGING GREEN DETERGENT; SERVICE AT 238' LT; SMH AT 294';
261 SAGAMORE PA			SAG3	CLAY	0		253			GOOD	1ST SERVICE AT 27' RT; SMH AT 253'
262 WEBSTER ST		22 WEB48		AC	0		251			GOOD	1ST CHIMNEY SERVICE AT13'; 2ND AT 48'; 3RD AT 90'; GREASE AT 221'; SMH AT 251'
263 WEBSTER ST	3/22/202	22 WEB49	WEB48	AC	1	297	296	UP	13	GOOD	1ST CHIMNEY SERVICE AT 120'; SMH AT 297'

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CTDEET	DATE	SMH: STA	ADT 0 FND	PIPE	,	VIDEO FOOT	LVCE		JOINTS-	PIPE	NOTES
JIKLLI	DATE		ART & EIND	MATERIAL	START	END	NIL I		FT	INTEGRITY	NOTES
											GREASE AT HIGH-FLOWLINE SUGGESTS PIPE FLOWS ALMOST FULL - FROM FARMINGTON DR FORCE-
											MAIN??, BUT ONLY 30% DEPTH AT TIME OF VIDEO; SIGNIFICANT LEAKING PIPE JOINT AT 57'; 1ST SERVICE
WEBSTER ST	3/22/2022	WEB50	WEB49	AC	0	206	206	UP	13	POOR	AT 153 RT; SMH AT 206'
WEBSTER ST	3/22/2022	WEB51	WEB50	NA	0	-2	-2	UP		NA	CAMERA DOESN'T MAKE PROGRESS - NO USEFUL VIDEO
WEBSTER ST	3/22/2022	WEB51	WEB50_1	NA	0	0	0	NA		NA	CAMERA DOESN'T MAKE PROGRESS - NO USEFUL VIDEO
											TRACTOR JAMBED BY ROCK AT 26'; 1ST CHIMNEY SERVICE AT 93'; SMH AT 118'; PULL-BACK PAST ZERO SMH
											INTO NEGATIVE(-) FOOTAGE; CHIMNEY SERVICE AT -72'; SERVICE AT -165' LT; SERVICE AT -179 RT; SMH AT -
WEBSTER ST	3/22/2022	WEB51	WEB50_2	AC	0	118	118	DS	13	GOOD	211; LAUNCHING SMH AT -411'
WEBSTER ST	3/22/2022	WEB52	WEB51	AC	0	213	213	DS	13	GOOD	1ST SERVICE AT 32' RT; 2ND AT 47' LT; CHIMNEY AT 142'; SMH AT 213' WITH SERVICE ON LEFT
WEBSTER ST	3/22/2022	WEB53	WEB52	AC	0	202	202	DS	13	GOOD	1ST SERVICE AT 61' RT; 2ND AT 89' LT; 3RD AT 158 RT; SMH AT 202'
	STREET WEBSTER ST WEBSTER ST WEBSTER ST WEBSTER ST WEBSTER ST WEBSTER ST	WEBSTER ST 3/22/2022 WEBSTER ST 3/22/2022	WEBSTER ST 3/22/2022 WEB50 WEBSTER ST 3/22/2022 WEB51 WEBSTER ST 3/22/2022 WEB51 WEBSTER ST 3/22/2022 WEB51 WEBSTER ST 3/22/2022 WEB52	WEBSTER ST 3/22/2022 WEB50 WEB49 WEBSTER ST 3/22/2022 WEB51 WEB50 WEBSTER ST 3/22/2022 WEB51 WEB50_1 WEBSTER ST 3/22/2022 WEB51 WEB50_2 WEBSTER ST 3/22/2022 WEB52 WEB51	STREET DATE SMH: START & END MATERIAL WEBSTER ST 3/22/2022 WEB50 WEB49 AC WEBSTER ST 3/22/2022 WEB51 WEB50 NA WEBSTER ST 3/22/2022 WEB51 WEB50_1 NA WEBSTER ST 3/22/2022 WEB51 WEB50_2 AC WEBSTER ST 3/22/2022 WEB52 WEB51 AC	STREET DATE SMH: START & END PIPE MATERIAL WEBSTER ST 3/22/2022 WEB50 WEB49 AC 0 WEBSTER ST 3/22/2022 WEB51 WEB50 NA 0 WEBSTER ST 3/22/2022 WEB51 WEB50_1 NA 0 WEBSTER ST 3/22/2022 WEB51 WEB50_2 AC 0 WEBSTER ST 3/22/2022 WEB52 WEB51 AC 0	STREET DATE SMH: START & END MATERIAL START END WEBSTER ST 3/22/2022 WEB50 WEB49 AC 0 206 WEBSTER ST 3/22/2022 WEB51 WEB50 NA 0 -2 WEBSTER ST 3/22/2022 WEB51 WEB50_1 NA 0 0 WEBSTER ST 3/22/2022 WEB51 WEB50_1 NA 0 18 WEBSTER ST 3/22/2022 WEB51 WEB50_2 AC 0 118 WEBSTER ST 3/22/2022 WEB52 WEB51 AC 0 213	NEBSTER ST 3/22/2022 WEB50 WEB49 AC 0 206 20	STREET DATE SMH: START & END PIPE MATERIAL START END NET VIDEO DIRECTION WEBSTER ST 3/22/2022 WEB50 WEB49 AC 0 206 206 UP WEBSTER ST 3/22/2022 WEB51 WEB50 NA 0 -2 -2 UP WEBSTER ST 3/22/2022 WEB51 WEB50_1 NA 0 0 0 NA WEBSTER ST 3/22/2022 WEB51 WEB50_2 AC 0 118 118 DS WEBSTER ST 3/22/2022 WEB52 WEB51 AC 0 213 213 DS	NEBSTER ST 3/22/2022 WEB50 WEB49 AC 0 206 206 UP 13	NEBSTER ST 3/22/2022 WEB50 WEB49 AC 0 206 206 UP 13 POOR