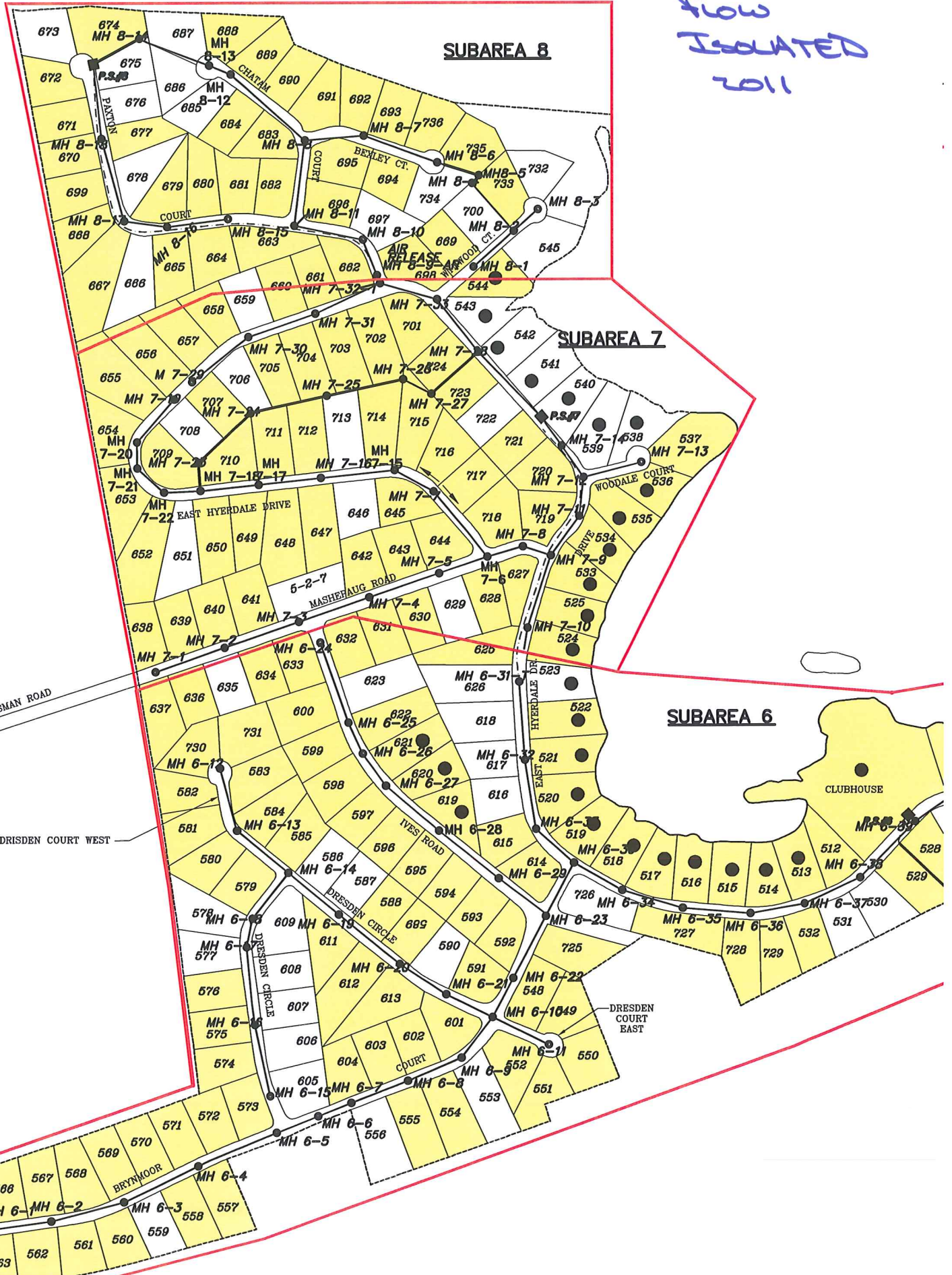


**Attachment 4**  
**Woodridge Lake Sewer District**  
**Flow Isolation and CCTV Investigations 2011**

AREAS  
Flow  
Isolated  
2011




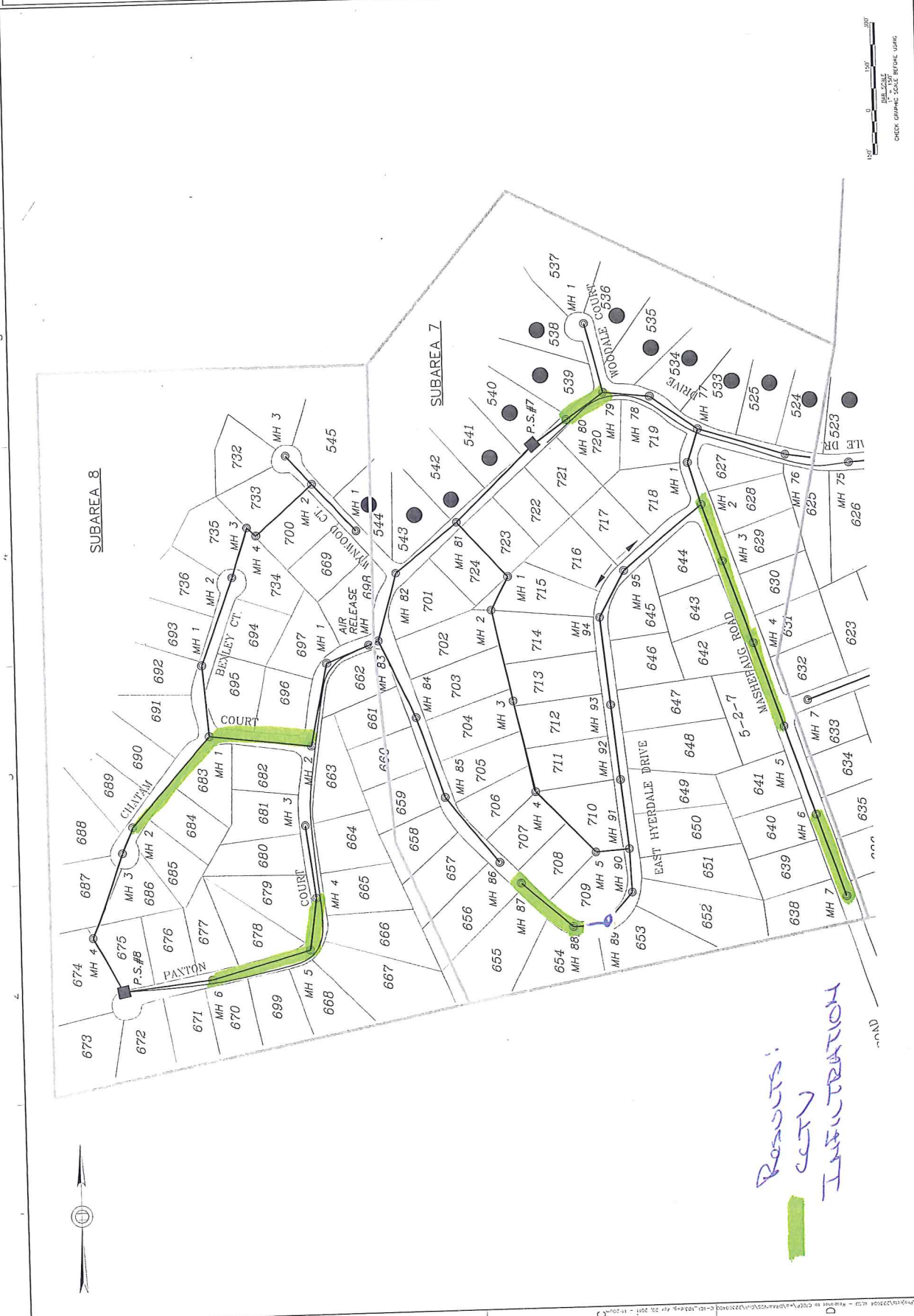
Woodridge Lake Sewer District								
Goshen, CT								
Flow Isolation Results For Determination of CCTV Segments								
Updated By: K.Dietz								
Updated on: 5/16/2011								
Subarea	Location	From MH	MH Depth	TO MH	Pipe Size (in)	Length (ft)	Net Line Flow (GPD)	Net Line Infiltration Rate (GPDIM)
<b>Section 1</b>								
6	East Hyerdale Drive	6-31-T	7'3"	6-32	12	299	720	1060
6	East Hyerdale Drive	6-32	12'10"	6-33	12	304	1440	2084
6	East Hyerdale Drive	6-33	5'8"	6-30	12	200	0	0
6	East Hyerdale Drive	6-30	5'5"	6-34	12	217	360	730
<b>TOTAL:</b>						<b>1020</b>	<b>2520</b>	<b>3874</b>
<b>Section 2</b>								
6	Brynmoor Court	6-1	8'	6-2	8	281	216	507
6	Brynmoor Court	6-2	13'7"	6-3	8	297	720	1,600
6	Brynmoor Court	6-3	17'1"	6-4	8	359	0	0
<b>TOTAL:</b>						<b>937</b>	<b>936</b>	<b>2,107</b>
<b>Section 3</b>								
6	Brynmoor Court	6-4	17'4"	6-5	8	345	0	0
6	Brynmoor Court	6-5	16'	6-6	8	184	0	0
6	Brynmoor Court	6-6		6-7	8	168	0	0
6	Brynmoor Court	6-7	17'1"	6-8	8	232	0	0
6	Brynmoor Court	6-8	16'6"	6-9	8	245	720	1,940
<b>TOTAL:</b>						<b>1,174</b>	<b>720</b>	<b>1,940</b>
<b>Section 4</b>								
6	Dresden Circle	6-15		6-16	8	302	720	1,574
6	Dresden Circle	6-16	9'8"	6-17	8	323	0	0
6	Dresden Circle	6-17	7'8"	6-18	8	120	0	0
6	Dresden Circle	6-18	7'5"	6-14	8	240	0	0
<b>TOTAL:</b>						<b>985</b>	<b>720</b>	<b>1,574</b>
<b>Section 5</b>								
6	Dresden Court West	6-12		6-13	8	258	720	1,842
<b>TOTAL:</b>						<b>258</b>	<b>720</b>	<b>1,842</b>
<b>Section 6</b>								
6	Ives Road	6-24		6-25	8	296	0	0
6	Ives Road	6-25	8'9"	6-26	8	138	1,440	6,887
6	Ives Road	6-26		6-27	8	172	0	0
6	Ives Road	6-27	7'6"	6-28	8	307	0	0
<b>TOTAL:</b>						<b>913</b>	<b>1,440</b>	<b>6,887</b>
<b>Section 7</b>								
7	East Hyerdale Drive	7-32-T	11'	7-33	8		0	0
7	East Hyerdale Drive	7-33		7-28	8	476	360	502
7	East Hyerdale Drive	7-28	7'8"	PS 7	8	361	720	1,316
<b>TOTAL:</b>						<b>837</b>	<b>1,080</b>	<b>1,819</b>
<b>Section 8</b>								
7	East Hyerdale Drive	7-19		7-20	8	252	720	1,886
7	East Hyerdale Drive	7-20	11'9"	7-21	8	144	0	0
7	East Hyerdale Drive	7-21	8'11"	7-22	8	118	360	2,014
7	East Hyerdale Drive	7-22	10'9"	7-18	8	142	0	0
<b>TOTAL:</b>						<b>656</b>	<b>1,080</b>	<b>3,899</b>

Woodridge Lake Sewer District								
Goshen, CT								
Flow Isolation Results For Determination of CCTV Segments								
Updated By: K.Dietz								
Updated on: 5/16/2011								
Subarea	Location	From MH	MH Depth	TO MH	Pipe Size (in)	Length (ft)	Net Line Flow (GPD)	Net Line Infiltration Rate (GPDIM)
<b>Section 9</b>								
7	Mashepaug Road	7-1		7-2	8	338	360	703
7	Mashepaug Road	7-2	7'4"	7-3	8	326	0	0
7	Mashepaug Road	7-3	7'8"	7-4	8	303	0	0
<b>TOTAL:</b>						<b>967</b>	<b>360</b>	<b>703</b>
<b>Section 10</b>								
7	Mashepaug Road	7-4	9'3"	7-5	8	299	720	1,589
7	Mashepaug Road	7-5	10'9"	7-6	8	195	0	0
7	Mashepaug Road	7-6		7-8	8	146	0	0
7	Mashepaug Road	7-8	9'4"	7-9	8	145	0	0
<b>TOTAL:</b>						<b>785</b>	<b>720</b>	<b>1,589</b>
<b>Section 11</b>								
7	Woodale Court to East Hyerdale Drive	7-13		7-12	8	232	0	0
7	East Hyerdale Drive	7-12	23'5"	7-14	8	152	2,160	9,379
<b>TOTAL:</b>						<b>384</b>	<b>2,160</b>	<b>9,379</b>
<b>Section 12</b>								
8	Bexley Court Easement to Bexley Court	8-5		8-6	8	180	0	0
8	Bexley Court	8-6	8'	8-7	8	300	360	792
8	Bexley Court	8-7		8-8	8	264	0	0
<b>TOTAL:</b>						<b>744</b>	<b>360</b>	<b>792</b>
<b>Section 13</b>								
8	Paxton Court 2 to Chatam Court 1	8-11	10'7"	8-8	8	375	360	634
8	Chatam Court	8-8	20'11"	8-12	8	376	0	0
<b>TOTAL:</b>						<b>751</b>	<b>360</b>	<b>634</b>
<b>Section 14</b>								
8	Paxton Court	8-15	7'1"	8-16	8	279	0	0
8	Paxton Court	8-16	13'9"	8-17	8	203	7,200	23,409
8	Paxton Court	8-17	8'8"	8-18	8	328	0	0
<b>TOTAL:</b>						<b>810</b>	<b>7,200</b>	<b>23,409</b>
<b>Section 15</b>								
8	Chatam Court	8-12		8-13	8	101	0	0
8	Chatam Court	8-13		8-14	8	300	360	792
8	Chatam Court	8-14		PS 8	8	200	360	1,188
<b>TOTAL:</b>						<b>601</b>	<b>720</b>	<b>1,980</b>

CCTV Inspections Results<sup>(2)</sup>

6	Brynmoor Court	6-2	6-1	Offset joints, mineral deposits, active infiltration, and cracks in the pipe.	Infiltration	0.75
6	Brynmoor Court	6-2	6-3	Offset joints, mineral deposits, active infiltration, and cracks in the pipe.	Infiltration	1.25
6	Brynmoor Court	6-4	6-3	A lot of dirt in pipe preventing camera from passing. Something possibly protruding into pipe. A piece of 4" elbow PVC pipe stuck in sewer obstructing the flow. Its been in the pipe for a hile because there is a lot of deep standi water in there. TV was able to remove the pipe and flush the entire section again.	Infiltration	0.5
6	Brynmoor Court	6-4	6-5	Something protruding into pipe. Grease deposits throughout pipe. Some infiltration throughout pipe.	Infiltration	0.25
6	Brynmoor Court	6-5	6-6	Huge crack going lateraly, close to joint. Offset joint doesn't looked sealed.	Infiltration	
6	Brynmoor Court	6-7	6-8	Infiltration dripping.	Infiltration	0.5
6	Brynmoor Court	6-8	6-9	Infiltration stains at joints. Something protruding into liner. Leaking at service connection too.	Infiltration	2
6	Dresden Circle	6-16	6-17	HOLE and crack in pipe. Infiltration stains at joints.	Infiltration	1
6	Dresden Circle	6-17	6-18	Something dripping at the top of the pipe close to MH 6-17.	Infiltration	1
6	Dresden Circle	6-18	6-14	Lots of sand and dirt throughout pipe, made it very difficult to CCTV.	Infiltration	0.5
6	Dresden Court West	6-13	6-12	Long cracks, brick/rock protrusion, and plenty of infiltration stains.	Infiltration	3
6	Ives Road	6-25	6-26	Leaky/Hole in pipe. Pipe changes materials, causing an offset and possible infiltration.	Infiltration	1.25
7	East Hyerdale Drive	7-20	7-19	Leaking joints and possible broken pipe	Infiltration	
7	East Hyerdale Drive	7-12	7-14	Large mineral deposit at end of pipe run. Very likely a leak.	Infiltration	
8	Paxton Court	8-16	8-17	Leaking joints and larger leak found. Also found a large mineral deposit taking up the majority of the pipe. The inspector was able to knock off the large chunk of deposit, but it created a large hole in the pipe.	Infiltration	5.25
8	Paxton Court	8-17	8-18	Infiltration stains and drips at the joints.	Infiltration	0.25
8	Chatam Court	8-8	8-11	Roots clogging up entire pipe!	Roots	
8	Chatam Court	8-8	8-12	Crack in pipe (not at joint)	Infiltration	0.5
7	Mashepaug Road	7-2	7-1	Cracks around entire pipe.	Infiltration	
7	Mashepaug Road	7-4	7-3	Lots of grout surrounding and inside service connections	Grout	
7	Mashepaug Road	7-4	7-5	Lots of grout surrounding and inside service connections	Grout	
7	Mashepaug Road	7-6	7-5	Lots of grout surrounding and inside service connections	Grout	
6	East Hyerdale Drive	6-32	6-33	Leaking at joints	Infiltration	0.25
6	East Hyerdale Drive	6-33	6-30	Infiltration at service connections and joints	Infiltration	0.75

 WOODARD & CURRAN COMMITMENT & INTEGRITY DRIVE RESULTS   www.woodardcurran.com	DATE: 04/23/2011 SCALE: AS SHOWN SHEET: 1 OF 2	WOODBRIDGE LAKE SEWER DISTRICT GOSHEN, CT.	C-101
	PROJECT: SUBAREA 7 AND 8		



Results:  
 CTV  
 INFILTRATION

WOODARD & CURRAN  
 COMMENT & INTEGRITY DRIVE RESULTS  
 | www.woodardcurran.com

NO.	REVISION	DATE
1	ISSUED FOR PERMITS	10/26/2011
2	REVISED PER PERMITS	11/23/2011

PORTION OF SUBAREA 6  
 SOUTH OF PUMP STATION 6

WOODBRIDGE LAKE SEWER DISTRICT  
 GOSHEN, CT  
 DATE: APRIL 2011  
 SCALE: AS SHOWN  
 SHEET: 01  
**C-102**




*Results:  
 CUT  
 Full Protection*

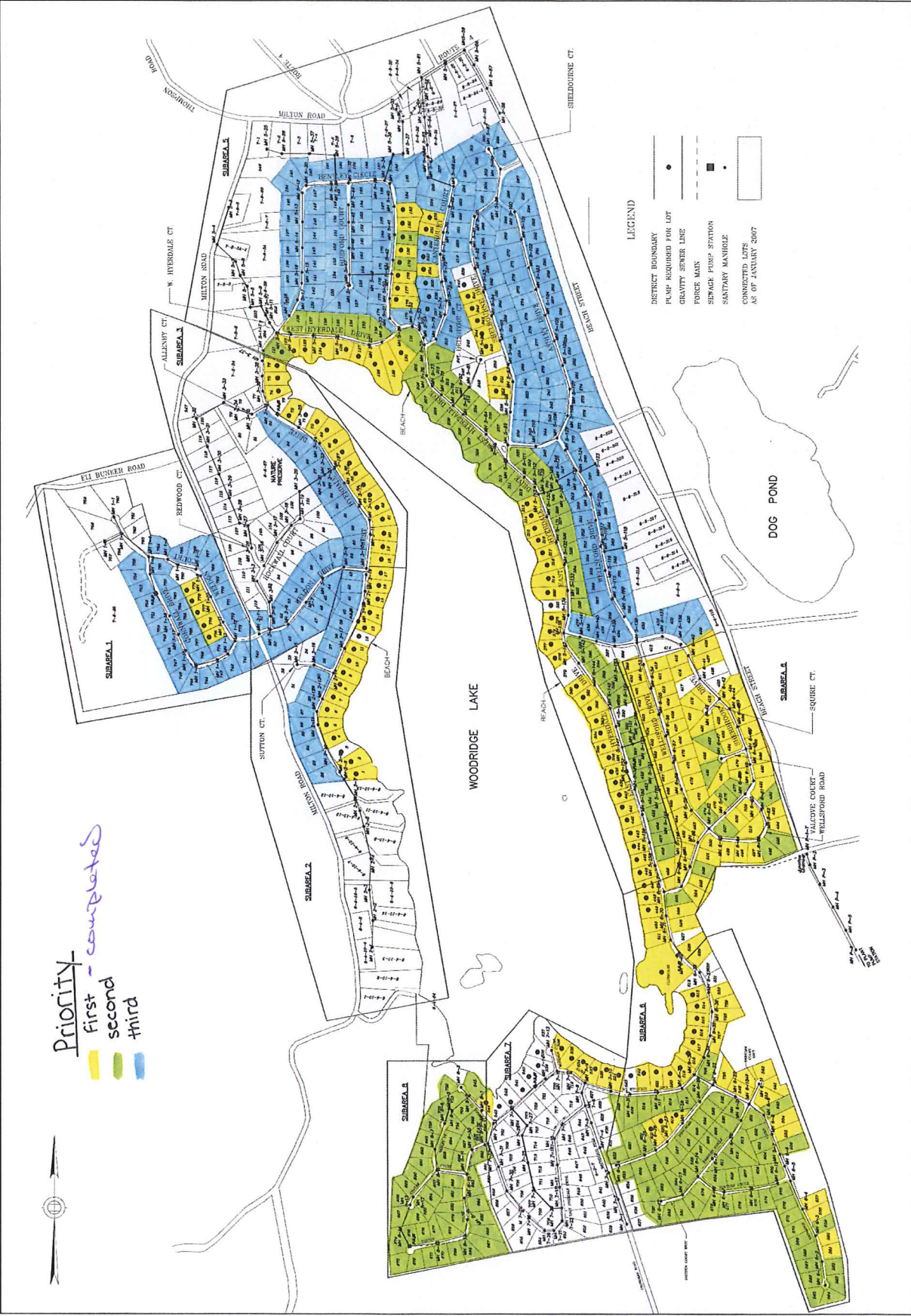
**Attachment 5**  
**Woodridge Lake Sewer District**  
**Building Inspections 2011**



Woodridge Lake Sewer District  
 Infiltration & Inflow Investigation  
 Summary of Work and Findings

Subarea	Street	From MH	To MH	Potential Source
Building	Inspections Results <sup>(1)</sup>			
	6 68 Sherbrook Drive			Sump pump
	5 162 East Hyerdale			Sump pump
	6 143 Wellsford			Sump pump
	6 62 Sherbrook Drive			Cleanout
	6 316 Beach Street			Cleanout
	6 119 Sherbrook Drive			Cleanout
	6 10 Squire Court			Cleanout
	6 68 Sherbrook Drive			Cleanout
	6 94 Sherbrook Drive			Cleanout
	6 107 Sherbrook Drive			Cleanout
	6 12 Valcove Ct.			Cleanout
	6 87 Brynmoor Ct.			Cleanout
	6 10 Dresden Ct.			Cleanout
	6 132 Ives Rd.			Cleanout
	5 6 Shelborne			Cleanout
	5 122 Shelborne			Cleanout
	6 187 Sherbrook			Cleanout
	5 14 Bently			Cleanout
	7 4 Woodale Court			Grinder pump
	2 307 West Hyerdale			Grinder pump
	5 138 East Hyerdale			Grinder pump
	5 59 Canterbury			Grinder pump
	5 38 Bently			Grinder pump
	5 150 East Hyerdale			Grinder pump
	5 208 East Hyerdale			Grinder pump
	5 26 Bently			Grinder pump
	5 257 West Hyerdale			Grinder pump

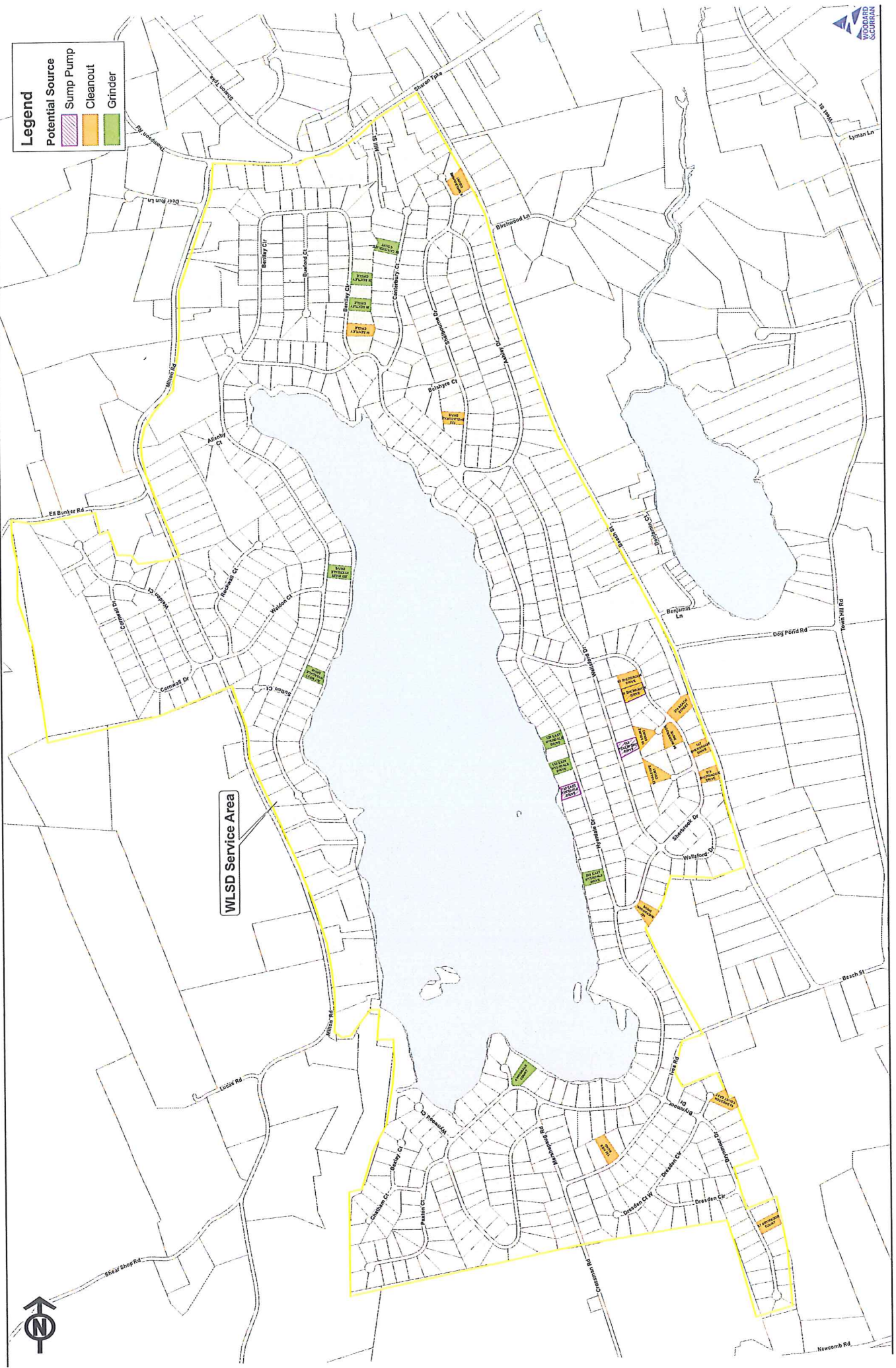
 WOODARD & CURRAN COMMITMENT & INTEGRITY DRIVE RESULTS   www.woodardcurran.com	PROJECT NO. 07-001 SHEET NO. 07-001-01 DATE 07/11/07	<b>WOODRIDGE LAKE SEWER DISTRICT</b> <b>COLLECTION SYSTEM</b>	WOODRIDGE LAKE SEWER DISTRICT 605-HEL, CT. DISTRICT BOUNDARY	FLOW ISOLATION LOCATIONS DISTRICT BOUNDARY	<b>C-103</b>
--	--	--	--	---	--------------



# BUILDING INSPECTION RESULTS

**Legend**

- Potential Source
- Sump Pump
- Cleanout
- Grinder



**Attachment 6**  
**Woodridge Lake Sewer District**  
**Smoke Testing 2011**

Smoke Testing Results

5 Sherbrook Drive	5-138	5-139	Inflow	5-138 HP LINE TO 5-139
5 East Hyerdale ROW	5-153	5-154	Inflow	5-139 HAS 4" PVC DOWNSPOUT IN INVERT 5-138 TO 5-139 POSSIBLE 2.06PM WATER
5 East Hyerdale ROW	5-155	5-152	Inflow	SMH 5-153 LIGHT SMOKE FROM BASE, CORBEL AND SOIL. LOW WET AREA
5 East Hyerdale ROW	5-149	5-150	Inflow	SMH 5-152 CORBEL WEEPING WATER. LOW WET AREA
5 East Hyerdale ROW	5-148	5-149	Inflow	HOUSE # 184 EAST HYERDALE - BROKEN AND LOOSE 4" CLEANOUT COVER - BELOW GRADE
6 Dresden Circle	6-15	6-16	Inflow	SMH 5-148 LIGHT SMOKE AT BASE OF CORBEL AND WATER- LOW WET AREA
6 Dresden Circle	6-16	6-17	Inflow	HOUSE # 88 DRESDEN CIRCLE -SMOKE IN BASEMENT. DRY TRAP WITH SUMP PUMP TO SEWER LINE
3 Redwood Court ROW to Alle 3-26		5-27	Inflow	6-16 LATERAL DOWNSPOUT LYING ON FLOOR HOUSE # 249 MILTON ROAD - OPEN CLEANOUT WITH SLATE ROCK ON TOP. CLEANOUT BELOW GRADE 0.75"

Dye Testing Results<sup>(3)</sup>