May 2018

2017 Smoke Testing Program

Prepared for the

Village of Wilmette, Illinois

Final Report

RJN Project No:
11-3035-01

Prepared by
RJN Group, Inc.
200 W. Front Street
Wheaton, Illinois 60187

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May 29, 2018

Ms. Brigitte Berger-Raish, P.E.
Director of Engineering and Public Works
Village of Wilmette
711 Laramie Avenue
Wilmette, Illinois 60091

SUBJECT: VILLAGE OF WILMETTE – FINAL REPORT
2017 SMOKE TESTING PROGRAM
RJN PROJECT NO: 11-3035-01

Dear Ms. Berger-Raish:

RJN Group, Inc. (RJN) is pleased to submit this summary of recommendations regarding the smoke testing services completed for the Village of Wilmette (Village) as part of their 2017 Sanitary Sewer Evaluation Survey (SSES) program.

PROJECT BACKGROUND

The Village is in the middle of a multi-year effort to identify and mitigate extraneous storm water that inundates the sanitary system, known as Inflow and Infiltration (I/I). As the first step of this program, flow and rainfall monitoring and analysis was completed in 2012 throughout the Village's separate sanitary sewer system, followed by $25 million in capacity, storage, and I/I removal projects between 2013 and the present. As part of the 2017 SSES and included in this report, RJN conducted smoke testing in an area of the Princeton basin (study area) as shown in Exhibit 1 in Appendix A.

Additionally, the Village is subject to the Metropolitan Water Reclamation District of Greater Chicago (MWRD) 2015 Infiltration and Inflow Control Program (IICP) Short Term Requirements, which included the establishment of a High Priority Area to complete a sanitary sewer condition assessment. Investigations and rehabilitation within most of the Village's High Priority Area has been completed in previous years. The remainder of the High Priority Area, bounded by Lake Ave to the south and Hunter Rd to the west, is included in the 2017 SSES to satisfy the MWRD IICP Short Term Requirements.

SMOKE TESTING

Smoke testing is used to detect I/I sources (defects) in the sanitary sewer system. It is a cost-effective method for detecting the existence of private I/I sources, such as downspouts, area drains, cleanouts, and faulty sewer connections, as well as public I/I sources, such as storm to sanitary sewer cross-connections, mainline defects, and manhole defects. Exhibits 2 and 3 in Appendix A highlight the sewer segments smoke tested in the study area.

Public Relations

Because of the conspicuous nature of smoke testing and the possibility of test smoke entering homes and businesses, public notification is very important. Prior to smoke testing, the Village mailed notification letters to residents and businesses. These letters explained the purpose of the smoke testing, ways to avoid getting smoke in the building, and what to do if smoke did get inside a building. Letters were distributed in two phases, about a week apart, to accommodate the large study area and expected influx of resident questions. In addition, RJN field crews distributed door hangers one to four days prior to smoke testing to each property in the study area. The local fire and police departments were informed daily of where and when the crew would be smoke testing. Copies of the letters to residents and the door hanger are shown in Appendix B.

Field Data Collection

Smoke testing consists of placing blowers on the upstream and downstream manholes of a sewer segment and blowing non-toxic smoke into the sewer segment. The smoke used for testing was Superior® Smoke Generator candles.

Smoke testing was conducted between September 25th and October 31st of 2017. The presence of smoke was recorded if it was observed at any of the following locations:

- Manhole (frame seal or pick hole cover)
- Along the sewer mainline
- Along service lateral
- Downspout (underground or disconnected)
- Area drain
- Driveway drain
- Stairwell drain
- Cleanout (missing/broken cap or defective)

- Foundation drain
- Sump pump
- Window well drain
- Possible cross-connection with the storm water conveyance system (storm inlets, catch basins, storm manholes, storm mainline sewer or laterals)

It is important to note that varying soil and ground water conditions can affect the results of smoke testing. Testing was conducted during dry weather to allow for a higher probability of finding defects. Positive findings during the testing clearly indicate the presence of I/I sources. Negative findings, however, may not mean that I/I sources do not exist.

Smoke defects were documented on a mobile data collection device with mapping grade GPS where the crew identified the type of defect, smoke intensity, and location. A photograph of each defect was taken, containing a description of the defect and a link to the segment being smoke tested. Throughout the study area, a total of 668 segments were smoke tested, totaling approximately 133,519 linear feet of sewer. The digital photos of each defect are included on the USB drive delivered with the final copy of this report.

Smoke Testing Results

Smoking Storm Inlet

Smoke testing identified many defects in the study area. These defects are estimated to contribute over 2.6 million gallons per day of I/I flows to the sanitary sewer system, with 65% of total I/I identified resulting from private sector defects. Overall, 878 smoke observations and 18 suspect observations were made. The most significant defects identified in the public sector were from smoking storm inlets and storm manholes. The most significant defects identified in the private sector were underground downspouts and sump pumps. Locations of all observations found during smoke testing are displayed in Exhibits 4 through 14 in Appendix A. A summary of the smoke testing results and the estimated defect flow contribution to the system are shown in Table A and Table B. All defect flow values are estimated for a standard 1-year, 60-minute rain event. The detailed list of all defects identified during smoke testing is presented in Appendix C.

TABLE A
SMOKE TESTING DEFECT SUMMARY

	Smoke Source	Quantity	Est. Unit Flow (gpm)	Est. Total Flow (gpd)
Public	Storm Inlet	186	1.0 to 5.0 [1]	745,920
	Storm Manhole	75	1.0	108,000
	Sanitary Manhole	82	0.5	59,040
	Manhole Cover, Pick Hole	2	1.0	2,880
	Sanitary Mainline	1	1.0	1,440
	Other - Utility Manhole	1	0.5	720
	SUB-TOTAL:	**347**		**918,000**
Private	Downspout, Underground (82 properties)	159	10.0 [2]	1,180,800
	Sump Pump	9	10.0	129,600
	Driveway Drain	8	10.0	115,200
	Foundation Drain	6	10.0	86,400
	Lateral	51	1.0 to 3.0 [3]	82,080
	Private Sanitary Manhole	81	0.5	58,320
	Area Drain	16	1.0	23,040
	Window Well Drain (5 properties)	8	1.0	11,520
	Cleanout, Defective	74	0.1	10,656
	Cleanout, Missing/Broken Cap	69	0.1	9,936
	Downspout, Disconnected (38 properties)	46	0.1	6,624
	Private Sanitary Manhole Cover, Pick Hole	4	1.0	5,760
	SUB-TOTAL:	**531**		**1,719,936**
	TOTAL DEFECTS (PUBLIC + PRIVATE):	**878**		**2,637,936**

1. Storm inlets were assigned a flow rate of 5 gpm if smoke was high or medium and 1 gpm if smoke was low.
2. Flow for underground downspouts is quantified per property.
3. Lateral defects were assigned a flow rate of 3 gpm if smoke was high and 1 gpm if smoke was low or medium.

TABLE B
SUSPECT DEFECT SUMMARY

	Suspect Defect	Quantity
Private	Building Interior	4
	Non-Smoking Vent Stack	14
	TOTAL:	**18**

REHABILITATION RECOMMENDATIONS

The following recommendations for reducing sources of I/I are based on the findings of this study and the MWRD IICP Short Term Requirements. Some of the defects require other SSES methods to refine the rehabilitation recommendations.

The MWRD IICP Short Term Requirements for High Priority Deficiencies (HPDs) fall into two categories:

- 1-Year Requirements
  - Direct/indirect cross-connections: Dyed water flood direct/indirect storm cross-connections within one year of identification.
    - High Priority Deficiencies identified during dyed water flooding will need to be listed on the IICP deficiency list as appropriate.
  - Downspout connections: Disconnect directly connected downspouts and poorly disconnected downspouts within one year of identification.
  - Missing or broken cleanout caps: Replace caps within one year of identification.
- 3-Year Requirements
  - High priority manhole defects based on National Association of Sewer Service Companies (NASSCO) classifications: Rehabilitate within 3 years of identification.
  - High priority mainline defects identified via Closed Circuit Television (CCTV) per NASSCO classifications: Rehabilitate within 3 years of identification.

The defects not identified as High Priority Deficiencies can have their long term follow-up and rehabilitation plan established within the Village's Long Term Operation and Maintenance Program (LTOMP) and Private Sector Program (PSP). The development of these two programs is required by the MWRD IICP.

Public Sector

In the public sector, most of the smoke observations were from storm inlets and storm manholes. One hundred eighty-six (186) storm inlets and seventy-five (75) storm manholes were identified during testing. In most cases, the smoking storm structures indicate indirect cross-connections. An indirect cross-connection is the migration of storm water from a leaking storm water collection system to a nearby defective sanitary sewer system. Cross-connections (even those that are indirect) can potentially contribute large amounts of I/I; however, the magnitude and source of the defect cannot be determined via smoke testing. Based on the storm structure smoke observations, approximately 93% of the public sector I/I is due to cross-connection defects. Cross-connection defects are better identified using a combination of dyed water flooding concurrent with televised sewer inspection. Dyed water flooding can

Smoking Storm Inlet

identify where the cross-connections are occurring (lateral, lateral connection, mainline, or manhole) and the required rehabilitation. It is recommended that the fourteen (14) smoking storm structures, within the Village's High Priority Area, be listed as 1-Year High Priority Deficiencies in the next IICP submittal and noted as currently needing dyed water flooding. Throughout the rest of the study area, an additional one hundred one (101) storm structures exhibited high or medium smoke intensity and are recommended for follow-up dyed water flood set-ups on a case-by-case basis and can be addressed as part of the Village's LTOMP.

Sanitary manholes identified with smoke arising around frame seals and adjustments typically indicate leaks at the joints between the frame and adjustment rings. Out of the eighty-two (82) sanitary manholes that smoked, 48% of the manholes showed low intensity smoke (whips of smoke) which usually indicates disturbances in the seal around the manhole cover resulting from debris such as dirt between the frame and cover, thus are not recommended for follow-up.

The remaining 52% of the manholes (43 structures) smoked at medium to high intensity levels and will require follow-up investigations. We found 23 out of 43 manholes had new chimney seals installed during the 2014-15 manhole rehabilitation project. It is unclear at this time if the smoke was attributed to adjacent lateral defects, mainline defects, or potential problem with rehabilitated chimney seals. The remaining 20 structures with high levels of smoke outside of the 2014-15 rehabilitation are recommended for external chimney seal rehabilitation; 10 of these structures are in the roadway, thus can be incorporated into the Village's roadway improvement program.

Additionally, two (2) sanitary sewer manhole covers with open pick holes were noted during smoke testing. This source of I/I can be eliminated by replacing the defective manhole covers with concealed covers. Removing open pick hole covers is an easy, cost-effective way to reduce inflow in the sanitary system, although the frames may sometimes need replacement to ensure a tight fit. It is recommended that the Village replace the open pick hole covers with concealed covers as part of their annual sanitary sewer maintenance program, as they are considered "easy fix" items.

Smoking Sanitary Mainline

Smoke was observed along the sewer segment 2-49A:2-42 on Schiller Ave at a location that may indicate sanitary mainline defects. The smoke can be a sign of major structural defects, such as pipe fractures or a collapsed pipe. Village GIS data states this segment was lined

in 2006, leading to the possibility that the smoke may be a result of a lateral or lateral connection defect. At a minimum it is recommended that the Village map the laterals on the segment, as the results may show a lateral in the same location as the smoke defect. If no nearby lateral is identified, the smoke defect may be the result of a mainline defect. As follow-up, CCTV inspection and review can be conducted to pinpoint and quantify the size and location of the defect. Follow-up of the smoking mainline defect can be considered as part of the Village's LTOMP.

Private Sector

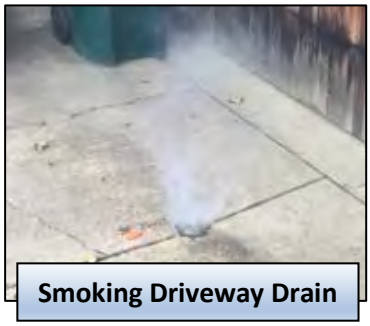
In the private sector, the largest I/I contributors, approximately 69%, were underground downspouts (159) on 82 properties. These are relatively cost-effective to fix. It is recommended that the Village require disconnection of directly connected downspouts and ensure that the old connection to the sanitary sewer is plugged. The downspouts should discharge overland at least five feet from the foundation. The forty-six (46) disconnected downspouts, on thirty-eight (38) properties, that smoked should also be plugged to avoid reconnection. It is recommended that the Village start with the disconnection of the thirteen (13) smoking downspouts, located on eight (8) properties, within the MWRD IICP High Priority Area, as they are required to be listed as 1-Year High Priority Deficiencies on the IICP submittal and rehabilitated within one year.

Underground Downspout

Smoke was observed at nine (9) sump pump locations. Smoking sump pumps will generally require an internal building inspection be conducted to confirm and identify the type of I/I that is entering the system and whether disconnection of the affected sump pump will be cost-effective. Sump pump disconnections may only need a simple reroute of the outflow or may needed complete internal rerouting of building connections. Inspection of sump pump defects can be considered as part of the Village's PSP.

Six (6) foundation drains were identified during smoke testing. Typically, only a small portion of foundation drain connections are identified during smoke testing. This study does not prove the absence or presence of foundation drains at those locations where no smoking foundation drain was identified. Foundation drains are costly to rehabilitate, and are not recommended to be addressed, unless additional flow reduction is needed.

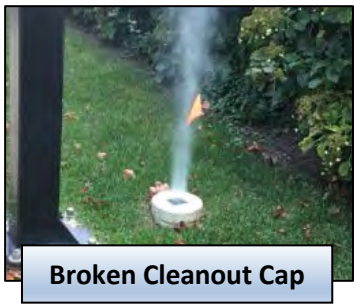
Lateral and driveway drain defects are costly to rehabilitate and should not be considered for rehabilitation at this time. However, the driveway drains should be dye tested to confirm if they are directly connected to the sanitary sewer or if there is an indirect cross-connection. If connectivity is


Smoking Driveway Drain

confirmed, the geometry of the driveway apron should be studied to ensure that there is no potential to drain portions of the roadway in addition to the driveway. When the cost-effective defects have been addressed, the Village may evaluate the rehabilitation of the smoking laterals.

Smoking private sanitary manholes, often indicating a leaky frame seal or leaks at joints between adjustment rings, were identified in eighty-one (81) locations. Additionally, four (4) private sanitary manholes with open pick hole covers were identified. These manholes would require additional inspection to confirm the defects within the manhole and to recommend the best rehabilitation method for repair, if the Village chose to enforce their remediation.

Eight (8) window well drains, on five (5) properties, were identified in the study area. They are not typically a significant source of I/I. Although they can be costly to remove, a simple solution is to install an enclosed window well cover over the well to prevent rain water from entering.


Broken Cleanout Cap

A total of sixty-nine (69) cleanouts with missing or broken caps were identified. While the amount of estimated flow contributed by these defects is relatively low, rehabilitation of these defects is very cost-effective. It is recommended that the Village require installation of a sealed cap on the cleanouts. Defective cleanouts, where the smoke indicates a problem with the cleanout riser or connection to the lateral, are not considered cost-effective to repair and are not recommended for rehabilitation at this time. It is recommended that the Village start with the replacement of the eight (8) broken or missing cleanout caps within the MWRD IICP High Priority Area, as they are required to be listed as 1-Year High Priority Deficiencies on the IICP submittal and rehabilitated within one year.

Suspect defects were four (4) smoking building interiors and fourteen (14) non-smoking vent stacks identified during smoke testing as possible sources of I/I. Smoking building interiors could indicate a defect, such as a sump pump or could more typically be a dry drain trap (not a defect). The properties with smoking building interiors are recommended for future follow-up building inspection. Suspect non-smoking vent stacks could indicate roots or sags in service laterals themselves or in the tributary sanitary mainline, and they would require further investigation to better determine whether they require any type of rehabilitation. The locations with non-smoking vent stacks can be further evaluated during a CCTV program as well as during a pilot lateral televising program.

The Village is not required by the MWRD IICP Short Term Requirements to address private sector defects other than broken or missing cleanout caps (8 identified within the High Priority Area) and directly connected downspouts (13 identified within the High Priority Area). The remaining items within the High Priority Area and throughout the rest of the study area would be addressed under the Private Sector Program (PSP).

Rehabilitation Summary

Table C provides a cost estimate for the rehabilitation of the identified smoke sources of I/I in descending order of cost-effectiveness (measured as an estimate ratio of cost per unit excess flow removed). Items requiring additional follow-up have that recommendation listed. Items that are not considered cost-effective to rehabilitate, as described above, are not included in the cost estimate. The private sector rehabilitation unit costs are the approximate material and labor incurred by the resident. Costs presented should be used for planning and budgetary purposes only.

TABLE C
RECOMMENDED REHABILITATION AND FOLLOW-UP SUMMARY

	Defect	Qty	Rehabilitation/ Recommendation	Time Frame / Priority	Unit Rehab Cost	Total Rehab Cost	Total Estimated I/I (gpd)	Ratio of Cost: Flow ($/gpd)
Public	Manhole Cover, Pick Hole	2	Replace Cover	'18	$400	$800	2,880	0.28
	Sanitary Manhole	20	Install Chimney Seal	LTOMP	$450	$9,000	14,400	0.63
	Sanitary Manhole [1]	23	Manhole Inspection	Other				
	Sanitary Mainline [1]	1	Map Laterals/Televise	Other				
	Storm Inlet [1]	88	Dyed Water Flood	1-YR & LTOMP				
	Storm Manhole [1]	27	Dyed Water Flood					
					SUB-TOTAL:	**$9,800**	**17,280**	
Private	Downspout, Underground (82 properties)	159	Plug & Discharge 5' from house	1-YR & PSP	$150	$23,850	1,180,800	0.02
	Window Well Drain (5 properties)	8	Install Window Well Cover	PSP	$200	$1,600	11,520	0.14
	Cleanout, Missing/ Broken Cap	37	Replace Cap	1-YR & PSP	$50	$1,850	9,936	0.19
	Downspout, Disconnected (38 properties)	46	Plug & Discharge 5' from house	1-YR & PSP	$100	$4,600	6,624	0.69
					SUB-TOTAL:	**$31,900**	**1,208,880**	
				RECOMMENDED REHABILITATION TOTAL:		**$41,700**		

1. Rehabilitation recommendations and costs are dependent on the results of follow-up field investigations.

Recommendations

In summary, the recommended approach for the next steps to be taken by the Village is as follows. The recommendations serve to satisfy the requirements set forth by the MWRD IICP and to further mitigate I/I sources within the Village's sanitary system as part of their multi-year plan.

2018 Recommendations – MWRD High Priority Area

To satisfy the MWRD 1-Year Requirements, which include direct/Indirect cross-connections with the storm sewer, downspout connections, and missing/broken cleanout caps, the following is recommended to be completed within one year for the Village's High Priority Area:

Public Sector

- Perform dyed water flood set-ups that encompass the fourteen (14) storm structures within the MWRD IICP High Priority Area, with concurrent televising of the adjacent sanitary sewer. Preliminary groupings of these structures estimate approximately nine (9) set-ups will be required.

Private Sector

- Address the thirteen (13) downspouts and eight (8) missing/broken cleanout caps within the MWRD IICP High Priority Area. RJN will prepare the initial letters under the current contract.

To satisfy the MWRD 3-Year Requirements, which include high priority manhole and mainline defects based on NASSCO classifications, the following is recommended to be completed by the end of 2019 for the Village's High Priority Area:

Public Sector

- Complete any remaining television inspection and review within the Village's High Priority area and rehabilitate the high priority mainline deficiencies identified through televising and not yet addressed.

2018 Recommendations – Outside the MWRD High Priority Area

Outside the High Priority Area, it is recommended that the Village undertake the following in 2018:

Public Sector

- Replace the sanitary manhole covers with open pick holes with concealed covers.

Private Sector

- Perform follow-up on all additional smoking downspouts and broken/missing cleanout caps, such as enforcing the rehabilitation with the resident or having Village personal rehabilitate.

Beyond 2018 Recommendations for the Long Term Operation and Maintenance Program

As part of the MWRD IICP Short Term Requirements the Village will need to develop the Long-Term Operation and Maintenance Program (LTOMP). As part of the program, the Village can consider addressing the results of the 2017 smoke testing through the following actions:

- Perform follow-up dyed water flood set-ups on the one hundred one (101) storm structures, which smoked at a high or medium smoke intensity, on a case-by-case basis. Preliminary groupings of the smoking storm structures estimate up to sixty-five (65) set-ups will be required, if all storm structures are addressed.
- Install external chimney seals on the twenty (20) manholes, which received no previous adjustment rehabilitation and smoked at medium or high smoke intensity. Ten (10) of the manholes are located in paved areas, and chimney seal installation can be undertaken as part of the Village's road work program.
- Perform smoke testing within the Harms Road Basin.
- Continue to perform sanitary sewer investigations and rehabilitation, past the Short Term Requirements timeline, of 2% of the Village's system per year or 10% over the next five years.

Beyond 2018 Recommendations for the Private Sector Program

As part of the MWRD IICP Short Term Requirements the Village will need to develop the Private Sector Program (PSP). As part of the program, the Village can consider addressing the results of the 2017 smoke testing through the following actions:

- Replace or enforce the placement of enclosed window well covers over smoking window well drains.
- Dye-trace smoking driveway and area drains to determine if they are directly connected to the sanitary sewer or if they are only indirect cross-connections.

Other Considerations

- Perform a pilot lateral televising program on the laterals with defects identified.
- Implement an internal building inspection program to determine storm sump pump and foundation drain connections to the sanitary sewer.
- Conduct a long term flow monitoring program.
- Map the laterals on the smoking mainline sewer and/or televising the sewer to identify if there are any major structural defects needing to be addressed.

- Inspect the twenty-three (23) manholes, which received an internal chimney seal in previous rehabilitation and smoked at medium or high smoke intensity, to determine if the smoke is due to adjacent lateral defects, adjacent mainline defects, or rehabilitation defects.

It has been a pleasure working with the Village of Wilmette on this project. We look forward to continuing to support the Village with collection system solutions. Please contact us if you have any questions or require further clarification.

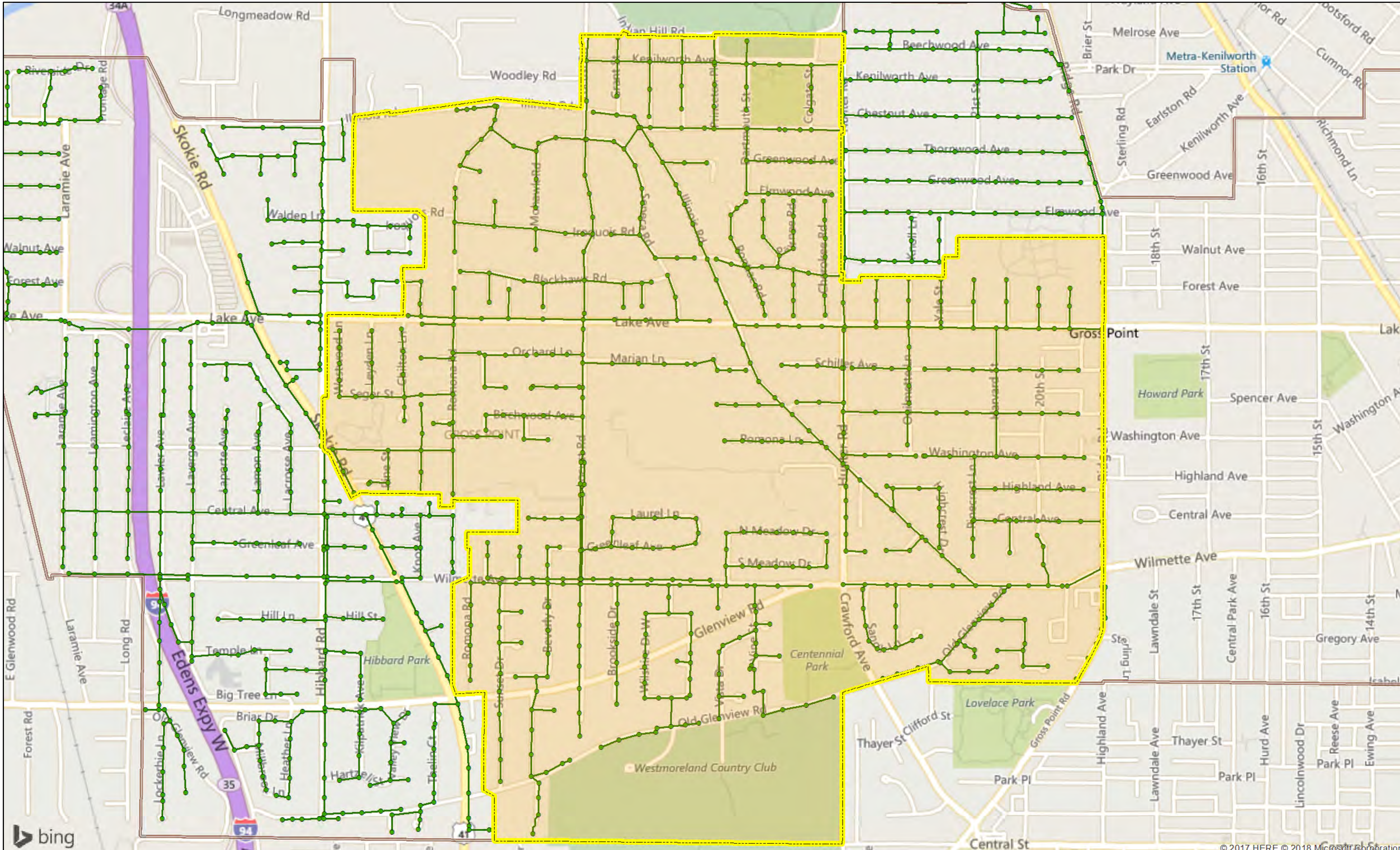
Sincerely,

RJN Group, Inc.

Shilpa Ghia, P.E., PMP
Branch Manager

Marissa Villafuerte
Staff Engineer

APPENDIX A - EXHIBITS



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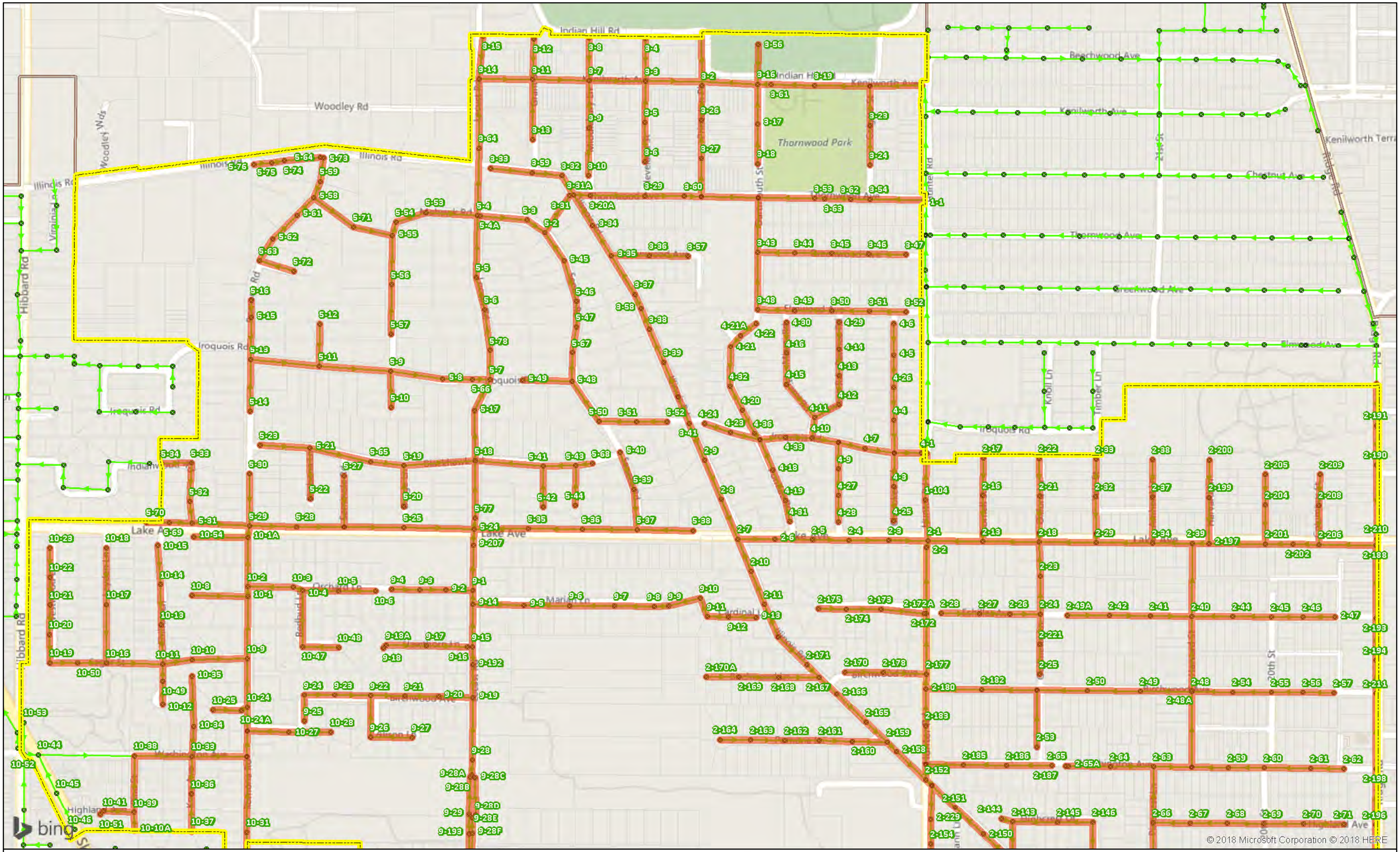
- Sanitary Manholes
- Sanitary Gravity Mains
- Study Area
- Wilmette Boundary

Village of Wilmette, IL
Exhibit 1
Study Area
January 2018



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Standard Manhole
Drop Manhole
Split Manhole
Inverted Siphon
Collector
Inverted Siphon
Smoke Tested Segments
Study Area
Wilmette Boundary

Village of Wilmette, IL
Exhibit 2
Smoke Testing Segments - North
January 2018

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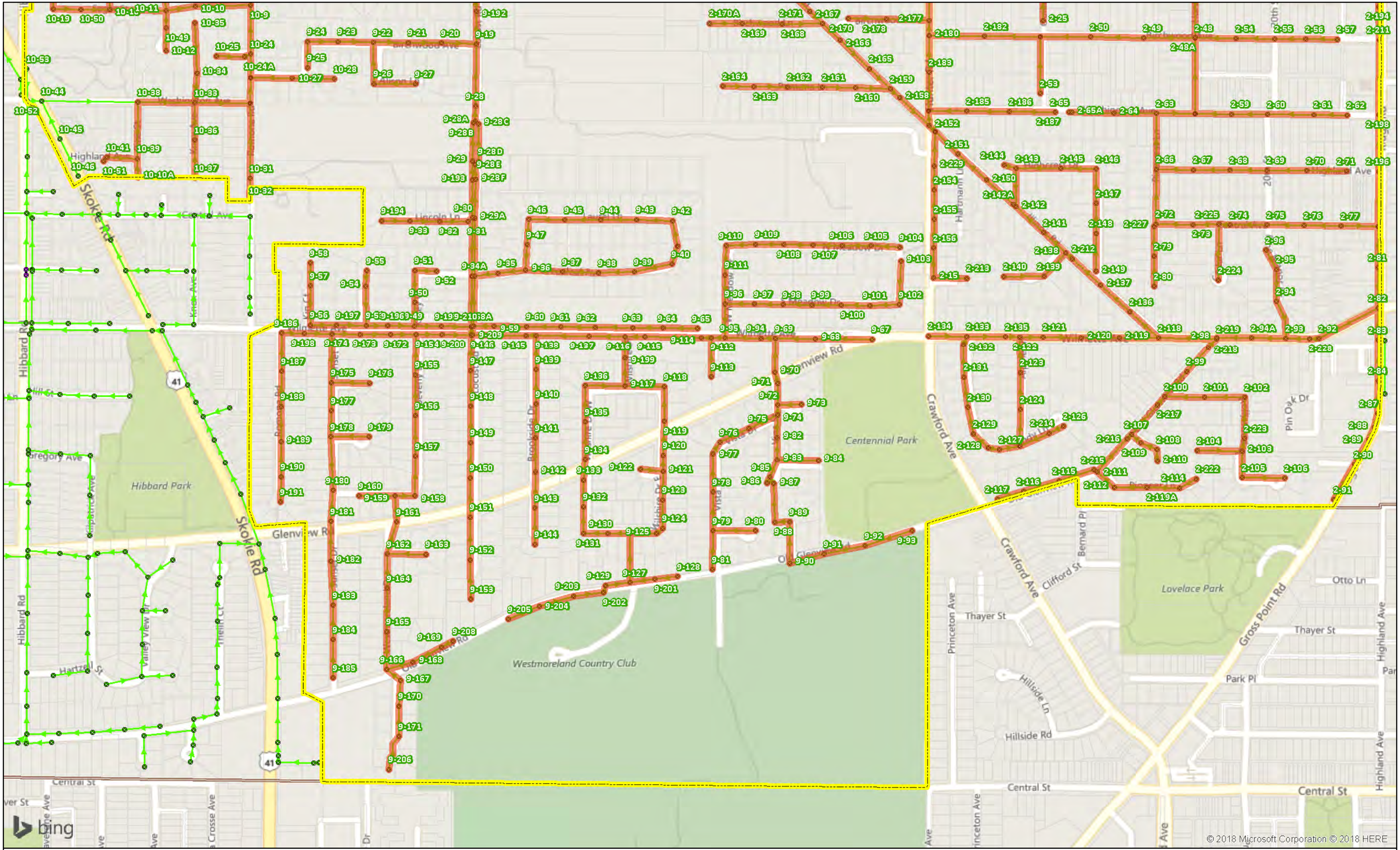

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Standard Manhole
Drop Manhole
Split Manhole
Inverted Siphon
Collector
Inverted Siphon
Smoke Tested Segments
Study Area
Wilmette Boundary

N W E S

Village of Wilmette, IL
Exhibit 3
Smoke Testing Segments - South
January 2018

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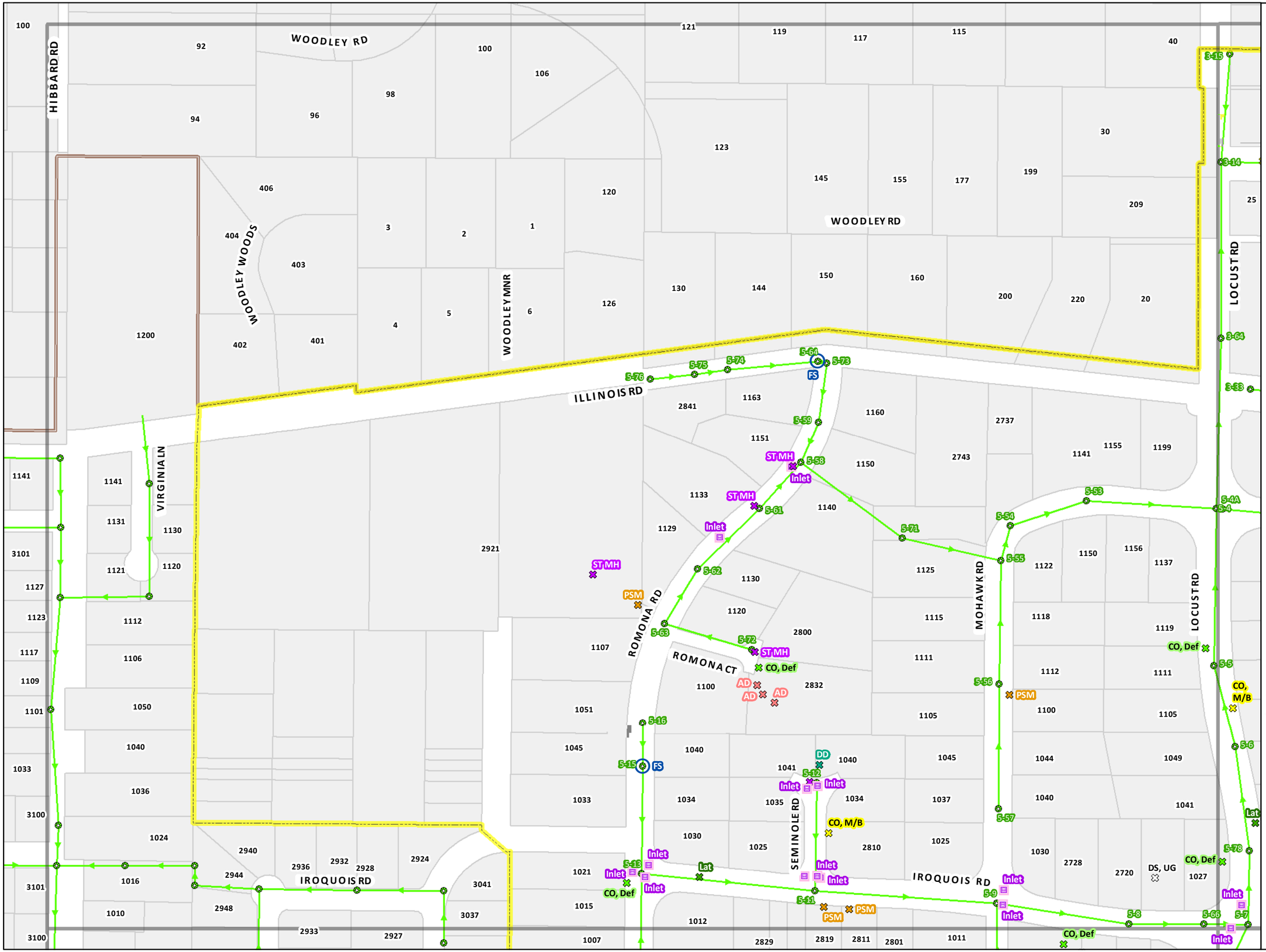

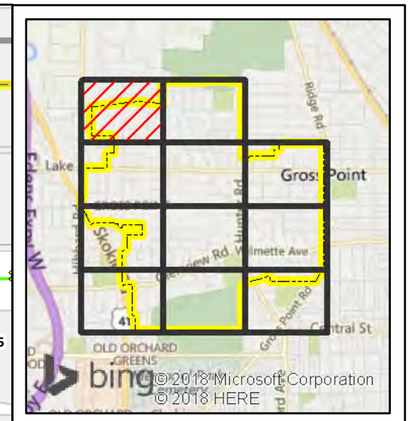

- Downspout Underground (DS, UG)
- Downspout, Disconnected (DS, Dis)
- Non-Smoking Vent Stack (NSVS)
- Window Well Drain (WWD)
- Driveway Drain (DD)
- Area Drain (AD)
- Foundation Drain (FD)
- Building Interior (BI)
- Private Sanitary Manhole (PSM)
- Lateral (Lat)
- Cleanout, Defective (CO, Def)
- Cleanout, Missing/Broken Cap (CO, M/B)
- Sanitary Mainline (Main)
- Sump Pump (SP)
- Storm Manhole (ST MH)
- Storm Inlet (Inlet)
- Other
- Frame Seal (FS)
- Pick Hole (PH)
- New Manhole (NMH)
- Standard Manhole
- Drop Manhole
- Split Manhole
- Inverted Siphon
- Collector
- Inverted Siphon
- Study Area
- Wilmette Boundary

N W E S

0 110 220 440 Feet

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Village of Wilmette, IL
Exhibit 4
Smoke Tested Observations - (1 of 11)
January 2018

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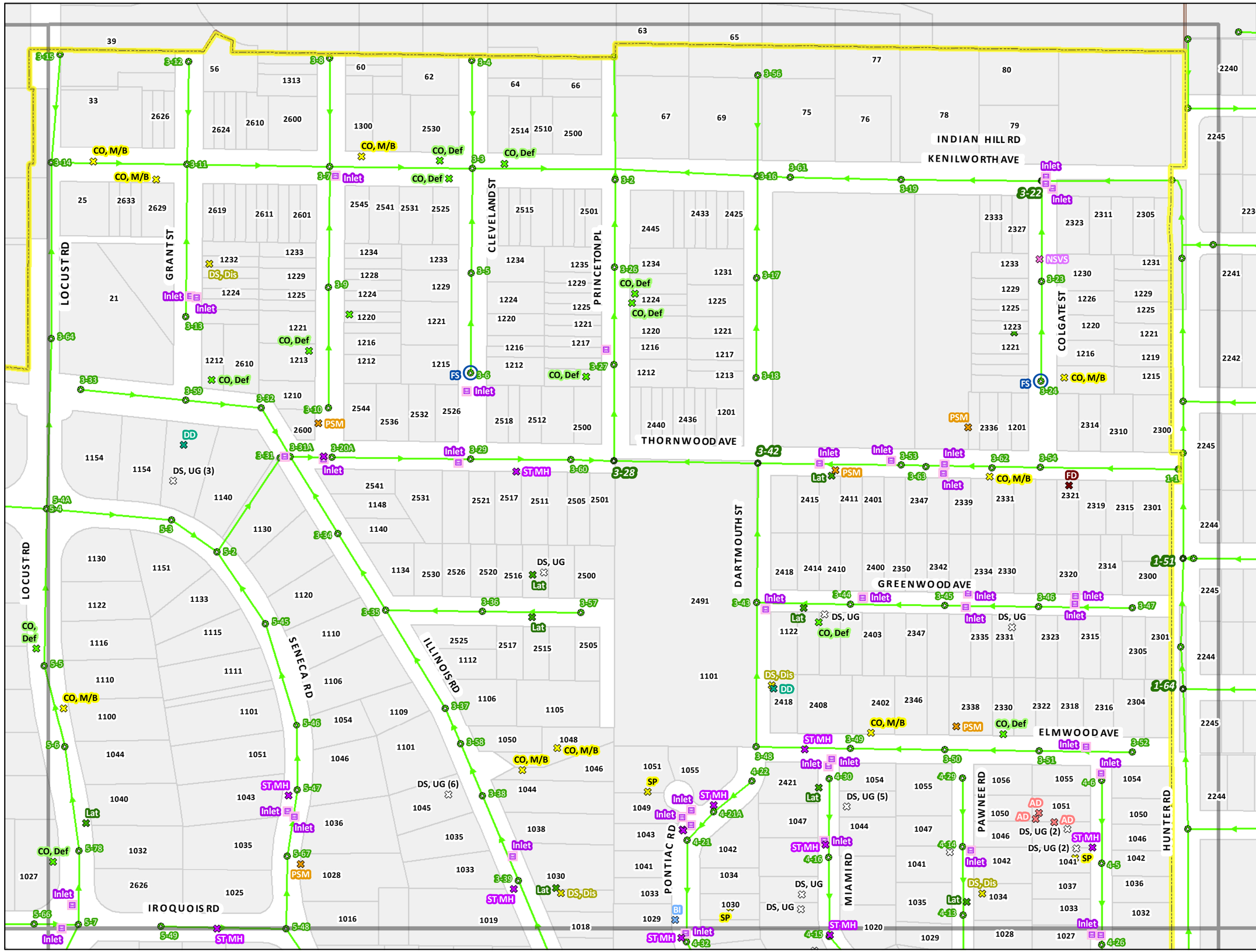

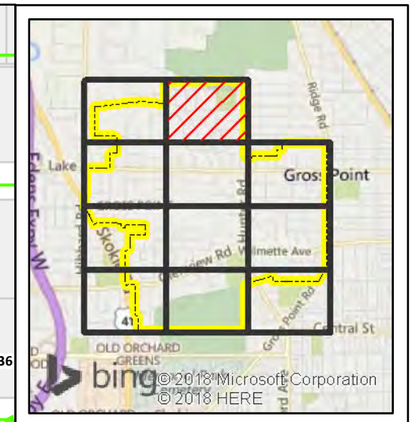

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- Drop Manhole
- Split Manhole
- Inverted Siphon
- Collector
- Inverted Siphon
- Study Area
- Wilmette Boundary

N W E S

0 110 220 440 Feet

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Village of Wilmette, IL
Exhibit 5
Smoke Tested Observations - (2 of 11)
January 2018

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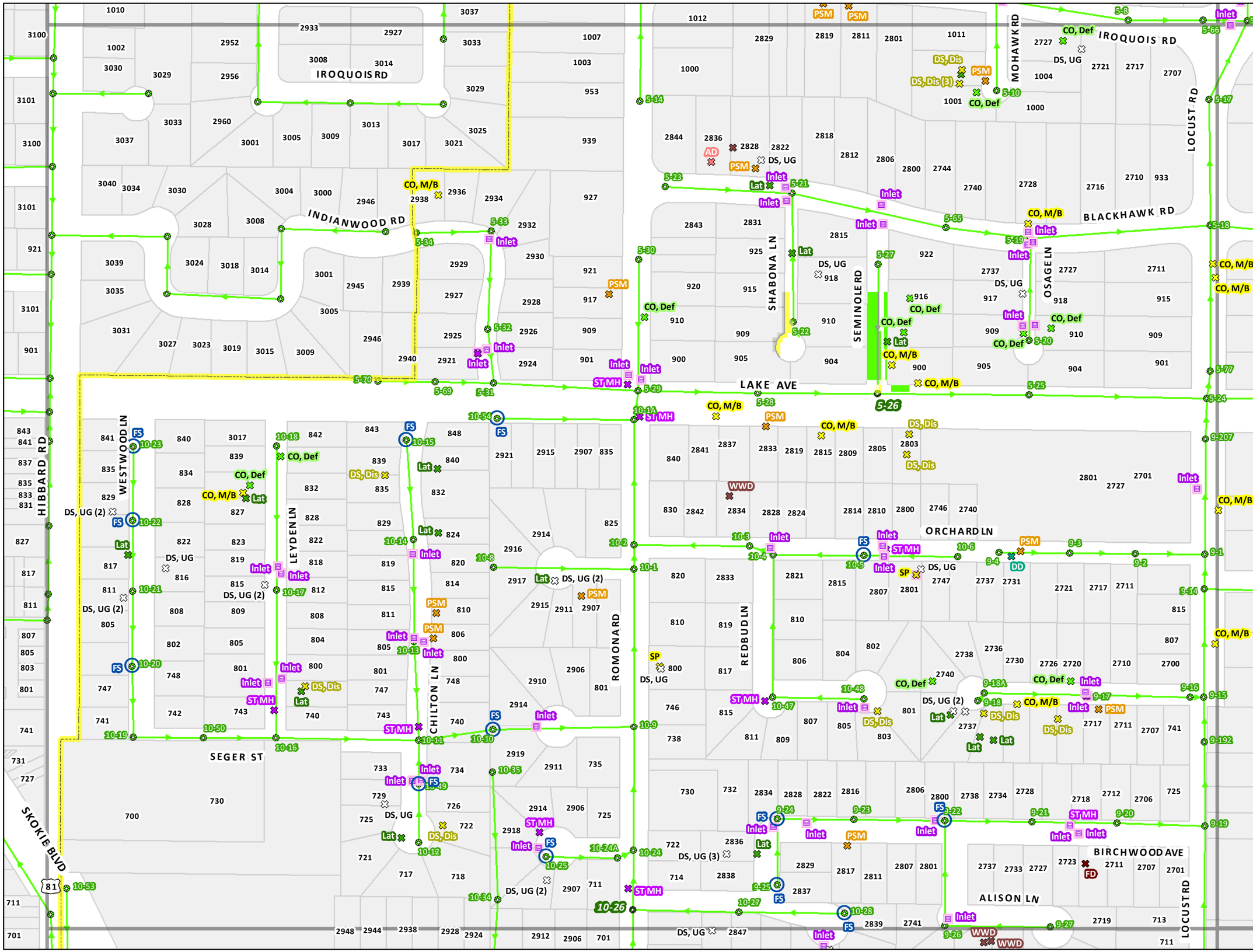

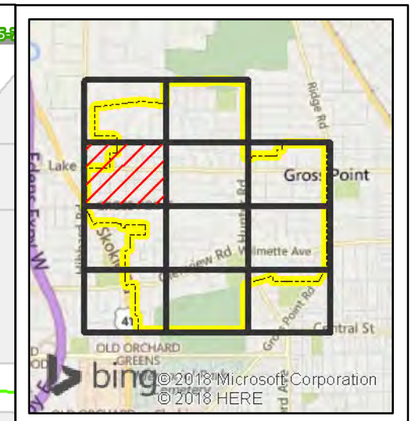

- Downspout Underground (DS, UG)
- Downspout, Disconnected (DS, Dis)
- Non-Smoking Vent Stack (NSVS)
- Window Well Drain (WWD)
- Driveway Drain (DD)
- Area Drain (AD)
- Foundation Drain (FD)
- Building Interior (BI)
- Private Sanitary Manhole (PSM)
- Lateral (Lat)
- Cleanout, Defective (CO, Def)
- Cleanout, Missing/Broken Cap (CO, M/B)
- Sanitary Mainline (Main)
- Sump Pump (SP)
- Storm Manhole (ST MH)
- Storm Inlet (Inlet)
- Other
- Frame Seal (FS)
- Pick Hole (PH)
- New Manhole (NMH)
- Standard Manhole
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- Split Manhole
- Inverted Siphon
- Collector
- Inverted Siphon
- Study Area
- Wilmette Boundary

N W E S

0 110 220 440 Feet

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Village of Wilmette, IL
Exhibit 6
Smoke Tested Observations - (3 of 11)
January 2018

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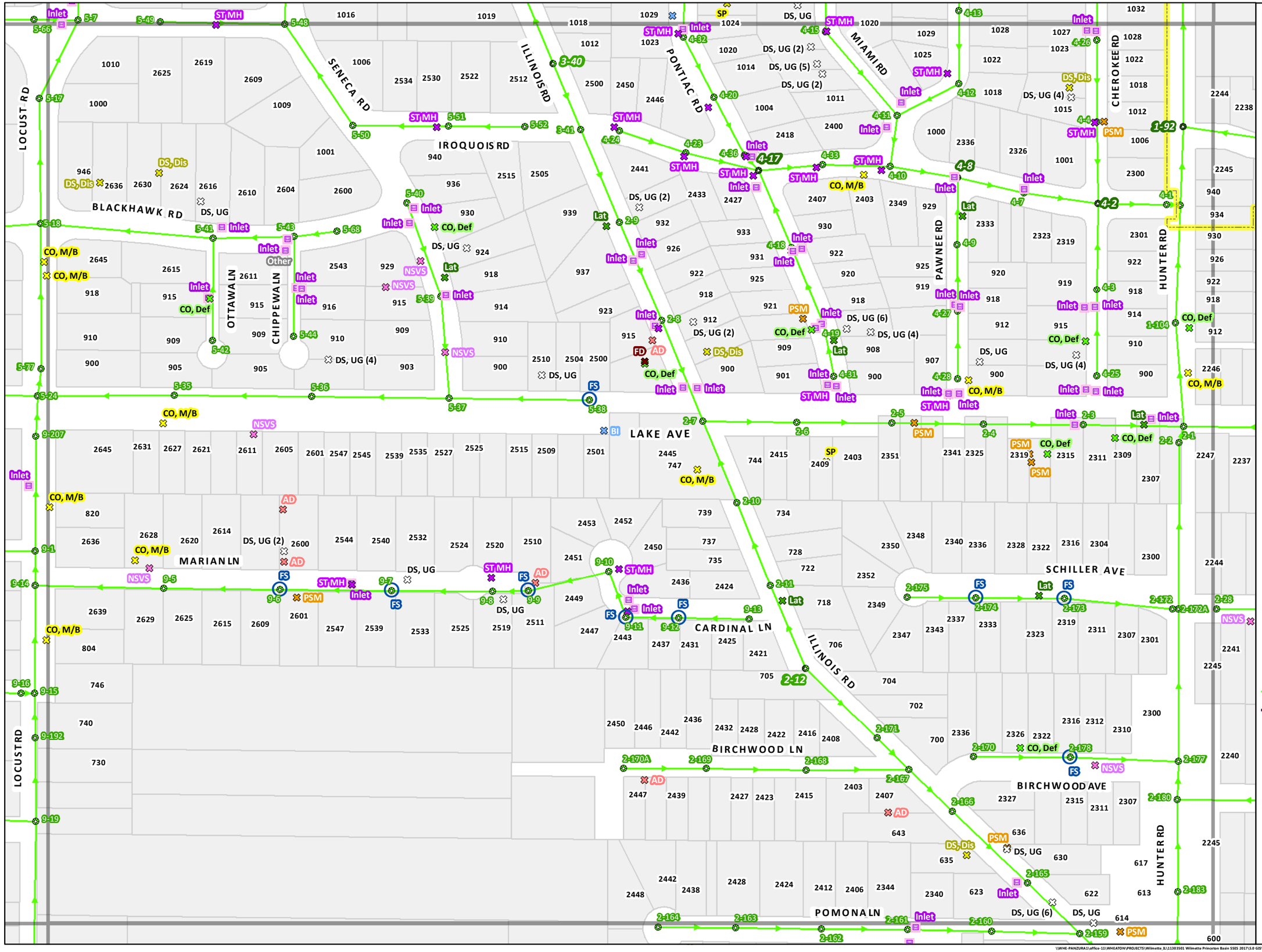

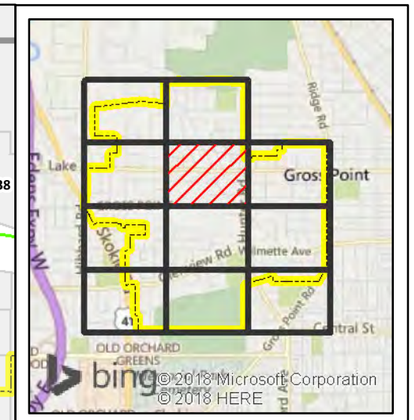

- Downspout Underground (DS, UG)
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- Study Area
- Wilmette Boundary

N W E S

0 110 220 440 Feet

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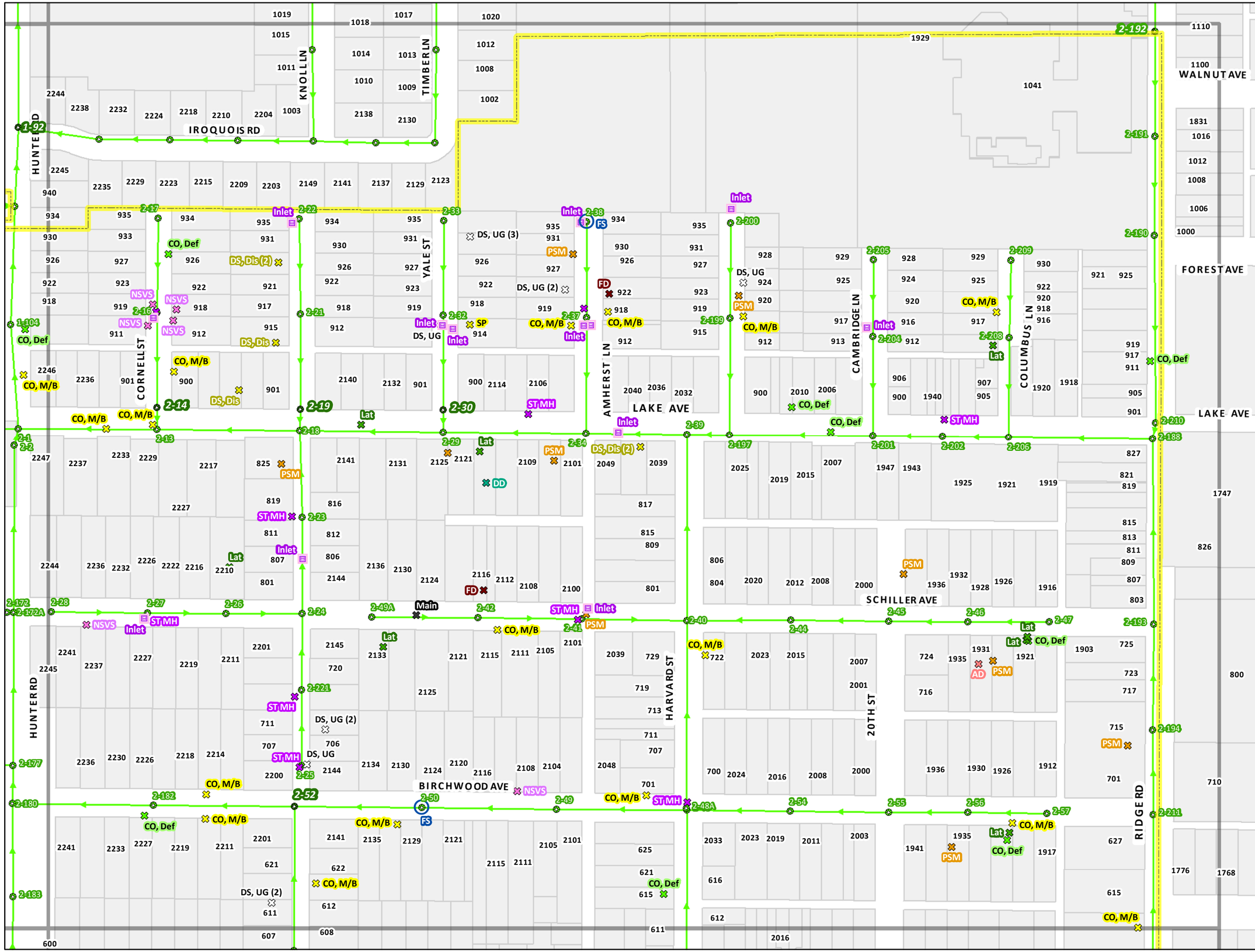
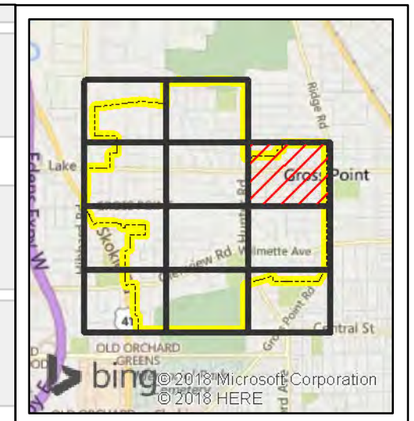
Village of Wilmette, IL
Exhibit 7
Smoke Tested Observations - (4 of 11)
January 2018

\\WHE-PANZURA1\office-11\WHEATON\PROJECTS\Wilmette_IL\11303501 Wilmette Princeton Basin SSES 2017\5.0 GIS\Map Documents\Map Documents - Exhibits\Report Exhibits\Smoke Testing Observations.mxd - Date Printed: 1/22/2018 5:55:04 PM





- Downspout Underground (DS, UG)
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- Study Area
- Wilmette Boundary

N W E S

0 110 220 440 Feet

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Village of Wilmette, IL
Exhibit 8
Smoke Tested Observations - (5 of 11)
January 2018

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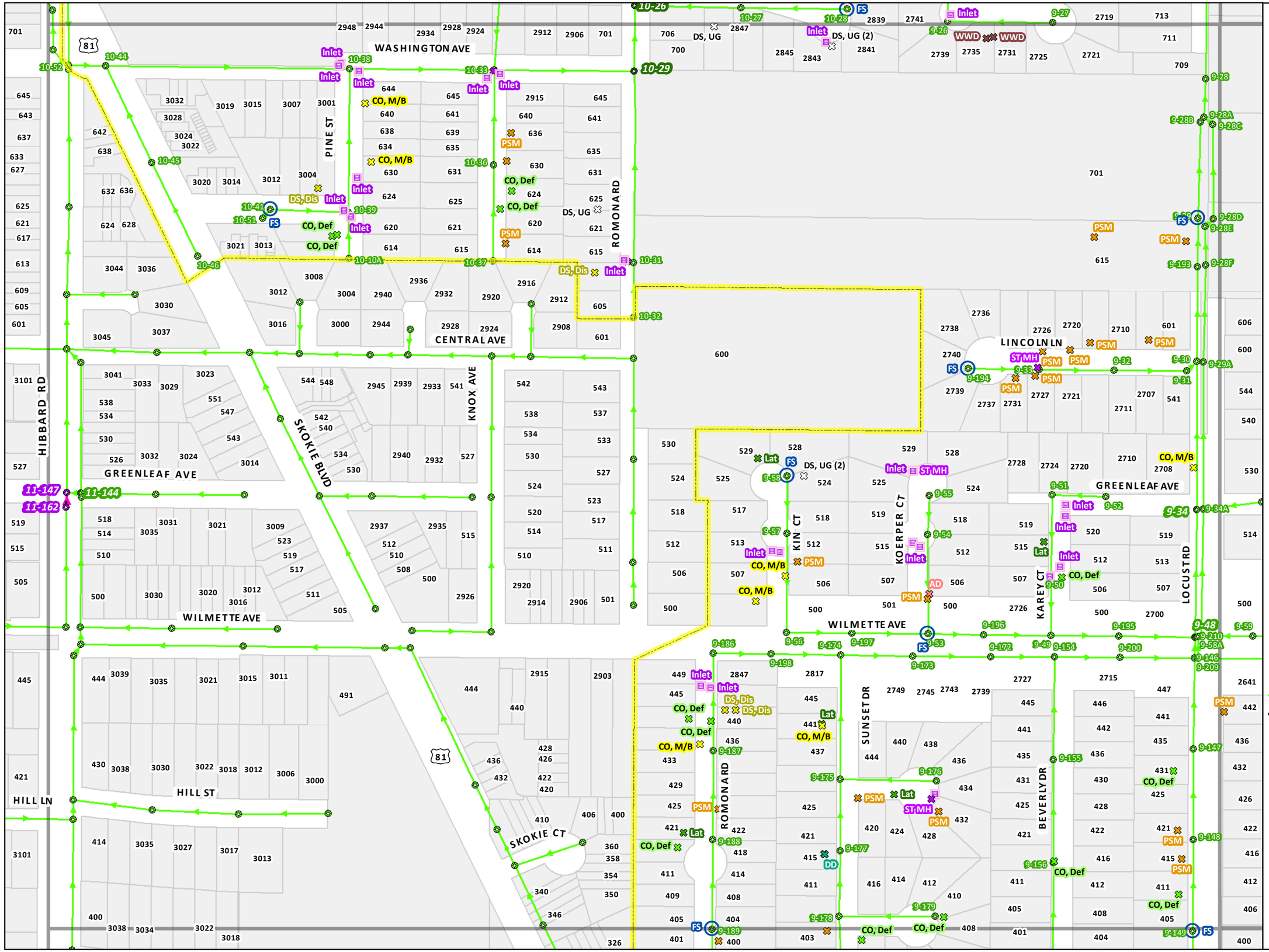

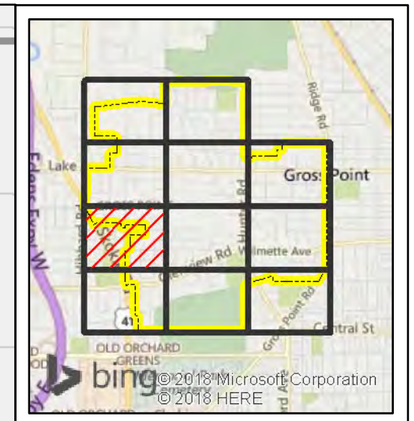

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N W E S

0 110 220 440 Feet

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Village of Wilmette, IL
Exhibit 9
Smoke Tested Observations - (6 of 11)
January 2018

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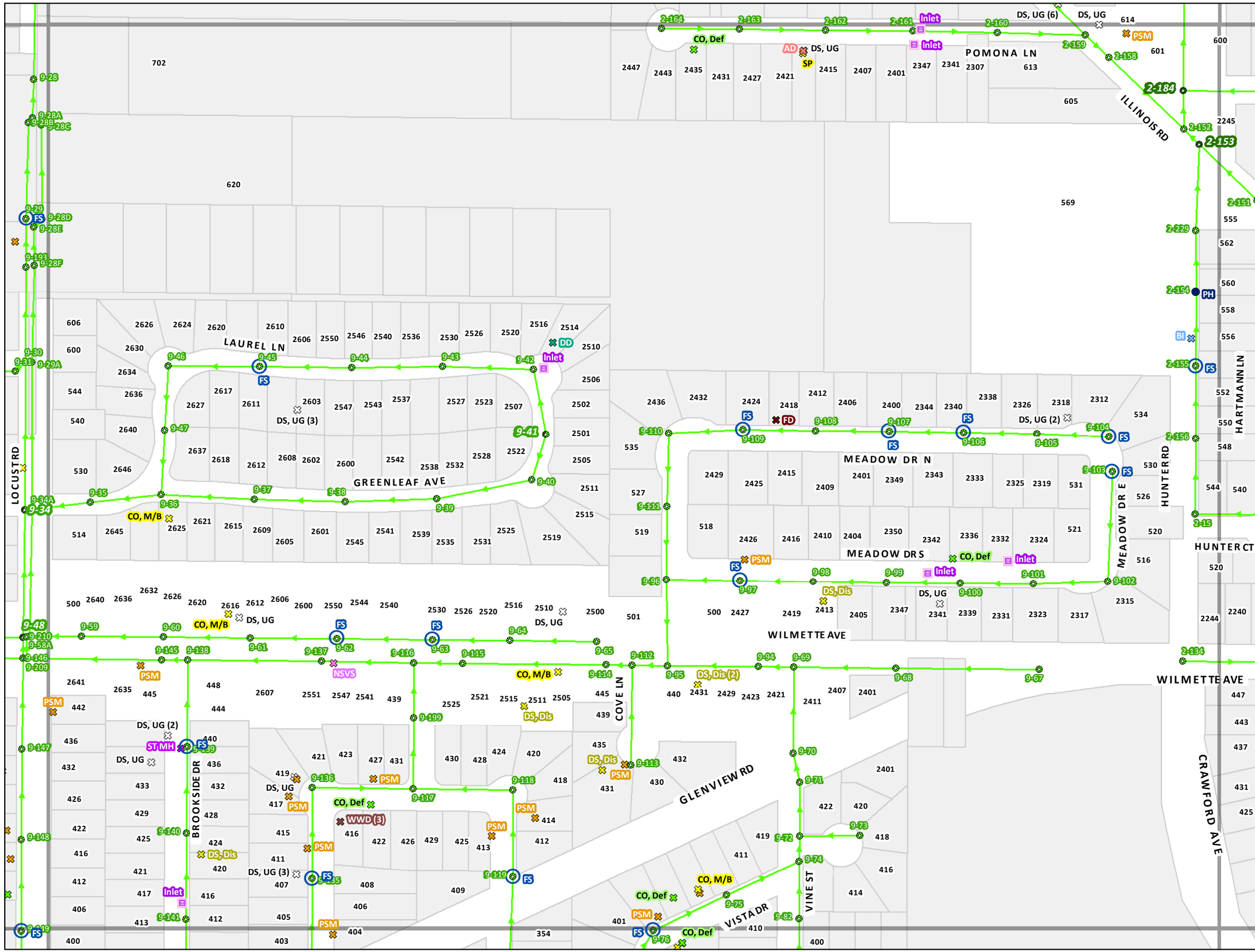

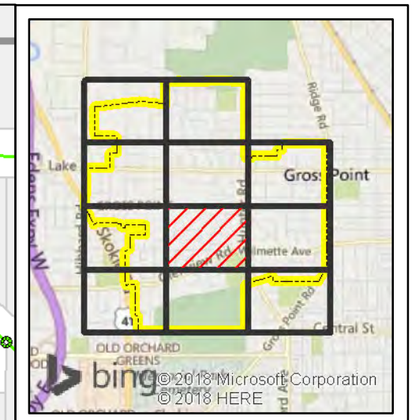

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0 110 220 440 Feet

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Village of Wilmette, IL
Exhibit 10
Smoke Tested Observations - (7 of 11)
January 2018

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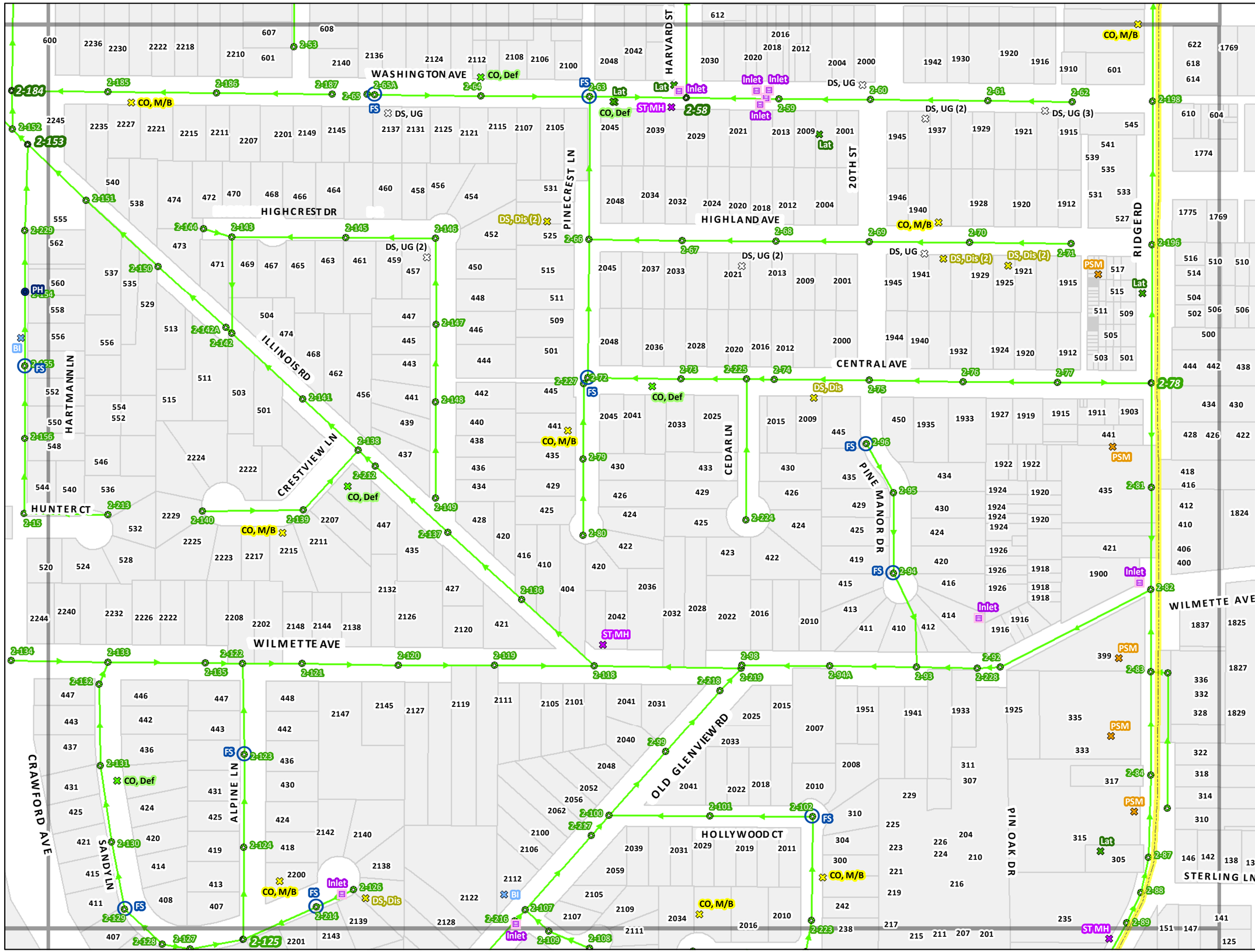

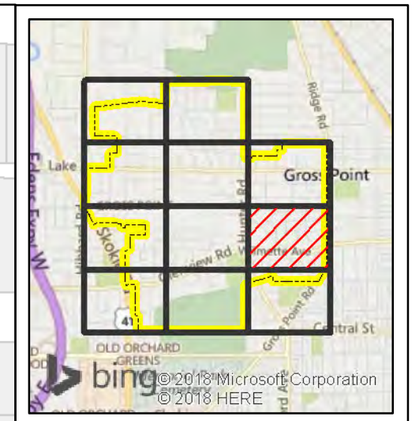

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N W E S

0 110 220 440 Feet

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Village of Wilmette, IL
Exhibit 11
Smoke Tested Observations - (8 of 11)
January 2018

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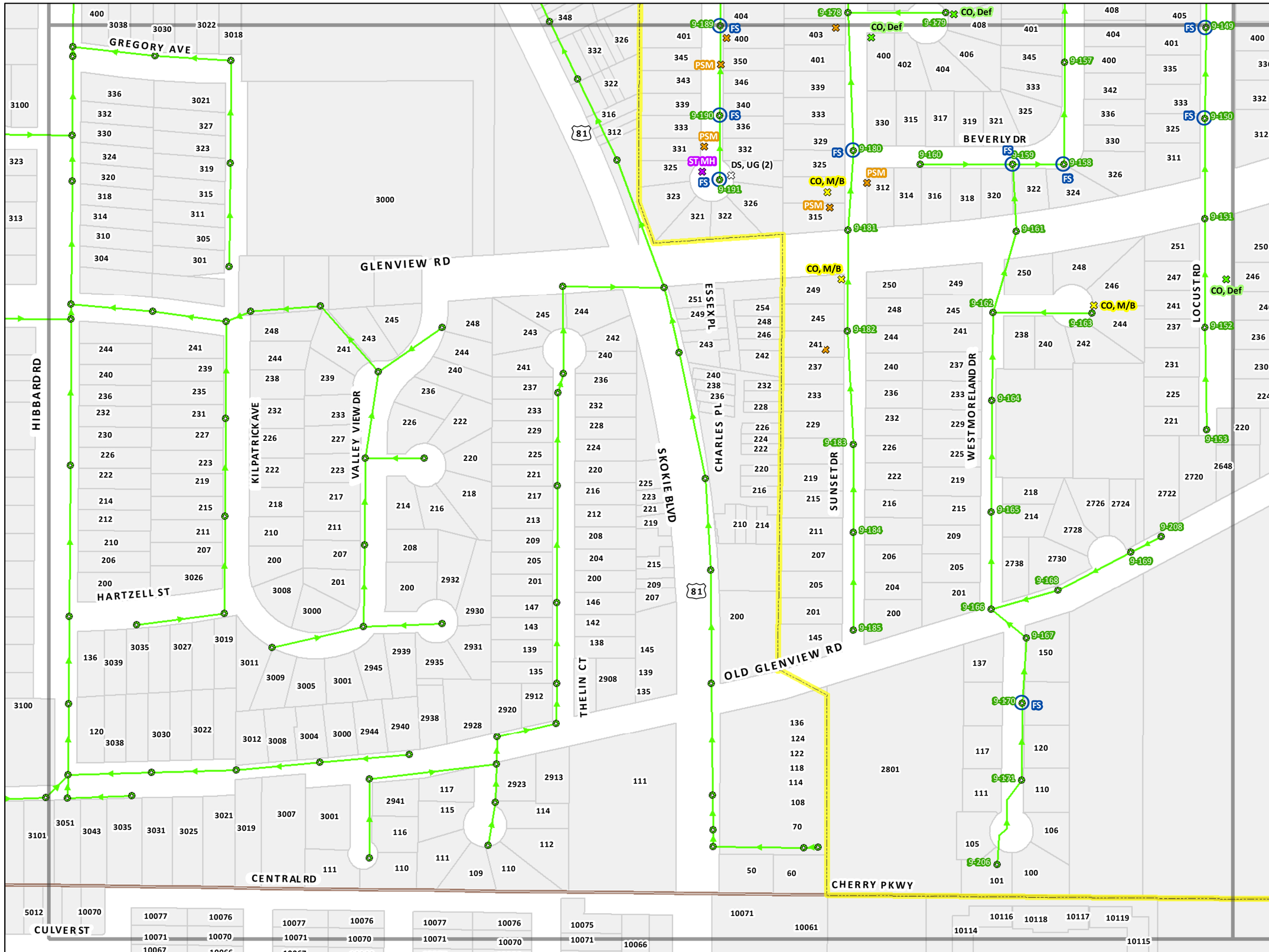

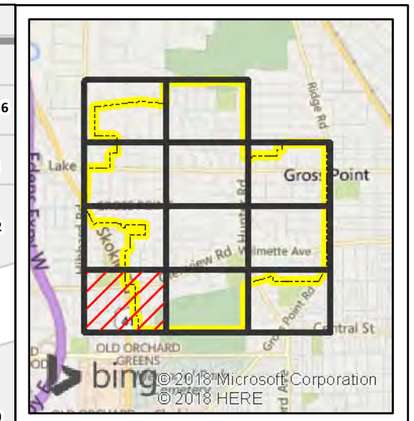

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N W E S

0 110 220 440 Feet

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Village of Wilmette, IL
Exhibit 12
Smoke Tested Observations - (9 of 11)
January 2018

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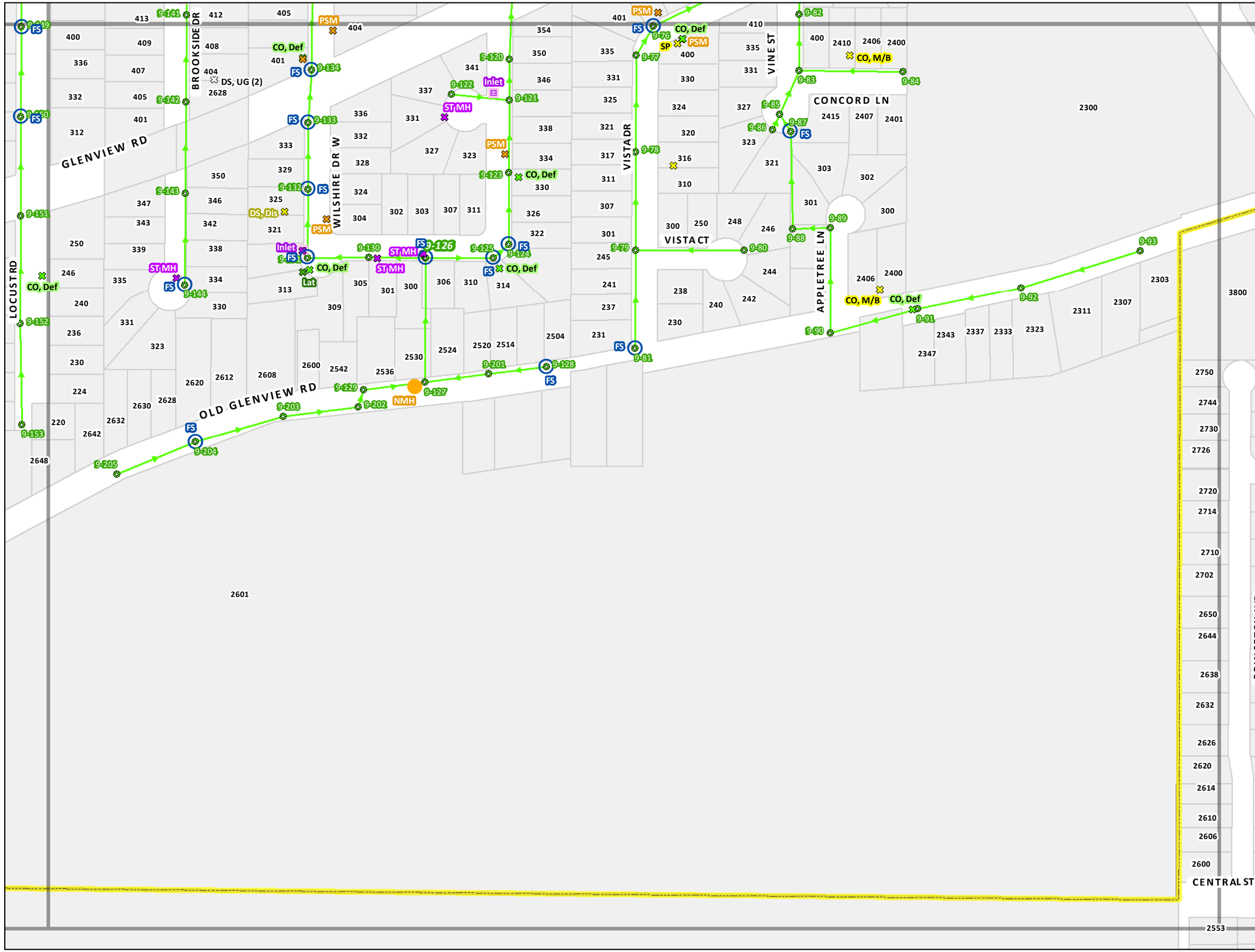

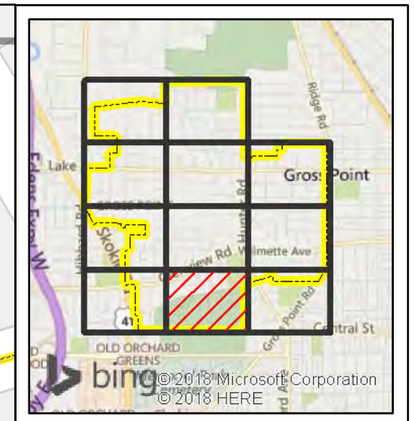

- Downspout Underground (DS, UG)
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N W E S

0 110 220 440 Feet

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Village of Wilmette, IL
Exhibit 13
Smoke Tested Observations - (10 of 11)
January 2018

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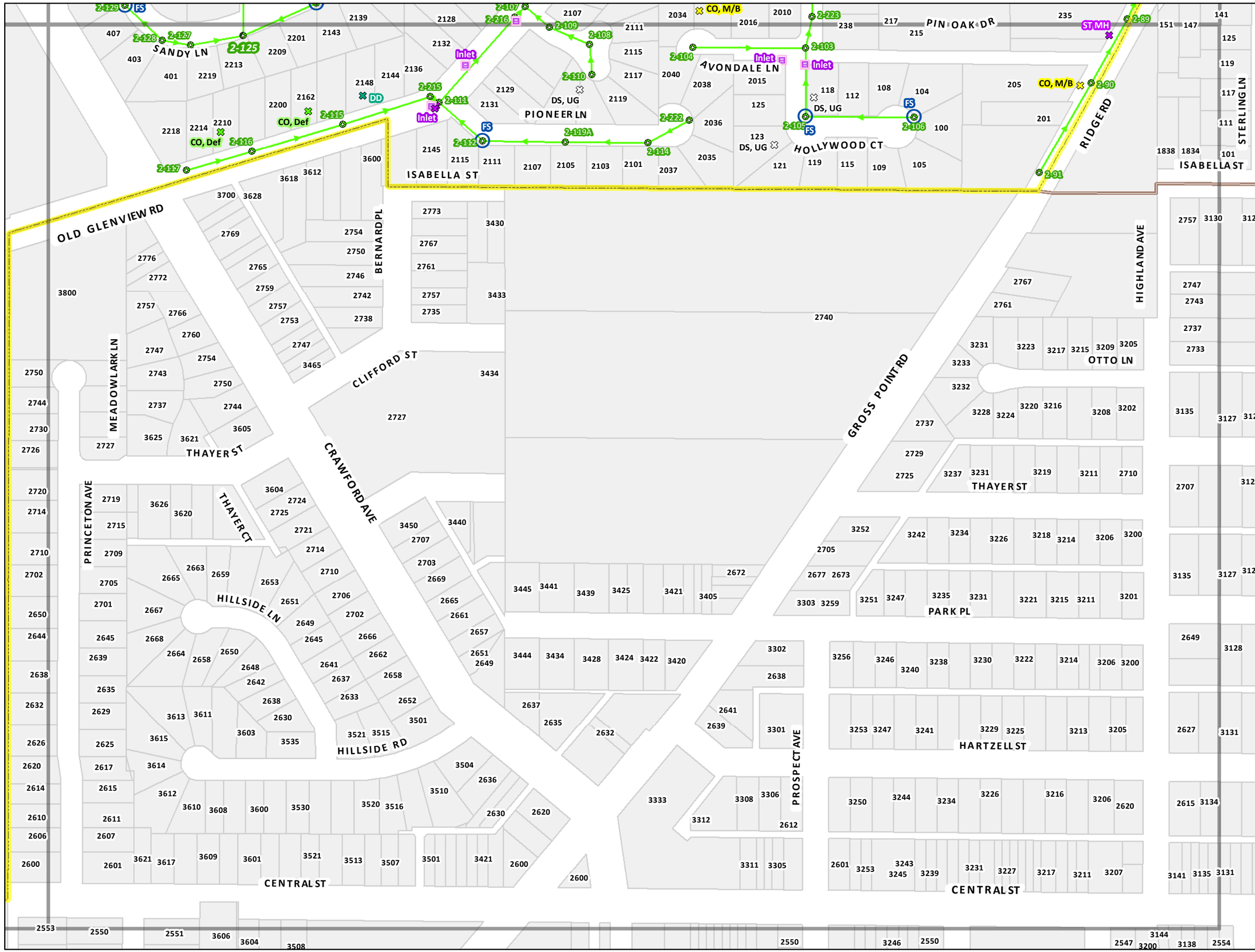

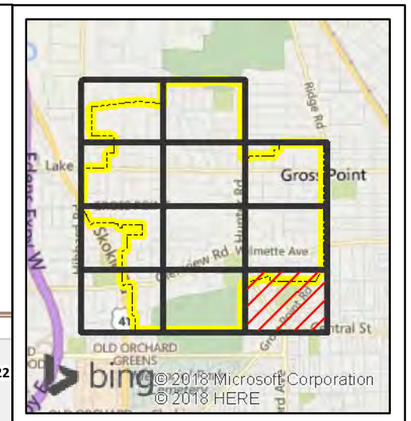

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N W E S

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Village of Wilmette, IL
Exhibit 14
Smoke Tested Observations - (11 of 11)
January 2018

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APPENDIX B – PUBLIC RELATIONS

Wilmette

EST 1872

Engineering and Public Works
Department

(847) 853-7500

September 11, 2017

Re: Smoke Testing to Begin Week of September 25

Dear Resident:

In conjunction with the Village's ongoing efforts to improve the performance of the separate sanitary sewer system in your neighborhood, we will be conducting a smoke testing program to identify locations where stormwater is entering the Village's sanitary sewer system. Unwanted stormwater can overwhelm the sanitary system and lead to basement sewer backups. Smoke testing is a simple means of locating openings in the sewer system that allow surface rainwater runoff to enter the sanitary sewers. The purpose of this smoke testing study is to identify and address these sources of stormwater inflow and infiltration (I/I). The study will be performed by the engineering firm RJN Group, Inc.

During the smoke testing, it is common to see smoke on your property. **This smoke is non-toxic.** Air combined with non-toxic smoke is forced into the sewer lines to disclose the location of connections and leaks. Smoke will appear where there are defects in the main sewer line or laterals (connection between the main line and a building) or where there are other connections to the sewer system such as roof drains, patio drains, and footing drains.

Smoke **should not** enter buildings unless there is defective plumbing or dried-up drain traps. **To help prevent smoke from entering your home, please pour water into infrequently used sinks and floor drains.** You should always feel free to call 911 in an emergency. However, if you believe smoke is entering your home from smoke testing, please contact a member of the RJN field crew if they are still on your street. If the RJN field crew is no longer in the area you may contact RJN Group's office at 630-682-4700.

The smoke is non-toxic, creates no fire hazard, leaves no residue, dissipates quickly, and is harmless. However, if someone in your home has respiratory problems, you may wish to take extra precautions on your own, such as leaving your home until the smoke testing is completed.

The smoke testing is expected to begin in your area the week of September 25 and will take approximately two weeks to complete. Additional notification will be provided by door hanger cards 24-72 hours before the smoke testing is to start.

For more information on smoke testing, please visit the RJN website: www.rjn.com/client-portal. If you have questions, please call Shilpa Ghia at RJN at (630) 682-4700 ext.367 or the Village of Wilmette's Public Works Department at (847) 853-7500. Thank you for your cooperation and patience during our planned improvement to our Village.

Sincerely,

Brigitte Berger-Raish

Brigitte Berger-Raish, P.E.
Director of Engineering and Public Works

Wilmette

EST 1872

Engineering and Public Works
Department

(847) 853-7500

September 18, 2017

Re: Smoke Testing to Begin Week of October 2

Dear Resident:

In conjunction with the Village's ongoing efforts to improve the performance of the separate sanitary sewer system in your neighborhood, we will be conducting a smoke testing program to identify locations where stormwater is entering the Village's sanitary sewer system. Unwanted stormwater can overwhelm the sanitary system and lead to basement sewer backups. Smoke testing is a simple means of locating openings in the sewer system that allow surface rainwater runoff to enter the sanitary sewers. The purpose of this smoke testing study is to identify and address these sources of stormwater inflow and infiltration (I/I). The study will be performed by the engineering firm RJN Group, Inc.

During the smoke testing, it is common to see smoke on your property. **This smoke is non-toxic.** Air combined with non-toxic smoke is forced into the sewer lines to disclose the location of connections and leaks. Smoke will appear where there are defects in the main sewer line or laterals (connection between the main line and a building) or where there are other connections to the sewer system such as roof drains, patio drains, and footing drains.

Smoke **should not** enter buildings unless there is defective plumbing or dried-up drain traps. **To help prevent smoke from entering your home, please pour water into infrequently used sinks and floor drains.** You should always feel free to call 911 in an emergency. However, if you believe smoke is entering your home from smoke testing, please contact a member of the RJN field crew if they are still on your street. If the RJN field crew is no longer in the area you may contact RJN Group's office at 630-682-4700.

The smoke is non-toxic, creates no fire hazard, leaves no residue, dissipates quickly, and is harmless. However, if someone in your home has respiratory problems, you may wish to take extra precautions on your own, such as leaving your home until the smoke testing is completed.

The smoke testing is expected to begin in your area the week of October 2 and will take approximately two weeks to complete. Additional notification will be provided by door hanger cards 24-72 hours before the smoke testing is to start.

For more information on smoke testing, please visit the RJN website: www.rjn.com/client-portal. If you have questions, please call Shilpa Ghia at RJN at (630) 682-4700 ext.367 or the Village of Wilmette's Public Works Department at (847) 853-7500. Thank you for your cooperation and patience during our planned improvement to our Village.

Sincerely,

Brigitte Berger-Raish

Brigitte Berger-Raish, P.E.
Director of Engineering and Public Works

N O T I C E

In the next few days, inspection crews will be conducting a physical survey of the **Village of Wilmette** sanitary sewer system in your area. Workers will be accessing manholes to "SMOKE TEST" sewers and locate defects in the system. The smoke is NON-TOXIC, HARMLESS AND CREATES NO FIRE HAZARD.

The smoke should not enter your home unless you have defective plumbing or dried up drain traps. Pour 1 gallon of water down all floor drains and any rarely used sinks/tubs/ toilets to ensure that a water barrier is maintained in the drain traps. The drain trap water barrier is there to prevent sewer gases or odors from entering the building. If the drain trap water barrier is present and smoke does enter your home, the potential exists for sewer gases to also enter your home and you should consult a licensed plumber to fix the problem.

Dry or Leaking Floor Drain: Sewer Gases are not Contained **Working Floor Drain: Sewer Gases are Contained**

Some sewer lines and manholes may be located in backyards. Whenever these lines require investigation, members of the inspection crews will need access to the sewer lines and manholes. These crews are RJN Group personnel and will be identified with uniforms and badges. Homeowners do not need to be home and **FIELD CREWS ARE NOT REQUIRED TO ENTER YOUR BUSINESS OR RESIDENCE.**

If smoke enters your home, and the field crew is still on your street, please contact a member of the crew or the RJN Field Crew Leader at 630-272-5461.

We anticipate the smoke testing will require a few days in your area. Your cooperation is appreciated. The information gained from this study will be used to improve the sewer system in keeping with state and federal regulations.

For additional information:
RJN Group website: www.rjn.com/client-portal

Village of Wilmette Public Works: 847-853-7500
Shilpa Ghia, RJN Project Manager: 630-682-4700 x367

APPENDIX C – SMOKE TESTING OBSERVATIONS

Village of Wilmette, IL - 2017 Smoke Testing
Smoke Observation Summary

PUBLIC SECTOR DEFECTS										
	USMH	DSMH		Address	Defect Type	Smoke Intensity	Surface Type	Flow (gpd)		
Manhole Cover, Pick Hole	2-154	2-229	562	Hunter Rd	Manhole Cover, Pick Hole	Low	Unpaved	1,440	Inspect	Install External Chimney Seal
		Total:	1	Manhole Cover, Pick Hole			Total:	1,440		
Sanitary Manhole	9-12	9-11	2443	Cardinal Ln	Manhole Downstream	Low	Paved	720		
	2-38	2-37	935	Amherst Ln	Manhole Upstream	High	Paved	720	X	
	5-38	5-37	2500	Lake Ave	Manhole Upstream	High	Paved	720		X
	9-87	9-85	321	Vine St	Manhole Upstream	High	Unpaved	720	X	
	3-24	3-23	1212	Colgate St	Manhole Upstream	High	Paved	720	X	
	10-25	10-24A	2917	Crabtree Ln	Manhole Upstream	High	Paved	720		X
	10-28	10-27	2839	Birchwood Ct	Manhole Upstream	High	Paved	720	X	
	2-123	2-122	437	Alpine Ln	Manhole Upstream	High	Unpaved	720	X	
	9-104	9-105	534	Meadow Dr E	Manhole Upstream	High	Paved	720	X	
	9-124	9-123	322	Wilshire Dr W	Manhole Upstream	High	Paved	720	X	
	9-128	9-201	2504	Old Glenview Rd	Manhole Upstream	High	Unpaved	720		X
	9-133	9-134	333	Wilshire Dr W	Manhole Upstream	High	Paved	720		X
	9-135	9-136	407	Wilshire Dr W	Manhole Upstream	High	Unpaved	720	X	
	9-150	9-149	325	Locust Rd	Manhole Upstream	High	Unpaved	720		X
	9-53	9-196	500	Koeper Ct	Manhole Upstream	Medium	Unpaved	720	X	
	10-54	10-1A	2921	Lake Ave	Manhole Upstream	Medium	Unpaved	720		X
	9-58	9-57	524	Kin Ct	Manhole Upstream	Medium	Unpaved	720	X	
	5-64	5-73	1163	Illinois Rd	Manhole Upstream	Medium	Unpaved	720	X	
	9-76	9-75	403	Vista Dr	Manhole Upstream	Medium	Unpaved	720	X	
	2-94	2-93	415	Pine Manor Dr	Manhole Upstream	Medium	Unpaved	720		X
	9-97	9-96	2427	S Meadow Dr	Manhole Upstream	Medium	Unpaved	720	X	
	9-7	9-6	2539	Marian Ln	Manhole Upstream	Medium	Paved	720	X	
	9-9	9-8	2511	Marian Ln	Manhole Upstream	Medium	Paved	720	X	
	9-22	9-21	2800	Birchwood Ave	Manhole Upstream	Medium	Paved	720	X	
	9-24	9-23	2828	Birchwood Ave	Manhole Upstream	Medium	Unpaved	720		X
	10-22	10-21	823	Westwood Ln	Manhole Upstream	Medium	Paved	720		X
	2-112	2-111	2111	Pioneer Ln	Manhole Upstream	Medium	Paved	720	X	
	2-129	2-130	407	Sandy Ln	Manhole Upstream	Medium	Unpaved	720		X
	2-155	2-154	554	Hunter Rd	Manhole Upstream	Medium	Paved	720		X
	2-178	2-177	2316	Birchwood Ave	Manhole Upstream	Medium	Paved	720		X
	9-103	9-102	530	Meadow Dr E	Manhole Upstream	Medium	Unpaved	720		X
	9-107	9-108	2400	Meadow Dr N	Manhole Upstream	Medium	Paved	720		X
	9-109	9-110	2424	Meadow Dr N	Manhole Upstream	Medium	Unpaved	720	X	
	9-119	9-118	409	E Wilshire Dr	Manhole Upstream	Medium	Unpaved	720		X
	9-126	9-130	306	Wilshire Dr W	Manhole Upstream	Medium	Paved	720	X	
	9-134	9-135	401	Wilshire Dr W	Manhole Upstream	Medium	Unpaved	720		X
	9-139	9-138	440	Brookside Dr	Manhole Upstream	Medium	Paved	720		X
	9-144	9-143	334	Brookside Dr	Manhole Upstream	Medium	Paved	720		X
	9-149	9-148	401	Locust Rd	Manhole Upstream	Medium	Unpaved	720	X	
	9-158	9-157	324	Beverly Dr	Manhole Upstream	Medium	Unpaved	720	X	
	9-180	9-178	329	Sunset Dr	Manhole Upstream	Medium	Unpaved	720		X
	9-190	9-189	340	Romona Rd	Manhole Upstream	Medium	Paved	720		X
	9-191	9-190	330	Romona Rd	Manhole Upstream	Medium	Unpaved	720	X	
	9-194	9-33	2740	Lincoln Ln	Manhole Upstream	Medium	Paved	720	X	
	10-41	10-39	3012	Highland Ave	Manhole Upstream	Low	Paved	720		
	9-45	9-46	2610	Laurel Ln	Manhole Upstream	Low	Unpaved	720		
	10-49	10-11	734	Chilton Ln	Manhole Upstream	Low	Paved	720		
	2-50	2-52	2124	Birchwood Ave	Manhole Upstream	Low	Paved	720		
	9-58	9-57	518	Kin Ct	Manhole Upstream	Low	Paved	720		
	9-62	9-61	2550	Wilmette Ave	Manhole Upstream	Low	Paved	720		
	2-63	2-58	2103	Pinecrest Ln	Manhole Upstream	Low	Paved	720		
	9-63	9-62	2530	Wilmette Ave	Manhole Upstream	Low	Unpaved	720		
	2-72	2-66	445	Pinecrest Ln	Manhole Upstream	Low	Paved	720		
	9-81	9-79	231	Vista Dr	Manhole Upstream	Low	Paved	720		
	2-96	2-95	445	Pine Manor Dr	Manhole Upstream	Low	Unpaved	720		
	3-6	3-5	1212	Cleveland St	Manhole Upstream	Low	Paved	720		
	5-15	5-13	1040	Romona Rd	Manhole Upstream	Low	Paved	720		
	9-6	9-5	2601	Marian Ln	Manhole Upstream	Low	Unpaved	720		
	9-12	9-11	2431	Cardinal Ln	Manhole Upstream	Low	Paved	720		
	9-25	9-24	2832	Birchwood Ave	Manhole Upstream	Low	Paved	720		
	9-29	9-28B	615	Locust Rd	Manhole Upstream	Low	Unpaved	720		

Village of Wilmette, IL - 2017 Smoke Testing
Smoke Observation Summary

PUBLIC SECTOR DEFECTS							
	USMH	DSMH	Address	Defect Type	Smoke Intensity	Surface Type	Flow (gpd)
Sanitary Manhole	10-5	10-4	2807 Orchard Ln	Manhole Upstream	Low	Paved	720
	10-10	10-9	2919 Chilton Ln	Manhole Upstream	Low	Unpaved	720
	10-15	10-14	843 Chilton Ln	Manhole Upstream	Low	Paved	720
	10-20	10-19	801 Westwood Ln	Manhole Upstream	Low	Paved	720
	10-23	10-22	841 Westwood Ln	Manhole Upstream	Low	Unpaved	720
	2-102	2-101	2008 Hollywood Ct	Manhole Upstream	Low	Unpaved	720
	2-105	2-103	118 Hollywood Ct	Manhole Upstream	Low	Paved	720
	2-106	2-105	100 Hollywood Ct	Manhole Upstream	Low	Paved	720
	2-173	2-172	2319 Schiller Ave	Manhole Upstream	Low	Unpaved	720
	2-174	2-173	2333 Schiller Ave	Manhole Upstream	Low	Unpaved	720
	2-214	2-125	2143 Sandy Ln	Manhole Upstream	Low	Unpaved	720
	2-65A	2-64	2137 Washington Ave	Manhole Upstream	Low	Paved	720
	9-106	9-107	2340 Meadow Dr N	Manhole Upstream	Low	Unpaved	720
	9-107	9-108	2418 Meadow Dr N	Manhole Upstream	Low	Unpaved	720
	9-125	9-124	314 Wilshire Dr W	Manhole Upstream	Low	Unpaved	720
	9-131	9-132	317 Wilshire Dr W	Manhole Upstream	Low	Paved	720
	9-132	9-133	325 Wilshire Dr W	Manhole Upstream	Low	Paved	720
	9-159	9-158	320 Beverly Dr	Manhole Upstream	Low	Unpaved	720
	9-170	9-167	130 Westmoreland Dr	Manhole Upstream	Low	Unpaved	720
	9-189	9-188	404 Romona Rd	Manhole Upstream	Low	Paved	720
	9-204	9-203	2620 Old Glenview Rd	Manhole Upstream	Low	Paved	720
		Total:	**82 Sanitary Manhole**			**Total:**	**59,040**
NMH	9-127	9-126	300 Wilshire Dr E	New Manhole Cover, Pick Hole	Low	Unpaved	1,440
		Total:	**1 New Manhole Cover, Pick Hole**			**Total:**	**1,440**
Storm Inlet	4-31	4-19	901 Pontiac Rd	Storm Inlet	High	Paved	7,200
	2-37	2-34	915 Amherst Ln	Storm Inlet	High	Paved	7,200
	2-41	2-40	2101 Pinecrest Ln	Storm Inlet	High	Paved	7,200
	9-41	9-42	2510 Laurel Ln	Storm Inlet	High	Paved	7,200
	5-42	5-41	915 Ottawa Ln	Storm Inlet	High	Paved	7,200
	5-43	5-41	2615 Chippewa Ln	Storm Inlet	High	Paved	7,200
	3-45	3-44	2400 Greenwood Ave	Storm Inlet	High	Paved	7,200
	9-54	9-53	515 Koeper Ct	Storm Inlet	High	Paved	7,200
	5-61	5-58	1151 Romona Rd	Storm Inlet	High	Paved	7,200
	5-62	5-61	1130 Romona Rd	Storm Inlet	High	Paved	7,200
	2-81	2-82	1900 Wilmette Ave	Storm Inlet	High	Paved	7,200
	2-92	2-228	1916A Wilmette	Storm Inlet	High	Unpaved	7,200
	2-8	2-7	909 Illinois Rd	Storm Inlet	High	Paved	7,200
	4-11	4-10	1000 Pawnee Rd	Storm Inlet	High	Paved	7,200
	4-11	4-10	1000 Miami Rd	Storm Inlet	High	Paved	7,200
	4-14	4-13	1046 Pawnee Rd	Storm Inlet	High	Paved	7,200
	4-18	4-17	2427 Pontiac Rd	Storm Inlet	High	Paved	7,200
	4-19	4-18	912 Pontiac Rd	Storm Inlet	High	Paved	7,200
	4-19	4-18	915 Pontiac Rd	Storm Inlet	High	Paved	7,200
	4-21	4-32	1023 Pontiac Rd	Storm Inlet	High	Paved	7,200
	4-25	4-3	914 Cherokee Rd	Storm Inlet	High	Paved	7,200
	4-25	4-3	914 Cherokee	Storm Inlet	High	Paved	7,200
	4-27	4-9	915 Pawnee Rd	Storm Inlet	High	Paved	7,200
	4-27	4-9	915 Pawnee Rd	Storm Inlet	High	Paved	7,200
	4-30	4-16	2421 Miami Rd	Storm Inlet	High	Paved	7,200
	5-12	5-11	1034 Seminole Rd	Storm Inlet	High	Paved	7,200
	5-20	5-19	909 Osage Ln	Storm Inlet	High	Paved	7,200
	5-23	5-21	2831 Shabona Ln	Storm Inlet	High	Paved	7,200
	9-21	9-20	2718 Birchwood Ave	Storm Inlet	High	Paved	7,200
	9-27	9-26	2737 Alison Ln	Storm Inlet	High	Paved	7,200
	10-12	10-49	734 Chilton Ln	Storm Inlet	High	Paved	7,200
	10-13	10-11	806 Chilton Ln	Storm Inlet	High	Paved	7,200
	10-13	10-11	805 Chilton Ln	Storm Inlet	High	Paved	7,200
	10-17	10-16	801 Leyden Ln	Storm Inlet	High	Paved	7,200
	10-25	10-24A	2918 Crabtree Ln	Storm Inlet	High	Paved	7,200
	10-28	10-27	2843 Birchwood Ave	Storm Inlet	High	Paved	7,200
	10-31	10-29	615 Romona Rd	Storm Inlet	High	Paved	7,200
	9-176	9-175	432 Sunset Dr	Storm Inlet	High	Paved	7,200
	4-31	4-19	900 Pontiac Rd	Storm Inlet	Medium	Paved	7,200
	2-32	2-30	914 Yale St	Storm Inlet	Medium	Paved	7,200

Village of Wilmette, IL - 2017 Smoke Testing
Smoke Observation Summary

PUBLIC SECTOR DEFECTS							
	USMH	DSMH	Address	Defect Type	Smoke Intensity	Surface Type	Flow (gpd)
Storm Inlet	3-32	3-31A	2600 Illinois Rd	Storm Inlet	Medium	Paved	7,200
	5-33	5-32	2932 Indianwood Rd	Storm Inlet	Medium	Paved	7,200
	2-37	2-34	912 Amherst Ln	Storm Inlet	Medium	Paved	7,200
	2-38	2-37	934 Amherst Ln	Storm Inlet	Medium	Paved	7,200
	10-39	10-38	644 Washington Ave	Storm Inlet	Medium	Paved	7,200
	10-39	10-38	3001 Washington Ave	Storm Inlet	Medium	Paved	7,200
	5-41	5-18	2616 Blackhawk Rd	Storm Inlet	Medium	Paved	7,200
	5-43	5-41	2604 Blackhawk Rd	Storm Inlet	Medium	Paved	7,200
	3-45	3-44	2403 Greenwood Ave	Storm Inlet	Medium	Paved	7,200
	9-52	9-51	2720 Karey Ct	Storm Inlet	Medium	Paved	7,200
	3-53	3-42	2351 Thornwood Ave	Storm Inlet	Medium	Paved	7,200
	3-53	3-42	2413 Thornwood Ave	Storm Inlet	Medium	Paved	7,200
	9-55	9-54	529 Koeper Ct	Storm Inlet	Medium	Paved	7,200
	2-4	2-3	2315 Lake Ave	Storm Inlet	Medium	Paved	7,200
	2-8	2-7	915 Illinois Rd	Storm Inlet	Medium	Paved	7,200
	2-27	2-26	2227 Schiller Ave	Storm Inlet	Medium	Paved	7,200
	3-13	3-11	21 Locust Rd	Storm Inlet	Medium	Paved	7,200
	3-13	3-11	1224 Grant St	Storm Inlet	Medium	Paved	7,200
	4-5	4-26	1027 Cherokee Rd	Storm Inlet	Medium	Paved	7,200
	4-19	4-18	931 Pontiac Rd	Storm Inlet	Medium	Paved	7,200
	4-25	4-3	900 Cherokee Rd	Storm Inlet	Medium	Paved	7,200
	4-25	4-3	901 Cherokee Rd	Storm Inlet	Medium	Paved	7,200
	4-28	4-27	907 Pawnee Rd	Storm Inlet	Medium	Paved	7,200
	4-30	4-16	1039 Miami Rd	Storm Inlet	Medium	Paved	7,200
	4-30	4-16	1054 Miami Rd	Storm Inlet	Medium	Paved	7,200
	5-10	5-9	1030 Mohawk Rd	Storm Inlet	Medium	Paved	7,200
	5-10	5-9	2727 Iroquois Rd	Storm Inlet	Medium	Paved	7,200
	5-13	5-11	1025 Seminole Rd	Storm Inlet	Medium	Paved	7,200
	9-1	9-207	2701 Locust Rd	Storm Inlet	Medium	Paved	7,200
	9-17	9-16	2717 Hawthorn Ln	Storm Inlet	Medium	Paved	7,200
	9-23	9-22	2800 Birchwood Ave	Storm Inlet	Medium	Paved	7,200
	9-25	9-24	2828 Birchwood Ave	Storm Inlet	Medium	Paved	7,200
	10-6	10-5	2801 Orchard Ln	Storm Inlet	Medium	Unpaved	7,200
	10-12	10-49	733 Chilton Ln	Storm Inlet	Medium	Paved	7,200
	10-18	10-17	815 Leyden Ln	Storm Inlet	Medium	Paved	7,200
	2-200	2-199	Park Harvard Ln	Storm Inlet	Medium	Unpaved	7,200
	2-214	2-125	2139 Sandy Ln	Storm Inlet	Medium	Paved	7,200
	3-31A	3-20A	2541 Thornwood Ave	Storm Inlet	Medium	Paved	7,200
	4-21A	4-21	1043 Pontiac Rd	Storm Inlet	Medium	Paved	7,200
	4-21A	4-21	1024 Pontiac Rd	Storm Inlet	Medium	Paved	7,200
	4-21A	4-21	1049 Pontiac Rd	Storm Inlet	Medium	Paved	7,200
	9-100	9-99	1000 S Meadow Dr	Storm Inlet	Medium	Paved	7,200
	9-187	9-186	445 Romona Rd	Storm Inlet	Medium	Paved	7,200
	2-32	2-30	915 Yale St	Storm Inlet	Low	Paved	1,440
	5-32	5-31	2924 Indianwood Rd	Storm Inlet	Low	Paved	1,440
	5-32	5-31	2921 Indianwood Rd	Storm Inlet	Low	Paved	1,440
	10-33	10-29	2913 Washington Ave	Storm Inlet	Low	Paved	1,440
	10-33	10-29	645 Knox Ave	Storm Inlet	Low	Paved	1,440
	4-36	4-17	2418 Pontiac Rd	Storm Inlet	Low	Paved	1,440
	2-39	2-34	2045 Lake Ave	Storm Inlet	Low	Paved	1,440
	3-39	3-38	1030 Illinois Rd	Storm Inlet	Low	Paved	1,440
	5-39	5-37	918 Seneca Rd	Storm Inlet	Low	Paved	1,440
	10-39	10-38	630 Pine St	Storm Inlet	Low	Unpaved	1,440
	10-39	10-38	620 Pine St	Storm Inlet	Low	Paved	1,440
	10-39	10-38	3000 Pine St	Storm Inlet	Low	Paved	1,440
	10-39	10-38	2948 Washington Ave	Storm Inlet	Low	Paved	1,440
	5-40	5-39	929 Seneca Rd	Storm Inlet	Low	Paved	1,440
	5-40	5-39	936 Seneca Rd	Storm Inlet	Low	Paved	1,440
	3-44	3-43	1122 Greenwood Ave	Storm Inlet	Low	Paved	1,440
	5-44	5-43	916 Chippewa Ln	Storm Inlet	Low	Paved	1,440
	5-44	5-43	915 Chippewa Ln	Storm Inlet	Low	Paved	1,440
	3-46	3-45	2334 Greenwood ave	Storm Inlet	Low	Paved	1,440
	3-46	3-45	2339 Greenwood Ave	Storm Inlet	Low	Paved	1,440
	3-47	3-46	2320 Greenwood Ave	Storm Inlet	Low	Paved	1,440

Village of Wilmette, IL - 2017 Smoke Testing
Smoke Observation Summary

PUBLIC SECTOR DEFECTS							
	USMH	DSMH	Address	Defect Type	Smoke Intensity	Surface Type	Flow (gpd)
Storm Inlet	3-47	3-46	2315 Greenwood Ave	Storm Inlet	Low	Paved	1,440
	10-48	10-47	803 Redbud Ln	Storm Inlet	Low	Paved	1,440
	9-51	9-50	512 Karey Ct	Storm Inlet	Low	Paved	1,440
	9-51	9-50	507 Karey Ct	Storm Inlet	Low	Paved	1,440
	3-52	3-51	2316 Elmwood Ave	Storm Inlet	Low	Paved	1,440
	9-52	9-51	520 Karey Ct	Storm Inlet	Low	Paved	1,440
	3-54	3-53	2345 Thornwood Ave	Storm Inlet	Low	Paved	1,440
	3-54	3-53	2345 Thornwood Ave	Storm Inlet	Low	Paved	1,440
	9-54	9-53	512 Koeper Ct	Storm Inlet	Low	Paved	1,440
	9-57	9-56	512 Kin Ct	Storm Inlet	Low	Paved	1,440
	9-57	9-56	512 Kin Ct	Storm Inlet	Low	Paved	1,440
	2-58	2-48	2058 Washington Ave	Storm Inlet	Low	Paved	1,440
	2-59	2-58	2020 Washington Ave	Storm Inlet	Low	Paved	1,440
	2-59	2-58	2018 Washington Ave	Storm Inlet	Low	Paved	1,440
	2-59	2-58	2019 Washington Ave	Storm Inlet	Low	Paved	1,440
	2-59	2-58	2013 Washington Ave	Storm Inlet	Low	Paved	1,440
	5-67	5-47	1043 Seneca Rd	Storm Inlet	Low	Paved	1,440
	5-67	5-47	1036 Seneca Rd	Storm Inlet	Low	Paved	1,440
	2-3	2-1	2307 Lake Ave	Storm Inlet	Low	Paved	1,440
	2-8	2-7	900 Illinois Rd	Storm Inlet	Low	Paved	1,440
	2-9	2-8	926 Illinois Rd	Storm Inlet	Low	Paved	1,440
	2-9	2-8	926 Illinois Rd	Storm Inlet	Low	Paved	1,440
	2-16	2-14	911 Cornell St	Storm Inlet	Low	Paved	1,440
	2-22	2-21	934 Oxford Ln	Storm Inlet	Low	Paved	1,440
	2-24	2-23	806 Ouilmette Ln	Storm Inlet	Low	Paved	1,440
	3-6	3-5	1215 Cleveland St	Storm Inlet	Low	Paved	1,440
	3-9	3-7	2545 Kenilworth Ave	Storm Inlet	Low	Paved	1,440
	3-23	3-22	Woods Kenilworth Ave	Storm Inlet	Low	Paved	1,440
	3-23	3-22	2327 Colgate St	Storm Inlet	Low	Paved	1,440
	3-23	3-22	2323 Kenilworth Ave	Storm Inlet	Low	Paved	1,440
	3-27	3-26	1217 Princeton Pl	Storm Inlet	Low	Paved	1,440
	4-5	4-26	1028 Cherokee Rd	Storm Inlet	Low	Paved	1,440
	4-6	4-5	1054 Cherokee Rd	Storm Inlet	Low	Paved	1,440
	4-7	4-2	2323 Iroquois Rd	Storm Inlet	Low	Paved	1,440
	4-10	4-8	2336 Iroquois Rd	Storm Inlet	Low	Paved	1,440
	4-19	4-18	922 Pontiac Rd	Storm Inlet	Low	Paved	1,440
	4-28	4-27	900 Pawnee Rd	Storm Inlet	Low	Paved	1,440
	5-12	5-11	1035 Seminole Rd	Storm Inlet	Low	Paved	1,440
	5-13	5-11	2810 Seminole Rd	Storm Inlet	Low	Paved	1,440
	5-13	5-11	2819 Seminole Rd	Storm Inlet	Low	Paved	1,440
	5-14	5-13	1012 Iroquois Rd	Storm Inlet	Low	Paved	1,440
	5-15	5-13	1030 Romona Rd	Storm Inlet	Low	Paved	1,440
	5-15	5-13	1021 Romona Rd	Storm Inlet	Low	Paved	1,440
	5-17	5-7	1027 Locust Rd	Storm Inlet	Low	Paved	1,440
	5-17	5-7	2707 Iroquois Rd	Storm Inlet	Low	Paved	1,440
	5-20	5-19	2728 Blackhawk Rd	Storm Inlet	Low	Paved	1,440
	5-20	5-19	910 Osage Ln	Storm Inlet	Low	Paved	1,440
	5-20	5-19	2727 Blackhawk Rd	Storm Inlet	Low	Paved	1,440
	5-20	5-19	2737 Osage Ln	Storm Inlet	Low	Paved	1,440
	5-21	5-65	922 Seminole Rd	Storm Inlet	Low	Paved	1,440
	5-21	5-65	2800 Blackhawk Rd	Storm Inlet	Low	Paved	1,440
	5-23	5-21	2822 Blackhawk Rd	Storm Inlet	Low	Paved	1,440
	5-30	5-29	900 Romona Rd	Storm Inlet	Low	Paved	1,440
	5-30	5-29	900 Romona Rd	Storm Inlet	Low	Paved	1,440
	9-7	9-6	2547 Marian Ln	Storm Inlet	Low	Paved	1,440
	9-12	9-11	2443 Cardinal Ln	Storm Inlet	Low	Paved	1,440
	9-12	9-11	2443 Cardinal Ln	Storm Inlet	Low	Paved	1,440
	9-17	9-16	2716 Hawthorn Ln	Storm Inlet	Low	Paved	1,440
	9-21	9-20	2723 Birchwood Ave	Storm Inlet	Low	Paved	1,440
	9-24	9-23	2828 Birchwood Ave	Storm Inlet	Low	Paved	1,440
	10-5	10-4	2828 Orchard Ln	Storm Inlet	Low	Paved	1,440
	10-6	10-5	2810 Orchard Ln	Storm Inlet	Low	Paved	1,440
	10-6	10-5	2807 Orchard Ln	Storm Inlet	Low	Paved	1,440
	10-10	10-9	2919 Hawthorne Ln	Storm Inlet	Low	Paved	1,440

Village of Wilmette, IL - 2017 Smoke Testing
Smoke Observation Summary

PUBLIC SECTOR DEFECTS							
	USMH	DSMH	Address	Defect Type	Smoke Intensity	Surface Type	Flow (gpd)
Storm Inlet	10-14	10-13	819 Chilton Ln	Storm Inlet	Low	Paved	1,440
	10-17	10-16	746 Leyden Ln	Storm Inlet	Low	Paved	1,440
	10-18	10-17	818 Leyden Ln	Storm Inlet	Low	Paved	1,440
	2-104	2-103	2015 Avondale Ln	Storm Inlet	Low	Paved	1,440
	2-104	2-103	118 Hollywood Ct	Storm Inlet	Low	Paved	1,440
	2-111	2-216	2132 Old Glenview Rd	Storm Inlet	Low	Paved	1,440
	2-111	2-216	2131 Old Glenview Rd	Storm Inlet	Low	Paved	1,440
	2-115	2-215	2145 Old Glenview Rd	Storm Inlet	Low	Paved	1,440
	2-161	2-160	2340 Pomona Ln	Storm Inlet	Low	Paved	1,440
	2-161	2-160	2347 Pomona Ln	Storm Inlet	Low	Paved	1,440
	2-166	2-165	623 Illinois Rd	Storm Inlet	Low	Paved	1,440
	2-205	2-204	917 Cambridge Ln	Storm Inlet	Low	Paved	1,440
	3-20A	3-29	2525 Thornwood Ave	Storm Inlet	Low	Paved	1,440
	9-101	9-100	2332 S Meadow Dr	Storm Inlet	Low	Paved	1,440
	9-121	9-120	341 E Wilshire Dr	Storm Inlet	Low	Paved	1,440
	9-131	9-132	317 Wilshire Dr W	Storm Inlet	Low	Paved	1,440
	9-141	9-140	416 Brookside Dr	Storm Inlet	Low	Paved	1,440
	9-187	9-186	444 Romona Rd	Storm Inlet	Low	Paved	1,440
		Total:	**186 Storm Inlet**			**Total:**	**745,920**
Storm Manhole	2-34	2-29	2132 Lake Ave	Storm Manhole	High	Paved	1,440
	5-49	5-48	2619 Iroquois Rd	Storm Manhole	High	Paved	1,440
	5-72	5-63	1120 Romona Ct	Storm Manhole	High	Paved	1,440
	2-90	2-89	235 Ridge Rd	Storm Manhole	High	Unpaved	1,440
	2-8	2-7	915 Illinois Rd	Storm Manhole	High	Paved	1,440
	4-18	4-17	2427 Iroquois Rd	Storm Manhole	High	Paved	1,440
	3-40	3-39	1033 Illinois Rd	Storm Manhole	Medium	Paved	1,440
	5-51	5-50	2530 Iroquois Rd	Storm Manhole	Medium	Paved	1,440
	5-61	5-58	1151 Romona Rd	Storm Manhole	Medium	Unpaved	1,440
	3-29	3-60	2517 Thornwood Ave	Storm Manhole	Medium	Unpaved	1,440
	4-19	4-18	931 Pontiac Rd	Storm Manhole	Medium	Paved	1,440
	4-21	4-32	1023 Pontiac Rd	Storm Manhole	Medium	Paved	1,440
	4-24	4-23	2441 Iroquois Rd	Storm Manhole	Medium	Paved	1,440
	4-26	4-4	1015 Cherokee Rd	Storm Manhole	Medium	Paved	1,440
	4-30	4-16	1039 Miami Rd	Storm Manhole	Medium	Paved	1,440
	9-10	9-9	2450 Cardinal Ln	Storm Manhole	Medium	Unpaved	1,440
	9-21	9-20	2718 Birchwood Ave	Storm Manhole	Medium	Paved	1,440
	10-13	10-11	740 Chilton Ln	Storm Manhole	Medium	Unpaved	1,440
	10-25	10-24A	2918 Crabtree Ln	Storm Manhole	Medium	Paved	1,440
	10-31	10-29	615 Romona Rd	Storm Manhole	Medium	Paved	1,440
	2-202	2-201	1938 Lake Ave	Storm Manhole	Medium	Unpaved	1,440
	9-126	9-125	306 Wilshire Dr W	Storm Manhole	Medium	Paved	1,440
	9-139	9-138	436 Brookside Dr	Storm Manhole	Medium	Paved	1,440
	9-176	9-175	432 Sunset Dr	Storm Manhole	Medium	Paved	1,440
	9-191	9-190	325 Romona Rd	Storm Manhole	Medium	Unpaved	1,440
	4-31	4-19	900 Pontiac Rd	Storm Manhole	Low	Paved	1,440
	4-31	4-19	901 Pontiac Rd	Storm Manhole	Low	Paved	1,440
	5-32	5-31	2921 Indianwood Rd	Storm Manhole	Low	Paved	1,440
	4-33	4-10	2407 Iroquois Rd	Storm Manhole	Low	Paved	1,440
	10-33	10-29	2918 Knox Ave	Storm Manhole	Low	Unpaved	1,440
	4-36	4-17	2427 Pontiac Rd	Storm Manhole	Low	Paved	1,440
	2-38	2-37	919 Amherst Ln	Storm Manhole	Low	Unpaved	1,440
	2-41	2-40	2101 Schiller Ave	Storm Manhole	Low	Unpaved	1,440
	5-47	5-46	1043 Seneca Rd	Storm Manhole	Low	Paved	1,440
	10-47	10-4	811 Redbud Ln	Storm Manhole	Low	Unpaved	1,440
	3-49	3-48	2421 Elmwood Ave	Storm Manhole	Low	Paved	1,440
	9-55	9-54	529 Koeper Ct	Storm Manhole	Low	Paved	1,440
	5-61	5-58	1133 Romona Rd	Storm Manhole	Low	Paved	1,440
	2-63	2-58	2033 Washington Ave	Storm Manhole	Low	Unpaved	1,440
	5-63	5-62	School Romona Rd	Storm Manhole	Low	Unpaved	1,440
	2-16	2-14	911 Cornell St	Storm Manhole	Low	Paved	1,440
	2-24	2-23	811 Ouilmette Ln	Storm Manhole	Low	Paved	1,440
	2-25	2-221	707 Ouilmette Ln	Storm Manhole	Low	Paved	1,440
	2-25	2-221	717 Ouilmette Ln	Storm Manhole	Low	Paved	1,440
	2-27	2-26	2227 Schiller Ave	Storm Manhole	Low	Paved	1,440

Village of Wilmette, IL - 2017 Smoke Testing
Smoke Observation Summary

PUBLIC SECTOR DEFECTS							
	USMH	DSMH	Address	Defect Type	Smoke Intensity	Surface Type	Flow (gpd)
Storm Manhole	4-5	4-26	1041 Cherokee Rd	Storm Manhole	Low	Paved	1,440
	4-10	4-8	2349 Iroquois Rd	Storm Manhole	Low	Paved	1,440
	4-12	4-11	1025 Pawnee Rd	Storm Manhole	Low	Paved	1,440
	4-16	4-15	1025 Miami Rd	Storm Manhole	Low	Unpaved	1,440
	4-20	4-36	1011 Pontiac Rd	Storm Manhole	Low	Paved	1,440
	4-23	4-17	2433 Iroquois Rd	Storm Manhole	Low	Paved	1,440
	4-28	4-27	907 Pawnee Rd	Storm Manhole	Low	Paved	1,440
	5-12	5-11	1035 Seminole Rd	Storm Manhole	Low	Paved	1,440
	5-31	5-29	901 Romona Rd	Storm Manhole	Low	Paved	1,440
	9-7	9-6	2547 Marian Ln	Storm Manhole	Low	Unpaved	1,440
	9-8	9-7	2519 Marian Ln	Storm Manhole	Low	Unpaved	1,440
	9-12	9-11	2443 Cardinal Ln	Storm Manhole	Low	Paved	1,440
	9-17	9-16	2717 Hawthorn Ln	Storm Manhole	Low	Paved	1,440
	10-6	10-5	2807 Orchard Ln	Storm Manhole	Low	Paved	1,440
	10-17	10-16	743 Leyden Ln	Storm Manhole	Low	Paved	1,440
	10-26	10-24	711 Romona Rd	Storm Manhole	Low	Paved	1,440
	10-1A	5-29	840 Romona Rd	Storm Manhole	Low	Paved	1,440
	2-115	2-215	2145 Old Glenview Rd	Storm Manhole	Low	Paved	1,440
	2-115	2-215	2145 Old Glenview Rd	Storm Manhole	Low	Unpaved	1,440
	2-219	2-218	2046 Wilmette Ave	Storm Manhole	Low	Unpaved	1,440
	2-48A	2-40	701 Harvard St	Storm Manhole	Low	Unpaved	1,440
	3-31A	3-20A	2541 Thornwood Ave	Storm Manhole	Low	Unpaved	1,440
	4-21A	4-21	1043 Pontiac Rd	Storm Manhole	Low	Paved	1,440
	4-21A	4-21	1055 Pontiac Rd	Storm Manhole	Low	Paved	1,440
	4-21A	4-21	1043 Pontiac Rd	Storm Manhole	Low	Paved	1,440
	9-122	9-121	331 E Wilshire Dr	Storm Manhole	Low	Unpaved	1,440
	9-126	9-130	301 Wilshire Dr W	Storm Manhole	Low	Paved	1,440
	9-131	9-132	317 Wilshire Dr W	Storm Manhole	Low	Paved	1,440
	9-144	9-143	334 Brookside Dr	Storm Manhole	Low	Paved	1,440
	9-194	9-33	2727 Lincoln Ln	Storm Manhole	Low	Paved	1,440
		Total:	**75 Storm Manhole**			**Total:**	**108,000**
Other	5-43	5-41	2615 Chippewa Ln	Other - Utility Manhole	Medium	Unpaved	720
		Total:	**1 Other**			**Total:**	**720**
Sanitary Mainline	2-49A	2-42	2125 Schiller Ave	Sanitary Mainline	Medium	Unpaved	1,440
		Total:	**1 Sanitary Mainline**			**Total:**	**1,440**

Village of Wilmette IL - 2017 Smoke Testing
Smoke Observation Summary

PRIVATE SECTOR DEFECTS								
	USMH	DSMH		Address	Defect Type	Smoke Intensity	Surface Type	Flow (gpd)
Area Drain	2-47	2-46	1927	Schiller Ave	Area Drain	High	Unpaved	1,440
	9-54	9-53	500	Koeper Ct	Area Drain	High	Unpaved	1,440
	5-72	5-63	2832	Romona Ct	Area Drain	High	Unpaved	1,440
	2-163	2-162	2417	Pomona Ln	Area Drain	High	Unpaved	1,440
	2-167	2-166	643	Birchwood Ln	Area Drain	High	Paved	1,440
	2-170A	2-169	2447	Birchwood Ln	Area Drain	High	Paved	1,440
	5-72	5-63	2832	Romona Ct	Area Drain	Medium	Unpaved	1,440
	4-6	4-5	1051	Cherokee Rd	Area Drain	Medium	Unpaved	1,440
	4-6	4-5	1051	Cherokee Rd	Area Drain	Medium	Unpaved	1,440
	5-23	5-21	2836	Blackhawk Rd	Area Drain	Medium	Unpaved	1,440
	9-6	9-5	2600	Marian Ln	Area Drain	Medium	Unpaved	1,440
	9-6	9-5	2600	Marian Ln	Area Drain	Medium	Unpaved	1,440
	9-9	9-8	2511	Marian Ln	Area Drain	Medium	Unpaved	1,440
	5-72	5-63	2832	Seminole Rd	Area Drain	Low	Unpaved	1,440
	2-9	2-8	915	Illinois Rd	Area Drain	Low	Unpaved	1,440
	4-6	4-5	1051	Cherokee Rd	Area Drain	Low	Unpaved	1,440
		Total:	**16**	**Area Drain**			**Total:**	**23,040**
Cleanout, Defective	10-37	10-36	620	Knox Ave	Cleanout, Defective	High	Unpaved	144
	5-40	5-39	930	Seneca Rd	Cleanout, Defective	High	Unpaved	144
	5-42	5-41	915	Ottawa Ln	Cleanout, Defective	High	Unpaved	144
	2-58	2-48	615	Harvard St	Cleanout, Defective	High	Unpaved	144
	9-91	9-90	2347	Old Glenview Rd	Cleanout, Defective	High	Unpaved	144
	2-8	2-7	909	Illinois Rd	Cleanout, Defective	High	Unpaved	144
	5-9	5-8	2727	Iroquois Rd	Cleanout, Defective	High	Unpaved	144
	5-27	5-26	908	Seminole Rd	Cleanout, Defective	High	Unpaved	144
	9-18	9-18A	2740	Hawthorn Ln	Cleanout, Defective	High	Paved	144
	9-124	9-123	330	E Wilshire Dr	Cleanout, Defective	High	Paved	144
	9-125	9-124	314	E Wilshire Dr	Cleanout, Defective	High	Unpaved	144
	9-148	9-147	431	Locust Rd	Cleanout, Defective	High	Unpaved	144
	9-179	9-178	400	Sunset Dr	Cleanout, Defective	High	Unpaved	144
	10-37	10-36	624	Knox Ave	Cleanout, Defective	Medium	Paved	144
	3-44	3-43	2411	Greenwood Ave	Cleanout, Defective	Medium	Unpaved	144
	2-47	2-46	1921	Schiller Ave	Cleanout, Defective	Medium	Unpaved	144
	2-1	1-104	912	Hunter Rd	Cleanout, Defective	Medium	Unpaved	144
	2-3	2-1	2309	Lake Ave	Cleanout, Defective	Medium	Unpaved	144
	2-4	2-3	2315	Lake Ave	Cleanout, Defective	Medium	Unpaved	144
	3-7	3-3	2525	Kenilworth Ave	Cleanout, Defective	Medium	Unpaved	144
	3-10	3-9	1213	Middlebury Ln	Cleanout, Defective	Medium	Unpaved	144
	3-27	3-26	1228	Princeton Pl	Cleanout, Defective	Medium	Unpaved	144
	3-27	3-26	1213	Princeton Pl	Cleanout, Defective	Medium	Unpaved	144
	5-14	5-13	1021	Romona Rd	Cleanout, Defective	Medium	Unpaved	144
	5-20	5-19	910	Osage Ln	Cleanout, Defective	Medium	Unpaved	144
	5-30	5-29	910	Romona Rd	Cleanout, Defective	Medium	Unpaved	144
	10-10A	10-39	615	Pine St	Cleanout, Defective	Medium	Unpaved	144
	2-163	2-162	2435	Pomona Ln	Cleanout, Defective	Medium	Unpaved	144
	2-201	2-197	2007	Lake Ave	Cleanout, Defective	Medium	Unpaved	144
	9-100	9-99	2336	S Meadow Dr	Cleanout, Defective	Medium	Unpaved	144
	9-136	9-117	422	Wilshire Dr W	Cleanout, Defective	Medium	Unpaved	144
	9-149	9-148	411	Locust Rd	Cleanout, Defective	Medium	Unpaved	144
	9-152	9-151	246	Locust Rd	Cleanout, Defective	Medium	Unpaved	144
	9-179	9-178	408	Sunset Dr	Cleanout, Defective	Medium	Unpaved	144
	9-187	9-186	440	Romona Rd	Cleanout, Defective	Medium	Unpaved	144
	4-31	4-19	915	Pontiac Rd	Cleanout, Defective	Low	Unpaved	144
	9-50	9-49	506	Karey Ct	Cleanout, Defective	Low	Unpaved	144
	3-51	3-50	2330	Elmwood Ave	Cleanout, Defective	Low	Unpaved	144
	2-57	2-56	1925	Birchwood Ave	Cleanout, Defective	Low	Unpaved	144
	3-59	3-32	1212	Grant St	Cleanout, Defective	Low	Unpaved	144
	2-63	2-58	2045	Washington Ave	Cleanout, Defective	Low	Paved	144
	2-64	2-63	2112	Washington Ave	Cleanout, Defective	Low	Unpaved	144
	5-72	5-63	2832	Romona Ct	Cleanout, Defective	Low	Unpaved	144
	2-73	2-72	2037	Central Ave	Cleanout, Defective	Low	Unpaved	144

Village of Wilmette IL - 2017 Smoke Testing
Smoke Observation Summary

PRIVATE SECTOR DEFECTS							
	USMH	DSMH	Address	Defect Type	Smoke Intensity	Surface Type	Flow (gpd)
Cleanout, Defective	9-75	9-74	405 Vista Dr	Cleanout, Defective	Low	Unpaved	144
	9-76	9-75	400 Vista Dr	Cleanout, Defective	Low	Unpaved	144
	2-17	2-16	926 Cornell St	Cleanout, Defective	Low	Unpaved	144
	3-3	Main	2520 Kenilworth Ave	Cleanout, Defective	Low	Unpaved	144
	3-7	3-3	2530 Kenilworth Ave	Cleanout, Defective	Low	Unpaved	144
	3-10	3-9	1220 Middlebury Ln	Cleanout, Defective	Low	Unpaved	144
	3-27	3-26	1224 Princeton Pl	Cleanout, Defective	Low	Unpaved	144
	4-25	4-3	909 Cherokee Rd	Cleanout, Defective	Low	Unpaved	144
	5-5	5-4	1111 Locust Rd	Cleanout, Defective	Low	Unpaved	144
	5-7	5-78	1027 Locust Rd	Cleanout, Defective	Low	Unpaved	144
	5-10	5-9	1001 Mohawk Rd	Cleanout, Defective	Low	Unpaved	144
	5-20	5-19	909 Osage Ln	Cleanout, Defective	Low	Unpaved	144
	5-27	5-26	916 Seminole Rd	Cleanout, Defective	Low	Unpaved	144
	10-18	10-17	835 Leyden Ln	Cleanout, Defective	Low	Unpaved	144
	10-18	10-17	832 Leyden Ln	Cleanout, Defective	Low	Unpaved	144
	10-10A	10-39	619 Pine St	Cleanout, Defective	Low	Unpaved	144
	2-116	2-115	2162 Old Glenview Rd	Cleanout, Defective	Low	Unpaved	144
	2-117	2-116	2210 Old Glenview Rd	Cleanout, Defective	Low	Paved	144
	2-130	2-131	424 Sandy Ln	Cleanout, Defective	Low	Unpaved	144
	2-139	2-138	2201 Crestview Ln	Cleanout, Defective	Low	Unpaved	144
	2-170	2-178	2326 Birchwood Ave	Cleanout, Defective	Low	Unpaved	144
	2-182	2-180	2227 Birchwood Ave	Cleanout, Defective	Low	Unpaved	144
	2-190	2-210	915 Ridge Rd	Cleanout, Defective	Low	Paved	144
	2-201	2-197	2010 Lake Ave	Cleanout, Defective	Low	Unpaved	144
	9-130	9-131	313 Wilshire Dr W	Cleanout, Defective	Low	Paved	144
	9-134	9-135	401 Wilshire Dr W	Cleanout, Defective	Low	Unpaved	144
	9-156	9-155	415 Beverly Dr	Cleanout, Defective	Low	Paved	144
	9-187	9-186	439 Romona Rd	Cleanout, Defective	Low	Unpaved	144
	9-189	9-188	415 Romona Rd	Cleanout, Defective	Low	Unpaved	144
	9-18A	9-17	2720 Hawthorn Ln	Cleanout, Defective	Low	Unpaved	144
		Total:	**74 Cleanout, Defective**			**Total:**	**10,656**
Cleanout, Missing/Broken Cap	5-34	5-33	2936 Indianwood Rd	Cleanout, Missing/Broken Cap	High	Paved	144
	5-35	5-24	2627 Lake Ave	Cleanout, Missing/Broken Cap	High	Unpaved	144
	3-54	3-53	2331 Thornwood Ave	Cleanout, Missing/Broken Cap	High	Unpaved	144
	9-57	9-56	2828 Wilmette Ave	Cleanout, Missing/Broken Cap	High	Unpaved	144
	9-57	9-56	506 Kin Ct	Cleanout, Missing/Broken Cap	High	Unpaved	144
	2-79	2-227	441 Pinecrest Ln	Cleanout, Missing/Broken Cap	High	Paved	144
	2-1	1-104	2246 Hunter Rd	Cleanout, Missing/Broken Cap	High	Unpaved	144
	2-10	2-7	747 Illinois Rd	Cleanout, Missing/Broken Cap	High	Unpaved	144
	2-16	2-14	900 Cornell St	Cleanout, Missing/Broken Cap	High	Unpaved	144
	4-28	4-27	900 Pawnee Rd	Cleanout, Missing/Broken Cap	High	Unpaved	144
	5-6	5-5	1100 Locust Rd	Cleanout, Missing/Broken Cap	High	Unpaved	144
	5-19	5-18	2716 Blackhawk Rd	Cleanout, Missing/Broken Cap	High	Unpaved	144
	10-18	10-17	827 Leyden Ln	Cleanout, Missing/Broken Cap	High	Unpaved	144
	2-199	2-197	916 Harvard Ln	Cleanout, Missing/Broken Cap	High	Unpaved	144
	2-209	2-208	917 Columbus St	Cleanout, Missing/Broken Cap	High	Unpaved	144
	2-48A	2-40	722 Harvard St	Cleanout, Missing/Broken Cap	High	Unpaved	144
	9-114	9-115	2505 Wilmette Ave	Cleanout, Missing/Broken Cap	High	Unpaved	144
	9-34A	9-29A	2708 Locust Rd	Cleanout, Missing/Broken Cap	High	Unpaved	144
	9-37	9-36	2625 Greenleaf Ave	Cleanout, Missing/Broken Cap	Medium	Unpaved	144
	2-38	2-37	918 Amherst Ln	Cleanout, Missing/Broken Cap	Medium	Unpaved	144
	10-39	10-38	640 Pine St	Cleanout, Missing/Broken Cap	Medium	Unpaved	144
	2-42	2-41	2115 Schiller Ave	Cleanout, Missing/Broken Cap	Medium	Unpaved	144
	3-50	3-49	2402 Elmwood Ave	Cleanout, Missing/Broken Cap	Medium	Unpaved	144
	2-52	2-182	2215 Birchwood Ave	Cleanout, Missing/Broken Cap	Medium	Unpaved	144
	9-61	9-60	2616 Wilmette Ave	Cleanout, Missing/Broken Cap	Medium	Unpaved	144
	2-70	2-69	1936 Highland Ave	Cleanout, Missing/Broken Cap	Medium	Unpaved	144
	9-79	9-78	316 Vista Dr	Cleanout, Missing/Broken Cap	Medium	Paved	144
	2-13	2-1	2233 Lake Ave	Cleanout, Missing/Broken Cap	Medium	Unpaved	144
	2-13	2-1	2229 Lake Ave	Cleanout, Missing/Broken Cap	Medium	Unpaved	144
	3-7	3-3	1300 Kenilworth Ave	Cleanout, Missing/Broken Cap	Medium	Unpaved	144

Village of Wilmette IL - 2017 Smoke Testing
Smoke Observation Summary

PRIVATE SECTOR DEFECTS								
	USMH	DSMH		Address	Defect Type		Smoke Intensity	Surface Type	Flow (gpd)
Cleanout, Missing/Broken Cap	3-14	3-11	2629	Kenilworth Ave	Cleanout, Missing/Broken Cap		Medium	Unpaved	144
	3-24	3-23	1212	Colgate St	Cleanout, Missing/Broken Cap		Medium	Unpaved	144
	5-27	5-26	900	Seminole Rd	Cleanout, Missing/Broken Cap		Medium	Unpaved	144
	5-29	5-28	2837	Lake Ave	Cleanout, Missing/Broken Cap		Medium	Unpaved	144
	2-104	2-103	2028	Avondale Ln	Cleanout, Missing/Broken Cap		Medium	Unpaved	144
	2-125	2-124	2200	Sandy Ln	Cleanout, Missing/Broken Cap		Medium	Unpaved	144
	2-198	2-211	609	Ridge Rd	Cleanout, Missing/Broken Cap		Medium	Unpaved	144
	9-163	9-162	246	Westmoreland Dr	Cleanout, Missing/Broken Cap		Medium	Unpaved	144
	9-182	9-181	250	Sunset Dr	Cleanout, Missing/Broken Cap		Medium	Unpaved	144
	9-188	9-187	429	Romona Rd	Cleanout, Missing/Broken Cap		Medium	Unpaved	144
	4-33	4-10	2403	Iroquois Rd	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	2-37	2-34	915	Amherst Ln	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	3-39	3-38	1046	Illinois Rd	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	3-39	3-38	1048	Illinois Rd	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	10-39	10-38	630	Pine St	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	2-48	2-49	629	Birchwood Ave	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	2-50	2-52	2129	Birchwood Ave	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	2-52	2-182	2214	Birchwood Ave	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	2-53	2-52	616	Ouilmette Ln	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	2-57	2-56	1925	Birchwood Ave	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	9-75	9-74	407	Vista Dr	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	5-77	5-18	2645	Locust Rd	Cleanout, Missing/Broken Cap		Low	Paved	144
	5-77	5-18	918	Locust Rd	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	9-84	9-83	2410	Concord Ln	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	2-90	2-89	205	Ridge Rd	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	9-91	9-90	2406	Old Glenview Rd	Cleanout, Missing/Broken Cap		Low	Paved	144
	3-14	3-11	33	Kenilworth Ave	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	5-12	5-11	2810	Seminole Rd	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	5-26	5-25	900	Seminole Rd	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	5-28	5-26	2815	Lake Ave	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	9-1	9-207	820	Locust Rd	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	9-5	9-14	2628	Marian Ln	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	9-15	9-14	804	Locust Rd	Cleanout, Missing/Broken Cap		Low	Paved	144
	2-140	2-139	2215	Crestview Ln	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	2-186	2-185	2227	Washington Ave	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	2-223	2-102	246	Hollywood Ct	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	9-175	9-174	441	Sunset Dr	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	9-181	9-180	321	Sunset Dr	Cleanout, Missing/Broken Cap		Low	Unpaved	144
	9-18A	9-17	2729	Hawthorn Ln	Cleanout, Missing/Broken Cap		Low	Unpaved	144
		Total:	**69**	**Cleanout, Missing/Broken Cap**				**Total:**	**9,936**
Downspout, Underground						**QTY**			
	4-31	4-19	912	Pontiac Rd	Downspout, Underground	6	High	Paved	14,400
	2-32	2-30	915	Yale St	Downspout, Underground	1	High	Paved	14,400
	2-33	2-32	934	Yale St	Downspout, Underground	3	High	Paved	14,400
	9-58	9-57	524	Kin Ct	Downspout, Underground	2	High	Paved	14,400
	9-58	9-57	518	Kin ct	Downspout, Underground	1	High	Paved	14,400
	9-18	9-18A	2739	Hawthorn Ln	Downspout, Underground	2	High	Paved	14,400
	2-110	2-108	2121	Parkview Ct	Downspout, Underground	1	High	Paved	14,400
	2-166	2-165	636	Illinois Rd	Downspout, Underground	1	High	Paved	14,400
	2-38	2-37	919	Amherst Ln	Downspout, Underground	2	Medium	Paved	14,400
	5-41	5-18	2616	Blackhawk Rd	Downspout, Underground	1	Medium	Paved	14,400
	3-44	3-43	2411	Greenwood Ave	Downspout, Underground	1	Medium	Paved	14,400
	9-44	9-45	2603	Laurel Ln	Downspout, Underground	3	Medium	Paved	14,400
	3-46	3-45	2327	Greenwood Ave	Downspout, Underground	1	Medium	Paved	14,400
	3-57	3-36	2506	Greenwood Ave	Downspout, Underground	1	Medium	Paved	14,400
	2-60	2-59	2000	Washington Ave	Downspout, Underground	1	Medium	Paved	14,400
	2-61	2-60	1943	Washington Ave	Downspout, Underground	2	Medium	Paved	14,400
	9-61	9-60	2616	Wilmette Ave	Downspout, Underground	1	Medium	Paved	14,400
	2-62	2-61	1917	Washington Ave	Downspout, Underground	3	Medium	Paved	14,400
	2-25	2-221	710	Ouilmette Ln	Downspout, Underground	2	Medium	Paved	14,400
	4-6	4-5	1051	Cherokee Rd	Downspout, Underground	2	Medium	Paved	14,400

Village of Wilmette IL - 2017 Smoke Testing
Smoke Observation Summary

PRIVATE SECTOR DEFECTS								
	USMH	DSMH	Address	Defect Type	Smoke Intensity	Surface Type	Flow (gpd)
					QTY			
Downspout, Underground	4-13	4-12	1041 Pawnee Rd	Downspout, Underground	5	Medium	Paved	14,400
	4-15	4-11	1017 Miami Rd	Downspout, Underground	5	Medium	Paved	14,400
	4-16	4-15	1025 Miami Rd	Downspout, Underground	2	Medium	Paved	14,400
	5-8	5-66	2710 Iroquois Rd	Downspout, Underground	1	Medium	Paved	14,400
	5-9	5-8	2721 Iroquois Rd	Downspout, Underground	1	Medium	Paved	14,400
	9-6	9-5	2600 Marian Ln	Downspout, Underground	2	Medium	Paved	14,400
	9-8	9-7	2520 Marian Ln	Downspout, Underground	1	Medium	Paved	14,400
	9-9	9-8	2519 Marian Ln	Downspout, Underground	1	Medium	Paved	14,400
	9-25	9-24	2836 Birchwood Ave	Downspout, Underground	3	Medium	Unpaved	14,400
	10-6	10-5	2801 Orchard Ln	Downspout, Underground	1	Medium	Paved	14,400
	10-12	10-49	725 Chilton Ln	Downspout, Underground	1	Medium	Paved	14,400
	10-22	10-21	823 Westwood Ln	Downspout, Underground	2	Medium	Paved	14,400
	10-22	10-21	816 Westwood Ln	Downspout, Underground	1	Medium	Paved	14,400
	10-25	10-24A	2915 Crabtree Ln	Downspout, Underground	2	Medium	Paved	14,400
	10-27	10-26	2847 Birchwood Ct	Downspout, Underground	1	Medium	Paved	14,400
	10-28	10-27	2843 Birchwood Ave	Downspout, Underground	2	Medium	Paved	14,400
	2-105	2-103	118 Hollywood Ct	Downspout, Underground	1	Medium	Paved	14,400
	2-163	2-162	2417 Pomona Ln	Downspout, Underground	1	Medium	Paved	14,400
	2-165	2-159	622 Illinois Rd	Downspout, Underground	6	Medium	Paved	14,400
	2-65A	2-64	2137 Washington Ave	Downspout, Underground	1	Medium	Paved	14,400
	9-100	9-99	2341 S Meadow Dr	Downspout, Underground	1	Medium	Paved	14,400
	9-104	9-105	2318 Meadow Dr N	Downspout, Underground	2	Medium	Paved	14,400
	9-134	9-135	407 Wilshire Dr W	Downspout, Underground	3	Medium	Paved	14,400
	9-139	9-138	433 Brookside Dr	Downspout, Underground	2	Medium	Paved	14,400
	9-139	9-138	437 Brookside Dr	Downspout, Underground	1	Medium	Paved	14,400
	9-142	9-141	404 Brookside Dr	Downspout, Underground	2	Medium	Paved	14,400
	9-191	9-190	330 Romona Rd	Downspout, Underground	2	Medium	Paved	14,400
	4-31	4-19	908 Pontiac Rd	Downspout, Underground	4	Low	Paved	14,400
	10-32	10-31	621 Romona Rd	Downspout, Underground	1	Low	Paved	14,400
	5-38	5-37	2510 Lake Ave	Downspout, Underground	1	Low	Paved	14,400
	3-39	3-38	1045 Illinois Rd	Downspout, Underground	6	Low	Paved	14,400
	5-40	5-39	924 Seneca Rd	Downspout, Underground	1	Low	Paved	14,400
	3-41	2-9	936 Illinois Rd	Downspout, Underground	2	Low	Paved	14,400
	5-44	5-43	904 Chippewa Ln	Downspout, Underground	4	Low	Paved	14,400
	2-53	2-52	611 Ouilmette Ln	Downspout, Underground	2	Low	Paved	14,400
	9-65	9-64	2506 Wilmette Ave	Downspout, Underground	1	Low	Paved	14,400
	2-68	2-67	2021 Highland Ave	Downspout, Underground	2	Low	Paved	14,400
	2-70	2-69	1941 Highland Ave	Downspout, Underground	1	Low	Paved	14,400
	2-8	2-7	912 Illinois Rd	Downspout, Underground	2	Low	Paved	14,400
	2-25	2-221	706 Ouilmette Ln	Downspout, Underground	1	Low	Paved	14,400
	4-5	4-26	1041 Cherokee Rd	Downspout, Underground	2	Low	Paved	14,400
	4-15	4-11	1015 Miami Rd	Downspout, Underground	2	Low	Paved	14,400
	4-16	4-15	1033 Miami Rd	Downspout, Underground	1	Low	Paved	14,400
	4-16	4-15	1029 Miami Rd	Downspout, Underground	1	Low	Paved	14,400
	4-25	4-3	909 Cherokee Rd	Downspout, Underground	4	Low	Paved	14,400
	4-26	4-4	1015 Cherokee Rd	Downspout, Underground	4	Low	Paved	14,400
	4-28	4-27	906 Pawnee Rd	Downspout, Underground	1	Low	Paved	14,400
	4-30	4-16	1050 Miami Rd	Downspout, Underground	5	Low	Paved	14,400
	5-20	5-19	917 Osage Ln	Downspout, Underground	1	Low	Paved	14,400
	5-22	5-21	918 Shabona Ln	Downspout, Underground	1	Low	Paved	14,400
	5-23	5-21	2828 Blackhawk Rd	Downspout, Underground	1	Low	Paved	14,400
	9-18	9-18A	2737 Hawthorn Ln	Downspout, Underground	2	Low	Paved	14,400
	10-9	10-1	800 Romona Rd	Downspout, Underground	1	Low	Paved	14,400
	10-17	10-16	815 Leyden Ln	Downspout, Underground	2	Low	Paved	14,400
	10-21	10-20	811 Westwood Ln	Downspout, Underground	2	Low	Paved	14,400
	10-25	10-24A	2914 Orchard Ln	Downspout, Underground	2	Low	Paved	14,400
	2-105	2-103	123 Hollywood Ct	Downspout, Underground	1	Low	Paved	14,400
	2-147	2-146	457 Highcrest Dr	Downspout, Underground	2	Low	Paved	14,400
	2-159	2-158	614 Illinois Rd	Downspout, Underground	1	Low	Paved	14,400
	2-200	2-199	924 Harvard Ln	Downspout, Underground	1	Low	Paved	14,400

Village of Wilmette IL - 2017 Smoke Testing
Smoke Observation Summary

	PRIVATE SECTOR DEFECTS							
	USMH	DSMH	Address	Defect Type		Smoke Intensity	Surface Type	Flow (gpd)
Downspout, Underground					QTY			
	5-4A	5-3	1148 Seneca Rd	Downspout, Underground	3	Low	Paved	14,400
	9-135	9-136	419 Wilshire Dr W	Downspout, Underground	1	Low	Paved	14,400
		Total:	**159 Downspout, Underground (82 properties)**				**Total:**	**1,180,800**
Downspout, Disconnected					QTY			
	3-40	3-39	1020 Illinois Rd	Downspout, Disconnected	1	High	Unpaved	144
	2-66	2-63	525 Pinecrest Ln	Downspout, Disconnected	2	High	Unpaved	288
	9-99	9-98	2413 S Meadow Dr	Downspout, Disconnected	1	High	Unpaved	144
	4-14	4-13	1034 Pawnee Rd	Downspout, Disconnected	1	High	Unpaved	144
	10-17	10-16	746 Leyden Ln	Downspout, Disconnected	1	High	Unpaved	144
	9-113	9-112	431 Cove Ln	Downspout, Disconnected	1	High	Unpaved	144
	10-48	10-47	803 Redbud Ln	Downspout, Disconnected	1	Medium	Unpaved	144
	2-70	2-69	1935 Highland Ave	Downspout, Disconnected	2	Medium	Unpaved	288
	2-8	2-7	908 Illinois Rd	Downspout, Disconnected	1	Medium	Unpaved	144
	2-22	2-21	921 Oxford Ln	Downspout, Disconnected	2	Medium	Paved	288
	3-13	3-11	1232 Grant St	Downspout, Disconnected	1	Medium	Unpaved	144
	5-10	5-9	1005 Mohawk Rd	Downspout, Disconnected	1	Medium	Unpaved	144
	5-10	5-9	1001 Mohawk Rd	Downspout, Disconnected	3	Medium	Unpaved	432
	10-12	10-49	722 Chilton Ln	Downspout, Disconnected	1	Medium	Unpaved	144
	10-15	10-14	835 Chilton Ln	Downspout, Disconnected	1	Medium	Unpaved	144
	9-131	9-132	321 Wilshire Dr W	Downspout, Disconnected	1	Medium	Unpaved	144
	9-140	9-139	420 Brookside Dr	Downspout, Disconnected	1	Medium	Unpaved	144
	9-187	9-186	440 Romona Rd	Downspout, Disconnected	1	Medium	Unpaved	144
	9-187	9-186	440 Romona Rd	Downspout, Disconnected	1	Medium	Unpaved	144
	10-32	10-31	609 Romona Rd	Downspout, Disconnected	1	Low	Unpaved	144
	2-39	2-34	2045 Lake Ave	Downspout, Disconnected	2	Low	Unpaved	288
	5-41	5-18	2630 Blackhawk	Downspout, Disconnected	1	Low	Unpaved	144
	5-41	5-18	2636 Blackhawk Rd	Downspout, Disconnected	1	Low	Unpaved	144
	10-41	10-39	3004 Highland Ave	Downspout, Disconnected	1	Low	Paved	144
	3-48	3-43	2418 Dartmouth St	Downspout, Disconnected	1	Low	Unpaved	144
	2-71	2-70	1925 Highland Ave	Downspout, Disconnected	2	Low	Unpaved	288
	2-75	2-74	2009 Central Ave	Downspout, Disconnected	1	Low	Unpaved	144
	9-94	9-95	2431 Wilmette Ave	Downspout, Disconnected	2	Low	Unpaved	288
	2-18	2-13	2206 Lake Ave	Downspout, Disconnected	1	Low	Unpaved	144
	2-21	2-19	915 Oxford Ln	Downspout, Disconnected	1	Low	Paved	144
	4-26	4-4	1019 Cherokee Rd	Downspout, Disconnected	1	Low	Unpaved	144
	5-26	5-25	2803 Lake Ave	Downspout, Disconnected	1	Low	Paved	144
	5-26	5-25	2803 Lake Ave	Downspout, Disconnected	1	Low	Unpaved	144
	9-18	9-18A	2733 Hawthorn Ln	Downspout, Disconnected	1	Low	Unpaved	144
	2-126	2-214	2137 Sandy Ln	Downspout, Disconnected	1	Low	Unpaved	144
	2-166	2-165	635 Illinois Rd	Downspout, Disconnected	1	Low	Unpaved	144
	9-114	9-115	2515 Wilmette Ave	Downspout, Disconnected	1	Low	Unpaved	144
	9-18A	9-17	2723 Hawthorn Ln	Downspout, Disconnected	1	Low	Unpaved	144
		Total:	**46 Downspout, Disconnected (38 properties)**				**Total:**	**6,624**
Driveway Drain	9-41	9-42	2514 Laurel Ln	Driveway Drain		High	Paved	14,400
	5-4A	5-3	1148 Seneca Rd	Driveway Drain		High	Paved	14,400
	2-34	2-29	2117 Lake Ave	Driveway Drain		Medium	Paved	14,400
	5-12	5-11	1040 Seminole Rd	Driveway Drain		Medium	Paved	14,400
	9-178	9-177	415 Sunset Dr	Driveway Drain		Medium	Paved	14,400
	3-48	3-43	2418 Elmwood Ave	Driveway Drain		Low	Paved	14,400
	9-4	9-3	2731 Orchard Ln	Driveway Drain		Low	Paved	14,400
	2-115	2-215	2148 Old Glenview Rd	Driveway Drain		Low	Paved	14,400
		Total:	**8 Driveway Drain**				**Total:**	**115,200**
Foundation Drain	1-1	3-54	2321 Thornwood Ave	Foundation Drain		High	Unpaved	14,400
	2-8	2-7	909 Illinois Rd	Foundation Drain		High	Paved	14,400
	2-38	2-37	922 Amherst Ln	Foundation Drain		Medium	Unpaved	14,400
	2-42	2-41	2116 Schiller Ave	Foundation Drain		Medium	Paved	14,400
	9-21	9-20	2717 Birchwood Ave	Foundation Drain		Medium	Paved	14,400
	9-107	9-108	2418 Meadow Dr N	Foundation Drain		Medium	Unpaved	14,400
		Total:	**6 Foundation Drain**				**Total:**	**86,400**

Village of Wilmette IL - 2017 Smoke Testing
Smoke Observation Summary

PRIVATE SECTOR DEFECTS								
	USMH	DSMH		Address	Defect Type	Smoke Intensity	Surface Type	Flow (gpd)
Lateral	3-40	3-39	1020	Illinois Rd	Lateral	High	Unpaved	4,320
	2-60	2-59	2005	Washington Ave	Lateral	High	Paved	4,320
	10-18	10-17	827	Leyden Ln	Lateral	High	Unpaved	4,320
	2-34	2-29	2117	Lake Ave	Lateral	Medium	Paved	1,440
	2-47	2-46	1921	Schiller Ave	Lateral	Medium	Unpaved	1,440
	9-51	9-50	515	Karey Ct	Lateral	Medium	Paved	1,440
	3-53	3-42	2413	Thornwood Ave	Lateral	Medium	Unpaved	1,440
	3-57	3-36	2510	Greenwood Ave	Lateral	Medium	Unpaved	1,440
	2-3	2-1	2307	Lake Ave	Lateral	Medium	Unpaved	1,440
	3-24	3-23	1223	Colgate St	Lateral	Medium	Unpaved	1,440
	5-22	5-21	925	Shabona Ln	Lateral	Medium	Unpaved	1,440
	5-23	5-21	2822	Blackhawk Rd	Lateral	Medium	Unpaved	1,440
	10-14	10-13	824	Chilton Ln	Lateral	Medium	Paved	1,440
	2-49A	2-42	2133	Schiller Ave	Lateral	Medium	Unpaved	1,440
	4-31	4-19	908	Pontiac Rd	Lateral	Low	Paved	1,440
	5-39	5-37	918	Seneca Rd	Lateral	Low	Unpaved	1,440
	3-41	2-9	939	Illinois Rd	Lateral	Low	Paved	1,440
	3-44	3-43	2415	Greenwood Ave	Lateral	Low	Unpaved	1,440
	2-47	2-46	1921	Schiller Ave	Lateral	Low	Unpaved	1,440
	2-57	2-56	1925	Birchwood Ave	Lateral	Low	Unpaved	1,440
	3-57	3-36	2515	Greenwood Ave	Lateral	Low	Unpaved	1,440
	2-58	2-48	2038	Washington Ave	Lateral	Low	Unpaved	1,440
	9-58	9-57	528	Kin Ct	Lateral	Low	Unpaved	1,440
	2-63	2-58	2045	Washington Ave	Lateral	Low	Paved	1,440
	2-78	2-196	515.5	Ridge Rd	Lateral	Low	Unpaved	1,440
	5-78	5-6	1032	Locust Rd	Lateral	Low	Unpaved	1,440
	2-87	2-84	305	Ridge Rd	Lateral	Low	Unpaved	1,440
	2-12	2-11	718	Illinois Rd	Lateral	Low	Unpaved	1,440
	2-26	2-24	801	Schiller Ave	Lateral	Low	Unpaved	1,440
	4-9	4-8	2333	Pawnee Rd	Lateral	Low	Paved	1,440
	4-14	4-13	1034	Pawnee Rd	Lateral	Low	Paved	1,440
	4-30	4-16	2421	Miami Rd	Lateral	Low	Unpaved	1,440
	5-10	5-9	1005	Mohawk Rd	Lateral	Low	Unpaved	1,440
	5-13	5-11	1012	Iroquois Rd	Lateral	Low	Unpaved	1,440
	5-27	5-26	908	Seminole Rd	Lateral	Low	Paved	1,440
	9-18	9-18A	2733	Hawthorn Ln	Other	Low	Paved	1,440
	9-18	9-18A	2739	Hawthorn Ln	Lateral	Low	Paved	1,440
	9-18	9-18A	2733	Hawthorn Ln	Lateral	Low	Paved	1,440
	9-25	9-24	2836	Birchwood Ave	Lateral	Low	Unpaved	1,440
	10-12	10-49	721	Chilton Ln	Lateral	Low	Paved	1,440
	10-15	10-14	840	Chilton Ln	Lateral	Low	Unpaved	1,440
	10-17	10-16	746	Leyden Ln	Lateral	Low	Paved	1,440
	10-22	10-21	817	Westwood Ln	Lateral	Low	Unpaved	1,440
	10-25	10-24A	2914	Orchard Ln	Lateral	Low	Unpaved	1,440
	2-29	2-18	2135	Lake Ave	Lateral	Low	Unpaved	1,440
	2-174	2-173	2323	Schiller Ave	Lateral	Low	Unpaved	1,440
	2-208	2-206	913	Columbus St	Lateral	Low	Unpaved	1,440
	9-130	9-131	313	Wilshire Dr W	Lateral	Low	Paved	1,440
	9-175	9-174	441	Sunset Dr	Lateral	Low	Unpaved	1,440
	9-176	9-175	424	Sunset Dr	Lateral	Low	Unpaved	1,440
	9-189	9-188	421	Romona Rd	Lateral	Low	Paved	1,440
		Total:	**51**	**Lateral**			**Total:**	**82,080**
Private Sanitary Manhole	2-34	2-29	2121	Lake Ave	Private Sanitary Manhole	High	Unpaved	720
	10-36	10-33	636	Knox Ave	Private Sanitary Manhole	High	Unpaved	720
	2-42	2-41	2108	Pinecrest Ln	Private Sanitary Manhole	High	Unpaved	720
	2-46	2-45	938	20th St	Private Sanitary Manhole	High	Paved	720
	9-57	9-56	512	Kin Ct	Private Sanitary Manhole	High	Unpaved	720
	2-87	2-84	307	Ridge Rd	Private Sanitary Manhole	High	Paved	720
	2-4	2-3	2319	Lake Ave	Private Sanitary Manhole	High	Unpaved	720
	2-4	2-3	2317	Lake Ave	Private Sanitary Manhole	High	Unpaved	720
	3-10	3-9	2600	Middlebury Ln	Private Sanitary Manhole	High	Unpaved	720

Village of Wilmette IL - 2017 Smoke Testing
Smoke Observation Summary

PRIVATE SECTOR DEFECTS							
	USMH	DSMH	Address	Defect Type	Smoke Intensity	Surface Type	Flow (gpd)
Private Sanitary Manhole	9-4	9-3	2731 Orchard Ln	Private Sanitary Manhole	High	Unpaved	720
	2-159	2-158	614 Illinois Rd	Private Sanitary Manhole	High	Paved	720
	9-131	9-132	304 Wilshire Dr W	Private Sanitary Manhole	High	Unpaved	720
	9-177	9-175	415 Sunset Dr	Private Sanitary Manhole	High	Paved	720
	9-183	9-182	241 Sunset Dr	Private Sanitary Manhole	High	Unpaved	720
	9-33	9-32	2727 Lincoln Ln	Private Sanitary Manhole	Medium	Unpaved	720
	2-34	2-29	2105 Lake Ave	Private Sanitary Manhole	Medium	Unpaved	720
	10-36	10-33	630 Knox Ave	Private Sanitary Manhole	Medium	Unpaved	720
	10-37	10-36	614 Knox Ave	Private Sanitary Manhole	Medium	Unpaved	720
	2-38	2-37	927 Amherst Ln	Private Sanitary Manhole	Medium	Unpaved	720
	3-53	3-42	2413 Thornwood Ave	Private Sanitary Manhole	Medium	Paved	720
	2-56	2-55	1935 Birchwood Ave	Private Sanitary Manhole	Medium	Paved	720
	9-76	9-75	403 Vista Dr	Private Sanitary Manhole	Medium	Paved	720
	9-76	9-75	400 Vista Dr	Private Sanitary Manhole	Medium	Unpaved	720
	9-98	9-97	2426 S Meadow Dr	Private Sanitary Manhole	Medium	Unpaved	720
	2-23	2-18	825 Ouilmette Ln	Private Sanitary Manhole	Medium	Unpaved	720
	5-10	5-9	1001 Mohawk Rd	Private Sanitary Manhole	Medium	Unpaved	720
	5-11	5-9	2811 Iroquois Rd	Private Sanitary Manhole	Medium	Unpaved	720
	5-11	5-9	2819 Iroquois Rd	Private Sanitary Manhole	Medium	Unpaved	720
	5-23	5-21	2828 Blackhawk Rd	Private Sanitary Manhole	Medium	Unpaved	720
	9-23	9-22	2817 Birchwood Ave	Private Sanitary Manhole	Medium	Unpaved	720
	10-13	10-11	806 Chilton Ln	Private Sanitary Manhole	Medium	Unpaved	720
	2-166	2-165	636 Illinois Rd	Private Sanitary Manhole	Medium	Paved	720
	9-119	9-118	413 E Wilshire Dr	Private Sanitary Manhole	Medium	Unpaved	720
	9-134	9-135	404 Wilshire Dr W	Private Sanitary Manhole	Medium	Unpaved	720
	9-134	9-135	401 Wilshire Dr W	Private Sanitary Manhole	Medium	Unpaved	720
	9-135	9-136	417 Wilshire Dr W	Private Sanitary Manhole	Medium	Unpaved	720
	9-136	9-117	427 Wilshire Dr W	Private Sanitary Manhole	Medium	Unpaved	720
	9-147	9-146	442 Locust Rd	Private Sanitary Manhole	Medium	Paved	720
	9-176	9-175	432 Sunset Dr	Private Sanitary Manhole	Medium	Unpaved	720
	9-176	9-175	420 Sunset Dr	Private Sanitary Manhole	Medium	Unpaved	720
	9-181	9-180	315 Sunset Dr	Private Sanitary Manhole	Medium	Unpaved	720
	9-188	9-187	424 Romona Rd	Private Sanitary Manhole	Medium	Unpaved	720
	9-190	9-189	400 Romona Rd	Private Sanitary Manhole	Medium	Unpaved	720
	4-31	4-19	915 Pontiac Rd	Private Sanitary Manhole	Low	Unpaved	720
	9-32	9-31	2706 Lincoln Ln	Private Sanitary Manhole	Low	Unpaved	720
	9-32	9-31	2716 Lincoln Ln	Private Sanitary Manhole	Low	Unpaved	720
	9-33	9-32	2720 Lincoln Ln	Private Sanitary Manhole	Low	Unpaved	720
	9-33	9-32	2726 Lincoln Ln	Private Sanitary Manhole	Low	Unpaved	720
	2-47	2-46	1927 Schiller Ave	Private Sanitary Manhole	Low	Unpaved	720
	5-49	5-48	1028 Seneca Rd	Private Sanitary Manhole	Low	Unpaved	720
	3-51	3-50	2338 Elmwood Ave	Private Sanitary Manhole	Low	Unpaved	720
	3-54	3-53	2336 Thornwood Ave	Private Sanitary Manhole	Low	Unpaved	720
	9-54	9-53	500 Koeper Ct	Private Sanitary Manhole	Low	Paved	720
	5-57	5-56	1100 Mohawk Rd	Private Sanitary Manhole	Low	Paved	720
	5-63	5-62	School Romona Rd	Private Sanitary Manhole	Low	Unpaved	720
	9-75	9-74	407 Vista Dr	Private Sanitary Manhole	Low	Unpaved	720
	2-78	2-81	441 Ridge Rd	Private Sanitary Manhole	Low	Paved	720
	2-84	2-83	335 Ridge Rd	Private Sanitary Manhole	Low	Unpaved	720
	2-5	2-4	2347 Lake Ave	Private Sanitary Manhole	Low	Unpaved	720
	4-26	4-4	1012 Cherokee Rd	Private Sanitary Manhole	Low	Unpaved	720
	5-28	5-26	2833 Lake Ave	Private Sanitary Manhole	Low	Unpaved	720
	5-30	5-29	917 Romona Rd	Private Sanitary Manhole	Low	Unpaved	720
	9-7	9-6	2601 Marian Ln	Private Sanitary Manhole	Low	Unpaved	720
	9-17	9-16	2717 Hawthorn Ln	Private Sanitary Manhole	Low	Unpaved	720
	10-8	10-1	2907 Orchard Ln	Private Sanitary Manhole	Low	Unpaved	720
	10-14	10-13	810 Chilton Ln	Private Sanitary Manhole	Low	Unpaved	720
	2-200	2-199	920 Harvard Ln	Private Sanitary Manhole	Low	Unpaved	720
	2-211	2-194	715 Ridge Rd	Private Sanitary Manhole	Low	Unpaved	720
	9-113	9-112	431 Cove Ln	Private Sanitary Manhole	Low	Unpaved	720
	9-119	9-118	414 E Wilshire Dr	Private Sanitary Manhole	Low	Unpaved	720

Village of Wilmette IL - 2017 Smoke Testing
Smoke Observation Summary

PRIVATE SECTOR DEFECTS								
	USMH	DSMH		Address	Defect Type		Smoke Intensity	Surface Type	Flow (gpd)
Private Sanitary Manhole	9-123	9-121	334	E Wilshire Dr	Private Sanitary Manhole		Low	Unpaved	720
	9-135	9-136	419	Wilshire Dr W	Private Sanitary Manhole		Low	Paved	720
	9-135	9-136	411	Wilshire Dr W	Private Sanitary Manhole		Low	Unpaved	720
	9-138	9-145	445	Wilmette Ave	Private Sanitary Manhole		Low	Unpaved	720
	9-148	9-147	421	Locust Rd	Private Sanitary Manhole		Low	Unpaved	720
	9-180	9-178	403	Sunset Dr	Private Sanitary Manhole		Low	Unpaved	720
	9-181	9-180	312	Sunset Dr	Private Sanitary Manhole		Low	Unpaved	720
	9-190	9-189	350	Romona Rd	Private Sanitary Manhole		Low	Unpaved	720
	9-191	9-190	331	Romona Rd	Private Sanitary Manhole		Low	Unpaved	720
	9-193	9-29	615	Lincoln Ln	Private Sanitary Manhole		Low	Paved	720
	9-194	9-33	2731	Lincoln Ln	Private Sanitary Manhole		Low	Unpaved	720
		Total:	**81**	**Private Sanitary Manhole**				**Total:**	**58,320**
Private Sanitary Manhole Cover, Pick Hole	2-83	2-82	399	Ridge Rd	Private Sanitary Manhole Cover, Pick Hole		High	Paved	1,440
	9-149	9-148	415	Locust Rd	Private Sanitary Manhole Cover, Pick Hole		Medium	Unpaved	1,440
	2-78	2-196	519	Ridge Rd	Private Sanitary Manhole Cover, Pick Hole		Low	Paved	1,440
	9-193	9-29	615	Locust Rd	Private Sanitary Manhole Cover, Pick Hole		Low	Unpaved	1,440
		Total:	**4**	**Private Sanitary Manhole Cover, Pick Hole**				**Total:**	**5,760**
Sump Pump	9-76	9-75	400	Vista Dr	Sump Pump		High	Unpaved	14,400
	2-6	2-5	2409	Lake Ave	Sump Pump		High	Unpaved	14,400
	2-163	2-162	2417	Pomona Ln	Sump Pump		High	Unpaved	14,400
	4-5	4-26	1041	Cherokee Rd	Sump Pump		Medium	Unpaved	14,400
	4-21	4-32	1030	Pontiac Rd	Sump Pump		Medium	Unpaved	14,400
	10-6	10-5	2801	Orchard Ln	Sump Pump		Medium	Unpaved	14,400
	10-9	10-1	800	Romona Rd	Sump Pump		Medium	Paved	14,400
	2-32	2-30	914	Yale St	Sump Pump		Low	Unpaved	14,400
	4-21A	4-21	1049	Pontiac Rd	Sump Pump		Low	Unpaved	14,400
		Total:	**9**	**Sump Pump**				**Total:**	**129,600**
Window Well Drain						**QTY**			
	9-27	9-26	2731	Alison Ln	Window Well Drain	1	Medium	Unpaved	1,440
	9-27	9-26	2731	Alison Ln	Window Well Drain	1	Medium	Unpaved	1,440
	9-136	9-117	416	Wilshire Dr W	Window Well Drain	3	Medium	Unpaved	4,320
	5-23	5-21	2828	Blackhawk Rd	Window Well Drain	2	Low	Unpaved	2,880
	10-3	10-2	2834	Orchard Ln	Window Well Drain	1	Low	Paved	1,440
		Total:	**8**	**Window Well Drain (5 properties)**				**Total:**	**11,520**

SUSPECT PRIVATE SECTOR DEFECTS								
	USMH	DSMH		Address	Defect Type		Smoke Intensity	Surface Type	Flow (gpd)
Building Interior	5-38	5-37	2501	Lake Ave	Building Interior		High	Paved	0
	4-21	4-32	1029	Pontiac Rd	Building Interior		Low	Unpaved	0
	2-107	2-217	2112	Old Glenview Rd	Building Interior		Low	Paved	0
	2-155	2-154	554	Hunter Rd	Building Interior		Low	Unpaved	0
		Total:	**4**	**Building Interior**				**Total:**	**0**
Non-Smoking Vent Stack	5-36	5-35	2611	Lake Ave	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	5-39	5-37	909	Seneca Rd	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	5-40	5-39	929	Seneca Rd	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	5-40	5-39	915	Seneca Rd	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	2-49	2-50	2112	Birchwood Ave	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	2-17	2-16	919	Cornell St	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	2-17	2-16	912	Cornell St	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	2-17	2-16	918	Cornell St	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	2-17	2-16	911	Cornell St	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	2-28	2-27	2237	Schiller Ave	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	3-24	3-23	1229	Colgate St	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	9-5	9-14	2628	Marian Ln	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	2-178	2-177	2311	Birchwood Ave	Non-Smoking Vent Stack		None (Suspect)	Paved	0
	9-116	9-137	2547	Wilmette Ave	Non-Smoking Vent Stack		None (Suspect)	Paved	0
		Total:	**14**	**Non-Smoking Vent Stack**				**Total:**	**0**
Total Defects (Public + Private):			**896**					**Total Flow:**	**2,637,936**

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Wheaton, Illinois 60187