SECTION 01010
SUMMARY OF WORK

PART 1 GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

A. It is the intent of this specification to provide for herbicide services for utility ROW and various City properties, so as to control all vegetation growth except for Bermuda grass for a period of not less than seventy (70) days.

B. The OWNER may or may not choose to include the work listed as additive alternates in the bid award. The decision to award additive alternates will be determined on the whether the bid is less than the project's approved budget.

1.02 WORK SCHEDULE

A. The CONTRACTOR shall furnish a work schedule to the OWNER prior to commencing work including a detailed explanation of what and when the areas will be treated for the Water and Sewer Department's review. This schedule should be completed on basis of geographical proximity when possible. In the event of disagreement, the schedule of the Water and Sewer Department will be adhered to by the contractor.

An update of the schedule will be given to the departmental representative on a weekly basis.

B. First Treatment must begin within three (3) days of Notice to Proceed and must be completed within thirty (30) days. It is desirable that this application be done in May or June. This application must be completed before July 15.

C. Follow-Up Treatments as required by the City within thirty (30) calendar days following completion of first treatment.

1.03 QUANTITIES

A. The quantities listed in this Bid Proposal are for determining the most qualified bidder and in no way represent the quantities for this contract. If a unit bid price is considered high by the OWNER, the OWNER reserves the right to use other forces for the line item for this Contract. This Contract is to enhance the OWNER's forces and does not give the CONTRACTOR exclusive right to perform the work listed above. This Contract will not eliminate bidding projects with the included line items.

B. Where cultivated fields, established lawns, and landscaped areas adjoin the channel, right-of-way is limited to the area including the channel of the channel, and along the top bank adjacent to the sides slopes. However, in no case will

Exhibit A

Contractor's operations be permitted to encroach upon or interfere with cultivation of growing crops.

C. Prospective bidders are urged to make a complete inspection of the property to be treated. Failure to do so will not relieve them of any of the provisions of the scope of work.

1.04 CONTRACTOR'S USE OF PREMISES

A. CONTRACTOR shall coordinate use of premises under direction of OWNER.

B. CONTRACTOR shall assume full responsibility for the protection and safekeeping of products under this Contract, stored on the site.

C. CONTRACTOR shall move any stored products, under CONTRACTOR's control, which interfere with operations of the OWNER.

1.05 OWNER OCCUPANCY

A. OWNER will occupy the premises during the entire period of construction for the conduct of its normal operations. Cooperate with OWNER's designated representative in all construction operations to minimize conflict, and to facilitate OWNER usage.

1.06 SUBMITTALS

A. The chemical agents that the CONTRACTOR proposes to use shall be submitted at the time of the bid submittal.

B. The CONTRACTORS qualification requirements shall be submitted at the time of bid submittal.

C. The CONTRACTOR shall submit a traffic control plan meeting MUTCD for any work areas in the City street right of way.

1.07 SITE ACCESS

A. The CONTRACTOR shall be responsible in removing any fencing, trees, or debris to access project sites. All fencing or vegetation shall be replaced with like material and approved by the OWNER. The OWNER will flag or mark all easements.

1.08 CONTRACTOR RESPONSIBILITIES

A. The CONTRACTOR shall be responsible for any damages to public or private property.

1. The Contractor will control his/her operation in order to avoid damage to the areas and will be responsible for any and all damages the Contractor causes.

2. The Contractor will be held liable for any damage incurred to yards, gardens, and other private properties damaged as a result of over spray. The Contractor will also be responsible for damage caused to areas not authorized by the City to be treated.

3. Any Bermuda grass killed or permanently damaged will be replanted by the Contractor by means of seeding and growth will be assured. Replanting will be done at no additional cost to the Water and Sewer Department.

4. Complaints from residents or business owners resulting from work performed under this contract will be received and recorded by the City then forwarded to the contractor. The contractor must contact with the person or persons registering the complaint within twenty-four (24) hours and do whatever is necessary to investigate the situation and make a sound judgment as to its authenticity. If in fact, a liability situation does exist, every effort will be taken to insure that the claim is settled as expeditiously as possible. In each case, the City will be kept informed as to the disposition of complaints.

5. The contractor must immediately notify the appropriate City representative when they realize any property damage and the intended plan to cure the situation.

B. The CONTRACTOR is responsible for maintaining a competent and coherent staff.

1. Contractor must have modern communications (cell phone and/or pagers) available to business customers and field staff. Contractor must provide a working telephone (cell phone and/or pager) number for service area calls.

2. Contractor shall furnish all necessary labor, supervision, equipment, materials, tools, transportation, supplies, insurance, licenses, and permits necessary to properly and legally complete the service functions of the Contract in an orderly and workmanlike manner.

3. Contractor shall supervise and direct the work and his employees to the best of his or her ability and be solely responsible for all techniques, procedures, coordination of services, and actions by his employees.

4. Contractor service personnel shall maintain a neat appearance in suitable clothing, with identifying company attire; i.e. T-Shirt and Hat.

5. The Contractor shall ensure their employees are equipped with adequate personal protective equipment while performing contract services. Such personal protective equipment shall include, but is not limited to; goggles, safety glasses, face shields, gloves, safety vests, protective masks, etc.

6. Contractor will comply with the Alabama Department of Transportation, Herbicide Treatment Recommendations, as set forth in CHAPTER IV: ALDOT HERBICIDE TREATMENT RECOMMENDATIONS, A MANUAL FOR ROADSIDE VEGETATION MANAGEMENT, (2014 Edition or latest revision).

C. The CONTRACTOR is responsible for all traffic control measures.

1. Contractors shall comply with State of Alabama Department of Transportation regulation concerning traffic control devices. Contractor shall provide signs, i.e. "Herbicide Equipment Ahead", barricades, and/or flashing lights, as necessary, for the protection of the work and the safety of the public.

D. The CONTRACTOR is responsible for necessary permits.

1. Contractor will obtain all Permits for Placement of Herbicides on Rights-of-Way by Utilities from the Alabama Department of Transportation and supply the City's representative with documentation of said permits.

1.09 CONTRACTOR MINIMUM SERVICE REQUIREMENTS

A. The Contractor will be required to inspect each area prior to application for the location of any livestock along with any desirable vegetation such as gardens, landscaped lawns, crops, or tree orchids adjacent to the treated areas. Prior to an application, the Contractor will provide the City's representative with a list of locations not to be treated, address, telephone number, and reason for not treating the particular location. Contractor will supply the City with a map and/or maps showing all areas to be treated or not to be treated that particular year.

B. The Contractor will report any potential problems that are not designated by the prior inspection, such as erodible areas which could be worsened by the herbicide application. The Contractor will contact the City's representative and show them the questionable area before any work is performed on that site.

C. All weeds, grass and brush will be eliminated except Bermuda grass.

D. Producing pecans or desirable trees located along or near the top banks of the channel are not to be treated and all efforts will be made to avoid damaging these trees.

1.10 CONTRACTOR QUALIFICATIONS

A. The CONTRACTOR shall demonstrate a minimum level of five years' experience in herbicide application. The contractor must have performed at least

five other jobs of similar size and have treated 300,000 linear feet of ROW with its personnel within the last 24 months.

B. The contractor shall possess all necessary licenses. The following is required for this contract. A copy of all required licenses and permits shall be provided bid response.

1. State of Alabama General Contractor's License for Herbicide Application, [Required by Ala. Code §34-8-1, et seq. (1975)] **GENERAL CONTRACTOR'S LICENSE NUMBER MUST BE NOTED ON THE OUTSIDE OF THE PROPOSAL RESPONSE ENVELOPE.**

2. Alabama Department of Agriculture and Industries Professional Services Permit [Required by Ala. Code §2-27-2, et seq. (1975)]

3. Commercial Pesticide Applicator License for each supervisor.

4. Commercial Pesticide Applicator Certification for Rights-of-Way and Aquatic for each applicator.

5. City of Tuscaloosa Business License. (Not required to submit a bid but must be obtained upon contract award)

6. Alabama Department of Environmental Management NPDES General Permit (Required by Ala. Code §22-22A-1 to 22-22A-15 et seq. (1975))

7. The State of Alabama must certify each person actually spraying as a Commercial pesticide applicator for custom handgun foliar treatment application and be a certified applicator licensed by the Alabama Department of Agriculture and Plant Industries in the Rights-of-Way and Aquatic Categories **((NO EXCEPTIONS).**

   a. Submit the names of two (2) licensed supervisors with a minimum of five (5) years' experience.

   b. Submit the names of four (4) certified applicators with a minimum of three (3) years' experience in the Right-Of-Way and Aquatic categories who are bona fide employees of the contractor. Contractor to furnish a listing with names, addresses and telephone numbers along with photo copies of each person's employee ID card issued by the State and their Certified Commercial Pesticide Applicator Certificate.

C. Contractors not meeting the minimum qualifications specified shall not be considered for award of the contract.

1.11 OWNER RESPONSIBILITIES

A. An owner representative will accompany the contractor's crew for all work.

B. The owner shall provide a source of potable water at a location or locations to be designated by the owner.

C. The owner shall provide access to all sewers being treated.

PART 2 PRODUCTS

2.01 COMPOSITION OF THE CHEMICAL HERBICIDE CONTROL MATERIAL

A. The herbicide used in treatment of vegetation in drainage channel easements, except aquatics, will consist of a combination of herbicide products that will effectively control all vegetation, except Bermuda grass.

B. The Contractor will comply with all pesticide herbicide application requirements as set forth by the Alabama Department of Agriculture and Commerce, Division of Plant Industries, Federal Environmental Protective Agency requirements; and manufacturers' instructions provided with chemicals on labels and/or in accompanying brochures. The Contractor must submit MSDS to the Water and Sewer Department for its records.

C. The products selected shall comply with the requirements set forth by the Alabama Department of Agriculture and Industries, Federal Environmental Protection Agency, and manufacturers labels.

D. We believe the following products to be good choices for this work. Proposers must describe the products they propose and explain how they meet or exceed these products:

1. SEWER OUTFALLS:
   Monsanto's ROUNDUP PRO CONCENTRATE herbicide at 19-24 ounces per acre combined with Dow Agro Science's GARLON 3A at 32 ounces per acre or MILESTONE VM herbicide at 7 ounces per acre and Du Pont's OUST EXTRA at 2.8 ounces per acre and/or Monsanto's OUTRIDER 1.33 ounces per acre combined with Brewer International's REBOUND surfactant, a deposition retention agent and defoaming agent, or approved equal.

2. ALL AQUATIC GROWTH OR VEGETATION GROWING IN WATER:
   Monsanto's AQUAMASTER herbicide at two percent (2%) of total solution in clean water with one quarter (1/4%) of Brewer International's

REBOUND surfactant, deposition retention agent, and defoaming agent for all aquatic growth or vegetation growing in the water, or approved equal.

3. TREES:
Primary means of vegetation control in drainage channels will be foliar application. However, where trees exist that are too tall to be treated in this manner, a cut-bark treatment using Monsanto's ROUNDUP PRO CONCENTRATE (or approved equal) according to manufacturers' recommendation.

E. Labels and MSDS for all products will be submitted with each bid.

F. The specified mixtures are to be applied at a rate per acre, determined by the Contractor, so as to control all vegetation except Bermuda grass for at least seventy (70) days.

2.02 APPLICATION OF THE CHEMICAL HERBICIDE CONTROL MATERIAL REQUIREMENTS

A. Custom handgun foliar treatment only by skilled, experienced, certified applicators should be the primary means of herbicide application.

B. Contractor may utilize truck-mounted spray-rigs to access the areas to be treated by means of walking, wading or swimming as is necessary while using hoses to access the work. Large 4-wheel drive and other spray equipment will be kept out of the creeks to prevent damage to the channel and/or erosion.

C. The Contractor will not apply any herbicide when rainfall is forecasted within four (4) hours of time of application, during periods of rainfall or immediately following periods of rainfall while vegetation retains rainfall moisture on the surfaces of plants.

D. The Contractor will not apply any herbicide when wind speed is in excess of ten (10) mph.

E. The Contractor, while in the process of applying herbicides, will acquire GPS tracts of all areas being treated. These GPS tracts will be submitted to the Maintenance Data Coordinator on a weekly basis. This will include initial treatments and any and all re-treatments.

F. The Contractor will maintain daily contact with the CITY ROW Supervisor as to the Contractor's current work location and progress.

2.03 APPLICATION OF THE CHEMICAL HERBICIDE EQUIPMENT REQUIREMENTS

A. All equipment used by the Contractor for herbicide application must comply with all applicable State, Federal and OSHA Regulations.

B. A permanent amber caution light will be mounted on top of each piece of equipment that operates near public roads.

C. Equipment should be marked with the name of the contractor for identification purposes.

D. Equipment must be clean and in proper working order at all times. Equipment found not to be in compliance with these specifications will be reason for the City to stop work.

E. Work performed by the contractor may require transporting grounds care equipment from property to property, using truck and trailer haulers. Under no circumstances, (unless approved by the City), will contractors be allowed to park transport equipment on turf areas or mulched bed areas while servicing City properties. Contractors may park at meters, or in parking lots in designated parking spaces, on the day of their maintenance. The City will not require companies that are under contract with the City for Herbicide Services to feed parking meters while servicing their Water Works and Sanitary Sewer City properties.

2.04 APPLICATION OF THE CHEMICAL HERBICIDE INSPECTION REQIREMENTS

A. No later than thirty (30) days after completion of each application a joint inspection by representatives of the contractor and the Water and Sewer Department will be made to decide the effectiveness of herbicide treatment. Contractor will supply the City with map and/or maps showing all areas that have received treatment. In addition to these joint inspections, the contractor will be required to conduct routine inspections during the growing season and present all findings to the City's representative.

B. Any work deemed unsatisfactory by the City's representative will be retreated at no additional cost to the City. These re-treatments will not be limited to frequency, timing and/or width. A subsequent inspection of areas which receive spot treatments will be conducted to determine effectiveness of the treatment for further treatment.

C. If retreatment continues to be unsuccessful, the City may require the contractor to reimburse monies paid (based on the identified portion of unacceptable work received) and may seek associated damages.

D. Contractor will photograph all locations, before treatment and thirty (30) days after treatment, and provide copies of such documentation to the appropriate City representative. In addition, Contractor will supply the City a final map and/or maps indicating re-treatments and photograph locations.

2.05 APPLICATION OF CHEMICAL HERBICIDE MEASUREMENT AND PAYMENT FOR SERVICES

A. Measurement shall be based by the linear foot with a width up to thirty (30) feet treated per linear foot.

PART 3 EXECUTION (NOT USED)

END OF SECTION

SCOPE OF SERVICE - AIRPORT

A. Scope of Work:

1. The contractor will furnish all herbicides, personnel, qualified supervision and insurance to apply herbicides to vegetation growing on the Tuscaloosa Municipal Airport, Tuscaloosa, Alabama as indicated in Appendix 1.

2. Areas of the airport to receive herbicide treatment is further defined as follows:

    a. Airport perimeter, security fence in all areas where maintenance by others precludes the need for treatment, including airport ramps and taxiways.

    b. A diamond area of 10 feet across at all airfield lights and signs.

    c. The area between the runways and their adjacent taxiways, and along said runway where no adjacent taxiway to a runway, an area of 50 feet in width. The area outside of and along the taxiways and the end of the runways with a width of 30 feet.

B. Inspection of Work:

1. The Contractor will be required to inspect each area prior to application for the location of any desirable vegetation. Prior to an application, the Contractor will provide the Department of Transportation's representative with a map of locations to be skipped and reason for skipping the particular location. The Contractor will control his/her operation in order to avoid damage to the skipped areas and will be responsible for any and all damages.

2. No later than 30 days after the completion of each application a joint inspection by representatives of the contractor and the Department of Transportation will be made to determine the effectiveness of the herbicide treatment.

3. In cases where the herbicide application is not totally effective, follow-up treatments will be applied as required. A subsequent inspection of areas which receive spot treatments will be conducted to determine effectiveness of the treatment for further treatment.

C. Schedule of Work:

1. All areas defined in scope of work will receive one herbicide spray treatment during 2016 as follow:

    First Treatment - To commence within ten days of notice to proceed.

    Second Treatment - To commence within ten days of notice to proceed and

beginning within 60-75 days of the first treatment.

Third Treatment - To commence within ten days of notice to proceed (if necessary) and beginning within 60-75 days of the second treatment.

Follow-up Treatment - As required within (30) thirty days following completion of first, second and third treatments reflected above, when necessary to secure effective control as required by these specifications.

2. The contractor will submit a work schedule, including a detailed explanation of what and when the areas will be treated, for the Transportation Department's review.

3. Herbicide application will not be performed when weather, wind, and/or temperature would be adverse to safe, effective herbicide application.

D. <u>Material Requirements:</u>

1. The herbicides used in the treatment of vegetation, except aquatics, will consist of a combination of herbicide products which will effectively control all vegetation, except Bermuda grass. Any Bermuda grass that is killed or permanently damaged will be replanted, by the Contractor, by means of seeding, and growth will be assured. Replanting will be done at no additional cost to the City of Tuscaloosa.

2. Herbicides to be used for the **Selective** treatment of the airport will be strictly adhered to as follows. Use BASF's **PLATEAU** herbicide at (4) four ounces per acre combined with Syngenta's **ENDURANCE** herbicide, and Nufarm's **WEEDAR 64** at manufacturers' recommended rates, or approved equal.

3. Use Monsanto's **ROUND UP PRO** herbicide at (2%) of total solution combined with (10) ten pounds of DuPont's **KARMEX** and Syngenta's **ENDURANCE** herbicide for **Non-Selective** treatment of growth or vegetation growing in fences, lights and signs or an approved equal.

4. The above herbicides shall be combined with water in sufficient volume so as to provide uniformed coverage.

5. Labels and **MSDS** for all products shall be submitted.

6. Spot treatments shall be made with the mixes listed above to

achieve desired control of vegetation as outlined in these specifications (see B.3).

7. Optional mixes may be considered but only upon written approval from the Transportation Department. The products selected shall comply with the requirements set forth by the Alabama Department of Agriculture and Industries, Federal Environmental Protection Agency, and manufacturers labels. Optional choices shall be deemed in no way to release the Contractor from all liability associated with their choice of herbicides for application on this project. **MSMA** herbicide will **NOT** be allowed for any treatment.

8. The City of Tuscaloosa reserves the right to pull samples from the tank mixtures used in the application of herbicides and have them tested by an independent lab to verify the contents are meeting contract specifications.

9. Primary means of vegetation control shall be foliar hand application. However, where trees are too tall to be treated in this manner exist, a cut-bark treatment using Monsanto's **ROUND UP PRO** (or approved equal) as per manufacturer's recommendation.

10. Producing pecan or desirable trees located along or near the security fence are not to be treated and all efforts shall be made to avoid damaging or killing of these trees.

11. The Contractor shall be held liable for any damage incurred to yards, gardens, and other private property damaged as a result of over spray or drift. The Contractor will also be responsible to damage incurred to areas not authorized by the Transportation Department to be treated with herbicide application.

12. The Contractor shall comply with all pesticide herbicide application requirements as set forth by the Alabama Department of Agriculture and Industries, Federal Environmental Protective Agency requirements, and manufacturer's instructions provided with chemicals on labels and/or in accompanying brochures. The Contractor should submit documentation of acceptability to the Transportation Department for its records.

E. <u>Equipment Requirements:</u>

1. All equipment used by the contractor for herbicide application must be certified and licensed by the Alabama Department of Agriculture and Industries and must comply with all applicable State, Federal and OSHA Regulations. A permanent rotating amber caution light will be mounted on top of each piece of equipment that operates from public roads. All application equipment must be inspected and licensed by the Alabama Department of Agriculture and Plant Industries and bear the inspection label on the equipment.

2. Aerial application will be prohibited in this contract.

F. Method of Application:

1. Custom hand gun, tractor mounted and truck mounted spray equipment will be operated by only skilled, experienced applicators and shall be the primary means of herbicide application. Large 4-wheel drive tractors, skidders or tract types of equipment shall be kept off of the right-of-way to prevent damage or erosion to the right-of-way.

2. Each person actually spraying herbicide must be a certified applicator licensed by the Alabama Department of Agriculture and Plant Industries **(NO EXCEPTIONS)**. All applicators shall wear uniforms at all times while working. Equipment must be clean and in proper working order at all times. Personnel or equipment found not to be in compliance with these specifications shall be reason for the Transportation Department to stop work.

G. Construction Requirements:

1. The area of the airport within the aircraft operations area (AOA) to receive herbicide treatment is under the control of the ATCT during the hours of 7 a.m. – 8 p.m. Continuous radio contact with the ATCT, using City furnished radio, is required. During any other hours, continuous monitoring of pilots' radio traffic for coordination of ground vehicle movement with pilots via radio is required.

2. The Contractor shall be required to inspect each area prior to application for the location of desirable vegetation adjacent to the treated areas. The Contractor shall control their operation to avoid damage to these areas and shall be responsible for any and all damages.

3. Any work to be added or deleted under this contract shall be by Change Order only.

4. All documentation pertaining to the additions or deletions of work shall be maintained in a project file by the Transportation Department.

H. Technical Specifications:

1. Vegetation is defined as all grasses, weeds, vines and brush (except Bermuda grass).

I. General:

1. All weeds, undesirable grasses, and brush shall be eliminated except Bermuda grass. Any Bermuda grass that is killed or permanently damaged shall be replanted, by the Contractor, by means of seeding, and growth will be assured.

Replanting shall be done at no additional expense to the City of Tuscaloosa.

2. Contractor must have Custom Pesticide Applicator's License issued by Alabama Department of Agriculture and Industries and the License Number shall be furnished.

3. The Contractor shall not apply any herbicides when rainfall is forecast within eight (8) hours of time of application, during periods of rainfall, or immediately following periods of rainfall while vegetation retains rainfall moisture on the surfaces of the plants.

4. All areas treated shall be inspected by the contractor thirty (30) days following first scheduled treatment, as reflected in paragraph C.1. above, to determine if treatment of vegetation has been effective and achieved 100% coverage. In all cases where coverage is not 100% complete, spot treatment will be applied as required. A subsequent inspection of areas which receive spot treatment shall be conducted to determine effectiveness of the treatment.

5. The contractor shall have personnel certified to operate on the airfield. Airfield driving training will be provided by the airport and approved by the Airport Manager

APPENDIX (ROADSIDE)			
HERICIDE TREATMENT LOCATION LISTING			
Name:	From:	To:	Treated
Watermelon Road	City Limits	Owens Road	
Owens Road	Watermelon Road	City Limits	
Rice Mine Road	City Limits	City Limits	
Rice Valley Road	Hampton Drive	Rice Mine Road	
Robert Cardinal Road	Industrial Drive	City Limits	
New Watermelon Road	Watemelon Road	64th Street N.E.	
Jack Warner PKWY	3rd Street	Holt Road	
19th Avenue	2nd Street East	Holt Road	
Kicker Road	5th Place East	University Blvd.	
Boone Blvd.	State HWY 82	End	
Helen Keller Blvd.	Jack Warner Parkway	University Blvd.	
Sharp's Landing Road	City Limits	Boat Launch	
19th Avenue East	10th Street	13th Street East	
14th Avenue	24th Street	19th Street East	
15th Street	O'Connor Drive	University Blvd.	
16th Avenue	Hargrove Road	End	
26th Avenue	R.R. Tracks	R.R. Tracks	
Kicker Road	Carriage Lane	Hargrove Road E.	
Old Sanders Ferry Road	City Limits	City Limits	
31st Street Bridge	Greensboro Avenue	Kauloosa Avenue	
Johnson Road	Old Sanders Ferry Rd.	Black Warrior PKWY	
Campus Drive	5th Avenue East	Helen Keller BLVD.	
3rd Ave East	39th Street	Skyland Blvd.	
39th Avenue East	14th Street	University Blvd.	
Hargrove Road	Pelham Loop Road	37th Place East	
26th Avenue	Skyland BLVD.	37th Place East	
Cypress Creek Avenue	Skyland BLVD.	Jug Factory Road	
Jug Factory Road	City Limits	McFarland Blvd.	
57th Street East	Cypress Creek Avenue	End	
Watermelon Road	McFarland BLVD.	Snows Mill Road	
29th Street	39th Avenue	Herman Avenue	
35th Street	M.L. King JR Blvd.	Trevor S. Phillips Ave.	
37th Street	12th Avenue East	Hargrove Road E.	
Hargrove Road	37th Street East	City Limits	
Woodland Road	Hargrove Road East	North side of I59/20	
North Ridge Road	Rice Valley Road	Old Colony Road	
Old Colony Road	Rice Mine Road	Old Watermelon RD.	
21st Street	40th Avenue	45th Court	
3rd Street	Greensboro Avenue	28th Avenue	
2nd Avenue East	26th Street East	Hargrove Road	
3rd Street	24th Avenue	25th Avenue	
24th Avenue East	15th Street East	End	
Pelham Loop Road	29th Avenue East	25th Avenue East	
Queen City Avenue	Rear Boundary of Library	3rd Street	

Exhibit B

3rd Street	Queen City Avenue	End	
Fosters Ferry Road	39th Avenue	22nd Place	
Mercedes Blvd.	City Limits	City Limits	
J.V.C. Road	Buttermilk Road	Skyland Blvd.	
Buttermilk Road	City Limits	R.R. Tracks	
Tuscaloosa Police Dept.	Watermelon Road	Lake Tuscaloosa	
31st Avenue E.	45th Place E.	48th Place E.	
47th Street E.	30th Avenue	32nd Avenue East	
Southside Drive	Greensboro Avenue	31st Street	
21st Avenue	Jack Warner Parkway	University Blvd.	
Holt Road	Universal Heights	Jack Warner PKWY	
13th Street East	McFarland BLVD.	13th Avenue East	
10th Avenue	Greensboro Avenue	Hargrove Road	
University Blvd	14th Street E.	15th Street	
Point Clear Road	Rice Mine Road	City Limits	
Black Warrior PKWY	31st Street	Taylor Circle	
Black Warrior PKWY	Highway 11	East City Limits	
Energy Lane	U.S. 82	End	
Industrial Park	Robert Cardinal Road	Commerce Drive.	
Commerce Drive	Robert Cardinal Road	Industrial Park Drive	
Old Kaulton Road	Elm Street	35th Street	
Kauloosa Avenue	U.S. HWY 69	Greensboro Avenue	
13th Street East	McFarland BLVD.	7th Alley	
Buttermilk Road	City Limits	City Limits	
University Lane	Brooksdale Drive	Prince Acres	
Hargrove Road	Kicker Road	Hickory Lane	
Moody Swamp Road	35th Street	City Limits	
McFarland Blvd	City Limits	City Limits	
Harper Lee Drive	Helen Keller BLVD	Julia Tutwiler	
Julia Tutwiler	McFarland BLVD.	Helen Keller BLVD.	
Stillman Blvd	29th Avenue	MLK BLVD.	
3rd Steet N.	22nd Avenue	Rice Valley Road	
15th Street I-359	On&Off ramps		
29th Street	Culver Road	Greenview	
25th Avenue NE	Kicker Road	1st Street E.	
Rice Mine Road Guardrails	McFarland BLVD.	Bryant Bridge	
Diamond Ridge	Spring Hill Lake	End	

CURB AND GUTTER TREATMENT AREAS			
(ROADSIDE)			
Name:	From:	To:	Treated:
15th Street	O'Connor Drive	University Blvd.	
River Road	3rd Street	City Limits	
McFarland Blvd.	City Limits	City Limits	

HAND & OFF-ROAD EQUIPMENT APPLICATION AREAS (ROADSIDE)	
NAME:	TREATED:
T.D.O.T. Complex Fence & Buildings	
River Road (Not under Cemetery)	
New Watermelon Road at Rice Mine Road North and South	
Pedestrian Overpass (15th Street and Arcadia Drive)	
Corner of Johnson Road and Old Sanders Ferry Road	
Rice Mine Interchange	
City Lot at 14th Street and 9th Avenue	
Robert Cardinal Airport	
16th Avenue	
Southside Drive	
City Lot at 3rd Street	
City lot at 2800 Block of 19th Street	
7th Street Bridge	
Overpass at New Middle School road	
3rd Street East Cemetery	
City Lot at 2600 block of 25th Street	
University Blvd. Viaduct	
City lot at Alpine Hills	
Alley West of Hackberry Lane and North of Avalon Place	
Holt Road (West Side)	
Signal on State Highway 82 at River Bridge	
Drainage ditch west of Greensboro Ave at 26th street	
Median at 15th Street and Pelham Loop Road	
Raillraod tracks at Robert Cardinak Airport Road and Airport Road	
6th Street Bridge	
TDOT Storage Facility (Non-Selective inside fence)	
Mercedes Blvd. (includes rip rap east and west sides)	
Southmont Dead ends (1st ave, 55th street East, 52nd Street East and 3rd Street East	
Tuscaloosa Police Dept. at Watermelon Road and Lake Tuscaloosa	
Intersection of Black Warrior Parkway and Commerce Drive	
Guildswood at intersection of Sherwood	
Pinehurst & 3rd	
15th street overpass from I-359 to 28th Avenue	
City lot at Heritage Hills	
Corner of hargrove Road and 37th Street	
McFarland Blvd.(overpass at 13th street, all guardrails, bridege ends City limits to city limits)	
Police impound Yard and Fence (Non-Selective)	
Fire Department Exercise Compound and Fence (Non-Selective)	
City Property/Lot Kaulton Road and 35th Street	
Railroad Crossings, 10th Avenue, 12th Avenue Hackberry Lane	
Environmental Services parking lot fences	
Curry center Fence, Retaining walls and Building Foundations	
Curry Center Vacant lot & Fence	

Woodland Trace @ JVC Road	
Guildswood Circle East	
Farmers market Slope	
TDOT Jack Warner Parkway parking lot (old Stone yard)	
Watermelon Road @ Bethel Church	
Impound yard across road from Sewer ROW to gate West side only	
RR ROW from Guildswood to Sherwood	
JVC Bridge	
Amphitheater/Riverwalk	
Jack Warner Parkway (West)	
Storage Fence under I-359 @ 36th Avenue (between 18th street and 20th street)	
Ol' Colony Road Rip Rap	
Gates of Wellington/ Beacon Hill Parkway	
New Fire logistics Kauloosa Ave (Gravel Storage Lot) Non-Selective	
Evergreen Cemetery	
Greenwood Cemetery	

APPENDIX (DRAINAGE)
HERBICIDE TREATMENT LOCATION LISTING

Name:	From:	To:	Treated:
T.D.O.T. Complex & Lot	9th Street	27th Avenue	
40th Way	39th Street	End	
26th Avenue	16th Street	24th Street	
Druid Creek	10th Avenue	R.R. Tracks	
Carver Terrace	Hargrove Road	Druid Creek	
26th Avenue	Claymont	15th Street	
Claymont	R.R. Tracks	End	
Academy Drive Ditch & R.O.W.	3rd Avenue North	Vicksburg Drive	
Summerfield	55th Avenue East	End	
River Road	Paper Mill Road	River Road	
Woodland Forest	Heatherwood Drive	Locust Lane	
Woodland Forest	Woodcrest Drive	North of Chestnut Street	
Woodland Forest	Redbud Lane	Golf Course	
Cypress Creek	Lurleen Wallace Blvd.	Cypress Creek Avenue	
Shelton State	Skyland Blvd.	41st Street	
Cloverdale	Hackberry Lane	East End of Meador Drive	
Cedar Crest	West of Cedar Crest	2nd Avenue	
Cedar Crest	7th Avenue East	West of Cedar Crest	
Eastwood (Basin & R.O.W.	McFarland Blvd.	19th Avenue	
Cribbs Mill Creek	Mill Creek Avenue	19th Street	
Cribbs Mill Spurs	Cribbs Mill Creek	37th Street	
Greenbriar	Highland Oaks	37th Street	
Brooksdale	Old Mill Street	Cribbs Mill Creek	
Greenview	Culver Road	End	
Royal Pines Series	Various Easements	throughout Subdivision	
Hay Court	Eutaw Highway	21st Street	
Cribbs Mill Creek	McFarland Blvd.	Hargrove Road	
Narrow Lane	Cribbs Mill Creek	McFarland Blvd.	
Forest Lake	Tributary #1 of Cribbs Mill	5th Avenue East	
Druid Ice	16th Street	End	
Southmont	3rd Avenue	End	
Dogwood Lane	Dogwood Lane	Cypress Creek	
Reserve Center	27th Street	10th Avenue	
Spring Brook	3rd Avenue East	12th Ave. E. & 37th St. E.	
Hollywood Park	Old Fosters Road	Ozment Road	
Richardson Meats	Cribbs Mill Creek	End	
Woodland Hills	Woodland Hills Road	End	
Woodland Hills	Woodland Hills Drive	End	
Woodland Trace	McGee Road	End	
Woodland Hills	Woodland Hills Drive	End	
River Boat Launch	Lurleen Wallace Blvd.	End	
The Glenns	Willow Lane	End of The Glenns	
37th Street East	37th Street East	I 20-59	
East Park	1st Place NE	2nd Place NE	

Hwy 215	Hwy 215	Hwy 215 (Up to home owner's fence)	
College Hills	40th Avenue	42nd Avenue	
Kaulton	Willow Lane	29th Street	
Kaulton ***	Beech Street	35th Street (access thru Tamco)	
Cherry Street	Cherry Street	Cedar Street	
Mike & Ed's	15th Street	Lake Avenue	
Old Kaulton Road	Old Kaulton Rd.	Kaulton Channel	
College Hills	College Hills Apartments	End	
Montpelier Drive	Montpelier Drive	End	
2nd Court E.	Behind 5335 2nd Ct. E.	End	
Bellview Drive	East of 52nd Street East	End	
Woodland Forest	Hargrove Road	Pinewood Lane	
Midtown Center	Alta Vista	15th Street	
Fed EX	10th Avenue	Fed EX	
Cypress Creek	Cypress Creek Avenue	End	
Oakhill Court	McFarland Blvd.	End of Oakhill Court	
MLK Slope	3rd Street	MLK	
30th Avenue E.	30th Avenue E.	End	
52nd Street E.	Behind 326 52nd St E	End	
Mimosa Park	Mimosa Park Road	End	
Mill Creek Ave	Cribbs Mill Creek	End	
1st Street E.	1st Street E.	End	
26th Avenue E.	Both Sides	26th Avenue E.	
Pipe Storage Yard	35th Street	Behind Impound Yard	
Carriage Hills	16th Avenue E.	End	
Woodland Hills	Woodland Hills Road	South Side Only	

APPENDIX (AIRPORT)
HERBICIDE TREATMENT LOCATION LISTING

Tuscaloosa Airport Treatment List:

Airport perimeter, security fence in all areas where maintenance by others precludes the need for treatment, including runway aprons.

An area of 2 feet in circle around all airfield lights and signs.

The area between the runways and their adjacent taxiways, and along said runway where no adjacent taxiway to a runway, an area of 50 feet in width. The area outside of and along the taxiways and the end of the runways with a width of 30 feet.

City of Tuscaloosa
ROW Spraying

2016 Water & Sewer Map Packet

Exhibit B

\\fnp05-ch03\Wastewater\Wastewater GIS Data\ROW\2016\2016 Map Packet

Project Summary:

-It is the intent of this project to provide for herbicide services for utility ROW and various City properties, so as to control all vegetation growth except for Bermuda grass for a period of not less than seventy (70) days.

-The OWNER may or may not choose to include the work listed as additive alternates in the bid award.

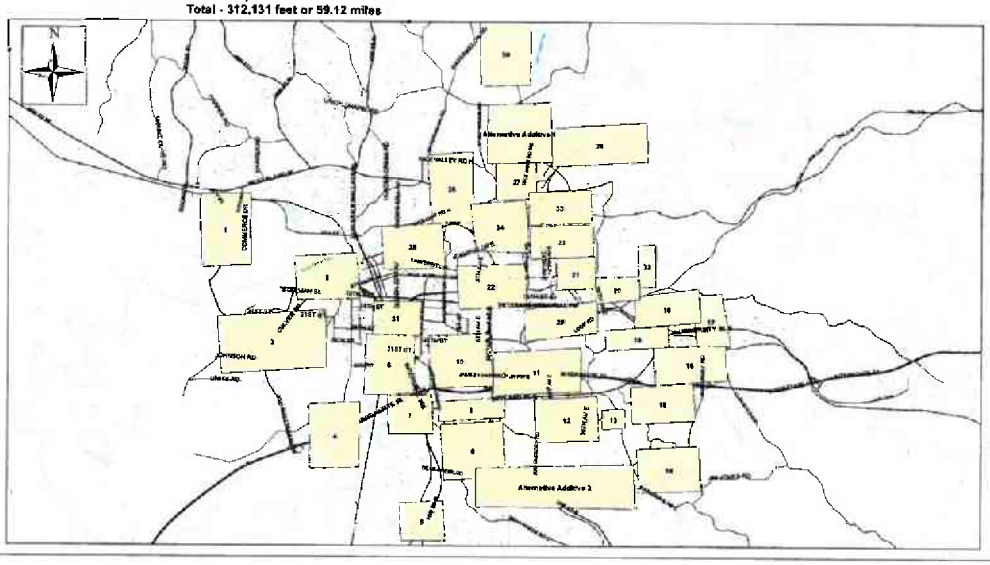
-The decision to award additive alternatives will be determined on the whether bid is less than the project's approved budget.

General Notes:

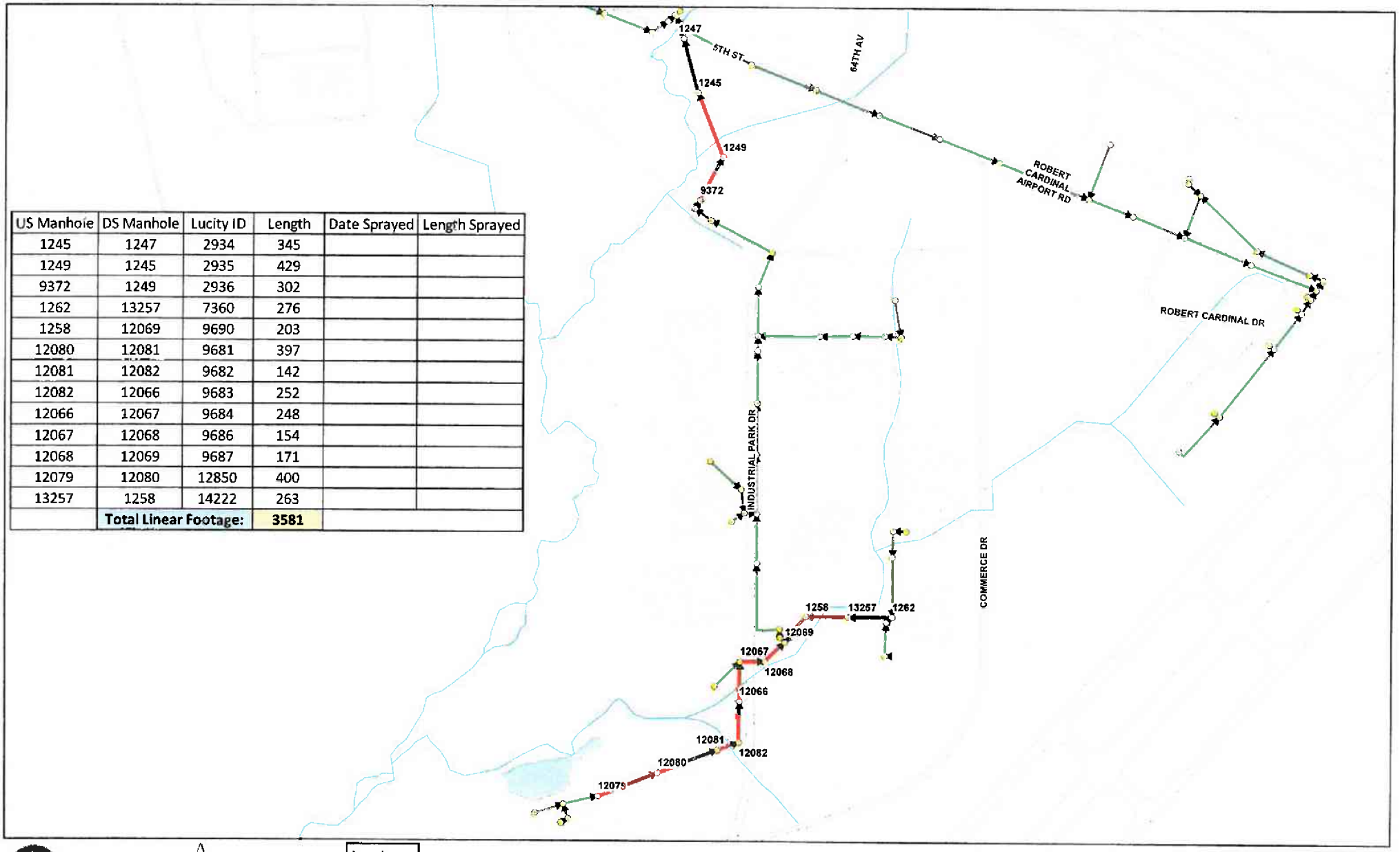
1. Contractor shall coordinate with local police and fire to maintain access for local residents and emergency vehicles at all times. All traffic control should meet MUTCD guidelines.
2. Contractor shall follow City of Tuscaloosa Job Hazard Analysis procedures.
3. The location of all existing underground utilities and other structures are shown in approximate manner only.
4. All items needed to complete the job not specified in the specifications or bid schedule shall be considered incidental to the job and there will be no additional compensation for this work.
5. Contractor shall note the minority inclusion policy in the contract. The contractor is required to follow the instructions therein and submit various forms as described in the policy.

Overall Linear Footage per section of project:

Base - 277,753 feet
Alternative Additive 1 - 15,071 feet
Alternative Additive 2 - 19,307 feet
Total - 312,131 feet or 59.12 miles



US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
1245	1247	2934	345		
1249	1245	2935	429		
9372	1249	2936	302		
1262	13257	7360	276		
1258	12069	9690	203		
12080	12081	9681	397		
12081	12082	9682	142		
12082	12066	9683	252		
12066	12067	9684	248		
12067	12068	9686	154		
12068	12069	9687	171		
12079	12080	12850	400		
13257	1258	14222	263		
	Total Linear Footage:		**3581**		



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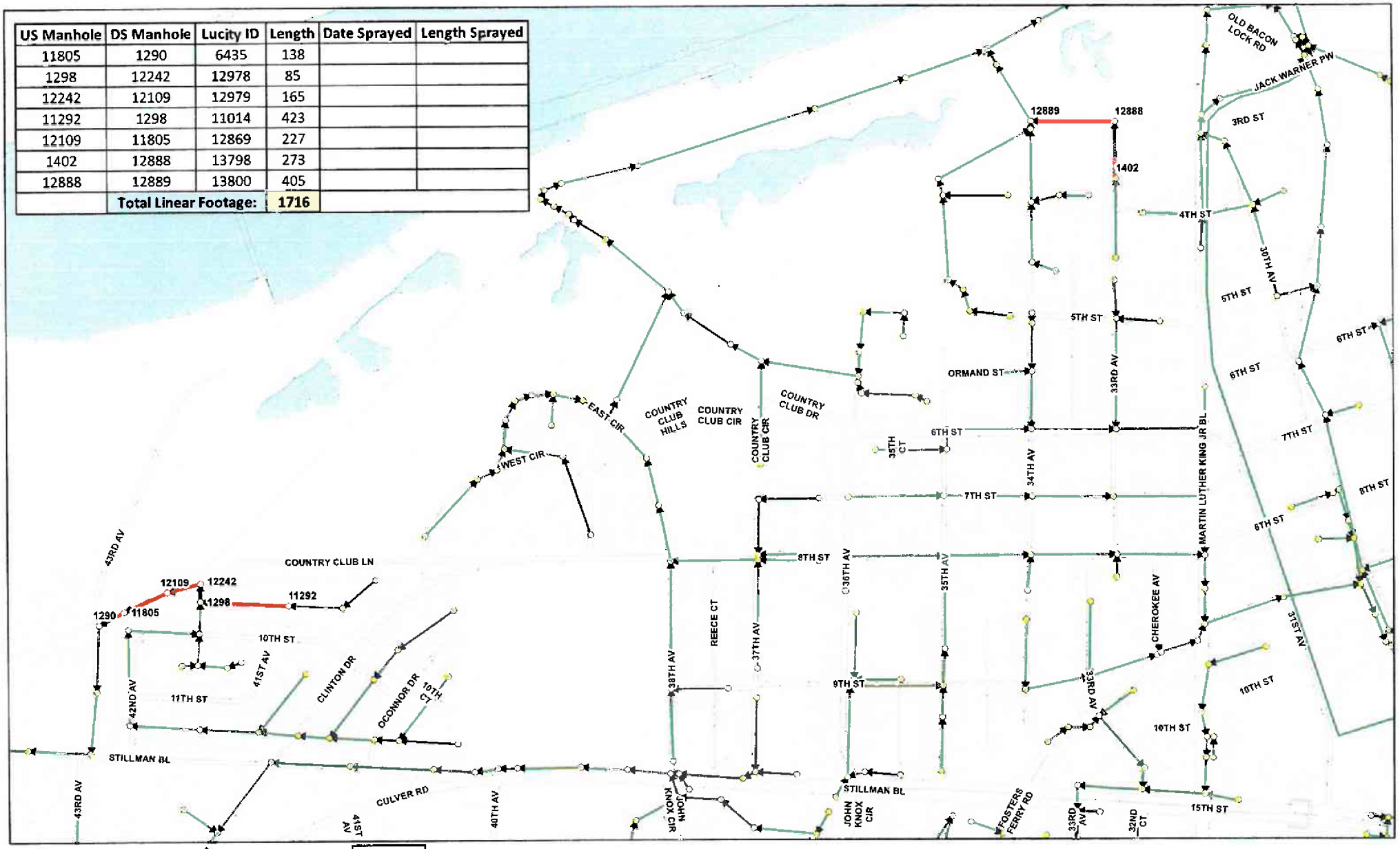
Legend
- Manholes
- Lines to Spray
- Sewer Lines

2016 ROW SPRAY NEEDS

0 250 500 1,000 1,500 2,000 Feet

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
11805	1290	6435	138		
1298	12242	12978	85		
12242	12109	12979	165		
11292	1298	11014	423		
12109	11805	12869	227		
1402	12888	13798	273		
12888	12889	13800	405		
	Total Linear Footage:	1716			

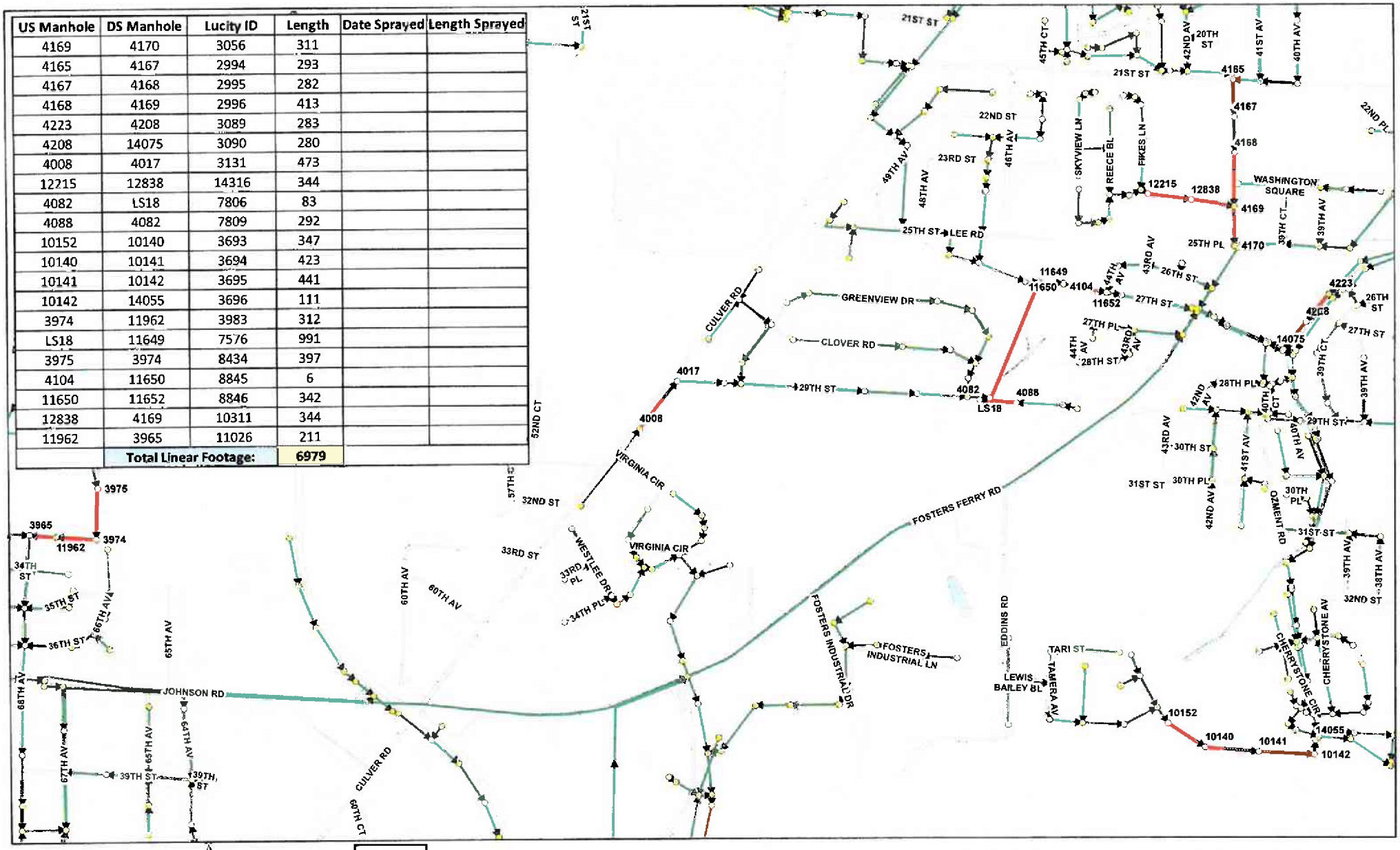


Legend
- Manholes
- Lines to Spray
- Sewer Lines

2016 ROW SPRAY NEEDS

0 200 400 800 1,200 1,600 Feet

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
4169	4170	3056	311		
4165	4167	2994	293		
4167	4168	2995	282		
4168	4169	2996	413		
4223	4208	3089	283		
4208	14075	3090	280		
4008	4017	3131	473		
12215	12838	14316	344		
4082	LS18	7806	83		
4088	4082	7809	292		
10152	10140	3693	347		
10140	10141	3694	423		
10141	10142	3695	441		
10142	14055	3696	111		
3974	11962	3983	312		
LS18	11649	7576	991		
3975	3974	8434	397		
4104	11650	8845	6		
11650	11652	8846	342		
12838	4169	10311	344		
11962	3965	11026	211		
	Total Linear Footage:		6979		



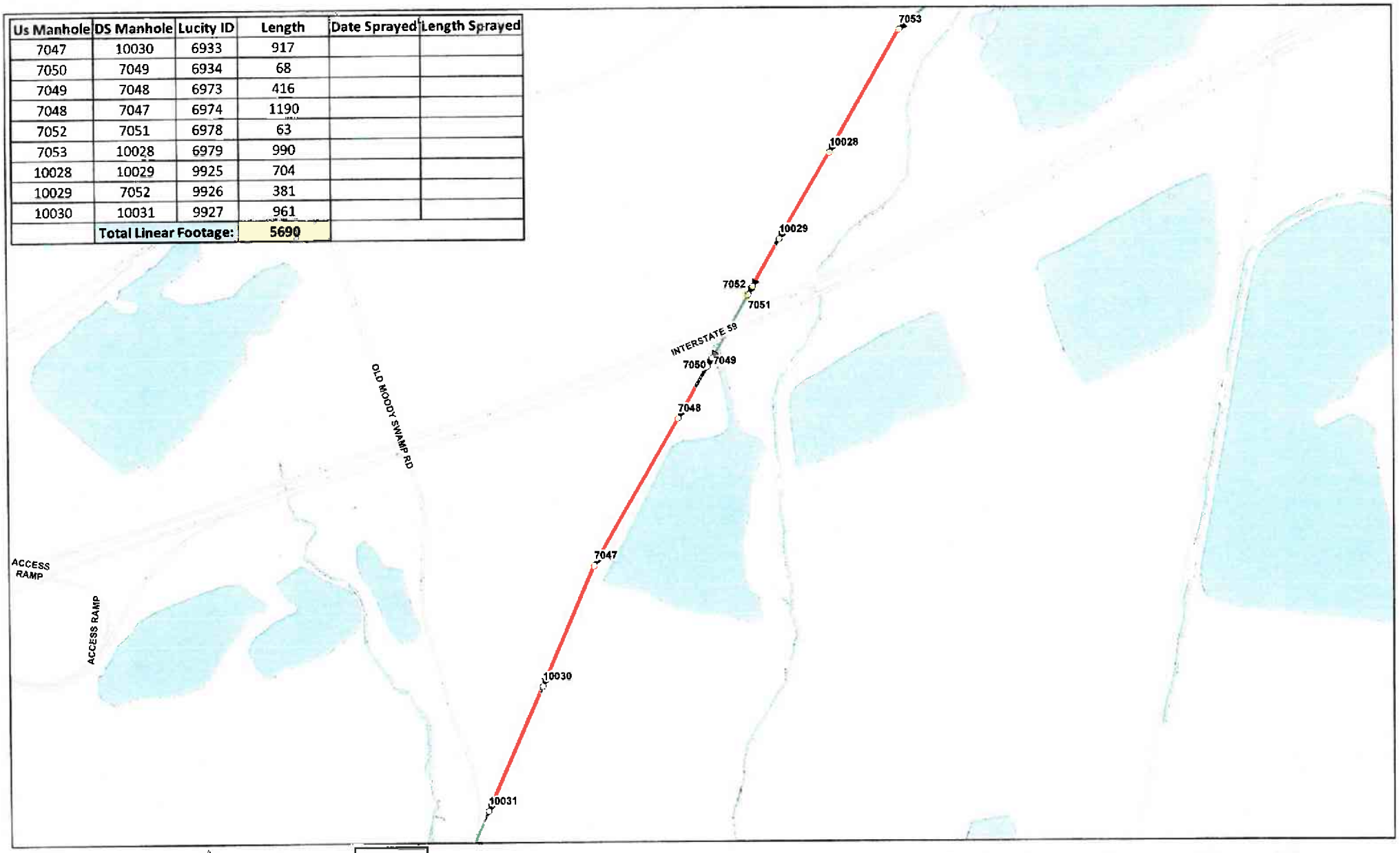
Legend
- Manholes
- Lines to Spray
- Sewer Lines

N

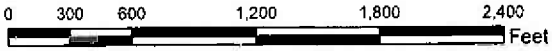
2016 ROW SPRAY NEEDS

0 325 650 1,300 1,950 2,600 Feet

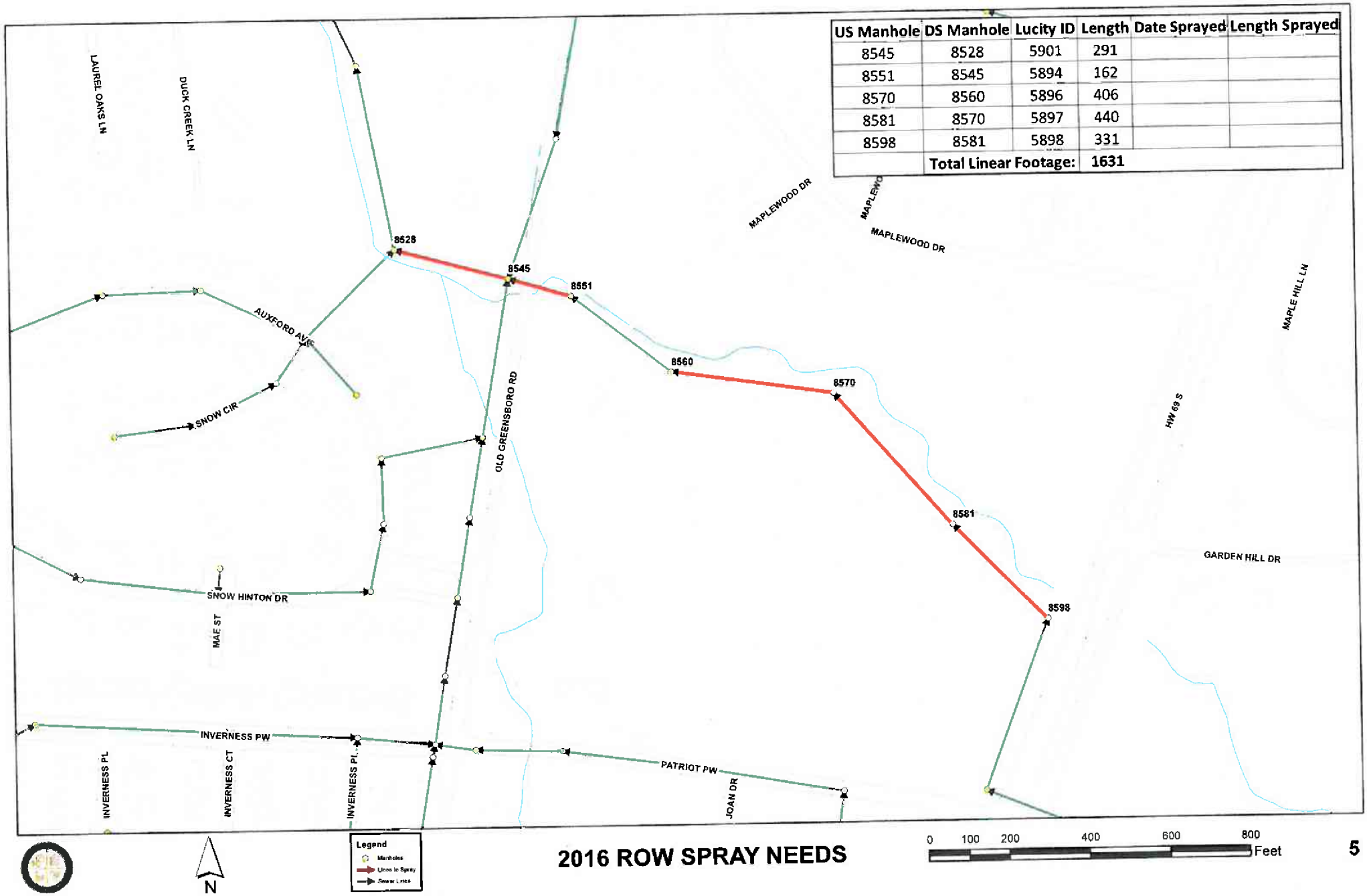
Us Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
7047	10030	6933	917		
7050	7049	6934	68		
7049	7048	6973	416		
7048	7047	6974	1190		
7052	7051	6978	63		
7053	10028	6979	990		
10028	10029	9925	704		
10029	7052	9926	381		
10030	10031	9927	961		
	Total Linear Footage:		5690		



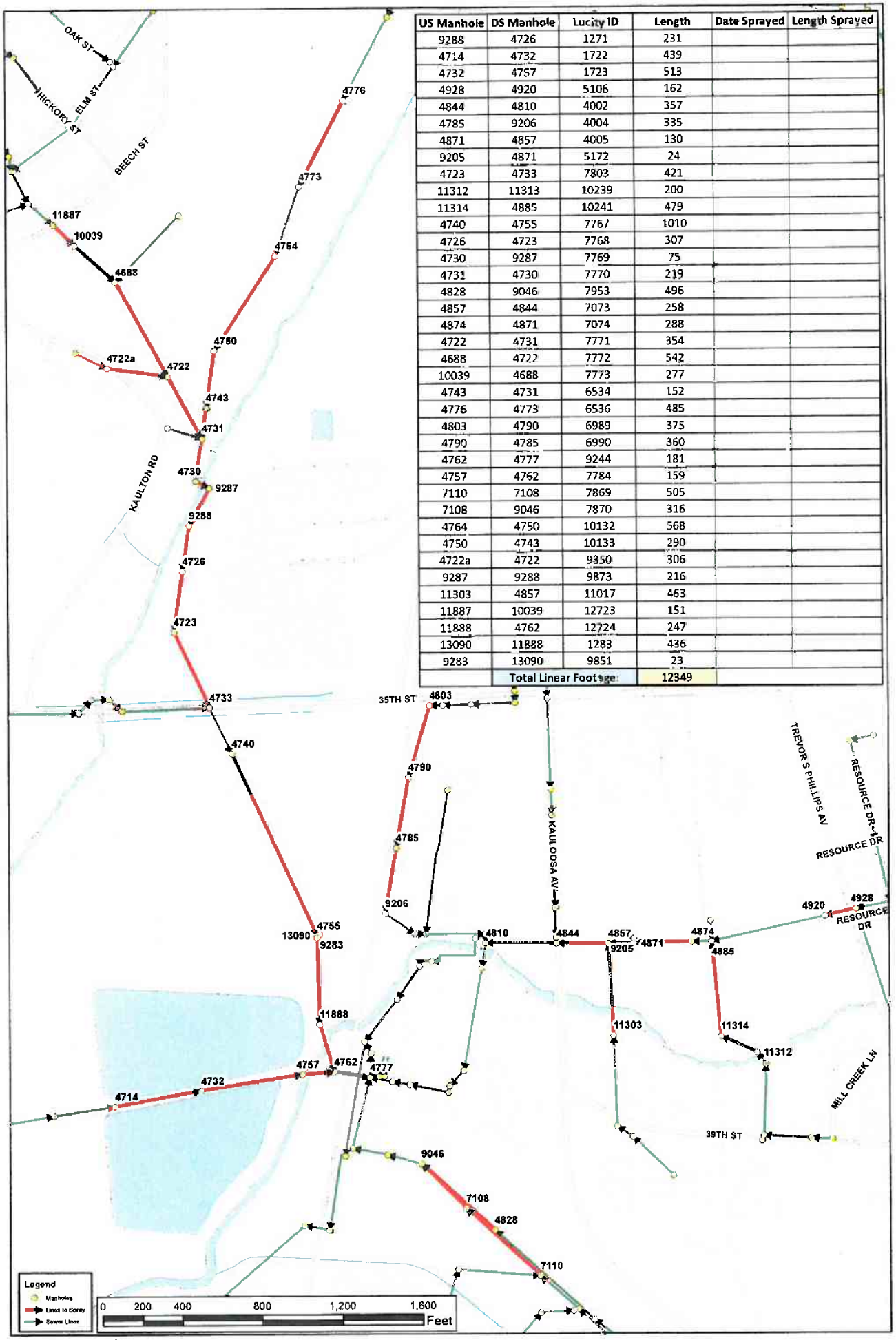
2016 ROW SPRAY NEEDS



US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
8545	8528	5901	291		
8551	8545	5894	162		
8570	8560	5896	406		
8581	8570	5897	440		
8598	8581	5898	331		
	Total Linear Footage:		1631		

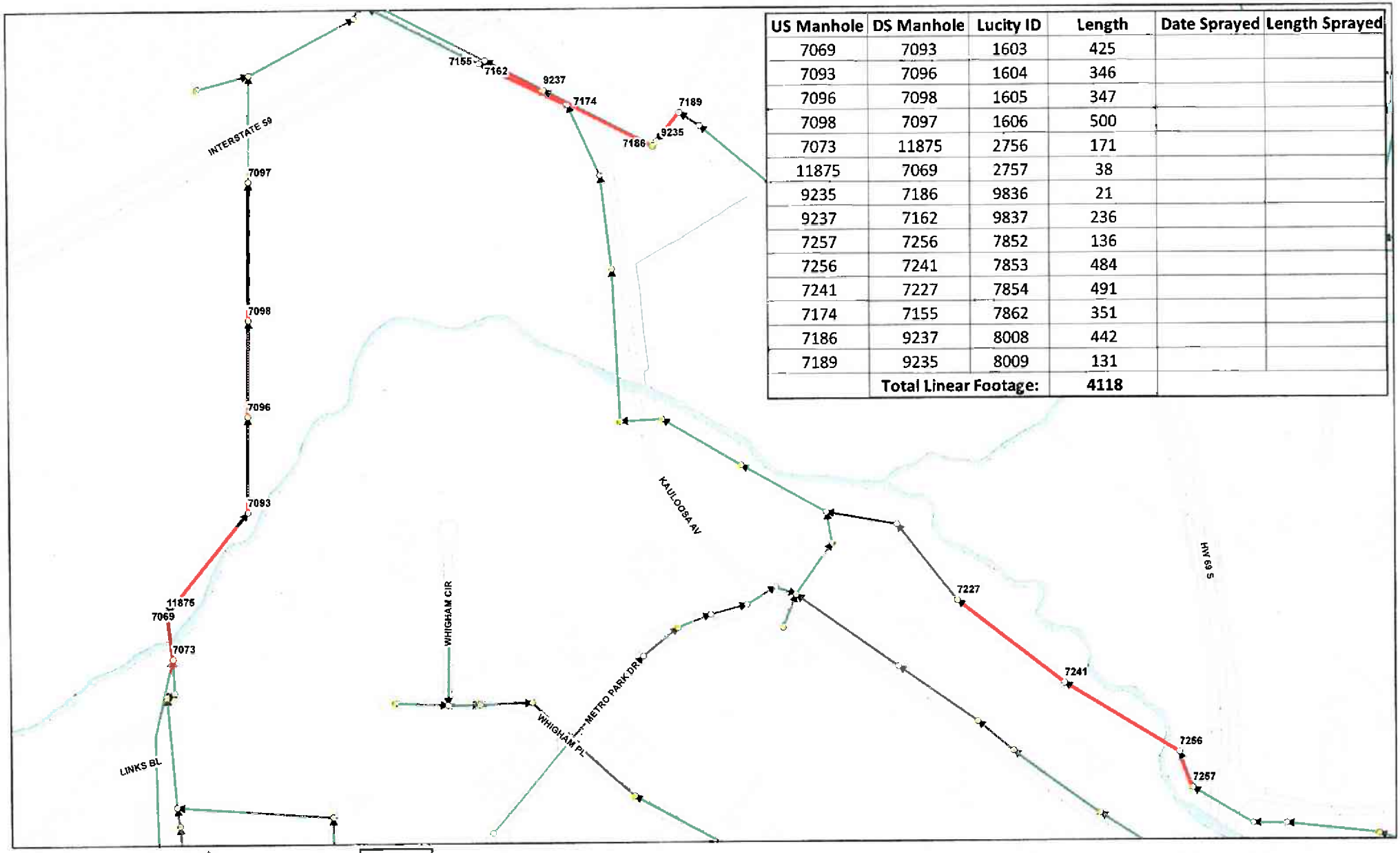


2016 ROW SPRAY NEEDS



US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
9288	4726	1271	231		
4714	4732	1722	439		
4732	4757	1723	513		
4928	4920	5106	162		
4844	4810	4002	357		
4785	9206	4004	335		
4871	4857	4005	130		
9205	4871	5172	24		
4723	4733	7803	421		
11312	11313	10239	200		
11314	4885	10241	479		
4740	4755	7767	1010		
4726	4723	7768	307		
4730	9287	7769	75		
4731	4730	7770	219		
4828	9046	7953	496		
4857	4844	7073	258		
4874	4871	7074	288		
4722	4731	7771	354		
4688	4722	7772	542		
10039	4688	7773	277		
4743	4731	6534	152		
4776	4773	6536	485		
4803	4790	6989	375		
4790	4785	6990	360		
4762	4777	9244	181		
4757	4762	7784	159		
7110	7108	7869	505		
7108	9046	7870	316		
4764	4750	10132	568		
4750	4743	10133	290		
4722a	4722	9350	306		
9287	9288	9873	216		
11303	4857	11017	463		
11887	10039	12723	151		
11888	4762	12724	247		
13090	11888	1283	436		
9283	13090	9851	23		
	Total Linear Footage:		12349		

2016 ROW SPRAY NEEDS



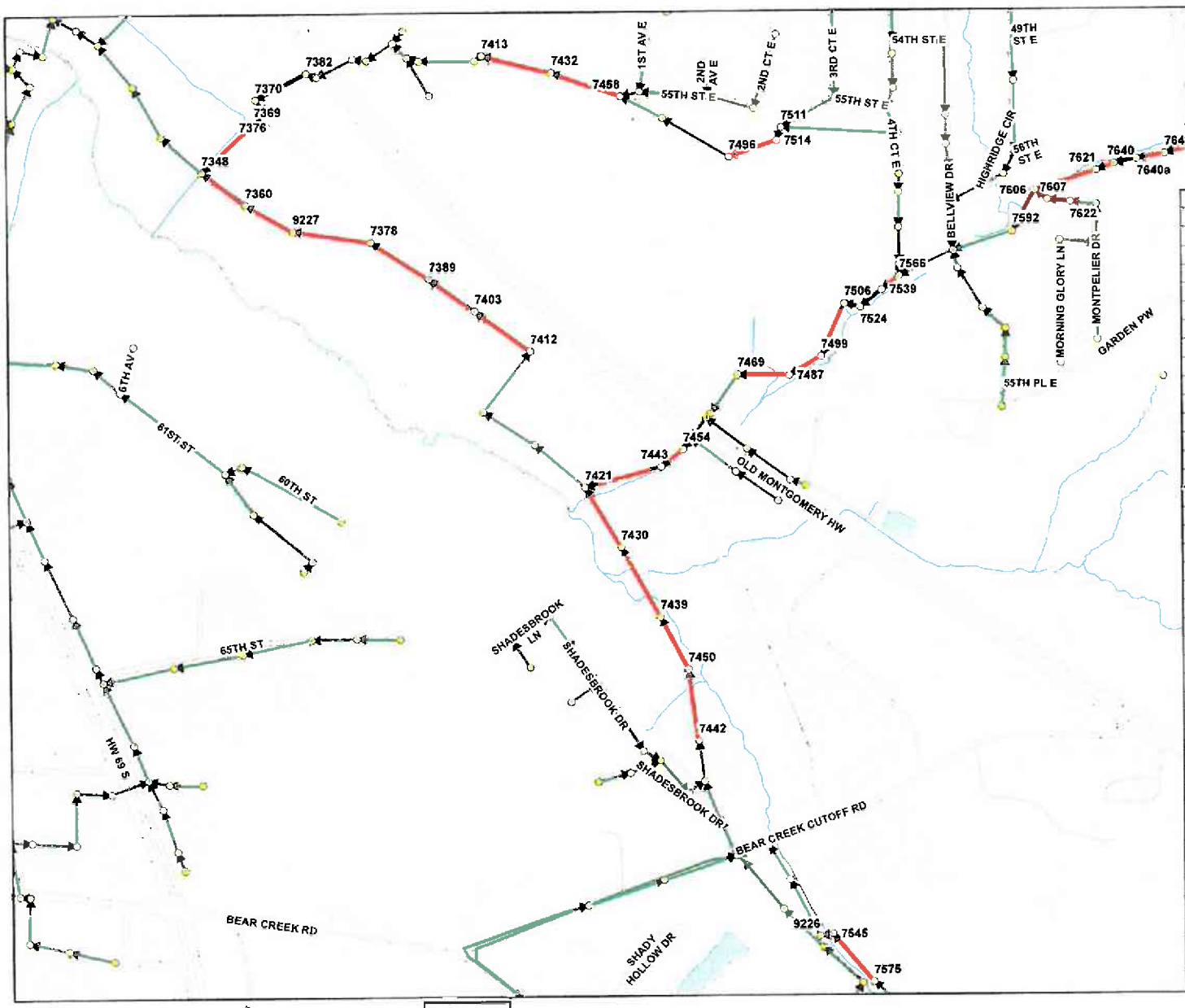
US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
7069	7093	1603	425		
7093	7096	1604	346		
7096	7098	1605	347		
7098	7097	1606	500		
7073	11875	2756	171		
11875	7069	2757	38		
9235	7186	9836	21		
9237	7162	9837	236		
7257	7256	7852	136		
7256	7241	7853	484		
7241	7227	7854	491		
7174	7155	7862	351		
7186	9237	8008	442		
7189	9235	8009	131		
	Total Linear Footage:		**4118**		

N

Legend
Manholes
Lines to Spray
Sewer Lines

2016 ROW SPRAY NEEDS

0 150 300 600 900 1,200 Feet



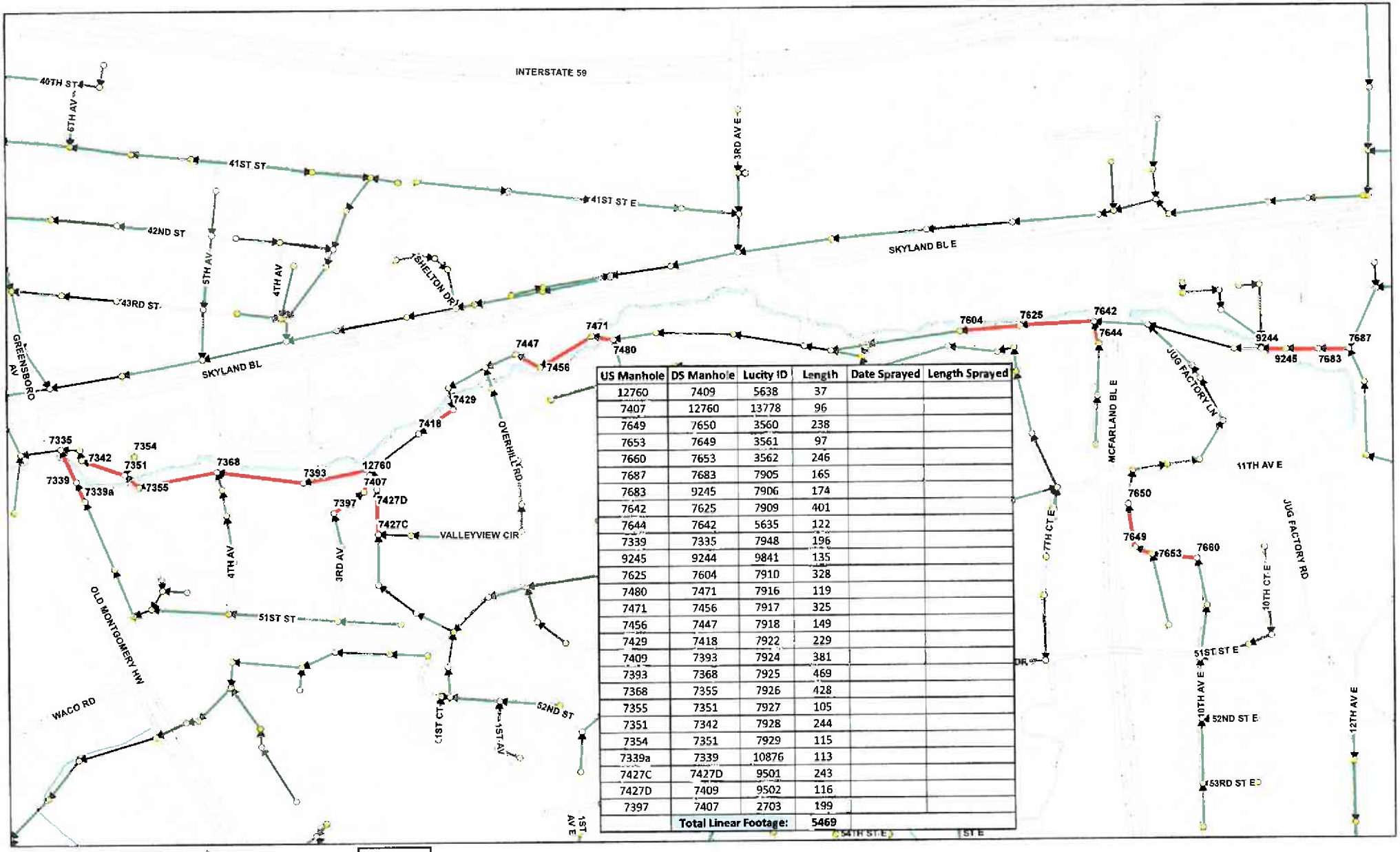
US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
7442	7450	8589	408		
7545	9226	5182	75		
7450	7439	7956	335		
7439	7430	7957	451		
7430	7421	7958	390		
7622	7607	8496	131		
7607	7606	8497	87		
7487	7469	7333	291		
7499	7487	7334	208		
7506	7499	7335	326		
7524	7506	7336	92		
7539	7524	7337	156		
7566	7539	7338	125		
7606	7592	7341	260		
7621	7606	7342	369		
7640	7621	7343	107		
7575	7545	7653	358		
9227	7360	9593	304		
7443	7421	7871	444		
7454	7443	7872	157		
7412	7403	7962	387		
7403	7389	7963	315		
7389	7378	7964	387		
7378	9227	7965	447		
7360	7348	7966	304		
7648	7640a	7972	159		
7657	7648	7973	422		
7369	7348	7977	396		
7376	7369	7978	91		
7370	7376	7979	102		
7382	7370	7980	321		
7432	7413	7986	406		
7458	7432	7987	409		
7514	7496	7990	282		
7511	7514	7991	78		
7685	7676	8500	292		
7690	7685	8501	321		
7690a	7685	10648	292		
7640a	7640	10612	131		
7676	11799	12657	170		
11799	7657	12658	428		
	Total Linear Footage:		11212		

Legend
- Manholes
- Lines to Spray
- Sewer Lines

N

2016 ROW SPRAY NEEDS

0 300 600 1,200 1,800 2,400 Feet



US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
12760	7409	5638	37		
7407	12760	13778	96		
7649	7650	3560	238		
7653	7649	3561	97		
7660	7653	3562	246		
7687	7683	7905	165		
7683	9245	7906	174		
7642	7625	7909	401		
7644	7642	5635	122		
7339	7335	7948	196		
9245	9244	9841	135		
7625	7604	7910	328		
7480	7471	7916	119		
7471	7456	7917	325		
7456	7447	7918	149		
7429	7418	7922	229		
7409	7393	7924	381		
7393	7368	7925	469		
7368	7355	7926	428		
7355	7351	7927	105		
7351	7342	7928	244		
7354	7351	7929	115		
7339a	7339	10876	113		
7427C	7427D	9501	243		
7427D	7409	9502	116		
7397	7407	2703	199		
	Total Linear Footage:		5469		

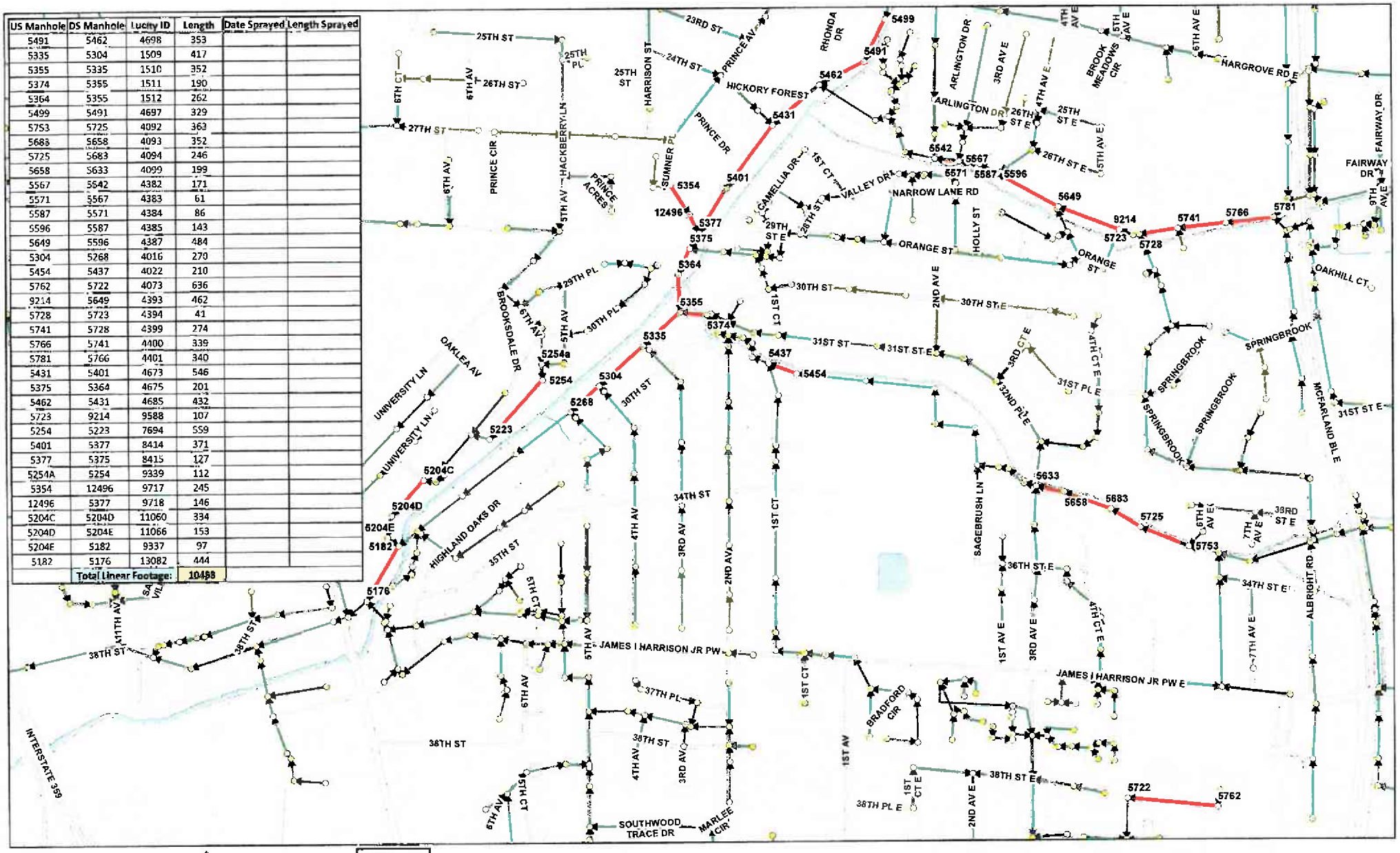
Legend
Manholes
Lines to Spray
Sewer Lines

N

2016 ROW SPRAY NEEDS

0 250 500 1,000 1,500 2,000 Feet

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
5491	5462	4698	353		
5335	5304	1509	417		
5355	5335	1510	352		
5374	5355	1511	190		
5364	5355	1512	262		
5499	5491	4697	329		
5753	5725	4092	363		
5683	5658	4093	352		
5725	5683	4094	246		
5658	5633	4099	199		
5567	5542	4382	171		
5571	5567	4383	61		
5587	5571	4384	86		
5596	5587	4385	143		
5649	5596	4387	484		
5304	5268	4016	270		
5454	5437	4022	210		
5762	5722	4073	636		
9214	5649	4393	462		
5728	5723	4394	41		
5741	5728	4399	274		
5766	5741	4400	339		
5781	5766	4401	340		
5431	5401	4673	546		
5375	5364	4675	201		
5462	5431	4685	432		
5723	9214	9588	107		
5254	5223	7694	559		
5401	5377	8414	371		
5377	5375	8415	127		
5254A	5254	9339	112		
5354	12496	9717	245		
12496	5377	9718	146		
5204C	5204D	11060	334		
5204D	5204E	11066	153		
5204E	5182	9337	97		
5182	5176	13082	444		
	Total Linear Footage:		10488		

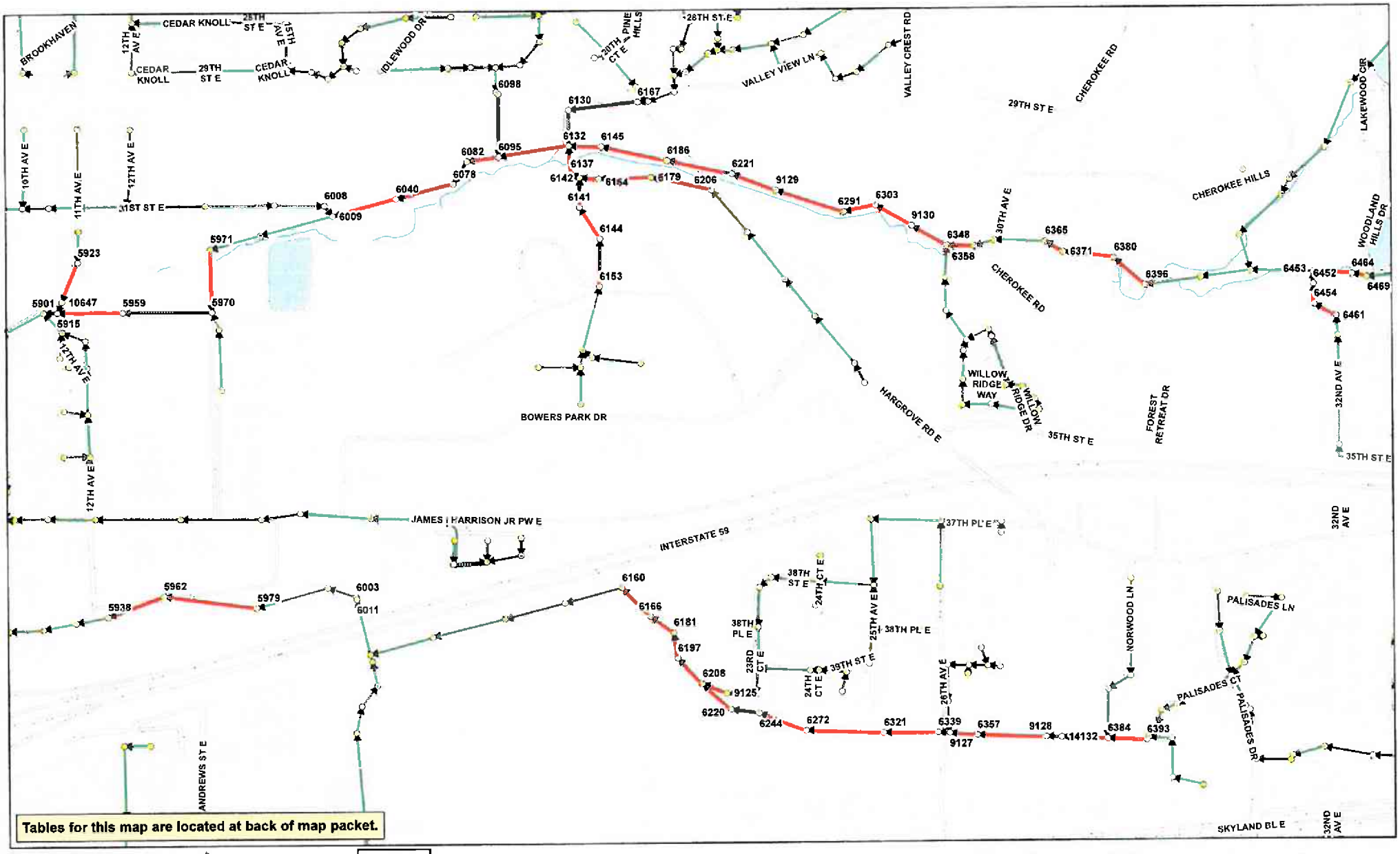


Legend
- Manholes
- Lines to Spray
- Sewer Lines

N

2016 ROW SPRAY NEEDS

0 300 600 1,200 1,800 2,400 Feet



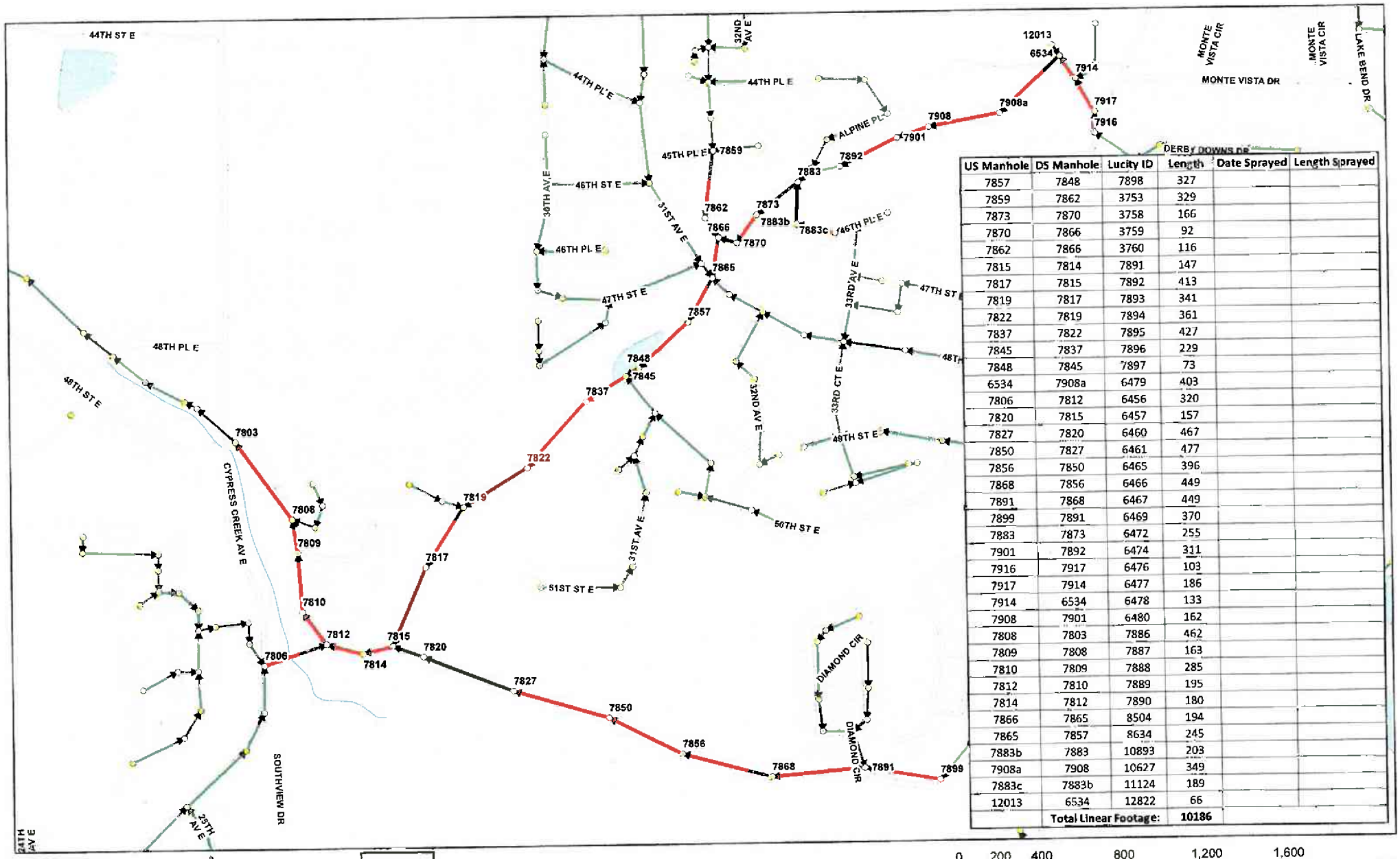
Tables for this map are located at back of map packet.

Legend
- Manholes
- Lines to Spray
- Sewer Lines

N

2016 ROW SPRAY NEEDS

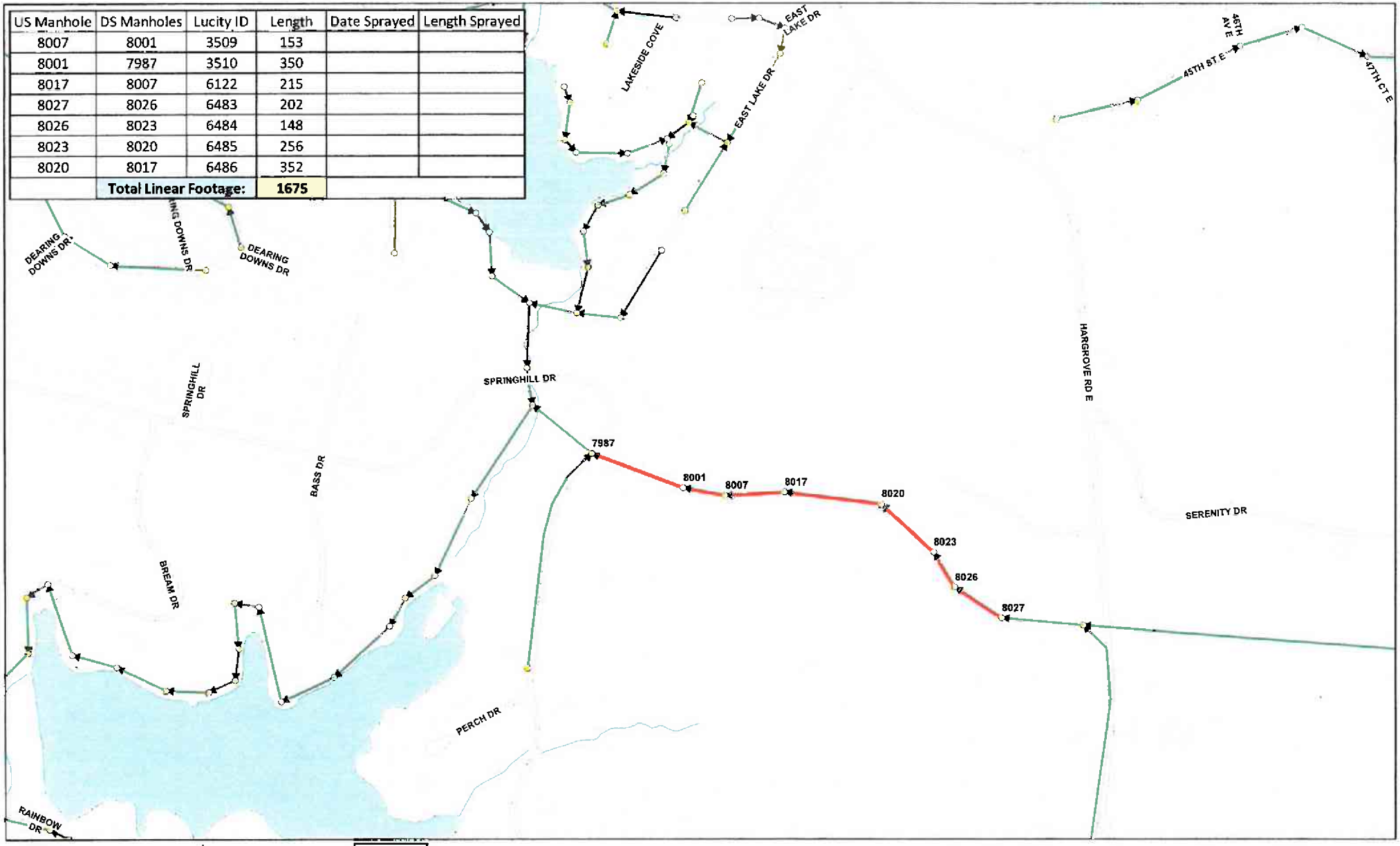
0 300 600 1,200 1,800 2,400 Feet



US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
7857	7848	7898	327		
7859	7862	3753	329		
7873	7870	3758	166		
7870	7866	3759	92		
7862	7866	3760	116		
7815	7814	7891	147		
7817	7815	7892	413		
7819	7817	7893	341		
7822	7819	7894	361		
7837	7822	7895	427		
7845	7837	7896	229		
7848	7845	7897	73		
6534	7908a	6479	403		
7806	7812	6456	320		
7820	7815	6457	157		
7827	7820	6460	467		
7850	7827	6461	477		
7856	7850	6465	396		
7868	7856	6466	449		
7891	7868	6467	449		
7899	7891	6469	370		
7883	7873	6472	255		
7901	7892	6474	311		
7916	7917	6476	103		
7917	7914	6477	186		
7914	6534	6478	133		
7908	7901	6480	162		
7808	7803	7886	462		
7809	7808	7887	163		
7810	7809	7888	285		
7812	7810	7889	195		
7814	7812	7890	180		
7866	7865	8504	194		
7865	7857	8634	245		
7883b	7883	10893	203		
7908a	7908	10627	349		
7883c	7883b	11124	189		
12013	6534	12822	66		
	Total Linear Footage:		10186		

2016 ROW SPRAY NEEDS

US Manhole	DS Manholes	Lucity ID	Length	Date Sprayed	Length Sprayed
8007	8001	3509	153		
8001	7987	3510	350		
8017	8007	6122	215		
8027	8026	6483	202		
8026	8023	6484	148		
8023	8020	6485	256		
8020	8017	6486	352		
	Total Linear Footage:		**1675**		

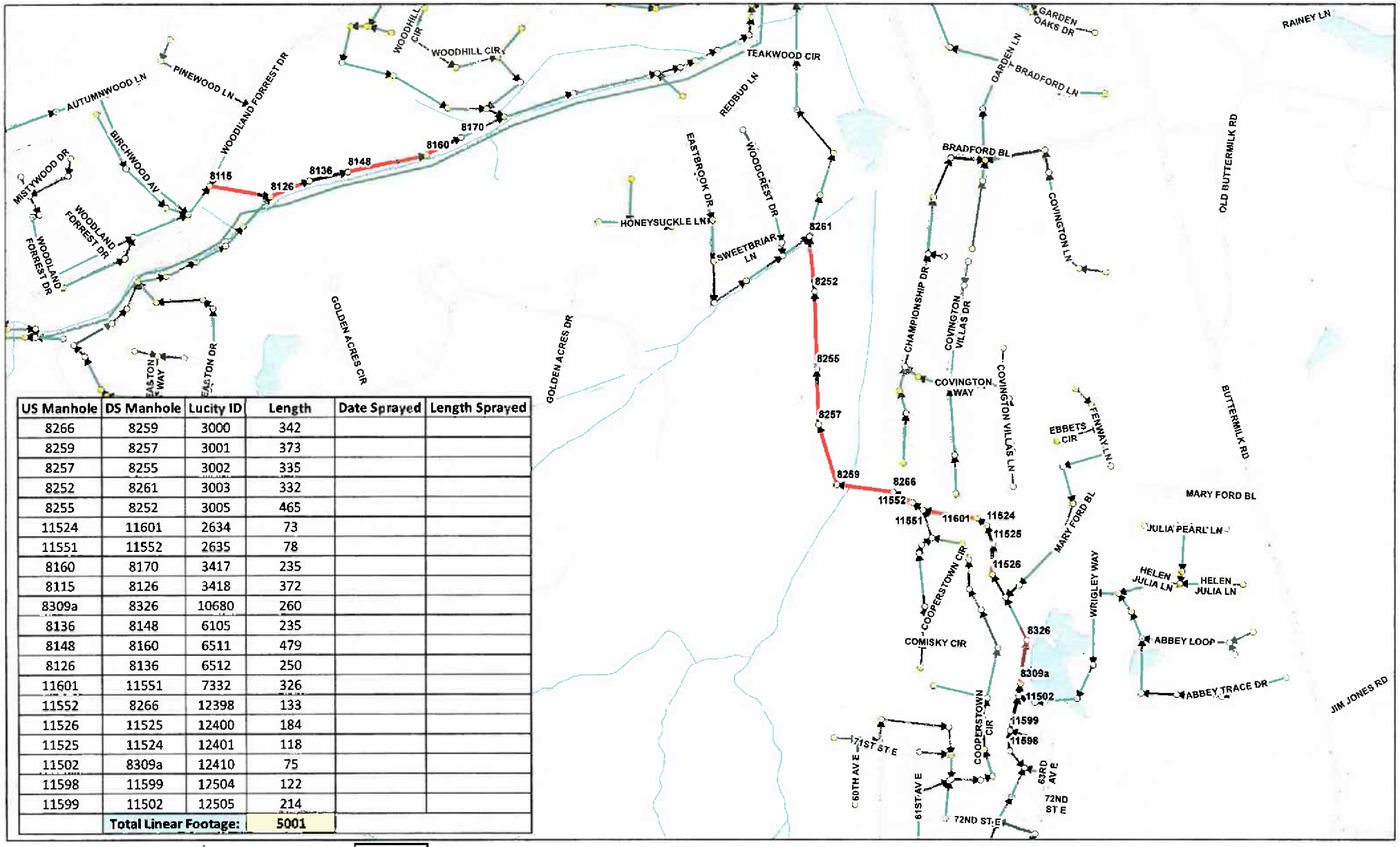


Legend
- Manholes
- Lines to Spray
- Sewer Lines

N

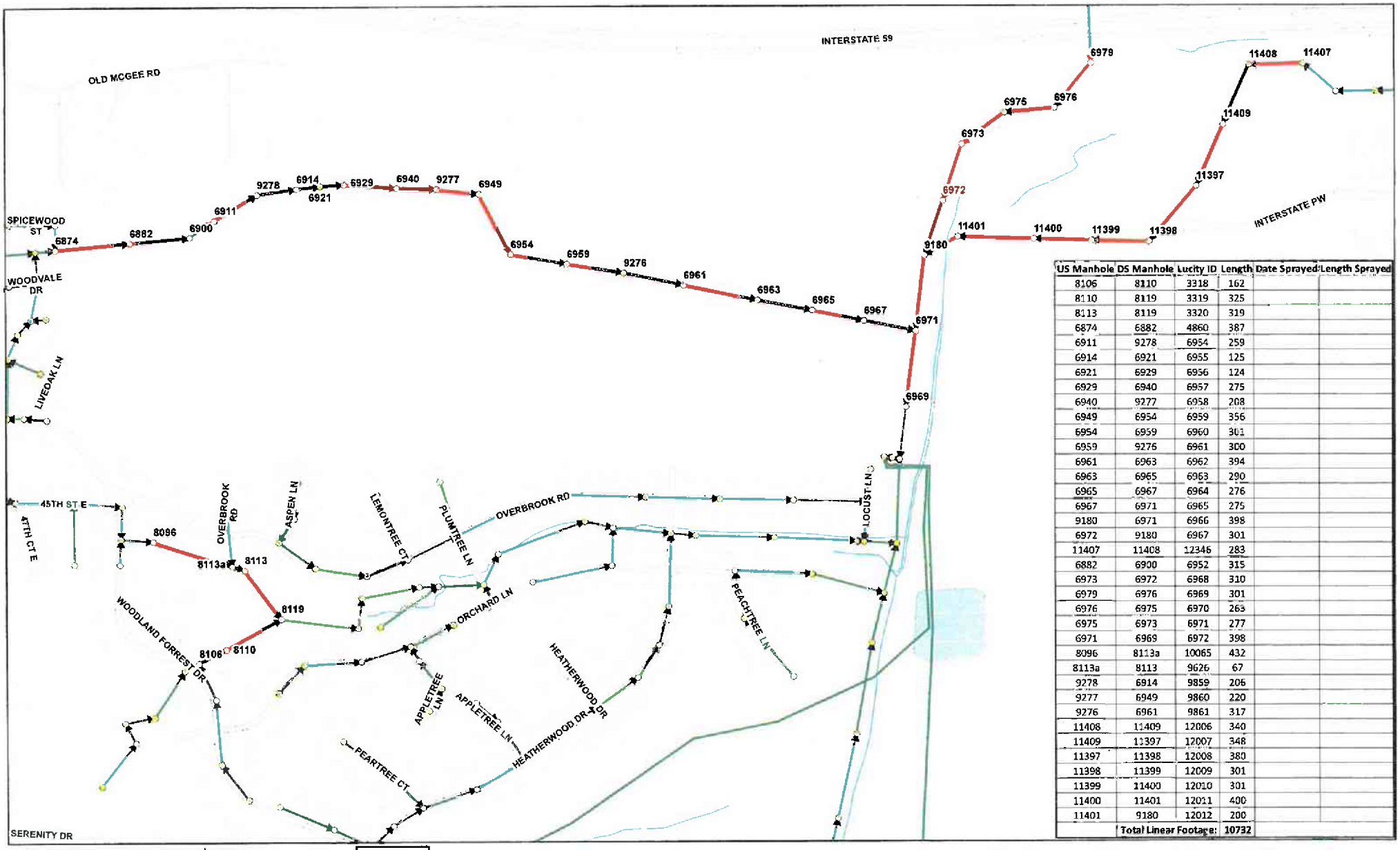
2016 ROW SPRAY NEEDS

0 150 300 600 900 1,200 Feet



US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
8266	8259	3000	342		
8259	8257	3001	373		
8257	8255	3002	335		
8252	8261	3003	332		
8255	8252	3005	465		
11524	11601	2634	73		
11551	11552	2635	78		
8160	8170	3417	235		
8115	8126	3418	372		
8309a	8326	10680	260		
8136	8148	6105	235		
8148	8160	6511	479		
8126	8136	6512	250		
11601	11551	7332	326		
11552	8266	12398	133		
11526	11525	12400	184		
11525	11524	12401	118		
11502	8309a	12410	75		
11598	11599	12504	122		
11599	11502	12505	214		
	Total Linear Footage:		5001		

2016 ROW SPRAY NEEDS



US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
8106	8110	3318	162		
8110	8119	3319	325		
8113	8119	3320	319		
6874	6882	4860	387		
6911	9278	6954	259		
6914	6921	6955	125		
6921	6929	6956	124		
6929	6940	6957	275		
6940	9277	6958	208		
6949	6954	6959	356		
6954	6959	6960	301		
6959	9276	6961	300		
6961	6963	6962	394		
6963	6965	6963	290		
6965	6967	6964	276		
6967	6971	6965	275		
9180	6971	6966	398		
6972	9180	6967	301		
11407	11408	12346	283		
6882	6900	6952	315		
6973	6972	6968	310		
6979	6976	6969	301		
6976	6975	6970	263		
6975	6973	6971	277		
6971	6969	6972	398		
8096	8113a	10065	432		
8113a	8113	9626	67		
9278	6914	9859	206		
9277	6949	9860	220		
9276	6961	9861	317		
11408	11409	12006	340		
11409	11397	12007	348		
11397	11398	12008	380		
11398	11399	12009	301		
11399	11400	12010	301		
11400	11401	12011	400		
11401	9180	12012	200		
	Total Linear Footage:		10732		

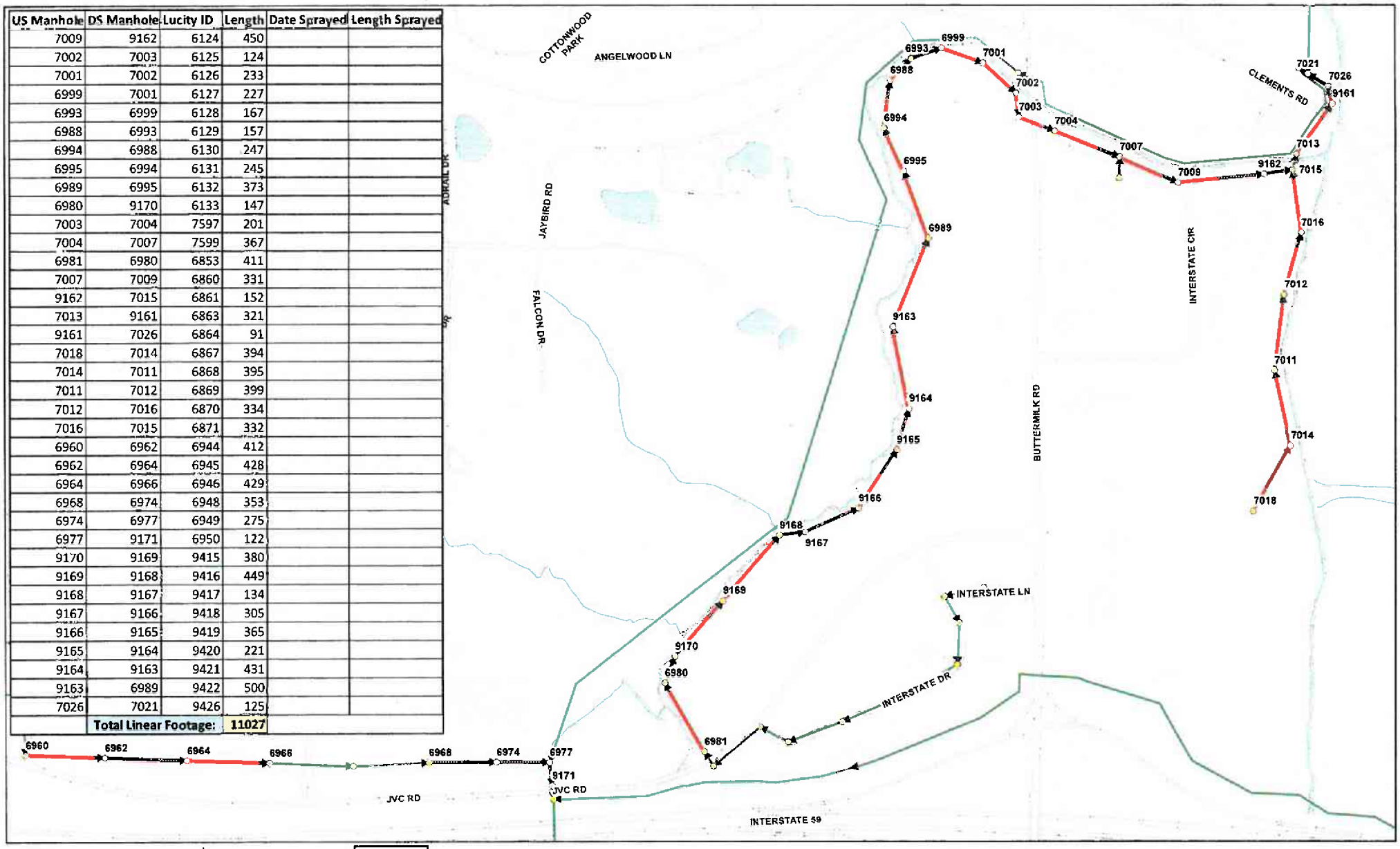
Legend
- Manholes
- Lines to Spray
- Sewer Lines

N

2016 ROW SPRAY NEEDS

0 200 400 800 1,200 1,600 Feet

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
7009	9162	6124	450		
7002	7003	6125	124		
7001	7002	6126	233		
6999	7001	6127	227		
6993	6999	6128	167		
6988	6993	6129	157		
6994	6988	6130	247		
6995	6994	6131	245		
6989	6995	6132	373		
6980	9170	6133	147		
7003	7004	7597	201		
7004	7007	7599	367		
6981	6980	6853	411		
7007	7009	6860	331		
9162	7015	6861	152		
7013	9161	6863	321		
9161	7026	6864	91		
7018	7014	6867	394		
7014	7011	6868	395		
7011	7012	6869	399		
7012	7016	6870	334		
7016	7015	6871	332		
6960	6962	6944	412		
6962	6964	6945	428		
6964	6966	6946	429		
6968	6974	6948	353		
6974	6977	6949	275		
6977	9171	6950	122		
9170	9169	9415	380		
9169	9168	9416	449		
9168	9167	9417	134		
9167	9166	9418	305		
9166	9165	9419	365		
9165	9164	9420	221		
9164	9163	9421	431		
9163	6989	9422	500		
7026	7021	9426	125		
	Total Linear Footage:		11027		

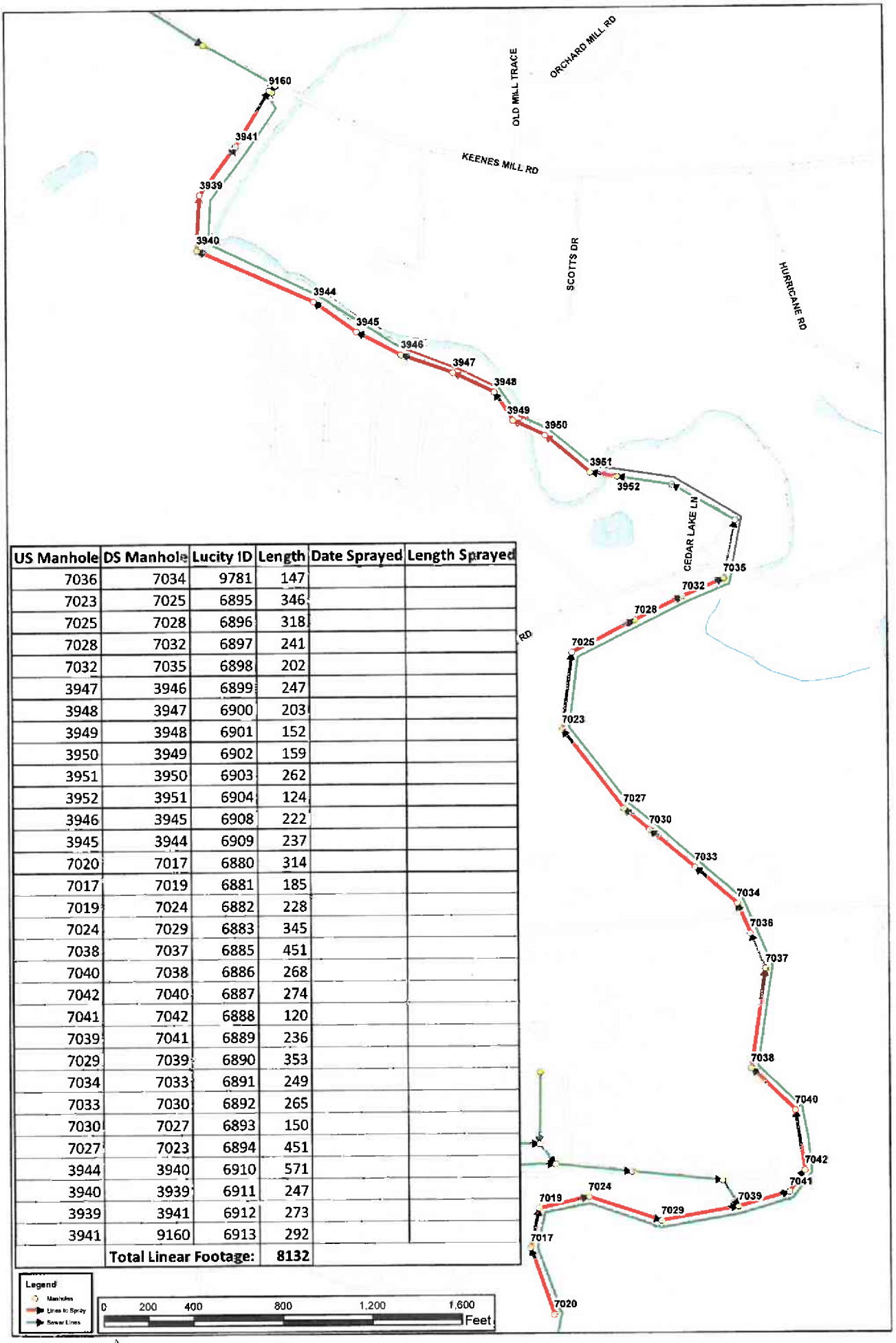


Legend
Manholes
Lines to Spray
Sewer Lines

N

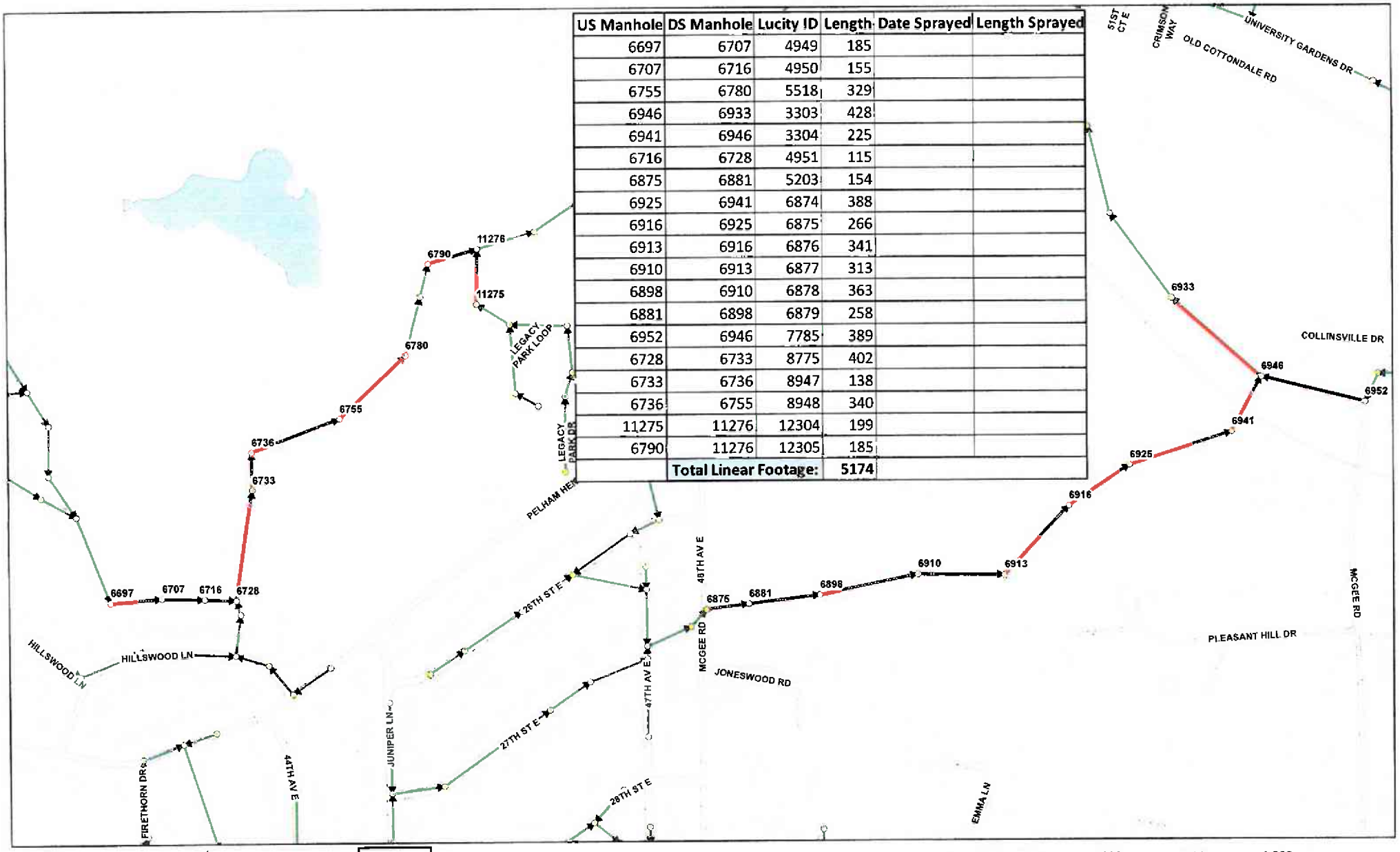
2016 ROW SPRAY NEEDS

0 200 400 800 1,200 1,600 Feet



US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
7036	7034	9781	147		
7023	7025	6895	346		
7025	7028	6896	318		
7028	7032	6897	241		
7032	7035	6898	202		
3947	3946	6899	247		
3948	3947	6900	203		
3949	3948	6901	152		
3950	3949	6902	159		
3951	3950	6903	262		
3952	3951	6904	124		
3946	3945	6908	222		
3945	3944	6909	237		
7020	7017	6880	314		
7017	7019	6881	185		
7019	7024	6882	228		
7024	7029	6883	345		
7038	7037	6885	451		
7040	7038	6886	268		
7042	7040	6887	274		
7041	7042	6888	120		
7039	7041	6889	236		
7029	7039	6890	353		
7034	7033	6891	249		
7033	7030	6892	265		
7030	7027	6893	150		
7027	7023	6894	451		
3944	3940	6910	571		
3940	3939	6911	247		
3939	3941	6912	273		
3941	9160	6913	292		
	Total Linear Footage:		**8132**		

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
6697	6707	4949	185		
6707	6716	4950	155		
6755	6780	5518	329		
6946	6933	3303	428		
6941	6946	3304	225		
6716	6728	4951	115		
6875	6881	5203	154		
6925	6941	6874	388		
6916	6925	6875	266		
6913	6916	6876	341		
6910	6913	6877	313		
6898	6910	6878	363		
6881	6898	6879	258		
6952	6946	7785	389		
6728	6733	8775	402		
6733	6736	8947	138		
6736	6755	8948	340		
11275	11276	12304	199		
6790	11276	12305	185		
	Total Linear Footage:		5174		



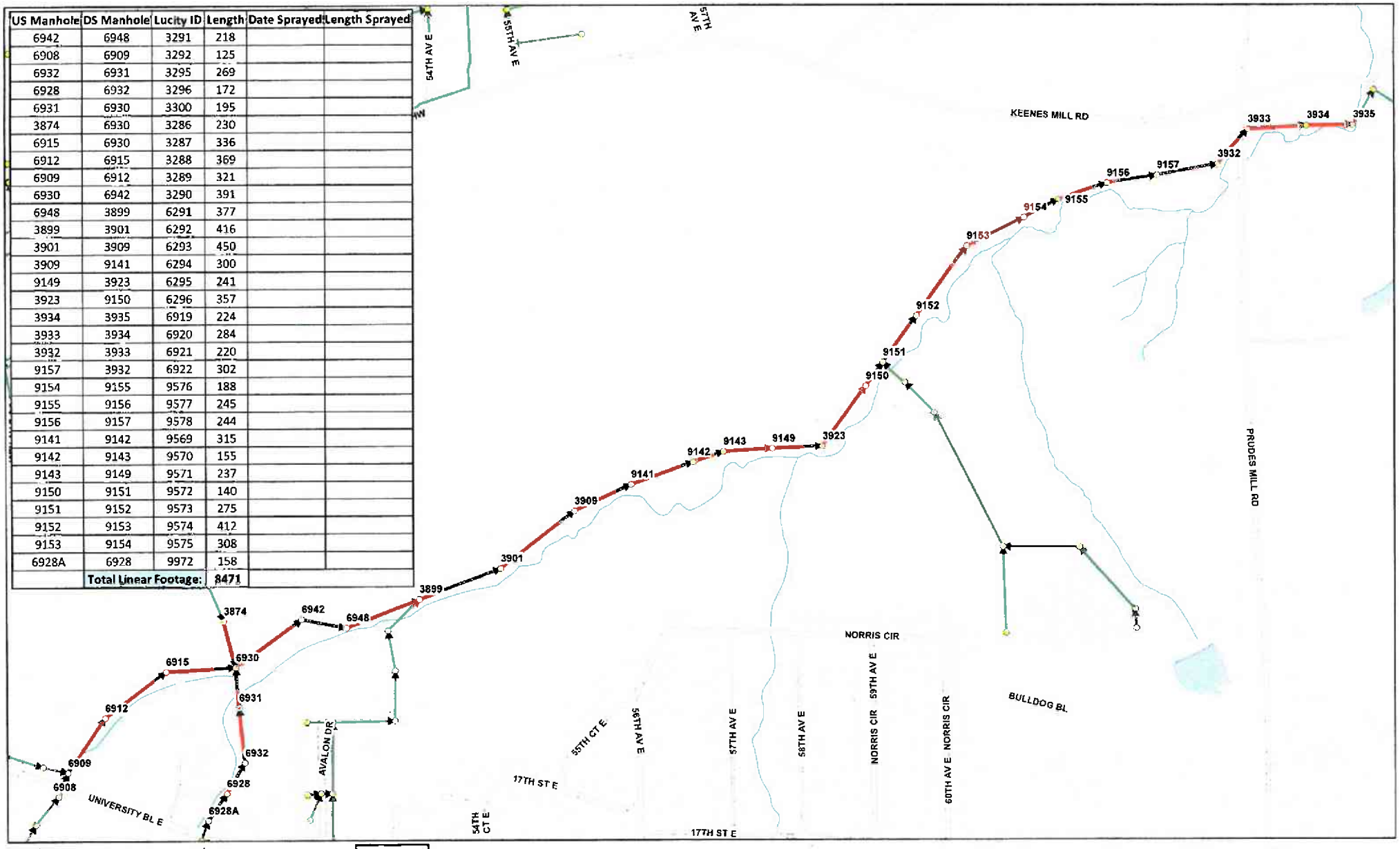
Legend
Manholes
Lines to Spray
Sewer Lines

N

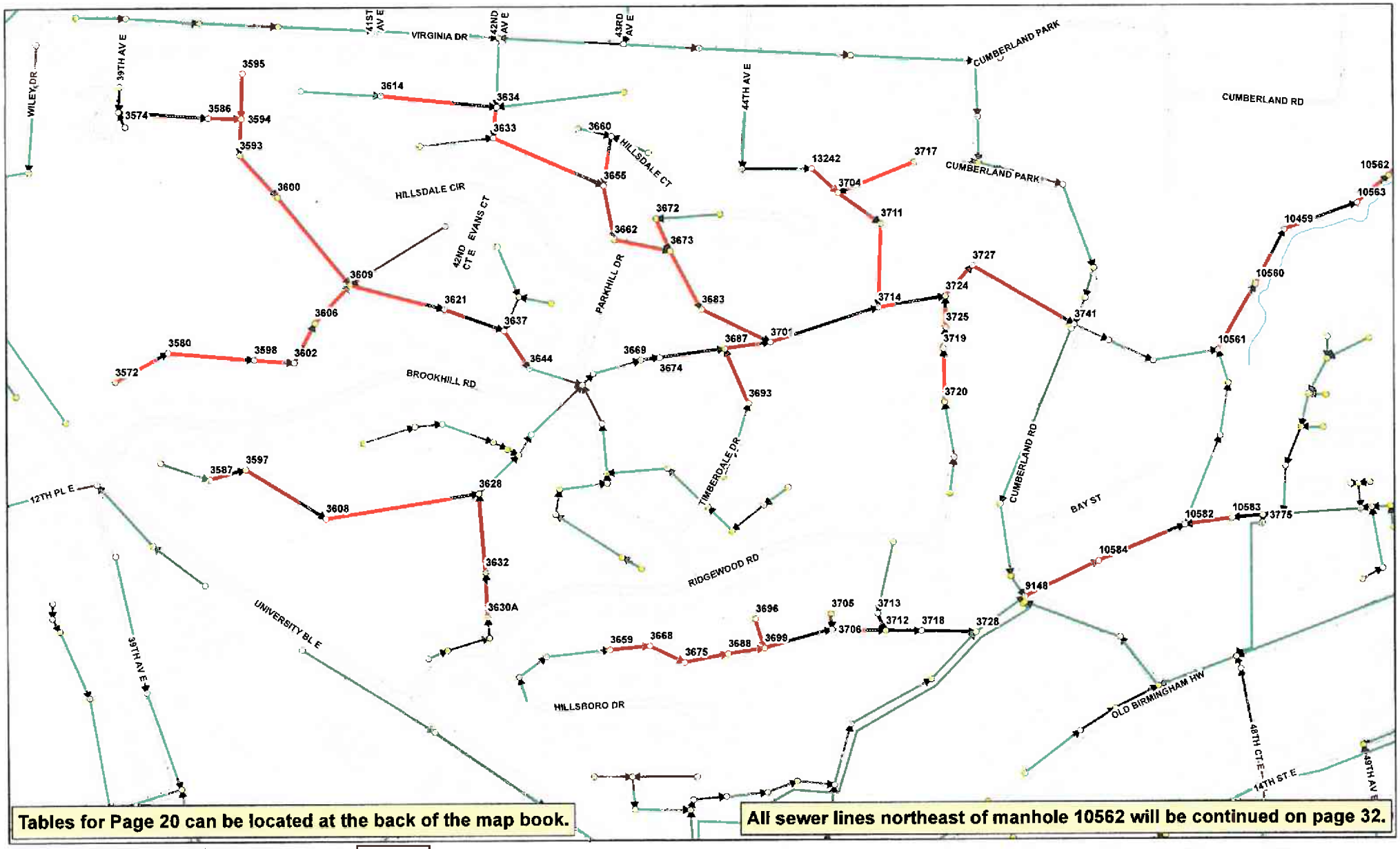
2016 ROW SPRAY NEEDS

0 150 300 600 900 1,200 Feet

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
6942	6948	3291	218		
6908	6909	3292	125		
6932	6931	3295	269		
6928	6932	3296	172		
6931	6930	3300	195		
3874	6930	3286	230		
6915	6930	3287	336		
6912	6915	3288	369		
6909	6912	3289	321		
6930	6942	3290	391		
6948	3899	6291	377		
3899	3901	6292	416		
3901	3909	6293	450		
3909	9141	6294	300		
9149	3923	6295	241		
3923	9150	6296	357		
3934	3935	6919	224		
3933	3934	6920	284		
3932	3933	6921	220		
9157	3932	6922	302		
9154	9155	9576	188		
9155	9156	9577	245		
9156	9157	9578	244		
9141	9142	9569	315		
9142	9143	9570	155		
9143	9149	9571	237		
9150	9151	9572	140		
9151	9152	9573	275		
9152	9153	9574	412		
9153	9154	9575	308		
6928A	6928	9972	158		
	Total Linear Footage:		8471		



2016 ROW SPRAY NEEDS



Tables for Page 20 can be located at the back of the map book.

All sewer lines northeast of manhole 10562 will be continued on page 32.

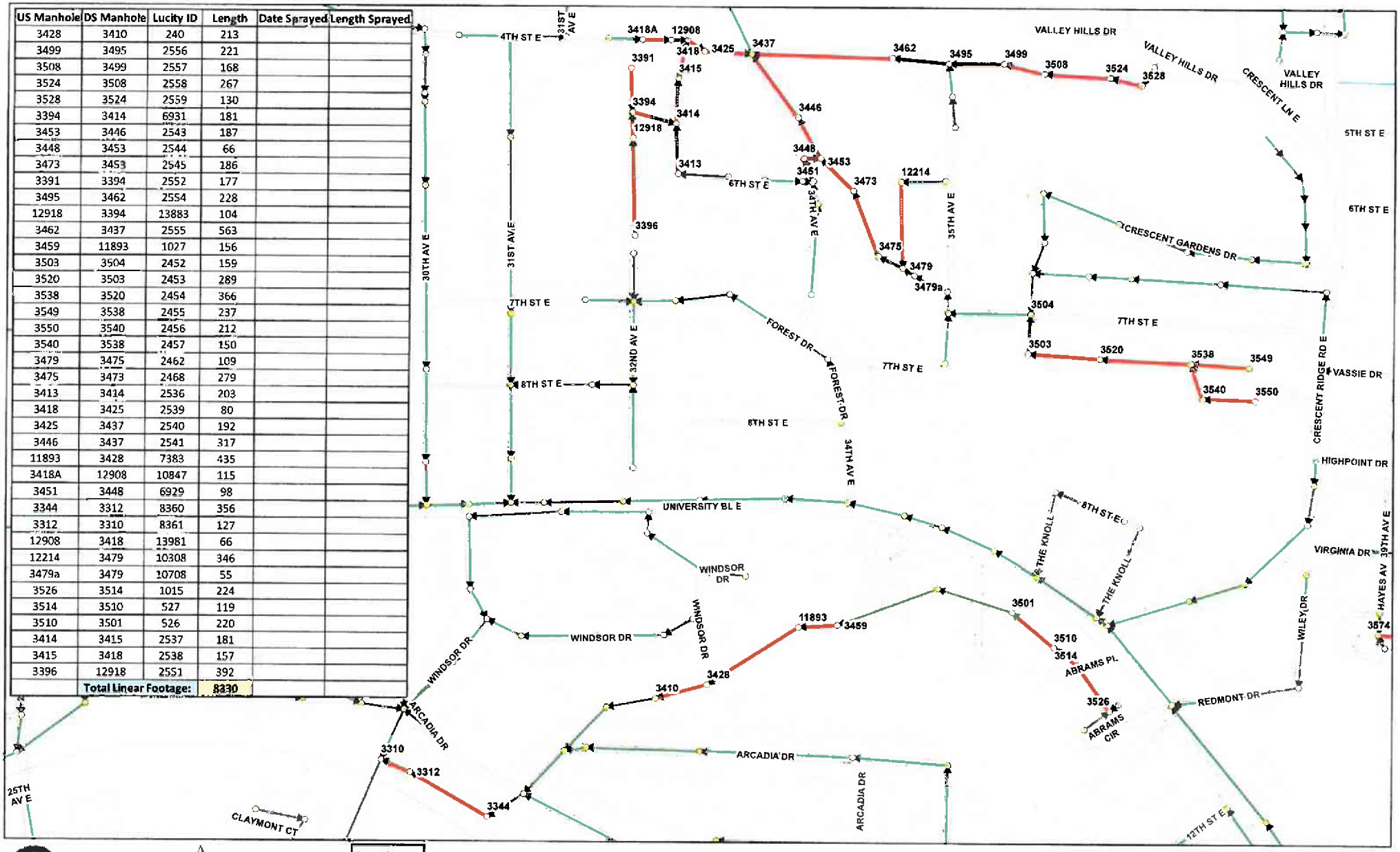
Legend
Manholes
Lines to Spray
Sewer Lines

N

2016 ROW SPRAY NEEDS

0 150 300 600 900 1,200 Feet

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
3428	3410	240	213		
3499	3495	2556	221		
3508	3499	2557	168		
3524	3508	2558	267		
3528	3524	2559	130		
3394	3414	6931	181		
3453	3446	2543	187		
3448	3453	2544	66		
3473	3453	2545	186		
3391	3394	2552	177		
3495	3462	2554	228		
12918	3394	13883	104		
3462	3437	2555	563		
3459	11893	1027	156		
3503	3504	2452	159		
3520	3503	2453	289		
3538	3520	2454	366		
3549	3538	2455	237		
3550	3540	2456	212		
3540	3538	2457	150		
3479	3475	2462	109		
3475	3473	2468	279		
3413	3414	2536	203		
3418	3425	2539	80		
3425	3437	2540	192		
3446	3437	2541	317		
11893	3428	7383	435		
3418A	12908	10847	115		
3451	3448	6929	98		
3344	3312	8360	356		
3312	3310	8361	127		
12908	3418	13981	66		
12214	3479	10308	346		
3479a	3479	10708	55		
3526	3514	1015	224		
3514	3510	527	119		
3510	3501	526	220		
3414	3415	2537	181		
3415	3418	2538	157		
3396	12918	2551	392		
	Total Linear Footage:		8330		



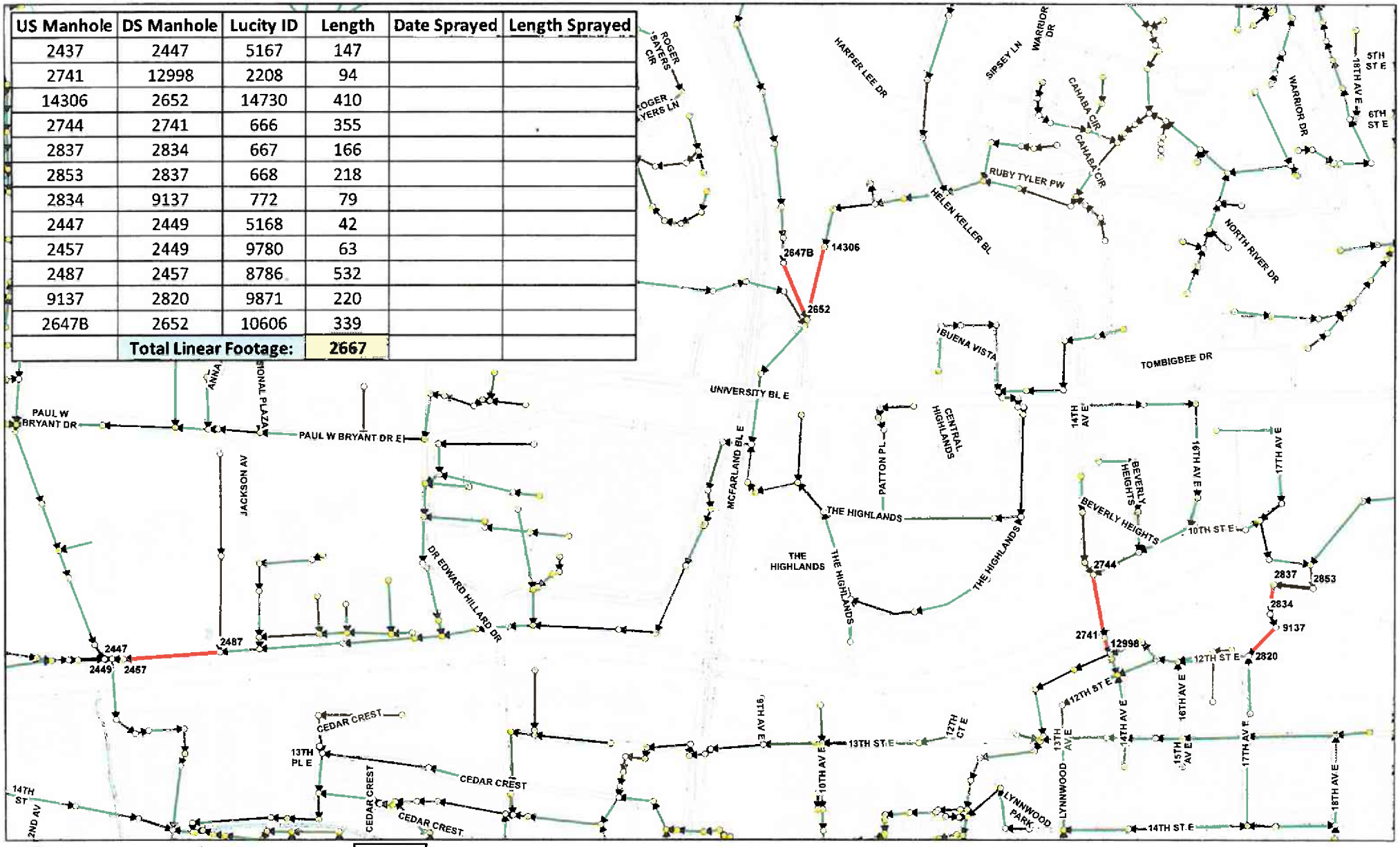
Legend
- Manholes
- Lines to Spray
- Sewer Lines

N

2016 ROW SPRAY NEEDS

0 175 350 700 1,050 1,400 Feet

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
2437	2447	5167	147		
2741	12998	2208	94		
14306	2652	14730	410		
2744	2741	666	355		
2837	2834	667	166		
2853	2837	668	218		
2834	9137	772	79		
2447	2449	5168	42		
2457	2449	9780	63		
2487	2457	8786	532		
9137	2820	9871	220		
2647B	2652	10606	339		
	Total Linear Footage:		**2667**		



Legend
- Manholes
- Lines to Spray
- Sewer Lines

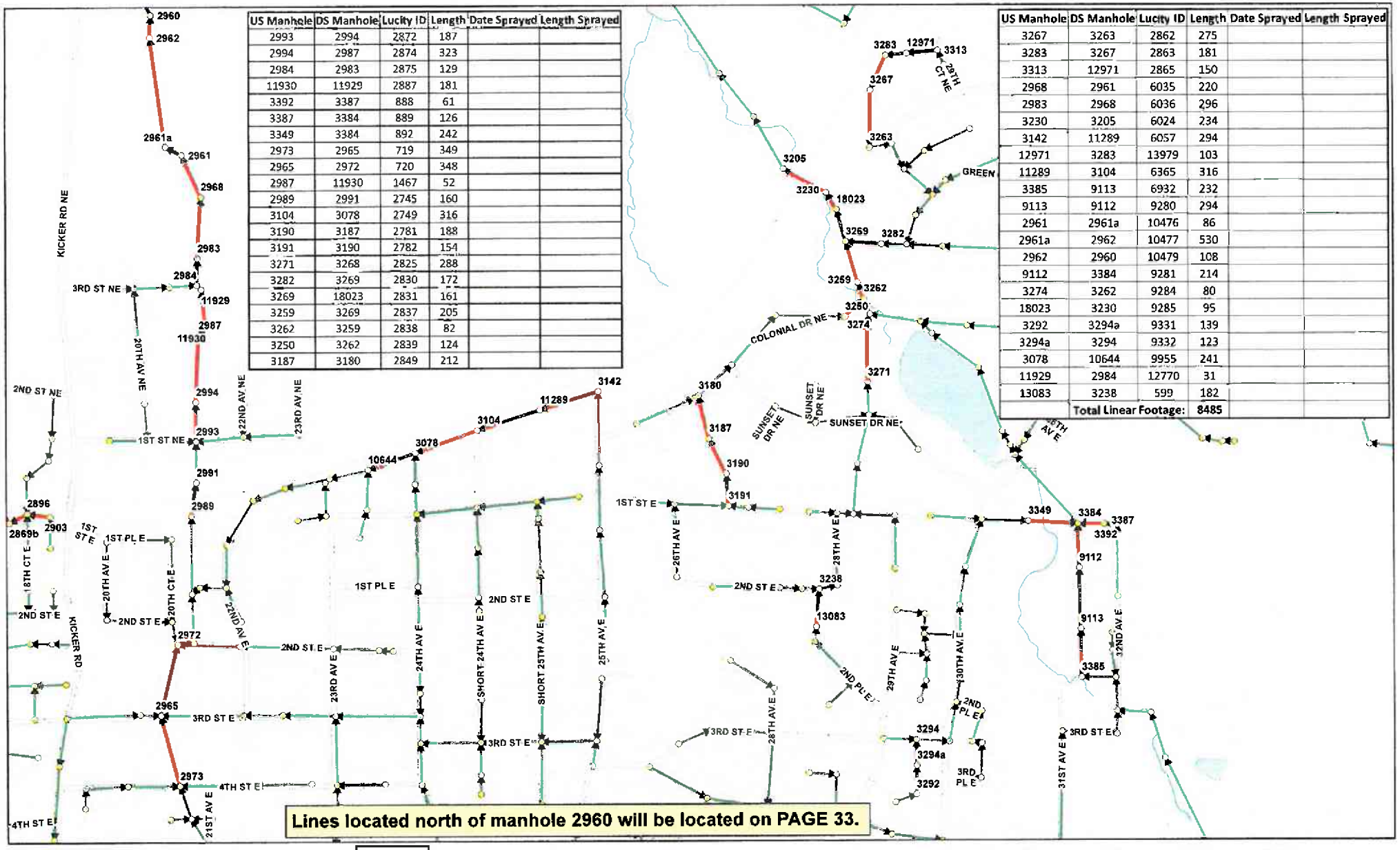
N

2016 ROW SPRAY NEEDS

0 250 500 1,000 1,500 2,000 Feet

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
2993	2994	2872	187		
2994	2987	2874	323		
2984	2983	2875	129		
11930	11929	2887	181		
3392	3387	888	61		
3387	3384	889	126		
3349	3384	892	242		
2973	2965	719	349		
2965	2972	720	348		
2987	11930	1467	52		
2989	2991	2745	160		
3104	3078	2749	316		
3190	3187	2781	188		
3191	3190	2782	154		
3271	3268	2825	288		
3282	3269	2830	172		
3269	18023	2831	161		
3259	3269	2837	205		
3262	3259	2838	82		
3250	3262	2839	124		
3187	3180	2849	212		

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
3267	3263	2862	275		
3283	3267	2863	181		
3313	12971	2865	150		
2968	2961	6035	220		
2983	2968	6036	296		
3230	3205	6024	234		
3142	11289	6057	294		
12971	3283	13979	103		
11289	3104	6365	316		
3385	9113	6932	232		
9113	9112	9280	294		
2961	2961a	10476	86		
2961a	2962	10477	530		
2962	2960	10479	108		
9112	3384	9281	214		
3274	3262	9284	80		
18023	3230	9285	95		
3292	3294a	9331	139		
3294a	3294	9332	123		
3078	10644	9955	241		
11929	2984	12770	31		
13083	3238	599	182		
	Total Linear Footage:		8485		

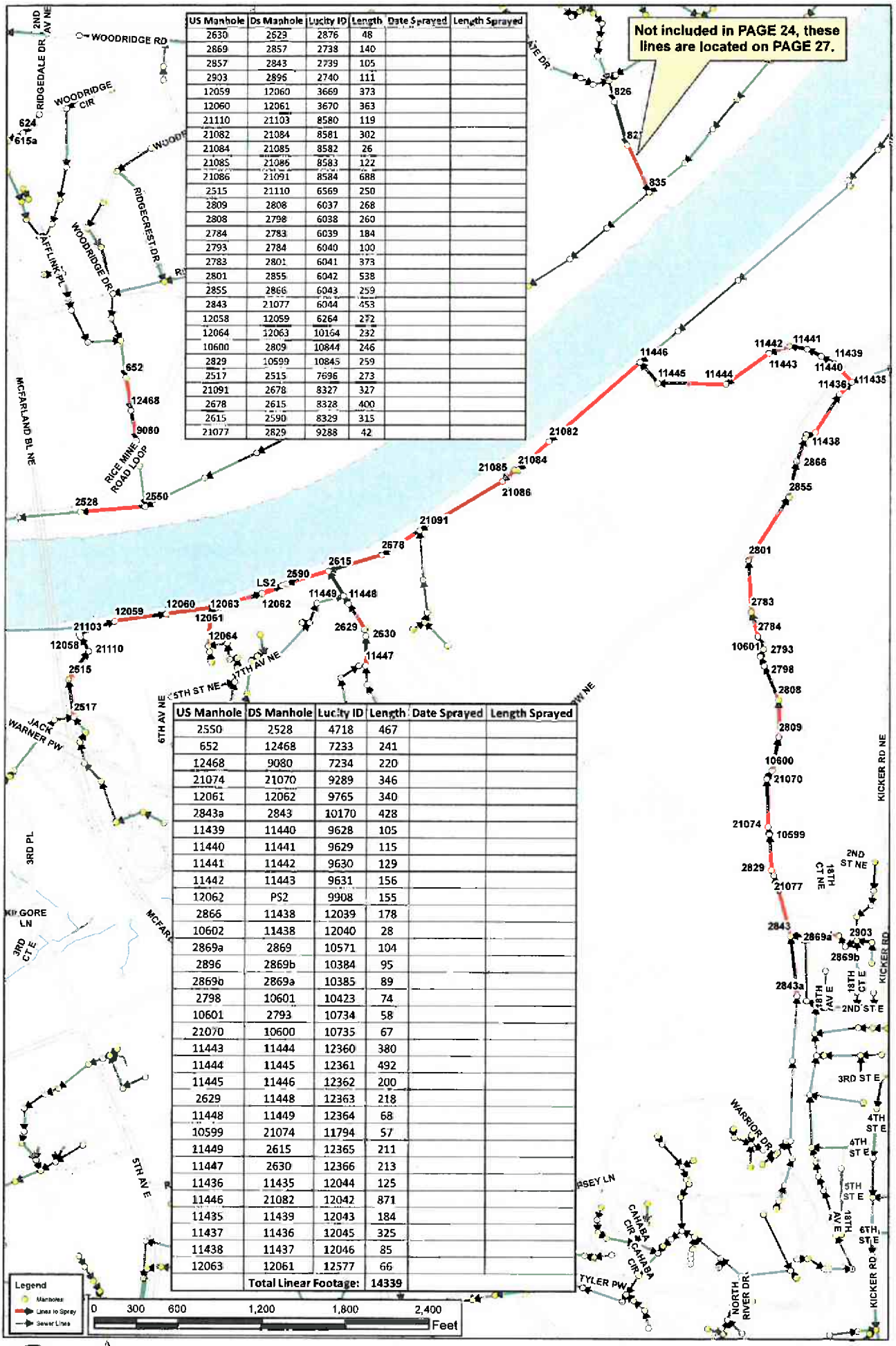


Legend
Manholes
Lines to Spray
Sewer Lines

N

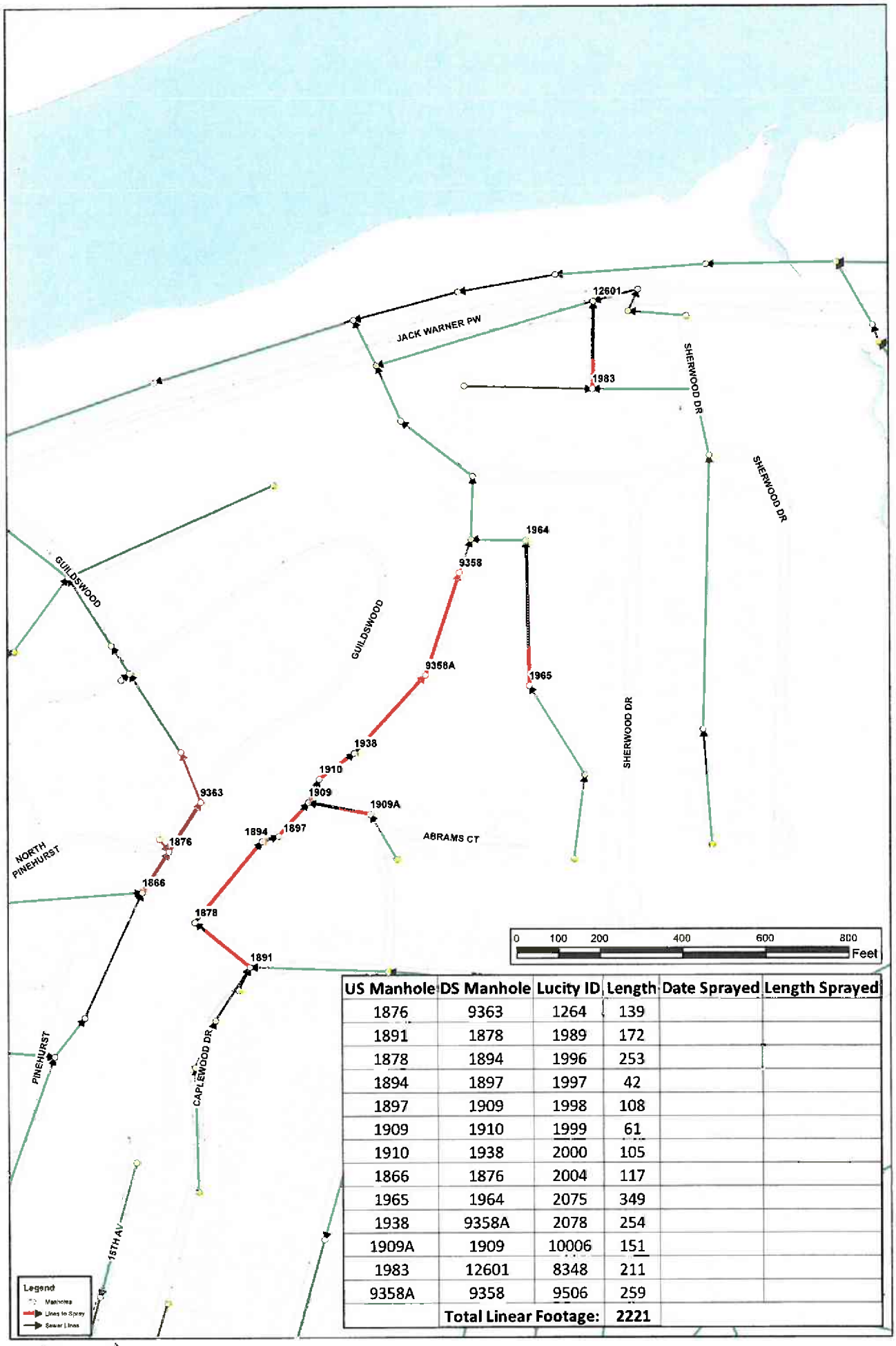
2016 ROW SPRAY NEEDS

0 200 400 800 1,200 1,600 Feet



US Manhole	Ds Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
2630	2629	2876	48		
2869	2857	2738	140		
2857	2843	2739	105		
2903	2896	2740	111		
12059	12060	3669	373		
12060	12061	3670	363		
21110	21103	8580	119		
21082	21084	8581	302		
21084	21085	8582	26		
21085	21086	8583	122		
21086	21091	8584	688		
2515	21110	6569	250		
2809	2808	6037	268		
2808	2798	6038	260		
2784	2783	6039	184		
2793	2784	6040	100		
2783	2801	6041	373		
2801	2855	6042	538		
2855	2866	6043	259		
2843	21077	6044	453		
12058	12059	6264	272		
12064	12063	10164	232		
10600	2809	10844	246		
2829	10599	10845	259		
2517	2515	7696	273		
21091	2678	8327	327		
2678	2615	8328	400		
2615	2590	8329	315		
21077	2829	9288	42		

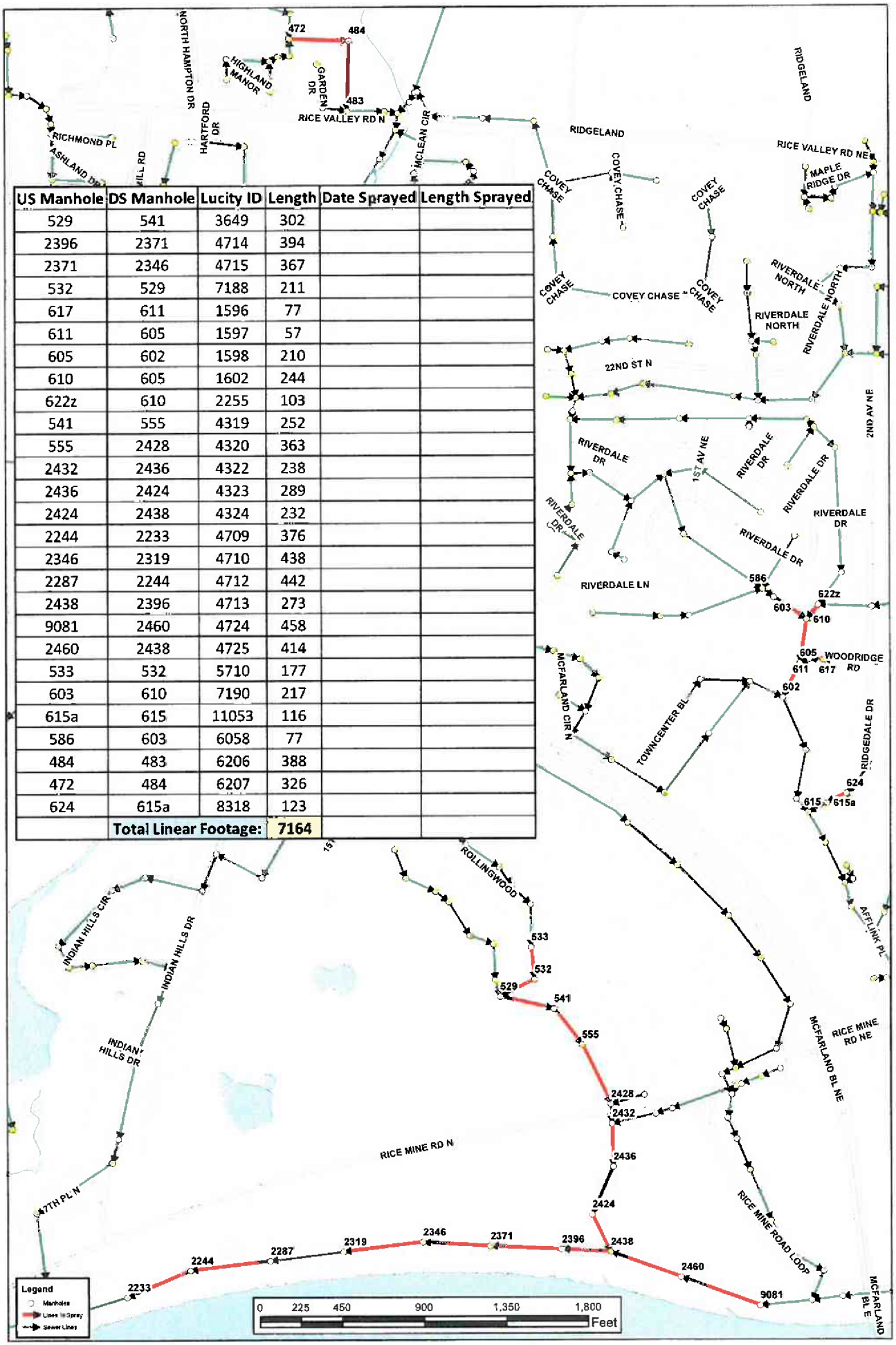
US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
2550	2528	4718	467		
652	12468	7233	241		
12468	9080	7234	220		
21074	21070	9289	346		
12061	12062	9765	340		
2843a	2843	10170	428		
11439	11440	9628	105		
11440	11441	9629	115		
11441	11442	9630	129		
11442	11443	9631	156		
12062	PS2	9908	155		
2866	11438	12039	178		
10602	11438	12040	28		
2869a	2869	10571	104		
2896	2869b	10384	95		
2869b	2869a	10385	89		
2798	10601	10423	74		
10601	2793	10734	58		
21070	10600	10735	67		
11443	11444	12360	380		
11444	11445	12361	492		
11445	11446	12362	200		
2629	11448	12363	218		
11448	11449	12364	68		
10599	21074	11794	57		
11449	2615	12365	211		
11447	2630	12366	213		
11436	11435	12044	125		
11446	21082	12042	871		
11435	11439	12043	184		
11437	11436	12045	325		
11438	11437	12046	85		
12063	12061	12577	66		
	Total Linear Footage:		14339		



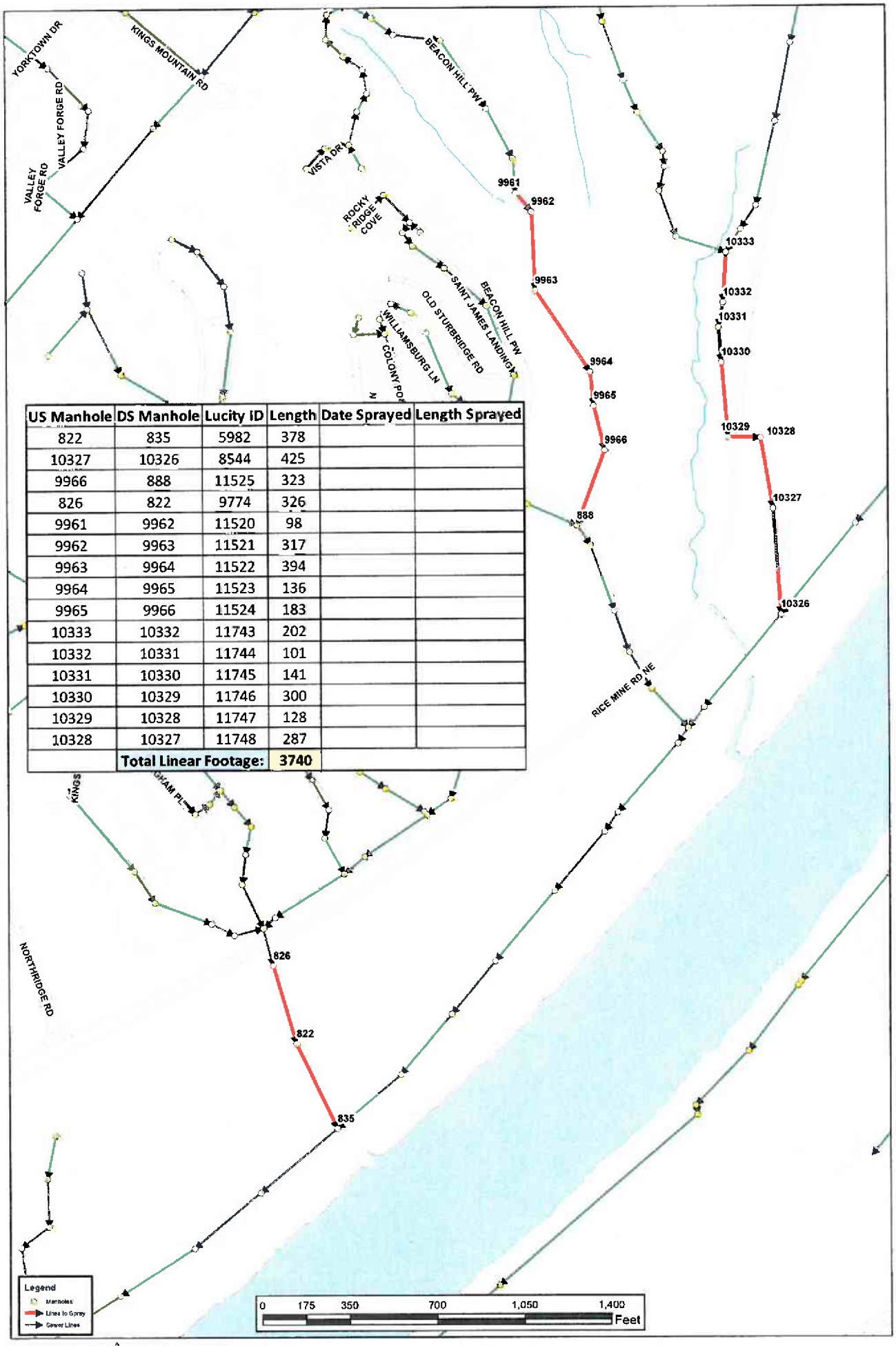
US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
1876	9363	1264	139		
1891	1878	1989	172		
1878	1894	1996	253		
1894	1897	1997	42		
1897	1909	1998	108		
1909	1910	1999	61		
1910	1938	2000	105		
1866	1876	2004	117		
1965	1964	2075	349		
1938	9358A	2078	254		
1909A	1909	10006	151		
1983	12601	8348	211		
9358A	9358	9506	259		
	Total Linear Footage:		2221		

2016 ROW SPRAY NEEDS

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
529	541	3649	302		
2396	2371	4714	394		
2371	2346	4715	367		
532	529	7188	211		
617	611	1596	77		
611	605	1597	57		
605	602	1598	210		
610	605	1602	244		
622z	610	2255	103		
541	555	4319	252		
555	2428	4320	363		
2432	2436	4322	238		
2436	2424	4323	289		
2424	2438	4324	232		
2244	2233	4709	376		
2346	2319	4710	438		
2287	2244	4712	442		
2438	2396	4713	273		
9081	2460	4724	458		
2460	2438	4725	414		
533	532	5710	177		
603	610	7190	217		
615a	615	11053	116		
586	603	6058	77		
484	483	6206	388		
472	484	6207	326		
624	615a	8318	123		
	Total Linear Footage:		7164		



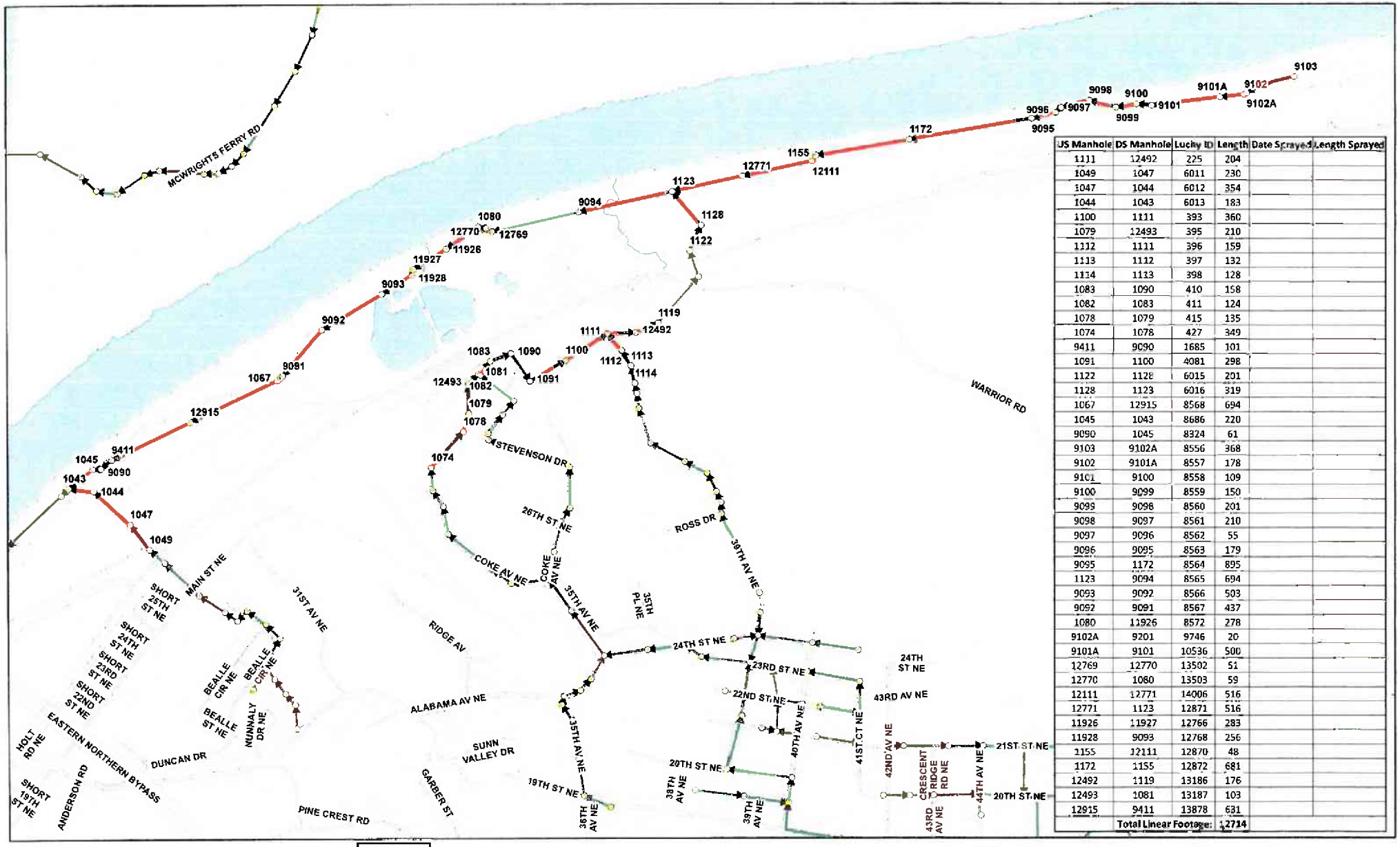
2016 ROW SPRAY NEEDS



US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
822	835	5982	378		
10327	10326	8544	425		
9966	888	11525	323		
826	822	9774	326		
9961	9962	11520	98		
9962	9963	11521	317		
9963	9964	11522	394		
9964	9965	11523	136		
9965	9966	11524	183		
10333	10332	11743	202		
10332	10331	11744	101		
10331	10330	11745	141		
10330	10329	11746	300		
10329	10328	11747	128		
10328	10327	11748	287		
	Total Linear Footage:		**3740**		

N

2016 ROW SPRAY NEEDS



US Manhole	DS Manhole	Lucky ID	Length	Date Sprayed	Length Sprayed
1111	12492	225	204		
1049	1047	6011	230		
1047	1044	6012	354		
1044	1043	6013	183		
1100	1111	393	360		
1079	12493	395	210		
1112	1111	396	159		
1113	1112	397	132		
1114	1113	398	128		
1083	1090	410	158		
1082	1083	411	124		
1078	1079	415	135		
1074	1078	427	349		
9411	9090	1685	101		
1091	1100	4081	298		
1122	1128	6015	201		
1128	1123	6016	319		
1067	12915	8568	694		
1045	1043	8686	220		
9090	1045	8324	61		
9103	9102A	8556	368		
9102	9101A	8557	178		
9101	9100	8558	109		
9100	9099	8559	150		
9099	9098	8560	201		
9098	9097	8561	210		
9097	9096	8562	55		
9096	9095	8563	179		
9095	1172	8564	895		
1123	9094	8565	694		
9093	9092	8566	503		
9092	9091	8567	437		
1080	11926	8572	278		
9102A	9201	9746	20		
9101A	9101	10536	500		
12769	12770	13502	51		
12770	1080	13503	59		
12111	12771	14006	516		
12771	1123	12871	516		
11926	11927	12766	283		
11928	9093	12768	256		
1155	12111	12870	48		
1172	1155	12872	681		
12492	1119	13186	176		
12493	1081	13187	103		
12915	9411	13878	631		
	Total Linear Footage:		12714		

Legend
- Manholes
- Lines to Spray
- Sewer Lines

N

2016 ROW SPRAY NEEDS

0 300 600 1,200 1,800 2,400 Feet

The table for PAGE 29 is located at the back of the map book due to lack of room on the map.

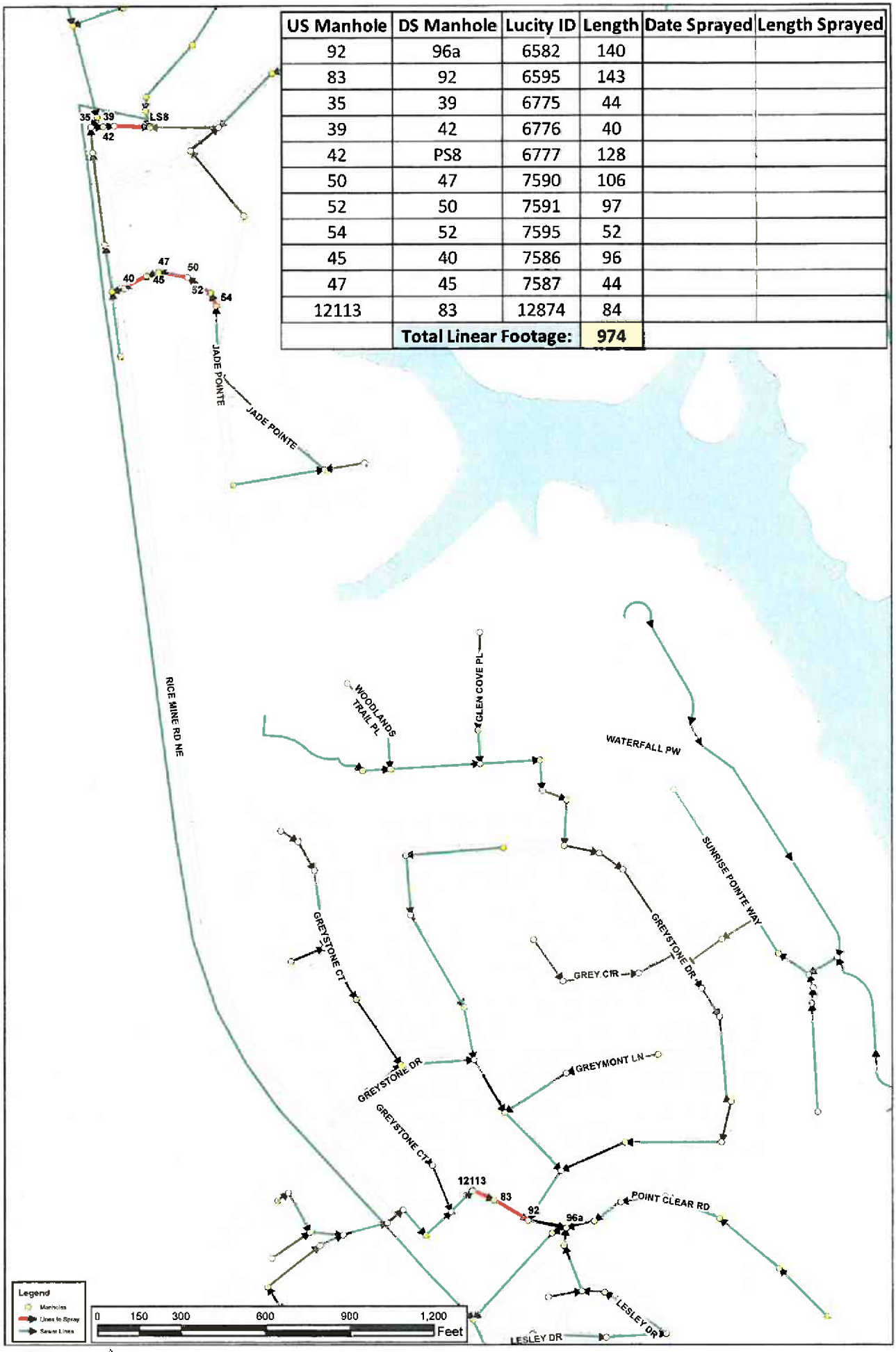
Legend
- Manholes
- Lines to Spray
- Sewer Lines

N

2016 ROW SPRAY NEEDS

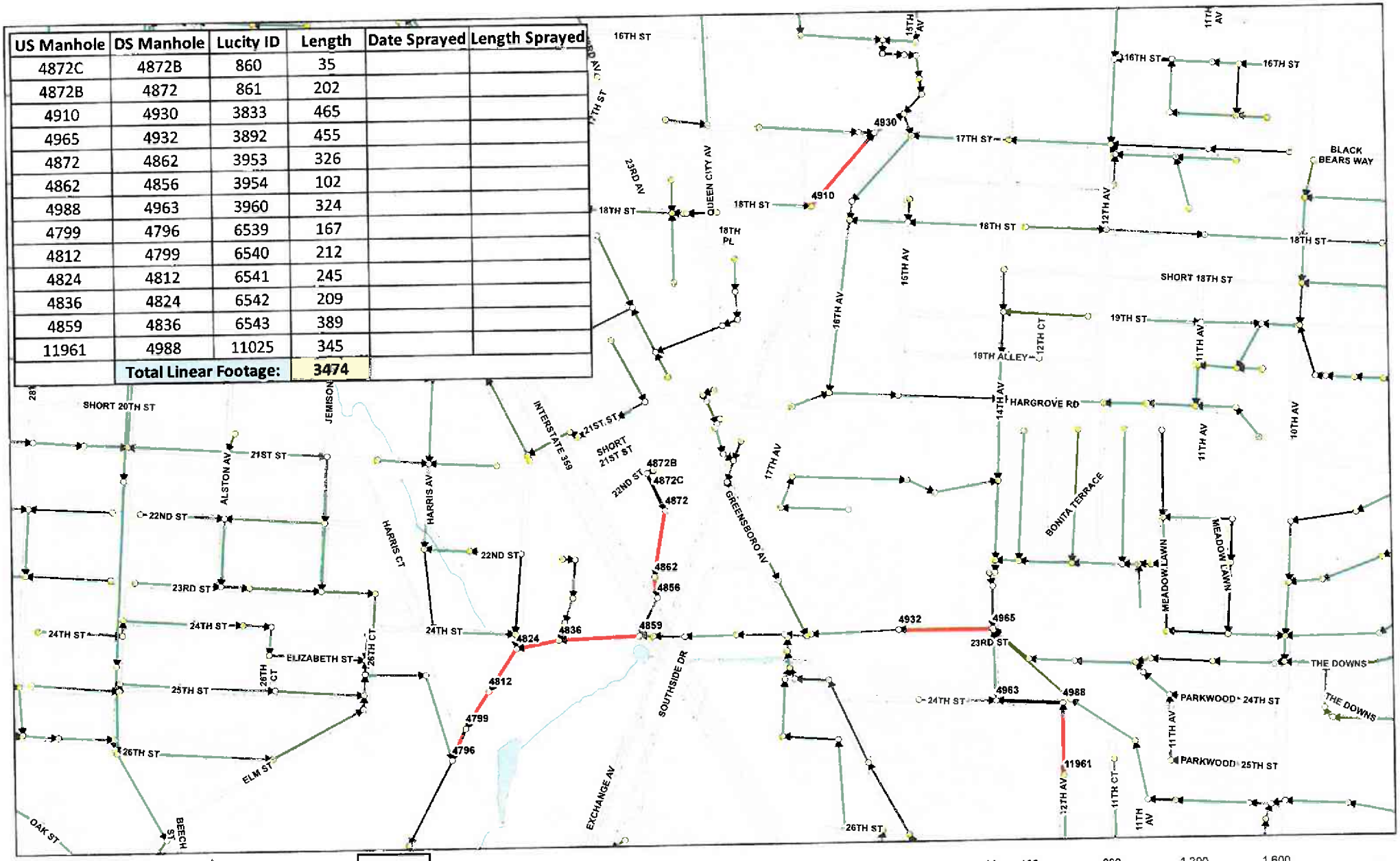
0 250 500 1,000 1,500 2,000 Feet

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
92	96a	6582	140		
83	92	6595	143		
35	39	6775	44		
39	42	6776	40		
42	PS8	6777	128		
50	47	7590	106		
52	50	7591	97		
54	52	7595	52		
45	40	7586	96		
47	45	7587	44		
12113	83	12874	84		
	Total Linear Footage:		**974**		



N

US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
4872C	4872B	860	35		
4872B	4872	861	202		
4910	4930	3833	465		
4965	4932	3892	455		
4872	4862	3953	326		
4862	4856	3954	102		
4988	4963	3960	324		
4799	4796	6539	167		
4812	4799	6540	212		
4824	4812	6541	245		
4836	4824	6542	209		
4859	4836	6543	389		
11961	4988	11025	345		
	Total Linear Footage:		**3474**		

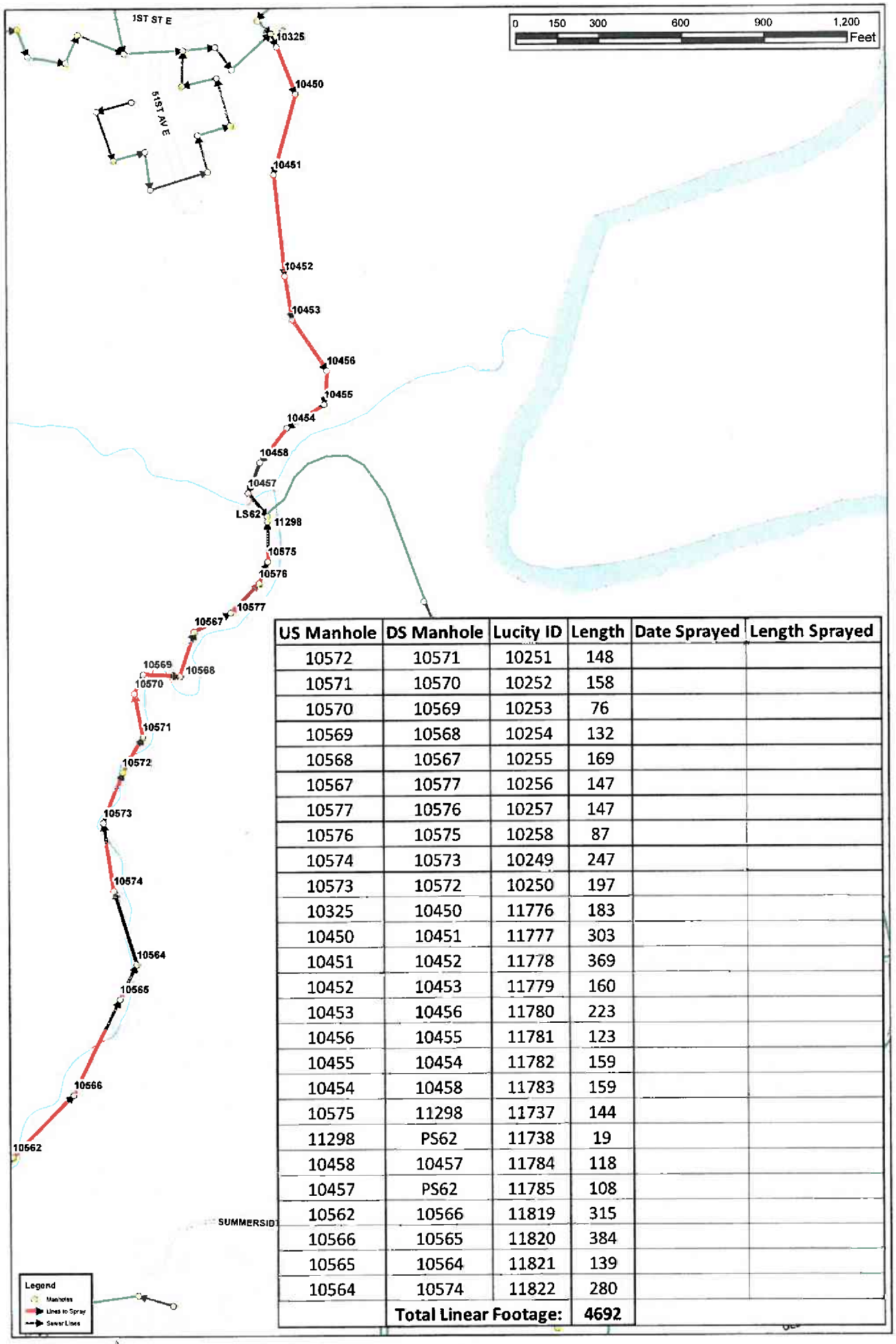


Legend
- Manholes
- Lines to Spray
- Sewer Lines

N

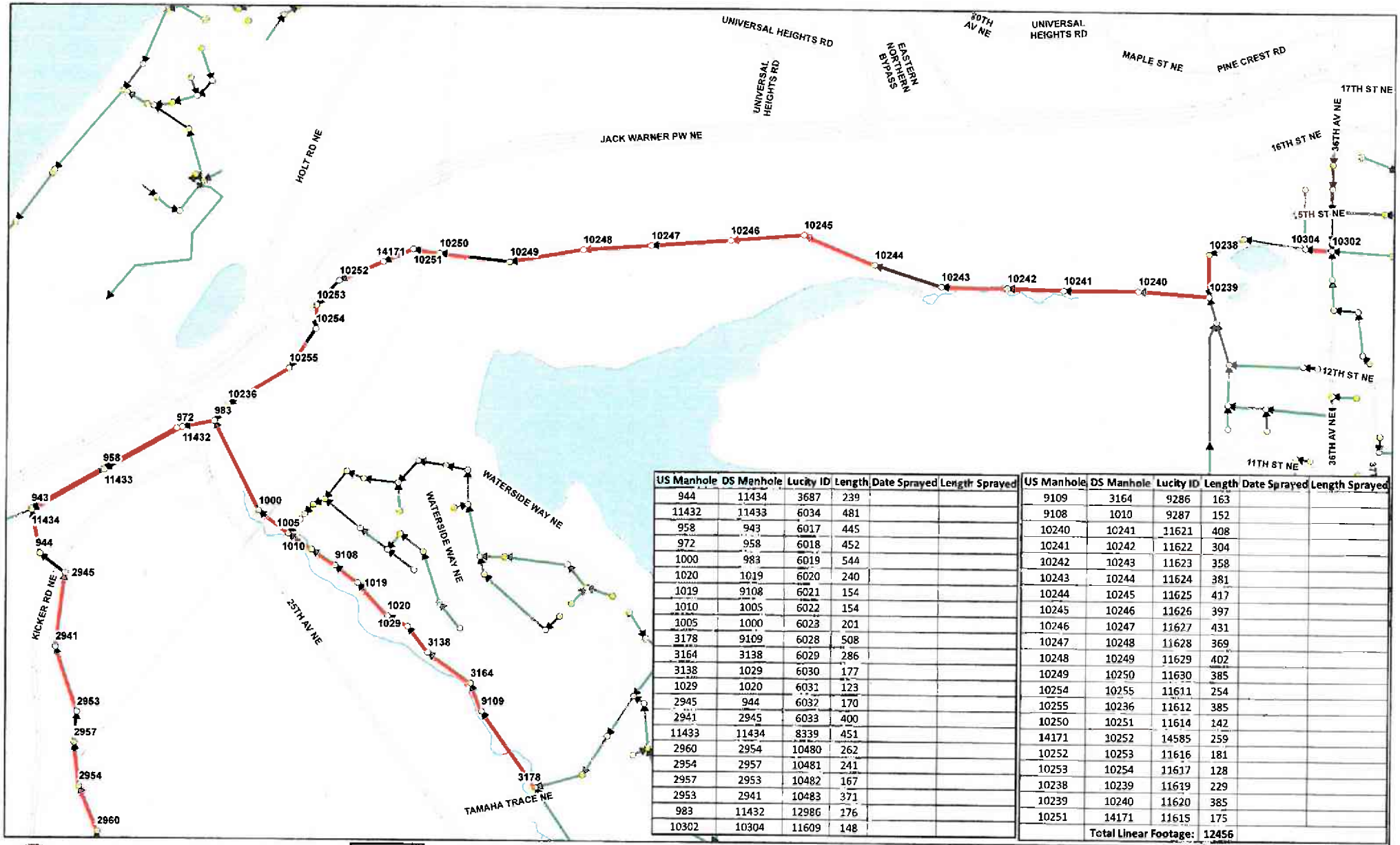
2016 ROW SPRAY NEEDS

0 200 400 800 1,200 1,600 Feet



US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
10572	10571	10251	148		
10571	10570	10252	158		
10570	10569	10253	76		
10569	10568	10254	132		
10568	10567	10255	169		
10567	10577	10256	147		
10577	10576	10257	147		
10576	10575	10258	87		
10574	10573	10249	247		
10573	10572	10250	197		
10325	10450	11776	183		
10450	10451	11777	303		
10451	10452	11778	369		
10452	10453	11779	160		
10453	10456	11780	223		
10456	10455	11781	123		
10455	10454	11782	159		
10454	10458	11783	159		
10575	11298	11737	144		
11298	PS62	11738	19		
10458	10457	11784	118		
10457	PS62	11785	108		
10562	10566	11819	315		
10566	10565	11820	384		
10565	10564	11821	139		
10564	10574	11822	280		
	Total Linear Footage:		**4692**		

2016 ROW SPRAY NEEDS



US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
944	11434	3687	239		
11432	11433	6034	481		
958	943	6017	445		
972	958	6018	452		
1000	983	6019	544		
1020	1019	6020	240		
1019	9108	6021	154		
1010	1005	6022	154		
1005	1000	6023	201		
3178	9109	6028	508		
3164	3138	6029	286		
3138	1029	6030	177		
1029	1020	6031	123		
2945	944	6032	170		
2941	2945	6033	400		
11433	11434	8339	451		
2960	2954	10480	262		
2954	2957	10481	241		
2957	2953	10482	167		
2953	2941	10483	371		
983	11432	12986	276		
10302	10304	11609	148		

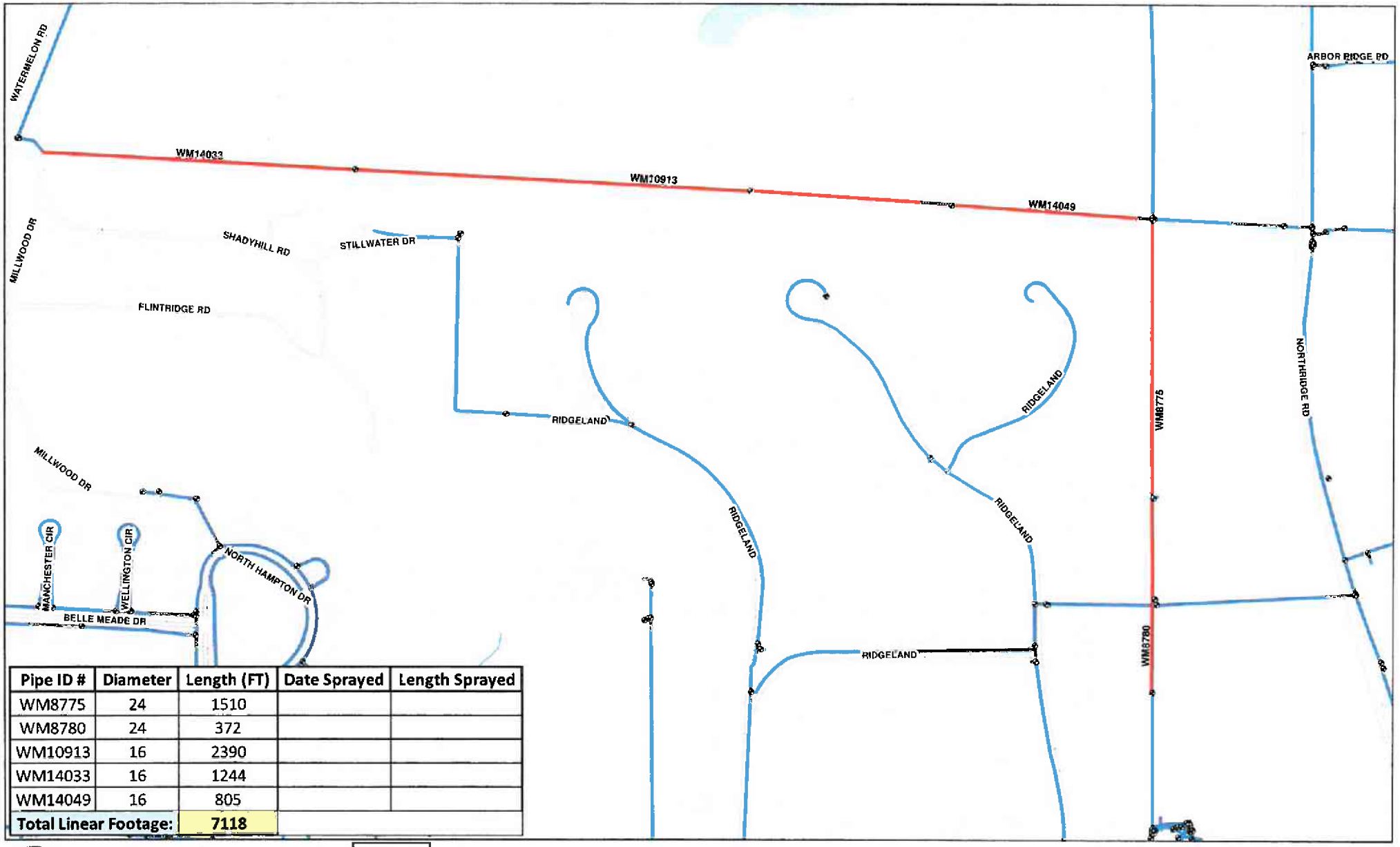
US Manhole	DS Manhole	Lucity ID	Length	Date Sprayed	Length Sprayed
9109	3164	9286	163		
9108	1010	9287	152		
10240	10241	11621	408		
10241	10242	11622	304		
10242	10243	11623	358		
10243	10244	11624	381		
10244	10245	11625	417		
10245	10246	11626	397		
10246	10247	11627	431		
10247	10248	11628	369		
10248	10249	11629	402		
10249	10250	11630	385		
10254	10255	11611	254		
10255	10236	11612	385		
10250	10251	11614	142		
14171	10252	14585	259		
10252	10253	11616	181		
10253	10254	11617	128		
10238	10239	11619	229		
10239	10240	11620	385		
10251	14171	11615	175		
	Total Linear Footage:		12456		

Legend
- Manholes
- Lines to Spray
- Sewer Lines

N

2016 ROW SPRAY NEEDS

0 225 450 900 1,350 1,800 Feet



Pipe ID #	Diameter	Length (FT)	Date Sprayed	Length Sprayed
WM8775	24	1510		
WM8780	24	372		
WM10913	16	2390		
WM14033	16	1244		
WM14049	16	805		
Total Linear Footage:		**7118**		

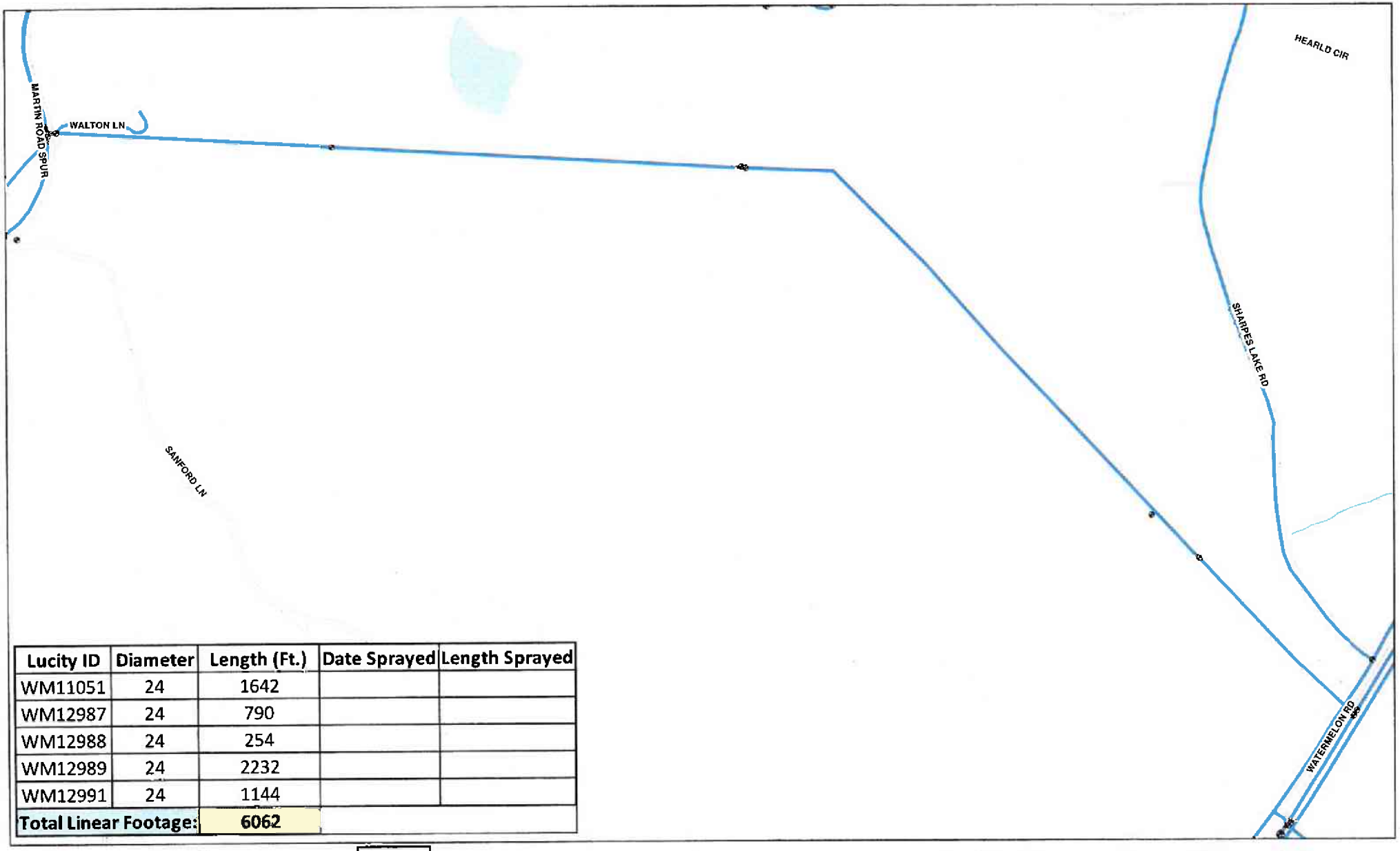
N

Legend
Valves
WaterLinesFinal
WaterMains

2016 WATER ROW SPRAY NEEDS

0 175 350 700 1,050 1,400 Feet

W1



Lucity ID	Diameter	Length (Ft.)	Date Sprayed	Length Sprayed
WM11051	24	1642		
WM12987	24	790		
WM12988	24	254		
WM12989	24	2232		
WM12991	24	1144		
Total Linear Footage:		6062		

N

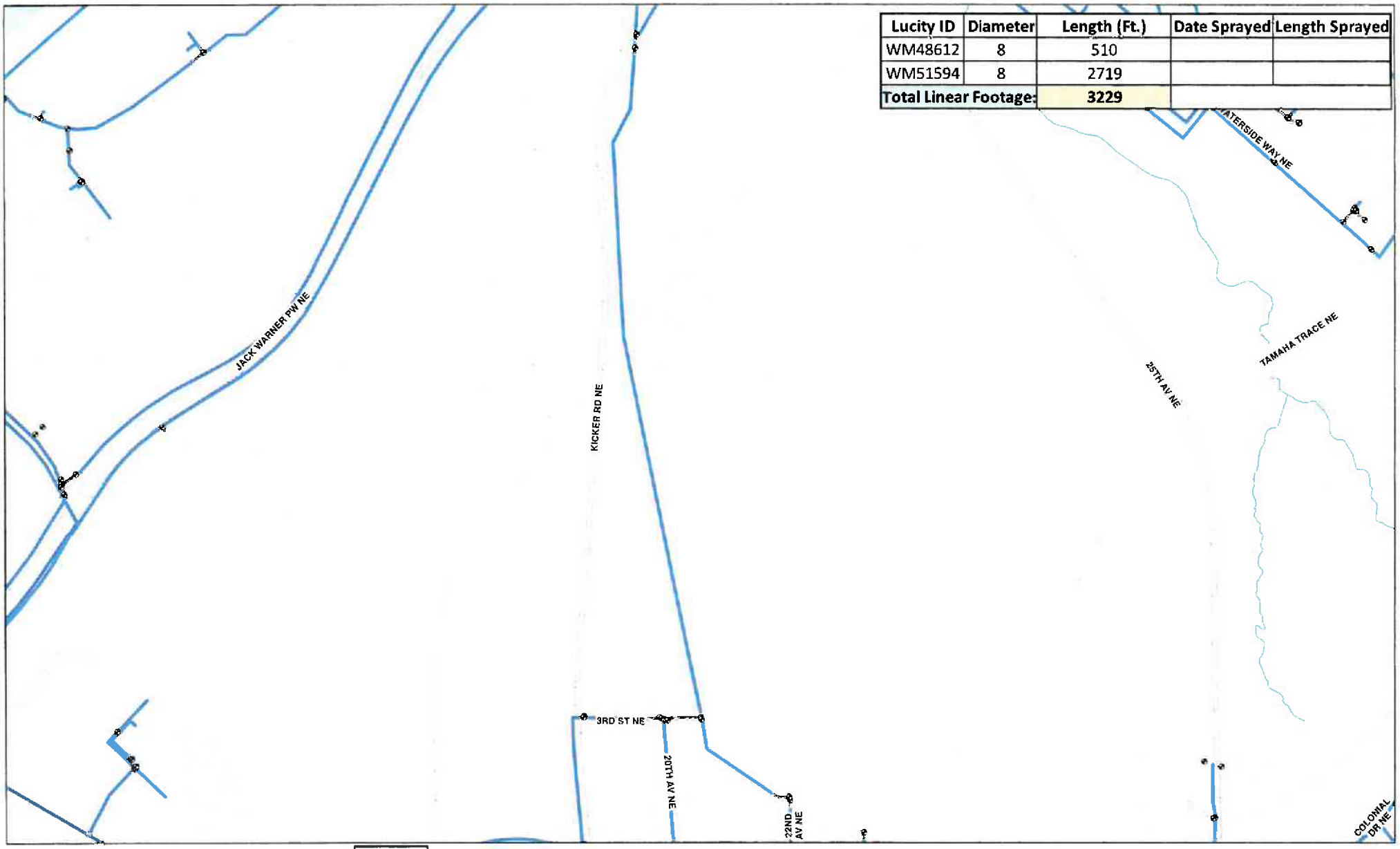
Legend
Valves
Lines to Spray
Water Mains

2016 WATER ROW SPRAY NEEDS

0 175 350 700 1,050 1,400 Feet

W2

Lucity ID	Diameter	Length (Ft.)	Date Sprayed	Length Sprayed
WM48612	8	510		
WM51594	8	2719		
Total Linear Footage:		3229		



Legend
valves
Lines to Spray
Water Mains

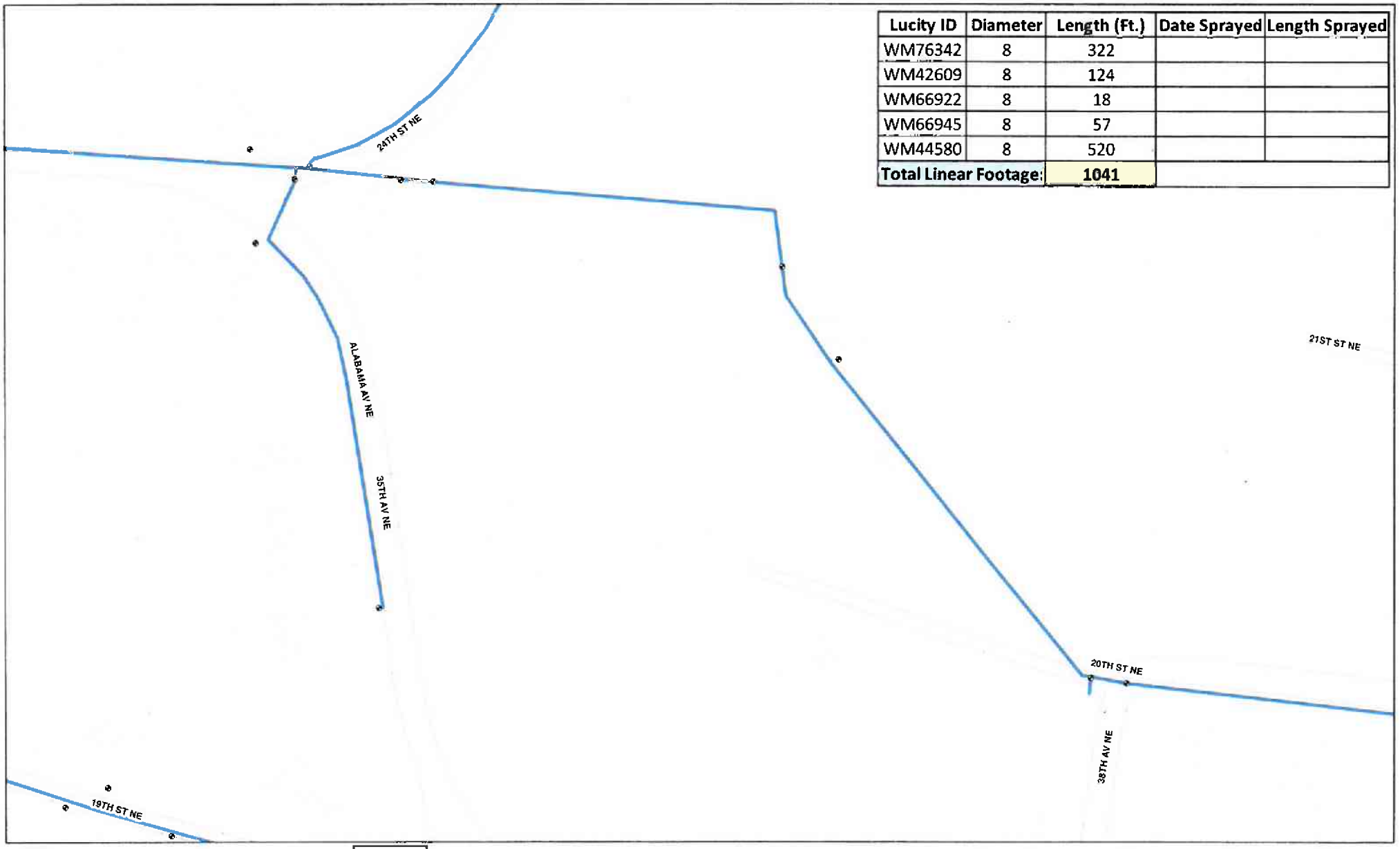
N

2016 WATER ROW SPRAY NEEDS

0 175 350 700 1,050 1,400 Feet

W3

Lucity ID	Diameter	Length (Ft.)	Date Sprayed	Length Sprayed
WM76342	8	322		
WM42609	8	124		
WM66922	8	18		
WM66945	8	57		
WM44580	8	520		
Total Linear Footage:		**1041**		



N

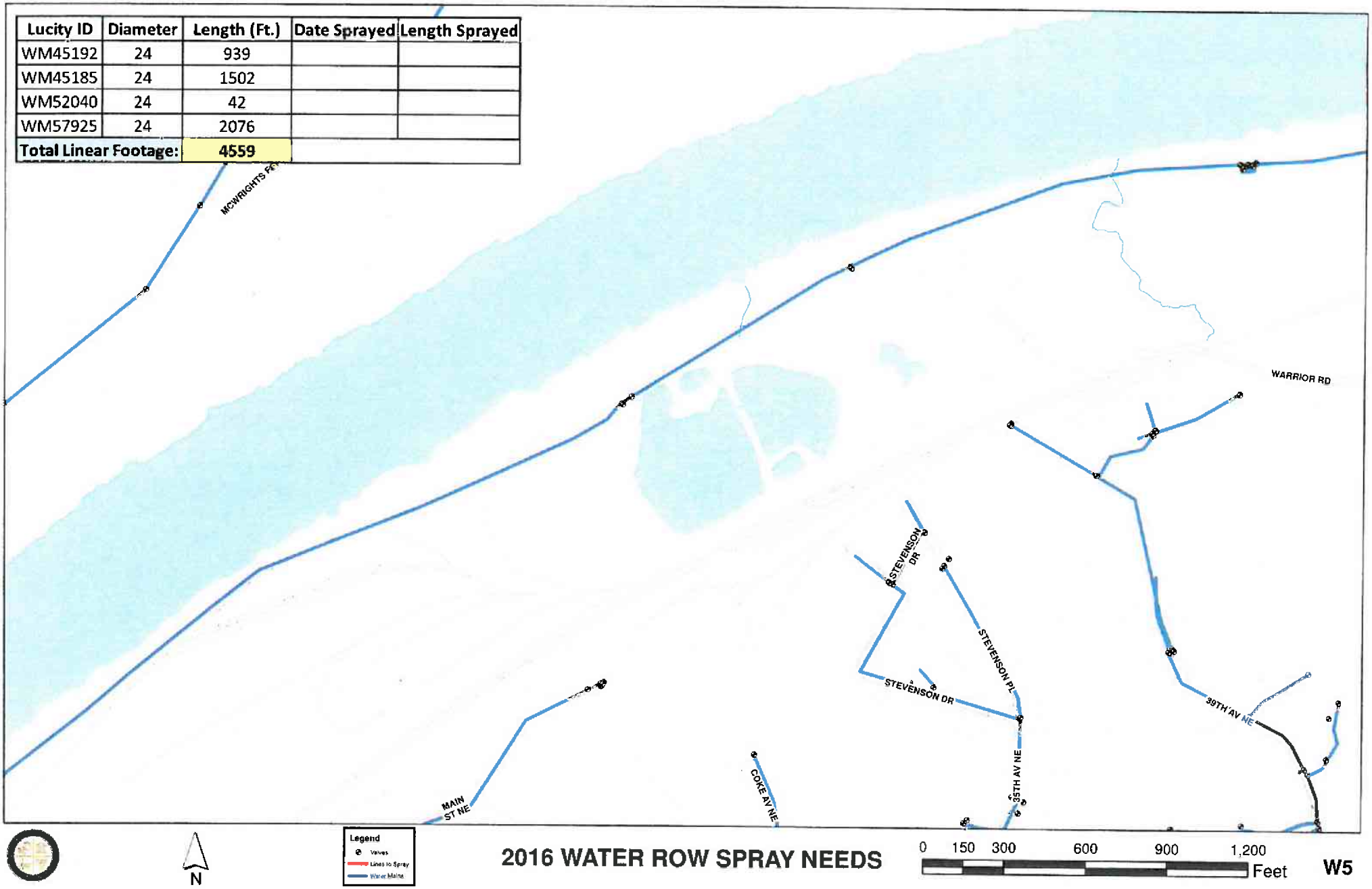
Legend
Valves
Lines to Spray
Water Mains

2016 WATER ROW SPRAY NEEDS

0 50 100 200 300 400 Feet

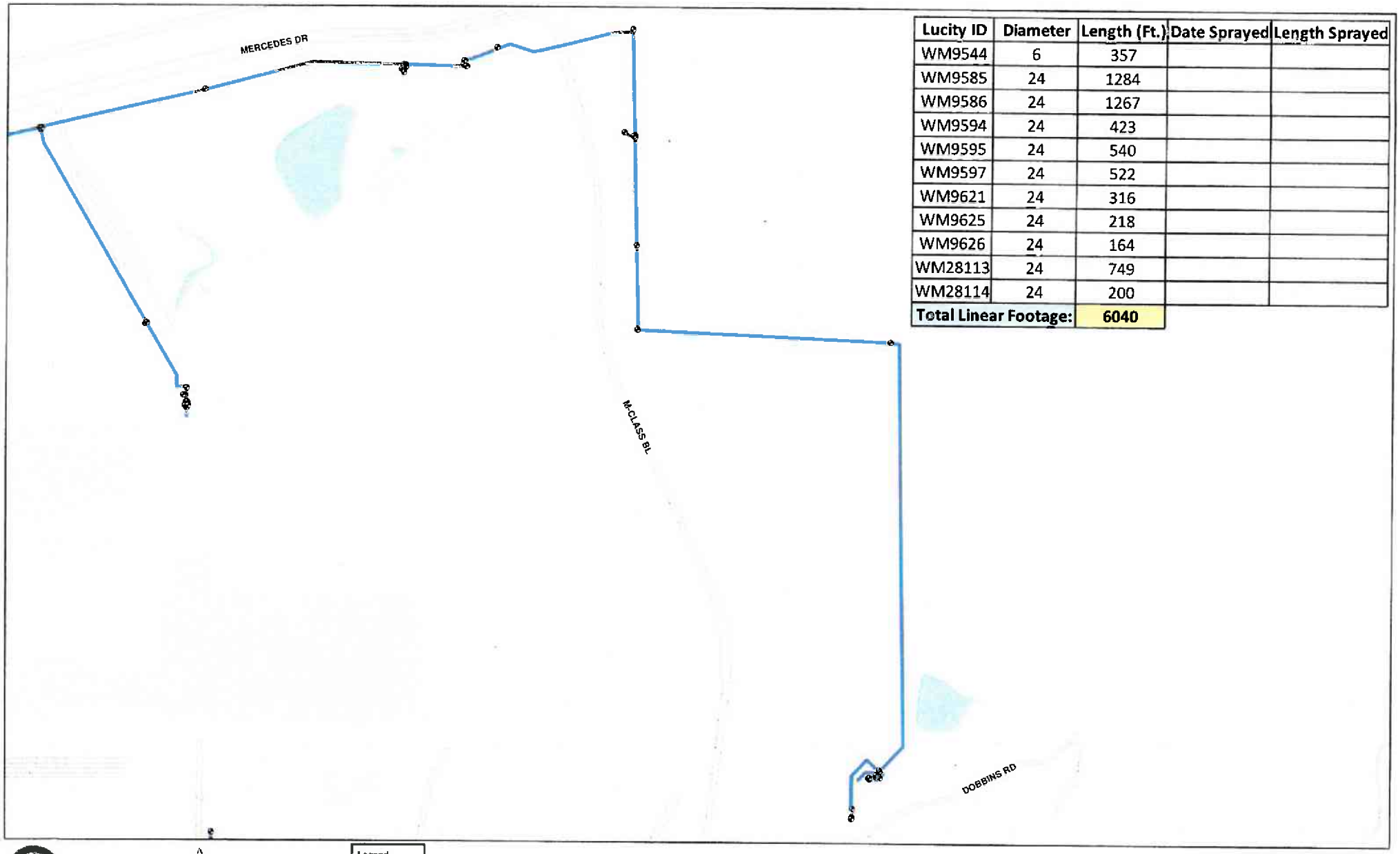
W4

Lucity ID	Diameter	Length (Ft.)	Date Sprayed	Length Sprayed
WM45192	24	939		
WM45185	24	1502		
WM52040	24	42		
WM57925	24	2076		
Total Linear Footage:		**4559**		



2016 WATER ROW SPRAY NEEDS

W5



Lucity ID	Diameter	Length (Ft.)	Date Sprayed	Length Sprayed
WM9544	6	357		
WM9585	24	1284		
WM9586	24	1267		
WM9594	24	423		
WM9595	24	540		
WM9597	24	522		
WM9621	24	316		
WM9625	24	218		
WM9626	24	164		
WM28113	24	749		
WM28114	24	200		
Total Linear Footage:		**6040**		

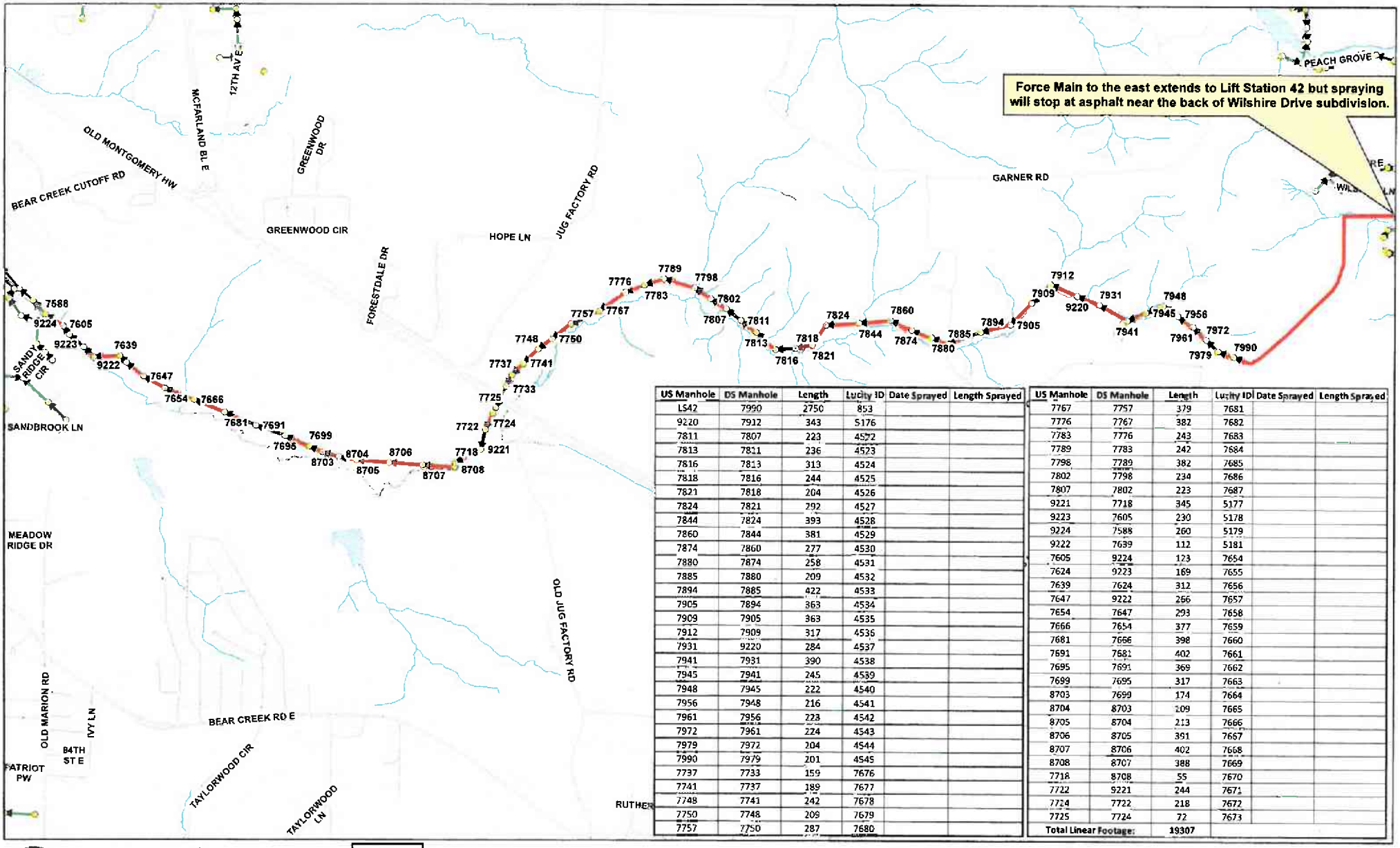
N

Legend
Valves
Lines to Spray
Water Mains

2016 WATER ROW SPRAY NEEDS

0 225 450 900 1,350 1,800 Feet

W6



US Manhole	DS Manhole	Length	Lucity ID	Date Sprayed	Length Sprayed
LS42	7990	2750	853		
9220	7912	343	5176		
7811	7807	223	4522		
7813	7811	236	4523		
7816	7813	313	4524		
7818	7816	244	4525		
7821	7818	204	4526		
7824	7821	292	4527		
7844	7824	393	4528		
7860	7844	381	4529		
7874	7860	277	4530		
7880	7874	258	4531		
7885	7880	209	4532		
7894	7885	422	4533		
7905	7894	363	4534		
7909	7905	363	4535		
7912	7909	317	4536		
7931	9220	284	4537		
7941	7931	390	4538		
7945	7941	245	4539		
7948	7945	222	4540		
7956	7948	216	4541		
7961	7956	223	4542		
7972	7961	224	4543		
7979	7972	204	4544		
7990	7979	201	4545		
7737	7733	159	7676		
7741	7737	189	7677		
7748	7741	242	7678		
7750	7748	209	7679		
7757	7750	287	7680		

US Manhole	DS Manhole	Length	Lucity ID	Date Sprayed	Length Sprayed
7767	7757	379	7681		
7776	7767	382	7682		
7783	7776	243	7683		
7789	7783	242	7684		
7798	7789	382	7685		
7802	7798	234	7686		
7807	7802	223	7687		
9221	7718	345	5177		
9223	7605	230	5178		
9224	7588	260	5179		
9222	7639	112	5181		
7605	9224	123	7654		
7624	9223	169	7655		
7639	7624	312	7656		
7647	9222	266	7657		
7654	7647	293	7658		
7666	7654	377	7659		
7681	7666	398	7660		
7691	7681	402	7661		
7695	7691	369	7662		
7699	7695	317	7663		
8703	7699	174	7664		
8704	8703	109	7665		
8705	8704	213	7666		
8706	8705	391	7667		
8707	8706	402	7668		
8708	8707	388	7669		
7718	8708	55	7670		
7722	9221	244	7671		
7724	7722	218	7672		
7725	7724	72	7673		
Total Linear Footage:		19307			

N

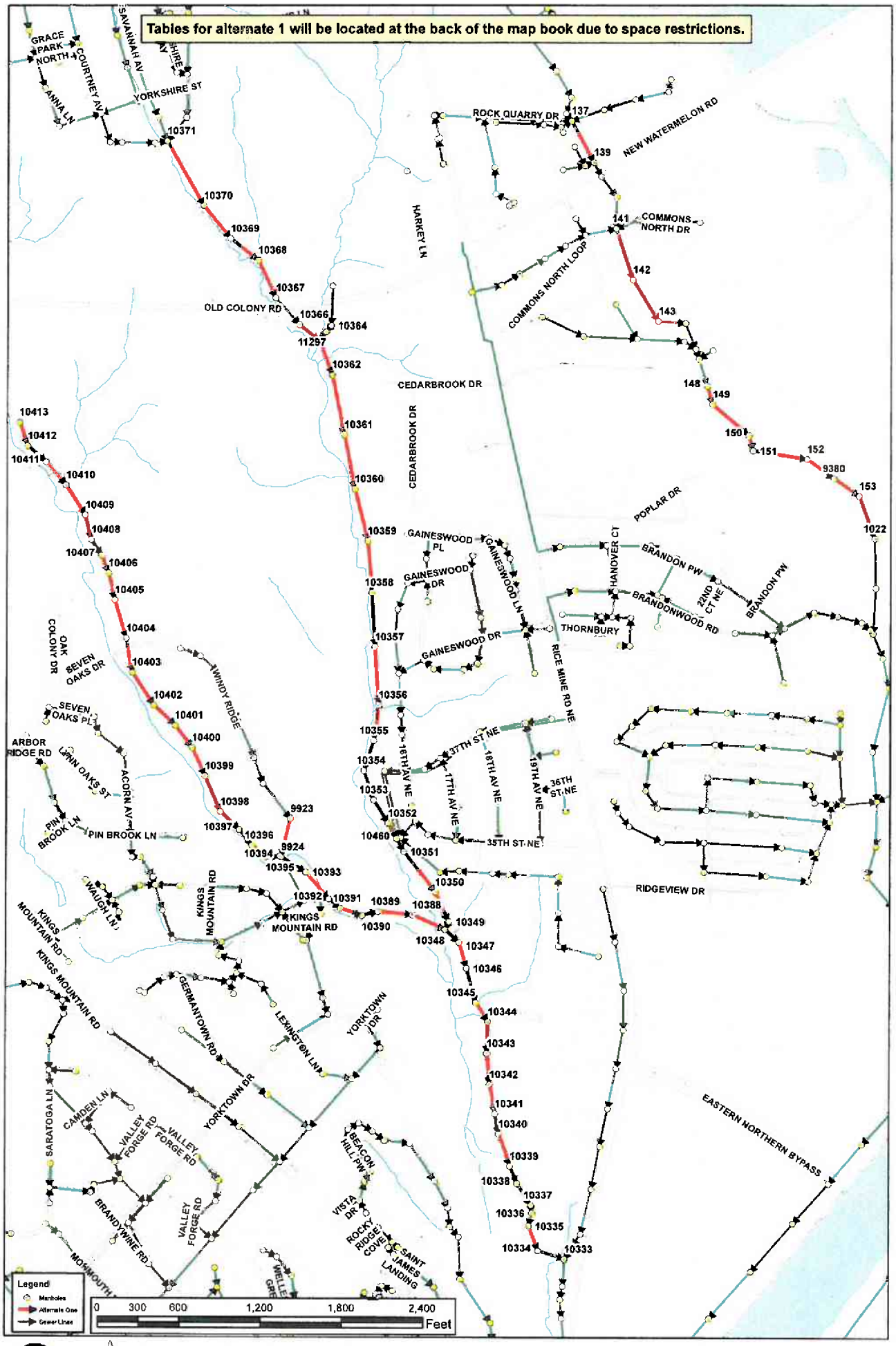
Legend
- Manholes
- Alternate Two
- Sewer Lines

2016 ROW SPRAY NEEDS

0 500 1,000 2,000 3,000 4,000 Feet

Alternate 2

Tables for alternate 1 will be located at the back of the map book due to space restrictions.



N

2016 ROW SPRAY NEEDS

Alternate 1

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	2934	1245	1247	345	1
Base	2935	1249	1245	429	1
Base	9690	1258	12069	203	1
Base	7360	1262	13257	276	1
Base	2936	9372	1249	302	1
Base	9684	12066	12067	248	1
Base	9686	12067	12068	154	1
Base	9687	12068	12069	171	1
Base	12850	12079	12080	400	1
Base	9681	12080	12081	397	1
Base	9682	12081	12082	142	1
Base	9683	12082	12066	252	1
Base	14222	13257	1258	263	1
Base	12978	1298	12242	85	2
Base	13798	1402	12888	273	2
Base	11014	11292	1298	423	2
Base	6435	11805	1290	138	2
Base	12869	12109	11805	227	2
Base	12979	12242	12109	165	2
Base	13800	12888	12889	405	2
Base	3983	3974	11962	312	3
Base	8434	3975	3974	397	3
Base	3131	4008	4017	473	3
Base	7806	4082	LS18	83	3
Base	7809	4088	4082	292	3
Base	8845	4104	11650	6	3
Base	2994	4165	4167	293	3
Base	2995	4167	4168	282	3
Base	2996	4168	4169	413	3
Base	3056	4169	4170	311	3
Base	3090	4208	14075	280	3
Base	3089	4223	4208	283	3
Base	3694	10140	10141	433	3
Base	3695	10141	10142	443	3
Base	3696	10142	14055	187	3
Base	3693	10152	10140	347	3
Base	8846	11650	11652	342	3
Base	11026	11962	3965	211	3
Base	14316	12215	12838	344	3
Base	10311	12838	4169	344	3
Base	7576	LS18	11649	991	3
Base	6933	7047	10030	917	4
Base	6974	7048	7047	1190	4
Base	6973	7049	7048	416	4
Base	6934	7050	7049	68	4
Base	6978	7052	7051	63	4
Base	6979	7053	10028	990	4
Base	9925	10028	10029	704	4
Base	9926	10029	7052	381	4
Base	9927	10030	10031	961	4
Base	5901	8545	8528	291	5
Base	5894	8551	8545	162	5
Base	5896	8570	8560	406	5
Base	5897	8581	8570	440	5
Base	5898	8598	8581	331	5
Base	7772	4688	4722	542	6
Base	1722	4714	4732	439	6
Base	7771	4722	4731	354	6
Base	7803	4723	4733	421	6
Base	7768	4726	4723	307	6

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	7769	4730	9287	75	6
Base	7770	4731	4730	219	6
Base	1723	4732	4757	513	6
Base	7767	4740	4755	1010	6
Base	6534	4743	4731	152	6
Base	10133	4750	4743	290	6
Base	7784	4757	4762	159	6
Base	9244	4762	4777	181	6
Base	10132	4764	4750	568	6
Base	6536	4776	4773	485	6
Base	4004	4785	9206	335	6
Base	6990	4790	4785	360	6
Base	6989	4803	4790	375	6
Base	7953	4828	9046	496	6
Base	4002	4844	4810	357	6
Base	7073	4857	4844	258	6
Base	4005	4871	4857	130	6
Base	7074	4874	4871	288	6
Base	5106	4928	4920	162	6
Base	7870	7108	9046	316	6
Base	7869	7110	7108	505	6
Base	5172	9205	4871	24	6
Base	9851	9283	13090	23	6
Base	9873	9287	9288	216	6
Base	1271	9288	4726	231	6
Base	7773	10039	4688	277	6
Base	11017	11303	4857	463	6
Base	10239	11312	11314	200	6
Base	10241	11314	4885	480	6
Base	12723	11887	10039	151	6
Base	12724	11888	4762	247	6
Base	1283	13090	11888	436	6
Base	9350	4722a	4722	306	6
Base	6539	4799	4796	167	7
Base	6540	4812	4799	212	7
Base	6541	4824	4812	245	7
Base	6542	4836	4824	209	7
Base	6543	4859	4836	389	7
Base	3954	4862	4856	102	7
Base	3953	4872	4862	326	7
Base	3833	4910	4930	465	7
Base	3892	4965	4932	455	7
Base	3960	4988	4963	324	7
Base	1603	7069	7093	425	7
Base	2756	7073	11875	171	7
Base	1604	7093	7096	346	7
Base	1605	7096	7098	347	7
Base	1606	7098	7097	500	7
Base	7862	7174	7155	351	7
Base	8008	7186	9237	442	7
Base	8009	7189	9235	131	7
Base	7854	7241	7227	491	7
Base	7853	7256	7241	484	7
Base	7852	7257	7256	136	7
Base	9836	9235	7186	21	7
Base	9837	9237	7162	236	7
Base	2757	11875	7069	38	7
Base	11025	11961	4988	345	7
Base	861	4872B	4872	202	7
Base	860	4872C	4872B	35	7

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	7966	7360	7348	304	8
Base	7977	7369	7348	396	8
Base	7979	7370	7376	102	8
Base	7978	7376	7369	91	8
Base	7965	7378	9227	447	8
Base	7980	7382	7370	321	8
Base	7964	7389	7378	387	8
Base	7963	7403	7389	315	8
Base	7962	7412	7403	387	8
Base	7958	7430	7421	390	8
Base	7986	7432	7413	406	8
Base	7957	7439	7430	451	8
Base	8589	7442	7450	408	8
Base	7871	7443	7421	444	8
Base	7956	7450	7439	335	8
Base	7872	7454	7443	157	8
Base	7987	7458	7432	409	8
Base	7333	7487	7469	291	8
Base	7334	7499	7487	208	8
Base	7335	7506	7499	326	8
Base	7991	7511	7514	78	8
Base	7990	7514	7496	282	8
Base	7336	7524	7506	92	8
Base	7337	7539	7524	156	8
Base	5182	7545	9226	75	8
Base	7338	7566	7539	125	8
Base	7653	7575	7545	358	8
Base	7341	7606	7592	260	8
Base	8497	7607	7606	87	8
Base	7342	7621	7606	369	8
Base	8496	7622	7607	131	8
Base	7343	7640	7621	107	8
Base	7972	7648	7640a	159	8
Base	7973	7657	7648	422	8
Base	12657	7676	11799	170	8
Base	8500	7685	7676	292	8
Base	8501	7690	7685	321	8
Base	9593	9227	7360	304	8
Base	12658	11799	7657	428	8
Base	10612	7640a	7640	131	8
Base	10648	7690a	7685	292	8
Base	7948	7339	7335	196	9
Base	7928	7351	7342	244	9
Base	7929	7354	7351	115	9
Base	7927	7355	7351	105	9
Base	7926	7368	7355	428	9
Base	7925	7393	7368	469	9
Base	2703	7397	7407	199	9
Base	13778	7407	12760	96	9
Base	7924	7409	7393	381	9
Base	7922	7429	7418	229	9
Base	7918	7456	7447	149	9
Base	7917	7471	7456	325	9
Base	7916	7480	7471	119	9
Base	7910	7625	7604	328	9
Base	7909	7642	7625	401	9
Base	5635	7644	7642	122	9
Base	3560	7649	7650	238	9
Base	3561	7653	7649	97	9
Base	3562	7660	7653	246	9

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	7906	7683	9245	174	9
Base	7905	7687	7683	165	9
Base	9841	9245	9244	135	9
Base	5638	12760	7409	37	9
Base	10876	7339a	7339	113	9
Base	9501	7427C	7427D	243	9
Base	9502	7427D	7409	116	9
Base	13082	5182	5176	444	10
Base	7694	5254	5223	559	10
Base	4016	5304	5268	270	10
Base	1509	5335	5304	417	10
Base	9717	5354	12496	245	10
Base	1510	5355	5335	352	10
Base	1512	5364	5355	262	10
Base	1511	5374	5355	190	10
Base	4675	5375	5364	201	10
Base	8415	5377	5375	127	10
Base	8414	5401	5377	371	10
Base	4673	5431	5401	546	10
Base	4022	5454	5437	210	10
Base	4685	5462	5431	432	10
Base	4698	5491	5462	353	10
Base	4697	5499	5491	329	10
Base	4382	5567	5542	171	10
Base	4383	5571	5567	61	10
Base	4384	5587	5571	86	10
Base	4385	5596	5587	143	10
Base	4387	5649	5596	484	10
Base	4099	5658	5633	199	10
Base	4093	5683	5658	352	10
Base	9588	5723	9214	107	10
Base	4094	5725	5683	246	10
Base	4394	5728	5723	41	10
Base	4399	5741	5728	274	10
Base	4092	5753	5725	363	10
Base	4073	5762	5722	636	10
Base	4400	5766	5741	339	10
Base	4401	5781	5766	340	10
Base	4393	9214	5649	462	10
Base	9718	12496	5377	146	10
Base	11060	5204C	5204D	334	10
Base	11066	5204D	5204E	153	10
Base	9337	5204E	5182	97	10
Base	9339	5254a	5254	112	10
Base	4426	5915	5901	89	11
Base	475	5923	10647	270	11
Base	4428	5959	5915	421	11
Base	4990	5962	5938	381	11
Base	4429	5970	5959	572	11
Base	4430	5971	5970	402	11
Base	4989	5979	5962	605	11
Base	4433	6008	6009	86	11
Base	4988	6011	6003	14	11
Base	7635	6040	6009	421	11
Base	4434	6078	6040	380	11
Base	4435	6082	6078	170	11
Base	4436	6095	6082	205	11
Base	4437	6098	6095	406	11
Base	4439	6130	6132	232	11
Base	4438	6132	6095	456	11

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	5007	6137	6132	180	11
Base	5008	6141	6142	189	11
Base	7616	6142	6137	62	11
Base	5009	6144	6141	241	11
Base	5023	6145	6132	210	11
Base	5010	6153	6144	304	11
Base	5015	6154	6142	123	11
Base	4983	6166	6160	257	11
Base	5037	6167	6130	446	11
Base	5016	6179	6154	336	11
Base	4982	6181	6166	181	11
Base	5024	6186	6145	430	11
Base	4981	6197	6181	168	11
Base	5017	6206	6179	395	11
Base	4980	6208	6197	227	11
Base	3512	6220	6208	248	11
Base	5025	6221	6186	427	11
Base	3513	6244	6220	182	11
Base	3520	6272	6244	324	11
Base	5026	6291	9129	461	11
Base	5027	6303	6291	208	11
Base	3514	6321	6272	497	11
Base	3515	6339	6321	346	11
Base	5028	6348	9130	258	11
Base	3516	6357	9127	179	11
Base	5029	6358	6348	178	11
Base	5032	6371	6365	134	11
Base	5035	6380	6371	329	11
Base	3517	6384	14132	293	11
Base	3518	6393	6384	253	11
Base	5036	6396	6380	266	11
Base	4790	6452	6453	79	11
Base	4791	6454	6452	127	11
Base	4792	6461	6454	159	11
Base	4793	6464	6453	249	11
Base	4794	6469	6464	103	11
Base	4966	9125	6208	169	11
Base	9302	9128	6357	445	11
Base	9300	9129	6221	301	11
Base	9299	9130	6303	267	11
Base	476	10647	5915	76	11
Base	14538	14132	9128	100	11
Base	6479	6534	7908a	403	12
Base	6456	7806	7812	320	12
Base	7886	7808	7803	462	12
Base	7887	7809	7808	163	12
Base	7888	7810	7809	285	12
Base	7889	7812	7810	195	12
Base	7890	7814	7812	180	12
Base	7891	7815	7814	147	12
Base	7892	7817	7815	413	12
Base	7893	7819	7817	341	12
Base	6457	7820	7815	157	12
Base	7894	7822	7819	361	12
Base	6460	7827	7820	467	12
Base	7895	7837	7822	427	12
Base	7896	7845	7837	229	12
Base	7897	7848	7845	73	12
Base	6461	7850	7827	477	12
Base	6465	7856	7850	396	12

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	7898	7857	7848	327	12
Base	3753	7859	7862	329	12
Base	3760	7862	7866	116	12
Base	8634	7865	7857	245	12
Base	8504	7866	7865	194	12
Base	6466	7868	7856	449	12
Base	3759	7870	7866	92	12
Base	3758	7873	7870	166	12
Base	6472	7883	7873	255	12
Base	6467	7891	7868	449	12
Base	6469	7899	7891	370	12
Base	6474	7901	7892	311	12
Base	6480	7908	7901	162	12
Base	6478	7914	6534	133	12
Base	6476	7916	7917	103	12
Base	6477	7917	7914	186	12
Base	12822	12013	6534	66	12
Base	10893	7883b	7883	203	12
Base	11124	7883c	7883b	189	12
Base	10627	7908a	7908	349	12
Base	3510	8001	7987	350	13
Base	3509	8007	8001	153	13
Base	6122	8017	8007	215	13
Base	6486	8020	8017	352	13
Base	6485	8023	8020	256	13
Base	6484	8026	8023	148	13
Base	6483	8027	8026	202	13
Base	3418	8115	8126	372	14
Base	6512	8126	8136	250	14
Base	6105	8136	8148	235	14
Base	6511	8148	8160	479	14
Base	3417	8160	8170	235	14
Base	3003	8252	8261	353	14
Base	3005	8255	8252	472	14
Base	3002	8257	8255	333	14
Base	3001	8259	8257	400	14
Base	3000	8266	8259	342	14
Base	12410	11502	8309a	75	14
Base	2634	11524	11601	73	14
Base	12401	11525	11524	118	14
Base	12400	11526	11525	184	14
Base	2635	11551	11552	78	14
Base	12398	11552	8266	133	14
Base	12504	11598	11599	122	14
Base	12505	11599	11502	214	14
Base	7332	11601	11551	326	14
Base	10680	8309a	8326	260	14
Base	4860	6874	6882	387	15
Base	6952	6882	6900	315	15
Base	6954	6911	9278	259	15
Base	6955	6914	6921	125	15
Base	6956	6921	6929	124	15
Base	6957	6929	6940	275	15
Base	6958	6940	9277	208	15
Base	6959	6949	6954	356	15
Base	6960	6954	6959	301	15
Base	6961	6959	9276	300	15
Base	6962	6961	6963	394	15
Base	6963	6963	6965	290	15
Base	6964	6965	6967	276	15

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	6965	6967	6971	275	15
Base	6972	6971	6969	398	15
Base	6967	6972	9180	301	15
Base	6968	6973	6972	310	15
Base	6971	6975	6973	277	15
Base	6970	6976	6975	263	15
Base	6969	6979	6976	301	15
Base	10065	8096	8113a	432	15
Base	3318	8106	8110	162	15
Base	3319	8110	8119	325	15
Base	3320	8113	8119	319	15
Base	6966	9180	6971	398	15
Base	9861	9276	6961	317	15
Base	9860	9277	6949	220	15
Base	9859	9278	6914	206	15
Base	12008	11397	11398	380	15
Base	12009	11398	11399	301	15
Base	12010	11399	11400	301	15
Base	12011	11400	11401	400	15
Base	12012	11401	9180	200	15
Base	12346	11407	11408	283	15
Base	12006	11408	11409	340	15
Base	12007	11409	11397	348	15
Base	9626	8113a	8113	67	15
Base	6944	6960	6962	412	16
Base	6945	6962	6964	428	16
Base	6946	6964	6966	429	16
Base	6948	6968	6974	353	16
Base	6949	6974	6977	275	16
Base	6950	6977	9171	122	16
Base	6133	6980	9170	147	16
Base	6853	6981	6980	411	16
Base	6129	6988	6993	157	16
Base	6132	6989	6995	373	16
Base	6128	6993	6999	167	16
Base	6130	6994	6988	247	16
Base	6131	6995	6994	245	16
Base	6127	6999	7001	227	16
Base	6126	7001	7002	233	16
Base	6125	7002	7003	124	16
Base	7597	7003	7004	201	16
Base	7599	7004	7007	367	16
Base	6860	7007	7009	331	16
Base	6124	7009	9162	450	16
Base	6869	7011	7012	399	16
Base	6870	7012	7016	334	16
Base	6863	7013	9161	321	16
Base	6868	7014	7011	395	16
Base	6871	7016	7015	332	16
Base	6867	7018	7014	394	16
Base	9426	7026	7021	125	16
Base	6864	9161	7026	91	16
Base	6861	9162	7015	152	16
Base	9422	9163	6989	500	16
Base	9421	9164	9163	431	16
Base	9420	9165	9164	221	16
Base	9419	9166	9165	365	16
Base	9418	9167	9166	305	16
Base	9417	9168	9167	134	16
Base	9416	9169	9168	449	16

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	9415	9170	9169	380	16
Base	6912	3939	3941	273	17
Base	6911	3940	3939	247	17
Base	6913	3941	9160	292	17
Base	6910	3944	3940	571	17
Base	6909	3945	3944	237	17
Base	6908	3946	3945	222	17
Base	6899	3947	3946	247	17
Base	6900	3948	3947	203	17
Base	6901	3949	3948	152	17
Base	6902	3950	3949	159	17
Base	6903	3951	3950	262	17
Base	6904	3952	3951	124	17
Base	6881	7017	7019	185	17
Base	6882	7019	7024	228	17
Base	6880	7020	7017	314	17
Base	6895	7023	7025	346	17
Base	6883	7024	7029	345	17
Base	6896	7025	7028	318	17
Base	6894	7027	7023	451	17
Base	6897	7028	7032	241	17
Base	6890	7029	7039	353	17
Base	6893	7030	7027	150	17
Base	6898	7032	7035	202	17
Base	6892	7033	7030	265	17
Base	6891	7034	7033	249	17
Base	9781	7036	7034	147	17
Base	6885	7038	7037	451	17
Base	6889	7039	7041	236	17
Base	6886	7040	7038	268	17
Base	6888	7041	7042	120	17
Base	6887	7042	7040	274	17
Base	4949	6697	6707	185	18
Base	4950	6707	6716	155	18
Base	4951	6716	6728	115	18
Base	8775	6728	6733	402	18
Base	8947	6733	6736	138	18
Base	8948	6736	6755	340	18
Base	5518	6755	6780	329	18
Base	12305	6790	11276	185	18
Base	5203	6875	6881	154	18
Base	6879	6881	6898	258	18
Base	6878	6898	6910	363	18
Base	6877	6910	6913	313	18
Base	6876	6913	6916	341	18
Base	6875	6916	6925	266	18
Base	6874	6925	6941	388	18
Base	3304	6941	6946	225	18
Base	3303	6946	6933	428	18
Base	7785	6952	6946	389	18
Base	12304	11275	11276	199	18
Base	3286	3874	6930	230	19
Base	6292	3899	3901	416	19
Base	6293	3901	3909	450	19
Base	6294	3909	9141	300	19
Base	6296	3923	9150	357	19
Base	6921	3932	3933	220	19
Base	6920	3933	3934	284	19
Base	6919	3934	3935	224	19
Base	3292	6908	6909	125	19

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	3289	6909	6912	321	19
Base	3288	6912	6915	369	19
Base	3287	6915	6930	336	19
Base	3296	6928	6932	172	19
Base	3290	6930	6942	391	19
Base	3300	6931	6930	195	19
Base	3295	6932	6931	269	19
Base	3291	6942	6948	218	19
Base	6291	6948	3899	377	19
Base	9569	9141	9142	315	19
Base	9570	9142	9143	155	19
Base	9571	9143	9149	237	19
Base	6295	9149	3923	241	19
Base	9572	9150	9151	140	19
Base	9573	9151	9152	275	19
Base	9574	9152	9153	412	19
Base	9575	9153	9154	308	19
Base	9576	9154	9155	188	19
Base	9577	9155	9156	245	19
Base	9578	9156	9157	244	19
Base	6922	9157	3932	302	19
Base	9972	6928A	6928	158	19
Base	2043	3572	3580	217	20
Base	2436	3574	3586	324	20
Base	2044	3580	3598	312	20
Base	2435	3586	3594	119	20
Base	6925	3587	3597	134	20
Base	2063	3593	3600	203	20
Base	2062	3594	3593	133	20
Base	1466	3595	3594	162	20
Base	2432	3597	3608	339	20
Base	2045	3598	3602	144	20
Base	2064	3600	3609	410	20
Base	2046	3602	3606	162	20
Base	2047	3606	3609	186	20
Base	2433	3608	3628	559	20
Base	2048	3609	3621	352	20
Base	6927	3614	3634	422	20
Base	2049	3621	3637	228	20
Base	6269	3632	3628	281	20
Base	1461	3633	3655	432	20
Base	1462	3634	3633	111	20
Base	2050	3637	3644	165	20
Base	1460	3655	3662	197	20
Base	2035	3659	3668	144	20
Base	10309	3660	3655	183	20
Base	2059	3662	3673	206	20
Base	2036	3668	3675	140	20
Base	2056	3669	3674	69	20
Base	2058	3672	3673	127	20
Base	2057	3673	3683	239	20
Base	8366	3674	3687	236	20
Base	2037	3675	3688	159	20
Base	2060	3683	3701	275	20
Base	8365	3687	3701	167	20
Base	2040	3688	3699	133	20
Base	8367	3693	3687	216	20
Base	2042	3696	3699	111	20
Base	2039	3699	3706	252	20
Base	1443	3701	3714	408	20

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	1457	3704	3711	188	20
Base	2041	3705	3706	56	20
Base	2038	3706	3712	194	20
Base	2067	3711	3714	302	20
Base	2406	3712	3718	131	20
Base	2407	3713	3712	68	20
Base	1442	3714	3724	246	20
Base	1458	3717	3704	147	20
Base	2405	3718	3728	196	20
Base	1445	3719	3725	78	20
Base	1446	3720	3719	193	20
Base	1436	3724	3727	147	20
Base	1444	3725	3724	112	20
Base	1451	3727	3741	424	20
Base	11786	3775	10583	113	20
Base	11789	9148	10584	297	20
Base	11817	10459	10563	281	20
Base	11816	10560	10459	221	20
Base	11815	10561	10560	275	20
Base	11818	10563	10562	153	20
Base	11788	10583	10582	173	20
Base	11790	10584	10582	335	20
Base	14215	13242	3704	208	20
Base	2032	3630A	3632	161	20
Base	8361	3312	3310	127	21
Base	8360	3344	3312	356	21
Base	2552	3391	3394	177	21
Base	6931	3394	3414	181	21
Base	2551	3396	12918	392	21
Base	2536	3413	3414	203	21
Base	2537	3414	3415	181	21
Base	2538	3415	3418	157	21
Base	2539	3418	3425	80	21
Base	2540	3425	3437	192	21
Base	240	3428	3410	213	21
Base	2541	3446	3437	317	21
Base	2544	3448	3453	66	21
Base	6929	3451	3448	98	21
Base	2543	3453	3446	187	21
Base	1027	3459	11893	156	21
Base	2555	3462	3437	563	21
Base	2545	3473	3453	186	21
Base	2468	3475	3473	279	21
Base	2462	3479	3475	109	21
Base	2554	3495	3462	228	21
Base	2556	3499	3495	221	21
Base	2452	3503	3504	159	21
Base	2557	3508	3499	168	21
Base	526	3510	3501	220	21
Base	527	3514	3510	119	21
Base	2453	3520	3503	289	21
Base	2558	3524	3508	267	21
Base	1015	3526	3514	224	21
Base	2559	3528	3524	130	21
Base	2454	3538	3520	366	21
Base	2457	3540	3538	150	21
Base	2455	3549	3538	237	21
Base	2456	3550	3540	212	21
Base	7383	11893	3428	435	21
Base	10308	12214	3479	346	21

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	13981	12908	3418	66	21
Base	13883	12918	3394	104	21
Base	10847	3418A	12908	115	21
Base	10708	3479a	3479	55	21
Base	5167	2437	2447	147	22
Base	5168	2447	2449	42	22
Base	9780	2457	2449	63	22
Base	8786	2487	2457	532	22
Base	2208	2741	12998	157	22
Base	666	2744	2741	355	22
Base	772	2834	9137	79	22
Base	667	2837	2834	166	22
Base	668	2853	2837	218	22
Base	9871	9137	2820	220	22
Base	14730	14306	2652	410	22
Base	10606	2647B	2652	339	22
Base	10476	2961	2961a	86	23
Base	10479	2962	2960	108	23
Base	720	2965	2972	348	23
Base	6035	2968	2961	220	23
Base	719	2973	2965	349	23
Base	6036	2983	2968	297	23
Base	2875	2984	2983	129	23
Base	1467	2987	11930	52	23
Base	2745	2989	2991	160	23
Base	2872	2993	2994	187	23
Base	2874	2994	2987	323	23
Base	9955	3078	10644	241	23
Base	2749	3104	3078	316	23
Base	6057	3142	11289	294	23
Base	2849	3187	3180	212	23
Base	2781	3190	3187	188	23
Base	2782	3191	3190	154	23
Base	6024	3230	3205	234	23
Base	2839	3250	3262	124	23
Base	2837	3259	3269	205	23
Base	2838	3262	3259	82	23
Base	2862	3267	3263	275	23
Base	2831	3269	18023	161	23
Base	2825	3271	3268	288	23
Base	9284	3274	3262	80	23
Base	2830	3282	3269	172	23
Base	2863	3283	3267	181	23
Base	9331	3292	3294a	139	23
Base	2865	3313	12971	150	23
Base	892	3349	3384	242	23
Base	6932	3385	9113	232	23
Base	889	3387	3384	126	23
Base	888	3392	3387	61	23
Base	9281	9112	3384	214	23
Base	9280	9113	9112	294	23
Base	6365	11289	3104	316	23
Base	12770	11929	2984	31	23
Base	2887	11930	11929	181	23
Base	13979	12971	3283	103	23
Base	599	13083	3238	182	23
Base	9285	18023	3230	95	23
Base	10477	2961a	2962	530	23
Base	9332	3294a	3294	123	23
Base	7233	652	12468	241	24

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	6569	2515	21110	250	24
Base	7696	2517	2515	273	24
Base	4718	2550	2528	467	24
Base	8329	2615	2590	315	24
Base	12363	2629	11448	218	24
Base	2876	2630	2629	48	24
Base	8328	2678	2615	400	24
Base	6041	2783	2801	373	24
Base	6039	2784	2783	184	24
Base	6040	2793	2784	100	24
Base	10423	2798	10601	74	24
Base	6042	2801	2855	538	24
Base	6038	2808	2798	260	24
Base	6037	2809	2808	268	24
Base	10845	2829	10599	259	24
Base	6044	2843	21077	453	24
Base	6043	2855	2866	259	24
Base	2739	2857	2843	105	24
Base	12039	2866	10602	178	24
Base	2738	2869	2857	140	24
Base	10384	2896	2869b	95	24
Base	2740	2903	2896	111	24
Base	11794	10599	21074	57	24
Base	10844	10600	2809	246	24
Base	10734	10601	2793	58	24
Base	12040	10602	11438	28	24
Base	12043	11435	11439	184	24
Base	12044	11436	11435	125	24
Base	12045	11437	11436	325	24
Base	12046	11438	11437	85	24
Base	9628	11439	11440	105	24
Base	9629	11440	11441	115	24
Base	9630	11441	11442	129	24
Base	9631	11442	11443	156	24
Base	12360	11443	11444	380	24
Base	12361	11444	11445	492	24
Base	12362	11445	11446	200	24
Base	12042	11446	21082	871	24
Base	12366	11447	2630	213	24
Base	12364	11448	11449	68	24
Base	12365	11449	2615	211	24
Base	6264	12058	12059	272	24
Base	3669	12059	12060	373	24
Base	3670	12060	12061	363	24
Base	9765	12061	12062	340	24
Base	9908	12062	LS2	155	24
Base	12577	12063	12061	66	24
Base	10164	12064	12063	232	24
Base	7234	12468	9080	220	24
Base	10735	21070	10600	67	24
Base	9289	21074	21070	346	24
Base	9288	21077	2829	42	24
Base	8581	21082	21084	302	24
Base	8582	21084	21085	26	24
Base	8583	21085	21086	122	24
Base	8584	21086	21091	688	24
Base	8327	21091	2678	327	24
Base	8580	21110	21103	119	24
Base	10170	2843a	2843	428	24
Base	10571	2869a	2869	104	24

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	10385	2869b	2869a	89	24
Base	2004	1866	1876	117	25
Base	1264	1876	9363	139	25
Base	1996	1878	1894	253	25
Base	1989	1891	1878	172	25
Base	1997	1894	1897	42	25
Base	1998	1897	1909	108	25
Base	1999	1909	1910	61	25
Base	2000	1910	1938	105	25
Base	2078	1938	9358A	254	25
Base	2075	1965	1964	349	25
Base	8348	1983	12601	211	25
Base	10006	1909A	1909	151	25
Base	9506	9358A	9358	259	25
Base	6207	472	484	326	26
Base	6206	484	483	388	26
Base	3649	529	541	302	26
Base	7188	532	529	211	26
Base	5710	533	532	177	26
Base	4319	541	555	252	26
Base	4320	555	2428	363	26
Base	6058	586	603	77	26
Base	7190	603	610	217	26
Base	1598	605	602	210	26
Base	1602	610	605	244	26
Base	1597	611	605	57	26
Base	1596	617	611	77	26
Base	8318	624	615a	123	26
Base	4709	2244	2233	376	26
Base	4712	2287	2244	442	26
Base	4710	2346	2319	438	26
Base	4715	2371	2346	367	26
Base	4714	2396	2371	394	26
Base	4324	2424	2438	232	26
Base	4322	2432	2436	238	26
Base	4323	2436	2424	289	26
Base	4713	2438	2396	273	26
Base	4725	2460	2438	414	26
Base	4724	9081	2460	458	26
Base	11053	615a	615	116	26
Base	2255	622z	610	103	26
Base	5982	822	835	382	27
Base	9774	826	822	326	27
Base	11520	9961	9962	98	27
Base	11521	9962	9963	317	27
Base	11522	9963	9964	394	27
Base	11523	9964	9965	136	27
Base	11524	9965	9966	183	27
Base	11525	9966	888	323	27
Base	8544	10327	10326	424	27
Base	11748	10328	10327	287	27
Base	11747	10329	10328	128	27
Base	11746	10330	10329	300	27
Base	11745	10331	10330	141	27
Base	11744	10332	10331	101	27
Base	11743	10333	10332	202	27
Base	6013	1044	1043	183	28
Base	8686	1045	1043	220	28
Base	6012	1047	1044	354	28
Base	6011	1049	1047	230	28

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	8568	1067	12915	694	28
Base	427	1074	1078	349	28
Base	415	1078	1079	135	28
Base	395	1079	12493	210	28
Base	8572	1080	11926	278	28
Base	411	1082	1083	124	28
Base	410	1083	1090	158	28
Base	4081	1091	1100	298	28
Base	393	1100	1111	360	28
Base	225	1111	12492	204	28
Base	396	1112	1111	159	28
Base	397	1113	1112	132	28
Base	398	1114	1113	128	28
Base	6015	1122	1128	201	28
Base	8565	1123	9094	694	28
Base	6016	1128	1123	319	28
Base	12870	1155	12111	48	28
Base	12872	1172	1155	681	28
Base	8324	9090	1045	61	28
Base	8567	9092	9091	437	28
Base	8566	9093	9092	503	28
Base	8564	9095	1172	895	28
Base	8563	9096	9095	179	28
Base	8562	9097	9096	55	28
Base	8561	9098	9097	210	28
Base	8560	9099	9098	201	28
Base	8559	9100	9099	150	28
Base	8558	9101	9100	109	28
Base	8557	9102	9101A	178	28
Base	8556	9103	9102A	368	28
Base	1685	9411	9090	101	28
Base	12766	11926	11927	283	28
Base	12768	11928	9093	256	28
Base	14006	12111	12771	516	28
Base	13186	12492	1119	176	28
Base	13187	12493	1081	103	28
Base	13502	12769	12770	51	28
Base	13503	12770	1080	59	28
Base	12871	12771	1123	516	28
Base	13878	12915	9411	631	28
Base	10536	9101A	9101	500	28
Base	9746	9102A	9102	20	28
Base	1186	3505	3517	322	29
Base	1185	3517	3523	108	29
Base	1187	3523	6551	134	29
Base	1184	3537	3523	391	29
Base	1188	3539	3537	138	29
Base	5257	6143	6138	281	29
Base	5421	6157	6158	143	29
Base	5420	6158	6128	410	29
Base	5422	6177	6157	314	29
Base	6496	6227	6242	152	29
Base	5338	6242	6245	141	29
Base	5339	6259	6242	355	29
Base	5340	6275	6259	237	29
Base	5352	6300	6275	592	29
Base	5353	6317	6300	126	29
Base	5327	6319	6298	341	29
Base	5272	6332	10008	273	29
Base	5273	6346	6332	248	29

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	5331	6347	6310	546	29
Base	5274	6349	6346	127	29
Base	5332	6351	6347	96	29
Base	5334	6353	6351	180	29
Base	12389	6354	11481	465	29
Base	5276	6355	6354	121	29
Base	5333	6356	6351	60	29
Base	5335	6366	6353	426	29
Base	5514	6370	6354	493	29
Base	5515	6372	6370	108	29
Base	5516	6378	6372	227	29
Base	5275	6382	6349	919	29
Base	1564	6394	6400	304	29
Base	1565	6395	6394	314	29
Base	5282	6404	6392	332	29
Base	1563	6407	6400	269	29
Base	1552	6412	6415	318	29
Base	6500	6415	6407	93	29
Base	5283	6423	6404	337	29
Base	1556	6425	6426	265	29
Base	1555	6426	6435	298	29
Base	1553	6429	6415	279	29
Base	1554	6435	6429	268	29
Base	7523	6436	6426	102	29
Base	1559	6437	6429	83	29
Base	5284	6442	6423	318	29
Base	5287	6443	6442	86	29
Base	7522	6447	6442	91	29
Base	5288	6448	6447	171	29
Base	5289	6450	6448	81	29
Base	7521	6455	6447	143	29
Base	5285	6467	6455	306	29
Base	5286	6492	6467	485	29
Base	7520	6511	6492	163	29
Base	5297	6512	13253	167	29
Base	5290	6520	6511	213	29
Base	5294	6551	6545	75	29
Base	9293	10007	6319	34	29
Base	9292	10008	10007	328	29
Base	14150	13082	6412	242	29
Base	14327	13114	13256	177	29
Base	14218	13253	13254	60	29
Base	14219	13254	13255	179	29
Base	14220	13255	13256	75	29
Base	14066	13256	6515	177	29
Base	8614	3539a	3539	156	29
Base	3699	6236b	10153	229	29
Base	10562	6310a	6310	292	29
Base	10623	6370a	6370	245	29
Base	10029	6437A	6437	101	29
Base	6775	35	39	44	30
Base	6776	39	42	40	30
Base	6777	42	LS8	128	30
Base	7586	45	40	96	30
Base	7587	47	45	44	30
Base	7590	50	47	106	30
Base	7591	52	50	97	30
Base	7595	54	52	52	30
Base	6595	83	92	143	30
Base	6582	92	96a	140	30

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	12874	12113	83	84	30
Base	11776	10325	10450	183	32
Base	11777	10450	10451	303	32
Base	11778	10451	10452	369	32
Base	11779	10452	10453	160	32
Base	11780	10453	10456	223	32
Base	11783	10454	10458	159	32
Base	11782	10455	10454	159	32
Base	11781	10456	10455	123	32
Base	11785	10457	LS62	108	32
Base	11784	10458	10457	118	32
Base	11819	10562	10566	315	32
Base	11822	10564	10574	280	32
Base	11821	10565	10564	139	32
Base	11820	10566	10565	384	32
Base	10256	10567	10577	147	32
Base	10255	10568	10567	169	32
Base	10254	10569	10568	132	32
Base	10253	10570	10569	76	32
Base	10252	10571	10570	158	32
Base	10251	10572	10571	148	32
Base	10250	10573	10572	197	32
Base	10249	10574	10573	247	32
Base	11737	10575	11298	144	32
Base	10258	10576	10575	87	32
Base	10257	10577	10576	147	32
Base	11738	11298	LS62	19	32
Base	3687	944	11434	239	33
Base	6017	958	943	445	33
Base	6018	972	958	452	33
Base	12986	983	11432	176	33
Base	6019	1000	983	544	33
Base	6023	1005	1000	201	33
Base	6022	1010	1005	154	33
Base	6021	1019	9108	154	33
Base	6020	1020	1019	240	33
Base	6031	1029	1020	123	33
Base	6033	2941	2945	400	33
Base	6032	2945	944	170	33
Base	10483	2953	2941	371	33
Base	10481	2954	2957	241	33
Base	10482	2957	2953	167	33
Base	10480	2960	2954	262	33
Base	6030	3138	1029	177	33
Base	6029	3164	3138	286	33
Base	6028	3178	9109	508	33
Base	9287	9108	1010	152	33
Base	9286	9109	3164	163	33
Base	11619	10238	10239	230	33
Base	11620	10239	10240	386	33
Base	11621	10240	10241	408	33
Base	11622	10241	10242	304	33
Base	11623	10242	10243	358	33
Base	11624	10243	10244	381	33
Base	11625	10244	10245	417	33
Base	11626	10245	10246	397	33
Base	11627	10246	10247	431	33
Base	11628	10247	10248	369	33
Base	11629	10248	10249	402	33
Base	11630	10249	10250	385	33

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Base	11614	10250	10251	142	33
Base	11615	10251	14171	175	33
Base	11616	10252	10253	181	33
Base	11617	10253	10254	128	33
Base	11611	10254	10255	254	33
Base	11612	10255	10236	385	33
Base	11609	10302	10304	148	33
Base	6034	11432	11433	481	33
Base	8339	11433	11434	451	33
Base	14585	14171	10252	259	33

Description	Lucity ID	Diameter		Length	Page Number
Base	WM8775	24		1510	Water 1
Base	WM10913	16		2390	Water 1
Base	WM14033	16		1244	Water 1
Base	WM14049	16		805	Water 1
Base	WM8780	24		372	Water 1
Base	WM11051	24		1642	Water 2
Base	WM12987	24		790	Water 2
Base	WM12988	24		254	Water 2
Base	WM12989	24		2232	Water 2
Base	WM12991	24		1144	Water 2
Base	WM48612	8		510	Water 3
Base	WM51594	8		2719	Water 3
Base	WM42609	8		124	Water 4
Base	WM44580	8		520	Water 4
Base	WM66922	8		18	Water 4
Base	WM66945	8		57	Water 4
Base	WM76342	8		322	Water 4
Base	WM45185	24		1502	Water 5
Base	WM45192	24		939	Water 5
Base	WM52040	24		42	Water 5
Base	WM57925	24		2076	Water 5
Base	WM28113	24		749	Water 6
Base	WM28114	24		200	Water 6
Base	WM9544	6		357	Water 6
Base	WM9585	24		1284	Water 6
Base	WM9586	24		1267	Water 6
Base	WM9594	24		423	Water 6
Base	WM9595	24		540	Water 6
Base	WM9597	24		522	Water 6
Base	WM9621	24		316	Water 6
Base	WM9625	24		218	Water 6
Base	WM9626	24		164	Water 6

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Additive 1	8138	148	149	144	Alternate 1
Additive 1	8139	149	150	352	Alternate 1
Additive 1	8140	150	151	119	Alternate 1
Additive 1	8141	151	152	402	Alternate 1
Additive 1	8142	152	9380	247	Alternate 1
Additive 1	8143	153	1022	337	Alternate 1
Additive 1	1235	9380	153	230	Alternate 1
Additive 1	11483	9923	9924	293	Alternate 1
Additive 1	11742	10334	10333	206	Alternate 1
Additive 1	11741	10335	10334	196	Alternate 1
Additive 1	11740	10336	10335	98	Alternate 1
Additive 1	11739	10337	10336	60	Alternate 1
Additive 1	11736	10338	10337	189	Alternate 1
Additive 1	11735	10339	10338	139	Alternate 1
Additive 1	11734	10340	10339	252	Alternate 1
Additive 1	11733	10341	10340	153	Alternate 1
Additive 1	11732	10342	10341	221	Alternate 1
Additive 1	11731	10343	10342	230	Alternate 1
Additive 1	11730	10344	10343	236	Alternate 1
Additive 1	11729	10345	10344	168	Alternate 1
Additive 1	11728	10346	10345	262	Alternate 1
Additive 1	11727	10347	10346	198	Alternate 1
Additive 1	11726	10348	10347	138	Alternate 1
Additive 1	11725	10349	10348	65	Alternate 1
Additive 1	11724	10350	10349	204	Alternate 1
Additive 1	11723	10351	10350	379	Alternate 1
Additive 1	11703	10352	10460	130	Alternate 1
Additive 1	11722	10353	10352	204	Alternate 1
Additive 1	11721	10354	10353	230	Alternate 1
Additive 1	11720	10355	10354	233	Alternate 1
Additive 1	11719	10356	10355	265	Alternate 1
Additive 1	11715	10357	10356	429	Alternate 1
Additive 1	11714	10358	10357	405	Alternate 1
Additive 1	11713	10359	10358	381	Alternate 1
Additive 1	11712	10360	10359	399	Alternate 1
Additive 1	11711	10361	10360	409	Alternate 1
Additive 1	11710	10362	10361	454	Alternate 1
Additive 1	11709	10363	10362	271	Alternate 1
Additive 1	12135	10364	11297	59	Alternate 1
Additive 1	11708	10366	10363	186	Alternate 1
Additive 1	11775	10388	10348	265	Alternate 1
Additive 1	11774	10389	10388	254	Alternate 1
Additive 1	11773	10390	10389	126	Alternate 1
Additive 1	11772	10391	10390	166	Alternate 1
Additive 1	11771	10392	10391	112	Alternate 1
Additive 1	11769	10393	10392	261	Alternate 1
Additive 1	11768	10394	10393	224	Alternate 1
Additive 1	11767	10395	10394	106	Alternate 1
Additive 1	11766	10396	10395	132	Alternate 1
Additive 1	11765	10397	10396	151	Alternate 1
Additive 1	11764	10398	10397	193	Alternate 1
Additive 1	11763	10399	10398	289	Alternate 1
Additive 1	11762	10400	10399	230	Alternate 1
Additive 1	11761	10401	10400	207	Alternate 1
Additive 1	11760	10402	10401	218	Alternate 1
Additive 1	11759	10403	10402	288	Alternate 1
Additive 1	11758	10404	10403	257	Alternate 1
Additive 1	11757	10405	10404	297	Alternate 1
Additive 1	11756	10406	10405	204	Alternate 1
Additive 1	11755	10407	10406	142	Alternate 1

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Additive 1	11754	10408	10407	136	Alternate 1
Additive 1	11753	10409	10408	189	Alternate 1
Additive 1	11752	10410	10409	264	Alternate 1
Additive 1	11751	10411	10410	224	Alternate 1
Additive 1	11750	10412	10411	183	Alternate 1
Additive 1	11749	10413	10412	185	Alternate 1
Additive 1	11704	10460	10351	111	Alternate 1
Additive 1	12136	11297	10363	84	Alternate 1

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Additive 2	853	LS42	7990	2750	Alternate 2
Additive 2	7654	7605	9224	123	Alternate 2
Additive 2	7655	7624	9223	169	Alternate 2
Additive 2	7656	7639	7624	312	Alternate 2
Additive 2	7657	7647	9222	266	Alternate 2
Additive 2	7658	7654	7647	293	Alternate 2
Additive 2	7659	7666	7654	377	Alternate 2
Additive 2	7660	7681	7666	398	Alternate 2
Additive 2	7661	7691	7681	402	Alternate 2
Additive 2	7662	7695	7691	369	Alternate 2
Additive 2	7663	7699	7695	317	Alternate 2
Additive 2	7670	7718	8708	55	Alternate 2
Additive 2	7671	7722	9221	244	Alternate 2
Additive 2	7672	7724	7722	218	Alternate 2
Additive 2	7673	7725	7724	72	Alternate 2
Additive 2	7676	7737	7733	159	Alternate 2
Additive 2	7677	7741	7737	189	Alternate 2
Additive 2	7678	7748	7741	242	Alternate 2
Additive 2	7679	7750	7748	209	Alternate 2
Additive 2	7680	7757	7750	287	Alternate 2
Additive 2	7681	7767	7757	379	Alternate 2
Additive 2	7682	7776	7767	382	Alternate 2
Additive 2	7683	7783	7776	243	Alternate 2
Additive 2	7684	7789	7783	242	Alternate 2
Additive 2	7685	7798	7789	382	Alternate 2
Additive 2	7686	7802	7798	234	Alternate 2
Additive 2	7687	7807	7802	223	Alternate 2
Additive 2	4522	7811	7807	223	Alternate 2
Additive 2	4523	7813	7811	236	Alternate 2
Additive 2	4524	7816	7813	313	Alternate 2
Additive 2	4525	7818	7816	244	Alternate 2
Additive 2	4526	7821	7818	204	Alternate 2
Additive 2	4527	7824	7821	292	Alternate 2
Additive 2	4528	7844	7824	393	Alternate 2
Additive 2	4529	7860	7844	381	Alternate 2
Additive 2	4530	7874	7860	277	Alternate 2
Additive 2	4531	7880	7874	258	Alternate 2
Additive 2	4532	7885	7880	209	Alternate 2
Additive 2	4533	7894	7885	422	Alternate 2
Additive 2	4534	7905	7894	363	Alternate 2
Additive 2	4535	7909	7905	363	Alternate 2
Additive 2	4536	7912	7909	317	Alternate 2
Additive 2	4537	7931	9220	284	Alternate 2
Additive 2	4538	7941	7931	390	Alternate 2
Additive 2	4539	7945	7941	245	Alternate 2
Additive 2	4540	7948	7945	222	Alternate 2
Additive 2	4541	7956	7948	216	Alternate 2
Additive 2	4542	7961	7956	223	Alternate 2
Additive 2	4543	7972	7961	224	Alternate 2
Additive 2	4544	7979	7972	204	Alternate 2

Description	Lucity ID	US Manhole	DS Manhole	Length	Page Number
Additive 2	4545	7990	7979	201	Alternate 2
Additive 2	7664	8703	7699	174	Alternate 2
Additive 2	7665	8704	8703	209	Alternate 2
Additive 2	7666	8705	8704	213	Alternate 2
Additive 2	7667	8706	8705	391	Alternate 2
Additive 2	7668	8707	8706	402	Alternate 2
Additive 2	7669	8708	8707	388	Alternate 2
Additive 2	5176	9220	7912	343	Alternate 2
Additive 2	5177	9221	7718	345	Alternate 2
Additive 2	5181	9222	7639	112	Alternate 2
Additive 2	5178	9223	7605	230	Alternate 2
Additive 2	5179	9224	7588	260	Alternate 2