

**VILLAGE OF DOWNERS GROVE**  
**Report for the Village Council Meeting**  
**3/11/2025**

|   |   |
|---|---|
| <b>SUBJECT:</b>   | <b>SUBMITTED BY:</b>                    |
| Lead Service Line Inventory and Replacement Plan Update | David Moody<br>Director of Public Works |

**SYNOPSIS**

A motion is requested to approve the Lead Service Line Inventory and Lead Service Replacement Plan updates, for submittal to the Illinois EPA by April 15, 2025.

**STRATEGIC PLAN ALIGNMENT**

The goals for 2023-2025 include *Top Quality Infrastructure* and *Exceptional Municipal Services*.

**FISCAL IMPACT**

The FY25 Budget includes \$200,000 for lead service line work. Significant dollar amounts will be required for this work from FY26 through FY44, and will be budgeted accordingly each year.

**RECOMMENDATION**

Approval on the March 18, 2025 consent agenda.

**BACKGROUND**

The Lead Service Replacement and Notification Act (the Act) was enacted by the State of Illinois and became effective January 1, 2022. This law requires the Village to:

- Develop, implement, and maintain a comprehensive water service line material inventory
  - Report the total number of service lines connected to the community water supply's distribution system
  - The materials of construction of each service line connected to the water supply's distribution system
  - The number of suspected lead services that were identified
  - The number of lead service lines that have been replaced
- Develop, implement, and maintain a comprehensive lead service line replacement plan
  - The initial plan was completed and submitted in April, 2024
  - Additional plans must be completed in 2025 and 2026
  - The final plan must be completed by April, 2027
- Replace all lead service lines from 2027 to 2044
- Use good faith efforts to contract with vendors owned by minority persons, women and persons with a disability

- Provide notice to occupants of potentially affected buildings before any construction or repair work on water mains or lead service lines and request access to potentially affected buildings before replacing lead service lines; and,
- Prohibit partial lead service line replacements, except as authorized by the Act.

In 2023, staff contracted with Engineering Enterprises, Inc. (EEI) to assist completing the requirements of the Act. In fall 2023, staff worked with EEI to perform a lead service line survey. The survey's goal was to identify water service lines of an unknown material, and included an online survey form and mailed notices to residents. The survey targeted homes in the older portions of the Village where Lead service lines are likely to be found.

In 2024, based on the results of the survey, and a review of historical records, staff estimated there were up to 2,725 lead services that will need to be replaced in future years. This number includes water service lines that are known lead, are suspected to be lead, or are an unknown material. After another year of identifying unknown water service lines, the number is now estimated to be 2,486 lead services that are in need of replacement. Work will continue in 2025 and 2026 to refine this number.

Based on the requirements of the Act, the total number of lead service lines that need to be replaced determine the timeline for replacement, and the number of lines that need to be replaced each year (as a percentage of the total number). The Village will be required to replace all lead service lines in 17 years, and replace at least 6% of lead services line per year (146 per year).

On October 8, 2024 the U.S. EPA finalized the Lead and Copper Rule Improvements (LCRI). The LCRI makes changes to the Lead and Copper Rule, which was established in 1991, and the Lead and Copper Rule Revisions, which were issued on January 15, 2021. One component of the LCRI is a requirement to replace all lead water service lines in ten (10) years. This requirement would start in 2027, when the LCRI would go into effect. Under a 10-year replacement schedule the Village will be required to replace 243 lead service lines per year, and complete lead service line replacements by 2037.

In December, a petition was filed to review the LCRI, and there is a possibility that the current administration could change or repeal the rule. Due to the large amount of uncertainty around the LCRI, the Village is still moving forward with the 17-year replacement schedule required under the Lead Service Replacement and Notification Act that was enacted by the State of Illinois. However, the Village has also prepared a 10-year replacement schedule and is preparing to meet the 10-year replacement schedule if the LCRI is upheld. The current plans for the Village to review the final Lead Service Line Inventory and Replacement Plan prior to 2028 and adjust the future water rates accordingly allow flexibility in planning for both a 17-year replacement schedule and a 10-year replacement schedule.

Another updated replacement plan will be due to Illinois EPA in April 2026. The final replacement plan is due April 15, 2027. Staff will continue to work to update the known number of lead service lines, and work with EEI to update the replacement plan accordingly.

## **ATTACHMENTS**

Updated Lead Service Line Replacement Plan



# Lead Service Line Replacement Plan

April 2025

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Village of Downers Grove  
PWS ID No. IL0430300



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## 1 BACKGROUND

### 1.1 History of Lead in Household Plumbing

Lead pipes were commonly used in homes built in the early 20th century as lead was a less expensive and more durable option than iron. Concerns about lead poisoning contributed to the creation of the Environmental Protection Agency's (EPA) Safe Drinking Water Act (SDWA) in 1986. The SDWA prohibited the use of pipes, solder or flux that were not "lead free" in public water systems or plumbing in facilities providing water for human consumption. At the time "lead free" was defined as solder and flux with no more than 0.2% lead and pipes with no more than 8% lead content.

In 1991, the EPA published the Lead and Copper Rule (LCR) which regulates the concentration of lead and copper permitted in public drinking water by regularly sampling at the consumer's tap. The LCR established an action level of 15.0 parts per billion (ppb) for lead based on the 90th percentile level of tap water samples. This means that no more than 10 percent of samples can be above the action level. The action level is the concentration of lead in tap water which, if exceeded, triggers treatment or other requirements that a water system must follow. If lead levels are found above the action levels, it does not signal a violation but can trigger additional requirements.

### 1.2 Regulatory Background

In 2021, the Illinois General Assembly found and declared that there is no safe level of exposure to lead, as found by the United States Environmental Protection Agency and the Centers for Disease Control and Prevention. Furthermore, water service lines composed of lead can convey this harmful substance to the drinking water supply. According to the Illinois Environmental Protection Agency's 2018 Service Line Material Inventory, the State of Illinois is estimated to have over 680,000 lead-based service lines still in operation. The true number of lead service lines is not fully known because Illinois lacks an adequate inventory of lead service lines. Thus, the Illinois General Assembly concluded that for the general health, safety and welfare of its residents, all lead service lines in Illinois should be disconnected from the drinking water supply, and the State's drinking water supply.

As a result, the General Assembly passed the Lead Service Line Replacement and Notification Act (LSLRNA) (Public Act 102-0613), and Governor Pritzker signed the Act with an effective date of January 1, 2022. The Act is referenced as 415 ILCS 5/17.12 throughout this report. The purpose of the Act is to require the owners and operators of community water supplies to:

- develop, implement, and maintain a comprehensive water service line material inventory;
- develop, implement, and maintain a comprehensive lead service line replacement plan,
- provide notice to occupants of potentially affected buildings before any construction or repair work on water mains or lead service lines and request access to potentially affected buildings before replacing lead service lines; and,
- prohibit partial lead service line replacements, except as authorized by the Act.



### 1.3 Material Inventory (415 ILCS 5/17.12(g-h))

The requirements for the comprehensive water service line material inventory include the identification of:

- (1) the total number of service lines connected to the community water supply's distribution system;
- (2) the materials of construction of each service line connected to the community water supply's distribution system;
- (3) the number of suspected lead service lines that were newly identified in the material inventory for the community water supply after the community water supply last submitted a service line inventory to the Agency; and
- (4) the number of suspected or known lead service lines that were replaced after the community water supply last submitted a service line inventory to the Agency, and the material of the service line that replaced each lead service line.

When identifying the materials of construction under paragraph (2) above, the owner or operator of the community water supply shall to the best of the owner's or operator's ability identify the type of construction material used on the customer's side of the curb box, meter, or other line of demarcation and the community water supply's side of the curb box, meter, or other line of demarcation (see Exhibit 1-1).

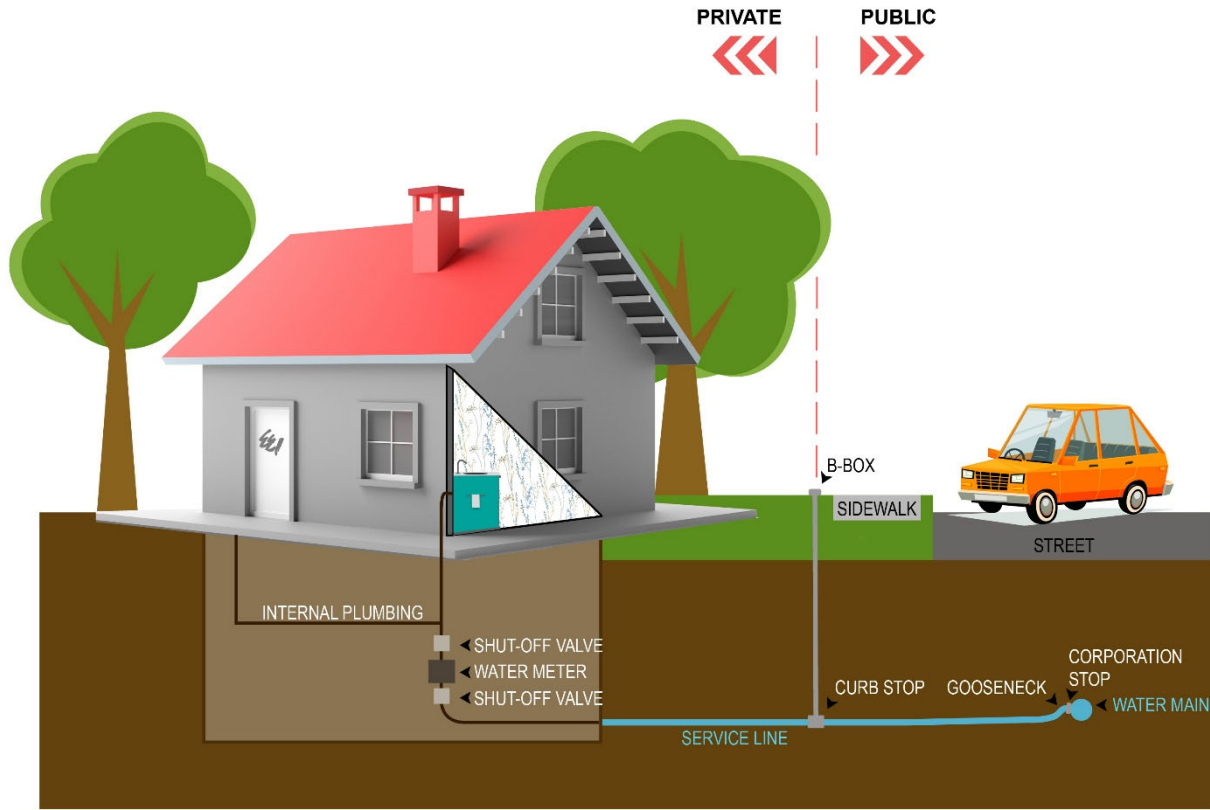
In addition, the owner or operator of a community water supply is required to:

- (1) prioritize inspections of high-risk areas identified by the community water supply and inspections of high-risk facilities, such as preschools, day care centers, day care homes, group day care homes, parks, playgrounds, hospitals, and clinics, and confirm service line materials in those areas and at those facilities;
- (2) review historical documentation, such as construction logs or cards, as-built drawings, purchase orders, and subdivision plans, to determine service line material construction;
- (3) when conducting distribution system maintenance, visually inspect service lines and document materials of construction;
- (4) identify any time period when the service lines being connected to its distribution system were primarily lead service lines, if such a time period is known or suspected; and
- (5) discuss service line repair and installation with its employees, contractors, plumbers, other workers who worked on service lines connected to its distribution system, or all the above.



### Figure 1-1. Typical Water Service Line Diagram

Relative components of water service from the main to the internal water piping.



©Engineering Enterprises Inc. January 2024



## 1.4 Lead Service Line Replacement Plan (415 ILCS 5/17.12(p-q))

Every owner or operator of a community water supply that has known or suspected lead service lines to:

- (1) create a plan to:
  - (A) replace each lead service line connected to its distribution system; and
  - (B) replace each galvanized service line connected to its distribution system, if the galvanized service line is or was connected downstream to lead piping; and,
- (2) electronically submit, by April 15, 2024, its initial lead service line replacement plan to the Agency;
- (3) electronically submit by April 15 of each year after 2024 until April 15, 2027, an updated lead service line replacement plan to the Agency for review; the updated replacement plan shall account for changes in the number of lead service lines or unknown service lines in the material inventory;
- (4) electronically submit by April 15, 2027, a complete and final replacement plan to the Agency for approval; the complete and final replacement plan shall account for all known and suspected lead service lines documented in the final material inventory; and
- (5) post on its website a copy of the plan most recently submitted to the Agency or may request that the Agency post a copy of that plan on the Agency's website.

The lead service line replacement plan must include the following:

- (1) the name and identification number of the community water supply;
- (2) the total number of service lines connected to the distribution system of the community water supply;
- (3) the total number of suspected lead service lines connected to the distribution system of the community water supply;
- (4) the total number of known lead service lines connected to the distribution system of the community water supply;
- (5) the total number of lead service lines connected to the distribution system of the community water supply that have been replaced each year beginning in 2020;
- (6) a proposed lead service line replacement schedule that includes one-year, 5-year, 10-year, 15-year, 20-year, 25-year, and 30-year goals;



- (7) an analysis of costs and financing options for replacing the lead service lines connected to the community water supply's distribution system, which shall include, but shall not be limited to:
  - (A) a detailed accounting of costs associated with replacing lead service lines and galvanized lines that are or were connected downstream to lead piping;
  - (B) measures to address affordability and prevent service shut-offs for customers or ratepayers; and
  - (C) consideration of different scenarios for structuring payments between the utility and its customers over time; and
- (8) a plan for prioritizing high-risk facilities, such as preschools, day care centers, day care homes, group day care homes, parks, playgrounds, hospitals, and clinics, as well as high-risk areas identified by the community water supply;
- (9) a map of the areas where lead service lines are expected to be found and the sequence with which those areas will be inventoried and lead service lines replaced;
- (10) measures for how the community water supply will inform the public of the plan and provide opportunity for public comment; and,
- (11) measures to encourage diversity in hiring in the workforce required to implement the plan.



## 2 LEAD SERVICE LINE REPLACEMENT PLAN

### 2.1 Overview of Community Water System

The Village of Downers Grove provides water to approximately 17,000 residential and business customers. The source of the Village's drinking water supply is treated surface water from Lake Michigan, which is purchased from the DuPage Water Commission. Based on 2022 data, the Village pumped an average of 4.353 million gallons of water per day.

The Village's water system consists of 7 water towers with a storage capacity of 8 million gallons. The Village also has three stand-by wells that are tested and maintained regularly in case of an emergency. In addition to the water towers, the Village also maintains 233 miles of water main, 2,881 fire hydrants, 2,835 valves, and nearly 17,000 water meters.

### 2.2 Material Inventory Summary, 415 ILCS 5/17.12(q)(1)-(5)

The Village has completed the required material inventory and submitted it to the IEPA every year except 2021 when the IEPA requested that the inventory not be submitted. A summary of the material inventories is presented in Table 2-1. The Village has continually reviewed historical documentation, as-built drawings, subdivision plans, and made observations in the field to determine service line material construction. As a result, the accuracy and detail of the inventory has improved over time.

The Village utilizes the Illinois EPA Lead Service Line Inventory Template as the basis for its LSL Material Inventory. The most current version of the Village's Material Inventory is posted on the Village's website.

In addition, the Village maintains a Geographic Information System (GIS) based database. Maps showing the location of the composition of water service lines in the Village have been developed and are updated from time to time. A map showing the composition of water service lines is included as Exhibit 2-1 and is posted on the Village's website here:

<https://vdg.maps.arcgis.com/apps/webappviewer/index.html?id=5a6332e90039497792adfc30cc20aa28>



### Table 2-1. Lead Service Line Inventory Summary

The information in this table reflects the Lead Service Line Inventory submitted annually to the Illinois EPA by the Village of Downers Grove.

|   | 2024   | 2023   | 2022   | 2020   | 2019   | 2018   | 2017   |
|---|--------|--------|--------|--------|--------|--------|--------|
| <b>Wholesale Connections</b>                | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| <b>Retail Connections</b>                   | 17,071 | 16,947 | 16,926 | 16,862 | 16,893 | 16,867 | 16,806 |
| <b>Lead</b>                                 | 781    | 730    | 131    | 99     | 85     | 83     | 40     |
| <b>Copper/Lead Solder</b>                   | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| <b>Copper/Non-Lead Solder</b>               | 4,845  | 4,374  | 3,541  | 3,201  | 3,114  | 1,328  | 498    |
| <b>Galvanized*</b>                          | -      | -      | 0      | 1      | 0      | 0      | 0      |
| <b>Galvanized Requiring Replacement</b>     | 148    | 153    |        |        |        |        |        |
| <b>Galvanized Not Requiring Replacement</b> | 0      | 0      |        |        |        |        |        |
| <b>Plastic</b>                              | 0      | 0      | 0      | 1      | 1      | 1      | 1      |
| <b>Unknown Material</b>                     | 1,557  | 1,842  | 3,509  | 3,655  | 3,734  | 3,851  | 16,267 |
| <b>Unknown Not Lead</b>                     | 9,651  | 9,848  | 9,667  | 9,840  | 9,903  | 11,582 | 0      |
| <b>Cast/Ductile Iron or Transite</b>        | 89     | 0      | 77     | 65     | 56     | 22     | 0      |

\* In 2023, "Galvanized" is no longer a requested field. Instead, it has been split into "Galvanized Requiring Replacement" and "Galvanized Not Requiring Replacement". If a galvanized service is or has ever been connected downstream to lead, it should be classified as "Galvanized Requiring Replacement"

## 2.3 LSL Replacement Goals (q)(6)

The Village of Downers Grove is actively replacing the Village-owned portion of water service lines when lead service lines are encountered during water main construction, and maintenance or repairs operations. In addition, residents are notified as required by the Act and encouraged to replace the customer-owned portion of the water service line if it is lead.

The Village has developed a 10-year replacement schedule (shown in Table 2-2) to prepare for the 10% annual replacement requirement as part of the pending Lead and Copper Rule Improvements (LCRI). The LCRI is currently scheduled to go into effect in 2027; however, there is a possibility the new administration could change or repeal the rule. The Village is preparing to meet the 10-year replacement schedule should the LCRI be upheld. The table lists the number of LSLs expected to be replaced beginning in 2027. The number of LSLs (including lead, unknown, and galvanized requiring replacement) in the Village's material inventory as of December 31, 2024, was 2,486. The Village replaces lead service lines on an emergency repair basis only, so for the purposes of this report it is assumed there will be 2,426 LSLs at the end of 2026. This requirement equates to the Village being required to replace approximately 243 LSLs per year for 9 years and 239 in the 10<sup>th</sup> year.



The Village has also developed a schedule compliant with 415 ILCS 5/17.12 for replacing the known and suspected LSLs (shown in Table 2-3) connected to the Village's distribution system. According to the requirements of 415 ILCS 5/17.12 the Village will be required to replace at least 6% of their LSLs beginning in 2027 because the Village estimates it will have more than 1,200 but fewer than 5,000 lead services at the end of 2026. This requirement equates to the Village being required to replace approximately 146 LSLs per year (approximately 6% of 2,426) for 16 years and 90 LSLs in the 17<sup>th</sup> year.



### **Table 2-2. Lead Service Line Replacement 10-Year Schedule**

Planned replacement of Lead Service Lines to meet the pending LCRI regulatory requirement to replace 10% of LSLs per year beginning in 2027.

| Years After Final Plan | Reporting Year | Submittal Date | Number of LSLs |          |        |
|------------------------|----------------|----------------|----------------|----------|--------|
|                        |                |                | Beginning      | Replaced | Ending |
|                        | 2020           | 4/15/2021      | 2759           | 0        | 2759   |
|                        | 2021           | 4/15/2022      | 2759           | 1        | 2758   |
|                        | 2022           | 4/15/2023      | 2758           | 13       | 2745   |
|                        | 2023           | 4/15/2024      | 2745           | 20       | 2725   |
|                        | 2024           | 4/15/2025      | 2725           | 40       | 2,486  |
|                        | 2025           | 4/15/2026      | 2486           | 30       | 2456   |
|                        | 2026           | 4/15/2027      | 2456           | 30       | 2426   |
| 1                      | 2027           | 4/15/2028      | 2426           | 243      | 2183   |
| 2                      | 2028           | 4/15/2029      | 2183           | 243      | 1940   |
| 3                      | 2029           | 4/15/2030      | 1940           | 243      | 1697   |
| 4                      | 2030           | 4/15/2031      | 1697           | 243      | 1454   |
| 5                      | 2031           | 4/15/2032      | 1454           | 243      | 1211   |
| 6                      | 2032           | 4/15/2033      | 1211           | 243      | 968    |
| 7                      | 2033           | 4/15/2034      | 968            | 243      | 725    |
| 8                      | 2034           | 4/15/2035      | 725            | 243      | 482    |
| 9                      | 2035           | 4/15/2036      | 482            | 243      | 239    |
| 10                     | 2036           | 4/15/2037      | 239            | 239      | 0      |

Key: Italicized numbers are planned



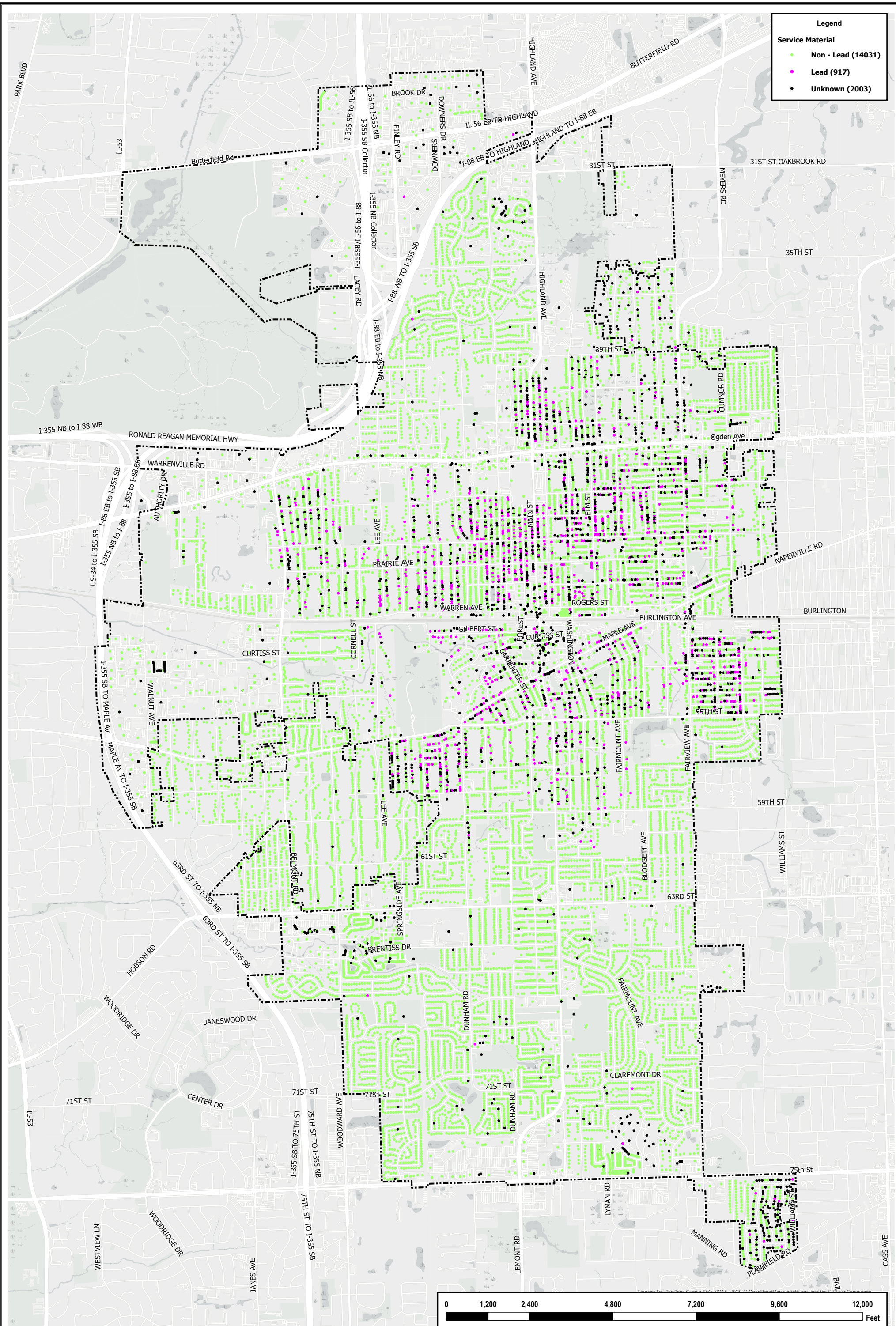
**Table 2-3. Lead Service Line Replacement 17-Year Schedule**

Planned replacement of Lead Service Lines to meet the regulatory requirement to replace 6% of LSLs per year beginning in 2027.

| Years After Final Plan | Reporting Year | Submittal Date | Number of LSLs |            |        |
|------------------------|----------------|----------------|----------------|------------|--------|
|                        |                |                | Beginning      | Replaced   | Ending |
|                        | 2020           | 4/15/2021      | 2759           | 0          | 2759   |
|                        | 2021           | 4/15/2022      | 2759           | 1          | 2758   |
|                        | 2022           | 4/15/2023      | 2758           | 13         | 2745   |
|                        | 2023           | 4/15/2024      | 2745           | 20         | 2725   |
|                        | 2024           | 4/15/2025      | 2725           | 40         | 2,486  |
|                        | 2025           | 4/15/2026      | 2486           | 30         | 2456   |
|                        | 2026           | 4/15/2027      | 2456           | 30         | 2426   |
| 1                      | 2027           | 4/15/2028      | 2426           | <i>146</i> | 2280   |
| 2                      | 2028           | 4/15/2029      | 2280           | <i>146</i> | 2134   |
| 3                      | 2029           | 4/15/2030      | 2134           | <i>146</i> | 1988   |
| 4                      | 2030           | 4/15/2031      | 1988           | <i>146</i> | 1842   |
| 5                      | 2031           | 4/15/2032      | 1842           | <i>146</i> | 1696   |
| 6                      | 2032           | 4/15/2033      | 1696           | <i>146</i> | 1550   |
| 7                      | 2033           | 4/15/2034      | 1550           | <i>146</i> | 1404   |
| 8                      | 2034           | 4/15/2035      | 1404           | <i>146</i> | 1258   |
| 9                      | 2035           | 4/15/2036      | 1258           | <i>146</i> | 1112   |
| 10                     | 2036           | 4/15/2037      | 1112           | <i>146</i> | 966    |
| 11                     | 2037           | 4/15/2038      | 966            | <i>146</i> | 820    |
| 12                     | 2038           | 4/15/2039      | 820            | <i>146</i> | 674    |
| 13                     | 2039           | 4/15/2040      | 674            | <i>146</i> | 528    |
| 14                     | 2040           | 4/15/2041      | 528            | <i>146</i> | 382    |
| 15                     | 2041           | 4/15/2042      | 382            | <i>146</i> | 236    |
| 16                     | 2042           | 4/15/2043      | 236            | <i>146</i> | 90     |
| 17                     | 2043           | 4/15/2044      | 90             | <i>90</i>  | 0      |

Key: Italicized numbers are planned

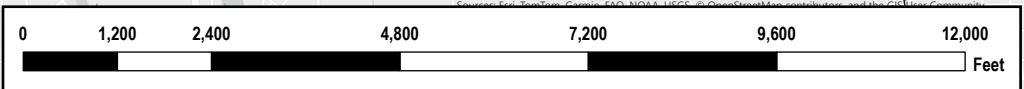




**Legend**

**Service Material**

- Non - Lead (14031)
- Lead (917)
- Unknown (2003)



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 801 Burlington Ave  
 Downers Grove, IL 60515  
 TEL: 630-434-5500



DATE: FEBRUARY 2025  
 PROJECT NO.: DG2302  
 BY: MJT  
 PATH: H:\GIS\PUBLIC\DOWNERS GROVE\DG2302  
 FILE:

**LSLR PROGRAM**  
**(UPDATED LSLR PLAN)**  
 VILLAGE OF DOWNERS GROVE, ILLINOIS

**EXHIBIT 2-1 MATERIAL**  
**SERVICE LINE INVENTORY MAP**



## 2.4 Financial Analysis (q)(7)

There are several factors that control the cost associated with replacing lead service lines including cost of materials, construction methods, availability of qualified contractors, demand, and competition. Although these factors will certainly change over the next 20 years, the Village has made a good faith effort to estimate the cost of replacing lead service lines. Recognizing the uncertainty of future costs warrants adding a contingency to the cost estimates. The uncertainty in estimating future costs is relatively high. Therefore, it is recommended that a 10% contingency be added to the best estimate of cost.

The Village has developed the following estimated costs for lead service line replacement:

- Public side (water main to shut-off valve): \$4,500 to \$7,000
- Private side (shut-off valve to water meter): \$5,000 to \$7,500

### 2.4.1 Affordability

The current policy of the Village regarding the replacement of publicly-owned and privately-owned lead service lines is summarized in Table 2-4. In 2024, the Village undertook a Water Rate Study which examined potential rates for different scenarios for the Village Policy regarding the replacement of publicly-owned and privately-owned lead service lines. Due to the large number of unknown water service lines, it was determined that the best course of action was to implement the recommended water rates from 2025 – 2027, and prior to 2028, review the final Lead Service Line Inventory and Replacement Plan and adjust future water rates accordingly. The results of the future Water Rate Study will help the Village Council consider potential changes to the Village Policy once all of, or a majority of unknown water service lines have been identified. The Village is also working to pursue an IEPA SRF Project Plan to potentially secure loan funding for future lead service line replacement (LSLR) projects.



**Table 2-4. Village Policy**

Village Policy regarding the replacement of publicly-owned and privately-owned lead service lines.

| Scenario   | Financial Responsibility   |
|--|--|
| <p><b>Required Due to Addition or New Construction</b></p> <ul style="list-style-type: none"> <li>• Building addition that requires replacement of the service</li> <li>• New construction that requires replacement of the service</li> </ul> | <p>Property owner pays for and installs public and private side</p>                                    |
| <p><b>Property Owner Initiated Replacement</b></p> <ul style="list-style-type: none"> <li>• No specific reason</li> <li>• Leak/Damage on private side of service</li> </ul>  | <p>Property owner pays for and installs private side<br/>Village pays for and installs public side</p> |
| <p><b>Village Initiated Replacement</b></p> <ul style="list-style-type: none"> <li>• Village replaces adjacent water main</li> <li>• Leak/Damage on public side of service</li> <li>• Planned service replacement (FY27 and beyond)</li> </ul> | <p>Village pays for and installs public and private side*</p>  |

\* Property owners may refuse to have the private section of a lead service line replaced provided that they sign a waiver and install a water filter (provided by the Village). When replacing the private side of a service, the Village will not be responsible for the removal, replacement, or restoration of any private property except for topsoil and turf grass and the property owner will be required to enter into an indemnification agreement with the Village.

**2.5 Prioritizing High Risk Facilities (q)(8)**

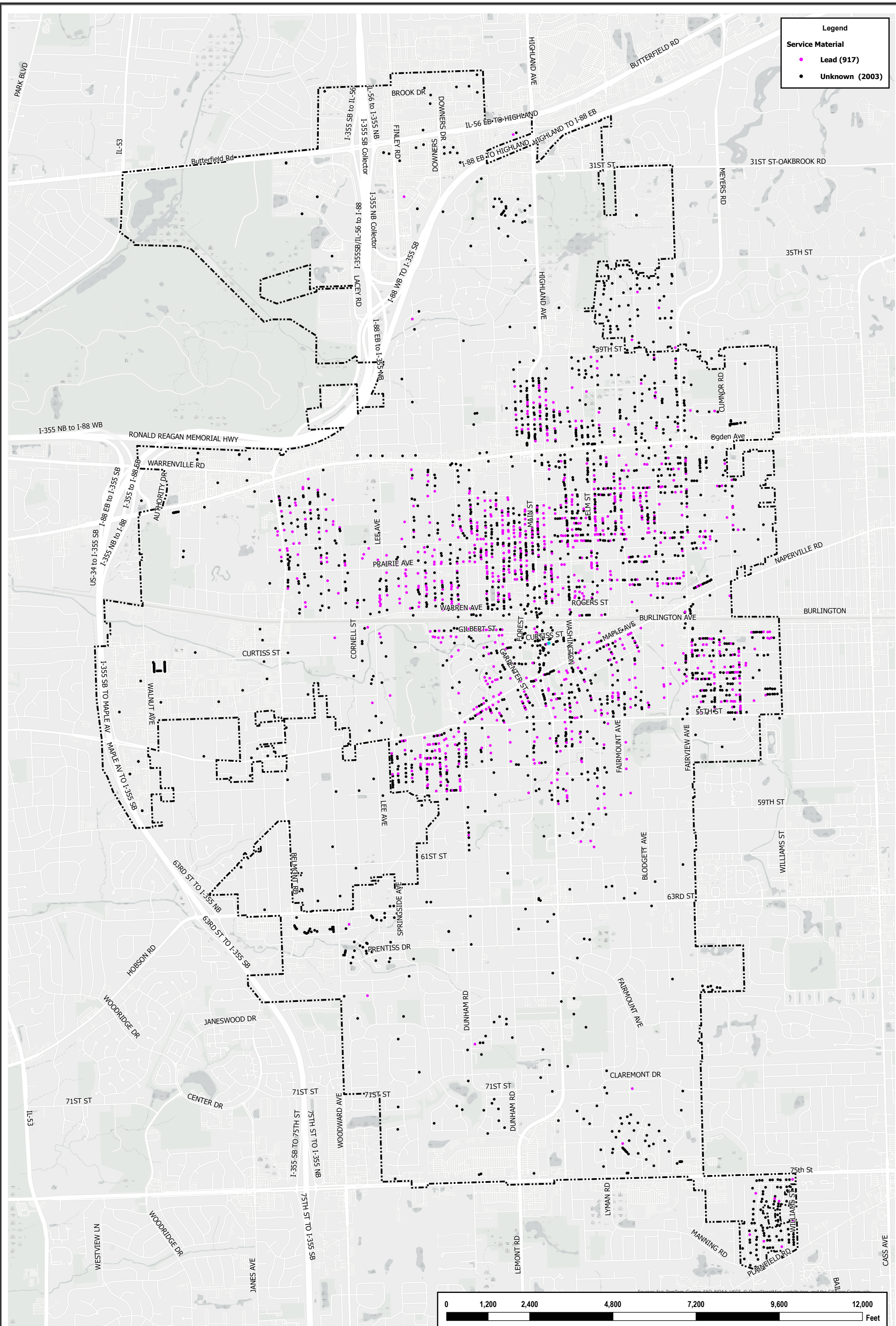
The Village recognizes that some facilities, such as preschools, day care centers, day care homes, group day care homes, parks, playgrounds, hospitals, and clinics, may represent an increase in lead exposure to children, who are the most susceptible to the effects of lead. According to the Center for Disease Control and Prevention, children less than six years old are at a higher risk of lead exposure. This is because their bodies are rapidly developing and more susceptible to taking in lead if exposed.

Although the Village has sought to identify lead service lines that serve such facilities, to date the Village has not identified any such facilities as having lead service lines.

**2.6 Service Line Replacement Map (q)(9)**

The map presented as Exhibit 2-2 shows the approximate locations of LSLs to be replaced. The Village is in the process of determining the sequence of areas to be replaced. Sequencing will depend on many factors, including but not limited to planned street resurfacing projects, water main replacement projects, and bundling LSLR areas together to ensure projects are cost-effective and efficient. The Village is working on developing criteria for efficient and equitable replacements.

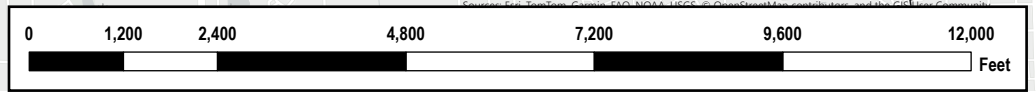




**Legend**

**Service Material**

- Lead (917)
- Unknown (2003)



**Engineering Enterprises, Inc.**  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 (630) 466-6700  
 www.eeiweb.com

**Village of Downers Grove**  
 801 Burlington Ave  
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| DATE:        | FEBRUARY 2025                      |
| PROJECT NO.: | DG2302                             |
| BY:          | MJT                                |
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| FILE:        |                                    |

**LSLR PROGRAM  
 (UPDATE LSLR PLAN)  
 VILLAGE OF DOWNERS GROVE, ILLINOIS**

**EXHIBIT 2-2 MAP OF LEAD SERVICES TO BE REPLACED**



## 2.7 Public Engagement (q)(10) and (p)(5)

The Lead Service Line Replacement Plan will be presented to the Village Council during a regular Village Council meeting. The Plan will be included in the meeting agenda packet and residents will be given an opportunity to comment on the Plan during the meeting.

In addition, the Village will post the Plan on its website. The posting will provide instructions on how residents can submit comments regarding the Plan to the Village. Comments received will be considered during the implementation or future updates of the Plan.

## 2.8 Construction (q)(11)

### 2.8.1 Measures to Encourage Diversity in Hiring in the Workforce

The Village will comply with 415 ILCS 5/17.12(n) requiring that it demonstrate a good faith effort in using contractors and vendors owned by minority persons, women, and persons with a disability for not less than 20% of the total contracts awarded.

### 2.8.2 Procedure for Conducting Full Lead Service Line Replacement

Typical LSLR procedures are being developed by the Village. Prior to replacement, the Village will provide door hangers to all impacted residents that states a temporary water shutoff will be occurring as a result of LSLR work. A business card from a staff member of Public Works will also be provided so any additional questions can be addressed.

When conducting LSLR, the Village will utilize one of the three common methods: open cut excavation, trenchless methods, or pipe pulling/pipe splitting.

Open cut excavation is a conventional approach that requires the saw cutting and/or breaking of service materials and excavation of soil from the corporation stop at the water main along the entire length of the service line to be replaced. In this technique, precautions must be taken since other underground utilities may have not been properly located. The excavation equipment employed in the open-cut replacement method shall be appropriately scaled to accommodate the entire depth of the hole. Safety measures shall be implemented concerning both the resident's property and any nearby pedestrian and/or vehicular traffic. Upon proper exposure and identification of the service line, the existing pipe shall be disconnected from the main as well as the private side of the connection. The new service line shall properly connect to the main and private side and the new material shall meet the requirements of the Safe Drinking Water Act and other federal regulations for potable water systems. Select bedding and/or designated fill material, in conjunction with the surface treatment, shall be placed to comply with all applicable requirements. The new service line placement shall reduce or eliminate the possibility of settling beyond the allowable limit along the excavation path.

A trenchless lead service line replacement involves the use of equipment to install a new service line in a new location while abandoning the old pipe in place in the ground. Trenchless methods require minimal excavation, and typically only two access pits are required to be excavated: one



at the water main to make the new connection, and one at the property line to install the new curb stop. Additional access pits may be required, but typically excavation is kept to a minimum and no open cutting is required along the new service line. In order to accomplish this, various machines can be used including horizontal directional drills, where a machine drills the path of the new water service from the point of connection through the foundation, or a pneumatic hammer where the machine creates pulses to move underground creating the path for the new water service. With both of these machines, the new water service pipe is pulled back through the new path to set the service in place. Soil conditions may dictate which machine is viable, and open cutting may be required if bedrock is encountered. Trenchless methods are not viable options in every service line replacement instance.

Two additional methods of replacing lead service lines without cutting an open trench are pipe pulling or pipe splitting. Pipe pulling removes and extracts the existing pipe while simultaneously replacing it with a new pipe, and pipe splitting leaves the existing pipe in the ground but enables the new pipe to be installed along the original route as it splits open the original pipe. Both methods require access pits to be excavated at the curb stop and the water main and also for the service line to be disconnected at the point of replacement. A cable is fed through the existing service line and a mechanical device is attached to the cable at one end. For pipe pulling, the mechanical device serves as an anchor and the lead pipe is removed from the ground when the cable is pulled. New replacement pipe is attached to the mechanical device and pulled into the ground simultaneously. With pipe splitting, the mechanical device attaches to the replacement pipe and the cable pulls the new pipe within the old one, splitting it open and depositing the new pipe along the original route. These methods are easy to use and less invasive, but soil conditions and pipe conditions such as bends or encrustation can act as impediments to straightforward replacement.

The exact method of replacement will vary depending on site restraints or equipment available. Whenever possible, the Village will avoid open cut excavation and opt for a less disruptive method such as trenchless or pipe pulling/pipe splitting. Open cut excavation will be considered a last resort option after all other methods have been exhausted.

In the event of an emergency repair where a partial service replacement is being completed (either main to b-box or b-box to meter) and lead is discovered on the other side of the service, additional measures must be taken to ensure compliance. Currently, regulations do not allow for partial replacements, so if the remainder of the lead service to be removed is on the private side, the resident will either have to allow for the replacement of the private side of the service or sign a waiver indicating they are opting out of the program. Removal of the remaining lead service line must be completed within 30 days of the initial repair or partial replacement of the lead service line. The Village will also supply the resident with drinking water filters certified to NSF/ANSI 53 and NSF/ANSI 42 standards for the reduction of lead and particulate.

After the replacement of the lead service, the line will be properly flushed, and the resident(s) will be notified of the replacement. Notification must also be provided to the IDPH if a full lead service line replacement could not be completed due to refusal of entry or denial by the property owner.

