



City of Elgin LSLR Lessons Learned and \$17.5M Four Year LSLR Plan



Julie A. Morrison, PE
Senior Project
Manager / Principal





Agenda

1. Background and Initial LSL Management History
2. LSLR Four Year Plan
3. Public Outreach
4. Design Phase
5. Construction Phase
6. Lessons Learned



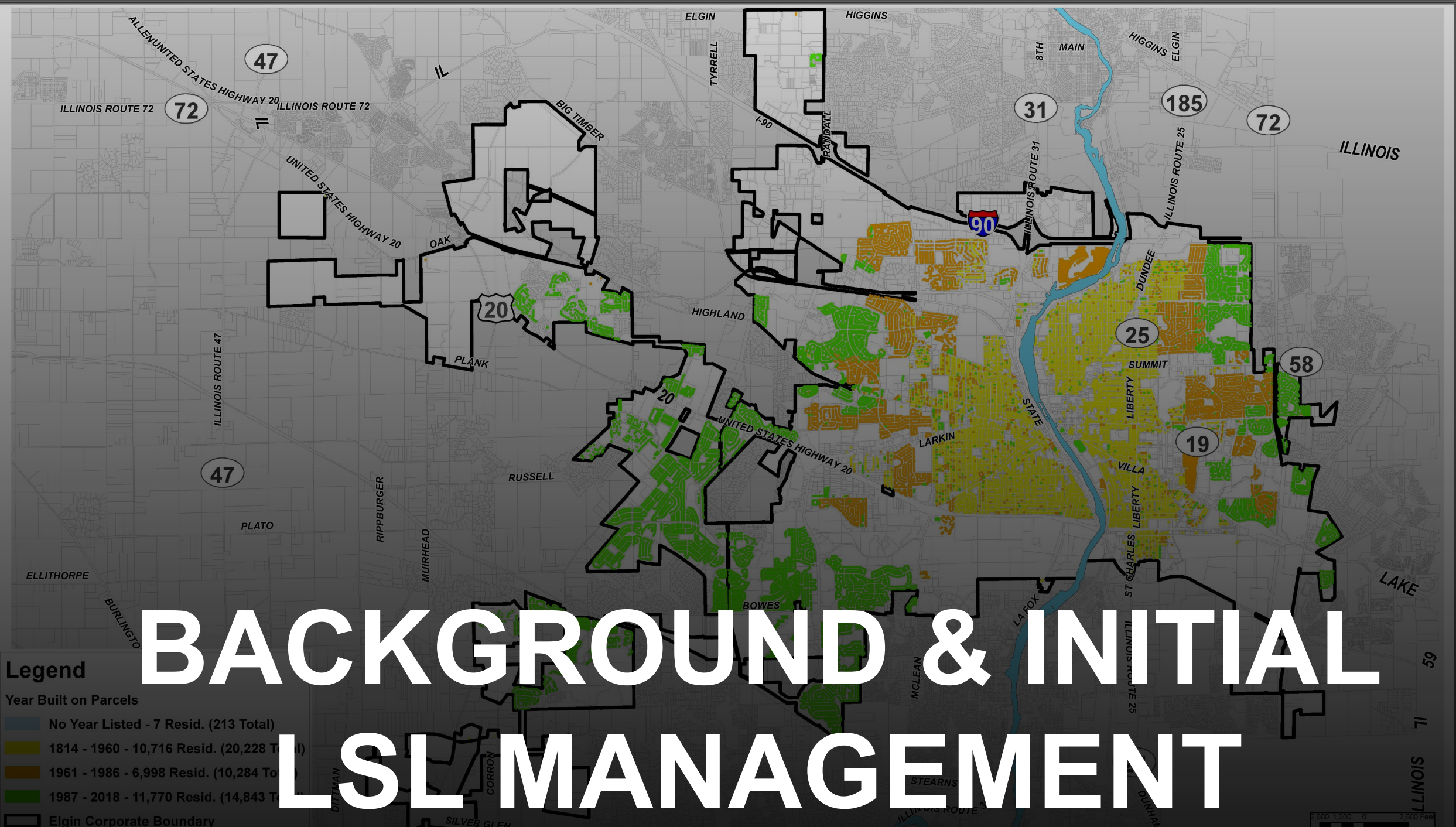
BACKGROUND & INITIAL LSL MANAGEMENT

Legend

Year Built on Parcels

- No Year Listed - 7 Resid. (213 Total)
- 1814 - 1960 - 10,716 Resid. (20,228 Total)
- 1961 - 1986 - 6,998 Resid. (10,284 Total)
- 1987 - 2018 - 11,770 Resid. (14,843 Total)

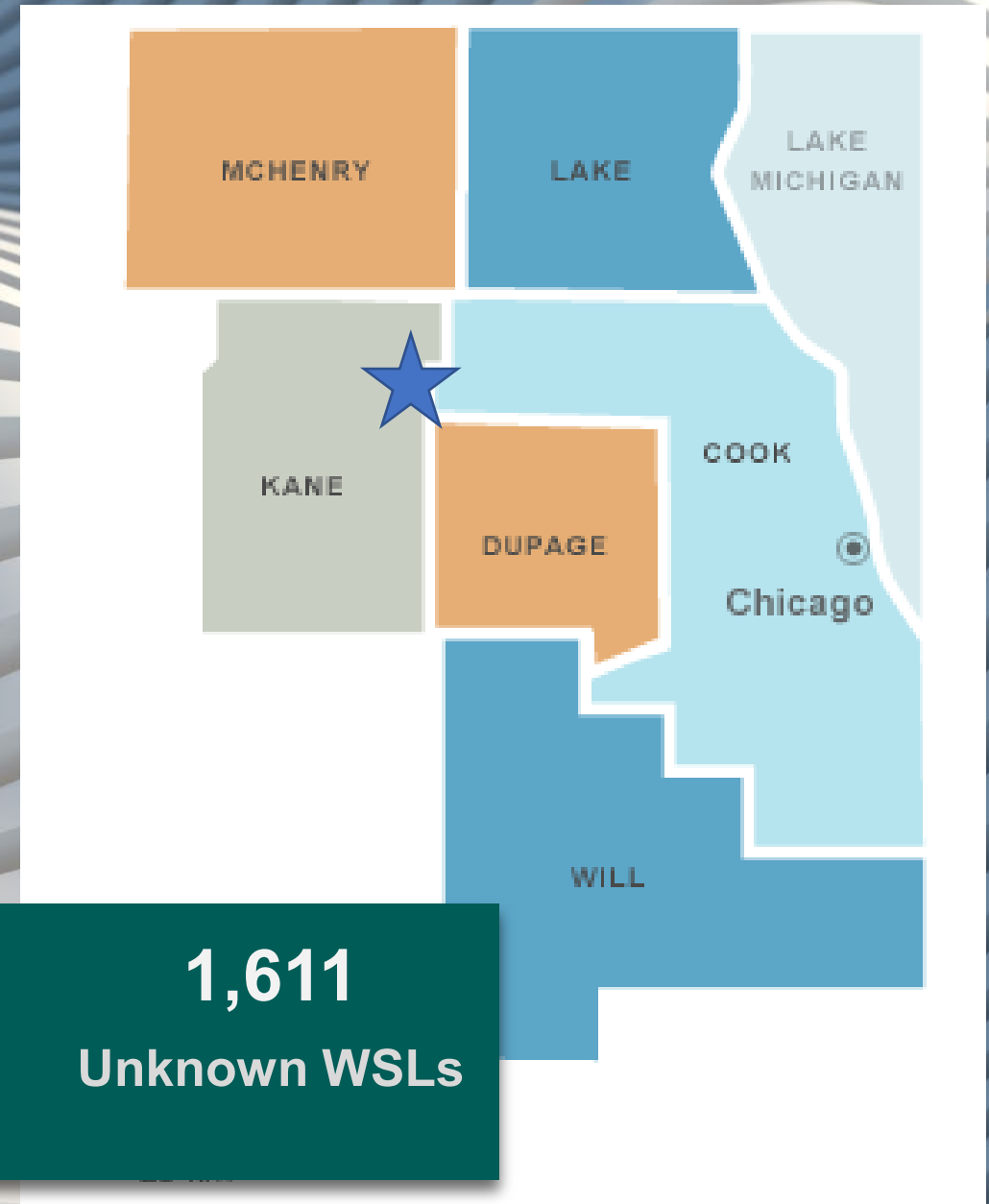
Elgin Corporate Boundary



GENERAL INFORMATION

City of Elgin, Illinois

- Founded in 1835
- Sixth largest city in IL by population
- 37% of water services are suspected LSLs



116,780

Population

33,931

Total Services

10,847

**Suspected
LSLs**

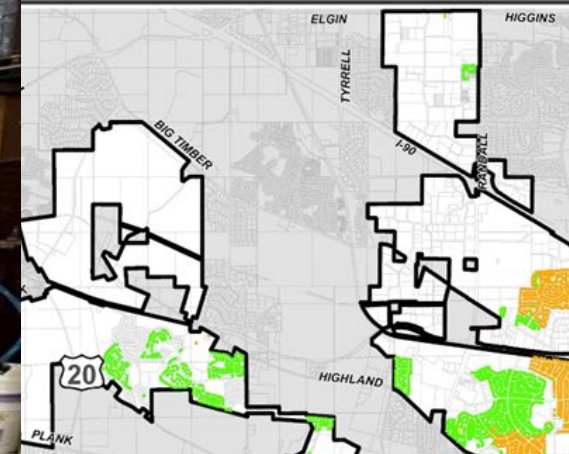
1,611

Unknown WSLs

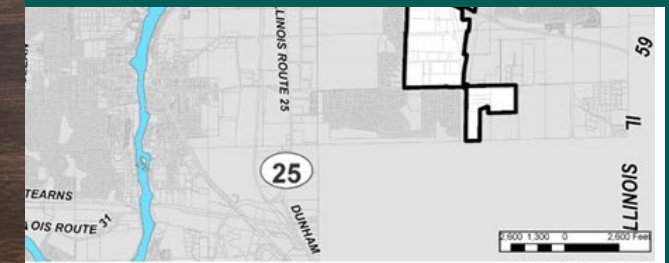
Elgin's History of LSL Management



Awarded Year 1 LSLK
Improvements
(\$4M PF)



- Desktop Study
- Scale Analysis
- Demonstration Studies:
 - ✓ Bench Solubility
 - ✓ Harvested Pipe Flow-Through



ARPA Funding





LSLR FOUR YEAR REPLACEMENT PLAN

FOUR YEAR LSLR PLAN

- **2022 Workshop with Water Department, Community Development, and Administration**
- Identify low to moderate income areas
- Coordinate with City's Road Program
- Balance with annual funding

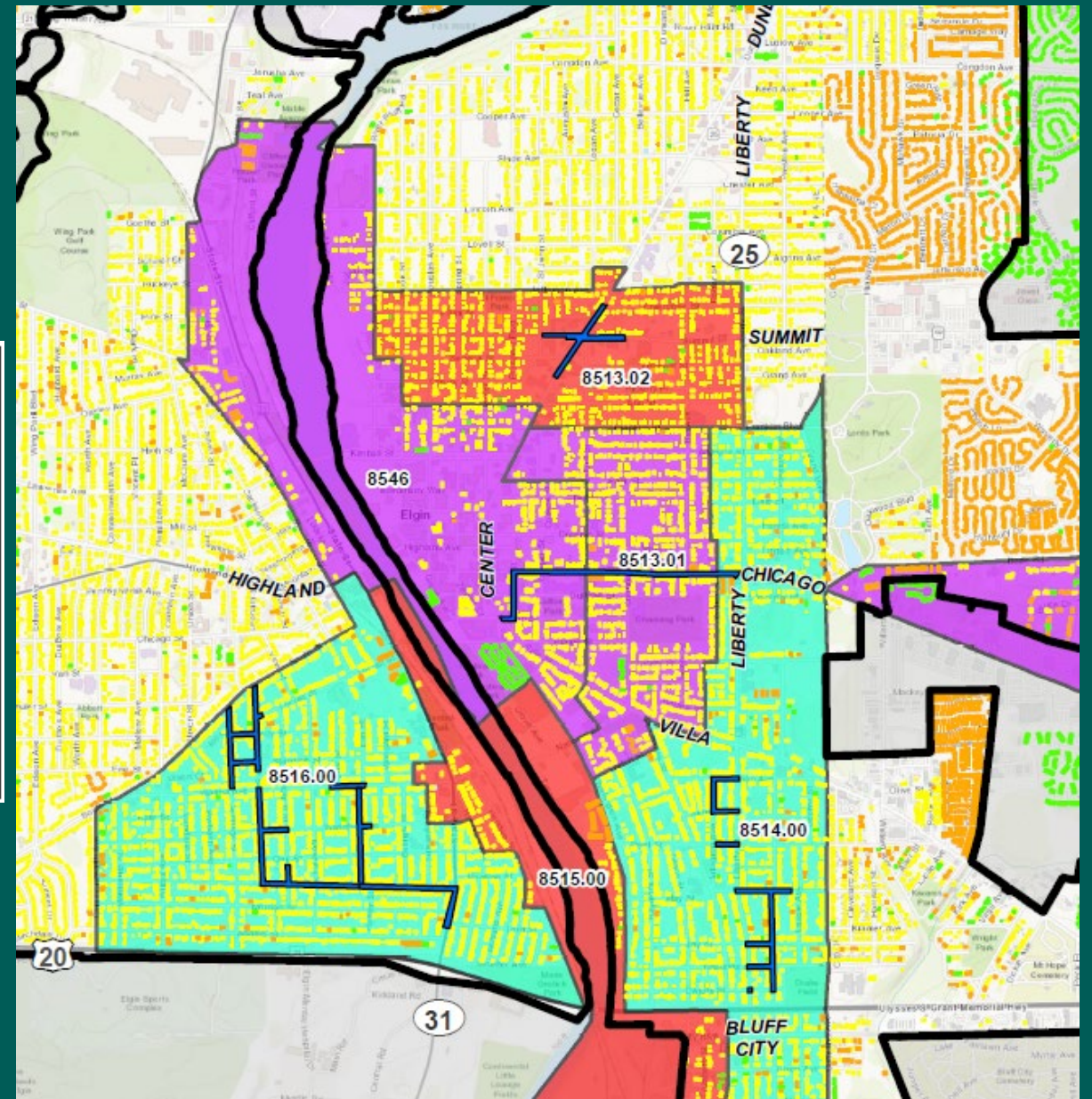
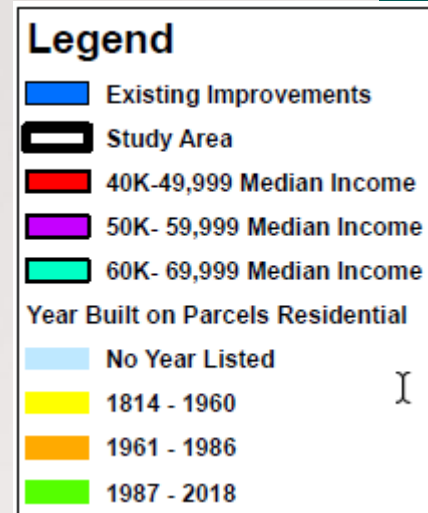
Workshop Goal = Develop years 2 through 5 in the City's LSLR Plan

- Secure IEPA principal forgiveness funds while available
- Spend \$13.5 million ARPA funds by end of 2026
- Provide smaller LSLR projects for smaller/local contractors
- Service lowest income/high risk areas first
- No cost to residents



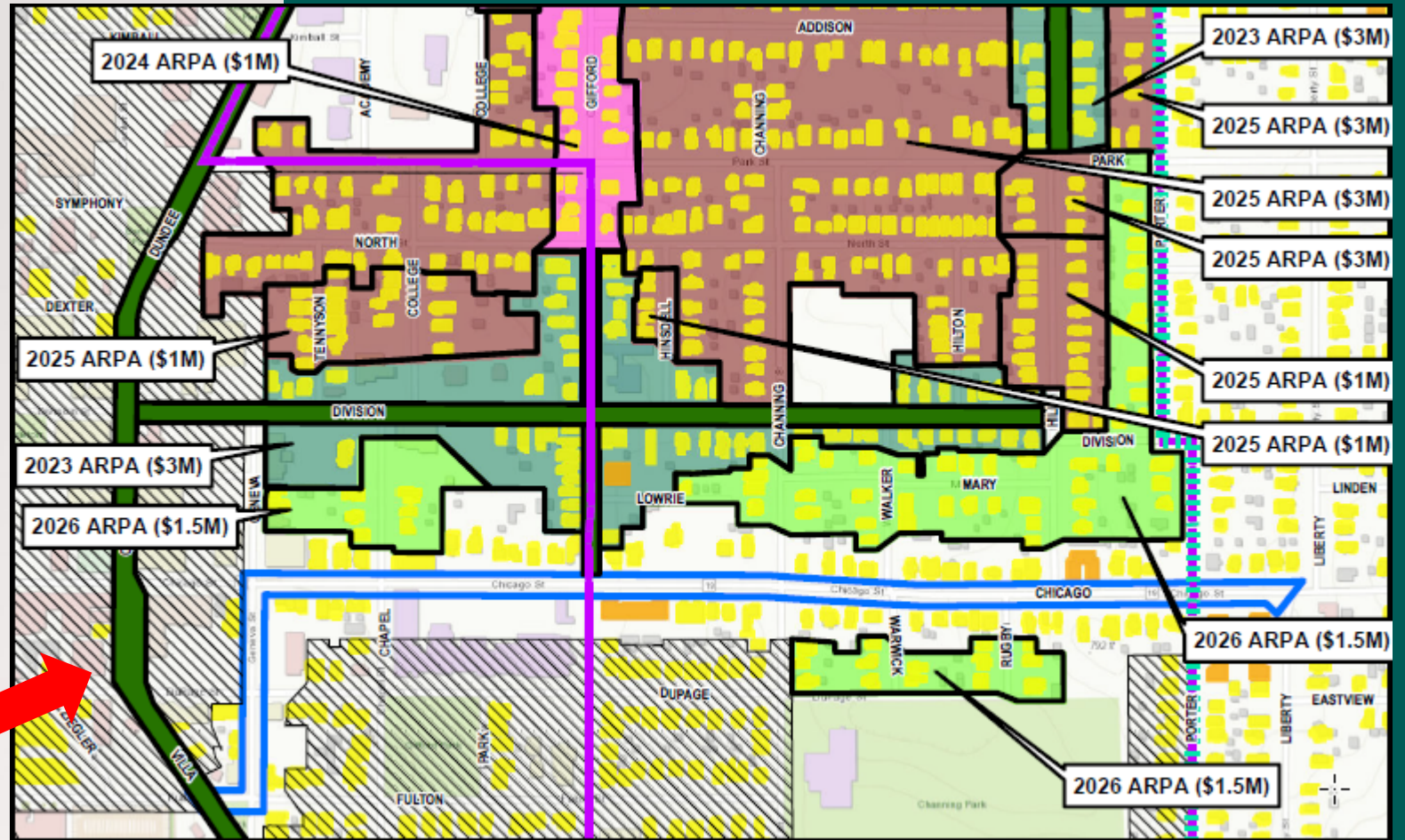
FOUR YEAR LSLR PLAN

- 2022 Workshop with Water Department, Community Development, and Administration
- **Identify low to moderate income areas**
- Coordinate with City's Road Program
- Balance with annual funding



FOUR YEAR LSLR PLAN

- 2022 Workshop with Water Department, Community Development, and Administration
- Identify low to moderate income areas
- **Coordinate with City's Road Program**
- Balance with annual funding



FOUR YEAR LSLR PLAN

- 2022 Workshop with Water Department, Community Development, and Administration
- Identify low to moderate income areas
- Coordinate with City's Road Program
- **Balance with annual funding**

Year	FY	Funding	No. of LSLR
1	2022	SRF (\$4M)	312
2	2023	SRF (\$4M)	284
		ARPA (\$3M)	213
		ARPA (\$1M)	71
3	2024	ARPA (\$3M)	213
		ARPA (\$1M)	71
4	2025	ARPA (\$3M)	213
		ARPA (\$1M)	71
5	2026	ARPA (\$1.5M)	106

← Awarded in 2021



- ✓ Utilized Last Available IEPA PF
- ✓ Allocated all ARPA money
- ✓ Included smaller Contracts



Year	FY	Funding	No. of LSLR
1	2022	SRF (\$4M)	312
2	2023	SRF (\$4M)	284
3	2024	ARPA (\$3M)	213
4	2025	ARPA (\$3M)	213
5	2026	ARPA (\$1.5M)	106

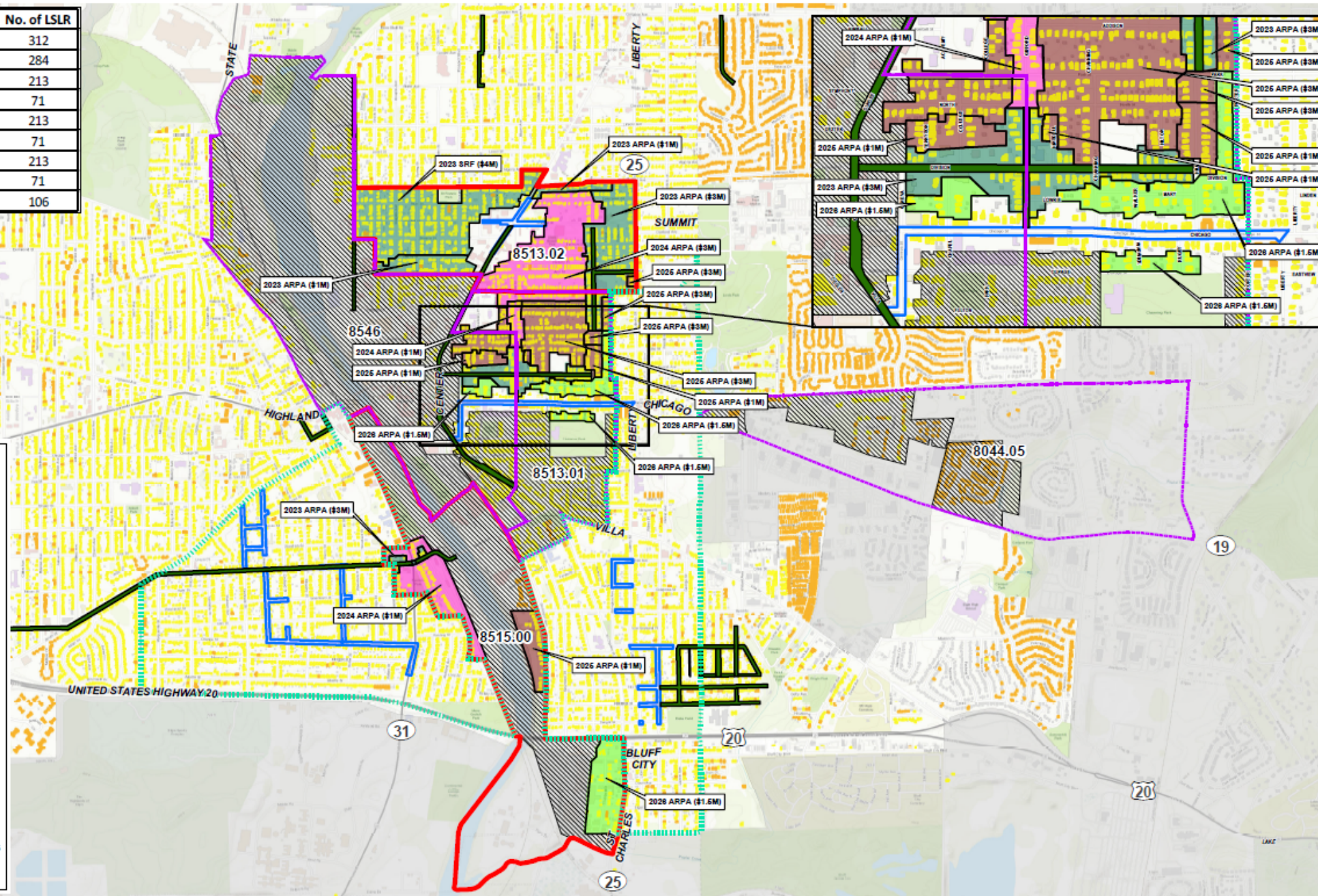
Legend

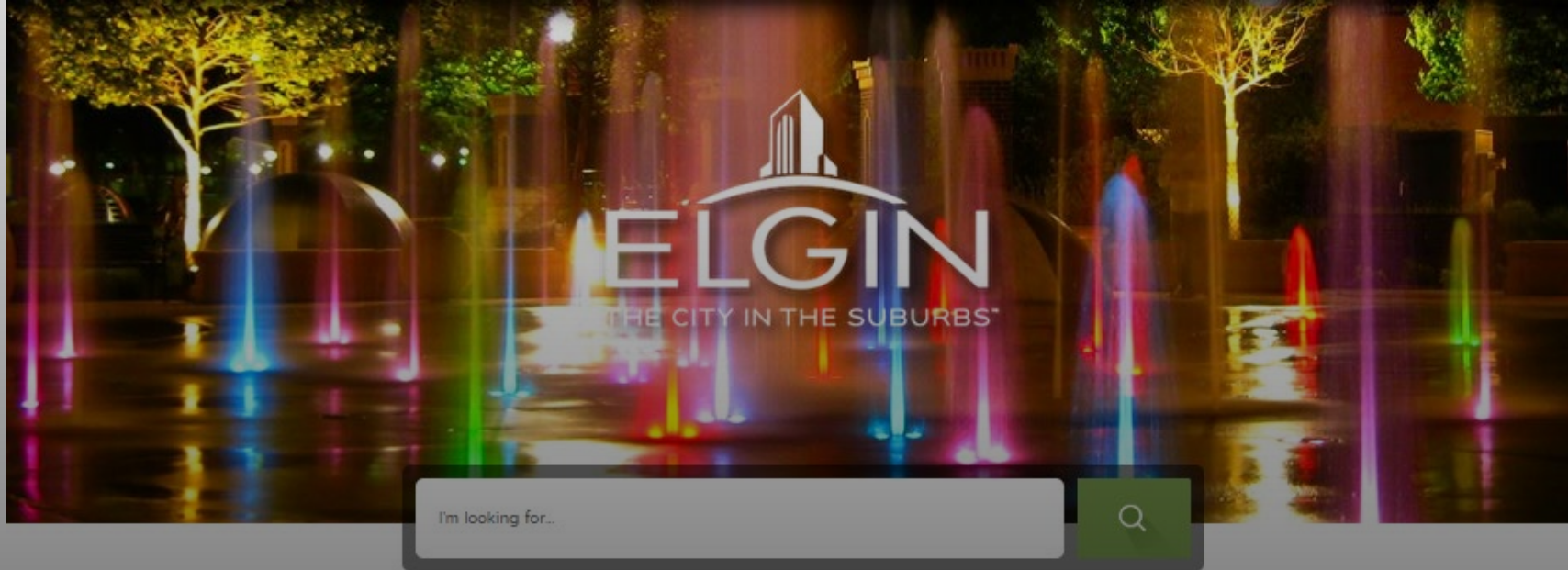
Program Year

- 2023 (Year 2)
- 2024 (Year 3)
- 2025 (Year 4)
- 2026 (Year 5)
- Additional Area
- 40K-49,999 Median Income
- 50K-59,999 Median Income
- 60K-69,999 Median Income

Year Built on Parcels Residential

- 1814 - 1960
- 1961 - 1986
- 2022 Roadway Program Limits
- 2022 LSLR Improvements





Lead Testing

Lead Water Service Pipe Replacement

Bluff City CSS - Phase III Project Information

Year 1- 2021 Private Side Lead Service Replacement

YEAR 2 - 2023 Lead Water Service Line Replacement

Lead Service Line Replacement - Interactive Dashboard

Home Residents Water Lead Information

YEAR 1 - 2021 PRIVATE SIDE LEAD SERVICE REPLACEMENT PROJECT

In this project, the City of Elgin was awarded \$4 million in Illinois Environmental Protection Agency funding that will be used to replace the private side water service from the city's b-box/shut-off valve to the meter inside the affected property.

The City identified 312 partial lead water service lines targeted for replacement in this project **at no cost to the property owner**. The affected property owners have been notified and the project is currently in progress with an expected completion date of May 2023.

Information Notices

To view the Public Information Meeting Notice (10/29/2020) in English, click [here](#).

Para leer el Aviso sobre la Reunión Publica con fecha del 29 de octubre 2020 en Español, haga clic [aquí](#).

PUBLIC OUTREACH

METHODS OF OUTREACH

MAILERS



PUBLIC INFORMATION
MEETINGS

Virtual and In-Person

Website



Door To Door





Lead Service Line Replacement

[ABOUT OUR WATER SERVICE LINES](#)[PROPERTY FINDER](#)[WHAT'S A SERVICE LINE](#)[REDUCE YOUR RISK](#)[MORE INFO](#)

Elgin's Service Lines

Lead-Free

- Both the public and private side have copper or ductile iron.

Public Side Lead-Free

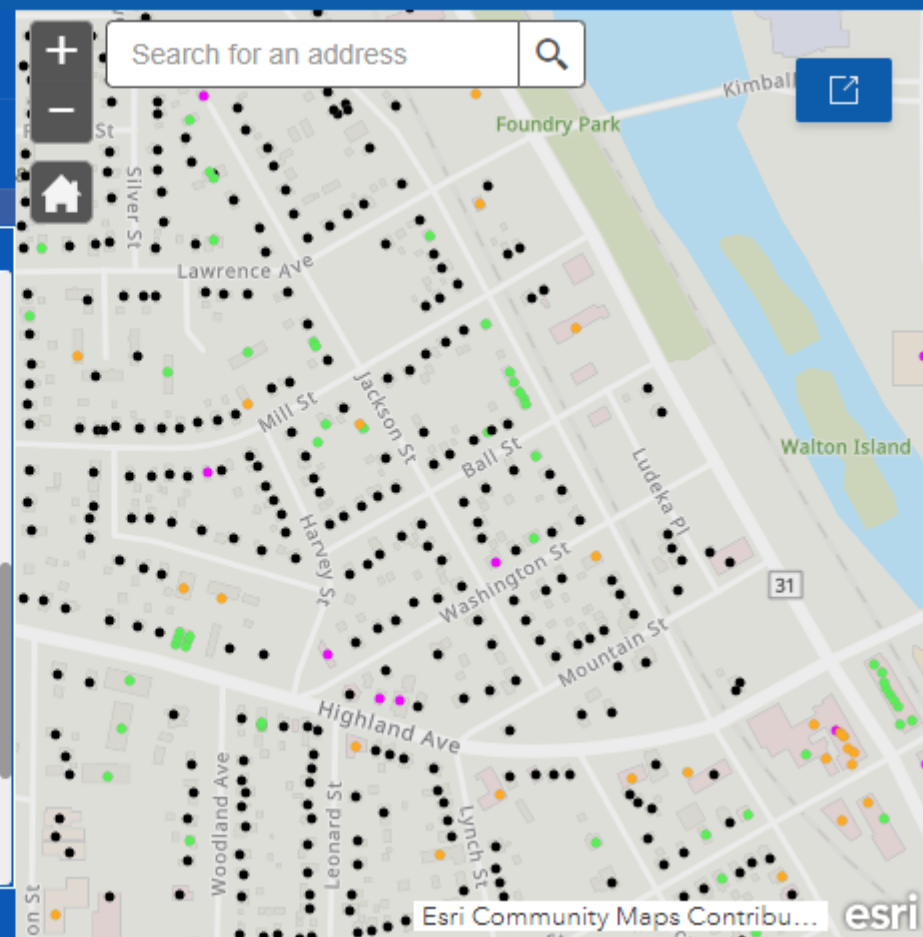
- The public side is copper or ductile iron, but the private side is lead or not known.

Unknown

- Public side is unknown and the private side is either non-lead or unknown.

Lead

- Lead is present in either the public or private side.



**CITY OF ELGIN
LEAD SERVICE LINE REPLACEMENT PROJECT –
RELEASE, HOLD HARMLESS, AND
TEMPORARY CONSTRUCTION EASEMENT AGREEMENT**

THIS RELEASE, HOLD HARMLESS, AND TEMPORARY CONSTRUCTION EASEMENT AGREEMENT (hereinafter referred to as the “Agreement”) made and entered into this ____ day of _____, _____, by and between the City of Elgin, an Illinois municipal corporation (hereinafter referred to as the “City”), and _____ (hereinafter referred to as the “Owner”).

I WITNESSETH

WHEREAS, the City has a Lead Service Line Replacement program (hereinafter referred to as the “Project”), under which the City would provide for the replacement of the private portion of lead water service pipes at certain properties within the City, the private portion of a water service pipe being that portion of the water service pipe connecting a metered property to the City shutoff valve; and

WHEREAS, the Owner is the owner of certain real property commonly known as _____, Elgin, Illinois, and having Parcel Index Number _____ (hereinafter referred to as the “Subject Property”); and

WHEREAS, the Owner owns and is responsible for the private portion of the water service pipe connecting the City shutoff valve to the Subject Property (hereinafter referred to as the “Owner’s Service Pipe”); and

WHEREAS, it has been determined that the Owner’s Service Pipe consists of lead; and

WHEREAS, the Owner voluntarily desires to participate in the City’s Project and to have the Owner’s Service Pipe replaced with a service pipe consisting of a material other than lead; and

WHEREAS, the City has agreed to provide for the replacement of the Owner’s Service Pipe under the Project pursuant to the terms and conditions of this Agreement (the replacement of the Owner’s Service Pipe is hereinafter referred to as the “Work”); and

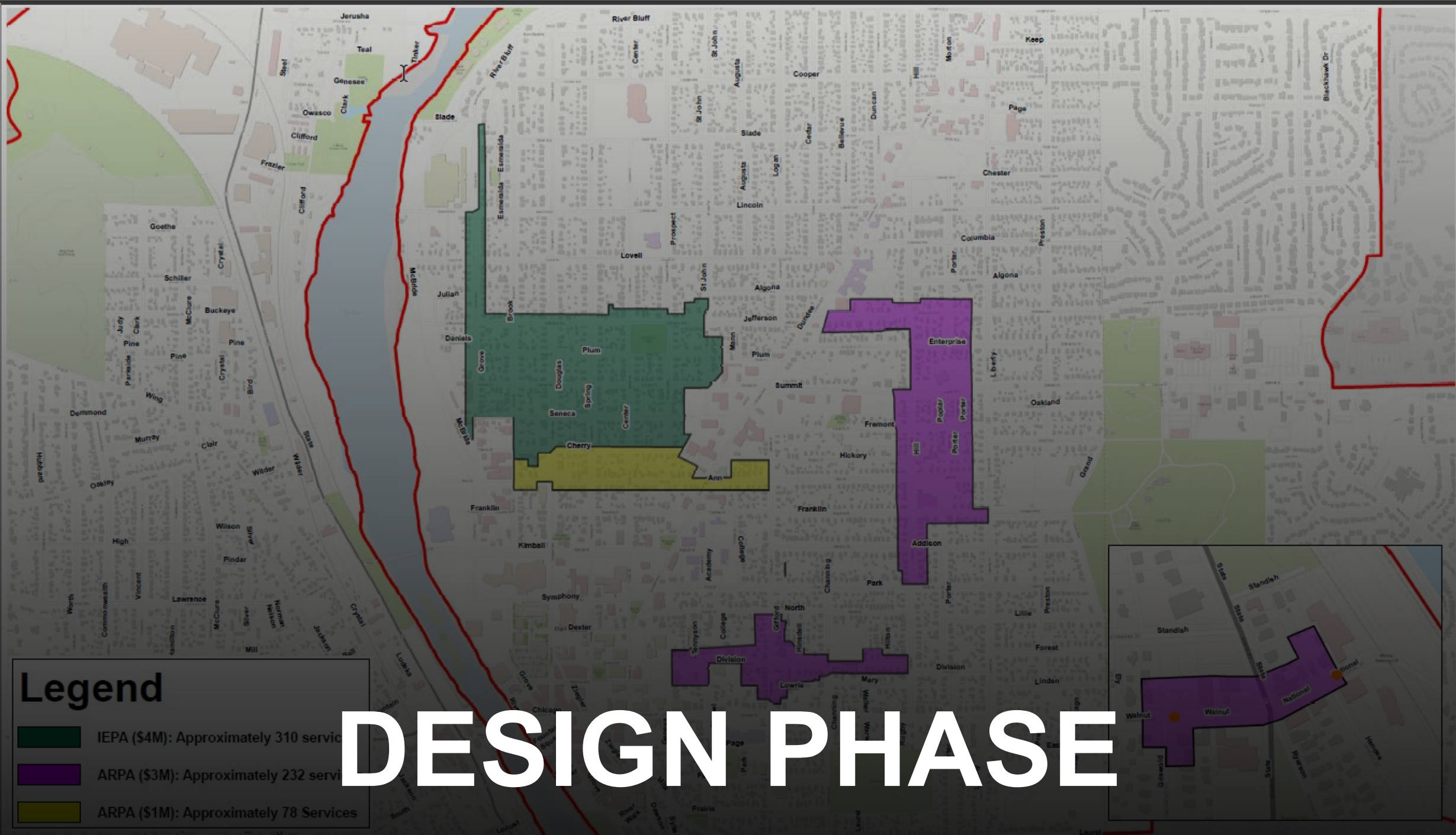
WHEREAS, the City of Elgin is a home rule unit of local government which may exercise any power and perform any function pertaining to its government and affairs; and

WHEREAS, providing for the replacement of the Owner’s Service Pipe as described herein will promote the public welfare of the community and pertains to the government and affairs of the City.

Temporary Construction Easement Agreement (TCE)

- Required
- Outlines resident and City responsibilities
 - ✓ Structural repairs only
- Signed on-line only
 - ✓ Tracking
 - ✓ Timing of Execution





Legend

- IEPA (\$4M): Approximately 310 services
- ARPA (\$3M): Approximately 232 services
- ARPA (\$1M): Approximately 78 Services

DESIGN PHASE

DESIGN FOR YEAR 1 AND YEAR 2

APPROACH

- Budget defined the scope
- Home assessments performed during construction phase
- Institutional knowledge
- Field assessments
- Pay items for all work

YEAR 1

- Private side LSLR
- Project Limits = Past 5 years of public side LSLR (CIP)
- Funding = IEPA
- Budget = \$4M (total)
- Target = 398 LSLR

YEAR 2

- Full LSLR
- Project Limits = Lowest Income
- Funding = IEPA, ARPA, & Operations
- Original Budget = \$9M (construction only)
- Original Target = 700 LSLR (4 contracts)



MUNICIPALITY'S AD FOR BID

IEPA specific language
Daily newspaper or Dodge Report
No less than 30 days (45 days)

CONTRACTOR CERTIFICATIONS & REQUIREMENTS

Numerous; Separate appendix
Davis Bacon Wage Act
IL Works Jobs Program Act

CONTRACTOR'S AD FOR SUBS

Daily newspaper or Dodge Report
No less than 16 days
No matter what



IEPA & CITY REQUIREMENTS

MANDATORY PRE-BID MEETING

REFERENCE AND EXPERIENCE REQUIREMENTS

RIGHT TO DECREASE PROJECT SCOPE/BUDGET

**DEGREE OF
PRIVATE
PROPERTY
RESTORATION**

Internal and External

**RESIDENT &
INSPECTION
COORDINATION**

Who is responsible?

**INTERNAL
PLUMBING**

New Ball or Drain Valves
Type L or M Copper
Meter Relocation/Configuration



**SPECIAL
PROVISION
CONSIDERATIONS**

**ELECTRICAL
GROUNDING**

**COMPLETION
DATES VS. ROAD
PROGRAM**

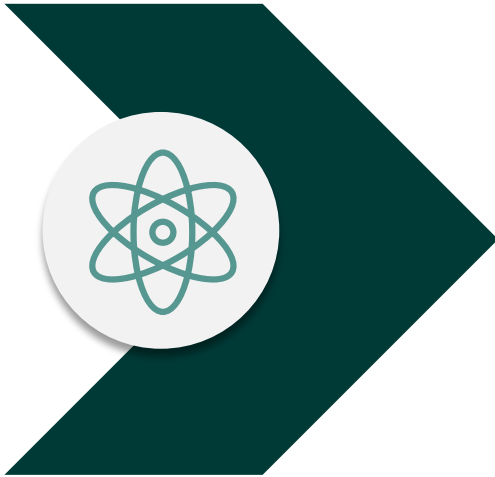
**ASBESTOS &
CCDD SPECIAL
PROVISIONS**

**METHOD OF
INSTALLATION**

Connection at Main
Trenchless vs Open Cut

CHANGE TO FOUR YEAR LSLR PLAN YEAR 2 DESIGN

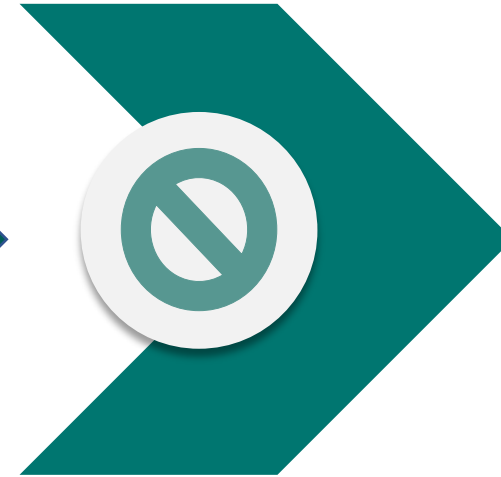
Lead Action
Exceedance



Budget no longer
defines the scope



7% LSLR required
(~840 LSLR)



Increase in
everything





CONSTRUCTION PHASE



CONTRACTOR COORDINATION / SCHEDULING

- Home Assessment
- LSLR
- Electrical and Plumbing Inspections
- No Parking Areas
- Next Day Schedule
- Weekly Look Ahead

Elgin LSLR - Quantity Tracking Sheet

Address: _____

Date: 11-1-22

#	Items	Quantity	Units
1	CONTRACTOR RESIDENT COORDINATION	1	EA
2	PRIVATE UTILITY LOCATE	1	EA
3	TREE ROOT PRUNING	-	EA
4	TREE REMOVAL (6-15 UNIT DIAMETER)	-	EA
5	TREE REMOVAL (15+ UNIT DIAMETER)	-	EA
6	REPLACEMENT TREE	-	EA
7	ASBESTOS ABATEMENT	-	EA
8	SELECT GRANULAR BACKFILL	-	CY
9	WATER SERVICE CONNECTION AT B-BOX	1	EA
10	WATER SERVICE CONNECTION AT MAIN	-	EA
11	WATER SERVICE PIPE INSTALLATION, TYPE K, 1-INCH	47	LF
12	WATER SERVICE PIPE INSTALLATION, TYPE K, 2-INCH	-	LF
13	WATER SERVICE CONNECTION AT METER	1	LF
14	WATER SERVICE PIPE INSTALLATION, TYPE L, 1-INCH	-	LF
15	WATER SERVICE PIPE INSTALLATION, TYPE L, 3/4-INCH	-	LF
16	WATER SERVICE PIPE INSTALLATION, TYPE L, 1/2-INCH	-	LF
17	SANITARY SEWER REPAIR	-	EA
18	PCC SIDEWALK REMOVAL AND REPLACEMENT 5"	-	SF
19	CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	-	LF
20	HOT MIX ASPHALT PAVEMENT REMOVAL	-	SY
21	TEMPORARY PAVEMENT PATCH, 4-INCH	-	SY
22	HOT MIX ASPHALT PAVEMENT PATCH, 4-INCH	-	SY
23	HMA DRIVEWAY REMOVAL AND REPLACEMENT - RESIDENTIAL	-	SY
24	HMA DRIVEWAY REMOVAL AND REPLACEMENT - COMMERCIAL	-	SY
25	PCC DRIVEWAY REMOVAL AND REPLACEMENT	-	SY

Notes: NO ground visible. Pulled New 1" Copper Service.

- ☒ Pre-construction photo taken
- ☒ Flushing Guidelines given to resident
- ☒ Plumbing inspection complete
- ☒ Electrical inspection complete
- ☒ Meter jumper wire installed
- ☒ Meter seal installed
- ☒ Meter reader installed

- ☒ Flushed by contractor
- ☒ Water on
- ☒ Foundation repaired
- ☒ Post-construction photo taken
- ☒ Site backfilled
- ☒ Walkways accessible
- ☒ Site cleaned

Resident Engineer: _____

Contractor: _____

ENGINEER COORDINATION / COMMUNICATION

- Daily E-Mail
- Daily Quantity Tracking and Agreements
- Bi-Weekly On-Site Status Meeting
- Prepare Resident Flyers
 - ✓ Driveway Restoration
 - ✓ Flushing Guidelines
- Salesforce Post
- Collect Inspection Forms













YEAR 1 STATS



Lead Extraction = 216
HDD = 172
Open Cut = 1

Total LSLR = 398
Full = 17
Partial = 381
Awarded = \$4.2M

Total LSLR = 389
Full = 40
Partial = 347
Spent = \$3.5M



YEAR 2 CHANGES



Construction in 2023

Real time e-tracking of material inventory and LSLR status
from home assessment to final restoration



LESSONS LEARNED

**COMMUNICATION IS THE
KEY TO SUCCESS DURING
DESIGN**

**COORDINATION WITH CITY
DEPARTMENTS /
ADMINISTRATION**

TCE ACQUISITION

**DEVELOP A PLAN THAT IS
FLEXIBLE**

DAILY QUANTITY TRACKING

**CONTRACTOR
COORDINATION IS THE KEY
TO SUCCESS IN
CONSTRUCTION**



CHALLENGES AHEAD

FUNDING

- Is the same level of PF and grants going to be available?

CONTRACTOR AVAILABILITY

- Is there a sufficient number of qualified contractors available to perform the work?
- In a competitive bidding environment, how do you get them to bid your job?

MATERIAL DEMANDS

- Pricing?
- Availability?





**Questions or
Comments?**

THANK YOU

We value your time and appreciate the opportunity to present this afternoon.



**Engineering
Enterprises, Inc.**



JULIE A. MORRISON, PE
Senior Project Manager / Principal
jmorrisson@eeiweb.com
(630) 466-6723

52 Wheeler Road
Sugar Grove, IL

www.eeiweb.com