

CITY OF DULUTH

DEPARTMENT OF PUBLIC WORKS AND UTILITIES

ENGINEERING DIVISION

CONSTRUCTION PLANS FOR:

2017 CITYWIDE SANITARY SEWER CIPP LINING

CITY PROJECT NO. 1633



THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

WARNING:
LOCATION OF UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR. CALL BEFORE DIGGING. GOPHER STATE ONE CALL 1-800-252-1166 REQUIRED BY LAW



CITY OF DULUTH PROJECT NO. 1633

GOVERNING SPECIFICATIONS

THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. AVAILABLE AT:
<http://www.dot.state.mn.us/pre-letting/spec/index.html>

THE 2017 EDITION OF THE CITY OF DULUTH PUBLIC WORKS AND UTILITIES DEPARTMENT CONSTRUCTION STANDARDS AND SUPPLEMENTS OR ADDENDUMS SHALL APPLY.

AVAILABLE AT:
<http://www.duluthmn.gov/engineering/standard-construction-specifications/>

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INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SEQ & CHARTS
3-18	LINING PLAN

THIS PLAN CONTAINS 18 SHEETS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

THOMAS M. PFEFFER

PROJECT ENGINEER (TYPED OR PRINTED NAME)

Thomas M. Pfeffer 3/17/17 22442
PROJECT ENGINEER DATE LIC. NO.

CITY APPROVAL

APPROVED 3/17/17
CHIEF ENGINEER OF TRANSPORTATION DATE

APPROVED 3/17/17
CHIEF ENGINEER OF UTILITIES DATE

APPROVED 3/17/17
CITY ENGINEER DATE

DRAWN BY: JJM

SHEET NO. 1 OF 18

I:\PWU\ENGINEER\PROJECTS\1500-1999\1633-2017-Citywide_CIPP_Lining\DWG\1633-SEQ & CHART.dwg

SCHEDULE OF ESTIMATED QUANTITIES

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	EST. QUANTITY	FINAL QUANTITY
1	2021.501	Mobilization	Lump Sum	1	
2	2503.602	Spot Repair -Lawn Area (depth 12' or less)	Each	4	
3	2503.602	Spot Repair - Lawn Area (more than 12')	Each	2	
4	2503.602	Spot Repair - Street Area (depth 12' or less)	Each	4	
5	2503.602	Spot Repair - Street Area (more than 12')	Each	2	
6	2503.602	Remote Cut and Reconnect Service	Each	62	
7	2503.603	8" CIPP Main Lining	LF	5,226	
8	2503.603	9" CIPP Main Lining	LF	464	
9	2503.603	10" CIPP Main Lining	LF	467	
10	2503.603	12" CIPP Main Lining	LF	408	
11	2503.601	Dewatering Pipe Zone Special - 32nd Street South	Lump Sum	1	
12	2563.601	Traffic Control	Lump Sum	1	

GENERAL NOTES:

- 1) THE CITY OF DULUTH UNDERGROUND UTILITIES SHOWN ON THIS LINING PLAN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL TO HAVE ALL UTILITIES FIELD LOCATED BEFORE ANY EXCAVATION.
- 2) A TEMPORARY TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL A MINIMUM OF 3 DAYS PRIOR TO BEGINNING WORK.

SCHEDULE OF PIPES

PAGE	PIPE ASSE #	U.S. MH ASSET #	U.S. MH DEPTH (FT)	D.S. MH ASSET #	D.S. MH DEPTH (FT)	STREET	CROSS STREET 1	CROSS STREET 2	LENGTH (8")	LENGTH (9")	LENGTH (10")	LENGTH (12")	MATERIAL	ACTIVE WYES	BASIN #
3	SL0050047	SA0050015	8.54	SA0050011	10.84	97th Ave W	Crestline Ct	E Reis St	625				VC	10	30
4	SL0100001	SA0100001	9.00	SA0100002	7.25	Zimmerly Ave	96th Ave West	95th Ave W Alley	201				VC	1	28
4	SL0100002	SA0100002	7.25	SA0100003	10.00	Zimmerly Ave	95th Ave W Alley	95th Ave West	184				VC	2	28
4	SL0100006	SA0100009	11.00	SA0100008	14.00	Zimmerly Ave	96th Ave West	95th Ave West	317				VC	3	28
4	SL0120018	SA0120001	11.00	SA0100001	9.00	96th Ave West	Boyd Ave	Zimmerly Ave	341				VC	2	28
5	SL0450128	SA0450130	6.80	SA0450132	4.78	11th Ave West	W 1st St Alley	W 1st St Alley	155				VC	1	16
6	SL0460298	SA0460276	6.00	SA0460233	4.10	W 4th Street	7th Ave W	6th Ave W	576				VC	2	16
6	SL0460299	SA0460233	4.10	SA0460232	10.80	W 4th Street	1/2 block	7th Ave W	163				VC	1	16
7	SL0460161	SA0460155	9.00	SA0460154	8.90	E 2nd St Alley	4th Ave West	3rd Ave West			467		VC	1	16
8	SL0460244	SA0460263	7.80	SA0460262	6.00	E 6th Street	2nd Ave East	3rd Ave E	253				VC	5	17
9	SL0430053	SA0430175	5.77	SA0430043	6.40	Jefferson Alley	18th Ave East	19th Ave East	370				VC	6	6
9	SL0430177	SA0430042	8.38	SA0430175	5.77	Jefferson Alley	19th Ave East	20th Ave East	131				VC	4	6
10	SL0480229	SA0480210	8.00	SA0480214	7.68	18th Ave East	E 7th St	18th Ave East	69				VC	0	8
11	SL0470133	SA0470082	9.19	SA0470081	9.10	E 4th Street	7th Ave E	8th Ave E	470				VC	2	13
12	SL0470134	SA0470081	9.10	SA0470080	~7.50	E 4th Street	8th Ave E	9th Ave E		464			VC	4	13
13	SL0470200	SA0470326	~7.50	SA0470194	8.30	E 4th Street	9th Ave E	10th Ave E				408	VC	4	13
14	SL0480098	SA0480054	6.80	SA0480053	6.00	E 3rd Alley	25th Ave East	26th Ave East	413				VC	5	7
15	SL0490108	SA0490115	8.49	SA0490116	7.70	E 1st Street	30th Ave East	Hawthorne Rd	157				VC	3	6
16	SL0760052	SA0760030	8.54	SA0760029	6.06	E Elizabeth Street	Woodland Ave	Summit St	99				VC	3	10
16	SL0760053	SA0760029	6.06	SA0760028	8.03	E Elizabeth Street	Woodland Ave	Summit St	114				VC	0	10
16	SL0760054	SA0760028	8.03	SA0760025	9.37	E Elizabeth Street	Woodland Ave	Summit St	151				VC	1	10
17	SL0860050	SA0860051	11.00	SA0860052	7.50	Livingston Ave	Kenilworth Ave	Snively Rd	238				VC	0	5
18	SL1110014	SA1110008	8.18	SA1110007	8.50	32nd Street South	Minnesota Ave	N/A	199				VC	2	15
								TOTAL	5226	464	467	408			

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SIGNATURE: Thomas M Pfeffer

THOMAS M. PFEFFER
TYPE NAME

DATE: 3/17/2017

LIC. NO: 22442



CITY OF DULUTH
ENGINEERING DIVISION
411 W. 1ST ST. STE. 211
DULUTH, MN 55802

2017 CITYWIDE SANITARY SEWER CIPP LINING

CITY PROJECT NO.: 1633

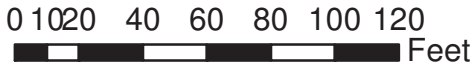
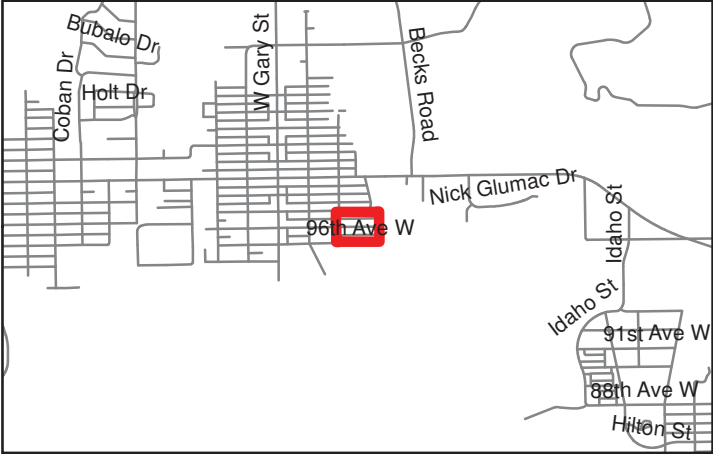
STATE AID PROJECT NO.: NA

DRAWN BY: JJM

SEQ & CHART

SHEET NO. 2 OF 18

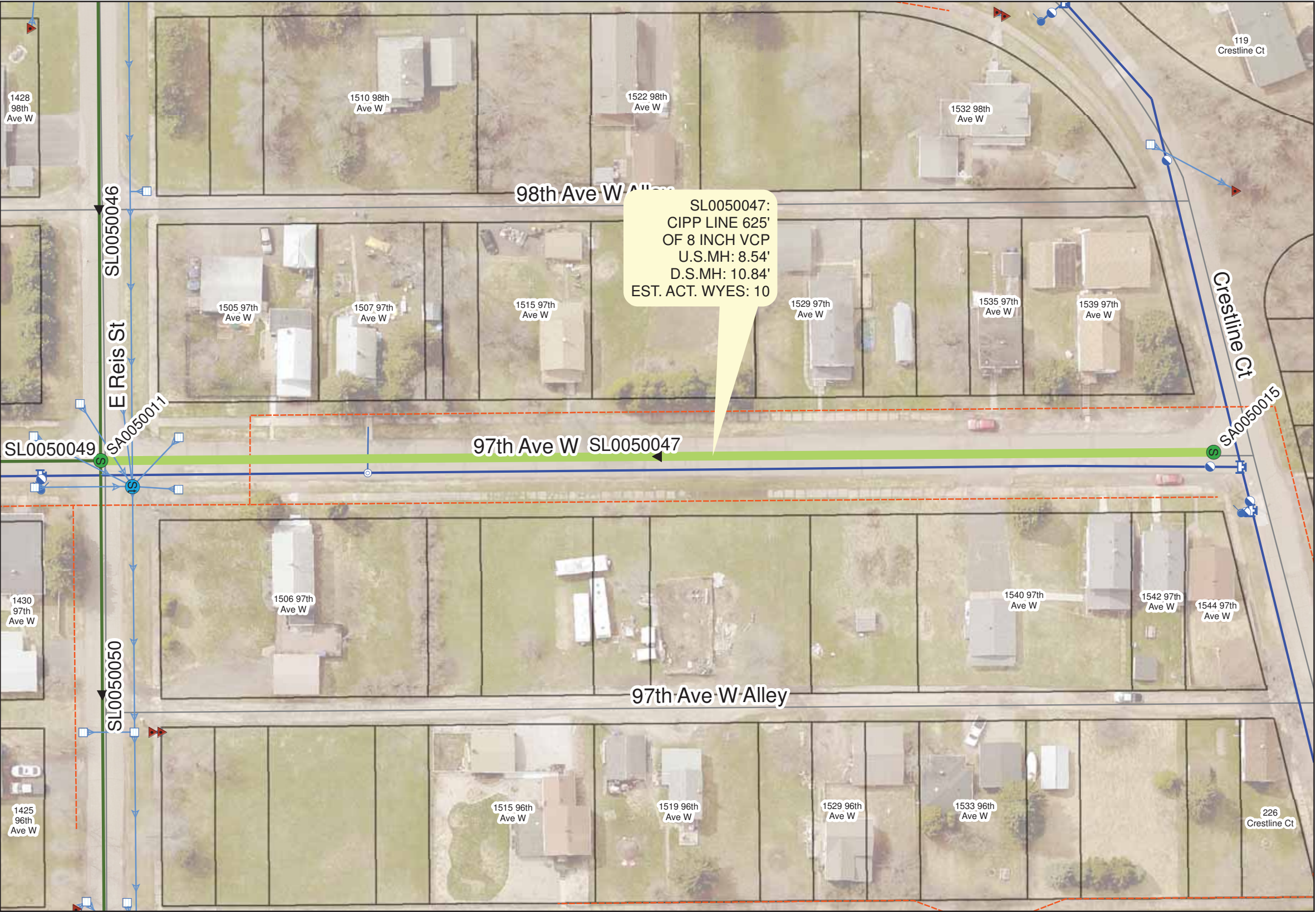
OVERVIEW MAP



Legend

- Sanitary Gravity Mains To Be Lined
- Sanitary Gravity Mains
- Sanitary Manhole
- Storm Gravity Main
- Storm Manhole
- Storm Catch Basin
- Gas Main
- Gas Valve
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LINING PLAN



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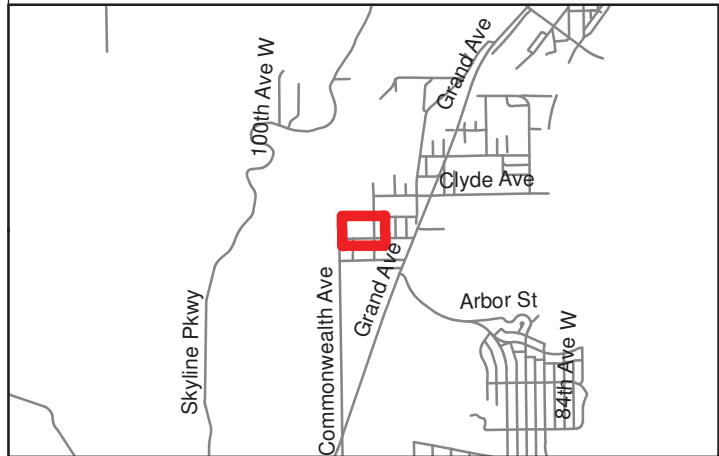


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2017 CITYWIDE SANITARY SEWER CIPP LINING
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DRAWN BY: JJM
SHEET NO. 3 OF 18

OVERVIEW MAP

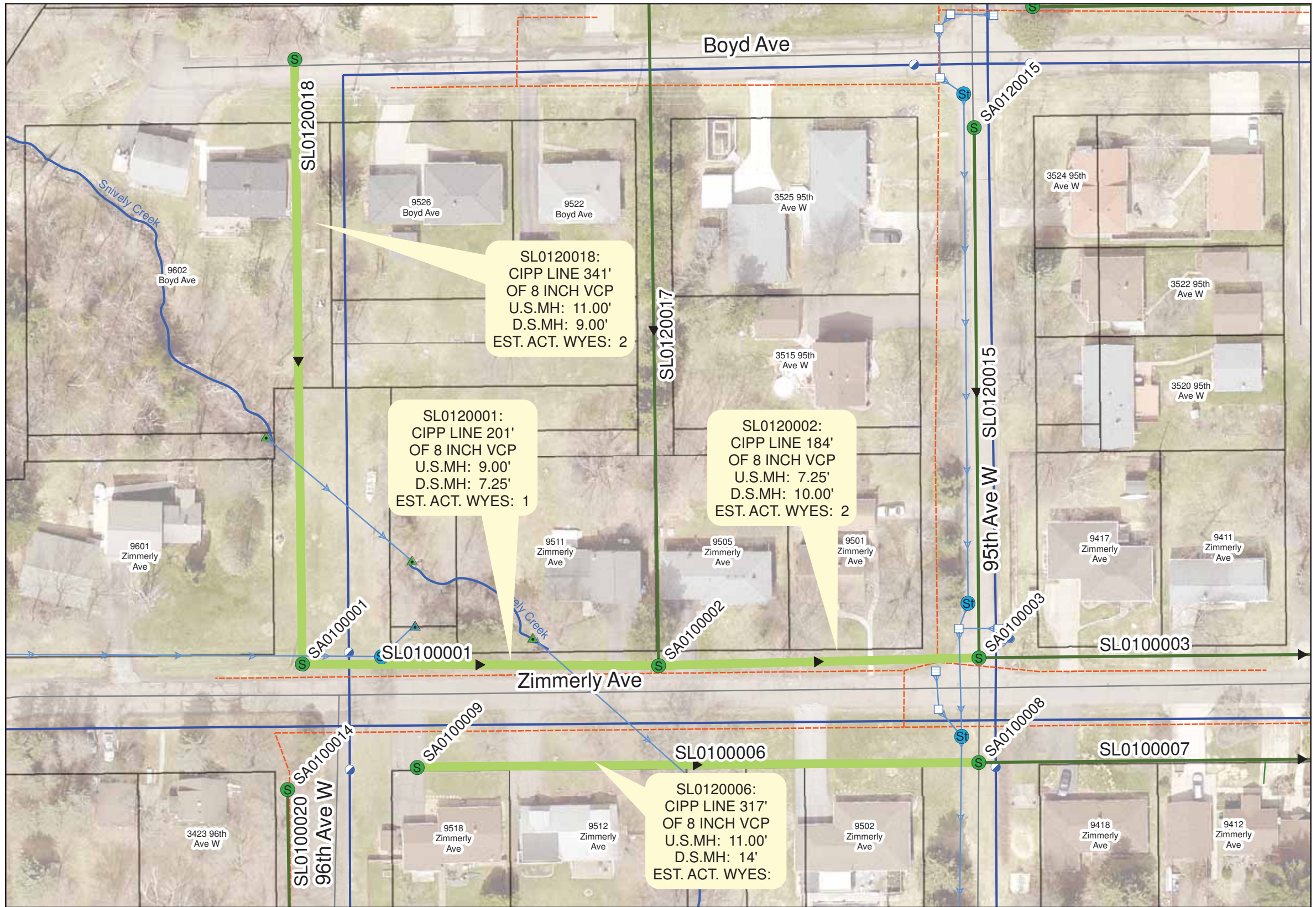


0 10 20 40 60 80 100 120 Feet

Legend

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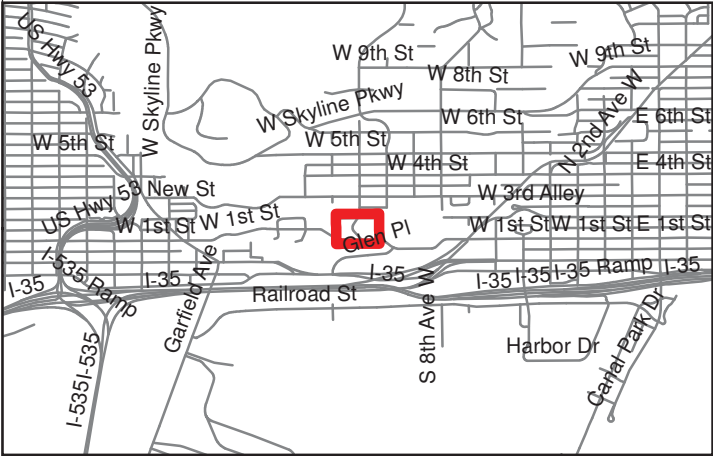


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2017 CITYWIDE SANITARY SEWER CIPP LINING
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DRAWN BY: JJM
 SHEET NO. 4 OF 18

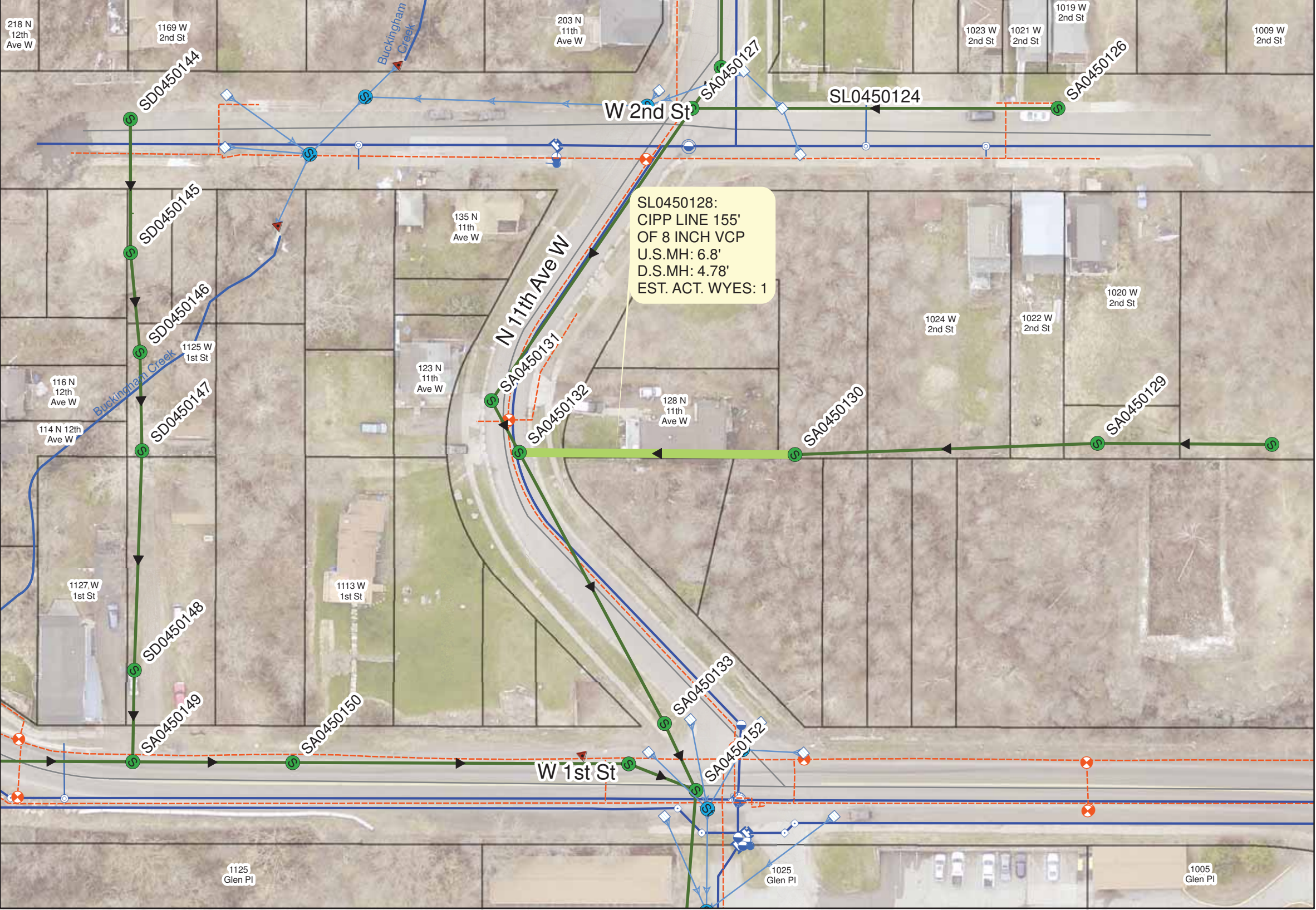
OVERVIEW MAP



Legend

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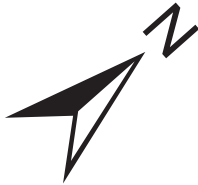
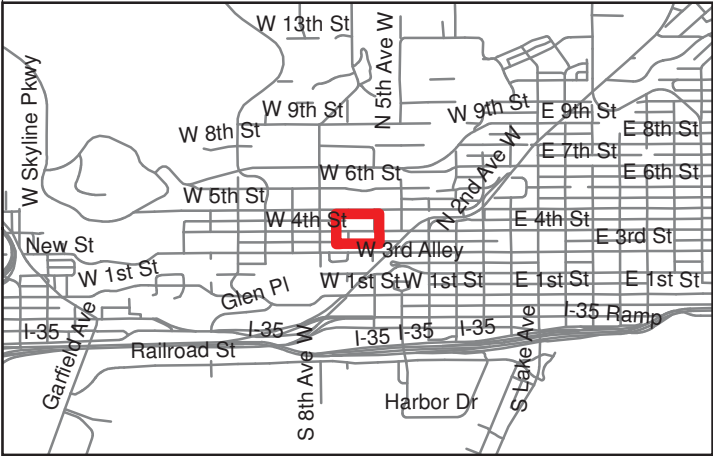


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2017 CITYWIDE SANITARY SEWER CIPP LINING
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DRAWN BY: JJM
SHEET NO. 5 OF 18

OVERVIEW MAP

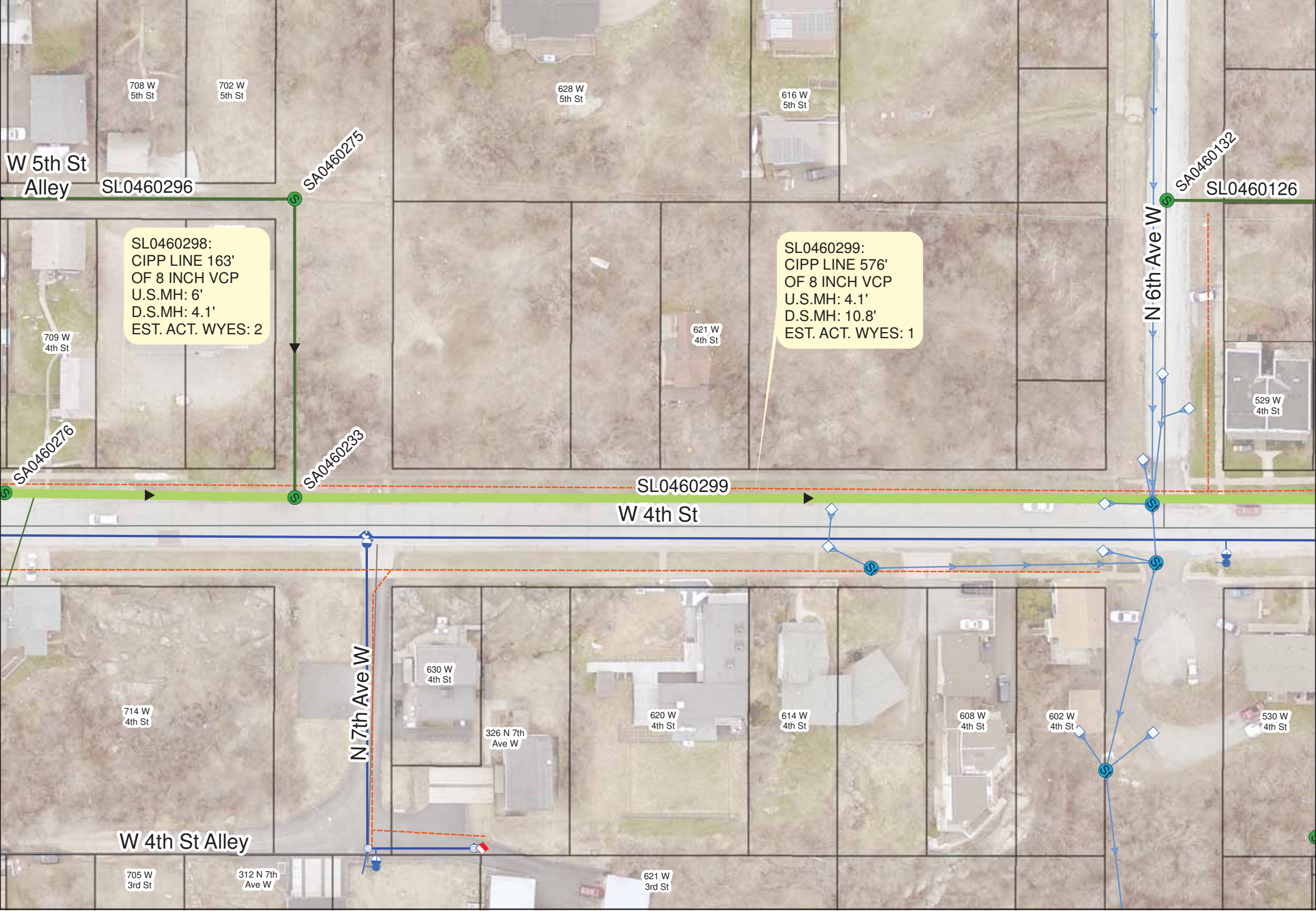


0 10 20 40 60 80 100 120 Feet

Legend

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DRAWN BY: JJM
SHEET NO. 6 OF 18

OVERVIEW MAP

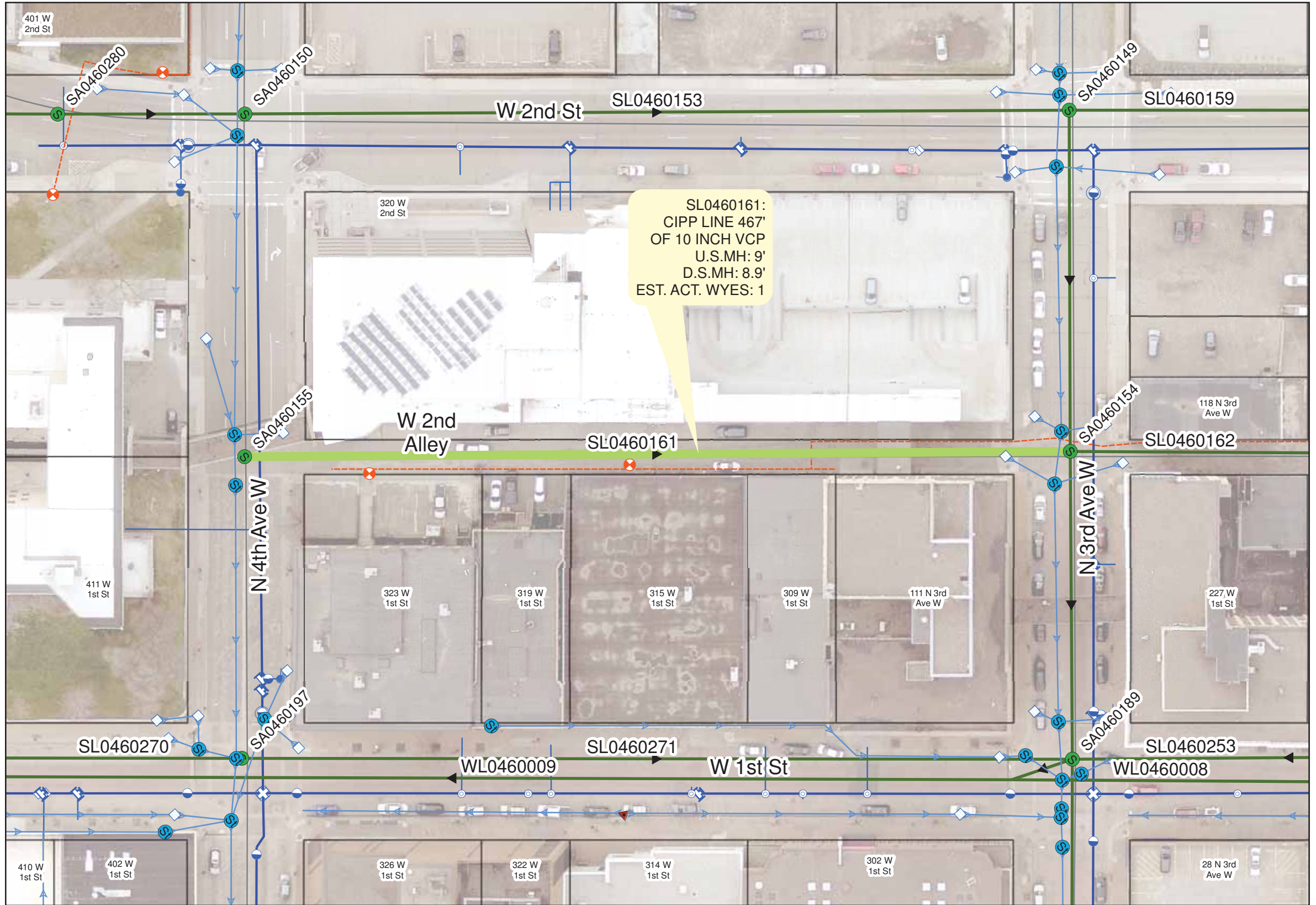


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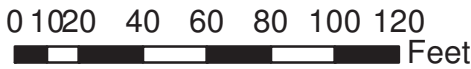
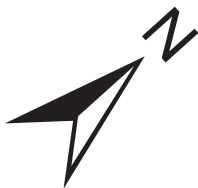


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2017 CITYWIDE SANITARY SEWER CIPP LINING
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DRAWN BY: JJM
SHEET NO. 7 OF 18

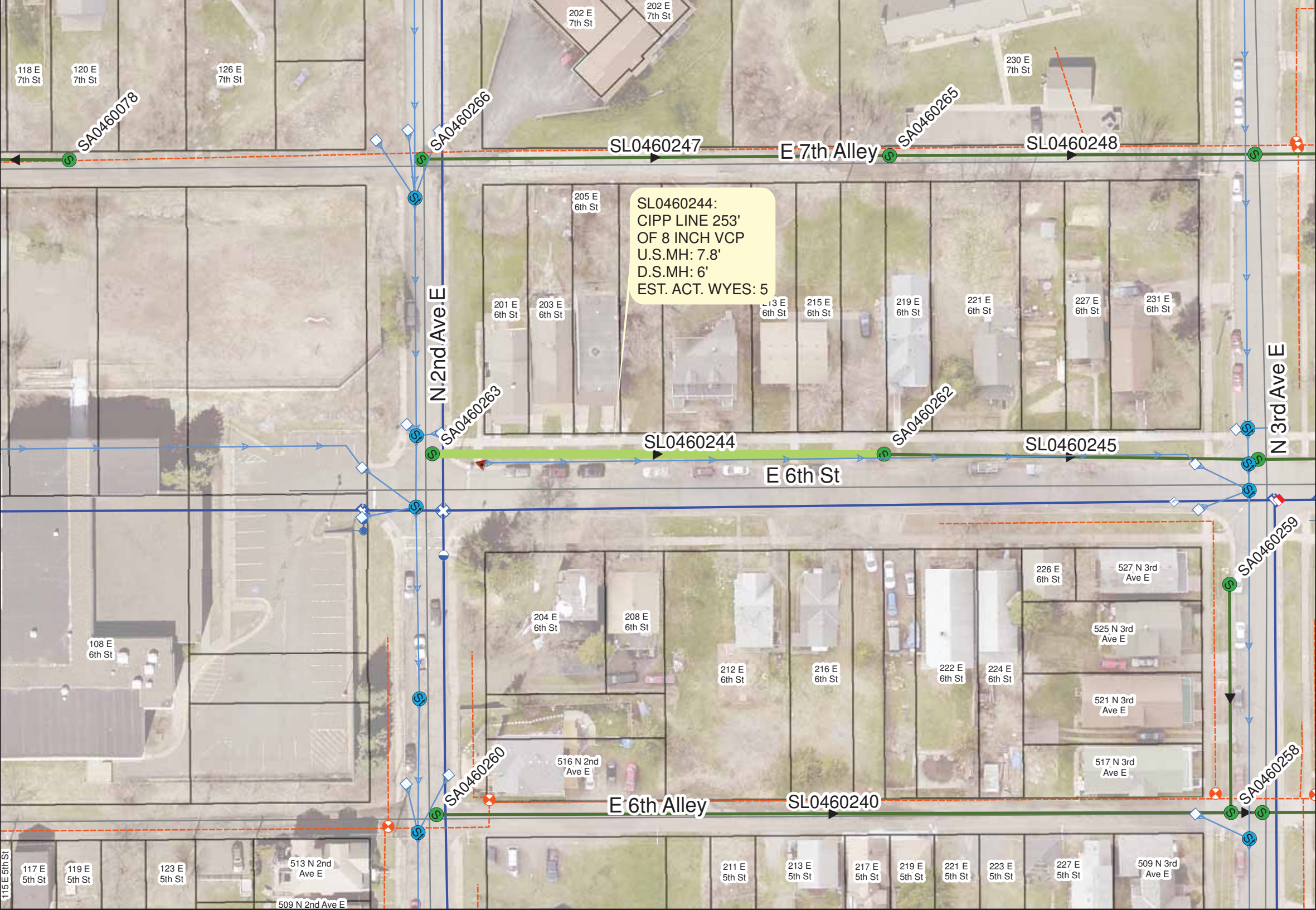
OVERVIEW MAP



Legend

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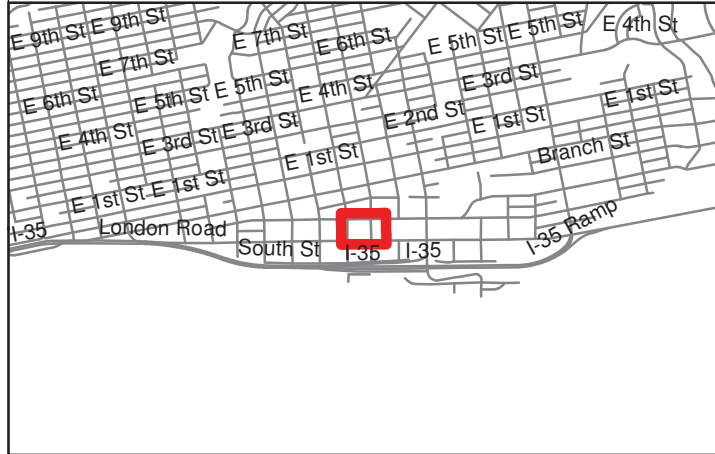


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2017 CITYWIDE SANITARY SEWER CIPP LINING
CITY PROJECT NO.: 1633

DRAWN BY: JJM
SHEET NO. 8 OF 18

OVERVIEW MAP

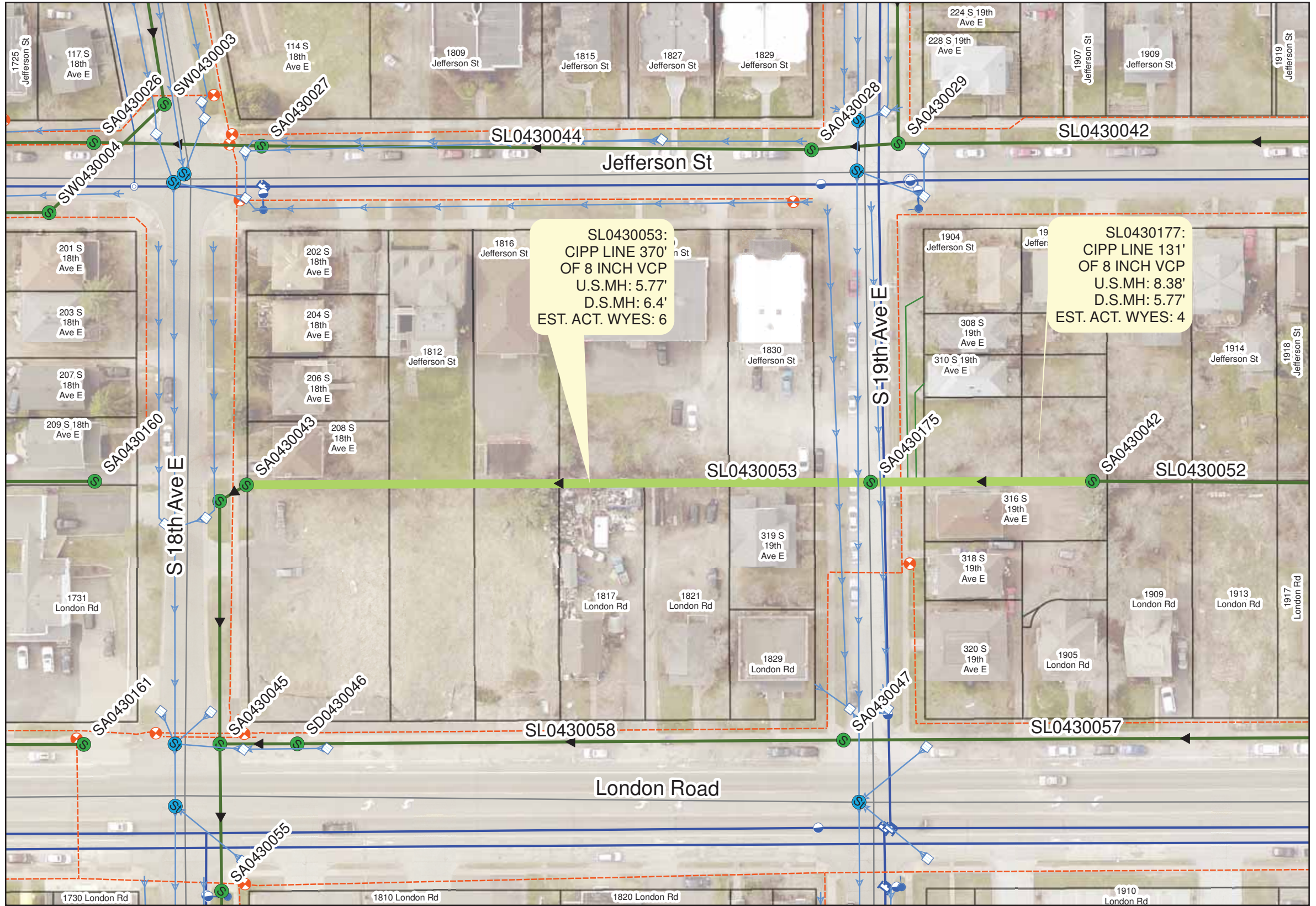


0 10 20 40 60 80 100 120 Feet

Legend

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2017 CITYWIDE SANITARY SEWER CIPP LINING
CITY PROJECT NO.: 1633

DRAWN BY: JJM
SHEET NO. 9 OF 18



0 10 20 40 60 80 100 120 Feet

-  Sanitary Gravity Mains To Be Lined
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-  Gas Valve
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-  Water Valve

SL0480229:
CIPP LINE 69'
OF 8 INCH VCP
U.S.MH: 8'
D.S.MH: 7.68'
EST. ACT. WYES: 0

SIGNATURE: Thomas M Pfeffer LIC. NO: 22442 DATE: 3/17/17
Thomas M. Pfeffer

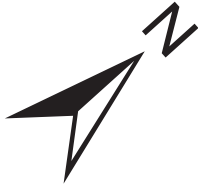


**2017 CITYWIDE SANITARY SEWER CIPP LINING
CITY PROJECT NO.: 1633**

DRAWN BY: JJM

SHEET NO. 10 OF 18

OVERVIEW MAP

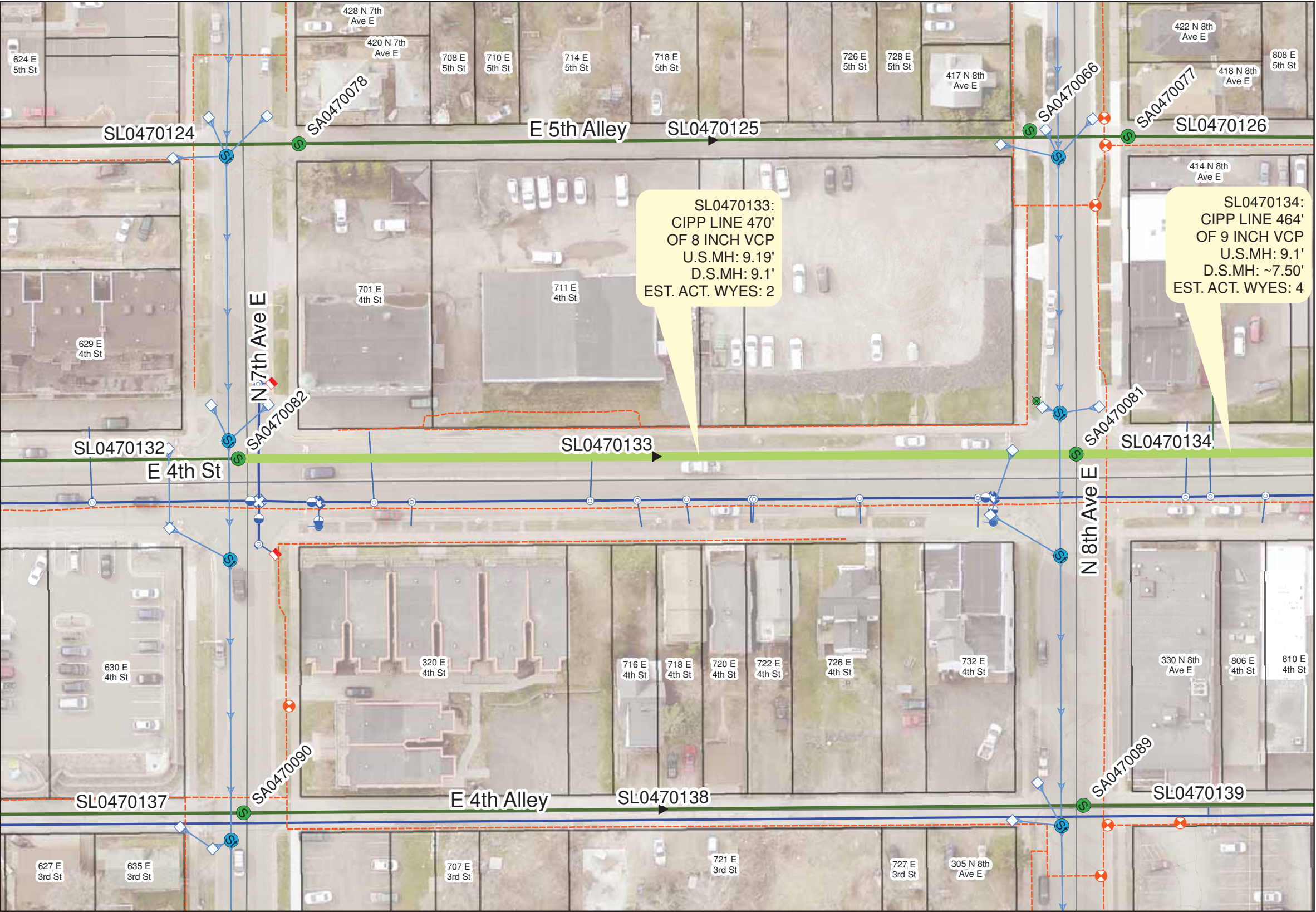


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Legend

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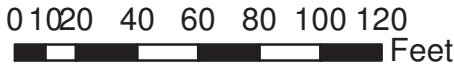
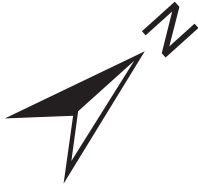
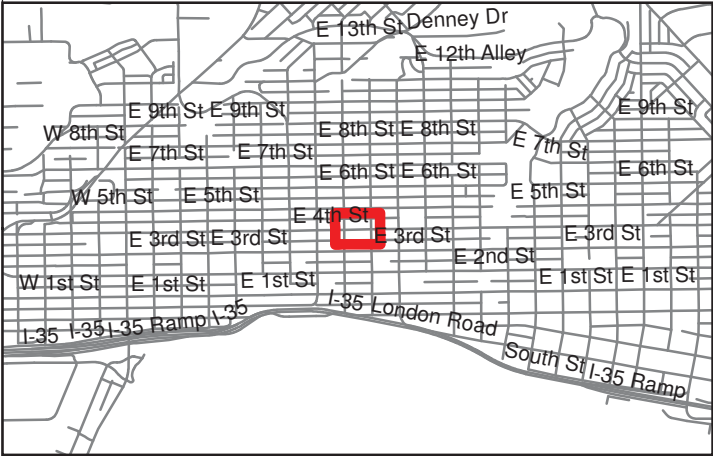


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2017 CITYWIDE SANITARY SEWER CIPP LINING
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DRAWN BY: JJM
SHEET NO. 11 OF 18

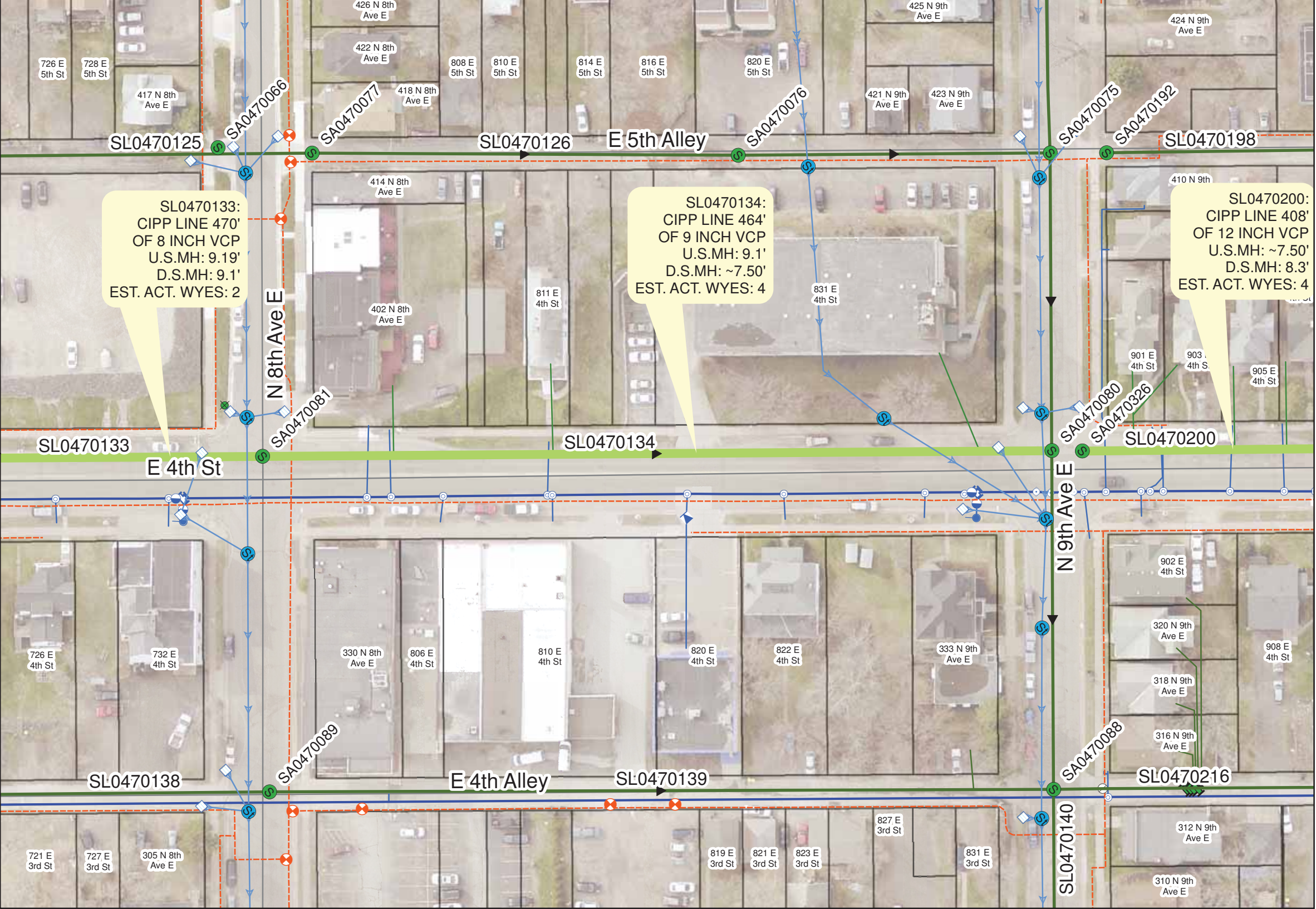
OVERVIEW MAP



Legend

- Sanitary Gravity Mains To Be Lined
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2017 CITYWIDE SANITARY SEWER CIPP LINING
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DRAWN BY: JJM
SHEET NO. 12 OF 18

OVERVIEW MAP

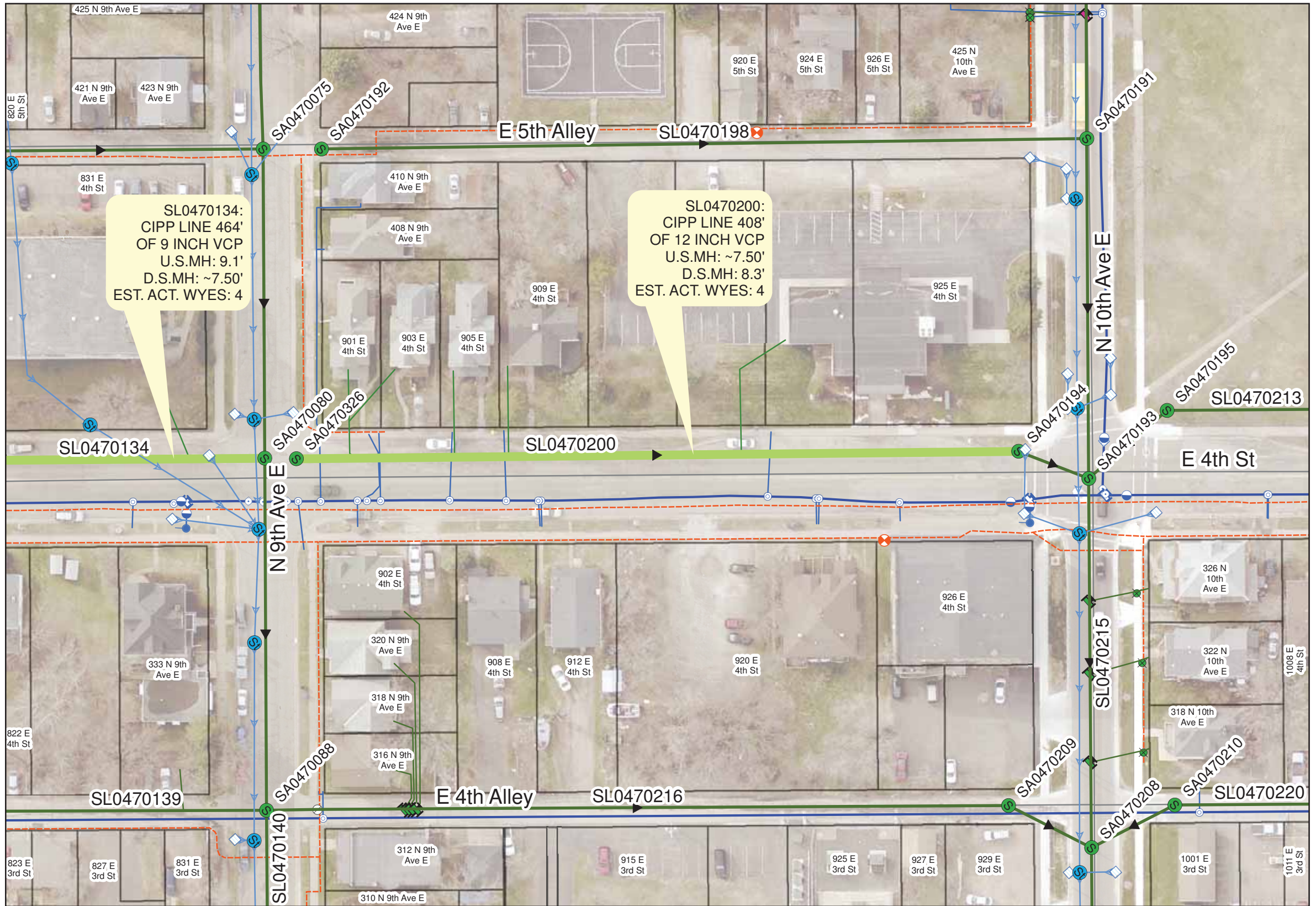


0 10 20 40 60 80 100 120 Feet

Legend

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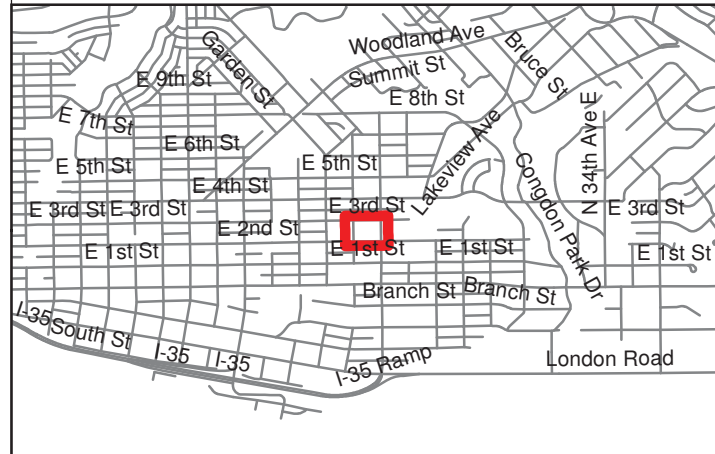


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DRAWN BY: JJM
SHEET NO. 13 OF 18

OVERVIEW MAP

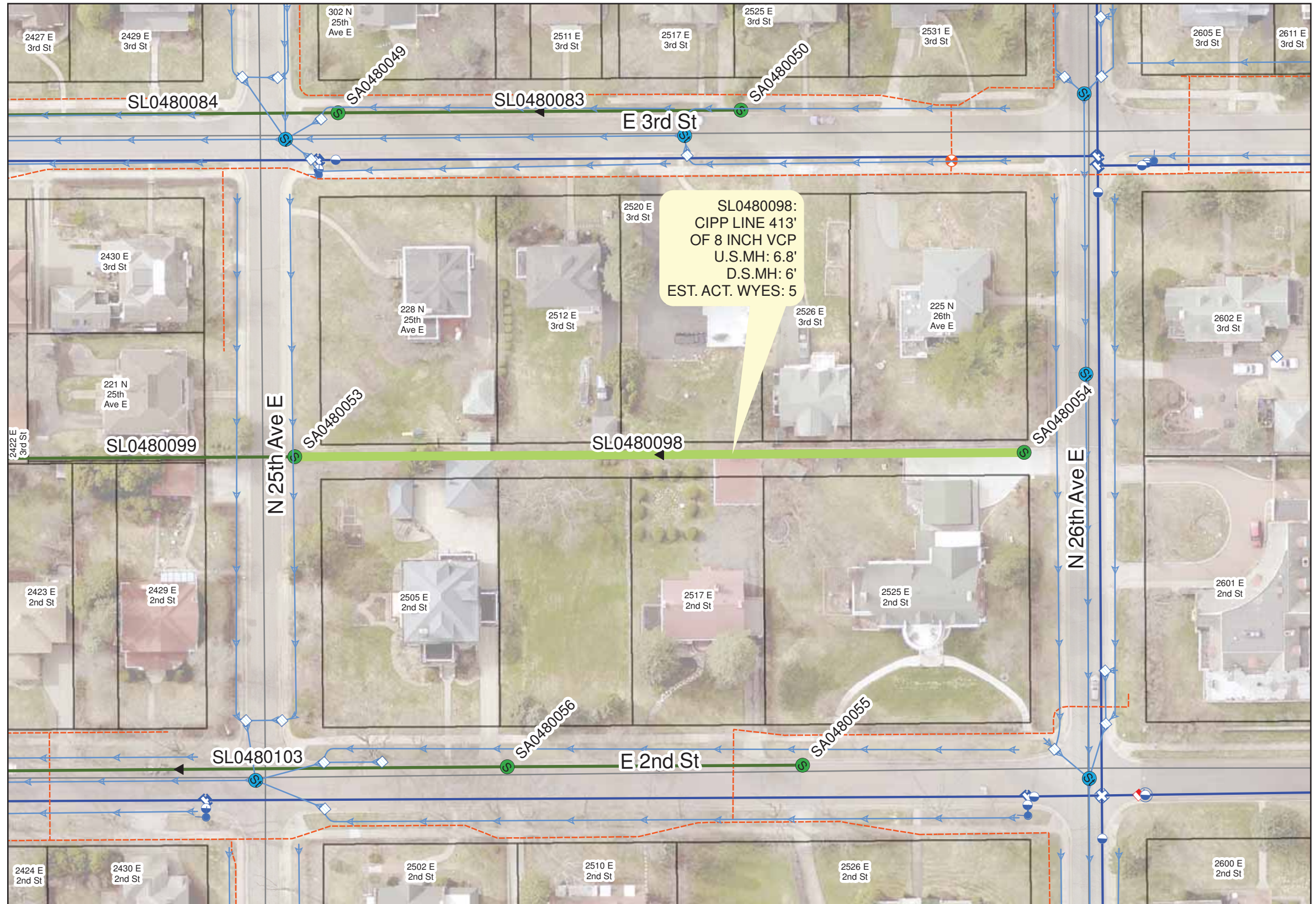


0 10 20 40 60 80 100 120
Feet

Legend

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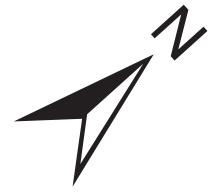
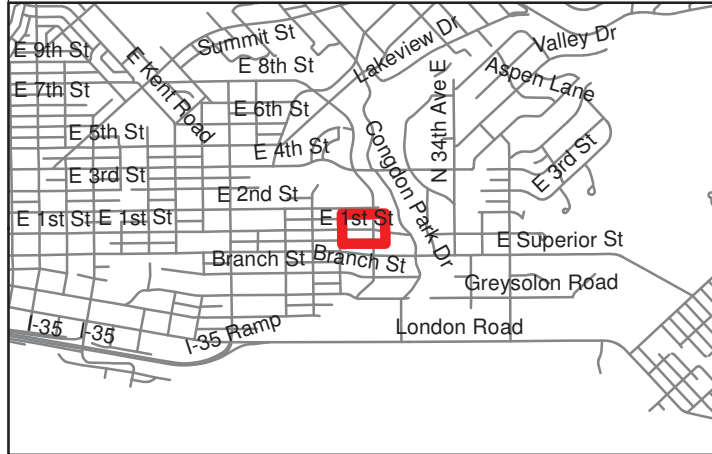


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CITY PROJECT NO.: 1633












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SHEET NO. 14 OF 18

OVERVIEW MAP

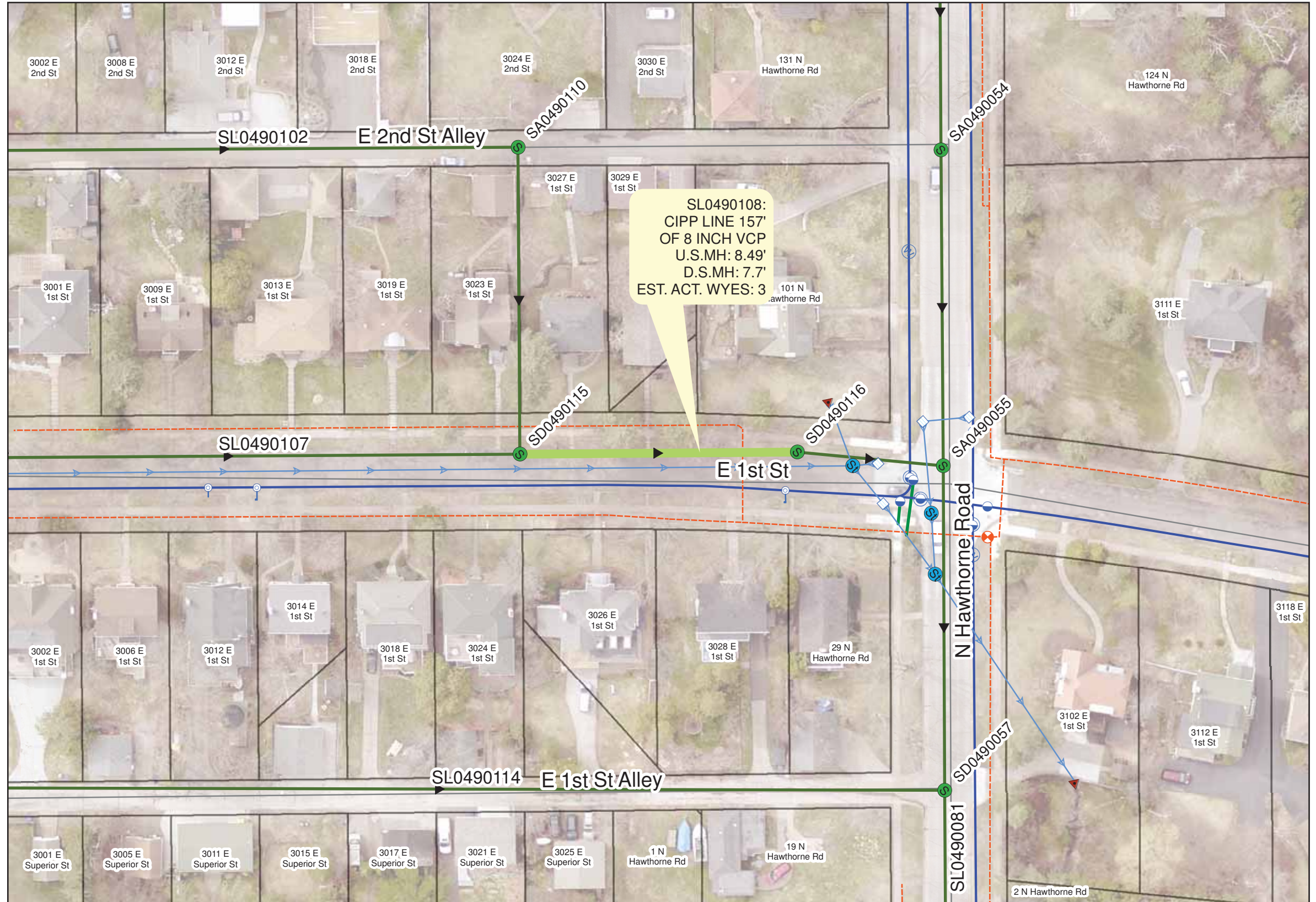


0 10 20 40 60 80 100 120
Feet

Legend

-  Sanitary Gravity Mains To Be Lined
-  Sanitary Gravity Mains
-  Sanitary Manhole
-  Storm Gravity Main
-  Storm Manhole
-  Storm Catch Basin
-  Gas Main
-  Gas Valve
-  Water Main
-  Hydrant
-  Water Valve

LINING PLAN



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: Thomas M Pfeffer LIC. NO.: 22442 DATE: 3/17/17
Thomas M. Pfeffer



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411 W. 1ST ST. STE. 211
DULUTH, MN 55802**

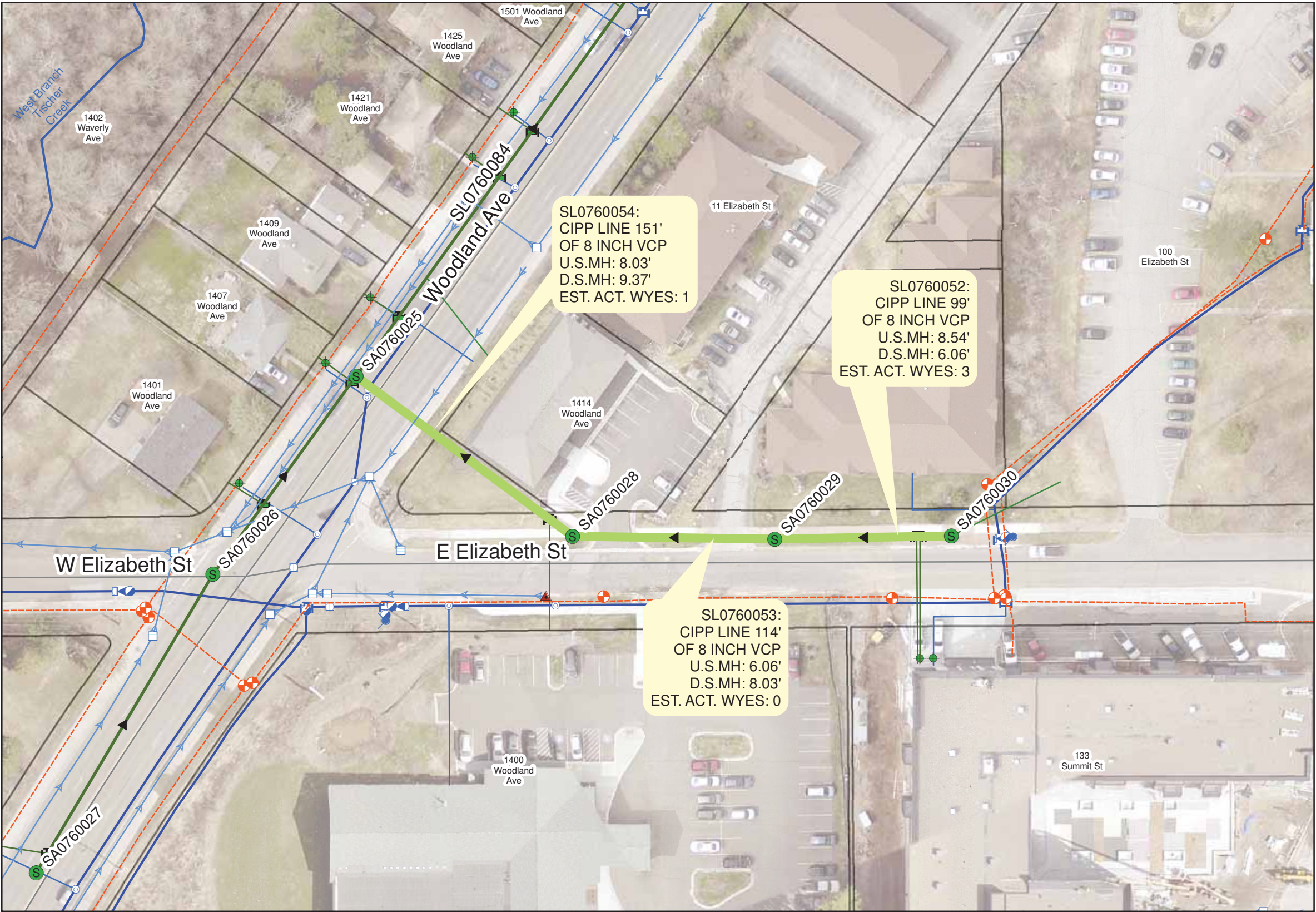
**2017 CITYWIDE SANITARY SEWER CIPP LINING
CITY PROJECT NO.: 1633**

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SHEET NO. 15 OF 18

OVERVIEW MAP

LINING PLAN



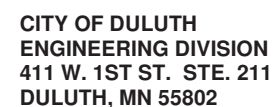
OVERVIEW MAP

LINING PLAN



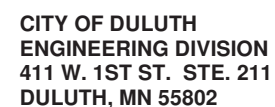
-  Sanitary Gravity Mains To Be Lined
-  Sanitary Gravity Mains
-  Sanitary Manhole
-  Storm Gravity Main
-  Storm Manhole
-  Storm Catch Basin
-  Gas Main
-  Gas Valve
-  Water Main
-  Hydrant
-  Water Valve

SIGNATURE: Thomas M Pfeffer LIC. NO: 22442 DATE: 3/17/17
Thomas M. Pfeffer



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SHEET NO. 16 OF 18



DRAWN BY: JJM

SHEET NO. 16 OF 18

OVERVIEW MAP

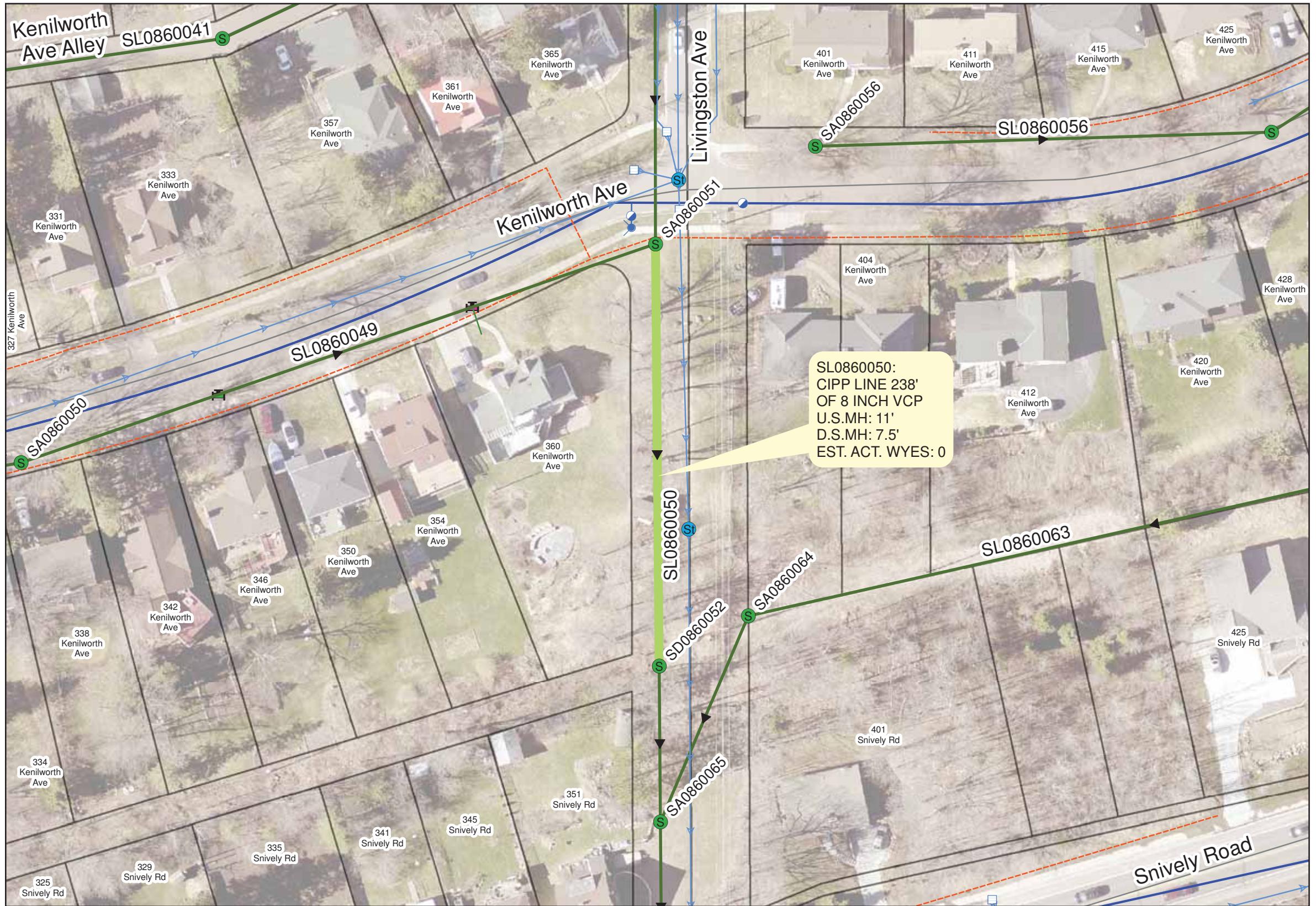


0 10 20 40 60 80 100 120 Feet

Legend

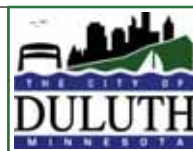
- Sanitary Gravity Mains To Be Lined
- Sanitary Gravity Mains
- Sanitary Manhole
- Storm Gravity Main
- Storm Manhole
- Storm Catch Basin
- Gas Main
- Gas Valve
- Water Main
- Hydrant
- Water Valve

LINING PLAN



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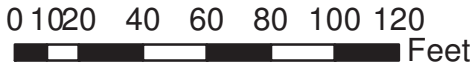
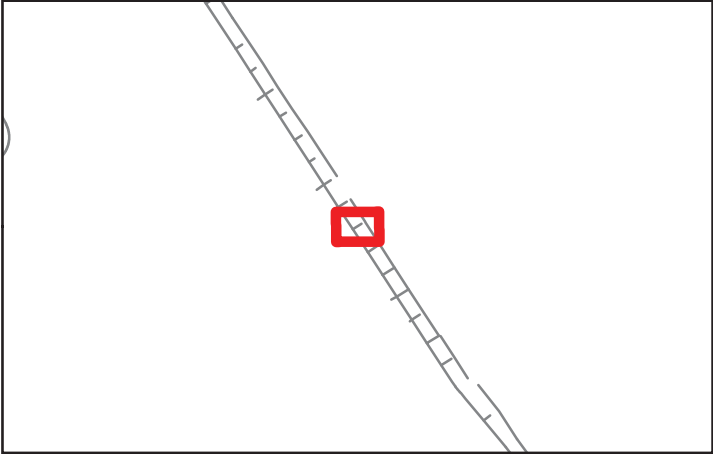


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SHEET NO. 17 OF 18

OVERVIEW MAP



Legend

- Sanitary Gravity Mains To Be Lined
- Sanitary Gravity Mains
- Sanitary Manhole
- Storm Gravity Main
- Storm Manhole
- Storm Catch Basin
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- Gas Valve
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LINING PLAN



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