



# FEASIBILITY REPORT

## 2020 STREET RECONSTRUCTION PROJECT

CITY OF LAKEVILLE | DAKOTA COUNTY | MINNESOTA

OCTOBER 21, 2019

Prepared for:  
City of Lakeville  
20195 Holyoke Avenue  
Lakeville, MN 55044

CITY OF LAKEVILLE PROJECT NO. 20-02  
WSB PROJECT NO. 13281-000



# FEASIBILITY REPORT

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## 2020 STREET RECONSTRUCTION PROJECT CITY PROJECT NO 20-02

For:

CITY OF LAKEVILLE, MINNESOTA

OCTOBER 21, 2019

Prepared By:



# CERTIFICATION

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I hereby certify that this plan, specification, or report 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.



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Adam Gadbois, PE

Reg. No. 54787

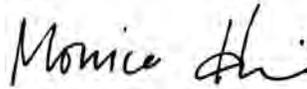
Quality Control Review Completed By:



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Mitch Hatcher, PE

Reg. No. 54444



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Monica Heil, PE

Reg. No. 47497

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## 1. EXECUTIVE SUMMARY

The 2020 Street Reconstruction Project, City Project No. 20-02, was initiated based on the City's Pavement Management Program. Streets proposed for improvements in 2020 include roadways within the following subdivisions totaling approximately 55,992 feet (10.6 miles):

### Orchard Lake Area

Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1<sup>st</sup> Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1<sup>st</sup> Addition; Lyndale Lakes Club 2<sup>nd</sup> Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1<sup>st</sup> Addition; Orchard Lake Estates 2<sup>nd</sup> Addition; Arland Park.

- Klamath Trail (CSAH 5/Kenwood Trail to 168<sup>th</sup> Street West)
- 168<sup>th</sup> Street West (Klamath Trail to Judicial Road)
- Lakeview Court (168<sup>th</sup> Street West to cul-de-sac)
- Lake Hills Court (Lakeview Court to cul-de-sac)
- Langley Avenue (168<sup>th</sup> Street West to Upper 167<sup>th</sup> Street West)
- Upper 167<sup>th</sup> Street West (Langley Avenue to cul-de-sac)
- Judicial Road (168<sup>th</sup> Street West to 175<sup>th</sup> Street West)
- Lions Court (Judicial Road to cul-de-sac)
- 170<sup>th</sup> Street West (Judicial Road to municipal boundary)
- Liberty Beach Court (Judicial Road to cul-de-sac)
- Juneberry Court (Judicial Road to cul-de-sac)
- 175<sup>th</sup> Street West (Judicial Road to Kodiak Avenue)
- Kodiak Avenue (172<sup>nd</sup> Street West to cul-de-sac, 175<sup>th</sup> Street West to 172<sup>nd</sup> Street West)
- Kodiak Court (Kodiak Avenue to cul-de-sac)
- 172<sup>nd</sup> Street West (Kodiak Avenue to Railroad Tracks, approximately 2,700 feet)

### Lake Villa Area

Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1<sup>st</sup> Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2<sup>nd</sup> Addition; Lake Villa Golf Estates 3<sup>rd</sup> Addition; Lake Villa Golf Estates 4<sup>th</sup> Addition; Lake Villa Golf Estates Fifth Addition; Lake Villa Golf Estates 6<sup>th</sup> Addition; Lake Villa Golf Estates 7<sup>th</sup> Addition; Lake Villa Golf Estates 8<sup>th</sup> Addition; Lake Villa Golf Estates 9<sup>th</sup> Addition; Nelson Addition; The Oaks of Lakevilla.

- Layton Path (Judicial Way to 179<sup>th</sup> Trail West)
- Layton Court (Layton Path to cul-de-sac)
- Lake Oak Circle (Layton Path to cul-de-sac)
- Kettering Trail (Layton Path to cul-de-sac)
- 177<sup>th</sup> Street West (Layton Path to Keokuk Avenue)
- Kingsbury Circle (177<sup>th</sup> Street West to cul-de-sac)
- 179<sup>th</sup> Trail West (Layton Path to 179<sup>th</sup> Street West)
- Lake Cove Circle (179<sup>th</sup> Trail West to cul-de-sac)
- Lanesboro Court (179<sup>th</sup> Trail West to cul-de-sac)
- Kestrel Court (179<sup>th</sup> Trail West to cul-de-sac)
- Kettle River Court (179<sup>th</sup> Trail West to cul-de-sac)
- Kingswood Circle (177<sup>th</sup> Street West to cul-de-sac)
- Kingsway Path (177<sup>th</sup> Street West to 179<sup>th</sup> Trail West)
- Keystone Avenue (Kettering Trail to Kingsway Path)
- Keystone Path (Keystone Avenue to 179<sup>th</sup> Trail West)

- Keokuk Avenue (179<sup>th</sup> Trail West to dead end street)
- 179<sup>th</sup> Street West (179<sup>th</sup> Trail West to Kenyon Avenue)
- Kenai Circle (179<sup>th</sup> Street West to cul-de-sac)

### Lake Marion Area

Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.

- Kansas Avenue (205<sup>th</sup> Street West to Kensington Way)
- Kensington Way (Kensington Boulevard to Kensington Boulevard)
- Kensington Court (Kensington Way to cul-de-sac)
- 203<sup>rd</sup> Street West (Kensington Way to dead end street)
- 202<sup>nd</sup> Street West (Kensington Way to cul-de-sac)
- Jupiter Way (205<sup>th</sup> Street West to 205<sup>th</sup> Street West)
- Jupiter Court (Jupiter Way to cul-de-sac)

The project location map is included in *Figure 1 of Appendix A* of this report.

The 2020 Street Reconstruction Project includes roadway reclamation improvements based on pavement ratings, current roadway conditions and utility needs in the area, as well as the overall Capital Improvement Plan budget. Reclamation of the existing bituminous pavement and roadway reconstruction, with subgrade correction as necessary, replacement of structurally deficient or improperly draining concrete curb and gutter and sidewalks, ADA compliant pedestrian ramp installation, and new pavement installation, are recommended for all streets within the project area.

Replacing portions of the City's deteriorating utility infrastructure in conjunction with the proposed street improvements provides an opportunity to minimize the replacement costs and traffic disruptions associated with the work. Proposed utility improvements include the following:

- Installation of corrosion protection for the existing watermain throughout the entirety of the project.
- Repair or replacement of structurally deficient storm sewer manholes and installation of stormwater quality best management practices (BMPs)
- Installation of additional storm sewer drainage structures and storm sewer, including drain tile in areas with poorly draining soils (drain tile services to individual properties will be evaluated in final design).
- Replacement of all structurally deficient storm sewer and sanitary sewer manhole castings, including chimneys that do not meet current City Standards.

Another component of the 2020 Street Reconstruction Project is reconstruction of a segment of 175<sup>th</sup> Street West that has been an on-going maintenance issue for the City. Reconstruction will consist of slope stabilization adjacent to Orchard Lake and installation of a new street section with concrete curb and gutter and storm sewer.

Additionally, the 172<sup>nd</sup> Street West pavement surface from Kodiak Avenue to the Canadian Pacific rail road crossing is proposed to be widened to create paved shoulders that will reduce maintenance efforts and provide a wider clear zone area for the roadway users, including emergency vehicles.

The total estimated project cost for the City of Lakeville's 2020 Street Reconstruction Project is **\$12,388,370.40** which includes a ten percent (10%) contingency and twenty-eight percent (28%) indirect costs for legal, engineering, administrative, and financing costs. The project is proposed to be funded through special assessments to benefitting property owners and City funds.

## **2. INTRODUCTION AND BACKGROUND**

### **2.1. Authorization**

On July 1, 2019, the Lakeville City Council authorized the preparation of an engineering feasibility report for the 2020 Street Reconstruction Project. This project is included in the City's 2020 – 2024 Capital Improvement Plan (CIP) and is designated as City Project No. 20-02.

### **2.2. Scope**

This report investigates the feasibility of proposed street and utility improvements identified by the City's Pavement Management Program (PMP) and CIP for 2020. Streets proposed within the 2020 Street Reconstruction Project were initially considered because of existing pavement conditions. The average Overall Condition Index (OCI) value for streets within the 2020 Street Reconstruction Project area is 37, using an OCI scale of 0 to 100 (with zero representing a failing street section and 100 representing a new street section free of deficiencies). Streets with OCI values less than 35 are considered to be in failing condition. Streets with OCI values of 40 – 60 are considered to be in weakened condition and will deteriorate more quickly based on a typical pavement performance curve.

Improvements outlined within this report include: street reconstruction, slope stabilization, street widening, installation of corrosion protection on watermain facilities, sanitary sewer manhole repairs, storm sewer improvements (including water quality improvements and drain tile installation), stormwater management basin maintenance, and boat launch improvements.

### **2.3. Data Available**

Information and materials used in the preparation of this report include the following:

- City of Lakeville Record Plans
- City of Lakeville Watermain Repair Records
- City of Lakeville Water Resources Management Plan, Barr Engineering, dated June 2008
- Dakota County Topography Maps
- Field Observations of the Area and Discussions with City Staff
- Geotechnical Evaluation Report, Braun Intertec, dated October 4, 2019
- Draft Summary and Recommendations from Best Management Practices Feasibility Study for the City of Lakeville 2019 Road Reconstruction Projects, Draft Technical Memo, Wenck, dated September 11, 2018
- 175<sup>th</sup> Street West Expansion Matrix, WSB, dated June 17, 2019
- 2020 Pond Maintenance Memo, WSB, dated October 8, 2019
- Utility Record Drawings
- City of Lakeville Street Reconstruction Assessment Policy

### **2.4. Project Location**

#### **Orchard Lake Area**

Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1<sup>st</sup> Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park.

- Klamath Trail (CSAH 5/Kenwood Trail to 168<sup>th</sup> Street West)

- 168<sup>th</sup> Street West (Klamath Trail to Judicial Road)
- Lakeview Court (168<sup>th</sup> Street West to cul-de-sac)
- Lake Hills Court (Lakeview Court to cul-de-sac)
- Langley Avenue (168<sup>th</sup> Street West to Upper 167<sup>th</sup> Street West)
- Upper 167<sup>th</sup> Street West (Langley Avenue to cul-de-sac)
- Judicial Road (168<sup>th</sup> Street West to 175<sup>th</sup> Street West)
- Lions Court (Judicial Road to cul-de-sac)
- 170<sup>th</sup> Street West (Judicial Road to municipal boundary)
- Liberty Beach Court (Judicial Road to cul-de-sac)
- Juneberry Court (Judicial Road to cul-de-sac)
- 175<sup>th</sup> Street West (Judicial Road to Kodiak Avenue)
- Kodiak Avenue (172<sup>nd</sup> Street West to cul-de-sac, 175<sup>th</sup> Street West to 172<sup>nd</sup> Street West)
- Kodiak Court (Kodiak Avenue to cul-de-sac)
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- 203<sup>rd</sup> Street West (Kensington Way to dead end street)
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- Jupiter Way (205<sup>th</sup> Street West to 205<sup>th</sup> Street West)
- Jupiter Court (Jupiter Way to cul-de-sac)

### 3. EXISTING CONDITIONS

#### 3.1. Public Roadway Surface

Streets within the proposed improvement area are aging and experiencing differing severities of distress, including alligator, transverse, and longitudinal cracking. The majority of the project area is urbanized, with existing concrete curb and gutter. The curb and gutter is in overall fair condition, with isolated instances of cracking and settlements resulting in localized drainage issues. Portions of the project contain rural roadway sections, without existing concrete curb and gutter, including Klamath Trail and 172<sup>nd</sup> Street West. The majority of 168<sup>th</sup> Street West is urbanized, with bituminous curb.

The majority of streets within the 2020 Street Reconstruction Project Area are designated as residential with the exception of 168<sup>th</sup> Street West, Judicial Road, 175<sup>th</sup> Street West, Kodiak Avenue, 172<sup>nd</sup> Street West, Layton Path, Kingsway Path, 179<sup>th</sup> Trail West, and 179<sup>th</sup> Street West, which are designated as minor collectors. Klamath Trail is designated as a major collector.

Project areas contain landscaping, trees, irrigation systems, and numerous other private improvements beyond the edge of the roadway and within City right-of-way.

The photos below illustrate some of the varying levels of pavement distress:





Concrete sidewalks exist throughout the project area, including along Layton Path, Kingsway Path, 179<sup>th</sup> Trail West, 179<sup>th</sup> Street West, Ketchikan Trail, 178<sup>th</sup> Street West, a segment of 168<sup>th</sup> Street West, Judicial Road, and Klamath Trail. A bituminous trail exists along the south side of Klamath Trail from CSAH 5/Kenwood Trail to 168<sup>th</sup> Street. There is also a bituminous trail along the north side of Klamath Trail from Kings Court to CSAH 5.

The concrete sidewalks and bituminous trails are generally in good condition; however, a majority of the existing pedestrian ramps do not meet the current Americans with Disabilities Act (ADA) design standards, and there are isolated instances where concrete sidewalk panels have heaved, settled, or are otherwise structurally deficient.

#### 175<sup>th</sup> Street West and Orchard Lake

That segment of 175<sup>th</sup> Street West directly adjacent to the southern-most shore of Orchard Lake has been an ongoing maintenance issue for the City of Lakeville. This segment is approximately 500 feet in length and consists of a 20-foot wide rural street section with minimal bituminous curb on the lake side. There are residential properties abutting the south side of this roadway section, some of which have building structures at much higher elevations than the existing street section, resulting in steep slopes adjacent to the existing edge of bituminous pavement. The lake side of the street has experienced sloughing of material due to lake erosion (i.e. wind, waves, ice), and lack of storm sewer infrastructure, which has resulted in pavement material breaking and deteriorating prematurely. Safety improvements are desired for this section of 175<sup>th</sup> Street West due to the narrow street width and the lack of an existing boulevard and guard rail system adjacent to the lake.

#### 172<sup>nd</sup> Street West

172<sup>nd</sup> Street West is a minor collector that currently exists as a rural roadway with two-way traffic, two 11-foot-wide travel lanes, and two 1-foot-wide gravel shoulders which require maintenance. With the 2020 Street Reconstruction Project, 172<sup>nd</sup> Street will be improved

from the Canadian Pacific rail road crossing west to a point approximately 370 feet east of Kirben Avenue. 172<sup>nd</sup> Street West east of the Canadian Pacific rail road crossing was recently reconstructed in conjunction with the Kenyon Avenue/CSAH 5 intersection improvements. That improvement project included the addition of a concrete sidewalk along the south side of 172<sup>nd</sup> Street that terminates approximately 25 feet east of the Canadian Pacific right-of-way.

#### Canadian Pacific Rail Road Crossings

A segment of the Canadian Pacific Rail Road is within the 2020 Street Reconstruction Project area. This segment of rail road is currently not operational. The rail road crosses public streets at 168<sup>th</sup> Street West near the intersection with Klamath Trail and at 172<sup>nd</sup> Street West approximately 560 feet west of Kenyon Avenue.

The crossing on 168<sup>th</sup> Street West includes existing rubber panels between and adjacent to the rails. That portion of the street pavement section meeting these rubber panels has deteriorated and settled. There is also a sidewalk crossing on the south side of 168<sup>th</sup> Street West.

The crossing on 172<sup>nd</sup> Street West has bituminous pavement up to and between the rails. The pavement is deteriorated and settled and results in an uncomfortable crossing for the traveling public.

#### Orchard Lake Park Parking Lot and Boat Launch

Orchard Lake Park is located on the southern shores of Orchard Lake. Vehicle access to the park and boat launch is available from 175<sup>th</sup> Street West. This access is one-way, with ingress obtained from the easterly access point and egress from the westerly access point. The parking lot has storm sewer facilities that are in relatively good condition, except for those near the boat launch which have heaved through the pavement section. The concrete ties within the boat launch ramp have settled, making for a very steep ingress/egress to the lake, and are in need of replacement. Additionally, the concrete sidewalk that leads to the dock has deteriorated and does not provide access that meets ADA requirements.

In addition to infrastructure condition concerns, it has been noted by residents and City Staff that the current layout of the parking lot near the boat launch is difficult and unsafe to maneuver for vehicles with boat trailers. City staff has also indicated that there is insufficient space for equipment when performing maintenance on the sanitary sewer lift station within the park.

Soil borings for streets within the Orchard Lake area of the project were conducted in 2017. Soil borings for the remainder of the project area, in addition to supplemental borings for the Orchard Lake area, were collected in August of 2019. The draft geotechnical report is included in *Appendix D*, and the draft boring logs were used to determine the feasibility of full depth reclamation. Not all streets were bored, so assumptions as to the existing street sections in certain areas were made based on information from other borings in close proximity as well as engineering judgement. The final geotechnical report will be available with final design. Quantities have been included in the Opinion of Probable Cost to account for additional excavation and new aggregate base if the existing section requires it. *Table 1* Below provides a summary of existing street conditions within the 2020 Street Reconstruction Project.

**Table 1 – 2020 Street Reconstruction Project**

Summary of Existing Street Conditions								
Street Name	Right-of-Way	Street Width	Curb Type	Sub-grade	Sub-base (aggregate)	Avg. Bituminous Section	OCI	Approx. Year of Most Recent Construction
Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1st Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park; Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1st Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2nd Addition; Lake Villa Golf Estates 3rd Addition; Lake Villa Golf Estates 4th Addition; Lake Villa Golf Estates Fifth Addition; Lake Villa Golf Estates 6th Addition; Lake Villa Golf Estates 7th Addition; Lake Villa Golf Estates 8th Addition; Lake Villa Golf Estates 9th Addition; Nelson Addition; The Oaks of Lakevilla; Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.								
Upper 167 <sup>th</sup> Street West	60'	30'	Standard Surmountable D412 Curb & Gutter	No boring information available	No boring information available	No boring information available	47	1976
168 <sup>th</sup> Street West	60'	30'	No curb / Bituminous curb	CL, OL, CH	3"-4"	7"-9"	44	1976
Langley Avenue	30'-60'	22'	No curb / Bituminous curb	Boring information pending	Boring information pending	Boring information pending	38	1976
Lakeview Court	60'-66'	30'	Standard Surmountable D412 Curb & Gutter	SC	12"	5"	31	1988
Lake Hills Court	60'	30'	Standard Surmountable D412 Curb & Gutter	No boring information available	No boring information available	No boring information available	14	1988
Klamath Trail	65'-80'	24'	Primarily rural / minimal B681 curb & gutter	SM, SC	6"-8"	6"-9"	60	1976
Lions Court	50'	30'	Standard Surmountable D412 Curb & Gutter	SP, CL	7"	5"	79	1995
Judicial Road	50'-60'	26'-32'	Partial B618 & Partial D412 Curb & Gutter	SP-SM, SM, SC, SP	4"-9"	4"-5.5"	49	1990
Liberty Beach Court	60'	32'	Standard Surmountable D412 Curb & Gutter	No boring information available	No boring information available	No boring information available	49	1994
Juneberry Court	60'	32'	Standard Surmountable D412 Curb & Gutter	No boring information available	No boring information available	No boring information available	39	1991

**Table 1 – 2020 Street Reconstruction Project**

Summary of Existing Street Conditions								
Street Name	Right-of-Way	Street Width	Curb Type	Sub-grade	Sub-base (aggregate)	Avg. Bituminous Section	OCI	Approx. Year of Most Recent Construction
175 <sup>th</sup> Street West	65'-70'	20'-24'	Partial D412 Curb & Gutter, Partial Bituminous curb, partial no curb	SP-SM, SC	5"-6"	4"-7"	0	1982
Kodiak Avenue	60'-80'	30'	Standard Surmountable D412 Curb & Gutter	SC, SP, CL	6"	4"-6"	44	1982
Kodiak Court	60'	30'	Standard Surmountable D412 Curb & Gutter	No boring information available	No boring information available	No boring information available	52	1983
172 <sup>nd</sup> Street West	66'-72'	24'-32'	Partial Rural Section with Partial D412 Curb & Gutter	SP, CL, SM	9"	4"	11	1980-1982
Layton Path	60'	37.5'	Standard Surmountable D412 Curb & Gutter	SC	6"-8"	6"-8"	70	1987
Layton Court	60'	32'	Standard Surmountable D412 Curb & Gutter	SC, CL	6"	6"	71	1987
Lake Oak Circle	60'	32'	Standard Surmountable D412 Curb & Gutter	No boring information available	No boring information available	No boring information available	0	1988
Kettering Trail	60'	32'	Standard Surmountable D412 Curb & Gutter	CL, SP, SC, SP-SM	4"-11"	4"-6"	42	1981
Keystone Avenue	60'	32'	Standard Surmountable D412 Curb & Gutter	SP-SM	6"-10"	3"-4"	19	1980
177 <sup>th</sup> Street West	60'	32'	Standard Surmountable D412 Curb & Gutter	SP-SM, SC, SP,	5"-10"	4"-6"	32	1988
Kingsbury Circle	60'	32'	Standard Surmountable D412 Curb & Gutter	SC, SM	7"	5"	52	1989
Kingswood Circle	60'	32'	Standard Surmountable D412 Curb & Gutter	No boring information available	No boring information available	No boring information available	40	1988
Lake Cove Circle	60'	32'	Standard Surmountable D412 Curb & Gutter	SP-SM	7"	4"	0	1988
Lanesboro Court	60'	32'	Standard Surmountable D412 Curb & Gutter	SP-SM, CL, SC, SM	6"	6"	7	1993

**Table 1 – 2020 Street Reconstruction Project**

Summary of Existing Street Conditions								
Street Name	Right-of-Way	Street Width	Curb Type	Sub-grade	Sub-base (aggregate)	Avg. Bituminous Section	OCI	Approx. Year of Most Recent Construction
179 <sup>th</sup> Trail West	60'-80'	32'-46'	Standard Surmountable D412 Curb & Gutter	SP-SM, SP, SC, CL	7"-9"	4"-6"	26	1992-1993
179 <sup>th</sup> Street West	100'	41'	Standard Surmountable D412 Curb & Gutter	SP, CL	5"	4"	54	1997
Kestrel Court	60'	32'	Standard Surmountable D412 Curb & Gutter	No boring information available	No boring information available	No boring information available	40	1992
Kettle River Court	60'	32'	Standard Surmountable D412 Curb & Gutter	SP-SM	10"	4"	36	1992
Kingsway Path	65'	40'	Standard Surmountable D412 Curb & Gutter	SM, SC	6"-8"	4"-5"	35	1991
Keystone Path	60'	30'	Standard Surmountable D412 Curb & Gutter	SP, SM	6"	4"	0	1992
Keokuk Avenue	90'	48'	Standard Surmountable D412 Curb & Gutter	SC, SM	6"-11"	4"-5"	36	1981
Kenai Circle	60'	32'	Standard Surmountable D412 Curb & Gutter	No boring information available	No boring information available	No boring information available	76	2001
Kensington Way	60'	32'	Standard Surmountable D412 Curb & Gutter	SP-SM, SP, CL	7"-8"	4"-5"	29	1993
203 <sup>rd</sup> Street West	60'	32'	Standard Surmountable D412 Curb & Gutter	SP-SM,	7"	5"	19	1993
202 <sup>nd</sup> Street West	60'	32'	Standard Surmountable D412 Curb & Gutter	SP-SM	7"	4"	36	1995
Kensington Court	60'	32'	Standard Surmountable D412 Curb & Gutter	SP-SM	7"	5"	18	1993
Kansas Avenue	60'	32'	Design B618 Curb & Gutter	No boring information available	No boring information available	No boring information available	51	1993
Jupiter Way	60'	32'	Standard Surmountable D412 Curb & Gutter	SP-SM, CL, SP	6"-8"	4"-5"	64	1992
Jupiter Court	60'	32'	Standard Surmountable D412 Curb & Gutter	SP, SC	No boring information available	No boring information available	35	1992

### 3.2. Public Storm Sewer

City record drawing information indicates that public storm sewer facilities exist within the 2020 Street Reconstruction Project area. Stormwater runoff from the 2020 project area is tributary to Kingsley Lake, Orchard Lake, and Lake Marion. A majority of the sub watersheds within the 2020 project contain stormwater basins and wetlands that serve as intermediate storage areas for stormwater runoff.

All runoff is discharged into either the Orchard Lake or Lake Marion Stormwater Districts

- The Orchard Lake Stormwater District is managed by the Black Dog Watershed Management Organization (BDWMO). Drainage from the Orchard Lake District flows to the Minnesota River via the Credit River in the Township of Credit River and the City of Savage.
- The Lake Marion Stormwater District is managed by the Vermillion River Watershed Joint Powers Organization. Drainage from Lake Marion outlets into a channel which joins South Creek before leaving the City to the south.

The majority of the storm sewer facilities within the 2020 Street Reconstruction Project provide the necessary collection and conveyance capacity. There are segments of streets around Orchard Lake that have minimal storm sewer facilities, particularly along 175<sup>th</sup> Street West, where surface drainage currently sheet drains directly into Orchard Lake.

At the June 27, 2019 Neighborhood Meeting, residents approached City staff with concerns regarding localized drainage issues within the Project. City Public Works staff also provided input based on historical issues and maintenance.

Localized drainage issues were identified in the following areas:

- Kingsway Path at 179<sup>th</sup> Trail West: resident concern with storm water backing up at the southeast quadrant of the intersection
- 12290 175<sup>th</sup> Street West: resident concern with street flooding at stormwater pond
- 17618 Kettering Trail: resident concern with stormwater pond draw-down rate
- Kodiak Avenue at 175<sup>th</sup> Street West: resident concern with storm water pooling at the intersection

### 3.3. Public Watermain

All of the existing watermain located within the 2020 Street Reconstruction Project is ductile iron pipe (DIP). The diameter of watermain pipe varies throughout the project area. Below is a list of watermain pipe size by street:

#### 6-inch Watermain

- Upper 167<sup>th</sup> Street W
- Langley Avenue
- 168<sup>th</sup> Street W
- Kenai Circle
- Kingsbury Circle
- Judicial Road
- Juneberry Court
- Jupiter Circle
- Jupiter Road
- Kensington Court
- Ketchikan Court
- Kestrel Court
- Kettle River Court
- Keystone Avenue
- Keystone Path
- Kingsway Path
- Lake Oak Circle
- Kingswood Circle
- Kodiak Circle
- Lanesboro Court

- Layton Court
- Lake Cove Circle
- Liberty Beach Circle

8-inch Watermain

- 172<sup>nd</sup> Street W
- Kodiak Avenue
- 176<sup>th</sup> Street W
- 177<sup>th</sup> Street W
- 178<sup>th</sup> Street W
- 179<sup>th</sup> Trail W
- Lake Cove Circle
- 202<sup>nd</sup> Street W
- 203<sup>rd</sup> Street W
- Kensington Way
- Ketchikan Trail
- Kettering Trail
- Layton Path
- Kodiak Avenue
- Lake Hills Court
- Lakeview Court
- Lions Court

12-inch Watermain

- 168<sup>th</sup> Street W
- 175<sup>th</sup> Street W
- 179<sup>th</sup> Street W
- Judicial Road
- Kansas Avenue
- Klamath Trail
- Layton Path

16-inch Watermain

- 172<sup>nd</sup> Street W
- 179<sup>th</sup> Trail W
- Keokuk Avenue
- Kingsway Path

City maintenance records indicate a sporadic and limited watermain break history throughout the 2020 Street Reconstruction Project area that have required typical maintenance efforts.

**3.4. Public Sanitary Sewer**

A majority of the existing sanitary sewer located within the 2020 Street Reconstruction Project consists of 8-inch polyvinylchloride pipe (PVC). The following roadways have been identified as having sanitary sewer pipe diameters or pipe material other than 8-inch PVC

10-inch PVC

- Layton Path

12-inch PVC

- 168<sup>th</sup> Street W
- 176<sup>th</sup> Street W
- Ketchikan Trail

15-inch PVC

- 178<sup>th</sup> Street W
- Keokuk Avenue
- Ketchikan Trail

18-inch PVC

- Ketchikan Trail

8-inch vitrified clay pipe (VCP)

- Klamath Trail

10-inch ductile iron pipe (DIP)

- Layton Path

4-inch ductile iron pipe (DIP) forcemain

- Kodiak Avenue

6-inch ductile iron pipe (DIP) forcemain

- Judicial Road

10-inch ductile iron pipe (DIP) forcemain

- Klamath Trail

The City's Public Works Department televised the sanitary sewer and inspected all sanitary sewer manholes. Nearly all sanitary sewer manholes were identified to be in good condition; however, some castings require replacement. The inspection also revealed that one sanitary service located on 179<sup>th</sup> Trail West is in need of replacement. All adjustment rings require replacement and installation of inflow and infiltration barriers.

### **3.5. Wetlands**

There are a number of wetlands within the 2020 Street Reconstruction Project. A wetland delineation was completed in August 2019 for the areas of the project along 175<sup>th</sup> Street, 172<sup>nd</sup> Street West, and Orchard Lake Park Parking Lot and Boat Launch. The wetland delineation identified six wetlands. Four of these wetlands are located along 172<sup>nd</sup> Street West, one wetland is located at the Orchard Lake Park Parking Lot and Boat Launch, and one wetland is located on 175<sup>th</sup> Street West near PID 221500003104. No wetlands were identified along Orchard Lake at the location of the slope stabilization and safety improvement corridor.

## **4. PROPOSED IMPROVEMENTS**

### **4.1. Public Roadway Surface**

Surface improvements recommended with the 2020 Street Reconstruction Project are intended to extend the life of the existing roadway systems, improve isolated drainage issues and improve the ride quality of the roadways.

Surface improvements include the reclamation of all roadways. Reclamation is the process by which the existing roadway surface is pulverized and mixed with the existing aggregate base below and reused as aggregate roadway base for the new street section. Street grades will closely match the existing grades so as to minimize construction impacts to adjacent properties. Minor adjustments to select roadway vertical profiles are proposed to improve drainage conditions. A significant portion of the existing curb and gutter within the Project is in structurally adequate condition, so only spot curb and gutter replacement is proposed as a part of the Project.

The local residential streets within the project area will be reclaimed and reconstructed in accordance with City's local roadway design standards and are proposed to consist of the following section: 1 ½ inches of bituminous wearing course, 2 inches of bituminous base course, and 6 inches of reclaimed aggregate base over 12 inches of an acceptable, compacted subgrade. *Appendix A* illustrates the proposed residential roadway section. Minor collector streets within the project area are also proposed to consist of this street section due to the low amount of vehicle traffic.

The major collector streets within the project area will be reclaimed and reconstructed in accordance with the City's major collector roadway design standards and are proposed to consist of the following section: 2 inches of bituminous wearing course, 2 inches of bituminous base course, and 6 inches of reclaimed aggregate base over 12 inches of an acceptable, compacted subgrade. *Appendix A* illustrates the proposed collector roadway section.

#### 175<sup>th</sup> Street West and Orchard Lake

In order to improve safety to the traveling public and the longevity of the City's infrastructure, improvements are proposed for the segment of 175<sup>th</sup> Street West that is directly adjacent to the southern-most shore of Orchard Lake. This portion of 175<sup>th</sup> Street has been an on-going

maintenance issue for the City, as the roadway currently sheet drains from south to north across the roadway and down the roadway embankment directly into Orchard Lake. Wave and ice action, stormwater runoff from the roadway and poor soils in the area have resulted in the roadway and roadway embankment sloughing off into Orchard Lake. A temporary roadway patch was installed in 2016 with plans to more permanently stabilize the roadway embankment with this street reconstruction project.

On June 17, 2019, a design memo entitled “175<sup>th</sup> Street West; Expansion Matrix”, was presented to the City. This memo evaluated three potential options for improvements to the corridor:

- Option 1: 20' wide urban roadway with 4' clear zone along north (lake) side for pedestrian refuge. Permanent sheet piling with concrete barrier, soldier pile wall on south side.
- Option 2A: 20' wide urban roadway with no pedestrian refuge. Permanent sheet piling and concrete barrier. Grading on south side.
- Option 2B: 20' wide urban roadway with slope stabilization including riprap and TRM, and guardrail. Boulder walls on south side

The memo concluded that Option 2B is the preferred option based on factors such as overall construction cost, impacts to Orchard Lake and impacts to the residential properties along the south side of the roadway.

The proposed street typical section is included in *Appendix A*. The street is proposed to consist of the following section: 1.5 inches of bituminous wearing course, 2 inches of bituminous base course, 6 inches of reclaimed aggregate base, 12 inches select granular material, geotextile fabric, over 12 inches of an acceptable, compacted subgrade. D412 concrete curb and gutter is proposed on both sides of the street to allow vehicles more room to move over if a wide vehicle is travelling in the opposite direction.

### 172<sup>nd</sup> Street West

172nd Street West is proposed to be widened from a 24-foot wide rural section to a 30-foot wide rural section. The proposed typical section is shown in *Appendix A* and will include a 2-foot wide paved shoulder on the north side of the roadway, two 11-wide travel lanes, and a 6-foot wide paved shoulder on the south side of the roadway. This typical section is proposed in order to reduce the effort spent maintaining the existing gravel shoulder and also provide a wider clear zone for roadway users and emergency vehicles. The widening is not intended to create on-street pedestrian or bicycle facilities. In the future when the adjacent properties develop, an off-street pedestrian facility will be constructed.

Widening of the street will require common excavation and street section construction along the areas outside of the existing pavement footprint. The proposed street section in this area will consist of 1.5 inches of bituminous wearing course, 2 inches of bituminous base course, and 6 inches of reclaimed aggregate base over 12 inches of an acceptable, compacted subgrade.

### Canadian Pacific Rail Road Crossings

Two rail road crossings exist within the 2020 Street Reconstruction Project area; along 172<sup>nd</sup> Street west of Kenyon Avenue and along 168<sup>th</sup> Street at the intersection with Klamath Trail. Both crossings were evaluated with Canadian Pacific representatives, and the 172<sup>nd</sup> Street crossing is proposed to be replaced with concrete panels to meet both current Canadian Pacific Rail Road standards and to improve the comfort and safety for vehicles crossing the tracks. The design and product requirements will be dictated by the Canadian Pacific Rail Road as the crossing is located within their right of way and the crossing falls under their jurisdiction. The precast concrete panels will need to extend the full width of the proposed street section at the crossing on 172<sup>nd</sup> Street West.

It is not proposed to install new concrete panels at the crossing on 168<sup>th</sup> Street West because the crossing can be significantly improved in a cost-effective manner by installing new bituminous pavement up to the existing rubber panels.

No improvements are proposed to be made to the rail road crossing arms at either crossing since they are not impacted by the proposed improvements and the line is not in operation.

### Orchard Lake Park Parking Lot and Boat Launch

The proximity of Orchard Lake Park to the 2020 Street Reconstruction Project area provides a timely opportunity to make desired improvements to the layout, functionality, and storm sewer utilities within the Orchard Lake Park Boat Launch area.

To improve the safety of the public utilizing the boat launch, it is proposed that the parking lot layout be modified in a manner that provides a wider and more direct lane access for drivers to back-in their boat trailers. Proposed improvements will include removing an area that is currently occupied by green space and converting it to a paved surface. A portion of the Park's westerly driveway is also proposed to be widened to allow for City maintenance equipment to park alongside the sanitary sewer lift station during maintenance activity and still allow for public through-traffic.

The existing concrete ties that comprise the boat launch ramp will be replaced with new precast concrete ties. Additionally, concrete sidewalk and a pedestrian ramp will be installed from the parking lot to the dock to allow for safe pedestrian access.

Minor storm sewer utility improvements are proposed, including reconstruction of two catch basin inlets which have heaved through the existing pavement surface and as a result, do not allow for proper drainage within the parking lot. It is also proposed that storm sewer be added to the parking lot's westerly driveway to collect drainage from 175<sup>th</sup> Street West and direct it towards the existing water quality structure within the park that was installed in 2004.

As part of the 2020 Street Reconstruction Project, all existing pedestrian curb ramps within the project area that do not meet current ADA accessibility design standards will be reconstructed. Additionally, spot replacement of structurally deficient concrete sidewalk and bituminous pathways is proposed.

## **4.2. Public Storm Sewer**

Reconstruction of the streets provides a timely opportunity to improve drainage conditions and increase the longevity of the streets within the project area by repairing existing and installing additional storm sewer facilities. City staff completed an inspection of the storm sewer system this summer and provided recommendations for repairs and replacement including castings, adjustment rings, and structure replacement, as well as replacement of failing or deteriorating

reinforced concrete pipe (RCP). Structures identified as needing rehabilitation will undergo necessary interior concrete/grout replacement.

It is the City's practice to have storm sewer castings meeting current City Standards installed on all catch basins within the project area, and therefore, structure top slabs or entire structures will be replaced to accommodate the transition. Potential drainage improvements to be evaluated with final design of the project include: supplementing existing storm sewer facilities with additional catch basins throughout the project area, drain tile installation at low points and in areas with poorly draining soils, and replacement of damaged or deteriorated sewer pipes and structures.

### Water Quality Improvements

The following existing outfall locations offer an opportunity to decrease pollutant loadings to downstream water bodies via a water quality device. These locations have been prioritized based on the highest removal efficiency scenarios:

- Klamath Trail southeast of 168<sup>th</sup> Street West, prior to discharge into Orchard Lake
- 175<sup>th</sup> Street West on the south side of Orchard Lake, prior to discharge into Orchard Lake
- North of Kensington Way prior to discharging to into Pond 2125-NE001, which ultimately discharges into Lake Marion
- Within Orchard Lake Park, an existing Stormceptor structure beneath the parking lot area. New storm sewer will be added with the reconstruction of 175<sup>th</sup> Street West to direct additional drainage to the treatment structure. An evaluation of the existing treatment structure during the final design process will determine if the existing Stormceptor structure can properly treat the additional drainage area proposed to be added to this storm sewer system or if a new structure would be needed.

All of these locations will be further evaluated with final design to determine if BMPs can be employed in these locations in accordance with the maintenance and water quality goals of the City. As such, costs associated with the aforementioned water quality improvements were not included in the project's feasibility report. The availability of land, treatment efficiency and cost to construct any such improvements will all be evaluated when considering the improvements.

In addition to water quality structure implementation, it is proposed that some existing outlet locations which have accumulated excess sediment build up (deltas) be excavated and cleaned out. City Staff has inspected and identified which outlet locations require delta excavation and removal.

### Basin Maintenance

Reconstruction of the streets within the 2020 Project area provides an opportunity to perform maintenance on adjacent stormwater basins. Over time, stormwater basins become laden with nutrients and sediment deposited by stormwater flows. Routine basin maintenance, in the form of sediment removal, is necessary to keep the basin functioning at the level for which it was originally designed.

The following existing stormwater basins have been surveyed and two sediment samples from each basin were collected and analyzed to determine the appropriate method for sediment disposal consistent with Minnesota Pollution Control Agency guidelines. The location map of the stormwater basins to be evaluated is provided in the *Appendix F*. A recommendation memo was provided to the City regarding maintenance needs based on funding availability.

- Pond 2102-SW001: South of Judicial Road adjacent to Orchard Lake. Located on private property address 16860 Judicial Road within a drainage and utility easement.

- Pond 2102-SW002: South of Judicial Road adjacent to Orchard Lake. Located on private property address 16890 Judicial Road within a drainage and utility easement.
- Pond 2102-SW003: South of Judicial Road adjacent to Orchard Lake. Located on private property address 16910 Judicial Road within a drainage and utility easement.
- Pond 2111-SW001: North of Layton Path between Landmark Court and Lancaster Court.
- Pond 2125-NE001: North of Kensington Way adjacent to Orchard Lake.
- Pond 2125-NE003: Adjacent to 205<sup>th</sup> Street West east of Kensington Boulevard and south of Kensington Way.

The final extent of stormwater treatment basin maintenance will be evaluated in final design. The opinion of probable cost located in *Appendix B* includes estimated costs associated with basin maintenance based on past projects of similar size and assumes contaminated soils will be encountered based on testing results, also included in the *Appendix F*.

#### **4.3. Public Watermain**

The geotechnical investigation performed by Braun Intertec included a collection of soil samples from the 2020 Street Reconstruction Project area that measured the corrosivity of the soil. The results of the corrosivity testing indicate that the project area contains corrosive soils that impact ductile iron watermain pipe.

It is proposed that in conjunction with the street improvements within the project, the service life of the existing watermain system be extended by installing corrosion protection. Corrosion protection will directly connect the iron watermain pipe to a more easily corrodible material, or “sacrificial anode”, which corrodes first instead of the iron watermain thus reducing the potential for watermain breaks for buried iron pipes. This effort will extend the service life of the existing watermain without replacing the entire watermain system. Corrosion protection has been shown to extend the service life of the watermain at a lower cost than pipe repairs or main replacements.

In addition to the installation of corrosion protection along the watermain within the 2020 Street Reconstruction Project area, all bolts at existing hydrants and watermain valves will be replaced with stainless steel bolts, which are more resistant to the corrosive nature of the underlying soils.

It is proposed to extend the 8” DIP watermain stub on Kirben Avenue beyond the limits of the proposed concrete curb and gutter returns and new bituminous pavement on Kirben Avenue. This will provide an opportunity for watermain to be extended further along Kirben Avenue in the future without impacting the surface improvements.

The City’s maintenance records show dispersed and limited watermain breaks and maintenance issues and therefore no watermain replacement is proposed with the 2020 Street Reconstruction Project.

#### **4.4. Public Sanitary Sewer**

The City’s Public Works Department has televised the sanitary sewer system. The sanitary sewer video inspection revealed that the existing sewer pipe is in relatively good condition and will not require full replacement. However, there will be minor improvements made to the existing system, including the replacement of one sanitary sewer service line within the public right-of-way along 179<sup>th</sup> Street West, and replacement of one sanitary sewer service wye along 172<sup>nd</sup> Street West.

Sanitary sewer manholes within the project area identified as needing new rings and/or castings will be repaired as a part of this project. Additionally, all sanitary sewer manholes within the street reconstruction area will receive external chimney seals as a part of the project to reduce the potential for inflow and infiltration issues and reduce the frequency of maintenance repairs.

It is proposed to replace the existing 4" DIP sanitary sewer stub on Kirben Avenue with 8" PVC sanitary sewer as a part of the 2020 Street Reconstruction Project. The new 8" PVC pipe will extend beyond the limits of the proposed concrete curb and gutter returns and new bituminous pavement on Kirben Avenue. This will provide an opportunity for sanitary sewer to be extended further along Kirben Avenue in the future without impacting the surface improvements.

#### **4.5. Wetlands**

Given the proximity of wetlands to the planned improvements, impacts to wetlands are likely to occur along 172<sup>nd</sup> Street West and at the Orchard Lake Park Parking Lot and Boat Launch. Impacts to wetlands are likely to include the placement of fill in the wetlands and will require mitigation consistent with WCA requirements.

#### **4.6. Public Street Sign Replacement**

All existing street signs within the project will be replaced with new street signs that meet the Federal Highway Administration's (FHWA) requirements for retro-reflectivity.

#### **4.7. Mailbox Replacement**

It is the City's intent to salvage and reinstall all existing mailboxes and mailbox supports that may be impacted with construction. In the event the condition of the existing mailbox support warrants replacement prior to reinstallation, the City is proposing to salvage the existing mailbox and install a new mailbox support that will meet both City Standards and United States Postal Service (USPS) requirements.

#### **4.8. Permits/Approvals**

An NPDES permit for construction activity will be required since more than one (1) acre will be disturbed by construction activities with the project.

A Dakota County Work in Right-of-Way user registration will be required for the contractor for any county roads (i.e. CSAH 5/Kenwood Trail) that may be used as a haul route for the project. Work in Right-of-Way permits will also be required for construction within Dakota County Right-of-Way.

A Work in Right-of-Way permit will be required for work within the Canadian Pacific Railway right-of-way for the work proposed at the 168<sup>th</sup> Street West and 172<sup>nd</sup> Street West crossings.

A Transportation Regional General Permit from the US Army Corps of Engineers and a Wetland Conservation Act permit from the City of Lakeville will be required for the proposed work that will impact wetlands and Waters of the US below the ordinary high-water level. Mitigation for wetland impacts is expected to be required. Mitigation will likely be completed through the purchase of wetland credits. The project may be eligible for the local road replacement program in which case wetland credits will be provided by the state instead of the City purchasing credits.

A DNR Work in Public Waters Permit will be required for the proposed work that will occur below the ordinary high-water level of any DNR waters including Orchard Lake. Based on communication with the DNR, no mitigation for impacts to Orchard Lake will be required if the project follows the DNR's design recommendations.

#### **4.9. Construction Access/Staging**

The contractor will be responsible for providing access to all properties throughout the project. Adequately signed detours will be identified to direct traffic around the construction zones and notify users of the increased truck and construction activity.

Construction will be phased such that construction truck traffic will not need to access newly reconstructed streets to complete the project. Detailed construction phasing plans will be developed with final design of the project.

Improvements on 175<sup>th</sup> Street will require closure to all through traffic along that portion of the roadway directly adjacent to Orchard Lake for the duration of the slope stabilization efforts and retaining wall construction.

**4.10. Public Involvement**

A public informational meeting was held for the project to discuss the proposed improvements. The neighborhood meeting was conducted on June 27, 2019 for all property owners within the proposed project area, and included information regarding the proposed improvements, funding, schedule, and impacts associated with the project. The meeting was intended to update the property owners on the status of the project and to solicit comments from property owners regarding combining the pavement reconstruction with efforts to extend the service life of the existing utilities, using corrosion protection. Comment cards were made available to attendees at the meetings. Summaries of the correspondence received, and questions and answers provided at the informational meetings are included in *Appendix E*.

**5. FINANCING**

**5.1. Opinion of Probable Cost**

A detailed opinion of probable cost for the project area can be found in *Appendix B* of this report. The opinion of cost incorporates estimated 2020 construction costs and includes a ten percent (10%) contingency factor. Indirect costs are projected at twenty-eight percent (28%) of the construction cost and include engineering, legal, financing, and administrative costs.

*Table 2* below provides a summary of the opinion of probable cost for the 2020 Street Reconstruction Project:

<b>Table 2 – 2020 Street Reconstruction Project</b>		
<b>Opinion of Probable Cost Summary</b>		
<b>Area</b>	<b>Schedule</b>	<b>Amount</b>
Orchard Lake Area	Surface Improvements – Residential	\$ 3,085,174.23
	Surface Improvements – Collector	\$ 481,831.14
	Watermain Improvements	\$ 447,506.40
	Sanitary Sewer Improvements	\$ 127,650.00
	Storm Sewer Improvements – Residential	\$ 235,168.56
	Storm Sewer Improvements – Collector	\$ 5,782.20
	175 <sup>th</sup> Street West Improvements	\$ 533,905.44
	Orchard Lake Park Improvements	\$ 132,446.88
Lake Villa Area	Surface Improvements	\$ 3,685,279.65
	Watermain Improvements	\$ 525,904.20
	Sanitary Sewer Improvements	\$ 133,818.60
	Storm Sewer Improvements	\$ 906,464.04

Lake Marion Area	Surface Improvements	\$ 1,292,374.14
	Watermain Improvements	\$ 210,974.40
	Sanitary Sewer Improvements	\$ 56,828.40
	Storm Sewer Improvements	\$ 182,173.80
Multiple	Basin Maintenance	\$ 345,088.32
<b>TOTAL</b>		<b>\$ 12,388,370.40</b>

## 5.2. Funding

Financing for the street and storm sewer improvements within the 2020 Street Reconstruction Project will come from City Funds and Special Assessments. Street section (excluding pavement section), safety, and slope stabilization improvements for 175<sup>th</sup> Street West is proposed to be financed by City Funds only.

The watermain repairs are proposed to be financed by the City's Water Operating Fund. The sanitary sewer repairs are proposed to be financed by the City's Sanitary Sewer Operating Fund. Stormwater basin maintenance work will be financed by the City's Environmental Resources Fund. BMPs are proposed to be financed by the City's Storm Sewer Infrastructure Fund. The improvements at Orchard Lake Park Parking Lot and Boat Launch are proposed to be financed by the City's Park Improvement Fund and Sanitary Sewer Operating Fund.

Special Assessments to benefitting properties are proposed to fund forty percent (40%) of the roadway surface and storm sewer improvements identified to be reconstructed with the project, with the remaining sixty percent (60%) funded using City Funds. Assessments for this project were calculated on a per parcel (unit) basis as identified in the City's Assessment Policy. Residential Equivalent Units (REU) have been assigned to parcels that are used or zoned as anything other than residential as indicated in the City of Lakeville Zoning Map. A memo summarizing assigned REU justifications is included in *Appendix C*.

Assessments for those properties along Klamath Trail that are classified under the Single Family Unit Assessment Rate (Collector) shown below, were prorated based on assessable front footage of benefitting properties. Total Assessable front footage along Klamath Trail is 21.41% of the total front footage. Costs have been prorated as shown in the table below:

Table 3 – Special Assessments for Orchard Lake Area Collector					
Street	Estimated Surface and Storm Sewer Improvement Costs	Prorated for Assessable Frontage (21.41%)	Assessable Costs (40%)	Residential Equivalent Units	Estimated Unit Assessment Rate for Street Improvements
Klamath Trail	\$487,613.34	\$104,376.20	\$41,750.48	12	\$3,479.21

The project costs associated with the improvements to Keokuk Avenue and 179<sup>th</sup> Street West, which are designated as major collectors, were prorated to reflect a standard 40-foot minor collector street section per the City's Assessment Policy. Residential unit assessment amount for residential properties located in the Lake Villa Area will be assessed based on a prorated project cost as shown in Table 4. Prorating the special assessments as such will increase the City's share of the total project costs.

<b>Table 4 – Special Assessments for Lake Villa Residential Properties</b>					
<b>Area</b>	<b>Estimated Street and Surface Improvement Costs</b>	<b>Prorated for Assessable Pavement Width (96.40%)</b>	<b>Assessable Costs (40%)</b>	<b>Residential Equivalent Units</b>	<b>Estimated Assessment Amount per Single Family Unit</b>
Lake Villa	\$4,591,743.69	\$4,426,621.93	\$1,770,648.77	286	\$6,191.08

The funding level anticipated through the levy of Special Assessments to benefitting property owners for street and storm improvements is **\$3,730,355.54** with the following proposed assessments:

- A. Single Family Unit Assessment Rate (Collector, Klamath Trail) ..... **\$3,479.21** per unit
- B. Single Family Unit Assessment Rate (Res., Orchard Area)..... **\$5,398.93** per unit
- C. Single Family Unit Assessment Rate (Res., Lake Villa Area) ..... **\$6,191.08** per unit
- D. Single Family Unit Assessment Rate (Res., Lake Marion Area)..... **\$3,709.55** per unit

The proposed assessment roll is included in *Appendix C* of this report, along with Assessment Maps highlighting the benefitting properties and the assessment calculations for benefitting property owners.

<b>Table 5 – 2020 Street Reconstruction Project</b>	
<b>Funding Summary</b>	
<b>Funding Source</b>	<b>Amount</b>
Street and Storm Sewer Assessments (approximately 40%)	\$ 3,730,355.54
City CIP Funds – Street	\$ 5,865,187.92
City CIP Funds – Storm Sewer	\$812,609.74
City Sanitary Sewer Operating Fund	\$ 318,297.00
City Water Operating Fund	\$ 1,184,385.00
City Park Fund	\$ 132,446.88
City Environmental Resources Fund (Basin Maintenance)	\$ 345,088.32
<b>TOTAL</b>	<b>\$ 12,388,370.40</b>

**6. PROJECT SCHEDULE**

The proposed project schedule for the 2020 Street Reconstruction Project is as follows:

Neighborhood Meeting No. 1 .....	June 27, 2019
Accept Feasibility Report / Set Improvement Hearing .....	October 21, 2019
Public Hearing .....	November 18, 2019
Open Bids / Compute Assessments .....	February 21, 2020
Declare Costs / Set Assessment Hearing... ..	March 16, 2019
Assessment Hearing and Award Construction Contract.....	April 6, 2020
Begin Construction.....	April / May 2020
Substantial Completion.....	October 2020
Final Completion.....	November 2020

\* Schedule assumes any necessary private utility work is completed prior to the start of construction.

## 7. FEASIBILITY AND RECOMMENDATION

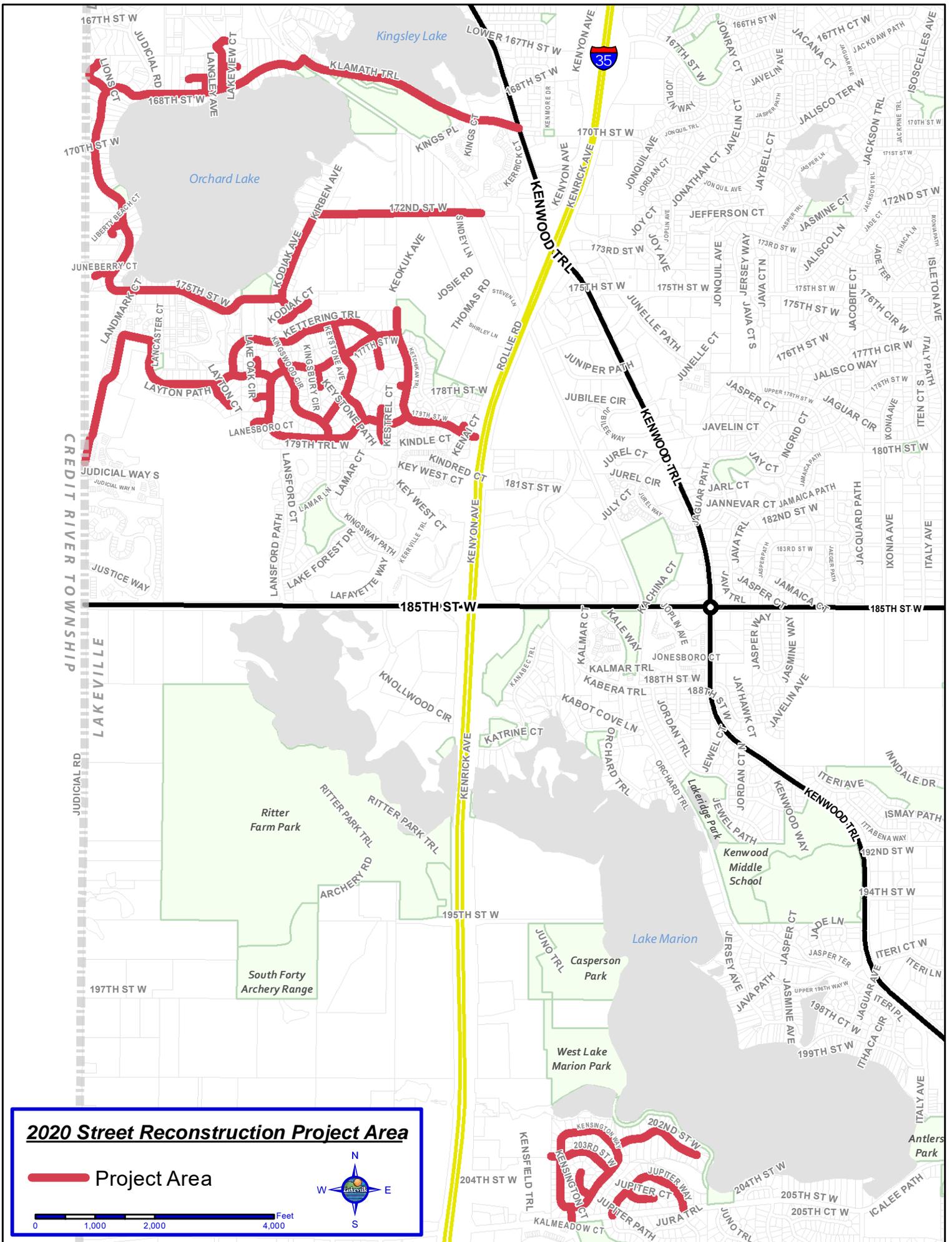
The 2020 Street Reconstruction Project includes roadway reclamation, slope stabilization, watermain improvements, sanitary sewer improvements, storm sewer and water quality improvements, pedestrian ramp installation, and spot repair and replacement of structurally deficient sidewalk and curb and gutter.

The total estimated cost for the 2020 Street Reconstruction Project including roadway, storm sewer, sanitary sewer, and watermain improvements is **\$12,388,370.40**. Proposed funding for the project is provided through a combination of Special Assessments and City Funds. Construction costs are based on anticipated construction costs for 2020.

This project is feasible, necessary, and cost-effective from an engineering standpoint. The project feasibility is subject to financial review by the City. Based on the information contained in this report, it is recommended to proceed with the improvements as outlined in this report.

## **APPENDIX A**

Location Map  
Local Street Typical Section – Collector  
Local Street Typical Section – Residential  
175<sup>th</sup> Street West Typical Section  
172<sup>nd</sup> Street West Typical Section



167TH ST W

JUDICIAL RD

168TH ST W

170TH ST W

175TH ST W

172ND ST W

177TH ST W

178TH ST W

179TH ST W

181ST ST W

185TH ST W

195TH ST W

197TH ST W

204TH ST W

205TH ST W

205TH CT W

202ND ST W

203RD ST W

204TH ST W

Kingsley Lake

Orchard Lake

Ritter Farm Park

South Forty Archery Range

Lake Marion

Casperson Park

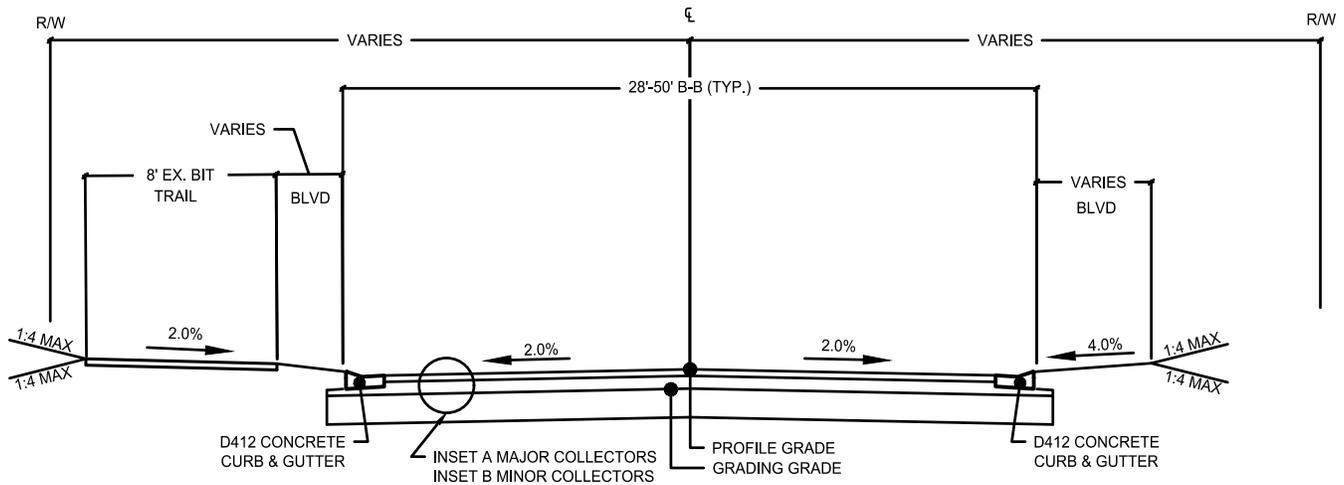
West Lake Marion Park

Kenwood Middle School

Antlers Park



KENWOOD TRL

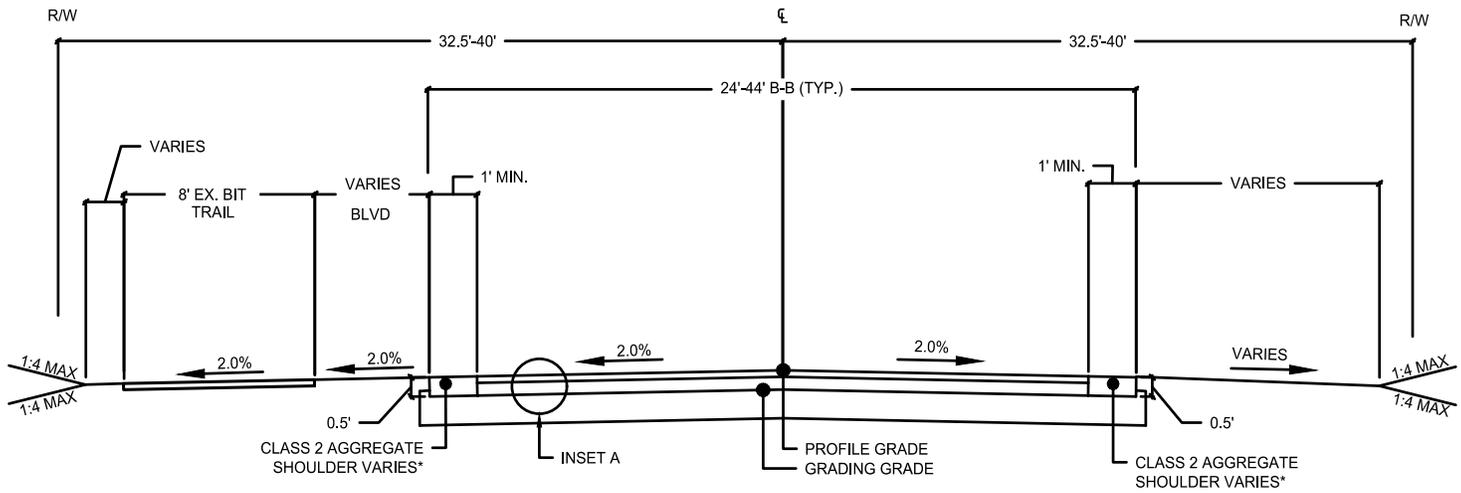


**URBAN COLLECTOR STREET**

LAYTON PATH 177TH STREET W FROM LAYTON PATH TO KINGSWAY PATH, KINGSWAY PATH FROM 177TH STREET W TO 179TH TRAIL W, 179TH TRAIL W FROM KINGSWAY PATH TO 179TH STREET W, 179TH STREET W<sup>(2)</sup> FROM 179TH TRAIL W TO KENYON AVENUE, KEOKUK AVENUE<sup>(2)</sup> FROM END TO 179TH STREET W, 168TH STREET W<sup>(1)</sup>, JUDICIAL AVENUE, 175TH STREET W<sup>(1)</sup>.

- (1) SEGMENTS OF THESE STREETS HAVE BITUMINOUS CURB
- (2) MAJOR COLLECTORS, ALL OTHERS LISTED ARE MINOR COLLECTORS

(N.T.S.)

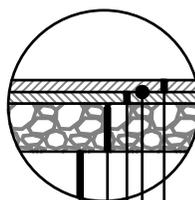


**RURAL COLLECTOR STREET**

KLAMATH TRAIL FROM 168TH STREET TO KINGS COURT

\* B618 CONCRETE CURB & GUTTER FROM KINGS COURTH TO KENWOOD TRAIL (CSAH 5)

(N.T.S.)



**INSET A**

COLLECTOR STREET SECTION

- 2" TYPE SP 12.5 WEAR COURSE MIX (3,C) (SPWEB340C)
- 2357 BITUMINOUS TACK COAT
- 2" TYPE SP 12.5 NON-WEAR COURSE MIX (3,C) (SPNWB330C)
- MINIMUM 6" RECLAIMED AGGREGATE BASE
- 12" APPROVED SUBGRADE (INCIDENTAL)

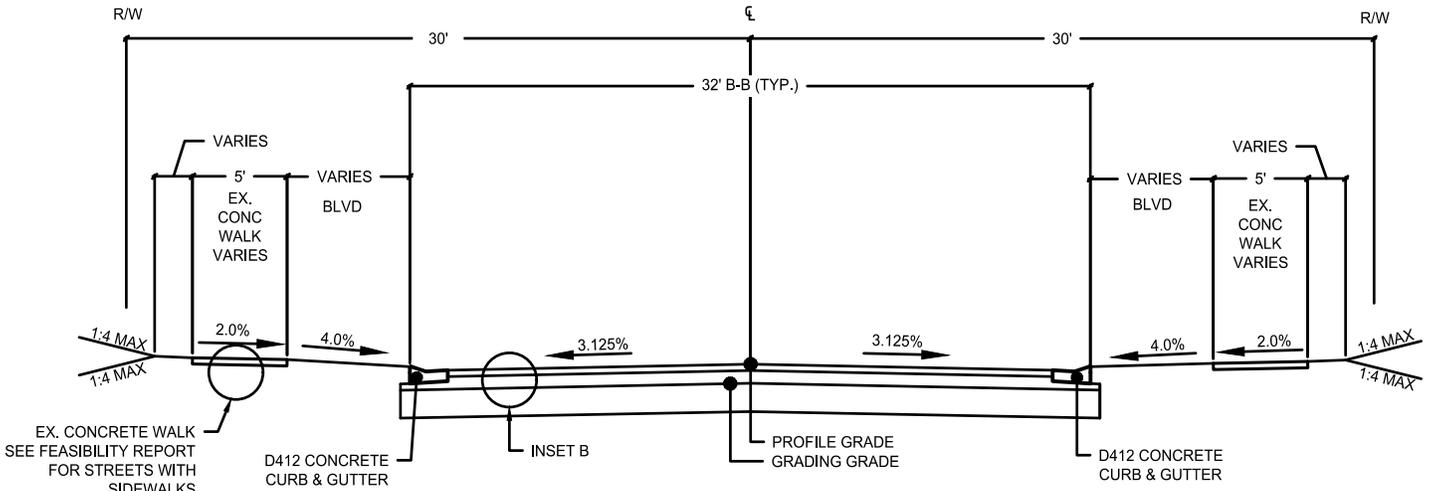
I:\projects\013281-000\Cad\Proposed\013281-000-C-TYP-DETL.dwg 10/11/2019 9:42:28 AM



WSB PROJECT NO.:  
013281-000

2020 STREET RECONSTRUCTION PROJECT  
TYPICAL SECTION - COLLECTOR STREET  
CITY OF LAKEVILLE, MINNESOTA

FIGURE 1

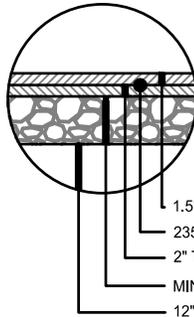


**URBAN RESIDENTIAL STREET**

LAKEVIEW COURT, LAKE HILLS COURT, LANGLEY AVENUE<sup>(3)</sup>, UPPER 167TH STREET W<sup>(3)</sup>, JUDICIAL ROAD, KODIAK AVENUE, KODIAK COURT, LAYTON COURT, LAKE OAK CIRCLE, KETTERING TRAIL, KINGSBURY CIRCLE, KESTREL COURT, KETTLE RIVER COURT, LAKE COVE CIRCLE, LANESBORO COURT, KINGSWOOD CIRCLE, KEYSTONE AVENUE, KEYSTONE PATH, KEOKUK AVENUE COURT, 179TH STREET, KENAI CIRCLE, KETCHIKA TRAIL, KETCHIKA COURT, 178TH STREET, KENSINGTON WAY, KENSINGTON COURT, 203RD STREET, 202ND STREET, JUPITER WAY, JUPITER COURT.

(3) THESE STREETS HAVE BITUMINOUS CURB

(N.T.S.)



**INSET B**

RESIDENTIAL STREET SECTION

- 1.5" TYPE SP 9.5 WEAR COURSE MIX (2,C) (SPWEA240C)
- 2357 BITUMINOUS TACK COAT
- 2" TYPE SP 12.5 NON-WEAR COURSE MIX (2,C) (SPNWB230C)
- MINIMUM 6" RECLAIMED AGGREGATE BASE
- 12" APPROVED SUBGRADE (INCIDENTAL)

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WSB PROJECT NO.:  
013281-000

2020 STREET RECONSTRUCTION PROJECT  
TYPICAL SECTION - RESIDENTIAL STREET  
CITY OF LAKEVILLE, MINNESOTA

FIGURE 2



## **APPENDIX B**

### Opinion of Probable Cost









**OPINION OF PROBABLE COST**

WSB Project: 2020 Street Reconstruction Project  
 Project Location: City of Lakeville  
 City Project No.: 20-02  
 WSB Project No.: 13281-000

Design By: MLH AOG  
 Checked By: MRH

Date: 10/11/2019

ITEM NO.	MN/DOT SPECIFICATION NO.	DESCRIPTION	UNIT	UNIT PRICE	PROJECT TOTAL		LAKE VILLA AREA								LAKE MARION AREA								POND MAINTENANCE	
					ESTIMATED TOTAL QUANTITY	ESTIMATED TOTAL COST	SURFACE IMPROVEMENTS		WATERMAIN IMPROVEMENTS		SANITARY SEWER IMPROVEMENTS		STORM SEWER IMPROVEMENTS		SURFACE IMPROVEMENTS		WATERMAIN IMPROVEMENTS		SANITARY SEWER IMPROVEMENTS		STORM SEWER IMPROVEMENTS		ESTIMATED QUANTITY	ESTIMATED COST
							ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST		
86	2104.502	REMOVE CASTING	EACH	\$ 100.00	12	\$ 1,200.00					10	\$ 1,000.00							1	\$ 100.00				
87	2104.503	REMOVE SEWER PIPE (SANITARY)	LF	\$ 15.00	30	\$ 450.00					30	\$ 450.00							0	\$ -				
88	2105.601	DEWATERING	LS	\$ 1,000.00	1	\$ 1,000.00					0.42	\$ 420.00							0.18	\$ 180.00				
89	2503.602	RECONNECT TO EXISTING SANITARY SEWER SER	EACH	\$ 800.00	1	\$ 800.00					1	\$ 800.00							0	\$ -				
90	2503.602	CONNECT TO EXISTING SANITARY SEWER	EACH	\$ 1,500.00	2	\$ 3,000.00					1	\$ 1,500.00							0	\$ -				
91	2503.603	4" PVC PIPE SEWER	LF	\$ 60.00	30	\$ 1,800.00					30	\$ 1,800.00							0	\$ -				
92	2503.603	8" PVC PIPE SEWER	LF	\$ 90.00	60	\$ 5,400.00					0	\$ -							0	\$ -				
93	2506.602	CASTING ASSEMBLY	EACH	\$ 700.00	12	\$ 8,400.00					10	\$ 7,000.00							1	\$ 700.00				
94	2506.502	ADJUST FRAME & RING CASTING	EACH	\$ 600.00	241	\$ 144,600.00					100	\$ 60,000.00							49	\$ 29,400.00				
95	2506.602	CHIMNEY SEAL	EACH	\$ 180.00	253	\$ 45,540.00					110	\$ 19,800.00							50	\$ 9,000.00				
96	2021.501	MOBILIZATION	LS	\$ 45,000.00	1	\$ 45,000.00							0.68	\$ 30,600.00							0.13	\$ 5,850.00		
97	2104.502	REMOVE CASTING	EACH	\$ 80.00	88	\$ 7,040.00							33	\$ 2,640.00							34	\$ 2,720.00		
98	2104.502	REMOVE DRAINAGE STRUCTURE	EACH	\$ 500.00	92	\$ 46,000.00							62	\$ 31,000.00							8	\$ 4,000.00		
99	2104.503	REMOVE PIPE DRAIN	LF	\$ 2.00	280	\$ 560.00							100	\$ 200.00							60	\$ 120.00		
100	2104.503	REMOVE SEWER PIPE (STORM)	LF	\$ 10.00	2,152	\$ 21,520.00							1,418	\$ 14,180.00							326	\$ 3,260.00		
101	2501.515	12" RC PIPE APRON	EACH	\$ 1,200.00	1	\$ 1,200.00							0	\$ -							0	\$ -		
102	2502.503	4" TP PIPE DRAIN	LF	\$ 26.00	280	\$ 7,280.00							100	\$ 2,600.00							60	\$ 1,560.00		
103	2502.503	4" PERF TP PIPE DRAIN	LF	\$ 26.00	40	\$ 1,040.00							0	\$ -							0	\$ -		
104	2502.503	6" PERF TP PIPE DRAIN	LF	\$ 30.00	40	\$ 1,200.00							0	\$ -							0	\$ -		
105	2502.602	4" TP PIPE DRAIN CLEAN OUT	EACH	\$ 200.00	1	\$ 200.00							0	\$ -							0	\$ -		
106	2502.602	6" TP PIPE DRAIN CLEAN OUT	EACH	\$ 250.00	1	\$ 250.00							0	\$ -							0	\$ -		
107	2502.602	CONNECT TP PIPE DRAIN	EACH	\$ 400.00	4	\$ 1,600.00							0	\$ -							0	\$ -		
108	2503.503	12" RC PIPE SEWER DES 3006 CL V	LF	\$ 54.00	1,200	\$ 64,800.00							887	\$ 47,898.00							40	\$ 2,160.00		
109	2503.503	15" RC PIPE SEWER DES 3006 CL V	LF	\$ 60.00	400	\$ 24,000.00							271	\$ 16,260.00							16	\$ 960.00		
110	2503.503	18" RC PIPE SEWER DES 3006 CL III	LF	\$ 65.00	196	\$ 12,740.00							80	\$ 5,200.00							100	\$ 6,500.00		
111	2503.503	21" RC PIPE SEWER DES 3006 CL III	LF	\$ 70.00	132	\$ 9,240.00							40	\$ 2,800.00							84	\$ 5,880.00		
112	2503.503	24" RC PIPE SEWER DES 3006 CL III	LF	\$ 80.00	62	\$ 4,960.00							54	\$ 4,320.00							8	\$ 640.00		
113	2503.503	27" RC PIPE SEWER DES 3006 CL III	LF	\$ 90.00	70	\$ 6,300.00							0	\$ -							70	\$ 6,300.00		
114	2503.503	30" RC PIPE SEWER DES 3006 CL III	LF	\$ 110.00	8	\$ 880.00							0	\$ -							8	\$ 880.00		
115	2503.503	36" RC PIPE SEWER DES 3006 CL III	LF	\$ 140.00	24	\$ 3,360.00							24	\$ 3,360.00							0	\$ -		
116	2503.503	42" RC PIPE SEWER DES 3006 CL III	LF	\$ 180.00	46	\$ 8,280.00							46	\$ 8,280.00							0	\$ -		
117	2503.503	48" RC PIPE SEWER DES 3006 CL III	LF	\$ 220.00	16	\$ 3,520.00							16	\$ 3,520.00							0	\$ -		
118	2503.603	CLEAN PIPE SEWER	LF	\$ 40.00	300	\$ 12,000.00							100	\$ 4,000.00							100	\$ 4,000.00		
119	2506.502	CASTING ASSEMBLY	EACH	\$ 750.00	88	\$ 66,000.00							33	\$ 24,750.00							34	\$ 25,500.00		
120	2506.502	ADJUST FRAME & RING CASTING	EACH	\$ 450.00	72	\$ 32,400.00							40	\$ 18,000.00							9	\$ 4,050.00		
121	2506.503	CONST DRAINAGE STRUCTURE DES 48-4020	LF	\$ 700.00	265	\$ 185,500.00							240	\$ 168,000.00							0	\$ -		
122	2506.503	CONST DRAINAGE STRUCTURE DES 60-4020	LF	\$ 950.00	128	\$ 121,600.00							91	\$ 86,450.00							17	\$ 16,150.00		
123	2506.503	CONST DRAINAGE STRUCTURE DES 72-4020	LF	\$ 1,200.00	86	\$ 103,200.00							68	\$ 81,600.00							18	\$ 21,600.00		
124	2506.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE	EACH	\$ 5,000.00	2	\$ 10,000.00							2	\$ 10,000.00							0	\$ -		
125	2506.602	CONST DRAINAGE STRUCTURE DESIGN SPEC (2'X3')	EACH	\$ 2,500.00	15	\$ 37,500.00							3	\$ 7,500.00							0	\$ -		
126	2506.602	6" TOP SLAB FOR 48-4020 STRUCTURE	EACH	\$ 1,800.00	22	\$ 39,600.00							19	\$ 34,200.00							1	\$ 1,800.00		
127	2506.602	8" TOP SLAB FOR 60-4020 STRUCTURE	EACH	\$ 2,500.00	1	\$ 2,500.00							1	\$ 2,500.00							0	\$ -		
128	2506.602	8" TOP SLAB FOR 72-4020 STRUCTURE	EACH	\$ 3,000.00	1	\$ 3,000.00							1	\$ 3,000.00							0	\$ -		
129	2506.602	STRUCTURE INTERIOR CONCRETE WORK - RE-POUR INVERT	EACH	\$ 700.00	29	\$ 20,300.00							16	\$ 11,200.00							8	\$ 5,600.00		
130	2506.602	STRUCTURE INTERIOR CONCRETE WORK - RE-GROUT DOGHOUSES	EACH	\$ 300.00	65	\$ 19,500.00							32	\$ 9,600.00							19	\$ 5,700.00		
131	2506.602	FILL SUMP DRAINAGE STRUCTURE	EACH	\$ 500.00	5	\$ 2,500.00							5	\$ 2,500.00							0	\$ -		
132	2506.602	CHIMNEY SEALS	EACH	\$ 180.00	41	\$ 7,380.00							15	\$ 2,700.00							9	\$ 1,620.00		
133	2573.502	STORM DRAIN INLET PROTECTION	EACH	\$ 120.00	246	\$ 29,520.00							150	\$ 18,000.00							43	\$ 5,160.00		
134	2021.501	MOBILIZATION	LS	\$ 4,000.00	1	\$ 4,000.00																		
135	2101.524	CLEARING	TREE	\$ 210.00	2	\$ 420.00																		
136	2101.524	GRUBBING	TREE	\$ 105.00	2	\$ 210.00																		
137	2104.503	REMOVE CURB & GUTTER	LF	\$ 7.00	310	\$ 2,170.00																		
138	-	REMOVE CONCRETE BOAT LAUNCH PANELS	LS	\$ 4,000.00	1	\$ 4,000.00																		
139	-	RELOCATE BOAT LAUNCH SIGNAGE	LS	\$ 1,500.00	1	\$ 1,500.00																		
140	2106.507	EXCAVATION - COMMON	CY	\$ 30.00	120	\$ 3,600.00																		
141	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CY	\$ 30.00	80	\$ 2,400.00																		
142	2211.507	AGGREGATE BASE (LV) CLASS 5	CY	\$ 25.00	50	\$ 1,250.00																		
143	2215.504	FULL DEPTH RECLAMATION	SY	\$ 6.00	700	\$ 4,200.00																		
144	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	\$ 2.00	40	\$ 80.00																		
145	2360.509	TYPE SP 9.5 WEARING COURSE MIX (2,C)	TON	\$ 80.00	60	\$ 4,800.00																		
146	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,C)	TON	\$ 80.00	60	\$ 4,800.00																		
147	2521.518	6" CONCRETE WALK	SF	\$ 12.00	468	\$ 5,616.00																		
148	-	CONCRETE BOAT LAUNCH PANELS	LS	\$ 12,000.00	1	\$ 12,000.00																		
149	2531.503	CONCRETE CURB & GUTTER DESIGN B612	LF	\$ 30.00	310	\$ 9,300.00																		
150	2531.503	CONCRETE CURB & GUTTER DESIGN B630	LF	\$ 40.00	60	\$ 2,400.00																		



**APPENDIX C**

Assessment ID Map  
Assessment Roll  
Assessment Justification Memo



**Figure 1 - Preliminary Assessment Map Orchard Area**  
 2020 Street Reconstruction Project  
 City of Lakeville, MN

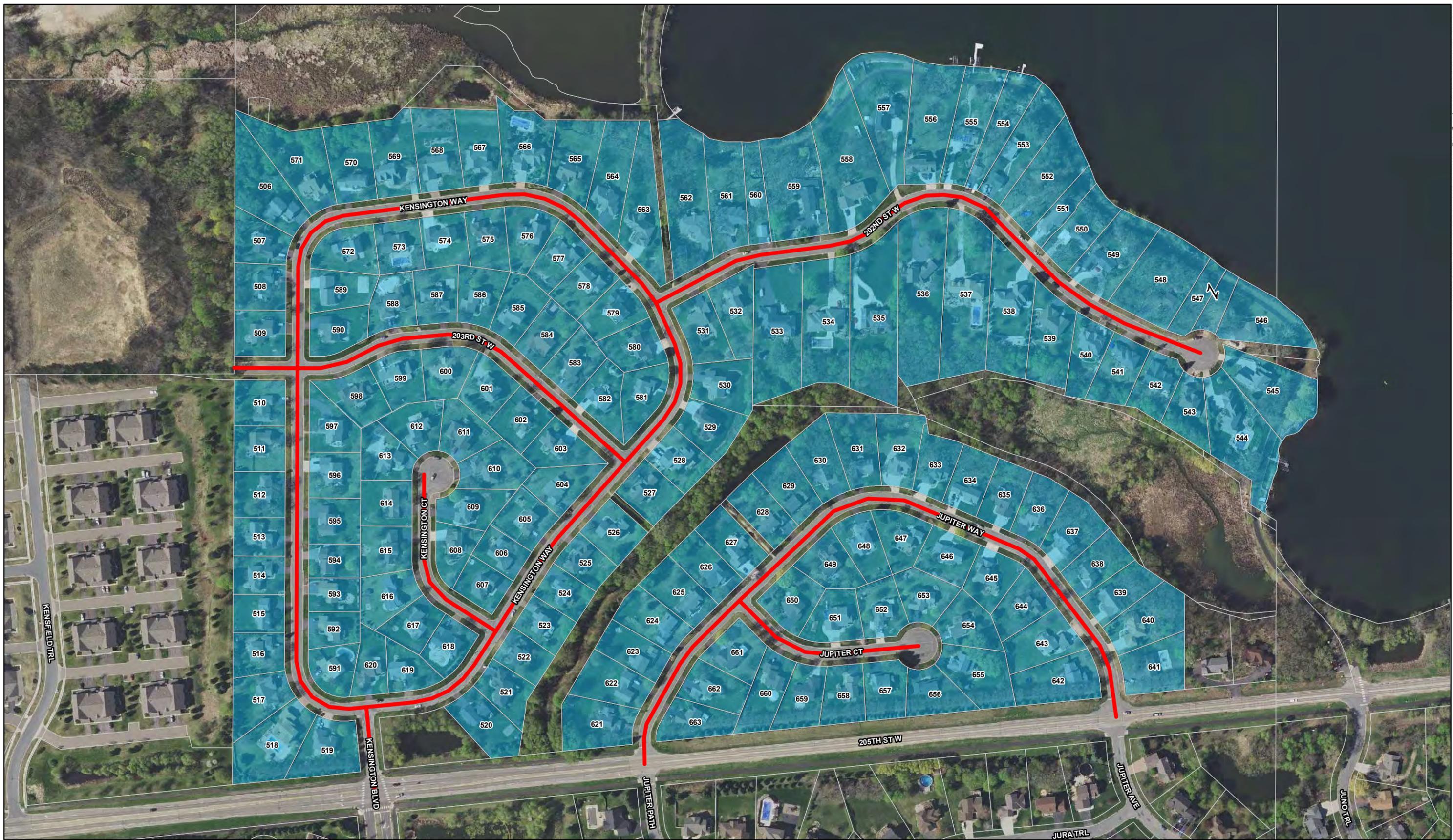
- Project Location
- Assessment Parcels
- City Boundary
- Parcel Boundaries
- ↔ Connected Parcel



0 550  
 Feet  
 1 inch = 550 feet







**Figure 3 - Preliminary Assessment Map Marion Area**  
 2020 Street Reconstruction Project  
 City of Lakeville, MN

- Project Location
- Assessment Parcels
- City Boundary
- Parcel Boundaries
- ↕ Connected Parcel



0 225 Feet  
 1 inch = 225 feet



**Preliminary Assessment Roll**

City Name Project: 2020 Street Reconstruction Project  
City Project No.: 20-02

Assessment Category

- A
- B
- C
- D

Single Family Unit Assessment Rate (Collector, Klamath Trail) \$ 3,479.21  
Single Family Unit Assessment Rate (Residential, Orchard Area) \$ 5,398.93  
Single Family Unit Assessment Rate (Residential, Villa Estates Area) \$ 6,191.08  
Single Family Unit Assessment Rate (Residential, Marion Areal) \$ 3,709.55

Date: 10/21/2019  
Revised: 11/4/2019

*Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1st Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park; Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1st Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2nd Addition; Lake Villa Golf Estates 3rd Addition; Lake Villa Golf Estates 4th Addition; Lake Villa Golf Estates 5th Addition; Lake Villa Golf Estates 6th Addition; Lake Villa Golf Estates 7th Addition; Lake Villa Golf Estates 8th Addition; Lake Villa Golf Estates 9th Addition; Nelson Addition; The Oaks of Lakevilla; Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.*

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
1	224205001010	GLENN F KLOTZ	12198 168TH ST W	LAKEVILLE, MN	55044-9306			COMMERCIAL-PREFERRED	A	1.0	\$ 3,479.21	\$ 3,479.21
2	224186801010	CHARTHOUSE SENIOR LIVING LLC	5402 PARKDALE DR STE 301	SAINT LOUIS PARK, MN	55416	16890	KLAMATH TRL	APARTMENT	A	3.0	\$ 3,479.21	\$ 10,437.63
3	224186801020	CHARTHOUSE SENIOR LIVING LLC	5402 PARKDALE DR STE 301	SAINT LOUIS PARK, MN	55416	16880	KLAMATH TRL	APARTMENT	A	3.0	\$ 3,479.21	\$ 10,437.63
4	220011052030	MAJ BROTHERS LLC	11287 KLAMATH TRL	LAKEVILLE, MN	55044	11287	KLAMATH TRL	COMMERCIAL-PREFERRED	A	4.0	\$ 3,479.21	\$ 13,916.84
5	225472026321	MATTHEW E HOENCK	16760 KLAMATH TRL	LAKEVILLE, MN	55044	16760	KLAMATH TRL	RESIDENTIAL	A	1.0	\$ 3,479.21	\$ 3,479.21
6	225472000042	CITY OF LAKEVILLE	20195 HOLYOKE AVE	LAKEVILLE, MN	55044			EXEMPT	B	0.5	\$ 5,398.93	\$ 2,699.47
7	229056000010	CITY OF LAKEVILLE	20195 HOLYOKE AVE	LAKEVILLE, MN	55044	11835	168TH ST W	EXEMPT	B	0.5	\$ 5,398.93	\$ 2,699.47
8	225472020040	CURTIS L & PATRICIA KALER	11882 168TH ST W	LAKEVILLE, MN	55044-7843	11882	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
9	225472020070	JEFF & MARLAS KINGSRITER	11888 168TH ST W	LAKEVILLE, MN	55044-7843	11888	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
10	225472020100	TYLER GOODLING	11894 168TH ST W	LAKEVILLE, MN	55044	11894	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
11	225472020130	DUVALL D & SANDRA R EGLE	11900 168TH ST W	LAKEVILLE, MN	55044-7843	11900	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
12	225472020160	PATRICIA RAE TENNESSEN	11934 168TH ST W	LAKEVILLE, MN	55044-7843	11934	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
13	225472020190	ERIK & DIANE SKOOG	11960 168TH ST W	LAKEVILLE, MN	55044-7843	11960	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
14	225472020230	DOUGLAS L THIESSE	12000 168TH ST W	LAKEVILLE, MN	55044-9150	12000	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
15	225480002010	LORENZ H TSTE HARMS	12008 168TH ST W	LAKEVILLE, MN	55044	12008	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
16	225480002020	JOSEPH P & ANGELA M MORELLI	12016 168TH ST W	LAKEVILLE, MN	55044	12016	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
17	224450002010	KLOTZ FAMILY LIMITED PARTNERSHIP NO 1	12198 168TH ST W	LAKEVILLE, MN	55044-7786	12072	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
18	220021050050	DAVID J SPONSLER	12100 168TH ST W	LAKEVILLE, MN	55044-7798	12100	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
19	220021050060	JOHN P & KATHLEEN L COOPER	12122 168TH ST W	LAKEVILLE, MN	55044-7798	12122	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
20	220021050070	JEFFREY MARIAN	12138 168TH ST W	LAKEVILLE, MN	55044	12138	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
21	220021050080	CHAD & KRISTEN SCHEUNEMAN	12148 168TH ST W	LAKEVILLE, MN	55044	12148	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
22	220021050090	GREGORY A BERGER	12160 168TH ST W	LAKEVILLE, MN	55044-9306	12160	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
23	220021050100	MICHAEL HOLBROOK	12190 168TH ST W	LAKEVILLE, MN	55044	12190	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
24	228370002011	GLENN F & DARLENE J KLOTZ	12198 168TH ST W	LAKEVILLE, MN	55044-9306	12198	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
25	228370002021	ALDEN R TSTE MILES	12226 168TH ST W	LAKEVILLE, MN	55044-9224	12226	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
26	224430003024	JEFFREY & ELIZABETH BEAUDRY	12266 168TH ST W	LAKEVILLE, MN	55044	12266	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
27	224430003050	MATTHEW C & JENNIFER E CAMP	12300 168TH ST W	LAKEVILLE, MN	55044	12300	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
28	227360001080	THOMAS B & LINDA M DINGUS	190 ELLIS CREEK DR	WEATHERFORD, TX	76085	11849	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
29	227360001070	CHARLES & JANE PUNTILLO	11871 168TH ST W	LAKEVILLE, MN	55044	11871	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
30	227360001060	BRIAN T BOWEN	11891 168TH ST W	LAKEVILLE, MN	55044-7796	11891	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
31	227360001050	ANN F VANERT	11911 168TH ST W	LAKEVILLE, MN	55044-7796	11911	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
32	227360001040	RICHARD J JR & RENEE GEISINGER	11933 168TH ST	LAKEVILLE, MN	55044-7796	11933	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
33	227360001030	PAUL D & KATHLEEN E VALLEY	11955 168TH ST W	LAKEVILLE, MN	55044-7796	11955	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
34	227360001020	KIMBERLY K & WILLIAM NEWGREN	11975 168TH ST W	LAKEVILLE, MN	55044-7796	11975	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
35	225480001200	MARK GELLE	16790 LAKEVIEW CT	LAKEVILLE, MN	55044-9392	16790	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
36	225480001190	WARREN D & CYNTHIA M PANNKUK	16780 LAKE HILLS CT	LAKEVILLE, MN	55044-9394	16780	LAKE HILLS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
37	225480001180	DAVID V JR TSTE GARCIA	16770 LAKE HILLS CT	LAKEVILLE, MN	55044	16770	LAKE HILLS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
38	225480001170	CARLTON & ANITA MATSON	16760 LAKE HILLS CT	LAKEVILLE, MN	55044	16760	LAKE HILLS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
39	225480001160	KIRK & NANCY BEDNARCHUK	16750 LAKE HILLS CT	LAKEVILLE, MN	55044	16750	LAKE HILLS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
40	225480001150	YOHENDRAN ARUMAINAYAGAM	16745 LAKE HILLS CT	LAKEVILLE, MN	55044-9394	16745	LAKE HILLS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
41	225480001140	RICHARD BELL	16755 LAKE HILLS CT	LAKEVILLE, MN	55044	16755	LAKE HILLS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
42	225480001130	MARY FAVRO FREEBURG	16765 LAKE HILLS CT	LAKEVILLE, MN	55044	16765	LAKE HILLS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
43	225480001120	SEAN D & TRISTA L JONES	16775 LAKE HILLS CT	LAKEVILLE, MN	55044	16775	LAKE HILLS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
44	225480001110	ROSS D ANDERSON	16680 LAKEVIEW CT	LAKEVILLE, MN	55044	16680	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
45	225480001100	MARK C & BRENDA S LEONARD	16670 LAKEVIEW CT	LAKEVILLE, MN	55044	16670	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
46	225480001090	JULIO HELLER	16660 LAKEVIEW CT	LAKEVILLE, MN	55044-9391	16660	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
47	225480001080	BRIAN A BRASTAD	16650 LAKEVILLE CT	LAKEVILLE, MN	55044	16650	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
48	225480001070	TODD L & MARY D HALL	16647 LAKEVIEW CT	LAKEVILLE, MN	55044-9391	16647	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
49	225480001060	PATRICIA A CLAYTON	16651 LAKEVIEW CT	LAKEVILLE, MN	55044	16651	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
50	225480001050	SCOTT C & HEIDI HAGEN PITZENBERGER	16655 LAKEVIEW CT	LAKEVILLE, MN	55044-9391	16655	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
51	225480001040	DEAN J TSTE DISCHER	16659 LAKEVIEW CT	LAKEVILLE, MN	55044-9391	16659	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
52	225480001030	LARRY W & KATHLEEN M TSTES BORGEN	16671 LAKEVIEW CT	LAKEVILLE, MN	55044	16671	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
53	225480001020	ROBERT S & JOY C SWAN	16675 LAKEVIEW CT	LAKEVILLE, MN	55044-9391	16675	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
54	225480001010	JOSEPH PATRICK PAHL	16679 LAKEVIEW CT	LAKEVILLE, MN	55044	16679	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
55	220021050011	BRUCE T & MARY K CAMPBELL	16720 LANGLEY AVE	LAKEVILLE, MN	55044	16720	LANGLEY AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
56	226695000250	RP RENTALS LLC	10561 165TH ST W	LAKEVILLE, MN	55044			RESIDENTIAL	B	0.25	\$ 5,398.93	\$ 1,349.73
57	220021050030	RP RENTALS LLC	10561 165TH ST W	LAKEVILLE, MN	55044	16782	LANGLEY AVE	RESIDENTIAL	B	0.25	\$ 5,398.93	\$ 1,349.73
58	226695000230	RP RENTALS LLC	10561 165TH ST W	LAKEVILLE, MN	55044			RESIDENTIAL	B	0.25	\$ 5,398.93	\$ 1,349.73
59	224450001010	MICHAEL L & DESIREE RONGITSCH	10561 165TH ST W	LAKEVILLE, MN	55044	16791	LAKEVIEW CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93

**Preliminary Assessment Roll**

City Name Project: 2020 Street Reconstruction Project  
City Project No.: 20-02

Assessment Category

- A
- B
- C
- D

Single Family Unit Assessment Rate (Collector, Klamath Trail) \$ 3,479.21  
Single Family Unit Assessment Rate (Residential, Orchard Area) \$ 5,398.93  
Single Family Unit Assessment Rate (Residential, Villa Estates Area) \$ 6,191.08  
Single Family Unit Assessment Rate (Residential, Marion Areal) \$ 3,709.55

Date: 10/21/2019  
Revised: 11/4/2019

*Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1st Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park; Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1st Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2nd Addition; Lake Villa Golf Estates 3rd Addition; Lake Villa Golf Estates 4th Addition; Lake Villa Golf Estates 5th Addition; Lake Villa Golf Estates 6th Addition; Lake Villa Golf Estates 7th Addition; Lake Villa Golf Estates 8th Addition; Lake Villa Golf Estates 9th Addition; Nelson Addition; The Oaks of Lakevilla; Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.*

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
60	220021050020	RP RENTALS LLC	10561 165TH ST W	LAKEVILLE, MN	55044	16780	LANGLEY AVE	RESIDENTIAL	B	0.25	\$ 5,398.93	\$ 1,349.73
61	228370001010	JOANN W TERRY	12135 168TH ST W	LAKEVILLE, MN	55044-9225	12135	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
62	228370001020	JEFFREY A & GAYLE L SCHWEN	12151 168TH ST W	LAKEVILLE, MN	55044-9225	12151	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
63	228370001030	KLOTZ CONST INC	12198 168TH W	LAKEVILLE, MN	55044-9306			RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
64	228370001040	JEFFREY R & REBECCA MOWERS	12190 UPPER 167TH ST W	LAKEVILLE, MN	55044	12190	UPPER 167TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
65	223340001030	BRUCE W & MAUREEN E JOHNSON	16755 LANGLEY AVE	LAKEVILLE, MN	55044-9307	16755	LANGLEY AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
66	223340001010	MELAYNA NIEUWSMA	16725 LANGLEY AVE	LAKEVILLE, MN	55044-9307	16725	LANGLEY AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
67	223340001020	MAHMOUD MOVAFAGHI TOOSI	12151 UPPER 167TH ST W	LAKEVILLE, MN	55044	12151	UPPER 167TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
68	220021051010	JENNIFER J OCH	12185 UPPER 167TH ST W	LAKEVILLE, MN	55044-9279	12185	UPPER 167TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
69	220021051020	MARY ELIZABETH HOLBERG	12195 UPPER 167TH WEST	LAKEVILLE, MN	55044	12195	UPPER 167TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
70	220021051031	DANIEL ROBERT GADBOIS	12211 168TH ST W	SAINT PAUL, MN	55110	12211	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
71	220021051032	JOSEPH MARK GADBOIS	12211 168TH ST W	LAKEVILLE, MN	55044-9225	12239	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
72	224430003022	JOHN E HOFFBECK	12267 168TH ST W	LAKEVILLE, MN	55044	12267	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
73	224430003042	TANNER KASKI	12295 168TH ST W	LAKEVILLE, MN	55044	12295	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
74	224430003064	DELL B & SHERRY L COULTAS	12305 168TH ST W	LAKEVILLE, MN	55044-9225	12305	168TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
75	224520001102	TONY WAHL	16791 JUDICIAL RD	LAKEVILLE, MN	55044	16791	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
76	223085001010	DARA L & NINA C SANH	1498 SUMMIT SHORES DR	BURNSVILLE, MN	55306-5807	16849	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
77	225420001080	GARY HAWORTH	16792 LIONS CT	LAKEVILLE, MN	55044	16792	LIONS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
78	225420001070	GARY L VOEGELE	16830 LIONS CT	LAKEVILLE, MN	55044-6628	16830	LIONS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
79	225420001060	JEFFREY A & KARIN J CLEMON	16858 LIONS CT	LAKEVILLE, MN	55044	16858	LIONS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
80	225420001050	SUSAN E STOEN	16862 LIONS CT	LAKEVILLE, MN	55044	16862	LIONS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
81	225420001040	DANIEL J GONNERMAN	16866 LIONS CT	LAKEVILLE, MN	55044	16866	LIONS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
82	225420001030	NATHAN M OBERST	16859 LIONS CT	LAKEVILLE, MN	55044	16859	LIONS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
83	225420001020	THOMAS A & SHERYL L LEE	16807 LIONS CT	LAKEVILLE, MN	55044-6628	16807	LIONS CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
84	225420001010	MICHAEL N SCHLAEFER	16897 JUDICIAL RD	LAKEVILLE, MN	55044-6437	16897	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
85	227760002010	ROBERT L & POLLY J LADEN	16915 JUDICIAL RD	LAKEVILLE, MN	55044-8974	16915	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
86	227760002020	DANIEL T & CHERYL L MEDIN	12495 170TH ST W	LAKEVILLE, MN	55044-8479	12495	170TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
87	224520000040	GARY & DONNA GREEN	17060 JUDICIAL RD	LAKEVILLE, MN	55044			RESIDENTIAL	B	2.0	\$ 5,398.93	\$ 10,797.86
88	224520003173	MOHAMED EL SAYED EL DEEB	11441 OSAGE ST NW	COON RAPIDS, MN	55433			AG	B	5.0	\$ 5,398.93	\$ 26,994.65
89	221345001010	DAVID & MARY VANGRINSVEN	17249 LIBERTY BEACH CT	LAKEVILLE, MN	55044	17249	LIBERTY BEACH CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
90	221345001020	MICHAEL H & DEBORAH SANDE	17271 LIBERTY BEACH CT	LAKEVILLE, MN	55044-8480	17271	LIBERTY BEACH CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
91	221345001030	JASON FRANCISCO	17293 LIBERTY BEACH CT	LAKEVILLE, MN	55044	17293	LIBERTY BEACH CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
92	221345001040	AMITH SHETTY	17315 LIBERTY BEACH CT	LAKEVILLE, MN	55044-8480	17315	LIBERTY BEACH CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
93	221345001050	CURTIS E & TERESA C ERICKSON	17304 LIBERTY BEACH CT	LAKEVILLE, MN	55044-8480	17304	LIBERTY BEACH CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
94	221345001060	TODD HATLESTAD	17282 LIBERTY BEACH CT	LAKEVILLE, MN	55044	17282	LIBERTY BEACH CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
95	221345001070	BRIAN J & CYNTHIA D LUNDQUIST	17260 LIBERTY BEACH CT	LAKEVILLE, MN	55044-8480	17260	LIBERTY BEACH CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
96	224520003371	ANDREW J & KATHRYN J WARDROP	17328 JUDICIAL RD	LAKEVILLE, MN	55044-9374	17328	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
97	224520003380	MARY L BERGQUIST	17355 JUDICIAL RD	LAKEVILLE, MN	55044	17355	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
98	224520003410	MARK A & PATTY J BLIZEK	17361 JUDICIAL RD	LAKEVILLE, MN	55044-9375	17361	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
99	224520003430	WILLARD P & VALERIE REIN	17385 JUDICIAL RD	LAKEVILLE, MN	55044-9375	17385	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
100	224520000100	BETH BASSETT	17365 JUDICIAL RD W	LAKEVILLE, MN	55044-9375	17365	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
101	225485002010	THIDEE O MAN	17425 JUDICIAL RD	LAKEVILLE, MN	55044	17425	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
102	225485002020	MICHAEL T LENTZ	17435 JUNE BERRY CT	LAKEVILLE, MN	55044-9355	17435	JUNE BERRY CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
103	225485002030	IRINA & MIKHAIL A BAKAY	17445 JUNE BERRY CT	LAKEVILLE, MN	55044-9355	17445	JUNE BERRY CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
104	225485002040	SACKDA DEJVONGSA	17455 JUNE BERRY CT	LAKEVILLE, MN	55044	17455	JUNE BERRY CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
105	225485002050	EDWARD T & DEBRA L CONNELLY	17465 JUNE BERRY CT	LAKEVILLE, MN	55044-9355	17465	JUNE BERRY CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
106	225485002060	RAY D & MARY C VOGTMAN	17460 JUNE BERRY CT	LAKEVILLE, MN	55044-9355	17460	JUNE BERRY CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
107	225485002070	JONATHAN & KRISTINE POLLOCK	17450 JUNE BERRY CT	LAKEVILLE, MN	55044-9355	17450	JUNE BERRY CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
108	225485002080	RYAN S GOTHMANN	17440 JUNE BERRY CT	LAKEVILLE, MN	55044	17440	JUNE BERRY CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
109	225485002090	LONNA SCHWIRTZ	17485 JUDICIAL RD	LAKEVILLE, MN	55044	17485	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
110	220111051013	HENN CTY PARKS RESERVE	BOX 32	MAPLE PLAIN, MN	55359	17859	JUDICIAL RD	EXEMPT	B	1.0	\$ 5,398.93	\$ 5,398.93
111	224520001131	SCOTT R TSTE PARIZEK	16860 JUDICIAL RD	LAKEVILLE, MN	55044	16860	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
112	224520001142	BRIAN K SEEMAN	16870 JUDICIAL RD	LAKEVILLE, MN	55044-9246	16870	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
113	227760001010	MICHAEL R & SHAWM M MCNAB	16890 JUDICIAL RD	LAKEVILLE, MN	55044-9246	16890	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
114	227760001020	STEPHEN P DENMARK	16910 JUDICIAL RD	LAKEVILLE, MN	55044	16910	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
115	227760001030	NASEEMA HASSAN SHIDI OMER	16920 JUDICIAL RD	LAKEVILLE, MN	55044	16920	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
116	227760001040	STEPHEN WALTER TSTE BODINE	5073 RIVEDRO ST	LAS VEGAS, NV	89135	16940	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
117	227760001052	CHRIS M TSTE & JEAN L TSTE DABROSKI	16960 JUDICIAL RD	LAKEVILLE, MN	55044	16960	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
118	227760001051	THEODORE R ANDERSON	16980 JUDICIAL RD	LAKEVILLE, MN	55044	16980	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93

**Preliminary Assessment Roll**

City Name Project: 2020 Street Reconstruction Project  
 City Project No.: 20-02

Assessment Category

- A
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MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
119	224520003030	RICHARD & CONSTANCE SWAN	17020 JUDICIAL RD	LAKEVILLE, MN	55044-7627	17020	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
120	224520003061	GARY L & DONNA GREEN	17060 JUDICIAL RD	LAKEVILLE, MN	55044-7627	17060	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
121	224520003071	THOMAS D & KIMBERLY LUNDELL	17070 JUDICIAL RD	LAKEVILLE, MN	55044-7627	17070	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
122	224520003090	DEBBIE M KALISH	17080 JUDICIAL RD	LAKEVILLE, MN	55044-7627	17080	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
123	224520003100	M SUE FEIGAL-HITCH	17110 JUDICIAL RD	LAKEVILLE, MN	55044-7628	17110	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
124	224520003120	JARED M & JANEL K JOHNSON	17120 JUDICIAL RD	LAKEVILLE, MN	55044-7628	17120	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
125	224520003141	RICHARD S & LISA CECCHINI	17140 JUDICIAL RD	LAKEVILLE, MN	55044-7628	17140	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
126	224520003161	RICHARD & RUTH NUBSON	17160 JUDICIAL RD	LAKEVILLE, MN	55044-7628	17160	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
127	224520003171	JAMES & GLORIA LAUGHLIN	17170 JUDICIAL RD	LAKEVILLE, MN	55044-7628	17170	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
128	224520003180	CITY OF LAKEVILLE	20195 HOLYOKE AVE	LAKEVILLE, MN	55044			EXEMPT	B	0.75	\$ 5,398.93	\$ 4,049.20
129	224520003190	CITY OF LAKEVILLE	20195 HOLYOKE AVE	LAKEVILLE, MN	55044			EXEMPT	B	0.75	\$ 5,398.93	\$ 4,049.20
130	224520003220	CITY OF LAKEVILLE	20195 HOLYOKE AVE	LAKEVILLE, MN	55044	17195	JUDICIAL RD	EXEMPT	B	0.75	\$ 5,398.93	\$ 4,049.20
131	224520003240	CITY OF LAKEVILLE	20195 HOLYOKE AVE	LAKEVILLE, MN	55044	17200	JUDICIAL RD	EXEMPT	B	0.75	\$ 5,398.93	\$ 4,049.20
132	224520003262	G MICHAEL & NANETTE NORTHRUP	17240 JUDICIAL RD	LAKEVILLE, MN	55044-9374	17240	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
133	224520003281	MARY T ZAMPOGNA	17260 JUDICIAL RD	LAKEVILLE, MN	55044	17260	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
134	224520003300	CHARLES F & DENISE A TSTES WEBBER	17280 JUDICIAL RD	LAKEVILLE, MN	55044	17280	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
135	224520003320	PATRICIA DAWN TSTE LARSON	69 BAREFOOT BEACH BLVD APT 20	BONITA SPRINGS, FL	34134-8611	17284	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
136	224520003341	PAMELA R NELSON	17324 JUDICIAL RD	LAKEVILLE, MN	55044-9374	17324	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
137	224520003381	JON F HUINKER	17354 JUDICIAL RD	LAKEVILLE, MN	55044	17354	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
138	224520003411	BONNIE GRESS	17364 JUDICIAL RD	LAKEVILLE, MN	55044-9374	17364	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
139	224520003431	JAMES R SCHROER	17398 JUDICIAL RD	LAKEVILLE, MN	55044-9374	17398	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
140	224690001051	DEREK & LAURA SORENSON	17418 JUDICIAL RD	LAKEVILLE, MN	55044	17418	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
141	224690001030	JOANNE MILAN	17422 JUDICIAL RD	LAKEVILLE, MN	55044	17422	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
142	224690002051	EILEEN MARIE WERTENBERGER	17444 JUDICIAL RD	LAKEVILLE, MN	55044	17444	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
143	225485001010	STEVEN A & JENNIFER WESTWORTH	17466 JUDICIAL RD	LAKEVILLE, MN	55044-9374	17466	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
144	225485001020	SCOTT A TSTE OSTER	18246 JUSTICE WAY	LAKEVILLE, MN	55044	17488	JUDICIAL RD	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
145	224690000030	JON & LISA FRANK	16020 EAGLE CREEK AVE SE	PRIOR LAKE, MN	55372	12351	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
146	224690003041	DAVID P & BARBARA J ARENS	12335 175TH ST W	LAKEVILLE, MN	55044-9227	12335	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
147	224690004051	RONALD B & ROXANNE L ROLCZYNSKI	12305 175TH ST W	LAKEVILLE, MN	55044-9227	12305	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
148	224690004052	BRADLEY T & DENISE L LARSON	12285 175TH ST W	LAKEVILLE, MN	55044-9227	12285	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
149	224690004071	BRIAN DEAN & MARLYS ANN WASSERMAN	12265 175TH ST W	LAKEVILLE, MN	55044	12265	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
150	224690000091	SANDI J FAMILY TRUST RAINES	12245 175TH ST W	LAKEVILLE, MN	55044	12245	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
151	224690104111	WILLIAM A & DARLENE A TSTES JENISON	12235 175TH ST W	LAKEVILLE, MN	55044	12235	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
152	224690104120	TODD W & LINDA S ARENS	12227 175TH ST W	LAKEVILLE, MN	55044-9227	12227	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
153	224690104150	SHORELINE PROPERTIES LLC	7555 CLOMAN WAY	INVER GROVE HEIGHTS, MN	55076	12201	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
154	224690104170	BENJAMIN P & JENNIFER N MYERS	12175 175TH ST W	LAKEVILLE, MN	55044-7793	12175	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
155	224690105031	ROBERT T THIRY	PO BOX 3047	BURNSVILLE, MN	55337	12165	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
156	224690117081	PETER T & BARBARA J COOK	12015 175TH ST	LAKEVILLE, MN	55044	12015	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
157	224690117031	JOSEPH A & ARLENE WECH	12001 175TH ST W	LAKEVILLE, MN	55044-7854	12001	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
158	224160000050	CITY OF LAKEVILLE	20195 HOLYOKE AVE	LAKEVILLE, MN	55044	11875	175TH ST W	EXEMPT	B	4.0	\$ 5,398.93	\$ 21,595.72
159	224160001140	MICHAEL E & KRISTI S PORTUGUE	11825 175TH ST W	LAKEVILLE, MN	55044-7854	11825	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
160	224160001131	DAVID T & SANDRA K MACHAJ	17489 KODIAK AVE	LAKEVILLE, MN	55044-9270	17489	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
161	224160001121	JEREMY D KROOK	17465 KODIAK AVE	LAKEVILLE, MN	55044	17465	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
162	224160001111	GERALD W TSTE WILLIAMS	930 LYNAMERE DR	THOUSAND OAKS, CA	91360	17445	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
163	224160001100	FRANK M TSTE SCHOEBEN	17433 KODIAK AVE W	LAKEVILLE, MN	55044	17433	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
164	224160001090	PARC A & LINETTE J WILLIAMS	17405 KODIAK AVE	LAKEVILLE, MN	55044	17405	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
165	224160001080	GARY J HAGEN	17401 KODIAK AVE	LAKEVILLE, MN	55044	17401	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
166	224160001070	ROBERT D & MARY TSTES SKRIVSETH	17379 KODIAK AVE W	LAKEVILLE, MN	55044-9270	17379	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
167	224160001060	STEVEN E SCHROEDER	17361 KODIAK AVE	LAKEVILLE, MN	55044-9270	17361	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
168	224160001050	THOMAS & LAURIE HEALY	17351 KODIAK AVE	LAKEVILLE, MN	55044-9270	17351	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
169	224160001040	GARY F & CAROLYN M ONEIL	17331 KODIAK AVE S	LAKEVILLE, MN	55044-9270	17331	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
170	224160001030	YAKUP & FERYAL C OZBEK	17321 KODIAK AVE	LAKEVILLE, MN	55044-9270	17321	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
171	224160001020	GLENN F & KATHY MYERS	17281 KODIAK AVE W	LAKEVILLE, MN	55044-9270	17281	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
172	224160001010	FRANCIS & SANDRA RITTER	17277 KODIAK AVE	LAKEVILLE, MN	55044-9270	17277	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
173	221190000010	TROY & DANIELLE GIBBENS	11765 172ND ST W	LAKEVILLE, MN	55044-9399	11765	172ND ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
174	220111002010	BONITA M SEVCIK	11713 172ND ST W	LAKEVILLE, MN	55044-7792	11713	172ND ST W	RESIDENTIAL	B	2.0	\$ 5,398.93	\$ 10,797.86
175	220121033060	BRYCEN M & MICHELLE L EBERWEIN	11505 172ND ST W	LAKEVILLE, MN	55044	11505	172ND ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
176	220121033070	DONNA JEAN TRACY	11485 172ND ST W	LAKEVILLE, MN	55044-9325	11485	172ND ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
177	220121033050	ROBERT GARFIELD GRIM	11445 172ND ST W	LAKEVILLE, MN	55044	11445	172ND ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93

**Preliminary Assessment Roll**

City Name Project: 2020 Street Reconstruction Project  
City Project No.: 20-02

Assessment Category

- A
- B
- C
- D

Single Family Unit Assessment Rate (Collector, Klamath Trail) \$ 3,479.21  
Single Family Unit Assessment Rate (Residential, Orchard Area) \$ 5,398.93  
Single Family Unit Assessment Rate (Residential, Villa Estates Area) \$ 6,191.08  
Single Family Unit Assessment Rate (Residential, Marion Areal) \$ 3,709.55

Date: 10/21/2019  
Revised: 11/4/2019

*Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1st Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park; Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1st Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2nd Addition; Lake Villa Golf Estates 3rd Addition; Lake Villa Golf Estates 4th Addition; Lake Villa Golf Estates Fifth Addition; Lake Villa Golf Estates 6th Addition; Lake Villa Golf Estates 7th Addition; Lake Villa Golf Estates 8th Addition; Lake Villa Golf Estates 9th Addition; Nelson Addition; The Oaks of Lakevilla; Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.*

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
178	220121033040	ZACHARY L HERING	11405 172ND ST W	LAKEVILLE, MN	55044-9325	11405	172ND ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
179	220121033030	JEFFREY C & ANNE E KOTTKE	11365 172ND ST W	LAKEVILLE, MN	55044	11365	172ND ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
180	220121033020	KEVIN & REBECCA SEFTON	11325 172ND ST W	LAKEVILLE, MN	55044	11325	172ND ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
181	220121033010	MICHAEL & CONNIE TZENIS	11285 172ND ST W	LAKEVILLE, MN	55044	11285	172ND ST W	RESIDENTIAL	B	2.0	\$ 5,398.93	\$ 10,797.86
182	220121050013	LAKEVILLA GOLF ESTATES	PO BOX 22173	EAGAN, MN	55122			RESIDENTIAL	B	7.0	\$ 5,398.93	\$ 37,792.51
183	220111003010	DAVID J & PATRICIA D TSTES OLSON	11516 172ND ST W	LAKEVILLE, MN	55044	11516	172ND ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
184	220111004013	JAMIESON C & SUSAN H TSTE KEISTER	11518 172ND ST W	LAKEVILLE, MN	55044-9326	11518	172ND ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
185	220111005010	GERALD L & SYLVIA ANDERSON	11522 172ND ST W	LAKEVILLE, MN	55044-9326	11522	172ND ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
186	220111006010	ROSELYN R & JOYCE D WILSON	11538 172ND ST	LAKEVILLE, MN	55044-9326	11538	172ND ST W	AG-GREEN ACRES	B	1.0	\$ 5,398.93	\$ 5,398.93
187	220111075011	GENE B & TERESA A STIMSON	17660 KETTERING TRL	LAKEVILLE, MN	55044-7674			RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
188	224160004050	PETER & BONNIE DUNSHEE	11720 172ND ST W	LAKEVILLE, MN	55044	11720	172ND ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
189	224160004060	RICHARD J & MARY GUENTZEL	17298 KODIAK AVE	LAKEVILLE, MN	55044-7642	17298	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
190	224160004070	JAMES R ANDERSON	17310 KODIAK AVE W	LAKEVILLE, MN	55044-7643	17310	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
191	224160004080	JONATHAN FRASER	17326 KODIAK AVE	LAKEVILLE, MN	55044	17326	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
192	224160004090	MARK C & BRENDA S LEONARD	16670 LAKEVIEW CT	LAKEVILLE, MN	55044	17340	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
193	224160004100	DAVID ALAN BROWN	17350 KODIAK AVE	LAKEVILLE, MN	55044	17350	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
194	224160004110	LORI HAINKA	17374 KODIAK AVE	LAKEVILLE, MN	55044	17374	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
195	224160003010	LEO A & EILEEN M HONETSCHLAGER	17410 KODIAK AVE	LAKEVILLE, MN	55044-9323	17410	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
196	224160003020	DONALD R DESPLINTER	17430 KODIAK AVE	LAKEVILLE, MN	55044-9323	17430	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
197	224160002010	RONALD F & DONNA M WRIGHT	17450 KODIAK AVE	LAKEVILLE, MN	55044-9323	17450	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
198	224160002020	MICHELE A JENNINGS	17470 KODIAK AVE	LAKEVILLE, MN	55044-9323	17470	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
199	225475002010	ROBERT DUANE TSTE PETERSON	17496 KODIAK AVE	LAKEVILLE, MN	55044-9323	17496	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
200	225475101160	THOMAS M RENT	17540 KODIAK AVE	LAKEVILLE, MN	55044-9286	17540	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
201	225475101150	LINDA L LARSON	17550 KODIAK AVE	LAKEVILLE, MN	55044-9286	17550	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
202	225475101140	DWIGHT K & KATHLEEN LEWIS	17560 KODIAK AVE	LAKEVILLE, MN	55044-9286	17560	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
203	225475101130	BRUCE MARTIN SAUERBIER	17570 KODIAK AVE	LAKEVILLE, MN	55044-9286	17570	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
204	225475101120	BRIAN J HENDRICKSON	17565 KODIAK AVE	LAKEVILLE, MN	55044	17565	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
205	225475101110	BRAD G LOGSDON	17555 KODIAK AVE	LAKEVILLE, MN	55044	17555	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
206	225475101100	RYAN & RACHEL SKOOG	17545 KODIAK AVE	LAKEVILLE, MN	55044	17545	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
207	225475101090	JO-RIKA ACKERMANN	17535 KODIAK AVE S	LAKEVILLE, MN	55044-9285	17535	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
208	225475101080	DOUGLAS A MELLER	17532 KODIAK CT	LAKEVILLE, MN	55044-9271	17532	KODIAK CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
209	225475101070	SYED SAIFI	17542 KODIAK CT	LAKEVILLE, MN	55044	17542	KODIAK CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
210	225475101060	LAURENCE W JR HALL	17552 KODIAK AVE	LAKEVILLE, MN	55044-9286	17552	KODIAK CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
211	225475101050	NEIL W & MICHELLE A CONSTINE	17562 KODIAK CT	LAKEVILLE, MN	55044	17562	KODIAK CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
212	225475101040	THOMAS W BOGEN	17557 KODIAK CT	LAKEVILLE, MN	55044	17557	KODIAK CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
213	225475101030	COLT T THOMPSON	17547 KODIAK CT	LAKEVILLE, MN	55044	17547	KODIAK CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
214	225475101010	VERNON R & LINDA KELLY	17537 KODIAK CT	LAKEVILLE, MN	55044-9271	17537	KODIAK CT	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
215	225475101020	ROBERT S & DIANA K FLURY	17515 KODIAK AVE	LAKEVILLE, MN	55044-9284	17515	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
216	225475001020	AMY LYN HARNISCH	17505 KODIAK AVE	LAKEVILLE, MN	55044	17505	KODIAK AVE	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
217	225475001010	DANIEL A ASHER	11830 175TH ST W	LAKEVILLE, MN	55044	11830	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
218	224432501010	TODD D & KIMBERLY JACOBS	11505 177TH ST W	LAKEVILLE, MN	55044-9357	11505	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
219	224432501020	GARY L & JEANNE HUGGINS	11535 177TH ST	LAKEVILLE, MN	55044-9357	11535	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
220	224432501030	PETER N & JOYCE L CHRISTENSEN	17694 KETTERING TRAIL	LAKEVILLE, MN	55044-7674	17694	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
221	224432501040	SCOTT W & VALERIE A MILLER	17688 KETTERING TRL	LAKEVILLE, MN	55044-7674	17688	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
222	224432501050	EVERD A & MARTHA J GILES	17682 KETTERING TRL	LAKEVILLE, MN	55044-7674	17682	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
223	224432501060	JOSEPH RICHARD & TARA LYNN MEYERS	17678 KETTERING TRL	LAKEVILLE, MN	55044	17678	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
224	224432501070	STEVE J & MARGARET G PARADISE	17672 KETTERING TRL	LAKEVILLE, MN	55044-7674	17672	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
225	224432501080	JEFFREY W & JENNIFER A SLUITER	17664 KETTERING TRL	LAKEVILLE, MN	55044	17664	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
226	224432501090	GENE B & TERESA A STIMSON	17660 KETTERING TRL	LAKEVILLE, MN	55044-7674	17660	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
227	224432501100	KIRK R LINSE	17654 KETTERING TRL	LAKEVILLE, MN	55044-7674	17654	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
228	224432901010	DAVID & BROOKE JELLINGER	17650 KETTERLING TRL	LAKEVILLE, MN	55044	17650	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
229	224433004060	BRAD L & KIMBERLY K MUELLER	17646 KETTERING TRL	LAKEVILLE, MN	55044-9343	17646	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
230	224433004050	BRIAN J CADE	17642 KETTERING TRL	LAKEVILLE, MN	55044-9343	17642	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
231	224433004040	PAUL M & AMELIA K DAMLO	17638 KETTERING TRL	LAKEVILLE, MN	55044-9343	17638	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
232	224433004030	SCOTT J & AMY B ANDERSON	17634 KETTERING TRL	LAKEVILLE, MN	55044-9343	17634	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
233	224433004020	MARK & SUSAN A LACHANCE	17626 KETTERING TRL	LAKEVILLE, MN	55044-9343	17626	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
234	224433004010	MARLIN E BIRKHOLOZ	17618 KETTERING TRL	LAKEVILLE, MN	55044-9343	17618	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
235	225080001010	DOUGLAS S & CLAUDIA NELSON	17610 KETTERING TRL	LAKEVILLE, MN	55044-9343	17610	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
236 <sup>(1)</sup>	221800004541	LARRY E TSTE BAKKEN	11900 175TH ST W	LAKEVILLE, MN	55044-7855			RESIDENTIAL	2 B prcls , 2 C prcls <sup>(1)</sup>	4.0	\$ 5,795.01	\$ 23,180.02

**Preliminary Assessment Roll**

City Name Project: 2020 Street Reconstruction Project  
City Project No.: 20-02

Assessment Category

- A
- B
- C
- D

Single Family Unit Assessment Rate (Collector, Klamath Trail) \$ 3,479.21  
Single Family Unit Assessment Rate (Residential, Orchard Area) \$ 5,398.93  
Single Family Unit Assessment Rate (Residential, Villa Estates Area) \$ 6,191.08  
Single Family Unit Assessment Rate (Residential, Marion Areal) \$ 3,709.55

Date: 10/21/2019  
Revised: 11/4/2019

Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1st Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park; Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1st Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2nd Addition; Lake Villa Golf Estates 3rd Addition; Lake Villa Golf Estates 4th Addition; Lake Villa Golf Estates Fifth Addition; Lake Villa Golf Estates 6th Addition; Lake Villa Golf Estates 7th Addition; Lake Villa Golf Estates 8th Addition; Lake Villa Golf Estates 9th Addition; Nelson Addition; The Oaks of Lakevilla; Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
237 <sup>(1)</sup>	221800001490	LARRY E TSTE BAKKEN	11900 175TH ST W	LAKEVILLE, MN	55044-7855	11900	175TH ST W	RESIDENTIAL	2 B prcls , 2 C prcls <sup>(1)</sup>	4.0	\$ 5,795.01	\$ 23,180.02
238	224690116211	RICHARD SCHOEN	11978 175TH ST W	LAKEVILLE, MN	55044	11978	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
239	224690116191	STEVEN AND JENNIFER WENTWORTH	12000 175TH ST W	LAKEVILLE, MN	55044	12000	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
240	224690106160	MARILYN J LARSON	12064 175TH ST W	LAKEVILLE, MN	55044-7856	12064	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
241	224690106131	PAUL E & DIANE M SZUREK	12072 175TH ST W	LAKEVILLE, MN	55044-7856	12072	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
242	224690106111	THOMAS J & JENNIFER C BORN	12088 175TH ST W	LAKEVILLE, MN	55044	12088	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
243	224690106080	THOMAS L & DOROTHY L GOODWIN	12100 175TH ST W	LAKEVILLE, MN	55044-7857	12100	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
244	224690106050	LAWRENCE JR BLANCHETTE	12120 175TH ST W	LAKEVILLE, MN	55044			RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
245	224690106040	LAWRENCE JR BLANCHETTE	12120 175TH ST W	LAKEVILLE, MN	55044	12120	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
246	224690106020	CITY OF LAKEVILLE	20195 HOLYOKE AVE	LAKEVILLE, MN	55044			EXEMPT	B	1.0	\$ 5,398.93	\$ 5,398.93
247	224690106010	CITY OF LAKEVILLE	20195 HOLYOKE AVE	LAKEVILLE, MN	55044			EXEMPT	B	1.0	\$ 5,398.93	\$ 5,398.93
248	224690107041	DANIELLE SCHWIRTZ	PO BOX 1085	LAKEVILLE, MN	55044-1085	12184	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
249	224690107044	MICHAEL D RUBEY	12196 175TH ST W	LAKEVILLE, MN	55044-7857	12196	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
250	224690108292	ANDREW THOMAS HAMILTON	12216 175TH ST W	LAKEVILLE, MN	55044	12216	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
251	224690108282	DAVID R GIGUERE	12224 175TH ST W	LAKEVILLE, MN	55044-9322	12224	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
252	221500004010	ALAN & SHARON RYBAK	12260 175TH ST W	LAKEVILLE, MN	55044-9322	12260	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
253	221500004020	GERALD T & TAMARA JOHNSON	12290 175TH ST W	LAKEVILLE, MN	55044-9322	12290	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
254	221500004031	MATTHEW D & ELIZABETH A UHER	12330 175TH ST W	LAKEVILLE, MN	55044	12330	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
255	220111050020	KENNETH E & ROTRAUT HART	12350 175TH ST W	LAKEVILLE, MN	55044	12350	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
256	220111050030	DENNIS M & LORAYNE L HART	12374 175TH ST W	LAKEVILLE, MN	55044	12374	175TH ST W	RESIDENTIAL	B	1.0	\$ 5,398.93	\$ 5,398.93
257	221495001010	SKOOG MELODY FAMILY TRUST	17167 KIRBEN AVE	LAKEVILLE, MN	55044	17871	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
258	221495001020	MAS 72 LLC	17867 LAYTON PATH	LAKEVILLE, MN	55044	17867	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
259	221495001030	STEVEN J & DEBRA A JOHNSON	17863 LAYTON PATH	LAKEVILLE, MN	55044	17863	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
260	221495001040	ROBERT W & CLAUDIA J DEMO	17859 LAYTON PATH	LAKEVILLE, MN	55044-5223	17859	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
261	221495001050	SUSAN R TSTE NESHEIM	17855 LAYTON PATH	LAKEVILLE, MN	55044-5223	17855	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
262	221495001060	MICHAEL J & SUSAN D FRANCO	17851 LAYTON PATH	LAKEVILLE, MN	55044-5223	17851	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
263	221495001070	DIANA L URBAN	17847 LAYTON PATH	LAKEVILLE, MN	55044-5223	17847	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
264	221495001080	ROBERT & MARION D PELTON	17843 LAYTON PATH	LAKEVILLE, MN	55044	17843	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
265	221495001090	KAREN A KNOLL	17839 LAYTON PATH	LAKEVILLE, MN	55044-5223	17839	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
266	221495001100	MYRON A & JOANNE HENRICKSON	17835 LAYTON PATH	LAKEVILLE, MN	55044-5223	17835	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
267	221495001110	BONNIE J PONWITH	17831 LAYTON PATH	LAKEVILLE, MN	55044	17831	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
268	221495001120	FREDRIC A & SHARON E HOLBECK	17827 LAYTON PATH	LAKEVILLE, MN	55044	17827	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
269	221495201110	ROBERT L & LOUISE T MURRAY	17797 LAYTON PATH	LAKEVILLE, MN	55044	17797	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
270	221495201120	CHARLES H & CYNTHIA A EDELEN	17793 LAYTON PATH	LAKEVILLE, MN	55044	17793	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
271	221495201130	PAUL G SLOTSVE	17789 LAYTON PATH	LAKEVILLE, MN	55044-5217	17789	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
272	221495201140	EDWIN L & DOROTHY M TSTES HANSEN	17785 LAYTON PATH	LAKEVILLE, MN	55044	17785	LAYTON PATH	RESIDENTIAL-TOWNHOUSE	C	0.5	\$ 6,191.08	\$ 3,095.54
273	221495000020	CITY OF LAKEVILLE	20195 HOLYOKE AVE	LAKEVILLE, MN	55044	17775	LAYTON PATH	EXEMPT	C	2.0	\$ 6,191.08	\$ 12,382.16
274	221499001010	TER LOR	17767 LAYTON PATH	LAKEVILLE, MN	55044	17767	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
275	221499001020	CRAIG V RINGSTAD	5410 WINDSOR LN	FAIRWAY, KS	66205	17763	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
276	221499001030	CHAD A & DEBBIE K RUTH	17759 LAYTON PATH	LAKEVILLE, MN	55044-5217	17759	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
277	221499001040	HEATHER A MANEY	17755 LAYTON PATH	LAKEVILLE, MN	55044-5217	17755	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
278	221499001050	STEVEN M TSTE KERSTING	17751 LAYTON PATH	LAKEVILLE, MN	55044-5217	17751	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
279	221499001060	RUBINA RIZVI	17747 LAYTON PATH	LAKEVILLE, MN	55044	17747	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
280	221499001070	WILLIAM JOHN & DENISE L KANFIELD	17743 LAYTON PATH	LAKEVILLE, MN	55044	17743	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
281	221499001080	MONICA WECHSLER	17739 LAYTON PATH	LAKEVILLE, MN	55044	17739	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
282	221499001090	THOMAS J TRUST MALONEY	17735 LAYTON PATH	LAKEVILLE, MN	55044	17735	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
283	221499001100	DAVID E JR HAYES	17725 LAYTON PATH	LAKEVILLE, MN	55044	17725	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
284	221499001110	RICHARD A & TRICIA S SMITH	17705 LAYTON PATH	LAKEVILLE, MN	55044	17705	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
285	226780001010	THOMAS & ALICE BELL	17584 KETTERING TRL	LAKEVILLE, MN	55044-8656	17584	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
286	224433002010	JOSEPH M & GINA M BYSTEDT	17590 KETTERING TRL	LAKEVILLE, MN	55044-8656	17590	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
287	224433002020	DOUGLAS D & KAREN L BANYON	17594 KETTERING TRL	LAKEVILLE, MN	55044-8656	17594	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
288	224433002030	JACOB A KAMPEN	17598 KETTERING TRL	LAKEVILLE, MN	55044	17598	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
289	221500001010	NORTHERN GOPHER ENTERPRISES INC	17976 JUDICIAL RD	LAKEVILLE, MN	55044-9329	17976	JUDICIAL RD	COMMERCIAL-OPEN SPACE	C	8.0	\$ 6,191.08	\$ 49,528.64
290	221500000090	NORTHERN GOPHER ENTERPRISES INC	17976 JUDICIAL RD	LAKEVILLE, MN	55044-9329			COMMERCIAL-OPEN SPACE	C	13.0	\$ 6,191.08	\$ 80,484.04
291	221500000051	NORTHERN GOPHER ENTERPRISES INC	17976 JUDICIAL RD	LAKEVILLE, MN	55044-9329			COMMERCIAL-PREFERRED-OPEN SPACE	C	4.0	\$ 6,191.08	\$ 24,764.32
292	221499002010	GARY S & BARBARA I MAY	17768 LAYTON PATH	LAKEVILLE, MN	55044	17768	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
293	221499002020	RYAN & AMY J MURRAY	17764 LAYTON PATH	LAKEVILLE, MN	55044	17764	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
294	221499002030	COLLEEN P HOLMQUIST TRUST	17760 LAYTON PATH	LAKEVILLE, MN	55044-5214	17760	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
295	221499002040	JAMES M & PATRICIA R TSTES TAYLOR	26083 SEMINOLE LAKES BLVD	PUNTA GORDA, FL	33955	17756	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08

**Preliminary Assessment Roll**

City Name Project: 2020 Street Reconstruction Project  
City Project No.: 20-02

Assessment Category

- A
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*Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1st Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park; Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1st Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2nd Addition; Lake Villa Golf Estates 3rd Addition; Lake Villa Golf Estates 4th Addition; Lake Villa Golf Estates Fifth Addition; Lake Villa Golf Estates 6th Addition; Lake Villa Golf Estates 7th Addition; Lake Villa Golf Estates 8th Addition; Lake Villa Golf Estates 9th Addition; Nelson Addition; The Oaks of Lakevilla; Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.*

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
296	221499002050	STANLEY & KATHERINE GADEK	17752 LAYTON PATH	LAKEVILLE, MN	55044	17752	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
297	221499002060	TIMOTHY S & KATHRYN L SWAIL	17748 LAYTON PATH	LAKEVILLE, MN	55044	17748	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
298	221499002070	KIRK W & JULIE L DETLEFSEN	17744 LAYTON PATH	LAKEVILLE, MN	55044-5214	17744	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
299	221499002080	BRENT & ELIZABETH FULLER	17740 LAYTON PATH	LAKEVILLE, MN	55044	17740	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
300	221499002090	BRIAN A & CARLA M KNAPP	17736 LAYTON PATH	LAKEVILLE, MN	55044-5214	17736	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
301	221499002100	DAVID J & LEE A TST BIGLER	17732 LAYTON CT	LAKEVILLE, MN	55044-5218	17732	LAYTON CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
302	221499002110	MARTIN & MARY GADEK	17728 LAYTON CT	LAKEVILLE, MN	55044-5218	17728	LAYTON CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
303	221499002120	DENNIS B & NANCY L KUNKEL	17724 LAYTON CT	LAKEVILLE, MN	55044-5218	17724	LAYTON CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
304	221499002130	MITCHELL G & SHERRY JOHNSTON	17720 LAYTON CT	LAKEVILLE, MN	55044-5218	17720	LAYTON CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
305	221499002140	EDWIN DAHLGREN	17716 LAYTON CT	LAKEVILLE, MN	55044	17716	LAYTON CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
306	221499002150	MARIE HOLMES SMITH	17712 LAYTON CT	LAKEVILLE, MN	55044-5218	17712	LAYTON CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
307	221499002160	STEVEN J & SARA W LEBENS	17708 LAYTON CT	LAKEVILLE, MN	55044	17708	LAYTON CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
308	221499002170	RANDALL L & TAMARA A JOHNSON	17704 LAYTON CT	LAKEVILLE, MN	55044-5218	17704	LAYTON CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
309	221499002180	KENNETH B & KARYN M BAELL	17702 LAYTON CT	LAKEVILLE, MN	55044	17702	LAYTON CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
310	224432602010	DIANE M SCHUVEILLER	17700 LAYTON PATH	LAKEVILLE, MN	55044	17700	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
311	224432602020	MONICA CRONIN	17696 LAYTON PATH	LAKEVILLE, MN	55044	17696	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
312	224432602030	JOSEPH M & BRISSA M BYRON	17692 LAYTON PATH	LAKEVILLE, MN	55044	17692	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
313	224432602040	ROBERT W OBRIEN	17688 LAYTON PATH	LAKEVILLE, MN	55044	17688	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
314	224432602050	DUSTIN S SIEMERS	17807 179TH TRL W	LAKEVILLE, MN	55044-5206	17807	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
315	224432602060	CRAIG S & ROSE M WOLFSON	17811 LAKE COVE CIR	LAKEVILLE, MN	55044-5212	17811	LAKE COVE CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
316	224432602070	PATRICK O JOHNSON	17815 LAKE COVE CIR	LAKEVILLE, MN	55044-5212	17815	LAKE COVE CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
317	224432602080	TOD J & PAULA R BJORKMAN	17819 LAKE COVE CIR	LAKEVILLE, MN	55044-5212	17819	LAKE COVE CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
318	224432602090	T JEFFREY & WENDY L LAPITZ	17823 LAKE COVE CIR	LAKEVILLE, MN	55044-5212	17823	LAKE COVE CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
319	224433202010	DENNIS & ELLEN BRUWELHEIDE	17849 LANESBORO CT	LAKEVILLE, MN	55044-5230	17849	LANESBORO CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
320	224433202020	SCOTT A & AMY L LOVELESS	17853 LANESBORO CT	LAKEVILLE, MN	55044-5230	17853	LANESBORO CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
321	224433202030	MAEFOL TISELL	17857 LANESBORO CT	LAKEVILLE, MN	55044	17857	LANESBORO CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
322	224433202040	BENJAMIN G TSTE WILLIAMS	17861 LANESBORO CT	LAKEVILLE, MN	55044	17861	LANESBORO CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
323	224433202050	EDDIE BENDER	17858 LANESBORO CT	LAKEVILLE, MN	55044-5230	17858	LANESBORO CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
324	224433202060	EDDIE & KRISTINE ANN BENDER	17854 LANESBORO CT	LAKEVILLE, MN	55044-5230	17854	LANESBORO CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
325	224433202070	RAMON A & SANDRA K BALTERA	17850 LANESBORO COURT	LAKEVILLE, MN	55044-5230	17850	LANESBORO CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
326	224433202080	ROBERT P & KRISTY JO LEACH	17835 179TH TRL W	LAKEVILLE, MN	55044-5207	17835	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
327	224433202090	JEAN A TSTE SHEEHAN	17839 179TH TRL W	LAKEVILLE, MN	55044-5207	17839	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
328	224433202100	CLAYTON D & ASHLYN L BECKER	17843 179TH TRL W	LAKEVILLE, MN	55044-5207	17843	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
329	224433202110	JAMES & SANDRA WALZ	17845 179TH TRL	LAKEVILLE, MN	55044-5207	17845	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
330	224433202120	MARK S & LYNN M BRUNNER	17849 179TH TRL W	LAKEVILLE, MN	55044-5207	17849	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
331	224433202130	RICHARD J & JODI L SCHWEGMAN	17853 179TH TRL W	LAKEVILLE, MN	55044-5207	17853	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
332	224433202140	MICHAEL J & BRIDGET M RIEF	17857 179TH TRL W	LAKEVILLE, MN	55044-5207	17857	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
333	224433202150	LEE E BRANDT	17861 179TH TRL W	LAKEVILLE, MN	55044-5207	17861	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
334	224433202160	DARIN M & STEPHANIE VOTE	17865 179TH TRL W	LAKEVILLE, MN	55044	17865	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
335	224433103140	PATRICK J & CAROL F KILBRIDE	17869 179TH TRL W	LAKEVILLE, MN	55044-5207	17869	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
336	224433103130	CHARLES M & LINDA L MAGUIRE	17873 179TH TRL W	LAKEVILLE, MN	55044-5207	17873	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
337	224433103121	ALCEDE GREGORY CLARK	17877 179TH TRL W	LAKEVILLE, MN	55044	17877	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
338	224433103111	B RICHARD & JUDITH VOGEN	17883 179TH TRL W	LAKEVILLE, MN	55044-5207	17883	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
339	224433103090	SCOTT B & KELLY J JACOBUS	17887 179TH TRL W	LAKEVILLE, MN	55044	17887	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
340	224433103080	MARK W & PAMELA K NIPPA	17891 179TH TRL	LAKEVILLE, MN	55044-5207	17891	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
341	224433103070	PAUL F RESBERG	17943 KETTLE RIVER CT	LAKEVILLE, MN	55044	17943	KETTLE RIVER CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
342	224433103060	CURT J TSTE & DEBORAH A TSTE LEMBECK	17965 KETTLE RIVER CT	LAKEVILLE, MN	55044	17965	KETTLE RIVER CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
343	224433103050	STEPHEN & KIMBERLY HAMRICK	17987 KETTLE RIVER CT	LAKEVILLE, MN	55044-5226	17987	KETTLE RIVER CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
344	224433103040	PAUL D H & ELISABETH F H PEDERSON	17994 KETTLE RIVER CT	LAKEVILLE, MN	55044	17994	KETTLE RIVER CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
345	224433103030	ERIC T & LAURIE A FIEDLER	17964 KETTLE RIVER CT	LAKEVILLE, MN	55044-5226	17964	KETTLE RIVER CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
346	224433103020	DEAN M & CARLA L SCHIFFLER	17895 179TH TRL W	LAKEVILLE, MN	55044-7248	17895	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
347	224433103010	JOHN G KLESCH	17899 179TH TRL W	LAKEVILLE, MN	55044-7248	17899	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
348	227589006040	SCOTT A SHEPPARD	17873 KENAI CIR	LAKEVILLE, MN	55044	17873	KENAI CIR	RESIDENTIAL-TOWNHOUSE	C	1.0	\$ 6,191.08	\$ 6,191.08
349	227589006030	ADELMO & HILDA MONSALVE	17879 KENAI CIR	LAKEVILLE, MN	55044	17879	KENAI CIR	RESIDENTIAL-TOWNHOUSE	C	1.0	\$ 6,191.08	\$ 6,191.08
350	227589006020	JENNIFER A HEIMKES	17885 KENAI CIR	LAKEVILLE, MN	55044	17885	KENAI CIR	RESIDENTIAL-TOWNHOUSE	C	1.0	\$ 6,191.08	\$ 6,191.08
351	227589006010	DUKE & MY-LINH VU	17891 KENAI CIRCLE	LAKEVILLE, MN	55044	17891	KENAI CIR	RESIDENTIAL-TOWNHOUSE	C	1.0	\$ 6,191.08	\$ 6,191.08
352	224432503100	REBECCA WRIGHT	17865 KEOKUK AVE	LAKEVILLE, MN	55044	17865	KEOKUK AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
353	224433301010	PETER J & ANNE E THURNAU	17902 179TH TRL W	LAKEVILLE, MN	55044	17902	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
354	224433101010	STEVEN & NERGIS PETERSEN	17898 179TH TRL	LAKEVILLE, MN	55044-7248	17898	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08

**Preliminary Assessment Roll**

City Name Project: 2020 Street Reconstruction Project  
City Project No.: 20-02

Assessment Category

- A
- B
- C
- D

Single Family Unit Assessment Rate (Collector, Klamath Trail) \$ 3,479.21  
Single Family Unit Assessment Rate (Residential, Orchard Area) \$ 5,398.93  
Single Family Unit Assessment Rate (Residential, Villa Estates Area) \$ 6,191.08  
Single Family Unit Assessment Rate (Residential, Marion Areal) \$ 3,709.55

Date: 10/21/2019  
Revised: 11/4/2019

*Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1st Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park; Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1st Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2nd Addition; Lake Villa Golf Estates 3rd Addition; Lake Villa Golf Estates 4th Addition; Lake Villa Golf Estates Fifth Addition; Lake Villa Golf Estates 6th Addition; Lake Villa Golf Estates 7th Addition; Lake Villa Golf Estates 8th Addition; Lake Villa Golf Estates 9th Addition; Nelson Addition; The Oaks of Lakevilla; Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.*

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
355	224433101020	MARSHALL YUNG	17894 179TH TRL W	LAKEVILLE, MN	55044	17894	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
356	224433101030	CHRISTOPHER S JOHNSON	17862 KESTREL CT	LAKEVILLE, MN	55044	17862	KESTREL CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
357	224433101040	THOMAS E & MARILYN T ALDERMAN	17832 KESTREL CT	LAKEVILLE, MN	55044-5225	17832	KESTREL CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
358	224433101050	TIMOTHY T TSTE WEIDENHAFT	17835 KESTREL CT	LAKEVILLE, MN	55044	17835	KESTREL CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
359	224433101060	SCOTT CRAIG	17865 KESTREL CT	LAKEVILLE, MN	55044-5224	17865	KESTREL CT	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
360	224433101070	ANTHONY TROY & CHRISTINE ELAINE SPURRILL	17890 179TH TRL W	LAKEVILLE, MN	55044	17890	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
361	224433101080	DANIEL T LEE	17886 179TH TRL W	LAKEVILLE, MN	55044	17886	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
362	224433101090	DAVID S & KATHLEEN R TOAY	17858 KEYSTONE PATH	LAKEVILLE, MN	55044-7125	17858	KEYSTONE PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
363	224433101100	JAMES H JR & KATHERINE R LINDAU	17828 KEYSTONE PATH	LAKEVILLE, MN	55044	17828	KEYSTONE PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
364	224432804010	MICHAEL D NYLUND	11716 177TH ST W	LAKEVILLE, MN	55044	17762	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
365	224432804020	BRENT A & MICHELLE M HALLIDAY	17756 KEYSTONE AVE	LAKEVILLE, MN	55044-9365	17756	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
366	224432503240	SATASHA L GREEN	17746 KEYSTONE AVE	LAKEVILLE, MN	55044	17746	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
367	224432503230	BARBARA L SATROM REVOCABLE INERVIVOS T	17734 KEYSTONE AVE	LAKEVILLE, MN	55044	17734	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
368	224432503220	MARK S & LAUREN G IANNACI	17720 KEYSTONE AVE	LAKEVILLE, MN	55044-9365	17720	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
369	224432503210	RICHARD J & MARY JO TSTEE ADAMS	17700 KEYSTONE AVE	LAKEVILLE, MN	55044	17700	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
370	224432503200	NATHAN J & SHANNON M WESTON	11630 177TH ST W	LAKEVILLE, MN	55044	11630	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
371	224432503190	ISAAC OMURWA	11600 177TH ST W	LAKEVILLE, MN	55044	11600	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
372	224432503180	NATHAN BREN	11570 177TH ST W	LAKEVILLE, MN	55044	11570	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
373	224432503170	ROBERT R & DEBORAH L ARNOLD	17715 KETTERING TRL	LAKEVILLE, MN	55044-9354	17715	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
374	224432503160	MICHAEL & GALE BRAUN	17721 KETTERING TRL	LAKEVILLE, MN	55044-9354	17721	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
375	224432503150	TERENCE J FITZPATRICK	17729 KETTERING TRL	LAKEVILLE, MN	55044-9354	17729	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
376	224432503140	DAVID P GROSS	17735 KETTERING TRL	LAKEVILLE, MN	55044	17735	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
377	224432503130	SUSAN VERONICA SIMONSEN	17751 KETTERING TRL	LAKEVILLE, MN	55044-9354	17751	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
378	224432503120	EDWARD G & AMY HELLIER	17801 KEOKUK AVE	LAKEVILLE, MN	55044-7214	17801	KEOKUK AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
379	224432503110	JAMES R & JOYCE J HAYENGA	17831 KEOKUK AVE	LAKEVILLE, MN	55044-7214	17831	KEOKUK AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
380	224432503080	RICHARD GARIPEY	17749 KEOKUK AVE	LAKEVILLE, MN	55044	17749	KEOKUK AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
381	224432503090	DENNIS L & JULIANA BALYEAT	17771 KEOKUK AVE	LAKEVILLE, MN	55044-7214	17771	KEOKUK AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
382	224432503070	EDWARD M & JOAN E OREILLY	17730 KETTERING TRL	LAKEVILLE, MN	55044-9353	17730	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
383	224432503060	MICHAEL GROH	17722 KETTERING TRL	LAKEVILLE, MN	55044	17722	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
384	224432503050	NATHAN ZIEGLMEIER	17718 KETTERING TRL	LAKEVILLE, MN	55044	17718	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
385	224432503040	AUDREY E TSTE JOHNSON	17714 KETTERING TRL	LAKEVILLE, MN	55044	17714	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
386	224432503030	JOHN D & CAROLE BASTIN	17708 KETTERING TRL	LAKEVILLE, MN	55044-9353	17708	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
387	224432503020	DAVID J & KERI A GRADEN	11540 177TH ST W	LAKEVILLE, MN	55044	11540	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
388	224432503010	ROBERT H & KAREN A BRUMMER	11510 177TH ST W	LAKEVILLE, MN	55044-9360	11510	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
389	224432502070	LAYNE JOHNSON	11635 177TH ST W	LAKEVILLE, MN	55044	11635	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
390	224432502060	RICHARD A & DIANE S KRUEGER	11605 177TH ST W	LAKEVILLE, MN	55044-7676	11605	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
391	224432502050	PAUL R KATH	11585 177TH ST W	LAKEVILLE, MN	55044-9358	11585	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
392	224432502040	TIMOTHY G FORD	17685 KETTERING TRL	LAKEVILLE, MN	55044	17685	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
393	224432502030	JAMES A TSTTE THOMAS	17679 KETTERING TRL	LAKEVILLE, MN	55044	17679	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
394	224432502020	STEVEN A WUNDERLICH	17671 KETTERING TRL	LAKEVILLE, MN	55044	17671	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
395	224432502010	BRADLEY A & JODI SALMI	17661 KETTERING TRL	LAKEVILLE, MN	55044	17661	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
396	224432502100	GRANT W & GAYLE SCHERER	17640 KEYSTONE AVE	LAKEVILLE, MN	55044-9363	17640	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
397	224432502090	BRUCE R SCHULBERG	17656 KEYSTONE AVE	LAKEVILLE, MN	55044-9363	17656	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
398	224432502080	TROY F FRIEDGES	17676 KEYSTONE AVE	LAKEVILLE, MN	55044	17676	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
399	224432504040	MICHELLE A ROBISON	17679 KEYSTONE AVE	LAKEVILLE, MN	55044	17679	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
400	224432504030	DENISE R & KENNETH S KAPPELMANN	17661 KEYSTONE AVE	LAKEVILLE, MN	55044-9364	17661	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
401	224432504020	PETER C DERY	17643 KEYSTONE AVE	LAKEVILLE, MN	55044-9364	17643	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
402	224432504010	HAROLD H CLAUSEN	17625 KEYSTONE AVE	LAKEVILLE, MN	55044-9364	17625	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
403	224433003160	LEON G & LISA M SCHWANKE	17645 KETTERING TRL	LAKEVILLE, MN	55044-9344	17645	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
404	224433003150	CRAIG S ANDERSON	17641 KETTERING TRL	LAKEVILLE, MN	55044-9344	17641	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
405	224433003140	MICHAEL V THEISEN	17637 KETTERING TRL	LAKEVILLE, MN	55044-9344	17637	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
406	224433003130	JAMES P & BARBARA A BRIANT	17633 KETTERING TRL	LAKEVILLE, MN	55044-9344	17633	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
407	224433003120	MICHAEL T & PATRICE ELSNPETER	17629 KETTERING TRL	LAKEVILLE, MN	55044-9344	17629	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
408	224433003110	CYNTHIA C KORPELA	17625 KETTERING TRL	LAKEVILLE, MN	55044	17625	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
409	224433003100	NICHOLAS R & ROSEMARY E STEVENS	500 GREEN HAVEN DR UNIT 310	BURNSVILLE, MN	55337	17621	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
410	224433003090	GARY M & ROSEMARY MIKKELSON	17617 KETTERING TRL	LAKEVILLE, MN	55044-9344	17617	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
411	224433003080	STEVEN R & LAURIE L SIMONSEN	17613 KETTERING TRL	LAKEVILLE, MN	55044-9344	17613	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
412	224433003070	KIMBERLY V HARWOOD	17609 KETTERLING TRL	LAKEVILLE, MN	55044-9344	17609	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
413	224433003060	STEPHEN GREGORY TSTE WETZEL	17605 KETTERING TRL	LAKEVILLE, MN	55044	17605	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08

**Preliminary Assessment Roll**

City Name Project: 2020 Street Reconstruction Project  
City Project No.: 20-02

Assessment Category

A  
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Revised: 11/4/2019

Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1st Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park; Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1st Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2nd Addition; Lake Villa Golf Estates 3rd Addition; Lake Villa Golf Estates 4th Addition; Lake Villa Golf Estates Fifth Addition; Lake Villa Golf Estates 6th Addition; Lake Villa Golf Estates 7th Addition; Lake Villa Golf Estates 8th Addition; Lake Villa Golf Estates 9th Addition; Nelson Addition; The Oaks of Lakevilla; Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
414	224433003050	DAVID S & CAROLYN P RONNEBERG	17601 KETTERING TRL	LAKEVILLE, MN	55044-9344	17601	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
415	224433003040	PAUL & SALLY GUSTAFSON	17597 KETTERING TRL	LAKEVILLE, MN	55044	17597	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
416	224433003030	MICHAEL & CANDICE HOJAN	17593 KETTERING TRL	LAKEVILLE, MN	55044-8657	17593	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
417	224433003020	JOHN E & LESLI A WIESE	17589 KETTERING TRL	LAKEVILLE, MN	55044-8657	17589	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
418	224433003010	CHRISTOPHER ALAN & AMY JO STREETER	17585 KETTERING TRL	LAKEVILLE, MN	55044	17585	KETTERING TRL	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
419	224432601010	JEAN PIERRE MENARD	17701 LAYTON PATH	LAKEVILLE, MN	55044-5216	17701	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
420	224432601020	KENNETH R & JOANNE M MOSIER	17699 LAKE OAK CIR	LAKEVILLE, MN	55044-5211	17699	LAKE OAK CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
421	224432601030	PHILIP RICHARD HOCKING	17697 LAKE OAK CIR	LAKEVILLE, MN	55044	17697	LAKE OAK CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
422	224432601040	ANDREW D CROWDER	17695 LAKE OAK CIR	LAKEVILLE, MN	55044	17695	LAKE OAK CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
423	224432601050	ERICK J & TRACEY A PIPER	17693 LAKE OAK CIR	LAKEVILLE, MN	55044	17693	LAKE OAK CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
424	224432601060	JEFFREY S & LINDA L COULSON	17691 LAKE OAK CIR	LAKEVILLE, MN	55044-5211	17691	LAKE OAK CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
425	224432601070	STEVEN A & VIRGINIA MOGENSEN	17689 LAKE OAK CIR	LAKEVILLE, MN	55044-5211	17689	LAKE OAK CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
426	224432601080	GERALD F & JANET S WAMBACH	17685 LAYTON PATH	LAKEVILLE, MN	55044-5215	17685	LAYTON PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
427	224432601090	MARK D TSTE SCHARMER	17683 KINGSWOOD CIR	LAKEVILLE, MN	55044-5210	17683	KINGSWOOD CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
428	224432601100	JAMES WITT	17681 KINGSWOOD CIR	LAKEVILLE, MN	55044	17681	KINGSWOOD CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
429	224432601110	RYAN J & JERAH M KAVOOSI	17679 KINGSWOOD CIR	LAKEVILLE, MN	55044-5210	17679	KINGSWOOD CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
430	224432601120	JOSHUA M HEIMKES	17677 KINGSWOOD CIR	LAKEVILLE, MN	55044	17677	KINGSWOOD CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
431	224432701010	MICHAEL S & NANCY G GAYDESKI	11825 177TH ST W	LAKEVILLE, MN	55044-7677	11825	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
432	224432701020	MARDELL RUTH COPSEY	11805 177TH ST W	LAKEVILLE, MN	55044-7677	11805	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
433	224432701030	DAVID & DAWN BARBER	11785 177TH ST W	LAKEVILLE, MN	55044-7677	11785	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
434	224432701040	ALICE M ESTES	11765 177TH ST W	LAKEVILLE, MN	55044	11765	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
435	224432701050	ANDREW M & KACEY J WIBERG	11745 177TH ST W	LAKEVILLE, MN	55044-5203	11745	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
436	224432701060	BRENT R & JUDITH M CONLOW	11735 177TH ST W	LAKEVILLE, MN	55044-5203	11735	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
437	224432701070	COLIN S & LESLEY G CLIFFORD	11715 177TH ST W	LAKEVILLE, MN	55044-5203	11715	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
438	224432604010	CHRISTOPHER M & NICKI J KIZER	17702 KINGSWAY PATH	LAKEVILLE, MN	55044	17702	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
439	224432604020	ROBERT W & LYNN M KERBER	11806 177TH ST W	LAKEVILLE, MN	55044-5201	11806	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
440	224432604030	VERA KALISTA	11786 177TH ST W	LAKEVILLE, MN	55044	11786	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
441	224432604040	ROBERT L & JOAN A TODOROVICH	11766 177TH ST	LAKEVILLE, MN	55044-5201	11766	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
442	224432802220	DYAN R KIRKLAND	17707 KINGSBURY CIR	LAKEVILLE, MN	55044	17707	KINGSBURY CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
443	224432802210	ZACHARY PEDERSON	17711 KINGSBURY CIR	LAKEVILLE, MN	55044-5219	17711	KINGSBURY CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
444	224432802200	DARIN J BECKERING	15593 MICHELE LN	EDEN PRAIRIE, MN	55346	17715	KINGSBURY CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
445	224432802190	KEVIN & JAYLENE WEAVER	17714 KINGSBURY CIR	LAKEVILLE, MN	55044-5219	17714	KINGSBURY CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
446	224432802180	STEPHEN J TSTE SHURTS	17712 KINGSBURY CIR	LAKEVILLE, MN	55044	17712	KINGSBURY CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
447	224432802170	TROY WILLIAM JOHNSON	17708 KINGSBURY CIR	LAKEVILLE, MN	55044-5219	17708	KINGSBURY CIR	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
448	224432605010	CHUANGXIN CHEN	11746 177TH ST W	LAKEVILLE, MN	55044-5200	11746	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
449	224432605020	NEAL I & KATHLEEN N KRZYZANIAK	11736 177TH ST W	LAKEVILLE, MN	55044-5200	11736	177TH ST W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
450	224432605030	MICHAEL JUSTIN WALKER	11716 177TH ST W	LAKEVILLE, MN	55044			RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
451	224432505010	DEBORAH L GERBER	17705 KEYSTONE AVE	LAKEVILLE, MN	55044	17705	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
452	224432505020	SHARON M BASSETT	17715 KEYSTONE AVE	LAKEVILLE, MN	55044-9366	17715	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
453	224432505030	MILO C & JENNIFER S JOHNSON	17733 KEYSTONE AVE	LAKEVILLE, MN	55044-9366	17733	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
454	224432505040	DONALD EUGENE TSTE MEESTER	17751 KEYSTONE AVE	LAKEVILLE, MN	55044-9366	17751	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
455	224432802160	ROBERT A & TAMARA A ALTAVILLA	17757 KEYSTONE AVE	LAKEVILLE, MN	55044-9366	17757	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
456	224432802150	RONALD E & GERRI R RISHL	17763 KEYSTONE AVE	LAKEVILLE, MN	55044-9366	17763	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
457	224432802140	WAYNE S & CAROL N PANKOW	17767 KEYSTONE AVE	LAKEVILLE, MN	55044-9366	17767	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
458	224432802130	GORDON B & DIANN BIRD	17773 KEYSTONE AVE	LAKEVILLE, MN	55044-9366	17773	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
459	224432802120	WILLIAM R TSTE VOTEL	17777 KEYSTONE AVE	LAKEVILLE, MN	55044-9366	17777	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
460	224432802110	JEAN LEON DOMINIQUE BOUVET	17781 KEYSTONE AVE	LAKEVILLE, MN	55044-9366	17781	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
461	224432802100	JOSEPH P HAEG	17787 KEYSTONE AVE	LAKEVILLE, MN	55044-9366	17787	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
462	224432802090	LONNY J BINDER	17756 KINGSWAY PATH	LAKEVILLE, MN	55044-5208	17756	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
463	224432802080	KEITH E & REGINA L RODEWALD	17752 KINGSWAY PATH	LAKEVILLE, MN	55044-5208	17752	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
464	224432802070	TIMOTHY L & TRACY M PAYNE	17740 KINGSWAY PATH	LAKEVILLE, MN	55044-5208	17740	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
465	224432802060	BONITA WONG	17728 KINGSWAY PATH	LAKEVILLE, MN	55044-5208	17728	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
466	224432802050	SCOTT R & LEISHA R BARUCH	17722 KINGSWAY PATH	LAKEVILLE, MN	55044-5208	17722	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
467	224432802040	DANIEL A & LAURA A BUEHRER	17718 KINGSWAY PATH	LAKEVILLE, MN	55044-5208	17718	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
468	224432802030	JOHN M & LAURA L BOCHE	17714 KINGSWAY PATH	LAKEVILLE, MN	55044-5208	17714	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
469	224432802020	NICHOLAS & MICHAELA HARTMANN	17710 KINGSWAY PATH	LAKEVILLE, MN	55044	17710	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
470	224432802010	MARY B & TERRY W FULLER	17706 KINGSWAY PATH	LAKEVILLE, MN	55044-5208	17706	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
471	224432603050	GERALD EUGENE PETERSON	17701 KINGSWAY PATH	LAKEVILLE, MN	55044-5209	17701	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
472	224432603040	JAMES W III & LAUREN E HARMON	17770 179TH TRL W	LAKEVILLE, MN	55044	17770	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08

**Preliminary Assessment Roll**

City Name Project: 2020 Street Reconstruction Project  
City Project No.: 20-02

Assessment Category

- A
- B
- C
- D

Single Family Unit Assessment Rate (Collector, Klamath Trail) \$ 3,479.21  
Single Family Unit Assessment Rate (Residential, Orchard Area) \$ 5,398.93  
Single Family Unit Assessment Rate (Residential, Villa Estates Area) \$ 6,191.08  
Single Family Unit Assessment Rate (Residential, Marion Areal) \$ 3,709.55

Date: 10/21/2019  
Revised: 11/4/2019

*Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1st Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park; Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1st Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2nd Addition; Lake Villa Golf Estates 3rd Addition; Lake Villa Golf Estates 4th Addition; Lake Villa Golf Estates Fifth Addition; Lake Villa Golf Estates 6th Addition; Lake Villa Golf Estates 7th Addition; Lake Villa Golf Estates 8th Addition; Lake Villa Golf Estates 9th Addition; Nelson Addition; The Oaks of Lakevilla; Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.*

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
473	224432603030	PATRICIA M EMERSON	17806 179TH TRL W	LAKEVILLE, MN	55044-5205	17806	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
474	224432603020	STEVEN A & CATHLEEN SMITH	17820 179TH TRL W	LAKEVILLE, MN	55044-5205	17820	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
475	224432603010	DOUGLAS B POUCH	17830 179TH TRAIL W	LAKEVILLE, MN	55044-5205	17830	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
476	224433201010	TROY DIEDE	17834 179TH TRL W	LAKEVILLE, MN	55044-5205	17834	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
477	224433201020	PETER J & KIMBERLY A DALY	17838 179TH TRL W	LAKEVILLE, MN	55044-5205	17838	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
478	224433201030	WELLS J WESCOTT	17842 179TH TRL W	LAKEVILLE, MN	55044-5205	17842	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
479	224433201040	SCOTT A KOCH	17846 179TH ST W	LAKEVILLE, MN	55044-5205	17846	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
480	224433201050	EDWARD T & JAYNE B LYONS	17850 179TH TRL W	LAKEVILLE, MN	55044	17850	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
481	224433201060	DAVID N BECK	17854 179TH TRL W	LAKEVILLE, MN	55044	17854	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
482	224433201070	BALASRINIVAS PRODDUTURI	17858 179TH TRL W	LAKEVILLE, MN	55044	17858	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
483	224433201080	JAY LANCE TSTE OELKE	17862 179TH TRL	LAKEVILLE, MN	55044	17862	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
484	224433201090	BRUCE & AMY ENGLISH	17866 179TH TRL W	LAKEVILLE, MN	55044	17866	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
485	224432801110	BRUCE L LAMBERT	17757 KINGSWAY PATH	LAKEVILLE, MN	55044-5209	17757	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
486	224432801100	ROGER & EDYTH TST FEICHTINGER	17751 KINGSWAY PATH	LAKEVILLE, MN	55044-5209	17751	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
487	224432801090	KENNETH R SEED	17745 KINGSWAY PATH	LAKEVILLE, MN	55044-5209	17745	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
488	224432801080	HPA JV BORROWER 2019-1 ML LLC	180 STETSON AVE N UNIT 3650	CHICAGO, IL	60601	17739	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
489	224432801070	WESLEY BRADEN	17733 KINGSWAY PATH	LAKEVILLE, MN	55044	17733	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
490	224432801061	NED K TSTE & BARBARA J TSTE ZARECKY	17727 KINGSWAY PATH	LAKEVILLE, MN	55044-5209	17727	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
491	224432801051	RUSSELL L & LAURIE R AKKERMAN	17721 KINGSWAY PATH	LAKEVILLE, MN	55044-5209	17721	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
492	224432801040	JOANNE MARIE HOLLEY	17717 KINGS WAY PATH	LAKEVILLE, MN	55044	17717	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
493	224432801030	DAVID J & TAMRA L ABBOTT	17713 KINGSWAY PATH	LAKEVILLE, MN	55044-5209	17713	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
494	224432801020	LAUREN & JOSEPH SWENSON	17709 KINGSWAY PATH	LAKEVILLE, MN	55044	17709	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
495	224432801010	JAMES D & MICHELLE A BOUSHEE	17705 KINGSWAY PATH	LAKEVILLE, MN	55044-5209	17705	KINGSWAY PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
496	224432803010	LAWRENCE E TSTE FORD	17786 KEYSTONE AVE	LAKEVILLE, MN	55044	17786	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
497	224432803020	RONALD A & GLORIA H SCHIECK	17782 KEYSTONE AVE	LAKEVILLE, MN	55044-9365	17782	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
498	224432803030	TIMOTHY RAYMOND & TONYA NYCOLE BOTSFORD	17778 KEYSTONE AVE	LAKEVILLE, MN	55044	17778	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
499	224432803040	MICHAEL R & JILL G WAGEMAN	17768 KEYSTONE AVE	LAKEVILLE, MN	55044-9365	17768	KEYSTONE AVE	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
500	224433102010	LEON N & JANET C NELSON	17831 KEYSTONE PATH	LAKEVILLE, MN	55044-7125	17831	KEYSTONE PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
501	224433102020	DAVID & DEBORAH OFFERMAN	17861 KEYSTONE PATH	LAKEVILLE, MN	55044-7125	17861	KEYSTONE PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
502	224433102030	STEVEN & JULIE VONSCHEMIDT	17891 KEYSTONE PATH	LAKEVILLE, MN	55044-7125	17891	KEYSTONE PATH	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
503	224433102040	ARTHUR L & ANGELA R PUTZ	17878 179TH TRL W	LAKEVILLE, MN	55044-5205	17878	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
504	224433102050	ILA S TSTE HAUGE	17874 179TH TRL W	LAKEVILLE, MN	55044-5205	17874	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
505	224433102060	DAVID L & SANDRA B NOVAK	17870 179TH TRL W	LAKEVILLE, MN	55044-5205	17870	179TH TRL W	RESIDENTIAL	C	1.0	\$ 6,191.08	\$ 6,191.08
506	224754602040	RONALD A & JUDY L ECKERSON	20249 KENSINGTON WAY	LAKEVILLE, MN	55044-5947	20249	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
507	224754602030	FRANCISCO MAI	20263 KENSINGTON WAY	LAKEVILLE, MN	55044	20263	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
508	224754602020	SCOTT & JENNIFER MCCUTCHEON	20277 KENSINGTON WAY	LAKEVILLE, MN	55044	20277	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
509	224754602010	JOSHUA R & JANELLE L KAHN	20291 KENSINGTON WAY	LAKEVILLE, MN	55044-5947	20291	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
510	224754601100	TAMARA A OECHSLE	20303 KENSINGTON WAY	LAKEVILLE, MN	55044	20303	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
511	224754601090	MICHAEL J UTECHT	20307 KENSINGTON WAY	LAKEVILLE, MN	55044-5948	20307	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
512	224754601080	DAVID M & LUCY E KERN	20311 KENSINGTON WAY	LAKEVILLE, MN	55044-5948	20311	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
513	224754601070	DANIEL J ENDRES	20315 KENSINGTON WAY	LAKEVILLE, MN	55044	20315	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
514	224754601060	CHAD C & ELIZABETH A CASWELL	20319 KENSINGTON WAY	LAKEVILLE, MN	55044-5948	20319	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
515	224754601050	RANDY LEONARD HOFSTAD	20323 KENSINGTON WAY	LAKEVILLE, MN	55044-5948	20323	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
516	224754601040	SCOTT J & JOAN T HASKINS	20327 KENSINGTON WAY	LAKEVILLE, MN	55044-5948	20327	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
517	224754901010	RANDY L & LISA L JENSEN	20331 KENSINGTON WAY	LAKEVILLE, MN	55044-5948	20331	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
518	224754901020	MICHAEL & MELINDA SELLERS	20335 KENSINGTON WAY	LAKEVILLE, MN	55044-5948	20335	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
519	224754601010	THONGSAY & SUSAN SIRIOUTHAY	20339 KENSINGTON WAY	LAKEVILLE, MN	55044-5948	20339	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
520	224754605010	JASON L BENDA	20347 KENSINGTON WAY	LAKEVILLE, MN	55044	20347	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
521	224754605020	PAMELA S WAAGBO	20351 KENSINGTON WAY	LAKEVILLE, MN	55044-5949	20351	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
522	224754605030	KELLY W & JESSICA R WILLIAMS	20355 KENSINGTON WAY	LAKEVILLE, MN	55044	20355	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
523	224754605040	LEROY III JOHNSON	20359 KENSINGTON WAY	LAKEVILLE, MN	55044-5949	20359	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
524	224754605050	ANDREW KENUTIS	20363 KENSINGTON WAY	LAKEVILLE, MN	55044	20363	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
525	224754605060	RHIANNON R & CHRISTOPHER J BAKER	20367 KENSINGTON WAY	LAKEVILLE, MN	55044	20367	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
526	224754605070	JAMES C & KERRIN M SWECKER	20371 KENSINGTON WAY	LAKEVILLE, MN	55044-5950	20371	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
527	224754606010	PATRICK L & VALERIE SIMON	20375 KENSINGTON WAY	LAKEVILLE, MN	55044-5950	20375	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
528	224754606020	RICHARD J TSTE MATTERN	20379 KENSINGTON WAY	LAKEVILLE, MN	55044	20379	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
529	224754606030	CONNIE L & BRYAN C NORUM	20383 KENSINGTON WAY	LAKEVILLE, MN	55044-5951	20383	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
530	224754606040	TIMOTHY R & LISA M ZILLMER	20387 KENSINGTON WAY	LAKEVILLE, MN	55044-5951	20387	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
531	224754606050	GARY WALTER KUCK	10828 202ND ST	LAKEVILLE, MN	55044-5954	10828	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55

**Preliminary Assessment Roll**

City Name Project: 2020 Street Reconstruction Project  
City Project No.: 20-02

Assessment Category

- A
- B
- C
- D

Single Family Unit Assessment Rate (Collector, Klamath Trail) \$ 3,479.21  
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Single Family Unit Assessment Rate (Residential, Villa Estates Area) \$ 6,191.08  
Single Family Unit Assessment Rate (Residential, Marion Areal) \$ 3,709.55

Date: 10/21/2019  
Revised: 11/4/2019

*Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1st Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park; Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1st Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2nd Addition; Lake Villa Golf Estates 3rd Addition; Lake Villa Golf Estates 4th Addition; Lake Villa Golf Estates Fifth Addition; Lake Villa Golf Estates 6th Addition; Lake Villa Golf Estates 7th Addition; Lake Villa Golf Estates 8th Addition; Lake Villa Golf Estates 9th Addition; Nelson Addition; The Oaks of Lakevilla; Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.*

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
532	224754606060	TROY A & SHERI SERGENT	10816 202ND ST W	LAKEVILLE, MN	55044-5954	10816	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
533	222850001010	BRADLEY ALAN SJOBERG	10716 202ND ST W	LAKEVILLE, MN	55044	10716	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
534	222850001020	BRIAN R & JANELLE S STROH	10708 202ND ST W	LAKEVILLE, MN	55044-6834	10708	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
535	222850001030	DAVID & GWENDOLYN KRUEGER	10698 202ND ST W	LAKEVILLE, MN	55044-5935	10698	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
536	224830001010	ALAN T & CYNTHIA H MEHLHORN	10690 202ND ST W	LAKEVILLE, MN	55044	10690	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
537	224830001020	PAUL V & TRACY L CRAIG	10668 202ND ST W	LAKEVILLE, MN	55044	10668	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
538	224830001030	KRESSON KAYE HRDLICHKA	10646 202ND ST W	LAKEVILLE, MN	55044	10646	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
539	224830001040	PAUL & MONICA ZYLA	10624 202ND ST W	LAKEVILLE, MN	55044	10624	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
540	221425001010	ELLEN & THOMAS OLSON	10586 202ND ST W	LAKEVILLE, MN	55044	10586	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
541	221425001020	JOEL JAY WIENS	10570 202ND ST W	LAKEVILLE, MN	55044-9301	10570	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
542	221425001030	CRAIG & CATHERINE NOORLUN	10558 202ND ST W	LAKEVILLE, MN	55044	10558	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
543	221425001040	BARRY W & GAIL A FICK	10546 202ND ST W	LAKEVILLE, MN	55044-9301	10546	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
544	221425001050	GEORGE G III & KAREN LOMAS	10538 202ND ST W	LAKEVILLE, MN	55044-9301	10538	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
545	221425001060	RICHARD G & CYNTHIA M LANGER	10530 202ND ST W	LAKEVILLE, MN	55044	10530	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
546	223100000010	CHRISTOPHER J OLSON	10527 202ND ST W	LAKEVILLE, MN	55044-5936	10527	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
547	224750001180	CHRISTOPHER & R OLSON	10527 202ND ST W	LAKEVILLE, MN	55044-5936			RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
548	224750001170	CRAIG S & CHRISTINE JENSEN	10561 202ND STR W	LAKEVILLE, MN	55044-9301	10561	202ND ST W	RESIDENTIAL	D	2.0	\$ 3,709.55	\$ 7,419.10
549	224750001141	STEVEN C & PATRICIA PETERS	10583 202ND ST W	LAKEVILLE, MN	55044-5937	10583	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
550	224750001123	ADAM J F & MICHAEL J WHITE	10603 202ND ST W	LAKEVILLE, MN	55044	10603	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
551	224750001111	JUDY BARGER	10617 202ND ST	LAKEVILLE, MN	55044	10617	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
552	224750001092	JOHN A BARGER	10625 202ND ST W	LAKEVILLE, MN	55044-9302	10625	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
553	224750001073	DANIEL J TSTE PECHA	10647 202ND ST W	LAKEVILLE, MN	55044	10647	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
554	224750001050	DEBORAH BROWN TSTE STEEPLES	10655 202ND ST W	LAKEVILLE, MN	55044-9302	10655	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
555	224750001040	JOHN M & GEORGETTA F OLSON	10669 202ND ST W	LAKEVILLE, MN	55044-9302	10669	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
556	223940001020	TROY ROBERT BANITT	10681 202ND ST W	LAKEVILLE, MN	55044-9302	10681	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
557	223940001010	ERIK J & AMANDA J SWANSON	10691 202ND ST W	LAKEVILLE, MN	55044	10691	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
558	227330002051	MICHAEL R & RONDA HINES	10715 202ND ST W	LAKEVILLE, MN	55044-7861	10715	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
559	227330002074	JAMES L & CINDY L ALEXANDER	10725 202ND ST W	LAKEVILLE, MN	55044-7861	10725	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
560	227330002090	JOSEPH L DAMMANN	10733 202ND ST WEST	LAKEVILLE, MN	55044-7861	10733	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
561	227330002100	MICHAEL A & RITA L GONZALES	10735 202ND ST W	LAKEVILLE, MN	55044	10735	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
562	227330002121	ROBERT C & DONITA K HELMAN	10747 202ND ST W	LAKEVILLE, MN	55044	10747	202ND ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
563	224754607040	WILLIAM E TSTE COCHRANE	20121 KENSINGTON WAY	LAKEVILLE, MN	55044	20121	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
564	224754607030	FRANK OWEN TSTE WHITCOMB	20137 KENSINGTON WAY	LAKEVILLE, MN	55044	20137	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
565	224754607020	WILLIAM A ORRIS	20151 KENSINGTON WAY	LAKEVILLE, MN	55044-5946	20151	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
566	224754607011	JAMES E & NANCY J ONDOV	20165 KENSINGTON WAY	LAKEVILLE, MN	55044-5946	20165	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
567	224754602090	DAVID SCOTT PARLIN	20179 KENSINGTON WAY	LAKEVILLE, MN	55044-5946	20179	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
568	224754602080	MARILYN L TSTE OLIPHANT	20193 KENSINGTON WAY	LAKEVILLE, MN	55044-5946	20193	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
569	224754602070	DAVID W & SHELLY A BERG	20207 KENSINGTON WAY	LAKEVILLE, MN	55044-5947	20207	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
570	224754602060	STEVEN B & BRENDA K KNOWLTON	20221 KENSINGTON WAY	LAKEVILLE, MN	55044-5947	20221	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
571	224754602050	LAWRENCE E SAUBER	20235 KENSINGTON WAY	LAKEVILLE, MN	55044	20235	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
572	224754603030	ALYSSA & KEVIN CASSIN	20252 KENSINGTON WAY	LAKEVILLE, MN	55044	20252	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
573	224754603040	BEN JR & MELANIE L RACHEL	20238 KENSINGTON WAY	LAKEVILLE, MN	55044-5947	20238	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
574	224754603050	DAVID J & KIM BAUMANN	20224 KENSINGTON WAY	LAKEVILLE, MN	55044-5947	20224	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
575	224754603060	EUGENE J PAULAUSKAS	20210 KENSINGTON WAY	LAKEVILLE, MN	55044-5947	20210	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
576	224754603070	MICHAEL SUNDLING	20196 KENSINGTON WAY	LAKEVILLE, MN	55044	20196	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
577	224754603080	CARL & BRITTANY JACOBSEN	20182 KENSINGTON WAY	LAKEVILLE, MN	55044	20182	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
578	224754603090	ROBERT T & KIMBERLY TRAPP	20168 KENSINGTON WY	LAKEVILLE, MN	55044-5946	20168	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
579	224754603100	ROBERT D TSTE GILLEN	20154 KENSINGTON WAY	LAKEVILLE, MN	55044	20154	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
580	224754603110	JORDAN & KRISTIN BOESER	20392 KENSINGTON WAY	LAKEVILLE, MN	55044	20392	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
581	224754603120	MATT & BETH N SHEILS	20386 KENSINGTON WAY	LAKEVILLE, MN	55044-5951	20386	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
582	224754603130	DAVID J & MARCIA M MELING	10851 203RD ST W	LAKEVILLE, MN	55044-5959	10851	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
583	224754603140	BRUCE A & LORI J WEGNER	10869 203RD ST W	LAKEVILLE, MN	55044-5959	10869	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
584	224754603150	WENDY K HAROLDSON	10887 203RD ST W	LAKEVILLE, MN	55044-5959	10887	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
585	224754603160	JOSEPH & HEIDI KLEGSTAD	10905 203RD ST W	LAKEVILLE, MN	55044	10905	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
586	224754603170	MARK H & LUCINDA L MOLAND	10923 203RD ST W	LAKEVILLE, MN	55044-5952	10923	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
587	224754603180	TERENCE L & JOAN M KADRMAS	10941 203RD ST W	LAKEVILLE, MN	55044-5952	10941	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
588	224754603190	STEVEN S & NATASHA E LAFFERTY	10959 203RD ST W	LAKEVILLE, MN	55044-5952	10959	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
589	224754603020	JACOB BELANGER	20266 KENSINGTON WAY	LAKEVILLE, MN	55044	20266	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
590	224754603010	RICHARD & JULIE BOUCHARD	20280 KENSINGTON WAY	LAKEVILLE, MN	55044-5947	20280	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55

**Preliminary Assessment Roll**

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MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
591	224754604030	BRENDA S GARE	20338 KENSINGTON WAY	LAKEVILLE, MN	55044	20338	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
592	224754604040	DAVID R HAUPERT	20332 KENSINGTON WAY	LAKEVILLE, MN	55044	20332	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
593	224754604050	SUSANNE BARBARO	20326 KENSINGTON WAY	LAKEVILLE, MN	55044	20326	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
594	224754604060	WILLIAM LANGDON	20320 KENSINGTON WAY	LAKEVILLE, MN	55044-5948	20320	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
595	224754604070	JUDY J LANTTO	20314 KENSINGTON WAY	LAKEVILLE, MN	55044-5948	20314	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
596	224754604080	RUSSELL H & SUSAN M BEUMER	20308 KENSINGTON WAY	LAKEVILLE, MN	55044-5948	20308	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
597	224754604090	J MICHAEL TSTE CONSOER	20302 KENSINGTON WAY	LAKEVILLE, MN	55044	20302	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
598	224754604100	BLAIR R & SHERYL L MEYER	10968 203RD ST W	LAKEVILLE, MN	55044-5952	10968	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
599	224754604110	JAMES A & CYNTHIA LAUBY	10948 203RD ST	LAKEVILLE, MN	55044-5952	10948	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
600	224754604120	LANE E & WENDY A LEIPOLD	10928 203RD ST W	LAKEVILLE, MN	55044-5952	10928	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
601	224754604130	ROBERT J & LYNN A SCHONTHALER	10908 203RD ST W	LAKEVILLE, MN	55044-5952	10908	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
602	224754604140	STANLEY E GLODOWSKI	10888 203RD ST	LAKEVILLE, MN	55044-5959	10888	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
603	224754604150	SCOTT & ASEA SAFGREN	10868 203RD ST	LAKEVILLE, MN	55044-5959	10868	203RD ST W	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
604	224754604160	JON A & AMY A WACKER	20380 KENSINGTON WAY	LAKEVILLE, MN	55044-5950	20380	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
605	224754604170	ELIZABETH NEGRON	20374 KENSINGTON WAY	LAKEVILLE, MN	55044	20374	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
606	224754604180	CRAIG S & LESLIE D ZANDER	20368 KENSINGTON WAY	LAKEVILLE, MN	55044-5950	20368	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
607	224754604190	VICTOR HUGO ANDRIANO SANCHEZ	20362 KENSINGTON WAY	LAKEVILLE, MN	55044	20362	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
608	224754604200	BETH R & SHAWN D TATGE	20366 KENSINGTON CT	LAKEVILLE, MN	55044-5945	20366	KENSINGTON CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
609	224754604210	THOMAS JR & MARTHA E MAURER	20352 KENSINGTON CT	LAKEVILLE, MN	55044-5945	20352	KENSINGTON CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
610	224754604220	JEREMY & TRACI FLICEK	20338 KENSINGTON CT	LAKEVILLE, MN	55044	20338	KENSINGTON CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
611	224754604230	CLYDE EVERETT GOODNER III	20324 KENSINGTON CT	LAKEVILLE, MN	55044-5945	20324	KENSINGTON CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
612	224754604240	AMY E & JAMES M KURTZ	20333 KENSINGTON CT	LAKEVILLE, MN	55044-5945	20333	KENSINGTON CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
613	224754604250	JOHN G & LINDA M FREEMARK	20341 KENSINGTON CT	LAKEVILLE, MN	55044-5945	20341	KENSINGTON CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
614	224754604260	MICHELLE M & ERIC C ANDERSON	20349 KENSINGTON CT	LAKEVILLE, MN	55044-5945	20349	KENSINGTON CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
615	224754604270	JEFFREY S & TINA A LEWIS	20357 KENSINGTON CT	LAKEVILLE, MN	55044-5945	20357	KENSINGTON CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
616	224754604280	JEFFREY J SCHOLTEN	20365 KENSINGTON CT	LAKEVILLE, MN	55044	20365	KENSINGTON CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
617	224754604290	RACHEL F HIVELY	20375 KINSINGTON CT	LAKEVILLE, MN	55044	20375	KENSINGTON CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
618	224754604300	JON C ERICKSON	20381 KENSINGTON CT	LAKEVILLE, MN	55044-5945	20381	KENSINGTON CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
619	224754604010	ROBERT D & MARIA D KOOISTRA	20350 KENSINGTON WAY	LAKEVILLE, MN	55044-5949	20350	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
620	224754604020	CADE PANKONIN	20344 KENSINGTON WAY	LAKEVILLE, MN	55044	20344	KENSINGTON WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
621	224754501010	KIMBERLY K SHANNON	20449 JUPITER WAY	LAKEVILLE, MN	55044	20449	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
622	224754501020	WARREN A BUHL	20443 JUPITER WAY	LAKEVILLE, MN	55044	20443	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
623	224754501030	JOHN W & LISA M BERG	20435 JUPITER WAY	LAKEVILLE, MN	55044-7831	20435	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
624	224754501040	RYAN J & KERRY M HENTGES	20427 JUPITER WAY	LAKEVILLE, MN	55044-7831	20427	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
625	224754501050	RANDALL D & MARY L BEST	20419 JUPITER WAY	LAKEVILLE, MN	55044-7831	20419	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
626	224754501060	JOHN W TROJOHN	20411 JUPITER WAY	LAKEVILLE, MN	55044-7830	20411	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
627	224754501070	JEREMY JOHN & ASHLEY JADE OLDENBURG	20403 JUPITER WAY	LAKEVILLE, MN	55044	20403	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
628	224754502010	GREG J & AMBER L HAFFELY	20395 JUPITER WAY	LAKEVILLE, MN	55044-7829	20395	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
629	224754502020	ROBERT B & LINDA A TSTE WICK	20387 JUPITER WAY	LAKEVILLE, MN	55044	20387	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
630	224754502030	TERRENCE W & JULIE A STORM	20379 JUPITER WAY	LAKEVILLE, MN	55044-7829	20379	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
631	224754502040	JOHN S & KRISTIN M RITTER	20371 JUPITER WAY	LAKEVILLE, MN	55044-7829	20371	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
632	224754801010	ANGELA & MICHAEL LAUNSBACH	20367 JUPITER WAY	LAKEVILLE, MN	55044	20367	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
633	224754504010	ROBERT K & REBECCA S LEGLER	20363 JUPITER WAY	LAKEVILLE, MN	55044-7829	20363	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
634	224754504020	EDWARD & SARA C SCHWARTZ	20355 JUPITER WAY	LAKEVILLE, MN	55044	20355	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
635	224754504030	JAMES W & MICHELLE R MERTZ	20347 JUPITER WAY	LAKEVILLE, MN	55044-7829	20347	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
636	224754504040	VICTOR MORALES	20339 JUPITER WAY	LAKEVILLE, MN	55044	20339	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
637	224754504050	AUGUSTO F TSTE & LYNNE A TSTE MOLINA	20331 JUPITER WAY	LAKEVILLE, MN	55044	20331	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
638	224754504060	TIMOTHY J & KATHLEEN MENS	20323 JUPITER WAY	LAKEVILLE, MN	55044-7829	20323	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
639	224754701010	DARRELL C & BONNIE M PAYNE	20307 JUPITER WAY	LAKEVILLE, MN	55044-7829	20307	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
640	224754701020	DENNIS G & INEZ HAUKOOS	20299 JUPITER WAY	LAKEVILLE, MN	55044-3812	20299	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
641	224754701030	THEDE J & TERESA MUTCH	20291 JUPITER WAY	LAKEVILLE, MN	55044-3812	20291	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
642	224754503220	NICOLE SEDERSKI-VADNAIS	20312 JUPITER WAY	LAKEVILLE, MN	55044	20312	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
643	224754503210	GALE & RHONDA LUEBKE	20324 JUPITER WAY	LAKEVILLE, MN	55044-7829	20324	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
644	224754503200	VINCENT H & MICHELE CAPOBIANCO	20338 JUPITER WAY	LAKEVILLE, MN	55044-7829	20338	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
645	224754503190	CHARLES E & CINDY L BESKE	20350 JUPITER WAY	LAKEVILLE, MN	55044-7829	20350	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
646	224754503180	WILLIAM J & MARY C GOERDT	20362 JUPITER WAY	LAKEVILLE, MN	55044-7829	20362	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
647	224754503170	JOAN K SIEPKES	20374 JUPITER WAY	LAKEVILLE, MN	55044-7829	20374	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
648	224754503160	MARK T & SHEILA WIRFS	20388 JUPITER WAY	LAKEVILLE, MN	55044-7829	20388	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
649	224754503150	PHILIP C & NANCY J MCCOY	20402 JUPITER WAY	LAKEVILLE, MN	55044-7830	20402	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55

**Preliminary Assessment Roll**

City Name Project: 2020 Street Reconstruction Project  
 City Project No.: 20-02

Assessment Category

A  
B  
C  
D

Single Family Unit Assessment Rate (Collector, Klamath Trail) \$ 3,479.21  
 Single Family Unit Assessment Rate (Residential, Orchard Area) \$ 5,398.93  
 Single Family Unit Assessment Rate (Residential, Villa Estates Area) \$ 6,191.08  
 Single Family Unit Assessment Rate (Residential, Marion Areal) \$ 3,709.55

Date: 10/21/2019  
 Revised: 11/4/2019

*Orchard Lake; Rock Island Townhomes; Kingsley Shores Senior Living; Klamath Glen; Swan Addition; Lau Addition; Sea Grit; Orchard Lake Hills; Hrkals Addition; Weisners Lake Addition; Lakeview Gardens; Liberty Heights; Goose Lake First Addition; Orchard Hills 1st Addition; Truehart Addition; Beachside; Orchard Oaks; Lyndale Lakes Club 1st Addition; Lyndale Lakes Club 2nd Addition; Bracketts Townhomes; Club Park Addition No. 1; Ken Con Estates First Addition; Orchard Lake Estates 1st Addition; Orchard Lake Estates 2nd Addition; Arland Park; Bracketts Townhomes; Bracketts Crossing; Bracketts Crossing Third Addition; Bracketts Estates; Simonsen 1st Addition; Lake Villa Golf Estates First Addition; Lake Villa Golf Estates 2nd Addition; Lake Villa Golf Estates 3rd Addition; Lake Villa Golf Estates 4th Addition; Lake Villa Golf Estates Fifth Addition; Lake Villa Golf Estates 6th Addition; Lake Villa Golf Estates 7th Addition; Lake Villa Golf Estates 8th Addition; Lake Villa Golf Estates 9th Addition; Nelson Addition; The Oaks of Lakevilla; Marion Village; Marion Village Second Addition; Marion Village Third Addition; Marion Village Fourth Addition; Marion Village Fifth Addition; Sullivans First Addition to Marion Heights; Garden Estates; Mehlhorn Beatty Addition; Juno Addition; Marion Heights; Greer and Sullivans Rearr; Blue Heron Bay.*

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY NUMBER	PROPERTY STREET	USE DESCRIPTION	ASSESSMENT CATEGORY	SF RES. EQUIV. UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
650	224754503140	TERRY L & GLENDA D LIND	20415 JUPITER CT	LAKEVILLE, MN	55044-7828	20415	JUPITER CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
651	224754503130	LELAND HOWARD THOMPSON	20407 JUPITER CT	LAKEVILLE, MN	55044-7828	20407	JUPITER CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
652	224754503120	AARON BRUMBAUGH	20399 JUPITER CT	LAKEVILLE, MN	55044	20399	JUPITER CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
653	224754503110	CHRISTOPHER COCKRILL	20391 JUPITER CT	LAKEVILLE, MN	55044	20391	JUPITER CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
654	224754503100	ANTHONY LAMONT FREEMAN	20383 JUPITER CT	LAKEVILLE, MN	55044	20383	JUPITER CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
655	224754503090	ANDREW N & NATALIE L NELSON	20386 JUPITER CT	LAKEVILLE, MN	55044	20386	JUPITER CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
656	224754503080	ANTHONY J & JUNE P CHERRIER	20392 JUPITER CT	LAKEVILLE, MN	55044-7828	20392	JUPITER CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
657	224754503070	SUSAN LYNN GRAVE	20396 JUPITER CT	LAKEVILLE, MN	55044-7828	20396	JUPITER CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
658	224754503060	JENNIFER M BORNHOLDT	20402 JUPITER CT	LAKEVILLE, MN	55044	20402	JUPITER CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
659	224754503050	RICK R RUD	20406 JUPITER CT	LAKEVILLE, MN	55044	20406	JUPITER CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
660	224754503040	KERMIT & TRACEE K TUCKER	20412 JUPITER CT	LAKEVILLE, MN	55044	20412	JUPITER CT	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
661	224754503030	DEREK G MUNZENRIEDER	20424 JUPITER WAY	LAKEVILLE, MN	55044	20424	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
662	224754503020	JASON J & JULIE ANN SCHAUER	20438 JUPITER WAY	LAKEVILLE, MN	55044-7831	20438	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55
663	224754503010	AARON M PETERSON	20450 JUPITER WAY	LAKEVILLE, MN	55044-7831	20450	JUPITER WAY	RESIDENTIAL	D	1.0	\$ 3,709.55	\$ 3,709.55

(1) THESE PARCLES HAVE FRONT FOOTAGE ON 175TH STREET WEST AND KETTERING TRAIL. ASSESSMENT AMOUNT WAS COMPUTED BY ACCOUNTING FOR TWO PARCELS ON 175TH STREET WEST (CATEGORY B) AND TWO ON KETTERING TRAIL (CATEGORY C).

## Memorandum

To: City of Lakeville

From: Adam Gadbois, PE  
Mitch Hatcher, PE

Date: October 21, 2019

Re: Assessment Justifications  
City Project No. 20-02  
WSB Project No. 013281-000

Financing for the street and storm sewer improvements within the 2020 Street Reconstruction Project will come from City Funds and Special Assessments. Special Assessments to benefitting properties are proposed to fund forty percent (40%) of the roadway surface and storm sewer improvements identified to be reconstructed for the project, with the remaining sixty percent (60%) funded using City Funds. Assessments for this project were calculated on a per parcel (unit) basis as identified in the City's Assessment Policy. Residential Equivalent Units (REU) have been assigned to parcels that are used or zoned as anything other than residential as indicated in the City of Lakeville Zoning Map.

Listed below is a summary of the assessment rational and justification for each property identified on the preliminary assessment roll and map provided in *Appendix C*. The summary is organized by zoning district as identified in the City of Lakeville Zoning Map, August 2018.

### RS-1, Single Family Residential District

Assessment Map ID Number(s)	Front Footage (LF)	Minimum Lot Width (LF)	Residential Equivalent Units (REU)	Justification
5,8-55,59, 61-76, 79-81, 84-86, 89-127, 132-157, 159-173, 175-180, 183-235, 238-256, 274-288, 292-347, 352-505	N/A	100	1	Special Assessment Policy – Section 4, “Properties guided or zoned for single-family use shall be made on a per parcel (unit) basis.” A factor of 1 is applied to single family and detached townhomes.
56-58, 60	N/A	100	.25	These four parcels are owned by the same property owner and only one residential dwelling exists.
85, 86	283.5, 263.5	100	1	Special Assessment Policy – Section 4, “A property may be assessed for more than one unit in cases where the property could be reasonably further

				subdivided in accordance with current zoning and subdivision requirement.” These parcels have enough frontage to be subdivided but the land characteristics are not buildable.
87, 174, 181	270, ~299, ~397	100	2	Special Assessment Policy – Section 4, “A property may be assessed for more than one unit in cases where the property could be reasonably further subdivided in accordance with current zoning and subdivision requirement.” Map ID 181 can only feasibly be subdivided into two parcels.
88	270, 395	100	5	Special Assessment Policy – Section 4, “A property may be assessed for more than one unit in cases where the property could be reasonably further subdivided in accordance with current zoning and subdivision requirement.” The City has received a preliminary layout for development on this parcel.
236, 237	200 & 209, 200 & 211	100	4	Special Assessment Policy – Section 4, “A property may be assessed for more than one unit in cases where the property could be reasonably further subdivided in accordance with current zoning and subdivision requirement.” These properties have frontage on 175 <sup>th</sup> Street West and Kettering Trail
185	N/A	100	1	Special Assessment Policy – Section 4, “Agricultural properties, regardless of the number of individual tax parcels, shall be assessed residential units commensurate with the number of users for the agricultural land”
77, 78, 82, 83, 180	Equal to or greater than 200	100	1	Special Assessment Policy – Section 4, “A property may be assessed for more than one unit in cases where the property could be reasonably further subdivided in accordance with current zoning and subdivision requirement.” Subdivision of these parcels is not feasible. Assigning these parcels 1 REU will prohibit future subdivision of these parcels.
291	459.33	100	4	This parcel’s primary use is commercial, but is not zoned as commercial and therefore the front footage is not multiplied by 1.5 to compute Assessable Units.

**RS-2, Single Family Residential District**

<b>Assessment Map ID Number(s)</b>	<b>Front Footage (LF)</b>	<b>Minimum Lot Width (LF)</b>	<b>Residential Equivalent Units (REU)</b>	<b>Justification</b>
533-535, 540-545	N/A	100	1	Special Assessment Policy – Section 4, “Properties guided or zoned for single-family use shall be made on a per parcel (unit) basis.” A factor of 1 is applied to single family and detached townhomes.

**RS-3, Single Family Residential District**

<b>Assessment Map ID Number(s)</b>	<b>Front Footage (LF)</b>	<b>Minimum Lot Width (LF)</b>	<b>Residential Equivalent Units (REU)</b>	<b>Justification</b>
506-532, 536-539, 546, 548-663	N/A	85	1	Special Assessment Policy – Section 4, “Properties guided or zoned for single-family use shall be made on a per parcel (unit) basis.” A factor of 1 is applied to single family and detached townhomes.
547	66, 64	85	1	These parcels are combined as neither has the minimum 85 LF front footage.

**P/OS, Public and Open Space District**

<b>Assessment Map ID Number(s)</b>	<b>Front Footage (LF)</b>	<b>Minimum Lot Width (LF)</b>	<b>Residential Equivalent Units (REU)</b>	<b>Justification</b>
6, 7	56, 113	100 (RS-1)	.50	Special Assessment Policy – Section 4, “special assessments in [Mixed Use] areas shall be the same methodology as the predominant surrounding land use and/or zoning of the area...”
128-131	53, 57.5, 156.5, 104	100 (RS-1)	.75	Same as above.
110	N/A	100	1	Same as above.
158	462	100	4	Same as above.
273	297.88	100	2	Same as above.

**RST-2, Single and Two Family Residential District**

Assessment Map ID Number(s)	Front Footage (LF)	Minimum Lot Width (LF)	Residential Equivalent Units (REU)	Justification
182	495	70	7	Special Assessment Policy – Section 4, “Properties guided or zoned for single-family use shall be made on a per parcel (unit) basis.”

**RM-1, Medium Density Residential District**

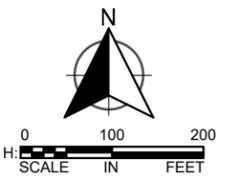
Assessment Map ID Number(s)	Front Footage (LF)	Minimum Lot Width (LF)	Residential Equivalent Units (REU)	Justification
257-272	N/A	70	.50	Special Assessment Policy – Section 4, “Properties guided or zoned for single-family use shall be made on a per parcel (unit) basis.” A factor of 0.50 is applied to townhomes. Only those parcels with direct frontage to Layton Path/Judicial Road are to be assessed. Those parcels adjacent to Landmark Court and Lancaster Court will not be assessed as they will ultimately bear the cost of reconstructing these private streets at some point in the future. Additionally, they do not receive a direct benefit from the public roadway being reconstructed.
289	897.53	100	8	This parcel's primary use is commercial, but is not zoned as commercial and therefore the front footage is not multiplied by 1.5 to compute Assessable Units.
290	1,361.34	100	13	Same as above.

**C-3, General Commercial District**

Assessment Map ID Number(s)	Front Footage (LF)	Minimum Lot Width (LF)	Residential Equivalent Units (REU)	Justification
4	425	100	4	The full front footage amount for this parcel is not used as a portion of it directly abuts Kingsley Lake. See <i>Exhibit 1</i> for measurement.

**PUD, Planned Unit Development District**

<b>Assessment Map ID Number(s)</b>	<b>Front Footage (LF)</b>	<b>Minimum Lot Width (LF)</b>	<b>Residential Equivalent Units (REU)</b>	<b>Justification</b>
3	359.57	100	3	This parcel's primary use is as a senior living facility, "special assessments in [Mixed Use] areas shall be the same methodology as the predominant surrounding land use and/or zoning of the area..."
2	315.38	100	3	Same as above.



MATCHLINE STA: 926+00  
SEE BELOW



MATCHLINE STA: 926+00  
SEE ABOVE

KLAMATH TRAIL CENTER LINE:	3,800 LF
TOTAL KLAMATH TRAIL FRONTAGE:	7,600 LF
<hr/>	
ASSESSABLE PARCEL FRONTAGE	
16760 KLAMATH TRAIL:	352.93 LF
11287 KLAMATH TRAIL:	400.00 LF
16880 KLAMATH TRAIL:	359.57 LF
16690 KLAMATH TRAIL:	315.38 LF
PID 224205001010:	198.94 LF
<hr/>	
TOTAL ASSESSABLE PARCEL FRONTAGE:	1,626.82 LF
<hr/>	
PERCENTAGE OF TOTAL FRONTAGE:	$1626.82 / 7,600 = 21.41\%$

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## **APPENDIX D**

### Geotechnical Evaluation Report

# Geotechnical Evaluation Report

City of Lakeville 2020 Street Reconstruction Project  
Two Project Areas  
Lakeville, Minnesota  
City Project 20-02

*Prepared for*

## City of Lakeville

### Professional Certification:

I hereby certify that this plan, specification, or report 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.



Neil G. Lund, PE  
Senior Engineer  
License Number: 46212  
October 4, 2019



Project B1907127

Braun Intertec Corporation

October 4, 2019

Project B1907127

Mr. Matt Barnard  
City of Lakeville  
20195 Holyoke Avenue  
Lakeville, MN 55044

Re: Geotechnical Evaluation  
City of Lakeville 2020 Street Reconstruction Project  
Two Project Areas  
Lakeville, Minnesota  
City Project 20-02

Dear Mr. Barnard:

We are pleased to present this Geotechnical Evaluation Report for the City of Lakeville 2020 Street Reconstruction Project.

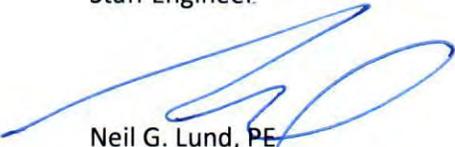
Thank you for making Braun Intertec your geotechnical consultant for this project. If you have questions about this report, or if there are other services that we can provide in support of our work to date, please contact Neil Lund at 952.995.2284 (nlund@braunintertec.com).

Sincerely,

BRAUN INTERTEC CORPORATION

*Cotette Brandenburg for:*

Mozhdeh Rajaei, EIT  
Staff Engineer

  
Neil G. Lund, PE  
Senior Engineer

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### Appendix

Soil Boring Location Sketch

Log of Boring Sheets ST-1 through ST-7, ST-9 through ST-67

Descriptive Terminology of Soil

## A. Introduction

### A.1. Project Description

This Geotechnical Evaluation Report addresses the proposed 2020 Street Reconstruction Project in Lakeville, Minnesota. The approximate location can be seen on the Soil Boring Location Sketch in the Appendix of this report. The project will include reclamation of the existing pavement, installation of new curb and gutter, storm sewer/water main spot improvements, and new surfacing. Table 1 provides project details.

**Table 1. Project Description**

<b>Aspect</b>	<b>Description</b>
Pavement type(s)	Bituminous (Assumed based on existing pavements)
Assumed pavement loads	50,000 to 100,000 Bituminous ESALs* (Assumed for typical residential streets)  200,000 ESALs (Estimated for Klamath Trail (MSAS 122) using MnDOT counts)
Grade changes	Less than 3 feet (Assumed)
Rehabilitation methods	Full-depth reclamation (FDR)
Utilities	Storm sewer/water main spot replacement

\*Equivalent 18,000-lb single axle loads based on 20-year design.

The figure below shows an illustration of the proposed project areas.

Figure 1. Project Areas

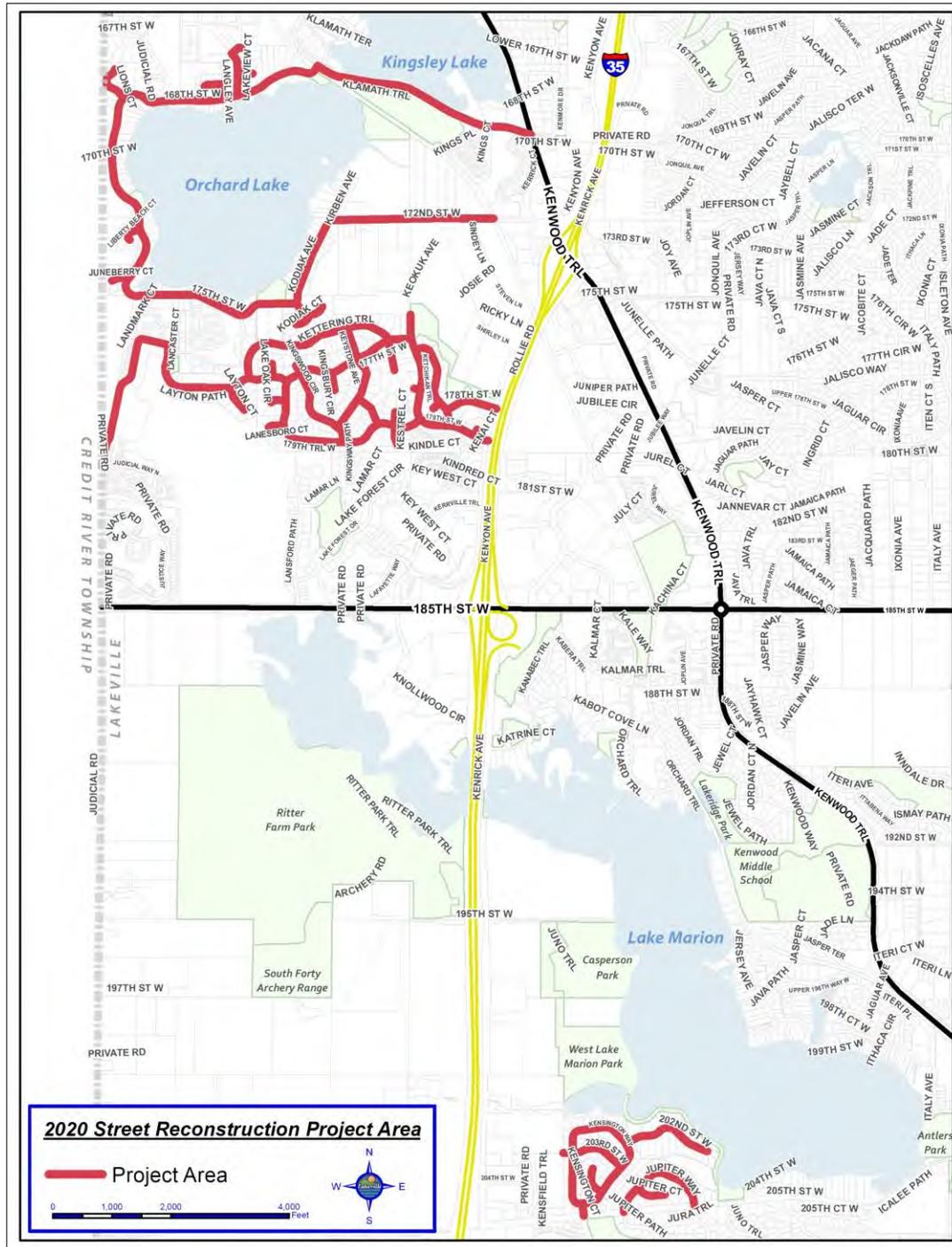


Figure provided by the City of Lakeville.

## **A.2. Site Conditions**

Currently, the project site consists of residential streets surrounded by several lakes (Krenz Lake, Orchard Lake, Kingsley Lake, and Marion Lake) and wetlands. Limited traffic data were available from MnDOT for the project area.

Current grades at the boring locations ranged from 979.5 to 1059.5 feet above mean sea level (MSL). Generally, the site is rolling and downward sloping towards the lakes.

## **A.3. Purpose**

The purpose of our geotechnical evaluation was to characterize subsurface geologic conditions at selected exploration locations and evaluate their impact on the design and construction of the City of Lakeville 2020 Street Reconstruction Project.

## **A.4. Background Information and Reference Documents**

We reviewed the following information:

- Previous geotechnical report prepared by Braun Intertec and submitted to City of Lakeville (adjacent to the proposed location) under project number B14-07789 dated August 21, 2017, and B1813046 dated February 14, 2019.
- Communications with the City of Lakeville regarding the proposed construction.
- A base map of the project area provided by the City of Lakeville.
- Geologic map *C-06 Geologic Atlas of Dakota County, Minnesota* prepared by the Minnesota Geological Survey dated 1990.
- Aerial imagery of the site available from Google Earth.
- MnDOT Traffic Data website (<https://mndot.maps.arcgis.com/apps/webappviewer/index.html?id=7b3be07daed84e7fa170a91059ce63bb>).

- Minnesota Department of Natural Resources lake finder website:  
(<https://www.dnr.state.mn.us/lakefind/index.html>)

We have described our understanding of the proposed construction and site to the extent others reported it to us. Depending on the extent of available information, we may have made assumptions based on our experience with similar projects. If we have not correctly recorded or interpreted the project details, the project team should notify us. New or changed information could require additional evaluation, analyses and/or recommendations.

### **A.5. Scope of Services**

We performed our scope of services for the project in accordance with our Proposal for a geotechnical evaluation to the City of Lakeville, dated June 24, 2019, and authorized on July 1, 2019. The following list describes the geotechnical tasks completed in accordance with our authorized scope of services.

- Reviewing the background information and reference documents previously cited.
- Staking and clearing the exploration location of underground utilities. We selected and staked the new exploration locations. We acquired the surface elevations and locations with GPS technology using the State of Minnesota's permanent GPS base station network. The Soil Boring Location Sketch included in the Appendix shows the approximate locations of the borings.
- Performing standard penetration test (SPT) borings, denoted as ST-1 to ST-7 and ST-9 to ST-67, to nominal depths of 5 to 10 feet below grade across the site. Borings ST-14 and ST-26 were extended to 14 1/2 feet depth to provide better understanding of the soil in the area. We eliminated boring ST-8 because of the limited access due to utilities and trees. Boring ST-48 met refusal at 11 feet due to possible gravel, cobbles, and boulders in the area.
- Performing laboratory testing on select samples to aid in soil classification and engineering analysis.
- Preparing this report containing a boring location sketch, logs of soil borings, a summary of the soils encountered, results of laboratory tests, and recommendations for pavement subgrade preparation, pavement design and utilities, and stormwater improvements.

Our scope of services did not include environmental services or testing, and we did not train the personnel performing this evaluation to provide environmental services or testing. We can provide these services or testing at your request.

## **B. Results**

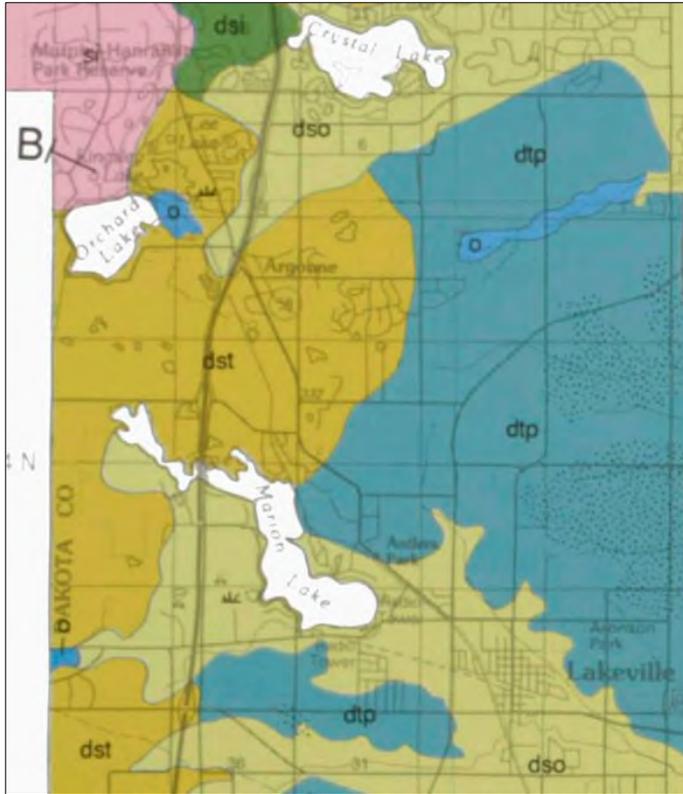
### **B.1. Geologic Overview**

The project site around Orchard Lake (ST-1 through ST-53) is generally underlain with mixed glacial till deposits associated with the Des Moines lobe (map unit “dst”) consisting of loam and sandy loam or sand and gravel associated with the Superior lobe (map unit “si”).

The project site around Marion Lake (ST-54 through ST-67) is generally underlain with mixed glacial outwash deposits associated with the Des Moines lobe (map unit “dso”) consisting of sand, loamy sand, and gravel.

Figure 2 below shows the site surficial geology from the Dakota County Geologic Atlas.

**Figure 2. Project Area Surficial Geology**



Surficial Geology map from the Dakota County Geologic Atlas.

We based the geologic origins used in this report on the soil types and laboratory testing, and available common knowledge of the geological history of the site. Because of the complex depositional history, geologic origins can be difficult to ascertain. We did not perform a detailed investigation of the geologic history for the site.

## **B.2. Previous Geotechnical Information**

We performed soil borings adjacent to this project area and submitted geotechnical evaluation reports to the City of Lakeville under project numbers B14-07789 and B1813046. Borings ST-1 through ST-5 (2018), ST-48, ST-49, ST-106, and ST-120 (2019) are in the area of the proposed project. The soil borings generally encountered a pavement layer underlain by fill over mixed glacial till and outwash deposits. Please refer to the mentioned reports for details and additional information.

### B.3. Boring Results

Tables 2 and 3 contain summaries of the pavement thicknesses and general subsurface conditions (soil types) encountered in each 5- and 10-foot boring. Note that aggregate base was observed and measured in the field by the drill crew and does not imply conformance with MnDOT standard specifications. The aggregate base thicknesses should also be considered approximate, as the transitions between the aggregate base and the underlying subgrade were difficult to discern. Laboratory tests were not performed to verify a specific aggregate base classification.

**Table 2. Pavement Thickness and Subgrade Soil Type Summary (5-foot borings)**

Boring	Pavement Thicknesses (inches)			Subsurface Soil Classification(s)
	Bituminous	Apparent Aggregate Base	Total	
ST-1	5	7	12	SP, CL
ST-3	7	3	10	SC
ST-5	6	8	14	SM, SP-SM
ST-7	9	6	15	SC, CL
ST-9	5	12	17	SC
ST-11	5	4	9	SC, SP
ST-13	4	5	9	SP-SM
ST-15	4	5	9	SC, SM
ST-17	6	6	12	SC
ST-19	4	6	10	SP-SM, SM
ST-21	6	8	14	SC
ST-23	8	6	14	SC
ST-25	6	5	11	CL
ST-27	5	6	11	SP, SC
ST-29	5	11	16	SC, SC-SM
ST-31	6	5	11	SP-SM
ST-33	5	7	12	SC, SP
ST-35	4	7	11	SP-SM
ST-37	6	7	13	SP-SM
ST-39	4	9	13	SP, SP-SM

Boring	Pavement Thicknesses (inches)			Subsurface Soil Classification(s)
	Bituminous	Apparent Aggregate Base	Total	
ST-41	4	8	12	SM, SC
ST-43	4	6	10	SM, SP
ST-45	3	7	10	SP-SM
ST-47	4	11	15	SC
ST-49	4	7	11	SC
ST-51	5	8	13	CL, SC
ST-53	4	10	14	SP-SM
ST-55	5	7	12	SP-SM
ST-57	5	7	12	SP-SM
ST-59	5	7	12	SP-SM
ST-61	5	7	12	SP-SM
ST-63	4	7	11	SP-SM
ST-65	4	7	11	SP-SM, SP
ST-67*	---	---	---	SP, SC
<b>Average</b>	<b>5</b>	<b>7</b>	<b>12</b>	

\*Pavement thickness was not measured in the field.

**Table 3. Pavement Thickness and Subgrade Soil Type Summary (10-foot borings)**

Boring	Pavement Thicknesses (inches)			Subsurface Soil Classification(s)
	Bituminous	Apparent Aggregate Base	Total	
ST-2	8	4	12	CL, OL, CH
ST-4	9	4	13	SM, SC, CL,
ST-6	6	6	12	SM, SP
ST-10	5 1/2	9	14 1/2	SP-SM, SM
ST-12	4	4	8	SC, SP-SM
ST-14*	7	6	13	SP, SC, CH
ST-16	4	6	10	SC, SP, CL
ST-18	4	9	13	SP, CL, SM

Boring	Pavement Thicknesses (inches)			Subsurface Soil Classification(s)
	Bituminous	Apparent Aggregate Base	Total	
ST-20	8	5	13	SP-SM
ST-22	6	6	12	SC
ST-24	6	6	12	SC, CL
ST-26 *	5	4	9	SC
ST-28	4	7	11	SP-SM, SP, CL
ST-30	6	10	16	SC
ST-32	4	10	14	SP-SM, SP
ST-34	5	7	12	SC, SM
ST-36	6	6	12	SP-SM, CL, SC, SM
ST-38	5	9	14	SP-SM, SC, CL
ST-40	4	5	9	SP, CL
ST-42	5	6	11	SM, SC
ST-44	4	10	14	SM, CL, SP
ST-46	5	6	11	SC
ST-48	4	11	15	SC, SM
ST-50	5	7	12	SC
ST-52	4	7	11	SP, SM
ST-54	5	8	13	SP-SM
ST-56	4	7	11	SP-SM, SP
ST-58	5	7	12	SP-SM, CL
ST-60	5	7	12	SP-SM
ST-62	4	7	11	SP-SM
ST-64	5	6	11	SP-SM, CL
ST-66	4	8	12	SP-SM
<b>Average</b>	<b>5</b>	<b>7</b>	<b>12</b>	

\*Soil boring extended to 14 1/2 feet.

Table 4 provides a summary of the soil boring results, in the general order we encountered the strata. Please refer to the Log of Boring sheets in the Appendix for additional details. The Descriptive Terminology of Soil sheet in the Appendix includes definitions of abbreviations used in Table 3.

**Table 4. Subsurface Profile Summary\***

Strata	Soil Type - ASTM Classification	Range of Penetration Resistances	Commentary and Details
Pavement section	---	---	<ul style="list-style-type: none"> <li>See Tables 2 and 3 above.</li> </ul>
Fill	SP, SP-SM, SM, SC, SC-SM, CL	3 to 37 BPF**	<ul style="list-style-type: none"> <li>General penetration resistance of sandy soils (SP, SP-SM, SM) 4 to 37 BPF.</li> <li>General penetration resistance of clayey soils (SC, SC-SM and CL) 3 to 15 BPF.</li> <li>Moisture condition generally moist.</li> <li>Not present in all soil borings.</li> <li>Highly variable, soils intermixed.</li> <li>Possible cobbles and boulders.***</li> </ul>
Buried topsoil	CL, OL	7 to 9 BPF	<ul style="list-style-type: none"> <li>Extended to depths ranging from 7 to 9 feet in Borings ST-2 and ST-4.</li> <li>Moisture content generally moist.</li> <li>Gray and black.</li> </ul>
Swamp deposits	CL, OL	3 to 7 BPF	<ul style="list-style-type: none"> <li>Extended to depths ranging from 9 to 12 feet in Borings ST-2 and ST-18.</li> <li>Moisture content generally moist.</li> <li>Dark gray and gray.</li> </ul>
Marl	CH	2 to 3 BPF	<ul style="list-style-type: none"> <li>Present at depths ranging from 12 to 14 1/2 feet in Boring ST-2.</li> <li>Moisture content generally wet.</li> <li>White.</li> </ul>
Alluvial	CL	7 to 10 BPF	<ul style="list-style-type: none"> <li>Present only in Boring ST-58 from 7 feet to boring termination depth.</li> <li>Brown.</li> <li>Moisture condition generally moist.</li> </ul>
Lacustrine deposits	SP, SC, CH	2 to 7 BPF	<ul style="list-style-type: none"> <li>Present only in Boring ST-14 from 4 feet to boring termination depth.</li> <li>Gray.</li> <li>General penetration resistance of clayey soils (CH, SC) 2 to 7 BPF.</li> <li>General penetration resistance of sandy soils (SP) 5 BPF.</li> <li>Moisture condition generally moist above water level and wet below water level.</li> </ul>

Strata	Soil Type - ASTM Classification	Range of Penetration Resistances	Commentary and Details
			<ul style="list-style-type: none"> <li>Occasional layers of slightly organic, wood fragments and roots.</li> </ul>
Glacial deposits (till and outwash)	SP, SP-SM, SM	3 to 50 blows for 4 inches of penetration	<ul style="list-style-type: none"> <li>Not encountered in all soil borings.</li> <li>General penetration resistance of clayey soils (SC, CL) 10 to 15 BPF.</li> <li>Intermixed layers of glacial outwash and till.</li> <li>Variable amounts of gravel; may contain cobbles and boulders.***</li> <li>General penetration resistance of sandy soils (SM, SP-SM, SP) 12 to 19 BPF.</li> <li>Brown, reddish brown, and gray.</li> <li>Moisture condition generally moist above water level and wet below water level.</li> </ul>
	SC, CL	3 to 27 BPF	

\*Abbreviations defined in the attached Descriptive Terminology of Soil sheet.

\*\* BPF – blows per foot.

\*\*\* Drillers noted auger chatter in most of the soil borings indicating possible gravel, cobbles, and boulders in the area.

For simplicity in this report, we define fill to mean existing, uncontrolled, or undocumented fill.

## B.4. Groundwater

Groundwater was observed while drilling at four soil boring locations (ST-2, ST-14, ST-18, and ST-24). Table 5 summarizes the depths where we observed groundwater; the attached Log of Boring sheets in the Appendix also include this information and additional details.

**Table 5. Groundwater Summary**

Location	Surface Elevation	Measured Depth to Groundwater (ft)	Corresponding Groundwater Elevation (ft)
ST-2	984.6	13	971 1/2
ST-14	979.5	2	977 1/2
ST-18	983.1	10	973
ST-24	998.5	5*	993 1/2

\*Possible perched water.

At the time of our observation, the groundwater surface elevation appeared to be about elevation ranged from 971 1/2 to 993 1/2 feet. MnDNR reports the ordinary high-water level (OHW) of Orchard Lake and Marion Lake to be about 977.6 and 983.1 feet above mean sea level (MSL) respectively.

The soil borings indicated layered soil profiles that is conducive for encountering perched water conditions. Groundwater may take days or longer to reach equilibrium in the boreholes and we immediately backfilled the boreholes in accordance with our scope of work. If the project team identifies a need for more accurate determination of groundwater depth, we can install piezometers. Project planning should anticipate seasonal and annual fluctuations of groundwater.

## **B.5. Laboratory Test Results**

The boring logs show the results of laboratory testing we performed next to the tested sample depth.

### **B.5.a. Moisture Contents**

We performed moisture content (MC) tests (per ASTM D2216) on selected samples to aid in our classifications and estimations of the materials' engineering properties. The Log of Boring Sheets attached in the Appendix present the results of the MC tests in the "MC" column.

### **B.5.b. Organic Content**

We performed organic content (OC) tests (per ASTM D2974) on a selected sample to determine the reusability of the material within new and reconstructed embankments. The Log of Boring sheets in the Appendix show the results of the OC test in the "Tests or Remarks" column.

### **B.5.c. Percent Passing the #200 Sieve Tests**

We performed tests to evaluate the percent of particles passing the #200 sieve (P200) (per ASTM D1140) to assist in classification of the granular material. The Log of Boring sheets list the results of P200 tests in the "Tests or Remarks" column.

### **B.5.d. Atterberg Limits**

We performed Atterberg limits tests (per ASTM D4318) on selected samples for classification, evaluation of the soil's plasticity, and estimation of engineering parameters related to consolidation to aid in settlement calculations. The Log of Boring sheets list the results of Atterberg limits tests in the "Tests or Remarks" column.

Tables 6 presents the results of our laboratory tests.

**Table 6. Laboratory Classification Test Results**

Location	Sample Depth (ft)	Classification	Moisture Content (w, %)	Percent Passing a #200 Sieve	Organic Content (%)	Liquid Limit	Plastic Index	Plastic Limit
ST-1	2 1/2	Poorly graded sand (SP)	8	---	---	---	---	---
ST-2	5	Lean clay (CL)	18	---	3	---	---	---
ST-3	2 1/2	Clayey sand (SC)	8	---	---	---	---	---
ST-4	7 1/2	Lean clay (CL)	26	---	5	---	---	---
ST-7	2 1/2	Clayey sand (SC)	13	---	---	---	---	---
ST-7	5	Sandy lean clay (SC)	12	---	---	---	---	---
ST-9	2 1/2	Clayey sand (SC)	15	---	---	---	---	---
ST-12	2 1/2	Clayey sand (SC)	10	---	---	---	---	---
ST-12	10	Poorly graded sand with silt (SP-SM)	10	---	---	---	---	---
ST-14	5	Clayey sand (SC)	13	---	2	---	---	---
ST-16	10	Fat clay (CH)	23	---	---	24	11	13
ST-18	2 1/2	Poorly graded sand (SP)	8	---	---	---	---	---
ST-18	7 1/2	Sandy lean clay (CL)	20	---	4	---	---	---
ST-24	5	Clayey sand (SC)	15	---	---	---	---	---
ST-26	12 1/2	Clayey sand (SC)	13	---	---	---	---	---
ST-28	10	Poorly graded sand with silt (SP-SM)	11	---	---	---	---	---
ST-31	2 1/2	Poorly graded sand with silt (SP-SM)	7	---	---	---	---	---
ST-32	5	Poorly graded sand with silt (SP-SM)	8	---	---	---	---	---
ST-34	7 1/2	Silty sand (SM)	7	28	---	---	---	---

Location	Sample Depth (ft)	Classification	Moisture Content (w, %)	Percent Passing a #200 Sieve	Organic Content (%)	Liquid Limit	Plastic Index	Plastic Limit
ST-36	2 1/2	Poorly graded sand with silt (SP-SM)	6	9	---	---	---	---
ST-36	10	Silty sand (SM)	9	23	---	---	---	---
ST-38	5	Clayey sand (SC)	10	---	---	---	---	---
ST-38	10	Lean clay (CL)	28	---	---	---	---	---
ST-40	2 1/2	Poorly graded sand (SP)	11	---	---	---	---	---
ST-42	7 1/2	Clayey sand (SC)	10	---	---	---	---	---
ST-44	7 1/2	Lean clay (CL)	22	---	---	26	11	15
ST-45	2 1/2	Silty sand (SM)	5	15	---	---	---	---
ST-46	5	Clayey sand (SC)	9	---	---	---	---	---
ST-48	2 1/2	Clayey sand (SC)	8	---	---	---	---	---
ST-49	2 1/2	Clayey sand (SC)	9	---	---	---	---	---
ST-56	2 1/2	Poorly graded sand with silt (SP-SM)	3	---	---	---	---	---
ST-57	2 1/2	Poorly graded sand with silt (SP-SM)	4	---	---	---	---	---
ST-58	10	Lean clay (CL)	29	---	---	38	16	22
ST-60	10	Poorly graded sand with silt (SP-SM)	9	---	---	---	---	---
ST-62	2 1/2	Poorly graded sand with silt (SP-SM)	5	---	---	---	---	---
ST-64	2 1/2	Silty sand (SM)	8	18	---	---	---	---
ST-64	10	Poorly graded sand with silt (SP-SM)	9	---	---	---	---	---
ST-65	2 1/2	Poorly graded sand with silt (SP-SM)	7	---	---	---	---	---

### **B.5.e. Resistivity Tests**

In 10-foot borings encountering clayey soils near the likely depth of water main (7 1/2 to 10 feet), we performed resistivity tests to gauge the potential for corrosive soils. The results of the tests can be found on the boring logs across from the tested samples.

For 6 of the 19 tests, resistivity values combined with the moisture conditions results in a score of 9 or more points per ANSI/AWWA C105/A21.5 system, meaning the soils are considered corrosive to ductile iron pipe (DIP). Several other tests were marginal and included up to 7 points when considering only moisture and resistivity alone, meaning they are likely corrosive to DIP.

## **C. Recommendations**

### **C.1. Design and Construction Discussion**

#### **C.1.a. Pavement Reclamation/Reuse**

If pavement materials are to be reused by reclamation, removal, stockpiling, and replacement, a 10-inch full-depth reclamation (FDR) depth will, based on the measurements from the borings, avoid subgrade soils through much of the project area. Variation of existing pavement depth should be anticipated. An increased FDR depth of up to 12 inches can be used with greater risk or incorporating undesirable subgrade materials into the product. The reclaim contractor should review our borings to evaluate where a greater depth can be utilized.

We recommend implementing thorough quality control practices, including frequent sieve analyses, to achieve a desirable gradation of the reclaimed material. We also suggest that the contractor assume some contingency for importing clean, crushed rock that can be blended with the reclaimed material to improve the uniformity of the resulting gradation prior to any direct reuse as an aggregate base.

#### **C.1.b. Pavement Subgrades and Drainage**

Based on the soil boring results, we anticipate the pavement subgrades will generally consist of poorly graded sand, poorly graded sand with silt, silty sand, clayey sand, silty clayey sand, sandy lean clay, or lean clay. Since grade changes are not proposed, the subgrade soils present beneath the existing roads will generally be suitable for pavement support in their current condition with exceptions as follows:

Areas of silty and clayey soils will be highly susceptible to strength loss upon exposure to moisture or traffic. Very poor soils, including highly silty soils, fat clays, and organic soils could be encountered at depth in the vicinity of Borings ST-2, ST-4, ST-14, and ST-18. These soils are very likely to require subcutting and replacement with imported, engineered materials; within the pavement section, this may include 1 foot or more of select granular material. Based on the borings, including the relative stiffness of the layers and apparent or tested moisture contents, we expect the locations most likely to require such a subcut will include the vicinity of ST-2, ST-9, ST-24, and ST-25.

Other borings where clayey soils were encountered directly below pavement sections, typically including clayey sand with some sandy lean clay, include ST-3, ST-7, ST-11, ST-12, ST-15, ST-16, ST-17, ST-21, ST-22, ST-23, ST-26, ST-29, ST-30, ST-33, ST-34, ST-46, ST-47, ST-48, ST-49, ST-50, and ST-51. The apparent or tested moisture contents of the shallow soils at these borings were near their optimum moisture contents, and blow counts indicated medium to stiff conditions, though the soils will be susceptible to strength loss under traffic.

The silty and clayey soils will be highly variable in their drainage rates, while more granular soils will be more consistently free-draining. The City standard section for reconstruction includes a recommended thickness of subbase to improve drainage and reduce frost heave; however, we understand the intention is to reclaim in place without including a subbase layer. We nonetheless recommend placing drain tile about catch basins and at low points behind curb via trenching in order to facilitate drainage of the roadways in cases where a subbase will not be installed. The drain tile should be trenched at least 8 inches below the aggregate base, wrapped in filter fabric and backfilled with highly permeable aggregate.

### **C.1.c. Utilities**

The reuse of the utility trench backfill soils will have potential impacts on the pavement subgrades. If the backfill is not properly compacted, there is the potential for subgrade instability and settlement (and premature deterioration) of the pavement surface. We anticipate that most of the trench soils will consist of granular soils with varying contents of silt. A number of borings encountered greater thicknesses of clayey till soils at likely utility depths.

Depending on the conditions at the time of excavation, watering or drying (moisture conditioning) of the clayey and silty soils may be necessary to achieve the levels of compaction recommended. Clayey and particularly silt-rich trench soils that are exposed to moisture will be more susceptible to strength loss and may also become unstable, which will require moisture conditioning or removal and replacement with suitable soils.

It also appears corrosion protection will be required for soils if bedded in clayey materials. We provide further recommendations for this below.

## **C.2. Pavements**

### **C.2.a. Subgrade Preparation and Proofrolls**

After preparing the subgrade as described above and prior to the placement of the sand subbase or aggregate base, we recommend proofrolling the subgrade soils with a fully loaded tandem-axle truck. We also recommend having a geotechnical representative observe the proofroll. Areas that fail the proofroll likely indicate soft or weak soils that will require additional correction work to support pavements.

The contractor should correct areas that display yielding or rutting greater than 1 inch under wheel traffic during the proofroll, as determined by the geotechnical representative. Possible options for subgrade correction include moisture conditioning and recompaction, subcutting and replacement with soil or crushed aggregate, chemical stabilization and/or geotextiles. We recommend performing a second proofroll after the aggregate base material is in place, and prior to placing bituminous pavement.

### **C.2.b. Engineered Fill Materials and Compaction**

The on-site soils with an organic content less than 5 percent and free of debris appear suitable for reuse as trench backfill. However, the fine-grained soils will be more difficult to compact if wet, allowed to become wet, or if spread and compacted over wet surfaces.

If imported material is to be used, Table 7 contains our recommendations for engineered fill. Note that similar materials compared to existing should be used to the degree possible; importing different soils for backfill may create lenses that could trap water and result in differential frost heave and other performance issues. If longitudinal transitions in soil type are required, we recommend tapering them at a rate of 20H:1V (horizontal:vertical) or flatter. Transitions in the transverse direction, such as at intersections, should be at least 4H:1V (horizontal:vertical).

**Table 7. Engineered Fill Materials\***

<b>Locations To Be Used</b>	<b>Engineered Fill Classification</b>	<b>Possible Soil Type Descriptions</b>	<b>Gradation</b>	<b>Additional Requirements</b>
Trench backfill Embankment fill	Select grading material	SP, SP-SM, SM, SC, CL	N/A	< 80% silt < 5% OC
Pavement subbase/drainage layer Non-frost-susceptible Utility bedding (dry or moist conditions)	Free-draining Non-frost-susceptible fill MnDOT select granular	GP, GW, SP, SP-SM, SW	See MnDOT 3149.2.B.2	---
Utility bedding (wet, unstable conditions)*	Coarse aggregate bedding	GP, GW, SP, SW	100% passing 1 1/2-inch sieve 0 to 10% passing #4 sieve See MnDOT 3149.G.3	---
Below landscaped surfaces, where subsidence is not a concern	Non-structural fill	---	100% passing 6-inch sieve	< 10% OC

\*Thicknesses will vary by condition and alternative materials may be required; consult the geotechnical representative to evaluate utility excavations.

We recommend spreading engineered fill in loose lifts of approximately 12 inches thick. We recommend compacting engineered fill in accordance with the criteria presented below in Table 8.

In areas of widening, we recommend matching the existing soil in the upper 5 feet of roadways with soils of a similar classification, moisture content, and performance characteristics. Do not place non-granular backfill adjacent to in-place granular soils.

We recommend spreading engineered fill in loose lifts approximately 12 inches thick. We recommend compacting engineered fill in accordance with the criteria presented below in Table 8. The project documents should specify relative compaction of engineered fill, based on the structure located above the engineered fill, and vertical proximity to that structure.

**Table 8. Compaction Recommendations Summary\***

Reference	Relative Compaction, percent (ASTM D698 – Standard Proctor)	Moisture Content Variance from Optimum, percentage points*	
		< 12% Passing #200 Sieve (typically SP, SP-SM)	> 12% Passing #200 Sieve (typically CL, SC, ML, SM)
Within 3 feet of top of pavement subgrade	100	±3	-1 to +3
More than 3 feet below top of pavement subgrade	95	±3	±3
Below landscaped surfaces	90	±5	±4

\*Alternatively, use the penetration index method (MnDOT Specification 2106.3.F.3) for soils with P200 < 20%. Consult MnDOT 2106.3.B.2 for alternative moisture content controls when using Specified Density for soils.

The project documents should not allow the contractor to use frozen material as engineered fill or to place engineered fill on frozen material. Frost should not penetrate under foundations during construction.

We recommend performing density tests in engineered fill to evaluate if the contractors are effectively compacting the soil and meeting project requirements.

**C.2.c. Pavement Design Sections**

Our scope of services for this project did not include laboratory tests on subgrade soils to determine an R-value for pavement design. However, given the variable nature of typical subgrades, which sometimes included silty or clayey soils within the upper 4 feet, we recommend using a design R-value of 25 for pavement design on the project.

Based upon the assumed traffic loads and an R-value of 25, we recommend that new pavement sections include the following materials and thicknesses per Tables 9 and 10.

**Table 9. Recommended Bituminous Pavement Thickness Design, 2020 Street Reconstruction (residential)**

Layer	Thickness (inches)	Material (Specification)
Bituminous wear course	1 1/2	SPWEB240C (MnDOT 2360)
Bituminous non-wear course	2	SPNWB230C (MnDOT 2360)
Aggregate base	8	Class 5 or Class 6 or Reclaim (MnDOT 3138)
Approved subgrade	---	---

**Table 10. Recommended Bituminous Pavement Thickness Design, 2020 Street Reconstruction (Klamath Trail)**

Layer	Thickness (inches)	Material (Specification)
Bituminous wear course	2	SPWEB340C (MnDOT 2360)
Bituminous non-wear course	2	SPNWB330C (MnDOT 2360)
Aggregate base	8	Class 5 or Class 6 or Reclaim (MnDOT 3138)
Approved subgrade	---	---

The above pavement designs are based upon a 20-year performance life. This is the amount of time before major reconstruction is anticipated. This performance life assumes maintenance such as seal coating and crack sealing is routinely performed. The actual pavement life will vary depending on variations in weather, traffic conditions, and maintenance. These designs are considered the minimum thicknesses for the anticipated traffic and the structural life may extend well beyond this period, particularly for concrete pavement.

It is common to place the non-wear course of bituminous and then delay placement of wear course. For this situation, we recommend evaluating if the reduced pavement section will have sufficient structure to support construction traffic.

Many conditions affect the overall performance of the pavements. Some of these conditions include the environment, loading conditions and the level of ongoing maintenance. With regard to bituminous pavements in particular, it is common to have thermal cracking develop within the first few years of placement, and continue throughout the life of the pavement. We recommend developing a regular maintenance plan for filling cracks in pavements to lessen the potential impacts for cold weather distress due to frost heave or warm weather distress due to wetting and softening of the subgrade.

#### **C.2.d. Pavement Materials Placement**

We recommend placing the bituminous wear and non-wear courses to meet the requirements of MnDOT Specification 2360. Concrete paving should follow MnDOT Specification 2301.

We recommend compacting the aggregate base to meet the requirements of MnDOT Specification 2211.3.D.2.c (Penetration Index Method for the dynamic cone penetrometer [DCP]).

### **C.3. Utility Installation**

#### **C.3.a. Excavation Oversizing**

When removing unsuitable materials below utilities or pavements, we recommend the excavation extend outward and downward at a slope of 1H:1V (horizontal:vertical) or flatter.

#### **C.3.b. Utility Subgrade Stabilization**

We anticipate the soils at typical invert elevations will generally be suitable for utility support after the subgrade preparation is performed. However, if construction encounters unfavorable conditions such as soft clay, fat clay, organic soils, or perched water at invert grades, the unsuitable soils may require some additional subcutting of up to 2 feet and replacement with sand or crushed rock to prepare a proper subgrade for pipe support. If these unsuitable or unstable soils remain in place, there is a risk of excessive settlement of the utility pipe or structures due to consolidation of the underlying soft clay soils. If crushed rock is used as pipe bedding, we recommend wrapping the aggregate in geotextile fabric to prevent the migration of fine-grained materials into the voids of the aggregate. We recommend reviewing our boring logs to identify areas of possible concern.

We recommend a contingency for some subcutting and replacement of poor or unstable materials as part of construction. In the event that unstable or organic soils are encountered at pipe elevations, they should be subcut and replaced with crushed-faced rock that is free of material 1 inch in diameter or smaller).

We recommend a geotechnical engineer observe all utility trench excavations and subcuts.

### **C.3.c. Excavated Slopes**

Based on the borings, we anticipate the majority of on-site soils in excavations will consist of a mix of granular and cohesive glacial deposits. These soils are typically considered Type C Soil under OSHA (Occupational Safety and Health Administration) guidelines. OSHA guidelines indicate unsupported excavations in Type C soils should have a gradient no steeper than 1 1/2H:1V. Slopes constructed in this manner may still exhibit surface sloughing. OSHA requires an engineer to evaluate slopes or excavations over 20 feet in depth.

An OSHA-approved qualified person should review the soil classification in the field. Excavations must comply with the requirements of OSHA 29 CFR, Part 1926, Subpart P, "Excavations and Trenches." This document states excavation safety is the responsibility of the contractor. The project specifications should reference these OSHA requirements.

### **C.3.d. Selection, Placement and Compaction of Backfill**

We recommend compacting backfill placed above and below utilities to a minimum of 95 percent of standard Proctor density. The exception is within 3 feet vertically of pavement subgrades, where the minimum compaction level should be increased to 100 percent. The fill should be within 3 percentage points of its optimum moisture content for sands; clays should only exceed their optimum moisture contents by 1 percent.

To achieve compaction over wet subgrades, we recommend the use of sands or gravel with less than 5 percent by weight passing the #200 sieve and less than 50 percent passing the #40 sieve.

### **C.3.e. Excavation Dewatering**

Although not commonly encountered in our borings, we recommend removing groundwater from the utility excavations if present, and removing any water that seeps into excavations from sidewalls or the adjacent sitework. We understand most deep utility construction and trenching will be in areas with predominantly clayey soils. Sumps and pumps will generally be suitable for short-term water removal under such conditions.

### **C.3.f. Corrosion Potential**

Based on our experience, the soils encountered by the borings are corrosive to metallic conduits, but only marginally corrosive to concrete. We recommend specifying non-corrosive materials or providing corrosion protection, unless project planning chooses to perform additional tests to demonstrate the soils are not corrosive.

We recommend providing corrosion protection for ductile iron pipe in the clayey soils throughout the project given the overall results of our corrosivity analysis and laboratory tests.

Type I cement may still be used for curb if the curb is bedded on imported materials such as crushed Class 5 limestone or reclaimed aggregate.

## **D. Procedures**

### **D.1. Penetration Test Borings**

We drilled the penetration test borings with a truck-mounted core and auger drill equipped with hollow-stem auger. We performed the borings in general accordance with ASTM D6151 taking penetration test samples at 2 1/2- or 5-foot intervals in general accordance to ASTM D1586. The boring logs show the actual sample intervals and corresponding depths. We also collected bulk samples at selected locations for laboratory testing.

### **D.2. Exploration Logs**

#### **D.2.a. Log of Boring Sheets**

The Appendix includes Log of Boring sheets for our penetration test borings. The logs identify and describe the penetrated geologic materials, and present the results of penetration resistance tests performed. The logs also present the results of laboratory tests performed on penetration test samples, and groundwater measurements.

We inferred strata boundaries from changes in the penetration test samples and the auger cuttings. Because we did not perform continuous sampling, the strata boundary depths are only approximate. The boundary depths likely vary away from the boring locations, and the boundaries themselves may occur as gradual rather than abrupt transitions.

#### **D.2.b. Geologic Origins**

We assigned geologic origins to the materials shown on the logs and referenced within this report, based on: (1) a review of the background information and reference documents cited above, (2) visual classification of the various geologic material samples retrieved during the course of our subsurface exploration, (3) penetration resistance testing performed for the project, (4) laboratory test results, and (5) available common knowledge of the geologic processes and environments that have impacted the site and surrounding area in the past.

### **D.3. Material Classification and Testing**

#### **D.3.a. Visual and Manual Classification**

We visually and manually classified the geologic materials encountered based on ASTM D2488. When we performed laboratory classification tests, we used the results to classify the geologic materials in accordance with ASTM D2487. The Appendix includes a chart explaining the classification system we used.

#### **D.3.b. Laboratory Testing**

The exploration logs in the Appendix note the results of the laboratory tests performed on geologic material samples. We performed the tests in general accordance with ASTM or AASHTO procedures.

### **D.4. Groundwater Measurements**

The drillers checked for groundwater while advancing the penetration test borings, and again after auger withdrawal. We then filled the boreholes as noted on the boring logs.

## **E. Qualifications**

### **E.1. Variations in Subsurface Conditions**

#### **E.1.a. Material Strata**

We developed our evaluation, analyses, and recommendations from a limited amount of site and subsurface information. It is not standard engineering practice to retrieve material samples from exploration locations continuously with depth. Therefore, we must infer strata boundaries and thicknesses to some extent. Strata boundaries may also be gradual transitions, and project planning should expect the strata to vary in depth, elevation, and thickness away from the exploration locations.

Variations in subsurface conditions present between exploration locations may not be revealed until performing additional exploration work, or starting construction. If future activity for this project reveals any such variations, you should notify us so that we may reevaluate our recommendations. Such variations could increase construction costs, and we recommend including a contingency to accommodate them.

### **E.1.b. Groundwater Levels**

We made groundwater measurements under the conditions reported herein and shown on the exploration logs, and interpreted in the text of this report. Note that the observation periods were relatively short, and project planning can expect groundwater levels to fluctuate in response to rainfall, flooding, irrigation, seasonal freezing and thawing, surface drainage modifications, and other seasonal and annual factors.

## **E.2. Continuity of Professional Responsibility**

### **E.2.a. Plan Review**

We based this report on a limited amount of information, and we made a number of assumptions to help us develop our recommendations. We should be retained to review the geotechnical aspects of the designs and specifications. This review will allow us to evaluate whether we anticipated the design correctly, if any design changes affect the validity of our recommendations, and if the design and specifications correctly interpret and implement our recommendations.

### **E.2.b. Construction Observations and Testing**

We recommend retaining us to perform the required observations and testing during construction as part of the ongoing geotechnical evaluation. This will allow us to correlate the subsurface conditions exposed during construction with those encountered by the borings and provide professional continuity from the design phase to the construction phase. If we do not perform observations and testing during construction, it becomes the responsibility of others to validate the assumption made during the preparation of this report and to accept the construction-related geotechnical engineer-of-record responsibilities.

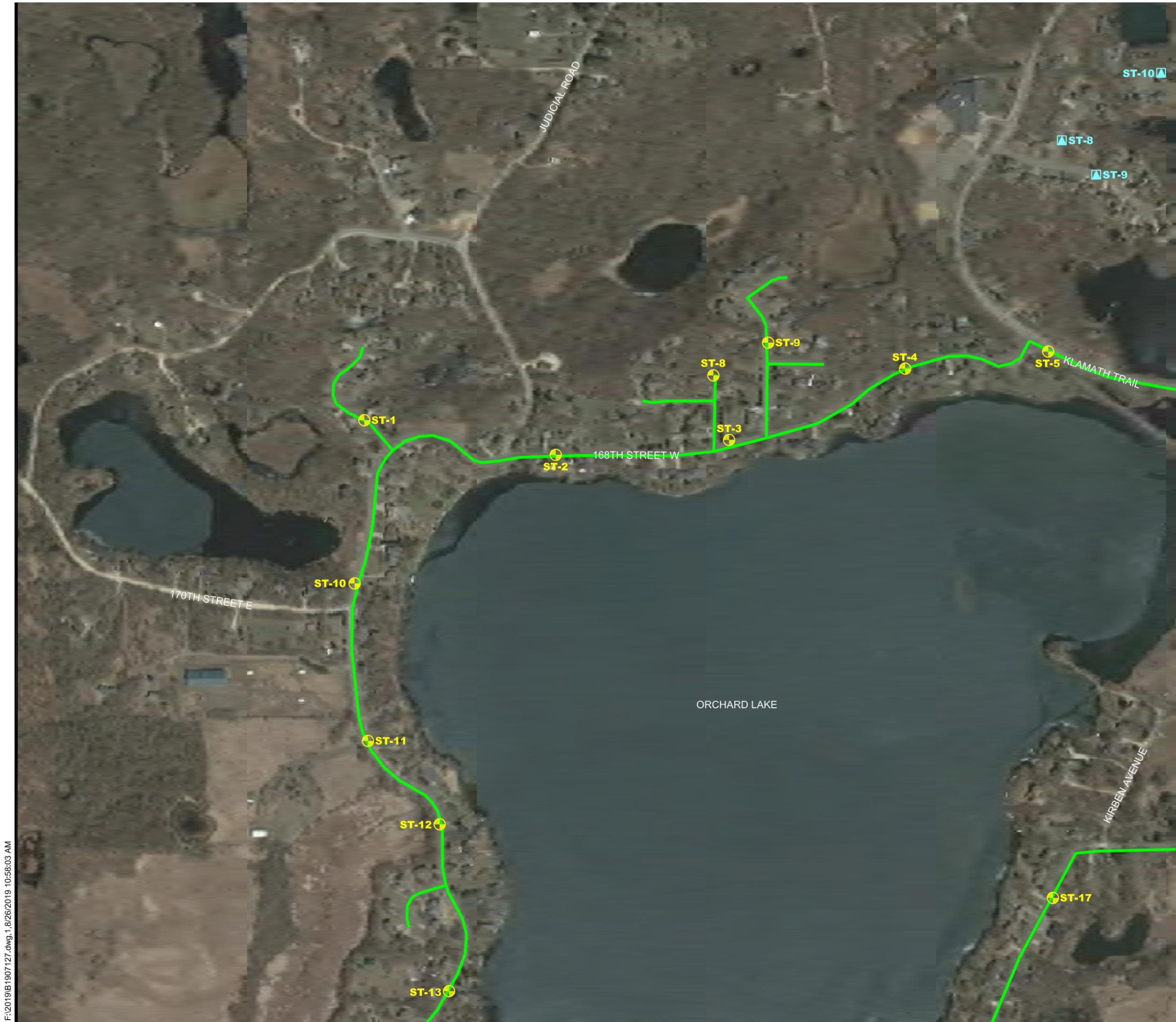
## **E.3. Use of Report**

This report is for the exclusive use of the addressed parties. Without written approval, we assume no responsibility to other parties regarding this report. Our evaluation, analyses, and recommendations may not be appropriate for other parties or projects.

## **E.4. Standard of Care**

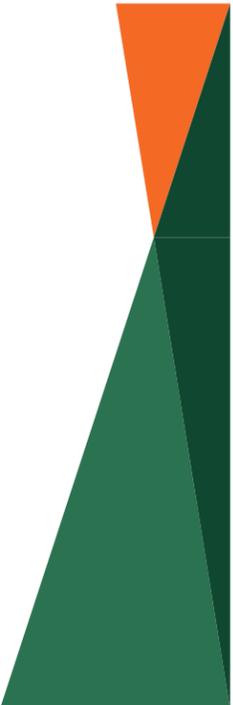
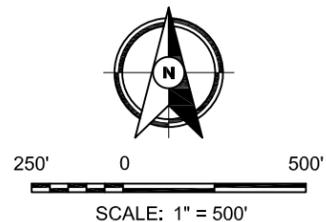
In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

## Appendix



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-  DENOTES APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING
-  DENOTES APPROXIMATE LOCATION OF PREVIOUSLY COMPLETED SOIL BORING (BRAUN PROJECT NO. B1813046)
-  DENOTES APPROXIMATE LOCATION OF PREVIOUSLY COMPLETED SOIL BORING (BRAUN PROJECT NO. B1810005)
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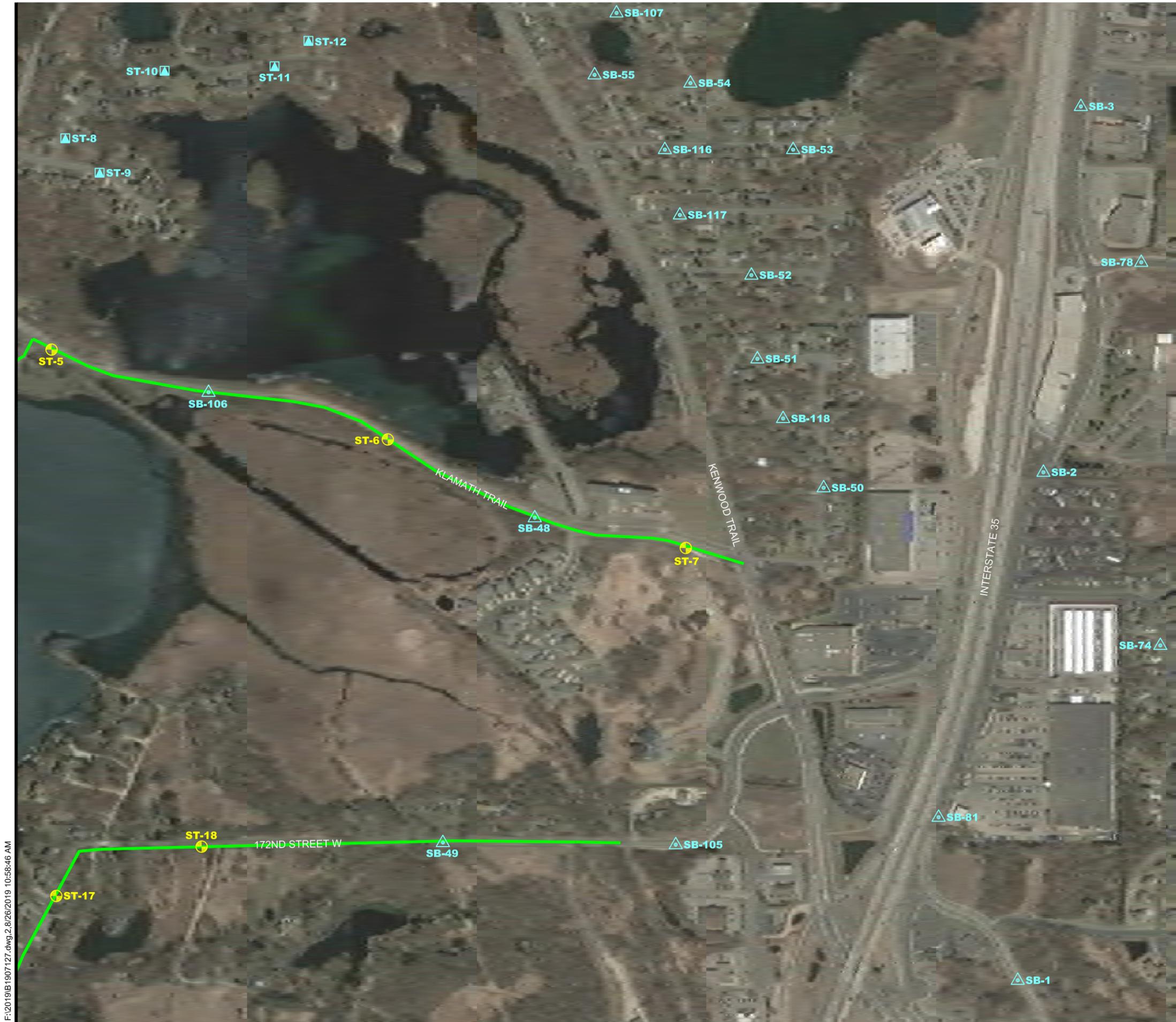
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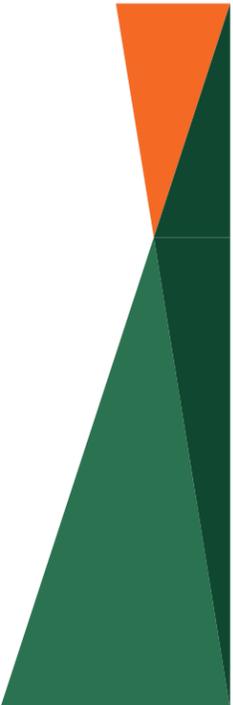
Project Information

City of Lakeville 2020 Street Reconstruction Project
City Project 20-02
Lakeville, Minnesota

Soil Boring Location Sketch



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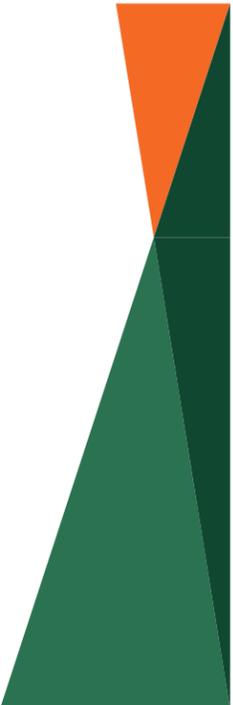
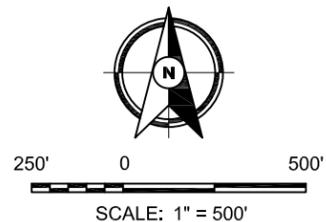
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**Soil Boring  
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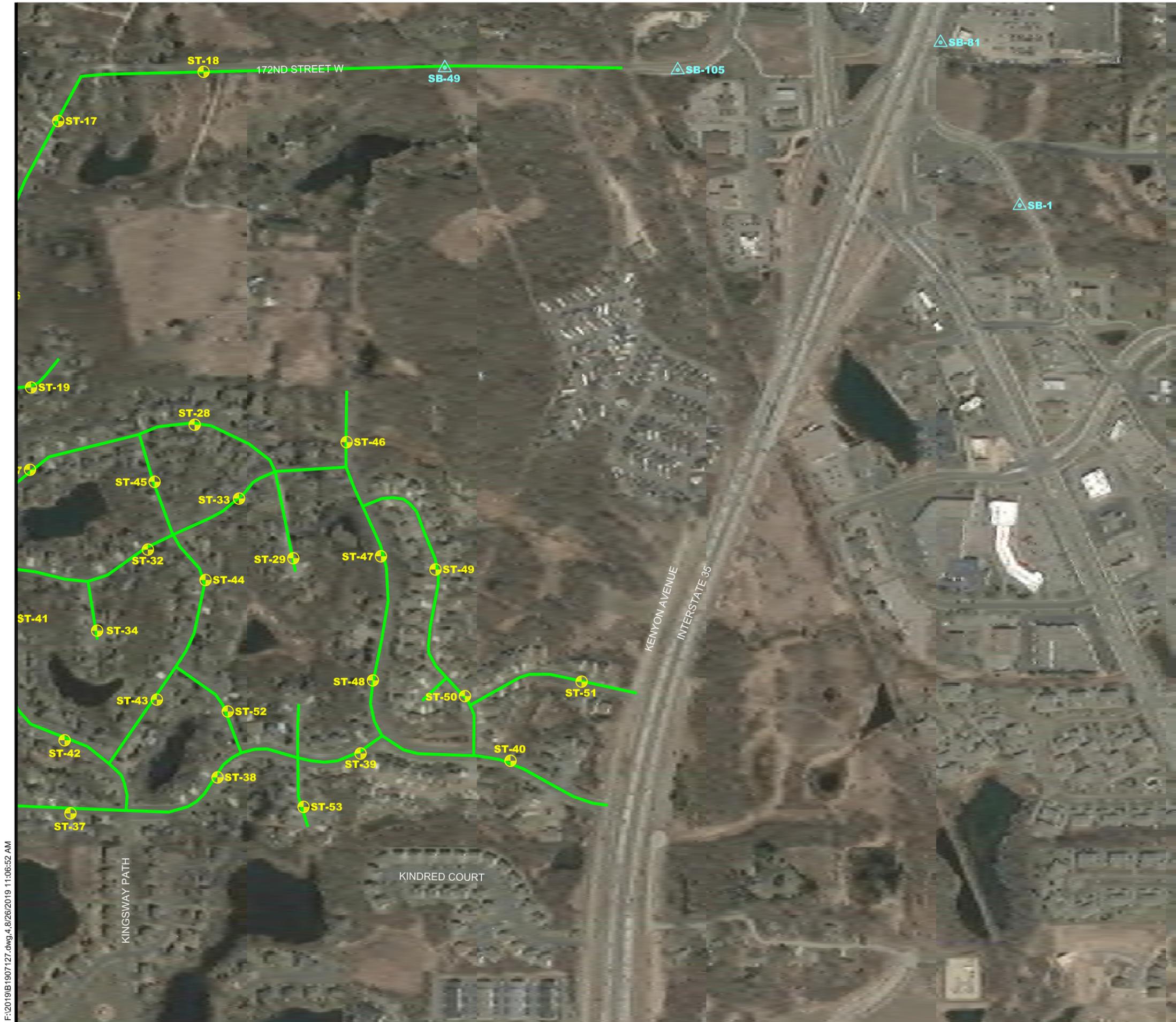
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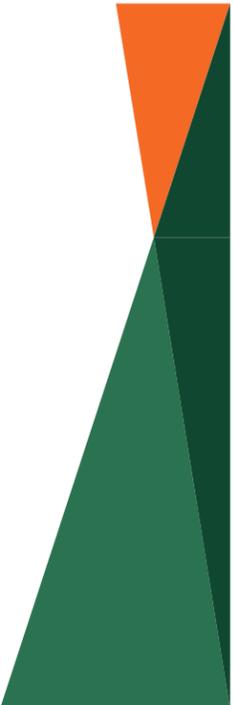
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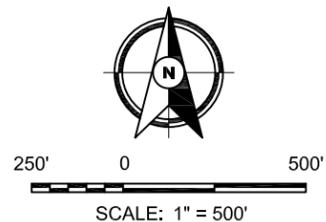
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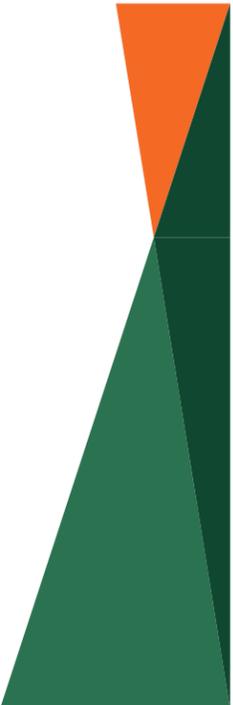
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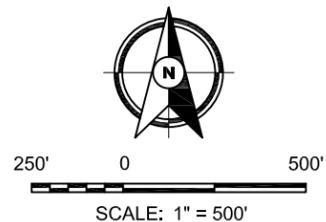
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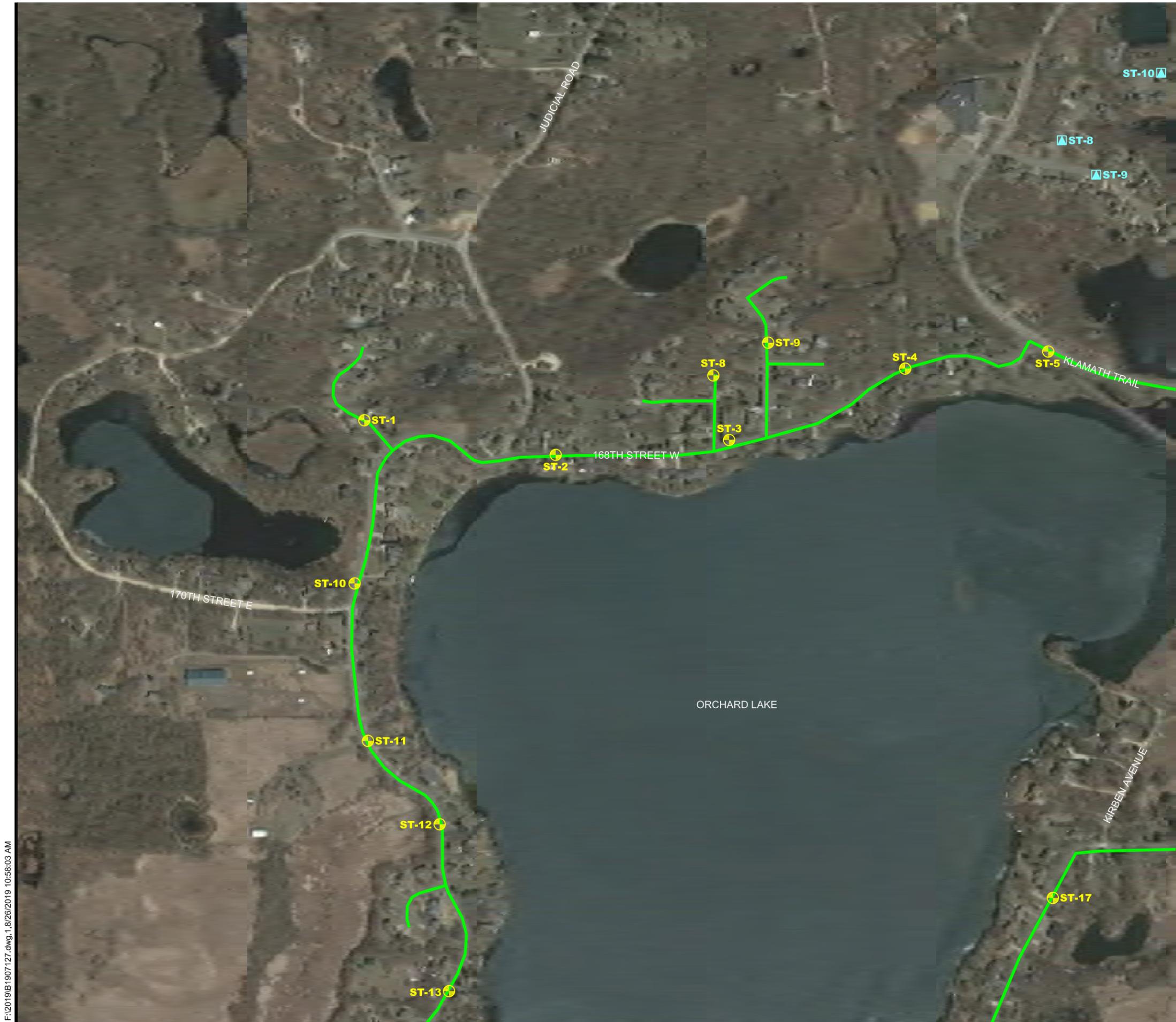
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2020 RECONSTRUCTION PROJECTS

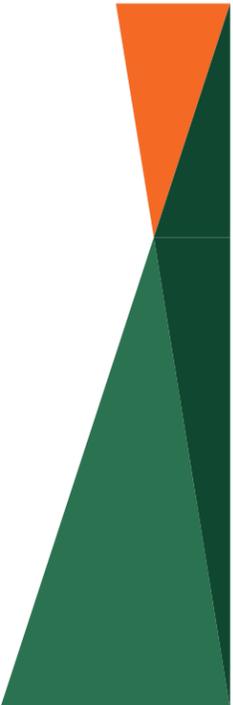
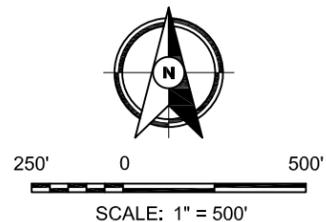


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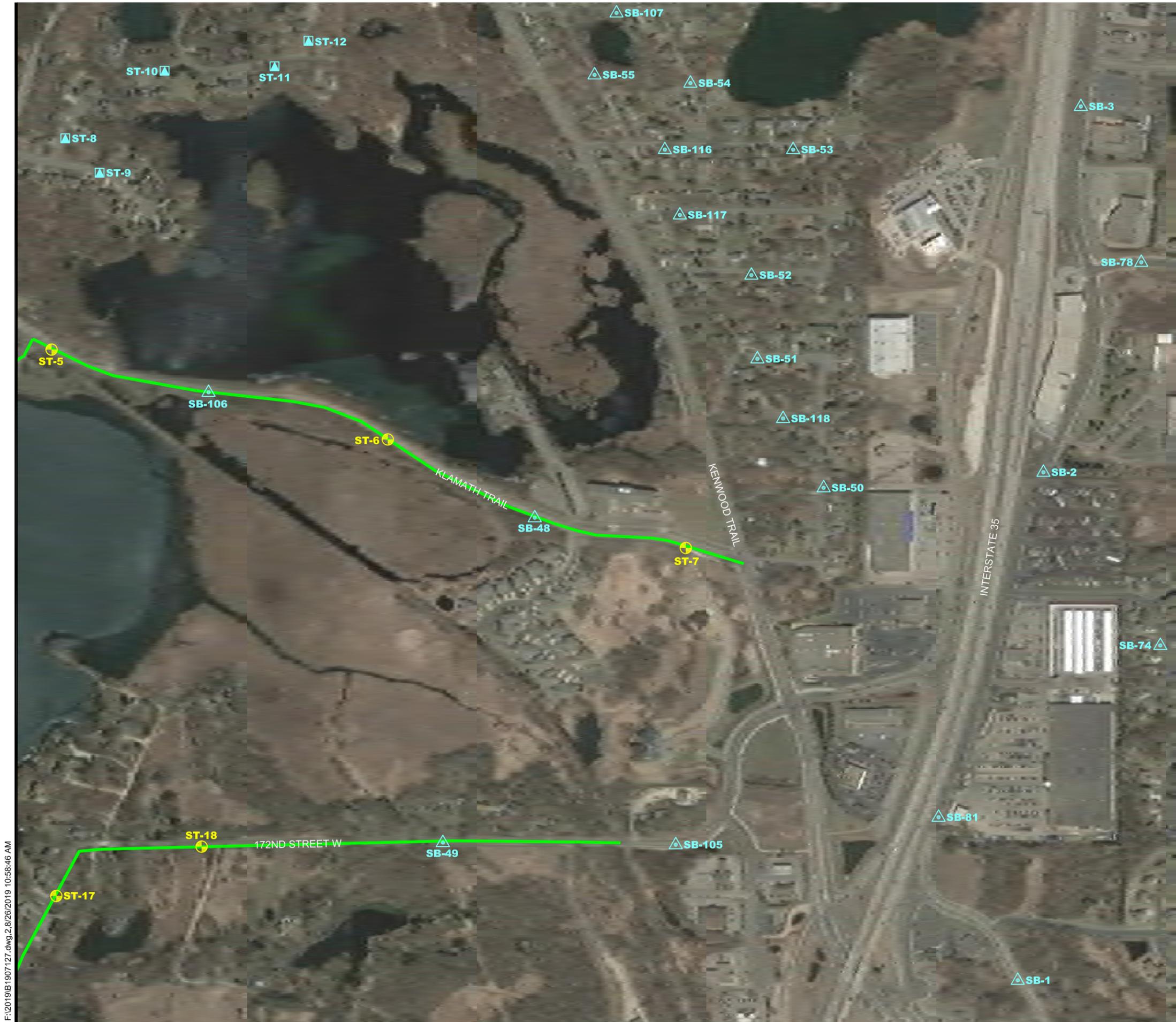
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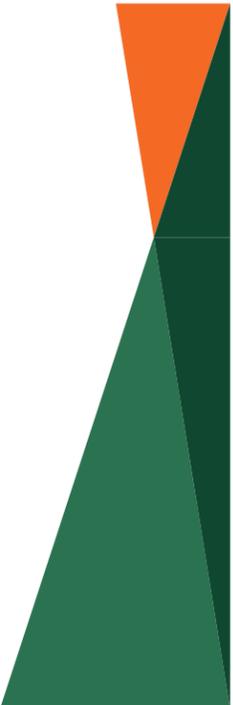
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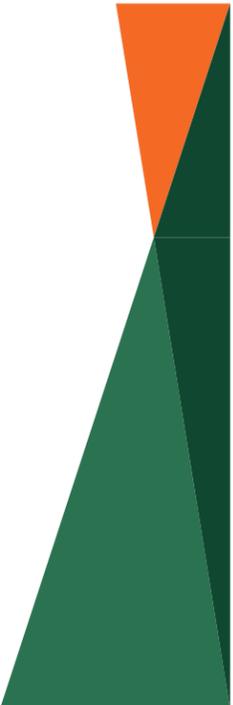
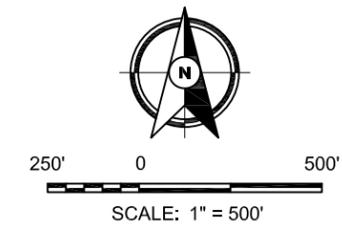
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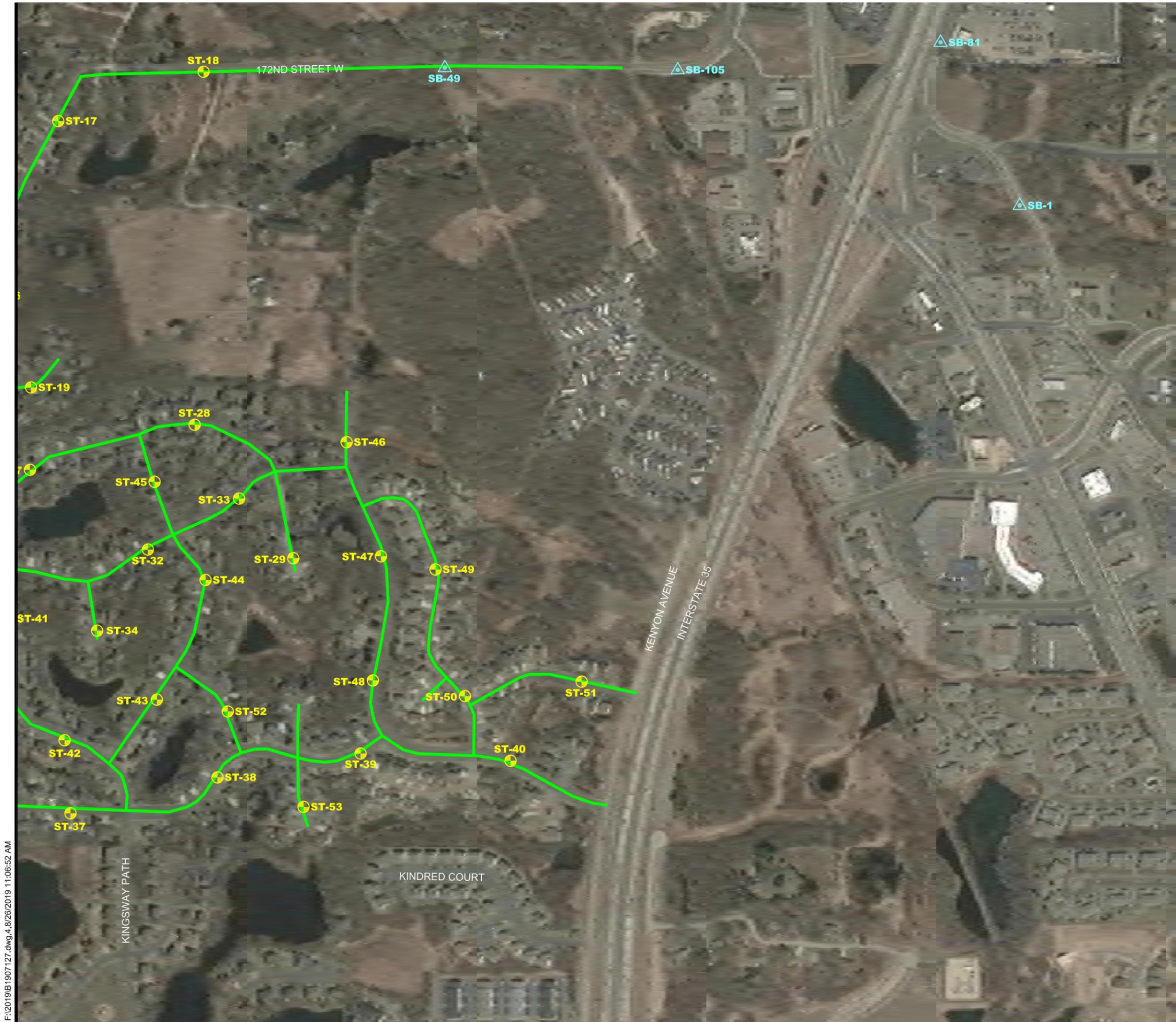
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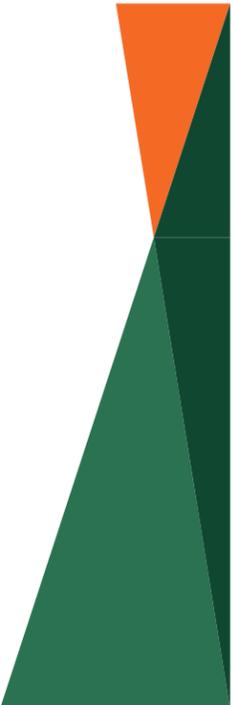
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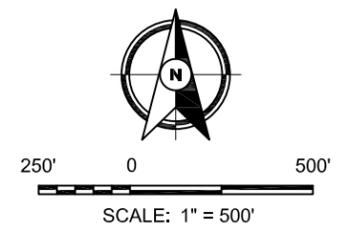
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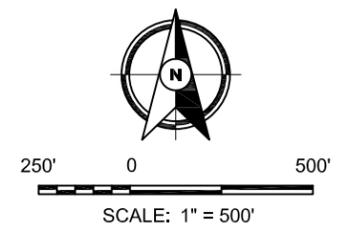
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Drawing No:	B1907127
Drawn By:	BJB
Date Drawn:	7/3/19
Checked By:	NGL
Last Modified:	8/26/19

Project Information

City of Lakeville 2020 Street Reconstruction Project
City Project 20-02
Lakeville, Minnesota

- DENOTES APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING
- DENOTES APPROXIMATE LOCATION OF PREVIOUSLY COMPLETED SOIL BORING (BRAUN PROJECT NO. B1813046)
- DENOTES APPROXIMATE LOCATION OF PREVIOUSLY COMPLETED SOIL BORING (BRAUN PROJECT NO. B1810005)
- DENOTES APPROXIMATE LOCATION OF PREVIOUSLY COMPLETED SOIL BORING (BRAUN PROJECT NO. B1407789)

2020 RECONSTRUCTION PROJECTS



Soil Boring  
Location Sketch

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-1</b>		
					LOCATION: See attached sketch		
					NORTHING: 185118	EASTING: 499771	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/11/19	END DATE: 07/11/19			
SURFACE ELEVATION: 1002.1 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1001.1		PAVEMENT, 5 inches of bituminous over 7 inches of aggregate base					
1.0		FILL: POORLY GRADED SAND (SP), fine to medium-grained Sand, with Gravel, with Clayey Sand, brown, moist		2-2-2 (4)		8	
998.1		<i>Lean Clay layer at 3 feet</i>		7"			
4.0		FILL: SANDY LEAN CLAY (CL), trace Gravel, gray, moist		4-5-5 (10)			
996.1			5	18"			
6.0		END OF BORING					
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b>				<b>BORING: ST-2</b>			
<b>Geotechnical Evaluation</b>				LOCATION: See attached sketch			
<b>City of Lakeville 2020 Street Reconstruction</b>				NORTHING: 184942	EASTING: 500749		
<b>Lakeville, Minnesota</b>				START DATE: 07/11/19	END DATE: 07/11/19		
DRILLER: C. McClain	LOGGED BY: M. Rajaei		SURFACING: Bituminous		WEATHER: Clear		
SURFACE ELEVATION: 984.6 ft	RIG: 7514	METHOD: 3 1/4" HSA					
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
983.6		PAVEMENT, 8 inches of bituminous over 4 inches of aggregate base					
1.0		LEAN CLAY (CL), trace Gravel, slightly organic, with Organic Clay, gray to black, moist (BURIED TOPSOIL)	5	2-3-4 (7) 10"		18	OC=3.0%
977.6		ORGANIC CLAY (OL), dark gray, moist (SWAMP DEPOSIT)	10	3-1-2 (3) 16"			Resistivity=720 ohm-cm
7.0				1-2-2 (4) 8"			
972.6		FAT CLAY (CH), white, wet, very soft (MARL)		1-1-1 (2) 18"			
12.0				1-3 (3) 14"			
970.1		END OF BORING	15				Water observed at 13.0 feet while drilling.
14.5		Boring then backfilled with auger cuttings					
			20				
			25				
			30				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-3</b>		
					LOCATION: See attached sketch		
					NORTHING: 184997	EASTING: 501656	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/11/19	END DATE: 07/11/19			
SURFACE ELEVATION: 991.0 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
990.2 0.8		PAVEMENT, 7 inches of bituminous over 3 inches of aggregate base					
		FILL: CLAYEY SAND (SC), with Gravel, brown, moist		2-4-3 (7) 8"		8	Auger chatter at 2 feet
985.0 6.0		Trace Sandy Lean Clay at 5 feet	5	3-4-4 (8) 12"			Water not observed immediately after withdrawal of auger.
		END OF BORING					
		Boring then backfilled with auger cuttings					
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-4</b>		
					LOCATION: See attached sketch		
					NORTHING: 185364	EASTING: 501534	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/11/19	END DATE: 07/11/19			
SURFACE ELEVATION: 987.8 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
986.7		PAVEMENT, 9 inches of bituminous over 4 inches of aggregate base					
1.1		FILL: SILTY SAND (SM), fine to medium-grained Sand, trace Gravel, brown, moist <i>Trace bituminous at 2 feet</i>		2-9-11 (20) 9"			Auger chatter at 2 feet
983.8		FILL: CLAYEY SAND (SC), trace Gravel, gray, moist	5	3-5-4 (9) 2"			
980.8		LEAN CLAY (CL), slightly organic, trace roots, trace wood fragments, gray and black, moist (BURIED TOPSOIL)		7-3-5 (8) 16"		26	Resistivity=820 ohm-cm OC=5.0%
978.8		LEAN CLAY (CL), gray, moist, stiff (GLACIAL TILL)	10	2-4-5 (9) 16"			Water not observed immediately after withdrawal of auger.
976.8		END OF BORING					
11.0		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b>					<b>BORING: ST-5</b>		
<b>Geotechnical Evaluation</b>					LOCATION: See attached sketch		
<b>City of Lakeville 2020 Street Reconstruction</b>					NORTHING: 185468		EASTING: 503265
<b>Lakeville, Minnesota</b>					START DATE: 07/16/19		END DATE: 07/16/19
DRILLER: C. McClain		LOGGED BY: M. Rajaei			SURFACE ELEVATION: 991.8 ft		RIG: 7514
		METHOD: 3 1/4" HSA			SURFACING: Bituminous		WEATHER: Clear
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
990.6		PAVEMENT, 6 inches of bituminous over 8 inches of aggregate base					
1.2		SILTY SAND (SM), fine-grained Sand, trace Gravel, brown, moist, medium dense (GLACIAL OUTWASH)		3-6-7 (13) 12"			
987.8		POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, trace Gravel, brown, moist, medium dense (GLACIAL OUTWASH)	5	4-5-10 (15) 16"			
4.0		<i>Silty Sand layer at 5 feet</i>					
985.8		<i>Clayey Sand layer at 5 1/2 feet</i>					
6.0		END OF BORING					Water not observed immediately after withdrawal of auger.
		Boring then backfilled with auger cuttings					
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-6</b>		
					LOCATION: See attached sketch		
					NORTHING: 185011	EASTING: 504983	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/16/19	END DATE: 07/16/19			
SURFACE ELEVATION: 998.4 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
997.4		PAVEMENT, 6 inches of bituminous over 6 inches of aggregate base					Auger chatter up to 2 feet
1.0		FILL: SILTY SAND (SM), fine to medium-grained Sand, trace Gravel, dark brown, moist		4-7-7 (14) 13"			
994.4		SILTY SAND (SM), fine to medium-grained Sand, with Gravel, brown, moist, medium dense (GLACIAL OUTWASH)	5	4-4-6 (10) 16"			
991.4		POORLY GRADED SAND (SP), fine to medium-grained Sand, with Gravel, brown, moist, loose to medium dense (GLACIAL OUTWASH)		3-3-3 (6) 7"			Water not observed immediately after withdrawal of auger.
7.0		<i>Clayey Sand lenses at 9 feet</i>	10	7-7-8 (15) 14"			
987.4		END OF BORING					
11.0		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-7</b>		
					LOCATION: See attached sketch		
					NORTHING: 184458	EASTING: 506505	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/16/19	END DATE: 07/16/19			
SURFACE ELEVATION: 1016.8 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1015.5		PAVEMENT, 9 inches of bituminous over 6 inches of aggregate base					
1.3		CLAYEY SAND (SC), trace Gravel, brown, moist, medium (GLACIAL TILL)		1-2-3 (5) 6"		13	
1012.8		SANDY LEAN CLAY (CL), trace Gravel, gray, moist, stiff (GLACIAL TILL)	5	4-4-6 (10) 16"		12	
4.0							
1010.8		END OF BORING					
6.0		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.
			10				
			15				
			20				
			25				
			30				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-9</b>		
					LOCATION: Offset 6 feet northwest. See attached sketch.		
					NORTHING: 185513	EASTING: 501835	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/11/19	END DATE: 07/11/19			
SURFACE ELEVATION: 1012.1 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1010.7		PAVEMENT, 5 inches of bituminous over 12 inches of aggregate base					
1.4		FILL: CLAYEY SAND (SC), trace Gravel, brown, moist <i>Trace wood fragments at 2 feet</i>	1-2-2 (4) 8"			15	
1006.1			5	2-2-3 (5) 10"			
6.0		END OF BORING  Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-10</b>		
					LOCATION: See attached sketch		
					NORTHING: 184287	EASTING: 499722	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/12/19	END DATE: 07/12/19			
SURFACE ELEVATION: 1002.8 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1001.6		PAVEMENT, 5 1/2 inches of bituminous over 9 inches of aggregate base					
1.2		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist		9-19-16 (35) 14"			
998.8		SILTY SAND (SM), fine-grained Sand, with Gravel, brown, moist, loose to medium dense (GLACIAL OUTWASH)		4-4-4 (8) 16"			
4.0			5	3-3-4 (7) 13"			
991.8			10	7-9-12 (21) 4"			
11.0		END OF BORING					Water not observed immediately after withdrawal of auger.
		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-11</b>		
					LOCATION: See attached sketch		
					NORTHING: 183484	EASTING: 499790	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/12/19	END DATE: 07/12/19			
SURFACE ELEVATION: 989.5 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
988.7 0.8		PAVEMENT, 5 inches of bituminous over 4 inches of aggregate base					Auger chatter from 1 to 6 feet
		FILL: CLAYEY SAND (SC), trace Gravel, trace bituminous, brown, moist		3-6-4 (10) 3"			
985.5 4.0		FILL: POORLY GRADED SAND (SP), fine-grained Sand, with Gravel, brown, moist	5	6-8-8 (16) 10"			Water not observed immediately after withdrawal of auger.
983.5 6.0		END OF BORING					
		Boring then backfilled with auger cuttings					
			10				
			15				
			20				
			25				
			30				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-12</b>		
					LOCATION: Offset 3 feet east. See attached sketch.		
					NORTHING: 183060	EASTING: 500156	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/12/19	END DATE: 07/12/19			
SURFACE ELEVATION: 981.5 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
980.8 0.7		PAVEMENT, 4 inches of bituminous over 4 inches of aggregate base FILL: CLAYEY SAND (SC), with Gravel, brown, moist		5-7-7 (14) 10"		10	Auger chatter from 1 to 6 feet
977.5 4.0		POORLY GRADED SAND with SILT (SP-SM), fine-grained Sand, with Gravel, brown, moist, medium dense (GLACIAL OUTWASH)	5	9-6-5 (11) 4"			
		<i>Becomes gray at 10 feet</i> <i>Wet layer at 10 feet</i>	10	10-13-13 (26) 18"			
970.5 11.0		END OF BORING  Boring then backfilled with auger cuttings		8-13-13 (26) 10"		10	Water not observed immediately after withdrawal of auger.

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-13</b>		
					LOCATION: See attached sketch		
					NORTHING: 182217	EASTING: 500197	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/12/19	END DATE: 07/12/19			
SURFACE ELEVATION: 995.8 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
995.0 0.8		PAVEMENT, 4 inches of bituminous over 5 inches of aggregate base					
		FILL: POORLY GRADED SAND with SILT (SP-SM), fine-grained Sand, little Gravel, brown, moist		4-8-7 (15) 14"			
989.8 6.0		Trace Clayey Sand at 5 feet	5	7-7-6 (13) 12"			
		END OF BORING					
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.



<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-15</b>		
					LOCATION: See attached sketch		
					NORTHING: 181508	EASTING: 502186	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/12/19	END DATE: 07/12/19			
SURFACE ELEVATION: 988.9 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
988.1 0.8		PAVEMENT, 4 inches of bituminous over 5 inches of aggregate base FILL: CLAYEY SAND (SC), little Gravel, brown, moist		1-4-5 (9) 12"			Water not observed immediately after withdrawal of auger.
984.9 4.0		SILTY SAND (SM), fine to medium-grained Sand, trace Gravel, reddish brown brown, moist, very stiff (GLACIAL TILL)	5	3-10-8 (18) 18"			
982.9 6.0		END OF BORING  Boring then backfilled with auger cuttings					
			10				
			15				
			20				
			25				
			30				



See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-17</b>		
					LOCATION: See attached sketch		
					NORTHING: 182685	EASTING: 503289	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/12/19	END DATE: 07/12/19			
SURFACE ELEVATION: 997.9 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
996.9		PAVEMENT, 6 inches of bituminous over 6 inches of aggregate base					
1.0		CLAYEY SAND (SC), fine to medium-grained Sand, little Gravel, brown, moist, medium to stiff (GLACIAL TILL)		4-5-7 (12) 10"			
991.9			5	6-5-3 (8) 15"			
6.0		END OF BORING					
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.
			10				
			15				
			20				
			25				
			30				



See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-19</b>		
					LOCATION: See attached sketch		
					NORTHING: 181327	EASTING: 503150	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/16/19	END DATE: 07/16/19			
SURFACE ELEVATION: 1010.4 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1009.6 0.8		PAVEMENT, 4 inches of bituminous over 6 inches of aggregate base					
1006.4 4.0		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist	2	2-3-4 (7) 10"			
1004.4 6.0		FILL: SILTY SAND (SM), fine to medium-grained Sand, with Gravel, brown, moist	5	3-3-3 (6) 16"			
		END OF BORING					
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-20</b>		
					LOCATION: See attached sketch		
					NORTHING: 179823	EASTING: 499818	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/18/19	END DATE: 07/18/19			
SURFACE ELEVATION: 993.7 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
992.6		PAVEMENT, 8 inches of bituminous over 5 inches of aggregate base					
1.1		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, trace Gravel, brown, moist		3-4-5 (9) 14"			
		<i>Clayey Sand seam at 5 feet</i>	5	4-3-3 (6) 16"			
986.7		POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, trace Gravel, brown, moist, medium dense (GLACIAL OUTWASH)		7-8-9 (17) 15"			
7.0		<i>Lean Clay layer at 10 feet</i>	10	4-4-9 (13) 17"			
982.7		END OF BORING					Water not observed immediately after withdrawal of auger.
11.0		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-21</b>		
					LOCATION: See attached sketch		
					NORTHING: 180619	EASTING: 500131	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/18/19	END DATE: 07/18/19			
SURFACE ELEVATION: 1007.5 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1006.3		PAVEMENT, 6 inches of bituminous over 8 inches of aggregate base					
1.2		FILL: CLAYEY SAND (SC), fine to medium-grained Sand, trace Gravel, brown, moist		3-4-6 (10) 16"			
1001.5			5	5-6-7 (13) 13"			
6.0		END OF BORING					
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.
			10				
			15				
			20				
			25				
			30				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b>				<b>BORING: ST-22</b>			
<b>Geotechnical Evaluation</b>				LOCATION: See attached sketch			
<b>City of Lakeville 2020 Street Reconstruction</b>				NORTHING: 180134	EASTING: 500768		
<b>Lakeville, Minnesota</b>				START DATE: 07/18/19	END DATE: 07/18/19		
DRILLER: C. McClain	LOGGED BY: M. Rajaei		SURFACING: Bituminous		WEATHER: Clouds		
SURFACE ELEVATION: 1003.1 ft	RIG: 7514	METHOD: 3 1/4" HSA					
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1002.1		PAVEMENT, 6 inches of bituminous over 6 inches of aggregate base					
1.0		CLAYEY SAND (SC), fine to medium-grained Sand, trace Gravel, gray, moist, medium to stiff (GLACIAL TILL)		3-4-6 (10) 12"			
			5	3-3-5 (8) 18"			
		Trace roots at 7 1/2 feet		3-2-3 (5) 15"			Resistivity=1200 ohm-cm
992.1			10	1-2-4 (6) 17"			
11.0		END OF BORING					Water not observed immediately after withdrawal of auger.
		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-23</b>		
					LOCATION: Offset 6 feet west due to utilities. See attached sketch.		
					NORTHING: 180069	EASTING: 501782	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/18/19	END DATE: 07/18/19			
SURFACE ELEVATION: 988.9 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
987.7 1.2		PAVEMENT, 8 inches of bituminous over 6 inches of aggregate base					
		FILL: CLAYEY SAND (SC), fine to medium-grained Sand, trace Gravel, gray, moist		4-7-8 (15) 13"			
982.9 6.0		END OF BORING	5	3-4-5 (9) 16"			
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-24</b>		
					LOCATION: See attached sketch		
					NORTHING: 179750	EASTING: 501932	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/18/19	END DATE: 07/18/19			
SURFACE ELEVATION: 998.5 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
997.5		PAVEMENT, 6 inches of bituminous over 6 inches of aggregate base					
1.0		FILL: CLAYEY SAND (SC), fine to medium-grained Sand, trace Gravel, gray, moist		2-2-1 (3) 12"			
		<i>Wet layer at 5 feet</i>	5	2-2-2 (4) 16"		15	
		<i>Trace roots at 7 feet</i>		3-3-4 (7) 18"			Resistivity=650 ohm-cm
989.5		SANDY LEAN CLAY (CL), gray, moist, medium (GLACIAL TILL)	10	3-4-4 (8) 18"			
987.5		END OF BORING					Water observed at 5.0 feet with 5.0 feet of tooling in the ground while drilling.
11.0		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.





<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-27</b>		
					LOCATION: See attached sketch		
					NORTHING: 180898	EASTING: 503145	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/18/19	END DATE: 07/18/19			
SURFACE ELEVATION: 1004.8 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1003.9 0.9		PAVEMENT, 5 inches of bituminous over 6 inches of aggregate base					
1000.8 4.0		FILL: POORLY GRADED SAND (SP), fine to medium-grained Sand, trace Gravel, brown, moist		2-3-3 (6) 10"			
998.8 6.0		FILL: CLAYEY SAND (SC), fine to medium-grained Sand, trace Gravel, brown, moist	5	1-1-3 (4) 9"			
		END OF BORING					
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b>				<b>BORING: ST-28</b>			
<b>Geotechnical Evaluation</b>				LOCATION: Hit mismarked sanitary sewer at 10 feet. See attached sketch			
<b>City of Lakeville 2020 Street Reconstruction</b>				NORTHING: 181137	EASTING: 503986		
<b>Lakeville, Minnesota</b>				START DATE: 07/17/19	END DATE: 07/17/19		
DRILLER: C. McClain	LOGGED BY: M. Rajaei		SURFACING: Bituminous		WEATHER: Clouds		
SURFACE ELEVATION: 1018.0 ft	RIG: 7514	METHOD: 3 1/4" HSA					
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1017.1		PAVEMENT, 4 inches of bituminous over 7 inches of aggregate base					
0.9		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist		4-12-17 (29) 17"			
1014.0		POORLY GRADED SAND (SP), fine to medium-grained Sand, with Gravel, brown, moist, loose (GLACIAL OUTWASH)	5	8-10-10 (20) 7"			
1011.0		LEAN CLAY (CL), trace Gravel, brown, moist, very stiff (GLACIAL TILL)		4-8-11 (19) 14"			
1010.0		POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, trace Gravel, brown, moist, medium dense (GLACIAL OUTWASH)	10	28-2-10 (12) 3"		11	
1007.0		END OF BORING					
11.0		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-29</b>		
					LOCATION: See attached sketch		
					NORTHING: 180457	EASTING: 504490	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/17/19	END DATE: 07/17/19			
SURFACE ELEVATION: 1029.1 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1027.8		PAVEMENT, 5 inches of bituminous over 11 inches of aggregate base					
1.3		FILL: CLAYEY SAND (SC), trace Gravel, trace wood fragments, brown and gray, moist	4-3-6 (9) 14"				
1025.1		FILL: SILTY, CLAYEY SAND (SC-SM), fine-grained Sand, trace Gravel, brown, moist	5	2-2-2 (4) 7"			
4.0							
1023.1		END OF BORING					
6.0		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-30</b>		
					LOCATION: Offset 4 feet south due to storm sewer. See attached sketch		
					NORTHING: 180228	EASTING: 502315	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/18/19	END DATE: 07/18/19			
SURFACE ELEVATION: 1002.9 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1001.6		PAVEMENT, 6 inches of bituminous over 10 inches of aggregate base					
1.3		FILL: CLAYEY SAND (SC), fine to medium-grained Sand, trace Gravel, gray, moist		4-6-7 (13) 3"			
			5	4-6-6 (12) 15"			
995.9		CLAYEY SAND (SC), fine to medium-grained Sand, trace Gravel, brown, moist, stiff (GLACIAL TILL)		3-4-5 (9) 12"			
7.0			10	1-4-5 (9) 15"			
991.9		END OF BORING					Water not observed immediately after withdrawal of auger.
11.0		Boring then backfilled with auger cuttings					

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-31</b>		
					LOCATION: See attached sketch		
					NORTHING: 180363	EASTING: 502999	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/16/19	END DATE: 07/16/19			
SURFACE ELEVATION: 1015.3 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1014.4 0.9		PAVEMENT, 6 inches of bituminous over 5 inches of aggregate base					
		POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist, medium dense to loose (GLACIAL OUTWASH)	5	3-5-6 (11) 15"		7	Auger chatter up to 2 1/2 feet
1009.3 6.0		END OF BORING		3-2-3 (5) 10"			Water not observed immediately after withdrawal of auger.
		Boring then backfilled with auger cuttings					
			10				
			15				
			20				
			25				
			30				



<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-33</b>		
					LOCATION: See attached sketch		
					NORTHING: 180761	EASTING: 504213	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/17/19	END DATE: 07/17/19			
SURFACE ELEVATION: 1032.6 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1031.6		PAVEMENT, 5 inches of bituminous over 7 inches of aggregate base					
1.0		FILL: CLAYEY SAND (SC), fine to medium-grained Sand, with Gravel, gray, moist		3-8-13 (21) 14"			
1028.6		POORLY GRADED SAND (SP), fine to medium-grained Sand, with Gravel, brown, moist, medium dense (GLACIAL OUTWASH)		6-14-16 (30) 18"			
4.0		<i>Lean Clay lenses at 5 feet</i>	5				
1026.6		END OF BORING					Water not observed immediately after withdrawal of auger.
6.0		Boring then backfilled with auger cuttings					
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-34</b>		
					LOCATION: See attached sketch		
					NORTHING: 180088	EASTING: 503488	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/17/19	END DATE: 07/17/19			
SURFACE ELEVATION: 1016.9 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1015.9 1.0		PAVEMENT, 5 inches of bituminous over 7 inches of aggregate base					
		FILL: CLAYEY SAND (SC), fine to medium-grained Sand, trace Gravel, brown and gray, moist	5	3-4-3 (7) 14"			
1009.9 7.0		SILTY SAND (SM), fine to medium-grained Sand, with Gravel, brown, moist, medium dense (GLACIAL TILL)	10	12-11-14 (25) 18"		7	Resistivity=730 ohm-cm P200=28%
1005.9 11.0		END OF BORING		11-11-13 (24) 14"			Water not observed immediately after withdrawal of auger.
		Boring then backfilled with auger cuttings					

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-35</b>		
					LOCATION: See attached sketch		
					NORTHING: 179907	EASTING: 502673	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/18/19	END DATE: 07/18/19			
SURFACE ELEVATION: 1028.8 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1027.9 0.9		PAVEMENT, 4 inches of bituminous over 7 inches of aggregate base					
		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to coarse-grained Sand, trace Gravel, brown, moist	2-8-2 (10) 10"				
1022.8 6.0		Clayey Sand lens at 5 feet	5 2-2-2 (4) 13"				
		END OF BORING					
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-36</b>		
					LOCATION: See attached sketch		
					NORTHING: 179433	EASTING: 502539	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/18/19	END DATE: 07/18/19			
SURFACE ELEVATION: 1035.4 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1034.4		PAVEMENT, 6 inches of bituminous over 6 inches of aggregate base					
1.0		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to coarse-grained Sand, trace Gravel, brown, moist <i>Wet Sand at 2 1/2 feet</i>	3	3-6-6 (12) 12"		6	P200=9%
1031.4		FILL: LEAN CLAY (CL), trace Gravel, gray, moist	5	5-4-8 (12) 13"			
1028.4		FILL: CLAYEY SAND (SC), fine to medium-grained Sand, trace Gravel, brown, moist		2-3-2 (5) 15"			Resistivity=2500 ohm-cm
1026.4		SILTY SAND (SM), fine to medium-grained Sand, trace Gravel, brown, moist, loose (GLACIAL TILL)	10	3-3-3 (6) 10"		9	P200=23%
1024.4		END OF BORING					Water not observed with 2.5 feet of tooling in the ground while drilling.
11.0		Boring then backfilled with auger cuttings					

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-37</b>		
					LOCATION: See attached sketch		
					NORTHING: 179157	EASTING: 503352	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/15/19	END DATE: 07/15/19			
SURFACE ELEVATION: 1024.3 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1023.2		PAVEMENT, 6 inches of bituminous over 7 inches of aggregate base					
1.1		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist <i>Clayey Sand layer at 2 1/2 feet</i>	5-9-14 (23) 7"				
1018.3		<i>Clayey Sand layer at 5 feet</i>	5	13-11-15 (26) 13"			
6.0		END OF BORING  Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-38</b>		
					LOCATION: See attached sketch		
					NORTHING: 179340	EASTING: 504103	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/15/19	END DATE: 07/15/19			
SURFACE ELEVATION: 1020.8 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1019.6		PAVEMENT, 5 inches of bituminous over 9 inches of aggregate base					
1.2		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist		8-15-17 (32) 15"			
1016.8		FILL: CLAYEY SAND (SC), with Gravel, brown, moist	5	5-8-12 (20) 12"		10	
4.0		<i>Poorly Graded Sand layer at 7 1/2 feet</i>		16-9-6 (15) 2"			
1011.8		LEAN CLAY (CL), brown, moist, medium (GLACIAL TILL)	10	2-3-2 (5) 16"		28	
9.0		END OF BORING					Water not observed immediately after withdrawal of auger.
1009.8		Boring then backfilled with auger cuttings					
11.0							

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-39</b>		
					LOCATION: See attached sketch		
					NORTHING: 179452	EASTING: 504833	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/16/19	END DATE: 07/16/19			
SURFACE ELEVATION: 1054.2 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1053.1		PAVEMENT, 4 inches of bituminous over 9 inches of aggregate base					
1.1		FILL: POORLY GRADED SAND (SP), fine to medium-grained Sand, trace Gravel, brown, moist		4-12-15 (27) 14"			
1050.2		FILL: POORLY GRADED SAND (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist	5	12-17-13 (30) 10"			
4.0							
1048.2		END OF BORING					Water not observed immediately after withdrawal of auger.
6.0		Boring then backfilled with auger cuttings					
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-40</b>		
					LOCATION: See attached sketch		
					NORTHING: 179425	EASTING: 505600	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/15/19	END DATE: 07/15/19			
SURFACE ELEVATION: 1044.2 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1043.4 0.8		PAVEMENT, 4 inches of bituminous over 5 inches of aggregate base					
		POORLY GRADED SAND (SP), fine to medium-grained Sand, trace Gravel, brown, moist, loose (GLACIAL OUTWASH) <i>Wet layer at 3 1/2 feet</i>		2-3-2 (5) 10"		11	
1039.2 5.0		SANDY LEAN CLAY (CL), trace Gravel, gray, moist, medium to very stiff (GLACIAL TILL)	5	4-12-11 (23) 10"			Resistivity=1400 ohm-cm
				7-3-3 (6) 6"			Auger chatter at 7 feet
1033.2 11.0		END OF BORING	10	11-12-8 (20) 1"			Water not observed immediately after withdrawal of auger.
		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-41</b>		
					LOCATION: See attached sketch		
					NORTHING: 180131	EASTING: 503031	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/16/19	END DATE: 07/16/19			
SURFACE ELEVATION: 1020.1 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1019.1		PAVEMENT, 4 inches of bituminous over 8 inches of aggregate base					
1.0		FILL: SILTY SAND (SM), fine to medium-grained Sand, with Gravel, brown, moist		4-5-5 (10) 14"			
1016.1		CLAYEY SAND (SC), fine to medium-grained Sand, with Gravel, brown, moist, medium dense (GLACIAL TILL)	5	6-6-10 (16) 18"			
4.0							
1014.1		END OF BORING					
6.0		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.
			10				
			15				
			20				
			25				
			30				



<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-43</b>		
					LOCATION: See attached sketch		
					NORTHING: 179737	EASTING: 503793	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/16/19	END DATE: 07/16/19			
SURFACE ELEVATION: 1015.9 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1015.1 0.8		PAVEMENT, 4 inches of bituminous over 6 inches of aggregate base					
1011.9 4.0		FILL: SILTY SAND (SM), fine to medium-grained Sand, with Gravel, gray, moist	5	2-11-12 (23) 13"			
1009.9 6.0		POORLY GRADED SAND (SP), fine to coarse-grained Sand, with Gravel, brown, moist, loose (GLACIAL OUTWASH)	5	8-7-21 (28) 10"			
		END OF BORING					
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-44</b>		
					LOCATION: See attached sketch		
					NORTHING: 180346	EASTING: 504042	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/17/19	END DATE: 07/17/19			
SURFACE ELEVATION: 1034.4 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1033.2		PAVEMENT, 4 inches of bituminous over 10 inches of aggregate base					
1.2		FILL: SILTY SAND (SM), fine to medium-grained Sand, with Gravel, brown, moist		3-7-8 (15) 14"			
			5	5-4-3 (7) 14"			
1027.4		LEAN CLAY (CL), trace Gravel, brown, moist, medium (GLACIAL TILL)		4-3-4 (7) 13"		22	Resistivity=2400 ohm-cm LL=26, PL=15, PI=11
1025.4		POORLY GRADED SAND (SP), fine to medium-grained Sand, with Gravel, brown, moist, loose (GLACIAL OUTWASH)	10	5-5-4 (9) 8"			
9.0		<i>Lean Clay seam at 10 feet</i>					
1023.4		END OF BORING					Water not observed immediately after withdrawal of auger.
11.0		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-45</b>		
					LOCATION: See attached sketch		
					NORTHING: 180846	EASTING: 503781	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/17/19	END DATE: 07/17/19			
SURFACE ELEVATION: 1029.4 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clouds			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1028.6 0.8		PAVEMENT, 3 inches of bituminous over 7 inches of aggregate base FILL: SILTY SAND (SM), fine to medium-grained Sand, with Gravel, brown, moist		9-14-12 (26) 14"		5	P200=15%
1023.4 6.0		END OF BORING  Boring then backfilled with auger cuttings	5	7-6-4 (10) 13"			Water not observed immediately after withdrawal of auger.
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-46</b>		
					LOCATION: See attached sketch		
					NORTHING: 181049	EASTING: 504762	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/15/19	END DATE: 07/15/19			
SURFACE ELEVATION: 1004.7 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1003.8 0.9		PAVEMENT, 5 inches of bituminous over 6 inches of aggregate base					
		FILL: CLAYEY SAND (SC), little Gravel, gray, moist		2-6-3 (9) 9"			
			5	3-2-2 (4) 11"		9	
997.7 7.0		FILL: CLAYEY SAND (SC), trace Gravel, gray, moist <i>Sand lenses at 8 feet</i>		14-15-8 (23) 16"			Resistivity=1300 ohm-cm
993.7 11.0		<i>Brown at 10 feet</i>	10	7-9-8 (17) 4"			Water not observed immediately after withdrawal of auger.
		END OF BORING					
		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-47</b>		
					LOCATION: See attached sketch		
					NORTHING: 180467	EASTING: 504938	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/15/19	END DATE: 07/15/19			
SURFACE ELEVATION: 1003.4 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1002.1		PAVEMENT, 4 inches of bituminous over 11 inches of aggregate base					Auger chatter below 1 foot
1.3		CLAYEY SAND (SC), with Gravel, brown, moist, loose to medium dense (GLACIAL TILL)		1-5-5 (10) 14"			
997.4			5	22-19-5 (24) 2"			Water not observed immediately after withdrawal of auger.
6.0		END OF BORING  Boring then backfilled with auger cuttings					
			10				
			15				
			20				
			25				
			30				





<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-50</b>		
					LOCATION: See attached sketch		
					NORTHING: 179748	EASTING: 505374	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/15/19	END DATE: 07/15/19			
SURFACE ELEVATION: 1059.5 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1058.5 1.0		PAVEMENT, 5 inches of bituminous over 7 inches of aggregate base					
		FILL: CLAYEY SAND (SC), trace Gravel, brown, moist <i>Poorly Graded Sand layer at 2 1/2 feet</i>	3-3-2 (5) 9"				
			5	7-5-4 (9) 16"			
1052.5 7.0		CLAYEY SAND (SC), trace Gravel, brown, moist, very stiff (GLACIAL TILL) <i>Lean Clay layer at 9 feet</i>	9-13-14 (27) 5"				Resistivity=1400 ohm-cm
1048.5 11.0		<i>Silty Sand layer at 11 feet</i> END OF BORING  Boring then backfilled with auger cuttings	6-6-14 (20) 18"				Water not observed immediately after withdrawal of auger.
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-51</b>		
					LOCATION: See attached sketch		
					NORTHING: 179828	EASTING: 505963	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/15/19	END DATE: 07/15/19			
SURFACE ELEVATION: 1036.1 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1035.0		PAVEMENT, 5 inches of bituminous over 8 inches of aggregate base					
1.1		FILL: SANDY LEAN CLAY (CL), trace Gravel, brown, moist <i>Poorly Graded Sand layer at 2 1/2 feet</i>		2-5-4 (9) 7"			
1032.1		FILL: CLAYEY SAND (SC), trace Gravel, gray, moist		3-5-6 (11) 2"			
4.0			5				
1030.1		END OF BORING					Water not observed immediately after withdrawal of auger.
6.0		Boring then backfilled with auger cuttings					
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-52</b>		
					LOCATION: See attached sketch		
					NORTHING: 179676	EASTING: 504155	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/16/19	END DATE: 07/16/19			
SURFACE ELEVATION: 1027.4 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1026.5 0.9		PAVEMENT, 4 inches of bituminous over 7 inches of aggregate base					
1023.4 4.0		POORLY GRADED SAND (SP), fine to medium-grained Sand, trace Gravel, brown, moist, medium dense (GLACIAL OUTWASH)	7-10-12 (22) 14"				
		SILTY SAND (SM), fine to medium-grained Sand, with Gravel, brown, moist, medium dense (GLACIAL OUTWASH)	5	10-11-11 (22) 15"			Auger chatter from 5 to 8 feet
				7-8-8 (16) 16"			
1016.4 11.0		END OF BORING	10	12-5-9 (14) 3"			Water not observed immediately after withdrawal of auger.
		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-53</b>		
					LOCATION: See attached sketch		
					NORTHING: 179190	EASTING: 504542	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/15/19	END DATE: 07/15/19			
SURFACE ELEVATION: 1028.9 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1027.7 1.2		PAVEMENT, 4 inches of bituminous over 10 inches of aggregate base					
		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist <i>Clayey Sand layer at 3 feet</i>	5	5-7-5 (12) 15"			
1022.9 6.0		<i>Clayey Sand layer at 5 feet</i>		7-7-4 (11) 8"			
		END OF BORING					
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-54</b>		
					LOCATION: See attached sketch		
					NORTHING: 167202	EASTING: 507580	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/10/19	END DATE: 07/10/19			
SURFACE ELEVATION: 1026.2 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1025.1		PAVEMENT, 5 inches of bituminous over 8 inches of aggregate base					
1.1		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, trace Gravel, brown, moist		6-11-8 (19) 13"			Resistivity=3300 ohm-cm
			5	6-5-5 (10) 18"			
		Layer of brown Sandy Lean Clay at 7 1/2 feet		5-5-5 (10) 14"			
1017.2		POORLY GRADED SAND with SILT (SP-SM), with Gravel, brown, moist, dense (GLACIAL OUTWASH)	10	9-16-10 (26) 3"			Water not observed immediately after withdrawal of auger.
9.0							
1015.2		END OF BORING					
11.0		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				



<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-56</b>		
					LOCATION: See attached sketch		
					NORTHING: 166579	EASTING: 508132	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/11/19	END DATE: 07/11/19			
SURFACE ELEVATION: 1017.0 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1016.1 0.9		PAVEMENT, 4 inches of bituminous over 7 inches of aggregate base					Constant auger chatter from 1 to 11 feet
		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist		5-15-9 (24) 9"		3	
		<i>Trace Sandy Lean Clay at 5 feet</i>	5	8-5-6 (11) 13"			
1010.0 7.0		POORLY GRADED SAND (SP), fine to medium-grained Sand, with Gravel, brown, moist, medium dense (GLACIAL OUTWASH)		6-11-10 (21) 13"			
1006.0 11.0		END OF BORING	10	7-10-10 (20) 14"			Water not observed immediately after withdrawal of auger.
		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-57</b>		
					LOCATION: See attached sketch		
					NORTHING: 167015	EASTING: 508509	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/10/19	END DATE: 07/10/19			
SURFACE ELEVATION: 1015.7 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1014.7 1.0		PAVEMENT, 5 inches of bituminous over 7 inches of aggregate base					
		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist		3-8-7 (15) 13"		4	
1009.7 6.0		With Clay lumps at 5 feet	5	5-4-3 (7) 16"			
		END OF BORING					
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.



See Descriptive Terminology sheet for explanation of abbreviations

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-59</b>		
					LOCATION: See attached sketch		
					NORTHING: 167207	EASTING: 507867	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/11/19	END DATE: 07/11/19			
SURFACE ELEVATION: 1024.8 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1023.8 1.0		PAVEMENT, 5 inches of bituminous over 7 inches of aggregate base					
		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist <i>Trace Lean Clay at 3 feet</i>	5	5-8-7 (15) 14"			
1018.8 6.0		END OF BORING		11-13-14 (27) 13"			
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-60</b>		
					LOCATION: See attached sketch		
					NORTHING: 166984	EASTING: 508299	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/11/19	END DATE: 07/11/19			
SURFACE ELEVATION: 1016.0 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1015.0 1.0		PAVEMENT, 5 inches of bituminous over 7 inches of aggregate base					Constant auger chatter below 1 foot
		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist		5-23-21 (44) 15"			
		Trace Sandy Lean Clay at 5 feet	5	7-5-12 (17) 15"			
		Trace Sandy Lean Clay at 7 feet		8-10-7 (17) 8"			
1005.0 11.0		Wet seam at 10 feet	10	3-6-4 (10) 3"		9	Water not observed immediately after withdrawal of auger.
		END OF BORING					
		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-61</b>		
					LOCATION: See attached sketch		
					NORTHING: 166657	EASTING: 507902	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/11/19	END DATE: 07/11/19			
SURFACE ELEVATION: 1025.1 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1024.1 1.0		PAVEMENT, 5 inches of bituminous over 7 inches of aggregate base					Auger chatter below 1 foot
		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, trace Lean Clay, brown, moist	5	3-8-9 (17) 12"			
1019.1 6.0		END OF BORING		7-7-7 (14) 15"			Water not observed immediately after withdrawal of auger.
		Boring then backfilled with auger cuttings					

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-62</b>		
					LOCATION: See attached sketch		
					NORTHING: 167434	EASTING: 508797	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/10/19	END DATE: 07/10/19			
SURFACE ELEVATION: 1021.1 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1020.2 0.9		PAVEMENT, 4 inches of bituminous over 7 inches of aggregate base					
		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist	5	5-14-10 (24) 14"		5	
				10-8-5 (13) 15"			
				4-5-3 (8) 2"			
1012.1 9.0		POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist, very loose (GLACIAL OUTWASH)	10	2-1-2 (3) 10"			
1010.1 11.0		Trace Lean Clay at 10 feet					
		END OF BORING					
		Boring then backfilled with auger cuttings					
							Water not observed immediately after withdrawal of auger.

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-63</b>		
					LOCATION: See attached sketch		
					NORTHING: 167276	EASTING: 509625	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/10/19	END DATE: 07/10/19			
SURFACE ELEVATION: 1015.9 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1015.0		PAVEMENT, 4 inches of bituminous over 7 inches of aggregate base					
0.9		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist		9-14-11 (25) 15"			
		<i>With Clay lumps at 5 feet</i>	5	6-6-7 (13) 15"			
1009.9		END OF BORING					Water not observed immediately after withdrawal of auger.
6.0		Boring then backfilled with auger cuttings					

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-64</b>		
					LOCATION: See attached sketch		
					NORTHING: 166334	EASTING: 508512	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/10/19	END DATE: 07/10/19			
SURFACE ELEVATION: 1014.9 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1014.0		PAVEMENT, 5 inches of bituminous over 6 inches of aggregate base					
0.9		FILL: SILTY SAND (SM), fine to medium-grained Sand, trace Gravel, brown, moist		2-4-4 (8) 13"		8	P200=18%
		<i>With Clay lumps and Gravel at 5 feet</i>	5	5-4-4 (8) 15"			
1007.9		FILL: LEAN CLAY (CL), little Gravel, brown, moist, mixed with Poorly Graded Sand with Silt		6-6-4 (10) 18"			Resistivity=4000 ohm-cm
1005.9		POORLY GRADED SAND with SILT (SP-SM), with Gravel, brown, moist, medium dense (GLACIAL OUTWASH)	10	6-10-7 (17) 16"		9	Water not observed immediately after withdrawal of auger.
1003.9		END OF BORING					
11.0		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

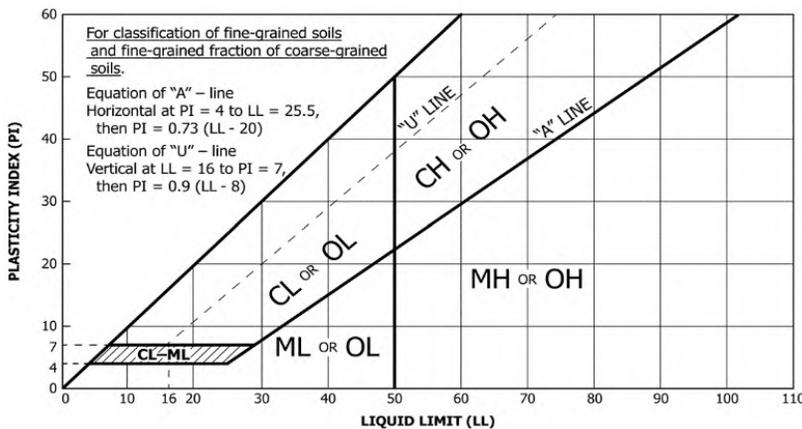
<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-65</b>		
					LOCATION: See attached sketch		
					NORTHING: 166800	EASTING: 509002	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/10/19	END DATE: 07/10/19			
SURFACE ELEVATION: 1010.3 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1009.4 0.9		PAVEMENT, 4 inches of bituminous over 7 inches of aggregate base					
		FILL: POORLY GRADED SAND with SILT (SP-SM), with Gravel, brown, moist, mixed with Lean Clay		2-7-9 (16) 15"		7	
1006.3 4.0		POORLY GRADED SAND (SP), fine to medium-grained Sand, with Gravel, brown, moist, medium dense (GLACIAL OUTWASH)	5	11-11-8 (19) 12"			
1004.3 6.0		END OF BORING					
		Boring then backfilled with auger cuttings					Water not observed immediately after withdrawal of auger.
			10				
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b>					<b>BORING: ST-66</b>		
<b>Geotechnical Evaluation</b>					LOCATION: See attached sketch		
<b>City of Lakeville 2020 Street Reconstruction</b>					NORTHING: 166372		EASTING: 509631
<b>Lakeville, Minnesota</b>					START DATE: 07/10/19		END DATE: 07/10/19
DRILLER: C. McClain		LOGGED BY: M. Rajaei			SURFACE ELEVATION: 1013.9 ft		RIG: 7514
		METHOD: 3 1/4" HSA			SURFACING: Bituminous		WEATHER: Clear
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1012.9		PAVEMENT, 4 inches of bituminous over 8 inches of aggregate base					
1.0		FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, trace Clayey Sand, brown, moist		6-16-12 (28) 14"			
			5	8-7-6 (13) 14"			
				2-2-2 (4) 4"			
1004.9		POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, brown, moist, medium dense (GLACIAL OUTWASH)	10	2-5-6 (11) 5"			
9.0							
1002.9		END OF BORING					Water not observed immediately after withdrawal of auger.
11.0		Boring then backfilled with auger cuttings					
			15				
			20				
			25				
			30				

<b>Project Number B1907127</b> <b>Geotechnical Evaluation</b> <b>City of Lakeville 2020 Street Reconstruction</b> <b>Lakeville, Minnesota</b>					BORING: <b>ST-67</b>		
					LOCATION: Offset 6 feet east. See attached sketch..		
					NORTHING: 166432	EASTING: 508992	
DRILLER: C. McClain	LOGGED BY: M. Rajaei		START DATE: 07/10/19	END DATE: 07/10/19			
SURFACE ELEVATION: 1013.6 ft	RIG: 7514	METHOD: 3 1/4" HSA	SURFACING: Bituminous	WEATHER: Clear			
Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q <sub>p</sub> tsf	MC %	Tests or Remarks
1012.6		PAVEMENT					Pavement thickness not measured, 1 foot assumed
1.0		FILL: POORLY GRADED SAND (SP), fine to medium-grained Sand, trace Gravel, brown, moist		3-8-11 (19) 12"			Auger chatter at 2 1/2 feet
1009.6		FILL: CLAYEY SAND (SC), trace Gravel, brown, moist, mixed with Poorly Graded Sand	5	6-7-8 (15) 15"			
1007.6		END OF BORING					Water not observed immediately after withdrawal of auger.
6.0		Boring then backfilled with auger cuttings					
			10				
			15				
			20				
			25				
			30				

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests <sup>A</sup>			Soil Classification		
			Group Symbol	Group Name <sup>B</sup>	
Coarse-grained Soils (more than 50% retained on No. 200 sieve)	Gravels (More than 50% of coarse fraction retained on No. 4 sieve)	Clean Gravels (Less than 5% fines <sup>C</sup> )	$C_u \geq 4$ and $1 \leq C_c \leq 3^D$	GW	Well-graded gravel <sup>E</sup>
		Gravels with Fines (More than 12% fines <sup>C</sup> )	$C_u < 4$ and/or ( $C_c < 1$ or $C_c > 3$ ) <sup>D</sup>	GP	Poorly graded gravel <sup>E</sup>
	Sands (50% or more coarse fraction passes No. 4 sieve)	Clean Sands (Less than 5% fines <sup>H</sup> )	$C_u \geq 6$ and $1 \leq C_c \leq 3^D$	SW	Well-graded sand <sup>I</sup>
		Sands with Fines (More than 12% fines <sup>H</sup> )	$C_u < 6$ and/or ( $C_c < 1$ or $C_c > 3$ ) <sup>D</sup>	SP	Poorly graded sand <sup>I</sup>
	Silt and Clays (Liquid limit less than 50)	Inorganic	PI > 7 and plots on or above "A" line <sup>J</sup>	CL	Lean clay <sup>KLM</sup>
			PI < 4 or plots below "A" line <sup>J</sup>	ML	Silt <sup>KLM</sup>
Silt and Clays (Liquid limit 50 or more)	Inorganic	PI plots on or above "A" line	CH	Fat clay <sup>KLM</sup>	
		PI plots below "A" line	MH	Elastic silt <sup>KLM</sup>	
Silt and Clays (Liquid limit less than 50)	Organic	Liquid Limit - oven dried < 0.75	OL	Organic clay <sup>KLMN</sup> Organic silt <sup>KLMO</sup>	
		Liquid Limit - not dried < 0.75	OH	Organic clay <sup>KLMN</sup> Organic silt <sup>KLMQ</sup>	
Highly Organic Soils	Primarily organic matter, dark in color, and organic odor		PT	Peat	

- A. Based on the material passing the 3-inch (75-mm) sieve.
- B. If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
- C. Gravels with 5 to 12% fines require dual symbols:  
GW-GM well-graded gravel with silt  
GW-GC well-graded gravel with clay  
GP-GM poorly graded gravel with silt  
GP-GC poorly graded gravel with clay
- D.  $C_u = D_{60} / D_{10}$        $C_c = (D_{30})^2 / (D_{10} \times D_{60})$
- E. If soil contains  $\geq 15\%$  sand, add "with sand" to group name.
- F. If fines classify as CL-ML, use dual symbol GC-GM or SC-SM.
- G. If fines are organic, add "with organic fines" to group name.
- H. Sands with 5 to 12% fines require dual symbols:  
SW-SM well-graded sand with silt  
SW-SC well-graded sand with clay  
SP-SM poorly graded sand with silt  
SP-SC poorly graded sand with clay
- I. If soil contains  $\geq 15\%$  gravel, add "with gravel" to group name.
- J. If Atterberg limits plot in hatched area, soil is CL-ML, silty clay.
- K. If soil contains 15 to < 30% plus No. 200, add "with sand" or "with gravel", whichever is predominant.
- L. If soil contains  $\geq 30\%$  plus No. 200, predominantly sand, add "sandy" to group name.
- M. If soil contains  $\geq 30\%$  plus No. 200 predominantly gravel, add "gravelly" to group name.
- N.  $PI \geq 4$  and plots on or above "A" line.
- O.  $PI < 4$  or plots below "A" line.
- P. PI plots on or above "A" line.
- Q. PI plots below "A" line.



Laboratory Tests			
DD	Dry density, pcf	OC	Organic content, %
WD	Wet density, pcf	q <sub>p</sub>	Pocket penetrometer strength, tsf
P200	% Passing #200 sieve	MC	Moisture content, %
		q <sub>u</sub>	Unconfined compression test, tsf
		LL	Liquid limit
		PL	Plastic limit
		PI	Plasticity index

**Particle Size Identification**

Boulders..... over 12"  
Cobbles..... 3" to 12"  
Gravel  
Coarse..... 3/4" to 3" (19.00 mm to 75.00 mm)  
Fine..... No. 4 to 3/4" (4.75 mm to 19.00 mm)  
Sand  
Coarse..... No. 10 to No. 4 (2.00 mm to 4.75 mm)  
Medium..... No. 40 to No. 10 (0.425 mm to 2.00 mm)  
Fine..... No. 200 to No. 40 (0.075 mm to 0.425 mm)  
Silt..... No. 200 (0.075 mm) to .005 mm  
Clay..... < .005 mm

**Relative Proportions<sup>L, M</sup>**

trace..... 0 to 5%  
little..... 6 to 14%  
with.....  $\geq 15\%$

**Inclusion Thicknesses**

lens..... 0 to 1/8"  
seam..... 1/8" to 1"  
layer..... over 1"

**Apparent Relative Density of Cohesionless Soils**

Very loose ..... 0 to 4 BPF  
Loose ..... 5 to 10 BPF  
Medium dense..... 11 to 30 BPF  
Dense..... 31 to 50 BPF  
Very dense..... over 50 BPF

**Consistency of Cohesive Soils      Blows Per Foot      Approximate Unconfined Compressive Strength**

Very soft..... 0 to 1 BPF..... < 0.25 tsf  
Soft..... 2 to 4 BPF..... 0.25 to 0.5 tsf  
Medium..... 5 to 8 BPF ..... 0.5 to 1 tsf  
Stiff..... 9 to 15 BPF..... 1 to 2 tsf  
Very Stiff..... 16 to 30 BPF..... 2 to 4 tsf  
Hard..... over 30 BPF..... > 4 tsf

**Moisture Content:**

**Dry:** Absence of moisture, dusty, dry to the touch.  
**Moist:** Damp but no visible water.  
**Wet:** Visible free water, usually soil is below water table.

**Drilling Notes:**

**Blows/N-value:** Blows indicate the driving resistance recorded for each 6-inch interval. The reported N-value is the blows per foot recorded by summing the second and third interval in accordance with the Standard Penetration Test, ASTM D1586.

**Partial Penetration:** If the sampler could not be driven through a full 6-inch interval, the number of blows for that partial penetration is shown as #/x" (i.e. 50/2"). The N-value is reported as "REF" indicating refusal.

**Recovery:** Indicates the inches of sample recovered from the sampled interval. For a standard penetration test, full recovery is 18", and is 24" for a thinwall/shelby tube sample.

**WOH:** Indicates the sampler penetrated soil under weight of hammer and rods alone; driving not required.

**WOR:** Indicates the sampler penetrated soil under weight of rods alone; hammer weight and driving not required.

**Water Level:** Indicates the water level measured by the drillers either while drilling (  $\nabla$  ), at the end of drilling (  $\blacktriangledown$  ), or at some time after drilling (  $\blacktriangledown$  ).

## **APPENDIX E**

### Neighborhood Meeting Comments

## June 27, 2019 Neighborhood Meeting

### Comment Cards/Letters

Comment No.	Resident Name	Resident Address	Phone	Date Received	Comment
1	Beth Tatge	20366 Kensington Court	612-282-4336	6/27/2019	The stormwater pond along 205th & Kensington is green all the time.
2	Ted Anderson	16980 Judicial Road	952-221-1108	6/27/2019	Please add a walkway on 172nd St.
3	Pat Kilbride	17869 179th Trail W	952-221-9304	6/27/2019	The storm sewer at the southeast corner of 179th Trail W and Kingsway Path backs up during heavy rains. During a recent rainfall, it backed up about a third of the way to our driveway all the way across 179th Trail W. Thanks for a well thought out presentation!
4	Dick Nubson	17160 Judicial Road	952-937-8694	6/27/2019	Is it possible to mark the roads with walking lanes/biking lanes on both sides? Look at the road project with Crystal Lane where they used rain gardens on peoples private land. Curbs were rolled down to make the road run off go to the rain gardens. At the beach park on Orchard Lake it would be nice to have signs added to the road "no parking with boat trailers". Please organize the garbage collection to one day per week.
5	N/A	N/A	N/A	6/27/2019	Please give us a safe trail to walk, run bike along 172nd. We are scared right now. - The children of lovely west Lakeville
6	Wayne Pankow	17767 Keystone Avenue	952-994-5209	6/27/2019	In addition to any door hangers for info I would like to be notified as soon as any locate tickets are posted regarding my property. This includes any locates for design purposes. (just don't really trust the door hangers). Please tell me how I can subscribe to the locates.
7	Jerry Anderson	11522 172nd Street W	952-435-5819	6/27/2019	We have no road frontage. We want to know if we will be assessed. We have 5 acers off the road. The ponds could they possibly put in a second culvert across 172nd. The water comes up high every year.
8	Rachel Todorovich	11766 177th Street W	612-718-1625	6/27/2019	You mentioned you will not be adding sidewalks, widening, etc. This should also mean that street lines will not be added to places that they don't already exist. No lines on 177th Street W as you mentioned with speed bumps, they only make people go faster.
9	Gerold Johnson	12290 175th Street W	651-500-6809	6/27/2019	I have a pond on my property that runs right up to 175th St. The pond is collecting most of the runoff water from the east and west along the street, flooding the street and expanding into my yard. Can this runoff be addressed and could something be done to improve the water quality of the pond?
10	Maureen Johnson	16755 Langley Avenue	952-201-5682	6/27/2019	Hydrant at Langley & Upper 167th is 5 ft into our property. Will we lose trees? How much land?
11	Robert Swan	16675 Lakeview Court	952-892-3679	6/27/2019	172nd St desperately needs a trail or on-street path. Where Lakeview Ct intersects with 168th, the water (= ice) spreads across Lakeview and 168th and it is treacherous. Needs new engineering. The need to pay part of this is only a good investment if you do a good job with quality asphalt. The current streets should never have deteriorated as they have.
12	Marlin Birkholz & Linda Paat	17618 Kettering Trail	612-242-9647	6/27/2019	We have a pond and it is on one lot (our house on the other part, pond area is not buildable). Will we only be assessed once? We have an inlet and an outlet on the pond, it gets really bad after a good rain. Water seems to drain a lot slower now as in the past. Will they be cleaned out?
13	Diana & Bob Flury	17515 Kodiak Avenue	952-435-3719	6/27/2019	Water run-off pools at the intersection of Kodiak Ave and 175th, near the water hydrant. Will the city consider either a single garbage hauler for the area; or require the haulers to coordinate their schedules so there is fewer trucks.
14	Roselyn Wilson	11538 172nd Street W	N/A	6/27/2019	Surface water follows curbing to stub and water drains onto my property and increases water accumulation on my land. Kodiak, stub on east side of road, most northern stub.
15	Tom Rent	N/A	N/A	6/27/2019	The curb in front of 17540 Kodiak Ave, next to the sewer, has drooped and water pools there.
16	Susan Dale	17753 Ketchikan Trail	952-892-9373	6/27/2019	Ketchikan Trail and 179th St - when leaving Ketchikan Trail and taking a left onto 179th St, there is a large dip in the road. It would be nice to have it leveled out.
17	Jim Ondov	20165 Kensington Way	952-469-3062	6/27/2019	Are you going to do anything with the draining into the holding pond at the bottom of our property? It is green all summer long.
18	Lonna Schwirtz	17485 Judicial Road	608-798-2713	6/27/2019	Our driveway is very steep; any chance the grade of the road will change (be lifted higher, not lower). If the road is lowered we will have driveway issues.

**APPENDIX F**

2020 Pond Maintenance Memo



October 8, 2019

Mr. Alex Jordan, PE  
City of Lakeville  
20195 Holyoke Avenue  
Lakeville MN 55044

Re: 2020 Pond Review Memoranda  
City of Lakeville  
WSB Project No. 013281-000

Dear Mr. Jordan,

At the request of the City, WSB recently completed inspections and pond review memos for the following ponds: 2125-NE003, 2125-NE001, 2111-SW001, 2102-SW001, 2102-SW002, and 2102-SW003. The memos are attached to this letter. The memos identify possible maintenance and/or improvement options related to each pond and include a recommendation for the City to consider. The following table summarizes the recommendations and costs for each pond.

**Summary of Recommended Pond Improvement Projects**

Pond	Recommended Action	Construction Cost Estimate*	Possible Construction Year
2125-NE003	Excavate 550 CY	\$60,600	2020
2125-NE001	Excavate 490 CY	\$61,392	2020
2111-SW001	Excavate 510 CY	\$62,220	2020
2102-SW001	Excavate 100 CY	\$28,452	2020
2102-SW002			
2102-SW003			
<b>Total</b>		<b>\$212,664</b>	

\*Cost estimates do not include indirect costs.

I would be more than happy to discuss each of these ponds in more detail if you have any questions or comments regarding the information presented within.

Sincerely,

**WSB & Associates, Inc.**

Jake Newhall, PE  
Project Manager

## Memorandum

To: Mr. Alex Jordan, PE, Assistant City Engineer  
City of Lakeville

From: Stephanie Hatten, PE  
Jake Newhall, PE

Date: October 8, 2019

Re: 2020 Pond Maintenance  
City of Lakeville, MN  
WSB Project No. 013281-000

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### **Pond 2125-NE003**

Pond 2125-NE003 was inspected on July 24, 2019. The pond is located along 205<sup>th</sup> St W on the southeast corner of Kensington Way and Kensington Boulevard. The pond is shown in the National Wetland Inventory (NWI) and in historic photos dating back to 1953 (**Appendix A**). Refer to **Appendix B** for the bathymetric survey results, drainage area map and as-built plan.

**Table 1: Pond 2125-NE003 Summary**

<b>Direct Drainage Area</b>	25.29 acres
<b>Impervious Surface</b>	40%
<b>Pond Area</b>	0.27 acres
<b>Current Average Depth</b>	3.1 feet
<b>Current Wet Volume</b>	0.88 acre-feet
<b>Outlet</b>	27-inch (E)
<b>Inlet Diameter</b>	30-inch (N), 24-inch (W)
<b>SWAMP Score</b>	41

### Inspection Observations

The pond is surrounded by small trees and brush. Access to the pond could occur from the trail along 205<sup>th</sup> St W and would include minimal tree removal from this side. During inspection, the pond was completely covered with green algae on the surface.

### Sediment Sampling

Two sediment samples were taken from Pond 2125-NE003. Both samples tested as Management Level 1. Management Level 1 indicates that the sediment is non-regulated and is suitable for reuse or disposal without special considerations. Refer to **Appendix C** for sediment testing results.

### Water Quality Analysis

Several options were evaluated to perform maintenance and improve water quality performance for each pond in the memo. These options are listed below, along with the estimated annual total phosphorous (TP) reduction, annual total suspended solids (TSS) reduction, and the life cycle cost benefit information.

The following table provides maintenance options for Pond 2125-NE003.

**Table 2: Pond 2125-NE003 Maintenance Options**

Option	Description	Volume to Excavate (cy)	Estimated Construction Cost	Life Cycle TP Cost Benefit (\$/lb) *	TP Removal Efficiency (%)	Annual TP Reduction (lbs/yr)	TSS Removal Efficiency (%)	Annual TSS Reduction (tons/yr)
1 (Existing)	3.1' average depth	N/A	N/A	N/A	42.4	10.7	72.2	5,695.1
2	Excavate to as-built volume and 4.5' average depth	550	\$60,600	\$4,040	44.6	11.3	74.1	5,838.3
3	Excavate to meet NURP pond sizing of 2.5" from drainage area and average depth 7.8'	2,025	\$113,700	\$3,032	48.1	12.2	77.0	6,072.9

\*Assumes 25 years for the BMP life cycle at an annual maintenance cost of \$2,000.

Recommendations

We recommend Option 2 to remove the accumulated sediment meeting the intent of the original pond design.

**Pond 2125-NE001**

Pond 2125-NE001 was inspected on July 24, 2019. The pond is located adjacent to Lake Marion just north of Kensington Way. The pond is the primary treatment for backyard and roadway drainage before being discharged into a large NWI wetland complex and ultimately Lake Marion. Historic photos dating back to 1953 are provided (**Appendix A**). Refer to **Appendix B** for the bathymetric survey results, drainage area map, and as-built plan.

**Table 3: Pond 2125-NE001 Summary**

<b>Direct Drainage Area</b>	9.09 acres
<b>Impervious Surface</b>	37%
<b>Pond Area</b>	0.14 acres
<b>Current Average Depth</b>	3.2 feet
<b>Current Wet Volume</b>	0.48 acre-feet
<b>Outlet</b>	18-inch (NW)
<b>Inlet Diameter</b>	12-inch (S)
<b>SWAMP Score</b>	66

Inspection Observations

The pond is surrounded by small trees and brush. Access to the pond could occur through the storm sewer easement along Kensington Way. During inspection, the pond was completely covered with green algae on the surface.

Sediment Sampling

Two sediment samples were taken from Pond 2125-NE001. One sample tested as Management Level 1 and one tested as Management Level 3. The Management Level 3 sample was located near the inlet to the pond. Management Level 3 indicates that the sediment is regulated material that is not suitable for reuse and requires special disposal. Refer to **Appendix C** for sediment testing results.

Water Quality Analysis

Several options were evaluated to perform maintenance and improve water quality performance for each pond in the memo. These options are listed below, along with the estimated annual total phosphorous (TP) reduction, annual total suspended solids (TSS) reduction, and the life cycle cost benefit information.

The following table provides maintenance options for Pond 2125-NE001.

**Table 4: Pond 2125-NE001 Maintenance Options**

Option	Description	Volume to Excavate (cy)	Estimated Construction Cost	Life Cycle TP Cost Benefit (\$/lb) *	TP Removal Efficiency (%)	Annual TP Reduction (lbs/yr)	TSS Removal Efficiency (%)	Annual TSS Reduction (tons/yr)
1 (Existing)	3.2' average depth	N/A	N/A	N/A	48.0	4.0	77.6	2,021.7
2	Excavate to as-built volume & average depth of 5.7'	490	\$61,392	\$8,185	51.0	4.3	80.0	2,085.4
3	Excavate to meet NURP pond sizing of 2.5" from drainage area & average depth of 5.3'	400	\$57,612	\$11,522	50.5	4.2	79.6	2,075.3

\*Assumes 25 years for the BMP life cycle at an annual maintenance cost of \$2,000.

Recommendations

We recommend Option 2 to remove the accumulated sediment to meet the designed pond size based on the as-built drawings. In this case, the as-built pond volume was very similar to the NURP pond sizing requirements. This includes removal of the contaminated material.

### **Pond 2111-SW001**

Pond 2111-SW001 was inspected on July 24, 2019. The pond is located between Landmark Court and Lancaster Court just north of Layton Path. The pond is shown in the National Wetland Inventory (NWI) and in historic photos dating back to 1953 (**Appendix A**).

Pond 2111-SW001 is the primary treatment for backyard and roadway drainage before being discharged into a large NWI wetland complex and ultimately Orchard Lake. Historic photos dating back to 1953 are provided (**Appendix A**). Refer to **Appendix B** for the bathymetric survey results, drainage area map, and as-built plan.

**Table 5: Pond 2111-SW001 Summary**

<b>Direct Drainage Area</b>	21.15 acres
<b>Impervious Surface</b>	30%
<b>Pond Area</b>	0.23 acres
<b>Current Average Depth</b>	2.5 feet
<b>Current Wet Volume</b>	0.62 acre-feet
<b>Outlet</b>	18-inch (NE)
<b>Inlet Diameter</b>	15-inch (SE), 12-inch (E), 15-inch (W)
<b>SWAMP Score</b>	53

#### Inspection Observations

The pond is fairly open with some treed spaces around the pond. Access to the pond could be gained from Layton Path with minimal tree removal.

#### Sediment Sampling

Two sediment samples were taken from Pond 2111-SW001. One sample tested as Management Level 1 and one tested as Management Level 3. The Management Level 3 sample was located near the SE inlet to the pond. Management Level 3 indicates that the sediment is regulated material that is not suitable for reuse and requires special disposal. Refer to **Appendix C** for sediment testing results.

#### Water Quality Analysis

Several options were evaluated to perform maintenance and improve water quality performance for each pond in the memo. These options are listed below, along with the estimated annual total phosphorous (TP) reduction, annual total suspended solids (TSS) reduction, and the life cycle cost benefit information.

The following table provides options for Pond 2111-SW001.

**Table 6: Pond 2111-SW001 Maintenance Options**

Option	Description	Volume to Excavate (cy)	Estimated Construction Cost	Life Cycle TP Cost Benefit (\$/lb) *	TP Removal Efficiency (%)	Annual TP Reduction (lbs/yr)	TSS Removal Efficiency (%)	Annual TSS Reduction (tons/yr)
1 (Existing)	2.5' average depth	N/A	N/A	N/A	44.7	5.8	72.9	2,985.2
2	Excavate to as-built volume	510	\$62,220	\$8,296	46.9	6.1	74.8	3,059.7
3	Excavate to meet NURP pond sizing of 2.5" from drainage area	880	\$77,772	\$7,777	48.1	6.2	75.7	3,098.4

\*Assumes 25 years for the BMP life cycle at an annual maintenance cost of \$2,000.

Recommendations

We recommend Option 2 removing the accumulated sediment to meet the designed as-built volume. This includes removal of the contaminated material.

**Ponds 2102-SW001, 2102-SW002, and 2102-SW003**

Ponds 2102-SW001, 2102-SW002 and 2102-SW003 were inspected on July 24, 2019. All three ponds are in series with 2102-SW001 being the first taking runoff from residential backyards and Judicial Road. The ponds are located in the northwest area of Orchard Lake, just south of Judicial Road. Refer to **Appendix B** for the bathymetric survey results and drainage area map.

**Table 7: Pond 2102-SW001 Summary**

<b>Direct Drainage Area</b>	4.11 acres
<b>Impervious Surface</b>	30.2%
<b>Pond Area</b>	0.026 acres
<b>Current Average Depth</b>	0.21 feet
<b>Current Wet Volume</b>	0.008 acre-feet
<b>Outlet Diameter</b>	12-inch (SW)
<b>Inlet Diameter</b>	2 18-inch (NE)
<b>SWAMP Score</b>	3

**Table 8: Pond 2102-SW002 Summary**

<b>Direct Drainage Area</b>	0.67 acres
<b>Impervious Surface</b>	17.9%
<b>Pond Area</b>	0.067 acres
<b>Current Average Depth</b>	0.74 feet
<b>Current Wet Volume</b>	0.068 acre-feet
<b>Outlet Diameter</b>	12-inch (SW)
<b>Inlet Diameter</b>	12-inch (NE)
<b>SWAMP Score</b>	100

**Table 9: Pond 2102-SW003 Summary**

<b>Direct Drainage Area</b>	1.12 acres
<b>Impervious Surface</b>	18.8%
<b>Pond Area</b>	0.041 acres
<b>Current Average Depth</b>	1.1 feet
<b>Current Wet Volume</b>	0.055 acre-feet
<b>Outlet Diameter</b>	12-inch (E)
<b>Inlet Diameter</b>	12-inch (NE)
<b>SWAMP Score</b>	100

Inspection Observations

All three ponds are located on private property within a public drainage easement. Pond 2102-SW001 is located at 16870 Judicial Road. Pond 2102-SW002 is located at 16890 Judicial Road. Pond 2102-SW003 is located at 16910 Judicial Road. Access to the ponds for any maintenance would need to occur off of the bend at Judicial Road.

Sediment Sampling

Two sediment samples were taken from each pond. All samples tested as Management Level 1 except for Sample 1 from Pond 2102-SW001, which tested as Management Level 2. Management Level 2 indicates that the sediment is regulated material that is suitable only for industrial reuse. This sample is located near the inlet for Pond 2102-SW001. Refer to **Appendix C** for sediment testing results.

Water Quality Analysis

A water quality analysis was used to estimate the existing TP and TSS annual reductions for Ponds 2102-SW001, 2102-SW002 and 2102-SW003 as shown in **Table 10**. Each pond was looked at individually first and assumed that the ponds were not in series.

**Table 10: Pond 2102-SW Series Existing Stormwater Treatment**

Pond	TP Removal Efficiency (%)	Annual TP Reduction (lbs/yr)	TSS Removal Efficiency (%)	Annual TSS Reduction (lbs/yr)
Pond 2102-SW001*	28.4	1.0	61.2	645.1
Pond 2102-SW002*	55.8	0.2	84.4	104.0
Pond 2102-SW003*	49.2	0.3	78.1	167.3
Total Treatment for Pond Series	49.7	2.2	79.7	1109.6

\*Assumes removal efficiency based on direct drainage to pond only.

**Table 11** shows a maintenance option to clean out the required NURP volume from Pond 001 in the series. This includes removal of the noted contaminated material and assumes the pond footprint would remain the same. City staff has also expressed the need to replace the outlet from Pond 003 into Orchard Lake as well as the connecting storm sewer between the three ponds.

**Table 11: Pond 2102-SW Series Maintenance Option**

Description	Volume to Excavate (cy)	Estimated Construction Cost	Life Cycle TP Cost Benefit (\$/lb) *	TP Removal Efficiency (%)	Annual TP Reduction (lbs/yr)	TSS Removal Efficiency (%)	Annual TSS Reduction (lbs/yr)
Excavate Pond 001 to maximize treatment for entire <b>pond series drainage area</b> & average depth of 2'.	100	\$28,452	\$11,380	52.8	2.3	82.2	1144.8

\*Assumes 25 years for the BMP life cycle at an annual maintenance cost of \$2,000.

Recommendations

We recommend dredging Pond 2102-SW001 to meet the maximum treatment for the entire drainage area to the pond series and to remove the accumulated sediment and improve TP and TSS removal efficiencies. Meeting NURP requirements by excavating Pond 001 alone is not feasible. Additional material could be removed from Ponds 002 and 003 while the contractor is onsite, however this is not recommended.

## **APPENDIX A – HISTORIC IMAGERY**

## **APPENDIX B – FIGURES**

## **APPENDIX C – SEDIMENT SAMPLING**

## **APPENDIX A – HISTORIC IMAGERY**



WK-4T-97

1957 Aerial:  
Ponds 2125-NE001  
& NE003

8-14-57

WJ-5EE-31

1964 Aerial:  
Ponds 2102-SW001,  
SW002 & SW003

Pond 2111-SW001

10-14-64

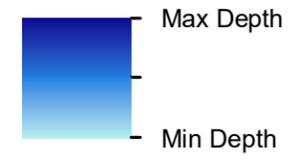


## **APPENDIX B – FIGURES**

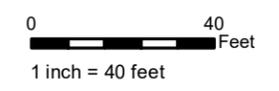


**Figure 1 - Ponds 2102SW001, 002, & 003**  
 Pond Maps  
 City of Lakeville, MN

Pond 001 Area: 0.03 ac  
 Pond 002 Area: 0.07 ac  
 Pond 003 Area: 0.04 ac



- Surveyed Depth
- Storm Sewer

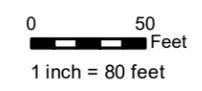


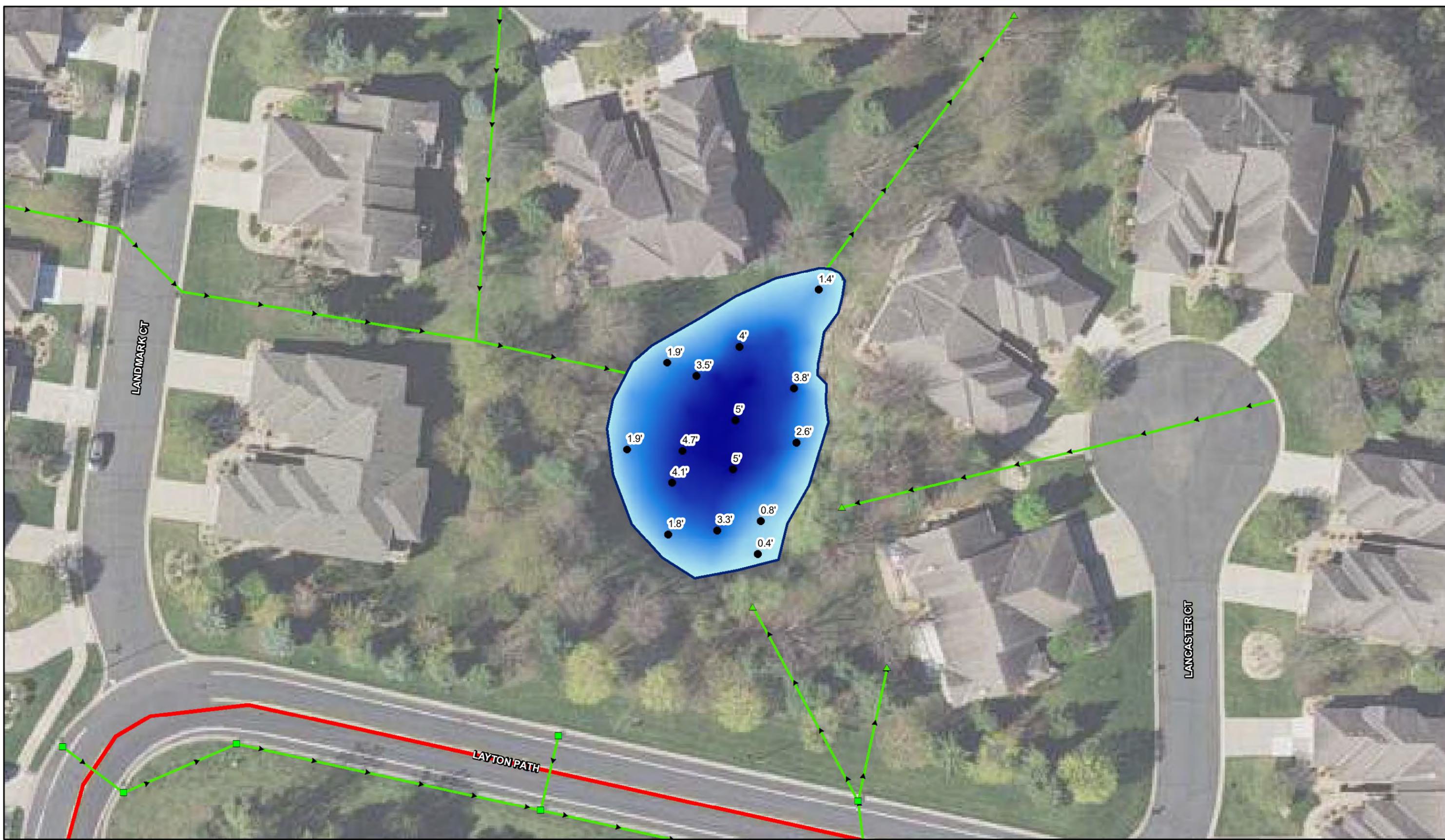


**Figure 2 - Ponds 2102SW001, 002 & 003**  
Drainage Areas  
City of Lakeville, MN

Pond 001 Drainage Area: 4.10 ac. 30.2% Impervious  
Pond 002 Drainage Area: 0.67 ac. 17.9% Impervious  
Pond 003 Drainage Area: 1.12 ac. 18.8% Impervious

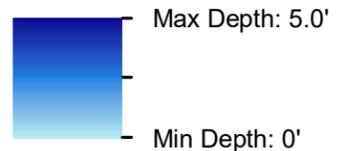
Storm Sewer  
Project Location  
Drainage Area



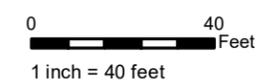


 **Figure 3 - Pond 2111SW001**  
Pond Maps  
City of Lakeville, MN

Pond Area: 0.23 ac.



- Surveyed Depths
- Storm Sewer





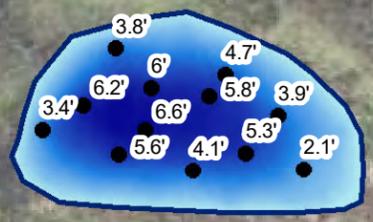
**Figure 4 - Pond 2111SW001**  
 Drainage Areas  
 City of Lakeville, MN

**Total Drainage Area: 21.14 ac.**  
**22.6% Impervious**

- Storm Sewer
- Drainage Area
- Project Location

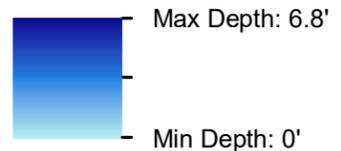
N  
  
 0 150 Feet  
 1 inch = 180 feet



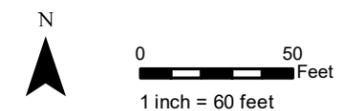


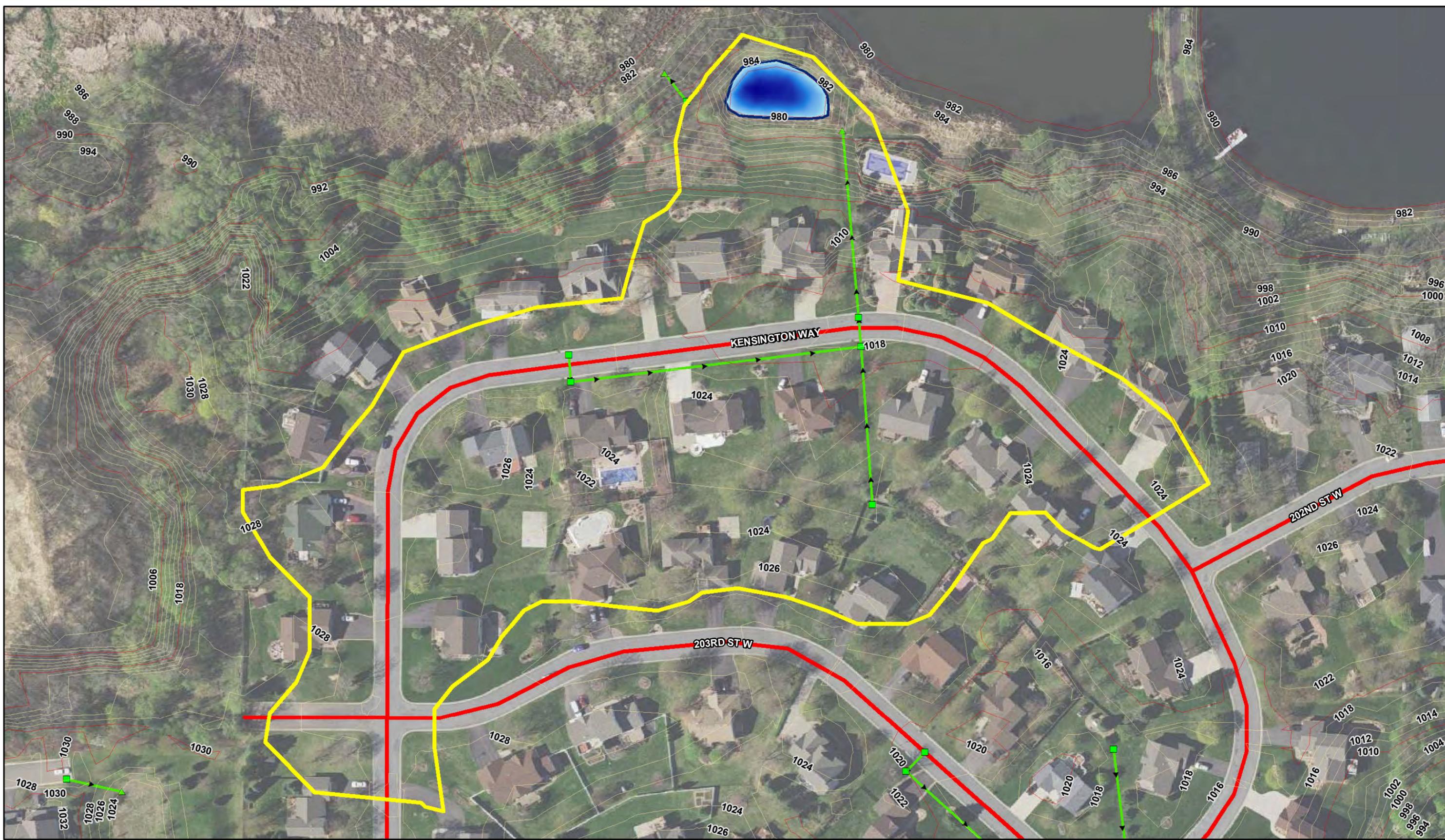
 **Figure 5 - Pond 2125NE001**  
 Pond Maps  
 City of Lakeville, MN

Pond Area: 0.14 ac.



- Surveyed Depths
- Storm Sewer





**Figure 6 - Pond 2125NE001**  
Drainage Areas  
City of Lakeville, MN

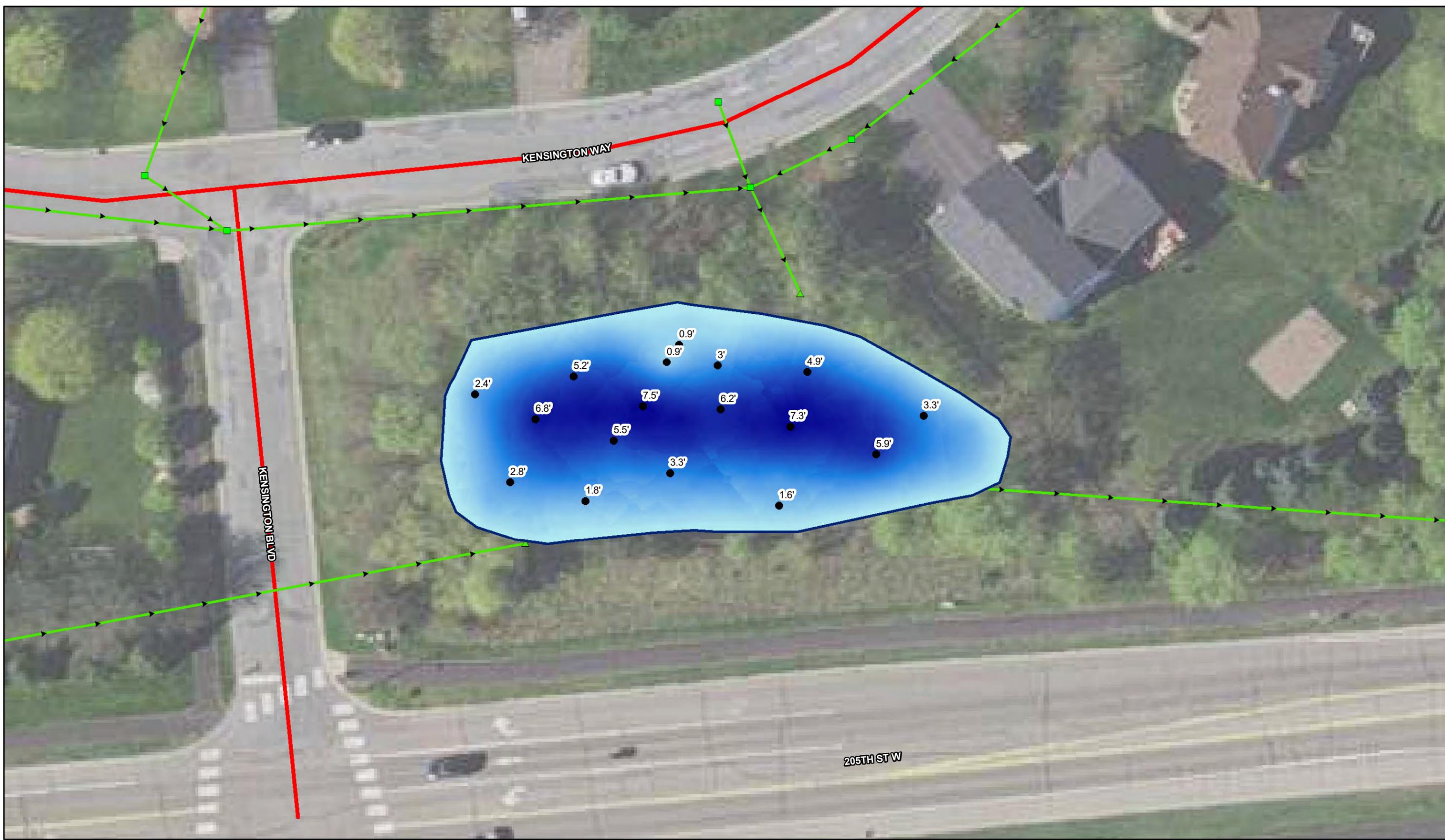
**Total Drainage Area: 9.09 ac.**  
**37.0% Impervious**

- Storm Sewer
- Drainage Area
- Project Location



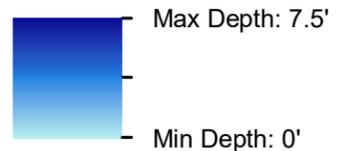
0 100 Feet  
1 inch = 100 feet



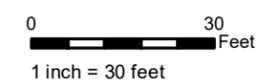


 **Figure 7 - Pond 2125NE003**  
Pond Maps  
City of Lakeville, MN

Pond Area: 0.27 ac.



- Surveyed Depths
- Storm Sewer





**Figure 8 - Pond 2125NE003**  
 Drainage Areas  
 City of Lakeville, MN

Total Drainage Area: 25.27 ac.  
 39.8% Impervious

- Storm Sewer
- Drainage Area
- Project Location



0 150 Feet  
 1 inch = 150 feet



## **APPENDIX C – SEDIMENT SAMPLING**

Summary of Stormwater Pond Sediment Testing Results											
Project Name: Lakeville Sediment (Project number: 013281)											
Sample Date: 7/24/2019											
Chemical	Reporting Limit* mg/kg	Residential SRV	Industrial SRV	Sample Locations				Sample Locations			
		mg/kg	mg/kg	2111SW001-1		2111SW001-2		2125NE001-1		2125NE001-2	
Noncarcinogenic PAHs				mg/kg		mg/kg		mg/kg		mg/kg	
Acenaphthene	0.128	1,200	5,260	0.0510	J	0.0246	<	0.442	J	0.0041	<
Acenaphthylene	0.128	na	na	0.0333	<	0.0203	<	0.169	<	0.0034	<
Anthracene	0.128	7,880	45,400	0.0098	<	0.0060	<	<b>0.768</b>		0.00099	<
Benzo(g,h,i)perylene	0.128	na	na	<b>0.718</b>		<b>0.291</b>		<b>5.13</b>		0.0017	<
Fluoranthene	0.128	1,080	6,800	<b>2.07</b>		<b>0.787</b>		<b>12.2</b>		0.0017	J
Fluorene	0.128	850	4,120	0.0665	J	0.0216	J	0.495	J	0.0027	<
2-Methylnaphthalene	0.128	100	369	0.0117	<	0.0072	<	0.118	J	0.0012	<
Naphthalene	0.128	10	28	0.0380	<	0.0232	<	0.193	<	0.0039	<
Phenanthrene	0.128	na	na	<b>1.19</b>		<b>0.427</b>		<b>7.38</b>		0.0022	<
Pyrene	0.128	890	5,800	<b>1.41</b>		<b>0.545</b>		<b>11.2</b>		0.0016	<
Carcinogenic PAHs/ B[a]P Equivalents	Reporting Limit* mg/kg	Potency Equiv. Factor (PEF)		Site Conc. mg/kg	BaP Equiv. Conc. mg/kg						
Benzo(a)anthracene	0.128	0.10		<b>0.326</b>	0.033	<b>0.104</b>	0.010	<b>4.74</b>	0.474	0.0015	< 0.000
Benzo(a)fluoranthene (Total)	0.385	0.10		<b>2.11</b>	0.211	<b>0.819</b>	0.082	<b>12</b>	1.200	0.0032	< 0.000
Benzo(j)fluoranthene	NA	0.10		<b>0</b>	0.000	<b>0</b>	0.000	<b>0</b>	0.000	<b>0</b>	0.000
Benzo(k)fluoranthene	NA	0.10		<b>0</b>	0.000	<b>0</b>	0.000	<b>0</b>	0.000	<b>0</b>	0.000
Benzo(a)pyrene	0.128	1.00		<b>0.684</b>	0.684	<b>0.266</b>	0.266	<b>5.02</b>	5.020	0.0012	< 0.001
Chrysene	0.128	0.01		<b>1.21</b>	0.012	<b>0.473</b>	0.005	<b>7.22</b>	0.072	0.0019	< 0.000
Dibenz(a,h)acridine	0.128	0.10		0.0602	J	0.006	0.0254	< 0.003	0.292	J	0.029
Dibenz(a,h)anthracene	0.128	0.56		<b>0.172</b>	0.096	0.0670	J	0.038	<b>1.23</b>	0.689	0.0016
7H-Dibenzo(c,g)carbazole	0.128	1.00		0.0168	<	0.017	0.0103	<	0.0853	<	0.085
Dibenzo(a,e)pyrene	0.128	1.00		<b>0.411</b>	0.411	<b>0.167</b>	0.167	<b>2.44</b>	2.440	0.0017	< 0.002
Dibenzo(a,h)pyrene	0.128	10.00		<b>0.201</b>	2.010	<b>0.0853</b>	0.853	<b>1.21</b>	12.100	0.0027	< 0.027
Dibenzo(a,i)pyrene	0.128	10.00		0.0352	J	0.352	0.0202	<	0.285	J	2.850
Dibenzo(a,l)pyrene	0.128	10.00		0.0295	<	0.295	0.0180	<	0.150	<	1.500
7,12-Dimethylbenz(a)anthracene	0.128	34.00		0.0470	<	1.598	0.0287	<	0.238	<	8.092
Indeno(1,2,3-cd)pyrene	0.128	0.10		<b>0.615</b>	0.062	<b>0.241</b>	0.024	<b>3.88</b>	0.388	0.0014	< 0.000
3-Methylcholanthrene	0.128	3.00		0.0188	J	0.056	0.0088	<	0.0729	<	0.219
5-Methylchrysene	0.128	1.00		0.0334	J	0.033	0.0118	J	0.012	0.439	J
<b>Total B[a]P Equivalents</b>		<b>2</b>	<b>3</b>		<b>5.876</b>		1.650		<b>35.597</b>		0.266
<b>BOLD</b> -	Analyte Detected above lab Reporting Limit (RL)										
Not-Bold (<)	Analyte not detected above lab Method Detection Limit (MDL)										
(J)	Analyte reported as estimated between the lab MDL and RL										
SRV	Soil Reference Value										
PAHs	polycyclic aromatic hydrocarbons										
B[a]P	benzo[a]pyrene										
conc.	concentration										
	Analyze conc. exceeds Residential SRV (suitable for industrial reuse)										
	Analyze conc. exceeds Residential SRV & Industrial SRV (special management required)										
<b>B[a]P Equivalent</b> - Each contaminant sample concentration is multiplied by its Potency Equivalency Factor (PEF) to obtain a B[a]P equivalent concentration. All B[a]P equivalent concentrations are summed to calculate the total B[a]P equivalent concentration. For nondetect data, use the procedures outlined in Appendix B of "Managing Stormwater Sediment BMP Guidance For Municipalities".											

Sample Locations				Sample Locations				Sample Locations				Sample Locations			
2125NE003-1		2125NE003-2		212SW001-1		212SW001-2		212SW002-1		212SW002-2		212SW003-1		212SW003-2	
mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
0.0046	<	0.0039	<	0.0426	<	0.0100	<	0.0046	<	0.0044	<	0.0046	<	0.0039	<
0.0038	<	0.0033	<	0.0351	<	0.0082	<	0.0068	J	0.0036	<	0.0038	<	0.0032	<
0.0073	J	0.00096	<	<b>0.23</b>		0.0024	<	0.0056	J	0.0031	J	0.0038	J	0.0033	J
<b>0.112</b>		0.0016	<	<b>0.591</b>		0.0101	J	0.0134	J	0.0092	J	<b>0.0159</b>		0.0086	J
<b>0.271</b>		0.0017	J	<b>2.6</b>		0.0253	J	<b>0.0515</b>		<b>0.0269</b>		<b>0.0305</b>		<b>0.015</b>	
0.0052	J	0.0026	<	0.0285	<	0.0067	<	0.0031	<	0.0037	J	0.0031	<	0.0048	J
0.0014	J	0.0011	<	0.0124	<	0.0029	<	0.0013	<	0.0022	J	0.0027	J	0.0055	J
0.0044	<	0.0037	<	0.0401	<	0.0094	<	0.0043	<	0.0041	<	0.0044	<	0.0036	<
<b>0.0806</b>		0.0021	<	<b>1.4</b>		0.0113	J	<b>0.0147</b>		0.0120	J	0.0069	J	<b>0.0131</b>	
<b>0.204</b>		0.0015	<	<b>1.88</b>		0.0188	J	<b>0.0393</b>		<b>0.0211</b>		<b>0.0258</b>		<b>0.0139</b>	
Site Conc. mg/kg	BaP Equiv. Conc. mg/kg														
<b>0.0572</b>	0.006	0.0015	<	<b>0.854</b>	0.085	0.0081	J	<b>0.0196</b>	0.002	0.0109	J	<b>0.0252</b>	0.003	0.0076	J
<b>0.28</b>	0.028	0.0031	<	<b>1.68</b>	0.168	0.0250	J	0.0367	J	0.0216	J	<b>0.0946</b>	0.009	0.0174	J
<b>0</b>	0.000														
<b>0</b>	0.000														
<b>0.0954</b>	0.095	0.0011	<	<b>0.738</b>	0.738	0.0101	J	<b>0.0157</b>	0.016	0.0095	J	<b>0.0228</b>	0.023	0.0083	J
<b>0.16</b>	0.002	0.0018	<	<b>1.06</b>	0.011	0.0140	J	<b>0.024</b>	0.000	<b>0.0171</b>	0.000	<b>0.0497</b>	0.000	0.0121	J
0.0048	<	0.0041	<	0.0439	<	0.0103	<	0.0048	<	0.0045	<	0.0048	<	0.0040	<
<b>0.0225</b>	0.013	0.0015	<	<b>0.16</b>	0.090	0.0038	<	0.0040	J	0.0017	<	0.0064	J	0.0015	<
0.0019	<	0.0016	<	0.0178	<	0.0042	<	0.0019	<	0.0018	<	0.0019	<	0.0016	<
<b>0.0538</b>	0.054	0.0016	<	0.0174	<	0.0041	<	0.0071	J	0.0018	<	0.0076	J	0.0040	J
<b>0.0258</b>	0.258	0.0026	<	<b>0.137</b>	1.370	0.0067	<	0.0036	J	0.0029	<	0.0035	J	0.0026	<
0.0064	J	0.0032	<	0.0348	<	0.0081	<	0.0038	<	0.0036	<	0.0038	<	0.0032	<
0.0034	<	0.0029	<	0.0312	<	0.0073	<	0.0034	<	0.0032	<	0.0034	<	0.0028	<
0.0054	<	0.0046	<	0.0496	<	0.0116	<	0.0054	<	0.0051	<	0.0054	<	0.0045	<
<b>0.091</b>	0.009	0.0014	<	<b>0.505</b>	0.051	0.0080	J	0.0111	J	0.0063	J	<b>0.0151</b>	0.002	0.0056	J
0.0017	<	0.0014	<	0.0152	<	0.0035	<	0.0016	<	0.0016	<	0.0017	<	0.0014	<
<b>0.0177</b>	0.018	0.00087	<	0.0094	<	0.0022	<	0.0042	J	0.00096	<	0.0030	J	0.0024	J
	0.771		0.255		<b>2.820</b>		0.654		0.335		0.295		0.349		0.264