

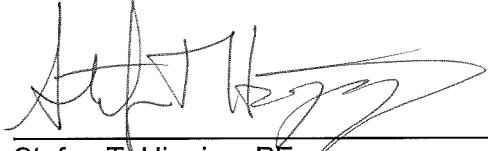
**FEASIBILITY REPORT
AND COST ESTIMATE
FOR
IMPROVEMENT PROJECT NO. 15-22
PAVEMENT MANAGEMENT PROGRAM
RECONSTRUCTION OF HASTINGS STREET**

CITY OF BLAINE, MINNESOTA

April 7, 2016

**Water main replacement, storm sewer, concrete curb, asphalt pavement replacement,
class 5 aggregate base, and related appurtenant construction.**

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.



Stefan T. Higgins, PE
Assistant City Engineer
Minn. Reg. No. 41290



CITY OF BLAINE
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Blaine, Minnesota 55449
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Prepared By: Stefan Higgins, PE
Assistant City Engineer

FEASIBILITY REPORT 15-22 - TABLE OF CONTENTS

	EXECUTIVE SUMMARY	FR-1
1.	PROJECT HISTORY	FR-2
2.	PROJECT AREA CHARACTERISTICS	FR-2
3.	PROPOSED IMPROVEMENTS	FR-2
	A. Sanitary Sewer	FR-2
	B. Water Main	FR-3
	C. Street Construction	FR-3
	D. Storm Drainage	FR-3
4.	IMPACT OF PROPOSED IMPROVEMENTS	FR-4
5.	SUMMARY OF ESTIMATED PROJECT COSTS AND FUNDING	FR-5
6.	ASSESSMENT METHODOLOGY	FR-6
7.	FINANCE	FR-6
	A. Finance Director Statement	FR-6
8.	PROJECTED SCHEDULE	FR-7
9.	PROJECT FEASIBILITY AND RECOMMENDATION	FR-7

EXHIBITS

1. Project Location
2. Assessable Parcels
3. Proposed Assessment Roll – High Density Residential Properties
4. Proposed Assessment Roll – Residential Properties

FEASIBILITY REPORT PROJECT NO. 15-22

EXECUTIVE SUMMARY

The proposed project will reconstruct Hastings Street from 85th Avenue to the cul-de-sac. Proposed improvements include installing concrete curb and gutter, storm sewer improvements, asphalt surface, traffic control signage, replacement of existing water main, and appurtenant construction.

The estimated cost of improvements is \$1,091,475.00 with \$200,216.28 proposed to be assessed over a ten-year period. Replacement of existing sanitary sewer castings/rings at an estimated cost of \$10,125.00 and replacement of existing sewer water main at an estimated cost of \$336,150.00 is proposed to be paid for by City Public Utility Funds. The remaining portion of \$544,983.72 is proposed to be paid from the City's Pavement Management Program Fund.

The project is necessary, cost-effective, and feasible and will result in a benefit to the properties proposed to be assessed.

1. PROJECT HISTORY

The Blaine City Council initiated the project and ordered the preparation of a feasibility report on December 17, 2015, with Resolution No. 15-208.

This report is based on field observations, record drawing information, 2014 aerial photography, and a 2015 topographic survey.

2. PROJECT AREA CHARACTERISTICS

The project area includes Hastings Street, beginning at 85th Avenue and terminating at the cul-de-sac just south of Highway 10.

The existing segment of Hastings Street, approximately 2,200 feet long, was originally constructed in 1966 as a 30 foot wide paved street. B618 concrete curb and gutter is present along both sides of the street from 85th Avenue to approximately 200 feet north. The remaining portion of the street has no curb and gutter. Storm sewer, consisting of three storm sewer catch basins in the intersection of 87th Avenue and Hastings Street, is present. Previous pavement preservation treatments include an overlay done in 1996 and a sealcoat done in 2002.

The Anoka County Soil Survey indicates the predominant soil types in the project area to be Zimmerman fine sand and Lino loamy fine. Based on past projects in the area, the project will likely require dewatering operations to install some of the underground improvements.

The proposed project is located in the Coon Creek Watershed District. Hastings Street drains to Laddie Lake through the existing storm sewer mentioned above. No portion of the project will impact wetlands as identified on the City's wetland inventory map.

See Exhibit No. 1 for the project location.

3. PROPOSED IMPROVEMENTS

The proposed improvements will include reconstruction of the existing street section, additional storm sewer and replacement of water main and sanitary sewer castings and rings. The improvements are necessary, cost-effective, and feasible. Each improvement is further described as follows:

A. Sanitary Sewer

Public Works and Engineering staff has reviewed the existing sanitary sewer along the Hastings Street corridor and concur that there are no issues with the existing mains. The entire sewer main was recently lined in 2011 as a part of the sanitary sewer lining project. The project will include the removal of the existing manhole castings/rings and installation of new castings/rings on all sanitary manholes.

B. Water Main

Public Works and Engineering staff has reviewed the water main installation dates and water main break data along the Hastings Street corridor and concur that the existing cast iron water main installed in 1961 should be replaced. Cast iron water main is more susceptible to water main breaks than modern ductile iron or PVC water main pipe. Because the lifespan of the new road is anticipated to be at least 30 years, the existing water main would be approaching or exceeding 100 years old before another opportunity would exist to replace it.

Therefore, the project will include replacement of existing cast iron water main in the project corridor. The work will include abandonment of existing water main, removal of existing hydrants, removal of existing water services to the right of way, and installation of new hydrants, valves, water main and water services.

C. Street Construction

The proposed construction will begin at the intersection of 85th Avenue and continue northerly within the existing Hastings Street alignment, terminating at the end of the existing cul-de-sac. The proposed project will reconstruct the entire road, removing all existing pavement and curb and gutter, and constructing a new road with a typical section composed of 3-1/2 inches of bituminous on 4 inches of Class 5 gravel base over a compacted subgrade. The new road section will include B618 concrete curb and gutter along the entire length of the road.

It is not anticipated that additional right-of-way will be needed for the project.

D. Storm Drainage

Storm water runoff from the streets will be captured and controlled with catch basins and a storm sewer pipe system. The existing storm sewer system will be supplemented with the addition of additional catch basins and storm sewer pipe to aid in capturing runoff. Sump catch basin structures will be utilized where appropriate to aid in the removal of sediments.

With the addition of concrete curb and gutter, it is anticipated that infiltration practices will need to be incorporated into the existing storm sewer system to meet the watershed requirements. It is proposed to move the location of the existing cul-de-sac southerly somewhat to create an area where an infiltration basin can be installed. Staff will work with

Coon Creek Watershed District to determine how to meet infiltration requirements in a feasible and cost effective way within the right of way.

Coon Creek Watershed District will conduct a plan review for the project.

4. IMPACT OF PROPOSED IMPROVEMENTS

The proposed street improvements will not create any new maintenance issues for the Public Works staff other than the annual cleaning of the sump manholes. The City will work with affected property owners and the Contractor to resolve any situation that may arise during construction. Short term traffic delays, construction dust and noise, and erosion will occur. Efforts to minimize these impacts include the restriction of work hours and dust and erosion control measures included in the project. Any disruptions that occur to existing yards, sprinkler systems, and driveways will be restored.

5. SUMMARY OF ESTIMATED PROJECT COSTS AND FUNDING

Project: 15-22

Description: Reconstruction of Hastings Street

Cost Item	Percent	Amount
Construction Costs		
Street Construction		\$ 552,000
Water Main		249,000
Sanitary Sewer		7,500
		\$ 808,500
Total Construction Costs		
 Administrative Costs		
Engineering	18%	\$ 145,530
Assessment	1%	8,085
Legal	2%	16,170
Administration	4%	32,340
Capitalized Interest	8%	64,680
Bonding	2%	16,170
		\$ 282,975
Total Administrative Costs		
 TOTAL ESTIMATED PROJECT COSTS		\$ 1,091,475

Temporary Funding Source

City Internal Funds

Permanent Funding Source

Assessments, Pavement Management Program Funds (PMP Funds), and Public Utility Funds,

Funding

Total Paid from Public Utility Funds	\$ 346,275
Total Generation from Assessments	\$ 200,216.28
Total Paid from PMP Funds	\$ 544,983.72

6. ASSESSMENT METHODOLOGY

It is proposed that the project be assessed over 10 years in accordance with the City's Assessment Policy.

It is proposed to assess this project using the unit method for the single family residential properties. Proposed unit assessments are based on 25% of the entire cost of the improved street section, and do not include costs for water main or sanitary sewer work.

It is proposed to assess this project using the linear foot method for the high density residential property (Carriage Wood). Proposed assessments are based on 50% of the entire cost of the improved street section, and do not include costs for water main or sanitary sewer work.

See Exhibit No. 2 for the parcels proposed to be assessed and Exhibit Nos. 3 and 4 for the proposed assessment rolls.

7. FINANCE

The proposed project will be temporarily financed by the City. Permanent funding will be provided by the Pavement Management Program Funds, city water and sewer utility funds, and the costs assessed to the benefiting parcels in accordance with current City Assessment Policy and Minnesota Statutes Chapter 429, Special Assessment Laws.

A. Finance Director Statement

With reference to this Feasibility Report for Improvement Project 15-22 as prepared by the City of Blaine Engineering Department dated April 7, 2016, I find the following:

1. The project will be temporarily funded through existing City internal funds whereupon permanent financing will be obtained through the Pavement Management Program Funds, Public Utility Funds, and assessments.
2. Sufficient moneys are currently available from the City's internal funds to temporarily fund the special assessment portion of the project. It is estimated that \$200,216.28 will be assessed.
3. Sufficient moneys are currently available from the City's Public Utility Funds to pay for proposed utility improvements for street reconstruction at an estimated cost of \$346,275.00.

Joseph Huss, Finance Director

8. PROJECTED SCHEDULE

April 7, 2016	Receive Feasibility Report Order Public Hearing
April 19, 2016	Public Information Meeting to discuss project and proposed assessments
May 5, 2016	Hold Public Hearing Order Improvements and Order Preparation of Plans and Specifications
May 5, 2016	Approve Plans and Specifications Order Advertisement for Bids
June 1, 2016	Open Bids
June 16, 2016	Award Contract
June – Sept 2016	Construct Improvements
September 2016	Assess Project
2017	First assessment payment due with real estate taxes

9. PROJECT FEASIBILITY AND RECOMMENDATION

The project as proposed is technically and financially feasible, cost effective, and will result in a benefit to the properties proposed to be assessed. It is recommended that the Council accept this report, hold the public hearing, and order the improvements.



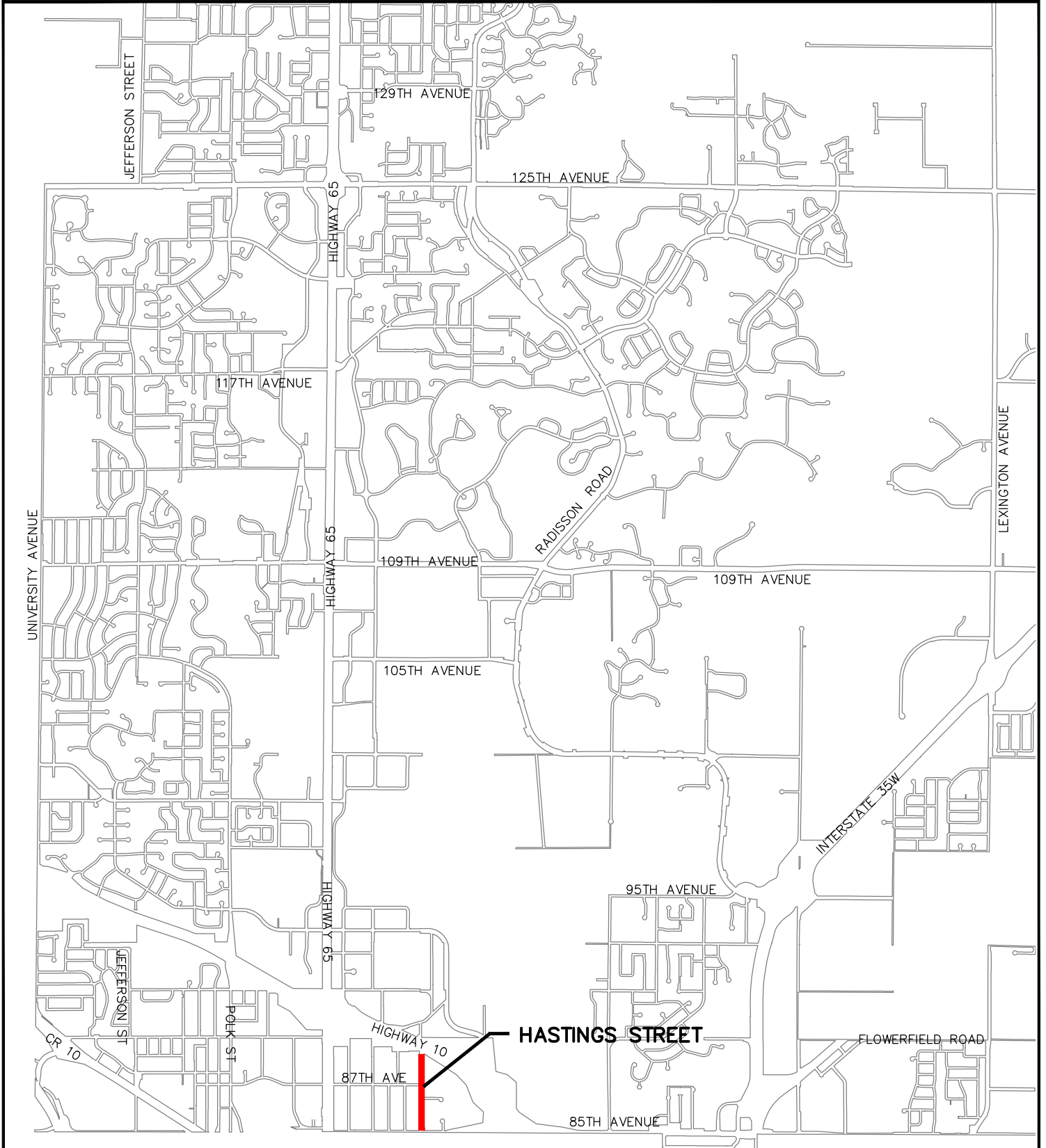
CITY OF BLAINE

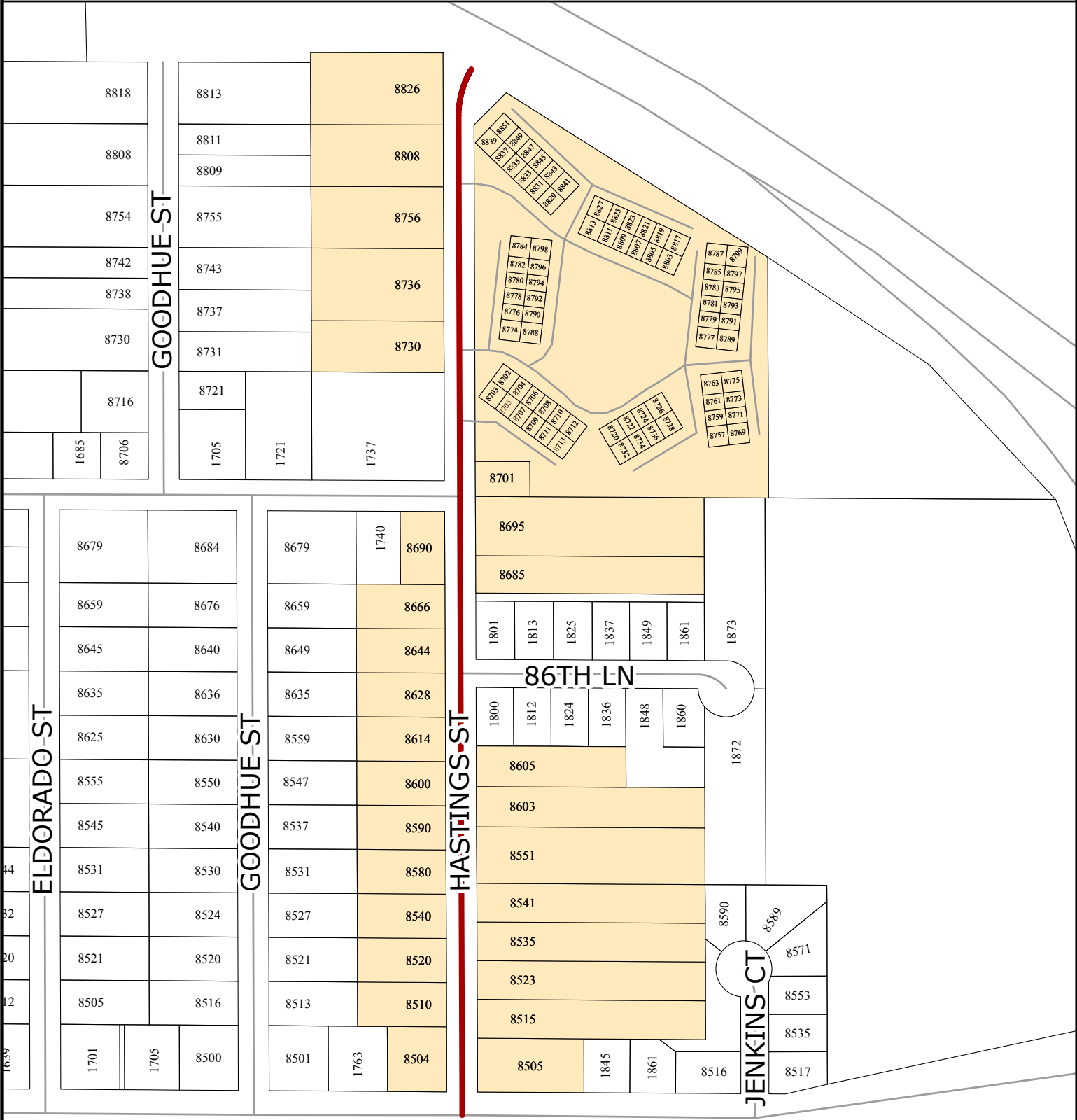
EXHIBIT 1 - LOCATION MAP



HASTINGS STREET RECONSTRUCTION

 - RECONSTRUCT





Reconstruction of Hastings Street

Assessable Parcels



Assessment Map Project 15-22



PROJECT 15-22
 RECONSTRUCTION OF HASTINGS STREET
 CITY OF BLAINE
EXHIBIT NO. 3 - HASTINGS STREET HIGH DENSITY RESIDENTIAL PROPERTY
PROPOSED ASSESSMENT ROLL

ASSESSMENT RATE BREAKDOWN				
CONSTRUCTION COSTS*	\$552,000.00	*(CONSTRUCTION COST DOES NOT INCLUDE WATER MAIN OR SANITARY SEWER COSTS)		
ADMINISTRATIVE COSTS	\$193,200.00			
TOTAL COST	\$745,200.00			
	<u>COMMERCIAL RATE</u>	x50%	TOTAL FRONT FOOTAGE	ASSESSMENT RATE PER FRONT FOOT
ASSESSABLE COST	\$372,600.00 /		4263.2 LF	= \$87.40

HIGH DENSITY RESIDENTIAL PROPERTY

ASSESSMENT RATE		ASSESSABLE FOOTAGE		AMOUNT ASSESSED		ASSESSABLE RESIDENTIAL LOT UNITS		ASSESSMENT RATE PER RESIDENTIAL LOT UNIT
\$87.40	X	817.5 LF	=	\$71,449.50	/	76	=	\$940.13

CARRIAGE WOOD

PROPERTY PIN	PROPERTY ADDRESS	PROPERTY OWNER	ASSESSABLE RESIDENTIAL LOT UNITS	ASSESSMENT RATE PER RESIDENTIAL LOT UNIT	PROPOSED ASSESSMENT
333123320099	8702 HASTINGS CIR NE	FITZER KRISTI	1	\$940.13	\$940.13
333123320100	8703 HASTINGS CT NE	CRAMER SARA	1	\$940.13	\$940.13
333123320098	8704 HASTINGS CIR NE	JOHNSON MARY	1	\$940.13	\$940.13
333123320101	8705 HASTINGS CT NE	CARLSON CHAD	1	\$940.13	\$940.13
333123320097	8706 HASTINGS CIR NE	WIISANEN RICHARD	1	\$940.13	\$940.13
333123320102	8707 HASTINGS CT NE	ERICKSON ALLEN J & AUDREY J	1	\$940.13	\$940.13
333123320096	8708 HASTINGS CIR NE	MEYER JULI C	1	\$940.13	\$940.13
333123320103	8709 HASTINGS CT NE	WELDON CATHERINE	1	\$940.13	\$940.13
333123320095	8710 HASTINGS CIR NE	SHARP MARTIN D & DEBBIE L	1	\$940.13	\$940.13
333123320104	8711 HASTINGS CT NE	CARTWRIGHT MARCIA A	1	\$940.13	\$940.13
333123320094	8712 HASTINGS CIR NE	KASPEROVICH VITALY	1	\$940.13	\$940.13
333123320105	8713 HASTINGS CT NE	ELVEN JUSTEN	1	\$940.13	\$940.13
333123320109	8720 HASTINGS CIR NE	KEANE TRUSTEE KATHRYN	1	\$940.13	\$940.13
333123320108	8722 HASTINGS CIR NE	HEROFF DIANE	1	\$940.13	\$940.13
333123320107	8724 HASTINGS CIR NE	OPDAHL KYLE	1	\$940.13	\$940.13
333123320106	8726 HASTINGS CIR NE	HENNES TERRY A	1	\$940.13	\$940.13
333123320110	8732 HASTINGS CIR NE	CHRISTENSEN DIXIE	1	\$940.13	\$940.13
333123320111	8734 HASTINGS CIR NE	PELKEY JENNY	1	\$940.13	\$940.13
333123320112	8736 HASTINGS CIR NE	WEBER JEANNETTE	1	\$940.13	\$940.13
333123320113	8738 HASTINGS CIR NE	EIFFLER EDWARD E III & MARIE L	1	\$940.13	\$940.13
333123320129	8757 HASTINGS CIR NE	GUST TRUSTEE MELANIE	1	\$940.13	\$940.13
333123320128	8759 HASTINGS CIR NE	MURRAY JOSEPH	1	\$940.13	\$940.13
333123320127	8761 HASTINGS CIR NE	BRAUN KENDAHL K	1	\$940.13	\$940.13
333123320126	8763 HASTINGS CIR NE	HUNT JR DOUGLAS	1	\$940.13	\$940.13
333123320130	8769 HASTINGS CIR NE	TIEKEN JANELLE	1	\$940.13	\$940.13
333123320131	8771 HASTINGS CIR NE	MARTIN DEREK	1	\$940.13	\$940.13

PROJECT 15-22
 RECONSTRUCTION OF HASTINGS STREET
 CITY OF BLAINE
EXHIBIT NO. 3 - HASTINGS STREET HIGH DENSITY RESIDENTIAL PROPERTY
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333123320132	8773 HASTINGS CIR NE	TRUCHINSKI ERIK	1	\$940.13	\$940.13
333123320081	8774 HASTINGS CIR NE	TEMNEWO LULA	1	\$940.13	\$940.13
333123320133	8775 HASTINGS CIR NE	KUKOWSKI DEBORA M	1	\$940.13	\$940.13
333123320082	8776 HASTING CIR NE	JOHNSON JOHNNY J	1	\$940.13	\$940.13
333123320139	8777 HASTINGS CIR NE	CLARK BREANNE	1	\$940.13	\$940.13
333123320083	8778 HASTING CIR NE	MJP PROPERTIES LLC	1	\$940.13	\$940.13
333123320138	8779 HASTINGS CIR NE	KUNG YUEHEHJUAN	1	\$940.13	\$940.13
333123320084	8780 HASTINGS CIR NE	GARNETT ERIC	1	\$940.13	\$940.13
333123320137	8781 HASTINGS CIR NE	HAZEL PROPERTIES LLC	1	\$940.13	\$940.13
333123320085	8782 HASTINGS CIR NE	SMITEN ANDREW	1	\$940.13	\$940.13
333123320136	8783 HASTINGS CIR NE	DAHLBERG TRUSTEE SANDRA & TERRY	1	\$940.13	\$940.13
333123320086	8784 NE HASTINGS CIR	PEREZ SHELLY	1	\$940.13	\$940.13
333123320135	8785 HASTINGS CIR NE	DADY JEFFREY	1	\$940.13	\$940.13
333123320134	8787 HASTINGS CIR NE	LEMIEUX KRISTY	1	\$940.13	\$940.13
333123320092	8788 HASTINGS CIR NE	GRAHAM DENESE	1	\$940.13	\$940.13
333123320140	8789 HASTINGS CIR NE	HENDERSON GREGORY	1	\$940.13	\$940.13
333123320091	8790 HASTINGS CIR NE	TOSO KELSEY	1	\$940.13	\$940.13
333123320141	8791 HASTINGS CIR NE	LINDSTROM DAVID & SHARON	1	\$940.13	\$940.13
333123320090	8792 HASTINGS CIR NE	DELAFOREST EDWARD	1	\$940.13	\$940.13
333123320142	8793 HASTINGS CIR NE	MADLOCK KAREN	1	\$940.13	\$940.13
333123320089	8794 HASTINGS CT NE	BREEN DANIEL	1	\$940.13	\$940.13
333123320143	8795 HASTINGS CIR NE	SAXTON JAIMIE	1	\$940.13	\$940.13
333123320088	8796 HASTINGS CT NE	MERTZ ANN M	1	\$940.13	\$940.13
333123320144	8797 HASTINGS CIR NE	GROWE CYNTHIA	1	\$940.13	\$940.13
333123320087	8798 HASTINGS CIR NE	PRYBELLA LYNN	1	\$940.13	\$940.13
333123320145	8799 HASTINGS CIR NE	OMAR HANY	1	\$940.13	\$940.13

PROJECT 15-22
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333123320152	8803 HASTINGS CIR NE	LI RUILIN	1	\$940.13	\$940.13
333123320153	8805 HASTINGS CIR NE	VERGIN JEFFREY & ROSE	1	\$940.13	\$940.13
333123320154	8807 HASTINGS CIR NE	MEINKE TIMOTHY W & PAMELA J	1	\$940.13	\$940.13
333123320155	8809 HASTINGS CIR NE	ERICKSON GLORIA	1	\$940.13	\$940.13
333123320156	8811 HASTINGS CIR NE	MORALES MARCO	1	\$940.13	\$940.13
333123320157	8813 HASTINGS CIR NE	CLARKE BARBARA	1	\$940.13	\$940.13
333123320151	8817 HASTINGS CIR NE	GALL LUANN M	1	\$940.13	\$940.13
333123320150	8819 HASTINGS CIR NE	MILLER JENNIFER	1	\$940.13	\$940.13
333123320149	8821 HASTINGS CIR NE	ZUNIGA GERARDO	1	\$940.13	\$940.13
333123320148	8823 HASTINGS CIR NE	NELSON ERIC A	1	\$940.13	\$940.13
333123320147	8825 HASTINGS CIR NE	MILNER ERIC C	1	\$940.13	\$940.13
333123320146	8827 HASTINGS CIR NE	ELLESTAD GARY L & SUSAN M	1	\$940.13	\$940.13
333123320120	8829 HASTINGS CIR NE	FRID JENNIFER	1	\$940.13	\$940.13
333123320121	8831 HASTINGS CIR NE	REIER JASON	1	\$940.13	\$940.13
333123320122	8833 HASTINGS CIR NE	LANDEEN PETER H	1	\$940.13	\$940.13
333123320123	8835 HASTINGS CIR NE	VALBERG ADAM	1	\$940.13	\$940.13
333123320124	8837 HASTINGS CIR NE	MARKUSON ROBERT F	1	\$940.13	\$940.13
333123320125	8839 HASTINGS CIR NE	PEARSON JUNG	1	\$940.13	\$940.13
333123320119	8841 HASTINGS CIR NE	SMITH LYNN	1	\$940.13	\$940.13
333123320118	8843 HASTINGS CIR NE	PUCHTEL TERESA M	1	\$940.13	\$940.13
333123320117	8845 HASTINGS CIR NE	JOHNSON THERESA	1	\$940.13	\$940.13
333123320116	8847 HASTINGS CIR NE	COPELAND MARCUS	1	\$940.13	\$940.13
333123320115	8849 HASTINGS CIR NE	LEAVITT LOIS E	1	\$940.13	\$940.13
333123320114	8851 HASTINGS CIR NE	BOTHWELL ROGER L & MARYLIN E	1	\$940.13	\$940.13
TOTALS:			76		\$71,449.88

