

**FEASIBILITY REPORT AND
COST ESTIMATE
FOR
IMPROVEMENT PROJECT NO. 17-07
LEVER STREET NE
FROM 125TH AVENUE NE TO
132ND AVENUE NE ALIGNMENT**

**CITY OF BLAINE, MINNESOTA
June 1, 2017**

Trunk sanitary sewer, Trunk water main, Sanitary sewer lift station, Storm drainage improvements, Storm water quality management, Class 5 aggregate base, Concrete curb and gutter, Concrete sidewalk, Bituminous trail, Asphalt pavement, Intersection improvements, Signage, Striping, 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.



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Minn. Reg. No. 26771



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FEASIBILITY REPORT

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FEASIBILITY REPORT

PROJECT NO. 17-07

EXECUTIVE SUMMARY

The proposed project will introduce Sanitary Sewer and Water Main to the Lever Street Area north of 125th Avenue NE. The project also proposed to improve Lever Street from 125th Avenue NE to the 132nd Avenue NE alignment, including intersection improvements at 125th Avenue NE and Lever Street NE. Proposed improvements include trunk sanitary sewer, trunk water main, sanitary sewer lift station, storm drainage improvements, storm water quality management, class 5 aggregate base, concrete curb and gutter, concrete sidewalk, bituminous trail, asphalt pavement, intersection improvements, traffic control signage, striping, and appurtenant construction.

The estimated cost of improvements is \$3,947,400 with \$2,119,150 proposed to be assessed over a ten-year period. Sanitary sewer trunk oversizing estimated cost of \$893,567 and \$214,350 for sanitary sewer not assessed to be collected as connection charges is proposed to be paid for by the City Public Utility Fund. Water main trunk oversizing estimated cost of \$344,792 and \$118,381 for water main not assessed to be collected as connection charges is also proposed to be paid for by the City Public Utility Fund. The estimate cost of the south half of improvements to the intersection of 125th Avenue NE and Levers Street NE is \$257,160 is proposed to be paid from the intersection improvement fee from the developments on the south side of 125th Avenue.

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 project was initiated by petition for public improvements dated February 27, 2017, signed by property owners representing 63% of the frontage of the real property along Lever Street.

The Blaine City Council declared the petition adequate and instructed the City Engineer to prepare a feasibility report on March 16, 2017, with Resolution No. 17-034.

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

2. PROJECT AREA CHARACTERISTICS

The project area is Lever Street NE starting from 125th Avenue NE and extending to the 132nd Avenue NE alignment.

The properties on Lever Street are current zoning as FR, Farm Residential. The 2030 Comprehensive Plan has a land use designation of LDR, Low Density Residential.

The existing Lever Street alignment runs north and south from 125th Avenue to 132nd Avenue alignment, approximately 4,250 feet. The existing street is a rural section gravel roadway with no sewer and water utilities.

The Anoka County Soil Survey indicates the predominant soil types in the project area to be Lacustrine sand with silt. Based on past projects in the area, the project will require dewatering operations to install underground improvements.

The proposed project is located in the Rice Creek Watershed District. Lever Street NE drains to a branch of County Ditch 53-62 which is part of the Federal Emergency Management Agency designated flood area. A wetland inventory will also need to be conducted in conjunction with design of the roadway.

City trunk sanitary sewer and trunk water main were extended to the north side of 125th Avenue NE in the Fall of 2016 in preparation for extending these utilities into this developing area of the city. Existing homes along this corridor are all served by private well and septic systems.

See Exhibit No. 1 for the project location.

3. PROPOSED IMPROVEMENTS

The proposed improvements will include trunk sanitary sewer, trunk water main, storm sewer, and upgrading to an urban collector street section as Lever Street NE is currently designated as a State Aid route on the City's roadway system. The street section will also include a sidewalk and trail. These improvements will allow for the future development of the adjacent parcels and the remainder of Section 1. The improvements are necessary, cost-effective, and feasible. Each improvement is further described as follows:

A. **Sanitary Sewer**

The proposed project will include the installation of 10 and 12 inch trunk sanitary sewer. The existing 12 inch sewer is located on the north side of 125th Avenue NE. The sewer extension will also include a lift station and force main. Each parcel will have at least one 8 inch stub extended to the right-of-way to serve their parcel. For the purposes of this report it is anticipated that individual lots will be served internally to each parcel as they are further subdivided.

See Exhibit No. 2 for the sanitary sewer location map.

B. **Water Main**

The proposed project will include the installation of 20 inch trunk water main from the existing 20 inch stub located on the north side of 125th Avenue NE to the 131st Avenue alignment. The water main from 131st Avenue NE alignment to 132nd Avenue alignment will be 8 inch in size. Each parcel along Lever Street NE will have an 8 inch stub installed to the right-of-way to serve their parcel. For the purposes of this report it is anticipated that individual lots will be served internally to each parcel as they are further subdivided.

See Exhibit No. 3 for the water main location map.

C. **Storm Sewer**

The propose project will include the installation of a storm sewer system composed of a series of catch basins, pipes, and storm water ponds. The storm water system will be designed to the State Aid and Blaine standards of a five-year storm event. The Rice Creek Watershed District will conduct a plan review for the project. The project may impact several small wetlands that are found on the National Wetland Inventory. A preliminary survey will need to be conducted prior to design of the road way to determine the extent of these impacts and the required mitigations. The project is not located in a flood plain and any altering of the elevations of the roadway will not require compensatory storage.

See Exhibit No. 4 for the proposed storm sewer location map.

D. **Street Construction**

The proposed Lever Street NE construction will begin at the intersection of 125th Avenue NE and continue north over the existing Lever Street NE alignment terminating approximately 4250 feet north of the intersection. The proposed street will be 34 feet back of curb to back of curb with a typical section constructed with a section composed of 4-inches bituminous on 6-inches of class V aggregate base over a compacted subgrade. The street section will also include a 6 foot concrete sidewalk along the westside and an 8 foot bituminous trail along the eastside.

The expansion of the rural section to the urban section along the corridor will require the relocation of existing overhead utility lines and poles. The private utility companies will be engaged in the design process to determine if their respective lines will be relocated within the project corridor. At a preliminary review of the corridor it is anticipated that all trees located within the existing right-of-way will need to be removed to construct the proposed improvements. Knowing the value most residents place on the preservation of trees, the design will make every effort to preserve trees wherever feasible and still construct the project in a safe manner. For the purposes of this report it is assumed that the utility companies will relocate and upgrade their respective lines to better serve the potential development of the corridor and the surround area.

The project also proposes to construct the necessary lane improvements to create a full access intersection with 125th Avenue NE. These intersection improvements will need to be approved by Anoka County Highway Department and will most likely include at a minimum left and right hand turn lanes on 125th Avenue NE along with any geometric lane realignments.

The right-of-way for a collector road is typically 70 foot per city ordinance, but the proposed typical street section can work within the existing 66 foot right-of-way along this corridor. The project will need to acquire additional right-of-way at a minimum for the intersection improvements at 125th Avenue NE and for any ponding/storm water management improvements.

See Exhibit No. 5 for the proposed street typical section.

4. IMPACT OF PROPOSED IMPROVEMENTS

The proposed street improvements will remove another gravel road from the system, thus eliminating the need to grade the roadway during the summer months. The project will create new routine maintenance for the Public Works staff such as, the required cleaning of the storm sewer system and periodic street sweeping. The City will work with affected property owners and the Contractor to resolve any situation that may arise during construction. A temporary access road will be created as part of the project to maintain access to the existing residential properties during the installation of the sanitary sewer and water main. Efforts to minimize construction dust and noise include the restriction of work hours and dust and erosion control measures included in the project. Any disruptions that occur to existing yards and driveways will be restored. The most visible impact will be the removal of trees along the existing 66 foot right-of-way. Every effort will be made during the design process to minimize the loss of trees and impact to the property owners.

5. SUMMARY OF ESTIMATED PROJECT COSTS AND FUNDING

Project: 17-07

Description: Lever Street NE Improvements

Cost Item	Percent	Amount
Construction Costs		
Street and Storm Sewer Construction		\$ 1,333,000
Water Main		495,100
Sanitary Sewer		1,095,900
Total Construction Costs		\$ 2,924,000
Administrative Costs		
Engineering	18%	\$ 526,320
Assessment	1%	29,240
Legal	2%	58,480
Administration	4%	116,960
Capitalized Interest	8%	233,920
Bonding	2%	58,480
Total Administrative Costs		\$ 1,023,400
TOTAL ESTIMATED PROJECT COSTS		\$ 3,947,400

Temporary Funding Source

City Internal Funds

Permanent Funding Source

Assessments, Intersection Improvement Fees, and Public Utility Funds.

6. ASSESSMENT METHODOLOGY

It is proposed that the project be assessed over 10 years in accordance with the City's Standard Assessment Policy. It is proposed to assess the street portion of the project using the linear foot method for all residential properties benefitting from the street improvements. Proposed front foot assessments are based on 100% of the street project costs. The proposed street assessment differs from the Northeast Area Assessment Policy but is the only way to recoup the cost of street improvements as street costs cannot be paid through a connection charges.

It is proposed to assess the sanitary sewer and water main portions of the project to the petitioning properties using the linear foot method in accordance with the City's Northeast Area Assessment Policy. The Northeast Area Assessment policy directs that the developers be assessed with a project and that the non-petitioners pay their assessments as connection charges. The connection charges associated with this project will be index to the year in which development occurs on each parcel. Proposed front foot assessments are based on 100% of the project cost less the trunk oversizing cost of the sanitary sewer and water main as determined by the City Engineer. Note that the sanitary sewer trunk area charge for Sanitary Sewer Subdistrict 7 will be collected at the time of development for each parcel.

See Exhibit No. 6 for the parcels proposed to be assessed and Exhibit No. 7 for the proposed assessment roll.

7. FINANCE

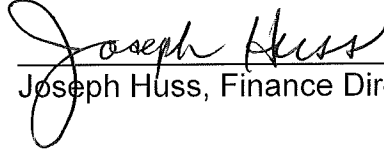
The proposed project will be temporarily financed by the City. Permanent funding will be provided by the City water and sewer utility funds, Intersection improvement fees, and the costs assessed to the benefiting parcels in accordance with current City Assessment Policy and Minnesota Statutes Chapter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

A. Finance Director Statement

With reference to this Feasibility Report for Improvement Project 17-07 as prepared by the City of Blaine Engineering Department dated June 1, 2017, I find the following:

1. The project will be temporarily funded through existing City internal funds whereupon permanent financing will be obtained through the City's Public Utility Funds, Developer Intersection Improvement Escrows, 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 \$2,119,150 will be assessed.

3. Sufficient moneys are currently available from the City's Public Utility Funds to pay for proposed utility improvements for Lever Street construction at an estimated cost of \$1,571,090.



Joseph Huss, Finance Director

8. PROJECTED SCHEDULE

June 1, 2017	Receive Feasibility Report Order Public Hearing
June 14, 2017	Public/Business Information Meeting to discuss project and proposed assessments
June 15, 2017	Hold Public Hearing Order Improvements and Order Preparation of Plans and Specifications
Aug 17, 2017	Approve Plans and Specifications Order Advertisement for Bids
Sept 12, 2017	Open Bids
Sept 21, 2017	Award Contract
Oct – Jun 2018	Construct Improvements
September 2018	Assess Project
2019	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

PROJECT NO.17-07
LEVER STREET RECONSTRUCTION



LOCATION MAP

EXHIBIT 1





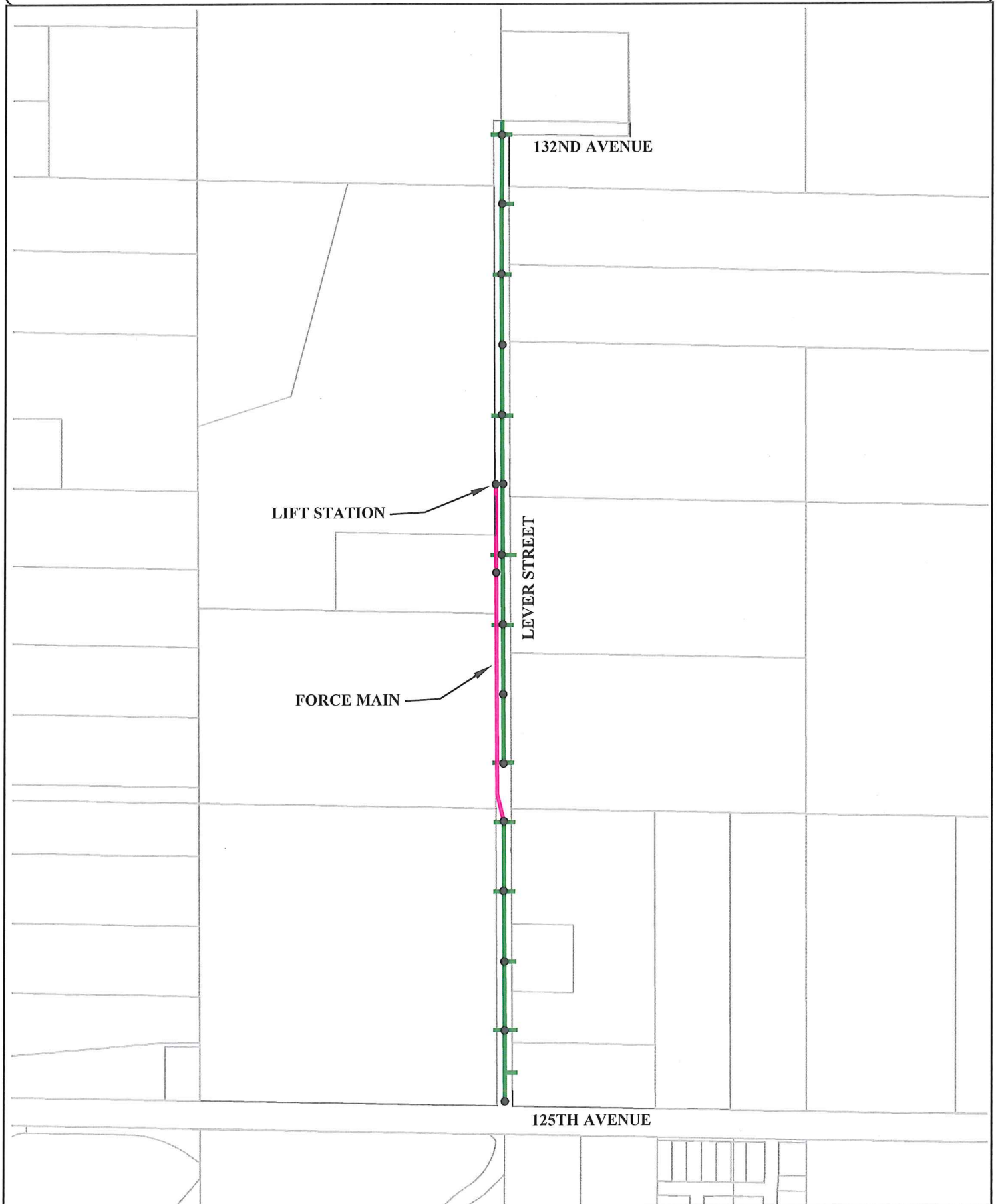
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PROJECT NO.17-07
LEVER STREET RECONSTRUCTION



SANITARY SEWER LOCATION MAP

EXHIBIT 2





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PROJECT NO.17-07
LEVER STREET RECONSTRUCTION



WATERMAIN LOCATION MAP

EXHIBIT 3





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PROJECT NO.17-07
LEVER STREET RECONSTRUCTION



STORM SEWER LOCATION MAP

EXHIBIT 4





CITY OF BLAINE

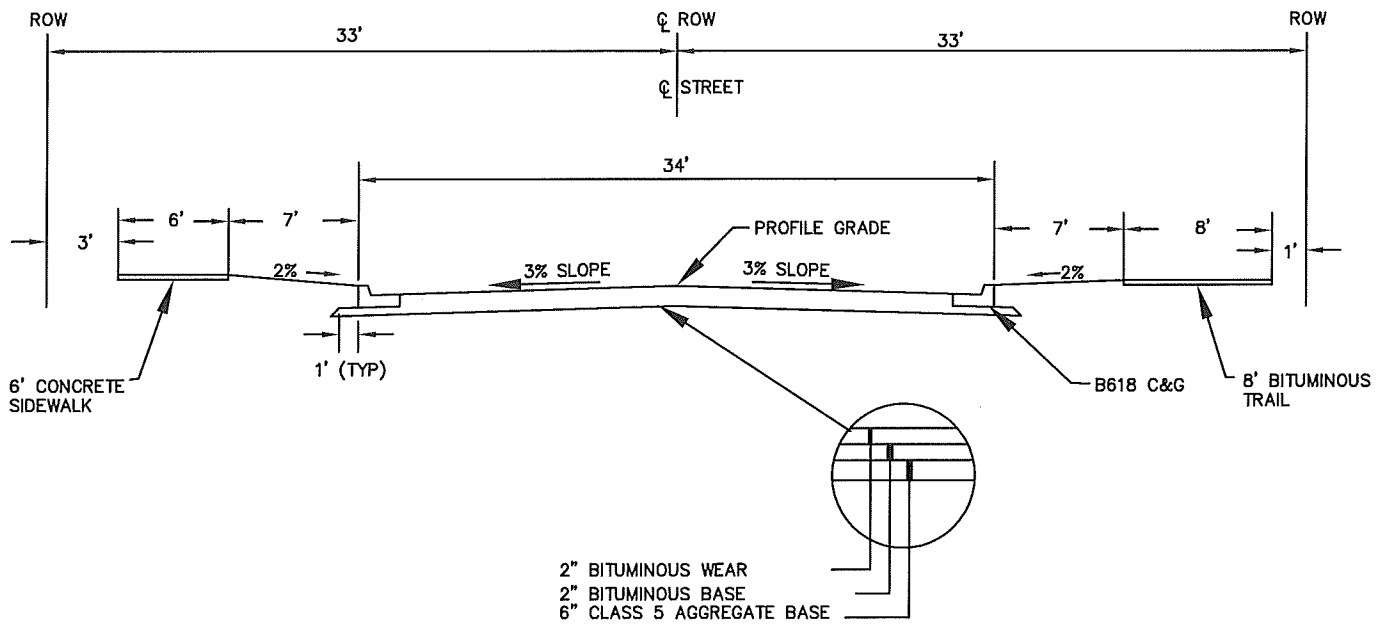
PROJECT NO.17-07

LEVER STREET RECONSTRUCTION

STREET TYPICAL SECTION

EXHIBIT 5

LEVER STREET TYPICAL SECTION





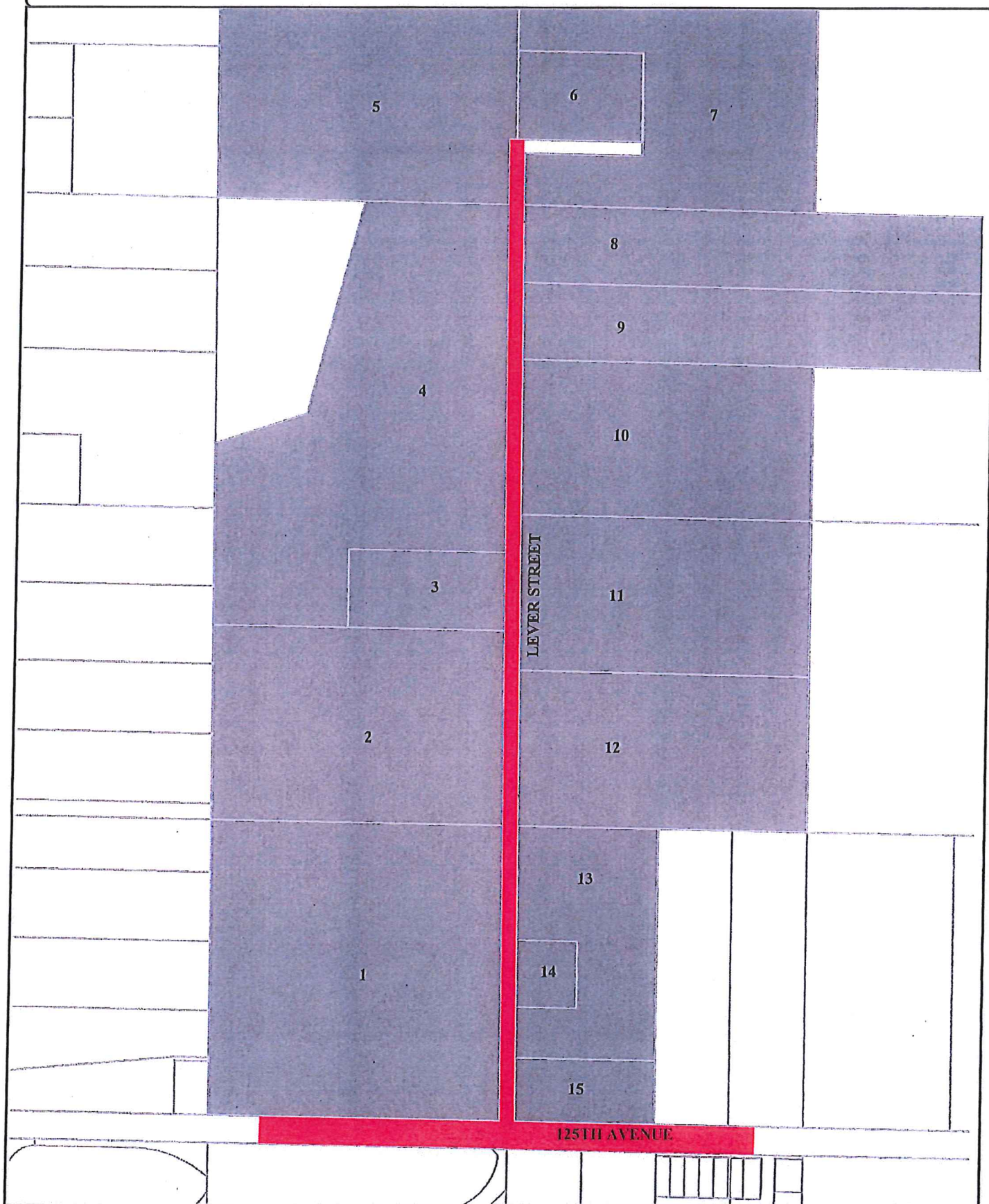
CITY OF BLAINE

PROJECT NO.17-07
LEVER STREET RECONSTRUCTION



ASSESSMENT MAP

EXHIBIT 6



Pheasant Ridge Drive NE
Project Number 17-07

Proposed Assessment Roll

PARCEL NUMBER	PIN	OWNER	ADDRESS	Total Front Footage (LF)	Sanitary Sewer Assessment Rate (100%)	Water Main Assessment Rate (100%)	Street Assessment Rate (100%)	Total Sanitary Sewer Assessment	Total Water Main Assessment	Total Street Assessment	Total Assessment
1	01 31 23 34 0001	ISD 11	4501 125th Avenue	1260	\$69.67	\$38.48	\$183.40	\$87,784.20	\$48,484.80	\$231,084.00	\$367,353.00
2	01 31 23 31 0003	Tamblyn, Irene *	12730 Lever Street	820	\$0.00	\$0.00	\$183.40	\$0.00	\$0.00	\$150,388.00	\$150,388.00
3	01 31 23 31 0004	Fish, Daniel & Myia *	12860 Lever Street	337	\$0.00	\$0.00	\$183.40	\$0.00	\$0.00	\$61,805.80	\$61,805.80
4	01 31 23 24 0005	National Land Investors, LLC	12944 Lever Street	1447	\$69.67	\$38.48	\$183.40	\$100,812.49	\$55,680.56	\$265,379.80	\$421,872.85
5	01 31 23 21 0001	Almberg, Douglas & Jinny; Neumann, Jack & John	Not Assigned	323	\$69.67	\$38.48	\$183.40	\$22,503.41	\$12,429.04	\$59,238.20	\$94,170.65
6	01 31 23 12 0005	Bruggeman, Jon	13101 Lever Street	93	\$69.67	\$38.48	\$183.40	\$6,479.31	\$3,578.64	\$17,056.20	\$27,114.15
7	01 31 23 12 0007	Bruggeman, Jon	Not Assigned	230	\$69.67	\$38.48	\$183.40	\$16,024.10	\$8,850.40	\$42,182.00	\$67,056.50
8	01 31 23 13 0006	Cox, Clara & Vixtor Jr., Trustee	Not Assigned	330	\$69.67	\$38.48	\$183.40	\$22,991.10	\$12,698.40	\$60,522.00	\$96,211.50
9	01 31 23 13 0005	Birney, Amelia & Clayton, Trustee	13045 Lever Street	330	\$69.67	\$38.48	\$183.40	\$22,991.10	\$12,698.40	\$60,522.00	\$96,211.50
10	01 31 23 13 0003	Clarey, Gerald *	12901 Lever Street	660	\$0.00	\$0.00	\$183.40	\$0.00	\$0.00	\$121,044.00	\$121,044.00
11	01 31 23 42 0002	Herbst, Diana & Russell	12875 Lever Street	660	\$69.67	\$38.48	\$183.40	\$45,982.20	\$25,396.80	\$121,044.00	\$192,423.00
12	01 31 23 42 0003	Herbst, Diana & Russell	12875 Lever Street	660	\$69.67	\$38.48	\$183.40	\$45,982.20	\$25,396.80	\$121,044.00	\$192,423.00
13	01 31 23 43 0007	Marohl, Charles & Kathleen *	Not Assigned	712.52	\$0.00	\$0.00	\$183.40	\$0.00	\$0.00	\$130,676.17	\$130,676.17
14	01 31 23 43 0006	Klass, Michael & Molly *	12551 Lever Street	290.09	\$0.00	\$0.00	\$183.40	\$0.00	\$0.00	\$53,202.51	\$53,202.51
15	01 31 23 43 0001	Tamblyn, Ronald & Beth *	4601 125th Avenue	257.39	\$0.00	\$0.00	\$183.40	\$0.00	\$0.00	\$47,205.33	\$47,205.33
				8410			Total	\$371,550.11	\$205,213.84	\$1,542,394.00	\$2,119,157.95

* Parcels that did not Sign Petition

Estimated Sanitary Sewer Assessment Rate

Estimated Water Main Assessment Rate

Estimated Street Assessment Rate

\$69.67 /Front Foot

\$38.48 /Front Foot

\$183.40 /Front Foot