



FEASIBILITY REPORT

BACARDI AVENUE AND 88TH STREET
W. RECONSTRUCTION
INVER GROVE HEIGHTS | MINNESOTA

Prepared for:

City of Inver Grove Heights

8150 Barbara Avenue

Inver Grove Heights, MN 555077

CITY PROJECT NO. 2025-09G

WSB PROJECT NO. 024458-000



August 12, 2024

Honorable Mayor and City Council
City of Inver Grove Heights
8150 Barbara Avenue
Inver Grove Heights, MN 555077

Re: Bacardi Avenue And 88th Street W. Reconstruction
City of Inver Grove Heights
City Project No. 2025-09G
WSB Project No. 024458-000

Dear Honorable Mayor and City Council:

The following is a feasibility report addressing infrastructure improvements along Bacardi Avenue and 88th Street West between Argenta Trail and Aviary Path.

The proposed improvements include paving the existing aggregate surface, installing curb and gutter, storm sewer and a stormwater basin. There are also sanitary sewer improvements and minor watermain improvements.

We would be happy to discuss this report with you at your convenience. Please contact me directly at 608.632.1432 if you have any questions.

Sincerely,

WSB

Kyle Hoff, PE
Project Manager

Attachments

cc: Monica Heil, WSB



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Letter of Introduction

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Certification Sheet

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.

Kyle Hoff, PE

Date: August 12, 2024 Lic. No. 59709

Quality Control Review Completed By:

Monica Heil, PE

Date: August 12, 2024 Lic. No. 47497



1 Executive Summary

The Bacardi Avenue and 88th Street West Reconstruction project, City Project No. 2025-09G, was initiated by City Council, and the feasibility report was ordered at the January 22, 2024, City Council meeting. This project consists of roadway and utility improvements. Surface improvement work will include removal of the existing gravel pavement, installation of a new roadway section, spot subgrade corrections as necessary, installation of new concrete curb and gutter, and storm sewer installation. A stormwater facility, in the form of an infiltration basin with a forebay, will also be installed on the western end of 88th Street West, near Argenta Trail. Utility improvements include watermain valve and hydrant adjustments and extending the sanitary sewer main through the 88th Street West right-of-way. A map of the project area is included in **Appendix A**.

The limits of the project as presented in this feasibility report are along Bacardi Avenue and 88th Street W. from Argenta Trail to Aviary Path. The total project cost is estimated to be \$916,835. The project is proposed to be funded through Special Assessments to benefitting property owners and local funds.

The estimated project cost includes a ten percent (10%) contingency and twenty-eight percent (28%) indirect costs as presented in legal, engineering, administrative, and financing costs (LEAF).



2 Introduction

2.1 Authorization

On January 22, 2024, the Inver Grove Heights City Council authorized the preparation of an engineering feasibility report for the Bacardi Avenue and 88th Street West Reconstruction project. This project is designated as City Project No. 2025-09G.

2.2 Scope

This report investigates the feasibility of proposed reconstruction, bituminous paving and urbanization of Bacardi Avenue and removal of the gravel surface on 88th Street W. from Aviary Path to Argenta Trail. Urbanization will include the addition of storm sewer facilities within the corridor. The proposed improvements also include sanitary sewer improvements that will extend the public sanitary sewer main, which currently flows into a system located within an easement within the Emerald Hills mobile home community, to the 88th Street right-of-way towards Argenta Trail, and construction of a stormwater facility within the 88th Street right-of-way.

2.3 Data Available

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

- City of Inver Grove Heights Miscellaneous As-Builts
- City of Inver Grove Heights preliminary construction plans for this corridor dated April 14, 2003 (City project No. 2003-23).
- City of Inver Grove Heights Assessment Policy, adopted November 27, 2023
- City of Inver Grove Heights Land Use Maps
- Geotechnical Investigation Report: WSB, dated April 15, 2024



3 Existing Conditions

3.1 Surface and Street

Bacardi Avenue and 88th Street West currently exist as gravel roadways, without any curb and gutter and a poorly defined ditch section. The width of the gravel street varies from 18' to 26'. The aggregate section thickness varies from 7 inches to 14 inches. The properties along Bacardi Avenue and 88th Street are metes and bounds parcels, with 60 foot wide road easements for both streets.

Portions of Bacardi Avenue is crowned with some shallow ditch sections on either side. Both sides of the street are generally quite flat compared with the center of the street. The southern portion of Bacardi Avenue provides greater elevation relief in the boulevard areas.

88th Street West generally flows from the southerly to the northerly edge of the gravel. The northerly boulevard area of 88th Street West also drains to the roadway gravel edge, with a berm existing along the northeastern section of the street.

3.2 Sanitary Sewer

There is existing 8" vitrified clay pipe (VCP) sanitary sewer along Bacardi Avenue flowing south to north from a manhole located north of Aviary Path to the Emerald Hills mobile home community north of and adjacent to 88th Street West. This was constructed in 1974 and appears to be in good condition based on City Public Works Staff reviews.

3.3 Water Main

Watermain runs along 88th Street and Bacardi Avenue from Argenta Trail to Aviary Path. The watermain is 6" ductile iron pipe (DIP). There is also a watermain vault and metering station located on the north side of 88th Street, with watermain running from 88th Street north and into the Emerald Hills mobile home community.

3.4 Storm Sewer

There is no existing storm sewer or storm culverts along 88th Street W. and Bacardi Avenue.



4 Proposed Improvements

4.1 Surface and Street

This project proposes to reconstruct Bacardi Avenue to an urbanized, bituminous paved street section. The proposed improvements include surmountable curb and gutter, 4 inches of bituminous pavement, 6 inches of aggregate base and a 2 foot sand subbase. The proposed width is 24 feet from gutter to gutter, with the alignment centered in the roadway easement.

The gravel surface on 88th Street W. is proposed to be removed to provide an area to construct a stormwater basin within the 88th Street West roadway easement that will treat and manage stormwater from Bacardi Avenue. As no driveways exist along 88th Street West, removal of the 88th Street West gravel roadway will not impact property access along Bacardi Avenue nor Argenta Trail. Removal of the 88th Street West gravel roadway section will create a terminus for Bacardi Avenue at the northerly limits, and a hammerhead is proposed at the north end of Bacardi Avenue for vehicle turnaround movements. The proposed hammerhead will be constructed within the existing Bacardi Avenue and 88th Street West roadway easements.

4.1.1 Street Alternative

An alternative roadway section that was also considered for Bacardi Avenue was a paved, rural roadway section with properly graded ditches on both sides of the street in accordance with the City’s standard Rural Street Design – Local Street detail. However, the existing limited boulevard grades along Bacardi Avenue would require grading back nearly to the garage floors of some of the lowest elevated houses along corridor, requiring purchase of easements along both sides of the street to facilitate construction. We do not recommend pursuing this option as it would require significant tree removal, grading impacts and driveway impacts for properties along the corridor, resulting in an increase of the overall project costs relative to the costs to construct an urban section.

4.2 Sanitary Sewer

The existing sanitary sewer along Bacardi Avenue flows north into a manhole located within the Emerald Hills mobile home community. This project proposes to reroute that flow from an existing manhole at the north end of Bacardi Avenue west to a new manhole to be constructed with the reconstruction of Argenta Trail in 2025 (City Project No. 2023-09E). That project proposes to extend sanitary sewer from an existing City of Eagan sanitary sewer on the west side of Argenta Trail to Argenta Trail at 88th Street West, and then south along Argenta Trail to serve the single family residential Inver Grove Heights parcels located along the east side of Argenta Trail. That will allow this project to route the Bacardi Avenue sewer to the west within the 88th Street West roadway easement, such that it does not need to flow through the Emerald Hills mobile home community. The remaining sewer line to the north is proposed to be bulk headed and abandoned in place.



4.3 Water Main

There are no proposed improvements to the watermain with this project except for the adjustment of gate valves to the new roadway surface elevations. The proposed easterly curb line for Bacardi Avenue will be located such that valve locations are avoided.

4.4 Storm Sewer

The project proposes to collect storm water using curb and gutter and then directing it to catch basins on the proposed cul-de-sac at the north end of Bacardi Avenue. The storm sewer will discharge into the proposed stormwater management facility in the 88th Street West roadway easement.

4.5 Stormwater Management

The reconstruction and paving of Bacardi Avenue triggers stormwater volume retention requirements. The removal of the gravel surface on 88th Street West allows the 88th Street roadway easement to be used as the location of a stormwater basin. This will take the form of an infiltration basin with a wet forebay to remove some sediment from the stormwater prior to infiltrating.

One option for this design is to construct an infiltration basin with a forebay at the minimum size necessary to meet the stormwater treatment and detention requirements (Option 1). The second option is to construct a larger infiltration basin and forebay to use as much of the 88th Street ROW as is feasible (Option 2). The increase in stormwater treatment and retention from Option 2 would be beneficial to the City by reducing the potential of flooding and improving water quality downstream of this area. These options are evaluated in depth in the Stormwater Feasibility Report, which was developed concurrently with this feasibility report.

For the reasons described in the stormwater report, it is recommended that Option 2 be selected. There is an increased up front cost, but the larger basin will improve water quality, reduce flooding and can reduce long term maintenance costs. The larger basin may also be able to collect and treat some of the drainage from the adjacent Argenta Trail. The cost estimate for this option is included in the Opinion of Probable Cost in **Appendix B**.



5 Financing

5.1 Opinion of Probable Cost

The total project cost is estimated to be \$916,835. A detailed breakdown of the cost opinion for the proposed project can be found in Appendix B of this report. The opinion of cost incorporates estimated 2025 construction costs and includes a 10% contingency factor. Indirect costs are projected at 28% of the estimated construction cost and include legal, engineering, administrative, and financing costs.

Table 1 Bacardi Avenue and 88th Street Reconstruction	
Improvement	Estimated Cost
Street Improvements	\$522,027
Storm Sewer Improvements	\$179,250
Stormwater Improvements	\$81,108
Sanitary Sewer Improvements	\$110,655
Watermain Improvements	\$23,795
GRAND TOTAL	\$916,835

5.2 Funding

The proposed funding for the improvements is from City funds and assessments to benefiting properties. The proposed amount for each funding source is identified below:

Table 2 Funding Summary	
Funding Source	Amount
Pavement Management Funds – Local Streets	\$ 378,804
Stormwater Utility Fund	\$ 211,178
Sewer Utility Fund	\$ 110,655
Water Utility Fund	\$ 23,795
Special Assessments	\$ 192,403
GRAND TOTAL	\$916,835



5.3 Preliminary Assessment Roll

Assessments will be levied against the benefiting properties as outlined in Minnesota Statute 429 and the City of Inver Grove Heights' Special Assessment Policy. The proposed assessment roll for the Bacardi Avenue and 88th Street West Reconstruction project is included in **Appendix C** of this report, along with corresponding assessment maps identifying the benefiting properties.

Special Assessments for surface and storm water improvements are calculated on a per unit basis for properties abutting the proposed roadway improvements. Special Assessments are calculated using the total street and storm sewer costs for the project:

$$\$522,027.26 + \$179,249.66 = \$701,276.92$$

In accordance with the City of Inver Grove Heights' Assessment policy, these costs were then prorated to 55% to reflect gravel road paving costs and the assessable costs for the project were calculated to be:

$$\$701,276.92 * 55\% = \$385,702.31$$

The front footage of all lots on Bacardi Avenue and 88th Street are added up and the assessable cost above is divided by that total frontage to create a front footage rate. Some of the frontage along Bacardi Avenue and 88th Street will be paid by City pavement management funds on a per front footage basis. This includes the frontage of 8851 Bacardi Avenue, which is only assessed for Aviary Path (based on precedent set by previous projects), and the frontage along 88th Street West.

Assessments for the remaining individual parcels were then calculated on a per unit basis. This involves subtracting the City paid assessment amount from the total assessable cost, then dividing that amount by the total number of remaining assessed parcels. Refer to the Assessment Roll in **Appendix C** for further detail.



6 Project Schedule

The proposed schedule for this improvement is as follows:

Task Number	Task Description	Completion Date
1	Public Improvement Hearing Council Receives Report, Orders Project and Authorizes Preparation of Final Plans and Specs	August 12, 2024
2	Final Plans and Specifications Development	Mid-August – December 2024
3	Council Approves Plans and Specs, Authorize Ad for Bid	December 2024
4	Bid Opening	January 2025
5	City Council Accepts Bids/Awards Contracts	February 2025
6	Neighborhood Pre-Construction Open House	March 2025
7	Begin Construction	Spring 2025
8	End Construction	Fall 2025
9	Assessment Hearing Informational Meeting	October 8, 2025
10	Assessment Hearing	October 27, 2025



7 Feasibility and Recommendation

The Bacardi Avenue and 88th Street West Reconstruction project includes street reconstruction and paving, installation of concrete curb and gutter, sanitary sewer improvements, watermain improvements, and drainage improvements.

The total estimated cost for the Bacardi Avenue and 88th Street West Reconstruction project including roadway, drainage, sanitary, and watermain improvements is \$916,835. The project is proposed to be funded through local funds and Special Assessments to benefitting property owners. Construction costs are based on anticipated construction costs for 2025.

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.



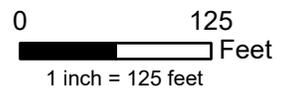
Appendix A

Figure 1 – Project Location Map



Project Location Map

Bacardi Ave and 88th Street Reconstruction
Inver Grove Heights, MN





Appendix B

Opinion of Probable Cost – Stormwater Option 1

Opinion of Probable Cost - Stormwater Option 2

OPINION OF PROBABLE COST - URBANIZATION - STORMWATER OPTION 1

WSB Project: Bacardi Avenue and 88th Street W. Reconstruction
 Project Location: Inver Grove Heights, MN
 City Project No.: 2025-09G
 WSB Project No: 024458-000

Design By: KWH
 Checked By: MH
 Date: 5/23/2024

Item No.	MnDOT Specification No.	Description	Unit	Estimated Total Quantity	Estimated Unit Price	Estimated Total Cost
A. STREET IMPROVEMENTS						
1	2021.501	MOBILIZATION	LS	1	\$ 36,300.00	\$ 36,300.00
2	2101.502	CLEARING	EACH	5	\$ 400.00	\$ 2,000.00
3	2101.502	GRUBBING	EACH	5	\$ 300.00	\$ 1,500.00
4	2101.505	CLEARING	ACRE	0.05	\$ 15,000.00	\$ 750.00
5	2101.505	GRUBBING	ACRE	0.05	\$ 15,000.00	\$ 750.00
6	2104.502	REMOVE MAIL BOX SUPPORT	EACH	10	\$ 90.00	\$ 900.00
7	2104.502	SALVAGE SIGN	EACH	1	\$ 55.00	\$ 55.00
8	2104.503	REMOVE CURB & GUTTER	L F	60	\$ 10.00	\$ 600.00
9	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	S Y	32	\$ 12.00	\$ 384.00
10	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	S Y	300	\$ 6.00	\$ 1,800.00
11	2104.504	REMOVE BITUMINOUS PAVEMENT	S Y	20	\$ 10.00	\$ 200.00
12	2106.507	EXCAVATION - COMMON	C Y	1420	\$ 17.00	\$ 24,140.00
13	2106.507	EXCAVATION - SUBGRADE	C Y	2330	\$ 17.00	\$ 39,610.00
14	2106.507	SELECT GRANULAR EMBANKMENT (CV)	C Y	2330	\$ 21.00	\$ 48,930.00
15	2108.504	GEOTEXTILE FABRIC TYPE 5	S Y	3020	\$ 3.00	\$ 9,060.00
16	2112.604	SUBGRADE PREPARATION	S Y	3020	\$ 3.00	\$ 9,060.00
17	2211.507	AGGREGATE BASE (CV) CLASS 5	C Y	530	\$ 36.00	\$ 19,080.00
18	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	130	\$ 4.00	\$ 520.00
19	2360.504	TYPE SP 12.5 WEAR CRS MIX(2;B)3.0" THICK	S Y	170	\$ 40.00	\$ 6,800.00
20	2360.509	TYPE SP 12.5 WEARING COURSE MIX (3;C)	TON	290	\$ 95.00	\$ 27,550.00
21	2360.509	TYPE SP 19.0 WEARING COURSE MIX (3;C)	TON	290	\$ 85.00	\$ 24,650.00
22	2531.504	6" CONCRETE DRIVEWAY PAVEMENT	S Y	170	\$ 100.00	\$ 17,000.00
23	2531.603	CONCRETE CURB & GUTTER DES SURMOUNTABLE	L F	1650	\$ 33.00	\$ 54,450.00
24	2531.603	7" CONCRETE VALLEY GUTTER	L F	60	\$ 40.00	\$ 2,400.00
25	2540.602	INSTALL MAIL BOX SUPPORT	EACH	10	\$ 180.00	\$ 1,800.00
26	2563.601	TRAFFIC CONTROL	LS	1	\$ 10,000.00	\$ 10,000.00
27	2564.602	INSTALL SALVAGED SIGN	EACH	1	\$ 200.00	\$ 200.00
28	2572.510	PRUNE TREES	HOUR	16	\$ 350.00	\$ 5,600.00
29	2573.501	STABILIZED CONSTRUCTION EXIT	LS	1	\$ 4,000.00	\$ 4,000.00
30	2573.502	STORM DRAIN INLET PROTECTION	EACH	2	\$ 300.00	\$ 600.00
31	2573.503	SILT FENCE; TYPE MS	L F	440	\$ 4.50	\$ 1,980.00
32	2573.503	SEDIMENT CONTROL LOG TYPE COMPOST	L F	300	\$ 5.00	\$ 1,500.00
33	2574.507	COMMON TOPSOIL BORROW	C Y	150	\$ 45.00	\$ 6,750.00
34	2575.504	ROLLED EROSION PREVENTION CATEGORY 20	S Y	130	\$ 4.00	\$ 520.00
35	2575.505	SEEDING	ACRE	0.60	\$ 1,400.00	\$ 840.00
36	2575.508	SEED MIXTURE 25-131	LB	140	\$ 8.20	\$ 1,148.00
37	2575.508	HYDRAULIC MULCH MATRIX	LB	1790	\$ 1.40	\$ 2,506.00
38	2575.523	WATER	MGAL	65	\$ 65.00	\$ 4,225.00
CONSTRUCTION TOTAL						\$ 370,158.00
CONTINGENCY TOTAL (10%)						\$ 37,015.80
SUBTOTAL						\$ 407,173.80
INDIRECT COST TOTAL (28%)						\$ 114,008.66
TOTAL						\$ 521,182.46
B. STORM SEWER IMPROVEMENTS						
39	2104.503	REMOVE PIPE CULVERTS	L F	76	\$ 18.00	\$ 1,368.00
40	2501.502	15" RC PIPE APRON	EACH	1	\$ 2,100.00	\$ 2,100.00
41	2502.503	4" PERF PVC PIPE DRAIN	L F	100	\$ 15.00	\$ 1,500.00
42	2503.503	12" RC PIPE SEWER CLASS V	L F	434	\$ 85.00	\$ 36,890.00
43	2503.503	15" RC PIPE SEWER CLASS V	L F	539	\$ 100.00	\$ 53,900.00
44	2506.502	CONST DRAINAGE STRUCTURE DESIGN SPECIAL	EACH	3	\$ 4,000.00	\$ 12,000.00
45	2506.502	CONST DRAINAGE STRUCTURE DES 48-4020	EACH	4	\$ 6,500.00	\$ 26,000.00
46	2511.507	RANDOM RIPRAP CLASS III	C Y	5	\$ 150.00	\$ 750.00
CONSTRUCTION TOTAL						\$ 134,508.00
CONTINGENCY TOTAL (10%)						\$ 13,450.80
SUBTOTAL						\$ 147,958.80
INDIRECT COST TOTAL (28%)						\$ 41,428.46
TOTAL						\$ 189,387.26

C. STORM WATER IMPROVEMENTS - OPTION 1						
47	2106.507	EXCAVATION - COMMON	C Y	620	\$ 30.00	\$ 18,600.00
48	2501.502	18" RC PIPE APRON	EACH	1	\$ 2,300.00	\$ 2,300.00
49	2503.503	18" RC PIPE SEWER CLASS V	L F	39	\$ 115.00	\$ 4,485.00
50	2506.602	CONST DRAINAGE STRUCTURE DESIGN SPEC 1	EACH	1	\$ 7,500.00	\$ 7,500.00
51	2511.507	RANDOM RIPRAP CLASS III	C Y	6	\$ 150.00	\$ 900.00
52	2575.504	GRANULAR FILTER (CV)	C Y	60	\$ 80.00	\$ 4,800.00
53	2575.504	ROLLED EROSION PREVENTION CATEGORY 20	S Y	180	\$ 4.00	\$ 720.00
54	2575.505	SEEDING	ACRE	0.10	\$ 6,000.00	\$ 600.00
55	2575.508	SEED MIXTURE 33-261	LB	2	\$ 45.00	\$ 90.00
CONSTRUCTION TOTAL						\$ 39,995.00
CONTINGENCY TOTAL (10%)						\$ 3,999.50
SUBTOTAL						\$ 43,994.50
INDIRECT COST TOTAL (28%)						\$ 12,318.46
TOTAL						\$ 56,312.96
D. SANITARY SEWER IMPROVEMENTS						
56	2104.502	REMOVE CASTING	EACH	3	\$ 250.00	\$ 750.00
57	2104.603	ABANDON PIPE SEWER	L F	75	\$ 28.00	\$ 2,100.00
58	2503.503	8" PVC PIPE SEWER	L F	380	\$ 70.00	\$ 26,600.00
59	2503.601	SANITARY SEWER BYPASS PUMPING	LS	1	\$ 5,000.00	\$ 5,000.00
60	2503.602	CONNECT TO EXISTING SANITARY SEWER	EACH	1	\$ 3,200.00	\$ 3,200.00
61	2503.602	CONNECT TO EXISTING MANHOLES (SAN)	EACH	1	\$ 3,500.00	\$ 3,500.00
62	2503.603	TELEWISE SANITARY SEWER	L F	380	\$ 8.00	\$ 3,040.00
63	2504.603	18" PVC CASING PIPE	L F	140	\$ 220.00	\$ 30,800.00
64	2506.602	CASTING ASSEMBLY (SANITARY)	EACH	3	\$ 1,200.00	\$ 3,600.00
CONSTRUCTION TOTAL						\$ 78,590.00
CONTINGENCY TOTAL (10%)						\$ 7,859.00
SUBTOTAL						\$ 86,449.00
INDIRECT COST TOTAL (28%)						\$ 24,205.72
TOTAL						\$ 110,654.72
E. WATER MAIN IMPROVEMENTS						
65	2104.502	REMOVE HYDRANT	EACH	1	\$ 750.00	\$ 750.00
66	2504.602	HYDRANT	EACH	1	\$ 8,000.00	\$ 8,000.00
67	2504.602	ADJUST HYDRANT	EACH	3	\$ 1,800.00	\$ 5,400.00
68	2504.602	ADJUST GATE VALVE & BOX	EACH	5	\$ 550.00	\$ 2,750.00
CONSTRUCTION TOTAL						\$ 16,900.00
CONTINGENCY TOTAL (10%)						\$ 1,690.00
SUBTOTAL						\$ 18,590.00
INDIRECT COST TOTAL (28%)						\$ 5,205.20
TOTAL						\$ 23,795.20
GRAND TOTAL						\$ 901,332.61

DISCLAIMER:

In review of this Opinion of Probable Cost, the Client understands that the Consultant has no control over the availability of labor, equipment or materials, market conditions, or the Contractor's method of pricing. This Opinion of Probable Cost is made on the basis of the Consultant's professional judgment and experience. The Consultant makes no warranty, expressed or implied, regarding the ultimate bids or negotiated cost of the Work.

OPINION OF PROBABLE COST - URBANIZATION - STORMWATER OPTION 2

WSB Project: Bacardi Avenue and 88th Street W. Reconstruction
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 WSB Project No: 024458-000

Design By: KWH
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7	2104.502	SALVAGE SIGN	EACH	1	\$ 55.00	\$ 55.00
8	2104.503	REMOVE CURB & GUTTER	L F	60	\$ 10.00	\$ 600.00
9	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	S Y	32	\$ 12.00	\$ 384.00
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25	2540.602	INSTALL MAIL BOX SUPPORT	EACH	10	\$ 180.00	\$ 1,800.00
26	2563.601	TRAFFIC CONTROL	LS	1	\$ 10,000.00	\$ 10,000.00
27	2564.602	INSTALL SALVAGED SIGN	EACH	1	\$ 200.00	\$ 200.00
28	2572.510	PRUNE TREES	HOURL	16	\$ 350.00	\$ 5,600.00
29	2573.501	STABILIZED CONSTRUCTION EXIT	LS	1	\$ 4,000.00	\$ 4,000.00
30	2573.502	STORM DRAIN INLET PROTECTION	EACH	2	\$ 300.00	\$ 600.00
31	2573.503	SILT FENCE; TYPE MS	L F	440	\$ 4.50	\$ 1,980.00
32	2573.503	SEDIMENT CONTROL LOG TYPE COMPOST	L F	300	\$ 5.00	\$ 1,500.00
33	2574.507	COMMON TOPSOIL BORROW	C Y	150	\$ 45.00	\$ 6,750.00
34	2575.504	ROLLED EROSION PREVENTION CATEGORY 20	S Y	130	\$ 4.00	\$ 520.00
35	2575.505	SEEDING	ACRE	0.60	\$ 1,400.00	\$ 840.00
36	2575.508	SEED MIXTURE 25-131	LB	140	\$ 8.20	\$ 1,148.00
37	2575.508	HYDRAULIC MULCH MATRIX	LB	1790	\$ 1.40	\$ 2,506.00
38	2575.523	WATER	MGAL	65	\$ 65.00	\$ 4,225.00
CONSTRUCTION TOTAL						\$ 370,758.00
CONTINGENCY TOTAL (10%)						\$ 37,075.80
SUBTOTAL						\$ 407,833.80
INDIRECT COST TOTAL (28%)						\$ 114,193.46
TOTAL						\$ 522,027.26
B. STORM SEWER IMPROVEMENTS						
39	2104.503	REMOVE PIPE CULVERTS	L F	76	\$ 18.00	\$ 1,368.00
40	2501.502	15" RC PIPE APRON	EACH	1	\$ 2,100.00	\$ 2,100.00
41	2502.503	4" PERF PVC PIPE DRAIN	L F	100	\$ 15.00	\$ 1,500.00
42	2503.503	12" RC PIPE SEWER CLASS V	L F	434	\$ 85.00	\$ 36,890.00
43	2503.503	15" RC PIPE SEWER CLASS V	L F	467	\$ 100.00	\$ 46,700.00
44	2506.502	CONST DRAINAGE STRUCTURE DESIGN SPECIAL	EACH	3	\$ 4,000.00	\$ 12,000.00
45	2506.502	CONST DRAINAGE STRUCTURE DES 48-4020	EACH	4	\$ 6,500.00	\$ 26,000.00
46	2511.507	RANDOM RIPRAP CLASS III	C Y	5	\$ 150.00	\$ 750.00
CONSTRUCTION TOTAL						\$ 127,308.00
CONTINGENCY TOTAL (10%)						\$ 12,730.80
SUBTOTAL						\$ 140,038.80
INDIRECT COST TOTAL (28%)						\$ 39,210.86
TOTAL						\$ 179,249.66

C. STORM WATER IMPROVEMENTS - OPTION 2						
47	2106.507	EXCAVATION - COMMON	C Y	1010	\$ 30.00	\$ 30,300.00
48	2501.502	18" RC PIPE APRON	EACH	1	\$ 2,300.00	\$ 2,300.00
49	2503.503	18" RC PIPE SEWER CLASS V	L F	59	\$ 115.00	\$ 6,785.00
50	2506.602	CONST DRAINAGE STRUCTURE DESIGN SPEC 1	EACH	1	\$ 7,500.00	\$ 7,500.00
51	2511.507	RANDOM RIPRAP CLASS III	C Y	6	\$ 150.00	\$ 900.00
52	2575.504	GRANULAR FILTER (CV)	C Y	90	\$ 80.00	\$ 7,200.00
53	2575.504	ROLLED EROSION PREVENTION CATEGORY 20	S Y	460	\$ 4.00	\$ 1,840.00
54	2575.505	SEEDING	ACRE	0.10	\$ 6,000.00	\$ 600.00
55	2575.508	SEED MIXTURE 33-261	LB	4	\$ 45.00	\$ 180.00
CONSTRUCTION TOTAL						\$ 57,605.00
CONTINGENCY TOTAL (10%)						\$ 5,760.50
SUBTOTAL						\$ 63,365.50
INDIRECT COST TOTAL (28%)						\$ 17,742.34
TOTAL						\$ 81,107.84
D. SANITARY SEWER IMPROVEMENTS						
56	2104.502	REMOVE CASTING	EACH	3	\$ 250.00	\$ 750.00
57	2104.603	ABANDON PIPE SEWER	L F	75	\$ 28.00	\$ 2,100.00
58	2503.503	8" PVC PIPE SEWER	L F	380	\$ 70.00	\$ 26,600.00
59	2503.601	SANITARY SEWER BYPASS PUMPING	LS	1	\$ 5,000.00	\$ 5,000.00
60	2503.602	CONNECT TO EXISTING SANITARY SEWER	EACH	1	\$ 3,200.00	\$ 3,200.00
61	2503.602	CONNECT TO EXISTING MANHOLES (SAN)	EACH	1	\$ 3,500.00	\$ 3,500.00
62	2503.603	TELEWISE SANITARY SEWER	L F	380	\$ 8.00	\$ 3,040.00
63	2504.603	18" PVC CASING PIPE	L F	140	\$ 220.00	\$ 30,800.00
64	2506.602	CASTING ASSEMBLY (SANITARY)	EACH	3	\$ 1,200.00	\$ 3,600.00
CONSTRUCTION TOTAL						\$ 78,590.00
CONTINGENCY TOTAL (10%)						\$ 7,859.00
SUBTOTAL						\$ 86,449.00
INDIRECT COST TOTAL (28%)						\$ 24,205.72
TOTAL						\$ 110,654.72
E. WATER MAIN IMPROVEMENTS						
65	2104.502	REMOVE HYDRANT	EACH	1	\$ 750.00	\$ 750.00
66	2504.602	HYDRANT	EACH	1	\$ 8,000.00	\$ 8,000.00
67	2504.602	ADJUST HYDRANT	EACH	3	\$ 1,800.00	\$ 5,400.00
68	2504.602	ADJUST GATE VALVE & BOX	EACH	5	\$ 550.00	\$ 2,750.00
CONSTRUCTION TOTAL						\$ 16,900.00
CONTINGENCY TOTAL (10%)						\$ 1,690.00
SUBTOTAL						\$ 18,590.00
INDIRECT COST TOTAL (28%)						\$ 5,205.20
TOTAL						\$ 23,795.20
GRAND TOTAL						\$ 916,834.69

DISCLAIMER:

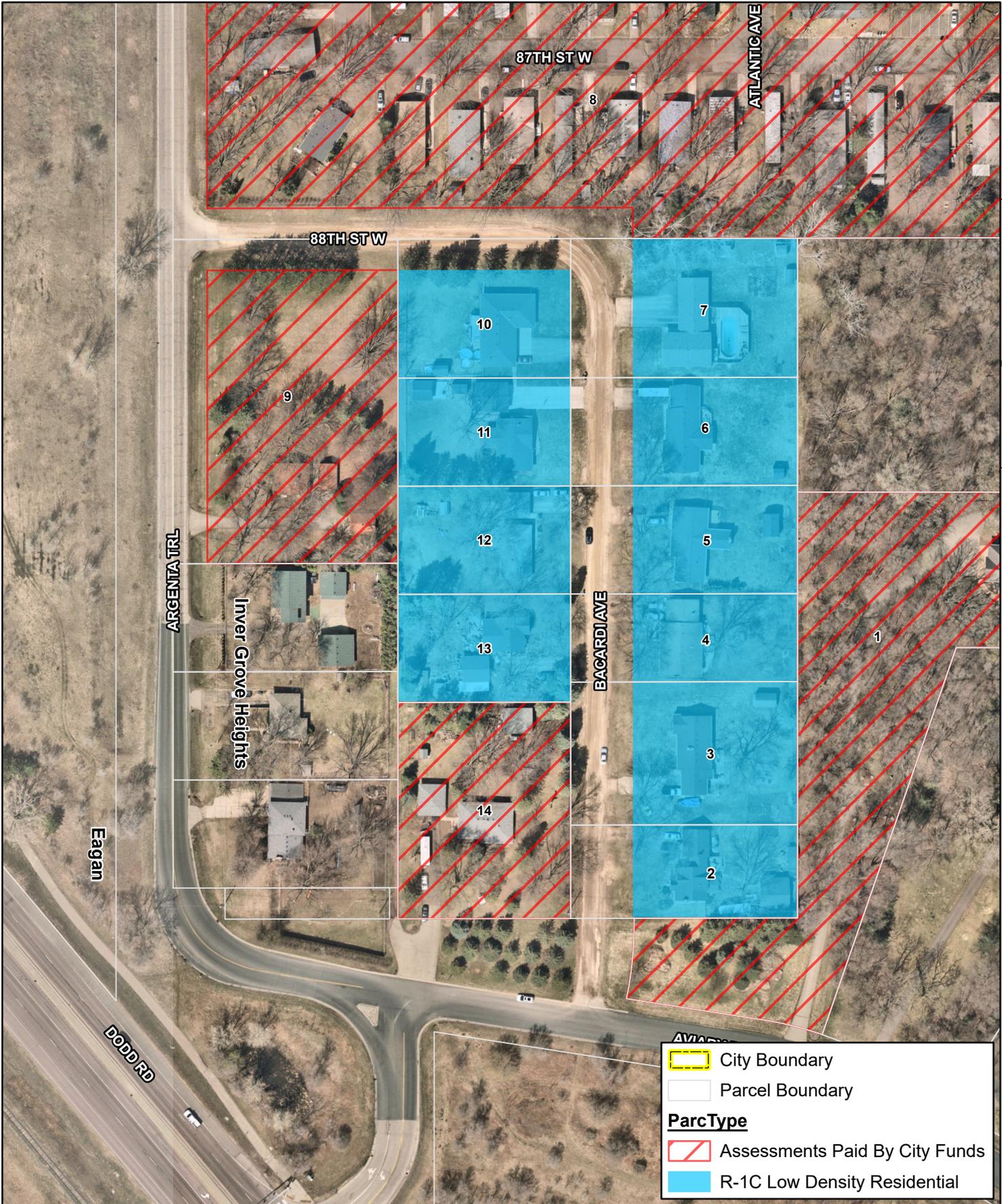
In review of this Opinion of Probable Cost, the Client understands that the Consultant has no control over the availability of labor, equipment or materials, market conditions, or the Contractor's method of pricing. This Opinion of Probable Cost is made on the basis of the Consultant's professional judgment and experience. The Consultant makes no warranty, expressed or implied, regarding the ultimate bids or negotiated cost of the Work.



Appendix C

Assessment Map

Preliminary Assessment Roll

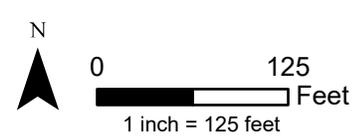


	City Boundary
	Parcel Boundary
ParcType	
	Assessments Paid By City Funds
	R-1C Low Density Residential



Assessment Map

Bacardi Ave and 88th Street Reconstruction
Inver Grove Heights, MN



CP-2025-09G Bacardi Avenue and 88th Street Reconstruction Preliminary Assessment Roll

#	PIN	Property Zoning Code and Description	Owner	Site Address	Total Property Value	Residential Driveway Access	SF Residential Front Footage (Foot)	SF Adjusted Front Footage (Foot)	Property Area (Acre)	Proposed Per Policy Assessment		Proposed Feasibility Assessment	Notes	
										Equivalent SF Residential Units	Combo Adjusted FF and Residential/Lot			
FULL RECONSTRUCTION														
1	201160001010	PUD - PLANNED UNIT DEVELOPMENT	DAVID D JR & JUNE M HAMLAR	8899 AVIARY PATH	\$1,127,000	0	78	78	2.45	0	\$ 13,999.44	\$ -	Bacardi Avenue front footage but address on Aviary Path. Assessment to be paid with City pavement management funds.	
2	200180058201	R-1C LOW DENSITY RESIDENTIAL	JOHN & PATRICIA KEGLER	8868 BACARDI AVE	\$332,600	1	90	90	0.45	1	\$ 19,240.26	\$ 19,240.26		
3	200180058191	R-1C LOW DENSITY RESIDENTIAL	MARY PETER	8854 BACARDI AVE	\$323,900	1	137	137	0.69	1	\$ 19,240.26	\$ 19,240.26		
4	200180058181	R-1C LOW DENSITY RESIDENTIAL	TROY RONNIE & JENNIFER WIEDERHOFF	8830 BACARDI AVE	\$331,400	1	85	85	0.43	1	\$ 19,240.26	\$ 19,240.26		
5	200180058170	R-1C LOW DENSITY RESIDENTIAL	DAVID & LINDA L AHRENS	8810 BACARDI AVE	\$338,900	1	104	104	0.52	1	\$ 19,240.26	\$ 19,240.26		
6	200180058160	R-1C LOW DENSITY RESIDENTIAL	SUZANNE L STEINHAUSER	8780 BACARDI AVE	\$322,700	1	105	105	0.52	1	\$ 19,240.26	\$ 19,240.26		
7	200180058150	R-1C LOW DENSITY RESIDENTIAL	FRANK J III STEINHAUSER	8760 BACARDI AVE	\$289,900	1	134	134	0.67	1	\$ 19,240.26	\$ 19,240.26		
8	200180055010	R-4 Manufactured Homes	EMERALD HILLS MHCLLC	1870 UPPER 85TH ST	\$15,324,300	0	440	440	77.53	0	\$ 78,970.95	\$ -	Northern front footage of 88th Street ROW easement. To be paid with City pavement management funds.	
9	200180058024	R-1C LOW DENSITY RESIDENTIAL	JOHN T TSTE WENDT	8804 ARGENTA TRL	\$241,400	0	184	184	1.56	0	\$ 33,024.32	\$ -	Southern front footage of 88th Street ROW easement. To be paid with City pavement management funds.	
10a	200180058101	R-1C LOW DENSITY RESIDENTIAL	DENNY G & MONY STEVENSON	8762 BACARDI AVE	\$303,200	0	166	166	0.40	0	\$ 29,793.68	\$ -	88th Street front footage. To be paid with City pavement management funds.	
10b	200180058101	R-1C LOW DENSITY RESIDENTIAL	DENNY G & MONY STEVENSON	8762 BACARDI AVE	\$303,200	1	104	104	0.40	1	\$ 19,240.26	\$ 19,240.26	Bacardi Avenue front footage. Assessable.	
11	200180058111	R-1C LOW DENSITY RESIDENTIAL	DAVID L & PAULINE M NOVACK	8775 BACARDI AVE	\$315,900	1	105	105	0.40	1	\$ 19,240.26	\$ 19,240.26		
12	200180058121	R-1C LOW DENSITY RESIDENTIAL	BRENDA MARIE MRAZ	8801 BACARDI AVE	\$254,400	1	104	104	0.40	1	\$ 19,240.26	\$ 19,240.26		
13	200180058131	R-1C LOW DENSITY RESIDENTIAL	ROGER J & JOAN M RHODES	8820 BACARDI AVE	\$281,900	1	104	104	0.40	1	\$ 19,240.26	\$ 19,240.26		
14	200180058141	R-1C LOW DENSITY RESIDENTIAL	CRAIG A & WENDY LEE HOFFMAN	8851 BACARDI AVE	\$285,000	1	209	209	0.80	0	\$ 37,511.32	\$ -	Property to be assessed for Aviary Path work only. Assessment to be paid with City pavement management funds.	
FULL RECONSTRUCTION: PRELIMINARY ASSESSMENT SUBTOTALS							11	2149	2149	87.62	10	\$ 385,702.31	\$ 192,402.60	Per-Policy and Proposed Preliminary Assessment Totals

	\$ (193,299.71)	City pavement management funds to cover assessments for unassessable frontage (lots 1, 8, 9, 10a and 14)
	\$ 192,402.60	Total Proposed Preliminary Assessments

IGH FULL RECONSTRUCTION ASSESSMENT RATE CALCULATIONS (STREET & STORM)		
A	TOTAL ELIGIBLE STREET & STORM COSTS:	\$701,276.92
B	ASSESSABLE STREET & STORM COSTS (55%):	\$385,702.31
C	TOTAL PROJECT ADJUSTED FRONT FOOTAGE (LF):	2149
D	NET ASSESSMENT RATE PER ADJUSTED FRONT FOOTAGE (LF):	\$179.48
E	FRONT FOOTAGE PAID BY CITY FUNDS:	1077
F	FRONT FOOTAGE OF SINGLE FAMILY PARCELS:	1072
G	ASSESSMENT APPLIED TO SF RESIDENTIAL PARCELS:	\$192,402.56
H	NUMBER OF SF RESIDENTIAL UNITS:	10
I	ASSESSMENT RATE PER RESIDENTIAL UNIT:	\$19,240.26