



FEASIBILITY REPORT

AREGENTA TRAIL RECONSTRUCTION PROJECT

CITY OF INVER GROVE HEIGHTS | DAKOTA COUNTY, MINNESOTA

MAY 13, 2024

Prepared for:
City of Inver Grove Heights
8150 Barbara Avenue
Inver Grove Heights, MN 55077

CITY PROJECT NO. 22023-09E
WSB PROJECT NO. 020720-000



FEASIBILITY REPORT

ARGENTA TRAIL RECONSTRUCTION PROJECT

CITY PROJECT NO. 2023-09E

CITY OF INVER GROVE HEIGHTS

May 13, 2024

Prepared By:





May 13, 2024

Honorable Mayor and City Council
City of Inver Grove Heights
8150 Barbara Avenue
Inver Grove Heights, MN 55077

Re: Feasibility Report
Argenta Trail Reconstruction Project
City Project No. 2023-09E
City of Inver Grove Heights, MN
WSB Project No. R-020720-000

Dear Honorable Mayor and City Council Members:

Transmitted herewith for your review is a feasibility report which addresses improvements associated with the Argenta Trail Reconstruction Project. This feasibility report describes the necessary improvements and associated costs for this reconstruction project.

I am available at your convenience to discuss this report. Please do not hesitate to contact me at (952)-843-8323 if you have any questions regarding this report.

Sincerely,

WSB

A handwritten signature in black ink that reads "Monica Heil".

Monica Heil, PE
Project Manager

Attachment

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.

Monica Heil

Monica Heil, PE

Date: May 13, 2024

Lic. No. 47497

Quality Control Review Completed By:

Kyle Hoff

Kyle Hoff, PE

Date: May 13, 2024

Lic. No. 59709

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1. EXECUTIVE SUMMARY

The Argenta Trail Reconstruction Project, City Project No. 2023-09E, was initiated by City Council, and the feasibility report was ordered at the June 13, 2022, City Council meeting. The project will be completed jointly with the City of Eagan in accordance with the Joint Powers Agreement, also approved at the June 13, 2022 City Council Meeting. This project consists of roadway urbanization and utility improvements. Surface improvements include reclamation of the existing pavement, installation of a new roadway section, spot subgrade corrections as necessary, installation of new concrete curb and gutter, storm sewer installation and coordination with Dakota County to construct a segment of the County's Greenway Trail system adjacent to the roadway improvements. Utility improvements include trunk watermain replacement (City of Eagan), stubbing an additional water service to the Emerald Hills mobile home community on the east side of Argenta Trail, sanitary sewer extension and water service installation to the four City of Inver Grove Heights parcels along the east side of Argenta Trail south of 188th Street.

While the project had been initiated in 2022, development of the feasibility report was delayed as the Cities of Inver Grove Heights and Eagan coordinated regional greenway trail location details with Dakota County. Dakota County plans to construct the Mendota-Lebanon Hills Regional Greenway Trail Improvements identified for this corridor in 2027. To limit impacts and rework associated with the County's Greenway Trail construction, the Cities of Inver Grove Heights and Eagan, along with Dakota County, have been working toward a design for Argenta Trail that will adequately accommodate the County's future greenway trail needs, and allow for the County to participate in a cost-share for the current City improvements.

The total project cost is estimated to be **\$2,687,500**. The project is proposed to be funded through a combination of State Aid Funds, Special Assessments to benefitting property owners, Dakota County and local funds (City of Inver Grove Heights and City of Eagan).

The limits of the project as presented in this feasibility report are along Argenta Trail from approximately 550 linear feet north of the intersection with TH 149 (Dodd Boulevard) to Opperman Drive, including upgrades to the intersection of Opperman Drive. The original scope of this project included work between Opperman Drive and Auburn Path (approximately 950 linear feet) to accommodate a watermain extension to serve future development. Staff from the Cities of Inver Grove Heights and Eagan reviewed recent development proposals and determined watermain extension is not necessary to serve existing or proposed development at this present time, negating the need for this extended roadway improvement north of Opperman Drive. Instead, a watermain stub will be installed with the current project terminating on the north side of the intersection with Opperman Drive to allow for future extension of watermain at the time when development within this area of Inver Grove Heights requires such work to occur.

The total cost of the roadway and storm sewer improvements will be split evenly between the Cities of Inver Grove Heights and Eagan. The City of Eagan will fund the replacement of its trunk watermain within the corridor, and the City of Inver Grove Heights will fund the water extension to the mobile home park, the sanitary sewer improvements (which only benefit the City of Inver Grove Heights) and the utility service extensions to the four City of Inver Grove Heights parcels located along the east side of Argenta Trail south of 188th Street.

The total estimated project cost attributable to the City of Inver Grove Heights for the Argenta Trail Reconstruction Project is \$871,867.00, which includes a ten percent (10%) contingency and twenty-eight percent (28%) indirect costs as presented in legal, engineering, administrative, and financing costs (LEAF). The total estimated project cost attributable to the City of Eagan for the Argenta Trail Reconstruction Project is \$1,289,973.00.

Dakota County will participate in the costs associated with the trail construction as well as installation of concrete curb and gutter along the west side of Argenta Trail, as the urbanization of the roadway will facilitate the construction of the Dakota County Greenway Trail within the existing Argenta Trail right-of-way and eliminate the County's need to otherwise obtain easements to construct the trail. The total

estimated cost of the trail improvements and curb installation along the west side of Argenta Trail is \$525,656, to be funded by Dakota County.

2. INTRODUCTION

2.1 Authorization

On June 13, 2022, the Inver Grove Heights City Council authorized the preparation of an engineering feasibility report for the Argenta Trail Reconstruction Project. This project is designated as City Project No. 2023-09E.

2.2 Scope

This report investigates the feasibility of proposed full depth reclamation and urbanization of Argenta Trail from a point just north of the intersection of Argenta Trail and Aviary Path to Opperman Drive. Urbanization will include the addition of storm sewer facilities within the corridor. The proposed improvements also include watermain replacement between Opperman Drive and an existing gate valve at the south project limits (City of Eagan), extension of a secondary water service to the Emerald Hills mobile home community located on the east side of Argenta Trail, sanitary sewer improvements to relocate the public sanitary sewer main currently located within the mobile home community to the 88th Street and Argenta Trail rights-of-way, and utility service extensions to the four parcels located along the east side of Argenta Trail south of 88th Street.

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 Eagan Miscellaneous As-Builts
- City of Inver Grove Heights Assessment Policy, adopted November 27, 2023
- City of Inver Grove Heights Land Use Maps
- Geotechnical Investigation Report:
 - FWD Testing and Analysis, American Engineering Testing, Inc, dated May 16, 2018
 - Technical Memorandum, Element Materials Technology, dated August 16, 2019

2.4 Project Location

The overall ***Project Location Map*** highlighting the project area is included in ***Appendix A***.

3. EXISTING CONDITIONS

3.1 Surface

Argenta Trail is showing signs of aging and various severities of distress, including alligator, transverse, and longitudinal cracking. The roadway does not currently have any curb and gutter. The road width is 30 feet from shoulder to shoulder, with 12-foot lanes and +/- 3-foot shoulders.



Argenta Trail facing north at Upper 85th Street



Argenta Trail facing south near 88th Street

The existing pavement and aggregate depths vary throughout the project area. A summary of pavement data is outlined below in **Table 1**. This data was obtained using boring and coring investigation provided by the City.

**Table 1
Pavement Data Summary**

Street and Location	Bit Depth (inches)	Aggregate/Sand Base (inches)
Argenta Trail	4.5 – 9.5	6 – 11.5

3.2 Public Watermain

The existing watermain along Argenta Trail is located within the southern half of the project area. The existing watermain exists from a gate valve located near the Dodd Boulevard right-of-way (CSAH 149) and extends north to a point 215-feet north of the intersection with 88th Street West and is an 8-inch cast-iron-pipe (CIP). Watermain along Argenta Trail is owned and operated by the City of Eagan and serves both Eagan and Inver Grove Heights properties via a Joint Powers Agreement for utility services between the two cities.

The existing watermain in the area only offers one connection to the Emerald Hills mobile home property located within the City of Inver Grove Heights at 1870 Upper 85th Street West. The exiting connection comes from Argenta Trail, at 88th Street West, and enters the mobile home property via a meter vault located north of 88th Street within the Emerald Hills community property. There is currently no redundancy in the feed point serving the mobile home community.

3.2.1 Water Service

The single-family residential properties located along the east side of Argenta Trail, south of 88th Street and within the City of Inver Grove Heights, are currently served by privately-owned wells. Water services are not currently stubbed to those single-family home properties.

3.3 Sanitary Sewer

Sanitary sewer does not exist within Argenta Trail. There is an existing City of Eagan gravity sanitary sewer main that conveys flow from south to north through the properties located along the east side of Argenta Trail. Flow from Bacardi Avenue east of Argenta Trail, is currently conveyed north through a sanitary pipe located within the mobile home park, where it eventually connects to the City of Eagan main located along the west side of Argenta Trail, between Upper 85th Street and Opperman Drive.

3.3.1 Sanitary Sewer Service

The single-family properties located within the City of Inver Grove Heights, south of 88th Street, are currently served by individually owned septic systems. The properties do not currently have access to public sanitary sewer.

3.4 Drainage

Existing drainage generated by the area is conveyed via roadside ditches and culverts. A 24-inch diameter corrugated metal culvert crosses beneath Argenta Trail approximately 340-feet north of 88th Street West. Culverts convey ditch flow parallel to Argenta Trail at Upper 85th Street West, 88th Street West, and at each driveway for each of the single-family properties south of 88th Street.

4. PROPOSED IMPROVEMENTS

4.1 Public Roadway Surface

Surface improvements recommended with the Argenta Trail Reconstruction Project are intended to extend the life of the existing roadway system and improve the ride quality of the roadway.

Proposed surface improvements include the reclamation of the roadway. 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. The new roadway is proposed to consist of the following section: 2 inches of bituminous wearing course, 5 inches of bituminous base course, and 8 inches of reclaimed aggregate base. Argenta Trail is a State Aid Roadway for both the Cities of Inver Grove Heights and Eagan. The design of Argenta Trail will meet State Aid Design standards. With the proposed section, this segment of Argenta Trail is proposed to be signed “No Parking” in order to provide an urban roadway section that will closely match the existing rural section roadbed width, and both cities must provide Council resolutions indicating as such in order to be eligible for State Aid funding.

Argenta Trail will be urbanized and receive concrete curb and gutter as a part of the roadway improvements. This will allow for the construction of the Dakota County Mendota-Lebanon Hills Greenway Trail within the Argenta Trail right-of-way and alleviate the need for Dakota County to obtain easements from private property owners to construct this segment of the trail adjacent to the roadway improvements.

The 10' bituminous Dakota County Mendota-Lebanon Hills Greenway Trail will be constructed along the west side of Argenta Trail, from a connection at Dodd Boulevard to Opperman Drive. The cost to construct the trail, as well as to install concrete curb and gutter along the west side of Argenta Trail and the intersection improvements at Opperman Drive, will be funded by Dakota County.

4.2 Public Watermain

Watermain improvements include removal of the existing cast iron watermain located at the south end of the project and installation and extension of new watermain from the existing gate valve near the Dodd Boulevard right-of-way to the north side of the intersection with Opperman Drive. This extension will close the loop and help provide adequate water service to the area. Hydrants will be installed approximately every 500-feet along the roadway to ensure adequate fire coverage for the area. The City of Eagan will be responsible for the costs to remove and install the new trunk watermain along Argenta Trail.

In conjunction with the watermain extension north to Opperman Drive, an additional water stub will be extended to the Emerald Hills mobile home property located along the east side of Argenta Trail, and within the City of Inver Grove Heights, to provide redundancy in water service to the mobile home community at such time that the Emerald Hills mobile home park needs to connect. The City of Inver Grove Heights will be responsible for the costs to install this additional stub.

4.2.1 Water Service

With the City of Eagan’s replacement of the existing cast iron watermain at the south end of the project, it is proposed to extend water services to the four single family residential properties located along the east side of Argenta Trail, south of 88th Street, within the City of Inver Grove Heights. The cost to extend these water services will be the responsibility of the City of Inver Grove Heights. As watermain was already in-place and available to property owners to connect to the water system, property owners will not be assessed for the watermain replacement or service installation. Property owners will not be required to immediately connect to these new service extensions.

4.3 Sanitary Sewer

As a part of the Argenta Trail Improvements, sanitary sewer is proposed to be extended across Argenta Trail at 88th Street to connect to the existing City of Eagan gravity line located along the west side of Argenta Trail. This extension of sanitary sewer will also facilitate the extension of gravity sanitary sewer within Argenta Trail south of 88th Street to service the single family residential properties located along the east side of Argenta Trail, within the City of Inver Grove Heights. The cost to extend this gravity sanitary sewer main will be the responsibility of the City of Inver Grove Heights.

Extension of the sanitary sewer in this manner with the Argenta Trail improvements will also allow for the extension of gravity sanitary sewer within the 88th Street right-of-way and connection of the sanitary sewer within Bacardi Avenue as a part of the Bacardi Avenue/88th Street improvements that are also scheduled for construction in 2025 (City Project No. 2025-09G).

4.3.1 Sanitary Sewer Service

Sanitary sewer services will be stubbed to each of the single-family properties as a part of the Argenta Trail Improvements. The cost to extend this gravity sanitary sewer main and sanitary sewer services will be the responsibility of the City of Inver Grove Heights. Since sanitary sewer has not previously been available to single family residential parcels along Argenta Trail, property owners are proposed to be assessed a trunk sewer assessment on an area basis per the City Code (Title 3, Section 2-2-3), as well as a lateral sewer assessment based on area in accordance with the City's Special Assessment Policy (Section 6.2 – New Construction). Since the sanitary sewer only provides service to one-half of the properties along Argenta Trail, the lateral assessment is proposed to be split in half, with 50% of the lateral costs assessed to benefiting properties, and 50% being paid for through the City's Sanitary Sewer Capital Fund. City Code currently requires property owners to connect to sanitary sewer within one year of it becoming available (Title 3, Section 4-4.A.1), although City staff have indicated a desire to update this Code prior to the project being completed to not require property owners with functioning septic systems to connect immediately to the new sewer system.

4.4 Drainage

Drainage improvements include the installation of storm sewer facilities within the Argenta Trail right-of-way that will connect to existing stormwater facilities located west of Argenta Trail within the City of Eagan. All drainage improvements will be designed to meet State Aid standards.

4.4 Right-of-Way

The work proposed with this project is expected to take place wholly within the City of Eagan and the City of Inver Grove Heights existing rights-of-way.

4.5 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 Minnesota Department of Health Extension of Water Main Permit (MDH) will be required for the City of Eagan's watermain extension.

A Minnesota Pollution Control Agency Extension of Sanitary Sewer Permit (MPCA) will be required for the extension of sanitary sewer facilities to serve the City of Inver Grove Heights.

4.6 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.

4.7 Public Involvement

City staff have met individually with property owners along the corridor regarding the proposed improvements, funding, schedule, and impacts associated with the project. The meetings were intended to update property owners on the status of the project, and to solicit comments from them regarding any issues or concerns they had relating to the public infrastructure.

4.8 Dakota County Mendota-Lebanon Hills Greenway Trail

The Cities of Eagan and Inver Grove Heights have coordinated with Dakota County to complete the construction of the County's Mendota-Lebanon Hills Greenway Trail adjacent to the roadway improvements in conjunction with the Argenta Trail Reconstruction Project. This coordination has reduced the need for the County to obtain easements for the trail construction between Dodd Boulevard and Opperman Drive and provides County cost participation for the urbanization of Argenta Trail.

5. FINANCING

5.1 Opinion of Probable Cost

The total project cost is estimated to be **\$2,687,500**. 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.

Improvement	Estimated Cost
Street Improvements	\$760,350
Drainage Improvements	\$388,650
Watermain Improvements	\$715,475
Water Service Extensions	\$42,170
Sanitary Sewer Improvements	\$255,195
Dakota County Greenway Trail Improvements	\$525,660
GRAND TOTAL	\$2,687,500

5.2 Funding

The proposed funding for the improvements is a combination of funding from City funds, State Aid Funds, Dakota County Funds and assessments to benefiting properties. The Cities' funding is from utility funds. The proposed amount for each funding source is identified below:

Table 3 Funding Summary	
Funding Source	Amount
Special Assessments – Eagan	\$441,715
Special Assessments – Inver Grove Heights	\$256,447
State Aid Funds - Eagan	\$132,783
State Aid Funds – Inver Grove Heights	\$373,450
Dakota County Funds (Greenway Trail)	\$525,660
Water Utility Fund - Eagan	\$715,475
Water Capital Fund – Inver Grove Heights (Services)	\$42,170
Sewer Capital Fund – Inver Grove Heights (Main and Services)	\$199,800
GRAND TOTAL	\$2,687,500

5.3 Preliminary Assessment Roll

Assessments will be levied to 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 Argenta Trail Reconstruction Project is included in **Appendix D** of this report, along with corresponding assessment maps identifying the benefiting properties.

Special Assessments for surface and storm water improvements were calculated on a per front foot basis for properties abutting the proposed roadway improvements. Special Assessments were calculated using the total street and storm sewer costs for the project, and split 50/50 with the City of Eagan:

$$\$760,345.89 + \$388,643.20 = \$1,148,989.09$$

$$\$1,148,989.09 * 50\% = \$574,494.55$$

In accordance with the City of Inver Grove Heights' Assessment policy, these costs were then prorated to 35% to reflect full reconstruction costs and the assessable costs for the project were calculated to be:

$$\$574,494.55 * 35\% = \$201,073.09$$

Assessments for individual parcels were then calculated using the adjusted front footage for each lot (two times the actual front footage for properties not zoned single-family residential and the actual front footage for those parcels zoned for single family) divided by the total front footage for the project, multiplied by the assessable project costs (\$201,073.09). Refer to the Assessment Roll in **Appendix D** for further detail.

Special assessments for sanitary sewer are determined based on individual parcel areas and are based on the trunk assessment rate as defined by City Code (Title 3, Section 2-2-3), and a lateral area assessment based on the total cost of the improvement. Total trunk area assessments for sanitary sewer service extension are estimated at \$13,653.36, with total lateral area assessments estimated at \$41,742.29.

The City performed a Special Benefit Analysis related to street assessments for properties located along Argenta Trail, to verify the assessment value was reasonable, particularly given the unique nature of a project with a combined R-1 Residential and R-4 Manufactured Home zoning classifications. This analysis was performed in 2022, and with an assumed inflation adjustment of 3% per year to identify a 2025 benefit appraisal cap. This information is noted in the Assessment Roll in **Appendix D**. The proposed assessment amounts for all parcels fall below the benefit appraisal cap.

6. FEASIBILITY AND RECOMMENDATION

The Argenta Trail Reconstruction Project includes roadway reclamation and paving, installation of concrete curb and gutter, Dakota County Greenway Trail construction, watermain improvements, sanitary sewer improvements and drainage improvements.

The total estimated cost for the Argenta Trail Reconstruction Project including roadway, trail, watermain, sanitary sewer and drainage improvements is **\$2,687,500**. The project is proposed to be funded through a combination of State Aid Funds, Dakota County Funds, Special Assessments to benefitting property owners, and local funds. 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.

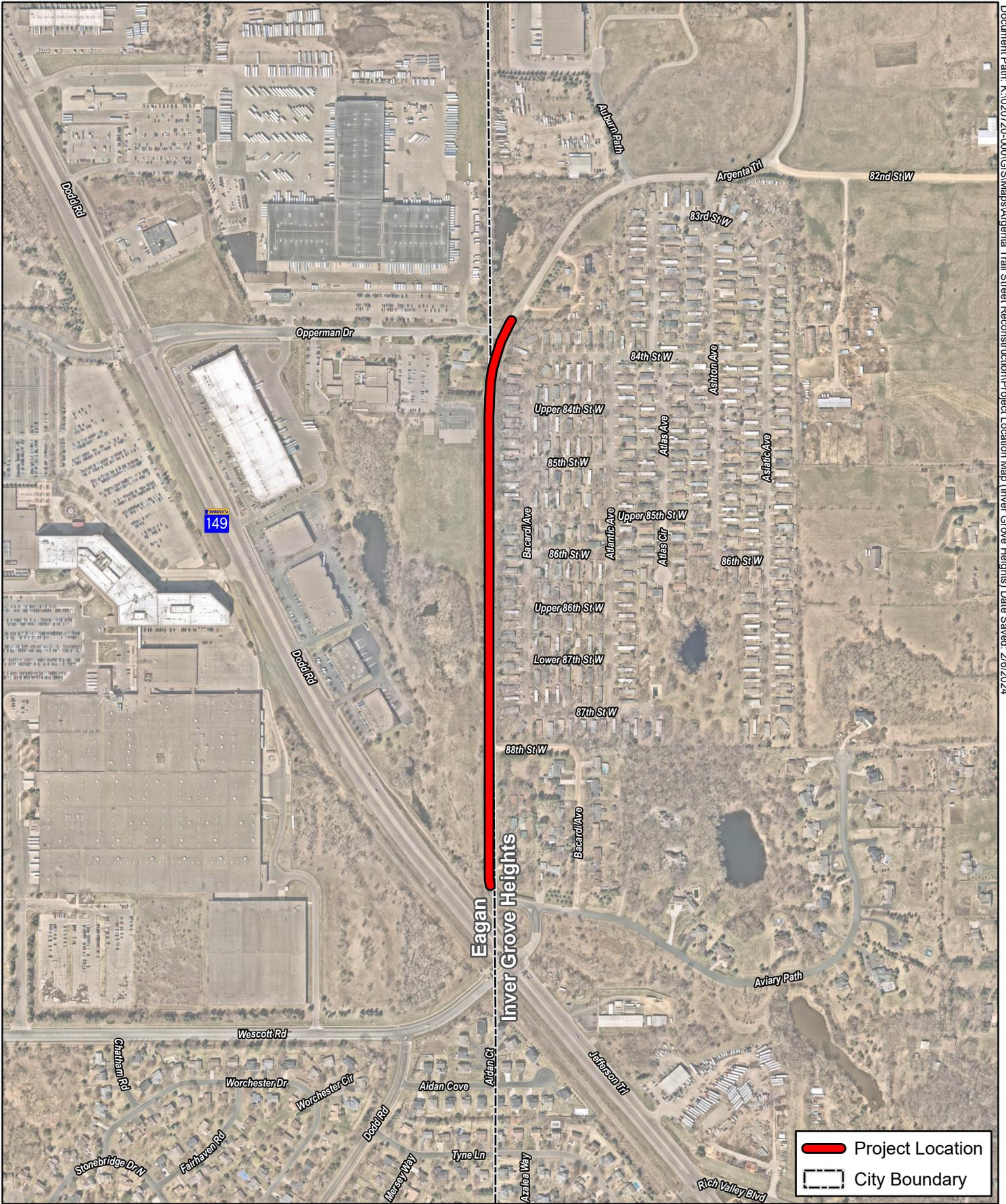
7. PROJECT SCHEDULE

The proposed schedule for the Project Name is as follows:

Feasibility Kick-Off Meeting	July 7, 2022
Coordination with Dakota County	July 2022
Receive Special Benefit Analysis	October 2022
Draft Reports to each City	February 2024
Cities Returned Comments to WSB	March 2024
Present Reports to Council.....	April 8, 2024
Public Hearing/Order Improvement Hearing	May 13, 2024
Approve Plans and Specifications/Authorize Ad for Bid.....	December 2024
Open Bids	January 2025
Accept Bids.....	February 2025
Assessment Hearing	March 2025
Begin Construction	April 2025
Final Completion.....	October 2025

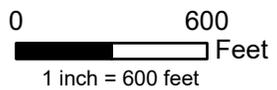
APPENDIX A

Figure 1 – Project Location Map
Figure 2 – Typical Sections



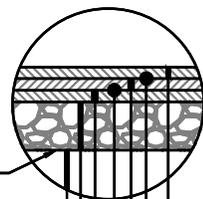
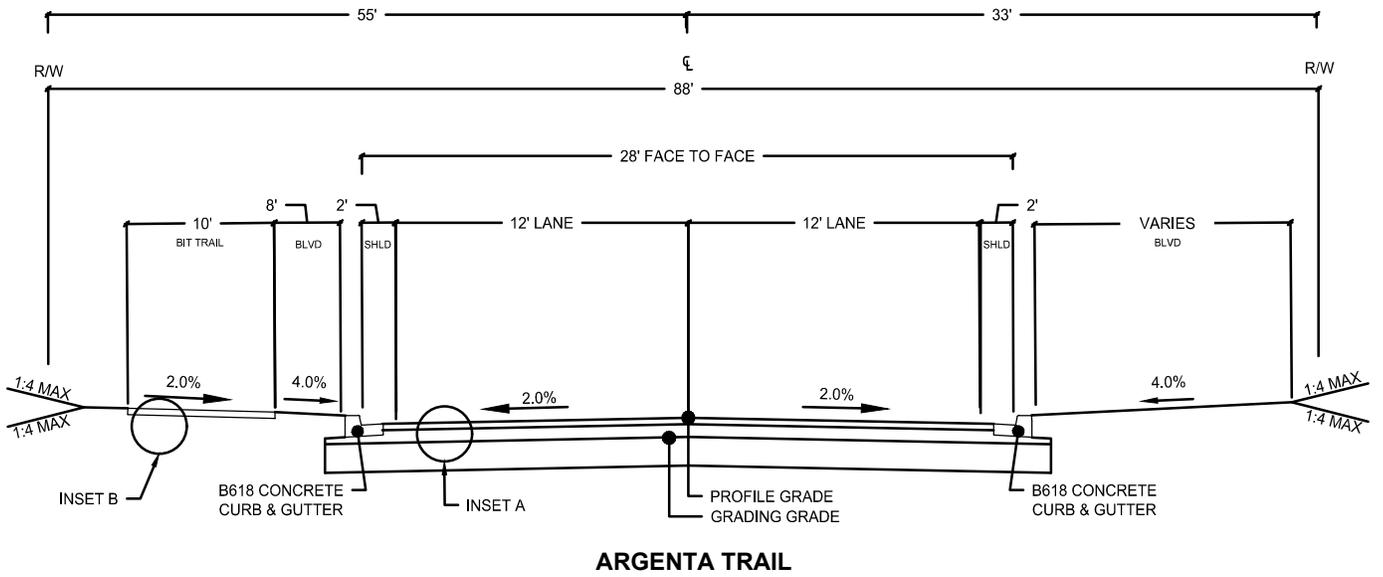
Project Location Map

Argenta Trail Reconstruction Project
City of Inver Grove Heights, Minnesota



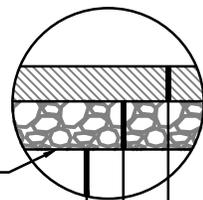
CITY OF EAGAN

CITY OF INVER GROVE HEIGHTS



INSET A
ARGENTA TRAIL STREET SECTION

- GRADING GRADE
- 2.0" TYPE SP 9.5 WEAR COURSE MIX (3,C) (SPWEA340C)
- 2357 BITUMINOUS TACK COAT
- 2.5" TYPE SP 12.5 NON-WEAR COURSE MIX (3,C) (SPNWB330C)
- 2357 BITUMINOUS TACK COAT
- 2.5" TYPE SP 12.5 NON-WEAR COURSE MIX (3,C) (SPNWB330C)
- MINIMUM 8" RECLAIMED AGGREGATE BASE
- EXISTING APPROVED SUBGRADE



INSET B
DAKOTA COUNTY REGIONAL GREENWAY TRAIL

- GRADING GRADE
- 3.0" TYPE SP 9.5 WEAR COURSE MIX (2,B) (SPWEA240B)
- 8.0" AGGREGATE BASE (CV) CL 5
- EXISTING APPROVED SUBGRADE

ARGENTA TRAIL RECONSTRUCTION PROJECT

TYPICAL SECTION

CITY OF EAGAN, MN
CITY OF INVER GROVE HEIGHTS, MN



K:\020720-000\Cadd\Exhibits\020720-000 Typical Sections Exhibit.dwg 2/1/2024 4:25:55 PM

APPENDIX B

Opinion of Probable Cost

OPINION OF PROBABLE COST

WSB Project: Argenta Trail Reconstruction Project
 Project Location: City of Eagan & City of Inver Grove Heights
 City Project No.: City of Eagan: City Project No. 1377. City of Inver Grove Heights: City Project No. 2023-09E.
 WSB Project No: 020720-000

Design By: JL
 Checked By: MRH

Date: 3/26/2024

Item No.	MnDOT Specification No.	Description	Unit	Estimated Total Quantity	Estimated Unit Price	Estimated Total Cost
A. Surface Improvements						
1	2021.501	MOBILIZATION	LS	1	\$ 25,800.00	\$ 25,800.00
2	2104.502	SALVAGE MAIL BOX SUPPORT	EACH	6	\$ 100.00	\$ 600.00
3	2104.502	REMOVE SIGN	EACH	15	\$ 50.00	\$ 750.00
4	2104.503	REMOVE CURB & GUTTER	L F	235	\$ 8.00	\$ 1,880.00
5	2104.503	SAWING BIT PAVEMENT (FULL DEPTH)	L F	95	\$ 4.00	\$ 380.00
6	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	L F	15	\$ 5.00	\$ 75.00
7	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	S Y	100	\$ 2.00	\$ 200.00
8	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	S Y	29	\$ 15.00	\$ 435.00
9	2104.601	SALVAGE AND REINSTALL LANDSCAPE STRUCTURES	LS	1	\$ 1,000.00	\$ 1,000.00
10	2106.507	EXCAVATION - COMMON	C Y	163	\$ 30.00	\$ 4,878.13
11	2106.507	EXCAVATION - SUBGRADE	C Y	130	\$ 30.00	\$ 3,902.50
12	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOURL	8	\$ 250.00	\$ 2,000.00
13	2130.523	WATER	MGAL	39	\$ 130.00	\$ 5,073.25
14	2211.507	AGGREGATE BASE (CV) CLASS 5	C Y	87	\$ 35.00	\$ 3,035.28
15	2112.519	SUBGRADE PREPARATION	RDST	21	\$ 600.00	\$ 12,600.00
16	2215.504	FULL DEPTH RECLAMATION	S Y	7805	\$ 7.00	\$ 54,635.00
17	2231.603	JOINT ADHESIVE	L F	4200	\$ 4.00	\$ 16,800.00
18	2360.504	TYPE SP 9.5 WEAR CRS MIX(2.B)3.0" THICK	S Y	100	\$ 46.00	\$ 4,600.00
19	2360.509	TYPE SP 9.5 WEARING COURSE MIX (3.C)	TON	882	\$ 90.00	\$ 79,376.85
20	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (3.C)	TON	2205	\$ 87.00	\$ 191,827.39
21	2531.503	CONCRETE CURB & GUTTER DESIGN B618	L F	2095	\$ 30.00	\$ 62,850.00
22	2540.602	TEMPORARY MAIL BOX	EACH	6	\$ 100.00	\$ 600.00
23	2540.602	INSTALL MAIL BOX SUPPORT	EACH	6	\$ 300.00	\$ 1,800.00
24	2540.602	MAIL BOX	EACH	6	\$ 250.00	\$ 1,500.00
25	2563.601	TRAFFIC CONTROL	LS	1	\$ 25,000.00	\$ 25,000.00
26	2564.502	INSTALL SIGN	EACH	2	\$ 180.00	\$ 360.00
27	2564.518	SIGN PANELS TYPE C	S F	90	\$ 45.00	\$ 4,050.00
28	2573.503	SEDIMENT CONTROL LOG TYPE WOOD FIBER	L F	1920	\$ 3.00	\$ 5,760.00
29	2574.508	FERTILIZER TYPE 3	LB	100	\$ 4.00	\$ 400.00
30	2575.504	ROLLED EROSION PREVENTION CATEGORY 20	S Y	480	\$ 2.00	\$ 960.00
31	2575.505	SEEDING	ACRE	1	\$ 4,000.00	\$ 4,000.00
32	2575.508	HYDRAULIC BONDED FIBER MATRIX	LB	1488	\$ 5.00	\$ 7,440.00
33	2582.503	4" DBLE SOLID LINE MULTI COMP	L F	1200	\$ 3.00	\$ 3,600.00
34	2582.503	4" SOLID LINE MULTI COMP	L F	6700	\$ 1.50	\$ 10,050.00
35	2582.503	4" BROKEN LINE MULTI COMP	L F	1200	\$ 1.50	\$ 1,800.00
CONSTRUCTION TOTAL						\$ 540,018.39
CONTINGENCY TOTAL (10%)						\$ 54,001.84
SUBTOTAL						\$ 594,020.23
INDIRECT COST TOTAL (28%)						\$ 166,325.66
TOTAL						\$ 760,345.89
B. Storm Sewer Improvements						
36	2021.501	MOBILIZATION	LS	1	\$ 13,200.00	\$ 13,200.00
37	2104.504	REMOVE METAL CULVERT	L F	65	\$ 15.00	\$ 975.00
38	2503.503	15" RC PIPE SEWER DES 3006 CL V	L F	160	\$ 85.00	\$ 13,600.00
39	2503.503	18" RC PIPE SEWER DES 3006 CL V	L F	2025	\$ 90.00	\$ 182,250.00
40	2503.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE	EACH	1	\$ 1,500.00	\$ 1,500.00
41	2506.502	ADJUST FRAME & RING CASTING	EACH	2	\$ 550.00	\$ 1,100.00
42	2506.503	CONST DRAINAGE STRUCTURE DES 48-4020	L F	60	\$ 750.00	\$ 45,000.00
43	2506.602	CONST DRAINAGE STRUCTURE DESIGN SPEC (2'X3')	EACH	5	\$ 3,000.00	\$ 15,000.00
44	2573.502	STORM DRAIN INLET PROTECTION	EACH	17	\$ 200.00	\$ 3,400.00
CONSTRUCTION TOTAL						\$ 276,025.00
CONTINGENCY TOTAL (10%)						\$ 27,602.50
SUBTOTAL						\$ 303,627.50
INDIRECT COST TOTAL (28%)						\$ 85,015.70
TOTAL						\$ 388,643.20

OPINION OF PROBABLE COST

WSB Project: Argenta Trail Reconstruction Project
 Project Location: City of Eagan & City of Inver Grove Heights
 City Project No.: City of Eagan: City Project No. 1377. City of Inver Grove Heights: City Project No. 2023-09E.
 WSB Project No: 020720-000

Design By: JL
 Checked By: MRH
 Date: 3/26/2024

Item No.	MnDOT Specification No.	Description	Unit	Estimated Total Quantity	Estimated Unit Price	Estimated Total Cost
C. Watermain Improvements - City of Eagan						
45	2021.501	MOBILIZATION	LS	1	\$ 24,200.00	\$ 24,200.00
46	2104.502	REMOVE GATE VALVE & BOX	EACH	3	\$ 350.00	\$ 1,050.00
47	2104.503	REMOVE WATER MAIN	L F	935	\$ 20.00	\$ 18,700.00
48	2504.602	CONNECT TO EXISTING WATER MAIN	EACH	3	\$ 1,800.00	\$ 5,400.00
49	2504.602	HYDRANT	EACH	4	\$ 8,000.00	\$ 32,000.00
50	2504.602	6" GATE VALVE & BOX	EACH	4	\$ 2,500.00	\$ 10,000.00
51	2504.602	8" GATE VALVE & BOX	EACH	4	\$ 4,200.00	\$ 16,800.00
52	2504.603	6" WATERMAIN DUCTILE IRON CL 52	L F	200	\$ 100.00	\$ 20,000.00
53	2504.603	8" WATERMAIN DUCTILE IRON CL 52	L F	2600	\$ 140.00	\$ 364,000.00
54	2504.608	DUCTILE IRON FITTINGS	LB	800	\$ 20.00	\$ 16,000.00
CONSTRUCTION TOTAL						\$ 508,150.00
CONTINGENCY TOTAL (10%)						\$ 50,815.00
SUBTOTAL						\$ 558,965.00
INDIRECT COST TOTAL (28%)						\$ 156,510.20
TOTAL						\$ 715,475.20
D. Water Service Extensions - City of Inver Grove Heights						
55	2021.501	MOBILIZATION	LS	1	\$ 1,500.00	\$ 1,500.00
56	2504.602	1" CURB STOP & BOX	EACH	5	\$ 1,000.00	\$ 5,000.00
57	2504.602	1" CORPORATION STOP	EACH	5	\$ 700.00	\$ 3,500.00
58	2504.603	1" TYPE K COPPER PIPE	L F	285	\$ 70.00	\$ 19,950.00
CONSTRUCTION TOTAL						\$ 29,950.00
CONTINGENCY TOTAL (10%)						\$ 2,995.00
SUBTOTAL						\$ 32,945.00
INDIRECT COST TOTAL (28%)						\$ 9,224.60
TOTAL						\$ 42,169.60
E. Sanitary Sewer Improvements Connect to Eagan System - City of Inver Grove Heights						
59	2021.501	MOBILIZATION	LS	1	\$ 4,900.00	\$ 4,900.00
60	2451.607	TRENCH STABILIZATION MATERIAL (CV)	C Y	120	\$ 60.00	\$ 7,200.00
61	2503.503	8" PVC PIPE SEWER	L F	982	\$ 65.00	\$ 63,830.00
62	2503.602	CONNECT TO EXISTING MANHOLES (SAN)	EACH	1	\$ 1,800.00	\$ 1,800.00
63	2503.603	TELEVISIONING SANITARY SEWER	L F	982	\$ 4.00	\$ 3,928.00
64	2506.502	CASTING ASSEMBLY	EACH	2	\$ 1,100.00	\$ 2,200.00
65	2506.602	CHIMNEY SEAL	EACH	2	\$ 350.00	\$ 700.00
66	2506.603	CONSTRUCT 48" DIA SANITARY MANHOLE	L F	30	\$ 600.00	\$ 18,000.00
CONSTRUCTION TOTAL						\$ 102,558.00
CONTINGENCY TOTAL (10%)						\$ 10,255.80
SUBTOTAL						\$ 112,813.80
INDIRECT COST TOTAL (28%)						\$ 31,587.86
TOTAL						\$ 144,401.66
F. Sanitary Sewer Improvements South of 88th Street - City of Inver Grove Heights						
67	2021.501	MOBILIZATION	LS	1	\$ 3,800.00	\$ 3,800.00
68	2451.607	TRENCH STABILIZATION MATERIAL (CV)	C Y	30	\$ 60.00	\$ 1,800.00
69	2503.503	8" PVC PIPE SEWER	L F	573	\$ 65.00	\$ 37,245.00
70	2503.602	8"x4" PVC WYE	EACH	5	\$ 600.00	\$ 3,000.00
71	2503.603	4" PVC PIPE SEWER	L F	335	\$ 60.00	\$ 20,100.00
72	2503.603	TELEVISIONING SANITARY SEWER	L F	573	\$ 4.00	\$ 2,292.00
73	2506.502	CASTING ASSEMBLY	EACH	1	\$ 1,100.00	\$ 1,100.00
74	2506.602	CHIMNEY SEAL	EACH	1	\$ 350.00	\$ 350.00
75	2506.603	CONSTRUCT 48" DIA SANITARY MANHOLE	L F	15	\$ 600.00	\$ 9,000.00
CONSTRUCTION TOTAL						\$ 78,687.00
CONTINGENCY TOTAL (10%)						\$ 7,868.70
SUBTOTAL						\$ 86,555.70
INDIRECT COST TOTAL (28%)						\$ 24,235.60
TOTAL						\$ 110,791.30

OPINION OF PROBABLE COST

WSB Project: Argenta Trail Reconstruction Project
 Project Location: City of Eagan & City of Inver Grove Heights
 City Project No.: City of Eagan: City Project No. 1377. City of Inver Grove Heights: City Project No. 2023-09E.
 WSB Project No: 020720-000

Design By: JL
 Checked By: MRH
 Date: 3/26/2024

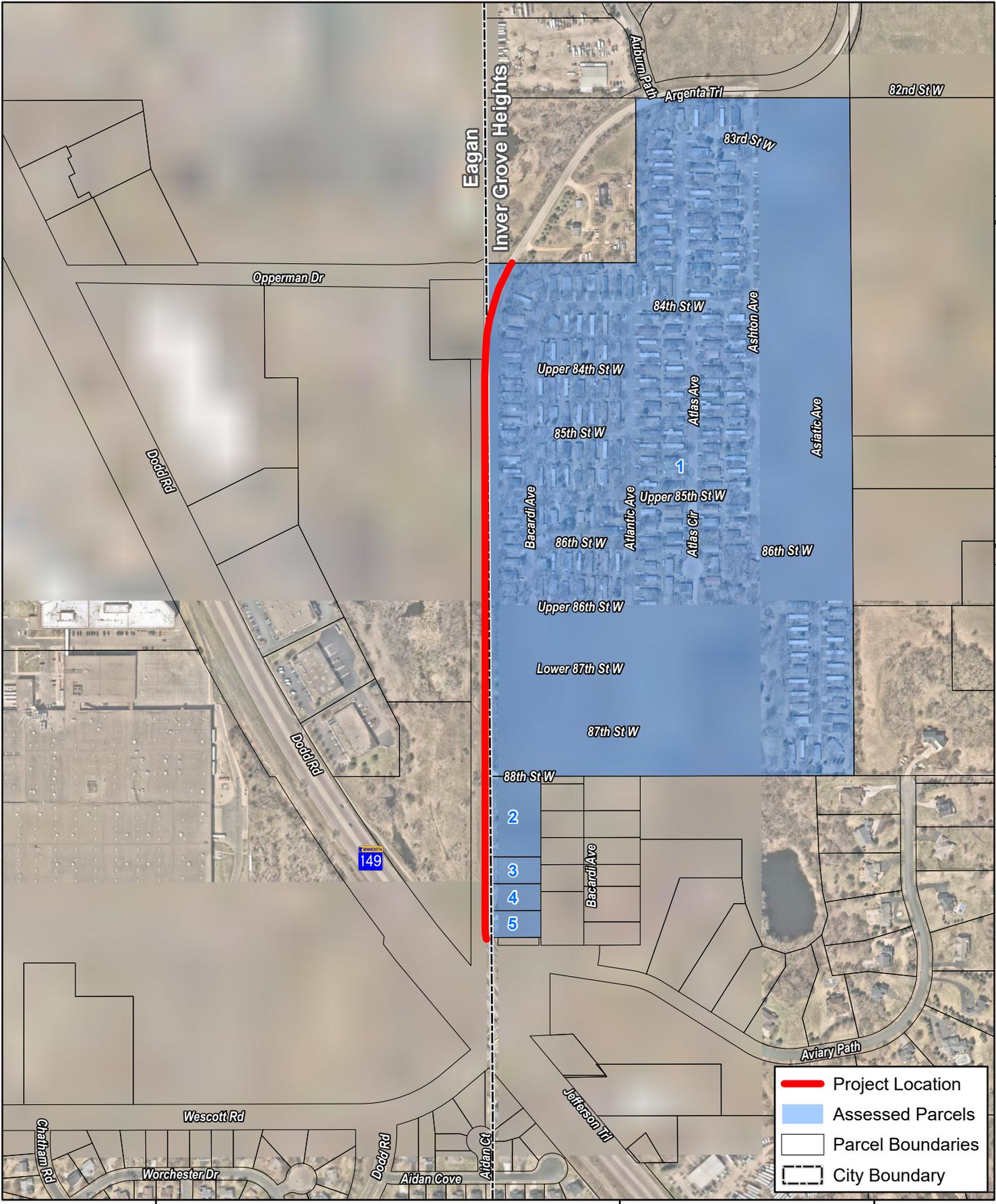
Item No.	MnDOT Specification No.	Description	Unit	Estimated Total Quantity	Estimated Unit Price	Estimated Total Cost
G. Dakota County Regional Greenway Trail - Dakota County						
76	2021.501	MOBILIZATION	LS	1	\$ 17,800.00	\$ 17,800.00
77	2101.505	CLEARING	ACRE	1	\$ 2,500.00	\$ 2,500.00
78	2101.505	GRUBBING	ACRE	1	\$ 2,500.00	\$ 2,500.00
79	2104.503	SAWING BIT PAVEMENT (FULL DEPTH)	L F	70	\$ 4.00	\$ 280.00
80	2106.507	EXCAVATION - COMMON	C Y	1239	\$ 30.00	\$ 37,176.94
81	2112.519	SUBGRADE PREPARATION	RDST	5	\$ 600.00	\$ 3,000.00
82	2130.523	WATER	MGAL	9	\$ 130.00	\$ 1,157.00
83	2211.507	AGGREGATE BASE (CV) CLASS 5	C Y	663	\$ 35.00	\$ 23,189.01
84	2215.504	FULL DEPTH RECLAMATION	S Y	1780	\$ 7.00	\$ 12,460.00
85	2231.603	JOINT ADHESIVE	L F	900	\$ 4.00	\$ 3,600.00
86	2531.503	CONCRETE CURB & GUTTER DESIGN B618	L F	3085	\$ 30.00	\$ 92,550.00
87	2360.509	TYPE SP 9.5 WEARING COURSE MIX (2,B)	TON	490	\$ 80.00	\$ 39,221.55
88	2360.509	TYPE SP 9.5 WEARING COURSE MIX (3,C)	TON	201	\$ 90.00	\$ 18,102.60
89	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (3,C)	TON	503	\$ 87.00	\$ 43,747.95
90	2503.503	18" RC PIPE SEWER DES 3006 CL V	L F	475	\$ 90.00	\$ 42,750.00
91	2503.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE	EACH	1	\$ 1,500.00	\$ 1,500.00
92	2506.503	CONST DRAINAGE STRUCTURE DES 48-4020	L F	36	\$ 750.00	\$ 27,000.00
93	2521.518	6" CONCRETE WALK	S F	200	\$ 15.00	\$ 3,000.00
94	2531.618	TRUNCATED DOMES	S F	30	\$ 60.00	\$ 1,800.00
95	2573.503	SEDIMENT CONTROL LOG TYPE WOOD FIBER	L F	150	\$ 3.00	\$ 450.00
96	2574.508	FERTILIZER TYPE 3	LB	26	\$ 4.00	\$ 104.00
97	2575.504	ROLLED EROSION PREVENTION CATEGORY 20	S Y	120	\$ 2.00	\$ 240.00
98	2575.505	SEEDING	ACRE	1	\$ 1,000.00	\$ 1,000.00
99	2575.508	HYDRAULIC BONDED FIBER MATRIX	LB	372	\$ 5.00	\$ 1,860.00
CONSTRUCTION TOTAL						\$ 373,335.05
CONTINGENCY TOTAL (10%)						\$ 37,333.51
SUBTOTAL						\$ 410,668.56
INDIRECT COST TOTAL (28%)						\$ 114,987.20
TOTAL						\$ 525,655.76
GRAND TOTAL						\$ 2,687,500.00

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.

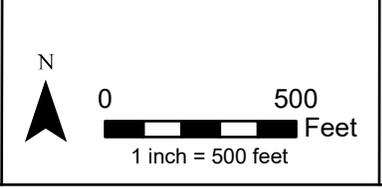
APPENDIX C

Assessment Map Assessment Roll



Assessment Map

Argenta Trail Reconstruction Project
City of Inver Grove Heights, Minnesota



Preliminary Assessment Roll - Surface & Storm Sewer Improvements

City Name Project: Argenta Trail Street Improvement Project	Total Argenta Trail Roadway Surface and Storm Sewer Project Costs	\$ 1,148,989.09	4/8/2024
City Project No.: 2023-09E	City of Inver Grove Heights Share of Total Project Costs (50%)	\$ 574,494.55	-----
	Partial Reconstruction Assessment (35%)	\$ 201,073.09	
	Total City of Inver Grove Heights Adjusted Front Footage within the Project Corridor	4560 Linear Feet	
	Front Foot Assessment Rate	\$ 44.09 Per Adjusted Front Foot	

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY ADDRESS	LAND USE DESCRIPTION	FRONT FOOTAGE (LF)	ADJUSTED FRONT FOOTAGE (LF)	FRONT FOOT ASSESSMENT RATE	FRONT FOOT ASSESSMENT	BENEFIT APPRAISAL CAP (1)
1	20-01800-55-010	EMERALD HILLS MHCLLC	RHP PROPERTIES INC, 31200 NORTHWESTERN HIGHWAY	FARMINGTON MI	48334	1870 UPPER 85th STREET	R-4 MANUFACTURED HOMES	1982	3964	\$44.09	\$ 174,772.76	\$ 529,754.05
2	20-01800-25-022	JOHN T WENDT TSTE	1111 105TH ST	INVER GROVE HEIGHTS MN	55077	8804 ARGENTA TRAIL	R-1 RESIDENTIAL	284	284	\$44.09	\$ 12,521.56	\$ 16,400.00
3	20-01800-58-051	DONALD JOSEPH BUECKSLER	8820 ARGENTA TRAIL	INVER GROVE HEIGHTS MN	55077	8820 ARGENTA TRAIL	R-1 RESIDENTIAL	104	104	\$44.09	\$ 4,585.36	\$ 8,200.00
4	20-01800-58-061	MATTHEW J QUALICK & LORI LANGE BERG	8842 ARGENTA TRAIL	INVER GROVE HEIGHTS MN	55077	8842 ARGENTA TRAIL	R-1 RESIDENTIAL	104	104	\$44.09	\$ 4,585.36	\$ 8,200.00
5	20-01800-58-093	KARLA J ANDERSON	8860 ARGENTA TRAIL	INVER GROVE HEIGHTS MN	55077	8860 ARGENTAL TRAIL	R-1 RESIDENTIAL	104	104	\$44.09	\$ 4,585.36	\$ 8,200.00
TOTAL								2578	4560		\$ 201,050.40	

(1) Benefit Appraisal Cap based on data provided in the "Benefit Analysis Report", dated 11/17/2022, as prepared by Metzzen Realty & Associates Co. Report appraisals based on 2022 property values, and then adjusted for 2025 project completion, with an inflation at rate of 3% per year for three years.

Preliminary Assessment Roll - Sanitary Sewer Improvements

City Name Project: Argenta Trail Street Improvement Project	Total Assessable Sanitary Sewer Costs (Argenta Trail Extension Only)	\$ 110,791.30	4/8/2024
City Project No.: 2023-09E	50% of Assessable Sanitary Sewer Costs (East Half of Argenta Trail)	\$ 55,395.65	-----
	Sanitary Sewer Trunk Area Assessment (City Code 3-4-2-3 - 2024 Rate)	\$ 5,418.00 Per Acre	
	Total Adjusted Acreage	2.52 Acres	
	Total Trunk Area Assessments	\$ 13,653.36	
	Remaining Sewer Costs (Lateral Costs)	\$ 41,742.29 (Total Assessable) - (Trunk Area Assessments)	
	Lateral Assessments (Per Acre)	\$ 16,564.40 Per Acre	

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY ADDRESS	LAND USE DESCRIPTION	PROPERTY AREA (ACRES)	ADJUSTED ACRES (REMOVE ROAD EASEMENT)	TRUNK AREA ASSESSMENT RATE (PER ACRE)	TRUNK AREA ASSESSMENT	LATERAL AREA ASSESSMENT RATE (PER ACRE)	AREA ASSESSMENT	PRELIMINARY SEWER ASSESSMENT
2	20-01800-25-022	JOHN T WENDT TSTE	1111 105TH ST	INVER GROVE HEIGHTS MN	55077	8804 ARGENTA TRAIL	R-1 RESIDENTIAL	1.56	1.20	\$5,418.00	\$ 6,501.60	\$16,564.40	\$ 19,877.28	\$ 26,378.88
3	20-01800-58-051	DONALD JOSEPH BUECKSLER	8820 ARGENTA TRAIL	INVER GROVE HEIGHTS MN	55077	8820 ARGENTA TRAIL	R-1 RESIDENTIAL	0.52	0.44	\$5,418.00	\$ 2,383.92	\$16,564.40	\$ 7,288.34	\$ 9,672.26
4	20-01800-58-061	MATTHEW J QUALICK & LORI LANGE BERG	8842 ARGENTA TRAIL	INVER GROVE HEIGHTS MN	55077	8842 ARGENTA TRAIL	R-1 RESIDENTIAL	0.52	0.44	\$5,418.00	\$ 2,383.92	\$16,564.40	\$ 7,288.34	\$ 9,672.26
5	20-01800-58-093	KARLA J ANDERSON	8860 ARGENTA TRAIL	INVER GROVE HEIGHTS MN	55077	8860 ARGENTAL TRAIL	R-1 RESIDENTIAL	0.52	0.44	\$5,418.00	\$ 2,383.92	\$16,564.40	\$ 7,288.34	\$ 9,672.26
TOTAL									2.52		\$ 13,653.36		\$ 41,742.29	\$ 55,395.65

Preliminary Assessment Roll - COMBINED ASSESSMENTS

City Name Project: Argenta Trail Street Improvement Project	4/8/2024
City Project No.: 2023-09E	-----

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE	ZIP CODE	PROPERTY ADDRESS	LAND USE DESCRIPTION	SURFACE & STORM ASSESSMENT	SANITARY SEWER ASSESSMENT	TOTAL ASSESSMENT
1	20-01800-55-010	EMERALD HILLS MHCLLC	RHP PROPERTIES INC, 31200 NORTHWESTERN HIGHWAY	FARMINGTON MI	48334	1870 UPPER 85th STREET	R-4 MANUFACTURED HOMES	\$ 174,772.76	\$ -	\$ 174,772.76
2	20-01800-25-022	JOHN T WENDT TSTE	1111 105TH ST	INVER GROVE HEIGHTS MN	55077	8804 ARGENTA TRAIL	R-1 RESIDENTIAL	\$ 12,521.56	\$ 26,378.88	\$ 38,900.44
3	20-01800-58-051	DONALD JOSEPH BUECKSLER	8820 ARGENTA TRAIL	INVER GROVE HEIGHTS MN	55077	8820 ARGENTA TRAIL	R-1 RESIDENTIAL	\$ 4,585.36	\$ 9,672.26	\$ 14,257.62
4	20-01800-58-061	MATTHEW J QUALICK & LORI LANGE BERG	8842 ARGENTA TRAIL	INVER GROVE HEIGHTS MN	55077	8842 ARGENTA TRAIL	R-1 RESIDENTIAL	\$ 4,585.36	\$ 9,672.26	\$ 14,257.62
5	20-01800-58-093	KARLA J ANDERSON	8860 ARGENTA TRAIL	INVER GROVE HEIGHTS MN	55077	8860 ARGENTAL TRAIL	R-1 RESIDENTIAL	\$ 4,585.36	\$ 9,672.26	\$ 14,257.62
TOTAL								\$ 201,050.40	\$ 55,395.65	\$ 256,446.05