



# FEASIBILITY REPORT

## 105<sup>TH</sup> STREET, INWOOD AVENUE AND KNOLLWOOD DRIVE STREET IMPROVEMENT PROJECT

CITY OF GRANT | WASHINGTON COUNTY, MINNESOTA

DECEMBER 1, 2020

Prepared for:  
City of Grant  
111 Wildwood Road  
PO Box 577  
Willernie, MN 55090

WSB PROJECT NO. 016504-000



# FEASIBILITY REPORT

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## 105<sup>TH</sup> STREET, INWOOD AVENUE AND KNOLLWOOD DRIVE STREET IMPROVEMENT PROJECT

FOR THE  
CITY OF GRANT, MINNESOTA

December 1, 2020

Prepared By:





November 23, 2020

Honorable Mayor and City Council  
City of Grant  
111 Wildwood Road  
PO Box 577  
Willernie, MN 55090

Re: Feasibility Report  
105th Street, Inwood Ave and Knollwood Drive Street Improvement Project  
City of Grant, MN  
WSB Project No. 016504-000

Dear Honorable Mayor and City Council Members:

Transmitted herewith for your review is a feasibility report which addresses improvements associated with a potential street improvement project for 2021. Streets included in the proposed improvements are the following:

- 105<sup>th</sup> Street North
- Inwood Avenue North
- Knollwood Drive North

We are available at your convenience to discuss this report. Please do not hesitate to contact me at 763.512.5243 if you have any questions regarding this report.

Sincerely,

WSB

Brad A. Reifsteck, PE  
City Engineer

Attachment

# CERTIFICATION

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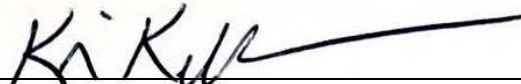
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed professional engineer under the laws of the State of Minnesota.

  
\_\_\_\_\_  
Brad A. Reifsteck, PE

Date: December 1, 2020

Lic. No. 47930

Quality Control Review Completed By:

  
\_\_\_\_\_  
Kris Keller, PE

Date: December 1, 2020

Lic. No. 50087



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Opinion of Probable Cost

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## 1. EXECUTIVE SUMMARY

This report investigates the feasibility of proposed street improvements along the following streets in Grant, MN:

- 105<sup>th</sup> Street North
- Inwood Avenue North
- Knollwood Drive North

Recommended improvements in these areas include reclamation and blending of the existing roadway bases and installing or replacing with a new bituminous surface. Roadway and driveway culverts will be replaced as necessary. The total length of streets included in the proposed project is approximately 1.3 miles.

The estimated recommended improvement cost for paving the gravel roads of 105<sup>th</sup> Street and Inwood Avenue is \$310,279 while for the reclamation of the existing paved road of Knollwood Drive is \$182,647 which both include a 5% contingency and 16% indirect costs for legal, engineering, administrative, and financing costs. Funding for the project will come from special assessments to benefitting property owners and City maintenance dollars in the amount of \$49,292.

The project, if ordered, is scheduled to begin construction in the spring of 2021.

This project is feasible and cost-effective from an engineering standpoint and may be constructed as proposed herein.

## 2. INTRODUCTION

### 2.1 Authorization

On July 7, 2020, the Grant City Council authorized the preparation of an engineering feasibility report for the 105<sup>th</sup> Street and Inwood Avenue project area and on September 1, 2020, the Grant City Council authorized the preparation of an engineering feasibility report for the Knollwood Drive project area.

### 2.2 Scope

This report investigates the feasibility of proposed street improvements and appurtenant work for the City of Grant for the streets listed below:

- 105<sup>th</sup> Street North
- Inwood Avenue North
- Knollwood Drive North

The condition rating of Knollwood Drive is poor as identified within the City's Pavement Condition Report and is scheduled for seal coat/maintenance as part of the City's Five-Year Capital Improvement Plan for work to be completed in 2023.

105<sup>th</sup> Street and Inwood Avenue are currently gravel roads and are maintained annually with grading.

These streets were reviewed for their existing condition in order to determine infrastructure improvements and street rehabilitative measures.

A location map for the project areas can be found in **Appendix A** of this report.

### 3. EXISTING CONDITIONS

#### 3.1 Streets

##### 3.1.1 Right-of-Way

##### 3.1.2 Street Section

##### 3.1.3 Forensic Investigation

A pavement forensic investigation was completed within the project area and can be seen in **Appendix E**. Pavement thicknesses varied and were found to be between 2 inches and 4.5 inches for Knollwood Drive. Average aggregate depth was between 4 inches and 12 inches and was found to be sandy gravel material. A summary of the borings can be found below in **Table 3.1**.

**Table 3.1: Boring Summary**

Street Name	# of Cores Taken	Pavement Thickness Range (in.)	Average Pavement Thickness (in.)	Average Aggregate Thickness (in.)
Inwood Avenue North	4	NA	NA	9.5
105 <sup>th</sup> Street North	3	NA	NA	7
Knollwood Avenue North	5	2-4.5	2.45	9.85

#### 3.2 Drainage

Existing drainage is primarily rural ditch sections with culverts passing under driveways.

## **4. PROPOSED IMPROVEMENTS**

### **4.1 Surface**

The roadway improvements along the streets in this project are recommended to meet a minimum 9-ton design.

The method of street improvement considered was a full depth street reclamation described in detail below. With each street, the proposed roadway widths will match closely to the existing street widths, with minor impacts to adjacent driveways and yards.

A full depth street reclamation involves pulverizing the bituminous layer and a predetermined depth of underlying aggregate base materials, followed by blending the materials together providing a strong homogenous base for the new pavement section. Assuming an average existing pavement thickness of 2 inches and an average aggregate base thickness of 5 inches, reclaiming would provide a minimum of approximately 7 inches of reclaimed base material. In instances where there is an existing gravel road, 3 inches of virgin material will be spread out over the existing surface and blended with the underlying base material to create a minimum of approximately 7 inches of reclaimed base material. In each case, a new 3-inch bituminous wear course would be placed over the reclaimed aggregate base for a new pavement section of 10 inches meeting the minimum pavement thickness for a 9-ton design.

Driveways would be saw cut and replaced a minimal distance only to accommodate the street construction. Street or driveway culverts would be replaced with new corrugated metal culverts only as necessary. Impacted boulevards would be re-graded and restored with seed and erosion control blanket.

The estimated project cost for this option for all streets is **\$492,926**.

#### ***4.1.1 Roadway Alignment***

Each street will maintain its existing road alignment.

#### ***4.1.2 Right-of-Way***

The improvements along Inwood Avenue and Knollwood Drive will occur within dedicated right-of-way, however, there is not dedicated right-of-way along 105<sup>th</sup> Street North and the project will utilize a 66-foot prescriptive easement over the roadway for improvements. Acquisition of easements is not foreseen at this time.

#### ***4.1.3 Street Section***

Each street will have a 3-inch bituminous wear course placed over an approximate 7-inch aggregate base, over the existing sandy subgrade.

### **4.2 Drainage**

For Inwood Avenue and 105<sup>th</sup> Street drainage patterns will remain unchanged from existing. With Knollwood Drive the existing bituminous curb will be removed and replaced with a drainage swale in areas where the grade is pitched towards the road. In the remaining areas drainage will be allowed to run off into the existing ditches and swales.

### 4.3 Permits/Approvals

The following permits will be necessary as part of this project.

- State Highway 96 (Knollwood Drive North)..... Highway/Right-of-Way

## 5. FINANCING

### 5.1 Opinion of Probable Cost

A detailed opinion of probable cost for each project area with recommended surface improvements can be found in **Appendix C** of this report. The opinion of probable cost is based upon estimated 2021 construction costs and includes a 5% contingency factor. Indirect costs are projected at 16% of the construction cost and include engineering, legal, financing, and administrative costs. The table below provides a summary of project costs based on the recommended surface improvement.

**Table 5.1a: Estimated Inwood Ave and 105<sup>th</sup> Street Project Costs**

	<b>Total</b>
Construction Cost (Includes 10% Contingency)	\$267,482
Indirect Cost (Engineering, Legal, Administration)	\$42,797
<b>Total Estimated Project Costs</b>	<b>\$310,279</b>

**Table 5.1b: Knollwood Drive Project Costs**

	<b>Total</b>
Construction Cost (Includes 10% Contingency)	\$157,454
Indirect Cost (Engineering, Legal, Administration)	\$25,193
<b>Total Estimated Project Costs</b>	<b>\$182,647</b>

### 5.2 Funding

Funding for the 2021 Street Improvements Project is proposed to come from special assessments with contributions from the City of Grant. The amount of City contributions has been outlined in the Grant Seal Cost/Maintenance Plan and estimated annual gravel road maintenance is equal to \$49,292.

Special assessments are determined as set forth by the City's Assessment Policy. Per the City's Assessment Policy, benefitting property owners will be assessed per buildable lot with road frontage and an address or potential address on the road to be improved as one unit. The cost will be divided equally between the number of buildable units per each project area.

For the purpose of this report, there are currently 8 assessable parcels with a combined total of 11 buildable units for Knollwood Drive project area and 21 assessable parcels with a combined total of 22.5 buildable units for 105<sup>th</sup> Street and Inwood Avenue project area. See **Appendix D** for details

### 5.3 Preliminary Assessment Roll

The City of Grant received petitions from each street listed in this project. The signed petitions can be seen in **Appendix F**. The petitions for the Inwood Avenue and 105<sup>th</sup> Street portion of the project were signed by 13 of 21 parcel owners which accounts for 62% of the property owners agreeing to have the City proceed with a feasibility study for the project while the petitions for the Knollwood Drive portion of the project were signed by 5 of 8 parcel owners which accounts for 63% of the property owners agreeing to have the City proceed with a feasibility study for the project.

This report includes a mock assessment rolls showing the cost for the abutting property owners for the recommended options. The total funds proposed to be recovered through special assessments for the

Inwood Avenue and 105<sup>th</sup> Street project area are estimated to be \$277,418 with an estimated cost to each of the participating buildable units is \$12,330 while the total funds proposed to be recovered through special assessments for the Knollwood Drive project area are estimated to be \$166,216 with an estimated cost to each of the participating buildable units is \$15,111. The preliminary assessment rolls can be found in **Appendix D**.



## 6. PROJECT SCHEDULE

The potential proposed schedule for the 105<sup>th</sup> Street, Inwood Avenue and Knollwood Drive Street Improvement Project is as follows:

Order Feasibility Report.....	July 7, 2020 and September 1, 2020
Present Feasibility Report/Set Public Hearing .....	December 1, 2020
Public Hearing/Order Project.....	January 5, 2021
Approve Plans/Order Ad for Bids .....	February 2, 2021
Open Bids .....	February 25, 2021
Accept Bids and Award Contract.....	March 2, 2021
Begin Construction .....	May 2021
Final Completion of Construction .....	August 2021
Declare Cost to be Assessed/Set Public Hearing .....	September 2021
Public Hearing and Adopt Assessment .....	October 2021

## **7. FEASIBILITY AND RECOMMENDATION**

The total estimated cost for the 105<sup>th</sup> Street, Inwood Ave and Knollwood Drive Street Improvement is **\$492,926**. Proposed funding for the project is provided through the City of Grant maintenance dollar contributions and special assessments.

This project is feasible, necessary, and cost-effective from an engineering standpoint. It is our recommendation that this project be implemented as outlined in this report.

Based on the information contained in this report, it is recommended to proceed with the improvements in the project area. The project feasibility is subject to financial review by the City of Grant.

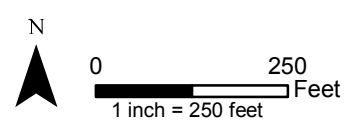
## **APPENDIX A – MAPS**

### **Figure 1 – Location Map**

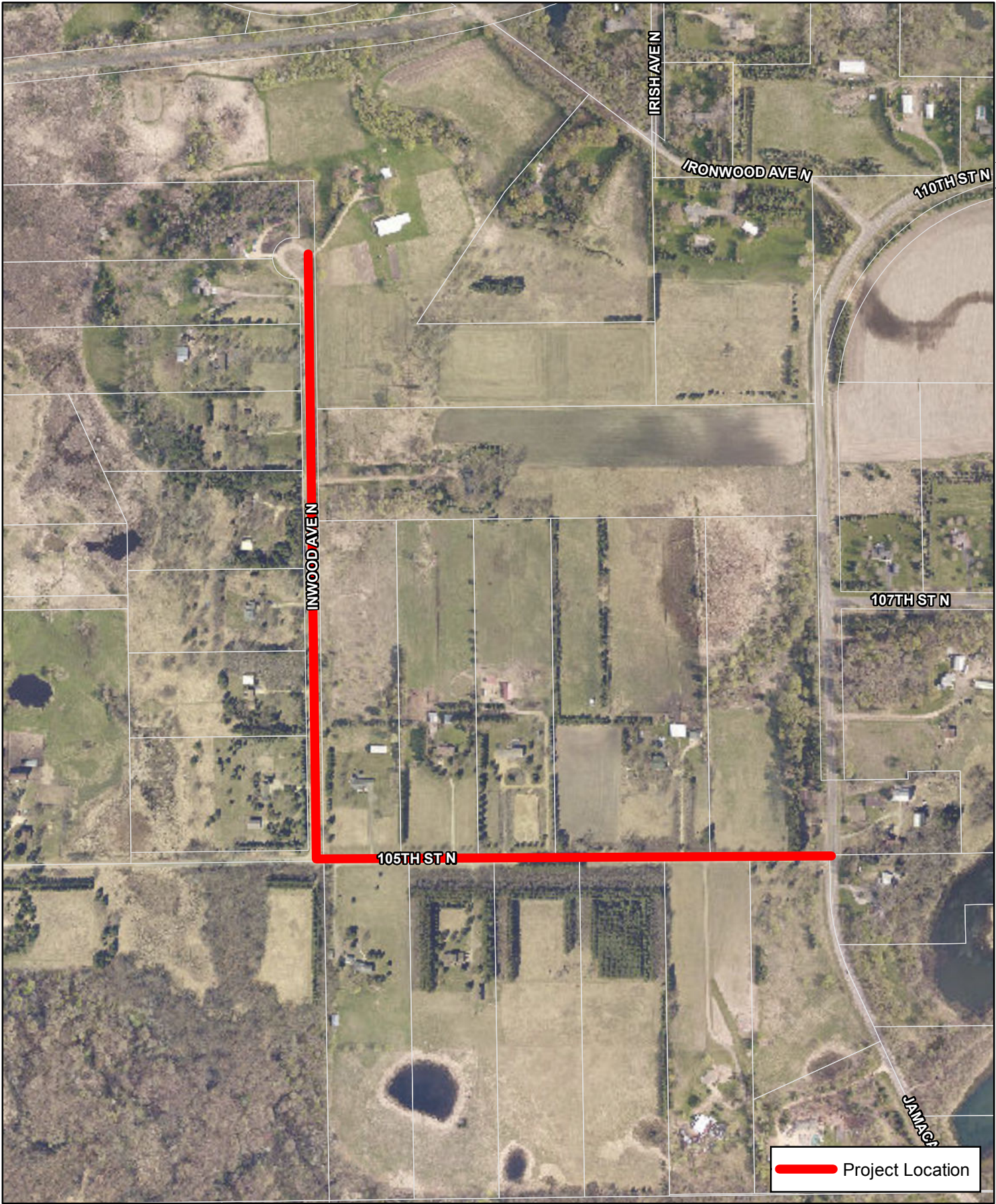


### Project Location Map

Street Project -  
Knollwood Dr N  
Grant, MN

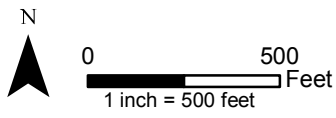






### Project Location Map

Street Project -  
Inwood Ave N and 105th St N  
Grant, MN



**APPENDIX B – EXISTING CONDITIONS**  
**SITE PICTURES**



**Inwood Avenue**





**105<sup>th</sup> Street**





**Knollwood Drive**



**APPENDIX C – OPINION OF PROBABLE COST**  
**OPINION OF PROBABLE COST**

# STATEMENT OF ESTIMATED QUANTITIES

Item No.	MN/DOT Specification No.	Description	Unit	Estimated Total Quantity	Estimated Unit Price	Estimated Total Cost
<b>STREET IMPROVEMENTS - 105th STREET &amp; INWOOD AVENUE</b>						
1	2021.501	MOBILIZATION	L S	1	\$12,200.00	\$12,200.00
2	2104.503	REMOVE PIPE CULVERTS	L F	120	\$20.00	\$2,400.00
3	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	L F	125	\$3.00	\$375.00
4	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	L F	40	\$6.00	\$240.00
5	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	S Y	70	\$15.00	\$1,050.00
6	2104.504	REMOVE CONCRETE PAVEMENT	S Y	10	\$6.00	\$60.00
7	2105.507	SUBGRADE EXCAVATION (P)	C Y	300	\$35.00	\$10,500.00
8	2105.507	SELECT GRANULAR BORROW (CV) (P)	C Y	300	\$30.00	\$9,000.00
9	2105.603	CONSTRUCT DRAINAGE DITCH	L F	200	\$15.00	\$3,000.00
10	2112.519	SUBGRADE PREPARATION	ROAD STA	47	\$150.00	\$7,050.00
11	2130.523	WATER	MGAL	20	\$50.00	\$1,000.00
12	2211.507	SHOULDERING	C Y	120	\$30.00	\$3,600.00
13	2211.507	AGGREGATE BASE (CV) CLASS 5	C Y	1200	\$28.00	\$33,600.00
14	2331.601	BITUMINOUS DRIVEWAY PAVEMENT	S Y	70	\$40.00	\$2,800.00
15	2360.509	TYPE SP 12.5 WEARING COURSE MIX (2,B)	TON	2200	\$68.00	\$149,600.00
16	2501.503	12" CS PIPE CULVERT	L F	120	\$50.00	\$6,000.00
17	2501.502	12" CS PIPE APRON	EACH	4	\$500.00	\$2,000.00
18	2531.504	6" CONCRETE DRIVEWAY PAVEMENT	S Y	5	\$65.00	\$325.00
19	2563.601	TRAFFIC CONTROL	L S	1	\$5,000.00	\$5,000.00
20	2573.503	SEDIMENT CONTROL LOG TYPE WOOD FIBER	LIN FT	470	\$3.50	\$1,645.00
21	2575.508	SEED MIX TYPE 25-131	LBS	40	\$5.00	\$200.00
22	2575.508	HYDRAULIC MULCH MATRIX	POUND	340	\$5.00	\$1,700.00
23	2575.605	SEEDING (INCL. TOPSOIL & FERT)	ACRE	0.14	\$10,000.00	\$1,400.00
<b>TOTAL SCHEDULE A - SURFACE IMPROVEMENTS</b>						<b>\$254,745.00</b>
+ 5% CONTINGENCY						\$12,737.25
<b>SUBTOTAL SCHEDULE A - SURFACE IMPROVEMENTS</b>						<b>\$267,482.25</b>
+ 16% INDIRECT COSTS						\$42,797.16
<b>TOTAL SCHEDULE A - SURFACE IMPROVEMENTS</b>						<b>\$310,279.41</b>

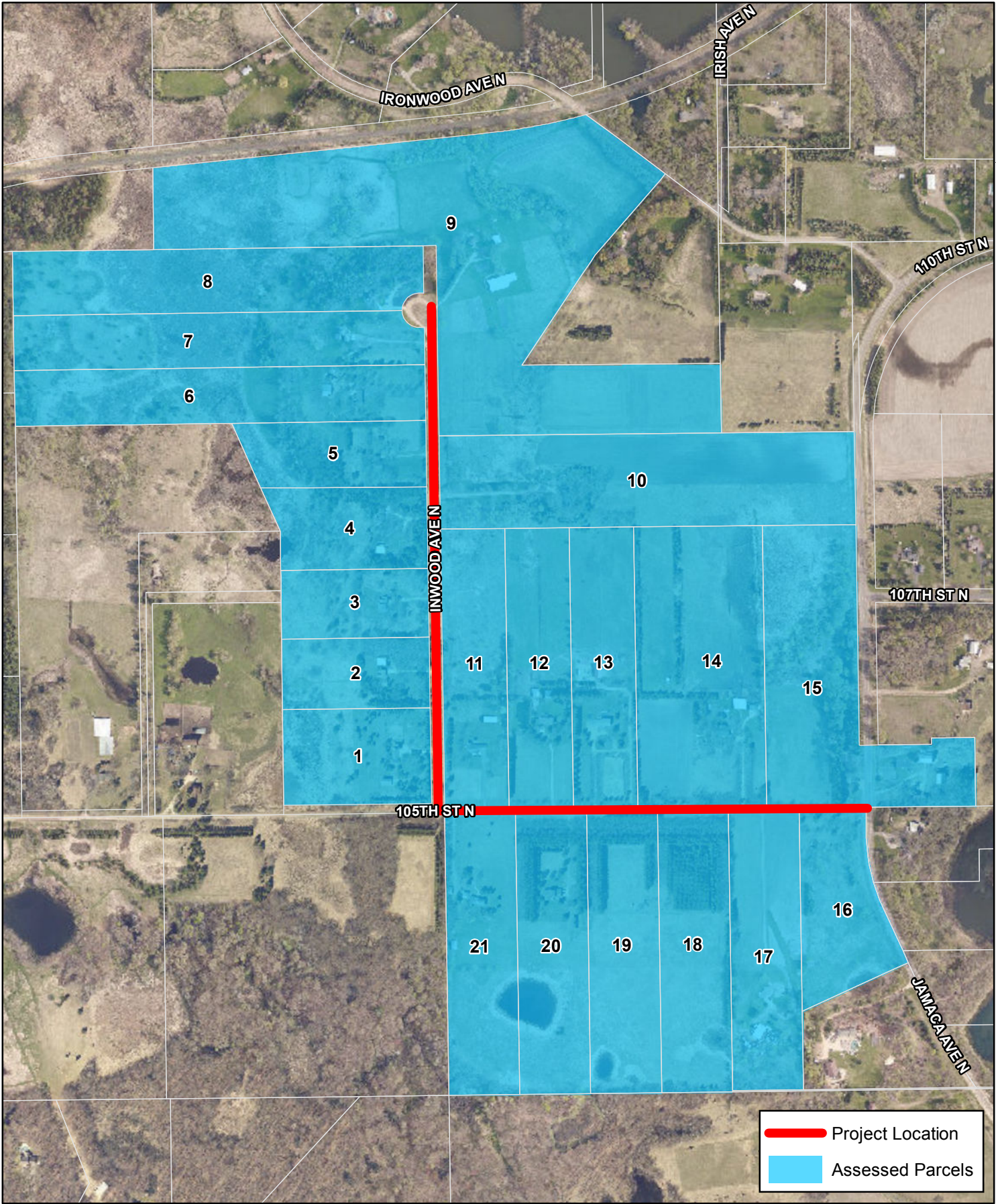
# STATEMENT OF ESTIMATED QUANTITIES



Item No.	MN/DOT Specification No.	Description	Unit	Estimated Total Quantity	Estimated Unit Price	Estimated Total Cost
<b>STREET IMPROVEMENTS - KNOLLWOOD AVENUE</b>						
1	2021.501	MOBILIZATION	L S	1	\$7,200.00	\$7,200.00
2	2104.503	REMOVE PIPE CULVERTS	L F	60	\$20.00	\$1,200.00
3	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	L F	150	\$3.00	\$450.00
4	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	S Y	84	\$15.00	\$1,260.00
5	2104.504	REMOVE CONCRETE PAVEMENT	S Y	39	\$6.00	\$234.00
6	2105.507	SUBGRADE EXCAVATION (P)	C Y	150	\$35.00	\$5,250.00
7	2105.507	SELECT GRANULAR BORROW (CV) (P)	C Y	150	\$30.00	\$4,500.00
8	2105.503	CONSTRUCT DRAINAGE DITCH	L F	500	\$15.00	\$7,500.00
9	2130.523	WATER	MGAL	10	\$50.00	\$500.00
10	2211.507	SHOULDERING	C Y	60	\$30.00	\$1,800.00
11	2211.507	AGGREGATE BASE (CV) CLASS 5	C Y	200	\$28.00	\$5,600.00
12	2215.504	FULL DEPTH RECLAMATION	S Y	6710	\$2.75	\$18,452.50
13	2331.601	BITUMINOUS DRIVEWAY PAVEMENT	S Y	84	\$40.00	\$3,360.00
14	2360.509	TYPE SP 12.5 WEARING COURSE MIX (2,B)	TON	1200	\$68.00	\$81,600.00
15	2501.503	12" CS PIPE CULVERT	L F	60	\$50.00	\$3,000.00
16	2501.502	12" CS PIPE APRON	EACH	4	\$500.00	\$2,000.00
17	2563.601	TRAFFIC CONTROL	L S	1	\$3,000.00	\$3,000.00
18	2575.508	SEED MIX TYPE 25-131	LBS	30	\$5.00	\$150.00
19	2575.508	HYDRAULIC MULCH MATRIX	POUND	320	\$5.00	\$1,600.00
20	2575.605	SEEDING (INCL. TOPSOIL & FERT)	ACRE	0.13	\$10,000.00	\$1,300.00
<b>TOTAL SCHEDULE A - SURFACE IMPROVEMENTS</b>						<b>\$149,956.50</b>
+ 5% CONTINGENCY						\$7,497.83
<b>SUBTOTAL SCHEDULE A - SURFACE IMPROVEMENTS</b>						<b>\$157,454.33</b>
+ 16% INDIRECT COSTS						\$25,192.69
<b>TOTAL SCHEDULE A - SURFACE IMPROVEMENTS</b>						<b>\$182,647.02</b>

## **APPENDIX D – ASSESSMENTS**

### **Assessment Map Preliminary Assessment Roll**

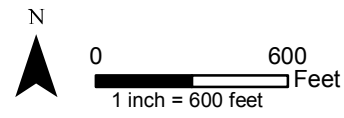




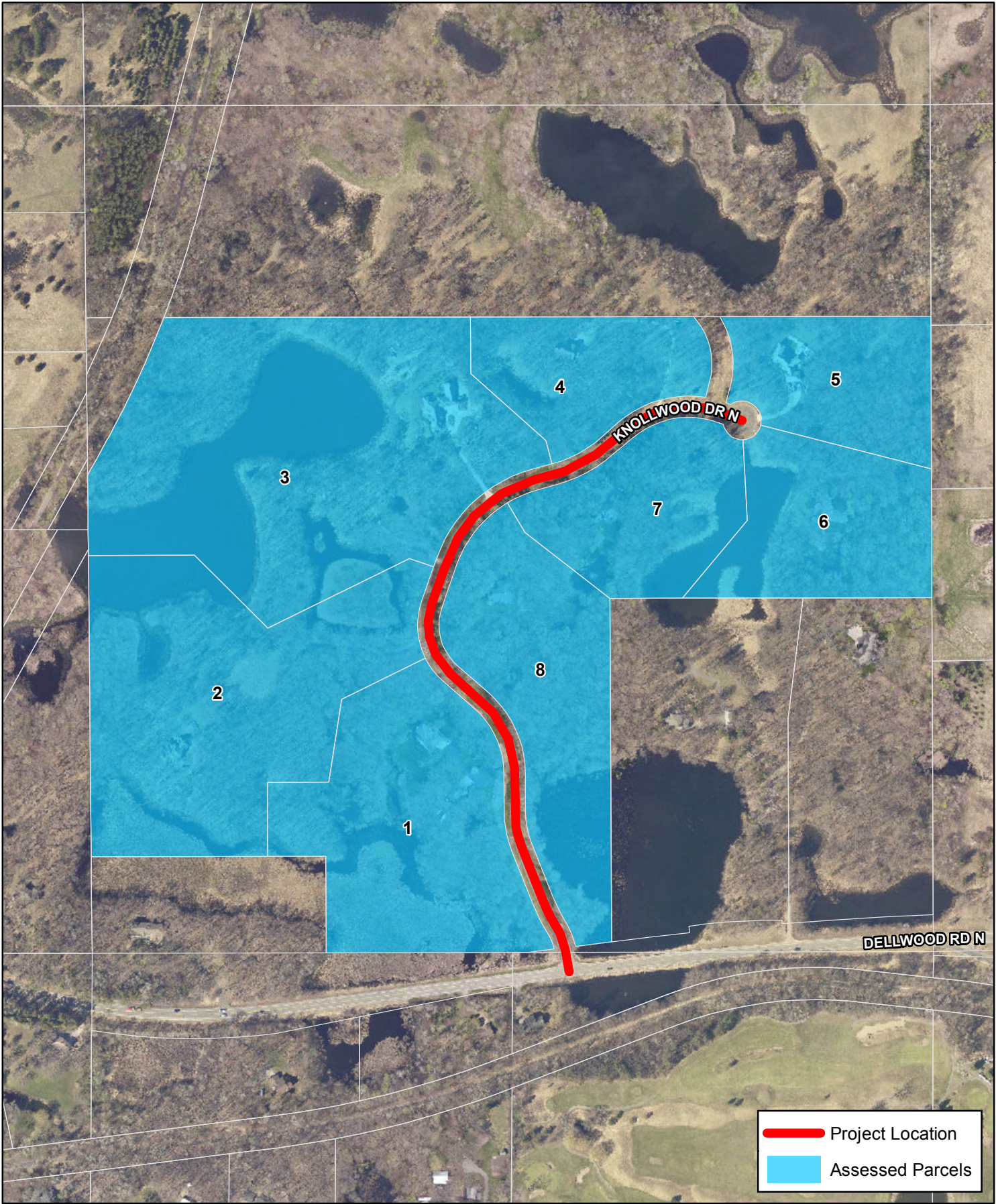
 Project Location  
 Assessed Parcels



**Assessed Parcels Map**  
 Street Project -  
 Inwood Ave N and 105th St N  
 Grant, MN

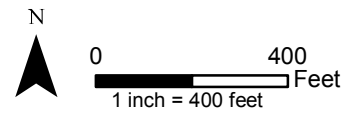






### Assessed Parcels Map

Street Project -  
Knollwood Dr N  
Grant, MN





**CITY OF GRANT**  
**105th STREET AND INWOOD AVENUE STREET IMPROVEMENT PROJECT**  
**PRELIMINARY ASSESSMENT ROLL**

MAP ID	PID	FEE OWNER TAX NAME	FEE OWNER ADDRESS	CITY/STATE/ZIP	PROPERTY ADDRESS	CITY	STATE	ZIP	BUILDABLE UNIT ASSESSMENT	BUILDABLE UNIT	PROPOSED TOTAL ASSESSMENT
1	903021240004	GILLEN DENNIS J & DIANE J	10550 INWOOD AVE N	MAHTOMEDI MN 55115	10550 INWOOD AVE N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
2	903021240005	WEAVER WALLACE E & CAROLYN L	10630 INWOOD AVE N	MAHTOMEDI MN 55115	10630 INWOOD AVE N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
3	903021240006	KUBITSCHKEK DANIEL T & APRIL R	10690 INWOOD AVE N	MAHTOMEDI MN 55115	10690 INWOOD AVE N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
4	903021210001	PALUMBO JEFFREY A & THERESA	10740 INWOOD AVE N	MAHTOMEDI MN 55115	10740 INWOOD AVE N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
5	903021210002	ROBERTS JOHN D & JANET K	10810 INWOOD AVE N	WHITE BEAR LAKE MN 55110	10810 INWOOD AVE N, CITY OF GRANT	CITY OF GRANT	MN	55110	\$ 12,329.67	1	\$ 12,329.67
6	903021210003	HINZ KENNETH E & JANICE M	10870 INWOOD AVE N	MAHTOMEDI MN 55115	10870 INWOOD AVE N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
7	903021210004	REDMANN STEPHEN G & DEBRA J B	10920 INWOOD AVE N	MAHTOMEDI MN 55115	10920 INWOOD AVE N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
8	903021210005	KUEHL BRENDA E & SCOTT F	10980 INWOOD AVE N	ST PAUL MN 55115	10980 INWOOD AVE N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
9	403021430001	SCHROEDER DAVID H & MARILYN	10995 INWOOD AVE N	MAHTOMEDI MN 55115	10995 INWOOD AVE N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	3	\$ 36,989.02
10	903021120001	BOREEN STEVEN N & DONNA M	10777 INWOOD AVE	ST PAUL MN 55115	10777 INWOOD AVE N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
11	903021130002	MIKE CHARLES & ANNETTE M	8540 105TH ST N	MAHTOMEDI MN 55115	8540 105TH ST N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
12	903021130004	JABLONSKI DAVID J & JACQUELINE	8610 105TH ST N	MAHTOMEDI MN 55115	8610 105TH ST N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
13	903021130003	RICCI THOMAS J	8650 105TH ST N	MAHTOMEDI MN 55115	8650 105TH ST N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
14	903021130001	SARAPPO WAYNE F & SHARON A	8770 105TH ST N	MAHTOMEDI MN 55115	8770 105TH ST N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	2	\$ 24,659.35
15	903021140001	LAVALLE DENNIS J	10509 JAMACA AVE	SAINT PAUL MN 55115	10509 JAMACA AVE N, CITY OF GRANT	CITY OF GRANT	MN	55110	\$ 12,329.67	0.25	\$ 3,082.42
16	903021410007	WILLIAM S OLSON TRS	295 MEADOWOOD LN	VADNAIS HEIGHTS MN 55127		CITY OF GRANT	MN		\$ 12,329.67	0.25	\$ 3,082.42
17	903021410008	UGLEM HARVEY V	8805 105TH ST	MAHTOMEDI MN 55115	8805 105TH ST N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
18	903021420001	ERICHSON GARY L & DIANE A	8599 105TH ST N	MAHTOMEDI MN 55115		CITY OF GRANT	MN		\$ 12,329.67	1	\$ 12,329.67
19	903021420002	ERICHSON GARY L & DIANE A	8599 105TH ST N	MAHTOMEDI MN 55115		CITY OF GRANT	MN		\$ 12,329.67	1	\$ 12,329.67
20	903021420003	ERICHSON GARY L & DIANE A	8599 105TH ST N	MAHTOMEDI MN 55115	8599 105TH ST N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
21	903021420004	KASPER ELISSA & BRIAN FORSTER	8533 105TH ST N	SAINT PAUL MN 55115	8533 105TH ST N, CITY OF GRANT	CITY OF GRANT	MN	55115	\$ 12,329.67	1	\$ 12,329.67
										22.5	\$ 277,417.67



**CITY OF GRANT  
KNOLLWOOD DRIVE STREET IMPROVEMENT PROJECT  
PRELIMINARY ASSESSMENT ROLL**

MAP ID	PID	FEE OWNER TAX NAME	FEE OWNER ADDRESS	CITY/STATE/ZIP	PROPERTY ADDRESS	CITY	CITY - USPS	STATE	ZIP	BUILDABLE UNIT ASSESSMENT	BUILDABLE UNIT	PROPOSED TOTAL ASSESSMENT
1	1403021430004	SKOGEN RODNEY M TRS	9060 KNOLLWOOD DR N	STILLWATER MN 55082	9060 KNOLLWOOD DR N, CITY OF GRANT	CITY OF GRANT	STILLWATER	MN	55082	\$ 15,110.58	2	\$ 30,221.15
2	1403021430003	OPP JAMES C & MARILYN C	9130 KNOLLWOOD DR N	STILLWATER MN 55082	9130 KNOLLWOOD DR N, CITY OF GRANT	CITY OF GRANT	STILLWATER	MN	55082	\$ 15,110.58	1	\$ 15,110.58
3	1403021420004	FREDRICKSON CARL T & APRIL A	9190 KNOLLWOOD DR	STILLWATER MN 55082	9190 KNOLLWOOD DR N, CITY OF GRANT	CITY OF GRANT	STILLWATER	MN	55082	\$ 15,110.58	1	\$ 15,110.58
4	1403021410003	WHELAN JESSICA K & JUSTIN H BETCHEL	9220 KNOLLWOOD DR N	STILLWATER MN 55082	9220 KNOLLWOOD DR N, CITY OF GRANT	CITY OF GRANT	STILLWATER	MN	55082	\$ 15,110.58	1	\$ 15,110.58
5	1403021410004	BONTA WILLIAM M & ALISA D	9240 KNOLLWOOD DR N	STILLWATER MN 55082	9240 KNOLLWOOD DR N, CITY OF GRANT	CITY OF GRANT	STILLWATER	MN	55082	\$ 15,110.58	1	\$ 15,110.58
6	1403021410006	JEFFREY L & JOAN K KNUTSON TRS AGR	9235 KNOLLWOOD DR N	STILLWATER MN 55082	9235 KNOLLWOOD DR N, CITY OF GRANT	CITY OF GRANT	STILLWATER	MN	55082	\$ 15,110.58	1	\$ 15,110.58
7	1403021410005	NIELSEN JEFFREY L & SUSAN M	9211 KNOLLWOOD DR	STILLWATER MN 55082	9211 KNOLLWOOD DR N, CITY OF GRANT	CITY OF GRANT	STILLWATER	MN	55082	\$ 15,110.58	2	\$ 30,221.15
8	1403021440002	CRUM ANN E	9135 KNOLLWOOD DR	STILLWATER MN 55082	9135 KNOLLWOOD DR N, CITY OF GRANT	CITY OF GRANT	STILLWATER	MN	55082	\$ 15,110.58	2	\$ 30,221.15
											11	\$ 166,216.33

**APPENDIX E – FORENSICS**  
**PAVEMENT CORING FORENSIC REPORT**

## Memorandum

To: Brad Reifsteck

From: Sheue Torng Lee

Date: September 21, 2020

Re: Pavement Coring Forensic Report  
WSB Project No. 016504-000

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WSB is pleased to submit this pavement forensics report detailing the results of the pavement coring which were completed on September 18, 2020 in the City of Grant. The various characteristics of the pavement cores were analyzed to assist in determining the appropriate pavement maintenance or rehabilitation method for the roadways.

A total of 13 pavement cores were obtained, which 7 of the cores were obtained on gravel roads (**Table 1**) and 6 of the cores were obtained on bituminous streets (**Table 2**). The locations of the pavement cores are summarized in **Figure 1** and **Figure 2**. Pictures of the pavement cores can be found in the **Appendix**.

The gravel depths along Inwood Avenue N were ranging between 8 inches to 10 inches, while the gravel thicknesses along 105<sup>th</sup> Street N were between 4 inches to 10 inches. The bituminous core obtained along 105<sup>th</sup> Street N was one-inch thick and it was in poor condition.

Five cores obtained along Knollwood Drive N had bituminous depths ranging from 2 inches to 4.25 inches. One the cores were in fair condition, while the remaining four cores were in poor condition showing delamination and/or severe deterioration. A partial depth mill and overlay would not be feasible based on the findings which showed poor pavement condition and thin pavement section. It would be recommended to perform either a full depth bituminous removal and replacement or a full depth reclamation on this street. Both rehabilitation methods would completely remove the crack pattern and existing distresses within the pavement.

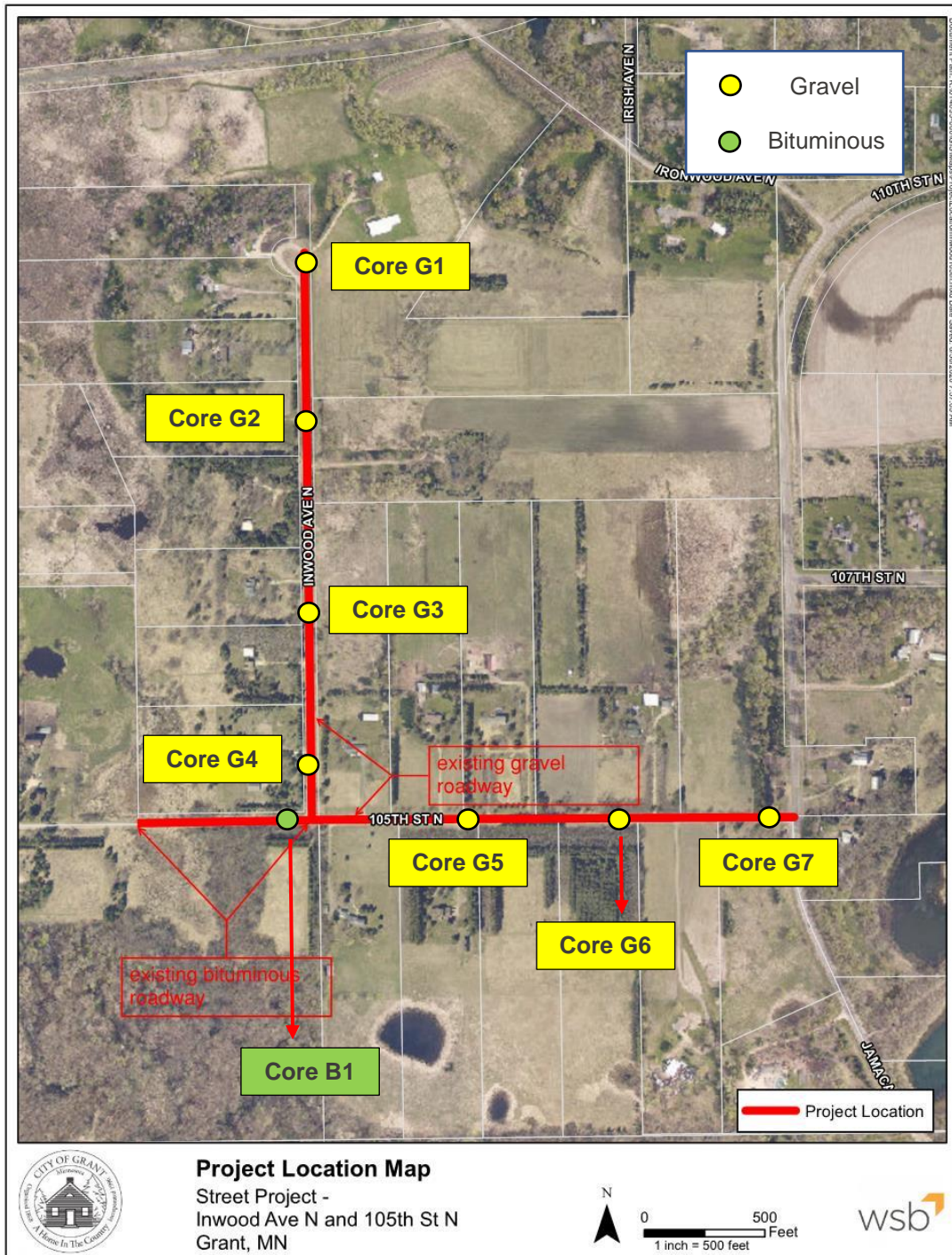


Figure 1. Pavement core locations along 105<sup>th</sup> Street N and Inwood Avenue N in the City of Grant.



Figure 2. Pavement core locations along Knollwood Drive N in the City of Grant.

**Table 1. Pavement core information on gravel roads.**

Core ID	Street	Aggregate Depth and Material	Subgrade Material
G1	Inwood Avenue N	10" sand with gravel, fine grained, brown	Sand, fine grained, brown
G2		10" sand with gravel, fine grained, brown	Sand, fine grained, brown
G3		10" sand with gravel, fine grained, brown	Sand with trace of clay, fine grained, brown
G4		8" sand with gravel, fine grained, brown	Sand, fine grained, brown
G5	105 <sup>th</sup> Street N	10" sand with gravel, fine grained, brown	Sand with light gravel, fine grained, brown
G6		7" sand with gravel, fine grained, brown	Sand with light gravel, fine grained, light brown
G7		4" sand with gravel, fine grained, brown	Sand, fine grained, brown

**Table 2. Pavement core information on bituminous streets.**

Core ID	Street	Bituminous Depth (inches)	Aggregate Depth and Material	Subgrade Material	Notes
B1	105 <sup>th</sup> Street N	1	6" Class 5	Sand with light gravel, brown	Core was in poor condition.
B2	Knollwood Avenue N <sup>1</sup>	4.25	10.75" sand with gravel, fine grained, brown	Sand with clay, fine grained, dark brown	The top lift of the core was 2.25 inches. Core was in fair condition.
B3		2	10" sand with gravel, fine grained, brown	Sand with clay, fine grained, dark brown	Core was in poor condition.
B4		2	6.5" sand with gravel, fine grained, brown	Sand with clay, fine grained, dark brown	Core was in poor condition.
B5		2	12" sand with gravel, fine grained, brown	Sand with clay, fine grained, dark brown	Core was in poor condition.
B6		2	10" sand with gravel, fine grained, brown	Sand with clay, light gravel, red	Core was in poor condition.
<sup>1</sup> Cobbles were found close to the bottom of the aggregate base layer at all the core locations along Knollwood Avenue N.					

# **Appendix**

## **City of Grant Coring Pictures**



***Core G1 (Inwood Avenue N)***



***Core G2 (Inwood Avenue N)***





***Core G3 (Inwood Avenue N)***



***Core G4 (Inwood Avenue N)***



***Core G5 (105<sup>th</sup> Street N)***



***Core G6 (105<sup>th</sup> Street N)***



**Core G7 (105<sup>th</sup> Street N)**





**Core B1 (105<sup>th</sup> Street N)**



**Core B2 (Knollwood Drive N)**





**Core B3 (Knollwood Drive N)**



**Core B4 (Knollwood Drive N)**





**Core B5 (Knollwood Drive N)**



**Core B6 (Knollwood Drive N)**



**APPENDIX F – PETITION**  
**SIGNED PETITIONS**

June 20, 2020

City of Grant  
PO BOX 577  
Willernie, MN 55090

Dear City Honorable Mayor and City Council Members,

I am writing to ask the City Council to consider paving and roadway improvements along Inwood Avenue. N. from 105th Street N to end of cul-de-sac and 105th Street N. from Inwood Avenue N to Jamaca Avenue . Our neighborhood understands if at least thirty-five (35) percent of the abutting properties owners sign the petition, the Council may order the completion of a feasibility report, the first step in the special assessment process. We also understand if more than fifty (50) percent of the abutting properties owners to be assessed sign the petition, the council will consider ordering the project.

I have attached a petition signed by 68% (13/19) of the abutting property owners, which meets the requirement mentioned above, and who are agreeable to funding this project per the City's current special assessment policy. Note: If the two properties on 105<sup>th</sup> Street adjacent to Jamaca Avenue are included in the project, then 62% (13/21) of the abutting property owners signed the petition.

Sincerely,



Theresa Palumbo  
10740 Inwood Ave. N.  
Grant, MN 55115

Enclosure: Signed Petition





August 21, 2020

City of Grant

PO Box 577

Willernie, MN 55090

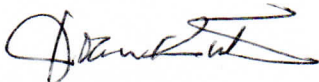
Dear City Honorable Mayor and City Council Members,

I am writing to you in behalf of our neighborhood at Knollwood Drive North to consider paving and roadway improvements for our ½ mile street which has a total of 8 properties.

Our neighborhood understands if at least thirty-five (35) percent of the abutting property owners sign the petition, the Council may order the completion of a feasibility report, the first step in the special assessment process. I have attached a petition signed by 62% of the abutting property owners.

We also understand that if more than 50% of the abutting properties owners to be assessed sign the petition, the council will consider ordering the project (after the feasibility report is complete and 50% of us approve bids for the final dollar amount of project).

Sincerely,



Joan Knutson

651 491 5700

Representative for the Knollwood Drive neighborhood

Enclosure: Signed Petition

Resident Petition Authorizing Roadway Improvement Project Feasibility Report

MapID	PROPERTY ADDRESS	OWNER NAME	SIGNATURE	DATE
14-030-21-43.0003	9180 Knollwood Dr	Marilyn Opp	Marilyn Opp	7-2-20
14-030-21-43.0004	9190 Knollwood Dr	Agnie Fredrickson	Agnie Fredrickson	7-2-20
14-030-21-43.0006	9255 Knollwood Dr	Jan Knutson	Jan Knutson	7-2-20
14-030-21-43.0004	9060 Knollwood Dr	Rodney Skogen	Rodney Skogen	7-7-20
14-030-21-41.0003	9220 Knollwood Dr	Jessica Whelan	Jessica Whelan	8/22/20