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2020 KNOLLWOOD DRIVE IMPROVEMENTS

MUNICIPAL PROJECT NO. 4132

FEASIBILITY REPORT

Prepared for
City of Baxter

WSN No. 2020-11417

2023 KNOLLWOOD DRIVE IMPROVEMENTS

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I hereby certify that this 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.

Aric Welch
Professional Engineer

41983
License Number

Date

2020 KNOLLWOOD DRIVE IMPROVEMENTS

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FEASIBILITY REPORT

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STATEMENT OF PURPOSE

The purpose of this report is to review the feasibility of the reconstruction of the roadway and trail segment for Knollwood Drive from Highland Scenic Road (CSAH 48) to Foley Road.

On August 18, 2020 WiDSETH received authorization to complete a Feasibility Report relative to these improvements.

This report will review existing conditions, propose feasible improvements, estimate project costs, discuss project implementation, and present conclusions and recommendations for the project area.

The project area is shown in Figure 1.



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 ARIC L. WELCH DATE: --- LIC. NO. 41883

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JOB NUMBER: 2020-11417		

2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
 CITY OF BAXTER
 BAXTER, MINNESOTA
FIGURE 1 - PROJECT AREA

EXISTING CONDITIONS

Background:

The proposed project involves the reconstruction of Knollwood Drive from Highland Scenic Road (CSAH 48) to Foley Road. This section of Knollwood Drive is a collector roadway situated in a residential area between TH 210 and Forestview Middle School. The local roadways connecting to Knollwood Drive include; Jepson Road, Kingwood Drive, Interlachen Road, Timberlane Drive, Woodland Drive, and Oakwood Court.

Knollwood Drive corridor is zoned as Low Density Residential (R-1) and is located within a 66-foot wide platted right-of-way corridor. The existing roadway is a 36-foot wide roadway with concrete curb and gutter and storm sewer. There is a 12-foot wide bituminous trail located along the east side of the roadway immediately behind the curb. There is no boulevard area between the curb and trail. This roadway was last reconstructed in 2000 as part of the Parkwood Area Improvements Project. The roadway section was constructed with 3.5 inches of bituminous and 5 inches of class 5 aggregate base. Since the reconstruction in 2000, the City of Baxter has completed regular hot mix and spray patching pothole and cracks in the roadway surface. There has not been any major repairs to the roadway such as mill and overlay.

In 2017, the City completed an ADA Transition Plan. The Plan included a self-evaluation of the City's current transportation infrastructure policies, practices, and programs. The self-evaluation also included an inventory and assessment of existing pedestrian facilities. During this evaluation, it was noted that the Knollwood Drive trail is non-ADA compliant at each trail/driveway intersection.

Traffic Data:

Based on the MNDOT Traffic Mapping Application, the ADT for this section of roadway is 1900. This was last updated in 2019. The historical ADT is as follows:

<u>Year</u>	<u>Existing ADT</u>
2019	1,900
2015	1,750
2011	1,750
2007	1,600
2005	1,850
2001	1,600

Municipal Storm Sewer:

The storm sewer network consists of drainage structures, conveyance piping and basins. There are two separate storm sewer systems located along the roadway. The south system begins approximately 420 feet south of the intersection of Interlachen Road and flows south crossing Highland Scenic and to a series of stormwater infiltration basins northwest of Forestview Middle School. The north system serves Knollwood Drive from Timberlane Drive to Foley Road. This system flows west on Oakwood to a stormwater basin on the south side of the cul-de-sac.

Municipal Sanitary Sewer Collection:

Municipal sanitary sewer collection piping is currently in place along the Knollwood Drive project area. The south portion of the sanitary sewer, approximately 350 feet' south of Interlachen Road is an eight-inch (8") PVC that flows to the south to lift station #12 that is located southeast of the intersection of Highland Scenic and Knollwood Drive. The four-inch (4") forcemain from Lift Station #12 flows to the north 2,700 feet to a manhole located approximately 205 feet south of Interlachen Road. From this manhole, the sanitary sewer starts out as a ten-inch (10") PVC for approximately 2,385 feet and transitions to a twelve-inch (12") PVC at the intersection of Oakwood Court. The twelve-inch (12") PVC continues for 958 feet to the intersection of Foley Road. The sanitary sewer along Knollwood Drive also picks up sanitary sewer from Jepson Road, Timberlane Drive and Oakwood Court. Sanitary from Kingwood Drive and Interlachen Road flow to Parkwood Drive to Mountain Ash Drive and to a lift station on Mountain Ash Drive.

Municipal Water Distribution System:

Municipal water distribution piping is in place throughout the project area. Ten-inch (10") PVC watermain currently is located in the Knollwood Drive corridor. The ten-inch (10") PVC watermain connects to a ten-inch (10") PVC that runs along Highland Scenic and to a twelve-inch (12") PVC that runs along Foley Road. Watermain services extent down each of the roads that connect to Knollwood Drive.

Hydrants, valves, and main extensions are located through the project corridor. No problems with the existing municipal water distribution system in the project area are known.

The existing conditions in the project area are shown in Figures 2 – 4 in the Appendix.

PROPOSED IMPROVEMENTS

Proposed improvements consist of the reconstruction of Knollwood Drive. Three roadway section options are proposed in this report along with a mill and overlay option.

Knollwood Drive is proposed to be reconstructed using full depth reclamation (FDR). FDR uses a self-propelled pulverizing machine to grind the entire pavement section and a portion of the underlying gravel base material in place. This process destroys all existing pavement cracks and homogenizes the material into a useable aggregate base platform on which to pave a new bituminous surface.

One advantage of FDR in this situation is the ability to re-crown the roadway. In Option 1 the crown of the road will stay in a similar location but in Option 2, the crown of the road will be adjusted to the west 7.5-feet and in Option 3, the crown of the road will be adjusted to the west 2.5-feet (see discussion below for Option detailed option descriptions). The current roadway is crowned in the center of the roadway with 2% cross slopes to the curb and gutter located on each side of the roadway. By using FDR, it will be possible to move the crown of the roadway to the west to create two through lanes for Option 2 and two through lanes and a south bound parking lane for Option 3.

Once the roadway is reclaimed, excess material will be removed, and 6 inches of class 5 aggregate base will be placed along with three lifts of bituminous totaling 5 inches.

Other improvements to Knollwood Drive include:

- 10-foot wide bituminous trail with 3 inches of bituminous pavement placed in two lifts.
- Adjust existing grades to address drainage issues.
- Replace all storm sewer curb inlet castings and install a water infiltration barrier.
- Replace all concrete curb and gutter, and valley gutters, due to poor existing condition.
- Replace and adjust the upper sections of water valve boxes.
- Reconstruct sanitary sewer manhole castings/rings and install water infiltration barrier.
- Replace driveways to the right-of-way line.
- Install new signage and pavement markings.

Knollwood Drive – Option 1

Option 1 includes the construction of a 36-foot wide urban roadway with a 12-foot wide north bound lane, a 14-foot wide south bound lane and an 8-foot wide parking lane on the south bound side of the road. The roadway will have concrete curb and gutter on each side of the roadway. On the east side of the road, there will be a 5-foot wide grassed boulevard and a 10-foot wide bituminous trail. With this option the curb lines would remain in the same location and the trail will be moved to the east. This option will require an easement on the east side of the roadway corridor to accommodate the relocation of the trail. The trail is being moved away from the roadway to address ADA compliance issues. Currently all of the trail crossing at existing driveways do not meet ADA slope standards. Separating the trail from the roadway allows for a more gradual transition between the roadway and the trail crossings at each driveway. The additional easement will also allow for a better transition between the trail and driveway tie in location behind the trail.

Knollwood Drive – Option 2

Option 2 includes the construction of a 28-foot wide urban roadway that includes 12-foot drive lanes in each direction with concrete curb and gutter. On the east side of the road, there will be a 5-foot wide grassed boulevard and a 10-foot wide bituminous trail. The trail would be moved away from the roadway for the same ADA compliance issues as discussed in Option 1. With this Option, the west curb line would remain in the same location and the east curb line and trail would be moved to the west.

Knollwood Drive – Option 3

Option 3 includes the construction of a 32-foot urban roadway that includes an 11-foot wide north bound lane, an 11-foot wide south bound lane, and an 8-foot wide parking lane on the south bound side of the road. The roadway will have concrete curb and gutter on each side of the roadway. It is basically the same section as Option 1 but with the lane widths reduced to the minimum allowable width according the State Aid Construction Standards. With this option, the west curb line will remain in the same location and the east curb line will be moved to the west. The trail would essentially remain in the current location with a 5-foot boulevard area between the east curb line and the trail.

Knollwood Drive – Option 4

Option 4 would basically be considered the “Do Nothing” Option. With the existing condition of the roadway, some type of maintenance/reconstruction work will be necessary in the near future. Maintenance/rehabilitation options include continued seal cracking and patching, bituminous mill and inlay or other options such as micro surfacing. Crack sealing and patching would be considered and interim fix and is not a good long-term solution. It should be noted that a mill and overlay or micro surfacing project would require the City to bring the trail into compliance with current ADA requirements. As discussed in Option 1, the trail crossings at each of the driveways does not meet ADA slope requirements. To bring the trail into compliance, a separation between the trail and roadway is required. The trail would need to be completely reconstructed or, another option to consider, is complete removal of the trail. Based on the current condition of the roadway, a mill and overlay or micro surfacing project is not recommended and, therefore, no detailed cost estimates were prepared for this Option.

In 2018, Widseth completed a Feasibility Report for the intersection of Knollwood Drive, Foley Road, and Trunk Highway (T.H.) 210. This study looked at removing the connection of Knollwood Drive to T.H. 210. This Study has been approved by the City of Baxter and is now in the design phase. This design is being completed by Bolton & Menk and is planned for construction starting in 2022. The final design of Knollwood Drive will need to be coordinated with this project.

With each option, there are costs estimated for required adjustments and modifications to the sanitary sewer collection and water distribution system. Improvements include hydrant relocations/rearrangements, sanitary sewer service repairs, and water service repairs. Costs for these improvements have been separated from the roadway project costs for City financial reporting purposes.

The proposed improvements of Options 1 – 3 are shown in more detail Figures 5 – 13 in the Appendix. The typical section of each Option can be found in Figures 14 and 15.

ESTIMATED PROJECT COSTS

Estimated project costs for the proposed improvements to Knollwood Drive are summarized below for each Option:

OPTION 1:

Roadway:	\$1,783,345
Trail:	\$644,410
Storm Sewer:	\$78,295
Sanitary Sewer:	\$31,670
Water Distribution:	<u>\$41,010</u>
ESTIMATED TOTAL PROJECT COST:	\$2,578,730

OPTION 2:

Roadway:	\$1,551,215
Trail:	\$512,390
Storm Sewer:	\$95,340
Sanitary Sewer:	\$36,240
Water Distribution:	<u>\$41,810</u>
ESTIMATED TOTAL PROJECT COST:	\$2,236,995

OPTION 3:

Roadway:	\$1,631,805
Trail:	\$505,050
Storm Sewer:	\$91,860
Sanitary Sewer:	\$36,310
Water Distribution:	<u>\$41,880</u>
ESTIMATED TOTAL PROJECT COST:	\$2,306,905

OPTION 3:

No costs were calculated for this Option because this Option does not meet the long-term roadway preservation goals of the City (see Option 4 discussion under Proposed Improvements).

The costs estimated herein are intended to convey a general and approximate picture of the costs that would most likely be incurred today in carrying out the proposed work. Costs can vary widely depending upon many factors such as weather, economic conditions, size of project, and the workload of available contractors. Actual costs can only be determined by bidding the project. Detailed breakdowns of the estimates are provided in the Appendix. Costs estimated above include estimated construction costs, 15% contingencies, and 25% soft costs including engineering, administration, and legal fees. **The costs are calculated in 2021 dollars and need to be updated in the future based upon the current economic conditions at the time the project is being considered.**

PROJECT IMPLEMENTATION

Funding for improvements are proposed to be obtained from assessments to benefitted property owners and the City of Baxter. The estimated assessments included in this report were calculated in accordance with City policy utilizing the Unit Assessment Method. A detailed description of the assessment methods utilized by the City of Baxter can be found in the most recent version of the “City of Baxter – Assessment Policy for Public Initiated Improvements”.

In accordance with City policy, 100% of FDR project costs up to 26 feet in width for R-1 properties are assessed to the adjacent benefitting properties. The area is mostly comprised of residential properties with similar sized lots, so the Unit Assessment Method was selected. Unit assessments are calculated by dividing the total assessable project cost by the number of units/lots in the project area. Existing parcels under single ownership that were large enough to be subdivided in accordance with the subdivision ordinance were assumed to be assessed for the total number of future lots that could result from such a split. Existing parcels with multiple dwelling units were assumed to be assessed one unit for each dwelling currently on the parcel.

The project area contains a substantial number of intersection roadways and corner lots that do not access their parcels from Knollwood Drive. In accordance with the City’s assessment policy, these lots are not assessable with this project and would be assessed when the streets they access from are improved. Because there are so many unassessable corner lots, the assessable roadway project costs have been reduced by 50% to put them more in line with historic residential FDR roadway assessments.

The City was also assumed to pay all costs associated with the additional bituminous thickness required to meet a 10-ton design strength. The estimated section required to meet the State Aid Standard 10-ton design strength is 5 inches of bituminous and 6 inches of aggregate base. The typical city street in Baxter has a pavement section composed of 3 ½ inches of bituminous and 5 inches of aggregate base. It was assumed the City would pick up the cost associated with the additional ½ inches of bituminous required to meet the 10-ton design. The additional 2 inches of aggregate base required to meet the 10-ton design would not be picked up by the City because the additional base is being created by the FDR process and does not add to the overall project cost.

The City was also assumed to pay all costs associated with curb and gutter, storm sewer improvements, trail improvements, roadway lighting, sanitary sewer system improvements and water system improvements that would not typically be associated with a normal residential roadway maintenance improvement.

In summary, the City was assumed to pick up the following costs:

- All roadway costs in excess of 26 feet in width
- Bituminous thickness in excess of 3 ½ inches
- Concrete curb and gutter
- 50% of assessable roadway project costs because of unassessable corner not frontage
- Storm sewer project costs
- Sanitary sewer project costs
- Water system project costs
- Street lighting project costs
- Trail project costs

When determining the unit assessments of the benefiting properties, it was observed that this project contains a substantial number of intersection roadways with corner lots.

Based upon the above methodology and assumptions, the following were determined:

Option 1:

Estimated Roadway Project Cost:	\$2,578,730
Estimated City Costs	
50% of Typical Assessable Project Costs (excess corner lots):	\$449,460
Excess Roadway Width/Depth and Curb & Gutter:	\$884,425
Trail:	\$644,410
Storm Sewer:	\$78,295
Sanitary Sewer:	\$31,670
Water:	<u>\$41,010</u>
Estimated City Cost:	\$2,129,270
Estimated Assessable Roadway Project Costs:	\$449,460
Total Estimated Number of Units/Lots:	60
Estimated Assessment per Unit/Lot:	\$7,491

The estimated total City share of the project is estimated to be \$2,129,270 or 82.6% of the total project cost. Assessable project costs total \$449,460 or 17.4% of the total project cost.

Option 2:

Estimated Roadway Project Cost:	\$2,236,995
Estimated City Costs	
50% of Typical Assessable Project Costs (excess corner lots):	\$431,670
Excess Roadway Width/Depth and Curb and Gutter:	\$687,870
Trail:	\$512,390
Storm Sewer:	\$95,340
Sanitary Sewer:	\$36,240
Water:	<u>\$41,810</u>
Estimated City Cost:	\$1,805,320
Estimated Assessable Roadway Project Costs:	\$431,670
Total Estimated Number of Units/Lots:	60
Estimated Assessment per Unit/Lot:	\$7,195

The estimated total City share of the project is estimated to be \$1,805,320 or 80.7% of the total project cost. Assessable project costs total \$431,670 or 19.3% of the total project cost.

Option 3:

Estimated Roadway Project Cost:	\$2,306,905
Estimated City Costs	
50% of Typical Assessable Project Costs (excess corner lots):	\$433,180
Excess Roadway Width/Depth and Curb & Gutter:	\$765,445
Trail:	\$505,050
Storm Sewer:	\$91,860
Sanitary Sewer:	\$36,310
Water:	<u>\$41,880</u>
Estimated City Cost:	\$1,873,725
Estimated Assessable Roadway Project Costs:	\$433,180
Total Estimated Number of Units/Lots:	60
Estimated Assessment per Unit/Lot:	\$7,220

The estimated total City share of the project is estimated to be \$1,873,725 or 81.2% of the total project cost. Assessable project costs total \$433,180 or 18.8% of the total project cost.

CONCLUSIONS AND RECOMMENDATIONS

This Report has studied the feasibility of improving Knollwood Drive as part of the City's ongoing pavement management plan. The report presents three options for Council consideration and to assist with obtaining public input on the project. A summary of each option is as follows:

- Option 1 – 36-foot wide urban roadway (two travel lanes and one parking lane) with 10-foot wide bituminous trail separate from the roadway by a 5-foot boulevard area. Trail would move to the east requiring purchase of additional easement area.
- Option 2 – 28-foot wide urban roadway (two travel lanes, no parking lane) with 10-foot wide bituminous trail separated from the roadway by a 5-foot boulevard area.
- Option 3 – 32-foot wide urban roadway (two travel lanes and parking lane) with 10-foot wide bituminous trail separated from the roadway by a 5-foot boulevard area. Trail would remain in roughly the same location.

Full depth reclamation is the rehabilitation procedure recommended by the current pavement evaluation study. Please note, pavement design recommendations in this Report are preliminary. A pavement coring study should be completed to verify existing pavement and base thickness and to classify supporting base material. This information is necessary to properly design the pavement section to meet the desired 10-ton design strength.

Estimated project costs vary between \$2,236,995 and \$2,578,730 depending on the selected Option and assessments vary between \$7,155 and \$7,491. City costs vary between \$1,805,320 and \$2,129,270 or 80.7% to 82.6% of the total project cost. This may be an issue for bonding which usually requires a minimum of 20% of the project cost to be assessed.

In conclusion, we feel the proposed improvements associated with Options 1 through 3 as considered in this Report are feasible and we do not foresee any major problems other than normal inconveniences associated with construction such as noise and traffic disturbance. These situations would be temporary in nature and we would anticipate the construction would last approximately 3 months depending on the contractor, weather, and other factors.

We recommend the City proceed as follows:

1. Review Report with Utilities Commission and City Council.
2. Approve Feasibility Report and schedule a public informational meeting.
3. Share project information with affected property owners and the public through the City's website, mailings, and other forms of public outreach.
4. Obtain public input and modify the Report as necessary.
5. Approve the Final Feasibility Report and order the Improvement Hearing.
6. Review selected Option with Utilities Commission.
7. Conduct Improvement Hearing.
8. Prepare plans and specifications based on selected Option.
9. Review and approve the plans and specifications and authorize advertisement for bids.
10. Review bids and update project costs and assessments.
11. If costs are favorable, award the construction contract and begin construction.
12. Prepare final costs and assessments and schedule the Assessment Hearing.
13. Conduct Assessment Hearing and adopt assessment rolls.
14. Construction of the project.

APPENDICES

Figures 2 – 4 Existing Conditions

Figures 5 – 7 Proposed Improvements – Option 1

Figures 8 – 10 Proposed Improvements – Option 2

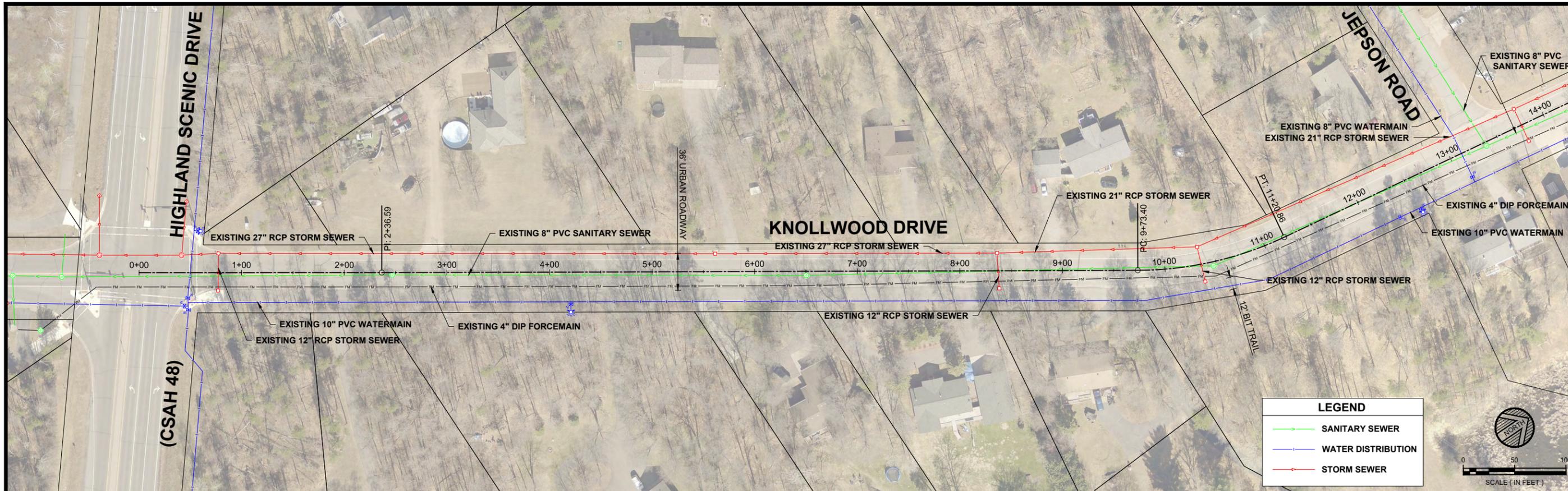
Figures 11 – 13 Proposed Improvements – Option 3

Figures 14 – 15 Typical Sections

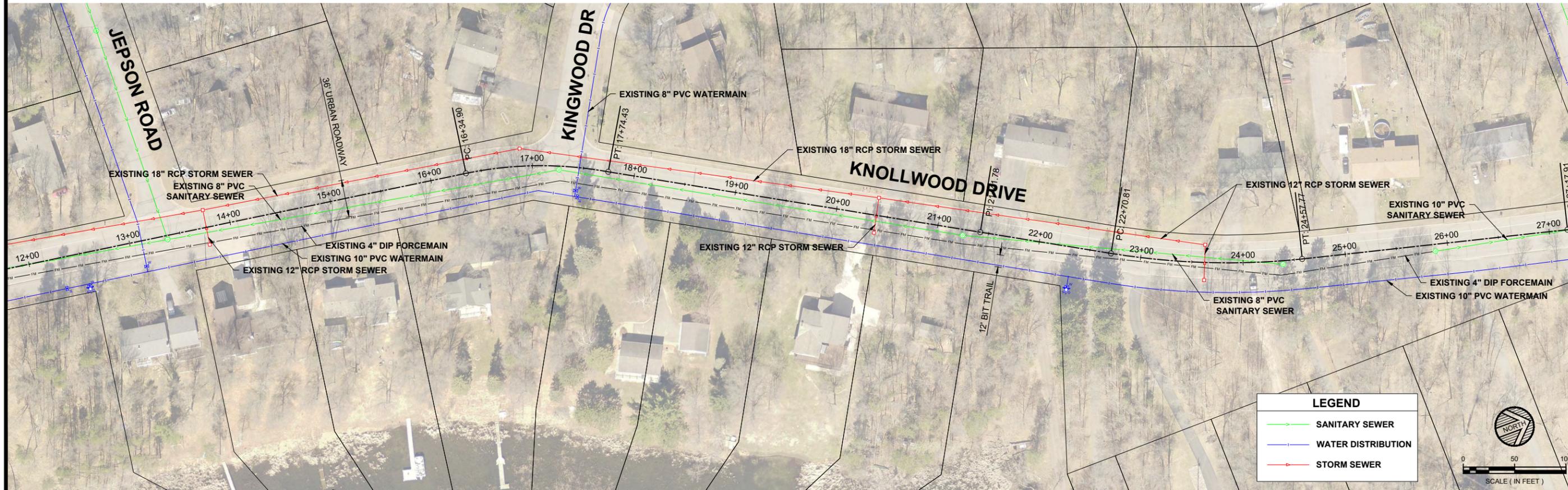
Engineer's Estimate and Assessment Calculations

Figure 16 Assessment Exhibit

Project Schedule



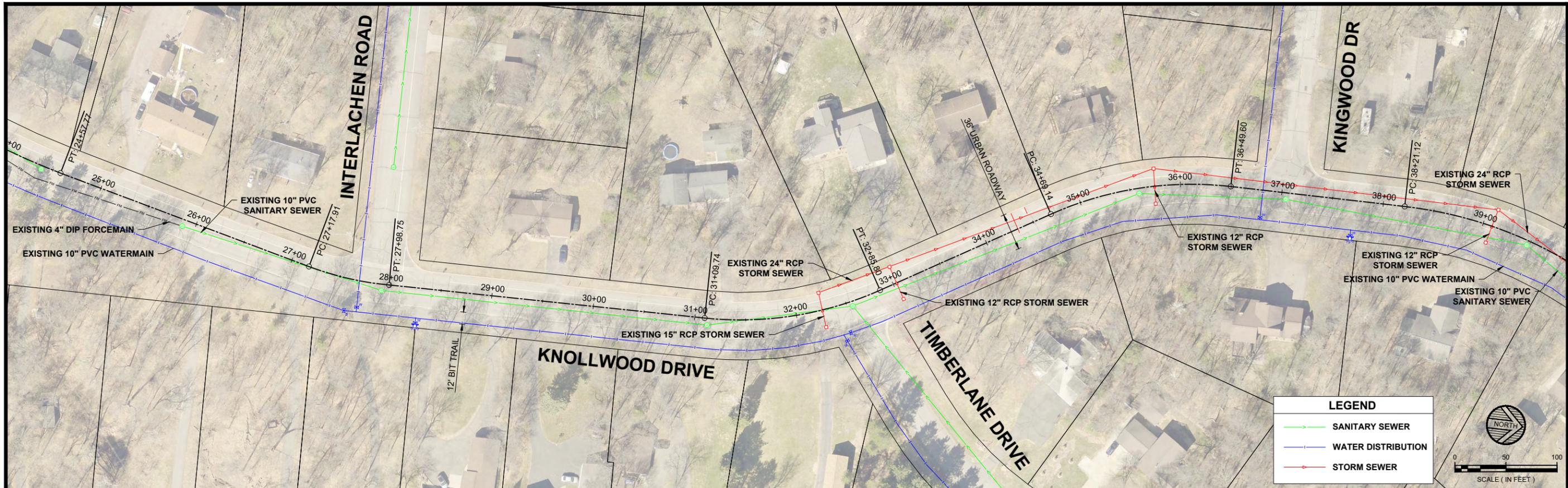
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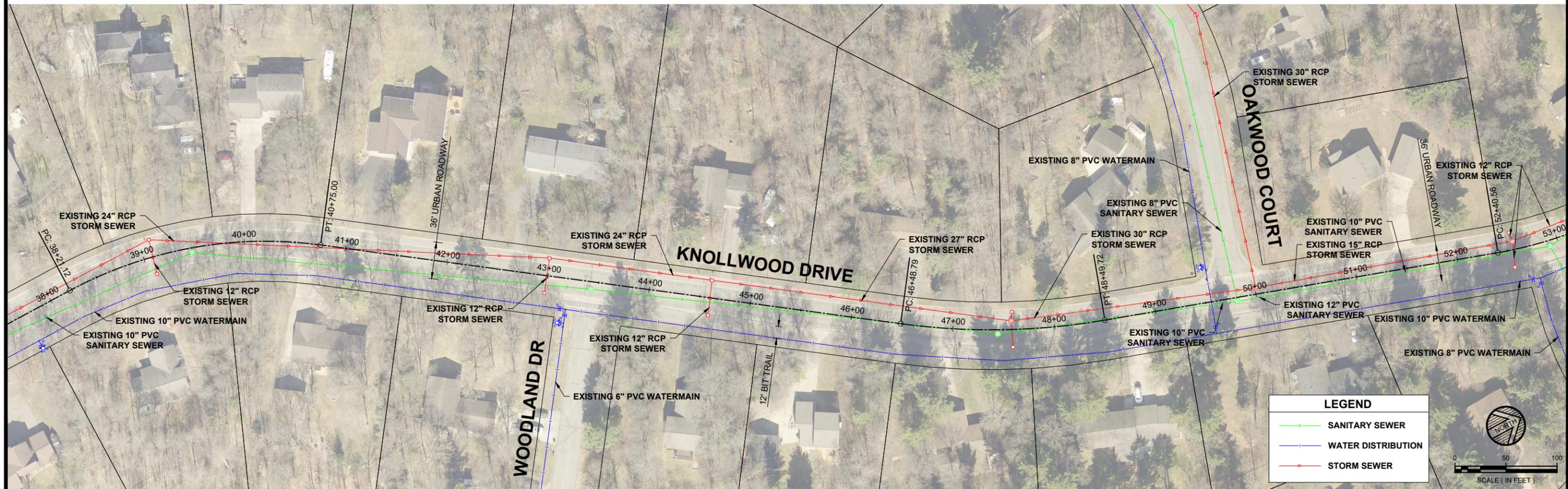
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KNOLLWOOD DRIVE STA 26+00 - 39+00

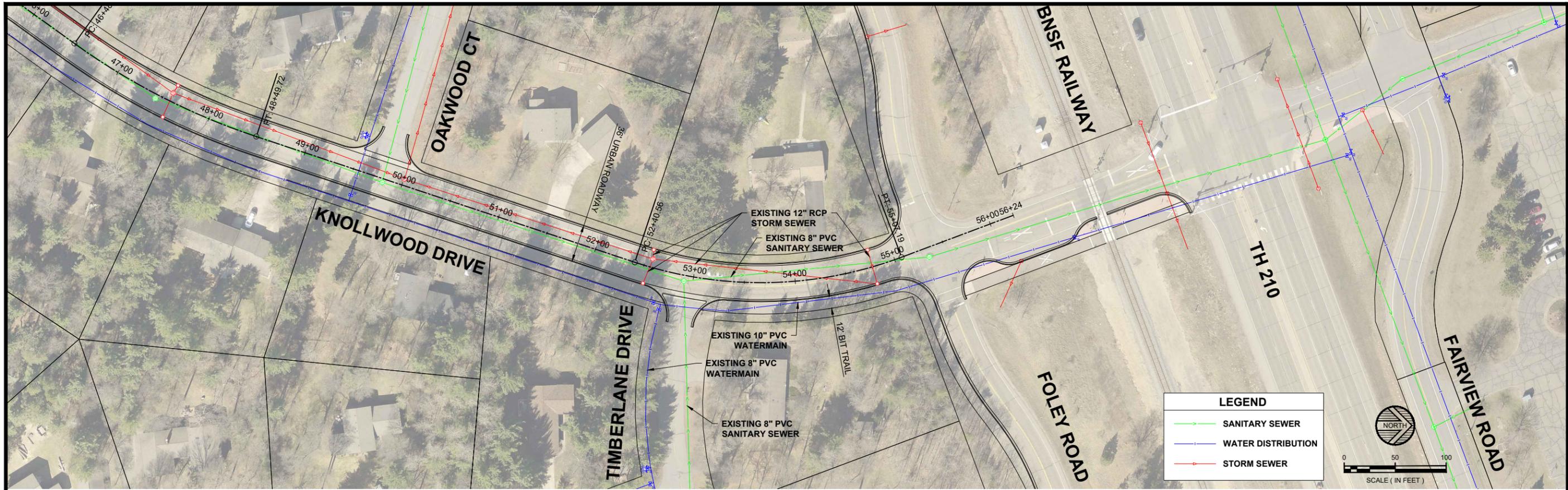


KNOLLWOOD DRIVE STA 39+00 - 52+00

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2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
CITY OF BAXTER
BAXTER, MINNESOTA
FIGURE 3 - EXISTING CONDITIONS



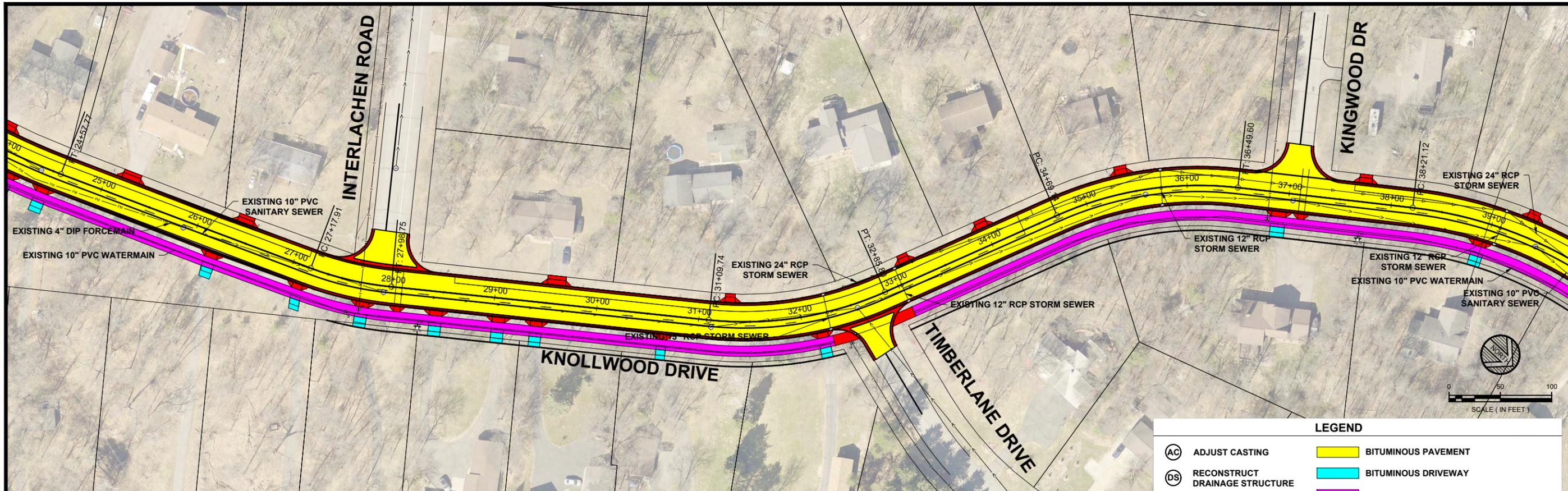
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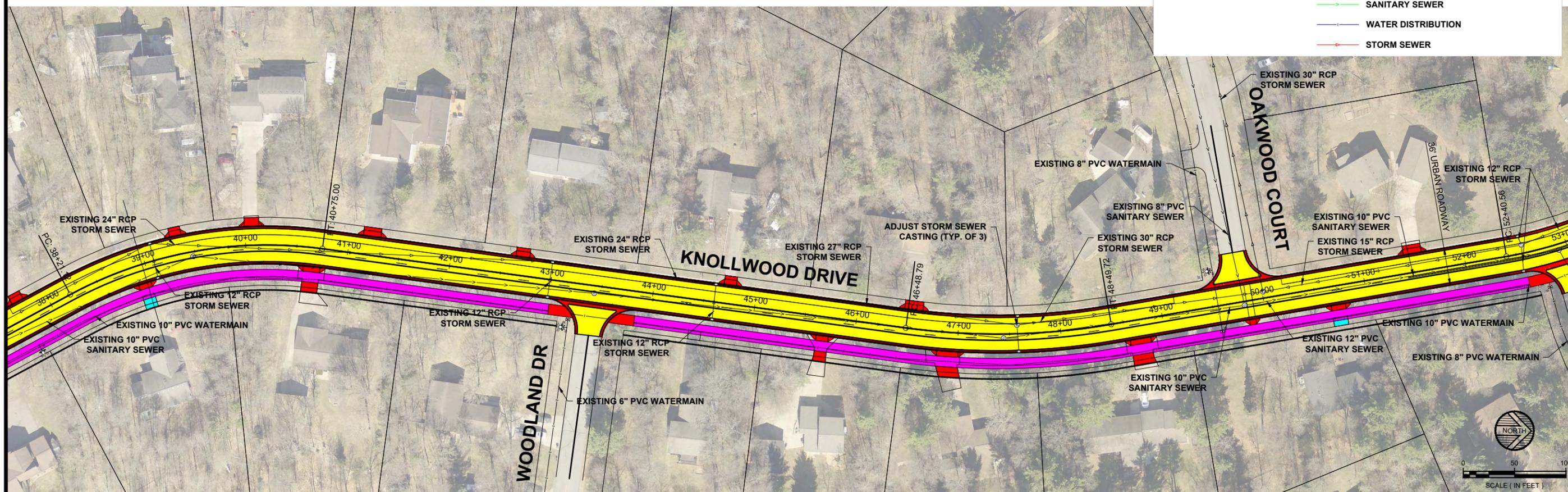
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2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
CITY OF BAXTER
BAXTER, MINNESOTA
FIGURE 4 - EXISTING CONDITIONS



KNOLLWOOD DRIVE STA 26+00 - 39+00

LEGEND			
(AC)	ADJUST CASTING	[Yellow Box]	BITUMINOUS PAVEMENT
(DS)	RECONSTRUCT DRAINAGE STRUCTURE	[Cyan Box]	BITUMINOUS DRIVEWAY
(GV)	REMOVE & REPLACE GATE VALVE BOX TOP	[Magenta Box]	TRAIL RECONSTRUCTION
[Red Line]	CONCRETE CURB & GUTTER / PAVEMENT	[Green Line]	SANITARY SEWER
[Blue Line]	WATER DISTRIBUTION	[Red Line]	STORM SEWER



KNOLLWOOD DRIVE STA 39+00 - 52+00

WIDSETH
ARCHITECTS - ENGINEERS - SCIENTISTS - SURVEYORS

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DATE: 2020-11-17
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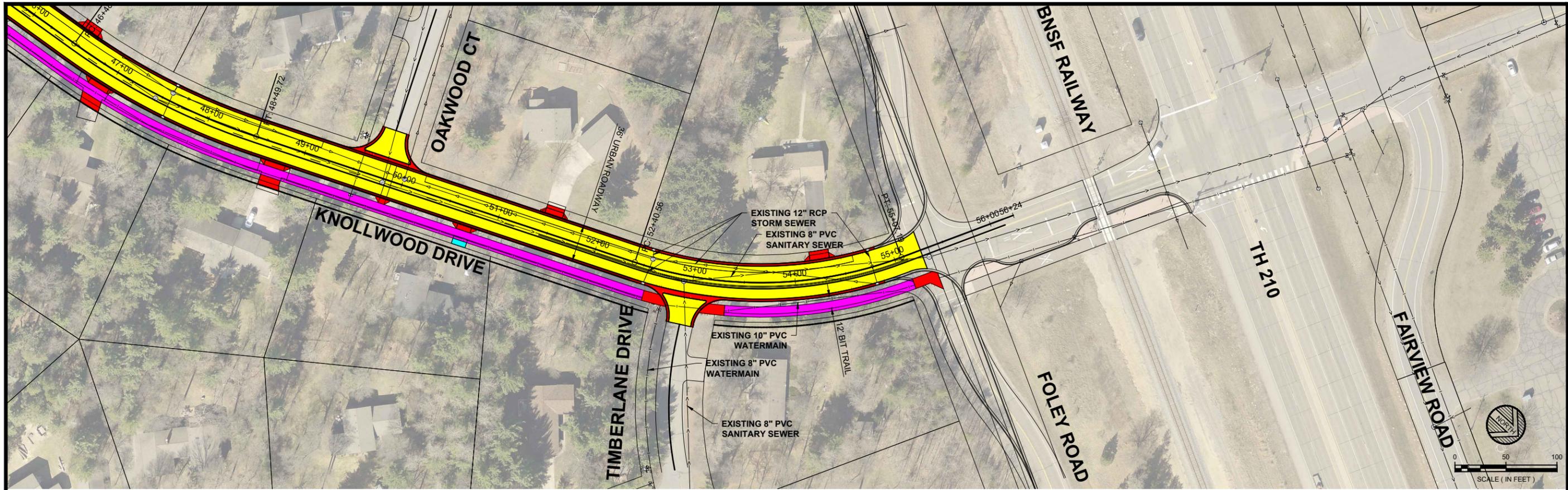
NO.	DATE	REVISION DESCRIPTION

DATE: NOV/2020
SCALE: AS SHOWN
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2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
CITY OF BAXTER
BAXTER, MINNESOTA

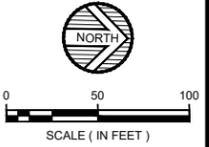
FIG-6
SHEET NO.
FIGURE 6 - PROPOSED OPTION 1

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KNOLLWOOD DRIVE STA 52+00 - END

LEGEND			
(AC)	ADJUST CASTING	[Yellow Box]	BITUMINOUS PAVEMENT
(DS)	RECONSTRUCT DRAINAGE STRUCTURE	[Cyan Box]	BITUMINOUS DRIVEWAY
(GV)	REMOVE & REPLACE GATE VALVE BOX TOP	[Magenta Box]	TRAIL RECONSTRUCTION
		[Red Box]	CONCRETE CURB & GUTTER / PAVEMENT
		[Green Line]	SANITARY SEWER
		[Blue Line]	WATER DISTRIBUTION
		[Red Line]	STORM SEWER



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2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY

CITY OF BAXTER

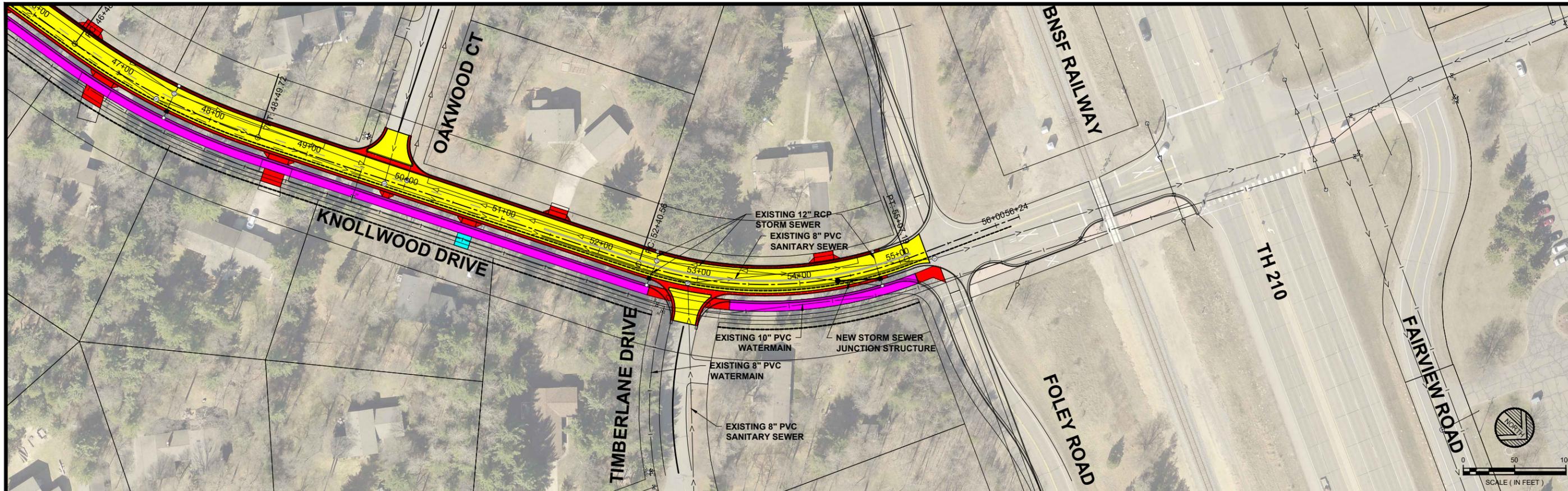
BAXTER, MINNESOTA

FIGURE 7 - PROPOSED OPTION 1

SHEET NO. FIG-7

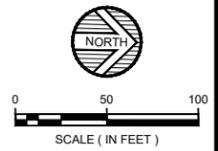
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KNOLLWOOD DRIVE STA 52+00 - END

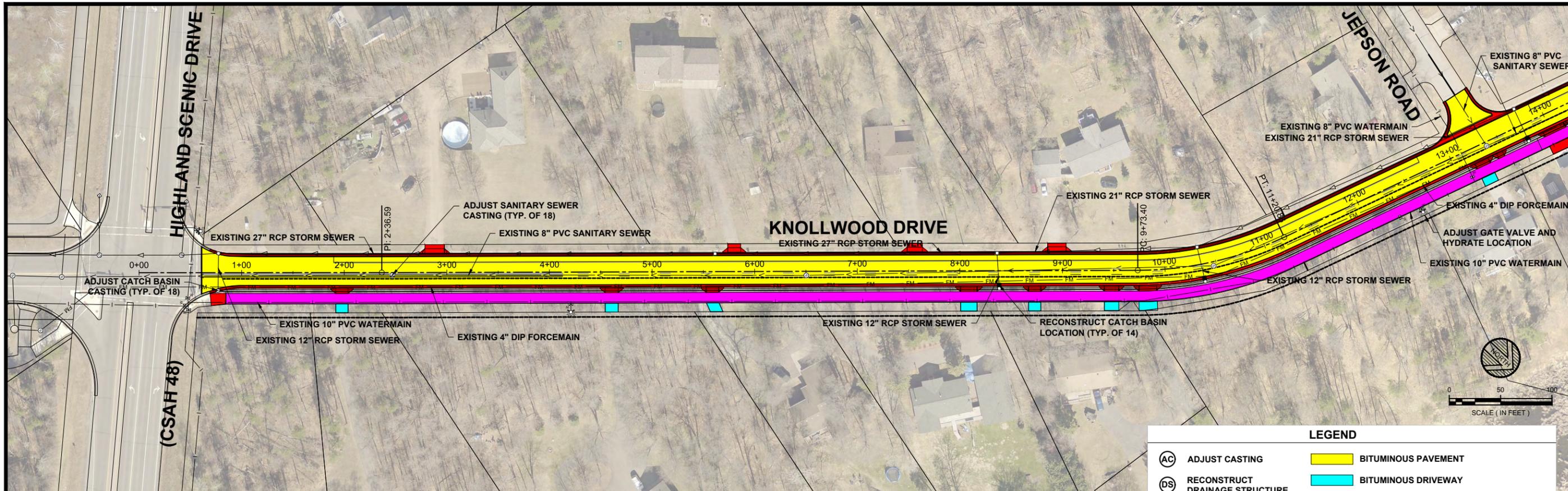
LEGEND	
(AC)	ADJUST CASTING
(DS)	RECONSTRUCT DRAINAGE STRUCTURE
(GV)	REMOVE & REPLACE GATE VALVE BOX TOP
[Yellow Box]	BITUMINOUS PAVEMENT
[Cyan Box]	BITUMINOUS DRIVEWAY
[Magenta Box]	TRAIL RECONSTRUCTION
[Red Box]	CONCRETE CURB & GUTTER / PAVEMENT
[Green Line]	SANITARY SEWER
[Blue Line]	WATER DISTRIBUTION
[Orange Line]	STORM SEWER



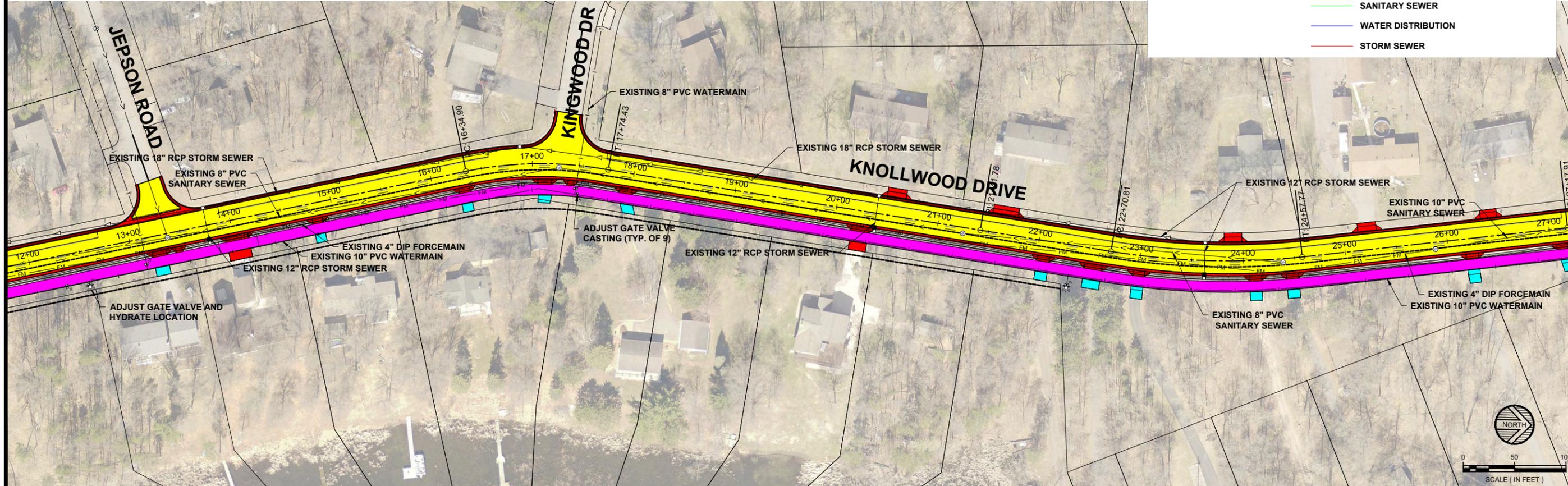
BY: MEMBER, CERTIFIED THAT THIS IS AN ORIGINAL WORK REPORT THAT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
ARIC L. WELCH DATE: --- LIC. NO. 41883

REVISIONS DESCRIPTION	DATE	REV#

DATE: NOV/2020
SCALE: AS SHOWN
DRAWN BY: ADB
CHECKED BY: ALW
JOB NUMBER: 2020-11417



KNOLLWOOD DRIVE START - 13+00



KNOLLWOOD DRIVE STA 13+00 - 23+00

LEGEND			
(AC)	ADJUST CASTING		BITUMINOUS PAVEMENT
(DS)	RECONSTRUCT DRAINAGE STRUCTURE		BITUMINOUS DRIVEWAY
(GV)	REMOVE & REPLACE GATE VALVE BOX TOP		TRAIL RECONSTRUCTION
			CONCRETE CURB & GUTTER / PAVEMENT
			SANITARY SEWER
			WATER DISTRIBUTION
			STORM SEWER

WIDSETH

ARCHITECTS - ENGINEERS - SCIENTISTS - SURVEYORS

LIC. NO. 41883

DATE: ---

ARIC L. WELCH

BY: _____

REVISIONS DESCRIPTION

DATE

REV#

DATE

NOV/2020

AS SHOWN

DRAWN BY: ADB

CHECKED BY: ALW

JOB NUMBER: 2020-11417

2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY

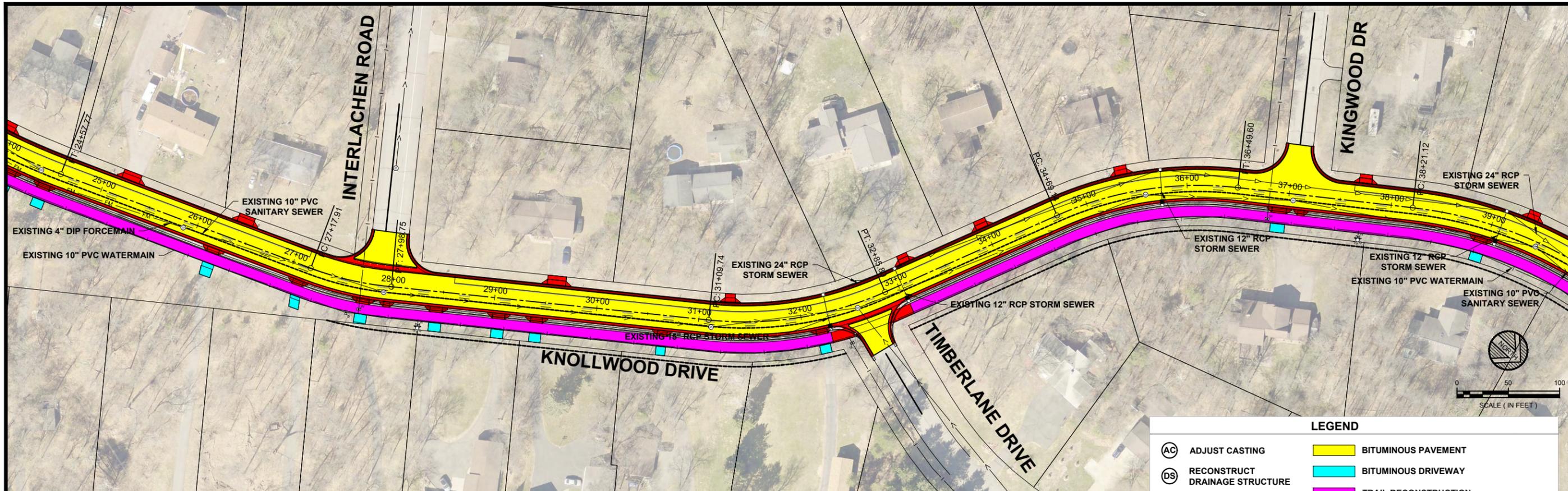
CITY OF BAXTER

BAXTER, MINNESOTA

FIGURE 11 - PROPOSED OPTION 3

SHEET NO.

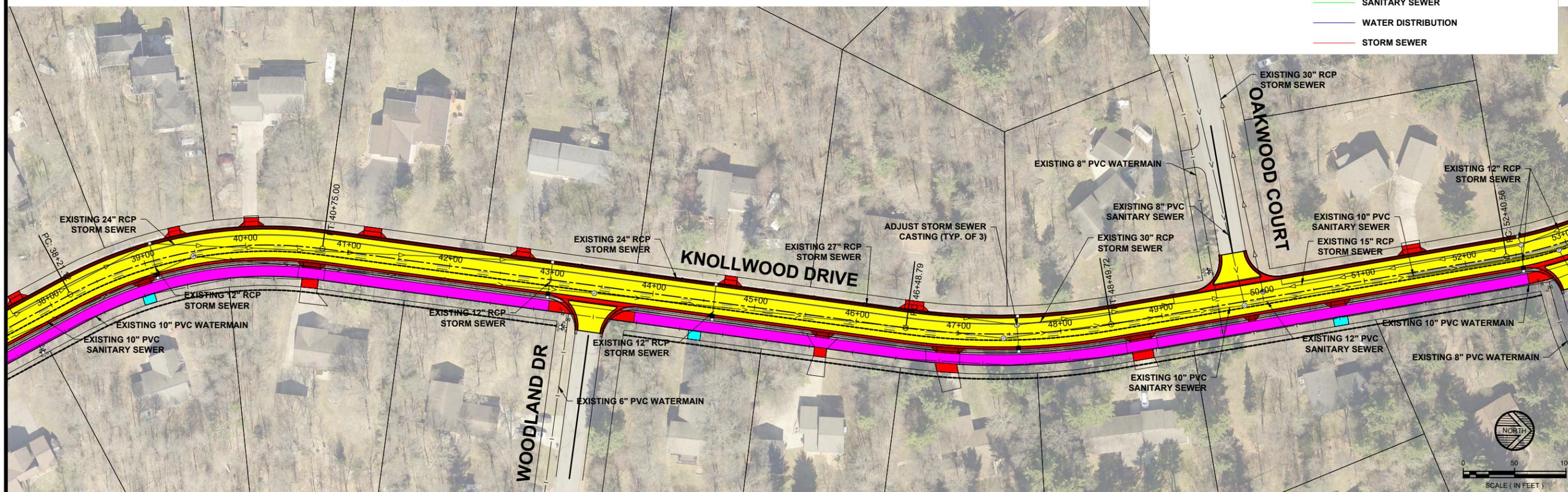
FIG-11



KNOLLWOOD DRIVE STA 26+00 - 39+00

LEGEND

(AC) ADJUST CASTING	BITUMINOUS PAVEMENT
(DS) RECONSTRUCT DRAINAGE STRUCTURE	BITUMINOUS DRIVEWAY
(GV) REMOVE & REPLACE GATE VALVE BOX TOP	TRAIL RECONSTRUCTION
	CONCRETE CURB & GUTTER / PAVEMENT
	SANITARY SEWER
	WATER DISTRIBUTION
	STORM SEWER



KNOLLWOOD DRIVE STA 39+00 - 52+00

WIDSETH
ARCHITECTS - ENGINEERS - SCIENTISTS - SURVEYORS

MEMBER COUNTY THAT THIS PLAN, SPECIFICATIONS, 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.

DATE: 2020-11-17
LIC. NO. 41883
ARIC L. WELCH

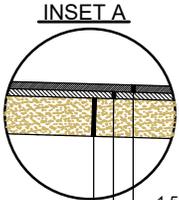
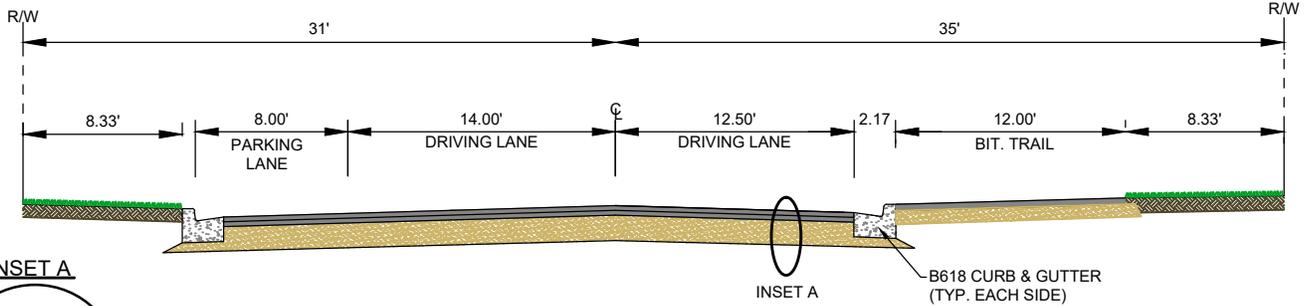
NO.	DATE	REVISION DESCRIPTION

DATE: NOV 2020
AS SHOWN
SCALE: DRAWN BY: ADB
CHECKED BY: ALW
JOB NUMBER: 2020-11417

2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
CITY OF BAXTER
BAXTER, MINNESOTA
FIGURE 12 - PROPOSED OPTION 3

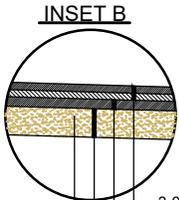
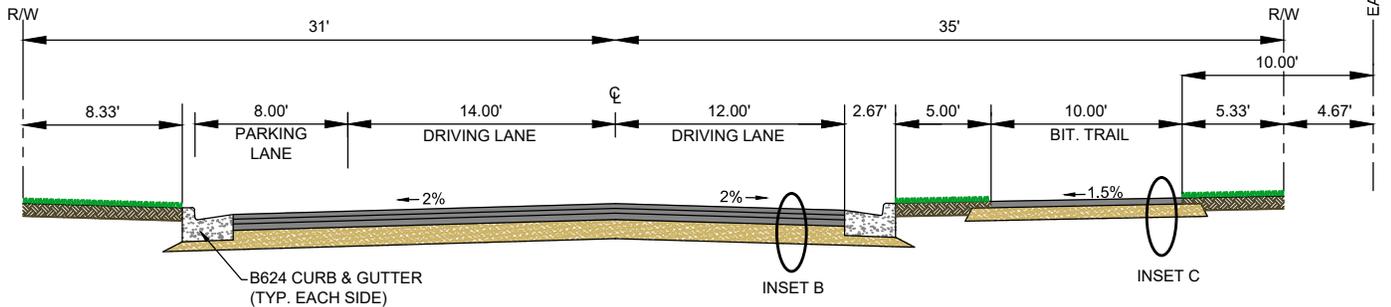
SHEET NO. **FIG-12**

lwsn-mn.lc\lifer\Projects\City of Baxter-3223\2020-11417\CADD\Civil\CX-RPT-3\2020-11417.dwg Plotted by: Alex Bitter 4/19/2021 10:20:38 AM © 2021 WIDSETH

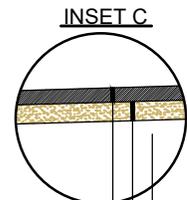


- 1.5" WEARING COURSE
- 2.0" NON-WEARING COURSE
- 5" AGGREGATE BASE CLASS 5

**EXISTING ROADWAY SECTION
KNOLLWOOD DRIVE**



- 3.0" TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) (SPWEA340C) PLACED IN TWO LIFTS
- 2.0" TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,B) (SPNWB330B)
- 6" AGGREGATE BASE CLASS 5 (CV)
- BACKFILL WITH MATERIALS MEETING THE REQUIREMENTS OF SELECT GRANULAR BORROW

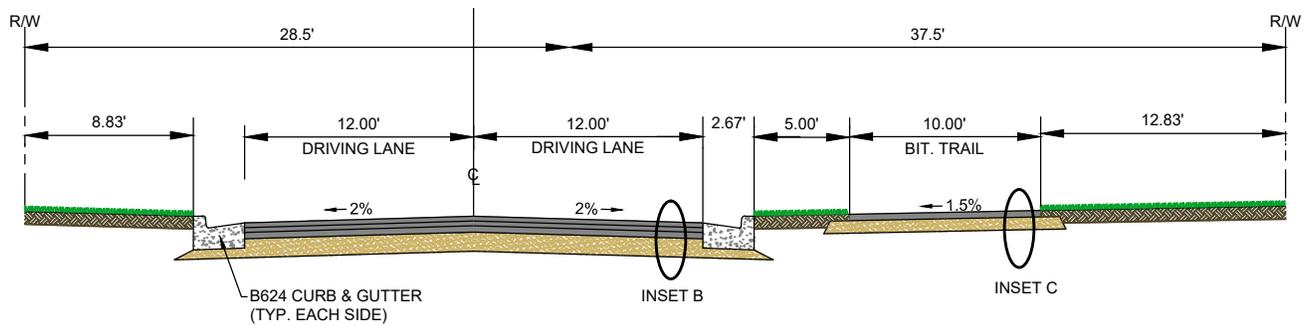


- 3.0" BITUMINOUS WALK TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) (SPWEA240C) PLACED IN TWO LIFTS (PAID FOR AS 3" BITUMINOUS WALK, SQ. FT.)
- 4" AGGREGATE BASE CLASS 5 (CV)
- BACKFILL WITH MATERIALS MEETING THE REQUIREMENTS OF SELECT GRANULAR BORROW

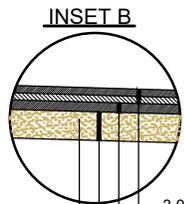
**ROADWAY SECTION - OPTION 1
KNOLLWOOD DRIVE**

DATE	REV	REVISIONS DESCRIPTION	BY

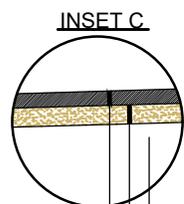
DATE:	SEPT. 2020
SCALE:	AS SHOWN
DRAWN BY:	ADB
CHECKED BY:	ALW
JOB NUMBER:	2020-11412



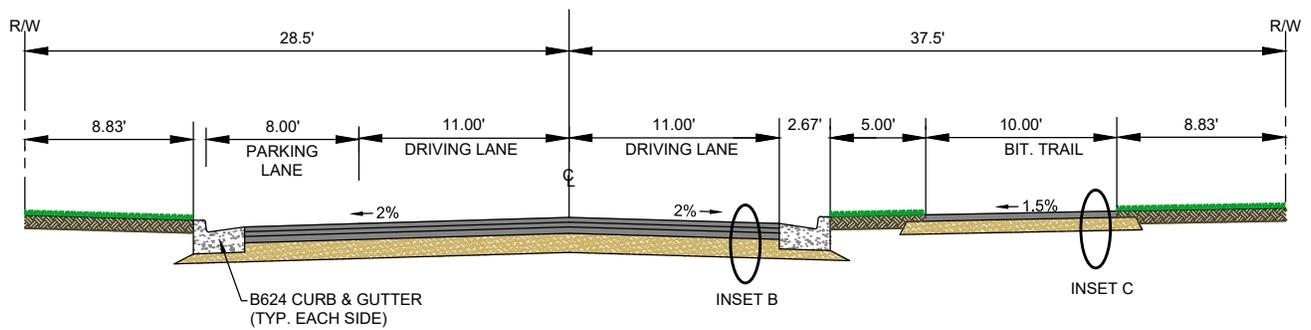
**ROADWAY SECTION - OPTION 2
KNOLLWOOD DRIVE**



- 3.0" TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) (SPWEA340C) PLACED IN TWO LIFTS
- 2.0" TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,B) (SPNWB330B)
- 6" AGGREGATE BASE CLASS 5 (CV)
- BACKFILL WITH MATERIALS MEETING THE REQUIREMENTS OF SELECT GRANULAR BORROW



- 3.0" BITUMINOUS WALK TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) (SPWEA240C) PLACED IN TWO LIFTS (PAID FOR AS 3" BITUMINOUS WALK, SQ. FT.)
- 4" AGGREGATE BASE CLASS 5 (CV)
- BACKFILL WITH MATERIALS MEETING THE REQUIREMENTS OF SELECT GRANULAR BORROW



**ROADWAY SECTION - OPTION 3
KNOLLWOOD DRIVE**

DATE	REV	REVISIONS DESCRIPTION	BY

**2023 KNOLLWOD DRIVE IMPROVEMENTS
ENGINEER'S ESTIMATE AND ASSESSMENT CALCULATIONS
BAXTER, MN
JULY, 2021**

FEASIBILITY REPORT - OPTION 1

ITEM NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	ASSESSABLE ROADWAY		CITY ROADWAY		TRAIL		STORM SEWER		SANITARY SEWER		WATER		TOTAL PROJECT	
					ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST
1	2021.501	MOBILIZATION	LUMP SUM	\$70,000.00	0.36	\$25,200.00	0.36	\$25,200.00	0.23	\$16,100.00	0.03	\$2,100.00	0.01	\$700.00	0.01	\$700.00	1	\$70,000.00
2	2101.505	CLEARING	ACRE	\$4,000.00		\$0.00		\$0.00	1	\$4,000.00		\$0.00		\$0.00		\$0.00	1	\$4,000.00
3	2101.505	GRUBBING	ACRE	\$4,000.00		\$0.00		\$0.00	1	\$4,000.00		\$0.00		\$0.00		\$0.00	1	\$4,000.00
3	2101.524	CLEARING	TREE	\$200.00		\$0.00		\$0.00	20	\$4,000.00		\$0.00		\$0.00		\$0.00	20	\$4,000.00
4	2101.524	GRUBBING	TREE	\$200.00		\$0.00		\$0.00	20	\$4,000.00		\$0.00		\$0.00		\$0.00	20	\$4,000.00
4	2104.502	REMOVE CASTING (SANITARY)	EACH	\$225.00	18	\$4,050.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	18	\$4,050.00
5	2104.502	REMOVE CATCH BASIN GRATE CASTING	EACH	\$225.00		\$0.00		\$0.00		\$0.00	35	\$7,875.00		\$0.00		\$0.00	35	\$7,875.00
5	2104.502	REMOVE CURB STOP AND BOX	EACH	\$500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
6	2104.502	REMOVE DRAINAGE STRUCTURE	EACH	\$500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
6	2104.502	REMOVE SIGN TYPE C	EACH	\$30.00		\$1,080.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	36	\$1,080.00
7	2104.502	SALVAGE SIGN	EACH	\$40.00	17	\$680.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	17	\$680.00
7	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	\$7.50	200	\$1,500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	200	\$1,500.00
8	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH) ROADWAY	LIN FT	\$4.50	975	\$4,387.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	975	\$4,387.50
8	2104.503	REMOVE CURB AND GUTTER	LIN FT	\$4.50		\$0.00	10950	\$49,275.00		\$0.00		\$0.00		\$0.00		\$0.00	10950	\$49,275.00
9	2104.504	REMOVE CONCRETE PAVEMENT	SQ YD	\$7.50	645	\$4,837.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	645	\$4,837.50
9	2104.504	REMOVE BITUMINOUS PAVEMENT (DRIVEWAY)	SQ YD	\$5.00	630	\$3,150.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	630	\$3,150.00
10	2104.602	SALVAGE SIGN SPECIAL (911)	EACH	\$20.00	55	\$1,100.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	55	\$1,100.00
10	2104.602	RELOCATE SPRINKLER SYSTEM	EACH	\$525.00	10	\$5,250.00	10	\$5,250.00	15	\$7,875.00		\$0.00		\$0.00		\$0.00	35	\$18,375.00
11	2105.507	COMMON EXCAVATION	CU YD	\$14.00	2280	\$31,920.00	570	\$7,980.00	2460	\$34,440.00		\$0.00		\$0.00		\$0.00	5310	\$74,340.00
11	2123.510	COMMON LABORERS	OUR	\$80.00	10	\$800.00	10	\$800.00	10	\$800.00	5	\$400.00	5	\$400.00	5	\$400.00	45	\$3,600.00
12	2123.610	SKID LOADER	OUR	\$125.00	10	\$1,250.00	10	\$1,250.00	10	\$1,250.00	5	\$625.00	5	\$625.00	5	\$625.00	45	\$5,625.00
12	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	OUR	\$120.00	5	\$600.00	5	\$600.00	2	\$240.00		\$0.00		\$0.00		\$0.00	12	\$1,440.00
13	2211.507	AGGREGATE BASE (CV), CLASS 5	CU YD	\$27.00	3016	\$81,432.00	754	\$20,358.00		\$0.00		\$0.00		\$0.00		\$0.00	3770	\$101,790.00
13	2215.504	FULL DEPTH RECLAMATION	SQ YD	\$2.25	18064	\$40,644.00	4516	\$10,161.00	7080	\$15,930.00		\$0.00		\$0.00		\$0.00	29660	\$66,735.00
14	2302.604	BITUMINOUS DRIVEWAY REPLACEMENT	SQ YD	\$24.00	400	\$9,600.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	400	\$9,600.00
14	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3.C)	TON	\$75.00	1557	\$116,775.00	2338	\$175,350.00		\$0.00		\$0.00		\$0.00		\$0.00	3895	\$292,125.00
15	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3.B)	TON	\$75.00	2080	\$156,000.00	520	\$39,000.00		\$0.00		\$0.00		\$0.00		\$0.00	2600	\$195,000.00
15	2503.607	GROUT EXISTING DRAINAGE STRUCTURE	CU YD	\$260.00		\$0.00		\$0.00		\$0.00	5	\$1,300.00		\$0.00		\$0.00	5	\$1,300.00
16	2503.607	GROUT EXISTING SANITARY SEWER MANHOLE	CU YD	\$1,200.00		\$0.00		\$0.00		\$0.00		\$0.00	5	\$6,000.00		\$0.00	5	\$6,000.00
16	2504.601	HYDRANT REARRANGEMENT	LUMP SUM	\$12,500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	1	\$12,500.00	1	\$12,500.00
17	2504.602	ADJUST VALVE BOX	EACH	\$200.00	18	\$3,600.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	18	\$3,600.00
17	2504.602	ADJUST CURB STOP/SANITARY SEWER CLEANOUT	EACH	\$150.00		\$0.00		\$0.00		\$0.00		\$0.00	15	\$2,250.00	15	\$2,250.00	30	\$4,500.00
18	2504.610	MISC UTILITY REPAIRS	OUR	\$1,200.00		\$0.00		\$0.00		\$0.00		\$0.00	10	\$12,000.00	10	\$12,000.00	20	\$24,000.00
18	2506.602	RECONSTRUCT DRAINAGE STRUCTURE	EACH	\$1,200.00		\$0.00		\$0.00		\$0.00	35	\$42,000.00		\$0.00		\$0.00	35	\$42,000.00
19	2545.602	RELOCATE LIGHT POLE	EACH	\$1,250.00		\$0.00	8	\$10,000.00		\$0.00		\$0.00		\$0.00		\$0.00	8	\$10,000.00
19	2545.602	FURNISH AND INSTALL LUMINAIRE - TYPE A	EACH	\$450.00		\$0.00	8	\$3,600.00		\$0.00		\$0.00		\$0.00		\$0.00	8	\$3,600.00
20	2506.602	CASTING ASSEMBLY (700-7 - SANITARY)	EACH	\$525.00	5	\$2,625.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	5	\$2,625.00
20	2506.602	ADJUST FRAME AND RING CASTING (SANITARY)	EACH	\$450.00	18	\$8,100.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	18	\$8,100.00
21	2521.518	6" CONCRETE WALK	SQ FT	\$11.00		\$0.00		\$0.00	2020	\$22,220.00		\$0.00		\$0.00		\$0.00	2020	\$22,220.00
21	2521.518	3" BITUMINOUS WALK	SQ FT	\$3.50		\$0.00		\$0.00	52050	\$182,175.00		\$0.00		\$0.00		\$0.00	52050	\$182,175.00
22	2531.501	CONCRETE CURB AND GUTTER DESIGN B624	LIN FT	\$18.00		\$0.00	11000	\$198,000.00		\$0.00		\$0.00		\$0.00		\$0.00	11000	\$198,000.00
22	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	\$80.00	950	\$76,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	950	\$76,000.00
23	2531.604	8" CONCRETE VALLEY GUTTER	SQ YD	\$80.00		\$0.00	110	\$8,800.00		\$0.00		\$0.00		\$0.00		\$0.00	110	\$8,800.00
23	2531.618	TRUNCATED DOMES	SQ FT	\$50.00		\$0.00		\$0.00	100	\$5,000.00		\$0.00		\$0.00		\$0.00	100	\$5,000.00
24	2540.602	MAIL BOX SUPPORT	EACH	\$95.00	55	\$5,225.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	55	\$5,225.00
24	2563.601	TRAFFIC CONTROL	LUMP SUM	\$5,500.00	0.36	\$1,980.00	0.36	\$1,980.00	0.23	\$1,265.00	0.03	\$165.00	0.01	\$55.00	0.01	\$55.00	1	\$5,500.00
25	2563.602	DYNAMIC SPEED DISPLAY SIGN	EACH	\$7,500.00		\$0.00		\$15,000.00		\$0.00		\$0.00		\$0.00		\$0.00	2	\$15,000.00
25	2564.518	SIGN PANELS TYPE C	SQ FT	\$50.00	66.5	\$3,325.00	66.5	\$3,325.00	142	\$7,100.00		\$0.00		\$0.00		\$0.00	275	\$13,750.00
26	2564.602	INSTALL SIGN TYPE SPECIAL (911)	EACH	\$20.00	55	\$1,100.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	55	\$1,100.00
26	2571.524	CONIFEROUS TREE 6" HT B&B	TREE	\$795.00		\$0.00		\$0.00	20	\$15,900.00		\$0.00		\$0.00		\$0.00	20	\$15,900.00
27	2571.524	DECIDUOUS TREE 2.5" CAL B&B	TREE	\$795.00		\$0.00		\$0.00	20	\$15,900.00		\$0.00		\$0.00		\$0.00	20	\$15,900.00
27	2573.502	STORM DRAIN INLET PROTECTION	EACH	\$150.00		\$0.00	35	\$5,250.00		\$0.00		\$0.00		\$0.00		\$0.00	35	\$5,250.00
28	2575.504	SOD, TYPE LAWN	SQ YD	\$7.50	3075	\$23,062.50	3075	\$23,062.50	6150	\$46,125.00		\$0.00		\$0.00		\$0.00	12300	\$92,250.00
28	2574.507	SCREENED TOPSOIL BORROW (LV)	CU YD	\$35.00	260	\$9,100.00	260	\$9,100.00	510	\$17,850.00		\$0.00		\$0.00		\$0.00	1030	\$36,050.00
29	2574.508	FERTILIZER TYPE 3	POUND	\$1.00	190	\$190.00	190	\$190.00	375	\$375.00		\$0.00		\$0.00		\$0.00	755	\$755.00
29	2582.503	4" SOLID LINE PAINT	LIN FT	\$0.35		\$0.00	4915	\$1,720.25		\$0.00		\$0.00		\$0.00		\$0.00	4915	\$1,720.25
30	2582.503	4" BROKEN LINE PAINT	LIN FT	\$0.35	1170	\$409.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	1170	\$409.50
30	2582.503	4" DOUBLE SOLID LINE PAINT	LIN FT	\$0.50	725	\$362.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	725	\$362.50
ESTIMATED CONSTRUCTION COST:				\$1,752,157.25	35.69%	\$625,335.50	35.11%	\$615,251.75	23.20%	\$406,545.00	3.11%	\$54,465.00	1.26%	\$22,030.00	1.63%	\$28,530.00	100.00%	\$1,752,157.25
CONTINGENCIES (15%):				\$262,823.59		\$93,800.33		\$92,287.76		\$60,981.75		\$8,169.75		\$3,304.50		\$4,279.50		\$262,823.59
SUBTOTAL:				\$2,014,980.84		\$719,135.83		\$707,539.51		\$467,526.75		\$62,634.75		\$25,334.50		\$32,809.50		\$2,014,980.84
ENGINEERING, LEGAL, FINANCE, ADMIN AND OTHER COSTS (25%):				\$503,745.21		\$179,783.96		\$176,884.88		\$116,881.69		\$15,658.69		\$6,333.63		\$8,202.38		\$503,745.21
PROPERTY ACQUISITION:				\$60,000.00						\$60,000.00								\$60,000.00
ESTIMATED TOTAL PROJECT COST:				\$2,578,726.05		\$898,919.78		\$884,424.39		\$644,408.44		\$78,293.44		\$31,668.13		\$41,011.88		\$2,578,726.05

ASSESSMENT CALCULATIONS

ESTIMATED ASSESSABLE PROJECT COST (50% BECAUSE OF EXCESS SIDE LOT FRONTAGE)	\$449,459.89
ESTIMATED ERU'S:	60
ESTIMATED ERU ASSESSMENT:	\$7,491.00

ESTIMATED PROJECT COST SUMMARY

ESTIMATED TOTAL PROJECT COST: \$2,578,726.05

ESTIMATED ASSESSABLE PROJECT COSTS: 17.4% \$449,459.89

CITY COST SUMMARY

50% OF ASSESSABLE ROADWAY COSTS:	\$449,459.89
CITY ROADWAY:	\$884,424.39
TRAIL:	\$644,408.44
STORM SEWER:	\$78,293.44
SANITARY SEWER:	\$31,668.13
WATER:	\$41,011.88
TOTAL ESTIMATED CITY COST:	82.6% \$2,129,266.16

**2023 KNOLLWOD DRIVE IMPROVEMENTS
ENGINEER'S ESTIMATE AND ASSESSMENT CALCULATIONS
BAXTER, MN
JULY, 2021**

FEASIBILITY REPORT - OPTION 2

ITEM NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	ASSESSABLE ROADWAY		CITY ROADWAY		TRAIL		STORM SEWER		SANITARY SEWER		WATER		TOTAL PROJECT	
					ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST
1	2021.501	MOBILIZATION	LUMP SUM	\$60,000.00	0.38	\$22,800.00	0.31	\$18,600.00	0.23	\$13,800.00	0.04	\$2,400.00	0.02	\$1,200.00	0.02	\$1,200.00	1	\$60,000.00
2	2101.505	CLEARING	ACRE	\$4,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
3	2101.505	GRUBBING	ACRE	\$4,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
3	2101.524	CLEARING	TREE	\$200.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
4	2101.524	GRUBBING	TREE	\$200.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
4	2104.502	REMOVE CASTING (SANITARY)	EACH	\$225.00	18	\$4,050.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	18	\$4,050.00
5	2104.502	REMOVE CATCH BASIN GRATE CASTING	EACH	\$225.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	17	\$3,825.00
5	2104.502	REMOVE CURB STOP AND BOX	EACH	\$500.00		\$0.00		\$0.00		\$0.00	17	\$3,825.00		\$0.00		\$0.00	0	\$0.00
6	2104.502	REMOVE DRAINAGE STRUCTURE	EACH	\$500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	15	\$7,500.00
6	2104.502	REMOVE SIGN TYPE C	EACH	\$30.00	36	\$1,080.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	36	\$1,080.00
7	2104.502	SALVAGE SIGN	EACH	\$40.00	17	\$680.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	17	\$680.00
7	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	\$7.50	200	\$1,500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	200	\$1,500.00
8	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH) ROADWAY	LIN FT	\$4.50	975	\$4,387.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	975	\$4,387.50
8	2104.503	REMOVE CURB AND GUTTER	LIN FT	\$4.50		\$0.00	10950	\$49,275.00		\$0.00		\$0.00		\$0.00		\$0.00	10950	\$49,275.00
9	2104.503	REMOVE STORM SEWER PIPE	LIN FT	\$20.00		\$0.00		\$0.00		\$0.00	148	\$2,960.00		\$0.00		\$0.00	148	\$2,960.00
9	2104.504	REMOVE CONCRETE PAVEMENT	SQ YD	\$7.50	645	\$4,837.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	645	\$4,837.50
10	2104.504	REMOVE BITUMINOUS PAVEMENT (DRIVEWAY)	SQ YD	\$5.00	630	\$3,150.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	630	\$3,150.00
10	2104.602	SALVAGE SIGN SPECIAL (911)	EACH	\$20.00	55	\$1,100.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	55	\$1,100.00
11	2104.602	RELOCATE SPRINKLER SYSTEM	EACH	\$525.00	10	\$5,250.00	10	\$5,250.00	15	\$7,875.00		\$0.00		\$0.00		\$0.00	35	\$18,375.00
11	2105.507	COMMON EXCAVATION	CU YD	\$14.00	2280	\$31,920.00	570	\$7,980.00	2460	\$34,440.00		\$0.00		\$0.00		\$0.00	5310	\$74,340.00
12	2123.510	COMMON LABORERS	HOUR	\$80.00	10	\$800.00	10	\$800.00	10	\$800.00	5	\$400.00	5	\$400.00		\$400.00	45	\$3,600.00
12	2123.610	SKID LOADER	HOUR	\$125.00	10	\$1,250.00	10	\$1,250.00	10	\$1,250.00	5	\$625.00	5	\$625.00		\$625.00	45	\$5,625.00
13	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	\$120.00	5	\$600.00	5	\$600.00	2	\$240.00		\$0.00		\$0.00		\$0.00	12	\$1,440.00
13	2211.507	AGGREGATE BASE (CV), CLASS 5	CU YD	\$27.00	3171	\$85,617.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	3171	\$85,617.00
14	2232.504	FULL DEPTH RECLAMATION	SQ YD	\$2.25	18064	\$40,644.00	4516	\$10,161.00	7080	\$15,930.00		\$0.00		\$0.00		\$0.00	29660	\$66,735.00
14	2302.604	BITUMINOUS DRIVEWAY REPLACEMENT	SQ YD	\$24.00	580	\$13,920.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	580	\$13,920.00
15	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (2.C)	TON	\$75.00	1345	\$100,875.00	1345	\$100,875.00		\$0.00		\$0.00		\$0.00		\$0.00	2690	\$201,750.00
15	2360.509	TYPE SP 12.5 NON-WEARING COURSE (2.C)	TON	\$75.00	1790	\$134,250.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	1790	\$134,250.00
16	2503.503	12" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT	\$82.00		\$0.00		\$0.00		\$0.00	42	\$3,444.00		\$0.00		\$0.00	42	\$3,444.00
16	2503.607	GROUT EXISTING DRAINAGE STRUCTURE	CU YD	\$260.00		\$0.00		\$0.00		\$0.00	5	\$1,300.00		\$0.00		\$0.00	5	\$1,300.00
17	2503.607	GROUT EXISTING SANITARY SEWER MANHOLE	CU YD	\$1,200.00		\$0.00		\$0.00		\$0.00		\$0.00	5	\$6,000.00		\$0.00	5	\$6,000.00
17	2504.601	HYDRANT REARRANGEMENT	LUMP SUM	\$12,500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	1	\$12,500.00	1	\$12,500.00
18	2504.602	ADJUST VALVE BOX	EACH	\$200.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	18	\$3,600.00
18	2504.602	ADJUST CURB STOP/SANITARY SEWER CLEANOUT	EACH	\$150.00		\$0.00		\$0.00		\$0.00		\$0.00	15	\$2,250.00		\$2,250.00	30	\$4,500.00
19	2504.610	MISC UTILITY REPAIRS	HOUR	\$1,200.00		\$0.00		\$0.00		\$0.00		\$0.00	10	\$12,000.00		\$12,000.00	20	\$24,000.00
19	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020	LIN FT	\$585.00		\$0.00		\$0.00		\$0.00	10	\$5,850.00		\$0.00		\$0.00	10	\$5,850.00
20	2506.602	RECONSTRUCT DRAINAGE STRUCTURE	EACH	\$1,200.00		\$0.00		\$0.00		\$0.00	14	\$16,800.00		\$0.00		\$0.00	14	\$16,800.00
20	2506.602	ADJUST DRAINAGE STRUCTURE	EACH	\$750.00		\$0.00		\$0.00		\$0.00	21	\$15,750.00		\$0.00		\$0.00	21	\$15,750.00
21	2545.602	RELOCATE LIGHT POLE	EACH	\$1,250.00		\$0.00	8	\$10,000.00		\$0.00	21	\$15,750.00		\$0.00		\$0.00	8	\$10,000.00
21	2545.602	FURNISH AND INSTALL LUMINAIRE - TYPE A	EACH	\$450.00		\$0.00	8	\$3,600.00		\$0.00		\$0.00		\$0.00		\$0.00	8	\$3,600.00
22	2506.602	CASTING ASSEMBLY (700-7 - SANITARY)	EACH	\$525.00		\$0.00		\$0.00		\$0.00		\$0.00	5	\$2,625.00		\$0.00	5	\$2,625.00
22	2506.602	ADJUST FRAME AND RING CASTING (SANITARY)	EACH	\$450.00	18	\$8,100.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	18	\$8,100.00
23	2521.518	6" CONCRETE WALK	SQ FT	\$11.00		\$0.00		\$0.00	2020	\$22,220.00		\$0.00		\$0.00		\$0.00	2020	\$22,220.00
23	2521.518	3" BITUMINOUS WALK	SQ FT	\$3.50		\$0.00		\$0.00	52050	\$182,175.00		\$0.00		\$0.00		\$0.00	52050	\$182,175.00
24	2531.501	CONCRETE CURB AND GUTTER DESIGN B624	LIN FT	\$18.00		\$0.00	11000	\$198,000.00		\$0.00		\$0.00		\$0.00		\$0.00	11000	\$198,000.00
24	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	\$80.00	950	\$76,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	950	\$76,000.00
25	2531.604	8" CONCRETE VALLEY GUTTER	SQ YD	\$80.00		\$0.00	110	\$8,800.00		\$0.00		\$0.00		\$0.00		\$0.00	110	\$8,800.00
25	2531.618	TRUNCATED DOMES	SQ FT	\$50.00		\$0.00		\$0.00	100	\$5,000.00		\$0.00		\$0.00		\$0.00	100	\$5,000.00
26	2540.602	MAIL BOX SUPPORT	EACH	\$95.00	55	\$5,225.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	55	\$5,225.00
26	2563.601	TRAFFIC CONTROL	LUMP SUM	\$5,500.00	0.38	\$2,090.00	0.31	\$1,705.00	0.23	\$1,265.00	0.04	\$220.00	0.02	\$110.00	0.02	\$110.00	1	\$5,500.00
27	2563.602	DYNAMIC SPEED DISPLAY SIGN	EACH	\$7,500.00		\$0.00	2	\$15,000.00		\$0.00		\$0.00		\$0.00		\$0.00	2	\$15,000.00
27	2564.518	SIGN PANELS TYPE C	SQ FT	\$50.00	66.5	\$3,325.00	66.5	\$3,325.00	142	\$7,100.00		\$0.00		\$0.00		\$0.00	275	\$13,750.00
28	2564.602	INSTALL SIGN TYPE SPECIAL (911)	EACH	\$20.00	55	\$1,100.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	55	\$1,100.00
28	2571.524	CONIFEROUS TREE 6' HT B&B	TREE	\$795.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
29	2571.524	DECIDUOUS TREE 2.5' CAL B&B	TREE	\$795.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
29	2573.502	STORM DRAIN INLET PROTECTION	EACH	\$150.00		\$0.00		\$0.00		\$0.00	35	\$5,250.00		\$0.00		\$0.00	35	\$5,250.00
30	2575.504	SOD, TYPE LAWN	SQ YD	\$7.50	3075	\$23,062.50	3075	\$23,062.50	6150	\$46,125.00		\$0.00		\$0.00		\$0.00	12300	\$92,250.00
30	2574.507	SCREENED TOPSOIL BORROW (LV)	CU YD	\$35.00	525	\$18,375.00	525	\$18,375.00	510	\$17,850.00		\$0.00		\$0.00		\$0.00	1560	\$54,600.00
31	2574.508	FERTILIZER TYPE 3	POUND	\$1.00	225	\$225.00	225	\$225.00	375	\$375.00		\$0.00		\$0.00		\$0.00	825	\$825.00
31	2582.503	4" SOLID LINE PAINT	LIN FT	\$0.35		\$0.00	4675	\$1,636.25		\$0.00		\$0.00		\$0.00		\$0.00	4675	\$1,636.25
32	2582.503	4" BROKEN LINE PAINT	LIN FT	\$0.35	1170	\$409.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	1170	\$409.50
32	2582.503	4" DOUBLE SOLID LINE PAINT	LIN FT	\$0.50	725	\$362.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	725	\$362.50
ESTIMATED CONSTRUCTION COST:				\$1,556,169.25	38.59%	\$600,585.50	30.75%	\$478,519.75	22.91%	\$356,445.00	4.26%	\$66,324.00	1.62%	\$25,210.00	1.87%	\$29,085.00	100.00%	\$1,556,169.25
CONTINGENCIES (15%):				\$233,425.39		\$90,087.83		\$71,777.96		\$53,466.75		\$9,948.60		\$3,781.50		\$4,362.75		\$233,425.39
SUBTOTAL:				\$1,789,594.64		\$690,673.33		\$550,297.71		\$409,911.75		\$76,272.60		\$28,991.50		\$33,447.75		\$1,789,594.64
ENGINEERING, LEGAL, FINANCE, ADMIN AND OTHER COSTS (25%):				\$447,398.66		\$172,668.33		\$137,574.43		\$102,477.94		\$19,068.15		\$7,247.88		\$8,361.94		\$447,398.66
ESTIMATED TOTAL PROJECT COST:				\$2,236,993.30		\$863,341.66		\$687,872.14		\$512,389.69		\$95,340.75		\$36,239.38		\$41,809.69		\$2,236,993.30

ASSESSMENT CALCULATIONS

ESTIMATED ASSESSABLE PROJECT COST (50% BECAUSE OF EXCESS SIDE LOT FRONTAGE)	\$431,670.83
ESTIMATED ERU'S:	60
ESTIMATED ERU ASSESSMENT:	\$7,194.51

ESTIMATED PROJECT COST SUMMARY

ESTIMATED TOTAL PROJECT COST:	\$2,236,993.30
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ESTIMATED ASSESSABLE PROJECT COSTS:

19.3%	\$431,670.83
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CITY COST SUMMARY

50% OF ASSESSABLE ROADWAY COSTS:	\$431,670.83
CITY ROADWAY:	\$687,872.14
TRAIL:	\$512,389.69
STORM SEWER:	\$95,340.75
SANITARY SEWER:	\$36,239.38
WATER:	\$41,809.6

**2023 KNOLLWOD DRIVE IMPROVEMENTS
ENGINEER'S ESTIMATE AND ASSESSMENT CALCULATIONS
BAXTER, MN
JULY, 2021**

FEASIBILITY REPORT - OPTION 3

ITEM NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	ASSESSABLE ROADWAY		CITY ROADWAY		TRAIL		STORM SEWER		SANITARY SEWER		WATER		TOTAL PROJECT	
					ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST
1	2021.501	MOBILIZATION	LUMP SUM	\$62,500.00	0.37	\$23,125.00	0.33	\$20,625.00	0.22	\$13,750.00	0.04	\$2,500.00	0.02	\$1,250.00	0.02	\$1,250.00	1	\$62,500.00
2	2101.505	CLEARING	ACRE	\$4,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
3	2101.505	GRUBBING	ACRE	\$4,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
4	2101.524	CLEARING	TREE	\$200.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
5	2101.524	GRUBBING	TREE	\$200.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
6	2104.502	REMOVE CASTING (SANITARY)	EACH	\$225.00	18	\$4,050.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	18	\$4,050.00
7	2104.502	REMOVE CATCH BASIN GRATE CASTING	EACH	\$225.00		\$0.00		\$0.00		\$0.00	17	\$3,825.00		\$0.00		\$0.00	17	\$3,825.00
8	2104.502	REMOVE CURB STOP AND BOX	EACH	\$500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
9	2104.502	REMOVE DRAINAGE STRUCTURE	EACH	\$500.00		\$0.00		\$0.00		\$0.00	15	\$7,500.00		\$0.00		\$0.00	15	\$7,500.00
10	2104.502	REMOVE SIGN TYPE C	EACH	\$30.00	36	\$1,080.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	36	\$1,080.00
11	2104.502	SALVAGE SIGN	EACH	\$40.00	17	\$680.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	17	\$680.00
12	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	\$7.50	200	\$1,500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	200	\$1,500.00
13	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH) ROADWAY	LIN FT	\$4.50	975	\$4,387.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	975	\$4,387.50
14	2104.503	REMOVE CURB AND GUTTER	LIN FT	\$4.50		\$0.00	10950	\$49,275.00		\$0.00		\$0.00		\$0.00		\$0.00	10950	\$49,275.00
15	2104.503	REMOVE STORM SEWER PIPE	LIN FT	\$20.00		\$0.00		\$0.00		\$0.00	67	\$1,340.00		\$0.00		\$0.00	67	\$1,340.00
16	2104.504	REMOVE CONCRETE PAVEMENT	SQ YD	\$7.50	645	\$4,837.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	645	\$4,837.50
17	2104.504	REMOVE BITUMINOUS PAVEMENT (DRIVEWAY)	SQ YD	\$5.00	630	\$3,150.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	630	\$3,150.00
18	2104.602	SALVAGE SIGN SPECIAL (911)	EACH	\$20.00	55	\$1,100.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	55	\$1,100.00
19	2104.602	RELOCATE SPRINKLER SYSTEM	EACH	\$525.00	10	\$5,250.00	10	\$5,250.00	15	\$7,875.00		\$0.00		\$0.00		\$0.00	35	\$18,375.00
20	2105.507	COMMON EXCAVATION	CU YD	\$14.00	2280	\$31,920.00	570	\$7,980.00	2460	\$34,440.00		\$0.00		\$0.00		\$0.00	5310	\$74,340.00
21	2123.510	COMMON LABORERS	HOUR	\$80.00	10	\$800.00	10	\$800.00	10	\$800.00	5	\$400.00	5	\$400.00		\$400.00	45	\$3,600.00
22	2123.610	SKID LOADER	HOUR	\$125.00	10	\$1,250.00	10	\$1,250.00	10	\$1,250.00	5	\$625.00	5	\$625.00		\$625.00	45	\$5,625.00
23	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	\$120.00	5	\$600.00	5	\$600.00	2	\$240.00		\$0.00		\$0.00		\$0.00	12	\$1,440.00
24	2211.507	AGGREGATE BASE (CV), CLASS 5	CU YD	\$27.00	3115	\$84,105.00	350	\$9,450.00		\$0.00		\$0.00		\$0.00		\$0.00	3465	\$93,555.00
25	2232.504	FULL DEPTH RECLAMATION	SQ YD	\$2.25	18064	\$40,644.00	4516	\$10,161.00	7080	\$15,930.00		\$0.00		\$0.00		\$0.00	29660	\$66,735.00
26	2302.604	BITUMINOUS DRIVEWAY REPLACEMENT	SQ YD	\$24.00	360	\$8,640.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	360	\$8,640.00
27	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3.C)	TON	\$75.00	1395	\$104,625.00	1705	\$127,875.00		\$0.00		\$0.00		\$0.00		\$0.00	3100	\$232,500.00
28	2360.509	TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3.B)	TON	\$75.00	1855	\$139,125.00	205	\$15,375.00		\$0.00		\$0.00		\$0.00		\$0.00	2060	\$154,500.00
29	2503.503	12" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT	\$82.00		\$0.00		\$0.00		\$0.00	31	\$2,542.00		\$0.00		\$0.00	31	\$2,542.00
30	2503.607	GROUT EXISTING DRAINAGE STRUCTURE	CU YD	\$260.00		\$0.00		\$0.00		\$0.00	5	\$1,300.00		\$0.00		\$0.00	5	\$1,300.00
31	2503.607	GROUT EXISTING SANITARY SEWER MANHOLE	CU YD	\$1,200.00		\$0.00		\$0.00		\$0.00		\$0.00	5	\$6,000.00		\$0.00	5	\$6,000.00
32	2504.601	HYDRANT REARRANGEMENT	LUMP SUM	\$12,500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	1	\$12,500.00	1	\$12,500.00
33	2504.602	ADJUST VALVE BOX	EACH	\$200.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	18	\$3,600.00
34	2504.602	ADJUST CURB STOP/SANITARY SEWER CLEANOUT	EACH	\$150.00		\$0.00		\$0.00		\$0.00		\$0.00	15	\$2,250.00	15	\$2,250.00	30	\$4,500.00
35	2504.610	MISC UTILITY REPAIRS	HOUR	\$1,200.00		\$0.00		\$0.00		\$0.00		\$0.00	10	\$12,000.00	10	\$12,000.00	20	\$24,000.00
36	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020	LIN FT	\$585.00		\$0.00		\$0.00		\$0.00	10	\$5,850.00		\$0.00		\$0.00	10	\$5,850.00
37	2506.602	RECONSTRUCT DRAINAGE STRUCTURE	EACH	\$1,200.00		\$0.00		\$0.00		\$0.00	14	\$16,800.00		\$0.00		\$0.00	14	\$16,800.00
38	2506.602	ADJUST DRAINAGE STRUCTURE	EACH	\$750.00		\$0.00		\$0.00		\$0.00	21	\$15,750.00		\$0.00		\$0.00	21	\$15,750.00
39	2545.602	RELOCATE LIGHT POLE	EACH	\$1,250.00		\$0.00	8	\$10,000.00		\$0.00	21	\$15,750.00		\$0.00		\$0.00	8	\$10,000.00
40	2545.602	FURNISH AND INSTALL LUMINAIRE - TYPE A	EACH	\$450.00		\$0.00	8	\$3,600.00		\$0.00		\$0.00		\$0.00		\$0.00	8	\$3,600.00
41	2506.602	CASTING ASSEMBLY (700-7 - SANITARY)	EACH	\$525.00		\$0.00		\$0.00		\$0.00		\$0.00	5	\$2,625.00		\$0.00	5	\$2,625.00
42	2506.602	ADJUST FRAME AND RING CASTING (SANITARY)	EACH	\$450.00	18	\$8,100.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	18	\$8,100.00
43	2521.518	6" CONCRETE WALK	SQ FT	\$11.00		\$0.00		\$0.00	2020	\$22,220.00		\$0.00		\$0.00		\$0.00	2020	\$22,220.00
44	2521.518	3" BITUMINOUS WALK	SQ FT	\$3.50		\$0.00		\$0.00	52050	\$182,175.00		\$0.00		\$0.00		\$0.00	52050	\$182,175.00
45	2531.501	CONCRETE CURB AND GUTTER DESIGN B624	LIN FT	\$18.00		\$0.00	11000	\$198,000.00		\$0.00		\$0.00		\$0.00		\$0.00	11000	\$198,000.00
46	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	\$80.00	950	\$76,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	950	\$76,000.00
47	2531.604	8" CONCRETE VALLEY GUTTER	SQ YD	\$80.00		\$0.00	110	\$8,800.00		\$0.00		\$0.00		\$0.00		\$0.00	110	\$8,800.00
48	2531.618	TRUNCATED DOMES	SQ FT	\$50.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
49	2540.602	MAIL BOX SUPPORT	EACH	\$95.00	55	\$5,225.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	55	\$5,225.00
50	2563.601	TRAFFIC CONTROL	LUMP SUM	\$5,500.00	0.37	\$2,035.00	0.33	\$1,815.00	0.22	\$1,210.00	0.04	\$220.00	0.02	\$110.00	0.02	\$110.00	1	\$5,500.00
51	2563.602	DYNAMIC SPEED DISPLAY SIGN	EACH	\$7,500.00		\$0.00		\$15,000.00		\$0.00		\$0.00		\$0.00		\$0.00	2	\$15,000.00
52	2564.518	SIGN PANELS TYPE C	SQ FT	\$50.00	66.5	\$3,325.00	66.5	\$3,325.00	142	\$7,100.00		\$0.00		\$0.00		\$0.00	275	\$13,750.00
53	2564.602	INSTALL SIGN TYPE SPECIAL (911)	EACH	\$20.00	55	\$1,100.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	55	\$1,100.00
54	2571.524	CONIFEROUS TREE 6' HT B&B	TREE	\$795.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
55	2571.524	DECIDUOUS TREE 2.5' CAL B&B	TREE	\$795.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
56	2573.502	STORM DRAIN INLET PROTECTION	EACH	\$150.00		\$0.00		\$0.00		\$0.00	35	\$5,250.00		\$0.00		\$0.00	35	\$5,250.00
57	2575.504	SOD, TYPE LAWN	SQ YD	\$7.50	3075	\$23,062.50	3075	\$23,062.50	6150	\$46,125.00		\$0.00		\$0.00		\$0.00	12300	\$92,250.00
58	2574.507	SCREENED TOPSOIL BORROW (LV)	CU YD	\$35.00	525	\$18,375.00	525	\$18,375.00	510	\$17,850.00		\$0.00		\$0.00		\$0.00	1560	\$54,600.00
59	2574.508	FERTILIZER TYPE 3	POUND	\$1.00	225	\$225.00	225	\$225.00	375	\$375.00		\$0.00		\$0.00		\$0.00	825	\$825.00
60	2582.503	4" SOLID LINE PAINT	LIN FT	\$0.35		\$0.00	4675	\$1,636.25		\$0.00		\$0.00		\$0.00		\$0.00	4675	\$1,636.25
61	2582.503	4" BROKEN LINE PAINT	LIN FT	\$0.35	1170	\$409.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	1170	\$409.50
62	2582.503	4" DOUBLE SOLID LINE PAINT	LIN FT	\$0.50	725	\$362.50		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	725	\$362.50
ESTIMATED CONSTRUCTION COST:				\$1,604,805.25	37.56%	\$602,688.50	33.18%	\$532,479.75	21.89%	\$351,340.00	3.98%	\$63,902.00	1.57%	\$25,260.00	1.82%	\$29,135.00	100.00%	\$1,604,805.25
CONTINGENCIES (15%):				\$240,720.79		\$90,403.28		\$79,871.96		\$52,701.00		\$9,585.30		\$3,789.00		\$4,370.25		\$240,720.79
SUBTOTAL:				\$1,845,526.04		\$693,091.78		\$612,351.71		\$404,041.00		\$73,487.30		\$29,049.00		\$33,505.25		\$1,845,526.04
ENGINEERING, LEGAL, FINANCE, ADMIN AND OTHER COSTS (25%):				\$461,381.51		\$173,272.94		\$153,087.93		\$101,010.25		\$18,371.83		\$7,262.25		\$8,376.31		\$461,381.51
ESTIMATED TOTAL PROJECT COST:				\$2,306,907.55		\$866,364.72		\$765,439.64		\$505,051.25		\$91,859.13		\$36,311.25		\$41,881.56		\$2,306,907.55

ASSESSMENT CALCULATIONS

ESTIMATED ASSESSABLE PROJECT COST (50% BECAUSE OF EXCESS SIDE LOT FRONTAGE)	\$433,182.36
ESTIMATED ERU'S:	60
ESTIMATED ERU ASSESSMENT:	\$7,219.71

ESTIMATED PROJECT COST SUMMARY

ESTIMATED TOTAL PROJECT COST:	\$2,306,907.55
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ESTIMATED ASSESSABLE PROJECT COSTS:	18.8%	\$433,182.36
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CITY COST SUMMARY

50% OF ASSESSABLE ROADWAY COSTS:	\$433,182.36
CITY ROADWAY:	\$765,439.64
TRAIL:	\$505,051.25
STORM SEWER:	\$91,859.13
SANITARY SEWER:	\$36,311.25
WATER:	\$41,881.56
TOTAL ESTIMATED	



ASSESSMENT TOTALS

ASSESSMENT TYPE	TOTAL NUMBER
ROADWAY (R)	60
ROADWAY - CITY (R)	0

LEGEND

- R ERU
- R ERU - CITY
- POTENTIAL LOT SPLIT



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2023 KNOLLWOOD DRIVE IMPROVEMENTS

CITY OF BAXTER
BAXTER, MINNESOTA

FIGURE 16 - ASSESSMENT EXHIBIT

DATE: JULY 2021

SCALE: AS SHOWN

DRAWN BY: A.L.W.

CHECKED BY: A.L.W.

JOB NUMBER: 2020-11417

DATE	REV#	REVISIONS DESCRIPTION	BY

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.

DATE: LIC. NO.

WIDSETH
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

PROPOSED PROJECT SCHEDULE
2023 KNOLLWOOD DRIVE IMPROVEMENTS, MUNICIPAL PROJECT NO. 4132
BAXTER, MN
Friday, July 23, 2021

MAJOR TASKS AND MILESTONES	DATES	REMARKS	NOTES
Recommendation to Approve Feasibility Report	Wednesday, August 4, 2021	Utilities Commission Meeting	
Review Feasibility Report at Council Workshop	Tuesday, August 17, 2021	City Council Meeting	4
Public Information Meetings	Fall of 2021		
Request for Proposals from Engineering Consultants	Winter/Spring 2022		
Award of Consultant Contract	Winter/Spring 2022	City Council Meeting	4
Resolution Ordering Preparation of Feasibility Report			
Revise Report	Spring 2022		
Recommendation to Approve Feasibility Report	Spring/Summer 2022	Utilities Commission Meeting	
Review Feasibility Study at Council Workshop	Spring/Summer 2022	City Council Workshop and Meeting	4
Resolution Receiving Feasibility Report and Calling Improvement Hearing			
Mailed Notice for Improvement Hearing	Summer 2022	One notice at least 10 days prior to hearing	
First Published Notice for Improvement Hearing	Summer 2022	Twice in local newspaper, one week apart, last notice must be at least three days prior to hearing.	3
Bidding Publication	Summer 2022	Publication must be made at least three weeks before last day to submit bids, at least once in official newspaper and once in trade paper or First Class city newspaper.	3
Second Published Notice for Improvement Hearing	Summer 2022		
Improvement Hearing	Summer 2022		
Resolution Ordering Improvement and Preparation of Plans	Summer 2022	City Council Meeting	4
Design and Preparation of Plans and Specifications	Summer/Fall 2022		
Review Plans and Specifications	Fall/Winter 2022	Utilities Commission Meeting	
Resolution Approving Plans and Specifications and Ordering Advertisement for Bids	Fall/Winter 2022	City Council Meeting	4
Bid Opening	Winter 2022	By default bid remains subject to acceptance for 60 days after the Bid opening.	
Resolution Ordering Assessment Hearing	Winter 2023	City Council Meeting	4
Mailed Notice for Assessment Hearing	Winter 2023	One notice at least two weeks prior to hearing	
Published Notice for Assessment Hearing	Winter 2023	Once in local newspaper at least two weeks prior to hearing.	3
Bid review with Utilities Commission	Winter 2023	Utilities Commission Meeting	
Assessment Hearing	Winter 2023		
Resolution Adopting Assessment Rolls	Winter/Spring 2023	City Council Meeting	4
End of Assessment Appeal Period	Winter/Spring 2023	Appeals to district court must be made within 30 days after adoption of the assessment roll.	
Notice of Award	Winter/Spring 2023	City Council Meeting. Contractor has 15 days to deliver signed agreement, bonds, and insurance certificates.	4
Pre-Construction Meeting	Spring 2023		
Public Information Meeting - Construction	Spring 2023		
Begin Construction	Spring 2023	3 Months of Full Time Construction	
Construction Complete	Summer/Fall 2023		

NOTES

1. City Council Meetings held on 1st and 3rd Tuesdays @ 7:00 p.m.
2. Utilities Commission Meetings held on 1st Wednesday @ 5:30 p.m.
3. Brainerd Dispatch is currently only running legal notices on Wednesdays and Sundays. Deadline for Wednesday publication is noon on Monday and deadline for Sunday publication is noon on Thursday.
4. The project schedule assumes all Council actions are taken at a regular scheduled meetings. The schedule could be accelerated with special meetings.
5. **All dates are subject to change, this is a living document. Dates may change based on coordination with other 2023 projects.**