

Feasibility Report

2021 Alley Reconstruction

February 2021



- Between 1st Ave and 2nd Ave from Fuller St to Lewis St

Concrete Alley Improvements and Appurtenances



**FEASIBILITY REPORT
FOR
2021 ALLEY RECONSTRUCTION
SHAKOPEE, MINNESOTA**

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.



Micah Heckman

Date February 8, 2021 **License No. 49589**

FEASIBILITY REPORT

2021 ALLEY RECONSTRUCTION

- Between 1st Ave and 2nd Ave from Fuller St to Lewis St

City Project Number CIF20-009

February 2021

Prepared By:

City of Shakopee
Engineering Department
485 Gorman Street
Shakopee, MN 55379
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(952) 233-3801 (Fax)

EXECUTIVE SUMMARY

The intent of this section is to highlight the important issues of this project. More detailed information is contained in the body of the report.

The Capital Improvement Plan (CIP) for 2021 identified the reconstruction of two alleys with concrete pavement. The alleys are as follows:

- Between 1st Ave and 2nd Ave from Fuller St to Lewis St

The recommended improvements consist of reconstructing the existing bituminous alleys with concrete pavement.

The estimated costs for the proposed improvements are \$175,000 for the street improvements.

The project is proposed to be funded in accordance with the city's Special Assessment Policy as follows:

Assessments (30% of street improvements)	\$ 52,500
Storm Drainage Fund	<u>\$ 122,500</u>
TOTAL PROJECT COST	\$ 175,000

1. BACKGROUND

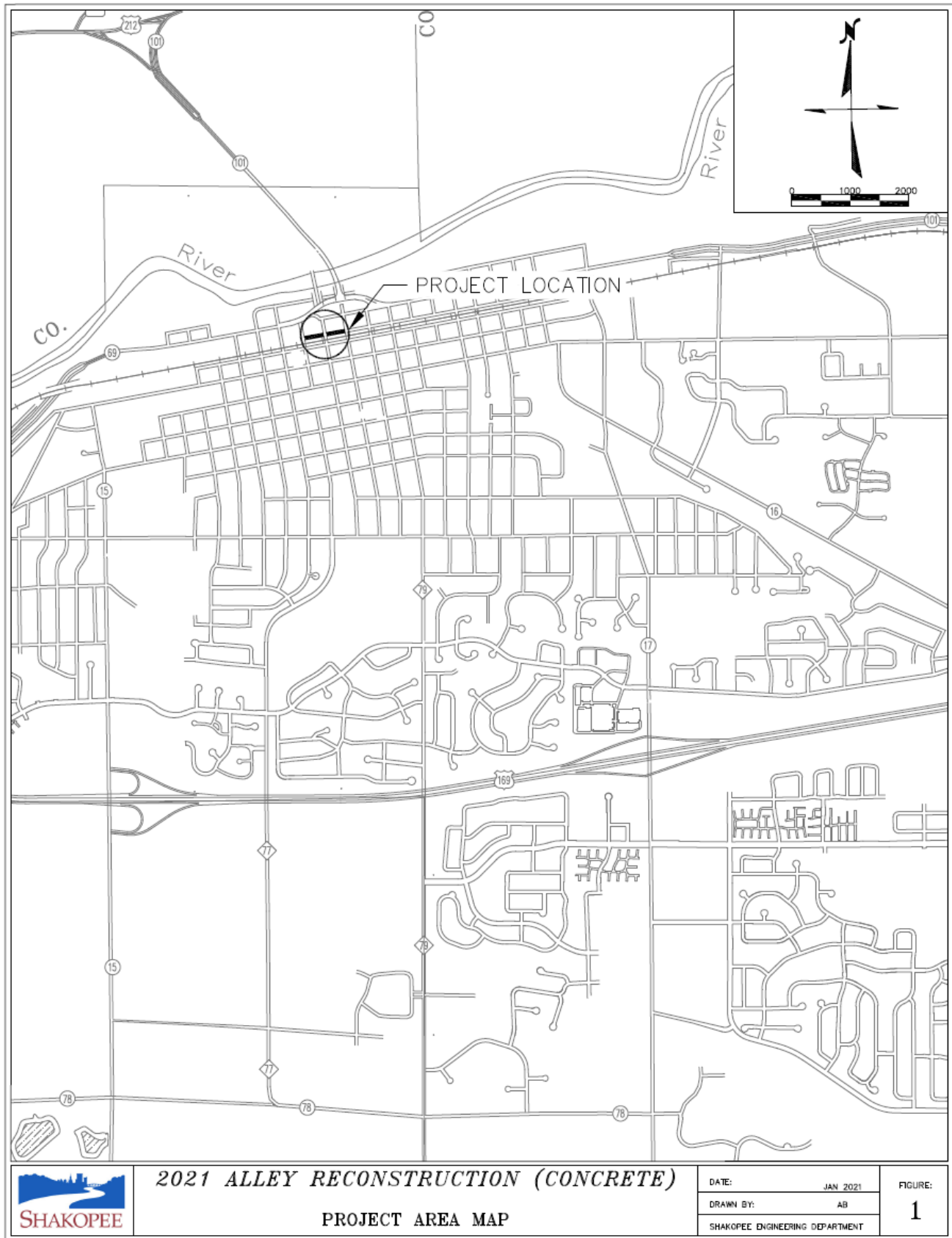
The CIP for 2021 identified the reconstruction of two alleys with concrete pavement. The project location can be found in Figure 1. The alleys are as follows:

- Between 1st Ave and 2nd Ave from Fuller St to Lewis St

Per the city's Special Assessment Policy, a portion of the construction cost of the alleys will be assessed, creating the need for this feasibility report.

The report will provide a description of the proposed improvements, an itemized cost estimate, a cost apportionment and a preliminary assessment roll.

This project is included in the City's 2021 Capital Improvement Program.



2. ALLEY IMPROVEMENTS

A. EXISTING CONDITIONS

The alleys within the project area were constructed in 1994. The alleys range from 10-feet to 12-feet wide between Fuller St and Lewis St. They are generally flat, have no concrete curb and gutter and minimal storm sewer for surface water drainage (See Appendix A, Existing Conditions Figure A.1). The alleys' bituminous asphalt pavement has aged and is showing significant fatigue and distress.

The existing pavements in the project area are deteriorated to the point where they require more than normal maintenance. There are many transverse and longitudinal cracks, potholes and areas of patching. Complete reconstruction of the alleys in the proposed project area is warranted.

There are various small utilities under the alleys including gas, electric and communications lines. The small utility companies who have facilities within the project area have been notified. Small utilities in the alley between Fuller Street and Lewis Street were improved or relocated as part of the new apartment construction on the corner of Holmes Street and 2nd Avenue.

B. PROPOSED CONDITIONS

Based on age and condition of the existing bituminous asphalt surfaces, complete replacement of the alley surface is warranted. Proposed alley improvements include full depth reconstruction for the existing alley to a width of 12 feet back-to-back (See Appendix B, Street Improvements Figure B.1).

Alley grades will be designed to provide improved drainage to the storm sewer system. In addition, the alleys will be constructed with an inverted crown to carry stormwater down the middle of the alley. This eliminates the need for concrete curb and gutter to carry stormwater. Building tie-in curb will be installed along all building faces that are adjacent to the alley. The proposed reconstruction does not include substantial changes to the alley alignment or elevation.

The existing subgrade soil material will provide a stable foundation to support the proposed street and utility improvements. Removal of poor soils in isolated areas throughout the project for utility and or roadway construction will be performed as determined in the field during construction.

City staff are working with small utility companies who have facilities within the project area. The design of the alleys is being coordinated with the small utilities to avoid conflict in the field and eliminate the potential for utility upgrades or modifications to happen after the alley is constructed.

It should be noted that in-depth property surveys are not performed and when constructing the new driveways, the determined location generally matches existing driveway locations and widths. It is not the intent under this project to verify or fix driveway-property line issues, which sometimes exist. Rather, the construction under this project generally occurs within City right-of-way.

Other improvements include the reconstruction of the ends of driveways, replacement of landscaping elements and irrigation systems that are impacted. Disturbed yard areas will be restored with a compost-topsoil blend and sod.

The total estimated project cost for the proposed street improvements is \$175,000.

3. STREET LIGHTING SYSTEM

A. EXISTING CONDITIONS

The street reconstruction program has historically included the replacement of streetlights located inside or immediately adjacent to the project area. All streetlights throughout the project area have been evaluated for existing conditions and potential replacement.

There is currently only one streetlight within the project area. It is a free-standing light located in the alley between Fuller Street and Holmes Street.

There were two free-standing lights in the alley near the old City Hall site that were removed as part of the new apartment construction. The new apartments have lights that are incorporated into the side of the building adjacent to the alley to replace the lights that were removed.

B. PROPOSED LIGHTING IMPROVEMENTS

The streetlight in the alley between Fuller Street and Holmes Street will be replaced with a light and pole to match the recent downtown street lighting improvement projects.

4. STORM DRAINAGE AND TREATMENT SYSTEM

C. EXISTING CONDITIONS

The project area is located within the Lower Minnesota River Watershed District and flows to the Minnesota River. There is currently minimal storm sewer infrastructure in the alleys. Surface water drains down the alley and is eventually

picked up by the gutters on Lewis Street, Holmes Street and Fuller Street and collected in the underground storm network.

D. PROPOSED DRAINAGE IMPROVEMENTS

Minor drainage issues have been observed in the alleys. A resident questionnaire was sent to properties adjacent to the alley to collect information on drainage and flooding issues. Responses from those surveys indicated that there are areas with localized ponding and ice build-up. This is likely due to the extensive patching that has been done to the alleys. The patched areas have affected grades and have caused the alleys to collect water in certain areas. The proposed project will improve the drainage. Concrete is superior to bituminous at conveying water over flat grades which are present in the alleys. Furthermore, the alleys will be constructed with an inverted crown to collect water in the center of the alley and direct it to the storm sewer system in the adjacent streets.

5. RIGHT-OF-WAY AND EASEMENTS

All public infrastructure owned, maintained and operated by the City throughout the project area is located within City right-of-way or easements. It is not anticipated that the City will need to obtain any additional easement for any existing or proposed improvement located within the alley. If necessary, any identified easements needed during final design will be further coordinated with the City Attorney and the identified property owners.

6. SPECIAL ASSESSMENTS

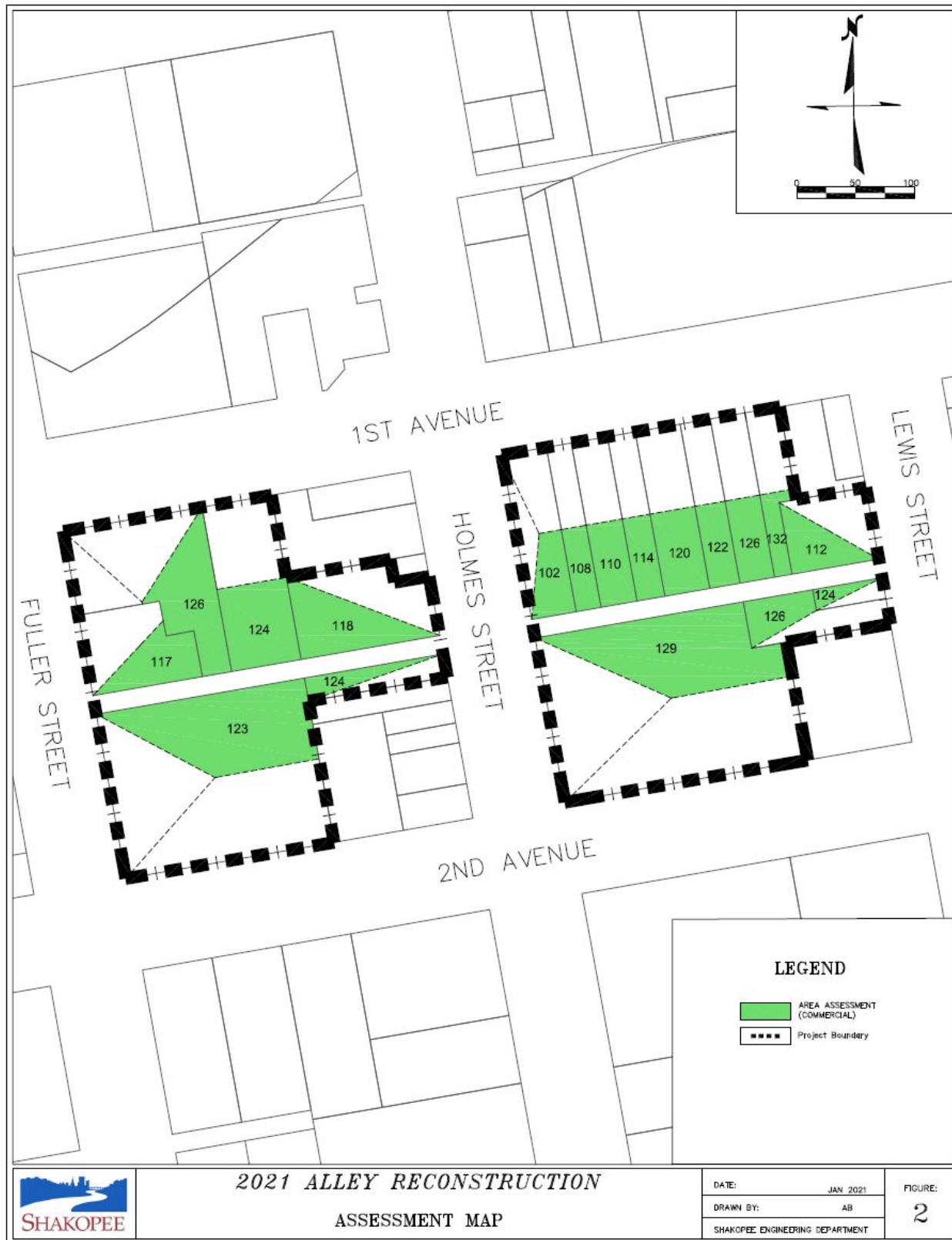
A. Street Improvements

In accordance with the City's Special Assessment Policy, 30% of the project costs for the street improvements are proposed to be assessed to benefiting properties, and 70% of the project cost for the proposed street improvements will be funded by the Capital Improvements Fund.

Properties will be assessed using the area method of assessment. The assessable area of each lot shall be defined as the number of acres within the boundaries of the appropriate property lines of the areas benefitting from the project. The assessment rate (cost per acre) shall be calculated by dividing 30 percent of the total cost of assessable street improvements by the total number of acres benefitting from the improvement (See Figure 2, Assessment Map).

A preliminary assessment roll is included in Appendix C. The estimated assessment rate is \$40,322.58 per acre. See Figure 2 depicting the different assessment

methodology per parcel. Actual assessments will be based on the final project costs and apportionments.



7. ESTIMATED COSTS & FUNDING

The total estimated cost of the proposed project is \$175,000. Table 1 provides a summary of the estimated project costs and recommended funding amounts from the various sources as indicated. The preliminary estimate includes the cost for project administration, legal, engineering and construction contingency. The following costs were prepared using 2020 construction costs and are subject to change, depending on the final design of the project, bids received, and actual work performed.

It should be noted that a sizeable portion of the project was completed as part of the construction of the new apartments on the corner of Holmes Street and 2nd Avenue. Table 1 below shows the cost difference between what was budgeted in the CIP and what is expected to be constructed.

Table 1 - Estimated Cost & Funding Source

	CIP Estimate	Current Estimate
Estimated Expenditures		
Estimated Construction Cost Street & Utility	\$299,000.00	\$142,000.00
Contingencies (10%)	\$29,000.00	\$14,000.00
Administration, Engineering, Legal (12%)	\$43,000.00	\$19,000.00
Total Estimated Project Costs (Feasibility)	\$371,000.00	\$175,000.00
Estimated Revenue		
Special Assessments	\$127,000.00	\$52,500.00
Storm Drainage Fund	\$244,000.00	\$122,500.00
Total Estimated Revenue (Feasibility)	\$371,000.00	\$175,000.00

8. PROJECT SCHEDULE

The project is scheduled to be constructed in spring/early summer of 2021. The preliminary schedule can be found below in Table 2.

Table 2 – Preliminary Schedule

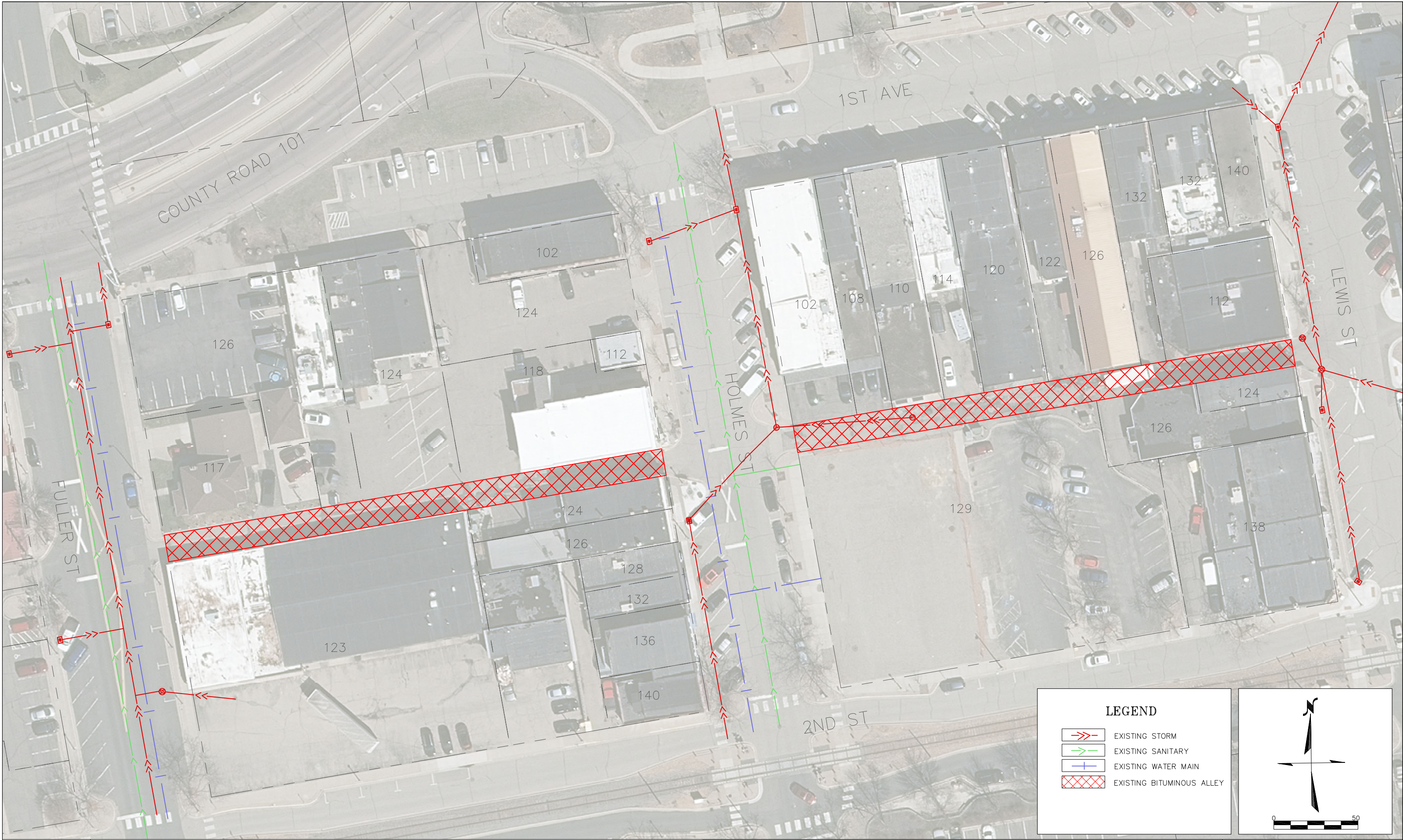
Action	Target Date
City Council Receives Feasibility Report, Calls for Public Hearing	February 16, 2021
City Council Holds Public Hearing, Authorizes the Project and Orders Preparation of Plans and Specifications	March 2, 2021
City Council Approves Plans and Specs, Authorizes Advertisement for Bids	March 16, 2021
City Receives and Opens Project Bids	April 8, 2021
City Council Considers Award of Contract	April 20, 2021
Start Project Construction	June 2021
Construction Substantially Complete	October 2021
City Council Declares Cost to be Assessed, Calls for Public Hearing	October 2021
Hold Assessment Public Hearing	November 2021

9. CONCLUSION

The overall condition of the City's street and utility infrastructure system is critical to the operation, safety, welfare and economic health of the entire community. As a result of the infrastructure needs described and the proposed solutions and estimated costs provided in this report, the proposed project is necessary, cost effective and feasible.

APPENDIX A

Existing Conditions Figure



LEGEND

	EXISTING STORM
	EXISTING SANITARY
	EXISTING WATER MAIN
	EXISTING BITUMINOUS ALLEY

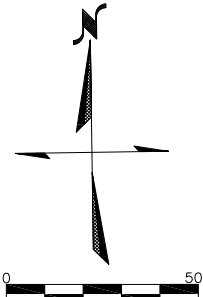
APPENDIX B

Street Improvements Figure



LEGEND

 PROPOSED CONCRETE ALLEY



2021 ALLEY RECONSTRUCTION
STREET IMPROVEMENTS

DATE:	JAN 2021
DRAWN BY:	AB
SHAKOPEE ENGINEERING DEPARTMENT	

FIGURE:
B.1

APPENDIX C

Preliminary Assessment Roll

PRELIMINARY-ASSESSMENT ROLL

2021 Alley Reconstruction

PID	PROPERTY OWNER	PROPERTY ADDRESS	LEGAL DESCRIPTION	COMMERCIAL ACERAGE	STREET ASSESSMENT
270011440	GOMEZ MARCOS D 7500 180TH ST E PRIOR LAKE, MN 55372	123 2ND AVE W SHAKOPEE, MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 001 Block 022 SubdivisionCd 27001	0.217	\$ 8,750.00
270011480	OLLIE LLC 703 LEWIS ST SHAKOPEE, MN 55379	124 HOLMES ST S SHAKOPEE, MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 005 Block 022 SubdivisionCd 27001	0.028	\$ 1,129.03
270011520	HOLMES STREET PROPERTY LLC 3532 COVE POINT CIR NEW PRIOR LAKE, MN 55372	118 HOLMES ST S SHAKOPEE, MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 007 Block 022 SubdivisionCd 27001	0.098	\$ 3,951.61
270011550	P & E REALTY 25 9TH AVE N HOPKINS, MN 55343	124 1ST AVE W SHAKOPEE, MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 008 Block 022 SubdivisionCd 27001	0.098	\$ 3,951.61
270011560	JOHNSON MARY ANITA 117 FULLER ST SHAKOPEE, MN 55379	126 1ST AVE W SHAKOPEE, MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 009 Block 022 SubdivisionCd 27001	0.112	\$ 4,516.13
270011570	JOHNSON MARY ANITA 117 FULLER ST SHAKOPEE, MN 55379	117 FULLER ST S SHAKOPEE, MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 010 Block 022 SubdivisionCd 27001	0.065	\$ 2,620.97
270011580	DECO SHAKOPEE LLC 1 SECOND ST N SUITE 102 FARGO ND 58102	129 HOLMES ST S SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 001 Block 023 SubdivisionCd 27001	0.225	\$ 9,072.58
270011620	HARP HOLDINGS LLC 126 LEWIS ST S SHAKOPEE MN 55379	126 LEWIS ST S SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 004 Block 023 SubdivisionCd 27001	0.04	\$ 1,612.90
270011630	JOHN W AND GRACE P PERRY REVOCABLE TRUST 14540 LAKEVIEW CIR SHAKOPEE MN 55379	124 LEWIS ST S SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 005 Block 023 SubdivisionCd 27001	0.012	\$ 483.87
270011650	MICHAEL JANET LLC 1935 WENZ AVE CHASKA MN 55318	112 LEWIS ST S SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 006 Block 023 SubdivisionCd 27001	0.053	\$ 2,137.10
270011670	MICHAEL JANET LLC 1935 WENZ AVE CHASKA MN 55318	132 1ST AVE E SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 007 Block 023 SubdivisionCd 27001	0.028	\$ 1,129.03
270011680	SHAKOPEE ONE 26 1ST ST LLC 777 VISTA RIDGE LN SHAKOPEE MN 55379	126 1ST AVE E SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 007 Block 023 SubdivisionCd 27001	0.049	\$ 1,975.81
270011690	ZARTH KURT A 423 6TH AVE W SHAKOPEE MN 55379	122 1ST AVE E SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 008 Block 023 SubdivisionCd 2700	0.042	\$ 1,693.55
270011700	MOBOB SHAKOPEE LLC 777 VISTA RIDGE LN SHAKOPEE MN 55379	120 1ST AVE E SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 008 Block 023 SubdivisionCd 27001	0.063	\$ 2,540.32

PRELIMINARY-ASSESSMENT ROLL

2021 Alley Reconstruction

<i>PID</i>	<i>PROPERTY OWNER</i>	<i>PROPERTY ADDRESS</i>	<i>LEGAL DESCRIPTION</i>	<i>COMMERCIAL ACERAGE</i>	<i>STREET ASSESSMENT</i>
270011710	GARNES BRUCE A 1197 VAN BUREN ST SHAKOPEE MN 55379	114 1ST AVE E SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 009 Block 023 SubdivisionCd 27001	0.039	\$ 1,572.58
270011720	DUANE E WERMERSKIRCHEN REVOCABLE TRUST 110 1ST AVE E SHAKOPEE MN 55379	110 1ST AVE E SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 009 Block 023 SubdivisionCd 27001	0.051	\$ 2,056.45
270011740	DUANE E WERMERSKIRCHEN REVOCABLE TRUST 108 1ST AVE E SHAKOPEE MN 55379	108 1ST AVE E SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 010 Block 023 SubdivisionCd 27001	0.035	\$ 1,411.29
270011730	PJT REAL ESTATE SERVICES LLC 8116 TELEGRAPH RD BLOOMINGTON MN 55438	102 1ST AVE E SHAKOPEE MN 55379	SubdivisionName CITY OF SHAKOPEE Lot 010 Block 023 SubdivisionCd 27001	0.047	\$ 1,895.16

TOTAL ASSESSMENTS \$ 52,500.00

APPENDIX D

Open House Comments

2021 Alley Reconstruction Project

Public Open House Comments and Property Owner Survey Results

- Dangerous condition – winter; alley has been full of ice making it dangerous for tenant to access apartment at 124 Lewis Street.
- Current apartment entrance has a concrete stoop that will need to be considered during construction.
- Access to our apartment unit needs to be maintained for our tenant during construction.
- There are bollards protecting the gas service at the rear corner of our building. One is leaning and appears it was hit.
- The alley is very dark at night and patrons from nearby bars congregate in the alley.