City of Golden | Capital Improvement Plan 2021-2030 | Project Detail Sheet

Completed by:	Joseph Puhr	**Responsible Department:**	Public Works
Department Head Review:	Dan Hartman	**Fund:**	Capital Programs #6

Project Name:	**Street Improvement Program**
Brief Description:	The Street Improvement Program is responsible for replacement of asphalt streets for the City Roadway Network

Funding Source	Existing Grant Funds Identified for Project	Potential Grant Funds Identified	Funds Identified From Capital Project Fund X	Funds Identified From Other Fund (Name)	No Identified Funding
New/Additional Revenue Generated	Significant Ongoing Revenue Source	Small Ongoing Revenue Source	One-Time Revenue Generated	No New/Additional Revenue Generated X	
Legally Mandated	Court Decision	Regulatory Requirement	Pending Legal Action	Potential Legal Action	Normal Liability X
Public Health & Safety	Existing Severe Hazard	Existing Minor Hazard X	Potential Severe Hazard	Potential Minor Hazard	No Health or Safety Issue
Operating Budget Impact	Decreases Operating and/or Personnel Costs	Minimal or No Impact on Operating and/or Personnel Costs X	Slight Increase to Operating and/or Personnel Costs	Significant Increase to Operating and/or Personnel Costs	
Environment and Sustainability	Enhances Environment and/or Sustainability	Benefits Environment and/or Sustainabilty X	No Environmental Impact	Minor or Negative Environmental Impact	Diminishes Environment
% Of Population Served	100% of Population Served by Project X	Majority of Population Served	Approximately 50% of Population Served	Less than 50% of the Population Served	
Preservation of Facility	Loss of Facility Imminent without Project Completion	Additional Damage Likely without Project Completion	Project Constitutes Normal Major Maintenance X	Project Constitutes Normal Minor Maintenance	New Facility/ No Safety Issue
Project Useful Life	20+ Years With Little/No Maintenance	20+ Years With Normal Maintenance	10-20 Years With Normal Maintenance X	5-9 Years with Normal Maintenance	1-4 Years with Normal Maintenance
Conformity to Strategic Plans & Department Goals	Critical to accomplishing Established Plans / Goals	Assists in Accomplishing Established Plans / Goals X	Will Not Assist or Will Hinder Accomplishing Plans / Goals	Recommended by City Council	Recommened by Staff
Recreational or Aesthetic Value	Major Value	Moderate value X	No Value	Possibly Detrimental	
Estimated Frequency of Use	Every Day X	Several Times per Week	Several Times per Month	Once per Month or Less	

Vision 2030 Guiding Principles Priority - (Choose One Best Fit)

X	(A) Safe and Reliable Public Infrastructure		(B) Economic Vitality and Community Amenities that Improve Quality of Life		(C) Public Safety		(D) Other

Category of Capital Expenditures - (Choose One Best Fit)

	Land Improvement		Building Improvement		Equipment		Vehicle		Technology	X	Infrastructure

Financial Impact - Expenses

	Life-To-Date*	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Project Costs		1,800,000	2,134,800	2,263,000	1,900,000	1,590,000	1,685,400	1,786,500	1,893,700	2,007,400	2,127,800	**19,188,600**
On-Going Maintenance												-
Total Project Costs	-	**1,800,000**	**2,134,800**	**2,263,000**	**1,900,000**	**1,590,000**	**1,685,400**	**1,786,500**	**1,893,700**	**2,007,400**	**2,127,800**	**19,188,600**

*Life-to-date includes any actual expenditures from start of project through July 2021 and estimates for the remainder of FY 2021

Basis for Project Cost Estimate

	Formal Proposal		Contractor/Engineer Estimate		State Purchasing Co-Op	X	Staff Estimate

Financial Impact - Revenues

	Life-To-Date*	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Revenue Estimate												-

*Life-to-date includes any actual revenue generated from start of project through July 2021 and estimates for the remainder of FY 2021

Project Name:	Street Improvement Program

Please provide details for the following: **1. Project Description** **2. Justification** **3. Measure of Success** **4. Description of Revenue Generated (if applicable)**	The City's Roadway Network consists of all the streets in the City to allow for the safe and efficient passage of automobiles and bicycles. The vast majority of that network is comprised of asphalt streets. The Street Improvement Program is responsible for the replacement of those asphalt streets. The average life of the asphalt streets is 15 years with proper maintenance. While this program and the replacement of asphalt will temporarily reduce the maintenance costs for the specific streets that are repaired, it will not impact the overall maintenance costs for the entire roadway network as there will always be streets that degrade to the point of requiring preventive maintenance. Deferring the costs of asphalt replacement, however, would greatly increase the ongoing maintenance costs. The regular maintenance and replacement of the City roadway network would most closely fit the "Active, Connected, and Sustainable" success factor of the Strategic Action Plan. The Budget numbers were calculated by taking the total square footage of asphalt within the City, both streets and parking lots, that the Program is responsible for and dividing by the 15 year estimated lifespan for asphalt. Then assuming 12% reconstruction and 88% Mill and Overlay project split. Please note that the split between Mill overlay vs. Reconstruction is shifting from previous years to a heavier percentage of Mill Overlay. Then multiplying by the costs for each project type. See below for the general procedure. Total Asphalt Pavement Area in City of Golden = 14,043,093 SF. Annual replacement area to maintain asphalt condition. Assume 15 year life. 14,043,093 SF/15 Year= 936,206 SF to be replaced annually to maintain the street network. The area to be replaced annually is then split 88% for Mill and Overlay and 12% Reconstruction. The areas are then multiplied by the average cost per Square foot to perform the specific replacement type. Those being $2.95 for reconstruction and $1.78 for Mill and Overlay. These prices are the average costs associated with pricing in recent years, there is potential for the reconstruction costs to vary if unsuitable subgrade is encountered which necessitates export of bad material and import of suitable road base. 936,206 SF x .88 x $1.78/SF =$1,466,473 for Mill and Overlay and 936,206 SF x .12 x $2.95/SF = $331,416 for reconstructions. The total amount of $1,797,890 rounded to $1,800,000.00 is what was requested for 2022 which is the current base year. The assumption of asphalt life @ 15 years is slightly less than the industry standard of 20 years. City Engineering staff has documented the average life of 15 and feel confident in the assumption. Engineering staff attributes this shortened lifespan mainly to the frequent freeze thaw cycles that we experience in the colder months. The costs listed in future years assumes a 6% annual increase in costs from the base year which is typical of recent construction and materials cost increases in Colorado. It should be noted that the ratio of Reconstructions to Mill and Overlay streets continues to trend toward more Mill and Overlay

Strategic Action Plan Success Factor(s):	Active, Connected and Sustainable – Affordable and Thriving - Quality Services

Describe how this project connects to and supports Stragetic Action Plan success factor(s) identified above.	Maintaining the foundational infrastructure is the bases where the community can grow and prosper. If our foundation fails so will all that we have built upon it.

List any obstacles for implementation	Subject to fund availability and appropriation.

Finance Use Only

Date