

Engineering - Other Projects

Capital Improvement Plan

	2020 Adopted	2021 Request	Change
2021 Capital Budget	2,139,000	1,998,000	(141,000)
2021 Capital Improvement Plan	12,149,000	11,947,000	(202,000)

2020 Adopted
6

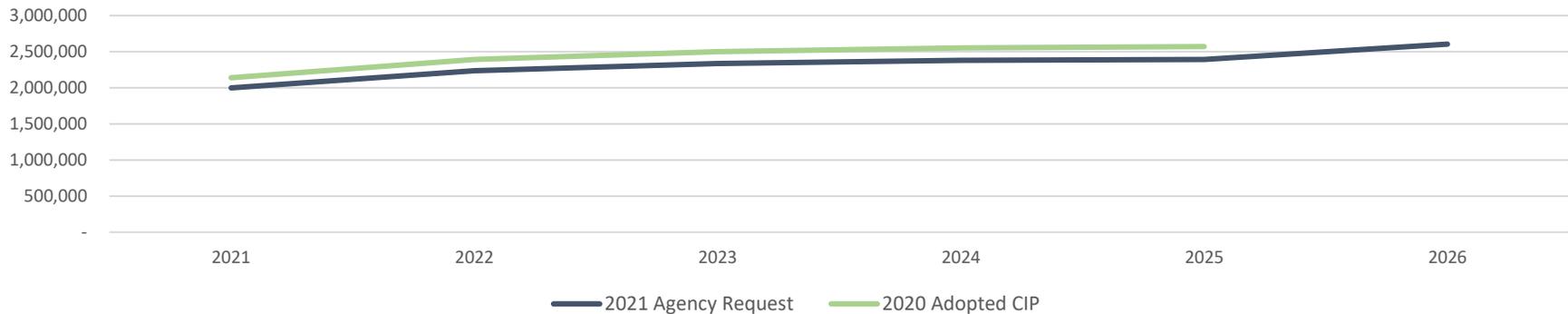
2021 Request
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Project Summary: Agency Request

	2021	2022	2023	2024	2025	2026
Equipment and Vehicle Replacement	1,701,000	1,931,000	2,025,000	2,120,000	2,205,000	2,271,000
Right of Way Landscaping & Trees	172,000	175,000	175,000	180,000	187,000	193,000
Waste Oil Collection Sites	125,000	-	135,000	-	-	-
Warning Sirens	-	60,000	-	30,000	-	60,000
Aerial Photo / Orthophotos	-	70,000	-	50,000	-	80,000
Total	\$ 1,998,000	\$ 2,236,000	\$ 2,335,000	\$ 2,380,000	\$ 2,392,000	\$ 2,604,000

Changes from 2020 CIP

2021 Capital Improvement Plan
2020 Adopted vs. 2021 Agency Request



Major Changes/Decision Points

- Service Building Improvements
 - Annual funding for program transferred to Engineering-Facilities



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James M. Wolfe, P.E.
Facilities & Sustainability
Bryan Cooper, Principal Architect
Mapping Section Manager
Eric T. Pederson, P.S.
Financial Manager
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To: Dave Schmiedicke, Finance Director
From: Robert F Phillips, P.E., City Engineer
Date: June 12, 2020
Subject: Engineering Other - 2021 Capital Budget Request

Goals of Engineering-Other Capital Budget

The Engineering-Other budget pulls together multiple dissimilar projects, so the goals are somewhat varied. For 2021 we have moved Service Building Improvements program to the Facilities Budget. The remainder of this budget is similar to other years.

Funding for Equipment Replacement is essential in order for the Engineering Division to complete our tasks. Equipment is scheduled for replacement based on age, mileage, maintenance history and specific needs. Consistent with the City's goal to be carbon free by 2020, the Engineering Division is proposing to purchase 8 electric vehicles to replace gas fueled vehicles.

A significant program within this budget is maintenance of ROW medians. This item is used for capital replacement of existing planting beds in major medians throughout the City. In 2020 we began the transitioning of difficult to maintain medians to a very low maintenance type of vegetation (one mow per year). This was done at six (6) medians spread throughout the city. The list of difficult to maintain/mow medians from Parks staff far exceeded our budgetary ability to convert in 2020 and a significant amount of this budget item in each future year is planned to be used to continue converting these types of medians to low maintenance styles.

The final item in this year's Engineering Other budget is Orthophotography. The goal of this project is to maintain a current and functional database of information for use by multiple City Agencies and the public.

Summary of Changes from 2020 Capital Improvement Plan

For the 2021 Capital Budget we have moved the Service Building Improvements program to the Engineering-Facilities Management budget to better align with that budget's activities. No other significant changes are proposed from 2020 adopted Capital Budget.

Prioritized List of Capital Requests

The Engineering-Other budget is prioritized generally from important/urgent to desirable/non-urgent. This could also be thought of as urgent needs to non-critical wants. Specifically,

equipment replacement is needed for us to complete Engineering’s daily operational mission; Waste Oil Collection site upgrades are important for equity and the environment as they allow all residents a legal safe disposal site for waste oil; and Landscaping/converting of medians is desirable but not critical.

Prioritized List of Projects

1. Equipment and Vehicle Replacement
2. Waste Oil Collection Sites
3. Right of Way Landscaping
4. Warning Sirens (zero budget request in 2021)
5. Aerial Photo/Orthophotos (zero budget request in 2021)

Potential for Scaling Capital Requests

In the Engineering-Other budget the only project that could be downscaled and still allow some work to be completed would be the Right of Way Landscaping project – this amount of funding allows us to keep existing medians in good shape and to convert potentially up to six (6) medians annually over to low maintenance, salt tolerant, and pollinator friendly plantings. In the long run, this conversion program allows Parks to put operators in difficult and dangerous mowing situations less often and to reduce the carbon footprint of their maintenance efforts associated with medians. However, downscaling of this program is possible if either a lesser standard is accepted or fewer medians are to be converted annually.

Impact of COVID-19 on Capital Funding

The Engineering-Other budget has not been impacted by COVID-19. All projects proposed for 2020 are on track to be completed as planned in the budget.

c.c. Christy Baumel, Deputy City Mayor

2021 Capital Improvement Plan Capital Budget Proposal

Identifying Information

Agency	Engineering - Other Projects	Proposal Name	Aerial Photo / Orthophot
Project Number	11846	Project Type	Program
Project Category	Other	Priority:	5
2021 Project Number	N/A		

Description

This program is for updating the City's GIS base mapping with the aerial photography of existing City lands and adjacent areas where the City may expand. The goal of this program is to provide data and imagery to inform City operations and planning efforts. This project completes aerial photography and aerial photos combined with Lidar contour information alternating on a biennial cycle.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2019

Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
GF GO Borrowing		28,000		20,000		32,000
Reserves Applied - Sewer		14,000		10,000		16,000
Reserves Applied - Stormwater		14,000		10,000		16,000
Reserves Applied - Water		14,000		10,000		16,000
Total	\$0	\$70,000	\$0	\$50,000	\$0	\$80,000

Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Other	0	70,000	0	50,000	0	80,000
Total	\$0	\$70,000	\$0	\$50,000	\$0	\$80,000

Explain any changes from the 2020 CIP in the proposed funding for this program.

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2021 Projects

Project name	Est Cost	Location
No projects are planned for 2021		

Explain the justification for selecting projects planned for 2021:

2021 Capital Budget

Agency Requests

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2022 Projects

Project Name	Est Cost	Locaon
2022 project includes aerial and LIDAR contour work.	\$70,000	Citywide

Explain the justification for selected projects planned for 2022:

2023 Projects

Project Name	Est Cost	Locaon
No projects are planned for 2023		

Explain the justification for selected projects planned for 2023:

2024 Projects

Project name	Est Cost	Locaon
2024 project includes only aerial photos	\$50,000	Citywide

Explain the justification for selected projects planned for 2024:

2025 Projects

Project name	Est Cost	Locaon
No projects are planned for 2025		

Explain the justification for selected projects planned for 2025:

2026 Projects

Project name	Est Cost	Locaon
2026 project includes aerial and LIDAR contour work.	\$80,000	Citywide

Explain the justification for selected projects planned for 2026:

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

# of FTEs	Annual Cost	Descripon
		N/A

Non-Personnel

Major	Amount	Descripon
		N/A

Notes

Notes:

2021 Capital Improvement Plan Capital Budget Proposal

Identifying Information

Agency	Engineering - Other Projects	Proposal Name	Right of Way Landscaping
Project Number	11082	Project Type	Program
Project Category	Other	Priority:	3
2021 Project Number	13145		

Description

This program is for landscaping of existing boulevards and rights of way throughout the City. Historically, this has been for planning /replanning of flower/shrub beds; as the City moves to a more sustainable model, funds are primarily used to convert turf islands that are difficult for Parks staff to mow to a low maintenance ground cover of differing types that only require mowing one time per year or less. These ground covers have higher salt tolerance, and provide habitat for pollinators.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2019

Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
GF GO Borrowing	172,000	175,000	175,000	180,000	187,000	193,000
Total	\$172,000	\$175,000	\$175,000	\$180,000	\$187,000	\$193,000

Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Land Improvements	172,000	175,000	175,000	180,000	187,000	193,000
Total	\$172,000	\$175,000	\$175,000	\$180,000	\$187,000	\$193,000

Explain any changes from the 2020 CIP in the proposed funding for this program.

This year's project will continue the policy of converting challenging turf medians to low maintenance (1 x per year) medians with salt tolerant and pollinator friendly species.

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Engineering is moving away from "traditional" median landscaping with non-native ornamental forbes/shrub species. Instead as plants in existing beds reach end of life we are working to replace them with native species that are resistant to drought and salt while providing species diversity and habitat for pollinators.

Project Schedule & Location

2021 Projects

Project name	Est Cost	Location
Locations of medians to convert will be determined with Parks Department Staff during the fall/winter season. Medians requires replanning will also be determined during the 2020 growing season.	\$172,000	Various throughout the City.

Explain the justification for selected projects planned for 2021:

Projects selected for conversion from high maintenance medians to low maintenance will be based upon discussions with Parks staff that are responsible for the actual maintenance work.

2022 Projects

Project Name	Est Cost	Location
Locations of medians to convert will be determined with Parks Department Staff during the fall/winter season. Medians requires replanning will also be determined during the 2021 growing season.	\$175,000	Various throughout the City.

Explain the justification for selected projects planned for 2022:

Projects selected for conversion from high maintenance medians to low maintenance will be based upon discussions with Parks staff that are responsible for the actual maintenance work.

2023 Projects

Project Name	Est Cost	Location
Locations of medians to convert will be determined with Parks Department Staff during the fall/winter season. Medians requires replanning will also be determined during the 2022 growing season.	\$175,000	Various throughout the City.

Explain the justification for selected projects planned for 2023:

Projects selected for conversion from high maintenance medians to low maintenance will be based upon discussions with Parks staff that are responsible for the actual maintenance work.

2024 Projects

Project name	Est Cost	Location
Locations of medians to convert will be determined with Parks Department Staff during the fall/winter season. Medians requires replanning will also be determined during the 2023 growing season.	\$180,000	Various throughout the City.

Explain the justification for selected projects planned for 2024:

Projects selected for conversion from high maintenance medians to low maintenance will be based upon discussions with Parks staff that are responsible for the actual maintenance work.

2025 Projects

Project name	Est Cost	Location
Locations of medians to convert will be determined with Parks Department Staff during the fall/winter season. Medians requires replanning will also be determined during the 2024 growing season.	\$187,000	Various throughout the City.

Explain the justification for selected projects planned for 2025:

Projects selected for conversion from high maintenance medians to low maintenance will be based upon discussions with Parks staff that are responsible for the actual maintenance work.

2026 Projects

Project name	Est Cost	Location
Locations of medians to convert will be determined with Parks Department Staff during the fall/winter season. Medians requires replanning will also be determined during the 2025 growing season.	\$193,000	Various throughout the City.

Explain the justification for selected projects planned for 2026:

Projects selected for conversion from high maintenance medians to low maintenance will be based upon discussions with Parks staff that are responsible for the actual maintenance work.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

# of FTEs	Annual Cost	Description
0.20	14,740	This project has one Engineering staff that completes the projects, bids them, and does the inspections. However the maintenance work that is completed by the Parks Department staff to actually mow the existing greenways is normally completed by a mix of seasonal land permanent staff and is not included in this cost.

Non-Personnel

<i>Major</i>	<i>Amount</i>	<i>Descripon</i>
<input type="text"/>	<input type="text"/>	

Notes

Notes:

v 05/04/2020

2021 Capital Improvement Plan Capital Budget Proposal

Identifying Information

Agency	Engineering - Other Projects	Proposal Name	Equipment and Vehicle R
Project Number	10576	Project Type	Program
Project Category	Other	Priority:	1
2021 Project Number	13144		

Description

This program is for the purchase of vehicles and equipment utilized by the Landfill, Sewer, and Stormwater Utilities. The goal of this program is to provide the necessary transportation and equipment resources for the services provided by these agencies. 16 replacement units are planned for purchased in 2021.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2019

Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Reserves Applied - Sewer	1,023,860	1,158,000	1,215,000	1,272,000	1,323,000	1,362,000
Reserves Applied - Stormwater	587,140	676,000	709,000	742,000	772,000	795,000
Reserves Applied	90,000	97,000	101,000	106,000	110,000	114,000
Total	\$1,701,000	\$1,931,000	\$2,025,000	\$2,120,000	\$2,205,000	\$2,271,000

Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Machinery and Equipment	1,701,000	1,931,000	2,025,000	2,120,000	2,205,000	2,271,000
Total	\$1,701,000	\$1,931,000	\$2,025,000	\$2,120,000	\$2,205,000	\$2,271,000

Explain any changes from the 2020 CIP in the proposed funding for this program.

Very minor changes to the allocation between the Sewer Utility, Storm Utility and Landfill Reserves in 2021.

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

By providing for the scheduled replacement of existing vehicles and equipment that have exceeded their useful life as well as the addition of new vehicles and equipment this project enables the Engineering Division to take advantage of newer technology that increases fuel efficiency and reduces emissions. Scheduled replacement also reduces total cost of ownership. Engineering has had a long-term focus on right-sizing its fleet as well as using hybrid and electric vehicles. This will continue to be a focus in 2021 and in future years.

Project Schedule & Location

2021 Projects

Project name	Est Cost	Location
Construction Equipment & Vehicles	\$541,000	

Project name	Est Cost	Locaon
Sewer Cleaning & CCTV Inspecon E quipment & Vehicles	\$900,000	
Electric Vehicles	\$260,000	

Explain the justification for selected projects planned for 2021:

Based on replacement schedule plan.

2022 Projects

Project Name	Est Cost	Locaon
Construcon E quipment & Vehicles	\$615,000	
Sewer Cleaning & CCTV Inspecon E quipment & Vehicle	\$1,021,000	
Electric Vehicles	\$295,000	

Explain the justification for selected projects planned for 2022:

Based on replacement schedule plan.

2023 Projects

Project Name	Est Cost	Locaon
Construcon E quipment & Vehicles	\$810,000	
Sewer Cleaning & CCTV Inspecon E quipment & Vehicles	\$1,215,000	

Explain the justification for selected projects planned for 2023:

Based on replacement schedule plan.

2024 Projects

Project name	Est Cost	Locaon
Construcon E quipment & Vehicles	\$848,000	
Sewer Cleaning & CCTV Inspecon E quipment & Vehicles	\$1,272,000	

Explain the justification for selected projects planned for 2024:

Based on replacement schedule plan.

2025 Projects

Project name	Est Cost	Locaon
Construcon E quipment & Vehicles	\$882,000	
Sewer Cleaning & CCTV Inspecon E quipment & Vehicles	\$1,323,000	

Explain the justification for selected projects planned for 2025:

Based on replacement schedule plan.

2026 Projects

Project name	Est Cost	Locaon
Construcon E quipment & Vehicles	\$908,000	
Sewer Cleaning & CCTV Inspecon E quipment & Vehicles	\$1,363,000	

Explain the justification for selected projects planned for 2026:

Based on replacement schedule plan.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

<i># of FTEs</i>	<i>Annual Cost</i>	<i>Descripon</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

There would be no additional operating costs as we are replacing older vehicles with newer ones before our operating costs increase.

Non-Personnel

<i>Major</i>	<i>Amount</i>	<i>Descripon</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

There would be no additional operating costs as we are replacing older vehicles with newer ones before our operating costs increase.

Notes

Notes:

v 05/04/2020

2021 Capital Improvement Plan Capital Budget Proposal

Identifying Information

Agency	<input type="text" value="Engineering - Other Projects"/>	Proposal Name	<input type="text" value="Warning Sirens"/>
Project Number	<input type="text" value="11495"/>	Project Type	<input type="text" value="Program"/>
Project Category	<input type="text" value="Other"/>	Priority:	<input type="text" value="4"/>
2021 Project Number	<input type="text" value="N/A"/>		

Description

This program is for upgrades and expansion to the City's emergency warning sirens. The goal of this program is to maintain the alert system provided by the network of warning sirens.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2019

Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
GF GO Borrowing	0	60,000	0	30,000	0	60,000
Total	\$0	\$60,000	\$0	\$30,000	\$0	\$60,000

Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Machinery and Equipment	0	60,000	0	30,000	0	60,000
Total	\$0	\$60,000	\$0	\$30,000	\$0	\$60,000

Explain any changes from the 2020 CIP in the proposed funding for this program.

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2021 Projects

Project name	Est Cost	Location
No Projects are planned for 2021		

Explain the justification for selecting projects planned for 2021:

2022 Projects

Project Name	Est Cost	Locaon
Locaon of new sirens will be determined in conjunction with Dane Co Emergency Management at that time. We would normally anticipate two (2) sirens with this year's budget.	\$60,000	To be determined

Explain the justification for selecting projects planned for 2022:

Sirens will be added if growth of the City precipitates the need to proceed with additional siren coverage.

2023 Projects

Project Name	Est Cost	Locaon
No projects are planned for 2023		

Explain the justification for selecting projects planned for 2023:

2024 Projects

Project name	Est Cost	Locaon
Locaon of new sirens will be determined in conjunction with Dane Co Emergency Management at that time. We would normally anticipate one (1) siren with this year's budget.	\$30,000	To be determined

Explain the justification for selecting projects planned for 2024:

Sirens will be added if growth of the City precipitates the need to proceed with additional siren coverage.

2025 Projects

Project name	Est Cost	Locaon
No projects are planned for 2025		

Explain the justification for selecting projects planned for 2025:

2026 Projects

Project name	Est Cost	Locaon
Locaon of new sirens will be determined in conjunction with Dane Co Emergency Management at that time. We would normally anticipate two (2) sirens with this year's budget.	\$60,000	To be determined

Explain the justification for selecting projects planned for 2026:

Sirens will be added if growth of the City precipitates the need to proceed with additional siren coverage.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

# of FTEs	Annual Cost	Description
<input type="text"/>	<input type="text"/>	This project is a small part of the job responsibilities for one staff person every few years when a new siren is required. This funding is already included in the current operating budget and would not necessitate an increased funding request.

Non-Personnel

Major	Amount	Description
<input type="text"/>	<input type="text"/>	Dane County Emergency Management provides the software to review decible prediction to determine siren location needs. No non-personnel equipment is needed by Engineering for this project.

Notes

2021 Capital Improvement Plan Capital Budget Proposal

Identifying Information

Agency	Engineering - Other Projects	Proposal Name	Waste Oil Collection Sites
Project Number	11494	Project Type	Program
Project Category	Other	Priority:	2
2021 Project Number	13146		

Description

This program is for replacing the City's four Waste Oil collection sites. The goal of this program is to maintain compliance and isolate any illicit dumping of polychlorinated biphenyl (PCB) contaminated waste oil. Funding in 2021 is for construction of a new collection site at the Glenway Golf Course. Funding in 2023 is for replacement of the waste oil site at the City of Madison Monona Golf Course.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2019

Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Reserves Applied - Sewer	62,500	0	67,500	0	0	0
Reserves Applied - Stormwater	62,500		67,500			
Total	\$125,000	\$0	\$135,000	\$0	\$0	\$0

Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Land Improvements	125,000	0	135,000	0	0	0
Total	\$125,000	\$0	\$135,000	\$0	\$0	\$0

Explain any changes from the 2020 CIP in the proposed funding for this program.

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

One portion of the City's stormwater management goals is to reduce pollution at the source before it becomes mixed into the stormwater system. Providing an appropriate location for disposal of used oil is key to preventing illegal disposal of this material where a small amount can contribute to a large contamination problem.

Project Schedule & Location

2021 Projects

Project name	Est Cost	Location
Reconstruction and reinstatement of the Glenway Golf Course Waste Oil Collection site	\$125,000	Glenway Golf Course

Explain the justification for selecting projects planned for 2021:
 2021 Capital Budget

Agency Requests

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2022 Projects

Project Name	Est Cost	Location

Explain the justification for selecting projects planned for 2022:

2023 Projects

Project Name	Est Cost	Location
Reconstruction of the Monona Golf Course Waste Oil Collection Site	\$135,000	Monona Golf Course

Explain the justification for selecting projects planned for 2023:

2024 Projects

Project name	Est Cost	Location

Explain the justification for selecting projects planned for 2024:

2025 Projects

Project name	Est Cost	Location

Explain the justification for selecting projects planned for 2025:

2026 Projects

Project name	Est Cost	Location

Explain the justification for selecting projects planned for 2026:

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

# of FTEs	Annual Cost	Description
.05	3,200	The Engineering landfill manager completes the operational work on these sites it is a relatively small portion of the work of that position. This funding is already included in the current operating budget and would not necessitate an increased funding request.

Non-Personnel

Major	Amount	Description
		Engineering hires a Contractor to remove the waste oil and that work is currently done at no charge as the oil itself pays off for the Contractor.

Notes

Notes:

City of Madison 2020 Authorized Projects
Summary Status

Agency : Engineering - Other Projects

of Projects on Schedule

4

of Projects Delayed

0

Project	2020 Budget	Status	Notes
Service Building Improvements	141,000	On schedule	
Equipment and Vehicle Replacement	1,701,000	On schedule	
Right of Way Landscaping & Trees	160,000	On schedule	
Aerial Photo / Orthophotos	50,000	On schedule	
TOTAL	\$ 2,052,000		