

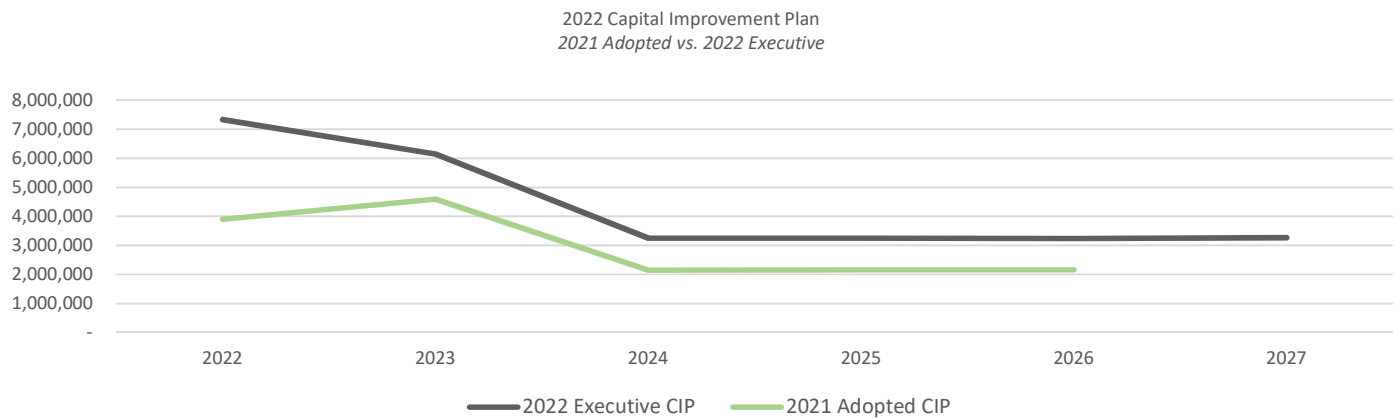
Traffic Engineering

Capital Improvement Plan

Project Summary: Executive

	2022	2023	2024	2025	2026	2027
Citywide LED Conversion	750,000	1,500,000	-	-	-	-
Field Equipment Replacement	275,000	-	50,000	25,000	-	-
John Nolen Drive Lighting	2,000,000	-	-	-	-	-
Public Safety Radio System	150,000	1,100,000	150,000	150,000	150,000	150,000
Safe Streets Madison	2,050,000	2,050,000	1,550,000	1,564,000	1,582,000	1,601,000
Street Light Installation	615,000	615,000	615,000	620,000	620,000	630,000
Traffic Safety Infrastructure	50,000	50,000	50,000	50,000	50,000	50,000
Traffic Signal Installation	830,000	830,000	830,000	835,000	835,000	840,000
Twenty is Plenty	613,026	-	-	-	-	-
	\$ 7,333,026	\$ 6,145,000	\$ 3,245,000	\$ 3,244,000	\$ 3,237,000	\$ 3,271,000

Changes from 2021 CIP



Major Changes

- Field Equipment Replacement
 - Program added to the CIP for replacement of equipment used in field operations (\$350k)
- John Nolen Drive Lighting
 - Budget increased by \$1 million due to tunnel ventilation system enhancements, increased design costs, and increased materials costs
- Safe Streets Madison
 - Program added to the CIP that consolidates several existing capital programs from Engineering and Traffic Engineering. Following recommendations from a joint subcommittee of the Transportation Commission and the Transportation Policy and Planning Board, the following existing capital programs are consolidated to create the new program:
 - Neighborhood Traffic Management & Pedestrian Improvements, Engineering - Major Streets
 - Safe Routes to School, Engineering - Bicycle and Pedestrian
 - Ped/Bike Enhancement, Engineering - Bicycle and Pedestrian
 - Vision Zero, Traffic Engineering
 - An additional \$1 million is included over 2022 and 2023 for bicycle enhancements in East Madison from Blair Street to Hwy 30.
- Twenty is Plenty
 - New project to the CIP that will fund signage and installation for an initiative to lower the default speed limit to 20 mph across the City

Traffic Engineering

Budget Overview

2022 CIP by Expenditure Type

	2022	2023	2024	2025	2026	2027
Bike Path	700,000	700,000	700,000	700,000	700,000	700,000
Fiber Network	25,000	-	-	-	-	-
Machinery and Equipment	900,000	1,600,000	700,000	675,000	650,000	650,000
Other	3,443,026	830,000	830,000	835,000	835,000	840,000
Street	850,000	850,000	350,000	364,000	382,000	401,000
Streetlighting	1,365,000	2,115,000	615,000	620,000	620,000	630,000
Total	\$ 7,333,026	\$ 6,145,000	\$ 3,245,000	\$ 3,244,000	\$ 3,237,000	\$ 3,271,000

2022 CIP by Funding Source

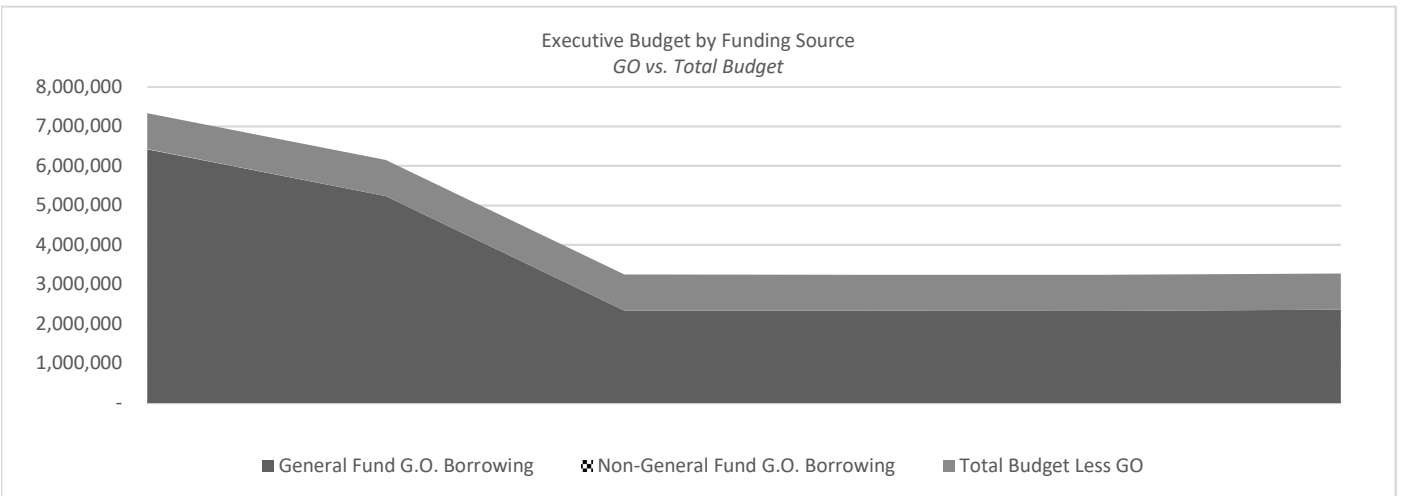
	2022	2023	2024	2025	2026	2027
GF GO Borrowing	6,423,026	5,235,000	2,335,000	2,334,000	2,327,000	2,356,000
County Sources	45,000	45,000	45,000	45,000	45,000	45,000
Developer Capital Funding	410,000	410,000	410,000	410,000	410,000	415,000
Other Govt Pmt For Services	80,000	80,000	80,000	80,000	80,000	80,000
Special Assessment	275,000	275,000	275,000	275,000	275,000	275,000
State Sources	100,000	100,000	100,000	100,000	100,000	100,000
Total	\$ 7,333,026	\$ 6,145,000	\$ 3,245,000	\$ 3,244,000	\$ 3,237,000	\$ 3,271,000

Borrowing Summary

	2022	2023	2024	2025	2026	2027
Borrowing Schedule						
General Fund G.O. Borrowing	6,423,026	5,235,000	2,335,000	2,334,000	2,327,000	2,356,000
Non-General Fund G.O. Borrowing	-	-	-	-	-	-
Total	\$ 6,423,026	\$ 5,235,000	\$ 2,335,000	\$ 2,334,000	\$ 2,327,000	\$ 2,356,000

Annual Debt Service

General Fund G.O. Borrowing	834,993	680,550	303,550	303,420	302,510	306,280
Non-General Fund G.O. Borrowing	-	-	-	-	-	-



Traffic Engineering

Project Overview

Project	Citywide LED Conversion	Project #	13065
Citywide Element	Green and Resilient	Project Type	Project

Project Description

This project is to convert all remaining City streetlights to LED. The goal of this project is to replace street light fixtures with more energy efficient LED fixtures, reducing energy usage and costs. The project's scope includes equipment costs for the replacement of all non-LED streetlight fixtures. Completion of the project is estimated to save \$390,000 in electricity costs annually. These projected savings do not include debt service costs.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
GF GO Borrowing	750,000	1,500,000	-	-	-	-
TOTAL	\$ 750,000	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -

Project	Field Equipment Replacement	Project #	13779
Citywide Element	Effective Government	Project Type	Program

Project Description

This program is for the purchase and replacement of equipment used to support Traffic Engineering field operations including the City's fiber optic network, signing, streetlighting and signal operations. The goal of this program is to improve efficiency and reduce delays in providing or restoring services to City agencies and partners. Funding in 2022 will purchase a new Aerial Lift Truck, updated fiber optic troubleshooting equipment, and replace an aging sign pipe threader. Funding in 2024 and 2025 will support pavement marking removal equipment and the replacement of a large format digital printer.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
GF GO Borrowing	275,000	-	50,000	25,000	-	-
TOTAL	\$ 275,000	\$ -	\$ 50,000	\$ 25,000	\$ -	\$ -

Project	John Nolen Drive Lighting	Project #	12730
Citywide Element	Land Use and Transportation	Project Type	Project

Project Description

This project funds replacing the current tunnel lighting on John Nolen Drive under Monona Terrace. The goal of the project is to improve safety along the existing roadway by replacing the existing lighting that has been damaged by snow and stormwater runoff. The scope of the project includes the updated lighting infrastructure and installation costs, as well as review of emergency ventilation fan equipment. Funding to study this project was included in the 2020 capital budget. Construction of the project is scheduled for 2022.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
GF GO Borrowing	2,000,000	-	-	-	-	-
TOTAL	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -

Project	Public Safety Radio System	Project #	10420
Citywide Element	Healthy and Safe	Project Type	Program

Project Description

This program is for digital emergency communication equipment. The program’s goal is to build redundancy to ensure the continuation of operations in case of major disruptions. The program’s scope is focused on purchasing equipment and the corresponding software to operate the equipment. Funding in 2023 will be used to purchase a backup system to safeguard against system interruptions.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
GF GO Borrowing	150,000	1,100,000	150,000	150,000	150,000	150,000
TOTAL	\$ 150,000	\$ 1,100,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000

Project	Safe Streets Madison	Project #	13778
Citywide Element	Healthy and Safe	Project Type	Program

Project Description

This program funds Vision Zero projects, safety enhancements, traffic calming, and pedestrian and bicycle system enhancements in the City of Madison. The goal of the program is to implement traffic safety measures and upgrade pedestrian and bicycle networks in a fair and equitable manner to improve safety and encourage increased walking and biking across the city.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
GF GO Borrowing	2,050,000	2,050,000	1,550,000	1,564,000	1,582,000	1,601,000
TOTAL	\$ 2,050,000	\$ 2,050,000	\$ 1,550,000	\$ 1,564,000	\$ 1,582,000	\$ 1,601,000

Project	Street Light Installation	Project #	10418
Citywide Element	Healthy and Safe	Project Type	Program

Project Description

This program is for improvements to outdated street lighting systems, including computer support; replacement or painting/refurbishing of older poles, fixtures, cable and other major street light equipment; and installation of new street lights. The program’s goal is to provide adequate lighting on streets for motorists, pedestrians, and bicyclists. Projects planned in 2022 include replacement of poles on State Street and Bassett Street.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
GF GO Borrowing	175,000	175,000	175,000	180,000	180,000	185,000
County Sources	15,000	15,000	15,000	15,000	15,000	15,000
Developer Capital Funding	300,000	300,000	300,000	300,000	300,000	305,000
Other Govt Pmt For Services	30,000	30,000	30,000	30,000	30,000	30,000
Special Assessment	75,000	75,000	75,000	75,000	75,000	75,000
State Sources	20,000	20,000	20,000	20,000	20,000	20,000
TOTAL	\$ 615,000	\$ 615,000	\$ 615,000	\$ 620,000	\$ 620,000	\$ 630,000

Project **Traffic Safety Infrastructure** Project # **10428**
 Citywide Element **Healthy and Safe** Project Type **Program**

Project Description

This program is for traffic control devices used in the design for the local share of the State Highway Hazard Elimination program, signs, and traffic safety studies. The goal of this program is to improve traffic safety and accessibility for pedestrians, bicyclists, motorists, and transit users. Specific projects for 2022 have not yet been identified.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
GF GO Borrowing	50,000	50,000	50,000	50,000	50,000	50,000
TOTAL	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000

Project **Traffic Signal Installation** Project # **10427**
 Citywide Element **Land Use and Transportation** Project Type **Program**

Project Description

This program is for replacing and modernizing the City’s traffic signal network. The goal of the program is to provide energy efficient and dynamic traffic signals that are readily adaptable to provide for safe, efficient traffic flow for vehicles, bicycles, and pedestrians. Projects planned for 2022 include signal improvements at Old Sauk and Heartland Trail.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
GF GO Borrowing	360,000	360,000	360,000	365,000	365,000	370,000
County Sources	30,000	30,000	30,000	30,000	30,000	30,000
Developer Capital Funding	110,000	110,000	110,000	110,000	110,000	110,000
Other Govt Pmt For Services	50,000	50,000	50,000	50,000	50,000	50,000
Special Assessment	200,000	200,000	200,000	200,000	200,000	200,000
State Sources	80,000	80,000	80,000	80,000	80,000	80,000
TOTAL	\$ 830,000	\$ 830,000	\$ 830,000	\$ 835,000	\$ 835,000	\$ 840,000

Project **Twenty is Plenty** Project # **13573**
 Citywide Element **Healthy and Safe** Project Type **Project**

Project Description

This project funds the 20 is Plenty initiative. The 20 is Plenty initiative will lower the default speed limit to 20 mph across the city and this project will fund the installation of the necessary signing. The reduction of the default speed limit on local streets will decrease crashes and increase safety for all road users.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
GF GO Borrowing	613,026	-	-	-	-	-
TOTAL	\$ 613,026	\$ -	\$ -	\$ -	\$ -	\$ -

Traffic Engineering

2022 Appropriation Schedule

2022 Appropriation

Executive Budget

	Request	GO Borrowing	Other	Total
Aerial Lift Truck	195,000	-	-	-
Citywide LED Conversion	750,000	750,000	-	750,000
Field Equipment Replacement	-	275,000	-	275,000
John Nolen Drive Lighting	2,000,000	2,000,000	-	2,000,000
Optical Time-domain Reflectometer	25,000	-	-	-
Public Safety Radio System	150,000	150,000	-	150,000
Safe Streets Madison	-	2,050,000	-	2,050,000
Sign Pipe Threader	55,000	-	-	-
Street Light Installation	615,000	175,000	440,000	615,000
Traffic Safety Infrastructure	50,000	50,000	-	50,000
Traffic Signal Installation	830,000	360,000	470,000	830,000
Twenty is Plenty	613,026	613,026	-	613,026
Vision Zero	500,000	-	-	-
Total 2022 Appropriation	\$ 5,783,026	\$ 6,423,026	\$ 910,000	\$ 7,333,026