



## Six Year Capital Improvement Program

### Bridges

#### 200 Block Alley Enhanced Improvements

##### Project Information

714-20-CIP

**Submitted By:** Rob Baciagalupi  
**Category:** Visionary  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Jean Derenzy  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Pedestrian bridge, riverwalk and pedestrian improvements to north East Front alley between Cass and Park.

200 Block Alley Enhanced Improvements - Cost

714-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIF97	TIF 97	\$0	\$0	\$817,000	\$0	\$0	\$0	\$0	\$817,000
Project Total:									\$817,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$817,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** \$817,000

**Project Difference:** \$0

##### Service Impact:

Landscaping and streetscape elements will result in additional services. Trash receptacle pick up

##### Project Justification:

TIF 97

##### Location Description:

Alley north of the 200 block of E. Front Street



## Six Year Capital Improvement Program

### Bridges

#### Eighth Street Bridge Repair

##### Project Information

58-20-CIP

**Submitted By:** Jean Derenzy  
**Category:** Visionary  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 2

**Department:** Downtown Development  
**Department Head:** Tim Lodge  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

The work will include concrete box beam deck removal and replacement, railing replacement, sidewalk widening, riverbank slope protection, approach work and related work including aesthetic treatments. Twenty percent of the composite deck area is delaminated/defective. The City received \$750,000 in funding thru the MDOT Local Bridge Program which requires a 5% local match and the City to perform engineering for the project. This project needs to be coordinated with the Midtown Water Transmission Line #115 project included in the Water Fund.

It is our intention to package the following bridges and bid as one large project: Eighth St, S. Cass St, Park St, and W. Front St. By doing so, the overall bid package will have an estimated surplus of \$7,501.89.

Eighth Street Bridge Repair (+Grant) - Cost

58-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
ACPF	Available Capital Projects Fund	\$0	\$195,000	\$0	\$0	\$0	\$0	\$0	\$195,000
FSG	Federal / State Grant	\$0	\$712,500	\$0	\$0	\$0	\$0	\$0	\$712,500
TIFOT	TIF Old Town	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	\$150,000
WAT	Water Fund	\$0	\$299,717	\$0	\$0	\$0	\$0	\$0	\$299,717

**Project Total:** **\$1,357,217**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$35,506

**Construction:** \$1,484,920

**Annual Maint. Cost:** \$5,500

**Maint. Year Start:**

**Cost Total:** **\$1,520,426**

**Project Difference:** **\$-163,209**

##### Service Impact:

See Project Description.

##### Project Justification:



## ***Six Year Capital Improvement Program***

### **Bridges**

See Project Description.

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**Location Description:**

See Project Description.



## Six Year Capital Improvement Program

### Bridges

#### North Cass Street Bridge Rehabilitation

##### Project Information

885-20-CIP

**Submitted By:** Jean Derenzy  
**Category:** Visionary  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Tim Lodge  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

The work anticipated includes the removal and replacement of the existing concrete box beam supported deck, widening and replacement of the sidewalks, railings, approach pavement and related work.

North Cass Street Bridge Rehabilitation (+ - Cost

885-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$0	\$913,500	\$0	\$0	\$0	\$0	\$0	\$913,500
IN	Inkind	\$183,000	\$0	\$0	\$0	\$0	\$0	\$0	\$183,000
TIF97	TIF 97	\$45,000	\$201,500	\$0	\$0	\$0	\$0	\$0	\$246,500
<b>Project Total:</b>									<b>\$1,343,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$183,000

**Construction:** \$1,160,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** \$1,343,000

**Project Difference:** \$0

##### Service Impact:

Improvement should lessen service burden.

##### Project Justification:

Bridge rehabilitation due the deck condition and known foundation type information.

##### Location Description:

North Cass Street bridge located between Grandview Parkway and E. Front Street.

## Six Year Capital Improvement Program

### Bridges

#### Park Street Bridge Repair

##### Project Information

586-20-CIP

**Submitted By:** Rob Baciagalupi  
**Category:** Visionary  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Jean Derenzy  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Rehabilitate bridge superstructure.

It is our intention to package the following bridges and bid as one large project: Eighth St, S. Cass St, Park St, and W. Front St. By doing so, the overall bid package will have an estimated surplus of \$7,501.89.

Park Street Bridge Repair - Cost

586-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$0	\$807,500	\$0	\$0	\$0	\$0	\$0	\$807,500
TIF97	TIF 97	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	\$150,000
<b>Project Total:</b>									<b>\$957,500</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$24,705

**Construction:** \$616,260

**Annual Maint. Cost:** \$5,500

**Maint. Year Start:** 1905

**Cost Total:** **\$640,965**

**Project Difference:** **\$316,535**

##### Service Impact:

N/A

##### Project Justification:

Based on bridge assessment

##### Location Description:

Park St



## Six Year Capital Improvement Program

### Bridges

#### South Cass Street Bridge Repair

##### Project Information

187-20-CIP

**Submitted By:** Jean Derenzy  
**Category:** Visionary  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Tim Lodge  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Concrete arch rehabilitation.

It is our intention to package the following bridges and bid as one large project: Eighth St, S. Cass St, Park St, and W. Front St. By doing so, the overall bid package will have an estimated surplus of \$7,501.89.

South Cass Street Bridge Repair(+TIF2) - Cost

187-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$0	\$807,500	\$0	\$0	\$0	\$0	\$0	\$807,500
TIF97	TIF 97	\$0	\$66,000	\$0	\$0	\$0	\$0	\$0	\$66,000
TIFOT	TIF Old Town	\$0	\$66,000	\$0	\$0	\$0	\$0	\$0	\$66,000

**Project Total:** **\$939,500**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$62,578

**Construction:** \$744,142

**Annual Maint. Cost:** \$5,500

**Maint. Year Start:**

**Cost Total:** **\$806,720**

**Project Difference:** **\$132,780**

##### Service Impact:

See Project Description.

##### Project Justification:

See Project Description.

##### Location Description:

See Project Description.



## Six Year Capital Improvement Program

### Bridges

#### South Union Street Bridge Repair

##### Project Information

186-20-CIP

**Submitted By:** Jean Derenzy  
**Category:** Visionary  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Tim Lodge  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**  
Rehabilitate bridge superstructure.

South Union Street Bridge Repair (+TIF2) - Cost

186-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$0	\$0	\$1,057,500	\$0	\$0	\$0	\$0	\$1,057,500
GEN	General Fund	\$0	\$0	\$74,500	\$0	\$0	\$0	\$0	\$74,500
TIF97	TIF 97	\$0	\$0	\$93,000	\$0	\$0	\$0	\$0	\$93,000
TIFOT	TIF Old Town	\$0	\$0	\$93,000	\$0	\$0	\$0	\$0	\$93,000

**Project Total:** **\$1,318,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$189,000

**Construction:** \$1,134,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** **\$1,323,000**

**Project Difference:** **\$-5,000**

##### Service Impact:

See Project Description.

##### Project Justification:

See Project Description.

##### Location Description:

See Project Description.



## Six Year Capital Improvement Program

### Bridges

#### West Front Street Bridge Replacement

##### Project Information

535-20-CIP

**Submitted By:** Jean Derenzy  
**Category:** Visionary  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Tim Lodge  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

This project includes the complete removal and replacement of the existing concrete arch bridge with a new concrete bridge including aesthetic treatments. The current condition of the Front Street bridge is poor and very poor and it cannot be properly evaluated and renovated to meet current service and load carrying requirements. The City received \$1,100,000 in funding thru the MDOT Local Bridge Program which requires a 5% local match and the City to perform engineering for the project.

It is our intention to package the following bridges and bid as one large project: Eighth St, S. Cass St, Park St, and W. Front St. By doing so, the overall bid package will have an estimated surplus of \$7,501.89.

#### West Front Street Bridge Replacement - Cost

535-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$0	\$1,181,560	\$0	\$0	\$0	\$0	\$0	\$1,181,560
TIF97	TIF 97	\$0	\$220,000	\$0	\$0	\$0	\$0	\$0	\$220,000
WAT	Water Fund	\$0	\$149,375	\$0	\$0	\$0	\$0	\$0	\$149,375
Project Total:									\$1,550,935

##### COST DETAIL:

Study:	\$0	
Land Acquisition / ROW:	\$0	
Engineering / Design:	\$38,405	
Construction:	\$1,791,133	Cost Total: \$1,829,538
Annual Maint. Cost:	\$5,500	Project Difference: \$-278,604
Maint. Year Start:		

##### Service Impact:

See Project Description.

##### Project Justification:

See Project Description.

##### Location Description:





## ***Six Year Capital Improvement Program***

### **Bridges**

See Project Description.



Six Year Capital Improvement Program

Brown Bridge

ADA Accessible Watercraft Landing

Project Information			1106-20-CIP							
Submitted By:	Grand Traverse Conservation District S		Department:	Department of Public Services			Project Description:			
Category:	Visionary		Department Head:	Frank Dituri			Replace existing landing with ADA accessible watercraft landing.			
Fund Group:	Brown Bridge Trust Parks Improvement		Staff Priority:	Essential (Should Do)						
Fund Detail:	Brown Bridge Trust Parks Improvement		Council Priority:							
ADA Accessible Watercraft Landing				1106-20-CIP-C						
Funding Sources:			Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks		\$0	\$0	\$0	\$0	\$50,000	\$0	\$0	\$50,000
FSG	Federal / State Grant		\$0	\$0	\$0	\$0	\$50,000	\$0	\$0	\$50,000
									Project Total:	\$100,000
			COST DETAIL:							
			Study:	\$0						
			Land Acquisition / ROW:	\$0						
			Engineering / Design:	\$25,000						
			Construction:	\$75,000						
			Annual Maint. Cost:							
			Maint. Year Start:							
Service Impact:										
Resource Management Contract w/GTCD										
Project Justification:										
River access for those with physical disabilities										
Location Description:										
3405 Brown Bridge Rd										



## Six Year Capital Improvement Program

### Brown Bridge

#### Boardman River Recreation Plan

**Project Information**

1105-20-CIP

**Submitted By:** Grand Traverse Conservation District S  
**Category:** Visionary  
**Fund Group:** Brown Bridge Trust Parks Improvement  
**Fund Detail:** Brown Bridge Trust Parks Improvement

**Department:** Department of Public Services  
**Department Head:** Frank Dituri  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**

Development of a recreation plan for the Boardman River post dam removal to protect the river at Brown Bridge and the quiet area its self.

Boardman River Recreation Plan - Cost

1105-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$5,000	\$0	\$0	\$0	\$0	\$0	\$5,000
FSG	Federal / State Grant	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000
P	Private	\$5,000	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000
Project Total:									\$30,000

**COST DETAIL:**

**Study:** \$30,000  
**Land Acquisition / ROW:** \$0  
**Engineering / Design:** \$0  
**Construction:** \$0  
**Annual Maint. Cost:**  
**Maint. Year Start:**

**Cost Total: \$30,000****Project Difference: \$0****Service Impact:**

Resource Management Contract w/GTCD

**Project Justification:**

Resource Protection

**Location Description:**

3405 Brown Bridge Rd



## Six Year Capital Improvement Program

### Brown Bridge

#### Bucks Landing Renovation

**Project Information**

849-20-CIP

**Submitted By:** Dave Green**Department:** Department of Public Services**Category:** Maintenance**Department Head:** Frank Dituri**Fund Group:** Brown Bridge Maintenance Fund**Staff Priority:** Important (Could Do)**Fund Detail:** Brown Bridge Maintenance Fund**Council Priority:****Project Description:**

Gravel and re-grade existing parking lot at Bucks Landing off Brown Bridge Road; Replace fencing

**Funding Sources:**

Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

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**Project Total:** \$0**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$0**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$0**Project Difference:** \$0**Service Impact:**

Brown Bridge Resource Management Contract w/GTCD

**Project Justification:**

Public Access maintenace

**Location Description:**

3405 Brown Bridge Rd



## Six Year Capital Improvement Program

### Brown Bridge

#### Fish & Wildlife Habitat Improvements

##### Project Information

975-20-CIP

**Submitted By:** Grand Traverse Conservation District S  
**Category:** Maintenance  
**Fund Group:** Brown Bridge Maintenance Fund  
**Fund Detail:** Brown Bridge Maintenance Fund

**Department:** Department of Public Services  
**Department Head:** Frank Dituri  
**Staff Priority:** Important (Could Do)  
**Council Priority:**

##### Project Description:

Phase II Wood - In stream habitat and native species planting to provide forage, nesting and breeding sites for fish & wildlife. Riparian Planting will provide bank stabilization as well as habitat benefits. \$15,000 Grant funded 2018/2019

Fish & Wildlife Habitat Improvements

975-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBM	Brown Bridge Maintenance Fund	\$0	\$5,000	\$0	\$0	\$0	\$0	\$0	\$5,000
BBTP	Brown Bridge Trust Parks	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0	\$40,000
FSG	Federal / State Grant	\$30,000	\$175,000	\$0	\$0	\$0	\$0	\$0	\$205,000
<b>Project Total:</b>									<b>\$250,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$250,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$250,000

**Project Difference:** \$0

##### Service Impact:

Brown Bridge Resource Management Contract w/GTCD

##### Project Justification:

Dam Removal

##### Location Description:

3405 Brown Bridge Rd



## Six Year Capital Improvement Program

### Brown Bridge

#### Invasive Species Treatment

**Project Information**

853-20-CIP

**Submitted By:** Grand Traverse Conservation District S**Department:** Department of Public Services**Category:** Maintenance**Department Head:** Frank Dituri**Fund Group:** Brown Bridge Maintenance Fund**Staff Priority:** Essential (Should Do)**Fund Detail:** Brown Bridge Maintenance Fund**Council Priority:****Project Description:**

Treat/remove invasive species that threaten ecologic integrity of Brown Bridge.

Invasive Species Treatment - Cost

853-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBM	Brown Bridge Maintenance Fund	\$5,000	\$0	\$5,000	\$0	\$0	\$0	\$0	\$10,000

**Project Total: \$10,000****COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$10,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total: \$10,000****Project Difference: \$0****Service Impact:**

Brown Bridge Resource Management Contract w/GTCD

**Project Justification:**

Bottom lands management

**Location Description:**

3405 Brown Bridge Rd



## Six Year Capital Improvement Program

### Brown Bridge

#### Overlook (2) and Access Steps (3 sets)

**Project Information**

856-20-CIP

**Submitted By:** Grand Traverse Conservation District S**Department:** Department of Public Services**Category:** Visionary**Department Head:** Frank Dituri**Fund Group:** Brown Bridge Trust Parks Improvement**Staff Priority:** Important (Could Do)**Fund Detail:** Brown Bridge Trust Parks Improvement**Council Priority:****Project Description:**

Provide viewing opportunities and river access points to the "new" section of river to limit stream bank erosion caused by recreational foot traffic.

Overlook (2) and Access Steps (3 sets) - Cost

856-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$0	\$0	\$22,500	\$0	\$0	\$0	\$22,500
FSG	Federal / State Grant	\$0	\$0	\$0	\$11,250	\$0	\$0	\$0	\$11,250
P	Private	\$0	\$0	\$0	\$11,250	\$0	\$0	\$0	\$11,250
Project Total:									\$45,000

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$45,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$45,000**Project Difference:** \$0**Service Impact:**

Brown Bridge Resource Management Contract w/GTCD

**Project Justification:**

Improve Recreation Access

**Location Description:**

3405 Brown Bridge Rd



## Six Year Capital Improvement Program

### Brown Bridge

#### Overlook and Historical Display at Former Powerho

##### Project Information

855-20-CIP

**Submitted By:** Grand Traverse Conservation District S

**Department:** Department of Public Services

**Category:** Visionary

**Department Head:** Frank Dituri

**Fund Group:** Brown Bridge Trust Parks Improvement

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Brown Bridge Trust Parks Improvement

**Council Priority:**

##### Project Description:

Design and install an overlook and historic display featuring one of the turbines removed from the powerhouse during decommissioning of the dam.

Overlook and Historical Display at Former - Cost

855-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$0	\$0	\$10,000	\$0	\$0	\$0	\$10,000
FSG	Federal / State Grant	\$0	\$0	\$0	\$5,000	\$0	\$0	\$0	\$5,000
P	Private	\$0	\$0	\$0	\$5,000	\$0	\$0	\$0	\$5,000
Project Total:									\$20,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$20,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$20,000

**Project Difference:** \$0

##### Service Impact:

Brown Bridge Resource Management Contract w/GTCD

##### Project Justification:

Improved Recreation experience

##### Location Description:

3405 Brown Bridge Rd





## Six Year Capital Improvement Program

### Cemetery

#### Install Cremation Niches in Mausoleum

**Project Information**

47-20-CIP

**Submitted By:** Lauren Vaughn**Department:** Department of Public Services**Category:** Visionary**Department Head:** Frank Dituri**Fund Group:** General**Staff Priority:** Important (Could Do)**Fund Detail:** Cemetery**Council Priority:****Project Description:**

This project would allow additional burial options for families and utilize an area of the mausoleum that is currently not being used. It would also make the lobby area more attractive and provide more revenue potential.

Install Cremation Niches in Mausoleum - Cost

47-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$0	\$0	\$0	\$22,000	\$0	\$0	\$0	\$22,000

**Project Total: \$22,000****COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$22,000**Annual Maint. Cost:** \$300**Maint. Year Start:** 1905**Cost Total: \$22,000****Project Difference: \$0****Service Impact:**

Little to no maintenance outside of that related to the sale and subsequent use of a niche.

**Project Justification:**

As more families use cremation as an option, having a Niche inside the mausoleum would fill a service need and also provide a revenue potential for the cemetery.

**Location Description:**

1400 East 8th



## Six Year Capital Improvement Program

### Cemetery

#### Paving of Main Loop in First Addition

**Project Information**

48-20-CIP

**Submitted By:** Lauren Vaughn**Department:** Department of Public Services**Category:** Visionary**Department Head:** Frank Dituri**Fund Group:** General**Staff Priority:** Imperitive (Must Do)**Fund Detail:** Cemetery**Council Priority:****Project Description:**

The roads in this area are dusty gravel and often have rough areas. This project would provide paved connections to all main parts of the cemetery. This would tie together the main cemetery road through Plat 1 to First Addition and Fourth Addition.

Paving of Main Loop in First Addition - Cost

48-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$0	\$0	\$110,000	\$0	\$0	\$0	\$0	\$110,000

**Project Total:** \$110,000**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$110,000**Annual Maint. Cost:** \$500**Maint. Year Start:** 1905**Cost Total:** \$110,000**Project Difference:** \$0**Service Impact:**

Future patching and longterm replacement will be required.

**Project Justification:**

Increasing the paved pathways through the cemetery would help with dust control, winter maintenance (plowing) and aesthetics.

**Location Description:**

1400 East 8th Street



## Six Year Capital Improvement Program

### Civic

#### Civic Square

##### Project Information

870-20-CIP

**Submitted By:** Rob Baciagalupi  
**Category:** Visionary  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Jean Derenzy  
**Staff Priority:** Important (Could Do)  
**Council Priority:**

##### Project Description:

Public gathering space for Traverse Cityans and visitors

Civic Square (+Private) - Cost

870-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$5,000,000	\$0	\$0	\$5,000,000
TIF97	TIF 97	\$0	\$0	\$0	\$0	\$1,000,000	\$0	\$0	\$1,000,000
<b>Project Total:</b>									<b>\$6,000,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$1,000,000

**Engineering / Design:** \$0

**Construction:** \$5,000,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** \$6,000,000

**Project Difference:** \$0

##### Service Impact:

Additional landscaping and streetscape elements will result in additional services. Addition of restrooms will result in contracting services for maintenance if open year round.  
Renovation of the space will may result in rental i.e. issuing permits for use

##### Project Justification:

TIF 97

##### Location Description:

NE corner of State and Cass is where it is designate in the TIF plan



## Six Year Capital Improvement Program

### Civic

#### Farmers Market

##### Project Information

781-20-CIP

**Submitted By:** Rob Baciagalupi  
**Category:** Visionary  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Jean Derenzy  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Reconstruction of the Farmers Market Lot B with permanent structure, wider sidewalks, river enhancements, lighting, and reconstruction of parking lot. \$400,000 from Parking Fund.

Farmers Market - Cost

781-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$2,700,000	\$0	\$0	\$0	\$0	\$2,700,000
TIF97	TIF 97	\$0	\$0	\$600,000	\$0	\$0	\$0	\$0	\$600,000
<b>Project Total:</b>									<b>\$3,300,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$300,000

**Construction:** \$3,000,000

**Annual Maint. Cost:** \$10,000

**Maint. Year Start:** 1905

**Cost Total:** \$3,300,000

**Project Difference:** \$0

##### Service Impact:

Additional landscaping and placement of shed will require additional snowplowing services. Addition of restrooms will result in contracting services for maintenance if open year round. Renovation of the space and "birdhouse" will may result in rental i.e. issuing permits for use

##### Project Justification:

Boardman River Enhancement

##### Location Description:

See Lot B Rehab.



Six Year Capital Improvement Program

Civic

Lower Boardman River Universal Access

Project Information		82-20-CIP							
Submitted By:	Rob Baciagalupi	Department:	Downtown Development				Project Description:		
Category:	Capital	Department Head:	Jean Derenzy				To beautify and enhance the river environment for recreationalist and fisheries.		
Fund Group:	Tax Increment Financing	Staff Priority:	Essential (Should Do)						
Fund Detail:	TIF 97	Council Priority:							
Lower Boardman River Universal Access- Cost		82-20-CIP-C							
Funding Sources:									
TIF97	TIF 97	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$300,000	\$0	\$0	\$0	\$0	\$0	\$300,000
Project Total:									\$300,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$300,000					
Annual Maint. Cost:									
Maint. Year Start:									
Cost Total:									\$300,000
Project Difference:									\$0
Service Impact:									
The project may be in conjunction with other items, but would most likely result in maintenance to a boardwalk and landscaping and require additional services for snow removal									
Project Justification:									
Boardman River Enhancement									
Location Description:									
Lower Boardman River									



## Six Year Capital Improvement Program

### Civic

#### Redevelopment of Lot O

##### Project Information

646-20-CIP

**Submitted By:** Jean Derenzy  
**Category:** Visionary  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Jean Derenzy  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Private/public partnership for developing a mixed use development

##### Funding Sources:

Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

**Project Total:** \$0

##### COST DETAIL:

**Study:** \$0  
**Land Acquisition / ROW:** \$0  
**Engineering / Design:** \$0  
**Construction:** \$0  
**Annual Maint. Cost:**  
**Maint. Year Start:**

**Cost Total:** \$0

**Project Difference:** \$0

##### Service Impact:

Remove 25 space parking lot to build a mixed use development

##### Project Justification:

Better land use

##### Location Description:

NW Corner of State and Cass



Six Year Capital Improvement Program

Civic

Stormwater

Project Information		1141-20-CIP							
Submitted By:	Jean Derenzy	Department:	Downtown Development			Project Description:			
Category:	Capital	Department Head:	Jean Derenzy			STORMWATER IMPROVEMENTS FOR DDA DISTRICT PER AECOM STUDY			
Fund Group:	Tax Increment Financing	Staff Priority:	Essential (Should Do)						
Fund Detail:	TIF 97	Council Priority:	Essential (Should Do)						
STORMWATER		1141-20-CIP-C							
Funding Sources:									
TIF97	TIF 97	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$300,000	\$0	\$0	\$0	\$0	\$0	\$300,000
Project Total:									\$300,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$300,000				Cost Total:	\$300,000
Annual Maint. Cost:				\$5,000				Project Difference:	\$0
Maint. Year Start:				1905					
Service Impact:									
WILL REDUCE STORMWATER IMPACTS INTO BOARDMAN RIVER AND BAY									
Project Justification:									
AECOM STUDY									
Location Description:									
DDA DISTRICT									



## Six Year Capital Improvement Program

### Facilities

#### Harbor Master Building Foundation Repair

##### Project Information

1074-20-CIP

**Submitted By:** Barry Smith

**Department:** Department of Public Services

**Category:** Maintenance

**Department Head:** Frank Dituri

**Fund Group:** Marina

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Marina

**Council Priority:**

##### Project Description:

Repairs to the Harbor Master Building foundation and the interior and exterior of the building per the recommendations from the crack monitoring done in the summer of 2018. Repairs to the exterior includes concrete removal and replacement, helical piles, backfilling and mobilization and demobilization. Interior repairs include masonry remove and replace, joint repair, drywall repair, painting and caulking. Per cost estimate provided by Machin Engineering in 2018.

Harbor Master Building Foundation Repair

1074-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
MAR	Marina Fund	\$0	\$0	\$300,000	\$0	\$0	\$0	\$0	\$300,000
Project Total:									\$300,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$300,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$300,000

**Project Difference:** \$0

##### Service Impact:

Once the repairs are complete, there should be no additional future repairs for this issue as this project should resolve the cracking and foundation issues.

##### Project Justification:

The foundation at the marina is cracking and causing damage to the harbor master building. Delaying the repairs could mean additional damage to the building which could result in increased repair costs as the scope changes.

##### Location Description:

1011 E Grandview Pkwy, Traverse City, MI 49684





## Six Year Capital Improvement Program

### Facilities

#### NOAA Culvert Replacement

##### Project Information

1114-20-CIP

**Submitted By:** Tim Lodge

**Department:** Engineering

**Category:** Maintenance

**Department Head:** Tim Lodge

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Facilities

**Council Priority:**

##### Project Description:

Ongoing restoration work in Kids Creek by improving in-stream habitat on a 3,000-foot section of the creek on City property south of Silver Lake Road. Restoration includes riparian buffer plantings along the creek, large wood placement at key locations, and the placement of toe wood on outside of stream meanders for habitat purposes. The project will improve a total of 4 priority road crossings in the City of Traverse City along Kids Creek that are having a negative hydrological effect on the stream by removing undersized culverts and replacing them with open bottom bridge structures. City Engineering will lead design and construction efforts for the road crossing improvements and will provide engineering services and construction oversight as project match at an estimated amount to be \$166,500 over a period of 4 years. Construction is slated for the first two crossings in 2021.

NOAA Culvert Replacement-C

1114-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$822,000	\$822,000	\$0	\$0	\$0	\$0	\$0	\$1,644,000
IN	Inkind	\$122,300	\$44,300	\$0	\$0	\$0	\$0	\$0	\$166,600
S	Sewer Fund	\$162,000	\$0	\$0	\$0	\$0	\$0	\$0	\$162,000
WAT	Water Fund	\$196,000	\$0	\$0	\$0	\$0	\$0	\$0	\$196,000

**Project Total:** **\$2,168,600**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$166,600

**Construction:** \$2,002,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$2,168,600**

**Project Difference:** **\$0**

##### Service Impact:

Replacement of four street and stream crossings for which the City would otherwise be responsible.

##### Project Justification:



## ***Six Year Capital Improvement Program***

### **Facilities**

Will allow us to leverage receipt of nearly \$2.3 million in grant funds for improvements to Kids Creek.

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#### **Location Description:**

Kids Creek south of Silver Lake Rd.

2 locations on Cedar Street. One location on Sixth Street and one location of Tributary A on Elmwood Avenue near Seventh Street.



## Six Year Capital Improvement Program

### Facilities

#### Senior Center building renovation

##### Project Information

871-20-CIP

**Submitted By:** Tim Lodge

**Department:** Engineering

**Category:** Visionary

**Department Head:** Tim Lodge

**Fund Group:** Senior Center Fund

**Staff Priority:** Important (Could Do)

**Fund Detail:** Senior Center

**Council Priority:**

##### Project Description:

Building Renovation- The Grand Traverse County Senior Center Network is presently housed at the city owned building at 801 E. Front Street in Traverse City. For some years it has been apparent that the facility is inadequate to meet the numerous uses and needs of our local seniors. This program is presently managed by the Grand Traverse County Commission on Aging.

The Senior Center Fund has \$423,000 in savings originally collected by donations to the center toward a new building and which the City Commission has agreed to release the funds for a building remodel. The existing building footprint is 5,760 square feet. A design consultant has been hired and a proposed site plan with a building of 12,000 sft is being presented to county/city boards.

Senior Center building renovation (+Privat - Cost

871-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LFG	Local / Foundation Grant	\$250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000
P	Private	\$3,327,000	\$0	\$0	\$0	\$0	\$0	\$0	\$3,327,000
SCB	Senior Center Building Fund	\$423,000	\$0	\$0	\$0	\$0	\$0	\$0	\$423,000
Project Total:									\$4,000,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$320,000

**Construction:** \$3,680,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$4,000,000

**Project Difference:** \$0

##### Service Impact:

None.

##### Project Justification:

Building upgrade.

##### Location Description:



## ***Six Year Capital Improvement Program***

### **Facilities**

801 E. Front Street



## Six Year Capital Improvement Program

### Facilities

#### Union Street Dam Improvements

##### Project Information

168-20-CIP

**Submitted By:** Tim Lodge

**Department:** Engineering

**Category:** Visionary

**Department Head:** Frank Dituri

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Facilities

**Council Priority:**

##### Project Description:

The goal of FishPass is to provide bi-directional movement of native and desirable fishes while removing or blocking invasive fishes on the Boardman River, Michigan. As part of the ongoing Boardman River Restoration Project, the Union Street Dam will be removed and replaced with a new and improved barrier. Below the barrier, a facility with multiple sorting channels and nature-like channel will be constructed as a place to demonstrate an integrated suite of technologies and techniques for selective fish passage and invasive species control. The project consists of a 1,481 square foot building with an office, fabrication room and public bathrooms is planned in the vicinity where a small cement block building currently exists. There are plans for connecting walks to adjacent parks and properties along with other features shown in the attached report. Approved by the Planning Commission for consistency with Master Plan on 1/3/17.

Union Street Dam Improvements- Cost

168-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$0	\$9,000,000	\$9,000,000	\$0	\$0	\$0	\$0	\$18,000,000
P	Private	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000,000
<b>Project Total:</b>									<b>\$19,000,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$19,000,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$19,000,000

**Project Difference:** \$0

##### Service Impact:

The building and public restroom will require ongoing maintenance. The improvements to the grounds may also require additional maintenance.

##### Project Justification:

Boardman River Enhancement



## ***Six Year Capital Improvement Program***

### **Facilities**

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#### **Location Description:**

235 S. Union Street. The project is located in and around the existing earthen Union Street Dam which is located on Boardman River between Cass and Union Streets south of State Street.



## Six Year Capital Improvement Program

### Fire

#### Fire detection and suppression system installatio

**Project Information**

977-20-CIP

**Submitted By:** Jim Tuller**Department:** Fire**Category:** Maintenance**Department Head:** Jim Tuller**Fund Group:** General**Staff Priority:** Imperitive (Must Do)**Fund Detail:** Fire**Council Priority:****Project Description:**

Both City fire stations currently have no fire detection or fire suppression systems in place to warn occupants of a fire, or to suppress a fire that breaks out. Both Stations house City Fire personnel 24/7 and hundreds of thousands of dollars of emergency equipment.

Fire detection and suppression system inst - Cost

977-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$0	\$131,250	\$89,250	\$0	\$0	\$0	\$0	\$220,500
<b>Project Total:</b>									<b>\$220,500</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$220,500**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** **\$220,500****Project Difference:** **\$0****Service Impact:**

None.

**Project Justification:**

Protection of personnel and equipment

**Location Description:**

Traverse City Fire Department Station 1, 500 West Front Street and Station 2, 1313 E. 8th Street



## Six Year Capital Improvement Program

### Garage

#### Annual Vehicle and Equipment Replacement

##### Project Information

126-20-CIP

**Submitted By:** Dave Courtad

**Department:** Department of Public Services

**Category:** Capital

**Department Head:** Frank Dituri

**Fund Group:** Garage

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Garage

**Council Priority:**

##### Project Description:

The garage annually purchases new equipment, vehicles, and machinery to replace existing assets. These items to be replaced on an annual basis are based on cost effectiveness of ownership. This allocation will not replace all vehicles and equipment

Annual Vehicle and Equipment Replacement - Cost

126-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GAR	Garage Fund	\$2,044,300	\$1,307,000	\$1,359,800	\$1,294,976	\$2,637,300	\$2,210,926	\$0	\$10,854,302

**Project Total:** **\$10,854,302**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$0**

**Project Difference:** **\$10,854,302**

##### Service Impact:

continued ability to carryout current level of service

##### Project Justification:

work force equipment needs

##### Location Description:

City-wide





## Six Year Capital Improvement Program

### Garage

#### Demolition of Building @ 535 Woodmere

##### Project Information

1187-20-CIP

**Submitted By:** Dave Courtad

**Department:** Department of Public Services

##### Project Description:

**Category:** Capital

**Department Head:** Frank Dituri

Building at 535 Woodmere demolition and abatement of asbestos and lead paint materials

**Fund Group:** Garage

**Staff Priority:** Imperative (Must Do)

**Fund Detail:** Garage

**Council Priority:**

Demolition of Building @ 535 Woodmere

1187-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GAR	Garage Fund	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	\$150,000

**Project Total:** **\$150,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$150,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$150,000**

**Project Difference:** **\$0**

##### Service Impact:

clearing of properties for future City use

##### Project Justification:

Garage Ad-Hoc request to determine use of property recently purchased by the Garage Fund

##### Location Description:

535 Woodmere Ave

## Six Year Capital Improvement Program

### Garage

#### Hoist Replacement

##### Project Information

1166-20-CIP

**Submitted By:** Dave Courtad

**Department:** Department of Public Services

##### Project Description:

**Category:** Capital

**Department Head:** Frank Dituri

Replacement of in ground Hoists, repair parts have become obsolete

**Fund Group:** Garage

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Garage

**Council Priority:**

1166-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GAR	Garage Fund	\$0	\$0	\$0	\$0	\$220,000	\$0	\$0	\$220,000
<b>Project Total:</b>									<b>\$220,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$20,000

**Construction:** \$200,000

**Annual Maint. Cost:** \$1,000

**Maint. Year Start:** 1905

**Cost Total:** **\$220,000**

**Project Difference:** **\$0**

##### Service Impact:

continued Garage use for repairs

##### Project Justification:

Hoists are getting old and obsolete, repair parts such as seals are become difficult to find.

##### Location Description:

625 Woodmere



## Six Year Capital Improvement Program

### Garage

#### Old Salt Barn Repairs

##### Project Information

1165-20-CIP

**Submitted By:** Dave Courtad

**Department:** Department of Public Services

**Project Description:**

**Category:** Maintenance

**Department Head:** Frank Dituri

Re roof Barn and add a lean too.

**Fund Group:** Garage

**Staff Priority:** Imperative (Must Do)

**Fund Detail:** Garage

**Council Priority:**

Old Salt Barn Repair

1165-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GAR	Garage Fund	\$0	\$55,000	\$0	\$0	\$0	\$0	\$0	\$55,000

**Project Total:** **\$55,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$55,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$55,000**

**Project Difference:** **\$0**

##### Service Impact:

continued Streets division use

##### Project Justification:

Must be repaired to maintain the integrity of the building

##### Location Description:

625 Woodmere



## Six Year Capital Improvement Program

### General Government

#### Annual City Computers

##### Project Information

784-20-CIP

**Submitted By:** Penny Hill  
**Category:** Maintenance  
**Fund Group:** General  
**Fund Detail:** General Government

**Department:** Manager  
**Department Head:** Marty Colburn  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**  
Replacement of general computer hardware and software

Annual City Computers - Cost

784-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$210,000

**Project Total:** **\$210,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$0

**Annual Maint. Cost:** \$30,000

**Maint. Year Start:**

**Cost Total:** **\$0**

**Project Difference:** **\$210,000**

##### Service Impact:

Provides efficiencies in operations City-wide

##### Project Justification:

Cycles out obsolete or non-functioning equipment

##### Location Description:

City Wide



## Six Year Capital Improvement Program

### General Government

#### City Document Management System

##### Project Information

4-20-CIP

**Submitted By:** Penny Hill  
**Category:** Visionary  
**Fund Group:** General  
**Fund Detail:** General Government

**Department:** Manager  
**Department Head:** Marty Colburn  
**Staff Priority:** Essential (Should Do)  
**Council Priority:** Essential (Should Do)

##### Project Description:

Document Imaging various City records.  
 For FY 2020-2021, City Manager's Office: Scan all current City easements, coordinate with GIS, Assessing, and Asset Management to include these easements in a GIS layer and database.

Future Imaging project include:  
 Treasurer's office: Image all invoices, journal entries, financial reports, and receipts that support financial transactions. These documents would then be searchable by anyone with inquiry access.

City Document Management System - Cost

4-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$0	\$25,000	\$25,000	\$25,000	\$0	\$0	\$0	\$75,000
<b>Project Total:</b>									<b>\$75,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$0

**Annual Maint. Cost:** \$9,400

**Maint. Year Start:**

**Cost Total:** \$0

**Project Difference:** \$75,000

##### Service Impact:

This will increase Efficiency in the operations of the City and its Departments, and will reduce the time necessary to research and locate documents.

##### Project Justification:

This will move the City toward its goal of becoming more paperless, creating less waste and reducing our carbon footprint.

##### Location Description:

City Wide



## Six Year Capital Improvement Program

### General Government

#### Lighting Retrofit - Incandescents - Opera House

##### Project Information

1098-20-CIP

**Submitted By:** Penny Hill

**Department:** Manager

**Category:** Maintenance

**Department Head:** Marty Colburn

**Fund Group:** Opera House

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Opera House

**Council Priority:** Imperitive (Must Do)

##### Project Description:

Per the 2018 Energy Assessment through Michigan Energy Options and SEEDS, it is recommended that the incandescent lights be replaced with LED and TLED lights. 80% of energy consumed by incandescent lights is lost in the form of heat.

Lighting Retrofit - Incandescent - Opera House

1098-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIF97	TIF 97	\$18,000	\$0	\$0	\$0	\$0	\$0	\$0	\$18,000
<b>Project Total:</b>									<b>\$18,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$18,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** \$18,000

**Project Difference:** \$0

##### Service Impact:

Reduces energy consumption

##### Project Justification:

The recommended measure should provide an annual electricity savings of 56,759 kWh. The recommended measure will provide a total annual cost savings of \$6,972.66. Using the estimated initial investment of \$17,276, the project will have a simple payback of 2.48 years, and a Savings to Investment ratio (SIR) of 6.004

##### Location Description:

106 E Front Street



## Six Year Capital Improvement Program

### General Government

#### Lighting Retrofit - T-8 fixtures - Carnegie Bldg

##### Project Information

1102-20-CIP

**Submitted By:** Penny Hill

**Department:** Manager

**Category:** Maintenance

**Department Head:** Marty Colburn

**Fund Group:** General

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** General Government

**Council Priority:** Essential (Should Do)

##### Project Description:

Per the 2018 Energy Assessment through Michigan Energy Options and SEEDS, it is recommended that the current T-8 lights be retrofitted with TLED Fixtures.

Lighting Retrofit - T-8 fixtures - Carnegie Bldg

1102-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$16,500	\$0	\$0	\$0	\$0	\$0	\$0	\$16,500

**Project Total:** **\$16,500**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$16,500

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** **\$16,500**

**Project Difference:** **\$0**

##### Service Impact:

Reduces Energy Consumption

##### Project Justification:

The recommended measure should provide an annual electricity savings of 17,652 kWh. The recommended measure will provide a total annual cost savings of \$2,215. Using the estimated initial investment of \$19,484, the project will have a simple payback of 8.80 years, and a Savings to Investment ratio (SIR) of 1.692

##### Location Description:

322 Sixth Street



## Six Year Capital Improvement Program

### General Government

#### Lighting Retrofit - T-8 fixtures - Opera House

##### Project Information

1099-20-CIP

**Submitted By:** Penny Hill

**Department:** Manager

**Category:** Maintenance

**Department Head:** Marty Colburn

**Fund Group:** Opera House

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Opera House

**Council Priority:** Imperitive (Must Do)

##### Project Description:

Per the 2018 Energy Assessment through Michigan Energy Options and SEEDS, it is recommended that all T-8 fluorescent lights lamps be replaced with LED Lamps and TLED lamps.

Lighting Retrofit - T-8 fixtures - Opera House

1099-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIF97	TIF 97	\$17,500	\$0	\$0	\$0	\$0	\$0	\$0	\$17,500
<b>Project Total:</b>									<b>\$17,500</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$17,500

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** \$17,500

**Project Difference:** \$0

##### Service Impact:

Reduce Energy consumption

##### Project Justification:

The recommended measure should provide an annual electricity savings of 5,354 kWh. The recommended measure will provide a total annual cost savings of \$657.77. Using the estimated initial investment of \$5,657, the project will have a simple payback of 8.60 years, and a Savings to Investment ratio (SIR) of 1.73.

##### Location Description:

106 E Front St





Six Year Capital Improvement Program

General Government

Master Plan Vision and Re-Write\_PlanningCommission

<b>Project Information</b>		1029-20-CIP							
<b>Submitted By:</b>	Missy Luick	<b>Department:</b>	Planning and Zoning	<b>Project Description:</b>					
<b>Category:</b>	Visionary	<b>Department Head:</b>	Russ Soyring	Master Plan Review Committee recommended that the Planning Commission add a project to the CIP for an eventual Master Plan re-write. The process they envisioned included a community engagement/vision process that could be followed by a Master Plan re-write should the vision process result in that outcome.					
<b>Fund Group:</b>	General	<b>Staff Priority:</b>	Imperitive (Must Do)						
<b>Fund Detail:</b>	General Government	<b>Council Priority:</b>							

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Master Plan Vision and Re-Write_PlanningCommission				1029-20-CIP-C					
<b>Funding Sources:</b>									
		<b>Previous</b>	<b>2020/2021</b>	<b>2021/2022</b>	<b>2022/2023</b>	<b>2023/2024</b>	<b>2024/2025</b>	<b>2025/2026</b>	<b>Total</b>
GEN	General Fund	\$20,000	\$0	\$80,000	\$0	\$0	\$0	\$0	\$100,000
<b>Project Total:</b>									<b>\$100,000</b>
<b>COST DETAIL:</b>									
<b>Study:</b>				\$100,000					
<b>Land Acquisition / ROW:</b>				\$0					
<b>Engineering / Design:</b>				\$0					
<b>Construction:</b>				\$0					
<b>Cost Total:</b>									<b>\$100,000</b>
<b>Annual Maint. Cost:</b>									<b>Project Difference:</b>
<b>Maint. Year Start:</b>									<b>\$0</b>

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**Service Impact:**  
None.

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**Project Justification:**  
To make sure the Master Plan reflects the communities values

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**Location Description:**  
City-wide



## Six Year Capital Improvement Program

### General Government

#### Network Upgrade & Redesign - City Portion

**Project Information**

1111-20-CIP

**Submitted By:** Penny Hill**Department:** Manager**Project Description:****Category:** Maintenance**Department Head:** Marty Colburn

City portion of City/County Network upgrade &amp; redesign including Core/firewall, Distribution, Network Access Controls, and cabling upgrades

**Fund Group:** General**Staff Priority:** Imperitive (Must Do)**Fund Detail:** General Government**Council Priority:**

Network Upgrade &amp; Redesign - City Portion

1111-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$27,600	\$27,600	\$27,600	\$27,600	\$27,600	\$0	\$0	\$138,000

**Project Total:** \$138,000**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$138,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$138,000**Project Difference:** \$0**Service Impact:**

Improve efficiency in operations due to increased internet speed and capacity. Improve security and reliability.

**Project Justification:**

Included in Grand Traverse County IT Strategic Plan

**Location Description:**

400 Boardman Avenue



## Six Year Capital Improvement Program

### General Government

#### New Utility Billing Software

**Project Information**

1104-20-CIP

**Submitted By:** Penny Hill  
**Category:** Maintenance  
**Fund Group:** General  
**Fund Detail:** General Government

**Department:** Manager  
**Department Head:** Marty Colburn  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**

Replace existing HTE-Sungard-Superion software with BS&A Software. HTE-Sungard-Superion utilizes the IBM iSeries (AS-400) platform. It is the mutual goal of the City and Grand Traverse County to phase out software applications based on the AS-400 platform.

New Utility Billing Software

1104-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$0	\$58,000	\$0	\$0	\$0	\$0	\$0	\$58,000
WAT	Water Fund	\$0	\$58,000	\$0	\$0	\$0	\$0	\$0	\$58,000
<b>Project Total:</b>									<b>\$116,000</b>

**COST DETAIL:**

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$116,000

**Annual Maint. Cost:** \$6,600

**Maint. Year Start:** 1905

**Cost Total:** \$116,000

**Project Difference:** \$0

**Service Impact:**

Improve Efficiency and reliability by using an integrated software system

**Project Justification:**

It is the mutual goal of the City and Grand Traverse County to phase out software applications based on the AS-400 platform.

**Location Description:**

400 Boardman Avenue



Six Year Capital Improvement Program

General Government

Purchase & Install Backup Generator - Opera House

Project Information		1112-20-CIP							
Submitted By:	Penny Hill	Department:	Manager			Project Description:			Purchase and install backup generator on rooftop for emergency electricity.
Category:	Capital	Department Head:	Marty Colburn						
Fund Group:	Opera House	Staff Priority:	Essential (Should Do)						
Fund Detail:	Opera House	Council Priority:							
Purchase & Install Backup Generator - Opera House						1112-20-CIP-C			
Funding Sources:									
OPH	Opera House	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$30,000	\$25,000	\$0	\$0	\$0	\$0	\$55,000
Project Total:									\$55,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$55,000					
Annual Maint. Cost:									
Maint. Year Start:				1905					



## Six Year Capital Improvement Program

### General Government

#### Replace Boiler - Carnegie Building

##### Project Information

1103-20-CIP

**Submitted By:** Penny Hill  
**Category:** Maintenance  
**Fund Group:** General  
**Fund Detail:** General Government

**Department:** Manager  
**Department Head:** Marty Colburn  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Per the 2018 Energy Assessment through Michigan Energy Options and SEEDS, it is recommended that the existing two hydronic boilers be replaced with new, high efficiency condensing boilers, which will improve the overall heating efficiency from 80% to approximately 95%. By recovering energy from condensed water in the exhaust stream, the boiler requires less fuel input for the same output of heating.  
 In 2019 received a grant through MCACA to assist with this project.

Replace Boiler - Carnegie Bldg

1103-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$0	\$12,000	\$0	\$0	\$0	\$0	\$0	\$12,000
<b>Project Total:</b>									<b>\$12,000</b>

##### COST DETAIL:

<b>Study:</b>	\$0	
<b>Land Acquisition / ROW:</b>	\$0	
<b>Engineering / Design:</b>	\$0	
<b>Construction:</b>	\$12,000	<b>Cost Total: \$12,000</b>
<b>Annual Maint. Cost:</b>		<b>Project Difference: \$0</b>
<b>Maint. Year Start:</b>		

##### Service Impact:

Reduces Energy Consumption

##### Project Justification:

The recommended measure should provide an annual natural gas savings of 1,339 ccf and will provide a total annual cost savings of \$803. Using the estimated initial investment of \$11,625, the project will have a simple payback of 14.47 years, and a Savings to Investment ratio (SIR) of 1.028.

##### Location Description:

322 Sixth Street



## Six Year Capital Improvement Program

### General Government

#### Replace Boiler - Opera House

##### Project Information

1097-20-CIP

**Submitted By:** Penny Hill

**Department:** Manager

**Category:** Maintenance

**Department Head:** Marty Colburn

**Fund Group:** Opera House

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Opera House

**Council Priority:**

##### Project Description:

Per the 2018 Energy Assessment through Michigan Energy Options and SEEDS, it is recommended that the existing boiler be replaced with a new high efficiency condensing boiler. Condensing boilers are an efficient way to heat a building. By recovering energy from condensed water in the exhaust stream, the boiler requires less fuel input for the same output of heat.

Replace Boiler - Opera House

1097-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIF97	TIF 97	\$12,000	\$0	\$0	\$0	\$0	\$0	\$0	\$12,000
Project Total:									\$12,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$12,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** \$12,000

**Project Difference:** \$0

##### Service Impact:

Reduces Energy Consumption

##### Project Justification:

The recommended measure should provide an annual natural gas savings of -2,015 ccf and an annual cost savings of \$1,758.49. Using the estimated initial investment of \$11,325.00, the project will have a simple payback of 6.44 years, and a Savings to Investment ratio (SIR) of 2.31

##### Location Description:

106 E Front Street



## Six Year Capital Improvement Program

### General Government

#### Replace Chiller Unit - Carnegie Building

##### Project Information

1101-20-CIP

**Submitted By:** Penny Hill  
**Category:** Maintenance  
**Fund Group:** General  
**Fund Detail:** General Government

**Department:** Manager  
**Department Head:** Marty Colburn  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Per the 2018 Energy Assessment through Michigan Energy Options and SEEDS, it is recommended that the current Chiller rooftop unit is approaching the end of its useful life, and should be replaced with a new, higher efficiency unit.

Replace Chiller Unit - Carnegie Bldg

1101-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$36,500	\$36,500

**Project Total:** **\$36,500**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$36,200

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** **\$36,200**

**Project Difference:** **\$300**

##### Service Impact:

Reduces energy consumption

##### Project Justification:

The recommended measure should provide an annual electricity savings of 8,293 kWh. The recommended measure will provide a total annual cost savings of \$1,041. Using the estimated initial investment of \$36,200, the project will have a simple payback of 34.78 years, and a Savings to Investment ratio (SIR) of .501.

##### Location Description:

322 Sixth Street



## Six Year Capital Improvement Program

### General Government

#### Replace Packaged A/C Rooftop Units - Opera House

##### Project Information

1096-20-CIP

**Submitted By:** Penny Hill

**Department:** Manager

**Category:** Maintenance

**Department Head:** Marty Colburn

**Fund Group:** Opera House

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Opera House

**Council Priority:**

##### Project Description:

Per the 2018 Energy Assessment through Michigan Energy Options and SEEDS, it is recommended that the five rooftop A/C units are approaching the end of their useful lives, and should be replaced with new, high efficiency units

Replace Packaged A/C Rooftop Units - Opera House

1096-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
OPH	Opera House	\$0	\$15,000	\$20,000	\$0	\$0	\$0	\$0	\$35,000
<b>Project Total:</b>									<b>\$35,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$35,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** \$35,000

**Project Difference:** \$0

##### Service Impact:

Reduces Energy Consumption

##### Project Justification:

The recommended measure will provide an annual electricity savings of 6,552 kWh, and provide a an annual cost savings of \$804.59. Using the estimated initial investment of \$34,675, the project will have a simple payback of 43.096 years and a Savings to Investment ratio (SIR) of 0.345.

##### Location Description:

106 E Front Street





Six Year Capital Improvement Program

Light and Power

ALLEY BETWEEN STATE AND FRONT STREET

Project Information		1041-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power Service		Project Description:				
Category:	Capital	Department Head:	Tim Arends		Remove all overhead lines and transformers and install new underground lines and transformers. The utility may need to purchase easements/real estate to set equipment or purchase vaults to set in alley right of way.				
Fund Group:	Light and Power	Staff Priority:	Essential (Should Do)						
Fund Detail:	Light and Power	Council Priority:							
ALLEY BETWEEN STATE AND FRONT STREET					1041-20-CIP-C				
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000
								Project Total:	\$1,500,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$1,500,000					
								Cost Total:	\$1,500,000
								Project Difference:	\$0
Maint. Year Start:									
Service Impact:									
Increase reliability and aesthetics of the system									
Project Justification:									
Joint Project									
Location Description:									
Alley between State and Front Street									



## Six Year Capital Improvement Program

### Light and Power

#### BUILDING D REHABILITATION

##### Project Information

1039-20-CIP

**Submitted By:** Karla Myers-Beman

**Department:** Light and Power

##### Project Description:

**Category:** Capital

**Department Head:** Tim Arends

Eliminate driveway, demolish the front office portion of the building, brick the new front of the building to match the existing service center building.

**Fund Group:** Light and Power

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Light and Power

**Council Priority:**

#### BUILDING D REHABILITATION

1039-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$50,000	\$0	\$250,000	\$0	\$0	\$0	\$0	\$300,000
Project Total:									\$300,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$300,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$300,000

**Project Difference:** \$0

##### Service Impact:

Improve the inventory cycle process

##### Project Justification:

Internal analysis

##### Location Description:

1125 Hastings Street



## Six Year Capital Improvement Program

### Light and Power

#### CRITICAL AND LARGE CUSTOMERS

##### Project Information

1108-20-CIP

**Submitted By:** Karla Myers-Beman

**Department:** Light and Power Service

##### Project Description:

**Category:** Capital

**Department Head:** Tim Arends

Replacement of underground distribution facilities involving the use of wire, meters, cabinets and transformers.

**Fund Group:** Light and Power

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Light and Power

**Council Priority:**

CRITICAL AND LARGE CUSTOMER

1108-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$925,000	\$925,000	\$0	\$0	\$0	\$0	\$0	\$1,850,000
Project Total:									\$1,850,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$1,850,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$1,850,000

**Project Difference:** \$0

##### Service Impact:

Upgrading lines will improve system reliability and minimize future maintenance costs.

##### Project Justification:

System study

##### Location Description:

Aero Park Industrial Park



## Six Year Capital Improvement Program

### Light and Power

#### EAST FRONT STREET STREETSCAPE LIGHTING

**Project Information**

1043-20-CIP

**Submitted By:** Karla Myers-Beman**Department:** Light and Power Service**Category:** Capital**Department Head:** Tim Arends**Fund Group:** Light and Power**Staff Priority:** Essential (Should Do)**Fund Detail:** Light and Power**Council Priority:****Project Description:**

New street lighting installations in conjunction with planned streetscapes on East Front Street from Boardman Avenue to Holiday Inn with funding in accordance with TCL&P Street Lighting Operations and Maintenance Planning and Decorative Lighting Policy.

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EAST FRONT STREET STREETSCAPE LIGHTING

1043-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$0	\$0	\$0	\$56,000	\$0	\$0	\$56,000
<b>Project Total:</b>									<b>\$56,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$56,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** **\$56,000****Project Difference:** **\$0****Service Impact:**

Joint Project

**Project Justification:**

Joint Project

**Location Description:**

East Front Street between Boardman Avenue and Holiday Inn.



## Six Year Capital Improvement Program

### Light and Power

#### EXTENSIONS AND NEW SERVICES

##### Project Information

808-20-CIP

**Submitted By:** Karla Myers-Beman

**Department:** Light and Power Service

**Category:** Capital

**Department Head:** Tim Arends

**Fund Group:** Light and Power

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Distribution

**Council Priority:**

##### Project Description:

Construction/replacements of services involving the use of wire, poles, meters, cabinets and transformers.

#### EXTENSIONS AND NEW SERVICES

808-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$600,000	\$650,000	\$700,000	\$750,000	\$800,000	\$850,000	\$900,000	\$5,250,000
<b>Project Total:</b>									<b>\$5,250,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$5,250,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$5,250,000

**Project Difference:** \$0

##### Service Impact:

Upgrading lines and extension and installing new services improving reliability and minimizing maintenance costs.

##### Project Justification:

New extensions and some upgrades are request of new customers and other improvements are to increase reliability of the system.

##### Location Description:

Entire service area



## Six Year Capital Improvement Program

### Light and Power

#### FIBER TO THE PREMISE

##### Project Information

1030-20-CIP

**Submitted By:** Karla Myers-Beman

**Department:** Light and Power Service

##### Project Description:

**Category:** Capital

**Department Head:** Tim Arends

Deployment of a fiber optic network.

**Fund Group:** Light and Power

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Light and Power

**Council Priority:**

FIBER TO THE PREMISE

1030-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FBR	FIBER	\$4,050,000	\$4,050,000	\$4,050,000	\$4,050,000	\$0	\$0	\$0	\$16,200,000
Project Total:									\$16,200,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$16,200,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$16,200,000

**Project Difference:** \$0

##### Service Impact:

A new business within the utility

##### Project Justification:

Economic development

##### Location Description:

Entire service area.



Six Year Capital Improvement Program

Light and Power

GRAND TRAVERSE SUBSTATION UPGRADES

Project Information		1038-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power			Project Description:			
Category:	Capital	Department Head:	Tim Arends			Installation of new control system, breakers, and switches along with land improvements of removing an unused foundation and expanding the fence perimeter.			
Fund Group:	Light and Power	Staff Priority:	Imperitive (Must Do)						
Fund Detail:	Light and Power	Council Priority:							
GRAND TRAVERSE SUBSTATION UPGRADES					1038-20-CIP-C				
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$500,000	\$693,000	\$0	\$0	\$0	\$0	\$0	\$1,193,000
Project Total:									\$1,193,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$1,193,000					
Annual Maint. Cost:									
Maint. Year Start:									
Service Impact:									
Improve reliability									
Project Justification:									
Internal analysis and analysis completed by Wolverine Power Cooperative									
Location Description:									
Grand Traverse Substation - Keystone Road									



## Six Year Capital Improvement Program

### Light and Power

#### HARTMAN ROAD OVERHEAD TIE

**Project Information**

1005-20-CIP

**Submitted By:** Karla Myers-Beman**Department:** Light and Power Service**Project Description:****Category:** Capital**Department Head:** Tim Arends

Allow a second feed into a circuit to enhance reliability in the southwest service area.

**Fund Group:** Light and Power**Staff Priority:** Essential (Should Do)**Fund Detail:** Distribution**Council Priority:**

HARTMAN ROAD OVERHEAD TIE

1005-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$400,000	\$600,000	\$0	\$0	\$0	\$0	\$1,000,000
Project Total:									\$1,000,000

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$1,000,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$1,000,000**Project Difference:** \$0**Service Impact:**

Reduce the potential of future maintenance costs and increase reliability of the system.

**Project Justification:**

System study

**Location Description:**

Southeast part of the distribution system.





## Six Year Capital Improvement Program

### Light and Power

#### HASTINGS SERVICE CENTER FACILITY IMPROVEMENTS

**Project Information**

824-20-CIP

**Submitted By:** Karla Myers-Beman**Department:** Light and Power Service**Project Description:****Category:** Capital**Department Head:** Tim Arends

Site improvements to existing facility.

**Fund Group:** Light and Power**Staff Priority:** Essential (Should Do)**Fund Detail:** Facilities**Council Priority:**

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**HASTINGS SERVICE CENTER FACILITY IMPROVEMENTS**

824-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$350,000
<b>Project Total:</b>									<b>\$350,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$350,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** **\$350,000****Project Difference:** **\$0****Service Impact:**

Efficiency of operations

**Project Justification:**

Internal analysis

**Location Description:**

1131 Hastings Street



Six Year Capital Improvement Program

Light and Power

OVERHEAD LINE IMPROVEMENTS

Project Information		811-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power			Project Description:			
Category:	Capital	Department Head:	Tim Arends			Accumulation of small construction/replacement projects of overhead distribution facilities involving the use of wire, poles, meters, cabinets and transformers.			
Fund Group:	Light and Power	Staff Priority:	Imperitive (Must Do)						
Fund Detail:	Distribution	Council Priority:							
OVERHEAD LINE IMPROVEMENTS					811-20-CIP-C				
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$350,000	\$400,000	\$450,000	\$500,000	\$550,000	\$600,000	\$650,000	\$3,500,000
Project Total:									\$3,500,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$3,500,000					
Annual Maint. Cost:								Cost Total:	\$3,500,000
Maint. Year Start:								Project Difference:	\$0
Service Impact:									
Reduce the potential of future maintenance costs.									
Project Justification:									
Reliability of the system.									
Location Description:									
Entire Service Area									



Six Year Capital Improvement Program

Light and Power

REBUILD CIRCUIT - CD-24 - SECTIONALIZING (NEW)

Project Information		1179-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power	Project Description: Replace deteriorated overhead/underground facilities with new wire, conduit, poles, et to include conversion of overhead facilities to underground as appropriate.					
Category:	Capital	Department Head:	Tim Arends						
Fund Group:	Light and Power	Staff Priority:	Imperative (Must Do)						
Fund Detail:	Light and Power	Council Priority:							
REBUILD CIRCUIT - CD 24 - SECTIONALIZING (NEW)				1179-20-CIP-C					
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$250,000
Project Total:									\$250,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$250,000					
Annual Maint. Cost:									
Maint. Year Start:									
Cost Total:								\$250,000	
Project Difference:								\$0	
Service Impact:									
Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.									
Project Justification:									
System study									
Location Description:									
Pine St south of Fourteenth St									



## Six Year Capital Improvement Program

### Light and Power

#### REBUILD CIRCUIT - CD-31/SS-30 - SMART GRID

**Project Information**

1125-20-CIP

**Submitted By:** Karla Myers-Beman**Department:** Light and Power**Category:** Capital**Department Head:** Tim Arends**Fund Group:** Light and Power**Staff Priority:** Imperitive (Must Do)**Fund Detail:** Light and Power**Council Priority:****Project Description:**

Replace deteriorated overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.

REBUILD CIRCUIT- CD 31/SS-30 - SMART GRID

1125-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$0	\$0	\$0	\$0	\$200,000	\$0	\$200,000
<b>Project Total:</b>									<b>\$200,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$200,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$200,000**Project Difference:** \$0**Service Impact:**

Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.

**Project Justification:**

System study

**Location Description:**

Smart Grid Automatic Restoration



Six Year Capital Improvement Program

Light and Power

REBUILD CIRCUIT - GRANDVIEW PKWY - PRIMARY

Project Information		1116-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power			Project Description:			
Category:	Capital	Department Head:	Tim Arends			Replace deteriorated overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.			
Fund Group:	Light and Power	Staff Priority:	Imperitive (Must Do)						
Fund Detail:	Distribution	Council Priority:							
REBUILD CIRCUIT - GRANDVIEW PKWY - PRIMARY						1116-20-CIP-C			
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$0	\$0	\$650,000	\$650,000	\$0	\$0	\$1,300,000
Project Total:									\$1,300,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$1,300,000					
Annual Maint. Cost:									
Maint. Year Start:									
Service Impact:									
Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.									
Project Justification:									
System study									
Location Description:									
Grandview Parkway and behind buildings north of Front Street									



## Six Year Capital Improvement Program

### Light and Power

#### REBUILD CIRCUIT - HL-33 - LOCUST STREET

**Project Information**

1124-20-CIP

**Submitted By:** Karla Myers-Beman**Department:** Light and Power**Category:** Capital**Department Head:** Tim Arends**Fund Group:** Light and Power**Staff Priority:** Imperitive (Must Do)**Fund Detail:** Light and Power**Council Priority:****Project Description:**

Replace deteriorated overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.

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**REBUILD CIRCUIT - HL-33 - LOCUST STREET**

1124-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$0	\$0	\$0	\$0	\$400,000	\$0	\$400,000

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**Project Total: \$400,000****COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$400,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total: \$400,000****Project Difference: \$0****Service Impact:**

Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.

**Project Justification:**

System study

**Location Description:**

Locust Street



Six Year Capital Improvement Program

Light and Power

REBUILD CIRCUIT - HL-33 - WADSWORTH ST

Project Information		1117-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power	Project Description: Replace deteriorated overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.					
Category:	Capital	Department Head:	Tim Arends						
Fund Group:	Light and Power	Staff Priority:	Imperitive (Must Do)						
Fund Detail:	Light and Power	Council Priority:							
REBUILD CIRCUIT - HL-33 - WADSWORTH ST				1117-20-CIP-C					
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$0	\$0	\$0	\$0	\$85,000	\$0	\$85,000
Project Total:									\$85,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$85,000		Cost Total: \$85,000			
Annual Maint. Cost:						Project Difference: \$0			
Maint. Year Start:									
Service Impact:									
Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.									
Project Justification:									
System study									
Location Description:									
Wadsworth St from Fifth to Thirteenth Street									



## Six Year Capital Improvement Program

### Light and Power

#### REBUILD CIRCUIT - PC 32 - ASPEN DRIVE (NEW)

**Project Information**

1180-20-CIP

**Submitted By:** Karla Myers-Beman**Department:** Light and Power**Category:** Capital**Department Head:** Tim Arends**Fund Group:** Light and Power**Staff Priority:** Imperative (Must Do)**Fund Detail:** Light and Power**Council Priority:****Project Description:**

Replace deteriorate and overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.

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**REBUILD CIRCUIT - PC 32 - ASPEN DRIVE (NEW)**

1180-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$250,000
								<b>Project Total:</b>	<b>\$250,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$250,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** **\$250,000****Project Difference:** **\$0****Service Impact:**

Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.

**Project Justification:**

System study

**Location Description:**

Aspen Drive





Six Year Capital Improvement Program

Light and Power

REBUILD CIRCUIT - PC-22 - PARSONS RD/MUNSON AVE

Project Information		1127-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power	Project Description: Replace deteriorated overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.					
Category:	Capital	Department Head:	Tim Arends						
Fund Group:	Light and Power	Staff Priority:	Imperitive (Must Do)						
Fund Detail:	Light and Power	Council Priority:							
REBUILD CIRCUIT - PC-22 - MUNSON AVENUE				1127-20-CIP-C					
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$0	\$82,000	\$0	\$0	\$0	\$0	\$82,000
Project Total:									\$82,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$82,000		Cost Total: \$82,000			
Annual Maint. Cost:						Project Difference: \$0			
Maint. Year Start:									
Service Impact:									
Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.									
Project Justification:									
System study									
Location Description:									
Back lot area from Parsons Rd to Munson Ave									



## Six Year Capital Improvement Program

### Light and Power

#### REBUILD CIRCUIT - PC-22 - MUNSON AVE - AVE B TO E

**Project Information**

1121-20-CIP

**Submitted By:** Karla Myers-Beman**Department:** Light and Power**Category:** Capital**Department Head:** Tim Arends**Fund Group:** Light and Power**Staff Priority:** Imperitive (Must Do)**Fund Detail:** Light and Power**Council Priority:****Project Description:**

Replace deteriorated overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.

REBUILD CIRCUIT - PC-22 - MUNSON AVE - AVE B TO E

1121-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$0	\$0	\$0	\$300,000	\$0	\$0	\$300,000
<b>Project Total:</b>									<b>\$300,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$300,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$300,000**Project Difference:** \$0**Service Impact:**

Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.

**Project Justification:**

System study

**Location Description:**

Munson Avenue from Avenue B to Avenue E



Six Year Capital Improvement Program

Light and Power

REBUILD CIRCUIT - PC-22 - MUNSON, DAVIS TO 3 MILE

Project Information		1118-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power				Project Description:		
Category:	Capital	Department Head:	Tim Arends				Replace deteriorated overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.		
Fund Group:	Light and Power	Staff Priority:	Imperitive (Must Do)						
Fund Detail:	Light and Power	Council Priority:							
REBUILD CIRCUIT - PC-22 - MUNSON, DAVIS TO 3 MILE			1118-20-CIP-C						
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$0	\$0	\$0	\$0	\$370,000	\$0	\$370,000
Project Total:									\$370,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$370,000					
Annual Maint. Cost:									
Maint. Year Start:									
Cost Total:								\$370,000	
Project Difference:								\$0	
Service Impact:									
Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.									
Project Justification:									
System study									
Location Description:									
OH Munson Avenue from Davis Street to Three Mile Rd									



Six Year Capital Improvement Program

Light and Power

REBUILD CIRCUIT - PC-22 - TOM'S MARKET EAST

Project Information		1122-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power			Project Description:			
Category:	Capital	Department Head:	Tim Arends			Replace deteriorated overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.			
Fund Group:	Light and Power	Staff Priority:	Imperitive (Must Do)						
Fund Detail:	Light and Power	Council Priority:							
REBUILD CIRCUIT - PC-22 - TOM'S MARKET EAST					1122-20-CIP-C				
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$0	\$0	\$0	\$0	\$150,000	\$0	\$150,000
Project Total:									\$150,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$150,000					
Annual Maint. Cost:									
Maint. Year Start:									
Cost Total:								\$150,000	
Project Difference:								\$0	
Service Impact:									
Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.									
Project Justification:									
System study									
Location Description:									
Behind Tom's Market East Bay									



## Six Year Capital Improvement Program

### Light and Power

#### REBUILD CIRCUIT - PC-23 - MITCHELL CREEK

##### Project Information

809-20-CIP

**Submitted By:** Karla Myers-Beman

**Department:** Light and Power Service

**Category:** Capital

**Department Head:** Tim Arends

**Fund Group:** Light and Power

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Distribution

**Council Priority:**

##### Project Description:

Replace deteriorated overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.

REBUILD CIRCUIT PC-23- MITCHELL CREEK

809-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$0	\$0	\$125,000	\$0	\$0	\$0	\$125,000
Project Total:									\$125,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$125,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$125,000

**Project Difference:** \$0

##### Service Impact:

Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.

##### Project Justification:

System study

##### Location Description:

Mitchell Creek



Six Year Capital Improvement Program

Light and Power

REBUILD CIRCUIT - PC-23 - MUNSON AVENUE

Project Information		1119-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power			Project Description:			
Category:	Capital	Department Head:	Tim Arends			Replace deteriorated overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.			
Fund Group:	Light and Power	Staff Priority:	Imperitive (Must Do)						
Fund Detail:	Light and Power	Council Priority:							
REBUILD CIRCUIT - PC-23 - MUNSON AVENUE						1119-20-CIP-C			
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$0	\$0	\$0	\$0	\$320,000	\$0	\$320,000
Project Total:									\$320,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$320,000					
Annual Maint. Cost:									
Maint. Year Start:									
Cost Total:								\$320,000	
Project Difference:								\$0	
Service Impact:									
Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.									
Project Justification:									
System study									
Location Description:									
Munson Avenue from Three Mile to Four Mile Road									



Six Year Capital Improvement Program

Light and Power

REBUILD CIRCUIT - SS-31 - CRESTWOOD

Project Information		1123-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power			Project Description:			
Category:	Capital	Department Head:	Tim Arends			Replace deteriorated overhead/underground facilities with new wire, conduit, poles, etc to include conversion of overhead facilities to underground as appropriate.			
Fund Group:	Light and Power	Staff Priority:	Imperitive (Must Do)						
Fund Detail:	Light and Power	Council Priority:							
REBUILD CIRCUIT - SS-31 - CRESTWOOD					1123-20-CIP-C				
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$0	\$0	\$0	\$0	\$250,000	\$0	\$250,000
Project Total:									\$250,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$250,000					
Annual Maint. Cost:									
Maint. Year Start:									
Cost Total:								\$250,000	
Project Difference:								\$0	
Service Impact:									
Rebuilding circuits to increase reliability of the system and minimize the potential of future maintenance costs.									
Project Justification:									
System study									
Location Description:									
Crestwood									



## Six Year Capital Improvement Program

### Light and Power

#### SCADA SYSTEM UPGRADE

##### Project Information

1040-20-CIP

**Submitted By:** Karla Myers-Beman

**Department:** Light and Power Service

##### Project Description:

**Category:** Capital

**Department Head:** Tim Arends

Upgrade the system to allow it to interconnect with other related systems such as AMI, billing, GIS, OMS and other technologies.

**Fund Group:** Light and Power

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Light and Power

**Council Priority:**

#### SCADA SYSTEM UPGRADE

1040-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$0	\$0	\$250,000	\$0	\$0	\$0	\$250,000
Project Total:									\$250,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$250,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$250,000

**Project Difference:** \$0

##### Service Impact:

Improve reliability of the system

##### Project Justification:

Internal analysis

##### Location Description:

1131 Hastings Street and Substations





Six Year Capital Improvement Program

Light and Power

SUBSTATION IMPROVEMENT - DISTRIBUTION RELAY (NEW)

Project Information		1177-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power				Project Description:		
Category:	Capital	Department Head:	Tim Arends				Installation of more advanced relays to allow for faster identification and clearing of faults within the distribution system.		
Fund Group:	Light and Power	Staff Priority:	Imperative (Must Do)						
Fund Detail:	Light and Power	Council Priority:							
SUBSTATION IMPROVEMENT - DISTRIBUTION RELAY (NEW)			1177-20-CIP-C						
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$250,000
Project Total:									\$250,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$250,000					
Annual Maint. Cost:									
Maint. Year Start:									
Service Impact:									
Increase distribution system reliability.									
Project Justification:									
System study									
Location Description:									
All distribution substations									



Six Year Capital Improvement Program

Light and Power

SUBSTATION IMPROVEMENT - TRANSMISSION RELAY (NEW)

Project Information		1178-20-CIP		<b>Project Description:</b>  Installatio of more advanced relays to allow for faster identification and clearing of faults within the transmission system.	
<b>Submitted By:</b>	Karla Myers-Beman	<b>Department:</b>	Light and Power		
<b>Category:</b>	Capital	<b>Department Head:</b>	Tim Arends		
<b>Fund Group:</b>	Light and Power	<b>Staff Priority:</b>	Imperative (Must Do)		
<b>Fund Detail:</b>	Light and Power	<b>Council Priority:</b>			

SUBSTATION IMPROVEMENT - TRANSMISSION RELAY (NEW)1178-20-CIP-C

Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$0	\$0	\$0	\$0	\$0	\$600,000	\$600,000
								Project Total:	\$600,000

COST DETAIL:

Study:	\$0		
Land Acquisition / ROW:	\$0		
Engineering / Design:	\$0		
Construction:	\$600,000	Cost Total:	\$600,000
Annual Maint. Cost:		Project Difference:	\$0
Maint. Year Start:			

Service Impact:  
Increase system reliability

Project Justification:  
System study

Location Description:  
Transmission Substations



## Six Year Capital Improvement Program

### Light and Power

#### SUBSTATION SWITCHING STATIONS

##### Project Information

815-20-CIP

**Submitted By:** Karla Myers-Beman

**Department:** Light and Power Service

**Category:** Capital

**Department Head:** Tim Arends

**Fund Group:** Light and Power

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Light and Power

**Council Priority:**

##### Project Description:

Installation of substation infrastructure and equipment. The addition of switching equipment will allow for switching load on the looped transmission system for increased reliability.

#### SUBSTATION SWITCHING STATION

815-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$998,000	\$1,200,000	\$0	\$0	\$0	\$0	\$0	\$2,198,000
Project Total:									\$2,198,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$2,198,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$2,198,000

**Project Difference:** \$0

##### Service Impact:

Increase system reliability

##### Project Justification:

System study

##### Location Description:

Barlow Street Substation



# Six Year Capital Improvement Program

**Light and Power**

**SUBSTATION TRANSFORMER UPGRADES**

Project Information		819-20-CIP								
Submitted By:	Karla Myers-Beman	Department:	Light and Power Service				Project Description:			
Category:	Capital	Department Head:	Tim Arends				Installation of higher rated transformers as recommended by Engineers for system reliability due to load growth and age of transformers.			
Fund Group:	Light and Power	Staff Priority:	Imperitive (Must Do)							
Fund Detail:	Substation	Council Priority:								
SUBSTATION TRANSFORMER UPGRADES			819-20-CIP-C							
Funding Sources:										
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total	
		\$0	\$0	\$0	\$0	\$1,525,000	\$0	\$0	\$1,525,000	
								Project Total:	\$1,525,000	
			COST DETAIL:							
			Study:	\$0						
			Land Acquisition / ROW:	\$0						
			Engineering / Design:	\$0						
			Construction:	\$1,525,000						
			Annual Maint. Cost:							
			Maint. Year Start:							
Service Impact:										
Minimize the potential of future maintenance costs.										
Project Justification:										
System study										
Location Description:										
Cass and Parsons Road Substations										



## Six Year Capital Improvement Program

### Light and Power

#### TRANSMISSION LINE RECONSTRUCTION

**Project Information**

820-20-CIP

**Submitted By:** Karla Myers-Beman**Department:** Light and Power**Category:** Capital**Department Head:** Tim Arends**Fund Group:** Light and Power**Staff Priority:** Imperitive (Must Do)**Fund Detail:** Transmission**Council Priority:****Project Description:**

Reconductor/rebuilding of existing 69kv transmission lines with new lines, higher poles and undergrounding portion of the line to bring circuits to current day standards and in compliance with FAA regulations.

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**TRANSMISSION LINE RECONSTRUCTION**

820-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$0	\$1,500,000	\$1,500,000	\$0	\$1,045,000	\$0	\$4,045,000
<b>Project Total:</b>									<b>\$4,045,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$4,045,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$4,045,000**Project Difference:** \$0**Service Impact:**

Minimize the potential of future maintenance costs and increase reliability of the system.

**Project Justification:**

System study

**Location Description:**

1) Cass Road Substation to Cass Road Junction 2) Cass Road Junction to Hall Street Substation 3) Barlow Street Substation to Parsons Road Substation



Six Year Capital Improvement Program

Light and Power

UNDERGROUND LINE IMPROVEMENTS

Project Information		1109-20-CIP							
Submitted By:	Karla Myers-Beman	Department:	Light and Power Service				Project Description:		
Category:	Capital	Department Head:	Tim Arends				Accumulation of small construction/replacement projects of underground distribution facilities involving the use of wire, poles, meters, cabinets and transformers.		
Fund Group:	Light and Power	Staff Priority:	Imperitive (Must Do)						
Fund Detail:	Light and Power	Council Priority:							
UNDERGROUND LINE IMPROVEMENTS			1109-20-CIP-C						
Funding Sources:									
LAP	Light and Power	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$275,000	\$325,000	\$375,000	\$425,000	\$475,000	\$525,000	\$575,000	\$2,975,000
								Project Total:	\$2,975,000
			COST DETAIL:						
			Study:	\$0					
			Land Acquisition / ROW:	\$0					
			Engineering / Design:	\$0					
			Construction:	\$2,975,000					
			Annual Maint. Cost:						
			Maint. Year Start:						
Service Impact:									
Improve reliability of the system.									
Project Justification:									
Internal analysis									
Location Description:									
Entire service area.									



Six Year Capital Improvement Program

Light and Power

UPGRADE FRONT ST LIGHTING CIRCUITS & RECEPTACLES

Project Information		829-20-CIP		
Submitted By:	Karla Myers-Beman	Department:	Light and Power	Project Description:  Upgrade circuit to accommodate increased load and will consist of new conduit, wire and addition of event outlets.
Category:	Capital	Department Head:	Tim Arends	
Fund Group:	Light and Power	Staff Priority:	Essential (Should Do)	
Fund Detail:	Joint Projects	Council Priority:		

UPGRADE FRONT ST LIGHTING CIRCUITS & RECEPTACLES		829-20-CIP-C							
Funding Sources:									
		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$0	\$0	\$0	\$0	\$0	\$1,340,000	\$1,340,000
								Project Total:	\$1,340,000

COST DETAIL:			
Study:		\$0	
Land Acquisition / ROW:		\$0	
Engineering / Design:		\$0	
Construction:		\$1,340,000	
Annual Maint. Cost:			
Maint. Year Start:			
		Cost Total:	\$1,340,000
		Project Difference:	\$0

Service Impact:	Increase reliability and service to event holders for that circuit.		
Project Justification:	Internal analysis		
Location Description:	Downtown north and south along Front Street.		



## Six Year Capital Improvement Program

### Light and Power

#### UTILITY BILLING SOFTWARE

##### Project Information

1110-20-CIP

**Submitted By:** Karla Myers-Beman

**Department:** Light and Power Service

**Category:** Capital

**Department Head:** Tim Arends

**Fund Group:** Light and Power

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Light and Power

**Council Priority:**

##### Project Description:

The current utility billing software does not have multi-speak capability needed to integrate with the other software programs used at Light and Power to manage system outages, the GIS System and engineering analysis. Nor does it have a suitable customer service platform that provides the customer instantaneous information or requested variety of payment options. Additionally, the current software company has been sold several times with continuing diminish customer service with upgrades and customer cases.

#### UTILITY BILLING SOFTWARE

1110-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
LAP	Light and Power	\$0	\$350,000	\$0	\$0	\$0	\$0	\$0	\$350,000
Project Total:									\$350,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$350,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$350,000

**Project Difference:** \$0

##### Service Impact:

Improve customer service

##### Project Justification:

Internal analysis

##### Location Description:

Utility billing and Hastings Service Center





## Six Year Capital Improvement Program

### Parking

#### Bike Infrastructure Expansion

##### Project Information

1133-20-CIP

**Submitted By:** Nicole VanNess

**Department:** Parking Services

##### Project Description:

**Category:** Visionary

**Department Head:** Jean Derenzy

Expand bike parking options throughout the City; new or replace inverted Us, bike shelter, bike shelter construction.

**Fund Group:** Traverse City Parking System

**Staff Priority:** Important (Could Do)

**Fund Detail:** Parking System

**Council Priority:**

Bike Infrastructure Expansion

1133-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$0	\$100,000
<b>Project Total:</b>									<b>\$100,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$100,000

**Annual Maint. Cost:** \$2,000

**Maint. Year Start:** 1905

**Cost Total:** \$100,000

**Project Difference:** \$0

##### Service Impact:

No service impact

##### Project Justification:

Meets the objectives of the TDM Study

##### Location Description:

Any locations identified where bike parking should be replaced or added



## Six Year Capital Improvement Program

### Parking

#### Hardy Handicap Door Operators

**Project Information**

1135-20-CIP

**Submitted By:** Nicole VanNess**Department:** Parking Services**Project Description:****Category:** Maintenance**Department Head:** Jean Derenzy

Scheduled replacement for 13 automatic door openers, replacement hardware and contractor services

**Fund Group:** Traverse City Parking System**Staff Priority:** Essential (Should Do)**Fund Detail:** Parking System**Council Priority:**

Hardy Handicap Door Openers

1135-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$24,000	\$0	\$0	\$0	\$0	\$24,000
Project Total:									\$24,000

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$24,000**Annual Maint. Cost:** \$500**Maint. Year Start:** 1905**Cost Total:** \$24,000**Project Difference:** \$0**Service Impact:**

Temporary pedestrian tower access restrictions during replacement

**Project Justification:**

Scheduled replacement of existing automated buttons to increase performance

**Location Description:**

Hardy Parking Garage, 303 E State Street



## Six Year Capital Improvement Program

### Parking

#### Hardy PTAC Units

##### Project Information

1081-20-CIP

**Submitted By:** Nicole VanNess

**Department:** Parking Services

##### Project Description:

**Category:** Maintenance

**Department Head:** Jean Derenzy

Replace all PTAC units at the Hardy Parking Garage

**Fund Group:** Traverse City Parking System

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parking System

**Council Priority:**

Hardy PTAC Units - Cost

1081-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000

**Project Total:** **\$30,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$30,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** **\$30,000**

**Project Difference:** **\$0**

##### Service Impact:

No service impact

##### Project Justification:

Routine replacement, equipment at end of life

##### Location Description:

Hardy Parking Garage, 303 E State Street



## Six Year Capital Improvement Program

### Parking

#### Lot B Rehab

**Project Information**

545-20-CIP

**Submitted By:** Nicole VanNess**Department:** Parking Services**Project Description:****Category:** Visionary**Department Head:** Jean Derenzy

Reconstruct Lot B per Farmers Market Plan. Could include the replacement of meters with pay stations.

**Fund Group:** Traverse City Parking System**Staff Priority:** Important (Could Do)**Fund Detail:** Parking System**Council Priority:**

Lot B Rehab - Cost

545-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$400,000	\$0	\$0	\$0	\$0	\$400,000

**Project Total:** \$400,000**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$400,000**Annual Maint. Cost:** \$2,500**Maint. Year Start:** 1905**Cost Total:** \$400,000**Project Difference:** \$0**Service Impact:**

Stop patches and replace lot.

**Project Justification:**

Lot is at max life. We need to replace top coat and reconstruct.

**Location Description:**

100 E. Grandview Pkwy; corner of Cass/Grandview Pkwy



## Six Year Capital Improvement Program

### Parking

#### Lot C Resurfacing

##### Project Information

979-20-CIP

**Submitted By:** Nicole VanNess

**Department:** Parking Services

##### Project Description:

**Category:** Maintenance

**Department Head:** Jean Derenzy

Resurface Lot C, which serves Clinch Park and downtown businesses

**Fund Group:** Traverse City Parking System

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parking System

**Council Priority:**

Lot C Resurfacing - Cost

979-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$80,000	\$0	\$0	\$0	\$0	\$0	\$80,000
Project Total:									\$80,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$80,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** \$80,000

**Project Difference:** \$0

##### Service Impact:

Stop patches and replace lot.

##### Project Justification:

Lot will near end of life. Should be included in Pavement Preservation for replacement.

##### Location Description:

200 E. Grandview Pkwy



## Six Year Capital Improvement Program

### Parking

#### Lot J Resurfacing

##### Project Information

980-20-CIP

**Submitted By:** Nicole VanNess

**Department:** Parking Services

##### Project Description:

**Category:** Maintenance

**Department Head:** Jean Derenzy

Resurface Lot J, which serves the Union Street Dam area.

**Fund Group:** Traverse City Parking System

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parking System

**Council Priority:**

Lot J Resurfacing - Cost

980-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000
Project Total:									\$50,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$50,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** \$50,000

**Project Difference:** \$0

##### Service Impact:

Stop patches and replace lot.

##### Project Justification:

Lot will near end of life. Should be included in Pavement Preservation for replacement.

##### Location Description:

300 S. Union/Union Street Dam



## Six Year Capital Improvement Program

### Parking

#### Lot K Resurfacing

**Project Information**

981-20-CIP

**Submitted By:** Nicole VanNess**Department:** Parking Services**Project Description:****Category:** Maintenance**Department Head:** Jean Derenzy

Add approximately 8 parking spaces east of existing Lot K if City is able to acquire/lease the Consumers Energy Property just north of the Union Street Dam

**Fund Group:** Traverse City Parking System**Staff Priority:** Essential (Should Do)**Fund Detail:** Parking System**Council Priority:**

Lot K resurfacing- Cost

981-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$0	\$0	\$30,000	\$0	\$0	\$30,000

**Project Total: \$30,000****COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$30,000**Annual Maint. Cost:****Cost Total: \$30,000****Maint. Year Start:** 1905**Project Difference: \$0****Service Impact:**

None.

**Project Justification:**

Maintenance

**Location Description:**

North of Union Street Dam



## Six Year Capital Improvement Program

### Parking

#### Lot O Remediation

##### Project Information

708-20-CIP

**Submitted By:** Nicole VanNess

**Department:** Parking Services

**Category:** Maintenance

**Department Head:** Jean Derenzy

**Fund Group:** Traverse City Parking System

**Staff Priority:** Important (Could Do)

**Fund Detail:** Parking System

**Council Priority:**

##### Project Description:

Mitigation of contamination that likely is affecting adjacent properties and the water table in close proximity to the Boardman River.

Five underground storage tanks exist at Lot O and likely are contributing to soil contamination.

Lot O Remediation - Cost

708-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$430,000	\$0	\$0	\$0	\$0	\$430,000
<b>Project Total:</b>									<b>\$430,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$430,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** **\$430,000**

**Project Difference:** **\$0**

##### Service Impact:

Stop patches and replace lot.

##### Project Justification:

Lot will near end of life. Should be included in Pavement Preservation for replacement.

##### Location Description:

100 E. State Street. Corner of State/Cass.





## Six Year Capital Improvement Program

### Parking

#### Lot T Resurfacing

##### Project Information

982-20-CIP

**Submitted By:** Nicole VanNess

**Department:** Parking Services

**Project Description:**

**Category:** Maintenance

**Department Head:** Jean Derenzy

Resurface Lot T

**Fund Group:** Traverse City Parking System

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parking System

**Council Priority:**

Lot T Resurfacing - Cost

982-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$200,000

**Project Total:** **\$200,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$200,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** **\$200,000**

**Project Difference:** **\$0**

##### Service Impact:

Stop patches and replace lot

##### Project Justification:

Lot near end of life. Should be included in Pavement Preservation for replacement.

##### Location Description:

100 E. Grandview Pkwy, Corner of Grandview Parkway/Union.



## Six Year Capital Improvement Program

### Parking

#### Mobility Amenities

##### Project Information

1134-20-CIP

**Submitted By:** Nicole VanNess

**Department:** Parking Services

##### Project Description:

**Category:** Visionary

**Department Head:** Jean Derenzy

Expand mobility amenities near parking locations.

**Fund Group:** Traverse City Parking System

**Staff Priority:** Important (Could Do)

**Fund Detail:** Parking System

**Council Priority:**

Mobility Amenities

1134-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$15,000	\$15,000	\$10,000	\$10,000	\$0	\$0	\$50,000
Project Total:									\$50,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$50,000

**Annual Maint. Cost:** \$1,000

**Maint. Year Start:** 1905

**Cost Total:** \$50,000

**Project Difference:** \$0

##### Service Impact:

No service impact.

##### Project Justification:

Meets the recommendations of the TDM Study

##### Location Description:

Any area near a parking location that will aid in park-once initiatives or make mobility options more appealing.



## Six Year Capital Improvement Program

### Parking

#### Old Town ADA Door Operators

**Project Information**

1136-20-CIP

**Submitted By:** Nicole VanNess**Department:** Parking Services**Project Description:****Category:** Maintenance**Department Head:** Jean Derenzy

Replace ADA door openers at all pedestrian doors.

**Fund Group:** Traverse City Parking System**Staff Priority:** Essential (Should Do)**Fund Detail:** Parking System**Council Priority:**

Old Town ADA Door Operators

1136-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$18,000	\$0	\$0	\$0	\$0	\$0	\$18,000
Project Total:									\$18,000

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$18,000**Annual Maint. Cost:** \$500**Maint. Year Start:** 1905**Cost Total:** \$18,000**Project Difference:** \$0**Service Impact:**

Minimal impact during replacement

**Project Justification:**

The ADA openers are original to the install and need to be replaced to increase performance.

**Location Description:**

125 E Eighth Street at the Old Town Parking Garage



## Six Year Capital Improvement Program

### Parking

#### Old Town Battery Backup Convert to Generator

##### Project Information

1082-20-CIP

**Submitted By:** Nicole VanNess

**Department:** Parking Services

##### Project Description:

**Category:** Maintenance

**Department Head:** Jean Derenzy

Replace battery backup system with a natural gas powered generator

**Fund Group:** Traverse City Parking System

**Staff Priority:** Important (Could Do)

**Fund Detail:** Parking System

**Council Priority:**

Old Town Battery Backup Convert to Generator - Cos

1082-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000
Project Total:									\$50,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$50,000

**Annual Maint. Cost:** \$1,500

**Maint. Year Start:** 1905

**Cost Total:** \$50,000

**Project Difference:** \$0

##### Service Impact:

Failure of battery backup system could result in failure of emergency lighting, inoperable equipment, and inoperable elevators

##### Project Justification:

A natural gas powered generator is cheaper than purchasing a replacement battery back up system, and the generator life is longer than the battery.

##### Location Description:

Old Town Parking Garage, 125 E Eighth Street



## Six Year Capital Improvement Program

### Parking

#### Old Town Boiler #1 and Pump Replacement

**Project Information**

1138-20-CIP

**Submitted By:** Nicole VanNess**Department:** Parking Services**Category:** Capital**Department Head:** Jean Derenzy**Fund Group:** Traverse City Parking System**Staff Priority:** Imperative (Must Do)**Fund Detail:** Parking System**Council Priority:****Project Description:**

Unit has exceeded useful life and should be replaced. This replacement will include the pump and relocating the sensor from Level 4 to the ground level. The snowmelt controls the entry/exit lanes at Old Town.

Old Town Boiler #1 and Pump Replacement

1138-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$30,000
<b>Project Total:</b>									<b>\$30,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$30,000**Annual Maint. Cost:** \$3,000**Maint. Year Start:** 1905**Cost Total:** **\$30,000****Project Difference:** **\$0****Service Impact:**

System will be inoperable during replacement. Additional annual maintenance contract for HVAC services and increase gas billing during months of operation.

**Project Justification:**

Needed to ensure lanes are clear from snow and ice.

**Location Description:**

125 E Eighth Street at the Old Town Parking Garage



## Six Year Capital Improvement Program

### Parking

#### Old Town Boiler #2 and Pump Replacement

**Project Information**

1139-20-CIP

**Submitted By:** Nicole VanNess**Department:** Parking Services**Project Description:****Category:** Capital**Department Head:** Jean Derenzy

Replace boiler #2 that provides snow melt

**Fund Group:** Traverse City Parking System**Staff Priority:** Imperative (Must Do)**Fund Detail:** Parking System**Council Priority:**

Old Town Boiler #2 and Pump Replacement

1139-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$15,000	\$0	\$0	\$0	\$0	\$15,000
Project Total:									\$15,000

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$15,000**Annual Maint. Cost:** \$3,000**Maint. Year Start:** 1905**Cost Total:** \$15,000**Project Difference:** \$0**Service Impact:**

Annual HVAC contract services and increase gas billing during months of operation

**Project Justification:**

Needed to ensure lanes are clear of snow and ice

**Location Description:**

125 E Eighth Street at the Old Town Parking Garage



## Six Year Capital Improvement Program

### Parking

#### Old Town Boiler #3 and Pump Replacement

##### Project Information

1140-20-CIP

**Submitted By:** Nicole VanNess

**Department:** Parking Services

**Project Description:**

**Category:** Capital

**Department Head:** Jean Derenzy

Replace boiler #3 and pump

**Fund Group:** Traverse City Parking System

**Staff Priority:** Imperative (Must Do)

**Fund Detail:** Parking System

**Council Priority:**

Old Town Boiler #3 and Pump Replacement

1140-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$0	\$15,000	\$0	\$0	\$0	\$15,000
Project Total:									\$15,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$15,000

**Annual Maint. Cost:** \$3,000

**Maint. Year Start:** 1905

**Cost Total:** \$15,000

**Project Difference:** \$0

##### Service Impact:

Annual HVAC maintenance and increased gas billing during months of operation

##### Project Justification:

Needed to ensure lanes are free and clear of snow and ice.

##### Location Description:

125 E Eighth Street at Old Town Parking Garage



## Six Year Capital Improvement Program

### Parking

#### Old Town Boiler Replacement

**Project Information**

1072-20-CIP

**Submitted By:** Nicole VanNess**Department:** Parking Services**Project Description:****Category:** Maintenance**Department Head:** Jean Derenzy

Boilers are original to 2009 install. Boiler life is 10 years. 3 boilers onsite.

**Fund Group:** Traverse City Parking System**Staff Priority:** Essential (Should Do)**Fund Detail:** Parking System**Council Priority:**

Old Town Boiler Replacement-C

1072-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$0	\$0	\$80,000	\$0	\$0	\$80,000

**Project Total: \$80,000****COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$80,000**Annual Maint. Cost:****Cost Total: \$80,000****Maint. Year Start:** 1905**Project Difference: \$0****Service Impact:**

None.

**Project Justification:**

Ensure operational snow melt

**Location Description:**

Old Town Parking Garage, 125 E. Eighth St.





## Six Year Capital Improvement Program

### Parking

#### Old Town Garage LED Light Conversion

**Project Information**

1059-20-CIP

**Submitted By:** Nicole VanNess**Department:** Parking Services**Project Description:****Category:** Maintenance**Department Head:** Jean Derenzy

Concert lighting to LED in order to reduce lighting costs and repairs.

**Fund Group:** Traverse City Parking System**Staff Priority:** Important (Could Do)**Fund Detail:** Parking System**Council Priority:**

Old Town Garage LED Light Conversion-Cost

1059-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0	\$100,000
<b>Project Total:</b>									<b>\$100,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$100,000**Annual Maint. Cost:****Maint. Year Start:** 1905**Cost Total:** \$100,000**Project Difference:** \$0**Service Impact:**

Lighting swap out may reduce lighting on some levels as conversion is taking place over replacement period.

**Project Justification:**

Replace all existing lighting and convert to a more energy efficient lighting system.

**Location Description:**

125 E. Eighth Street. Old Town Garage



## Six Year Capital Improvement Program

### Parking

#### Old Town PTAC Units

##### Project Information

1083-20-CIP

**Submitted By:** Nicole VanNess

**Department:** Parking Services

##### Project Description:

**Category:** Maintenance

**Department Head:** Jean Derenzy

Replace all PTAC units at the Old Town Parking Garage.

**Fund Group:** Traverse City Parking System

**Staff Priority:** Essential (Should Do)

Replacement will be from the Old Town Fund 585-587

**Fund Detail:** Parking System

**Council Priority:**

Old Town PTAC Units - Cost

1083-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$0	\$0	\$50,000	\$0	\$0	\$50,000
Project Total:									\$50,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$50,000

**Annual Maint. Cost:** \$1,000

**Maint. Year Start:** 1905

**Cost Total:** \$50,000

**Project Difference:** \$0

##### Service Impact:

No impact, equipment replacement

##### Project Justification:

Routine equipment replacement for end of life equipment.

##### Location Description:

Old Town Parking Garage, 125 E Eighth Street



## Six Year Capital Improvement Program

### Parking

#### Old Town Solar Panels/Inverters

**Project Information**

1137-20-CIP

**Submitted By:** Nicole VanNess**Department:** Parking Services**Project Description:****Category:** Maintenance**Department Head:** Jean Derenzy

Replace inverters for the solar panels

**Fund Group:** Traverse City Parking System**Staff Priority:** Important (Could Do)**Fund Detail:** Parking System**Council Priority:**

Old Town Solar Panels/Inverters

1137-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$0	\$0	\$0	\$0	\$30,000	\$0	\$30,000

**Project Total:** **\$30,000****COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$30,000**Annual Maint. Cost:** \$1,500**Maint. Year Start:** 1905**Cost Total:** **\$30,000****Project Difference:** **\$0****Service Impact:**

Minimal impact

**Project Justification:**

Extend useful life

**Location Description:**

125 E Eighth Street at the Old Town Parking Garage



## Six Year Capital Improvement Program

### Parking

#### Single Space Meter Expansion

##### Project Information

1132-20-CIP

**Submitted By:** Nicole VanNess

**Department:** Parking Services

##### Project Description:

**Category:** Visionary

**Department Head:** Jean Derenzy

This project will allow for expanding meter districts and adding metered parking.

**Fund Group:** Traverse City Parking System

**Staff Priority:** Important (Could Do)

**Fund Detail:** Parking System

**Council Priority:**

Single Space Meter Expansion

1132-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
APS	Parking System	\$0	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$0	\$100,000
<b>Project Total:</b>									<b>\$100,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$100,000

**Annual Maint. Cost:** \$5,000

**Maint. Year Start:** 1905

**Cost Total:** **\$100,000**

**Project Difference:** **\$0**

##### Service Impact:

No service impact

##### Project Justification:

Planning for meter zone expansion and the costs associated with adding newly metered areas.

##### Location Description:

Newly created metered zones



Six Year Capital Improvement Program

Parking

Single Space Meter Replacement

Project Information		1131-20-CIP							
Submitted By:	Nicole VanNess	Department:	Parking Services				Project Description:		
Category:	Capital	Department Head:	Jean Derenzy				This project will replace existing coin only meters with pay stations or single space mechanisms that accept coin, cash and credit.		
Fund Group:	Traverse City Parking System	Staff Priority:	Essential (Should Do)						
Fund Detail:	Parking System	Council Priority:							
Single Space Meter Replacement			1131-20-CIP-C						
Funding Sources:									
APS	Parking System	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$100,000	\$0	\$100,000	\$100,000	\$0	\$0	\$300,000
Project Total:									\$300,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$300,000				Cost Total:	\$300,000
Annual Maint. Cost:				\$20,000				Project Difference:	\$0
Maint. Year Start:				1905					
Service Impact:									
Improved service to the public. Change over will require additional monthly fees for credit card processing and software subscription.									
Project Justification:									
Newer mechanisms will offer better reporting and ability to configure/schedule rate changes.									
Location Description:									
Metered zones throughout Traverse City									



## Six Year Capital Improvement Program

### Parking

#### West Front St Redevelopment (BOND)

##### Project Information

645-20-CIP

**Submitted By:** Jean Derenzy  
**Category:** Visionary  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Parking Services  
**Department Head:** Jean Derenzy  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Build an approximately 410 space parking deck to serve the west side of downtown. This project is a bond.

West Front St Redevelopment (BOND) - Cost

645-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIF97	TIF 97	\$0	\$0	\$652,975	\$611,657	\$631,548	\$670,993	\$909,511	\$3,476,684
								<b>Project Total:</b>	<b>\$3,476,684</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$1,050,000

**Construction:** \$10,300,000

**Annual Maint. Cost:** \$220,000

**Maint. Year Start:** 1905

**Cost Total:** **\$11,350,000**

**Project Difference:** **\$-7,873,316**

##### Service Impact:

Estimated annual maintenance of \$220,000

##### Project Justification:

Provide parking on west end. Free up existing surface lots for development.

##### Location Description:

145 W. Front Street. Corner W. Front/Pine.

## Six Year Capital Improvement Program

### Parks

#### American Legion Park Improvements

##### Project Information

928-20-CIP

**Submitted By:** Derek Melville

**Department:** Department of Public Services

**Category:** Visionary

**Department Head:** Frank Dituri

**Fund Group:** General

**Staff Priority:** Important (Could Do)

**Fund Detail:** Parks & Rec

**Council Priority:**

##### Project Description:

The improvements to American Legion Park could include terracing to create different levels of the park to make it more usable for sitting areas, small events and river access opportunities. Landscaping around the Veteran's monument would also be important.

American Legion Park Improvements (+Grant - Cost

928-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$0	\$35,000	\$0	\$0	\$0	\$0	\$35,000
LFG	Local / Foundation Grant	\$0	\$0	\$65,000	\$0	\$0	\$0	\$0	\$65,000
P	Private	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$50,000
<b>Project Total:</b>									<b>\$150,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$10,000

**Construction:** \$140,000

**Annual Maint. Cost:** \$1,000

**Maint. Year Start:** 1905

**Cost Total:** **\$150,000**

**Project Difference:** **\$0**

##### Service Impact:

Minimal increased costs for maintenance as compared to current operations.

##### Project Justification:

Currently the landscape of the park makes it difficult for the space to be used for gathering or small events so improvements would help activate the park. This project is listed in the Parks & Recreation 5 year master plan.

##### Location Description:

200 Washington Street



## Six Year Capital Improvement Program

### Parks

#### Ashton Park Playground

##### Project Information

306-20-CIP

**Submitted By:** Derek Melville  
**Category:** Visionary  
**Fund Group:** General  
**Fund Detail:** Parks & Rec

**Department:** Department of Public Services  
**Department Head:** Frank Dituri  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Replace existing play equipment with small structure designed for younger children. Larger play structure for older children is available at Willow Hill Elementary School. The new equipment would meet current safety and ADA accessibility standards.

Ashton Park Playground - Cost

306-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$0	\$0	\$30,000	\$0	\$0	\$0	\$30,000

**Project Total:** **\$30,000**

##### COST DETAIL:

**Study:** \$0  
**Land Acquisition / ROW:** \$0  
**Engineering / Design:** \$0  
**Construction:** \$30,000  
**Annual Maint. Cost:** \$500  
**Maint. Year Start:** 1905

**Cost Total:** **\$30,000**

**Project Difference:** **\$0**

##### Service Impact:

Minor impacts for City Parks operations. Annually wood chips will need to be spread.

##### Project Justification:

The existing playground equipment is outdated and non-ADA accessible. All new equipment will be selected to increase safety and ADA accessibility.

##### Location Description:

1200 Wayne Street





## Six Year Capital Improvement Program

### Parks

#### Boon Street Park Playground Improvements

##### Project Information

539-20-CIP

**Submitted By:** Derek Melville

**Department:** Department of Public Services

**Category:** Visionary

**Department Head:** Frank Dituri

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parks & Rec

**Council Priority:**

##### Project Description:

This neighborhood park has a mixture of thirty year old and older pieces of play equipment. All equipment should be replaced, a new picnic area should be established and the trail should have defined ada pathways (sidewalk or limestone fines) to improve access.

Boon Street Park Playground Improvements - Cost

539-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$58,000	\$0	\$0	\$0	\$0	\$0	\$58,000

**Project Total:** **\$58,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$3,000

**Construction:** \$55,000

**Annual Maint. Cost:** \$1,000

**Maint. Year Start:** 1905

**Cost Total:** **\$58,000**

**Project Difference:** **\$0**

##### Service Impact:

Annually the parks department would have to spread woodchips and minor increased maintenance activities when the picnic area is heavily used.

##### Project Justification:

All playground equipment is in need of replacement along with the addition of ADA accessible play pieces and general park accessibility. Creating an improved picnic area will increase park use over time.

##### Location Description:

925 Boon Street



## Six Year Capital Improvement Program

### Parks

#### Bryant Park Improvements

##### Project Information

26-20-CIP

**Submitted By:** Lauren Vaughn

**Department:** Department of Public Services

**Category:** Visionary

**Department Head:** Frank Dituri

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parks & Rec

**Council Priority:**

##### Project Description:

Bryant Park is one of the most utilized parks in the City, so it has been identified that expanding and updating the bathhouse, adding an outside foot wash station and creating small picnic areas with mini pavilions and grills are desired. Additionally, a retaining wall will greatly reduce the amount of sand that blows up into the turf area during the late fall to early spring period. It will also help to stop the encroachment of the sand and shrinking of the turf areas.

Bryant Park Improvements

26-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$0	\$95,000	\$0	\$0	\$0	\$0	\$95,000
FSG	Federal / State Grant	\$0	\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$100,000
LFG	Local / Foundation Grant	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000

**Project Total:** **\$210,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$15,000

**Construction:** \$195,000

**Annual Maint. Cost:** \$2,000

**Maint. Year Start:** 1905

**Cost Total:** **\$210,000**

**Project Difference:** **\$0**

##### Service Impact:

Increased cleaning costs will come from a larger facility, as well as increased maintenance costs of additional pavilions and the retaining wall.

##### Project Justification:

The installation of a retaining wall at Bryant Park is identified in the Parks & Recreation 5 year master plan, and the other amenities have been identified as needed due to the high use the park sees throughout the summer, specifically on weekends and during special events.

##### Location Description:

1101 Peninsula Dr



## Six Year Capital Improvement Program

### Parks

#### F&M Park Basketball Court Upgrade

**Project Information**

1188-20-CIP

**Submitted By:** Derek Melville**Department:** Department of Public Services**Project Description:****Category:** Maintenance**Department Head:** Frank Dituri

Replace asphalt at F&amp;M Court and replace basketball hoops with new system. Paint lines on court.

**Fund Group:** Brown Bridge Trust Parks Improvement**Staff Priority:** Essential (Should Do)**Fund Detail:** Brown Bridge Trust Parks Improvement**Council Priority:**

1188-20-CIP

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$30,000
<b>Project Total:</b>									<b>\$30,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$2,000**Construction:** \$28,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** **\$30,000****Project Difference:** **\$0****Service Impact:**

Very little cost for future maintenance. Should not impact any future operations.

**Project Justification:**

Requested by Parks &amp; Rec Commission as part of their CIP list and also approved as part of the BBTF ballot initiative.

**Location Description:**

716 E State St, Traverse City, MI 49686



Six Year Capital Improvement Program

Parks

Franklin Street Promenade

Project Information

1090-20-CIP

Submitted By: Russ Soyring  
Category: Capital  
Fund Group: General  
Fund Detail: Parks & Rec

Department: Planning and Zoning  
Department Head: Russ Soyring  
Staff Priority: Important (Could Do)  
Council Priority:

Project Description:  
Phase 1: An extension of Franklin Street as a promenade to connect the North Boardman Lake District to Boardman Lake. To do this, the project includes moving security gates for the wastewater treatment plant and relocating security fencing.  
  
Phase 2: At a future time when Franklin Street is reconstructed, the street ending should be re-built as a shared street with pedestrian amenities.

Franklin Street Promenade-Cost

1090-20-CIP-C

Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$0	\$0	\$0	\$0	\$79,500	\$0	\$0	\$79,500
Project Total:									\$79,500

COST DETAIL:

Study:	\$0	
Land Acquisition / ROW:	\$0	
Engineering / Design:	\$0	
Construction:	\$79,500	Cost Total: \$79,500
Annual Maint. Cost:		Project Difference: \$0
Maint. Year Start:		

Service Impact:

Increase service impact due to landscaping, lighting.

Project Justification:

Envision 8th Master Plan

Location Description:

Extension of the 500 block of Franklin to Boardman Lake



## Six Year Capital Improvement Program

### Parks

#### Hickory Hills Snowmaking

##### Project Information

1164-20-CIP

**Submitted By:** Derek Melville

**Department:** Department of Public Services

**Category:** Maintenance

**Department Head:** Frank Dituri

**Fund Group:** Other

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parks & Rec

**Council Priority:**

##### Project Description:

Snowmaking project at Hickory Hills to expand infrastructure to serve the Nordic Trails as well as the addition of a booster pump and an expansion to the pump house.

Hickory Hills Snowmaking Expansion

1164-20-CIP

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000
P	Private	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000
<b>Project Total:</b>									<b>\$100,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$100,000

**Annual Maint. Cost:** \$1,000

**Maint. Year Start:** 1905

**Cost Total:** \$100,000

**Project Difference:** \$0

##### Service Impact:

Increased skiing days for the Nordic community, therefore increased revenue potential. Increased maintenance costs are limited to long term repairs, electricity to run the well and pumps and equipment, which can vary greatly depending on weather.

##### Project Justification:

Part of the Hickory Hills Master Plan.

##### Location Description:

2000 Randolph Street



## Six Year Capital Improvement Program

### Parks

#### Highland Park Play Equipment and entrance

**Project Information**

1190-20-CIP

**Submitted By:** Derek Melville**Department:** Department of Public Services**Category:** Capital**Department Head:** Frank Dituri**Fund Group:** Brown Bridge Trust Parks Improvement**Staff Priority:** Important (Could Do)**Fund Detail:** Brown Bridge Trust Parks Improvement**Council Priority:****Project Description:**

Replace existing playground equipment at Highland Park, improve entrance area with signage, bike parking, bench.

1190-20-CIP

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$30,000
<b>Project Total:</b>									<b>\$30,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$30,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** **\$30,000****Project Difference:** **\$0****Service Impact:**

Minor maintenance costs, no operational impact.

**Project Justification:**

Included within BBTF ballot renewal plan.

**Location Description:**

HIGHLAND PARK Dr



## Six Year Capital Improvement Program

### Parks

#### Indian Woods Playground

##### Project Information

309-20-CIP

**Submitted By:** Lauren Vaughn

**Department:** Department of Public Services

**Category:** Visionary

**Department Head:** Frank Dituri

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parks & Rec

**Council Priority:**

##### Project Description:

This would replace most of the existing play equipment with a small new structure that would meet current safety and ADA accessibility standards. Some of the existing play pieces could remain as they were replaced and/or added in the past 15 years. Additionally, the neighborhood has identified they'd like to have a connection between the upper and lower tiers of the park, possibly through a sidewalk or trail. Also, hill slides and an improved picnic area has been identified to be added.

Indian Woods Playground - Cost

309-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$62,000	\$0	\$0	\$0	\$0	\$0	\$62,000
FSG	Federal / State Grant	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000
<b>Project Total:</b>									<b>\$112,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$10,000

**Construction:** \$110,000

**Annual Maint. Cost:** \$1,000

**Maint. Year Start:** 1905

**Cost Total:** **\$120,000**

**Project Difference:** **\$-8,000**

##### Service Impact:

Ongoing repairs and maintenance to the improved facilities will be similar to existing levels.

##### Project Justification:

Improving Indian Woods Park and playground is identified in the Parks & Recreation 5 year master plan. Due to the age and condition of the existing playground equipment it should be replaced with ADA compliant pieces. Additionally, connecting the two tiers, if possible, would be a positive improvement for users of all abilities.

##### Location Description:

1765 Indian Woods Drive



## Six Year Capital Improvement Program

### Parks

#### Mini Park Upgrade and East Downtown Entrance

**Project Information**

972-20-CIP

**Submitted By:** Lauren Vaughn**Department:** Department of Public Services**Category:** Visionary**Department Head:** Frank Dituri**Fund Group:** General**Staff Priority:** Important (Could Do)**Fund Detail:** Parks & Rec**Council Priority:****Project Description:**

Improvements to Mini Park at the corner of East Front Street and Grandview Parkway will become a focal point for the entrance to downtown. Improvements should include lighting, reworked trails around the "guardian" plaza and landscaping updates.

Mini Park Upgrade and East Downtown Entran - Cost

972-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$0	\$0	\$0	\$25,000	\$0	\$0	\$25,000
GEN	General Fund	\$0	\$0	\$0	\$0	\$5,000	\$0	\$0	\$5,000
P	Private	\$0	\$0	\$0	\$0	\$25,000	\$0	\$0	\$25,000
<b>Project Total:</b>									<b>\$55,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$10,000**Construction:** \$45,000**Annual Maint. Cost:** \$1,000**Maint. Year Start:** 1905**Cost Total:** **\$55,000****Project Difference:** **\$0****Service Impact:**

With increased use of the area the Parks department will have to increase general maintenance and trash removal.

**Project Justification:**

With the new Coast Guard plaza, reworking the bike traffic and trails is crucial to help with traffic flow and safety. Lighting and other amenities in collaboration with a streetscape improvement will tie the parcel together.

**Location Description:**

539 East Front Street





## Six Year Capital Improvement Program

### Parks

#### Natural Features Inventory (Planning Commission)

**Project Information**

785-20-CIP

**Submitted By:** Russ Soyring**Department:** Planning and Zoning**Category:** Visionary**Department Head:** Russ Soyring**Fund Group:** General**Staff Priority:** Important (Could Do)**Fund Detail:** Parks & Rec**Council Priority:****Project Description:**

Conduct an extensive Natural Features Inventory (NFI), including flora, fauna, soil types, air quality and water quality to establish baseline criteria on city properties. After the completion of the NFI, specific priorities, goals and standards can be developed. Currently, some natural features data is being collected as part of the SAW grant.

Natural Features Inventory (Planning) - Cost

785-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000
<b>Project Total:</b>									<b>\$20,000</b>

**COST DETAIL:****Study:** \$20,000**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$0**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$20,000**Project Difference:** \$0**Service Impact:**

None.

**Project Justification:**

Natural Resources Element in the Master Plan calls for this plan to provide a baseline for policy making.

**Location Description:**

City-wide.



## Six Year Capital Improvement Program

### Parks

#### Park Sign Replacement

##### Project Information

684-20-CIP

**Submitted By:** Lauren Vaughn

**Department:** Department of Public Services

**Category:** Maintenance

**Department Head:** Frank Dituri

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parks & Rec

**Council Priority:**

##### Project Description:

This project would replace all main park entrance signs with a different style and color to bring the parks up to date. This would also include a new branding design (logo) on the signs and some additional signs for marking trails and for wayfinding.

Park Sign Replacement - Cost

684-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$30,000	\$30,000	\$0	\$0	\$0	\$0	\$0	\$60,000
<b>Project Total:</b>									<b>\$60,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$4,000

**Construction:** \$56,000

**Annual Maint. Cost:** \$500

**Maint. Year Start:** 1905

**Cost Total:** **\$60,000**

**Project Difference:** **\$0**

##### Service Impact:

A full sign replacement will result in an immediate decrease of park sign maintenance costs, but ongoing replacement for damaged/vandalized signs should be built into the budget.

##### Project Justification:

The Parks & Recreation 5 year master plan identifies a sign replacement project as a priority, as the P&R Commission has identified a desire to re-brand the Parks as a whole, with all new signs being part of that plan. Additionally, many of the Parks signs are past their useful life and need to be replaced so they reflect positively on the City.

##### Location Description:

n/a

## Six Year Capital Improvement Program

### Parks

#### Rose and Boyd Triangle Park (Jupiter Gardens)

##### Project Information

543-20-CIP

**Submitted By:** Derek Melville

**Department:** Department of Public Services

**Category:** Visionary

**Department Head:** Frank Dituri

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parks & Rec

**Council Priority:**

##### Project Description:

The North Traverse Heights neighborhood group and other individuals have expressed an interest in seeing improvements to this park to include: a small trailside shelter, sidewalks, native/edible gardens, water and bike repair stations, natural playscapes and trails within the park. The use of this park could greatly increase if these amenities are added.

Jupiter Gardens Upgrade

543-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$23,000	\$0	\$0	\$0	\$0	\$0	\$23,000
<b>Project Total:</b>									<b>\$23,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$1,000

**Construction:** \$22,000

**Annual Maint. Cost:** \$1,500

**Maint. Year Start:** 1905

**Cost Total:** **\$23,000**

**Project Difference:** **\$0**

##### Service Impact:

The gardens would require seasonal attention and the natural areas would require annual woodchips/mulch.

##### Project Justification:

Users of the TART trail and neighborhood residents would benefit most from this improvement that would create a stopping point for trail traffic and a community garden that residents could help support. Additionally, the natural playscapes would allow for opportunities for play for young children without the need for a large playground.

##### Location Description:

912 Boyd Ave



## Six Year Capital Improvement Program

### Parks

#### Senior Center -Bayfront Plan

**Project Information**

602-20-CIP

**Submitted By:** Russ Soyring**Department:** Planning and Zoning**Project Description:****Category:** Visionary**Department Head:** Frank Dituri

Sidewalks, new parking lot improvement and Stormwater Treatment Structure are key elements of the project.

**Fund Group:** Bayfront Plan NON-TIF Implementation**Staff Priority:** Important (Could Do)**Fund Detail:** Parks & Rec**Council Priority:**

Senior Center Bayfront Phase (+Grant) - Cost

602-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$0	\$0	\$0	\$0	\$0	\$50,000	\$0	\$50,000
P	Private	\$0	\$0	\$0	\$0	\$0	\$111,888	\$0	\$111,888
<b>Project Total:</b>									<b>\$161,888</b>

**COST DETAIL:****Study:** \$4,000**Land Acquisition / ROW:** \$0**Engineering / Design:** \$11,410**Construction:** \$146,478**Annual Maint. Cost:** \$8,000**Maint. Year Start:****Cost Total:** **\$161,888****Project Difference:** **\$0****Service Impact:**

Service requirements would increase- Sidewalk and stormwater maintenance

**Project Justification:**

2010 Bayfront Plan

**Location Description:**

801 E. Front Street



## Six Year Capital Improvement Program

### Parks

#### Senior Citizen Park Improvements

##### Project Information

926-20-CIP

**Submitted By:** Lauren Vaughn

**Department:** Department of Public Services

**Category:** Visionary

**Department Head:** Frank Dituri

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parks & Rec

**Council Priority:**

##### Project Description:

These improvements would include an adult "playground" with components designed to help the Senior population with strength, balance, and mobility and a path connecting these features. Additionally, irrigation for the grounds and improved parking should be part of this project or it could aligned with the new Senior Center building discussions to create a comprehensive plan for the space.

Senior Citizen Park Improvements (Grant +P - Cost

926-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$0	\$0	\$0	\$0	\$35,000	\$0	\$35,000
LFG	Local / Foundation Grant	\$0	\$0	\$0	\$0	\$0	\$35,000	\$0	\$35,000
P	Private	\$0	\$0	\$0	\$0	\$0	\$5,000	\$0	\$5,000

**Project Total:** **\$75,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$2,000

**Construction:** \$73,000

**Annual Maint. Cost:** \$500

**Maint. Year Start:** 1905

**Cost Total:** **\$75,000**

**Project Difference:** **\$0**

##### Service Impact:

The installation of an irrigation system and fitness amenities will require seasonal and periodic preventative maintenance, repair and servicing of the equipment.

##### Project Justification:

This project is listed as part of the Parks and Recreation 5 year master plan. Providing a fitness loop for senior center users onsite would

##### Location Description:

801 E Front Street



## Six Year Capital Improvement Program

### Parks

#### Sunset Park Improvements

##### Project Information

927-20-CIP

**Submitted By:** Lauren Vaughn

**Department:** Department of Public Services

**Category:** Visionary

**Department Head:** Frank Dituri

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Parks & Rec

**Council Priority:**

##### Project Description:

The improvements to Sunset Parks would include: a small picnic pavilion with restrooms, a new playground, fitness stations, a walking path, landscaping, irrigation and retaining wall at the sand/grass interface and a drinking fountain/water bottle filling station. It was also recently supported by the Parks & Recreation Commission that a potential raquetball/handball court be placed as part of this project.

Sunset Park Improvements (+Grant +Private - Cost

927-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0	\$100,000
FSG	Federal / State Grant	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0	\$100,000
LFG	Local / Foundation Grant	\$0	\$0	\$0	\$25,000	\$0	\$0	\$0	\$25,000
P	Private	\$0	\$0	\$0	\$25,000	\$0	\$0	\$0	\$25,000
<b>Project Total:</b>									<b>\$250,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$20,000

**Construction:** \$230,000

**Annual Maint. Cost:** \$2,500

**Maint. Year Start:** 1905

**Cost Total:** \$250,000

**Project Difference:** \$0

##### Service Impact:

The cleaning and maintenance of the restrooms will be the source of the largest maintenance cost increase, with a need for repair and part replacement for the fitness and playground equipment.

##### Project Justification:

The 5 year Parks and Rec Master Plan highlights the need to update Sunset Park with the proposed amenities. A conceptual plan has been approved by the Parks and Rec Commission, with further refining needed as the project nears.

##### Location Description:

635 E Front



## Six Year Capital Improvement Program

### Parks

#### West End Beach Bathhouse Project

##### Project Information

1020-20-CIP

**Submitted By:** Derek Melville  
**Category:** Visionary  
**Fund Group:** General  
**Fund Detail:** Parks & Rec

**Department:** Department of Public Services  
**Department Head:** Frank Dituri  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

The existing bathroom facility is old, non-ADA compliant and in disrepair. This project proposes to build a new bathhouse/changing room that will be a modern, energy efficient ADA compliant facility. Additionally, the addition of an ADA access to the beach along with picnic & seating areas around the rebuilt bathhouse will be important.

West End Beach Bathhouse Project

1020-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BBTP	Brown Bridge Trust Parks	\$0	\$0	\$120,000	\$0	\$0	\$0	\$0	\$120,000
GEN	General Fund	\$0	\$0	\$43,000	\$0	\$0	\$0	\$0	\$43,000
LFG	Local / Foundation Grant	\$0	\$100,000	\$120,000	\$0	\$0	\$0	\$0	\$220,000

**Project Total: \$383,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$43,000

**Construction:** \$340,000

**Annual Maint. Cost:** \$2,000

**Maint. Year Start:** 1905

**Cost Total: \$383,000**

**Project Difference: \$0**

##### Service Impact:

Minimal impact to city operations with regard to maintenance or cost increases as there is an existing bathhouse we currently maintain.

##### Project Justification:

Existing bathhouse is in disrepair and not ADA compliant. This project is referenced in the Parks & Recreation 5 year master plan as a necessity due to the lack of ADA usability. The addition of an ADA access to the beach will provide access to the beach on the West End to all users in proximity to parking.

##### Location Description:

706 West Grandview Parkway- West End



## Six Year Capital Improvement Program

### Police

#### Digital Cameras for Downtown Traverse City

##### Project Information

1154-20-CIP

**Submitted By:** Jeffery O'Brien

**Department:** Police

##### Project Description:

**Category:** Capital

**Department Head:** Jeffery O'Brien

Digital Cameras to be installed on city streets to increase the public's safety and to reduce illicit behavior in our downtown.

**Fund Group:** General

**Staff Priority:** Imperative (Must Do)

**Fund Detail:** Police

**Council Priority:**

1154-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$100,000
TIF97	TIF 97	\$0	\$25,000	\$0	\$0	\$0	\$0	\$0	\$25,000
<b>Project Total:</b>									<b>\$125,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$125,000

**Annual Maint. Cost:** \$10,000

**Maint. Year Start:** 1905

**Cost Total:** \$125,000

**Project Difference:** \$0

##### Service Impact:

Minimal maintenance is expected on these cameras as they will be stationary - Hardware maintenance and possible software updates.

##### Project Justification:

We have an active downtown area where we have experienced increased issues concerning public safety and well-being of our citizens. Cameras will help capture undesirable activities within the downtown area.

##### Location Description:

Throughout the City of Traverse City - initial focus on the downtown area/establishments





## Six Year Capital Improvement Program

### Streets

#### Annual Street Reconstruction Program

##### Project Information

14-20-CIP

**Submitted By:** Tim Lodge

**Department:** Engineering

**Category:** Maintenance

**Department Head:** Tim Lodge

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Streets

**Council Priority:**

##### Project Description:

This is an annual program that provides funds to resurface major and minor streets within the city limits. Funding eligible for bridge and street repair, resurfacing, reconstruction including sidewalks, storm water system. Millage fund cannot be used for sidewalks or underground utilities. In the coming fiscal years the following streets: 8th, E. 11th, E. 10th, Jefferson, Monroe, Madison, Randolph, Fitzhugh and existing gravel streets (Griffin, Fulton) are on the list for street reconstruction and are coordinated with utility fund projects. For the next 2 years, pavement preservation projects are planned utilizing the millage funds.

Annual Street Reconstruction Program (+GTC - Cost

14-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
ACPF	Available Capital Projects Fund	\$330,000	\$0	\$0	\$0	\$0	\$0	\$0	\$330,000
GEN	General Fund	\$523,638	\$521,181	\$519,046	\$510,000	\$515,738	\$0	\$0	\$2,589,602
RCMF	Road Commission Millage Fund	\$1,620,000	\$810,000	\$0	\$0	\$0	\$0	\$0	\$2,430,000
<b>Project Total:</b>									<b>\$5,349,602</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$0

**Project Difference:** \$5,349,602

##### Service Impact:

None.

##### Project Justification:

Maintenance

##### Location Description:

City-wide



## Six Year Capital Improvement Program

### Streets

#### Division Street

##### Project Information

320-20-CIP

**Submitted By:** Tim Lodge

**Department:** Engineering

**Category:** Visionary

**Department Head:** Tim Lodge

**Fund Group:** General

**Staff Priority:** Important (Could Do)

**Fund Detail:** Streets

**Council Priority:**

##### Project Description:

Funding for improvements to Division Street in conjunction with 2020 MDOT Safety project. In 2015/16, MDOT completed a PEL Study for the corridor. The City's participation in the project will likely include items such as sidewalks, lighting, irrigation, landscaping, and other project enhancements.

Division Street - Cost

320-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$100,000	\$25,000	\$0	\$0	\$0	\$0	\$0	\$125,000
Project Total:									\$125,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$0

**Project Difference:** \$125,000

##### Service Impact:

Additional infrastructure requiring operation, maintenance, and replacement.

##### Project Justification:

Partnering with MDOT for value added features of their improvement project.

##### Location Description:

Division Street from 13th to 7th Street.



Six Year Capital Improvement Program

Streets

East Front St Reconstruction (400-500 blocks)

Project Information		717-20-CIP										
Submitted By:	Tim Lodge	Department:	Engineering					<b>Project Description:</b>  Street reconstruction with utility rehabilitation and replacement. New curbs, street trees, benches, bike racks, and sidewalk along East Front between Park Street and Grandview Parkway. Project pending SID.  The City will request participation from TCLP for lighting associated with the streetscape. Utility funds will be utilized and coordinated with the street project. The utility projects associated with this project are in the CIP: 1052-19-CIP and 1053-19-CIP.				
Category:	Visionary	Department Head:	Tim Lodge									
Fund Group:	Tax Increment Financing	Staff Priority:	Essential (Should Do)									
Fund Detail:	TIF 97	Council Priority:										
East Front Reconstructio (Park to Grand - Cost										717-20-CIP-C		
<b>Funding Sources:</b>												
			Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total		
FSG	Federal / State Grant		\$0	\$0	\$0	\$0	\$400,000	\$0	\$0	\$400,000		
SAF	Special Assessment Fund		\$0	\$0	\$0	\$0	\$257,500	\$0	\$0	\$257,500		
TIF97	TIF 97		\$0	\$0	\$0	\$0	\$257,500	\$0	\$0	\$257,500		
										<b>Project Total:</b>		<b>\$915,000</b>
<b>COST DETAIL:</b>												
					Study:	\$0						
					Land Acquisition / ROW:	\$0						
					Engineering / Design:	\$0						
					Construction:	\$915,000						
					Annual Maint. Cost:							
					Maint. Year Start:							
<b>Service Impact:</b>												
Increased service likely due to addition of street trees and site amenities.												
<b>Project Justification:</b>												
TIF 97												
<b>Location Description:</b>												
East Front Street 400-500 blocks.												



Six Year Capital Improvement Program

Streets

Front Street Streetscapes

Project Information		1087-20-CIP							
Submitted By:	Jean Derenzy	Department:	Downtown Development			Project Description:			
Category:	Maintenance	Department Head:	Jean Derenzy			Upgrade streetscapes in the 100 and 200 blocks of East Front			
Fund Group:	Tax Increment Financing	Staff Priority:	Essential (Should Do)						
Fund Detail:	TIF 97	Council Priority:							
Front Street Streetscapes Cost		1087-20-CIP-C							
Funding Sources:									
TIF97	TIF 97	Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
		\$0	\$250,000	\$500,000	\$250,000	\$0	\$0	\$0	\$1,000,000
Project Total:									\$1,000,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$0					
Construction:				\$1,000,000					
Annual Maint. Cost:									
Maint. Year Start:				1905					
Cost Total:								\$1,000,000	
Project Difference:								\$0	
Service Impact:									
Minor sidewalk and street closures									
Project Justification:									
Original streetscapes at end of life and need to be upgraded									
Location Description:									
100/200 blocks of East Front Street									



Six Year Capital Improvement Program

Streets

Garfield Ave Reconstruction (Hannah to Front St)

<b>Project Information</b>		1115-20-CIP							
<b>Submitted By:</b> Tim Lodge		<b>Department:</b> Engineering		<b>Project Description:</b>					
<b>Category:</b> Capital		<b>Department Head:</b> Tim Lodge		Garfield Ave. Reconstruction project to utilize small urban funds.					
<b>Fund Group:</b> General		<b>Staff Priority:</b> Essential (Should Do)		Proposed work includes mill and pave with 4 to 3 lane conversion with bike lanes south of Eighth St. (existing 2 lane section with bike lanes north of Eighth St). Narrow width of roadway near intersection of Garfield Ave. and Front St; new sidewalks.					
<b>Fund Detail:</b> Streets		<b>Council Priority:</b>							

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TBD Street Reconstruction-C		1115-20-CIP-C							
<b>Funding Sources:</b>									
		<b>Previous</b>	<b>2020/2021</b>	<b>2021/2022</b>	<b>2022/2023</b>	<b>2023/2024</b>	<b>2024/2025</b>	<b>2025/2026</b>	<b>Total</b>
FSG	Federal / State Grant	\$0	\$0	\$330,000	\$0	\$0	\$0	\$0	\$330,000
GEN	General Fund	\$0	\$0	\$82,500	\$0	\$0	\$0	\$0	\$82,500
<b>Project Total:</b>									<b>\$412,500</b>

  

<b>COST DETAIL:</b>			
<b>Study:</b>		\$0	
<b>Land Acquisition / ROW:</b>		\$0	
<b>Engineering / Design:</b>		\$0	
<b>Construction:</b>		\$412,500	
<b>Annual Maint. Cost:</b>			
<b>Maint. Year Start:</b>			
		<b>Cost Total:</b>	<b>\$412,500</b>
		<b>Project Difference:</b>	<b>\$0</b>

  

<b>Service Impact:</b>	
None.	
<b>Project Justification:</b>	
Street Reconstruction	
<b>Location Description:</b>	
Garfield Ave. between Hannah and Front Street (.6 miles)	



Six Year Capital Improvement Program

Streets

Grand Traverse Commons Infrastructure

Project Information		616-20-CIP								
Submitted By:	Tim Lodge	Department:	Engineering			Project Description:				
Category:	Visionary	Department Head:	Tim Lodge			For Streets, Sidewalks, Water, Sewer, and Storm Sewer infrastructure supporting Grand Traverse Commons Development.				
Fund Group:	General	Staff Priority:	Imperitive (Must Do)			Reimbursement anticipated from Brownfield TIF.				
Fund Detail:	Streets	Council Priority:								
Grand Traverse Commons Infrastructure - Cost					616-20-CIP-C					
Funding Sources:			Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BR	Brownfield		\$0	\$223,095	\$690,000	\$310,000	\$0	\$0	\$0	\$1,223,095
									Project Total:	\$1,223,095
			COST DETAIL:							
			Study:	\$0						
			Land Acquisition / ROW:	\$0						
			Engineering / Design:	\$0						
			Construction:	\$1,223,095						
			Annual Maint. Cost:							
			Maint. Year Start:							
Service Impact:										
Converting private utilities to public utilities.										
Project Justification:										
Replacing aged infrastructure as part of Brownfield Place.										
Location Description:										
Grand Traverse Commons Development.										



## Six Year Capital Improvement Program

### Streets

#### Grandview Parkway Pedestrian Crossing Enhancement

##### Project Information

713-20-CIP

**Submitted By:** Rob Baciagalupi

**Department:** Downtown Development

**Category:** Visionary

**Department Head:** Jean Derenzy

**Fund Group:** Tax Increment Financing

**Staff Priority:**

**Fund Detail:** TIF 97

**Council Priority:**

##### Project Description:

Pedestrian enhancements to cross Grandview Parkway between Hall Street to Cass Street. Possible gateway treatment at Union Street. Project to be coordinated with MDOT enhancements in 2022.

Grandview Parkway Pedestrian Crossing Enha - Cost

713-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIF97	TIF 97	\$0	\$0	\$0	\$0	\$500,000	\$0	\$0	\$500,000

**Project Total:** \$500,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$500,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$500,000

**Project Difference:** \$0

##### Service Impact:

None foreseen

##### Project Justification:

Crossing enhancement/Connectivity

##### Location Description:

Grandview Parkway



## Six Year Capital Improvement Program

### Streets

#### Highway Safety Improvement Program (HSIP)

**Project Information**

1130-20-CIP

**Submitted By:** Tim Lodge**Department:** Engineering**Category:** Capital**Department Head:** Tim Lodge**Fund Group:** General**Staff Priority:** Essential (Should Do)**Fund Detail:** Available Capital Projects Fund**Council Priority:****Project Description:**

Replacement of the traffic signal at the Parsons and Airport Access Intersection with a roundabout for MDOT's 2020 fiscal year. The project is valued at \$600,000 for which the City is responsible for 10% or \$60,000 with the program paying the other 90%. The City will be responsible for other costs such as engineering, surveying and construction testing. Pedestrian improvements will accommodate pedestrians wish to cross at the intersection and provide easier access to the existing shared path that runs parallel to Parsons (south side) to help reduce the number of pedestrians and cyclists in the roadway.

Highway Safety Improvement Program (HSIP)

1130-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$0	\$540,000	\$0	\$0	\$0	\$0	\$0	\$540,000
GEN	General Fund	\$20,000	\$60,000	\$0	\$0	\$0	\$0	\$0	\$80,000
<b>Project Total:</b>									<b>\$620,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$20,000**Construction:** \$600,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$620,000**Project Difference:** \$0**Service Impact:**

We would optimize the footprint to reduce maintenance costs. The roundabout will eliminate replacement costs of the traffic signal, as well as cost of operating the traffic signal.

**Project Justification:**

Converting intersection to a roundabout to reduce speed, therefore reducing the number and severity of accidents.

**Location Description:**

Intersection of Parsons Rd and Airport Access Rd.





## Six Year Capital Improvement Program

### Streets

#### State Street Streetscapes

##### Project Information

1088-20-CIP

**Submitted By:** Jean Derenzy  
**Category:** Maintenance  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Jean Derenzy  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**  
Upgrade streetscapes in the 100 and 200 blocks of East State Street

State Street Streetscapes Cost

1088-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIF97	TIF 97	\$0	\$250,000	\$500,000	\$250,000	\$0	\$0	\$0	\$1,000,000

**Project Total:** **\$1,000,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$1,000,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** **\$1,000,000**

**Project Difference:** **\$0**

##### Service Impact:

Temporary sidewalk and street closures

##### Project Justification:

Current streetscapes are near end of life and need to be upgraded

##### Location Description:

100/200 East State Street



## Six Year Capital Improvement Program

### Streets

#### Traffic Calming

##### Project Information

889-20-CIP

**Submitted By:** Tim Lodge

**Department:** Engineering

**Category:** Visionary

**Department Head:** Tim Lodge

**Fund Group:** General

**Staff Priority:** Important (Could Do)

**Fund Detail:** Streets

**Council Priority:**

##### Project Description:

Funding for Traffic Calming infrastructure improvements per City Commission.

Traffic Calming - Cost

889-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$0	\$0	\$500,000

**Project Total:** **\$500,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$0**

**Project Difference:** **\$500,000**

##### Service Impact:

Additional infrastructure requiring operation, maintenance, and replacement.

##### Project Justification:

Improving safety and traffic concerns.

##### Location Description:

City-wide.



## Six Year Capital Improvement Program

### Streets

#### Traffic Signal Mast Arm

##### Project Information

1070-20-CIP

**Submitted By:** Jean Derenzy  
**Category:** Capital  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Tim Lodge  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

For installing mast arm signal posts in conjunction with MDOT Traffic Signal Upgrade project at the Grandview Parkway/E. Front intersection and Grandview Parkway/Union Street intersection.

Traffic Signal Mast Arm

1070-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIF97	TIF 97	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000

**Project Total:** **\$100,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$100,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$100,000**

**Project Difference:** **\$0**

##### Service Impact:

None.

##### Project Justification:

Signal Upgrade

##### Location Description:

Grandview pkwy/E. Front and Grandview pkwy/Union St



## Six Year Capital Improvement Program

### Streets

#### Traffic Signal Power Backup

##### Project Information

15-20-CIP

**Submitted By:** Tim Lodge

**Department:** Engineering

**Category:** Visionary

**Department Head:** Tim Lodge

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Streets

**Council Priority:**

##### Project Description:

Provide funding to install battery backup power systems in all signal equipment by 2022.

Traffic Signal Power Backup - Cost

15-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$22,500	\$22,500	\$22,500	\$22,500	\$0	\$0	\$0	\$90,000

**Project Total:** **\$90,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$0**

**Project Difference:** **\$90,000**

##### Service Impact:

Reducing the need for response in brief power outages.

##### Project Justification:

Replacing aged traffic signal equipment and providing back up emergency power.

##### Location Description:

Various locations city-wide.



## Six Year Capital Improvement Program

### Streets

#### Traffic Signal Upgrades

##### Project Information

16-20-CIP

**Submitted By:** Tim Lodge

**Department:** Engineering

**Category:** Visionary

**Department Head:** Tim Lodge

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Streets

**Council Priority:**

##### Project Description:

This is an annual program that will fund traffic signal consulting and design for upgrade to the Garfield/Hannah, Parsons traffic signal and the Parsons/Hastings intersection signal.

Traffic Signal Upgrades - Cost

16-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$120,000	\$60,000	\$60,000	\$60,000	\$60,000	\$0	\$0	\$360,000

**Project Total:** **\$360,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$0**

**Project Difference:** **\$360,000**

##### Service Impact:

Reduce operational and maintenance costs.

##### Project Justification:

Replacing aged traffic signal equipment.

##### Location Description:

Various locations city-wide.



## Six Year Capital Improvement Program

### Streets

#### Tree Replacement

##### Project Information

1089-20-CIP

**Submitted By:** Jean Derenzy  
**Category:** Maintenance  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Jean Derenzy  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**  
Replace Trees throughout the DDA District

Tree Replacement Cost

1089-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIF97	TIF 97	\$0	\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$100,000

**Project Total:** **\$100,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$100,000

**Annual Maint. Cost:**

**Maint. Year Start:** 1905

**Cost Total:** **\$100,000**

**Project Difference:** **\$0**

##### Service Impact:

Temporary Sidewalk Closures

##### Project Justification:

Trees are overgrown/dying and need to be replaced.

##### Location Description:

DDA District



## Six Year Capital Improvement Program

### Walkways

#### Boardman Lake Trail-West (14th to S. Airport)

##### Project Information

570-20-CIP

**Submitted By:** Russ Soyring  
**Category:** Visionary  
**Fund Group:** General  
**Fund Detail:** Walkways/Bike Paths

**Department:** Planning and Zoning  
**Department Head:** Russ Soyring  
**Staff Priority:** Important (Could Do)  
**Council Priority:**

##### Project Description:

The City of Traverse City is working with TART Trails, Garfield Township and Grand Traverse County to complete the final segment of the Boardman Lake Trail. The proposed two and a half mile segment along the west side of the lake is needed to complete the five mile trail encircling Boardman Lake which was first conceptualized more than 25 years ago with a trail master plan funded by the Coastal Zone Management Program. The expenses below demonstrate the revenues that will pay back the bond. Bond payments will be made over a 10-year period with the final bond payment scheduled for 6/30/2029. Multiple funding sources are being used to pay for the project: TAP, MDNRTF, L&WCF, TART, County, Garfield Township, and Brownfield. The "Study" cost detail represents the interest that will be paid on the bond.  
 \*\*The Brownfield allocation includes anticipated additional revenues in addition to the amount currently authorized.

Boardman Lake Trail-West (14th to S. Airpo - Cost

570-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BR	Brownfield	\$142,988	\$4,654,237	\$81,132	\$71,503	\$61,551	\$51,200	\$193,729	\$5,256,340
FSG	Federal / State Grant	\$0	\$1,724,362	\$0	\$0	\$0	\$0	\$0	\$1,724,362
P	Private	\$509,550	\$0	\$0	\$0	\$0	\$0	\$0	\$509,550

**Project Total: \$7,490,252**

##### COST DETAIL:

**Study:** \$622,931  
**Land Acquisition / ROW:** \$0  
**Engineering / Design:** \$594,441  
**Construction:** \$6,272,880  
**Annual Maint. Cost:** \$12,000  
**Maint. Year Start:** 1905

**Cost Total: \$7,490,252**

**Project Difference: \$0**

##### Service Impact:

Operations and Maintenance Agreement is necessary among project partners



## ***Six Year Capital Improvement Program***

### **Walkways**

**Project Justification:**

Parks and Recreation Element of Master Plan

**Location Description:**

West side of Boardman Lake





## Six Year Capital Improvement Program

### Walkways

#### Boardman River Walk south of 8th Street Bridge

##### Project Information

316-20-CIP

**Submitted By:** Rob Baciagalupi

**Department:** Downtown Development

**Category:** Visionary

**Department Head:** Russ Soyryng

**Fund Group:** General

**Staff Priority:** Important (Could Do)

**Fund Detail:** Walkways/Bike Paths

**Council Priority:**

##### Project Description:

River Boardwalk from the 8th Street bridge to the Boardman Lake Trail. The project includes a 840 linear feet of elevated boardwalk, low-level lighting, fishing and resting platforms and landscaping.

Boardman River Walk south of 8th Street Br - Cost

316-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIFOT	TIF Old Town	\$0	\$0	\$0	\$0	\$0	\$690,700	\$0	\$690,700
<b>Project Total:</b>									<b>\$690,700</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$81,800

**Construction:** \$608,900

**Annual Maint. Cost:** \$2,000

**Maint. Year Start:**

**Cost Total:** **\$690,700**

**Project Difference:** **\$0**

##### Service Impact:

Increased service and maintenance.

##### Project Justification:

Boardman River Enhancement

##### Location Description:

Boardman River bank between 8th Street bridge and Boardman Lake Trail



## Six Year Capital Improvement Program

### Walkways

#### Expand Sidewalk System/Infill Gaps

##### Project Information

946-20-CIP

**Submitted By:** Tim Lodge

**Department:** Engineering

**Category:** Visionary

**Department Head:** Tim Lodge

**Fund Group:** General

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Walkways/Bike Paths

**Council Priority:** Imperitive (Must Do)

##### Project Description:

Enhance public service and access through improved walkability throughout the City. Ongoing expansion of City's sidewalk infrastructures. Infill existing gaps in sidewalk system according to map on file in Engineering. Maintenance of existing sidewalks. Targeted areas are major street corridors and locations in proximity to public facilities. Current estimates call for \$3.4 million for infill/gaps and \$600,000 in sidewalk repair. \$500,000 is allotted for design/engineering and bond costs.

This project will be financed via bond over a 15-year bond payment at approximately \$366,500 a year. The current CIP report only demonstrates the bond payments through fiscal year 25/26. Bond payments will be made until fiscal year 33/34, thus offsetting the project difference.

Expand Sidewalk System/Infill Gaps (+SID + - Cost

946-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$431,347	\$373,215	\$375,351	\$377,165	\$378,659	\$374,911	\$375,923	\$2,686,571
Project Total:									\$2,686,571

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$500,000

**Construction:** \$4,000,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$4,500,000

**Project Difference:** **\$-1,813,429**

##### Service Impact:

Additional infrastructure requiring operation, maintenance, and replacement. Enhance public service and access through improved walkability through the City.

##### Project Justification:

Enhance public service and access through improved walkability through the City.

##### Location Description:

City-wide with an initial focus on Traverse Heights Neighborhood.



## Six Year Capital Improvement Program

### Walkways

#### Expand Sidewalk System/Infill Gaps (SR2S)

##### Project Information

1023-20-CIP

**Submitted By:** Missy Luick  
**Category:** Capital  
**Fund Group:** General  
**Fund Detail:** Walkways/Bike Paths

**Department:** Engineering  
**Department Head:** Tim Lodge  
**Staff Priority:** Essential (Should Do)  
**Council Priority:** Imperitive (Must Do)

##### Project Description:

In July 2018, the City of Traverse City received notification from the Michigan Department of Transportation that our multi-school \$2M Safe Routes to School (SRTS) infrastructure grant received conditional commitment for 4.9 miles of linear trail/sidewalk expansion, bike lanes, traffic calming, crosswalk improvements and signage upgrades. The project will enhance public service and access through improved infrastructure near schools. The project will be designed by the Engineering Department (In-kind contribution). It is anticipated that professional services will need to be allocated for project implementation. Additionally, there are several non-participating improvements and in-eligible costs that the city will need to provide match for.

Expand Sidewalk System/Infill Gaps (SR2S) - C

1023-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
FSG	Federal / State Grant	\$1,000,000	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$2,000,000
GEN	General Fund	\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$100,000
IN	Inkind	\$200,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$300,000
Project Total:									\$2,400,000

##### COST DETAIL:

Study:	\$0	
Land Acquisition / ROW:	\$0	
Engineering / Design:	\$400,000	
Construction:	\$2,000,000	
Annual Maint. Cost:		
Maint. Year Start:		
Cost Total:		\$2,400,000
Project Difference:		\$0

##### Service Impact:

Additional infrastructure will increase operations and maintenance.

##### Project Justification:

Transportation Element and Parks and Recreation Element call for non-motorized connections.

##### Location Description:

City-wide



## Six Year Capital Improvement Program

### Walkways

#### M-72 Sidewalk New Construction

**Project Information**

1191-20-CIP

**Submitted By:** Russ Soyring  
**Category:** Visionary  
**Fund Group:** Other  
**Fund Detail:** Available Capital Projects Fund

**Department:** Planning and Zoning  
**Department Head:** Russ Soyring  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**

New sidewalk construction on the north side of M-72 from Old Morgan Trail to the corner of M-72 (East Traverse Highway) and Southwest Bayshore Drive/Grandview Parkway.

M-72 Sidewalk (New construction)

1191-20-CIP

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
GEN	General Fund	\$0	\$0	\$0	\$206,553	\$0	\$0	\$0	\$206,553

**Project Total:** **\$206,553**

**COST DETAIL:**

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$12,910

**Construction:** \$193,644

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$206,553**

**Project Difference:** **\$0**

**Service Impact:**

TBD

**Project Justification:**

TBD

**Location Description:**

Old Morgan Trail extending to Southwest Bayshore Drive.



## Six Year Capital Improvement Program

### Walkways

#### Rivers Edge Riverwalk Decking Replacement

**Project Information**

1025-20-CIP

**Submitted By:** Rob Baciagalupi  
**Category:** Maintenance  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** Walkways/Bike Paths

**Department:** Downtown Development  
**Department Head:** Jean Derenzy  
**Staff Priority:**  
**Council Priority:**

**Project Description:**  
Replacement of decking on River's Edge Riverwalk

Rivers Edge Riverwalk Decking Replacement - Cost

1025-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIFOT	TIF Old Town	\$0	\$106,869	\$0	\$0	\$0	\$0	\$0	\$106,869

**Project Total:** **\$106,869**

**COST DETAIL:**

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$106,869

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$106,869**

**Project Difference:** **\$0**

**Service Impact:**

None foreseen

**Project Justification:**

Replacement of old decking

**Location Description:**

River's Edge



## Six Year Capital Improvement Program

### Walkways

#### Wellington Plaza Erosion Stabilization Project

**Project Information**

1069-20-CIP

**Submitted By:** Rob Baciagalupi  
**Category:** Maintenance  
**Fund Group:** Tax Increment Financing  
**Fund Detail:** TIF 97

**Department:** Downtown Development  
**Department Head:** Jean Derenzy  
**Staff Priority:** Important (Could Do)  
**Council Priority:**

**Project Description:**

Corrective measures to stabilize erosion damage beneath the walkway platform at Wellington Plaza on the Boardman River.

Wellington Plaza Erosion

1069-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
TIF97	TIF 97	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000

**Project Total:** **\$50,000**

**COST DETAIL:**

**Study:** \$0  
**Land Acquisition / ROW:** \$0  
**Engineering / Design:** \$0  
**Construction:** \$50,000  
**Annual Maint. Cost:** \$500  
**Maint. Year Start:** 1905

**Cost Total:** **\$50,000**

**Project Difference:** **\$0**

**Service Impact:**

None

**Project Justification:**

Maintenance

**Location Description:**

501 E Front Street



## Six Year Capital Improvement Program

### Wastewater

#### Condition Assessment of Digesters 1 and 2

##### Project Information

912-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Maintenance  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Important (Could Do)  
**Council Priority:**

##### Project Description:

Future Project for FY2030-31, so negative "Project Difference"; Condition Assessment and Engineering Study of Digesters 1 and 2. The project will identify the best use of the vessels and thus the necessary related upgrades and reconditioning.

Reconditioning Digesters 1 and 2 - Cost

912-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
S	Sewer Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Project Total:									\$0

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$80,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$80,000

**Project Difference:** **\$-80,000**

##### Service Impact:

Digesters 1 and 2 are out of service because they aren't in proper condition to be used for sludge stabilization. An overall evaluation of how best to optimize their use and an assessment of their condition is needed.

##### Project Justification:

Optimize the use of equipment and available space at the WWTP.

##### Location Description:

606 Hannah Ave



## Six Year Capital Improvement Program

### Wastewater

#### 16" San. Forcemain East Front L.S. To Wellington

##### Project Information

1052-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Maintenance

**Department Head:** Art Krueger

**Fund Group:** Waste Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Sewer Collection System

**Council Priority:**

##### Project Description:

Replace approx. 300 lineal feet of aging 16" forcemain from the Front Street Lift Station along E. Front Street to Wellington Street. This project would be part of the East Front St. Reconstruction Project.

16" San. Forcemain East Front L.S. To Wellington

1052-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$0	\$0	\$0	\$0	\$100,000	\$0	\$0	\$100,000
<b>Project Total:</b>									<b>\$100,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$100,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$100,000

**Project Difference:** \$0

##### Service Impact:

The pipe condition could not be assessed during the 2015 SAW Grant project since it is always under pressure and full flow. This project provides an opportunity to assess the pipe condition and make informed decisions regarding this and other forcemains in the City.

##### Project Justification:

2015 SAW Grant recommended replacing this forcemain due to it's age.

##### Location Description:

Front St. Lift Station along E. Front Street to Wellington Street.





## Six Year Capital Improvement Program

### Wastewater

#### 2nd Membrane Replacement

##### Project Information

1044-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Maintenance  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Future Project for FY2025-26 through FY2030-31, so negative "Project Difference"; Replace 1 train of membranes each year until all 8 trains of membranes are replaced.

2nd Membrane Replacement

1044-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$0	\$0	\$500,000	\$500,000
S	Sewer Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$500,000	\$500,000
<b>Project Total:</b>									<b>\$1,000,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$6,000,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$6,000,000**

**Project Difference:** **\$-5,000,000**

##### Service Impact:

This project will allow the waste water treatment facility to maintain plant capacity, ensuring we can permeate at a rate that meets influent flow demands. Outside the initial purchase of the replacement membrane, there is very little future anticipated maintenance costs. It is recommended that the City budget to replace this train of membranes 8 years after its installation, however, they membranes are expected to last 10 years. This approach will ensure funds are available if something unforeseen occurs that effects the membrane life.

##### Project Justification:

This project will allow the waste water treatment facility to maintain plant capacity, ensuring we can permeate at a rate that meets influent flow demands and meet the requirement of the facility's NPDES permit.

##### Location Description:

606 Hannah Avenue



## Six Year Capital Improvement Program

### Wastewater

#### Aeration Basin /Aerating Equipment Upgrade

##### Project Information

1171-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Capital  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperative (Must Do)  
**Council Priority:**

##### Project Description:

Aeration Basin /Aerating Equipment Upgrade per Evaluation of Tasks 6 and portions of task 3 of the 2018-2019 Facility Plan-to include Ammonia Monitoring for Aeration Control and New Aeration Equipment-Condition Assessment Rated Secondary Treatment process 9th highest risk however blowers have no redundancy are inefficient, and are reaching the end of their useful life-Cost to be updated after 2021-2022 evaluation

Aeration Basin /Aerating Equipment Upgrade

1171-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$1,000,000	\$0	\$0	\$1,000,000
S	Sewer Fund	\$0	\$0	\$0	\$0	\$1,000,000	\$0	\$0	\$1,000,000
<b>Project Total:</b>									<b>\$2,000,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$2,000,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$2,000,000

**Project Difference:** \$0

##### Service Impact:

This project will address any structural issues identified in the 2021-2022 evaluation, upgrade aerating equipment (including blowers) and add redundancy.

##### Project Justification:

The blowers currently in service will need to be overhauled/replaced in the near future. These blowers are not as efficient in their energy use as newer blowers. We believe we could save a great deal of energy by upgrading the blowers, the aeration grid or distribution system, and the way we control aeration output. There is also new mixing technologies that would benefit the secondary treatment process by reducing maintenance cost and providing efficiency in electrical usage. In addition, portions of the tank walls have repair exposed and need to be address, and the portion of the tank that the weirs are located is very degraded.

##### Location Description:

606 Hannah Ave.



## Six Year Capital Improvement Program

### Wastewater

#### Annual Sewer Rehab/Replace

**Project Information**

366-20-CIP

**Submitted By:** Justin Roy**Department:** Department of Municipal Utilities**Category:** Visionary**Department Head:** Art Krueger**Fund Group:** Waste Water**Staff Priority:** Imperitive (Must Do)**Fund Detail:** Sewer Collection System**Council Priority:****Project Description:**

Provide \$450,000 annually in both the water and wastewater funds to continue systematic improvements (repair and replacement) of our underground infrastructure.

Annual Sewer Rehab/Replace - Cost

366-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$3,150,000

**Project Total:** **\$3,150,000****COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$3,150,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** **\$3,150,000****Project Difference:** **\$0****Service Impact:**

Replacing sewer mains with historical maintenance issues that cause sewer backups will increase collection system reliability and minimize risk to property damage.

**Project Justification:**

This money gets programmed into larger street replacement projects to pay for the sewer portion of the street project.

**Location Description:**

City wide.



## Six Year Capital Improvement Program

### Wastewater

#### Annual Storm Water Mngt Program

**Project Information**

13-20-CIP

**Submitted By:** Tim Lodge**Department:** Department of Municipal Utilities**Category:** Maintenance**Department Head:** Art Krueger**Fund Group:** Waste Water**Staff Priority:** Essential (Should Do)**Fund Detail:** Sewer Collection System**Council Priority:****Project Description:**

This line item will guarantee funds to construct and repair city storm sewer lines. Funds may be used to disconnect sanitary sewers as well as construct water quality related infrastructure.

Annual Storm Water Management Program - Cost

13-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$350,000

**Project Total: \$350,000****COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$350,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total: \$350,000****Project Difference: \$0****Service Impact:**

Will require operation, maintenance, and replacement as additional infrastructure is installed.

**Project Justification:**

To maintain and improve water quality.

**Location Description:**

Various locations city-wide. Refer to the Stormwater Management Plan prepared in 2017.



## Six Year Capital Improvement Program

### Wastewater

#### Digester 3 Reconditioning

##### Project Information

948-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Maintenance  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

WW-Digester 3 Reconditioning -This project is prioritized inaccordance with the Asset Management Plan for the Facility and Lift Stations -Condition Assessment Rated Digestion as highest risk

Digester 3 Reconditioning

948-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$447,000	\$0	\$0	\$0	\$0	\$0	\$0	\$447,000
S	Sewer Fund	\$447,000	\$0	\$0	\$0	\$0	\$0	\$0	\$447,000

**Project Total:** **\$894,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$894,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$894,000**

**Project Difference:** **\$0**

##### Service Impact:

Digester 3 is currently out of service, this limits the facility's capacity to treat biosolids. Digester 4 is the same age and is in need of a condition assessment and related upgrade to ensure full capacity of the solids treatment process is restore and maintained.

##### Project Justification:

Maintains suitable solids treatment capabilities to meet regulations for biosolids land application per federal code of regulations 503.

##### Location Description:

606 Hannah Ave

## Six Year Capital Improvement Program

### Wastewater

#### Digester 4 and 5 Condition Assessment

##### Project Information

1175-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Visionary  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperative (Must Do)  
**Council Priority:**

##### Project Description:

Digester 4 and 5 Condition Assessment plus other items detailed in Task 7, Task 9, and related portions of Tasks 3 and 5 of the 2018-2019 Facility's Priority Improvements Plan-Includes cost of cleaning vessels-This project is prioritized in accordance with the Asset Management Plan for the Facility and Lift Stations -Condition Assessment Rated Digestion as highest risk

Digester 4 and 5 Condition Assessment

1175-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$95,000	\$0	\$0	\$0	\$0	\$95,000
S	Sewer Fund	\$0	\$0	\$95,000	\$0	\$0	\$0	\$0	\$95,000
<b>Project Total:</b>									<b>\$190,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$190,000

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$190,000**

**Project Difference:** **\$0**

##### Service Impact:

This project ensures the treatment facility is able to properly treat solids created in the process of treating waste water. If we don't treat to a certain quality of solids the biosolids would be unable to be land applied and disposal costs then more than double. This project would add a spare pump its anticipated that quarterly the shaft will have to be rotated and other minor tasks perform to maintain its operability. The cost related to this activity is estimated to be less than \$300/yr.

##### Project Justification:

Maintain class B biosolids so the facility can utilize land application for disposal which is far less expensive than other means of disposal.

##### Location Description:

606 Hannah Ave.



## Six Year Capital Improvement Program

### Wastewater

#### Digester 5 Cleaning and Reconditioning Equipment

##### Project Information

1036-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Maintenance  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Future Project for FY2026-27, so negative "Project Difference";  
 Digester 5 Cleaning and Reconditioning-Per Facility's Priority  
 Improvements Plan Task 7 and Task 9 Evaluation performed  
 2021-2022-Update Cost per evaluation-This project is prioritized  
 in accordance with the Asset Management Plan for the Facility and  
 Lift Stations -Condition Assessment Rated Digestion as highest risk

Digester 5 Cleaning and Reconditioning Equipment

1036-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
S	Sewer Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Project Total:</b>									<b>\$0</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$590,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$590,000**

**Project Difference:** **-\$590,000**

##### Service Impact:

This project ensures the treatment facility is able to properly treat solids created in the process of treating waste water. If we don't treat to a certain quality of solids the biosolids would be unable to be land applied and disposal costs then more than double. This project would add a spare pump its anticipated that quarterly the shaft will have to be rotated and other minor tasks perform to maintain its operability. The cost related to this activity is estimated to be less than \$300/yr.

##### Project Justification:

Digester 5 has been in service for 15 years and has not been cleaned or inspected since commissioned. Digesters accumulate grit and other debris in them that reduces their capacity, and causes pumping and mixing issues. We need to clean this debris out of the digester to maintain adequate treatment conditions for the solids byproduct created when treating waste water. We need to ensure the pumps are in conditions that will allow them to mix the digester properly to avoid foaming issues and treatment short falls. Recoating the digester and inner piping prevents degradation of the digester concrete and the increased cost to of related restoration.

##### Location Description:

606 Hannah Ave



Six Year Capital Improvement Program

Wastewater

Digester Gas Metering

Project Information		1037-20-CIP								
Submitted By:	Elizabeth Hart	Department:	Department of Municipal Utilities	Project Description: WW-Add metering and monitoring capabilities to the digester gas system.						
Category:	Visionary	Department Head:	Art Krueger							
Fund Group:	Waste Water	Staff Priority:	Important (Could Do)							
Fund Detail:	Sewer Plant and Buildings	Council Priority:								
Digester Gas Metering										
Funding Sources:			1037-20-CIP-C							
		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total	
P	Private	\$0	\$0	\$35,000	\$0	\$0	\$0	\$0	\$35,000	
S	Sewer Fund	\$0	\$0	\$35,000	\$0	\$0	\$0	\$0	\$35,000	
Project Total:									\$70,000	
COST DETAIL:										
Study:				\$0						
Land Acquisition / ROW:				\$0						
Engineering / Design:				\$0						
Construction:				\$70,000						
Cost Total:								\$70,000		
Annual Maint. Cost:								Project Difference:		\$0
Maint. Year Start:										
Service Impact:										
This project could help us expand the use of digester gas, and reduce the use of natural gas at the Waste Water Treatment Plant. The monitor will require sensor replacement at a minimum every year, and the device measuring the volume of gas produced will require annual verification/calibration to maintain accuracy of measurements. We have not yet ID the particular devices to be used so the cost involved in this ongoing maintenance is an estimate, and is estimated to be \$5,000/yr										
Project Justification:										
Having the ability to monitor the makeup of the digester gas will better help us identify the current "health" of the digester in real time. Having the ability to measure the volume of digester gas produced will help to understand the limitations to our expansion of its use in an effort to meet green team objectives of reducing the City's Carbon foot print.										
Location Description:										
606 Hannah Ave										





## Six Year Capital Improvement Program

### Wastewater

#### Enclose Membrane Trains

##### Project Information

971-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Capital  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Important (Could Do)  
**Council Priority:**

##### Project Description:

Future Project for FY2029-30, so negative "Project Difference";  
Membrane Tank Covers or Enclosure Upgrade per 2025-2026  
Engineering Study

Enclose Membrane Trains - Cost

971-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
S	Sewer Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Project Total:									\$0

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$500,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$500,000

**Project Difference:** **\$-500,000**

##### Service Impact:

The membranes can not be exposed to ambient temperature below 45 degrees. Currently, there is not a structure around the membrane tanks. Having a structure in place would shelter the membranes from the outside elements, greatly reducing the risk of the membranes freezing, and allowing for maintenance activities year round.

##### Project Justification:

Improves the ability of the facility to maintain needed equipment vital to meeting the requirements of the facility's NPDES permit.

##### Location Description:

606 Hannah Ave



## Six Year Capital Improvement Program

### Wastewater

#### Engineering Evaluation of Clinch -Coast Guard LS

**Project Information**

967-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Visionary  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Collection System

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**

WW-Engineering Evaluation of Clinch Park and Coast Guard Lift Stations- Capacity and Condition Assessment, including controls upgrade and telemetry-Upgrade per evaluation to be added to CIP in Accordance with AMP prioritization-Upgrade per evaluation to be added to CIP in Accordance with AMP prioritization

Engineering Evaluation-Clinch -Coast Guard LS

967-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$0	\$0	\$0	\$30,000	\$0	\$0	\$0	\$30,000
<b>Project Total:</b>									<b>\$30,000</b>

**COST DETAIL:**

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$30,000

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$30,000**

**Project Difference:** **\$0**

**Service Impact:**

This project would evaluate if the lift stations' structures and equipment are sized appropriately to meet the demands of future growth, and would identify station maintenance needs and related costs.

**Project Justification:**

These lift stations are 2 of 8 major lift stations in Traverse City, it is imperative that they are in good operable condition and properly sized in order to ensure waste water is successfully pumped to the treatment plant at all times from the areas they serve.

**Location Description:**

Clinch Park Lift Station-111 E. Grandview Parkway  
Coast Guard-911 Airport Access Rd.



## Six Year Capital Improvement Program

### Wastewater

#### Engineering Evaluation-Woodmere&Riverine Lift St.

##### Project Information

1031-20-CIP

**Submitted By:** Elizabeth Hart

**Department:** Department of Municipal Utilities

**Category:** Visionary

**Department Head:** Art Krueger

**Fund Group:** Waste Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Sewer Collection System

**Council Priority:**

##### Project Description:

Engineering Evaluation/Condition Assessment Woodmere and Riverine Lift Stations, including controls upgrade and Telemetry-Upgrade per evaluation to be added to CIP in Accordance with AMP prioritization

Engineering Evaluation Woodmere and Riverine LS

1031-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$30,000
<b>Project Total:</b>									<b>\$30,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$30,000

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$30,000**

**Project Difference:** **\$0**

##### Service Impact:

This project would evaluate if the lift station structures and equipment are sized appropriately to meet the demands of future growth, and would identify station maintenance needs and related costs.

##### Project Justification:

Woodmere and Riverine lift stations are one of 8 major lift stations in Traverse City, it is imperative that it is in good operable condition and properly sized in order to ensure waste water is successfully pumped to the treatment plant at all times from the area it serves.

##### Location Description:

645 Woodmere Ave.



Six Year Capital Improvement Program

Wastewater

Engineering Study Pertaining to Facility Plan

Project Information		1019-20-CIP							
Submitted By:	Elizabeth Hart	Department:	Department of Municipal Utilities	Project Description: Future Project for FY2026-27, so negative "Project Difference"; This study will encompass tasks 10, 11, and 13 of the Facility's Priority Improvement Plan.					
Category:	Visionary	Department Head:	Art Krueger						
Fund Group:	Waste Water	Staff Priority:	Essential (Should Do)						
Fund Detail:	Sewer Plant and Buildings	Council Priority:							
Engineering Study Pertaining to Facility Plan				1019-20-CIP-C					
Funding Sources:									
		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
S	Sewer Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Project Total:									\$0
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$30,000					
Construction:				\$0					
Annual Maint. Cost:									
Maint. Year Start:									
Cost Total:							Cost Total:		\$30,000
Project Difference:							Project Difference:		\$-30,000
Service Impact:									
Evaluate the facility's HVAC systems for condition and offer more energy efficient options for replacement. In addition, The valving and piping in the biosolids storage buildings will be evaluated and options for valve automation, and piping repair recommendations will result. Lastly, the windows at the facility will be evaluated for upgrade and to add energy efficiency to the buildings.									
Project Justification:									
HVAC systems at the facility are a source of repeated repairs and are not efficient. Upgrading the systems could reduce repair costs and add efficiency. The piping in the biosolids storage building has not been assessed in decades, and the valving system is antiquated. Evaluating the piping can ensure we do not experience unforeseen failures and that we are able to better plan fiscally for any repairs needed. Updating the valving could make operations safer and reduce the time needed to make valving changes. Several of the windows at the facility are very old, replacement will add energy efficiencies and improve security.									
Location Description:									
606 Hannah Ave									



## Six Year Capital Improvement Program

### Wastewater

#### Front St LS- Engineering Evaluation/Capacity Study

##### Project Information

1002-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Visionary  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Collection System

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Front Street Lift Station Engineering Evaluation-To look at Capacity and options for upgrade-including VFDs and telemetry (PLC updated 2018-2019)-This project is prioritized in accordance with the Asset Management Plan for the Facility and Lift Stations -Condition Assessment Rated Front St. Lift Station as 3rd highest risk

Front St LS- Engineering Evaluation

1002-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000
<b>Project Total:</b>									<b>\$50,000</b>

##### COST DETAIL:

<b>Study:</b>	\$0	
<b>Land Acquisition / ROW:</b>	\$0	
<b>Engineering / Design:</b>	\$50,000	
<b>Construction:</b>	\$0	
<b>Annual Maint. Cost:</b>		
<b>Maint. Year Start:</b>		
<b>Cost Total:</b>		<b>\$50,000</b>
<b>Project Difference:</b>		<b>\$0</b>

##### Service Impact:

This project would evaluate if the lift station structures and equipment are sized appropriately to meet the demands of future growth, and would identify station maintenance needs and related costs.

##### Project Justification:

This lift station is the biggest of 8 major lift stations in Traverse City and most crucial to the downtown area, it is imperative that it is in good operable condition and properly sized in order to ensure waste water is successfully pumped to the treatment plant at all times from the area it serves.

##### Location Description:

Front St.



## Six Year Capital Improvement Program

### Wastewater

#### Front ST. LS- Upgrade

##### Project Information

1001-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Capital  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Collection System

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

WW-Front Street Lift Station Upgrade in relation to 2020-2021 Engineering Study-This project is prioritized in accordance with the Asset Management Plan for the Facility and Lift Stations -Condition Assessment Rated Front St. Lift Station as 3rd highest risk

Front ST. Lift Station Upgrade

1001-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$550,000	\$550,000

**Project Total:** **\$550,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$550,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$550,000**

**Project Difference:** **\$0**

##### Service Impact:

Lift station's wet well, piping, metering, and pumps should be upgraded to add dependability and functionality. This cost is an estimate and will be subject to change once the 2020-2021 engineering study has been performed.

##### Project Justification:

Ensures wastewater can be properly conducted to the treatment plant for treatment. Helps to plan and budgeted any needed upgrades.

##### Location Description:

Front St.



## Six Year Capital Improvement Program

### Wastewater

#### Membrane Distribution & RAS Channel Aeration Line

##### Project Information

900-20-CIP

**Submitted By:** Elizabeth Hart

**Department:** Department of Municipal Utilities

##### Project Description:

**Category:** Maintenance

**Department Head:** Art Krueger

Future Project for FY2029-30, so negative "Project Difference";

**Fund Group:** Waste Water

**Staff Priority:** Essential (Should Do)

Remove and replace aging aeration line in the membrane

**Fund Detail:** Sewer Plant and Buildings

**Council Priority:**

distribution and RAS channel with SCH 80 PVC.

Membrane Distribution and RAS Channel Aera - Cost

900-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
S	Sewer Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Project Total:</b>									<b>\$0</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$95,400

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$95,400**

**Project Difference:** **\$-95,400**

##### Service Impact:

The aeration in the distribution channel to the membranes and the return activated sludge channel is need to keep the solids from settling in the channels causing decreased capacity and short circuiting.

##### Project Justification:

Some portions of the current aeration grid in these channels has failed and been patched, and other areas are in poor conditions. Replacing the line with schedule 80 PVC will provide a robust aeration grid for the 2 channels far into the feature and ensure plant effluent is of a quality that meets the facility's NPDES permit.

##### Location Description:

606 Hannah Ave



## Six Year Capital Improvement Program

### Wastewater

#### Membrane Tank Covers or Enclosure Eng. Eval

**Project Information**

1172-20-CIP

**Submitted By:** Elizabeth Hart**Department:** Department of Municipal Utilities**Project Description:****Category:** Visionary**Department Head:** Art KruegerWW-Membrane Tank Covers or Enclosure Engineering Evaluation  
per Task 8 of the Facility's Priority Plan**Fund Group:** Waste Water**Staff Priority:** Important (Could Do)**Fund Detail:** Sewer Plant and Buildings**Council Priority:**

Membrane Tank Covers or Enclosure Eng. Eval

1172-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000	\$15,000
S	Sewer Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000	\$15,000
<b>Project Total:</b>									<b>\$30,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$30,000**Construction:** \$0**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** **\$30,000****Project Difference:** **\$0****Service Impact:**

This study will evaluate options for covering or enclosing the membrane tanks, and includes a cost comparison of options provided.

**Project Justification:**

Currently, we can not perform recovery cleans or maintenance tasks on the membranes when ambient air temperatures fall below 40 degrees, because they are not covered and exposure to cold temperatures will damage the membrane fibers.

**Location Description:**

606 Hannah Ave





## Six Year Capital Improvement Program

### Wastewater

#### New Portable Generator for Lift Stations

##### Project Information

1032-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Capital  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Collection System

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

WW-Current generator is obsolete as of 2017. Parts are difficult to obtain and repairs are difficult to complete. This generator would be used to prevent sewer overflows at lift stations in the event of power outages.

New Portable Generator for Lift Stations

1032-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$0	\$0	\$0	\$0	\$150,000	\$0	\$0	\$150,000

**Project Total:** **\$150,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$150,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$150,000**

**Project Difference:** **\$0**

##### Service Impact:

Allows critical lift stations to stay in operation when line power is unavailable preventing sewer backups, and overflows.

##### Project Justification:

Prevents sewer backups and overflows that could occur at lift stations when line power is unavailable. When overflows occur waste water spills onto the ground around the lift station and this is a violation of regulatory requirements. When sewer backups occur at businesses or residents the public health is at risk.

##### Location Description:

606 Hannah Ave



## Six Year Capital Improvement Program

### Wastewater

#### Plant-Membrane Replacement

##### Project Information

890-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Maintenance  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

Replace 1 Train of Membranes each year until remaining 4 trains of 500C membrane cassettes are replaced.

Plant-Membrane Replacement - Cost

890-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$430,000	\$430,000	\$0	\$0	\$0	\$0	\$0	\$860,000
S	Sewer Fund	\$430,000	\$430,000	\$0	\$0	\$0	\$0	\$0	\$860,000
<b>Project Total:</b>									<b>\$1,720,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$1,720,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$1,720,000

**Project Difference:** \$0

##### Service Impact:

This project will allow the waste water treatment facility to maintain plant capacity, ensuring we can permeate at a rate that meets influent flow demands. Outside the initial purchase of the replacement membrane, there is very little future anticipated maintenance costs. It is recommended that the City budget to replace this train of membranes 8 years after its installation, however, the membranes are expected to last 10 years. This approach will ensure funds are available if something unforeseen occurs that effects the membrane life.

##### Project Justification:

This project will allow the waste water treatment facility to maintain plant capacity, ensuring we can permeate at a rate that meets influent flow demands and meet the requirement of the facility's NPDES permit.

##### Location Description:

606 Hannah



## Six Year Capital Improvement Program

### Wastewater

#### Primary Header Replacement

**Project Information**

902-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Capital  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

**Project Description:**

WW-Primary Header Replacement per HRC Evaluation performed in 2019-2020-This project is prioritized in accordance with the Asset Management Plan for the Facility and Lift Stations -Condition Assessment Rated Primary Treatment as 2nd highest risk prior to primary header failing and after digester 3 being taken out of service

Primary Header Replacement - Cost

902-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	\$750,000
S	Sewer Fund	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	\$750,000
<b>Project Total:</b>									<b>\$1,500,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$1,500,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$1,500,000**Project Difference:** \$0**Service Impact:**

If the primary header fails the waste coming into the facility will have to be pumped to upstream processes with a temporary distribution grid and multiple portable pumps this will be costly. The failure of this line could lead to permit noncompliance, and the flooding and damaging of many plant assets.

**Project Justification:**

The facility is required to be maintained adequately in order to meet standards of the facility's NPDES permit. The use of auxillary equipment to meet influent flow demands and properly treat the waste stream would only be allowed on a temporary basis.

**Location Description:**

606 Hannah Ave



## Six Year Capital Improvement Program

### Wastewater

#### RTWWTP-Digester 4 Reconditioning

##### Project Information

1176-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Capital  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperative (Must Do)  
**Council Priority:**

##### Project Description:

Digester 4 Reconditioning per Facility's Priority Improvements Plan Task 7 Evaluation performed 2021-2022 -Update Digester 4 Rehab after condition assessment is complete in 2021-2022-This project is prioritized in accordance with the Asset Management Plan for the Facility and Lift Stations -Condition Assessment Rated Digestion as highest risk-Note: For digester 4 cost includes cleaning of vessel

Digester 4 Reconditioning

1176-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$550,000	\$0	\$0	\$550,000
S	Sewer Fund	\$0	\$0	\$0	\$0	\$550,000	\$0	\$0	\$550,000
<b>Project Total:</b>									<b>\$1,100,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$1,100,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$1,100,000

**Project Difference:** \$0

##### Service Impact:

This project ensures the treatment facility is able to properly treat solids created in the process of treating waste water. If we don't treat to a certain quality of solids the biosolids would be unable to be land applied and disposal costs then more than double. In addition, digester 4 has a floating cover the purpose of which is to store digester gas for use in the boilers. If this digester is inoperable we will not have a way to utilize digester gas for heating and will have to solely use natural gas.

##### Project Justification:

Maintain class B biosolids so the facility can utilize land application for disposal which is far less expensive than other means of disposal.

##### Location Description:

606 Hannah Ave



Six Year Capital Improvement Program

Wastewater

RWWTP-ADMINISTRATION BLDG HVAC UPGRADE

Project Information		1075-20-CIP								
Submitted By:	Elizabeth Hart	Department:	Department of Municipal Utilities				Project Description: The HVAC system in the administration building at the facility does not work properly. This project would upgrade the system so that temperature, particularly in the laboratory, can be controlled adequately.			
Category:	Maintenance	Department Head:	Art Krueger							
Fund Group:	Waste Water	Staff Priority:	Essential (Should Do)							
Fund Detail:	Sewer Plant and Buildings	Council Priority:								
RWWTP-ADMINISTRATION BLDG HVAC SYSTEM UPGRADE						1075-20-CIP-C				
Funding Sources:										
		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total	
P	Private	\$0	\$22,500	\$0	\$0	\$0	\$0	\$0	\$22,500	
S	Sewer Fund	\$0	\$22,500	\$0	\$0	\$0	\$0	\$0	\$22,500	
									Project Total:	\$45,000
COST DETAIL:										
Study:				\$0						
Land Acquisition / ROW:				\$0						
Engineering / Design:				\$0						
Construction:				\$45,000						
Annual Maint. Cost:										
Maint. Year Start:										
									Cost Total:	\$45,000
									Project Difference:	\$0
Service Impact:										
We believe that an upgrade will reduces current maintenance expenses.										
Project Justification:										
Upgrading the HVAC system in the administration bldg will allow us to control the temperature in the building, particularly in the laboratory where temperature variation effects the equipment we use to analyze samples for the purpose of obtaining data we report to the regulators to prove plant compliance.										
Location Description:										
606 Hannah Avenue										

## Six Year Capital Improvement Program

### Wastewater

#### RWWTP-Aeration Basin/Aerating Equipment Evaluation

##### Project Information

1079-20-CIP

**Submitted By:** Elizabeth Hart

**Department:** Department of Municipal Utilities

**Category:** Visionary

**Department Head:** Art Krueger

**Fund Group:** Waste Water

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Sewer Plant and Buildings

**Council Priority:**

##### Project Description:

Aeration Basin /Aerating Equipment Evaluation per Tasks 6 and portions of task 3 of the 2018-2019 Facility Plan-to include Ammonia Monitoring for Aeration Control and New Aeration Equipment-Condition Assessment Rated Secondday Treatment process 9th highest risk however blowers have no redundancy are inefficient, and are reaching the end of their useful life

RWWTP-AERATION BASIN/AERATING EQUIP ENG. EVAL

1079-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$15,000	\$0	\$0	\$0	\$0	\$15,000
S	Sewer Fund	\$0	\$0	\$15,000	\$0	\$0	\$0	\$0	\$15,000
<b>Project Total:</b>									<b>\$30,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$30,000

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$30,000**

**Project Difference:** **\$0**

##### Service Impact:

This project will indentify the most cost effective approach to upgrading aeration basin equipment, and help plan for the cost of addressing any structural issues that are present. Currently, there are two blowers in place, this leaves no redundancy in aeration during the summer months.

##### Project Justification:

The blowers currently in service will need to be overhauled in the near future. These blowers are not as efficient in their energy use as newer blowers. We believe we could save a great deal of energy by upgrading the blowers, the aeration grid or distribution system, and the way we control aeration output.

##### Location Description:

606 Hannah Avenue

## Six Year Capital Improvement Program

### Wastewater

#### RWWTP-Annual Equipment Rehab/Replace (> or = \$9K)

##### Project Information

1174-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Maintenance  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Important (Could Do)  
**Council Priority:**

##### Project Description:

Annual Equipment Rehab/Replace (Items over \$9,000)-all items subject to prior City Commission Approval-Funds maintenance of 1,954 assets to ensure they can be properly maintained per state regulator approved asset management plan.

Annual Equipment Rehab/Replace

1174-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$600,000
S	Sewer Fund	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$600,000
<b>Project Total:</b>									<b>\$1,200,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$0

**Annual Maint. Cost:** \$2,200,000

**Maint. Year Start:**

**Cost Total:** \$0

**Project Difference:** \$1,200,000

##### Service Impact:

The facility and lift stations utilize a total of 1,954 assets. This line item is meant to ensure these assets are maintained in a fashion that reduces vulnerabilities and optimizes process/lift station operations in order to meet regulatory requirements.

##### Project Justification:

This line item is meant to ensure there are funds available to properly maintain facility and lift station assets per the Asset Management Plan approved by state regulators.

##### Location Description:

606 Hannah Ave and 9 City Lift Stations



## Six Year Capital Improvement Program

### Wastewater

#### RWWTP-BOILER CONTROLS UPGRADE

**Project Information**

1077-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Maintenance  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**

The boiler controls at the Regional Waste Water Treatment Plant are obsolete and unsupported. Currently, the controls are bypassed to allow for boiler operation. This project would update the controls with a supported technology.

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**RWWTP-BOILER CONTROLS UPGRADE**

1077-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$28,000	\$0	\$0	\$0	\$0	\$0	\$28,000
S	Sewer Fund	\$0	\$28,000	\$0	\$0	\$0	\$0	\$0	\$28,000
<b>Project Total:</b>									<b>\$56,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$56,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$56,000**Project Difference:** \$0**Service Impact:**

Maintenance costs are not anticipated to be substantial.

**Project Justification:**

Proper control of the dual fuel boilers at the facility will ensure that the boilers operate as efficiently as possible, using digester gas whenever it is available which will reduce the use of natural gas.

**Location Description:**

606 Hannah Avenue





## Six Year Capital Improvement Program

### Wastewater

#### RWWTP-CRANE AND HOIST PAINTING

**Project Information**

1076-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Maintenance  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**

The crane and hoist painting projects includes all the cranes and hoists at the RWWTP. Painting the cranes and hoists will prevent premature deterioration of these assets. They will be painted with commercial grade paint.

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**RWWTP-CRANE AND HOIST PAINTING**

1076-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$26,250	\$0	\$0	\$0	\$0	\$0	\$26,250
S	Sewer Fund	\$0	\$26,250	\$0	\$0	\$0	\$0	\$0	\$26,250
<b>Project Total:</b>									<b>\$52,500</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$52,500**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** **\$52,500****Project Difference:** **\$0****Service Impact:**

The cranes and hoist should be painted every 10 years at a minimum. This is the only ongoing expense we anticipate until they are replaced. They also have to be rated and inspected annually, this requirement will not change when they are painted.

**Project Justification:**

Painting the hoists and cranes at the facility will help prevent the untimely deterioration of these assets.

**Location Description:**

606 Hannah Avenue



## Six Year Capital Improvement Program

### Wastewater

#### RWWTP-UPGRADE DIGESTED SOLIDS THICKENING EQUIPMENT

**Project Information**

1078-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Capital  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**

Future Project for FY2027-28, so negative "Project Difference"; Upgrade Digested Solids Thickening Equipment per 2018-2019 Facility Plan Tasks 7 and 9 Engineering Study Performed in 2021-2022-This project is prioritized in accordance with the Asset Management Plan for the Facility and Lift Stations-Condition Assessment Rated Solids Handling as the 7th highest risk t Plan for the Facility and Lift Stations-Condition Assessment Rated Solids Handling as the 7th highest risk

RWWTP-Upgrade Digested Solids Thickening Equipment

1078-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
S	Sewer Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Project Total:</b>									<b>\$0</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$1,500,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** **\$1,500,000****Project Difference:** **\$-1,500,000****Service Impact:**

This upgrade is not well defined at this point, but we do not anticipate maintenance expenses outside that of the prescribed preventive maintenance.

**Project Justification:**

The upgrade of the digested solids thickening equipment will result in the ability to better thicken solids sent to the biosolids storage tanks, reducing the volume sent to the storage tanks, and the volume needing to be hauled. With will save in biosolids hauling expenses.

**Location Description:**

606 Hannah Avenue



Six Year Capital Improvement Program

Wastewater

RWWTP-Yard Piping Engineering Evaluation

Project Information		1173-20-CIP							
Submitted By:	Elizabeth Hart	Department:	Department of Municipal Utilities	Project Description:					
Category:	Visionary	Department Head:	Art Krueger	Yard Piping Engineering Evaluation per Task 12 for the Facility's					
Fund Group:	Waste Water	Staff Priority:	Essential (Should Do)	Priority Plan-Upgrade per evaluation to be added to CIP per AMP					
Fund Detail:	Sewer Plant and Buildings	Council Priority:		prioritization					
Yard Piping Engineering Evaluation				1173-20-CIP-C					
Funding Sources:									
		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000	\$30,000
S	Sewer Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000	\$30,000
Project Total:									\$60,000
COST DETAIL:									
Study:				\$0					
Land Acquisition / ROW:				\$0					
Engineering / Design:				\$60,000					
Construction:				\$0		Cost Total: \$60,000			
Annual Maint. Cost:						Project Difference: \$0			
Maint. Year Start:									
Service Impact:									
Evaluation of yard piping will indentify the condition of the underground pipes at the facility, most of which are several decades old, and provide cost for any related refurbishing/replacement recommendations that result.									
Project Justification:									
The piping at the facility has not been evaluated for many years and if it fails it will cause a permit violation, and obviously interfere with proper treatment of wastewater that is flowing through the pipes. This proactive approach to evaluating the condition of the piping will hopefully prevent a very expensive emergency response to a pipe failure.									
Location Description:									
606 Hannah Ave									



## Six Year Capital Improvement Program

### Wastewater

#### SCADA Upgrade

**Project Information**

795-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Maintenance  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**  
Upgrade SCADA system that controls the plant.

SCADA Upgrade - Cost

795-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$77,500	\$0	\$0	\$0	\$0	\$77,500
S	Sewer Fund	\$0	\$0	\$77,500	\$0	\$0	\$0	\$0	\$77,500
<b>Project Total:</b>									<b>\$155,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$155,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$155,000**Project Difference:** \$0**Service Impact:**

There is very little if any on going maintenance cost related to the upgrade of the SCADA system.

**Project Justification:**

The SCADA system is the brains of the automated operations components at the facility if it fails or has issues it creates many vulnerabilities related to compliance, safety, and could result in costly ramifications. The SCADA was last upgraded in 2014.

**Location Description:**

606 Hannah Ave



# Six Year Capital Improvement Program

**Wastewater**

**Scour Air Blower Overhaul-5 blowers at TCRWWTP**

<b>Project Information</b>		1073-20-CIP							
<b>Submitted By:</b>	Elizabeth Hart	<b>Department:</b>	Department of Municipal Utilities				<b>Project Description:</b>		
<b>Category:</b>	Maintenance	<b>Department Head:</b>	Art Krueger				The Scour Air Blowers at the TCRWWTP are used in the membrane process to periodically clear solids from the membrane surface in order to maintain permeability. The blowers have been in service since 2004 and based on the run times, and recent inspection by Aerzen, they are in need of an overhaul. Aerzen, the blower manufacturer, has an exchange program that will allow us to keep 5 scour air blowers in services while the inspect and overhaul the blower that was in service at the facility. The service Aerzen provides removal and install of the blowers which are very heavy. We will only be charge for the actual items needing overhauled once the blower has been inspected in the shop. We will need to front the cost of the exchange unit and also bay for install and removal. Once the system is assessed, we will be reimbursed for the actual cost of the overhaul. The exchange cost is the maximum cost of the Overhaul.		
<b>Fund Group:</b>	Waste Water	<b>Staff Priority:</b>	Imperitive (Must Do)						
<b>Fund Detail:</b>	Sewer Plant and Buildings	<b>Council Priority:</b>							
Scour Air Blower Overhaul		1073-20-CIP-C							
<b>Funding Sources:</b>									
		<b>Previous</b>	<b>2020/2021</b>	<b>2021/2022</b>	<b>2022/2023</b>	<b>2023/2024</b>	<b>2024/2025</b>	<b>2025/2026</b>	<b>Total</b>
P	Private	\$22,500	\$23,625	\$23,625	\$24,125	\$24,125	\$0	\$0	\$118,000
S	Sewer Fund	\$22,500	\$23,625	\$23,625	\$24,125	\$24,125	\$0	\$0	\$118,000
<b>Project Total:</b>									<b>\$236,000</b>
<b>COST DETAIL:</b>									
<b>Study:</b>				\$0					
<b>Land Acquisition / ROW:</b>				\$0					
<b>Engineering / Design:</b>				\$0					
<b>Construction:</b>				\$236,000				<b>Cost Total:</b>	<b>\$236,000</b>
<b>Annual Maint. Cost:</b>								<b>Project Difference:</b>	<b>\$0</b>
<b>Maint. Year Start:</b>									
<b>Service Impact:</b>									
These blowers provide scour air to the blowers. The air scouring is necessary to remove solids buildup from the membrane fibers that occurs during the process of permeating through the fibers, allowing the permeating process to continue and preventing plant backups.									
<b>Project Justification:</b>									
Scour Air is needed for the proper operation of the membranes which are vital to the facility's treatment process, and to meeting NPDES permit requirements.									

**Wastewater**

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**Location Description:**

606 Hannah Ave



## Six Year Capital Improvement Program

### Wastewater

#### Screw Pump 2 and 3 Engineering Study

##### Project Information

1167-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Visionary  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperative (Must Do)  
**Council Priority:**

##### Project Description:

Screw Pump 2 and 3 Engineering Study including related portions of Tasks 3 and 5 of the 2018-2019 Facility's Priority Plan-This project is prioritized in accordance with the Asset Management Plan for the Facility and Lift Stations -Condition Assessment Rated Primary Treatment, which screw pumps are apart of, as 2nd highest risk prior to primary header failing and after digester 3 being taken out of service

Screw Pump 2 and 3 Engineering Study

1167-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
S	Sewer Fund	\$0	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
<b>Project Total:</b>									<b>\$20,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$20,000

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$20,000**

**Project Difference:** **\$0**

##### Service Impact:

These pumps lift the waste water from the primary treatment process to the secondary treatment process for additional treatment necessary to meet the facility's NPDES permit.

##### Project Justification:

Pumps are needed to keep the waste stream moving through the facility for proper treatment and compliance with the facility's NPDES permit.

##### Location Description:

606 Hannah Ave



## Six Year Capital Improvement Program

### Wastewater

#### Screw Pump 2 and 3 Replacement

##### Project Information

893-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Capital  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

WW-Screw Pump 2 and 3 Upgrade per 2020-2021 Engineering Study-Update Cost After Study-This project is prioritized inaccordance with the Asset Management Plan for the Facility and Lift Stations -Condition Assement Rated Primary Treatment, which screw pumps are apart of, as 2nd highest risk prior to primary header failing and after digester 3 being taken out of service

Screw Pump Replacement - Cost

893-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$580,000	\$0	\$0	\$0	\$0	\$580,000
S	Sewer Fund	\$0	\$0	\$580,000	\$0	\$0	\$0	\$0	\$580,000
<b>Project Total:</b>									<b>\$1,160,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$1,160,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$1,160,000

**Project Difference:** \$0

##### Service Impact:

These pumps lift the waste water from the primary treatment process to the secondary treatment process for additional treatment necessary to meet the facility's NPDES permit.

##### Project Justification:

Pumps are needed to keep the waste stream moving through the facility for proper treatment and compliance with the facility's NPDES permit.

##### Location Description:

606 Hannah Ave





## Six Year Capital Improvement Program

### Wastewater

#### TCRWWTP- PLC Upgrade

##### Project Information

970-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Maintenance  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

Upgrade PLC (Programmable Logic Controls) to maintain current plant functionality. Contains 12 PLCs and includes adding additional processors to allow membrane trains to operate on their own processor.

Plant PLC Upgrade - Cost

970-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$150,000	\$0	\$0	\$0	\$0	\$150,000
S	Sewer Fund	\$0	\$0	\$150,000	\$0	\$0	\$0	\$0	\$150,000
<b>Project Total:</b>									<b>\$300,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$300,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$300,000

**Project Difference:** \$0

##### Service Impact:

Many of the PLCs at the treatment facility were commissioned in 2005, they are or are becoming obsolete, which means they aren't going to be supported in the near future. The PLCs are the nerves of the treatment plant, they take in data from different monitoring devices (nerve endings) and communicate it to the SCADA (the brain of the plant) so that automated functions are modified to meet the current plant conditions, and initiates alarms to be triggered notifying staff there is an abnormal condition present. This project would ensure that the PLCs in the plant are well supported and thus able to be maintained.

##### Project Justification:

Maintain treatment capabilities to meet the requirements of the facility's NPDES permit.

##### Location Description:

606 Hannah

## Six Year Capital Improvement Program

### Wastewater

#### TRWWTP-Plant Electrical Engineering Evaluation

##### Project Information

1168-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Visionary  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Plant Electrical Engineering Evaluation per Task 4 of 2018-2019 Facility's Priority Plan-Upgrade per evaluation to be added to CIP in Accordance with AMP prioritization

Plant Electrical Engineering Evaluation

1168-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$25,000	\$0	\$0	\$0	\$0	\$25,000
S	Sewer Fund	\$0	\$0	\$25,000	\$0	\$0	\$0	\$0	\$25,000
<b>Project Total:</b>									<b>\$50,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$50,000

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$50,000

**Project Difference:** \$0

##### Service Impact:

This project will identify electrical inefficiencies and safety vulnerabilities, and make recommendations for addressing these issues complete with cost projections.

##### Project Justification:

The old plant or aeration plant is served by 13.8 kV switchgear. The switchgear feeds two transformers that step the 13.8 kV down to 480 V in the Blower Room. The transformers are connected to the 480 V substation that provides power to the plant motor control centers (MCCs). The existing plant switchgear, transformers, and substation were originally installed in the early 1970s. The membrane building is supplied by a separate 13.8 kV feed and 480 V stepdown transformer installed in 2004.

Membrane process generator transfer switch is not provided with a removable tie-breaker that can be serviced. Upgrading the transfer switch will increase safety and reduce vulnerabilities present by not being able to properly isolate.

The Administration Building generator only has capacity to run one screw pump, the UV system and Administration Building lighting. Increasing the capacity of the generator would benefit the facility by allowing for more equipment to operate if line power is lost.

##### Location Description:

606 Hannah Ave.



## Six Year Capital Improvement Program

### Wastewater

#### TRWWTP-Structural Condition Assessment

##### Project Information

1169-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Visionary  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

##### Project Description:

Structural Condition Assessment (Task 3 of Facility Plan) and Sludge Storage Tank Engineering Evaluation (Task 10 of Facility Plan): Structures included=East and West Biosolids Storage Tanks, Hallway between the heat exchange room and primary pumping room, Maintenance Shop inside and out, maintenance shop basement, adjacent room, and loading dock per Facility's Priority Plan Task 3-Upgrade per evaluation to be added to CIP in Accordance with AMP prioritization

Structural Condition Assessment

1169-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$25,000	\$0	\$0	\$0	\$0	\$25,000
S	Sewer Fund	\$0	\$0	\$25,000	\$0	\$0	\$0	\$0	\$25,000
<b>Project Total:</b>									<b>\$50,000</b>

##### COST DETAIL:

**Study:** \$0  
**Land Acquisition / ROW:** \$0  
**Engineering / Design:** \$50,000  
**Construction:** \$0  
**Annual Maint. Cost:**  
**Maint. Year Start:**

**Cost Total:** \$50,000  
**Project Difference:** \$0

##### Service Impact:

There are many aging structures at the TCRWWTP. Their structural evaluation will help plan and prioritize their reconditioning schedule.

##### Project Justification:

The tanks/ structures being evaluated are showing significant signs of degradation.

##### Location Description:

606 Hannah Ave



## Six Year Capital Improvement Program

### Wastewater

#### UV System and Related Structures Upgrade

##### Project Information

1033-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Capital  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperative (Must Do)  
**Council Priority:**

##### Project Description:

WW-UV System Upgrade-To be completed by July 1, 2026 per July 3rd, 2019 ACO and is in accordance with the AMP prioritization-Condition Assessment rated the UV process the 4th highest risk prior to UV limited capacity being ID'd

UV System and Related Structures Upgrade

1033-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$0	\$1,500,000
S	Sewer Fund	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$0	\$1,500,000
<b>Project Total:</b>									<b>\$3,000,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$3,000,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$3,000,000

**Project Difference:** \$0

##### Service Impact:

It has been found that the UV system was not designed to handle current design peak flow for the plant. This project would upgrade the system to meet peak flow demands, and to meet the MDEQ's current requirement of meeting 10 state standards as it relates to waste water treatment plant design criteria, it also allows the facility to meet the permit requirement of disinfecting 100% of the facility effluent at peak flows.

##### Project Justification:

This project is necessary for the facility to remain in compliance with its discharge permit issued by the MDEQ.

##### Location Description:

606 Hannah Ave



## Six Year Capital Improvement Program

### Wastewater

#### UV System Upgrade Engineering

##### Project Information

1170-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Visionary  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperative (Must Do)  
**Council Priority:**

##### Project Description:

UV System Upgrade Engineering Including Part 41 Submission to EGLE by December 31st, 2024 per July 3rd, 2019 ACO and is in accordance with the AMP prioritization-Condition Assessment rated the UV process the 4th highest risk prior to UV limited capacity being ID'd

UV System Upgrade Engineering

1170-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$25,000	\$0	\$0	\$0	\$0	\$25,000
S	Sewer Fund	\$0	\$0	\$25,000	\$0	\$0	\$0	\$0	\$25,000
Project Total:									\$50,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$50,000

**Construction:** \$0

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$50,000

**Project Difference:** \$0

##### Service Impact:

This project will increase capacity of the UV system, and upgrade obsolete technology currently in place. Upgrade is mandated by the state regulators to be complete by July 1, 2026.

##### Project Justification:

This project was mandated through a consent order issued by the state of Michigan, because the UV system is not properly sized to meet peak flow demands. This under capacity has/could result in portions of the plant effluent not being disinfected. It is a permit requirement that 100% of the effluent be disinfected 100% of the time.

##### Location Description:

606 Hannah Ave.



## Six Year Capital Improvement Program

### Wastewater

#### Window Replacement 503 Hannah Ave.

##### Project Information

764-20-CIP

**Submitted By:** Justin Roy

**Department:** Department of Municipal Utilities

##### Project Description:

**Category:** Visionary

**Department Head:** Art Krueger

Replace original single pane windows and doors with new energy efficient windows and doors.

**Fund Group:** Waste Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Sewer Plant and Buildings

**Council Priority:**

Window Replacement 503 Hannah Ave. - Cost

764-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$30,000
WAT	Water Fund	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$30,000
<b>Project Total:</b>									<b>\$60,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$60,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$60,000**

**Project Difference:** **\$0**

##### Service Impact:

Increase energy efficiency and reduce heating costs.

##### Project Justification:

Windows need to be replaced - good stewardship.

##### Location Description:

Water / Sewer Maintenance Building at 507 Hannah.



## Six Year Capital Improvement Program

### Wastewater

#### WW Gravity Main Rehab\Repair and PACP Inspections

##### Project Information

1058-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Maintenance

**Department Head:** Art Krueger

**Fund Group:** Waste Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Sewer Collection System

**Council Priority:**

##### Project Description:

Rehabilitate and Repair Wastewater Gravity Mains that were recommended in the 2015 SAW Grant Asset Management Plan. Also, continue to clean and perform PACP inspections for the entire system within a seven year cycle.

PACP Sanitary Sewer Video Inspections

1058-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$0	\$0	\$0	\$385,000	\$385,000	\$385,000	\$385,000	\$1,540,000
<b>Project Total:</b>									<b>\$1,540,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$1,540,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$1,540,000

**Project Difference:** \$0

##### Service Impact:

Repairs to gravity sewer mains will increase reliability and reduce sewer back ups and City's liability to customers property damage claims.

##### Project Justification:

Repair portions of gravity sewer mains already noted as needing repair in the 2015 SAW Grant and continue to clean, televise and inspect remaining portion (+/-50%) of the City's collection system that was not evaluated during the SAW Grant.

##### Location Description:

City wide.



## Six Year Capital Improvement Program

### Wastewater

#### WW Manholes Rehab\Repair and MACP Inspections

##### Project Information

1057-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Maintenance

**Department Head:** Art Krueger

**Fund Group:** Waste Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Sewer Collection System

**Council Priority:**

##### Project Description:

Rehabilitate and Repair Wastewater Manholes that were recommended in the 2015 SAW Grant Asset Management Plan. Also, continue to MACP inspect on all remaining Wastewater Manholes that were not inspected during the 2015 SAW Grant Project.

MACP Manhole Inspections

1057-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
S	Sewer Fund	\$0	\$0	\$0	\$50,000	\$50,000	\$50,000	\$50,000	\$200,000
<b>Project Total:</b>									<b>\$200,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$200,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$200,000

**Project Difference:** \$0

##### Service Impact:

Repair manhole structure covers before they fail (sink down) which negatively impacts our streets and increases maintenance cost.

##### Project Justification:

Recommended in the 2015 SAW Grant Project.

##### Location Description:

City-wide.



## Six Year Capital Improvement Program

### Wastewater

#### WW-Primary Clarification Upgrade

##### Project Information

904-20-CIP

**Submitted By:** Elizabeth Hart  
**Category:** Capital  
**Fund Group:** Waste Water  
**Fund Detail:** Sewer Plant and Buildings

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

WW-Primary Clarification Upgrade per HRC Engineering Study  
 Performed 2019-2020-This project is prioritized in accordance with  
 the Asset Management Plan for the Facility and Lift Stations  
 -Condition Assesment Rated Primary Treatment as 2nd highest risk  
 prior to primary header failing and after digester 3 being taken out of  
 service-Cost to be updated after completion of 2019-2020 evaluation

Primary Clarification Upgrade

904-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
P	Private	\$0	\$0	\$0	\$1,500,000	\$0	\$0	\$0	\$1,500,000
S	Sewer Fund	\$0	\$0	\$0	\$1,500,000	\$0	\$0	\$0	\$1,500,000
<b>Project Total:</b>									<b>\$3,000,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$3,000,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$3,000,000**

**Project Difference:** **\$0**

##### Service Impact:

This project will upgrade the primary treatment process by way of reconditioning and/or replacement equipment and structures.

##### Project Justification:

Primary treatment is an essential process in treating wastewater. If not operating effectively, it can compromise treatment and lead to additional costs.

##### Location Description:

606 Hannah Ave



## Six Year Capital Improvement Program

### Water

#### Abandon 12" Water Main Under River at Pine & Front

##### Project Information

1084-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Maintenance

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Water Distribution System

**Council Priority:**

##### Project Description:

This project will be completed after Project 535-19-CIP West Front St Bridge Replacement is complete. The bridge project includes a new 12" water main along Front St between Pine and Hall St. This will improve hydraulics to the service areas west and south of Hall St.

Abandon 12" Water Main Under River at Pine & Front

1084-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000

**Project Total:** **\$10,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$10,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$10,000**

**Project Difference:** **\$0**

##### Service Impact:

Improve water system hydraulics to west side and decrease water loss.

##### Project Justification:

Abandoning this segment of water main after constructing a new water main with the West Front St Bridge project is more cost effective and beneficial than repairing it.

##### Location Description:

North of Pine and Front St under Boardman River



## Six Year Capital Improvement Program

### Water

#### Annual Water Rehab/Replace

##### Project Information

367-20-CIP

**Submitted By:** Justin Roy

**Department:** Department of Municipal Utilities

**Category:** Visionary

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Water Distribution System

**Council Priority:**

##### Project Description:

Provide \$450,000 annually in the water fund to continue systematic improvements (repair and replacement) of the underground infrastructure. The Public Improvement Plan will also contain more detailed descriptions of proposed near-term projects.

Annual Water Rehab/Replace - Cost

367-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$2,250,000

**Project Total:** **\$2,250,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$2,250,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$2,250,000**

**Project Difference:** **\$0**

##### Service Impact:

Replacing old water mains will reduce emergency repairs and long-term maintenance costs.

##### Project Justification:

2014 Water System Reliability Study recommends replacing aging water mains where more frequent breaks are known to occur. This cost will be applied to the water main portion of an annual full street reconstruction project.

##### Location Description:

City wide.



## Six Year Capital Improvement Program

### Water

#### Chemical System Upgrades-Ferric, Chlorine&Fluoride

**Project Information**

933-20-CIP

**Submitted By:** Art Krueger**Department:** Department of Municipal Utilities**Category:** Visionary**Department Head:** Art Krueger**Fund Group:** Water**Staff Priority:** Essential (Should Do)**Fund Detail:** Water Treatment**Council Priority:****Project Description:**

Of these three (3) chemical systems, the Fluoride and Ferric chemical systems have already been completely upgraded as of 2017. The Chlorine system's chemical feed portion was also upgraded in 2012, so the two (2) 8,000 gal. chlorine bulk storage tanks (installed 1994) are the only remaining items needing to be upgraded since they are reaching the end of their useful life.

Chemical System Upgrades (Alum, Chlorine &amp; - Cost

933-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$250,000	\$0	\$0	\$0	\$0	\$0	\$250,000
<b>Project Total:</b>									<b>\$250,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$10,000**Construction:** \$240,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$250,000**Project Difference:** \$0**Service Impact:**

Restore reliability of Chlorine bulk storage. One tank currently is leaking, leaving only one aging tank available for storage. Chlorine is critical for disinfection in the water treatment process.

**Project Justification:**

Project recommended in the 2014 Water System Reliability Study.

**Location Description:**

WTP - 2010 Eastern Ave.



## Six Year Capital Improvement Program

### Water

#### East - West Transmission Main Upgrade

##### Project Information

935-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Capital

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Water System Reliability Projects

**Council Priority:**

##### Project Description:

Projects recommended in the 2014 Water System Reliability Study Table 23, Projects P-3 and P-9. Costs/phases updated in 2017 by Wade Trim & DMU 2019. Replace aged smaller diameter mains with new 12,135 lineal feet (LF) of 24-inch main and 3,125 LF of new 16-inch main.

FY18-19: Phase 3A: 24" main - Lake Ave from 8th to Cass (Completed)

FY19-20: Phase 2: 24" main - 8th from Boardman Ave to Railroad Ave. & 16" main - Franklin, 8th to Wash. (Completed)

FY20-21: Phase 1: 20" & 24" main with 8th St Bridge Project (Water main cost included in Project 58-20-CIP); Phase 3B: 24" main - Lake Ave from Cass to Union & Phase 4: 24" main; 7th from Union to Wadsworth

FY21-22: Park Place Area Infrastructure Improvements - Project 1027-20-CIP

FY22-23: Phase 5B: 24" main - Railroad Ave from 8th to Webster & Webster from Railroad Ave to Rose St.

FY23-24: Phase 5A: 24" main - Garfield from Washington to Webster & Webster to Rose St.

FY24-25: Phase 6: 24" main - 7th from Wadsworth to Spruce

FY25-26: Phase 7: 16" main - Spruce from 7th to Wayne St.

East - West Transmission Main Upgrade - Cost

935-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$2,273,000	\$1,024,000	\$0	\$1,280,000	\$1,180,000	\$1,470,000	\$1,250,000	\$8,477,000
<b>Project Total:</b>									<b>\$8,477,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$1,874,265

**Construction:** \$6,602,735

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$8,477,000

**Project Difference:** \$0



## ***Six Year Capital Improvement Program***

### **Water**

**Service Impact:**

Increase transmission capacity to west side of City and provide redundancy to the aging 16" water main along Front St. and Wayne St. to the Wayne Hill reservoir.

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**Project Justification:**

Projects recommended in the 2014 Water System Reliability Study based upon water model.

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**Location Description:**

Various locations as noted in project description.



## Six Year Capital Improvement Program

### Water

#### East Front Street 16" Watermain

##### Project Information

1053-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Capital

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Water Distribution System

**Council Priority:**

##### Project Description:

Replace approx. 1230 lineal feet of existing 16" pit cast main from the early 1900's in E. Front Street between Railroad and Boardman Avenues.

East Front Street 16" Watermain

1053-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$0	\$0	\$420,000	\$0	\$0	\$420,000

**Project Total:** **\$420,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$420,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$420,000**

**Project Difference:** **\$0**

##### Service Impact:

Increase reliability of a significant portion of aging 16" water main and will decrease overall maintenance costs by reducing emergency repairs on E Front St.

##### Project Justification:

2014 Water System Reliability Study references concerns for this segment of water main due to it's age.

##### Location Description:

E. Front Street between Railroad and Boardman Avenues.



## Six Year Capital Improvement Program

### Water

#### Electrical Gear Upgrades at WTP & Low Service

**Project Information**

930-20-CIP

**Submitted By:** Art Krueger**Department:** Department of Municipal Utilities**Category:** Visionary**Department Head:** Art Krueger**Fund Group:** Water**Staff Priority:** Essential (Should Do)**Fund Detail:** Water System Reliability Projects**Council Priority:****Project Description:**

Project recommended in the 2014 Water System Reliability Study Table 23, Project P-5.  
Update original (1965 and 1972) electrical equipment for both High Service and Low Service pumps. Project will also increase electric efficiency and reliability.

Electrical Gear Upgrades at WTP &amp; Low Serv - Cost

930-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$850,000	\$0	\$0	\$0	\$0	\$850,000
<b>Project Total:</b>									<b>\$850,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$850,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** **\$850,000****Project Difference:** **\$0****Service Impact:****Project Justification:****Location Description:**





## Six Year Capital Improvement Program

### Water

#### Filters 1, 2 & 3 Valve Replacement

##### Project Information

934-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Visionary

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Water Treatment

**Council Priority:**

##### Project Description:

Replace 8 of 9 valves per filter; 24 valves total in the three oldest filters that were originally built in 1965 (Filters 1 & 2) and 1972 (Filter 3). These valves are at the end of their useful life. The main effluent control valve in these three filters was replaced with the SCADA Project ID#103 in 2015-2016.

Filters 1, 2 & 3 Valve Replacement - Cost

934-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$400,000	\$0	\$0	\$0	\$0	\$0	\$0	\$400,000
<b>Project Total:</b>									<b>\$400,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$25,000

**Construction:** \$375,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$400,000

**Project Difference:** \$0

##### Service Impact:

Restore reliability in 3 of the 5 filters at the WTP. Valves are critical to filter operations and must be in operable condition at all times. Will decrease long term maintenance costs.

##### Project Justification:

Project recommended in the 2014 Water System Reliability Study.

##### Location Description:

WTP - 2010 Eastern Ave.



## Six Year Capital Improvement Program

### Water

#### Hannah Ave Water Main Upgrade

**Project Information**

932-20-CIP

**Submitted By:** Art Krueger**Department:** Department of Municipal Utilities**Category:** Visionary**Department Head:** Art Krueger**Fund Group:** Water**Staff Priority:** Essential (Should Do)**Fund Detail:** Water Distribution System**Council Priority:****Project Description:**

Replace 1,900 lineal feet of aging 6-inch main on Hannah Ave. with 12-inch main from Bates Street to S. Garfield Ave.

Hannah Ave Water Main Upgrade - Cost

932-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$360,000	\$360,000
Project Total:									\$360,000

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$360,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$360,000**Project Difference:** \$0**Service Impact:**

Increase system reliability and flows to immediate service area.

**Project Justification:**

Project recommended in the 2014 Water System Reliability Study

**Location Description:**

Hannah Ave. from Bates Street to S. Garfield Ave.



## Six Year Capital Improvement Program

### Water

#### High & Low Service Pump Repairs

**Project Information**

770-20-CIP

**Submitted By:** Art Krueger**Department:** Department of Municipal Utilities**Category:** Capital**Department Head:** Art Krueger**Fund Group:** Water**Staff Priority:** Imperitive (Must Do)**Fund Detail:** Water System Reliability Projects**Council Priority:****Project Description:**

4 High Service and 3 Low Service pumps and motors need to be pulled and rebuilt by a pump service company. The motor windings need to be replaced so that a variable frequency drive (VFD) can be installed on the pumps. VFD's allow significant energy savings and assist in overall WTP operations.

High &amp; Low Service Pump Repairs - Cost

770-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$320,000	\$80,000	\$80,000	\$0	\$0	\$0	\$0	\$480,000
<b>Project Total:</b>									<b>\$480,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$480,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$480,000**Project Difference:** \$0**Service Impact:**

Increase pump reliability, reduce energy consumption and reduce overall maintenance / emergency costs.

**Project Justification:**

Pumps are critical to WTP operations and need to be service regularly.

**Location Description:**

WTP - 2010 Eastern Ave.



## Six Year Capital Improvement Program

### Water

#### Lagoon Maintenance

##### Project Information

1028-20-CIP

**Submitted By:** Art Krueger  
**Category:** Maintenance  
**Fund Group:** Water  
**Fund Detail:** Water Treatment

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

There are 2 washwater lagoons behind the water treatment plant facility and the sludge from the filter backwashing process must be removed and hauled to the landfill.

Lagoon Maintenance- Cost

1028-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$60,000	\$0	\$60,000	\$0	\$60,000	\$0	\$0	\$180,000
<b>Project Total:</b>									<b>\$180,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$180,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$180,000

**Project Difference:** \$0

##### Service Impact:

Backwashing filters is critical to water treatment. Solids must be settled out of filter backwash water before releasing the clean water back to East Bay as allowed in the NPDES permit.

##### Project Justification:

Required by suspended solids limits set in NPDES permit.

##### Location Description:

WTP - 2010 Eastern Ave.



## Six Year Capital Improvement Program

### Water

#### Low Service Check Valve Replacement Project

**Project Information**

1015-20-CIP

**Submitted By:** Art Krueger**Department:** Department of Municipal Utilities**Project Description:****Category:** Maintenance**Department Head:** Art Krueger

Replace 3 old, existing check valves in the Low Service Building piping system.

**Fund Group:** Water**Staff Priority:** Essential (Should Do)**Fund Detail:** Water Treatment**Council Priority:**

Low Service Check Valve Replacement Project

1015-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0	\$40,000
Project Total:									\$40,000

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$40,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$40,000**Project Difference:** \$0**Service Impact:**

Restore reliability to check valves which currently leak water from WTP back into pumps wet well. This causes inefficiencies in plant start-up operations due to a significant volume of water getting treated twice.

**Project Justification:**

Need to complete project to increase operational efficiency.

**Location Description:**

Low Service Pump Station - East end of Eastern Ave



## Six Year Capital Improvement Program

### Water

#### Low Service Pump Station - Standby Generator

##### Project Information

1186-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Capital

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Water Treatment

**Council Priority:**

##### Project Description:

Currently, the standby generator at the Water Treatment Plant (WTP) is used to provide back up power to both the Low Service Pump Station and the WTP. This divides the available back up power between the two locations and limits the overall capacity that the plant can produce when running on generator power. Therefore, if a separate generator was installed at the Low Service Pump Station to serve that facility, the main plant generator could be dedicated to serve the WTP, thereby increasing capacity during a potential extended power outage.

Low Service Pump Station - Standby Generator

1186-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0	\$100,000
<b>Project Total:</b>									<b>\$100,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$100,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$100,000

**Project Difference:** \$0

##### Service Impact:

Project would boost resiliency and reliability of the WTP increasing capacity when operating under back up power, which occurs at times.

##### Project Justification:

Need to increase WTP's available capacity when running under standby generator power, especially if during high demand summer months.

##### Location Description:

Low Service Pump Station



## Six Year Capital Improvement Program

### Water

#### Park Place Area Infrastructure Improvements

##### Project Information

1027-20-CIP

**Submitted By:** Missy Luick

**Department:** Engineering

**Category:** Capital

**Department Head:** Tim Lodge

**Fund Group:** Water

**Staff Priority:**

**Fund Detail:** Water System Reliability Projects

**Council Priority:**

##### Project Description:

The Park Place Brownfield Plan identifies water main and storm sewer water quality improvements. Watermain- An upgraded 12" watermain will be installed from Boardman to Cass and will go down a portion of State Street and Washington Streets. Storm Sewer Water Quality- This improvement will include a combination of infiltration and filtration to improve water quality for a significant portion of the downtown area. Both projects will be reimbursed using Brownfield funds.

Park Place Area Infrastructure Improvements- Cost

1027-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
BR	Brownfield	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
S	Sewer Fund	\$0	\$0	\$250,000	\$0	\$0	\$0	\$0	\$250,000
WAT	Water Fund	\$0	\$0	\$975,000	\$0	\$0	\$0	\$0	\$975,000
Project Total:									\$1,225,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$1,225,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$1,225,000

**Project Difference:** \$0

##### Service Impact:

The improvement will upgrade the city's water distribution system to current standards for fire protection and will implement best practices for storm water management. there could be an increase in maintenance costs

##### Project Justification:

Park Place Brownfield Plan, Water Reliability Study, Improve Water Quality.

##### Location Description:

Park Place vicinity



## Six Year Capital Improvement Program

### Water

#### Phase 2 Security Barrier @ Water Treatment Plant

##### Project Information

1086-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Capital

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Imperitive (Must Do)

**Fund Detail:** Water Treatment

**Council Priority:**

##### Project Description:

This project adds Phase 2 to the completed security gate project to increase the level of security by installing a physical vehicular barrier along Eastern Ave.

Phase 2 Security Barrier @ Water Treatment Plant

1086-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$100,000

**Project Total:** **\$100,000**

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$100,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$100,000**

**Project Difference:** **\$0**

##### Service Impact:

Increase security level at Water Treatment Plant

##### Project Justification:

Homeland Security Recommendations

##### Location Description:

2010 Eastern Ave





## Six Year Capital Improvement Program

### Water

#### Plant - Freight Elevator Compliance

##### Project Information

121-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Visionary

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Water Treatment

**Council Priority:**

##### Project Description:

Replacement of elevator's original steel single wall casing hydraulic cylinder (1965) with double wall casing cylinder.

Plant - Freight Elevator Compliance - Cost

121-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0	\$100,000

**Project Total:** \$100,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$100,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$100,000

**Project Difference:** \$0

##### Service Impact:

Project would protect ground water from contamination if the single wall cylinder were to fail and leak hydraulic fluid which would be an environmental liability for the City.

##### Project Justification:

Elevator inspections have not revealed any issues but due to the age of the elevator, the single wall hydraulic cylinder should be replaced to provide secondary containment.

##### Location Description:

WTP - 2010 Eastern Ave.



## Six Year Capital Improvement Program

### Water

#### Remove and Replace Galvanized Water Services

##### Project Information

1092-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Maintenance

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Water Distribution System

**Council Priority:**

##### Project Description:

Michigan's new Lead and Copper Rule (LCR passed June 2018) requires that water utilities must pay for replacement of up to 5% per year of privately owned galvanized water services from the curb stop to inside the building if the service "is" or "was" connected to a lead pipe (gooseneck). An updated estimate based upon the AMI meter project is that 25% of all private City water services may be galvanized, which is approximately 1,850 services. 5% per year is 90 to 100 services at cost of \$5,000 each or \$500,000 per year for 20 years with the first year planned to begin in FY2021.

Remove and Replace Galvanized Water Services

1092-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$2,500,000
<b>Project Total:</b>									<b>\$2,500,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$2,500,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$2,500,000

**Project Difference:** \$0

##### Service Impact:

Minimal service impact since private water services are maintained by owner. Overall, could reduce long term water loss (leaks) due to old galvanized services being replaced with new copper over a 20 year period.

##### Project Justification:

Required by State law.

##### Location Description:

City-wide



## Six Year Capital Improvement Program

### Water

#### Replace 16" Water Main Valves along Wash& Front St

**Project Information**

1181-20-CIP

**Submitted By:** Art Krueger**Department:** Department of Municipal Utilities**Category:** Maintenance**Department Head:** Art Krueger**Fund Group:** Water**Staff Priority:** Essential (Should Do)**Fund Detail:** Water Distribution System**Council Priority:****Project Description:**

The older segment of 16" Water Main on Washington, Franklin and Front St. has several inoperable valves that need replacing to restore reliability in order to isolate smaller service areas in a water main break emergency. This work may also require installing line stops to allow existing valves to be excavated, removed and replaced.

1181-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$100,000
<b>Project Total:</b>									<b>\$100,000</b>

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$100,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$100,000**Project Difference:** \$0**Service Impact:**

Project will help to minimize property damage and limit area of disrupted water service in the event of a water main break emergency.

**Project Justification:**

Need to improve water system reliability through main downtown commercial corridor (Front St & Washington St).

**Location Description:**

Washington St from Hope St west to Franklin; Franklin north to E. Front St; E. Front St west to Union St.



## Six Year Capital Improvement Program

### Water

#### Union St. 12" Watermain

##### Project Information

1054-20-CIP

**Submitted By:** Art Krueger  
**Category:** Capital  
**Fund Group:** Water  
**Fund Detail:** Water Distribution System

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

Install approx. 300 lineal feet of 12" main under Boardman River near Union Street bridge from south side of river to alley north of river to replace existing 12" main across the Union Street Dam. This project will be included in the 2020 Fish Pass (Union St. Dam) Project.

Union St. 12" Watermain

1054-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$100,000	\$185,000	\$0	\$0	\$0	\$0	\$0	\$285,000
Project Total:									\$285,000

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$285,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** \$285,000

**Project Difference:** \$0

##### Service Impact:

Replacement will reduce overall maintenance costs and increase reliability since it will be directionally drilled under the river vs. currently laying across the dam exposed to the elements, i.e. no bury on pipe.

##### Project Justification:

Needs to be replaced due to removal of existing 12" water main over Union St. dam with the 2020 Fish Pass project.

##### Location Description:

Between existing Union St. dam and Union Street bridge.



## Six Year Capital Improvement Program

### Water

#### Veterans Drive Water Main Replacement Project.

**Project Information**

1016-20-CIP

**Submitted By:** Justin Roy**Department:** Department of Municipal Utilities**Project Description:****Category:** Capital**Department Head:** Art Krueger

Replace 6" and 8" diameter water main with 12" between 14th Street and Georgetown Place.

**Fund Group:** Water**Staff Priority:** Essential (Should Do)**Fund Detail:** Water Distribution System**Council Priority:**

Veterans Drive Water Main Replacement Project.

1016-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$450,000	\$450,000
Project Total:									\$450,000

**COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$450,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total:** \$450,000**Project Difference:** \$0**Service Impact:**

Decrease overall maintenance costs and improve water supply / fire flows in this area.

**Project Justification:**

Project recommended in 2014 Water System Reliability Study.

**Location Description:**

Veterans Drive between 14th St. and Georgetown Place.



## Six Year Capital Improvement Program

### Water

#### Wayne Hill Fire Pump

**Project Information**

1049-20-CIP

**Submitted By:** Art Krueger**Department:** Department of Municipal Utilities**Category:** Capital**Department Head:** Art Krueger**Fund Group:** Water**Staff Priority:** Imperitive (Must Do)**Fund Detail:** Water Distribution System**Council Priority:****Project Description:**

Need to improve fire protection in the Wayne Hill, Incochee and Morgan Farms area pressure districts which are fed from the Wayne Hill Booster Station.

Wayne Hill Fire Pump

1049-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$100,000

**Project Total: \$100,000****COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$100,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total: \$100,000****Project Difference: \$0****Service Impact:**

Improved fire flow and increased high pressure loop system reliability

**Project Justification:**

Need to improve fire protection in this service area.

**Location Description:**

Wayne Hill Booster Station - Wayne St. and Incochee Rd.



## Six Year Capital Improvement Program

### Water

#### WTP Backwash & Surface Wash Pumps

**Project Information**

1183-20-CIP

**Submitted By:** Art Krueger**Department:** Department of Municipal Utilities**Category:** Maintenance**Department Head:** Art Krueger**Fund Group:** Water**Staff Priority:** Essential (Should Do)**Fund Detail:** Water Treatment**Council Priority:****Project Description:**

The Water Treatment Plant has original filter backwash and surface wash pumps from 1965. These pumps need to be rebuilt or replaced in the near future.

WTP Backwash &amp; Surface Wash Pumps

1183-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$0	\$150,000	\$0	\$0	\$0	\$150,000

**Project Total: \$150,000****COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$150,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total: \$150,000****Project Difference: \$0****Service Impact:**

The proper function of these pumps is essential to filter washing operations. If the backwash pump were to fail, an alternative operation does exist via the high service pumps, but if the surface wash pump were to fail, there is no back up alternative.

**Project Justification:**

Need to improve reliability of filter washing operation at the WTP.

**Location Description:**

WTP basement.



## Six Year Capital Improvement Program

### Water

#### WTP High Service - Cone Valve Replacement

**Project Information**

1182-20-CIP

**Submitted By:** Art Krueger  
**Category:** Maintenance  
**Fund Group:** Water  
**Fund Detail:** Water Treatment

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Essential (Should Do)  
**Council Priority:**

**Project Description:**

The Water Treatment Plant has 4 old cone valves (original from 1965) that operate with High Service Pump #'s 1, 2, 3 & 4 which need to be replaced with new electric plug valves. Currently High Service Pump #5 has a newer electric plug valve which was installed in 2012.

1182-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0	\$100,000
<b>Project Total:</b>									<b>\$100,000</b>

**COST DETAIL:**

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$100,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$100,000**

**Project Difference:** **\$0**

**Service Impact:**

Proper cone / plug valve operation is essential to water supply pumping operations.

**Project Justification:**

Need to improve reliability of 4 High Service pump valves.

**Location Description:**

Water Treatment Plant - High Service Pump Room (Basement)





## Six Year Capital Improvement Program

### Water

#### WTP Standby Generator Replacement Project

**Project Information**

1017-20-CIP

**Submitted By:** Art Krueger**Department:** Department of Municipal Utilities**Category:** Maintenance**Department Head:** Art Krueger**Fund Group:** Water**Staff Priority:** Essential (Should Do)**Fund Detail:** Water System Reliability Projects**Council Priority:****Project Description:**

Existing generator is over 20 years old and is nearing the end of its useful life. This project will replace it with a new, more efficient model.

WTP Standby Generator Replacement Project

1017-20-CIP-C

**Funding Sources:**

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$0	\$0	\$0	\$300,000	\$0	\$300,000

**Project Total: \$300,000****COST DETAIL:****Study:** \$0**Land Acquisition / ROW:** \$0**Engineering / Design:** \$0**Construction:** \$300,000**Annual Maint. Cost:****Maint. Year Start:****Cost Total: \$300,000****Project Difference: \$0****Service Impact:**

Increase reliability and efficiency by replacing the plant generator when it is at the end of it's useful life.

**Project Justification:**

Recommended in the 2014 Water System Reliability Study.

**Location Description:**

WTP - 2010 Eastern Ave.



## Six Year Capital Improvement Program

### Water

#### WTP Sump Pump Discharge Flow Meter

##### Project Information

1065-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Capital

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Water Treatment

**Council Priority:**

##### Project Description:

Install flow meter to accurately measure lagoon discharge (from filter backwash) to East Bay as required per the NPDES permit.

WTP Sump Pump Discharge Flow Meter

1065-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000
<b>Project Total:</b>									<b>\$20,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$20,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$20,000**

**Project Difference:** **\$0**

##### Service Impact:

Currently, flows are estimated and inaccurate due to the variables of incoming flow to the Sump Pump station and one or two pumps in operation. Over estimating flow requires notices to the MDEQ which could be eliminated if an accurate flow meter was installed.

##### Project Justification:

Increased compliance with NPDES permit requirements to report accurate flows discharged to East Bay.

##### Location Description:

Water Treatment Plant, 2010 Eastern Ave.



## Six Year Capital Improvement Program

### Water

#### WTP Turbidimeters Replacement

##### Project Information

1047-20-CIP

**Submitted By:** Art Krueger  
**Category:** Maintenance  
**Fund Group:** Water  
**Fund Detail:** Water Treatment

**Department:** Department of Municipal Utilities  
**Department Head:** Art Krueger  
**Staff Priority:** Imperitive (Must Do)  
**Council Priority:**

##### Project Description:

Turbidity meters at the WTP will need to be replaced as they reach the end of their useful life. Reliable equipment and accurate readings are required by the MDEQ for water quality monitoring / compliance.

WTP Turbidimeters Replacement

1047-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$0	\$15,000	\$10,000	\$0	\$0	\$25,000
Project Total:									\$25,000

##### COST DETAIL:

**Study:** \$0  
**Land Acquisition / ROW:** \$0  
**Engineering / Design:** \$0  
**Construction:** \$25,000  
**Annual Maint. Cost:**  
**Maint. Year Start:**

**Cost Total:** \$25,000

**Project Difference:** \$0

##### Service Impact:

Restore reliability of instruments required for water quality as mandated by MDEQ.

##### Project Justification:

Replace critical instruments when they reach end of useful life.

##### Location Description:

Water Treatment Plant - 2010 Eastern Ave.



## Six Year Capital Improvement Program

### Water

#### WTP Water Quality In-Line Instrumentation

##### Project Information

1045-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Capital

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Essential (Should Do)

**Fund Detail:** Water Treatment

**Council Priority:**

##### Project Description:

Install a streaming current monitor instrument to monitor water chemistry in order to optimize daily coagulant dosing.

WTP Water Quality In-Line Instrumentation

1045-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$25,000	\$0	\$0	\$0	\$0	\$0	\$25,000
<b>Project Total:</b>									<b>\$25,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$25,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$25,000**

**Project Difference:** **\$0**

##### Service Impact:

Installing this instrument will help optimize chemical dosing (reduce costs) and ensure proper water treatment.

##### Project Justification:

MDEQ District Engineer has recommended installing this equipment at the WTP.

##### Location Description:

WTP - 2010 Eastern Ave.



## Six Year Capital Improvement Program

### Water

#### WTP Windows Replacement Project

##### Project Information

1184-20-CIP

**Submitted By:** Art Krueger

**Department:** Department of Municipal Utilities

**Category:** Maintenance

**Department Head:** Art Krueger

**Fund Group:** Water

**Staff Priority:** Important (Could Do)

**Fund Detail:** Water Treatment

**Council Priority:**

##### Project Description:

Water Treatment Plant has 35 original windows from 1965 that need to be replaced to conserve energy (heat loss in winter).

WTP Windows Replacement Project

1184-20-CIP-C

##### Funding Sources:

		Previous	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	Total
WAT	Water Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$90,000	\$90,000
<b>Project Total:</b>									<b>\$90,000</b>

##### COST DETAIL:

**Study:** \$0

**Land Acquisition / ROW:** \$0

**Engineering / Design:** \$0

**Construction:** \$90,000

**Annual Maint. Cost:**

**Maint. Year Start:**

**Cost Total:** **\$90,000**

**Project Difference:** **\$0**

##### Service Impact:

Improve overall operational efficiency at the WTP.

##### Project Justification:

This project would conserve energy at the WTP and would help the City toward reaching it's Green Energy goal.

##### Location Description:

Water Treatment Plant