



DATE: March 15, 2021

TO: Honorable Mayor and City Councilmembers
David Perrault, City Administrator

FROM: David Swearingen, Interim Public Works Director

SUBJECT: Public Works 2021 Capital Equipment Replacement

Budgeted Amount:	Actual Amount:	Funding Sources:
\$453,960 (2021 CIP)	\$453,960 (Current quotes needed)	Equipment Replacement Fund

Council Should Consider the Following Actions

City Council direction is requested regarding the purchase of 2021 capital equipment items identified in the Capital Improvement Plan. With direction from Council, staff will gather updated quotes on equipment desired.

Background/Discussion

The 2021 Capital Improvement Plan (CIP) includes eight equipment items for replacement or addition, consisting of two pickup trucks, a plow truck, three mowers and two pieces of safety equipment. (Attachment A)

This work session item was requested by Public Works staff to discuss the equipment currently scheduled for replacement in 2021. A brief summary of the equipment is provided below and more specific details will be provided as requested.

Unit 210 - (Previously scheduled 2020 replacement)

Unit 210 is a 2010 Ford F350 Pickup Truck equipped with a lift gate and sign-board. The sign board is an older model and replacements parts are no longer available. Unit 210 is used primarily for traffic control during field operations in the summer months and applying ice control brine on roadways in the winter months. This vehicle has reached the end of its useful life and can be replaced with equipment that is more versatile. Maintenance costs from 2014 to January 2020 provided in Attachment B, totaling \$6,829.86. 2020 costs were \$1,593.

Staff recommends replacement of Unit 210 with a Ford F-350, outfitted with a Tommy Gate Liftgate and 8-foot v-plow. With this equipment, the truck will fulfill the duties of park maintenance and winter plowing of sidewalks, trails and parking lots. The total estimated cost for the vehicle and equipment, after trade, is \$40,778 (2020 quote). The CIP includes a budget of \$46,000 for this vehicle in 2021.

Unit 203 (Previously approved in 2020)

Replacement of Unit 203 was previously approved on March 9, 2020, but purchasing of the equipment was halted due to Unit 210 not being approved to replace. Both Unit 203 and 210 must be approved in order to assemble the fleet as needed for trail plowing and safe storage for parts and tools. This was presented during a power point presentation at a Work Session last year. Unit 203 is a 2012 F350 pickup truck equipped with a V-plow and an aluminum lift gate. Unit 203 has been in continuous service for the past nine years and is primarily used as a service vehicle for utility locating and maintenance in the summer months and for plowing sidewalks, trails, and parking lots in the winter. This type of work puts excessive wear on the transmission, transfer case and drive train. Maintenance costs from 2014 to January 2020 provided in Attachment C, totaling \$13,321.22. The past three years has shown the cost to maintain this vehicle continues to increase.

Repair costs for parts and labor:

- 2018 - \$2,134
- 2019 - \$3,510
- 2020 - \$6,247

Staff recommends replacement of Unit 203 with a Ford F-250, outfitted with a Knapheide 796F Flip-Top Service Body as described in Attachment C. With this equipment, the truck will fulfill the duties of servicing and locating city utilities while abiding by the latest OSHA safety standards for storing loose objects. Plowing functions would transfer to Unit 210 as described above. The total estimated cost for the vehicle and equipment, after trade, is \$45,590 (2020 quote). The CIP includes a budget of \$48,000 for this vehicle in 2021.

Replace International Plow Truck (Unit 120)

On March 9, 2020, Council approved the initial purchase of the cab and chassis for this replacement. Covid caused delays in many industries, and the City was not able to obtain the equipment in 2020 so the replacement of this unit in its entirety has been carried over to 2021. Unit 120 is a 2011 International single axle dump truck equipped with a front plow, side wing plow, belly scraper and salt spreader. This unit was purchased used from Ramsey County in 2014 and is used as one of the three main snow plow trucks in the winter and for material hauling during summer months.

In January 2020, this vehicle encountered engine problems during a snow plowing event. A cooling system manifold cracked, leaking approximately eight gallons of coolant into the intake manifold and oil system. Ramsey County completed partial engine repairs at a cost of approximately \$4,000 in lieu of rebuilding the engine at an estimated cost of \$25,000. County mechanics recommend that the City consider replacement of the vehicle.

Repair costs for parts and labor:

- 2018 - \$5,200
- 2019 - \$13,249
- 2020 – \$13,115
- 2021 - \$3,805.98

Staff recommends replacement of Unit 120 with 2021 Mack Single Axle Plow Truck. The Chassis should arrive in March 2021 which has already been approved. We are seeking approval for the build out from TowMaster. The original plan was to split this purchase between 2020 and 2021, now the plan is to make the entire purchase in 2021. The CIP includes a budget of \$243,960 for this vehicle in 2021.

Replace 1997 Toro Groundsmaster (Unit 409)

Unit 409 is used for trail and off-road mowing including climbing steep hills. This machine is 4WD, has 2929 hours of operation and replacement parts are becoming more difficult to find with the equipment being 24 years old.

Repair cost for parts and labor:

2018 - \$1,300
2019 - \$325
2020 - \$430

Staff recommends replacement of Unit 409 with a Rough-Cut Off-Road Machine. The CIP includes a budget of \$60,000 for this equipment in 2021. Looking at preliminary quotes, replacement of this equipment will be well under budget.

Trade-in Program Toro “Z” Mowers (Units 458 & 459)

Units 458 & 459 trade in value of the Toro "Z" mowers is maximized if they are traded in with warranty still remaining. Due to the amount of time these pieces of equipment are used during the summer months, they are traded in on a three-year cycle.

Parts and labor costs:

Unit 458 (597 hours)
2018 - \$850
2019 - \$730
2020 - \$1,225

Unit 459 (673 hours)
2018 - \$1,050
2019 - \$925
2020 - \$985

Staff recommends replacement of Units 458 & 459 with 2021 Toro Zero Turn Mower's. The CIP includes a budget of \$30,000 for these machines in 2021. Public Works staff also recommends continuing replacement of these machines every 3 years to minimize down time costs and maximize trade in value.

Portable Message Board

The trailer mounted message board is to replace the existing truck mounted message board on vehicle Unit 210. A trailer mounted unit would be more versatile, allowing placement of the message board within work zones or along roadways without removing a vehicle from use as occurs with a truck mounted message board. The existing message board is a 2006 model purchased used from Ramsey County and parts have become very difficult to find. Staff recommends purchasing the Portable Message Board. The CIP includes a budget of \$16,000 for this equipment.

Portable Light Tower

Public Works staff is currently working in dark conditions loading and unloading trucks during after hour emergencies. The generator powered towable light tower would also be used on job sights when needed. The equipment follows OSHA safe work space compliance. Staff recommends purchasing the Portable Light Tower. The CIP includes a budget of \$10,000 for this equipment.

Financial Impact

The Capital Improvement Program for equipment purchases was restructured in 2020 to allow for early replacement of the snow plow Unit 210 which ultimately got carried over to 2021 due to Covid. The table provided in Attachment A provides the annual and total five-year financial impact for the current CIP. Staff requests direction from the City Council regarding gathering current quotes to move forward with purchasing the presented equipment and allowing the CIP to get back on track for routine replacements.

Attachments

Attachment A:	Capital Improvement Program Schedules for Equipment
Attachment B:	Unit 210 Work Order Cost Summary
Attachment C:	Unit 203 Work Order Cost Summary