



TO: Wade Bryson, Chair Public Works and Facilities Committee

FROM: Nate Abbott, Building Maintenance Supervisor, Parks, and Recreation Department

DATE: August 23, 2023

RE: Facilities Deferred Maintenance Program

Overview

This memorandum serves to detail the City and Borough of Juneau's (CBJ) Facilities Maintenance Program, with a particular focus on the aspect of Deferred Maintenance. Central to asset management are the processes of Maintenance Operations, Deferred Maintenance, and Capital Improvement Projects (CIP). Maintenance Operations consist of routine activities that maintain assets in prime condition and extend their life. Deferred Maintenance activities are the result of delaying regular maintenance activities due to resource limitations, potentially leading to asset deterioration and increased future costs. CIPs represent significant investments made to enhance or upgrade an asset beyond its original capabilities, thereby increasing its value or functionality. Collectively, these elements shape a comprehensive asset management strategy wherein Maintenance Operations and Deferred Maintenance strive to maintain existing functionality, while CIPs target asset enhancement or expansion.

The Deferred Maintenance Process

The Deferred Maintenance Process is as follows: 1) Project Identification -> 2) Projects Rated -> 3) Cost Estimates Assigned -> 4) Projects Selected -> 5) Initial Funds Allocated -> 6) Project Planning/Design/Final Cost Estimation ->6) Construction.

- 1) CBJ Deferred Maintenance (DM) projects are identified through various methods, such as facility manager requests, third-party condition assessments, and input from the Facilities Maintenance and Engineering departments.
- 2) Prioritization of DM projects is initially done using a rating scale, as detailed in Attachment A.
- 3) Initial estimation of costs is accomplished through a combination of methods including past project costs, the RS Means cost estimating guide, quotes, and rough order of magnitude estimates from third-party services.
- 4) Project Selection occurs in monthly DM Meetings, involving both the Facilities Maintenance and Engineering departments. Factors considered in the decision-making process include Project Ratings, Funding availability, and the impact on overall CBJ Operations.
- 5) Initial Fund Allocation is the subsequent step, wherein either existing funds are allocated to the project or funds are requested through the Fiscal Year CIP Process.
- 6) During Project Planning/Design, a third-party consultant is typically hired for design work. The project is thoroughly examined for scope, energy efficiency, and potential functional

improvements. Upon completion of the design, a final cost estimation is performed to ensure enough funds have been allocated to the project. If it is found that enough funds have not been allocated more funds are allocated or the project scope is reduced. Finally, the project is put out for solicitation.

- 7) The final step is construction of the DM Project which is typically carried out by a third-party contractor.

Project Cost Escalation

In recent times, we have been dealing with a significant issue of project cost overages. A number of projects, such as the MPG Elevator Vestibule Upgrades and the Eagle Valley Center Energy Efficiency Improvements, have seen their initial bids exceeded by margins as high as 87%. This has necessitated the need to tap into additional funding sources to cover these unexpected costs or reduce project scopes.

Looking ahead, we anticipate this trend of escalating costs to persist. Therefore, it is importance that we take proactive measures to plan for these overages and secure additional funding for the future.

Funding and Project List

As referenced in Katie Koester's Fund Balance Usage/Deferred Maintenance memo dated February 14, 2022, the industry standard is to spend 2%-6% of the replacement value of facilities on preventive maintenance. This encompasses all types of maintenance. At the time a 5-year retrospective of preventive maintenance spending (operating expenditures) on General Fund Facilities indicated that we were at approximately half of the recommended minimum. With both preventive and deferred maintenance spending combined (operating and DM), we just met the 2% minimum. With the influx of additional funds from the temporary 1% sales tax approved for FY24-FY28 we have boosted this ratio to 3%. Although we have made progress in increasing our maintenance funding, we still have a way to go. A recommendation for an additional \$3,000,000 in DM funding starting in FY25 would provide for a ratio of 5.5%. This is modeled in the below funding outlook table.

Currently we have an estimated \$30,365,327 in Deferred Maintenance Project Needs on the list for FY24 and the list continues to grow. To see a funding outlook based on our current project list see the below chart.

	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Funds requested in 6 year CIP	\$4,074,673	\$3,200,000	\$3,100,000	\$3,200,000	\$3,300,000	\$3,400,000	\$1,500,000
Total Project Totals (7% inflation year over year)	\$34,440,000	\$30,365,327	\$29,066,900	\$27,784,583	\$26,305,504	\$24,615,889	\$22,701,001
Recommended additional funding			\$3,000,000	\$3,090,000	\$3,182,700	\$3,278,181	\$7,000,000

Please refer to the attached list of anticipated Deferred Maintenance and Capital Improvement Projects Attachment B.

Deferred Maintenance Priority Ranking Scoring

Project Name

Department

Date

Category	Points Available	Points Awarded
Emergency	10	
Exceeded Expected Life		
0-2	1	
3-4	2	
5-6	3	
7-9	4	
10+	5	
Energy Savings		
Windows	1	
Siding	2	
Roof	4	
HVAC	4	
LED	5	
Life Safety/Code Deficiency		
Grandfathered	1	
HVAC	2	
HAZMAT	3	
ADA	4	
Structure	5	
Protection of Structure		
Nuisance	1	
Impacts Finishes	2	
Impacts Use	3	
Harmful to Exterior Envelope	4	
Harmful to Structure	5	
Functional Improvement		
For Occupants	1	
Maintenance Reduction - LOW	2	
For Users	3	
Maintenance Reduction - HIGH	4	
For Users and Occupants	5	
Total		0

Attachment B

Deferred Maintenance Projects

Maintenance that was not performed when it should have been or when it was scheduled and which, therefore, was put off or delayed for a future period. This does not include the addition of assets with new functions or significantly changing the function of an asset. This may include Architectural and Engineering services to support planning, design, and execution of deferred maintenance activities. This funding may include replacement of building, facility and/or asset components that have reached the end of their useful life or experienced serious damage due to outside factors.

Facility	In Progress DM Projects	Priority Rating	Cost Estimate
Capital Transit Bus Barn	Roof Repairs/Security Upgrades	18	\$566,000
Centennial Hall	Water Heater Replacement	16	\$45,000
JPD	Roof Replacement	15	\$1,853,000
Dimond Park Aquatic Center	Recommisioning or replace HVAC controls.	14	\$125,000
Auke Bay Fire Station	HVAC Replacement/Controls Upgrades/Electrical	14	\$1,500,000
Douglas Fire Station/Library	HVAC Controls Upgrade	14	\$300,000
Public Works Joint Facility	HVAC Controls Upgrade	14	\$300,000
Treadwell Ice Arena	HVAC Controls Upgrade	14	\$300,000
Zach Gordon Youth Center	Boiler/controls replacement	13	\$578,000
Thane Warehouse	Rot Repairs and Door Install	20	\$109,000
Juneau Library	MPG/Downtown Library foyer Repair	12	\$150,000
Juneau-Douglas City Museum	Fire Panel Replacement	11	\$15,000
Jensen Olson Arboretum	Replace Exterior Windows	10	\$180,000
Dimond Park Aquatic Center	Sanitation System Replacement	8	\$125,000
Multiple Facilities	Facility Condition Assessments		\$150,000
Multiple Facilities	Emergent Projects (funding for projects that are emergencies) Currently Glacier Fire Lights		\$50,000
Totals			\$6,346,000

Facility	Future Projects	Priority Rating	Cost Estimate
Augustus Brown Pool	HRU Replacement	19	\$750,000
Centennial Hall	Roof fall protection system	18	\$250,000
Dimond Park Aquatic Center	Natorium HVAC replacement/repairs	17	\$2,500,000
Downtown Library	South West meeting room window repalcment (current windows leak)	15	\$194,000
Centennial Hall	Meeting Room HVAC Upgrades	14	\$2,223,000
Centennial Hall	Lobby and office mechanical upgrades	14	\$2,223,000
Juneau Fire Station	Mechanical/Electrical Replacement	14	\$4,510,000
Homestead Park Cabin	Sewer line replacement	14	\$100,000
Juneau Douglas City Museum	Exterior building envelope repairs/upgrades	14	\$597,000
Mt Jumbo Gym	Roof replacement	14	\$500,000
Mt Jumbo Gym	HVAC replacement	14	\$150,000
Augustus Brown Pool	Lower Roof Replacement	14	\$1,399,000
Auke Bay Fire Station	Plumbing system replacement	12	\$250,000
Dimond Park Aquatic Center	Lighting control replacement	12	\$65,000
Down Town Library	Lighting control replacement	12	\$75,000
Dimond Park Aquatic Center	Natorium Lighting Replacement	11	\$150,000
Douglas Library	Parking Garage Ceiling Repairs	11	\$50,000
DTC Parking	LED Upgrade	11	\$75,000
Fire Training Center	CMU wall repairs	11	\$250,000
Fire Training Center	Upgrade Site Lighting to all LED	11	\$50,000
Parks and Landscape Douglas Shop	Repair settling foundation	11	\$250,000
Marine Parking Garage	Stair repairs/refurbishment	11	\$194,000
Mayflower Building (Montessori School)	Electrical System Upgrade	11	\$150,000
Downtown Library	Roof Replacement	11	\$1,500,000
Treadwell Ice Rink	Ice Plant Replacement	9	\$2,000,000
Centennial Hall	Complete repaint	9	\$100,000
Douglas Fire Station/Library	HVAC Replacement/Upgrade	9	\$900,000
Douglas Library	Carpet Replacment	9	\$135,000
Juneau Douglas City Museum	Front walkway concrete replacement	9	\$150,000
Juneau Fire Station	Window Replacement	9	\$150,000
Mt Jumbo Shop	Window Replacement/repair	9	\$200,000
Augustus Brown Pool	Sanitation System Replacement	8	\$100,000
Dimond Park Aquatic Center	Leisure Pool liner replacement	8	\$250,000
Augustus Brown Pool	Lap Pool liner replacement/Gutter Repairs	8	\$1,614,000
Douglas Fire Station/Library	Replace fire alarm (old system no longer upgradable)	8	\$115,000
Glacier Fire Station	Fire alarm replacement	8	\$125,000
Lynn Canal Fire Station	Underground storage tank removal	8	\$25,000
Marine Parking Garage	Wood barrier replacement	8	\$225,000
Mayflower Building (Montessori School)	Lead Paint Abatement on exterior windows	8	\$50,000
Parks and Landscape Douglas Shop	Underground storage tank replacement	8	\$75,000
Dimond Park Aquatic Center	RegROUT hot tub	7	\$50,000
Augustus Brown Pool	Lobby Flooring Replacement	7	
Augustus Brown Pool	Exterior Wall Repair/Insulation	6	

DTC Parking Garage	Ramp heat replacement (sections have failed)	6	\$100,000
Marine Parking Garage	Camera system replacement	6	\$100,000
Parks and Landscape Douglas Shop	Storage shed removal	6	\$50,000
CCFR Multi Facility	Glacier, Downtown & Hagevig FTC: Repl. 16 broken security cameras	6	\$135,000
Downtown Library	Public Restroom Remodel	6	\$250,000
Auke Bay Fire Station	Parking Lot repairs/upgrades	5	\$250,000
Glacier Fire Station	Parking Lot repairs/upgrades	5	\$250,000
Juneau Police Department	HVAC R22A conversion	5	\$250,000
Mayflower Building (Montessori School)	Heat pump conversion	5	\$200,000
Mt Jumbo Shop	Asbestos Abatement	5	
Zach Gordon Youth Center	Asbestos Abatement	5	
Downtown Library	Staff Breakroom/Bathroom refurb	5	\$43,000
Downtown Library	Balcony Refurb	5	\$135,000
Dimond Park Aquatic Center	Replace doors in natatorium	4	\$50,000
Dimond Park Aquatic Center	Pool entrance handrails replacement	4	\$40,000
Douglas Fire Station/Library	Electrical system upgrades/replacement (includes: Generator and distribution)	3	\$500,000
Down Town Library	Carpet Replacment	2	\$188,000
Douglas Library	Carpet Replacment	2	\$48,000
Fire Training Center	Clean Classroom Carpet Replacement	2	\$25,000
Juneau Police Department	Carpet replacement 1st floor phase 1	2	\$161,000
Public Works Joint Facility	Automatic Gate Replacement	2	\$50,000
JPD	Lobby glass at counter replacement	2	\$50,000

Totals **\$27,594,000**

Facility Additions/Standalone Projects

The construction, installation, or assembly of a new asset, or the alteration, expansion, or extension of an existing asset to accommodate a change of function or unmet programmatic needs, or to incorporate new technology. Enterprise Departments also fall into this category.

Facility	In Progress	Project Rating	Cost Estimate
Centennial Hall	Fire Panel Replacement	11	\$50,000
Centennial Hall	Security Camera Upgrades/Replacements		\$200,000
EVC	HVAC Replacment	14	\$800,000
Glacier Fire Station	HVAC/Electrical Replacement	14	\$3,000,000
Centennial Hall	Ballroom Remodel	14	\$8,000,000

Totals **\$12,050,000**

Facility	Future Projects	Project Rating	Cost Estimate
Mendenhall Treatment Plant	Boiler Replacement	14	\$2,000,000
Downtown Library	Central HVAC cooling system	5	\$250,000
North Franklin Parking Lot	Add site lighting	1	\$100,000
Juneau Fire Station	Kitchen and living area reconfiguration (should be done in conjunction with mechanical and electrical upgrades)	1	\$408,000
CBJ Wide	Surge Protection Installation		\$1,000,000
CBJ Wide	Power Monitoring Equipment		\$200,000
Juneau Douglas Treament Plant	JD Treatment Plant Beam/Roof Replacement at Aerator Basins - Structural Assessment		\$200,000
Glacier and Juneau Fire	Perimeter Fencing	1	\$161,000.00
Dimond Park Field House	Elevator Addition	7	\$1,250,000
JPD	DEU addition	1	

Totals **\$5,569,000.00**