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DATE: November 15, 2026

TO: RAILS Board of Directors

FROM: Joe Filapek, Associate Executive Director

SUBJECT: 8.2 Capital Needs Assessment Update

Building Technology Consultants, Inc. (BTC) completed a capital needs assessment of the RAILS Burr Ridge facility in January 2024. The assessment incorporates a mechanical, electrical, plumbing, and fire-protection evaluation performed by Elara Engineering. Together, the work reviewed the 23,000-square-foot facility and developed a 20-year framework for anticipating major repairs, replacements, and related funding needs.

The assessment is intended to support long-range planning rather than serve as a fixed construction schedule. It considers the condition and estimated service life of major building components, applies assumptions for replacement timing, and recommends that the plan be revisited as conditions, costs, and organizational priorities change. Staff will continue to use the assessment as a planning tool, validating the timing and scope of projects before bringing specific expenditures forward.

The largest facility expenditure anticipated in the coming year is the scheduled replacement of the building's chiller. The existing air-cooled chiller was manufactured in 2005 and was already approaching its expected service life when the assessment was prepared. Because the chiller is essential to building cooling and represents a significant capital investment, staff are coordinating the replacement carefully.

The Board previously approved a transfer of $1,850,000 to the Capital Projects Fund to strengthen RAILS' capacity to address upcoming facility needs and recurring delivery-vehicle replacements. At the time of that recommendation, the fund balance had declined to $462,504; the transfer restored resources for responsible capital planning.

RAILS Associate Executive Director Joe Filapek and Director of Delivery and Facilities Mark Hatch look forward to sharing additional information about the assessment, the chiller project, and the broader capital-planning approach at the November Board meeting.

Reference pages from the capital needs assessment follow: pages 41-42 (chiller system) and page 73 (five-year expense summary).

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BUILDING COOLING SYSTEM



Picture 4: Air-Cooled Chiller CH-1



Picture 5: Chilled Water Pumps CHWP-1 & 2

Description

Chilled water for space cooling is provided by a "Carrier" air-cooled scroll chiller (CH-1) located on the roof. It contains (4) scroll compressors and its nominal cooling capacity is 80 tons. Chilled water flow is provided by (2) 1.6 HP chilled water pumps (CHWP-1 & 2), located inside the 2nd floor mechanical space. Chilled water is provided to the main air-handling unit's chilled water coil to provide cooling for the building.

Analysis

The chiller was manufactured in 2005 making it approximately 18 years old. In Elara's experience, similar air-cooled chillers with scroll compressors have an estimated median service life of up to 20 years with proper maintenance. Additionally, similar in-line chilled water pumps have an estimated median service life of up to 25 years with proper maintenance.

While the chiller appears to be in good condition, it was reported to us that there has been one compressor failure which has since been replaced. Before budgeting for its replacement, we recommend a schematic level study in 2024 to study feasible replacement options in more detail. However, preliminary budgetary numbers for (2) replacement options for the chiller are provided below, timed tentatively for 2026.

Option 1 considers a like-for-like, 80-ton air-cooled scroll chiller replacement which would produce chilled water for the air-handling unit's chilled water coil for to provide cooling for the building. Option 2 considers (6) 15-ton modular air-cooled heat pump chillers that could provide both cooling and heating to reduce the load on the electric coils in the VAV boxes. This would result in electric utility savings as heat pumps can provide heating much more efficiently than electric resistance heating coils. The budget provided considers a replacement AHU coil and new controls for heat pump operation, as AHU-1 is not recommended to be replaced until 2040.

The chilled water pumps are believed to be the same age as the chiller and therefore also 18 years old. It was reported to us that one of the pumps was replaced 3-4 years ago, so preliminary budgetary numbers for the remaining chilled water pump's tentative replacement in 2030 are provided below, engineering fees excluded.

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22405 – RAILS Facility – MEPFP Reserve Study		
Year	**Cost**	**Description**
2024	$12,000	Chiller Replacement Study
2026	$285,000	Option 1: Air-Cooled Chiller Replacement (Like-for-like)
	$520,000	Option 2: Air-Cooled Heat Pump Chiller Plant
2030	$35,000	(1) CHWP Replacement

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Table 2

Present Day Annual Expense Summary (Years 1 thru 5)

RAILS Facility, Burr Ridge
Project #: 22-762
Version #: Final

Component	1	2	3	4	5	Years 1 thru 5	
	2023/24	2024/25	2025/26	2026/27	2027/28	Totals	% of Totals
Site Elements							
Asphalt Pavement			$60,000			$60,000	4.9%
Concrete Flatwork		$35,000				$35,000	2.8%
Concrete Curbs		$5,000				$5,000	0.4%
Precast Barrier Walls		$40,000				$40,000	3.2%
Landscaping and Hardscape							
Miscellaneous Site Elements					$10,000	$10,000	0.8%
Roofing							
Main Roof							
Penthouse Roof							
Entrance Canopy Roof							
North Annex Roof					$40,000	$40,000	3.2%
Facade							
Precast Panels		$5,000				$5,000	0.4%
Sealant	$20,000					$20,000	1.6%
Windows	$7,500					$7,500	0.6%
Storefront Windows and Doors							
Stucco		$27,000				$27,000	2.2%
Entrance Canopy Soffit							
Interior Finishes, Furnishings, & Equipment							
Flooring					$146,000	$146,000	11.8%
Ceiling Finishes		$90,000				$90,000	7.3%
Shelving and Furnishings					$10,000	$10,000	0.8%
Restroom Finishes and Fixtures							
Technology and Equipment					$5,000	$5,000	0.4%
Mechanical Systems							
Air-Handling Unit (AHU-1)							
AHU Humidifier							
VAV Boxes				$275,000		$275,000	22.3%
Chiller		$12,000		$285,000		$297,000	24.0%
Chiller Pumps							
Exhaust Fans		$10,000	$90,000			$100,000	8.1%
Server Room A/C Units		$20,000				$20,000	1.6%
Electric Unit Heaters							
Building Automation System					$10,000	$10,000	0.8%
Electrical Systems							
General Electrical System	$5,000					$5,000	0.4%
Main Switchboard							
Distribution Panelboards		$20,000				$20,000	1.6%
Generator		$8,000				$8,000	0.6%
Interior Lighting							
Fire Alarm Control Panel							
Plumbing Systems							
Domestic Water Heater							
Domestic Water Heater Pump							
Present Day Expense Totals	**$32,500**	**$272,000**	**$150,000**	**$560,000**	**$221,000**	**$1,235,500**	**100.0%**
Inflation Rate (1+IR)^n	**1.0350**	**1.0712**	**1.1087**	**1.1475**	**1.1877**		
Future Expense Totals (Inflated)	**$33,638**	**$291,374**	**$166,308**	**$642,613**	**$262,478**	**$1,396,411**	**100.0%**
Beginning Reserve Fund Balance	**$1,278,338**	**$1,394,700**	**$1,283,326**	**$1,333,018**	**$949,605**		
Recommended Reserve Fund Contribution	**$150,000**	**$180,000**	**$216,000**	**$259,200**	**$311,040**		
Future Expenses (Inflated)	**($33,638)**	**($291,374)**	**($166,308)**	**($642,613)**	**($262,478)**		
Interest							
Ending Reserve Fund Balance	**$1,394,700**	**$1,283,326**	**$1,333,018**	**$949,605**	**$998,167**		

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