

AD HOC JOINT COMMITTEE ON CAPITAL EXPENDITURES AND DEBT SERVICE PLANNING

June 11, 2026

A meeting of the Ad Hoc Joint Committee on Capital Expenditures and Debt Service Planning was held Thursday, June 11, 2026, at 6:02 p.m. in the aldermanic chamber, and duly noticed in two places, including the City's website, in accordance with the requirements of RSA 91-A:2 II.

Let's start the meeting by taking a roll call attendance. If you are participating via Zoom, please state your presence, reason for not attending the meeting in person, and whether there is anyone in the room with you during this meeting, which is required under the Right-To-Know Law.

The roll call was taken with 6 members of the Ad Hoc Joint Committee present:

Mayor James Donchess, Chairman, presided.

Members of the Committee present:	Mayor James Donchess
	Alderman-at-Large Lori Wilshire (arrived late)
	Alderman-at-Large Shoshanna Kelly
	Alderman Patricia Klee
	Tim Cummings, Administrative Services Director
	Matt Sullivan, Community Development Director

Members of the Committee absent:	Alderman-at-Large Ben Clemons
	Lisa Fauteux, Public Works Director

Also in Attendance:

ROLL CALL

DISCUSSION

- Presentation by Shaun Smith, Director of Plant Operations, on School's priorities
- Presentation by Matt Sullivan, Community Development Director, and Deb Chisholm, Sustainability Manager on Community Development/Sustainability
- Next meeting on June 18, 2026 to continue with Community Development

ADJOURNMENT

MOTION BY ALDERMAN WILSHIRE TO ADJOURN
MOTION CARRIED

The meeting was declared adjourned at 6:59 p.m.

Tim Cummings, Administrative Services Director
Committee Clerk

Nashua School District Capital Improvements

Shawn M. Smith

June 10, 2026

District Overview

- 18 schools, including 2 high schools, 3 middle schools, 12 elementary schools and 1 alternative school.
- Also School Administration Office and Plant Operations buildings.
- All buildings totaling 2.125 million square feet, on 382 acres of land.
- District enrollment figures as of October 2025 were 9,706 students enrolled.
- Total district staff is approximately 2400. This includes all administrative, teachers and support staff, both full and part time.

School Construction & Renovation History

School/Building	Size	Year of	Year Last
	Square Ft.	Construction	Renovated
Amherst St.	64,700	1892	1999
Bicentennial	65,000	1977	1996
Birch Hill	64,800	1972	2025
Broad St.	62,470	1963	2015
Charlotte Ave	65,500	1954*	2013
Dr. Crisp	54,800	1981	1996
Fairgrounds Elem	65,500	1954*	2012
Ledge St.	64,000	1957*	2012
Main Dunstable	65,200	1972	2025
Mt. Pleasant	53,000	1925	1987
New Searles	57,000	1968	1994
Sunset Heights	67,635	1965	2016
Fairgrounds MS	118,800	1961	2021
McCarthy MS	211,985	2024	2024
Pennichuck MS	136,806	1988	2022
Nashua HS (South)	430,000	1975	2004
Nashua HS (North)	420,000	2002	
Franklin St.	40,000	1970	2022
Administration	9,920	1991	
Plant Operations	8,380	1991	2003
Note - Renovations of Fairgrounds, Charlotte and Ledge Elem were limited to partial HVAC and Electrical upgrades			

Prior Funding – Deferred Maintenance

- With about \$1million allocated the past two fiscal years, the following projects were completed this past summer/fall:
 - Resurface North HS Track
 - Paving work at NHS North – Worked with DPW to include this with their city paving work this past summer. Titan Way and the two drop off loops were completed.
 - Roofing repairs at various schools – Conducted roofing repairs to extend service life at 6 elementary schools and the two high schools.
 - Replacing PA & Bell Systems at the two high schools.
 - Resurfacing NHS South & NHS North Tennis Courts.

NHS North Paving Summer 2025



Prior Funding – Facility Master Plan

- \$325K was allocated to develop a school district facility master plan. This master plan will guide the school administration, school board and City in planning for future deferred maintenance, renovation or construction projects. It began with an assessment of the physical facilities, factored in the curriculum and enrollment projections, and looks to the future of education to assure our school meet the needs of our staff and students into the middle of this century.
- Harriman Architects was awarded this work after a competitive RFP was issued. We expect final results from Harriman Architects this summer.

Current Deferred Maintenance Projects

- Replace Bicentennial Elementary Fire Alarm System. This work was recently bid out and is expected to be awarded by the BOE later this month.
- Replace School Administration Building Roof. This work was also recently bid out and is expected to be awarded by the BOE later this month.
- With remaining funds we plan to complete a partial roof replacement at Fairgrounds Elementary School and/or continue paving program at NHS North.

FY27 Capital Program

The following projects were entered into ClearGov this past winter:

- Deferred Maintenance Projects (\$1.210 million)
- Bicentennial Elementary Roof Replacement (\$1,857,090)
- NHS North site paving (\$1.400 million)
- Districtwide security system refurbishment (\$500K + \$500K in FY28)
- Facility Master Plan Life Safety & Security Projects (\$1.947,325)

FY28 & Beyond Capital Program

- Fairgrounds Elementary Roof Replacement (\$1,529,550)
- Install dehumidification in rear and center wings at Charlotte Avenue, Fairgrounds and Ledge Street elementary schools (\$2 million)
- Charlotte Avenue Elementary Roof Replacement (\$1,577,960)
- Amherst Street Elementary Roof Replacement (\$1,236,000)
- Install dehumidification at Pennichuck MS in old wings (\$4,236,000)
- Ledge Street Elementary Roof Replacement (\$1,367,840)
- Install Sanalife Air Filtration System at both HSs, PMS, FMS (3,250,000)
- New Searles Elementary Roof Replacement (\$785,007)
- Placeholders for future school renovations (New Searles, Mt. Pleasant, Bicentennial, Dr. Crisp, Amherst Street, both HSs) and HS roof replacements.
- Annual placeholders for future projects identified in facility master plan.

Bicentennial Elementary Roof

- A roofing assessment was conducted by ARM Consulting summer of 2024 summer. This assessment found a significant number of immediate issues, which the school district addressed.
- The repairs will lengthen the service life of the roofing 2-3 years (or to 2026/27).
- If approved, we will bid out the roof replacement next winter, for a summer 2027 installation. Estimated cost is \$1,857,090.

Bicentennial Elementary Roof Replacement



Nashua High School North Paving

- As noted previously, we paved the entry road, parent and bus drop off loops, and a portion of the departure lane, this past summer.
- If funding remains at same level, a project is in the FY27 Deferred Maintenance plan to address the next section of pavement. This piecemeal approach will probably take 3-4 years to completely restore the pavement.
- We are, however, proposing to completely pave the remaining portions of the site with this capital project. Estimate cost to complete this project is \$1,400,000.

NHS North Paving Issues



Security System Upgrades

- Installed security systems haven been in place for over 12 years.
- These systems have been augmented through the years with grant funds, which have enabled us to increase surveillance in and around all our schools.
- However, system components are failing at an increased rate, creating an operating budget crunch to fund replacements. Cameras and net video recorders are two key components that fail.
- We are proposing a two year project to update and upgrade our system.

Facility Master Plan Projects

- Harriman Architects are expected to complete the School Facility Master Plan in the coming months. This plan will not only identify all the current and projected repair/maintenance/ replacement components in our inventory, but also recommend changes to school configurations to support learning in the future.
- Harriman has provided a preliminary project listing prioritizing life safety and security, environmental controls (HVAC) and ADA. These have been organized into a proposed twelve year plan, with approximately \$2million per year.
- We will need to compare these projects with those already in our queue before making funding recommendations for the future.



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Roof Inspection Report



Bicentennial Elementary School

**296 East Dunstable Road
Nashua, NH 03062**

Prepared For: Derry SAU #42

Prepared By: ARM Consultants LLC



INTRODUCTION

On June 7, 2024, ARM Consultants LLC (ARM) conducted a roof inspection on the various roof areas of the Bicentennial Elementary School located at 296 East Dunstable Road, Nashua, NH 03062. The inspection was conducted at the request of Shaun Smith, Director, Plant Operations for the Nashua, NH School District. The purpose of the inspection was to determine the current condition of the roof assemblies, evaluate the remaining service life and estimate the current repair and/or replacement costs.

Based on historic Google Earth images, it appears that roof assemblies 1-7,10 and 11 were installed between November 1996 and October 1997. Roof assemblies 8 and 9 were installed prior to 1995. A summary of each roof area is provided below in the construction section.

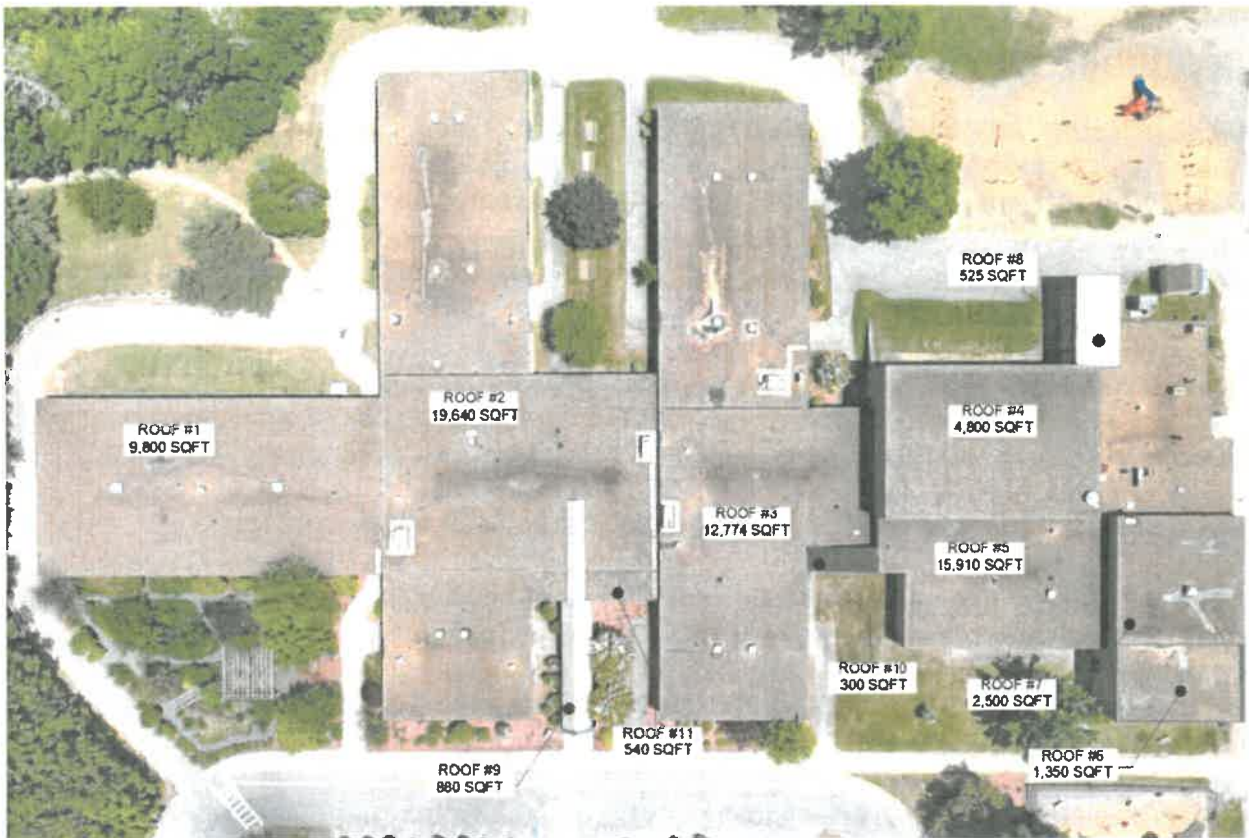
See the **CONDITION & REMAINING SERVICE LIFE** section for additional details.

Deficiencies found during the inspection have been color coded on the attached roof plan based on current condition and required repairs. The attached roof plan is complimentary to this report and the numbered photos correspond to the numbers circled on the roof plan. In some cases, one deficiency was used as representative photo for the same deficiency in multiple locations.

- RED deficiencies are currently allowing water into the system and should be addressed immediately.
- BLUE deficiencies are not currently allowing water into the system but should be addressed to extend the expected life of the roof. Without any repairs these deficiencies will likely be upgraded to RED in the near future.
- GREEN deficiencies are not currently allowing water into the system but should be monitored to ensure the condition does not worsen. These items should be addressed during future roof replacement if they remain in the same condition.

GENERAL

The complex consists of eleven (11) roof areas totaling approximately 69,019 square feet (SQFT). All roof areas were visually inspected by walking the roof and/or using aerial drone photographs.



CONSTRUCTION

Test Cuts: Test cuts were not performed during this investigation as they were previously conducted. Roof Areas 1-7,10 and 11 were installed by AJ Desjardins Roofing Co Inc. of Exeter, NH. This company is no longer in business. The manufacturer warranties on these roofs expired on October 1, 2017. No installation information was available for Roof Areas 8 and 9.

CONSTRUCTION – Roof Areas 1 and 11

ROOF SURFACING:	Stone Ballast
ROOF MEMBRANE:	0.045 Carlisle EPDM Membrane (Loose Laid)
INSULATION:	3" Polyisocyanurate Insulation (Loose Laid)
STRUCTURAL DECK:	Steel
DRAINAGE:	Cast iron internal drains
ROOF AREA:	10,340 +/- SF
APPROXIMATE AGE:	27 Years +/-
INSTALLING CONTRACTOR:	Desjardins, A. J. Roofing Co. Inc. Exeter NH
WARRANTY/PROJECT #:	120970825 (Expired 10/01/2017)

CONSTRUCTION – Roof Areas 2-5 and 7

ROOF SURFACING:	Stone Ballast
ROOF MEMBRANE:	0.045 Carlisle EPDM Membrane (Loose Laid)
INSULATION:	1.5" Polyisocyanurate Insulation (Loose Laid)



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EXISTING ROOF MEMBRANE:	Built Up Roof Gravel Surface
INSULATION:	2" Polyisocyanurate Insulation
STRUCTURAL DECK:	Steel
DRAINAGE:	Cast iron internal drains
ROOF AREA:	55,624 +/- SF (total for All 5 Roofs)
APPROXIMATE AGE:	27 Years +/-
INSTALLING CONTRACTOR:	Desjardins, A. J. Roofing Co. Inc. Exeter NH
WARRANTY/PROJECT #:	120970825 (Expired 10/01/2017)

CONSTRUCTION - Roof Area 6

ROOF SURFACING:	Stone Ballast
ROOF MEMBRANE:	0.045 Carlisle EPDM Membrane (Loose Laid)
INSULATION:	1.5" Polyisocyanurate Insulation (Loose Laid)
STRUCTURAL DECK:	Steel
DRAINAGE:	Cast iron internal drains
ROOF AREA:	1,350 +/- SF (total for Both Roofs)
APPROXIMATE AGE:	27 Years +/-
INSTALLING CONTRACTOR:	Desjardins, A. J. Roofing Co. Inc. Exeter NH
WARRANTY/PROJECT #:	120970825 (Expired 10/01/2017)

CONSTRUCTION - Roof Areas 8

ROOF MEMBRANE:	Standing Seam Metal Panel
INSULATION:	Fiberglass
STRUCTURAL DECK:	Plywood (Assumed)
DRAINAGE:	Cast iron drains (On Lower Roofs)
ROOF AREA:	525 +/- SF
APPROXIMATE AGE:	30 Years +/-

CONSTRUCTION - Roof Areas 9

ROOF MEMBRANE:	FRP Roof Panels
STRUCTURAL FRAME:	Steel
DRAINAGE:	Cast iron drains (On Lower Roofs)
ROOF AREA:	880 +/- SF
APPROXIMATE AGE:	30 Years +/-

CONSTRUCTION - Roof Areas 10

ROOF MEMBRANE:	Fully Adhered 0.045 Carlisle EPDM Membrane
INSULATION:	1.5" Polyisocyanurate Insulation
EXISTING ROOF MEMBRANE:	Built Up Roof Gravel Surface
INSULATION:	2" Polyisocyanurate Insulation
STRUCTURAL DECK:	Steel
DRAINAGE:	Cast iron internal drains
ROOF AREA:	300 +/- SF
APPROXIMATE AGE:	27 Years +/-
INSTALLING CONTRACTOR:	Desjardins, A. J. Roofing Co. Inc. Exeter NH
WARRANTY/PROJECT #:	120970825 (Expired 10/01/2017)



CONDITION & REMAINING SERVICE LIFE

Roof Areas 1-7, 9 and 10 are in fair condition for their age. The assemblies are reaching the end of their lifespan. Membrane bridging was noted on several roof areas and several areas were noted to have had repairs for the same condition in the recent past. Discussions with site staff indicated that leaks are reported promptly, and most have been addressed. There is evidence of spot repairs on the roofs where the stone ballast has been moved. Repairs are recommended to extend the lifespan of the existing roof systems and protect the building structures from damage.

The remaining roofs are in good condition for their age. With proper maintenance and repairs these roof areas appear to be in serviceable condition at this time.

There was no infra-red or nuclear testing completed so there is no way of knowing if there are any wet or damaged insulation boards that should be removed. Most insulation boards have an organic core or facer. This means, if these boards do get wet, mold growth is inevitable which can affect the interior air quality.

The roof life expectancy is summarized in the following table.

Roof Area	No Repairs	Repaired / Maintained (Conservative)	Repaired / Maintained (Optimistic)
Roof 1	1-2 years	2-3 years	3-5 years
Roof 2	1-2 years	2-3 years	3-5 years
Roof 3	1-2 years	2-3 years	3-5 years
Roof 4	2-3 years	3-4 years	4-6 years
Roof 5	1-2 years	2-3 years	3-5 years
Roof 6	1-2 years	2-3 years	3-5 years
Roof 7	2-3 years	3-4 years	4-5 years
Roof 8	8-10 years	8-10 years	10-15 years
Roof 9	7-8 years	7-8 years	9-12 years
Roof 10	1-2 years	2-3 years	3-4 years
Roof 11	1-2 years	2-3 years	3-5 years

*** Note:**

- 1) All estimates are based on yearly maintenance.
- 2) Based on completion of roof repairs to stop all leaks and water infiltration.

REPAIR & MAINTENANCE

Inspections and remedial maintenance should be undertaken annually. Additionally, prior to any new design, we recommend an infrared or nuclear scan be conducted to ensure the insulation system has remained dry. These scans should only be conducted on roof areas with one roof



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system presently installed. Any wet insulation found during these scans should be removed. Deficiencies coded RED and BLUE on the attached roof plan should be repaired by a quality and certified Carlisle installer as soon as weather and funding permits. These estimates do not include any unforeseen items that may be encountered such as asbestos, lead paint, or PCB's which could expand the cost of repairs.

ESTIMATED REPAIR COSTS BUDGET:

Roof Area	Estimated "RED" Repair Costs (\$)	Estimated "Blue" Repair Costs (\$)	Total (\$)
Roof 1	-	1000	1000
Roof 2	2,500	750	3,250
Roof 3	2,000	4,500	6,500
Roof 4	500	500	1,000
Roof 5	1,250	4,500	5,750
Roof 6	-	1,500	1,500
Roof 7	1,000	1,000	2,000
Roof 8	-	-	-
Roof 9	-	-	-
Roof 10	-	-	-
Roof 11	750	-	750
Total	\$ 8,000	\$ 13,750	\$ 21,750

** Note: The figure above is the estimated cost to complete all repairs on the existing roof areas with materials included. The estimated costs are based on completing repairs on each roof individually. Costs can be reduced by completing repairs on multiple roofs and performing debris and organics removal with an "in house" qualified maintenance personnel.

LONG TERM ROOF REPLACEMENT

Roof Replacement cost is the estimated cost to completely remove all of the existing roof assembly down to the structural decking and replace with materials that will meet current building code regulations. Projected prices for roof canopies are assumed to be completed during full roof replacement construction. If canopies are completed individually projected prices are significantly increased.

Roof Area	Repaired (Conservative)	Repaired (Optimistic)	Square Footage (SQFT)	Budget (\$)	Cost per Square Foot (\$/SQFT)
Roof 1	2-3 years	3-5 years	9,800	215,600	\$22/SQFT
Roof 2	2-3 years	3-5 years	19,640	491,000	\$25/SQFT
Roof 3	2-3 years	3-5 years	12,774	319,350	\$25/SQFT
Roof 4	3-4 years	4-6 years	4,800	120,000	\$25/SQFT
Roof 5	2-3 years	3-5 years	15,910	397,750	\$25/SQFT



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Roof 6	2-3 years	3-5 years	1,350	29,700	\$22/SQFT
Roof 7	3-4 years	4-5 years	2,500	62,500	\$25/SQFT
Roof 8	8-10 years	10-15 years	525	18,375	\$35/SQFT
Roof 9	7-8 years	9-12 years	880	44,000	\$50/SQFT
Roof 10	2-3 years	3-4 years	300	7,500	\$25/SQFT
Roof 11	2-3 years	3-5 years	540	11,800	\$22/SQFT
Total			69,019	\$ 1,717,655	

The above budget numbers are subject to the following:

- Tear-off/complete replacement based on new insulation to code in effect at the time of writing this report.
- All numbers based on building NOT being FM GLOBAL, Liberty Mutual and Zurich insured.
- Based on 2024 budget estimates.
- No environmental, health, or safety items being found such as asbestos, lead paint, PCB's, etc.

LONG TERM ROOF RECOVER

Roof Recover cost involves adding a new roof system over the existing assembly and installation of a new membrane over the new insulation board. It is important to note that most of the maintenance work and recommendation for infrared and/ or nuclear surveys, is an attempt to salvage the existing insulation panels which are in place below the membrane. This will allow a considerably less expensive roof installation. Keeping the insulation assembly dry until replacement is a major consideration and somewhat of a challenge as the existing roof membranes are in poor condition at/or near the end of their life cycle. A roof re-cover is only feasible if the existing insulation assembly is re-useable, typically 70% or greater dry insulation. ARM recommends annual infrared scans on the existing roofs that qualify for roof re-cover, to ensure that the existing insulation does not become un-usable.

Roof Areas 2, 3, 4, 5, 7 and 10 do not qualify for a recover assembly because there are already two roof assemblies installed in these areas. Code will not allow a third assembly to be installed.

The standing seam and FRP assemblies on Roof Areas 8 and 9 cannot be recovered.

Roof Area	Repaired (Conservative)	Repaired (Optimistic)	Square Footage (SQFT)	Budget (\$)	Cost per Square Foot (\$/SQFT)
Roof 1	2-3 years	3-5 years	9,800	156,800	\$16/SQFT
Roof 2	2-3 years	3-5 years	19,640	N/A	N/A
Roof 3	2-3 years	3-5 years	12,774	N/A	N/A
Roof 4	3-4 years	4-6 years	4,800	N/A	N/A



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Roof 5	2-3 years	3-5 years	15,910	N/A	N/A
Roof 6	2-3 years	3-5 years	1,350	21,600	\$16/SQFT
Roof 7	3-4 years	4-5 years	2,500	N/A	N/A
Roof 8	8-10 years	10-15 years	525	N/A	N/A
Roof 9	7-8 years	9-12 years	880	N/A	N/A
Roof 10	2-3 years	3-4 years	300	N/A	N/A
Roof 11	2-3 years	3-5 years	540	8,640	\$16/SQFT
Total			69,019	\$ 187,040	

The above budget numbers are subject to the following:

- Roof recover to re-use the existing insulation based on meeting code requirements in effect at the time of writing this report.
- All numbers based on building NOT being FM GLOBAL, Liberty Mutual and Zurich insured.
- Based on 2024 budget estimates.
- No environmental, health, or safety items being found such as asbestos, lead paint, PCB's, etc.

Please refer to the following photos sections for representative numbered photos of the deficiencies which correspond to the deficiencies located on the roof. This report is complimentary to the attached roof plan.

Please call me if you have any questions or would like to discuss any aspect of this report.

Sincerely,

John Ares

John Ares
ARM Consultants LLC
(508)-667-6628

PHOTOS SECTION

Observations

Observation	Description
Roofing	
NOK 24 Roof deficiencies yupRoof	
	1. Open corner metal perimeter flashing. Provide EPDM patch.
	2. Tree overhanging roof. These limbs should be trimmed back so that they are not in contact with the roof.
	3. Construction materials and miscellaneous debris were noted in several roof areas. Debris should be removed during annual roof maintenance inspections.
	4. Roof ballast should be redistributed in the areas where the roof membrane is exposed.
	5. Peeling edge of patch. Provide new EPDM patch in accordance with Carlisle guidelines.
	6. Deteriorating pavers should be replaced with new roof top pavers to protect the existing roof membrane from damage.



7. The majority of the roof top fans were noted to have missing or non-grommited fasteners. Grommited fasteners should be provided at each attachment point. Existing non-grommited fasteners should be caulked.



8. Multiple holes in found in flashing of obsolete penetration. Provide new EPDM flashing in accordance with Carlisle guidelines.



9. Low flashing height was noted in several areas. These areas should be monitored to ensure that these areas do not become prone to leaking. If no problems appear, these flashing heights should be addressed during new construction.



10. Open electrical boxes should be sealed per local code. An alternative would be to remove the electrical boxes and conduit and the roof should be repaired in accordance with Carlisle guidelines.



11. Open flashing noted at the perimeter edge. Provide new EPDM patch in accordance with Carlisle guidelines.



12. Metal edge fascia with no hook strip or dutch clips. This fascia should be secured to the plywood with minimum No. 8 grommited screws at 16 inches on center. These fasteners should be installed along the lower 1/3 of the flashing.



13. Soft insulation below roof membrane. These areas should be monitored to ensure that the area of soft insulation does not expand. It may be advisable to have an infrared scan completed to determine if the roof insulation in these areas is wet.



14. Deteriorating pitch pocket. Pitch pocket should be filled with an appropriate pourable sealant.



15. Open membrane seam on expansion joint. Provide EPDM patch in accordance with manufacturers guidelines.



16. Membrane bridging was noted along several rising interior walls. This occurs due to membrane shrinkage and the lack of adequate termination of the membrane. The membrane should be cut, allowed to relax and stripped in.



17. Tented fasteners were identified in several areas of the facility. Provide EPDM patches over these fasteners in accordance with Carlisle guidelines.



18. Missing through wall flashing cover. Provide caulking over this entire termination bar to provide a water tight condition.



19. Evidence of roof ponding was identified in several roof areas. These areas should be monitored to ensure that the ponding does not worsen to the point that the roof insulation is damaged.



20. Loose edge metal flashing. This edge metal should be resecured.



21. Pitch pocket with multiple cables. The pourable sealant has deteriorated, and Karnak has been applied. These materials are not compatible, and the pitch pocket should be reworked with an appropriate pourable sealant.



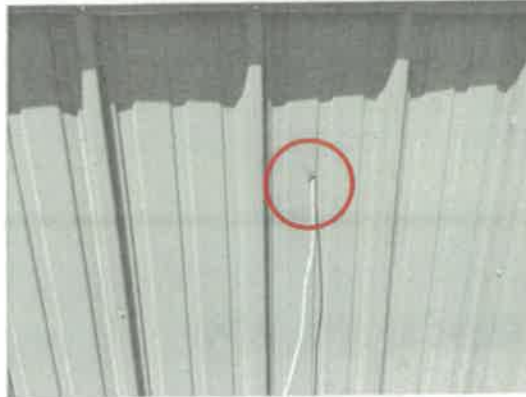
22. Blister on EPDM stripping at roof perimeter. Provide new EPDM patch in accordance with Carlisle guidelines.



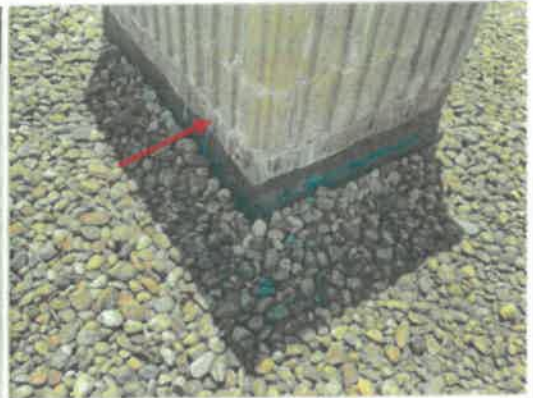
23. Organic growth should be removed during annual roof maintenance.



24. Uncaulked rivets were noted at the base of several rising walls. Provide caulking of these rivet in accordance with Carlisle guidelines.



25. Improperly sealed wall penetration. Provide penetration seal in accordance with the metal building manufacturers guidelines.



26. Chimney flashing has been re-bent multiple times. Replacement of this flashing should be considered during future roof construction.

General conditions

Disclaimer: Site visits performed by ARM Consultants LLC (ARM) under this contract have been conducted under the limited conditions as described by site observations in the General Conditions of the Contract for Construction, as referenced in the Owner-Architect Agreement.

Information contained in this Field Observation Report by ARM has been prepared to the best of our knowledge according to observable conditions at the site. This information will be approved record unless written notice to the contrary is received within seven (7) calendar days of the issue date of this document. Written corrections shall be reported to the observer at ARM. Oral rebuttals to these reports will not be accepted.

ROOF PLAN

REPAIR ITEM

Y

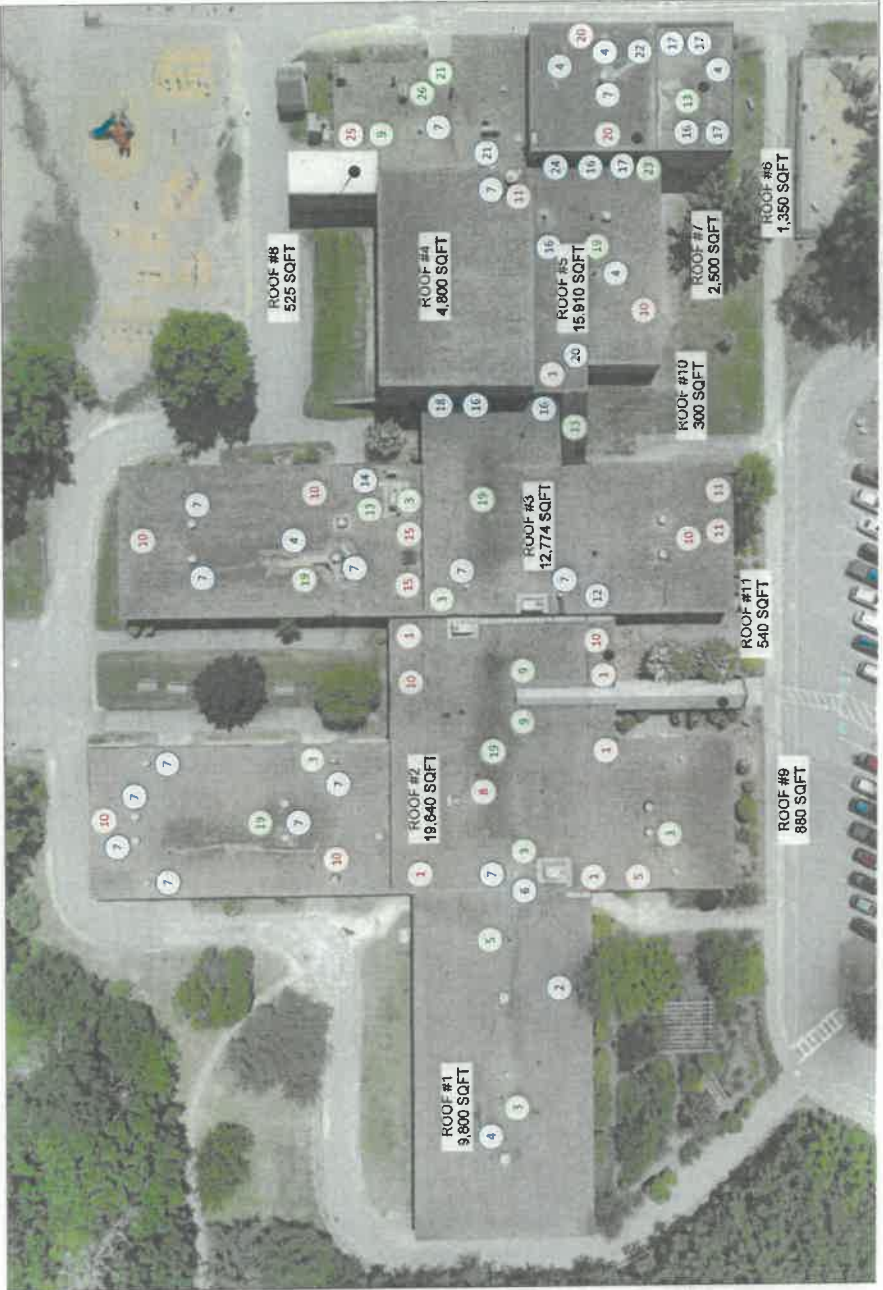
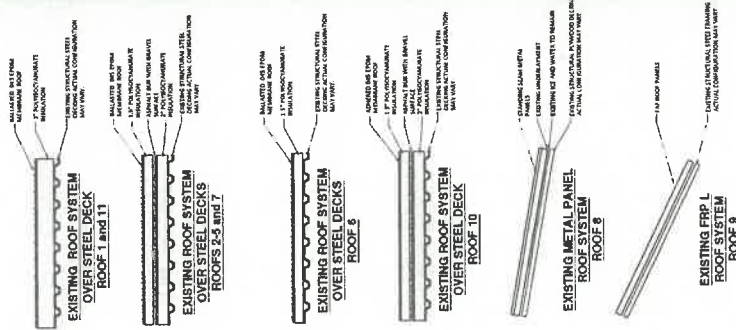
REPAIR ITEM RECOMMENDED
WITHIN 1-2 YEARS

Z

OBSERVED DEFECT, NO REPAIR
NECESSARY AT THIS TIME

ROOF #	APPROX SQ FT
ROOF #1 (BALLASTED)	9,800 SQFT 1
ROOF #2 (BALLASTED)	19,640 SQFT 1
ROOF #3 (BALLASTED)	12,774 SQFT 1
ROOF #4 (BALLASTED)	4,800 SQFT 1
ROOF #5 (BALLASTED)	15,910 SQFT 1
ROOF #6 (BALLASTED)	1,350 SQFT 1
ROOF #7 (BALLASTED)	2,500 SQFT 1
ROOF #8 (STANDING SEAM)	525 SQFT 2
ROOF #9 (FRP)	880 SQFT 2
ROOF #10 (FRP)	300 SQFT 2
ROOF #11 (FRP)	540 SQFT 2
ROOF #12 (BALLASTED)	540 SQFT 2

TOTAL ROOF AREA: 66,019 SQFT 2



BICENTENNIAL ELEMENTARY SCHOOL	
296 EAST DUNSTABLE ROAD NASHUA, NH 03062	
JNA	TEA
07/01/2024	
N.T.S.	22-5
RT-1	

ROOF PLAN FOR REMEDIAL MAINTENANCE

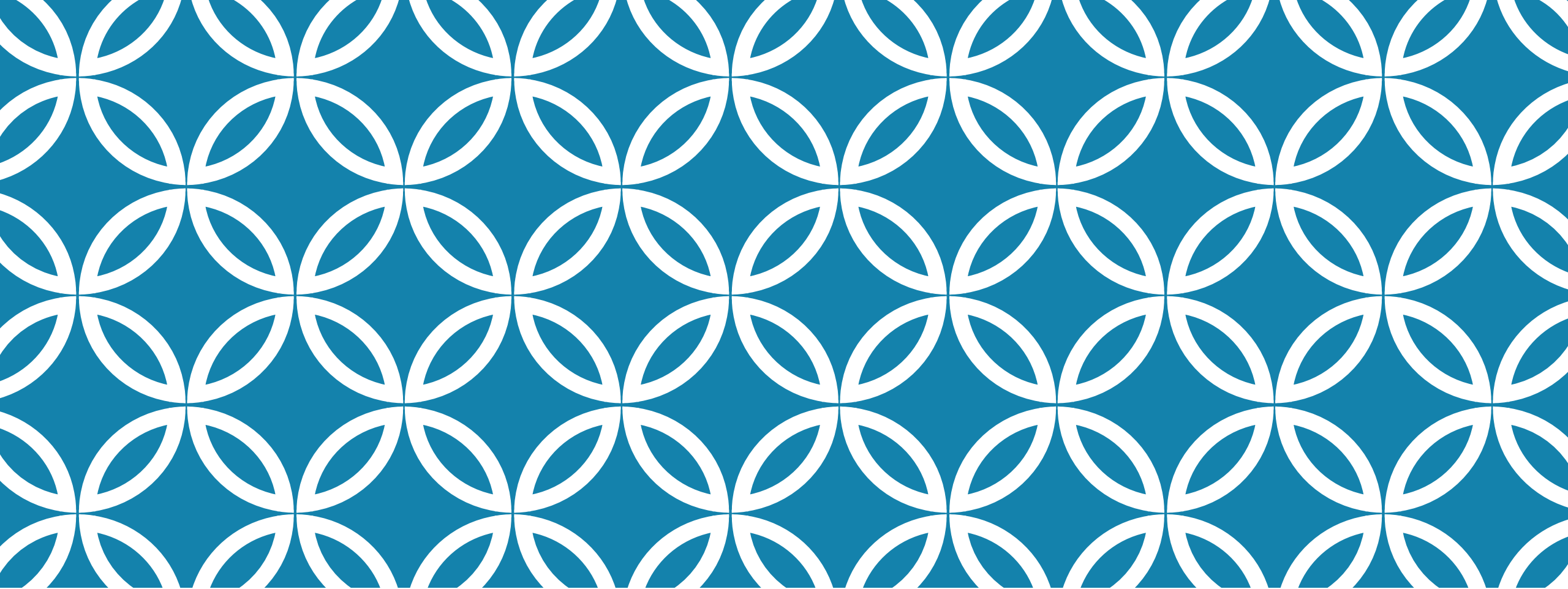


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AD-HOC COMMITTEE ON CAPITAL/DEBT

COMMUNITY DEVELOPMENT DIVISION (CDD)

6/11/2026



NASHUA HYDROPOWER

Mine Falls
Jackson Mills

Mine Falls →

↓
Jackson Mills



POWER GENERATION — MINE FALLS

2000-2012

(net generation kWh)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
January	0	428,000	168,000	1,068,000	1,123,110	1,592,526	2,338,757	1,533,646	1,249,318	1,780,245	1,058,537	616,571	1,598,402
February	0	636,000	421,000	918,000	594,850	1,313,600	2,014,968	553,841	2,015,799	1,412,579	948,505	717,109	1,232,224
March	0	1,064,000	861,000	1,738,000	1,253,310	1,217,180	1,012,450	1,871,766	2,288,266	2,127,713	1,563,993	1,810,723	1,296,499
April	0	1,538,000	1,123,000	1,929,000	1,914,808	1,043,323	749,407	2,035,350	1,979,931	1,875,888	1,690,378	2,004,308	880,391
May	0	720,000	1,549,000	1,529,000	1,626,153	1,162,293	1,538,273	1,694,229	1,278,347	1,424,502	829,248	1,598,024	1,271,616
June	0	617,000	935,000	1,605,748	771,359	1,014,486	1,787,132	421,676	482,419	1,603,217	568,197	1,177,097	1,234,171
July	0	0	159,000	678,354	457,133	709,680	1,153,010	616,901	839,783	1,976,910	246,202	481,083	305,585
August	561,000	0	29,000	874,038	537,893	197,805	506,205	328,517	1,219,216	1,243,982	111,655	513,674	72,369
September	166,000	0	41,000	562,818	627,658	20,988	564,344	126,222	1,124,566	637,911	47,232	1,258,703	55,057
October	242,000	0	216,000	712,558	585,361	907,727	816,720	286,601	906,084	794,948	418,665	1,541,965	117,515
November	580,000	28,000	825,000	1,151,233	641,642	1,639,210	1,824,128	485,711	984,646	1,001,438	601,993	1,665,246	844,252
December	661,000	201,000	1,384,000	1,689,807	1,650,397	1,484,790	1,292,478	486,865	1,938,874	1,229,918	1,046,404	2,227,203	579,267
Total	2,210,000	5,232,000	7,711,000	14,456,556	11,783,674	12,303,608	15,597,872	10,441,325	16,307,249	17,109,251	9,131,009	15,611,706	9,487,348

POWER GENERATION — MINE FALLS

2013-2025

(net generation kWh)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
January	872,774	975,850	1,211,850	759,358	1,266,159	1,317,721	1,493,587	1,108,033	1,278,981	1,405,346	2,076,649	2,164,801	568,727
February	986,459	594,450	777,100	1,115,691	991,857	1,681,460	1,066,846	1,032,251	1,013,807	1,705,990	1,535,887	1,574,639	383,003
March	1,712,458	1,053,720	1,343,990	1,524,605	1,250,009	1,837,944	1,172,686	1,072,067	1,209,204	2,036,061	2,044,333	2,215,045	1,744,641
April	1,769,000	567,880	2,071,320	1,076,806	1,617,104	1,970,521	1,124,813	1,041,999	1,149,421	1,875,190	1,668,464	2,141,679	1,693,616
May	648,166	909,330	645,880	601,477	1,281,522	1,132,484	1,157,199	1,128,229	1,392,436	731,808	1,614,475	1,443,795	2,021,262
June	1,063,855	716,400	745,850	124,243	1,009,949	401,073	970,085	306,348	789,148	417,406	1,226,747	841,373	1,029,699
July	791,636	584,470	397,870	5,071	387,121	258,100	586,267	88,760	1,794,547	65,128	2,212,186	457,925	308,800
August	615,484	349,920	62,850	26,399	114,908	1,156,753	257,103	3,120	770,181	31,914	1,244,883	542,724	135,709
September	223,080	55,680	47,580	15,864	275,311	892,704	1,088	-	1,613,629	308,799	1,541,163	71,175	88,681
October	136,943	517,900	253,880	200,641	398,240	1,393,421	280,335	13,555	1,454,586	418,789	1,585,615	367,416	286,952
November	154,219	721,180	272,170	233,570	1,087,506	1,871,708	587,467	366,421	1,573,878	624,437	1,422,000	446,047	430,125
December	412,246	1,959,540	492,860	695,577	783,874	2,127,562	1,029,510	1,371,941	1,577,812	1,495,751	2,027,689	600,899	388,326
Total	9,386,320	9,006,320	8,323,200	6,379,302	10,463,560	16,041,451	9,726,986	7,532,724	15,617,630	11,116,619	20,200,091	12,867,518	9,079,541

AVERAGE ANNUAL GENERATION
11,273,995 kWh

POWER GENERATION – JACKSON MILLS

1988-2026

Year	Historical Output by Month (kWh) Net												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
1988	325,500	556,500	621,600	474,600	592,200	161,700	195,300	119,700	126,000	153,300	520,800	352,800	4,200,000
1989	216,300	285,600	354,900	552,300	512,400	512,400	273,000	243,600	281,400	413,700	596,400	308,700	4,550,700
1990	424,200	621,600	594,300	636,300	672,000	300,300	98,700	243,600	81,900	325,500	420,000	781,200	5,199,600
1991	409,500	548,100	630,000	588,000	630,000	0	0	147,000	0	163,800	529,200	625,800	4,271,400
1992	510,300	434,700	529,200	495,600	413,700	361,200	128,100	222,600	58,800	144,900	333,900	573,300	4,206,300
1993	489,300	457,800	373,800	583,800	380,100	168,000	88,200	86,100	134,400	203,700	348,600	728,700	4,042,500
1994	411,600	558,600	638,400	583,800	625,800	184,800	176,400	214,200	279,300	333,900	308,700	581,700	4,897,200
1995	598,500	564,900	577,500	420,000	287,700	151,200	27,300	0	31,500	321,300	560,700	424,200	3,964,800
1996	512,400	676,200	644,700	663,600	590,100	249,900	294,000	98,700	235,200	352,800	512,400	703,500	5,533,500
1997	667,800	644,700	688,800	730,800	594,300	180,600	140,700	121,800	77,700	111,300	329,700	371,700	4,659,900
1998	693,000	606,900	630,000	585,900	600,600	600,600	247,800	113,400	75,600	163,800	138,600	165,900	4,622,100
1999	464,100	617,400	728,700	371,700	226,800	75,600	54,376	36,209	223,020	223,853	263,348	373,330	3,658,436
2000	465,379	513,800	655,200	630,000	589,400	494,200	327,600	172,200	99,400	140,000	343,000	397,600	4,827,779
2001	327,600	369,600	474,600	274,400	305,200	455,000	149,800	64,400	65,800	56,000	54,600	120,400	2,717,400
2002	120,400	219,800	484,400	481,600	523,600	417,200	70,000	36,400	22,400	95,200	358,400	659,400	3,488,800
2003	445,200	473,200	588,000	665,000	602,000	644,000	310,800	371,000	247,800	320,600	488,600	614,600	5,770,800
2004	422,800	273,000	134,400	120,400	539,000	271,600	240,800	240,800	334,600	75,600	246,400	679,000	3,578,400
2005	607,600	687,400	550,200	302,400	460,600	494,200	320,600	126,000	40,600	390,600	585,200	698,600	5,264,000
2006	638,400	183,400	478,800	462,000	407,400	648,200	382,200	0	46,200	351,400	462,000	0	4,060,000
2007	0	0	60,200	533,400	628,600	333,200	334,600	135,800	63,000	151,200	187,600	270,200	2,697,800
2008	593,600	575,400	663,600	558,600	408,800	295,400	414,400	474,600	501,200	210,000	501,200	628,600	5,825,400
2009	527,800	448,000	719,600	628,600	548,800	631,400	691,600	497,000	287,000	394,800	537,600	662,200	6,574,400
2010	522,200	464,800	473,200	614,600	365,400	242,200	145,600	120,400	68,600	170,800	348,600	480,200	4,016,600
2011	323,400	476,000	546,000	597,800	611,800	505,400	176,400	369,600	551,600	645,400	628,600	669,200	6,101,200
2012	674,800	627,200	590,800	446,600	574,000	470,400	70,000	103,600	64,400	107,800	162,400	441,000	4,333,000
2013	579,118	478,800	714,000	526,400	439,600	677,600	255,878	243,880	220,500	281,820	324,907	200,644	4,943,147
2014													
2015	543,325	586,524	418,191	645,316	483,791	2,516	334,969	99,996	49,579	82,705	129,997	299,618	3,676,527
2016	406,891	434,461	603,842	497,188	299,889	59,875	631	19,717	11,965	10,433	118,091	34,818	2,497,801
2017	153,859	547,917	445,453	465,364	507,284	0	0	0	0	0	0	201,252	2,321,129
2018	63,933	572,404	446,978	819,665	319,222	42,836	0	0	0	448,477	519,338	519,338	3,752,191
2019	581,599	599,334	641,577	573,889	644,161	408,212	288,989	9,599	30,463	158,493	355,143	628,459	4,919,918
2020	635,359	636,652	605,613	658,835	537,763	108,843	0	105	736	88,281	126,993	498,578	3,897,758
2021	566,411	448,748	509,767	413,341	492,121	322,181	611,210	356,632	524,189	486,745	481,667	566,544	5,779,556
2022	595,626	525,517	638,098	634,702	104,703	0	35,675	27,732	129,727	156,266	8,268	440,464	3,296,778
2023	607,581	442,974	465,449	533,308	472,251	137,056	0	0	0	0	0	0	2,658,619
2024	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	34,603	271,580	209,710	138,410	176,162	263,227	262,663	1,356,355
2026	335,169	234,899	587,308										1,157,376
Average	433,172	457,706	513,347	507,292	459,219	287,633	193,438	143,948	137,919	213,801	326,870	431,465	4,143,761

AVERAGE
ANNUAL
GENERATION
4,143,761 kWh

TIMELINE — MINE FALLS

- 1984 - Facility built. Constructed and operated by Seward Construction Company via a lease from the City.
- 2016 – City bought out the existing lease from Eagle Creek
- 2018 - Initiated application to FERC for new 40-year license
- 2023 - Original license expiration
- 2025 – Initiated conceptual design alternatives for upgrades to downstream fish passage required by new license
- 2026 - Initiated feasibility study for turbine replacement that would also address downstream fish passage
- 2026 – Anticipated new license authorization

TIMELINE — JACKSON MILLS

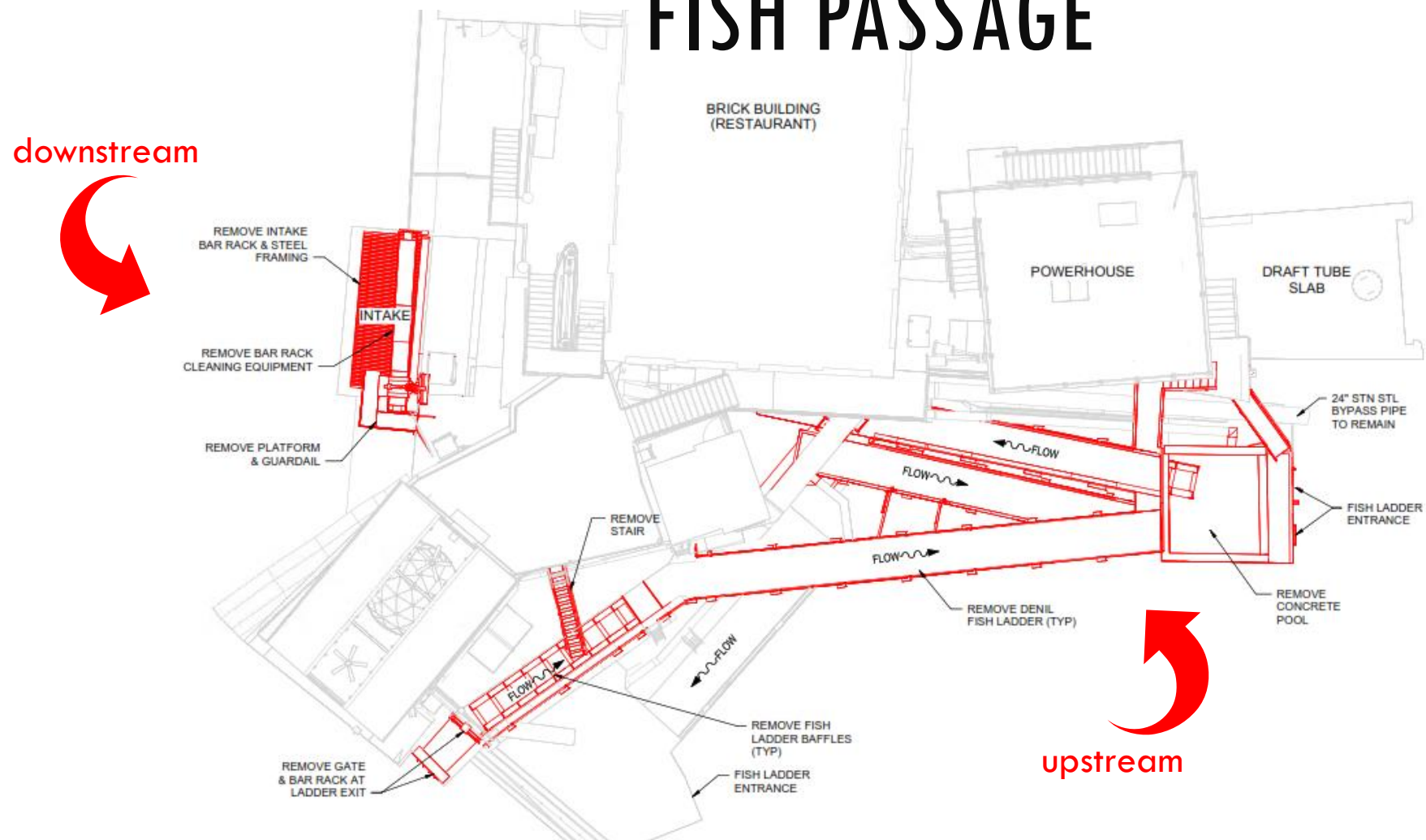
- 1984 - Facility built
- 2014 - Acquired by City from Nashua Hydro Associates
- 2019 - Initiated turbine, generator and controls replacement
- 2019 – Applied to FERC for an amendment to existing license exemption
- 2023 – FERC approval of license amendment and initiated equipment replacement
- 2025 – Completed equipment replacement project
- 2025 – Initiated conceptual design alternatives for upgrades to upstream and downstream fish passage required by license exemption amendment
- 2026 – Selected preferred alternative for fish passage and prepared 30% design

EXPENSES AND REVENUES FY2018 - 2026

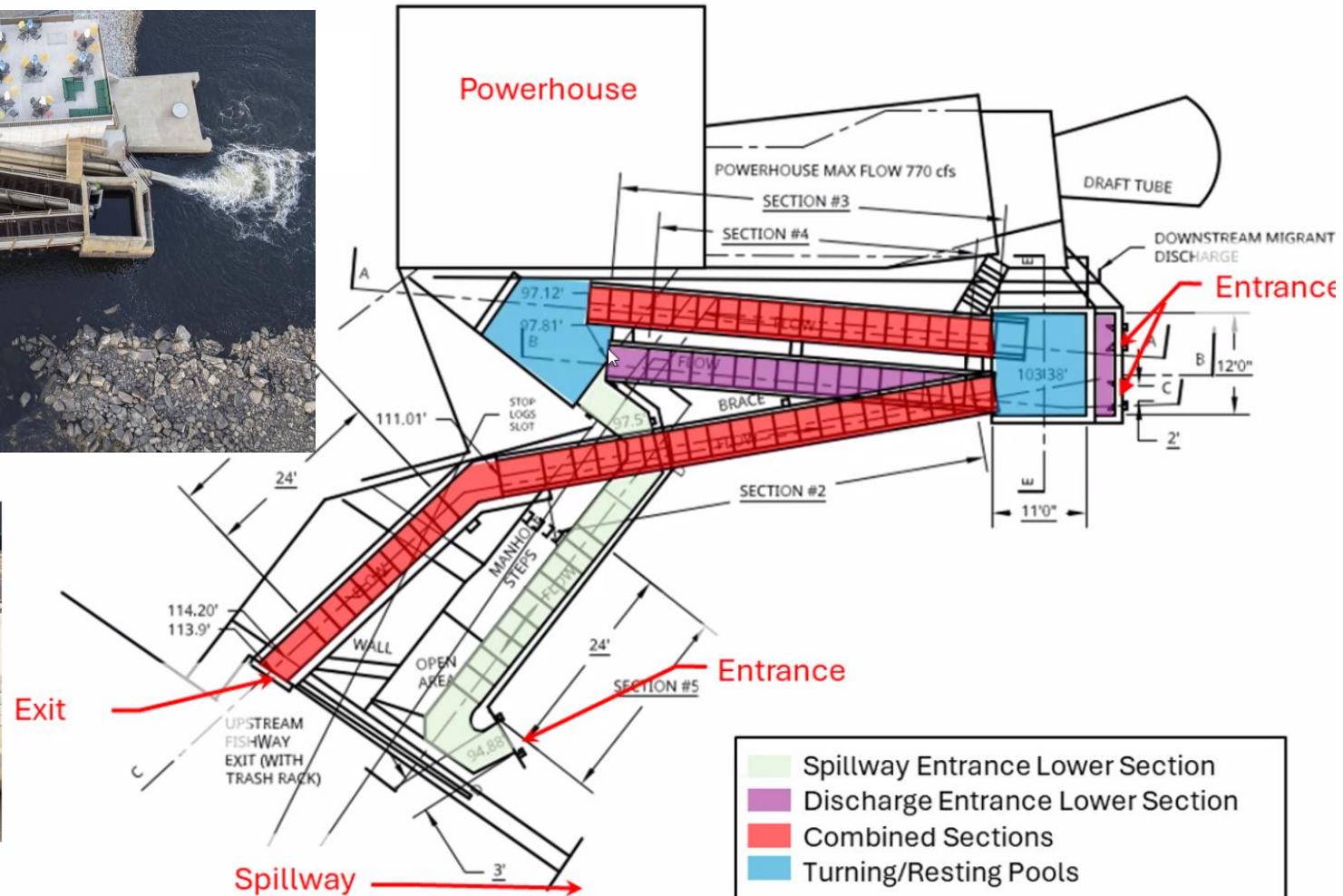
Fiscal Year	O&M Expenses ¹	Debt Service Payments	Revenues
2018	\$1,218,342	\$186,146	\$1,250,101
2019	\$691,960	\$358,240	\$1,755,223
2020	\$769,996	\$344,115	\$1,302,615
2021	\$1,145,012	\$336,465	\$1,026,971
2022	\$616,442	\$759,202	\$2,011,307
2023	\$710,830	\$747,100	\$1,704,911
2024	\$811,306	\$731,500	\$1,628,913
2025	\$885,000	\$891,847	\$1,016,888
2026 (thru March)	\$564,147	\$889,083	\$1,164,138

¹ Operation and Maintenance expenses only include payments to the O&M contractor and include payments from GF, Reserve acct and bonds.
O&M contractor payments make up >90% of total expenses.

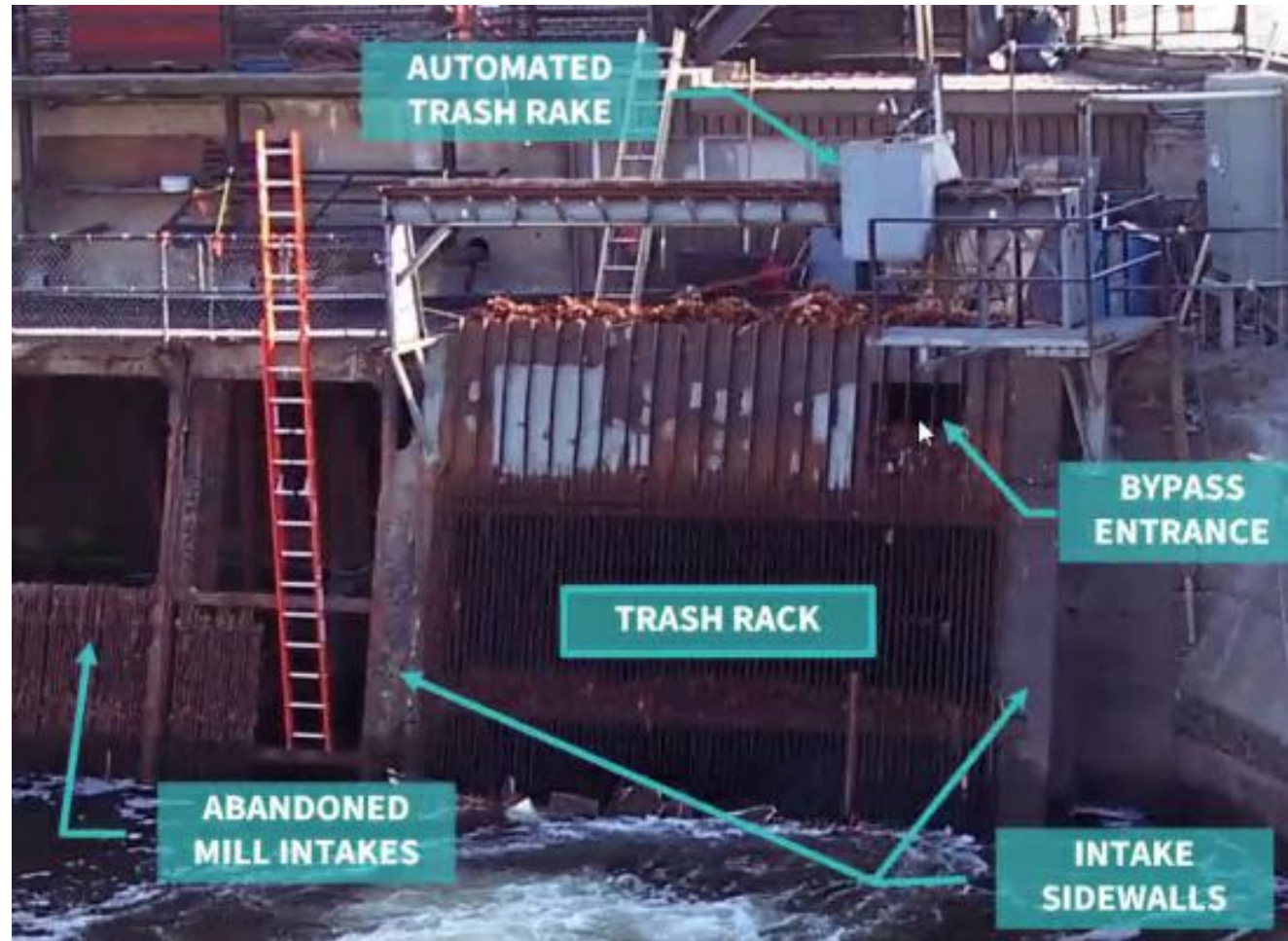
JACKSON MILLS UPSTREAM AND DOWNSTREAM FISH PASSAGE



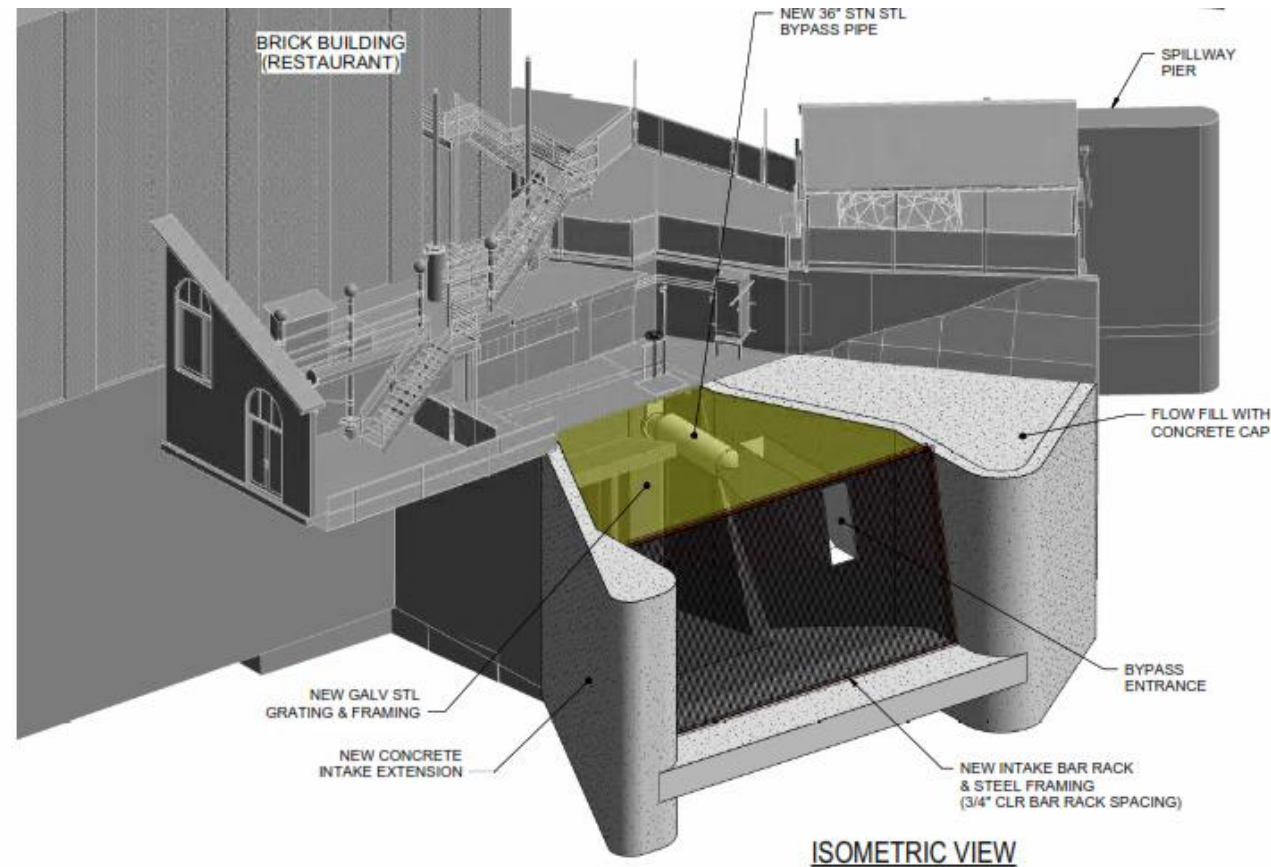
JACKSON MILLS – UPSTREAM PASSAGE EXISTING DENIL FISHWAY



JACKSON MILLS — EXISTING DOWNSTREAM



JACKSON MILLS — PROPOSED DOWNSTREAM



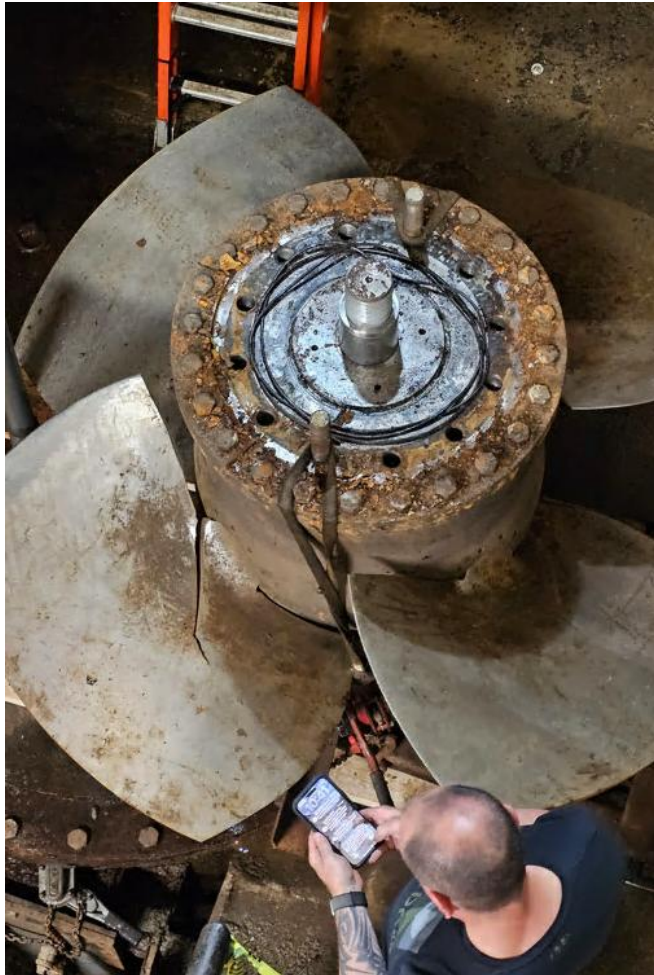
MINE FALLS DOWNSTREAM FISH PASSAGE



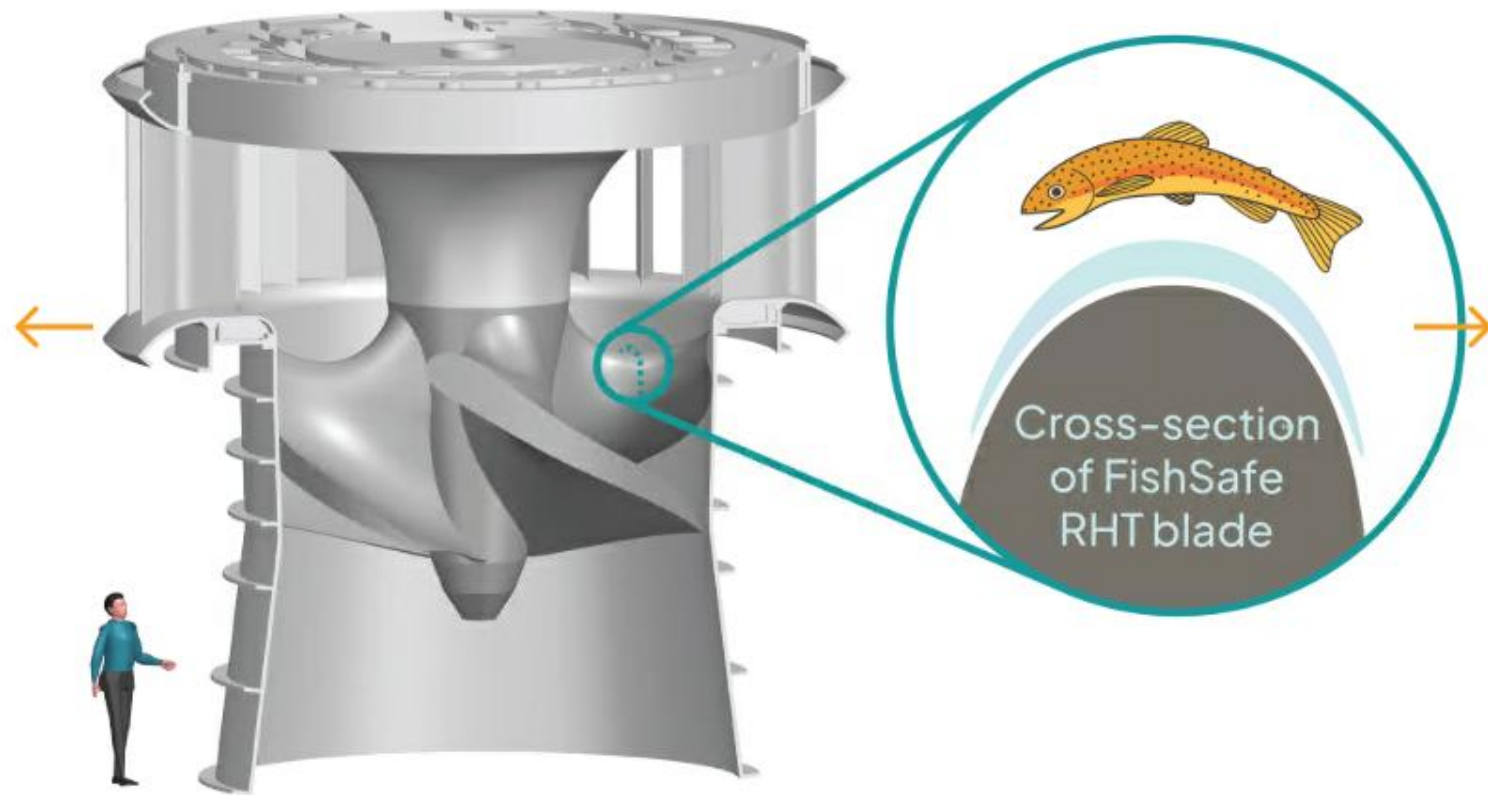
MINE FALLS — EXISTING DOWNSTREAM PASSAGE



MINE FALLS — TURBINE REPAIRS



MINE FALLS — FISH FRIENDLY TURBINES



ESTIMATED COSTS

Scenario 1 – Traditional Turbine Replacement/Fish Passage	Project Type	Funding Year	Estimated Cost
Jackson Upstream Fish Passage	Construction Bond	FY2027	\$4.4M
Jackson Downstream Fish Passage	Construction Bond	FY2027	\$2.52M to \$3.17M
Mine Falls Downstream Fish Passage	Design	FY 2027	\$1M
Mine Falls Downstream Fish Passage	Construction Bond	FY2027	\$2M to \$4.87M
Mine Falls Turbine Replacement Design *Cost Unknown – Anticipated Replacement in Next 5 Years	Design	FY2028	\$3M
Mine Falls Turbine Replacement Construction *Cost Unknown – Anticipated Replacement in Next 5 Years	Construction	FY2030	\$17M
TOTAL			\$33.44M
Scenario 2 – Mine Falls Fish-friendly Turbine Replacement			
Jackson Upstream Fish Passage	Construction Bond	FY2027	\$4.4M
Jackson Downstream Fish Passage	Construction Bond	FY2027	\$2.52M to \$3.17M
Mine Falls Fish Friendly Turbine Replacement Design *Cost Unknown – Anticipated Replacement in Next 5 Years	Design	FY2028	\$3,000,000
Mine Falls Fish Friendly Turbine Replacement Construction *Cost Unknown – Anticipated Replacement in Next 5 Years	Construction Bond	FY2030	\$17,000,000
TOTAL			\$27.57M