



NORTH READING PUBLIC SCHOOLS CAPITAL IMPROVEMENTS PLAN



5 YEAR REQUEST SUMMARY

CATEGORY	FY'22 REQUEST	FY'23 REQUEST	FY'24 REQUEST	FY'25 REQUEST	FY'26 REQUEST	TOTAL
VEHICLES	105,000	45,000	45,000	65,000	0	260,000
TECHNOLOGY	165,000	120,000	165,000	120,000	165,000	735,000
FACILITIES	165,000	140,000	555,000	800,000	700,000	2,360,000
TOTAL	435,000	305,000	765,000	985,000	865,000	3,355,000

5 YEAR APPROVAL HISTORY

CATEGORY	FY'17 APPROVED	FY'18 APPROVED	FY'19 APPROVED	FY'20 APPROVED	FY'21 APPROVED	TOTAL
VEHICLES	45,000	0	35,000	45,000	50,000	175,000
TECHNOLOGY	60,000	167,357	105,000	60,000	0	392,357
FACILITIES	25,000	40,000	30,000	100,000	940,338	1,135,338
TOTAL	130,000	207,357	170,000	205,000	990,338	1,702,695

VEHICLES REQUESTS

Notes	SPECIAL EDUCATION	YEAR IN SERVICE	USEFUL LIFE (YRS)	MILEAGE AS OF SEPT. 2020	CONDITION	PURCHASE PRICE	FY'22 REQUEST	FY'23 REQUEST	FY'24 REQUEST	FY'25 REQUEST	FY'26 REQUEST	TOTAL
1	Ford Transit 350	2015	12	67,235	Excellent	39,993						
	Ford E-250 (Wheelchair Van)	2016	12	44,891	Excellent	39,521						
	Ford E-250	2019	12	7,645	NEW	40,576						
	Ford E-250 (Spare Van)	2011	12	103,234	Good	26,514		45,000				45,000
	SUBTOTAL- SPECIAL EDUCATION						0	45,000	0	0	0	45,000
2	ATHLETICS	YEAR IN SERVICE	USEFUL LIFE (YRS)	MILEAGE AS OF SEPT. 2020	CONDITION	PURCHASE PRICE	FY'22 REQUEST	FY'23 REQUEST	FY'24 REQUEST	FY'25 REQUEST	FY'26 REQUEST	TOTAL
	Multi-Function Activity Vehicle	2019	12	7,716	Excellent	\$53,526						0
	Multi-Function Activity Vehicle (#2)	NEW			Request		40,000					40,000
	SUBTOTAL- ATHLETICS						40,000	0	0	0	0	40,000
3	FOOD SERVICES	YEAR IN SERVICE	USEFUL LIFE (YRS)	MILEAGE AS OF SEPT. 2020	CONDITION	PURCHASE PRICE	FY'22 REQUEST	FY'23 REQUEST	FY'24 REQUEST	FY'25 REQUEST	FY'26 REQUEST	TOTAL
	Ford Transit Connect	2019	15	0	New	\$20,694						0
	SUBTOTAL- FOOD SERVICES						0	0	0	0	0	0
4	BUILDINGS & GROUNDS	YEAR IN SERVICE	USEFUL LIFE (YRS)	MILEAGE AS OF SEPT. 2020	CONDITION	PURCHASE PRICE	FY'22 REQUEST	FY'23 REQUEST	FY'24 REQUEST	FY'25 REQUEST	FY'26 REQUEST	TOTAL
	Trailer	1985	25+	N/A	Fair	\$0						
	Kubota Tractor/Loader	2002	20+	1,584 Hours	Good	\$34,700			45,000			45,000
	Trailer Leaf Vacuum	1998	25	N/A	Poor	\$4,500						
	Ford F-450 (Utility Rack Truck)	2014	10	61,322	Good	\$69,000				65,000		65,000
	F-150 Pick-Up (Transferred to Town)	2014	10	N/A	Transferred	\$24,095						
	Ford F-350	2009	10	53,034	Fair	\$35,162						
	Ford F-350	2020	10	0	New	\$55,000						
	Toolcat 5600	New Request	12		New	\$65,000	65,000					65,000
	SUBTOTAL- B & G						65,000	0	45,000	65,000	0	175,000
TOTAL VEHICLES							105,000	45,000	45,000	65,000	0	260,000

VEHICLES REQUESTS

Notes:

1	<p><u>Special Education</u></p> <p>The district currently utilizes three special education vans daily to transport students between in town special education programs. The district replaced the 2007 special education van in the summer of 2019, the oldest van in the fleet. This purchase allowed the 2011 van to become the spare van. This van is also used to transport athletic teams and activities when appropriate, which has helped reduce athletic transportation costs. With the replacement of the 2007 van in the summer of 2019 the district is in a very good position with all the vans in its current fleet in very good condition. The district does not anticipate the need to replace a vehicle in this department again until FY'23 at the earliest and will continue to assess the conditions of the vehicles each year.</p>
2	<p><u>Athletics & Extra-Curricular Activities</u></p> <p>The district currently contracts with an outside vendor to meet its athletic and extra-curricular activity transportation needs. The contractual rates have steadily increased and the program is currently spending \$75,000 on an annual basis. The District received a Multi-Function vehicle in December of 2018, and was able to immediately put this vehicle to use, which led to significant savings the second half of the 2018-19 school year. The district was able to transfer about 40 to 50 runs from a contracted bus to this vehicle thus saving about \$300 per run or approximately \$12,000--\$15,000 annually. Research indicates that having access to this vehicle for a full school-year will only increase the district ability to reduce its transportation costs, increasing that savings to \$12,000 to \$15,000 annually. The district is interested in expanding its fleet for this type of vehicle in FY'22 to allow for the optimum level of savings is able to be realized. The actual cost of this vehicle is \$55,000 but the capital request is for \$40,000. Similar to the approach we took in FY 2019, the District would use the estimated savings in year 1 to help offset this cost.</p>
3	<p><u>Food Services</u></p> <p>The district replaced the 2005 food service van in the summer of 2019, with funds available in the food service revolving account. The food services department uses this van to satellite food between the high school and the elementary schools that don't have a full size kitchen. This van is a smaller van and more suited for its use by this department and will serve the food service program well for fifteen plus years.</p>
4	<p><u>Building & Grounds</u></p> <p>The District is looking to revisit the purchase of a new toolcat/bobcat for snow removal and landscaping purposes in FY'22. The vehicle will be used to maintain the MS/HS campus and all other schools. It will be able to snow plow, sweep, front load, sand, spread and comes equipped with many more attachments that will increase productivity and provide the versatility needed to properly maintain the schools year round. The equipment would lead to operational cost savings with less snow removal and landscaping costs. The utility vehicle could be shared with the Department of Public Works. The 2002 Kubota Tractor should also be considered for replacement in the future. This is a high use vehicle used for a variety of purposes including transporting loam, clay, and mulch as well as fertilizing, and snow removal. Purchasing this vehicle would also result in the District not needing to replace the Gator that was acquired in 2013 which is also reaching the end of its useful life. All Buildings and Grounds vehicles and equipment remain in good condition and are maintained by the DPW on a regular basis.</p>

TECHNOLOGY REQUESTS

Notes		SCHOOL / DEPT	FY'22 REQUEST	FY'23 REQUEST	FY'24 REQUEST	FY'25 REQUEST	FY'26 REQUEST	TOTAL
	INSTRUCTIONAL TECHNOLOGY							
1	Computer/Device Replacement Plan	District wide	120,000	120,000	120,000	120,000	120,000	600,000
2	Technology Instructional Equipment	Elementary	45,000		45,000	0	45,000	135,000
	TOTAL-INSTRUCT'L TECHNOLOGY		165,000	120,000	165,000	120,000	165,000	735,000
TOTAL TECHNOLOGY			165,000	120,000	165,000	120,000	165,000	735,000

Notes:

1	<p>The district has supported the use of digital tools to enhance personalized instruction and meet student 21st century needs. The presence of digital devices to support teaching and learning has greatly enhanced student learning and supported educators by enhancing their ability to support all student needs with rich digital content and resources. The need to continue to support adequate computer devices for students and teachers has never been greater with changes related to the COVID-19 pandemic. The District must strategically update and replace these devices on an on-going basis to not interrupt student learning. The focus areas of device replacement include: Computer Devices to support personalized digital instructional for all students and strategic device replacement for aging existing classroom and staff devices. The District received state grant funding in both FY 19 and FY 20, these funds were used to accelerate the 1:1 Device Initiative in grades 7 through grade 12. Due to the COVID-19 pandemic the District has had to purchase devices for students in all grades to support remote instruction. The 2020-21 school year will represent the first full school year where students in grades K through 12 are operating in a 1:1 environment. This process was accelerated due to the impact of the COVID-19 virus and the use of one-time federal funds to purchase devices for student remote learning. Going forward the district will have a need to use large capital funding to replace aging devices mainly student devices i.e. personalized chromebooks and HP laptop devices for instructional staff. As they devices age the District needs a funding source to replace on an on-going basis. The District given the larger volume of devices now in use, will need a greater annual allotment of funds to replace aging student devices. No longer will the \$60,000 allotment be sufficient given we are now supporting twice the number of devices for all grades K-12 not just grades 7-12. The District is requesting \$120,000 as an annual amount for student computer device replacement which will support two grades at a time about 400 devices annually(cost per unit \$300). The District plans to allocate an allotment of \$30,000 to \$40,000 in its operating budget to support ongoing replacement of staff laptop devices, this will support about 50 devices per year for staff (cost per unit \$800).</p>
2	<p>This is a carry over request from FY 21. There continues to be a need to replace many of the current classroom interactive and projection setups within the elementary classrooms across all 3 elementary schools. There is a need to begin to fully replace many of the setups in these classrooms (desktops, SMART boards, projectors) with up to date technology which enhances the interactive experience for students and educators. The district will begin to identify both short term and long term solutions to support tools to enhance instruction with digital projection and interactive tools. This process will include: 1. Identify pilot classrooms to introduce interactive technology which supports enhanced digital learning experiences in a cost effective way. 2. Continue to identify which classrooms require immediate replacement and solutions to classroom instructional devices and projection replacement. The request in FY' 22 is for another allotment of \$45,000 previously received in FY'19 to continue this work to replace aging classroom instructional equipment. The financial need is much greater than the \$45,000 but the district plans to implement this over a five year period using multiple funding sources over time(operating funds, large capital funds and, when available, grant funding).</p>

TECHNOLOGY REQUESTS

CAPITAL REQUESTS HISTORY

INSTRUCTIONAL TECHNOLOGY	SCHOOL / DEPT	FY'17 APPROV	FY'18 APPROV	FY'19 APPROV	FY'20 APPROV	FY'21 APPROV	TOTAL
Computer Replacement / Devices	All Schools	\$60,000	\$60,000	\$60,000	\$60,000	\$0	\$300,000
Technology Instructional Equipment	Elementary			\$45,000		\$0	\$45,000
WIFI Infrastructure Upgrade	Elementary		\$107,357			\$0	\$107,357
TOTAL INSTRUCTIONAL TECHNOLOGY		\$60,000	\$167,357	\$105,000	\$60,000	\$0	\$452,357
TOTAL TECHNOLOGY		\$60,000	\$167,357	\$105,000	\$60,000	\$0	\$452,357

FACILITY REQUESTS

Notes	FACILITIES	SCHOOL / DEPT	DESCRIPTION	FY'22 REQUEST	FY'23 REQUEST	FY'24 REQUEST	FY'25 REQUEST	FY'26 REQUEST	TOTAL
1	Boilers	Hood	Replacement of Hood School boilers to High Efficiency Condensing Boilers installed in 1999.					545,000	545,000
2	HVAC Rooftop Units	Batchelder	Begin to Replace of Batchelder School Roof Top units (6) installed in 2006.		80,000			80,000	160,000
3	Modular Demolition/Removal	Hood	Removal of 4 modular classroom units due to their age and condition and restoring the area to its original condition.		60,000				60,000
4	Modular Removal & Replacement	Little	Removal and replacement of modular classroom unit due to its age and condition.			405,000			405,000
5	Soffits and Fascia	Little	Replace schools soffits and fascia that are showing significant signs of rot and deterioration.	65,000					65,000
6	Little School Paving Project	Little	Paving of identified sections of the Little School parking lot. This project would both expand and repair sections of the existing parking lot.	100,000					100,000
7	Hood Roof Restoration Project	Hood	The Hood School roof was installed in 1999 and its approaching the end of its useful life of 25 years. The roof is a good candidate for a roof restoration project to extend the life for an additional 20 years.				750,000		750,000
8	Asbestos Mitigation	Little	Continuation of Asbestos Mitigation to remove asbestos floor tiles.					75,000	75,000

FACILITY REQUESTS

Notes	FACILITIES	SCHOOL / DEPT	DESCRIPTION	FY'22 REQUEST	FY'23 REQUEST	FY'24 REQUEST	FY'25 REQUEST	FY'26 REQUEST	TOTAL
9	Energy Management System Upgrades	Hood \ Little	Upgrades to energy management system in both schools to allow for remote controls of heating and improve energy conservation efforts.			150,000			150,000
10	WWTP Membranes & Turbines	MS \ HS	The Wastewater Treatment Facility's membranes and turbines have a 5 to 7 year lifespan and need to be on a replacement cycle. There are a lot of additional parts and technology features that will be reaching the end of their useful life in the coming years.				50,000		50,000
TOTAL- FACILITIES				165,000	140,000	555,000	800,000	700,000	2,360,000

Notes:

1	<p>The two Hood School boilers were Installed in 1999, and are presently 21 years old. This request includes replacing both boilers with high efficiency condensing boilers and redesigning the boiler room similar to the project at the Little Elementary School in 2012. The Little School boilers were installed in FY' 12 and have led to approximately \$10,000 to \$15,000 of savings annually. The condition of the current boilers are good and they have well maintained. This request is called for in FY'26 when the boilers would be more then 25 years old and beyond their expected useful life of 20-25 years to provide efficient and effective heating. The project would be eligible for the Massachusetts School Building Authorities (MSBA) accelerate repair grant program. In addition, the project could also result in a rebate from RMLD of up to \$30,000 for supplying high efficiency equipment. The boilers would be connected to the school's energy management system with Automated Logic for enhanced controls of the heating system.</p>								
2	<p>The Batchelder School has 6 total rooftop HVAC units that were installed with the building project in 2006. They have a life expectancy of 15 years and should be considered for replacement between FY'23 and FY'28, after 15 plus years of operation. The request includes beginning the process of replacing these units spread out over a five to six year period beginning in FY'23. The quote from the recommended manufacturer Daikin, (the HS/MS supplier) is \$70,000 with a recommendation to include an additional amount between 10-15% for engineering, contingency, and public bidding. The District feels these units have provided consistent and superior service and are in fair condition but District should begin the replacement process during this time period due to their age. There has been one particular unit that has needed several repairs and parts replaced over the past several months and would be the first unit replaced.</p>								
3	<p>The four Hood Elementary School modular classroom units were installed in 2003 and are showing signs of age and deterioration. The expected useful life of these units is 12 to 15 years. The units have been well maintained but are reaching the end of their useful life. This request is called for in FY'23 when the units will be almost 20 years old. The time has come to consider removing the modular units and taking these classrooms offline. The work would include demolition and removal of existing 70'x70' foot modular classrooms, including removal of concrete and backfill to carry the existing slope grade. The proposal also includes loaming and hydro seeding the site once modular are removed. Once taken offline the plan would be to return the site to its original condition. The District would need to take ownership again of the three classrooms currently being leased in the existing school by SEEM Collaborative to ensure enough classroom space exists once the modular are offline. The District is currently receiving \$18,000 in rental income through the SEEM Collaborative agreement.</p>								

FACILITY REQUESTS

4	The Little School expanded modular classroom floor was installed in 2003 and is showing signs of deterioration as it reaches the end of its useful life. The expected useful life of these units is 15 years. The unit has been well maintained but will need to be replaced in the near future. These classrooms house the schools early childhood program and will be needed into the future. The work includes the full cost of demolition and removal of the old unit and the cost of a new unit including installation and utility connections. The cost includes an approximate estimate from Triumph Modular Company, this project is being proposed for FY'24.
5	The Little Schools soffits and fascia need to be replaced they are showing significant signs of rot and deterioration. The School was renovated in the 1970's and the outer soffits and fascia are over 40 years old and need to be replaced. The request involves replacing the soffits with a wood alternative product which would be a vinyl soffit with an aluminum metal wrap to fascia's to match existing soffit utilizing vented and non-vented product. This solution will increase the life expectancy of the soffit and will not be subject to erosion due to the weather conditions.
6	Paving of identified sections of the Little School parking lot is needed. This project would both expand and repair sections of the existing parking lot. The old playground was removed in the summer of 2016, and gravel was placed in this area as a temporary solution. This area could be paved which would expand the parking lot and a dozen parking spaces at the school. There are also other sections of the parking lot that are showing signs of deterioration and are in need of repair. The plan would be to work cooperatively with the DPW and the Town's contractor to identify the needed areas and achieve economies of scale. The \$125,000 to complete this project is being requested for FY' 22 and would include paving the main parking lot, old playground area, and front bus loop. The cost includes expenses for a review of the traffic flow pattern and striping costs.
7	The Hood Elementary School Roof was installed in 1999 and is approaching the end of its useful life of twenty (20) years, the current roof is a welded seam Sarnafil roofing system. The District contracted with Tremco, Inc. to perform an infra-red moisture scan in the summer of 2018, which showed very little moisture penetration, approximately 1% of the 55,000 sq. ft. roof area. Tremco Inc. concluded that the roof is in good condition and is a solid candidate for a roof restoration project, which would extend the life expectancy for an additional 20 years. The estimated cost is between \$10 and \$13 per sq. ft. which would have an estimated total cost of \$750,000. The project would include a 20 year warranty if done by Tremco per their specification. The project could also be a candidate for MSBA's accelerated repair program similar to that of the Little School Roof project. If the MSBA program is pursued the scope and cost of this project would most likely change. Based on the assessment the District will need to expend \$3,000 to \$5,000 annually for regular preventative roof maintenance. This project is being proposed for funding consideration in FY'25 when the roof will be 25 years old.
8	The district received \$50,000 to begin asbestos abatement work at the Hood and Little Schools in the summer of 2013. The Hood School kitchen and storage room and the Little School nurse's office and ceiling in the storage room and B-wing boys' lavatory were addressed. Additional abatement work from the original \$50,000 request continued in the summer of 2015. This additional \$120,000 request which includes, \$60,000 in FY'20 and the remaining \$60,000 in FY'23 would remove all remaining asbestos floor tile from the Little Elementary School. The proposal involves 12,000 square feet of floor tile to be removed. Contractors use an estimated pricing that ranges from \$5.50 to \$7.50 per square foot based on the complexities and current market conditions at the time of bid. The only other school with remaining asbestos is the Hood Elementary School and the plan would be to address this in the future; there is no immediate abatement need at this time.
9	The current Hood system was manufactured by Honeywell and was installed in 1999, it is an old modem based system and needs to be replaced. The operating system that controls the classroom unit vent heaters has been lost. The current request is to install an energy management system throughout the Hood and Little Schools which would build on the existing energy management controls at our other schools. The Hood and Little School has an energy management system in the boiler room only. The new High School and Middle School will be on an automated system when the project is completed. If completed the district would maximize their ability to save energy and regulate occupancy schedules throughout each school. It is anticipated the district would save up to \$15,000 annually at each School, which computes to a payback period of less than ten years if completed. This project would bring both the Hood and Little Schools to the same level as the Batchelder School and new HS/MS allowing for increased ability to control energy use and reduce cost. This project is being proposed for funding consideration for FY'24.
10	The District with the opening of the Middle School/High School in 2013 begin the operation of a Wastewater Treatment Plant. This plant is a bioprocess membrane plant and is highly technical and complicated operation. The plant has three membranes and two air scour blowers which have reached the end of their useful life and are in need of replacement. The anticipated life expectancy for this equipment is seven to ten years. The 2020-2021 school year would represent year 8 for the membranes which have had a hard life due to several factors and the operating conditions of the plant. The membranes died in the summer of 2019 requiring immediate replacement by the School Department. The District anticipates additional costs in the area of upkeep and replacement of parts, to that end we are seeking a large capital request within our five year plan to secure funding to make such upgrades again in FY'25.

FACILITY REQUESTS

CAPITAL REQUESTS HISTORY

FACILITIES	SCHOOL / DEPT	DESCRIPTION	PRIOR FY'17	FY'18 APPROVE D	FY'19 APPROVE D	FY'20 APPROVE D	FY'21 APPROVE D	TOTAL
Window Retrofit	High School	Retrofitted classroom windows. Present windows were bolted shut because the double hung sashes lack springs and are jammed closed.	7,500					7,500
Air Condition NOC and labs	High School	Provided air conditioning to network operations center and library classrooms.	15,000					15,000
Building Security	All Schools	Improved perimeter lighting and installed audible door alarms.	41,500					41,500
Chair Lift	Middle	Installed a chair lift to provide handicapped access to 2nd floor.	31,338					31,338
Roof Repair	High / Middle	Repaired bubbled sections of High and Middle School roof.	150,000					150,000
Boiler	Little	We were down to one boiler, with no backup.	250,000					250,000
Retaining Wall	Little	Repaired retaining wall adjacent to Little School softball fields.	100,000					100,000
Asbestos Mitigation	Hood/Little	Removed asbestos tiles that are wearing away.	50,000					50,000
Repaving Parking Lot	Hood	The school parking lot and playground area needs to be repaved. The hot top is beginning to erode causing a safety issue.	100,000					100,000
Peabody Street Entranceway Repair	Batchelder	The front stairwell on the Peabody Street side is deteriorating and needs to be repaired.		25,000				25,000
Gymnasium Floor Replacement	Little	The Little School Gym floor is reaching the end of its useful life and is in need of replacement.			40,000			40,000
Hood Fire System Panel	Hood	A replacement of the Hood School Fire System panel was needed due to the age and condition of the equipment.				30,000		30,000
HVAC Upgrades	Little	HVAC System Upgrade C-Wing					65,000	65,000
Handicapped Accessible Lift	Hood	Lift Replacement					35,000	35,000
TOTAL- FACILITIES			745,338	25,000	40,000	30,000	100,000	940,338