

Town of Norwood



Fiscal Year 2022 Capital Improvement Plan (CIP)

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Town of Norwood

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Divisions/Departments/Facilities

Department of Public Works

DPW: Highways

DPW: Water and Sewer Division

DPW: Pavement Management

DPW: Cemeteries

STORM: Stormwater related projects

Fire Department

Information Technology

IT - Town IT - School

Police Department

Morrill Memorial Library

Norwood Public Schools

General Government/unallocated

Parks, Playgrounds, Open Space

Facilities

Norwood High School

Public Safety Building

Morrill Memorial Library

Coakley Middle School

Town Hall

Savage Center

Norwood Memorial Airport

Civic Center

General Government- Unallocated Buildings

Elementary Schools

DPW Garage/Admin Building

Fleet Maintenance

Public Works Fleet

Fire and Ambulance Fleet

Cemeteries Fleet

Police Fleet

Building and Grounds Fleet

Misc. Fleet/Vehicles

Fire and Ambulance Fleet

School Transportation Fleet

Capital Planning Process

Annually, department and division heads submit capital requests to the General Manager's office who compiles the Capital Improvement Plan on behalf of the Capital Outlay Committee. Once assembled, the completed Capital Improvement Plan is delivered to the Capital Outlay Committee. The Capital Outlay Committee then meets and deliberates on merits of each project and makes recommendations as to which projects should be funded in the upcoming budget year.

Ultimately, the decisions as to what projects are or are not funded are made by Town Meeting and are subject to appropriation. The Capital Outlay Committee's recommendations are taken into consideration by the Board of Selectmen, the Finance Commission, and of course Town Meeting.

Understanding the Capital Improvement Plan

Below is a series of terms or subject/table headers that are used in the Capital Improvement Plan (CIP).

Department: Town department in which the project will fall under, usually determined by function or who would otherwise have responsibility for management or oversight of the project.

Division: Administrative divisions within departments that are large and capital intensive (such as Public Works) and helps to delineate the type of project in a large or complex department.

Fiscal Year: The fiscal year in which a particular item is proposed on the plan and is scheduled to begin. Most projects will be completed within the year specified, but larger more complex projects will begin in one year and may last for several years.

Total Cost: The total *projected* cost of a project. Efforts are made to secure as accurate of a project cost as possible, however until a project has been fully put out to bid or prices secured, the number in the CIP is still an estimate. The more complex the project/purchase, the higher the chance for potential price/cost volatility. The number in a given fiscal year represents what will be sought for an appropriation for the project in question, however that number may ultimately change at Town Meeting if new information is available.

Project Number: The system ties a project number to a specific project allowing us to know when the project entered the plan and when it was originally scheduled, as well as the department the project belongs to.

Design Services: The cost of engineering/architectural design needed in preparation for a project and will generally appear in the Capital Improvement Plan in the year preceding a project. The Town, following best practices, should engineer and design most projects before securing funding authorization to begin a project.

Funding Sources: An explanation of the proposed funding source for a project.

Free Cash: Surplus funds from previous years, revenues over collections or unspent line items.

Borrowing: Money to be borrowed (bonded) over the lifespan of the project.

TBD: To Be Determined. This acronym is used frequently to describe the funding source for future CIP projects.

Rates-Cash: Water or sewer rates, directly raised in the water/sewer budget. All water/sewer related expenses are paid by water/sewer rates.

Operating Budget: The proposed project is included in the operating budget as part of the department's regular operating budget.

Grant Funds: Funds secured from grant sources, if available.

Community Preservation Act (CPA): Funds from the Community Preservation Act, which is a 1% surcharge on properties matched in part by the state. CPA funds have specific requirements for how the funds may be spent.

Chapter 90 Funds: State aid targeted specifically for paving/reconstruction of roads.

Rates-Borrow: Borrowing similar to above, but for water/sewer projects that will be paid out of rates as opposed to property taxes.

Summary for Fiscal 2022 – CIP Only

Type	Count of General, Fleet, or Facility	Sum of Total Cost/Request
Airport	1	75,000
Facility	1	75,000
Facilities	11	6,870,000
Facility	10	2,870,000
General	1	4,000,000
Fire	3	1,710,000
Fleet	1	975,000
General	2	735,000
IT	3	136,600
General	3	136,600
Police	4	247,985
Fleet	3	225,985
General	1	22,000
Public Works	17	12,736,500
Facility	1	70,000
Fleet	6	684,000
General	10	11,982,500
Recreation	3	170,000
General	3	170,000
School	5	341,000
Fleet	5	341,000
Grand Total	47	\$ 22,287,085

Funding Source	Sum of Total Cost/Request
Already Purchased	292,600
ARPA	1,405,000
Borrow	6,800,000
Free Cash	6,574,500
Operating Budget	534,985
Operating Budget & CH90	1,550,000
Rates-Borrow	5,130,000
Grand Total	\$ 22,287,085

Department / Division	Number of Projects	Sum of Total Cost/Request
Airport	1	75,000
Facilities	11	6,870,000
Balch	1	140,000
Civic Center	2	320,000
COA	1	125,000
High School	3	1,880,000
Library	1	145,000
Multiple	1	120,000
Multiple & Town Hall	1	140,000
Public Safety Building	1	4,000,000
Fire	3	1,710,000
IT	3	136,600
IT - Town	1	65,000
IT- School	2	71,600
Police	4	247,985
Public Works	17	12,736,500
Cemetery	3	205,000
Highway	6	2,649,000
IIP - Highway	1	2,800,000
IIP - Water	1	4,500,000
Sewer	1	392,500
Stormwater	3	1,405,000
Water	2	785,000
Recreation	3	170,000
Playgrounds and Pools	3	170,000
School	5	341,000
Transportation	5	341,000
Grand Total	47	\$ 22,287,085

Design Services – Multiple Departments

Feasibility Studies, Design, and Engineering: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Amount	General, Fleet, or Facility	Project Number	Funding Source
Design for Facade Issues & Painting	Facilities	Library	2022	145,000	Facility	F-LIB2022-22-01	Free Cash
Design Services - Washington St/Nahatan St Corridor	Public Works	Highway	2022	550,000	General	HWY2020-24-01	Free Cash
Design for outside bathroom at Elliott Field Sports Complex	Recreation	Playgrounds and Pools	2022	25,000	General	PPO2022-22-01	Free Cash
Lower Coakley Field Feasibility Study	Recreation	Playgrounds and Pools	2022	30,000	General	PPO2022-22-02	Free Cash
Animal Shelter-Feasibility Study for Repairs	Facilities	Animal Shelter	2023	20,000	Facility	F-ANI2022-22-01	TBD
Design Services for Kitchen Remodel	Facilities	Civic Center	2023	15,000	Facility	F-CIV2020-23-03	TBD
Consulting Services - Demolition of Ellis Pumping Station	Facilities	Ellis Station	2023	25,000	Facility	F-ELL2022-23-01	TBD
Design Services Roof Repairs	Facilities	Public Safety Building	2023	12,000	Facility	F-PSB2020-20-02	TBD
Feasibility Study for a Carport	Facilities	Public Safety Building	2023	50,000	Facility	F-PSB2022-23-01	TBD
Design Services - Replacement of Generators	Facilities	Multiple	2023	90,000	Facility	F-TH2022-22-02	TBD
Design/Feasibility Study for Green Space or playground at Civic Center	Recreation	Playgrounds and Pools	2023	15,000	General	PPO2022-23-01	TBD
Design Services for Asphalt Shingle Roof	Facilities	Civic Center	2024	22,000	Facility	F-CIV2020-22-02	TBD
Meadowbrook Drain Improvement Design	Public Works	Stormwater	2024	400,000	General	STORM2022-24-02	TBD
Design Services for Air Conditioning in Weight Room	Facilities	Civic Center	2025	10,000	Facility	F-CIV2021-25-01	TBD
Westover Parkway Culvert Design (Willett School)	Public Works	Stormwater	2025	150,000	General	STORM2022-25-02	TBD
Runway 17/35 re-construction, extension; design/permitting	Airport	Airport	2026	22,500	Facility	F-AIR2021-26-01	TBD

Meadowbrook Drain Improvement Design	Public Works	Stormwater	2026	400,000	General	STORM2022-26-01	TBD
Design for Callahan School Basketball Court Lights	Recreation	Playgrounds and Pools	2026	15,000	General	PPO2022-26-01	TBD
Design to replace Ivatt's Tennis Courts	Recreation	Playgrounds and Pools	2026	15,000	General	PPO2022-26-02	TBD

<i>Design and Engineering: Project Descriptions</i>	
<p>Design for Facade Issues & Painting - There is water infiltrating the building that needs to be investigated & repaired. Painting cannot be completed until this issue is fixed. It has been 20 years since the Town completed the library renovation. The walls and ceilings will need to be entirely repainted, although the custodial crew has painted the smaller rooms (bathrooms, kitchen, program rooms). Painters will need to erect scaffolding to paint the high ceilings and walls of the library. Due to the complexity of the building and the need to move significant quantities of materials to protect them during the painting process, this is a much more expensive project than simply painting a building. Due to the high estimated cost of repainting the library's interior, the Town is legally required to complete a design first.</p>	
<p>Design Services for Washington St / Nahatan St Corridor - This project would provide conceptual and construction design for replacing traffic signals on Washington St (Hoyle St to Railroad Ave) and Nahatan St (Washington St to Pleasant St). The signals and pedestrian systems were installed in 1984 and are outdated.</p>	
<p>Design for outside bathroom at Elliott Field Sports Complex - The bathroom and storage area at the Elliot Field area has reached its useful life and has begun to fail. Currently, there is significant damage to the roof, windows, and the structure itself needs work. The storage unit and bathroom are two separate buildings, and we would like to see those buildings combined.</p>	
<p>Lower Coakley Field Feasibility Study - The athletic fields next to the Coakley Middle School (Jerry Miller Athletic Complex) will be offline during the construction of the new Middle School. Those fields are the most heavily used in town for youth sports (primarily for soccer, football, and lacrosse). In preparation for these fields being offline in a few years, we would like to explore turning the lower baseball field into a multi-use sports field.</p>	
<p>Animal Shelter-Feasibility Study for Repairs -The animal shelter provides a holding area for stray and quarantined animals found in Norwood. The shelter does not have bathroom facilities. Minor repairs have been made over the years. A feasibility study will examine the building and provide preliminary cost estimates for repairs.</p>	
<p>Design Services, Civic Center Kitchen Remodel - The kitchen has not had any significant renovations since the building opened in the early 1980s. The cabinets and appliances are all outdated and failing. We use this area for recreational programs for all ages, and it needs to be addressed as our demand for cooking programs has grown.</p>	
<p>Design Services, Roof - The Public Safety Building roof will reach 20 years of age in FY2024, its life expectancy. The design services in FY2023 will determine whether a total replacement is needed, repairs only need to be completed, or if the condition is good enough, no significant work is necessary.</p>	
<p>Feasibility Study for a Carport - This would enhance the police department with their speed to get to calls sooner. It would be put on the northwest side of the building. Also, to explore the possibility of using solar panels to save more energy.</p>	
<p>Design Services, Generator Replacement - As the generator for our primary emergency shelter ages, we will need to explore installing a new generator to ensure the operability of the Civic Center as our emergency shelter. The Town Hall and the Public Safety Building generators are reaching the end of the recommended life cycles. Both of the buildings must be operable during an emergency.</p>	
<p>Design/Feasibility Study for Green Space or Playground at Civic Center - The Civic Center has a gully in the rear of the building. When we experience bad rainstorms, the gully collects the rainwater from the DPW Yard and Civic Center. If the rain is bad enough, the storm system backs up,</p>	

and that rainwater will spill over into the Civic Center (the past six years, we have had one flood each year in the Civic Center). This green space would allow us to utilize an underused space (gully), create a green space where the gully is currently, prevent flooding moving forward (water would now run down the parking lot to Nahatan Street), and lastly, add a green space for outdoor programs (something we currently do not have). The last flood cost the Town close to \$30,000 in repairs.

Design Services for Asphalt Shingle Roof - The roof at the Civic is reaching the end of its useful life. The design services will determine whether substantial work or complete replacement is necessary. If the roof is determined to be in good condition at that time, money should be placed in a reserve (particular purpose stabilization) fund for the eventual replacement of this roof.

Meadowbrook Drain Improvement Design - Based on the 2021 Meadowbrook Drainage Study, the next area of drainage improvements will need to be designed.

Design Services, Installation of Air-Conditioning in Weight Room - We have received numerous inquiries about the possibility of installing air conditioning in our weight room. The only two areas that do not have air conditioning in the building are the weight room and the gymnasium. During the summer months, the room becomes too hot for residents to enjoy the workout area. With a good portion of our members being seniors, this is a concern.

Westover Parkway Culvert Design (Willett School) - The culvert that carries Germany Brook under Westover Parkway near the Willett School was installed in the late 1950s. It is a corrugated metal arch culvert and will need to be replaced.

Design/Permitting for Runway 17/35 Re-Construction w/Extension - This federal/state grant-share project would address the design/permitting work needed to then construct two safety areas off the approach/departure ends of runway 17/35.

Design for Callahan School Basketball Court Lights - This project would include two light poles at the Cleveland School outdoor basketball courts.

Design to replace Ivatt's Tennis Courts - This is for the resurfacing of the Ivatt's Tennis Courts. The courts were last resurfaced in 2015, and we are experiencing even more cracking on those courts.

Department of Public Works - *Highways Division and Paving*

Department of Public Works, Highways Division and Paving Program: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Annual Pavement Management Program	Public Works	Highway	2022	1,550,000	General	HWY2022-22-01	Operating Budget & CH90
Bridge Rehabilitation - Washington St. at Hawes Brook	Public Works	Highway	2023	150,000	General	HWY2022-23-01	TBD
Upgrade Traffic Signals Washington St/Nahatan St Corridor	Public Works	Highway	2023	1,500,000	General	HWY2021-24-01	TBD
Construct Neponset St / Access Traffic Signals	Public Works	Highway	2023	750,000	General	HWY2022-23-01	TBD
Annual Pavement Management Program	Public Works	Highway	2023	1,545,000	General	HWY2023-23-01	Operating Budget & CH90
Install RRFB at Five Pedestrian Crossings	Public Works	Highway	2024	250,000	General	HWY2021-23-01	TBD
Annual Pavement Management Program	Public Works	Highway	2024	1,560,000	General	HWY2022-24-01	Operating Budget & CH90
Traffic Study for Washington St./ Mylod St Intersection	Public Works	Highway	2025	100,000	General	HWY2022-25-01	TBD
Annual Pavement Management Program	Public Works	Highway	2025	1,575,000	General	HWY2025-25-01	Operating Budget & CH90
Annual Pavement Management Program	Public Works	Highway	2026	1,580,000	General	HWY2026-26-01	Operating Budget & CH90

Department of Public Works Highways Division: Project Descriptions

Annual Resurfacing - Every Year - The Town of Norwood, like most towns, uses a rating system to determine condition and quality of roadways throughout the community. This data, combined with traffic data and accident data, is utilized to determine which roads are paved in a given year. Winter conditions can dramatically impact the condition of certain roads, while not having an impact on others, which can change a road rating substantially in a given year. Furthermore, certain roads may rank low in condition (thus ripe for repaving) but are delayed due to pending water, sewer or other utility work or their proximity to other nearby road projects. Final bid results in the spring will ultimately determine which roads are selected in a given year.

Bridge Rehabilitation - Washington Street at Hawes Brook - This project would provide the necessary repairs to keep this in good working order. The scope of work will be determined by the most recent Bridge Report supplied by MassDOT. Most of the work is minor in scope.

Upgrade Traffic Signals - Washington St / Nahatan St Corridor - Based on the design, the traffic control equipment, including traffic signals, control cabinets, wiring, and pedestrian controls, will be replaced with state-of-the-art equipment and technology.

Construct Neponset St / Access Rd Traffic Signals - In FY2021, the Town funded a study to determine if traffic signals are warranted on Neponset St at Access Rd. Due to COVID-19 the study has been delayed but will commence in September/October 2021. The current temporary traffic signal was installed to accommodate the Police and Fire Departments while they were located at the Airport during the construction of their new facility. Since then, the signal flashes yellow for Neponset St. traffic and red for Access Rd / Ridge Rd traffic. There are no pedestrian controls. If the study determines that a traffic signal is warranted per MassDOT requirements, the intersection will be upgraded to having a conventional traffic signal and pedestrian controls to improve safety for motorists and pedestrians.

Install Rapid Rectangular Flashing Beacon - Install Rapid Rectangular Flashing Beacon (RRFB) at five highly active pedestrian crossings to improve pedestrian safety significantly. Suggested locations would be Washington St in front of Norwood Hospital; East Hoyle St / Broadway at Norwood Central Train Station and Norwood Hospital; Winter St at Prospect St; Dean St at Richland Rd; Pleasant St at Gay St.

Traffic Study for Washington St / Mylod St Intersection - This project would study the operation of the intersection of Washington St at Mylod St. If traffic signals are deemed warranted, funding for construction would be made in FY 2026.

Construct Washington St / Mylod St Traffic Signals - If warranted by the traffic study, the intersection will be upgraded to having a conventional traffic signal and pedestrian controls to improve safety for motorists and pedestrians.

Department of Public Works - *Water & Sewer Division*

Department of Public Work, Water & Sewer Divisions: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Sewer I & I Study/Removal MWRA Grant/Loan	Public Works	Sewer	2022	392,500	General	WNS2021-23-01	Free Cash
Lead Water Service Assessment	Public Works	Water	2022	155,000	General	WNS2022-22-01	Free Cash
Water Main Cleaning & Lining MWRA Grant/Loan	Public Works	Water	2022	630,000	General	WNS2020-22-01	Rates-Borrow
Repair and Painting of Water Tanks	Public Works	Water	2023	4,750,000	General	WNS2020-22-04	Rates-Borrow
Water Main Cleaning & Lining MWRA Grant/Loan	Public Works	Water	2023	630,000	General	WNS2020-23-01	TBD
MWRA Meter Connection Chamber Design	Public Works	Water	2023	200,000	General	WNS2022-23-01	TBD
Water Main Cleaning & Lining MWRA Grant/Loan	Public Works	Water	2024	630,000	General	WNS2020-24-01	TBD
MWRA Meter Connection Chamber Construction	Public Works	Water	2024	750,000	General	WNS2022-24-01	TBD
Sewer I & I Removal MWRA Grant/Loan	Public Works	Sewer	2025	1,570,000	General	WNS2021-24-01	TBD
Water Main Cleaning & Lining MWRA Grant/Loan	Public Works	Water	2025	640,000	General	WNS2020-25-01	TBD
Water Main Cleaning & Lining MWRA Grant/Loan	Public Works	Water	2026	670,000	General	WNS2021-25-01	TBD

Department of Public Work, Water & Sewer Divisions: Project Descriptions

Sewer I & I Study/Removal MWRA Grant/Loan (Multiple) - The Town has an extensive network of clay sewer pipes throughout its old sewer system. These clay pipes are susceptible to cracking and root intrusion. This leads to groundwater being able to infiltrate the sewer pipe. In addition, over the years, direct connections of storm drains to the sewer system have contributed significant amounts of inflow draining into the sewer pipes. This infiltration and inflow (I & I) overburden our sanitary sewer system, plus, the Town ends up paying the MWRA to treat "clean" water. With the benefit of an MWRA Grant/Loan (75% grant and 25% interest-free loan), the sewer system would be studied to determine where there is significant I & I and to physically remove the I & I source through a construction contract.

Lead Water Service Assessment - Under the Safe Water Drinking Water Act, the EPA will require water systems to develop a plan to inventory all water service material types to determine the locations of lead service lines. Once the locations of lead service lines are determined, a lead service line replacement plan must then be developed and implemented. This funding request is for consultant services to work with the Public Works Department to develop a plan to identify services that need to be replaced. Funds for this program would utilize a zero-interest loan through the MWRA's Lead Loan Program.

Water Main Cleaning & Lining(MWRA) (Multiple) - This is our annual water main cleaning and lining that is paid through the MWRA at zero interest.

Painting of Water Storage Tanks - This project will repair deficiencies at the two water storage tanks located next to Highland Cemetery and paint the interior and exterior. The deficiencies, while not serious, were identified during an inspection performed in 2020. The painting of the tanks was last performed in 2000, and best practices recommend this work be done every 20 years.

MWRA Meter Connection Chamber Design - The Town of Norwood connects to the MWRA water system at an underground chamber located on Route One in front of McDonald's near University Ave and Everett St. The chamber exists off the Route One travel way and provides easy and safe access for Water Department personnel. In CY2025, the intersection of Route One and University Ave/ Everett Street will be completely reconstructed under a \$10+ million MassDOT project. With the planned widening of Route One, this water chamber will be located within the travel way, thereby requiring its relocation. This request will provide funds to prepare plans and specifications for a new chamber to be located off of the travel way.

MWRA Meter Connection Chamber Construction - This request would provide funds for the construction of the relocated MWRA Meter Connection Chamber located on Route One in front of McDonald's near University Ave and Everett St.

Department of Public Works - *Cemeteries Division*

Department of Public Works: Cemeteries Division: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Garage HVAC \ Electric Upgrade	Public Works	Cemetery	2022	70,000	Facility	CEM2020-21-02	Free Cash

<i>Department of Public Works, Cemeteries Division: Project Descriptions</i>
Garage HVAC / Electric Upgrade - The building needs an upgrade of a more efficient heating system. If approved, we will change the heating system steam heat to hot water baseboard heat, and we will upgrade the electric service and lighting, both of which will reduce the Town's fixed utility costs.

Department of Public Works - *Stormwater*

Department of Public Works, Stormwater: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Dean St Drain Improvements	Public Works	Stormwater	2022	230,000	General	STORM2022-22-01	ARPA
Drain Asset Management	Public Works	Stormwater	2022	100,000	General	STORM2022-22-02	ARPA
Westover Parkway Culvert Construction	Public Works	Stormwater	2022	1,075,000	General	STORM2022-22-03	ARPA
Construct Improvements to the Meadowbrook Channel	Public Works	Stormwater	2023	1,800,000	General	STORM2022-22-04	ARPA
Construct Box Culverts from Meadowbrook to Murphy Field	Public Works	Stormwater	2024	1,300,000	General	STORM2022-24-01	TBD
Meadowbrook Drain Improvement Construction	Public Works	Stormwater	2025	3,000,000	General	STORM2022-25-01	TBD

Department of Public Works, Stormwater: Project Descriptions

Dean Street Drain Improvements - There has been significant flooding in front of 53 Dean Street that overtops the street and cascades down onto the property, causing considerable damage to the house and pool. This project would replace the existing 24" drain with a 36" drain and discharge in the same location into the Neponset River.

Town Wide Drain Asset Management - Utilizing a 60% Grant from MassDEP, the Town will develop an Asset Management System for its Stormwater Collection System. Asset management will include mapping, system inventory, maintenance, and MS4 compliance tracking.

Westover Parkway Culvert Construction - In FY2021, Town Meeting appropriated \$500,000 to design and reconstruct the Westover Parkway Culvert that carries Germany Brook under Westover Parkway. Recent cost estimates show there has been a significant increase in construction costs. The total project cost is estimated at \$890,000 with a sizeable contingency. This includes engineering design, construction, and construction oversight. The Town will be submitting a grant application to MassDOT's Municipal Small Bridge Program with a maximum award amount of \$500,000. This is the same grant program we could use to replace the Dean Street Culvert in 2020.

Construct Improvements to the Meadowbrook Channel - The Town is currently studying the Meadowbrook drainage system with funds authorized in FY 21. The study and construction design will improve the Meadowbrook channel from the headwall at Sunnyside Road to Sixth Street. This construction, similar to what the US Corp. of Engineers did between Sixth Street and Dean St, would involve dredging the channel, reshaping the channel shape, and stabilizing the channel slopes.

Construct Box Culverts from Meadowbrook to Murphy Field - The Meadowbrook Drainage Study will also provide the design of box culvert upgrades from the headwall at Sunnyside Road to Murphy Field. Presently, the system in this location is comprised of 270' of a 5' x 7' box culvert and 350' of a 3' x 6' box culvert. During intense rainfalls, these box culverts are overburdened, resulting in backups in the upstream system and the flooding of the Murphy Field and Allen Road area. To alleviate the backups and flooding, an additional 620' of box culverts, approximately 5' x 7', will be installed from Murphy Field to the headwall at Sunnyside Road.

Meadowbrook Drain Improvement Construction - Based on the 2021 Meadowbrook Drainage Study, the construction of the next recommended area will be done.

Fire Department

Fire Department: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
SCBA's & Systems	Fire	Fire	2022	405,000	General	NFD2020-22-01	Free Cash
Portable Radios	Fire	Fire	2022	330,000	General	NFD2020-23-02	Free Cash
Firefighter Protective Clothing	Fire	Fire	2023	350,000	General	NFD2020-23-01	TBD
New Handlines	Fire	Fire	2024	100,000	General	NFD2021-24-01	TBD

<i>Fire Department: Project Descriptions</i>
<p>SCBA's & Systems - The Norwood Fire Department is requesting funds to replace non-compliant equipment to the current standard. This will include purchasing a personal facepiece and suitable voice amplifier for each uniformed member of the Department. As adjuncts, we request funds to replace three rapid intervention packs and buy a breathing air compressor/cascade system capable of supporting 5500 PSI tanks. We purchased the breathing air compressor and cascade system in 2002. While it may fill the 5500 psi cylinders, it would require excessive operational time requiring additional maintenance and contributing to possible failure. We received a FEMA grant for this project, which reduced our overall request from \$745,000 to \$405,000.</p>
<p>Portable Radios - The Fire Department is requesting funding to replace all HT 1250 Portable Radios. The HT 1250 Portable radios the Department is currently using were purchased in 2002 using funding received via the FEMA Fire Act Grant. These portable radios have served the Department well over the past two decades but are well beyond the expected service life of ten years. To maintain Department operations, we have requested and received surplus portable radios from the Canton and Foxboro Fire Departments. Additionally, the portable radios no longer meet the current NFPA 1802 Standard for fire service use regarding operable temperature range, interoperability requirements, radio control accessibility, and much more. This Department is building incremental radio acquisition into its operational budget. If successful with this process, we anticipate that this will be the last large capital budget request for portable radios that this Department will need to make.</p>
<p>Firefighter Protective Clothing - NFPA 1851 specifies that the firefighter protective ensemble or ensemble components must be retired from service no more than ten years from the date the ensemble or ensemble component was manufactured. To remain compliant with NFPA 1851 and provide safe firefighter protective gear for Norwood Fire Department members, we are requesting funding to replace firefighter protective clothing in FY2023.</p>
<p>New Handlines - For years the Norwood Fire Department has used threads known as iron pipe thread. The hoses, nozzles, and other fire protection devices we use all have this iron pipe thread. Over the years, all other area neighboring fire departments have converted to a nationally accepted thread called national standard. This is not compatible with the equipment we use, and during larger fires or other mutual aid events, we cannot extend our lines with mutual aid hose or nozzles, and they cannot use our equipment. If approved, this funding will allow us to replace all of our hoses, nozzles, and other equipment that uses iron pipe thread at one time.</p>

Information Technology & Equipment

Information Technology: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Upgrade Computers in Police Department Vehicles	IT	IT - Town	2022	65,000	General	ITE2020-22-01	Free Cash
<i>Network Switch Replacements - Six switches all located at Norwood High School. Two core switches and four IDF closet switches*</i>	IT	IT- School	2022	62,400	General	SC-IT2022-22-01	<i>Already Purchased</i>
<i>Wireless Access Point Refresh - Replacement of 25 wireless access points in various elementary schools*</i>	IT	IT- School	2022	9,200	General	SC-IT2022-22-02	<i>Already Purchased</i>
Network Switch and Firewall Replacement - Replacement of 10 NHS switches, the Town Hall core switch and the Savage Center core switch as well as the two firewalls located at the Town Hall and Norwood High School	IT	IT- School	2023	85,000	General	SC-IT2022-23-01	TBD
Wireless Access Point Refresh - Replacement of 35 wireless access points throughout various elementary schools	IT	IT- School	2023	15,000	General	SC-IT2022-23-02	TBD
Wireless Access Point Refresh - Norwood High School - Replacement of 125 wireless access points at the high school	IT	IT- School	2024	55,000	General	SC-IT2022-24-01	TBD
Network Switch Refresh - Savage and Willett switches - science wing, Savage front office, Willett Core, Willett Café	IT	IT- School	2024	50,000	General	SC-IT2022-24-02	TBD
Laptop Refresh - Coakley Middle School - Replacement of all teacher and staff laptops	IT	IT- School	2024	64,000	General	SC-IT2022-24-03	TBD
<i>* Symbolizes a project that has already been funded.</i>							

Information Technology: Project Descriptions

Upgrade Computers in Police Department Vehicles - The goal of this project is to replace all Police vehicle computers as they are outdated. We want to replace all computers to "catch up" with the current technology then add a rolling stock change in future years.

Network Switch Replacement - We are looking to replace six necessary network switches for the next school year. Each of these switches will be approaching ten years old next year. All switches are located at Norwood High School. Two of the switches are the NHS core switches, and the other four are in high school IDF closets, 142, 156, 306, and 341. All of the switches are eligible for E-Rate discounts.

Wireless Access Point Replacement - This would replace 25 wireless access points in our elementary schools that are approximately seven years old and nearing end-of-life support. We will receive an approximate 60% discount for the wireless access points and licenses purchased through the E-Rate program. This would be part of a three-year plan to replace all elementary school access points.

Network Switch Replacement - The rest of the NHS switches will need to be replaced (ten various models) along with the Town Hall core switch, Savage Center core switch, and our two firewalls. Each of these switches will be approaching ten years old next year. The two firewalls are at support end of life cycle and need to be replaced.

Wireless Access Point Replacement - This would replace 35 wireless access points in our elementary schools that are approximately seven years old and nearing end-of-life support. We will receive an approximate 60% discount for the wireless access points and licenses purchased through the E-Rate program. This would be part of a three-year plan to replace all elementary school access points.

Wireless Access Point Replacement - Replace all 125 wireless access points at the high school as these models will be approaching seven years of use and end-of-life support.

Network Switch Refresh - Replace switches approaching ten years of age - Savage and Willett switches - science wing, Savage front office, Willett Core, Willett Cafe.

Coakley Laptop Refresh - Replace all teacher and staff laptops at the Coakley Middle School. Current laptops will be approaching 4-5 years of age and due for replacement in accordance with adopted hardware lifecycles.

Police Department

Police Department: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Police Defense Equipment	Police	Police	2022	22,000	General	NPD2022-22-01	Free Cash
Replace Taser (20)	Police	Police	2023	23,000	General	NPD2022-23-01	TBD
Replace Taser (20)	Police	Police	2024	23,000	General	NPD2022-24-01	TBD
Replace Taser (20)	Police	Police	2025	23,000	General	NPD2022-25-01	TBD
Digital Radio (10)	Police	Police	2025	22,000	General	NPD2022-25-02	TBD
Digital Radio (10)	Police	Police	2026	22,000	General	NPD2022-26-01	TBD

<i>Police Department: Project Descriptions</i>
<p>Police Defense Equipment - NPD is requesting funding to equip its staff with bola wraps and patrols shields.</p> <p>Bola Wrap-A bola wrap is a handheld device that launches a weighted line that officers can use to temporarily immobilize an assailant's arms or legs without using deadly force. Four radio cars are already equipped with the devices; the Department will use the CIP funding to equip the rest of the fleet so that all marked units have them. Quoted amount: \$18,500</p> <p>Patrol Shield- These polycarbonate shields act as a physical barrier between an officer and their assailants and can be used by officers where an assailant is armed with something other than a firearm, such as a crowbar or a knife. Such situations would permit an officer to use deadly force, but deploying Bola Wraps and shields in all NPD patrol cars provides officers with alternatives to deadly force. Quoted amount: \$3,000</p> <p>Taser Replacement - A taser is a less-than-lethal device. Every Police Officer carries this device on their duty belt and has since 2011. Each unit must be replaced after 5 years. This will be our second replacement program for tasers.</p> <p>Digital Portable Radios - All Norwood Police Officers are issued Motorola portable radios. We have replaced older radios with Digital Capable portables. Currently, one of our neighboring mutual aid communities recently went to a digital frequency. Those officers that were not issued a new digital radio cannot monitor or communicate with this agency. Several regional tactical channels throughout Massachusetts operate on digital frequencies. Our oldest Motorola digital radios are over ten years old, and soon parts are no longer available for repairs.</p>

Facilities - Norwood High School

Facilities, Norwood High School: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Track & Field Replacement	Facilities	High School	2022	1,200,000	Facility	F-NHS2020-22-01	Free Cash
Stadium Lights	Facilities	High School	2022	650,000	Facility	F-NHS2020-23-01	Free Cash
High School Solar	Facilities	High School	2022	30,000	Facility	F-NHS2022-22-01	Free Cash
Concession Stand	Facilities	High School	2023	300,000	Facility	F-NHS2020-24-01	TBD

<i>Facilities, Norwood High School: Project Descriptions</i>
Track & Field Replacement - This project would replace the exterior track at the high school and replace the turf field at the high school. Both the track and the field receive almost daily use. The anticipated lifespan of turf fields is ten years. The Norwood High School turf field was installed in 2010.
Stadium Lights - This project would add exterior evening lights to hold games, events, and other functions on the football field behind the High School.
High School Solar - The HS solar renewable energy system has been off-line for more than two years due to a catastrophic wind storm. The repair cost includes an update to a major system component and re-energizing the system. The system provides about 4% of the school's electric energy and saves the School Department \$6,000 a year in utility costs.
Concession Stand - This project would build a permanent concession stand outside the high school adjacent to the football field.

Facilities - Savage Center and Council on Aging

Facilities, Savage Center: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Generator for the COA at the Savage Center	Facilities	COA	2022	125,000	Facility	F-SVC2022-22-01	Free Cash
Parking Lot	Facilities	Savage	2023	455,305	Facility	F-SVC2020-23-01	TBD
Window & Door Replacement	Facilities	Savage	2025	450,000	Facility	F-SVC2021-25-01	TBD

<i>Facilities, Savage Center and Council on Aging: Project Descriptions</i>
Generator for the COA at the Savage Center - The Senior Center is used as an emergency center all year round. There is no redundancy if the lights, heat, and air conditioning go out. This generator will allow the Senior Center to be a more effective emergency center.
Renovation of Parking lot - This project would look to renovate the parking at this building. The parking lot is over 40 years old.
Window and Door Replacement - This project would remove and replace all windows and exterior doors with energy saving products. The new doors and windows will also provide better security for the building.

Facilities - Elementary Schools

Facilities, Elementary Schools: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Dual Fuel Boiler Burners & Install High Pressure Gas Line	Facilities	Balch	2022	140,000	Facility	F-ELE2020-22-01	Free Cash
LED Lights	Facilities	Multiple & Town Hall	2022	140,000	Facility	F-ELE2020-21-02/F-TH2022-22-01	Free Cash
Low Flush Toilets & Faucets	Facilities	Multiple	2022	120,000	Facility	F-ELE2022-22-09	Free Cash
Floor Tile Replacement	Facilities	Balch	2023	95,000	Facility	F-ELE2020-23-01	TBD
Floor Tile Replacement	Facilities	Callahan	2023	30,500	Facility	F-ELE2020-23-02	TBD
Boiler Replacement	Facilities	Oldham	2023	300,000	Facility	F-ELE2020-22-02	TBD
Parking Lots	Facilities	Willett	2023	262,869	Facility	F-ELE2021-23-01	TBD
Floor Tile Replacement	Facilities	Willett	2023	100,000	Facility	F-ELE2020-23-03	TBD
Masonry Repairs	Facilities	Callahan	2024	35,000	Facility	F-ELE2020-24-01	TBD
Parking Lots	Facilities	Cleveland	2024	394,761	Facility	F-ELE2021-23-01	TBD
Masonry Repairs	Facilities	Cleveland	2024	30,000	Facility	F-ELE2020-24-02	TBD
Parking Lots	Facilities	Oldham	2024	273,635	Facility	F-ELE2021-23-01	TBD
Masonry Repairs	Facilities	Prescott	2024	30,000	Facility	F-ELE2020-24-03	TBD
Parking Lots	Facilities	Callahan	2025	216,789	Facility	F-ELE2021-23-01	TBD
Parking Lots	Facilities	Prescott	2025	295,728	Facility	F-ELE2021-23-01	TBD

Facilities, Elementary Schools: Project Descriptions

<p>Balch Dual Fuel Burners - The oil burners are experiencing numerous lockouts and nuisance failures. There is evidence of water infiltration into the existing fuel oil tank. There is also sediment and debris in the oil system, causing some of the issues. If approved, we would replace the oil burners with new, more efficient gas burners.</p>
<p>LED Lights for the Elementary Schools & Town Hall - The lighting retrofit will save the Town \$3,000 to \$20,000 annually per building. The payback will only take 1.6 to 2.2 years. There are rebates available through the calendar year 2021 to help pay for the cost.</p> <p>LED Lights for the Town Hall - The lighting retrofit will save the Town \$12,500 annually. The payback will only take 4.4 years. There are rebates available through the 2021 calendar year to help pay for the cost.</p> <p>Estimated Cost Per Building: Balch: \$13,421; Callahan: \$10,247; Cleveland: \$12,369; Oldham: \$12,559; Prescott: \$7,984; Willett: \$28,985; Town Hall: \$35,050; Contingency: \$19,385.</p> <p>We are requesting Town Meeting to appropriate Free Cash to pay for this project. We are also simultaneously requesting Green Community Funding to pay for these projects. If we are awarded Green Community funding for these projects, we will turn back the free cash.</p>
<p>Low Flush Toilets & Faucets (Various) - The current toilets faucets in many Norwood elementary buildings are inefficient. New ones will be more efficient, saving the Town money and water. The new toilets use one-third (one gallon total) of water needed to flush an existing toilet in Norwood elementary buildings. The cost will be for the materials only. The Facilities Department will install the faucets and toilets.</p> <p>Estimated Cost Per Building: Cleveland: \$30,881; Oldham: \$23,355; Prescott: \$24,876; Willett: \$25,982; Contingency: \$14,905.</p>
<p>Floor Tile Replacement (Various) - This project would remove and replace asbestos floor tile at several elementary school buildings.</p>
<p>Oldham School Boiler Replacement - This project would replace the boiler at the Oldham School, which is reaching the end of its useful life. This project may be an MSBA project, depending on the overall cost. We will apply for additional grant funding through the Green Communities program.</p>
<p>Masonry Repairs (Various) - This project would repair and repaint damaged brick masonry on the exterior of the building.</p>
<p>Parking Lots (Various) - The parking lots at the schools are the original ones installed over 40+ years ago. They are in disrepair and need replacing.</p>

Facilities - Public Safety Building

Facilities, Public Safety Building: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
REPLACE HVAC	Facilities	Public Safety Building	2022	4,000,000	General	F-PSB2020-20-02	Borrowing
Carpeting & Other Flooring	Facilities	Public Safety Building	2023	130,000	General	F-PSB2020-20-01	TBD
Repairs to Apparatus Floor	Facilities	Public Safety Building	2023	75,000	General	F-PSB2020-20-01	TBD
Roof Repairs	Facilities	Public Safety Building	2024	100,000	General	F-PSB2020-20-01	TBD
Replace Generator	Facilities	Public Safety Building	2025	190,000	General	F-PSB2022-25-01	TBD

Facilities, Public Safety Building: Project Descriptions
<p>Replace HVAC System - The HVAC system has been problematic since it was installed 20 years ago. It currently experiences failure several times a year. The system operates 24/7, with most of the building occupied throughout the day, thus wearing the system down faster than a standard commercial HVAC system. Significant resources have been poured into the system to work correctly, but it still doesn't function correctly. There are hot and cold areas all year round. An in-depth analysis of the building's energy use and utility costs shows that, on average, it consumes 60% more energy than other public safety buildings in MA and 100% more than the US national average. This retrofit will decrease the utility costs by 46%, or \$135,000 a year, and bring the energy use below the state average.</p>
<p>Carpeting/Flooring Replacement - Most of the carpeting and flooring throughout the building is reaching the end of its useful life. Because the Police & Fire Departments are all-weather, 24/7 departments, there is more wear and tear than standard residential or commercial facilities. Much of the carpet in the building is original to the early 2000's construction. As carpet ages, it begins to cause mold and air quality issues that can negatively impact the health and wellbeing of staff.</p>
<p>Repairs to Apparatus Floor - The apparatus floor on which millions of dollars of fire equipment sits is beginning to show its age. Because the apparatus floor is always in use by the Fire Department, it could pose a safety hazard if the apparatus floor deteriorates significantly and could impact response times.</p>
<p>Roof Replacement - The roof will reach 20 years of age in FY2024, which is its life expectancy. The design services in FY23 will determine whether a total replacement is needed, repairs only need to be completed, or if the condition is good enough, no significant work is necessary.</p>
<p>Replace Generator - The generator at the Public Safety Building will reach the end of its useful life soon. The Public Safety Building must have the ability to operate 24/7 despite the loss of power.</p>

Facilities - Town Hall

Facilities, Town Hall: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Replace Generator	Facilities	Town Hall	2024	190,000	Facility	F-TH2022-23-01	TBD
Upgrade Mechanical, Electrical, Plumbing	Facilities	Town Hall	On Hold	2,750,000	Facility	On Hold	TBD
Renovate Town Hall Offices	Facilities	Town Hall	On Hold	1,000,000	Facility	On Hold	TBD

<i>Facilities, Town Hall: Project Descriptions</i>
Replace Generator - The generator at Town Hall is well past its recommended life cycle, which was originally the Public Safety Building generator. In an emergency, Town Hall must have power to continue to serve residents.

Facilities - Civic Center

Facilities, Civic Center: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Renovations of Women's Locker Room	Facilities	Civic Center	2022	210,000	Facility	F-CIV2020-23-03	Free Cash
Renovation of Lobby/Office at Civic Center	Facilities	Civic Center	2022	110,000	Facility	F-CIV2021-22-02	Free Cash
Kitchen Remodel	Facilities	Civic Center	2024	125,000	Facility	F-CIV2020-22-01	TBD
Replacement of Asphalt Shingle Roof	Facilities	Civic Center	2025	150,000	Facility	F-CIV2020-23-02	TBD
Generator Replacement	Facilities	Civic Center	2026	190,000	Facility	F-CIV2021-26-01	TBD
Installation of Air Conditioning in Weight Room	Facilities	Civic Center	2026	200,000	Facility	F-CIV2021-26-02	TBD

<i>Facilities, Civic Center: Project Descriptions</i>
<p>Renovation Women's Locker Room- The women's locker room has not had any major renovations since the building opened in the early 1980s. The shower floor is starting to crack, the shower posts are outdated and failing, and the partitions/benches are cracking. The Town renovated the men's locker room in 2018.</p>
<p>Renovation to Lobby/Office- The Recreation Department has updated the old DPW offices and has started to offer programming and meeting spaces out of that room. We want to make the waiting area and the hallway one large lobby area when you first enter the Civic Center. During peak times, the entrance can be very crowded as it's a narrow hallway, we have no waiting area (currently use office), and it would allow us to serve residents more effectively. We would also like to renovate the office area, create two service desks in the lobby area, and create offices within our main office area.</p>
<p>Roof Replacement - The roof at the Civic is reaching the end of its useful life. The design services will determine whether substantial work or complete replacement is necessary. If the roof is determined to be in good condition at that time, money should be placed in a reserve (special purpose stabilization) fund for the eventual replacement of this roof.</p>
<p>Kitchen Remodel- The kitchen has not had any significant renovations since the building opened in the early 1980s. The cabinets and appliances are all outdated and failing. We use this area for recreational programs for all ages, and it needs to be addressed as our demand for cooking programs has grown.</p>
<p>Generator Replacement - The generator at the Civic Center needs replacement. The Civic Center is a designated shelter in times of emergency. The redundancy a generator provides the Civic Center when the power goes out would be invaluable in an emergency.</p>
<p>Installation of Air-Conditioning in Weight Room - We have received numerous inquiries about the possibility of installing air conditioning in our weight room. Right now, the only two areas that do not have air conditioning in the building are the weight room and the gymnasium. During the summer months the room becomes too hot for residents to enjoy the work out area and with a good portion of our members being seniors is a concern.</p>

Facilities – Central Street (Old Light Department)

Central Street Facilities: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Oil to Gas Conversion	Facilities	Central Street	2023	30,000	Facility	F-CEN2022-23-01	TBD
Oil to Electric Conversion	Facilities	Central Street	2023	12,000	Facility	F-CEN2022-23-02	TBD

<i>Central Street Facility: Project Descriptions</i>
Oil to Gas Conversion - The 206 Central Street oil to gas conversion will save the town about \$2,500 a year and reduce the energy use at the facility by about 12%.
Oil to Electric Conversion - The 206 Central Street rear oil conversion project would be best served by converting to electric heat. Running a gas line to the site is prohibitively expensive. A 25%-50% energy use reduction would be possible by installing an electric boiler or a new air source heat pump.

Facilities - General Government Unallocated Buildings

Facilities, General Government Unallocated Buildings: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Demolition of Ellis Pumping Station	Facilities	Ellis Station	2024	250,000	Facility	F-ELL2022-24-01	TBD

<i>Facilities, General Government Unallocated Buildings: Project Descriptions</i>
<p>Demolition of Ellis Pumping Station - This building is unoccupied and currently used for some storage of Water Department materials. At one time, the Town had hoped to make repairs to the roof and continue to use the building for storage, but the deterioration of the structure has made that option impossible. This building was built as a pumping station and is essentially a brick shell encasing old pumping equipment and large diameter piping. It is not considered usable for office or other space. It is essentially a brick shell covering large equipment, not a standard building. The Town allocated funds for the demolition years ago, but they were allocated elsewhere in a challenging budget year. The building does not meet ADA accessibility standards, is loaded with asbestos, and was shut down in the late 1970s. It cannot return to use as a pump station.</p>

Facilities - *Norwood Memorial Airport*

Norwood Memorial Airport: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Capstone Project, Airport Park, Site Improvements	Airport	Airport	2022	75,000	Facility	F-AIR2022-22-01	Free Cash
Re-construct runway 10/28	Airport	Airport	2023	180,000	Facility	F-AIR2020-22-01	TBD
Taxiway C re-location	Airport	Airport	2023	100,000	Facility	F-AIR2021-23-02	TBD
Taxiway A post-construction monitoring	Airport	Airport	2024	3,500	Facility	F-AIR2022-24-01	TBD
Security/wildlife fence replacement, phase 1	Airport	Airport	2024	45,000	Facility	F-AIR2022-24-02	TBD
Security/wildlife fence replacement, phase 2	Airport	Airport	2025	45,000	Facility	F-AIR2022-25-01	TBD

Norwood Memorial Airport: Project Descriptions

Capstone Project, Airport Park Site Improvements — This construction grant project is being requested through MassDOT/Aeronautics, with a proposed 80% cost share by MassDOT/Aeronautics and a 20% cost-share by Norwood. The locus of proposed work is adjacent to, and just north of, the airport administration building, and the project would complete a comprehensive, 14-year commitment to improving the site.

This work began in 2007 during phase I of the snow removal equipment/airport administration building project. Since then, the site has become the airport's main observation area, a park in fact, which today overlooks the Norwood Airport's aircraft operating areas. The Norwood Airport Commission (NAC) has already improved the site by constructing two public parking lots and installing a flagpole, picnic benches, and tables. Since making these improvements, the volume of pedestrian traffic which frequents this site continues to grow. The NAC is therefore proposing this capstone project further to enhance the visiting/viewing public's experience.

With MassDOT grant financing, the Town would construct a block modular retaining wall and guard rail. Additional work would include some excavation, grading, loaming, and seeding, along with the removal/re-setting of a perimeter fence, plus installation of an irrigation system. The Town has already produced engineering drawings, site renderings, and an itemized estimate. During the construction phase, the Town would also provide resident inspection services.

The Town solicited bids for this capital project earlier this year, but due to an unrealistic timeline for completion, the Town rejected the one bid received. The bid for this project totaled \$225,615.

With a proposed 75% cost share by MassDOT/Aeronautics and a 25% cost-share by the Town of Norwood, the Airport Department is seeking \$75,00 in CIP funding for this project in FY2022. We now believe the project will cost a total of \$247,000.

Re-Construction of Runway — Runway 10/28, which is 3,995 feet long and 75 feet wide, was re-constructed with federal/state grant assistance in 1995. As a general rule, FAA expects publicly funded runways to realize a 20-year life cycle, and runway 10/28 is now six years beyond its projected life cycle. Additionally, based on a recent pavement management system inspection by MassDOT, this runway's need for re-construction has been identified using quantifiable methodologies. This federal/state grant-share project would address the re-construction of this aging runway.

Taxiway C Re-Location — This federal/state grant-share project would address the re-location of taxiway C, west side (200 ft. x 35 ft.) to eliminate a direct connection from an apron to a runway.

Post Construction Monitoring, Phase 2, Taxiway A - This federal/state grant-share project would address the continuation of environmental monitoring services for the post-construction phase of the airport's taxiway. Monitoring and invasive species control measures are required explicitly by the Massachusetts Department of Environmental Protection and Natural Heritage and Endangered Species Program for a period of five years before a request for a Certificate of Compliance can be made. This scope of work addresses the final years of monitoring and reporting as required by the variance order of conditions.

Wildlife/Security Fence, Phase 1 — The airport is currently bound within a substantial run of wildlife/perimeter fencing. However, most of the fence-line is in disrepair as it is more than 20 years old and situated primarily on wetlands. This federal/state grant-share project would involve the two-phase replacement of about 20,000 linear feet of fence, installed initially with federal/state grant assistance in 2001.

Wildlife/Security Fence, Phase 2 — See above.

Parks, Playgrounds, Open Space

Parks, Playgrounds, Open Space: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Poured Rubber at Murphy Playground	Recreation	Playgrounds and Pools	2022	115,000	General	PPO2022-22-03	Free Cash
Hawes Pool repair/ ADA ramp	Recreation	Playgrounds and Pools	2023	100,000	General	PPO2022-23-05	TBD
Addition of playground to Civic Center	Recreation	Playgrounds and Pools	2023	150,000	General	PPO2022-23-02	TBD
Renovation of Outdoor Bathrooms at Lower Balch	Recreation	Playgrounds and Pools	2023	100,000	General	PPO2022-23-03	TBD
Renovation of Lower Coakley Field	Recreation	Playgrounds and Pools	2023	250,000	General	PPO2022-23-04	TBD
Renovation of Hawes Pool Playground	Recreation	Playgrounds and Pools	2024	381,002	General	PPO2022-24-01	TBD
Poured Rubber at Wilson St. Playground	Recreation	Playgrounds and Pools	2024	101,000	General	PPO2022-24-02	TBD
Install Playground/Green Space at Civic Center	Recreation	Playgrounds and Pools	2024	250,000	General	PPO2022-24-03	TBD
Renovation to Father Mac's Playground	Recreation	Playgrounds and Pools	2025	400,000	General	PPO2022-25-01	TBD

Parks, Playgrounds, Open Space: Project Descriptions

Poured Rubber at Murphy Playground - This is a continued initiative from the Recreation Department to make our playgrounds more inclusive for our residents. The poured rubber surface is far more accessible than the current surface (wood chips) and requires little or no maintenance. This surface also falls in line with the Open Space and Recreation Plan and the ADA Transition Plan for the Town of Norwood.

Hawes Pool repair/ ADA ramp - Hawes Pool was built in 1949 and is, unfortunately, losing water. We have eliminated the plumbing and now know it's the pool itself. This repair will address this issue. At this time, we would like to address the accessibility of the pool as well. The pool currently has a secondary means of entry for people with a disability, which is not acceptable for ADA accessibility. This would also fall in line with our ADA Transition Plan for the Town.

Addition of playground to Civic Center - The Civic Center has a gully in the rear of the building. When we experience bad rainstorms, the gully collects the rainwater from the DPW Yard and Civic Center. If the rain is bad enough, the storm system backs up, and that rainwater will spill over into the Civic Center (the past 6 years, we have had one flood a year in the Civic Center). This green space would allow us to fill in that gully, create a green space where the gully is currently, prevent flooding moving forward (water would now run down the parking lot to Nahatan Street), and add a green space for outdoor programs (something we currently do not have). The last June 28, 2020 flood cost the Town close to \$30,000 in repairs.

Renovation of outdoor bathrooms at Lower Balch - The bathroom and storage area at the Eliot Field area has reached its useful life and has begun to fail. Currently, there is significant damage to the roof, windows, and the structure itself needs work. The storage unit and bathroom are two separate buildings, and we would like to see those buildings combined.

Renovation of Lower Coakley Field - The athletic fields next to the Coakley Middle School (Jerry Miller Athletic Complex) will be offline during the construction of the new Middle School. Those fields are the most heavily used in town for youth sports (primarily for soccer, football, and lacrosse). In preparation for these fields being offline in a few years, we would like to explore turning the lower baseball field into a multi-use sports field. The results of the study will dictate the renovation project.

Renovation of Hawes Pool Playground - The Town installed the current playground near Hawes Pool in 1999. The playground is one of Norwood's most heavily used playgrounds. It could be considered a "destination" playground. The playground is unfortunately not accessible but needs to be. This project aligns with our Open Space and Recreation Plan and the ADA Transition Plan for the Town of Norwood.

Poured Rubber at Wilson St. Playground - This is a continued initiative from the Recreation Department to make our playgrounds more inclusive for our residents. The poured rubber surface is far more accessible than the current surface (wood chips) and requires little or no maintenance. This surface also falls in line with the Open Space and Recreation Plan and the ADA Transition Plan for the Town of Norwood.

Fleet Management - *Public Works Fleet*

Fleet Management: Public Works Fleet: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Replace Truck #4 – Dump Truck	Public Works	Highway	2022	150,000	Fleet	V-HWY2021-22-01	Operating Budget
Replace Truck #8 - Pickup	Public Works	Highway	2022	56,000	Fleet	V-HWY2021-24-02	Operating Budget
Sidewalk Tractor	Public Works	Highway	2022	103,000	Fleet	V-HWY2022-22-01	Operating Budget
Leaf Packer Truck	Public Works	Highway	2022	240,000	Fleet	V-HWY2022-22-02	Free Cash
Truck #CEM2 – 1-Ton Dump Truck	Public Works	Cemetery	2022	65,000	Fleet	V-CEM2020-22-01	Free Cash
Mini Loader	Public Works	Cemetery	2022	70,000	Fleet	V-CEM2022-22-01	Free Cash
Truck #33	Public Works	Highway	2023	160,000	Fleet	V-HWY2022-23-01	TBD
Street Sweeper	Public Works	Highway	2023	200,000	Fleet	V-HWY2022-23-02	TBD
Replace Truck #45 – Dump Truck	Public Works	Highway	2023	150,000	Fleet	V-HWY2020-22-02	TBD
CEM Backhoe	Public Works	Cemetery	2023	130,000	Fleet	V-CEM2021-23-01	TBD
Rider Mower	Public Works	Cemetery	2023	10,000	Fleet	V-CEM2020-22-02	Operating Budget
Replace Truck #25 – Dump Truck	Public Works	Highway	2024	150,000	Fleet	V-HWY2020-23-01	TBD
Replace Loader L1	Public Works	Highway	2024	165,000	Fleet	V-HWY2020-23-03	TBD
Replace Backhoe – JD1	Public Works	Highway	2024	130,000	Fleet	V-HWY2020-21-03	TBD
Rider Mower	Public Works	Cemetery	2024	10,000	Fleet	V-CEM2022-24-02	Operating Budget
Replace Truck #6- Salt Truck	Public Works	Highway	2025	150,000	Fleet	V-HWY2021-24-01	TBD
Replace Truck #10 – Water Utility Truck	Public Works	Highway	2025	60,000	Fleet	V-HWY2021-25-01	TBD
Replace Truck #47 – Dump Truck	Public Works	Highway	2025	150,000	Fleet	V-HWY2020-23-02	TBD

Trailer	Public Works	Highway	2025	18,000	Fleet	V-HWY2022-25-01	TBD
Rider Mower	Public Works	Cemetery	2025	10,000	Fleet	V-CEM2022-25-01	Operating Budget
Replace Truck #20 – Salt Truck	Public Works	Highway	2026	150,000	Fleet	V-HWY2021-25-02	TBD
Replace Truck #50 – Salt Truck	Public Works	Highway	2026	150,000	Fleet	V-HWY2021-25-03	TBD
Skid Loader	Public Works	Highway	2026	50,000	Fleet	V-HWY2022-26-01	TBD
Light Tower	Public Works	Highway	2026	10,000	Fleet	V-HWY2022-26-02	TBD
CEM #1	Public Works	Cemetery	2026	40,000	Fleet	V-CEM2022-26-01	TBD

<i>Department of Public Works Fleet Management: Project Descriptions</i>
Replace Truck # 4 - Replace 2006 5-ton dump truck utilized year-round hauling material & snow plow/removal operations.
Replace Truck # 8 - Replace 2008 pickup with a utility truck for the highway & parks foreman. This utility truck is utilized year-round, performing all tasks assigned to the highway & parks division, including snow plow/removal operations.
Replace Sidewalk Tractor - Replace 1998 multi-purpose sidewalk tractor used year-round cutting brush along roadways & essential equipment for sidewalk snowplow/removal operations. This request includes the snowblower attachment necessary for sidewalk snowplow/removal operations.
Replace Leaf Packer Truck - Replace 1995 leaf packer truck. The Town uses two leaf packer trucks to provide curbside leaf bag pickup services. This truck continually has mechanical issues & has now been taken out of service. This new leaf packer truck would work along with the other 2010 leaf packer truck.
Replace Cemetery Truck CEM #2 - Replace 2008 1 Ton Dump Truck utilized year-round at the cemeteries hauling materials, transporting burial liners, & snowplow/removal operations.
Replace Mini-Loader - Replace 1998 skid steer with a more versatile mini loader. This mini loader allows the transport of materials in tight quarters, particularly around cemetery headstones. This mini loader would also be utilized for snow plow/removal operations.
Replace Truck # 33 - Replace 2002 ten wheel dump truck utilized year-round hauling large loads of materials & snowplow/removal operations.
Replace Street Sweeper - Replace the 2010 street sweeper that is utilized daily from March through November.
Replace Truck # 45 - Replace 2006 five-ton dump truck utilized year-round hauling material & snowplow/removal operations.
Replace Cemetery Backhoe - Replace 2001 cemetery backhoe utilized year-round at cemeteries to dig graves, remove stumps, plant trees, & snow plow/removal operations.
Replace Rider Mower - Replace the existing riding mower that is used to cut grass at Highland Cemetery & Old Parish Cemetery.
Replace Truck # 25 - Replace 2007 5-ton dump truck utilized year-round hauling material & snowplow/removal operations.
Replace Loader #1 - Replace 2005 front end loader utilized year-round loading & delivering materials & snowplow/removal operations.
Replace DPW Backhoe - Replace 2008 backhoe utilized year-round performing excavations, loading materials, & snowplow/removal operations.
Replace Rider Mower - Replace existing riding mower that is used to cut grass at Highland Cemetery & Old Parish Cemetery.
Replace Truck # 6 - Replace 2009 Salter/Sander Truck utilized during the snow & ice season, applying road salt & liquid magnesium chloride (liquid salt).
Replace Truck # 10 - Replace 2010 Water Department Utility Truck utilized year-round carrying Water Department tools & equipment.
Replace Truck # 47 - Replace 2007 five-ton dump truck utilized year-round hauling materials, carrying water tank to water flowers and trees, & snow plow/removal operations.
Replace Trailer - Replace 1984 construction trailer used year-round transporting equipment & materials to project sites.
Replace Rider Mower - Replace existing riding mower used to cut grass at Highland Cemetery and Old Parish Cemetery.
Replace Truck #20 - Replace 2009 salter/sander truck utilized during the snow & ice season, applying road salt & liquid magnesium chloride (liquid salt).
Replace Truck # 50 - Replace 2009 salter/sander truck utilized during the snow & ice season, applying road salt & liquid magnesium chloride (liquid salt).
Replace Skid Loader - Replace 2009 skid loader utilized year-round moving materials in tight quarters & snowplow/removal operations.
Replace Light Tower - Replace 2005 portable light tower used during nighttime construction activities & has emergency generator capabilities.
Replace CEM #1 - Replace 2016 cemetery superintendent vehicle utilized year-round, including snow plow/removal operations.

Fleet Management - Fire & Ambulance Fleet

Fleet Management, Fire & Ambulance: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
New Engine - Replace Engine #2	Fire	Fire	2022	975,000	Fleet	V-NFD2022-22-01	Free Cash
Replace Ambulance (NA2) w/Stryker	Fire	Fire	2024	550,000	Fleet	V-NFD2020-24-01	TBD
New Engine - Replace Engine	Fire	Fire	2026	1,000,000	Fleet	V-NFD2020-25-01	TBD

<i>Fire Department Fleet Management: Project Descriptions</i>
<p>New Engine - Replace Engine #2 - On April 5, 2021, Shane McBride, Norwood Fire Department Mechanic, performed a comprehensive review of maintenance issues on Engine #2, a class A fire engine. The examination revealed an overwhelming list of maintenance issues. The most significant issues are as follows: frame rot, multiple electrical problems, engine failure, suspension, and brakes. The repair estimate was above 50% of the purchase price of a vehicle. The Department removed the vehicle from service, and per Town guidelines, Engine 2 was sold via auction following Town policy.</p>
<p>Replace Ambulance (NA2) w/Stryker - This project would complete the scheduled replacement of NA2, one of our primary ambulance units. NA2 is a 2015 vehicle and is the oldest ambulance in our fleet. This replacement will include a stryker unit, a patient lift assistance device to reduce the potential for injury to our members and patients when being lifted in and out of the ambulance. Due to the closure of Norwood Hospital, our fleet has experienced increased maintenance costs and a shorter functioning life span.</p>
<p>New Engine - Replace Engine - Shane McBride, Norwood Fire Department Mechanic, performed a comprehensive review of maintenance issues on Engine #3, a class A Fire Engine. The Department will place the vehicle in service under minimal circumstances and for short periods of time in a reserve capacity only. The life expectancy of Engine #3 is 4 or 5 years. After that, it is anticipated that this truck will no longer serve the Fire Department's needs in any manner.</p>

Fleet Management - *Police*

Fleet Management, Police: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Ford Interceptor (2)	Police	Police	2022	114,780	Fleet	Operating Budget	Operating Budget
Dodge Durango (1)	Police	Police	2022	64,295	Fleet	Operating Budget	Operating Budget
Harley Davidson (2)	Police	Police	2022	46,910	Fleet	Operating Budget	Operating Budget
Police Cruisers (4)	Police	Police	2023	238,140	Fleet	Operating Budget	Operating Budget
Police Cruisers (4)	Police	Police	2024	250,048	Fleet	Operating Budget	Operating Budget
Police Cruisers (4)	Police	Police	2025	262,500	Fleet	Operating Budget	Operating Budget
Police Cruisers (4)	Police	Police	2026	275,624	Fleet	Operating Budget	Operating Budget

<i>Police Department Fleet Management: Project Descriptions</i>
<p>Fleet Management: Police Fleet - The police fleet maintains 20 vehicles with an average age of 4.5 years. The replacement of a front-line patrol vehicle should be completed every three years. Back-up and administrative vehicles should not exceed a five-year replacement. Police vehicles require a higher degree of reliability than other municipal vehicles. Police vehicles also wear and tear much faster than other municipal vehicles due to their continued use, all-weather conditions they operate in, as well as the engine degradation from pursuit, and immediate response requirements. To help our environment last fiscal year, we began to purchase hybrid vehicles. We plan to continue this into this fiscal year as well.</p>

Fleet Management - School Transportation Fleet

School Department Transportation: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
<i>Minibus (1)*</i>	School	Transportation	2022	65,000	Fleet	V-STR2022-22-01	<i>Already Purchased</i>
<i>Ford T350 Wheel Chair Van (1)*</i>	School	Transportation	2022	51,000	Fleet	V-STR2022-22-02	<i>Already Purchased</i>
<i>Ford E-150 Vans (3)*</i>	School	Transportation	2022	105,000	Fleet	V-STR2022-22-03	<i>Already Purchased</i>
Ford E-150 Vans (2)	School	Transportation	2022	80,000	Fleet	V-STR2022-22-04	Free Cash
Ford Wheel Chair-E350	School	Transportation	2022	40,000	Fleet	V-STR2022-22-05	Free Cash
Ford E-150 Vans (5)	School	Transportation	2023	200,000	Fleet	V-STR2022-23-01	TBD
Dodge Caravan (2)	School	Transportation	2023	80,000	Fleet	V-STR2022-23-02	TBD
<i>* Symbolizes a project that has already been funded.</i>							

<i>School Department Transportation: Project Descriptions</i>
Ford E-150 Vans (2) - The School Department started a significant replacement of its SPED vehicles two years ago. The fleet was in terrible condition and needed to be replaced. Starting next year, the School Department will begin replacing its fleet regularly using operating funding.
Ford Wheel Chair-E350 - The School Department started a significant replacement of its SPED vehicles two years ago. The fleet was in terrible condition and needed to be replaced. Starting next year, the School Department will begin replacing its fleet regularly using operating funding.

Fleet Management - *Facilities Department*

Facilities, Fleet: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
F250 Pickup Truck	Facilities	Facilities	2023	60,000	Fleet	V-SCH2020-23-01	TBD
Backhoe	Facilities	Facilities	2023	65,000	Fleet	V-SCH2020-23-02	TBD
Owens Trailer	Facilities	Facilities	2024	7,500	Fleet	V-SCH2020-24-01	TBD
Chevy Box Truck	Facilities	Facilities	2024	45,000	Fleet	V-SCH2020-24-02	TBD

<i>Facilities, Fleet: Project Descriptions</i>
<p>Fleet - Currently, the Facilities Department maintains 15 vehicles and large equipment and trailers. The average age of our vehicle/equipment is 11 years. We try to replace our fleet in the 5-9 year range. A good model is to have a replacement of 10% of the value of the fleet in any given year.</p>

Infrastructure Improvement Plan (IIP)

Infrastructure Improvement Plan: Summarized Capital Outlay							
Description	Department	Division	Fiscal Year	Total Cost/ Request	General, Fleet, or Facility	Project Number	Funding Source
Road Repair Program Second Year	Public Works	IIP - Highway	2022	2,800,000	General	IIP - HWY2021-21-01	Borrowing
Water Improvement Program Second Year	Public Works	IIP - Water	2022	4,500,000	General	IIP-WNS2021-22-01	Rates-Borrow
Road Repair Program Third Year	Public Works	IIP - Highway	2023	2,800,000	General	IIP - HWY2021-23-01	Borrowing
Water Improvement Program Third Year	Public Works	IIP - Water	2023	4,500,000	General	IIP - WNS2021-23-01	Rates-Borrow
Road Repair Program Fourth Year	Public Works	IIP - Highway	2024	2,800,000	General	IIP - HWY2021-24-01	Borrowing
Water Improvement Program Fourth Year	Public Works	IIP - Water	2024	4,500,000	General	IIP - WNS2021-24-01	Rates-Borrow
Road Repair Program Fifth Year	Public Works	IIP - Highway	2025	2,800,000	General	IIP - HWY2021-25-01	Borrowing
Water Improvement Program Fifth Year	Public Works	IIP - Water	2025	4,500,000	General	IIP - WNS2021-25-01	Rates-Borrow
Water Improvement Program Sixth Year	Public Works	IIP - Water	2026	4,500,000	General	IIP - WNS2021-26-01	Rates-Borrow
Water Improvement Program Seventh Year	Public Works	IIP - Water	2027	4,500,000	General	IIP - WNS2021-27-01	Rates-Borrow
Water Improvement Program Eighth Year	Public Works	IIP - Water	2028	4,500,000	General	IIP - WNS2021-28-01	Rates-Borrow
Water Improvement Program Ninth Year	Public Works	IIP - Water	2029	4,500,000	General	IIP - WNS2021-29-01	Rates-Borrow
Water Improvement Program Tenth Year	Public Works	IIP - Water	2030	4,500,000	General	IIP - WNS2021-10-01	Rates-Borrow

Infrastructure Improvement Plan: Project Descriptions

Water Improvement Plan – This request is the second year of the ten year water improvement plan. The Town of Norwood has 119 miles (628,320 feet) of water mains with various diameters. Before the mid-1950's cast iron/ductile iron water mains were installed without a lining on the interior wall. These unlined pipes gradually build up tuberculation on the interior walls, causing discolored water and reduced fire flow capacities. Since the mid-1950s, water mains have been installed with a cement lining that prevents tuberculation. In the mid-1980s, Norwood has annually cleaned and cement-lined water mains that do not have a lining. This program typically rehabilitates 3,000 – 5,000 feet of water main each year. However, as of February 2020, there are still 185,000 feet (29%) of water mains that need to be cleaned and lined. At the present rate of cleaning and lining 5,000 feet of water main each year, it will take 37 years to have all of Norwood's water mains lined. The Town proposes a more aggressive program to reach the goal of lining all of our water mains. This will provide aesthetic drinking water town-wide & improve fire flows. Since water main costs are approximately \$225 per foot, it would take an investment of \$41,625,000 to rehabilitate the remaining water mains (185,000 feet x \$225/foot) in five years. Since this is a long-term capital investment, the Town can choose to borrow funds over a 30-year period, which is typical for water & sewer projects throughout the United States.

The projected borrowing is \$4,500,000 per year: \$45,000,000 over ten years. Due to the estimated increase in construction cost, we will need to borrow more money to complete the same work over ten years. The total amount requested is projected to be in addition to our current MWRA borrowing program to adjust for inflation, engineering, and contingency, which typically results in an annual rate increase of about 2.5%. In the program's final year, we may be able to reduce our request of \$4,500,000, further lessening the impact on ratepayers. This is an added benefit of taking the project in ten separate borrowings; we may be able to take advantage of other MWRA or state clean water initiatives. If we can increase our MWRA zero-interest loans, we will do so. Many hidden costs are associated with older and unlined pipes. They are more susceptible to breaking. When lines break (regardless of the impact on water users), we often incur huge overtime costs, emergency repair costs and lose millions of gallons of water for which the Town pays.

Road Repair - If approved, this would be the second year of the five year road repair program. The Town of Norwood has 110 miles of roadways, of varying widths, with a combined area of 2.1 million square yards. Since 1999, the Town has resurfaced 1.13 million square yards of roadway, thereby leaving 0.97 (970,000) square yards of roadway not resurfaced since 1999. A best practice is to adopt a program in which each roadway is paved once every 25 years. This would require the resurfacing of 84,000 square yards of roadway each year. At the current cost of \$22 per square yard, the Town would need to annually invest \$1,848,000 to meet the goal of resurfacing every roadway over 25 years. Unfortunately, due to the shortage of funds, the Town has averaged only 52,800 square yards of resurfacing over the past six years. In the early 2000s, the Town was only resurfacing an average of 12,250 square yards per year. Since the Town has not resurfaced anywhere near the annual goal of 84,000 square yards, the consensus is to resurface the remaining 0.97 million square yards of roadways during the next five years to meet the goals of all of Norwood's streets being resurfaced in the last 25 years. This would require approximately \$21,340,000 over the next five years or \$4.27 million per year. Once the goal has been achieved, an annual investment of \$1,848,000 should be made to ensure that all 110 miles of roadways are resurfaced in the next 25 years. Currently, between Chapter 90 and Town appropriation, approximately \$1,500,000 is spent annually on the road resurfacing; thus, the annual amount needed each year for the next five years is roughly \$2,422,000. For the purpose of this program and to ensure appropriate engineering, contingency, and project oversight costs, the recommended annual borrowing amount is \$2,800,000 each year for five years, with all work being completed within the 5-6 year period.

If approved, we would borrow in five separate annual increments. The total work will be completed roughly within the five-year time frame.

Appendices

Appendix 2: Unaddressed capital

Appendix 3: Horizon capital

Appendix 4: Understanding the project numbering system

Appendix 5: Proposed Funding Schedule

Appendix 6: Debt Service Analysis

Appendix 7: Rate Increase Analysis

Appendix 8: List of All Projects FY2022-FY2026

Appendix 2- Unaddressed Capital

For the purposes of the Norwood Capital Improvement Plan the Town defines unaddressed capital as areas that require either routine capital maintenance or investment that go unaddressed in the 5-year plan due to a lack of resources but must none-the-less be on the radar of the BOS, Finance Commission, and Town Meeting.

Appendix 3- Horizon Capital

For the purposes of the Norwood capital improvement plan, horizon capital will be defined as large capital projects that will occur at some point in the future but are not yet on a 5-year schedule. These may be projects that are “at some point” such as a facility repair, or something that is currently in working shape but due to age the possibility of it needing repair or replacement may come up at some point.

Renovation of Town Hall – Town Hall is over 90 years old and has never had a major renovation since it was built in 1928. Although still structurally sound and arguably the most beautiful municipal building in the country, the interior of the building is showing its age. Renovations have been made to make the building more accessible, but improvements could be made to make the building more inclusive for everyone. A total renovation of Town Hall will likely be very expensive. However, the hope is that after completing the next renovation, Town Hall won't have to be renovated for another 90 years.

Appendix 4- Project Numbering & Tracking System

When a project is placed into the CIP queue it is assigned an alphanumeric code that relates to the department the project most closely applies to, the year it was first placed on the CIP, the year the project was originally scheduled to be completed and finally a number from 1-10 or higher to distinguish multiple projects in the same fiscal year within the same department. The purpose of this system is to ensure that a record is kept for projects that are deferred from one year to another or taken off the plan, which also allows us to trace when the project was first placed into the program. This allows us to create a history that we can trace back the origins of projects and if projects are deleted all together we can understand the reasons why so that the Board of Selectmen, the Finance Commission, the Capital Outlay Committee and Town Meeting will understand the changes annually to the CIP, as many projects will be deferred in various years due to funding issues or change in need or priority.

An example of a (hypothetical) FY21 Library project would be as follows:

New bookshelves for the Morrill Memorial Library

LIB2021-21-01

LIB is the department (clearly identified in this case), 2021 is the fiscal year the project was added to the CIP, 21 indicates the fiscal year the project was originally planned to be completed, and the 01 is identifying it as one of several projects that year. If this project were to be deferred to a future year, let's say FY2023, the project number would remain the same wherever it is on the plan whether deferred or taken off completely. This will allow us to identify that the project was originally scheduled in FY21 but may be completed at a later date. This also ensures we have an understanding of all projects that have been eliminated, completed, or deferred as the CIP becomes more of a living document over time.

Codes are as follows (though new codes could be added at any time)

NPD: Police Department

NFD: Fire Department

HWY: Department of Public Works, Highway Division

PVM: Department of Public Works, Pavement Management

WNS: Department of Public Works, Water & Sewer

CEM: Department of Public Works, Cemeteries

LIB: Morrill Memorial Library

NPS: Norwood Public Schools

ITE: Information Technology & Equipment

PPO: Facilities, Parks, Playgrounds, Open Space

UNC: Uncategorized (General Government/Unallocated)

FAC: Facilities Department

STORM: Stormwater related projects

V-NPD: Vehicles, Police Department Fleet

V-NFD: Vehicles, Fire & Ambulance Department Fleet

V-HWY: Vehicles, Public Works Fleet

V-CEM: Department of Public Works, Cemeteries

V-SCH: Vehicles, Schools Buildings & Grounds

V-STR: Vehicles, School Transportation of Students

V-MSC: Vehicles, Miscellaneous/small fleets

V-FAC: Vehicles, Facilities Department

F-NHS: Facilities, Norwood High School

F-CMS: Facilities, Coakley Middle School

F-SVC: Facilities, Savage Center

F-ELE: Facilities, Elementary Schools

F-PSB: Facilities, Public Safety Building

F-THA: Facilities, Town Hall

F-CIV: Facilities, Civic Center

F-DPW: Facilities, DPW garage/admin building

F-MML: Facilities, Morrill Memorial Library

F-AIR: Facilities, Airport

F-UNA: Facilities, General Government Unallocated

Appendix 5

FY2022 CIP and IIP - Proposed Funding Schedule								
Project	Project #	Funding Source						
		Free Cash	Borrowing	Operating Budget	Grant funds	Already Purchased	CH90	Rates-Borrow
Renovation of Lobby/Office at Civic Center	F-CIV2021-22-02	110,000	-	-	-	-	-	-
Generator for the COA at the Savage Center	F-SVC2022-22-01	125,000	-	-	-	-	-	-
High School Solar	F-NHS2022-22-01	30,000	-	-	-	-	-	-
Design for Facade Issues & Painting	F-LIB2022-22-01	145,000	-	-	-	-	-	-
LED Lights	F-ELE2020-21-02/F-TH2022-22-01	140,000	-	-	-	-	-	-
Low Flush Toilets & Faucets	F-ELE2022-22-09	120,000	-	-	-	-	-	-
Portable Radios	NFD2020-23-02	330,000	-	-	-	-	-	-
SCBA's & Systems	NFD2020-22-01	405,000	-	-	-	-	-	-
Upgrade Computers in Police Department Vehicles	ITE2020-22-01	65,000	-	-	-	-	-	-
Police Defense Equipment	NPD2022-22-01	22,000	-	-	-	-	-	-
Garage HVAC \ Electric Upgrade	CEM2020-21-02	70,000	-	-	-	-	-	-
Mini Loader	V-CEM2022-22-01	70,000	-	-	-	-	-	-
Truck #CEM2 – 1-Ton Dump Truck	V-CEM2020-22-01	65,000	-	-	-	-	-	-
Leaf Packer Truck	V-HWY2022-22-02	240,000	-	-	-	-	-	-
Design Services - Washington St/Nahatan St Corridor	HWY2020-24-01	550,000	-	-	-	-	-	-
Lead Water Service Assessment	WNS2022-22-01	155,000	-	-	-	-	-	-
Design for outside bathroom at Elliott Field Sports Complex	PPO2022-22-01	25,000	-	-	-	-	-	-

Appendix 5

FY2022 CIP and IIP - Proposed Funding Schedule								
Project	Project #	Funding Source						
		Free Cash	Borrowing	Operating Budget	Grant funds	Already Purchased	CH90	Rates-Borrow
Lower Coakley Field Feasibility Study	PPO2022-22-02	30,000	-	-	-	-	-	-
Poured Rubber at Murphy Playground	PPO2022-22-03	115,000	-	-	-	-	-	-
Ford E-150 Vans (2)	V-STR2022-22-04	80,000	-	-	-	-	-	-
Ford Wheel Chair-E350	V-STR2022-22-05	40,000	-	-	-	-	-	-
Dodge Durango (1)	Operating Budget	-	-	64,295	-	-	-	-
Ford Interceptor (2)	Operating Budget	-	-	114,780	-	-	-	-
Harley Davidson (2)	Operating Budget	-	-	46,910	-	-	-	-
Replace Truck #4 – Dump Truck	V-HWY2021-22-01	-	-	150,000	-	-	-	-
Replace Truck #8 - Pickup	V-HWY2021-24-02	-	-	56,000	-	-	-	-
Sidewalk Tractor	V-HWY2022-22-01	-	-	103,000	-	-	-	-
Annual Pavement Management Program	HWY2022-22-01	-	-	-	-	-	1,550,000	-
Water Improvement Program Second Year	IIP-WNS2021-22-01	-	-	-	-	-	-	4,500,000
Sewer I & I Study/Removal MWRA Grant/Loan	WNS2021-23-01	392,500	-	-	-	-	-	-
Water Main Cleaning & Lining MWRA Grant/Loan	WNS2020-22-01	-	-	-	-	-	-	630,000
Totals		\$ 6,574,500	\$ 6,800,000	\$ 534,985	\$ 1,405,000	\$ 292,600	\$ 1,550,000	\$ 5,130,000

Appendix 6

Town of Norwood Current and Projected Debt Service							
Fiscal Year Requested		Indebtedness	FY22	FY23	FY24	FY25	FY26
	GENERAL GOVERNMENT						
	General Fund Issues Beginning Balance (FY2020 and Prior Indebtedness and Debt Service)	24,519,600	3,839,629	2,835,688	2,498,358	2,259,268	2,042,678
	Less Debt Service Allocations (Transferred to Water/Sewer Fund)		(577,564)	(564,784)	(552,004)	(526,444)	(513,664)
2021	Design of HVAC System (10 Years)	150,000	1,496	44,250	42,563	40,875	39,188
2021	LED Upgrades Police/Fire	100,000	997	24,500	23,600	22,700	21,800
2021	LED Upgrades Library (5 Years)	60,000	598	17,700	17,025	16,350	15,675
2021	Design Fire Community Room	12,000	120	3,540	3,405	3,270	3,135
2021	Coakley Middle School Planning Design	1,334,869	13,312	167,500	163,000	158,500	154,000
2021	Forbes Hill Purchase	13,000,000	123,500				
2021	Road Repair Program First Year	2,800,000	27,922	326,000	317,000	308,000	299,000
2021	Traffic Study	75,000	748	18,375	17,700	17,025	16,350
2021	Cemetery Bathroom Upgrade	60,000	598	17,700	17,025	16,350	15,675
2021	Large Diameter Supply Hose	85,000	848	23,825	17,925	17,250	16,575
2021	IT Upgrades/Replacements - NPS	160,000	1,596	42,200	40,625	34,050	32,700
2021	Replace Desktops Town	310,000	3,091	78,950	76,025	68,100	65,400
2021	Replace Public Safety Infrastructure	90,000	898	24,050	23,150	22,250	16,350
2021	Update Community Room/Police	200,000	1,994	29,000	28,100	27,200	26,300
2021	Replace Plymovent System	50,000	499	12,250	11,800	11,350	10,900
2021	Replace Fire Alarm Panel	50,000	499	12,250	11,800	11,350	10,900
2021	Painting of Interior Library	120,000	1,197	30,400	29,275	28,150	27,025
2021	Replace Truck #15 – Utility Truck	50,000	499	12,250	11,800	11,350	10,900
2021	Replace Truck #34 – 1 Ton Dump Truck	55,000	548	17,475	11,800	11,350	10,900
2021	Replace Truck # 39 – 1 Ton Dump Truck	55,000	548	17,475	11,800	11,350	10,900
2021	Replace Asst. Supt. Vehicle #59	35,000	349	11,575	11,125	5,675	5,450
2021	Truck #CEM3 – 1-Ton Dump Truck	60,000	598	17,700	17,025	11,350	10,900
2021	Utility Vehicle Cemetery	25,000	249	6,125	5,900	5,675	5,450
2021	NC-3	65,000	648	17,925	17,250	16,575	10,900
2021	Recreation – SUV Vehicle	45,000	449	17,025	11,350	10,900	10,450
2021	COA Sedan for Medical Transport	40,000	399	11,800	11,350	10,900	10,450
2021	Ford E-150 Van 2 School	60,000	598	17,700	17,025	11,350	10,900
2021	Facilities Truck	45,000	449	17,025	11,350	10,900	10,450
2021	Facilities Truck	45,000	449	17,025	11,350	10,900	10,450
2021	Westover Parkway Bridge Design and Construction	500,000	4,986	67,500	65,750	64,000	62,250
2021	Oldham School Tile Replacement	180,000	1,795	38,100	36,750	35,400	34,050
2021	All Elementary - Replace Intercom & Clock Systems	400,000	3,989	98,000	94,400	90,800	87,200
2021	All Schools - Replace Door Access Systems	165,000	1,645	\$42,425	\$40,850	\$39,275	\$32,700
2021	Fire Kitchen Upgrade	450,000	4,488	65,250	63,225	61,200	59,175
2021	Repairs to Exterior Building Civic	500,000	4,986	72,500	70,250	68,000	65,750

Appendix 6

Town of Norwood Current and Projected Debt Service							
Fiscal Year Requested		Indebtedness	FY22	FY23	FY24	FY25	FY26
2021	Ambulance with Styker and Cardio Monitor	550,000	5,485	79,750	77,275	74,800	72,325
2021	DPW 1-Ton Dump Truck #46	55,000	548.47	17,475	11,800	11,350	10,900
2021	DPW Mid-size Pickup	30,000	299	11350	5900	5675	5450
2021	DPW Mid-size Pickup	30,000	299	11350	5900	5675	5450
2021	Recreation Pick up Truck	55,000	548	17,475	11,800	11,350	10,900
2021	DPW Design Improvements to the Meadowbrook Channel	120,000	20400	19725	19050	18375	17700
2021	DPW Design Box Culverts from Meadowbrook to Murphy Field	120,000	20400	19725	19050	18375	17700
2021	NC-4	65,000	648	17925	17250	16575	10900
2021	Finish Replacement of Elevator at Civic Building	225,000	2,244	22875	22350	21825	21300
2022	Replace HVAC	4,000,000	-	100,000	410000	400550	391100
2022	Road Repair Program Second Year	2,800,000	-	70,000	326,000	317,000	308,000
2023	<i>Road Repair Program Third Year*</i>	2,800,000	-	-	70,000	326,000	317,000
2024	<i>Road Repair Program Fourth Year*</i>	2,800,000	-	-	-	70,000	326,000
2025	<i>Road Repair Program Fifth Year*</i>	2,800,000	-	-	-	-	70,000
Total General Government		\$ 54,001,469	\$ 3,520,521	\$ 4,095,919	\$ 4,303,097	\$ 4,320,094	\$ 4,343,937

WATER AND SEWER							
	Water/Sewer Beginning Balance (FY2020 and Prior Indebtedness and Debt Service)	13,188,043	1,525,361	1,380,888	1,326,517	1,272,162	1,217,824
	Less Debt Service Allocations (Transferred from General Operating Fund)		577,564	564,784	552,004	526,444	513,664
2021	Water Improvement Program First Year 30 Years	4,500,000	315,000	308,925	302,850	296,775	290,700
2021	Meadowbrook Area 5B sewer Re-lining	2,000,000	19,944	190,000	185,500	181,000	176,500
2022	Water Main Cleaning & Lining MWRA Grant/Loan	630,000	-	63,000	63,000	63,000	63,000
2022	Water Improvement Program Second Year 30 Years	4,500,000	-	315,000	308,925	302,850	296,775
2023	<i>Water Improvement Program Third Year 30 Years*</i>	4,500,000	-	-	315,000	308,925	302,850
2024	<i>Water Improvement Program Fourth Year 30 Years*</i>	4,500,000	-	-	-	315,000	308,925
2025	<i>Water Improvement Program Fifth Year 30 Years*</i>	4,500,000	-	-	-	-	315,000
2026	<i>Water Improvement Program Sixth Year 30 Years*</i>	4,500,000	-	-	-	-	-
2027	<i>Water Improvement Program Seventh Year 30 Years*</i>	4,500,000	-	-	-	-	-
2028	<i>Water Improvement Program Eighth Year 30 Years*</i>	4,500,000	-	-	-	-	-
2029	<i>Water Improvement Program Ninth Year 30 Years*</i>	4,500,000	-	-	-	-	-
2030	<i>Water Improvement Program Tenth Year 30 Years*</i>	4,500,000	-	-	-	-	-
Total Water and Sewer		\$ 24,818,043	\$ 2,437,869	\$ 2,822,597	\$ 3,053,796	\$ 3,266,156	\$ 3,485,238

Appendix 6

Town of Norwood Current and Projected Debt Service							
Fiscal Year Requested	Indebtedness	FY22	FY23	FY24	FY25	FY26	
DEBT SERVICE AND INDEBTEDNESS BY FUND - SUMMARY							
General Government - Debt Exclusion	15,641,000	1,731,886	1,683,254	1,634,289	1,587,364	1,538,954	
General Government	54,001,469	3,520,521	4,095,919	4,303,097	4,320,094	4,343,937	
Water and Sewer	24,818,043	2,437,869	2,822,597	3,053,796	3,266,156	3,485,238	
Light	38,362,000	9,054,167	8,909,494	4,005,406	3,859,644	2,189,069	
Broadband	1,611,000	945,795	188,720	180,340	174,780	92,000	
Total Indebtedness	\$ 134,433,512	\$ 17,690,239	\$ 17,699,983	\$ 13,176,927	\$ 13,208,037	\$ 11,649,197	

Current and Projected Debt Service - General Government							
General Government Debt Service		3,520,521	4,095,919	4,303,097	4,320,094	4,343,937	
Estimated Non-Utility Revenue\$		119,489,877	122,477,124	125,539,052	128,677,528	131,894,467	
Estimated Debt Service as a Percentage of Estimated Non-Utility Revenues		2.95%	3.34%	3.43%	3.36%	3.29%	
Max Debt Service Permitted By Financial Policies		5,974,494	6,123,856	6,276,953	6,433,876	6,594,723	
Additional Capacity		2,453,972	2,027,938	1,973,856	2,113,783	2,250,787	

Indebtedness Statute/Financial Policy	
Total Indebtedness as a Percentage of the Town's Equalized Valuation	2.29%
Equalized Valuation FY2022	\$ 5,869,829,954
Max Indebtedness Allowed by Statute/Policy (5% of equalized valuation).	\$ 293,491,498
Additional Capacity	\$ 159,057,986

Italic formatting and asterisks () were used to show future requests, all of which are part of the Infrastructure Improvement Plan (IIP). Total debt service calculations in italics include debt service projections with future IIP projects, for which we are NOT YET seeking approval. Future IIP Projects were NOT included in Total Indebtedness.*

\$ The estimated non-utility revenue does not include free cash used to balance the budget, a \$150,000 grant for School Health Insurance, and AMR water meter revenue.

Appendix 7

Water/Sewer Rate Impact from IIP					
	FY2022	FY2023	FY2024	FY2025	FY2026
Estimated 2.5% Annual Increase (No Debt Service)	\$ 16,986,462	\$ 17,411,124	\$ 17,846,402	\$ 18,292,562	\$ 18,749,876
Estimated Water/Sewer Debt Service, Excluding IIP Projects	\$ 2,437,869	\$ 2,822,597	\$ 3,053,796	\$ 3,266,156	\$ 3,485,238
Estimated Annual Increase Due to Water Improvement Debt Service	\$ 315,000	\$ 623,925	\$ 926,775	\$ 1,223,550	\$ 1,514,250
Estimated Total Water/Sewer Service Cost (including Debt Service)	\$ 19,424,331	\$ 20,233,721	\$ 20,900,198	\$ 21,558,718	\$ 22,235,114
Estimated Percentage Increase in debt service as a result of Debt Service for the Water Improvement Program Only	1.62%	3.08%	4.43%	5.68%	6.81%
Estimated Monthly Water Bill with 2.5% Annual Increase	\$ 102.50	\$ 105.06	\$ 107.69	\$ 110.38	\$ 113.14
Estimated Monthly Water Bill with 2.5% Annual Increase - Dollar Increase from Previous Year	\$ 2.50	\$ 2.56	\$ 2.63	\$ 2.69	\$ 2.76
Estimated Monthly Water Bill With Water Improved Debt Service Only Annual Increase - Dollar Increase from Previous Year	\$ 101.62	\$ 104.76	\$ 109.40	\$ 115.61	\$ 123.48
Monthly Dollar Increase Due to Debt Service for Water Improvement Program	\$ 1.62	\$ 3.13	\$ 4.65	\$ 6.21	\$ 7.87
Estimated Monthly Water Bill with 2.5% Annual Increase and Water Improvement Program	\$ 104.12	\$ 109.82	\$ 117.09	\$ 125.99	\$ 136.62
Total Estimated Monthly Increase Combined - Dollar Increase	\$ 4.12	\$ 5.70	\$ 7.27	\$ 8.90	\$ 10.63
Total Estimated Monthly Increase Combined - Percentage Increase	3.96%	5.19%	6.21%	7.06%	7.78%
Assumptions					
We used the estimated monthly water/sewer bill of \$100 in FY2021 as the base monthly bill.					
We assume a 2.5% annual increase in our water/sewer budget. The actuals increase or decrease based on a multitude of factors.					
We assume a total borrowing of \$45,000,000 over 10 years, \$4,500,000 each year for 10 consecutive years.					
We assume each of the bonds will have a thirty year life.					

Appendix 8: FY2022-FY2026 Projects

Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Capstone Project, Airport Park, Site Improvements	Airport	Airport	2022	75,000	Facility	F-AIR2022-22-01	Free Cash
Dual Fuel Boiler Burners & Install High Pressure Gas Line	Facilities	Balch	2022	140,000	Facility	F-ELE2020-22-01	Free Cash
Renovations of Women's Locker Room	Facilities	Civic Center	2022	210,000	Facility	F-CIV2020-23-03	Free Cash
Renovation of Lobby/Office at Civic Center	Facilities	Civic Center	2022	110,000	Facility	F-CIV2021-22-02	Free Cash
Generator for the COA at the Savage Center	Facilities	COA	2022	125,000	Facility	F-SVC2022-22-01	Free Cash
Track & Field Replacement	Facilities	High School	2022	1,200,000	Facility	F-NHS2020-22-01	Free Cash
Stadium Lights	Facilities	High School	2022	650,000	Facility	F-NHS2020-23-01	Free Cash
High School Solar	Facilities	High School	2022	30,000	Facility	F-NHS2022-22-01	Free Cash
Design for Facade Issues & Painting	Facilities	Library	2022	145,000	Facility	F-LIB2022-22-01	Free Cash
Low Flush Toilets & Faucets	Facilities	Multiple	2022	120,000	Facility	F-ELE2022-22-09	Free Cash
LED Lights	Facilities	Multiple & Town Hall	2022	140,000	Facility	F-ELE2020-21-02 /F-TH2022-22-01	Free Cash
REPLACE HVAC	Facilities	Public Safety Building	2022	4,000,000	General	F-PSB2020-20-02	Borrowing
New Engine - Replace Engine #2	Fire	Fire	2022	975,000	Fleet	V-NFD2022-22-01	Free Cash
SCBA's & Systems	Fire	Fire	2022	405,000	General	NFD2020-22-01	Free Cash
Portable Radios	Fire	Fire	2022	330,000	General	NFD2020-23-02	Free Cash
Upgrade Computers in Police Department Vehicles	IT	IT - Town	2022	65,000	General	ITE2020-22-01	Free Cash
<i>Network Switch Replacements - Six switches all located at Norwood High School. Two core switches and four IDF closet switches*</i>	IT	IT- School	2022	62,400	General	SC-IT2022-22-01	<i>Already Purchased</i>
<i>Wireless Access Point Refresh - Replacement of 25 wireless access points in various elementary schools*</i>	IT	IT- School	2022	9,200	General	SC-IT2022-22-02	<i>Already Purchased</i>
Ford Interceptor (2)	Police	Police	2022	114,780	Fleet	Operating Budget	Operating Budget
Dodge Durango (1)	Police	Police	2022	64,295	Fleet	Operating Budget	Operating Budget
Harley Davidson (2)	Police	Police	2022	46,910	Fleet	Operating Budget	Operating Budget
Police Defense Equipment	Police	Police	2022	22,000	General	NPD2022-22-01	Free Cash
Garage HVAC \ Electric Upgrade	Public Works	Cemetery	2022	70,000	Facility	CEM2020-21-02	Free Cash
Truck #CEM2 – 1-Ton Dump Truck	Public Works	Cemetery	2022	65,000	Fleet	V-CEM2020-22-01	Free Cash
Mini Loader	Public Works	Cemetery	2022	70,000	Fleet	V-CEM2022-22-01	Free Cash
Replace Truck #4 – Dump Truck	Public Works	Highway	2022	150,000	Fleet	V-HWY2021-22-01	Operating Budget
Replace Truck #8 - Pickup	Public Works	Highway	2022	56,000	Fleet	V-HWY2021-24-02	Operating Budget
Sidewalk Tractor	Public Works	Highway	2022	103,000	Fleet	V-HWY2022-22-01	Operating Budget
Leaf Packer Truck	Public Works	Highway	2022	240,000	Fleet	V-HWY2022-22-02	Free Cash
Design Services - Washington St/Nahatan St Corridor	Public Works	Highway	2022	550,000	General	HWY2020-24-01	Free Cash
Annual Pavement Management Program	Public Works	Highway	2022	1,550,000	General	HWY2022-22-01	Operating Budget & CH90
Sewer I & I Study/Removal MWRA Grant/Loan	Public Works	Sewer	2022	392,500	General	WNS2021-23-01	Free Cash
Dean St Drain Improvements	Public Works	Stormwater	2022	230,000	General	STORM2022-22-01	ARPA
Drain Asset Management	Public Works	Stormwater	2022	100,000	General	STORM2022-22-02	ARPA
Westover Parkway Culvert Construction	Public Works	Stormwater	2022	1,075,000	General	STORM2022-22-03	ARPA
Lead Water Service Assessment	Public Works	Water	2022	155,000	General	WNS2022-22-01	Free Cash
Water Main Cleaning & Lining MWRA Grant/Loan	Public Works	Water	2022	630,000	General	WNS2020-22-01	Rates-Borrow
Design for outside bathroom at Elliott Field Sports Complex	Recreation	Playgrounds and Pools	2022	25,000	General	PPO2022-22-01	Free Cash
Lower Coakley Field Feasibility Study	Recreation	Playgrounds and Pools	2022	30,000	General	PPO2022-22-02	Free Cash
Poured Rubber at Murphy Playground	Recreation	Playgrounds and Pools	2022	115,000	General	PPO2022-22-03	Free Cash
<i>Minibus (1)*</i>	School	Transportation	2022	65,000	Fleet	V-STR2022-22-01	<i>Already Purchased</i>
<i>Ford T350 Wheel Chair Van (1)*</i>	School	Transportation	2022	51,000	Fleet	V-STR2022-22-02	<i>Already Purchased</i>

Appendix 8: FY2022-FY2026 Projects

Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Ford E-150 Vans (3)*	School	Transportation	2022	105,000	Fleet	V-STR2022-22-03	Already Purchased
Ford E-150 Vans (2)	School	Transportation	2022	80,000	Fleet	V-STR2022-22-04	Free Cash
Ford Wheel Chair-E350	School	Transportation	2022	40,000	Fleet	V-STR2022-22-05	Free Cash
Re-construct runway 10/28	Airport	Airport	2023	180,000	Facility	F-AIR2020-22-01	TBD
Taxiway C re-location	Airport	Airport	2023	100,000	Facility	F-AIR2021-23-02	TBD
Animal Shelter-Feasibility Study for Repairs	Facilities	Animal Shelter	2023	20,000	Facility	F-ANI2022-22-01	TBD
Floor Tile Replacement	Facilities	Balch	2023	95,000	Facility	F-ELE2020-23-01	TBD
Floor Tile Replacement	Facilities	Callahan	2023	30,500	Facility	F-ELE2020-23-02	TBD
Oil to Gas Conversion	Facilities	Central Street	2023	30,000	Facility	F-CEN2022-23-01	TBD
Oil to Electric Conversion	Facilities	Central Street	2023	12,000	Facility	F-CEN2022-23-02	TBD
Design Services for Kitchen Remodel	Facilities	Civic Center	2023	15,000	Facility	F-CIV2020-23-03	TBD
Consulting Services - Demolition of Ellis Pumping Station	Facilities	Ellis Station	2023	25,000	Facility	F-ELL2022-23-01	TBD
F250 Pickup Truck	Facilities	Facilities	2023	60,000	Fleet	V-SCH2020-23-01	TBD
Backhoe	Facilities	Facilities	2023	65,000	Fleet	V-SCH2020-23-02	TBD
Concession Stand	Facilities	High School	2023	300,000	Facility	F-NHS2020-24-01	TBD
Painting of Library	Facilities	Library	2023	106,000	Facility	F-LIB2022-23-01	TBD
Repair Façade Issues	Facilities	Library	2023	661,000	Facility	F-LIB2022-23-02	TBD
Design Services - Replacement of Generators	Facilities	Multiple	2023	90,000	Facility	F-TH2022-22-02	TBD
Boiler Replacement	Facilities	Oldham	2023	300,000	Facility	F-ELE2020-22-02	TBD
Design Services Roof Repairs	Facilities	Public Safety Building	2023	12,000	Facility	F-PSB2020-20-02	TBD
Feasibility Study for a Carport	Facilities	Public Safety Building	2023	50,000	Facility	F-PSB2022-23-01	TBD
Carpeting & Other Flooring	Facilities	Public Safety Building	2023	130,000	General	F-PSB2020-20-01	TBD
Repairs to Apparatus Floor	Facilities	Public Safety Building	2023	75,000	General	F-PSB2020-20-01	TBD
Parking Lot	Facilities	Savage	2023	455,305	Facility	F-SVC2020-23-01	TBD
Parking Lots	Facilities	Willett	2023	262,869	Facility	F-ELE2021-23-01	TBD
Floor Tile Replacement	Facilities	Willett	2023	100,000	Facility	F-ELE2020-23-03	TBD
Firefighter Protective Clothing	Fire	Fire	2023	350,000	General	NFD2020-23-01	TBD
Network Switch and Firewall Replacement - Replacement of 10 NHS switches, the Town Hall core switch and the Savage Center core switch as well as the two firewalls located at the Town Hall and Norwood High School	IT	IT- School	2023	85,000	General	SC-IT2022-23-01	TBD
Wireless Access Point Refresh - Replacement of 35 wireless access points throughout various elementary schools	IT	IT- School	2023	15,000	General	SC-IT2022-23-02	TBD
Police Cruisers (4)	Police	Police	2023	238,140	Fleet	Operating Budget	Operating Budget
Replace Taser (20)	Police	Police	2023	23,000	General	NPD2022-23-01	TBD
CEM Backhoe	Public Works	Cemetery	2023	130,000	Fleet	V-CEM2021-23-01	TBD
Rider Mower	Public Works	Cemetery	2023	10,000	Fleet	V-CEM2020-22-02	Operating Budget
Truck #33	Public Works	Highway	2023	160,000	Fleet	V-HWY2022-23-01	TBD
Street Sweeper	Public Works	Highway	2023	200,000	Fleet	V-HWY2022-23-02	TBD
Replace Truck #45 – Dump Truck	Public Works	Highway	2023	150,000	Fleet	V-HWY2020-22-02	TBD
Bridge Rehabilitation - Washington St at Hawes Brook	Public Works	Highway	2023	150,000	General	HWY2022-23-01	TBD
Upgrade Traffic Signals Washington St/Nahatan St Corridor	Public Works	Highway	2023	1,500,000	General	HWY2021-24-01	TBD
Construct Neponset St / Access Traffic Signals	Public Works	Highway	2023	750,000	General	HWY2022-23-01	TBD

Appendix 8: FY2022-FY2026 Projects

Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Annual Pavement Management Program	Public Works	Highway	2023	1,545,000	General	HWY2023-23-01	Operating Budget & CH90
Construct Improvements to the Meadowbrook Channel	Public Works	Stormwater	2023	1,800,000	General	STORM2022-22-04	ARPA
Repair and Painting of Water Tanks	Public Works	Water	2023	4,750,000	General	WNS2020-22-04	Rates-Borrow
Water Main Cleaning & Lining MWRA Grant/Loan	Public Works	Water	2023	630,000	General	WNS2020-23-01	TBD
MWRA Meter Connection Chamber Design	Public Works	Water	2023	200,000	General	WNS2022-23-01	TBD
Design/Feasibility Study for Green Space or playground at Civic Center	Recreation	Playgrounds and Pools	2023	15,000	General	PPO2022-23-01	TBD
Hawes Pool repair/ ADA ramp	Recreation	Playgrounds and Pools	2023	100,000	General	PPO2022-23-05	TBD
Addition of playground to Civic Center	Recreation	Playgrounds and Pools	2023	150,000	General	PPO2022-23-02	TBD
Renovation of Outdoor Bathrooms at Lower Balch	Recreation	Playgrounds and Pools	2023	100,000	General	PPO2022-23-03	TBD
Renovation of Lower Coakley Field	Recreation	Playgrounds and Pools	2023	250,000	General	PPO2022-23-04	TBD
Ford E-150 Vans (5)	School	Transportation	2023	200,000	Fleet	V-STR2022-23-01	TBD
Dodge Caravan (2)	School	Transportation	2023	80,000	Fleet	V-STR2022-23-02	TBD
Taxiway A post-construction monitoring	Airport	Airport	2024	3,500	Facility	F-AIR2022-24-01	TBD
Security/wildlife fence replacement, phase 1	Airport	Airport	2024	45,000	Facility	F-AIR2022-24-02	TBD
Masonry Repairs	Facilities	Callahan	2024	35,000	Facility	F-ELE2020-24-01	TBD
Design Services for Asphalt Shingle Roof	Facilities	Civic Center	2024	22,000	Facility	F-CIV2020-22-02	TBD
Kitchen Remodel	Facilities	Civic Center	2024	125,000	Facility	F-CIV2020-22-01	TBD
Parking Lots	Facilities	Cleveland	2024	394,761	Facility	F-ELE2021-23-01	TBD
Masonry Repairs	Facilities	Cleveland	2024	30,000	Facility	F-ELE2020-24-02	TBD
Demolition of Ellis Pumping Station	Facilities	Ellis Station	2024	250,000	Facility	F-ELL2022-24-01	TBD
Owens Trailer	Facilities	Facilities	2024	7,500	Fleet	V-SCH2020-24-01	TBD
Chevy Box Truck	Facilities	Facilities	2024	45,000	Fleet	V-SCH2020-24-02	TBD
Parking Lots	Facilities	Oldham	2024	273,635	Facility	F-ELE2021-23-01	TBD
Masonry Repairs	Facilities	Prescott	2024	30,000	Facility	F-ELE2020-24-03	TBD
Roof Repairs	Facilities	Public Safety Building	2024	100,000	General	F-PSB2020-20-01	TBD
Replace Generator	Facilities	Town Hall	2024	190,000	Facility	F-TH2022-23-01	TBD
Replace Ambulance (NA2) w/Stryker	Fire	Fire	2024	550,000	Fleet	V-NFD2020-24-01	TBD
New Handlines	Fire	Fire	2024	100,000	General	NFD2021-24-01	TBD
Wireless Access Point Refresh - Norwood High School - Replacement of 125 wireless access points at the high school	IT	IT- School	2024	55,000	General	SC-IT2022-24-01	TBD
Network Switch Refresh - Savage and Willett switches - science wing, Savage front office, Willett Core, Willett Café	IT	IT- School	2024	50,000	General	SC-IT2022-24-02	TBD
Laptop Refresh - Coakley Middle School - Replacement of all teacher and staff laptops	IT	IT- School	2024	64,000	General	SC-IT2022-24-03	TBD
Police Cruisers (4)	Police	Police	2024	250,048	Fleet	Operating Budget	Operating Budget
Replace Taser (20)	Police	Police	2024	23,000	General	NPD2022-24-01	TBD
Rider Mower	Public Works	Cemetery	2024	10,000	Fleet	V-CEM2022-24-02	Operating Budget
Replace Truck #25 – Dump Truck	Public Works	Highway	2024	150,000	Fleet	V-HWY2020-23-01	TBD
Replace Loader L1	Public Works	Highway	2024	165,000	Fleet	V-HWY2020-23-03	TBD
Replace Backhoe – JD1	Public Works	Highway	2024	130,000	Fleet	V-HWY2020-21-03	TBD
Install RRFB at 5 Pedestrian Crossings	Public Works	Highway	2024	250,000	General	HWY2021-23-01	TBD
Annual Pavement Management Program	Public Works	Highway	2024	1,560,000	General	HWY2022-24-01	Operating Budget & CH90
Meadowbrook Drain Improvement Design	Public Works	Stormwater	2024	400,000	General	STORM2022-24-02	TBD

Appendix 8: FY2022-FY2026 Projects

Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Construct Box Culverts from Meadowbrook to Murphy Field	Public Works	Stormwater	2024	1,300,000	General	STORM2022-24-01	TBD
Water Main Cleaning & Lining MWRA Grant/Loan	Public Works	Water	2024	630,000	General	WNS2020-24-01	TBD
MWRA Meter Connection Chamber Construction	Public Works	Water	2024	750,000	General	WNS2022-24-01	TBD
Renovation of Hawes Pool Playground	Recreation	Playgrounds and Pools	2024	381,002	General	PPO2022-24-01	TBD
Poured Rubber at Wilson St. Playground	Recreation	Playgrounds and Pools	2024	101,000	General	PPO2022-24-02	TBD
Install Playground/Green Space at Civic Center	Recreation	Playgrounds and Pools	2024	250,000	General	PPO2022-24-03	TBD
Security/wildlife fence replacement, phase 2	Airport	Airport	2025	45,000	Facility	F-AIR2022-25-01	TBD
Parking Lots	Facilities	Callahan	2025	216,789	Facility	F-ELE2021-23-01	TBD
Design Services for Air Conditioning in Weight Room	Facilities	Civic Center	2025	10,000	Facility	F-CIV2021-25-01	TBD
Replacement of Asphalt Shingle Roof	Facilities	Civic Center	2025	150,000	Facility	F-CIV2020-23-02	TBD
Parking Lots	Facilities	Prescott	2025	295,728	Facility	F-ELE2021-23-01	TBD
Replace Generator	Facilities	Public Safety Building	2025	190,000	General	F-PSB2022-25-01	TBD
Window & Door Replacement	Facilities	Savage	2025	450,000	Facility	F-SVC2021-25-01	TBD
Police Cruisers (4)	Police	Police	2025	262,500	Fleet	Operating Budget	Operating Budget
Replace Taser (20)	Police	Police	2025	23,000	General	NPD2022-25-01	TBD
Digital Radio (10)	Police	Police	2025	22,000	General	NPD2022-25-02	TBD
Rider Mower	Public Works	Cemetery	2025	10,000	Fleet	V-CEM2022-25-01	Operating Budget
Replace Truck #6- Salt Truck	Public Works	Highway	2025	150,000	Fleet	V-HWY2021-24-01	TBD
Replace Truck #10 – Water Utility Truck	Public Works	Highway	2025	60,000	Fleet	V-HWY2021-25-01	TBD
Replace Truck #47 – Dump Truck	Public Works	Highway	2025	150,000	Fleet	V-HWY2020-23-02	TBD
Trailer	Public Works	Highway	2025	18,000	Fleet	V-HWY2022-25-01	TBD
Traffic Study for Washington St/ Mylod St Intersection	Public Works	Highway	2025	100,000	General	HWY2022-25-01	TBD
Annual Pavement Management Program	Public Works	Highway	2025	1,575,000	General	HWY2025-25-01	Operating Budget & CH90
Sewer I & I Removal MWRA Grant/Loan	Public Works	Sewer	2025	1,570,000	General	WNS2021-24-01	TBD
Westover Parkway Culvert Design (Willett School)	Public Works	Stormwater	2025	150,000	General	STORM2022-25-02	TBD
Meadowbrook Drain Improvement Construction	Public Works	Stormwater	2025	3,000,000	General	STORM2022-25-01	TBD
Water Main Cleaning & Lining MWRA Grant/Loan	Public Works	Water	2025	640,000	General	WNS2020-25-01	TBD
Renovation to Father Mac's Playground	Recreation	Playgrounds and Pools	2025	400,000	General	PPO2022-25-01	TBD
Runway 17/35 re-construction, extension; design/permitting	Airport	Airport	2026	22,500	Facility	F-AIR2021-26-01	TBD
Generator Replacement	Facilities	Civic Center	2026	190,000	Facility	F-CIV2021-26-01	TBD
Installation of Air Conditioning in Weight Room	Facilities	Civic Center	2026	200,000	Facility	F-CIV2021-26-02	TBD
New Engine - Replace Engine	Fire	Fire	2026	1,000,000	Fleet	V-NFD2020-25-01	TBD
Police Cruisers (4)	Police	Police	2026	275,624	Fleet	Operating Budget	Operating Budget
Digital Radio (10)	Police	Police	2026	22,000	General	NPD2022-26-01	TBD
CEM #1	Public Works	Cemetery	2026	40,000	Fleet	V-CEM2022-26-01	TBD
Replace Truck #20 – Salt Truck	Public Works	Highway	2026	150,000	Fleet	V-HWY2021-25-02	TBD
Replace Truck #50 – Salt Truck	Public Works	Highway	2026	150,000	Fleet	V-HWY2021-25-03	TBD
Skid Loader	Public Works	Highway	2026	50,000	Fleet	V-HWY2022-26-01	TBD
Light Tower	Public Works	Highway	2026	10,000	Fleet	V-HWY2022-26-02	TBD
Annual Pavement Management Program	Public Works	Highway	2026	1,580,000	General	HWY2026-26-01	Operating Budget & CH90

Appendix 8: FY2022-FY2026 Projects

Description	Department	Division	Fiscal Year	Total Cost	General, Fleet, or Facility	Project Number	Funding Source
Meadowbrook Drain Improvement Design	Public Works	Stormwater	2026	400,000	General	STORM2022-26-01	TBD
Water Main Cleaning & Lining MWRA Grant/Loan	Public Works	Water	2026	670,000	General	WNS2021-25-01	TBD
Design for Callahan School Basketball Court Lights	Recreation	Playgrounds and Pools	2026	15,000	General	PPO2022-26-01	TBD
Design to replace Ivatt's Tennis Courts	Recreation	Playgrounds and Pools	2026	15,000	General	PPO2022-26-02	TBD
Upgrade Mechanical, Electrical, Plumbing	Facilities	Town Hall	On Hold	2,750,000	Facility	On Hold	TBD
Renovate Town Hall Offices	Facilities	Town Hall	On Hold	1,000,000	Facility	On Hold	TBD
Water Improvement Program Second Year	Public Works	IIP - Water	2022	4,500,000	General	IIP-WNS2021-22-01	Rates-Borrow
Road Repair Program Second Year	Public Works	IIP - Highway	2022	2,800,000	General	IIP - HWY2021-21-01	Borrowing
Road Repair Program Third Year	Public Works	IIP - Highway	2023	2,800,000	General	IIP - HWY2021-23-01	Borrowing
Water Improvement Program Third Year	Public Works	IIP - Water	2023	4,500,000	General	IIP - WNS2021-23-01	Rates-Borrow
Road Repair Program Fourth Year	Public Works	IIP - Highway	2024	2,800,000	General	IIP - HWY2021-24-01	Borrowing
Water Improvement Program Fourth Year	Public Works	IIP - Water	2024	4,500,000	General	IIP - WNS2021-24-01	Rates-Borrow
Road Repair Program Fifth Year	Public Works	IIP - Highway	2025	2,800,000	General	IIP - HWY2021-25-01	Borrowing
Water Improvement Program Fifth Year	Public Works	IIP - Water	2025	4,500,000	General	IIP - WNS2021-25-01	Rates-Borrow
Water Improvement Program Sixth Year	Public Works	IIP - Water	2026	4,500,000	General	IIP - WNS2021-26-01	Rates-Borrow
Water Improvement Program Seventh Year	Public Works	IIP - Water	2027	4,500,000	General	IIP - WNS2021-27-01	Rates-Borrow
Water Improvement Program Eighth Year	Public Works	IIP - Water	2028	4,500,000	General	IIP - WNS2021-28-01	Rates-Borrow
Water Improvement Program Ninth Year	Public Works	IIP - Water	2029	4,500,000	General	IIP - WNS2021-29-01	Rates-Borrow
Water Improvement Program Tenth Year	Public Works	IIP - Water	2030	4,500,000	General	IIP - WNS2021-10-01	Rates-Borrow

Appendix 8: FY2022-FY2026 Projects

Type	Number of Projects	Sum of Total Cost
Facility	53	12,588,587
Fleet	46	7,152,797
General	<u>81</u>	<u>90,450,102</u>
Grand Total	180	\$ 110,191,486

Department & Project Type	Count of Department	Sum of Total Cost
Airport	7	471,000
Facility	7	471,000
Facilities	54	16,720,087
Facility	45	12,047,587
Fleet	4	177,500
General	5	4,495,000
Fire	7	3,710,000
Fleet	3	2,525,000
General	4	1,185,000
IT	8	405,600
General	8	405,600
Police	13	1,387,297
Fleet	7	1,252,297
General	6	135,000
Public Works	70	84,929,500
Facility	1	70,000
Fleet	25	2,577,000
General	44	82,282,500
Recreation	14	1,947,002
General	14	1,947,002
School	7	621,000
Fleet	7	621,000
Grand Total	180	\$ 110,191,486

Appendix 8: FY2022-FY2026 Projects

Department/ Division	Number of Projects	Sum of Total Cost
Airport	7	471,000
Facilities	54	16,720,087
Animal Shelter	1	20,000
Balch	2	235,000
Callahan	3	282,289
Central Street	2	42,000
Civic Center	9	1,032,000
Cleveland	2	424,761
COA	1	125,000
Ellis Station	2	275,000
Facilities	4	177,500
High School	4	2,180,000
Library	3	912,000
Multiple	2	210,000
Multiple & Town Hall	1	140,000
Oldham	2	573,635
Prescott	2	325,728
Public Safety Building	7	4,557,000
Savage	2	905,305
Town Hall	3	3,940,000
Willett	2	362,869
Fire	7	3,710,000
IT	8	405,600
IT - Town	1	65,000
IT- School	7	340,600
Police	13	1,387,297
Public Works	70	84,929,500
Cemetery	8	405,000
Highway	29	13,352,000
Sewer	2	1,962,500
Stormwater	9	8,455,000
Water	9	9,055,000
IIP - Water	9	40500000
IIP - Highway	4	11200000
Recreation	14	1,947,002
Playgrounds and Pools	14	1,947,002
School	7	621,000
Transportation	7	621,000
Grand Total	180	\$ 110,191,486

Appendix 8: FY2022-FY2026 Projects

Fiscal Year	Sum of Total Cost
2022	22,287,085
2023	24,055,814
2024	16,020,446
2025	16,788,017
2026	9,290,124
On Hold	3,750,000
2027	4,500,000
2028	4,500,000
2029	4,500,000
2030	4,500,000
Grand Total	\$ 110,191,486